Revised Recommendations for Liquidity Risk Management for Collective Investment Schemes

FINAL REPORT

The Board of the
International Organization of Securities Commissions

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Table of Contents

Chapter 1 – Executive Summary

The Board of the International Organization of Securities Commissions (IOSCO) is now publishing its Final Report on revisions to its *Recommendations for Liquidity Risk Management for Collective Investment Schemes*[1] (IOSCO 2018 Liquidity Recommendations), which were supplemented with a set of related good practices published as *Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration*[2] (IOSCO 2018 Good Practices).

Simultaneously, IOSCO is publishing the Final Report on *Guidance for Open-ended Funds for the Effective Implementation of the Recommendations for Liquidity Risk Management*[3] (Implementation Guidance) which sets out guidance on critical technical elements of the Revised Recommendations. The Revised Liquidity Recommendations and the Implementation Guidance incorporate the IOSCO ADT Guidance and should be read in conjunction with each other for completeness.[4]

Background to the updated Revised Recommendations

In November 2024, IOSCO published two Consultation Reports.[5] These reports set out the Revised Liquidity Recommendations and the Implementation Guidance for the recommendations. In total, IOSCO received 33 responses to the two reports.

Context

In December 2023, the FSB published its *Revised Policy Recommendations to Address Structural Vulnerabilities from Liquidity Mismatch in Open-ended Funds*[6] (Revised FSB Recommendations) and, to support the greater use and greater consistency in the use of anti-dilution liquidity management tools (LMTs) by OEFs, IOSCO published its *Anti-dilution Liquidity Management Tools – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes*[7] (IOSCO ADT Guidance).

[1] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD590.pdf

[2] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD591.pdf

[3] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD799.pdf

[4] The Revised Liquidity Recommendations and the Implementation Guidance, together will supersede the IOSCO 2018 Good Practices and the IOSCO ADT Guidance.

[5] Guidance for Open-ended Funds for Effective Implementation of the Recommendations for Liquidity Risk Management, 11 November 2024 at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD771.pdf

[6] https://www.fsb.org/2023/12/revised-policy-recommendations-to-address-structural-vulnerabilities-from-liquidity-mismatch-in-open-ended-funds/

[7] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD756.pdf

By publishing this Final Report, the Board of IOSCO is finalizing revisions to the IOSCO 2018 Liquidity Recommendations (the 'Revised Liquidity Recommendations') following a period of Consultation. The Revised Liquidity Recommendations will operationalise the Revised FSB Recommendations and incorporate other changes to reflect market and policy developments since the publication of the IOSCO 2018 Liquidity Recommendations.

The key revisions to the IOSCO 2018 Liquidity Recommendations can be found under Revised Liquidity Recommendations 3, 6, 7, 13 and 17. These revisions take into account the Revised FSB Recommendations as well as the IOSCO ADT Guidance.

The Final Report sets out IOSCO's final positions following a period of Consultation. A summary of the key positions taken in the Revised Liquidity Recommendations by IOSCO following Consultation are set out below:

1) Minor clarifications to the definitions of common components of open-ended funds (OEF) structure;

2) Maintaining the position that category 2 funds are expected to increasingly use ADTs as part of their day-to-day liquidity management, unless such LMTs not being used is clearly justified as specified in Recommendation 7;

3) Revision of explanatory text to include "soft closures," and "deferral of redemptions" as additional potential liquidity management tools (LMTs);

4) Clarification of IOSCO's intention not to impose additional responsibilities on depositaries beyond those set out in existing regulatory frameworks;

5) Revision of explanatory text at Recommendations 16 and 17 on disclosures to enhance transparency when responsible entities activate quantity-based LMTs or other liquidity management measures;

6) Confirmation that exchange-traded funds (ETFs) and money-market funds (MMFs) are outside the scope of the Final Report.

Implementation review

IOSCO expects that securities regulators will actively promote the implementation of the Revised Liquidity Recommendations by responsible entities within the context of the relevant collective investment scheme (CIS) in their respective jurisdictions. Hence, the implementation of the recommendations (as revised) may vary from jurisdiction-to-jurisdiction, depending on local conditions and circumstances.

IOSCO will review progress by member jurisdictions in implementing the Revised Liquidity Recommendations and the Implementation Guidance. The review process will begin with a stocktake, to be completed by the end of 2026, of the measures and practices adopted and planned by member jurisdictions. IOSCO will aim to coordinate this stocktake with the

FSB's stocktake of the measures and practices adopted and planned to implement the Revised FSB Recommendations, to provide a comprehensive picture. The findings from this stocktake will feed into an assessment of whether implemented reforms have sufficiently addressed risks to financial stability, including, if appropriate, whether to refine existing tools or develop additional tools for use by responsible entities across the relevant jurisdictions.

Chapter 2 – Introduction

2.1. CIS liquidity risk management

Liquidity risk management is critical to the orderly functioning of CIS, particularly, open-ended CIS[8], and to safeguarding the interests of and protecting investors. Effective liquidity risk management also plays an important role in reducing systemic risk by, inter alia, minimising the financial market effects possibly resulting from CIS liquidity demands during normal as well as stressed market conditions.

CIS may be either closed or open-ended. Open-ended CIS, also referred to as open-ended funds (OEFs), generally offer short-term (often daily) liquidity to their investors, notwithstanding that the liquidity of fund investments varies across different OEFs and over time for any particular OEF. Some OEF investors may overestimate the liquidity of the underlying assets held by the OEFs in which they invest and may not expect the additional cost or difficulty associated with OEFs exiting their positions or rebalancing their portfolios, particularly in stressed market conditions.

Generally, investors in an OEF will subscribe to or redeem from the OEF at the net asset value (NAV) per share or unit.[9] However, the NAV may not always reflect the explicit and implicit costs of transactions associated with adjusting the portfolio of the OEF in response to the subscription or redemption. As such, the costs of providing liquidity to transacting investors may be borne by those remaining in the OEF, as the value of their holdings may be diluted by the transaction costs. Investor protection concerns could arise when exiting investors do not bear the true costs of asset liquidation, and remaining investors are disadvantaged.

From a financial stability perspective, concerns arise when investors in OEFs could be incentivised by 'first-mover advantage' dynamics stemming from the open-ended structure. OEFs that invest in less liquid assets and have short redemption periods may be subject to larger liquidity mismatches, particularly during periods of market stress. Investors in these OEFs may be incentivised to redeem shares / units ahead of others if they anticipate that other investors will redeem shares and that remaining investors will bear the associated transaction costs. Although it is difficult to quantify and determine

[8] An open-ended CIS, also referred to as an open-ended fund (OEF), is a registered / authorised / public CIS which provides redemption rights to its investors from its assets, based on the net asset value of the CIS, on a regular periodic basis during its lifetime - in many cases on a daily basis, although this can be less frequently (e.g. weekly, monthly or even less frequently, depending on the jurisdiction). Please note that money market funds and exchange-traded funds have been excluded from the scope of open-ended funds covered by this document due to their unique characteristics and specialised guidance on them.

[9] The subscription or redemption request will typically be made prior to a defined dealing deadline or dealing cut off, after which there will be a valuation point when the assets in the OEF will be valued and the NAV per share determined. The valuation might not yet represent transactions in the underlying investments of the OEF necessary to fulfil the subscription or redemption request.

the materiality, a first-mover advantage may give rise to excess redemptions, and consequently OEFs' sales of portfolio assets to meet excess redemptions may add to stress in financial markets in times of adverse conditions by contributing to greater market volatility and additional pressure on asset prices.

However, investor redemptions are not the only source of potential liquidity demands for a CIS. For example, liquidity demands may arise from margin or collateral calls from derivative counterparties and other liabilities, including for closed-ended CIS that are leveraged. The liquidation of a CIS may also come with liquidity issues (e.g. the importance to strike a balance between early returns of proceeds to investors with the need to secure a fair price for the CIS's assets). These liquidity issues could exacerbate liquidity risks and financial stability concerns.

To address these investor protection issues and financial stability concerns, it is important that responsible entities [10] have a detailed framework with appropriate systems and controls in place to operationalise effective liquidity risk management at all times. For that reason, some of the recommendations may be relevant to closed-ended CIS (recommendations 1, 2, 5, 9, 10, 11, 12 and 15). For OEFs, responsible entities should also maintain consistency between OEF asset liquidity and the redemption terms offered on an ongoing basis.

2.2. Responsibilities of Responsible Entities

Responsible entities have the primary responsibility and are best placed to manage the liquidity of their CIS. The Revised Liquidity Recommendations set out IOSCO's recommendations to responsible entities to ensure that liquidity is managed to safeguard and protect the interests of investors, including in both normal and stressed market conditions, and reduce potential financial stability risks. As the CIS sector is very diverse, IOSCO acknowledges that there is no 'one size fits-all' approach to liquidity risk management and responsible entities are expected to exercise their sound professional judgement in the best interests of investors.

The recommendations are designed to support the effective exercise of that professional judgement in both normal and stressed market conditions. The recommendations describe a range of initiatives throughout the entire life cycle of the CIS, i.e., during both the pre-launch/design phase of the CIS and the on-going day-to-day operation of the CIS, in order that responsible entities can appropriately design and implement an effective liquidity risk management process. Such processes include determining dealing arrangements in alignment with asset liquidity, monitoring and managing liquidity risks, considering and using LMTs and other liquidity risk management measures, putting in

[10] Responsible entities in this document generally refer to the entity / entities responsible for the overall operation of a CIS and in particular its compliance with the legal / regulatory framework in the respective jurisdiction (e.g., the fund manager or the fund board).

place contingency plans to implement such tools as needed, and proper disclosure of liquidity risks and the liquidity risk management process, including the availability and potential use of LMTs to investors and prospective investors.

2.3. Role of Securities Regulators[11]

Authorisation and supervisory models vary around the globe, as do relevant markets, and so there is no 'one size fits all' approach to implementing appropriate liquidity management regulation and oversight of responsible entities. Securities regulators have a key role throughout the entire life cycle of a CIS by putting in place appropriate regulatory requirements for responsible entities and conducting appropriate oversight of responsible entities' liquidity risk management processes, in both normal and stressed market conditions, encouraging dialogue with entities about it.

In particular, securities regulators that authorise or license CIS and/or their responsible entities should focus on the recommendations relevant to the pre-launch/design phase of the life of a CIS to the extent consistent with local law, as part of the authorisation process. For example, they should, consistent with their overall approach to the authorisation of the CIS, consider the proposed inter-relationship between the asset liquidity, the dealing, notice and settlement arrangements, the available LMTs and disclosure arrangements included in the design of an OEF. Where appropriate, they should establish the processes and specific criteria for allocating OEFs to the respective liquidity categories in line with the indicative guidelines in this report as well as relevant specificities of the domestic liquidity framework in their jurisdiction.[12]

On an ongoing basis, it is the duty of responsible entities to ensure that securities regulators are kept appropriately informed of their actions and, unless otherwise provided by applicable law and regulation, they should not rely on approval from securities regulators before making their decisions. However, securities regulators should ensure OEFs, particularly those investing mainly in less liquid assets, consider and use anti-dilution LMTs to mitigate material investor dilution as per the local regulatory guidelines.[13] Consistent with the regulatory and supervisory framework of each jurisdiction, securities regulators should also consider communicating more closely with the relevant responsible entities and issuing guidance where appropriate to ensure investors are protected and for financial stability reasons.[14] Situations may however arise, for example market dislocation or widespread stress events, where there may be a need for securities

[11] By Securities Regulator, this report means the authorities which are empowered to authorise, supervise and/or enforce against relevant rules and legislation relating to the operation of CIS or their managers in their respective jurisdictions.

[12] Revised FSB Recommendation 3.

[13] Revised FSB Recommendation 5.

[14] Revised FSB Recommendation 2.

regulators to issue some form of guidance tailored to the specific circumstances for example, issuing guidance to specific OEFs to facilitate the application of LMTs or other measures. Securities regulators should ensure that a broad set of LMTs and measures is available for use by responsible entities, where appropriate, considering the conditions which would warrant such action, as well as to the costs and benefits of taking such action from a financial stability perspective. Where certain jurisdictions have relatively few tools available, securities regulators should also augment the range of available tools to encourage robust liquidity risk management practices and foster resilience in normal and stressed market conditions.[15]

There are a number of useful approaches which securities regulators may consider when conducting appropriate supervision of ongoing compliance by CIS and/or responsible entities to the matters covered by these recommendations. Securities regulators should collect appropriate information to monitor the responsible entities and/or OEFs[16] and conduct regular assessments of how responsible entities have classified the OEFs based on their jurisdiction's liquidity framework once installed, in line with their supervisory approaches with a view to promoting consistent classification.[17]

Some securities regulators have powers to intervene with a view to supporting investor protection, orderly market functioning and/or financial stability. They can do so by directing the use of some LMTs (usually the suspension of redemptions). In practice, the use of this power has been rarely deemed to be necessary for the purpose of orderly market function and financial stability reasons and should be kept for extreme cases.[18] There can be a risk of moral hazard, namely the incentive to avoid responsibility which should be on individual responsible entities in situations where those responsible entities foresee that the securities regulator is likely to intervene. Notably, where predictability is provided around the exercise of such suspension decisions, this could in fact motivate investors to redeem ahead of an anticipated suspension which may act as a catalyst to exacerbate stress or its transmission. There may also be potential spill-over effects and other possible unintended consequences (e.g. providing incentives to responsible entities to take larger risks) that should be carefully considered before exercising any direct intervention power which involves requiring OEFs to suspend redemptions.

That said, the availability of these powers can be beneficial. Indeed, deployed appropriately, their use or possible use, can encourage better market discipline in stressed situations. Where the use of such powers is under consideration, there should be coordination as appropriate amongst relevant authorities domestically and / or with fellow competent authorities in other jurisdictions (for example in the event of cross-border

[15] Revised FSB Recommendation 4.

[16] Revised FSB Recommendation 1.

[17] Revised FSB Recommendation 3.

[18] As an example, the French AMF requested the suspension of subscriptions and redemptions of units of three French domiciled UCITS funds managed by a UK based asset management in August 2020.

considerations).

These activities of securities regulators should support the application of these recommendations to bring the desired outcomes of investor protection, market integrity and financial stability, that all OEFs have appropriate dealing frequencies, effective liquidity risk management strategies and robust contingency plans.

Chapter 3 – Overview of changes to IOSCO 2018 Liquidity Recommendations

This chapter sets out targeted revisions to the IOSCO 2018 Liquidity Recommendations, following the publication of Revised FSB Recommendations to address the vulnerabilities arising from structural liquidity mismatch in OEFs. IOSCO has also enhanced the recommendations taking into consideration market events in the last few years, such as the Covid turmoil, the sale of US Treasury bills during Covid and the war in Ukraine.

In the FSB OEF Assessment, the FSB concluded that the FSB 2017 Recommendations remain broadly appropriate, but the recommendations would be made more effective by enhancing clarity and specificity on the policy outcomes they seek to achieve. Specifically, the FSB conducted targeted revisions to these recommendations by:

(i) Introducing a categorisation approach, where OEFs would be grouped depending on the liquidity (e.g. liquid, less liquid, illiquid or comparable categories) of their assets. OEFs in each category would then be subject to specific expectations in terms of their redemption terms and conditions;

(ii) Emphasising the need for authorities to ensure the availability of a broad set of anti-dilution and quantity-based LMTs for use by OEF managers in normal and stressed market conditions, instead of the previous focus on the importance of meeting redemptions under stressed market conditions;

(iii) Promoting (a) greater inclusion of anti-dilution LMTs in OEF constitutional documents and (b) greater use of, and greater consistency in the use of, anti-dilution LMTs in both normal and stressed market conditions by imposing on redeeming investors the explicit and implicit costs of redemptions, including any significant market impact of asset sales to meet those redemptions; and

(iv) Replacing references to exceptional LMTs with references to quantity-based LMTs and other liquidity management measures that are to be used particularly in stressed market conditions, and signposting IOSCO's future review on its guidance on the use of such tools and measures.

Accordingly, IOSCO's key revisions to the IOSCO 2018 Liquidity Recommendations correspond to the above mentioned FSB's targeted revisions as follows:

- Revised Liquidity Recommendation 3 incorporates the categorisation approach, through which responsible entities should ensure that the OEF's investment strategy and the liquidity of its assets should be consistent with the terms and conditions governing fund unit redemptions both at the time of designing an OEF and on an ongoing basis;

- Revised Liquidity Recommendation 6 emphasises that responsible entities should consider and implement a broad set of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures to the extent allowed by local law and regulation for each OEF under their management, in both normal and stressed market conditions as part of robust liquidity management practices;

- Revised Liquidity Recommendation 7 specifies that responsible entities should consider and use anti-dilution LMTs to mitigate material investor dilution and potential first-mover advantage arising from structural liquidity mismatch in OEFs they manage. Such tools should impose on subscribing and redeeming investors the explicit and implicit costs of subscriptions and redemptions, including any significant market impact of asset sales to meet those redemptions; and

- Revised Liquidity Recommendations 6 and 17 reflect observations on quantity-based LMTs and other liquidity management measures, which are supplemented by the Implementation Guidance for more detailed guidance.

Overall, IOSCO is publishing a total of 17 recommendations under a revised structure with six sections, namely **the CIS Design Process**, **Liquidity Management Tools and Measures, Day to Day Liquidity Management Practices, Stress Testing, Governance and Disclosures to Investors and Authorities**.

The CIS Design Process Recommendations

- **Recommendation 1** (*from IOSCO 2018 Liquidity Recommendation 1*): General recommendation about LRM process – **Only editorial changes**

- **Recommendation 2** (*from IOSCO 2018 Liquidity Recommendation 2*): Setting liquidity thresholds at portfolio level; minor revision to make more explicit the need to consider potential margin calls for the setting of the portfolio liquidity thresholds – **No major changes**

- **Recommendation 3** (*from IOSCO 2018 Liquidity Recommendations 3 and 4*): Consistency of OEF asset liquidity and redemption terms – **Substantial changes made with reference to Revised FSB Recommendation 3**

- **Recommendation 4** (*from IOSCO 2018 Liquidity Recommendation 5*): Consideration of distribution channels – **Only editorial changes**

- **Recommendation 5** (*from IOSCO 2018 Liquidity Recommendation 6*): Ensure access to information – **Only editorial changes**

Liquidity Management Tools and Measures Recommendations

- **Recommendation 6** (*from IOSCO 2018 Liquidity Recommendation 17*): General consideration of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures in both normal and stress conditions – **Substantial changes made with reference to Revised FSB Recommendation 4 and IOSCO ADT Guidance**

- **Recommendation 7** (*new*): The use of anti-dilution LMTs – **With reference to Revised FSB Recommendation 5 and IOSCO ADT Guidance**

Day to Day Liquidity Management Practices Recommendations

- **Recommendation 8** (*from IOSCO 2018 Liquidity Recommendation 10*): Regular assessment of the liquidity of assets – **Only editorial changes**

- **Recommendation 9** (*from IOSCO 2018 Liquidity Recommendation 11*): Integrating liquidity management in investment decisions – **Only editorial changes**

- **Recommendation 10** (*from IOSCO 2018 Liquidity Recommendation 12*): identification of an emerging liquidity shortage – **Only editorial changes**

- **Recommendation 11** (*from IOSCO 2018 Liquidity Recommendation 13*): Incorporating the relevant data and factors – **Only editorial changes**

Stress Testing Recommendation

- **Recommendation 12** (*from IOSCO 2018 Liquidity Recommendation 14*): Stress testing; more explicit consideration of margin calls and activation of quantity-based tools – **No major changes**

Governance Recommendations

- **Recommendation 13** (*from IOSCO 2018 Liquidity Recommendations 8 and 9*): Effectively maintaining the liquidity risk management process with adequate and appropriate governance – **Updated with reference to IOSCO ADT Guidance**

- **Recommendation 14** (*from IOSCO 2018 Liquidity Recommendation 16*): Contingency plans for the use of LMTs – **Only editorial changes**

- **Recommendation 15** (*from IOSCO 2018 Liquidity Recommendation 15*): Record keeping– **Only editorial changes, consolidated the disclosure recommendations for the liquidity risk management process into Recommendation 16**

Disclosures to Investors and Authorities Recommendations

- **Recommendation 16** (*from IOSCO 2018 Liquidity Recommendation 7*): Disclosures to investors on liquidity risk of CIS and the liquidity risk management process, including the availability and use of LMTs and other liquidity management measures – **No major changes**

- **Recommendation 17** (*new*): Disclosures to investors regarding the use of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures – **With reference to IOSCO ADT Guidance and IOSCO 2018 Good Practices**

Chapter 4 – Revised Liquidity Recommendations

This chapter sets out the Revised Liquidity Recommendations to provide further guidance in response to the Revised FSB Recommendations with an aim to strengthen the liquidity management by responsible entities. The IOSCO 2018 Liquidity Recommendations, like the 2013 Principles of Liquidity Risk Management and the Revised FSB Recommendations, focused on the liquidity risk management for open-ended CIS[19]. However, since investor redemptions are not the only source of liquidity demand on a CIS, some of the recommendations may also be relevant to closed-ended CIS, as indicated in the text of the relevant recommendations. Furthermore, as the structural features and liquidity management practices of ETFs and MMFs distinguish them from other OEFs, the Revised Liquidity Recommendations and the Implementation Guidance are not applicable to ETFs and MMFs. References to CIS herein should be read in such context.

4.1. The CIS Design Process Recommendations

Recommendation 1

The responsible entity should draw up an effective liquidity risk management process, compliant with local jurisdictional liquidity requirements.[20]

The liquidity risk management process, and its operation, is the fundamental basis of liquidity control within CIS. The remainder of this section expands on some of the factors that must be taken into account as part of this process. The liquidity risk management process forms one part of the broader total risk management process. Risk management generally relies on strong and effective governance.

Some jurisdictions have an explicit definition of liquidity and set requirements on the "amount" of liquidity certain types of, or all, CIS must have at all times (for example, by a hard requirement on the percentage of the CIS that must be held in liquid instruments).

When considering creating a new CIS, the responsible entity must be able to (demonstrate that they can) comply with the relevant explicit or principles-based local liquidity

[19] See definition of OEFs in footnote 8.

[20] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

requirements that will apply to the CIS.[21]

The liquidity risk management process, while proportionate, needs to be able to be effective in varied market conditions. Where the CIS is likely to be at a greater risk of liquidity problems, the responsible entity should construct (and perform) a more rigorous liquidity risk management process. Examples of CIS in this category include, but are not limited to, those with a high proportion of less liquid assets and/or a narrow investor base.

The responsible entity should fully consider the liquidity of the types of assets and instruments in which the CIS will invest, at an appropriate level of granularity,[22] and should seek to ensure that, taking account of the CIS's portfolio as a whole, these are consistent with the CIS's ability to comply with its liabilities, including redemption obligations in the case of OEFs.

A responsible entity does not need to construct a new process for each new CIS if it already operates a CIS with similar characteristics. However, it must ensure the process remains appropriate and relevant and sufficiently bespoke for any other CIS it is used for.

Recommendation 2

The responsible entity should set appropriate liquidity thresholds which are proportionate to the redemption obligations and other liabilities of the CIS. [23]

In the case of OEFs, the responsible entity should set appropriate internal definitions and thresholds for the OEF's liquidity, which are in line with the principle of fair treatment of investors and the OEF's investment strategy as well as any relevant legal restrictions (e.g., diversification limits, etc.). The thresholds should act as references to the responsible entity in carrying out more extensive in-depth, quantitative and/or qualitative liquidity analysis as part of the risk management process (with the intention that the responsible entity would then take appropriate remedial steps if the analysis revealed vulnerabilities).

For example, a daily dealing OEF would be expected to have stricter liquidity requirements than a closed-ended CIS or an OEF sold on the basis that investors would not be permitted to redeem before a set period expired. Also, an OEF that invested predominantly in real estate but promised frequent redemption rights to its investors might consider it appropriate to hold a relatively large stock of more liquid assets (which could be related to the real estate sector)

[21] The remainder of the recommendations in this document should be interpreted in that context. For example, in the case where a certain percentage of the CIS's assets must be kept in certain types of liquid instruments, the responsible entity's systems should be appropriate to ensure that percentage is adhered to at all times.

[22] Consideration at the level of the asset class may not be sufficiently granular - for example, some equities can be liquid and some less liquid.

[23] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

as well, because of the expected length of time it would take to liquidate less liquid assets.

In relation to potential sources of liquidity demand other than redemptions, such as margin and collateral calls from derivative counterparties, responsible entities should also set up their internal liquidity threshold taking into consideration these liabilities that the CIS may be subject to under normal and reasonably foreseeable stressed market conditions, including those emerging from stress testing results.

A responsible entity could place stricter internal thresholds on liquidity than its local regulatory requirements.

Recommendation 3

The responsible entity should ensure that the OEF's investment strategy and the liquidity of its assets should be consistent with the terms and conditions governing fund unit subscriptions and redemptions both at the time of designing an OEF and on an ongoing basis. The redemption terms that the OEF offers to investors should be based on the liquidity of its asset holdings in normal and stressed market conditions. To this end, when structuring an OEF that allocates a significant proportion of its assets under management to illiquid assets, responsible entities should consider a low redemption frequency and/or implementing long notice or settlement periods.

This recommendation is premised on the principle that there should be consistency between an OEF's redemption terms and its portfolio asset liquidity and investment strategy. While the approach below focuses on asset liquidity, there is sufficient flexibility for refined approaches to be developed, to reflect local laws and regulations and/or incorporate additional considerations such as an OEF's redemption patterns and investor base.

Overall framework

In line with the domestic liquidity framework, the responsible entity should have appropriate internal systems, procedures and controls in place to:

(i) at the design stage, decide whether a structure that provides redemption rights to its investors on a regular periodic basis, in many cases on a daily basis (an OEF), is appropriate or whether, less frequent redemptions or a closed-ended structure is better suited. If the responsible entity determines the former is appropriate, the responsible entity should ensure that the terms and conditions governing subscriptions (where relevant) and redemptions of fund units are consistent with the OEF's investment strategy and the liquidity (e.g. liquid, less liquid and illiquid or comparable categories) of the OEF's projected asset holdings, taking account of its liquidity risk management process. In particular, the responsible entity needs to take into account the OEF's investment strategy and the liquidity of its assets when it determines the appropriate redemption frequency and notice and/or settlement period, as further set out below;

(ii) on an ongoing basis, manage the liquidity of the OEF's portfolio and assets in normal and stressed market conditions such that they remain consistent with the OEF's redemption terms; and

(iii) carry out reviews of redemption terms at appropriate intervals to achieve this.

The responsible entity should then classify the OEFs it manages based on the liquidity of the funds' assets in normal and stressed market conditions, according to local law and regulations. Such classification should be based on portfolio and asset level liquidity and apply a prudent approach in determining the categories to which the OEFs would be classified. The responsible entity should be able to demonstrate to authorities how it met the requirements of the domestic liquidity framework, supported with relevant documentations.

Assessment of Asset Liquidity

In line with domestic liquidity frameworks, there are several factors of asset liquidity that the responsible entity may consider, such as: market depth and turnover; days to trade; the efficiency and effectiveness of the pricing mechanism; the market impact of large transactions; operational features and potential frictions; and valuation certainty. In general, the responsible entity should consider holistically a combination of quantitative and qualitative factors under both normal and stressed market conditions.

Based on such factors:

- "Liquid" assets are likely to be assets that are readily convertible into cash without significant market impact in both normal and stressed market conditions.

- "Less liquid" assets are those assets whose liquidity is contingent on market conditions, but they would generally be readily convertible into cash without significant market impact in normal market conditions. In stressed market conditions, they might not be readily convertible into cash without significant discounts and their valuations might become more difficult to assess with certainty.

- "Illiquid" assets include those for which there is little or no secondary market trading and buying and selling assets is difficult and time consuming (i.e. weeks or months, not days) even in normal market conditions. Individual transactions of "illiquid" assets may, therefore, be more likely to affect market values.

Assessment of Portfolio Liquidity

The responsible entity should consider the liquidity profile of the OEF's entire portfolio (including any investment requirements set by local laws or regulation where the responsible entity may not be able to sell certain assets in order to remain compliant with the requirements), the liquidity distribution of the assets (i.e. the proportions of the OEF's assets under management allocated to assets falling in different liquidity buckets) and individual asset liquidity in normal and stressed market conditions. This would include regular analysis of portfolio-level liquidity measures as well as analysis of the distribution of asset-level liquidity measures for the holdings of an OEF. The assessment of asset liquidity should be adjusted considering the OEF's stress testing results. The responsible entity should, where appropriate, also consider the asset liquidity of other OEFs managed by the responsible entity itself as an extra factor, in particular those OEFs investing in similar assets.

When determining asset and portfolio liquidity, the responsible entity should consider the extent to which (i) the liquidity characteristics of asset holdings are more difficult to assess, contingent on market conditions, or asset holdings are difficult to value in stressed market conditions; and (ii) the liquidity characteristics of the portfolio can create a potential incentive for investors to redeem early to the disadvantage of other investors.

Classification of OEFs

Based on domestic frameworks on liquidity determination, the OEFs can be categorised into the following three main categories[24]:

<u>Category 1: OEFs that invest mainly in "liquid" assets</u>

For such OEFs, daily dealing would remain appropriate. Responsible entities of those OEFs should continue to enhance their liquidity management practices where appropriate. For these OEFs, dilution would be expected to be de minimis.

<u>Category 2: OEFs that invest mainly in "less liquid" assets</u>

Offering daily dealing to fund investors (without notice or settlement periods) may remain appropriate, subject to responsible entities being able to demonstrate to the authorities (in line with the authorities' supervisory approaches) that they implement anti-dilution LMTs as described in Recommendation 7.

For these OEFs, there would be a greater likelihood of dilution expected than for OEFs in Category 1[25]. If OEFs in Category 2 do not meet the expectation on the implementation of anti-dilution LMTs as described in Recommendation 7, responsible entities should consider and use measures to reduce the liquidity offered to fund investors (e.g. by reducing redemption frequency and/or by implementing long notice or settlement periods), as considered appropriate by authorities.

<u>Category 3: OEFs that allocate a significant proportion of their assets under management to "illiquid" assets</u>

[24] Responsible entities have discretion on whether the fund categories of the OEFs they manage should be disclosed publicly.

[25] This does not preclude Category 1 funds to implement anti-dilution tools.

Such OEFs should create and redeem shares at a lower frequency than daily and/or require long notice or settlement periods.[26] Responsible entities could also consider structuring these funds as closed-ended CIS.

When considering the appropriateness of the redemption frequency and the length of a notice or settlement period for OEFs in Categories 2 and 3, responsible entities should take a holistic approach having due regard to both qualitative and quantitative factors, such as: portfolio composition; reliability of asset valuation; alignment between asset liquidity and redemption frequency or length of notice/settlement period; characteristics of the investor base; potential incentives for early redemptions based on portfolio characteristics; and the outcome of liquidity stress tests by the OEFs.

<u>OEFs that do not clearly fall into (only) one of the three main categories</u>

OEFs that do not clearly fall into (only) one of the three main categories (i.e. OEFs that do not meet the criteria for any of the above three categories or meet the criteria for more than one of the above three categories) should take a prudent approach when determining which of the treatments applicable to the above three categories to apply. Responsible entities of such OEFs should be able to demonstrate to authorities (in line with the authorities' supervisory approaches) that the determinations are appropriate. If an OEF is mainly invested in liquid assets, but also has a significant proportion of the assets under management in illiquid assets, the OEF should generally be considered as having invested a significant proportion of its assets in "illiquid" assets.

As indicative guidelines, subject to local laws and regulations which may have different requirements:

- investing more than 50% of assets under management in either liquid assets or less liquid assets is likely to constitute "mainly investing" in that category of assets;

- investing more than 30% of assets under management in illiquid assets is likely to constitute "allocating a significant proportion" to that category of assets.

The responsible entity should seek to avoid threshold/cliff edge effects as a result of moving from one category of OEFs to another whilst providing investors with certainty around the terms of their investment in the OEF. A prudent approach should be pursued in categorising OEFs to reduce the likelihood of re-categorisations. In addition, the responsible entity should follow the approaches (where applicable) as set out by the relevant authorities on moving OEFs from one category to another. It is not envisaged that such movements would occur frequently. Re-categorisations should be based on a longer-

[26] In an OEF that implements a notice period, redeeming investors receive the value of shares sold based on the OEF's NAV at the end of the notice period. By contrast, in a OEF that implements a deferred settlement period, redeeming investors receive the value of shares sold based on the OEF's NAV on the redemption date but payment is deferred until the end of the settlement period. Notice periods expose redeeming investors to the market risk of shares to be redeemed, while deferred settlement periods may result in larger market risk to remaining investors.

term assessment and provide sufficient time for the responsible entity and investors to adapt. The responsible entity should seek to avoid possible re-categorisations as part of their strategic asset allocation and ongoing portfolio management in terms of liquidity.

Apart from the redemption frequency, there are other features of an OEF's redemption terms and conditions that may be available in certain jurisdictions.

Notice periods

Notice period refers to the length of advance notice that investors must give to a fund manager of their intention to redeem their investment from the OEF. Responsible entities use it to better align the OEF redemption frequency and the liquidity of the OEF's assets. If the OEF is invested in illiquid assets, a long notice period should be considered.

Lock-up periods

A lock-up period in OEFs refers to the duration during which investors are not allowed or incentivised not to redeem their shares or units, once the OEF has started to invest its capital.[27] It is often used by OEFs that invest in illiquid assets, such as private equity, real estate, or other illiquid securities to allow managers to fully invest the capital and maintain a more predictable and stable investor base. This would allow the fund manager to make long-term investment decisions and maintain the desired asset allocation without having to constantly adjust the portfolio to meet redemption requests.

Settlement periods

Settlement periods refer to the time between the dealing date when a redemption request is made (commonly known as redemption date) and the date when the transaction of fund units and money are completed and settled. The typical settlement period for OEFs that invest in liquid assets is around one to three days, depending on the jurisdiction. The typical settlement period for OEFs that invest in illiquid assets can be much longer.

Redemption caps

Redemption caps refer to the pre-set limitations placed on the maximum amount of assets that can be redeemed from OEFs within a given time frame (e.g., a day, week, month or quarter).[28] They are typically used in OEFs that hold illiquid assets, such as real estate, private equity, private credit and other long-term assets to help the fund manager maintain

[27] Certain lock-up period arrangements may allow redemptions only when investors secure matching buyers. In addition, some lock-up period arrangements allow investors to redeem, but at a discount.

[28] Redemption caps are pre-set limits, as part of the redemption terms, that would be activated mechanically. They are different from redemption gates, which managers may decide whether to temporarily activate when the redemption amount exceeds a certain threshold. Please refer to section [V] of the Implementation Guidance for more details.

an appropriate balance between meeting investor liquidity demands and preserving the OEF's investment strategy and performance.

Additional Consideration of Liabilities

The OEF categorisation approach as set out above is a baseline framework that the responsible entity should follow in regards to its assets. The responsible entity should also consider the potential liabilities of an OEF in maintaining consistency between OEF portfolio liquidity and its redemption terms, by, for example, considering historical redemption patterns, investor concentration and engaging with the distribution chain to improve understanding of the underlying investors and the behavioural characteristics associated with such relevant types of investors.

As already mentioned, the responsible entity should also ensure that the OEF can meet liquidity demands arising from margin and collateral calls and other liabilities under normal and reasonably foreseeable stressed market conditions.

Additional Considerations of Valuation Procedures

In those OEFs investing in illiquid and less liquid assets, it is of paramount importance to follow appropriate valuation procedures, especially in times of market stress, to ensure that assets valuations follow prudential principles and incorporate the cost of reduced market liquidity. Otherwise, if adjustments in valuation are delayed in a declining market, this can be a potential source of first mover advantage and investors may have incentives to redeem at an overstated price per unit which can possibly trigger further redemptions.

Recommendation 4

The responsible entity should consider liquidity aspects related to its proposed distribution channels.

At the product design stage, the responsible entity should consider how the planned marketing and distribution of the OEF are likely to affect its liquidity, and whether the OEF is suitable for its targeted investors. This should also include consideration of market conditions when forecasting their expectations for the volume, type and distribution of investors, as well as the effectiveness of individual distribution channels.

In some jurisdictions, it is common for investors to hold their investments through aggregated nominee accounts, making it more difficult for the responsible entity to be fully aware of the make-up of the underlying investor base (for example, a holding of one million units in an aggregated account could represent a small number of investors each with large individual holdings, or many more investors each with a smaller number of units). In this situation a responsible entity should take reasonable steps to obtain investor concentration information from intermediaries to assist its liquidity management (for example, via contractual arrangements).

Recommendation 5

The responsible entity should ensure that it will have access to, or can effectively estimate, relevant information for liquidity management.[29]

The responsible entity should consider its information needs in order to effectively manage liquidity risk in the CIS, and whether it will be able to access that information during the life of the CIS. For example, where the CIS plans to invest in other CIS the responsible entity should be satisfied that it can obtain information about the underlying CIS's approaches to liquidity management and any other pertinent factors such as potential redemption restrictions used by the underlying CIS.

4.2. Liquidity Management Tools and Measures Recommendations

Recommendation 6

The responsible entity should consider and implement a broad set of liquidity management tools and measures to the extent allowed by local law and regulation for each OEF under its management, for both normal and stressed market conditions as part of robust liquidity management practices.

Having completed the design phase analysis of liquidity of the proposed assets, the characteristics of target investors and the features of every-day liquidity management practices, (for example, monitoring levels of subscriptions and redemptions), the responsible entity of the OEF should consider and implement a broad set of LMTs and liquidity management measures, including anti-dilution LMTs,[30] quantity-based LMTs and other liquidity management measures, to support the liquidity risk management of the OEF in the best interests of investors, particularly to (i) protect investors from material dilution, (ii) help manage redemptions in stressed market conditions (particularly those that could lead to severe market dislocation) or instances of unusually high redemptions; (iii) help manage liquidity or valuation issues in exceptional circumstances[31] and (iv) suspend the OEF if required.

LMTs and other liquidity management measures, provided that such tools and measures are permitted in the relevant jurisdiction and contained within the OEF constitutional documents, can provide valuable assistance in the management of liquidity risk and protection of investors from unfair treatment. Such tools and measures should be designed to operate in the best interests of investors within the OEF, taking into account the nature of its assets and its investor base. In any case, OEFs should be managed in such a way that the investment strategy does not only rely on the availability or usage of

[29] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

[30] IOSCO published its final report on Anti-dilution Liquidity Management Tools – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes in December 2023: https://www.iosco.org/library/pubdocs/pdf/IOSCOPD756.pdf.

[31] A clear example was the side pockets created by UCITS funds as a result of the Russia and Ukraine war.

these tools or measures to manage liquidity.

There are a number of considerations, related to the specific market conditions and the characteristics of the OEF and its investors, to be taken into account when assessing whether to use these tools.

LMTs could be classified in two categories[32]:

(i) Anti-dilution LMTs aim to pass on the estimated costs of liquidity associated with OEF subscriptions/redemptions to the subscribing/redeeming investors by adjusting the NAV of the OEF or the price at which they transact. By ensuring that liquidity costs required to meet subscription/redemption requests are borne by the subscribing/redeeming investors, these tools protect existing/remaining investors from material dilution. In the case of redemptions, they mitigate any potential first-mover advantage and thereby remove a potential incentive for investors to redeem. Besides, these tools can be used under normal and stressed market conditions and can be designed to be always in use or to be automatically activated once a pre-determined threshold is breached. Incorporating anti-dilution LMTs in the daily operation of an OEF and 'normalising' their use[33], as opposed to using them only in times of stress, helps enhance their effectiveness and avoid a 'cliff-edge effect'. There are a number of factors which the responsible entity should be mindful of in relation to these tools: the appropriate disclosure to investors of the conditions that would trigger the use of such tools; the complexities in producing a calculation mechanism; the difficulties in accurately reflecting the market impact of the redemption in the redemption price; the costs and challenges of operationalising the different anti-dilution LMTs; and the governance arrangement around the use of such tools. Examples of these tools are swing pricing, valuation at bid or ask prices, dual pricing, anti-dilution levy and subscription and redemption fees.

(ii) Quantity-based LMTs aim to limit the amount of liquidity available to redeeming investors. These tools have typically been activated as ex-post tools in stressed market conditions in response to increased redemptions or when there is a significant deterioration in market liquidity or when the responsible entity concludes that the fair value of the OEF's NAV cannot be calculated. While responsible entities may set up an activation threshold for these tools, the activation should not be automatic and it is expected that responsible entities exercise a degree of judgement on the appropriateness of the activation of these LMTs. Examples of these tools are suspensions, redemption gates, and extension of notice periods[34]

[32] The list of LMTs herein is not intended to be exhaustive.

[33] By implementing ADTs in the daily operations of OEFs, it is expected the tools would be available for activation as needed (consistent with Recommendation 7), including during normal times, but not necessarily activated on a daily basis.

[34] There is another quantity-based LMT known as "deferrals of redemptions " which achieves similar outcomes to investors as extension of notice periods. This tool allows an OEF to defer a redemption to a later transaction/NAV date and meet redemptions using a later NAV. It may be appropriate for OEFs holding illiquid assets, such as real estate, where meeting

or settlement periods. Redemption gates have a similar effect of slowing down the rate of meeting redemption requests, while retaining a commitment to meet redemption requests within a certain timeframe. Extension of notice periods or settlement periods give managers longer time to meet redemption requests in an orderly fashion without the need to sell assets urgently at discounted prices. Suspension of redemptions is a tool that provides for a delay in paying out redemptions and limits large redemptions in the OEF. Suspension can be particularly useful in cases where the responsible entity requires an extended period to liquidate assets or has limited visibility on the timing of asset sales or is reluctant to accept a significant discount to normal market prices.[35] Redemption gates can also be considered for use in these cases.

Exclusive reliance on quantity-based LMTs may result in unintended consequences.[36] For example, investor expectations that an OEF will use quantity-based LMTs may motivate investors to front-run potential restrictions on redemptions, which may add to redemption pressures. Furthermore, an ability to limit, defer or suspend redemption rights, if permitted by applicable law and regulation, should not be seen as freeing the responsible entities from their duty to endeavour faithfully to meet redemptions demand in an orderly fashion. This applies to retail investors, in particular, as they may have a general expectation that, in normal circumstances, the OEF will be able to meet redemption requests on the standard terms set out in its offering documents. Thus, while the use of quantity-based LMTs may enable a liquidity issue to be "managed" by restricting investor redemption rights, it is preferable to reduce exclusive reliance on this if possible.

Other liquidity management measures including, without limitation, redemptions in-kind and in-specie transfers,[37] side pockets[38] and soft closures may also be considered in managing liquidity risks and some of these tools, such as side pockets, may generally be used in exceptional market conditions, subject to local law and regulation. In some jurisdictions, CIS may also have access to alternative sources of liquidity through borrowing or other funding arrangements, such as credit facilities and interfund lending,

redemption requests promptly without selling assets at unfavourable prices is challenging and the deferral provides the necessary time to sell underlying assets. See Section V of Implementation Guidance for more details.

[35] The IOSCO 2012 Principles on Suspension of Redemptions outline that "The fact of suspension in one CIS, or a small group of CIS, increases concerns about further suspensions and may thus lead to disinvestments/withdrawals in other CIS possibly causing further CIS suspensions…. The suspension may not only directly impact the investor but, depending upon the scale of the CIS, also may have indirect macroeconomic or market-wide implications."

[36] Certain funds, for example, real estate funds, may rely solely on quantity-based LMTs. However, it would be appropriate for these funds to integrate potential liquidity demands into portfolio management to reduce the need for frequent activation of these tools during periods of high redemptions. This approach prevents investors from expecting regular use of these tools, which could otherwise encourage early redemptions and increased redemption pressures.

[37] Retail investors should generally not be required to accept in specie transfers when they wish to redeem part or all of their investments. As a good practice, the responsible entity should only offer investors redemptions in specie where the institutional investor has consented to this arrangement. See "*IOSCO Good Practices on the Termination of Collective Investment Funds Final Report*" Nov. 2017, available at: https://www.iosco.org/library/pubdocs/pdf/IOSCOPD588.pdf

[38] In some jurisdictions, a similar tool to side pockets called "partial subscriptions/redemptions" is used although in this case, assets are not segregated from the OEF in a different vehicle. See Section V of *Implementation Guidance* for more details.

that may also be used in exceptional market conditions, subject to local law and regulation.[39]

In-kind redemptions (or sometimes referred to as in-specie redemptions) facilitate the exit of investors from the OEF without the responsible entity having to liquidate the assets or to deplete cash held by the OEF in order to fulfil their redemptions. A key issue when assessing the use of these tools is the nature of the investors in the OEF and the ability to divide the assets by proportion, e.g., whether the investors are retail or institutional. The use of in-kind redemptions may not be practical or appropriate for retail investors, especially if the assets are considered relatively illiquid or undividable (e.g. real estate, infrastructure) or require additional facilities (e.g. certain commodities).

Soft closures enable OEFs to cease active marketing efforts and temporarily or permanently close subscriptions. This tool is used to prevent subscriptions of larger sizes, e.g. in assets with limited liquidity and/or capacity, and may be implemented after a predetermined commercialization period, subject to local law and regulation. Soft closures should be reserved for funds that need to contain the size of their capital.[40] .

Assessment of which measures are best suited and most effective entails consideration of the specific scenario that has led to liquidity stress, the degree of visibility the responsible entity has on the time required to liquidate assets and whether use of the tool is permitted by local law and regulation. In situations where the OEFs' assets become less liquid due to strained market conditions and where the responsible entity is confident that required asset sales can be completed within a set timeframe, in an orderly way and with the minimum market impact, and that it is able to perform a thorough valuation of the OEF´s holdings, the implementation of extended notice/settlement periods could be considered to give extra time to the fund managers to appropriately honour redemptions. In cases where stressed markets or unforeseen market events have resulted in illiquidity or valuation concerns in specific portfolio assets (e.g. a specific asset class), side-pockets could be implemented to segregate those assets from the OEF portfolio, subject to local law and regulation, and avoid a full suspension of the OEF.

Detailed guidance on anti-dilution LMTs, quantity-based LMTs and other liquidity management measures can be found in the Implementation Guidance.

Recommendation 7

The responsible entity should consider and use anti-dilution LMTs to mitigate material investor dilution and potential first-mover advantage arising from structural

[39] In some situations, borrowing or other funding arrangements may not be beneficial to an OEF's liquidity risk management to the extent that the CIS's use of borrowings to meet redemptions leverages the OEF at the expense of non-redeeming investors. In such a case, non-redeeming shareholders would effectively bear the costs of borrowing and the increased risk to the OEF created by leverage. Thus, responsible entities should consider the likely overall benefits and risks in including such borrowing or other funding arrangements within a liquidity risk management program.

[40] See Section V of Implementation Guidance for more details.

liquidity mismatch in OEFs it manages, to ensure that investors bear the costs of liquidity associated with fund subscriptions and redemptions, and to arrive at a more consistent approach to the use of anti-dilution LMTs. Such tools should impose on subscribing and redeeming investors the explicit and implicit costs of subscriptions and redemptions, including any significant market impact of asset sales to meet those redemptions.

Anti-dilution LMTs[41] operate by imposing on transacting investors the estimated cost of liquidity, i.e., explicit and implicit transaction costs of subscriptions or redemptions, including any significant market impact of asset purchases or sales to meet those subscriptions or redemptions. This action protects remaining investors from dilution impact and puts them in a similar economic position to investors that opt to invest directly in portfolio securities. Anti-dilution LMTs also mitigate the potential risk, in particular under stressed market conditions, that investors may exit funds pre-emptively in order to receive a higher NAV that does not take into account the higher cost of liquidating the most illiquid assets within the OEF. This is particularly critical for daily dealing OEFs investing in less liquid assets, which could experience reduced liquidity under stressed market conditions.

The principle underlying the use of anti-dilution LMTs should be the fair treatment of both transacting and remaining investors with the objectives to mitigate material dilution and potential first-mover advantage arising from structural liquidity mismatch in OEFs. Since the dilution risk differs between OEFs, the application of appropriate anti-dilution LMTs to achieve these objectives may also differ between OEFs.

In this regard, responsible entities of OEFs, particularly those falling into Category 2 (less liquid) as described under Revised FSB Recommendation 3, should consider and use such tools and should ensure that transacting investors will bear the costs of liquidity associated with fund redemptions and subscriptions in order to arrive at a more consistent approach to the use of anti-dilution LMTs by OEFs. For Category 2 funds, there would be a greater likelihood of dilution expected than for Category 1 funds. The expectation is that anti-dilution LMTs would be increasingly used by Category 2 funds as part of their day-to-day liquidity management, unless such LMTs not being used is clearly justified, subject to (i) oversight of authorities in line with their supervisory approaches and (ii) implementation of other effective liquidity risk management measures that meet the broader policy intent of reducing material structural liquidity mismatches as underpinning the Revised FSB Recommendations.

In line with the above, anti-dilution LMTs should (i) be included in OEF constitutional documents; (ii) be considered and used in both normal and stressed market conditions,

[41] Five commonly used (and non-exhaustive) types of anti-dilution LMTs as identified by IOSCO are swing pricing, valuation at bid/ask prices, dual pricing, anti-dilution levy and subscription/redemption fees. Please refer to the *Final Report on Anti-dilution Liquidity Management Tools – Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes* as published by IOSCO in December 2023 for further guidance on the design and use of anti-dilution LMTs.

with a view to achieving greater use and greater consistency in their use; and (iii) account for both the explicit and implicit costs of redemptions and subscriptions, including any significant market impact of asset sales and purchases. Responsible entities are expected to estimate any significant market impact on a best-effort basis. In addition, responsible entities of such OEFs should have appropriate internal systems, procedures and controls in place that enable the use of anti-dilution LMTs as part of the day-to-day liquidity risk management of the OEFs they manage, even if such tools would not always be in use.

With respect to the above considerations, the Implementation Guidance, which incorporates the IOSCO ADT Guidance for completeness, provides responsible entities with guidance to support the effective implementation of the Revised Liquidity Recommendations. In particular, it sets out key operational, design, oversight, disclosure and other factors and parameters that responsible entities should consider when anti-dilution LMTs are used, with a view to promoting their greater, more effective and more consistent use.

4.3. Day-to-Day Liquidity Management Practices Recommendations

Recommendation 8

The responsible entity should regularly assess the liquidity of the assets held in the portfolio.[42]

The liquidity risk management process should enable the responsible entity to regularly measure, monitor and manage the CIS's liquidity. The responsible entity should take into account the interconnection of liquidity risk with other risk factors such as market risk or reputational risk.[43]

The responsible entity should ensure compliance with defined liquidity limits and the CIS's redemption policy (in the case of OEFs), whether these are set by national regulation, set out in the liquidity risk management process, detailed in the CIS's documentation or other internal thresholds.

The liquidity assessment of the CIS's assets should consider obligations to creditors, counterparties and other third parties. The time to liquidate assets and the price at which liquidation could be affected should form part of the assessment of asset liquidity, as should financial settlement lags and the dependence of these on other market risks and factors.

Recommendation 9

[42] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

[43] It is accepted that some risk factors are difficult or impossible to specify quantitatively.

The responsible entity should integrate liquidity management in investment decisions.[44]

The responsible entity should consider the liquidity of the types of instruments it intends to purchase or to which the CIS could be exposed,[45] as well as liquidity effects of the investment techniques/strategies it uses, before transacting;[46] and the impact that the transaction or techniques/strategies will have on the overall liquidity of the CIS. Responsible entities should only carry out transactions if the investment or technique/strategy employed does not compromise the ability of the CIS to comply with its liabilities, and its redemption obligations in the case of OEFs.

The assessment of liquidity risk includes the consideration of the type of asset and where applicable trading information (for example, volumes, transaction sizes and number of trades, issue size) as well as an analysis, for each type of asset, of the number of days it would take the responsible entity to sell the asset without materially moving the market prices.

For OTC securities other information may be more meaningful in delivering comparable analysis, such as the quantity and quality of secondary market activity, buy/sell spreads and the sensitivities of the price and spreads.

Liquidity risk management must also consider collateral arrangements (for example, to take account of the risk of deterioration in the quality of collateral received from a counterparty in a derivative transaction, if it were to become illiquid). The liquidity "quality" of securities accepted as collateral should be evaluated on an ongoing basis, in light of collateral arrangements actually in place (for example, segregation of collateral accounts, unavailability of collateral for investment purposes, haircut thresholds and so on). With respect to derivative transactions, the responsible entity should ensure that the quantity of liquid assets is sufficient to meet settlement of margin calls.

The responsible entity should take exceptional care if utilising borrowing or other funding arrangements (such as credit facilities or interfund lending) to manage liquidity. Not only will the CIS incur a financial cost for this, but if the temporary borrowing does not solve the problem, then the CIS may need to suspend (when it is an OEF) or wind-up and it will at this point be leveraged, potentially with exacerbated problems.

In the case of OEFs, investors that benefit from the borrowing (by being able to redeem) may not be the ones paying the costs of it (remaining unit-holders). However, there may be some cases where inflows can be predicted with some certainty (e.g. if there are substantial regular monthly contributions into the OEF), which mitigates the

[44] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

[45] For some derivatives the settlement asset could be less liquid than the derivative, so this should also be considered.

[46] Some investment strategies would preclude detailed analysis before every individual transaction, but application of the liquidity risk management process should provide reasonable assurance that the investment decisions are consistent with the OEF's overall liquidity profile.

risks involved with temporary borrowing.

Where a CIS is liquidated, the responsible entity should consider liquidity issues, along with any legal requirements or relevant conditions set out in the CIS's constituting documents and balance the early return of proceeds to investors with the need to secure a fair price for the CIS's assets.

Recommendation 10

The liquidity risk management process should facilitate the ability of the responsible entity to identify an emerging liquidity shortage before it occurs. [47]

The liquidity risk management process should aim to assist the responsible entity in identifying liquidity pressures, from redemption demands or margin or collateral calls, before they crystallise, thus enabling it to take appropriate action respecting the principle of fair treatment of investors.

During stressed market conditions, the responsible entity should seek to ensure that the interests of investors are safeguarded and investors are being treated fairly.[48] As such, the responsible entity should seek to maintain the investment strategy and attempt to maintain alignment between the fund's investment strategy and its liquidity profile taking into account investors' best interests, including ensuring that remaining investors are not left with a disproportionate share of potentially illiquid assets. In the case of OEFs, one such step could involve the monitoring and management of large redemptions (whether made as one or successive redemptions) which have the potential to reduce the liquidity of the portfolio, to the extent reasonably practicable.

Retail investors, in particular, will have a general expectation that, in normal circumstances, the OEF will be able to meet redemption requests on the standard terms set out in its offering documents. While the use of quantity-based LMTs or other liquidity management measures may enable a liquidity issue to be "managed", by restricting investor redemption rights, responsible entities should give due consideration before using such tools or measures to avoid any unintended consequences (e.g. investor expectations that an OEF will use quantity-based LMTs may add to excess redemptions in times of stress, if investors seek to front run potential restrictions on redemptions). Where a responsible entity has a choice whether to apply one or several LMTs or liquidity management measures, it must always make this decision in the best interests of unit-holders (see Recommendation 6 and the Implementation Guidance).

Responsible entities should make best efforts to manage future cash flows to assist with

[47] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

[48] Of relevance is the *'IOSCO Principles for the Valuation of Collective Investment Schemes'*, May 2013, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD413.pdf

liquidity management (for example, it may be possible to negotiate a pre-notice period with brokers before changes in margin call formulas become effective, or to negotiate longer periods for repo agreements).

Recommendation 11

The responsible entity should be able to incorporate relevant data and factors into its liquidity risk management process in order to create a robust and holistic view of the possible risks.[49]

In performing the liquidity risk management process, the responsible entity should consider holistically quantitative and qualitative factors to seek to ensure that in all but exceptional circumstances the CIS can meet its liabilities as they fall due as appropriate.

Key information should be taken into account which, where known or available or subject to sensible estimate, could improve the capability to manage liquidity risk. Consistent and verifiable statistical methods can be used to generate data and scenarios where appropriate – scenarios can relate to the behaviour of investors and/or the CIS assets.[50]

In the case of OEFs, one of the key challenges in liquidity management is taking appropriate account of the uncertainty in future investor behaviour both in normal market conditions and, in particular, in stressed markets. The more that a responsible entity knows about its investor base, the better able it will be to plan for and manage future liquidity needs. While acknowledging that there are operational hurdles[51] that impede responsible entities from accessing information, such entities should make reasonable efforts to understand their investor base. This involves at least considering the marketing and distribution channels of the OEF, and analysing the historical redemption patterns of different types of investors.

As large and unexpected redemptions are a key source of liquidity risk, in combination with other data, for example historical fund flows, this investor information would allow estimates of the pattern(s) of subscriptions and redemptions and identification of realistic stress scenarios when performing the liquidity assessment by the responsible entity, such as a sudden withdrawal by investors (especially institutional investors) holding a significant portion of the OEFs to meet their own liquidity requirements, or a pattern of withdrawal by a category/type of investors to be identified.

This investor base knowledge could include investor profiles of the various types of investors which may allow the responsible entity to understand why investors are

[49] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

[50] For example, the responsible entity may consider whether publicity about the relatively poor performance of an OEF compared to its peer group might lead to an increase in redemption requests and/or a decrease in new subscriptions.

[51] Examples of operational hurdles include third party distribution channels (e.g. use of platforms) and the use of nominee structures.

investing in the OEF, their risk appetite and in what circumstances they may wish to redeem. The responsible entity should, where possible, conduct assessments of the characteristics of the investor base in an OEF, analyse the potential impact that these characteristics have on the level of redemptions under different scenarios and take this into account in liquidity management for the OEF.

Data on liabilities such as collateral needs and potential margin calls, should be assessed alongside potential redemption demands.

Where possible, responsible entities should engage with relevant intermediaries to be pre-notified in the event where such intermediaries remove a responsible entity's OEF from their "recommendation list".

While ensuring the fair treatment of all investors, and no preferential disclosure to select investors,[52] a responsible entity could keep up-to-date with investors who have a large unit- holding in the OEF regarding whether they intend to make significant redemptions. However, this should be done in a way that avoids any conflicts of interest between the responsible entity and such investors - that cannot be properly managed - from arising.

4.4. Stress Testing Recommendation

Recommendation 12

The responsible entity should conduct ongoing liquidity assessments in different scenarios, which could include fund level stress testing, in line with regulatory guidance.[53]

Liquidity assessments, which could include fund level stress testing, can assess how the liquidity profile of, or redemption levels of, a CIS can change when faced with various stressed events and market situations. Such assessments are an important component of a responsible entity's liquidity risk management process. For example, stress testing should support and strengthen the ability of the responsible entities in managing liquidity risk appropriately in the best interests of investors. Specifically, stress testing can be used by responsible entities to assess the liquidity characteristics of the CIS's assets relative to the anticipated liabilities, including redemption flows (in the case of an OEF) and margin calls, under stressed market conditions, and to tailor the CIS's asset composition, liquidity risk management, and contingency planning accordingly. Stress testing can enable responsible entities to pre-empt and respond promptly to large liquidity demand.

Given the diversity of the CIS universe, stress testing arrangements, as further set out

[52] Certain jurisdictions may permit investment funds to enter into different contractual arrangements with different investors.

[53] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

below, should be appropriate to the size, investment strategy[54], underlying assets of the CIS, use of leverage, and investor and redemption profile in the case of OEFs, taking into account other relevant market and regulatory factors (e.g., other funds managed by the same responsible entity).[55] For instance, fund level stress tests may not be required where this would be disproportionate, taking into account the size, investment strategy, nature of the underlying assets, and investor profile of the CIS.

Stress testing should be supported by strong and effective governance. In particular, the performance and oversight of stress testing should be sufficiently independent from the portfolio management function. Responsible entities should maintain appropriate documentation of stress testing and should be able to provide the relevant information to authorities upon request.

Appropriate stress testing should be carried out based on normal and stressed scenarios (for example, atypical redemption requests or a significant drop in asset value that gives rise to a margin call). Scenarios should include backward-looking historical scenarios and forward looking hypothetical scenarios, and could be based on parameters calculated using statistical techniques or concrete stress events where appropriate to do so.

Stress testing should be based on reliable and up-to-date information. Stress testing scenarios should be appropriate to the CIS. For example, the responsible entity could analyse the number of days that it would take to sell assets and meet liabilities in the simulated stressed scenarios, taking into account where practical and appropriate the expected behaviour of other market participants (e.g. the behaviour of other funds managed by the same responsible entity) in the same conditions, any known inter-fund relationships such as inter-fund lending arrangements, and any actions the responsible entity would take (e.g. activation of LMTs). In respect of collateral, stress testing could be used to demonstrate that the quantity of liquid assets is sufficient to meet settlement of margin calls on derivatives positions, taking into account potential liquidity stress in the markets when gathering liquidity to meet margin calls.

Responsible entities could also conduct stress testing related to other market risks and factors. For example, it may be appropriate to assess the impact of a credit rating downgrade of a security held by the CIS as one factor, as such a downgrade can affect the security's liquidity and that of the CIS. In the case of OEFs, reputational risk from a problem with another aspect of the responsible entity's business, or problems experienced in a similar OEF run by another entity, could also cause unexpected redemption requests.

[54] Appropriate stress testing could help to ensure that the investment strategy and associated limits are maintained to the extent possible (e.g., by using a slicing approach rather than a waterfall approach). In the slicing approach, managers aim to maintain the portfolio's structure by selling all securities in the portfolio proportionately, whereas in the waterfall approach, fund managers sell most liquid assets initially before turning to less liquid securities.

[55] For example, stress testing would be more important and relevant to OEF with less liquid underlying assets and/or with daily dealing arrangements.

It is also useful to conduct stress tests which start with the activation threshold for quantity-based LMTs or other liquidity measures set by the responsible entity, which then identify situations where this might occur, and which work through the consequence of operating in those situations ("reverse stress testing"). This approach has the potential to improve the understanding of the circumstances in which the OEF may need to resort to quantity-based LMTs, but it may not be appropriate for all OEFs.

Feedback from any real situations experienced ("back-testing") should be used to improve the quality of output from future stress testing.

Stress testing results have the potential to contribute, as appropriate, to all stages of the OEF's product life cycle, including in the product design stage when determining the dealing and distribution arrangements and asset composition, and in performing investment and liquidity risk management (e.g. in calibrating holdings of liquid assets and other investments, the implementation and use of different LMTs; and liquidity management measures and contingency planning) on an ongoing basis. Although it cannot prevail over their best judgement, stress testing can help support responsible entities when they use their best judgement in reasonably foreseeable circumstances.

Stress testing should be carried out at a frequency relevant to the specific CIS, especially taking into consideration, if it is open-ended, its redemption terms and conditions offered to investors in anticipation of reasonably foreseeable stressed market conditions to which the CIS would be sensitive.

4.5. Governance Recommendations

Recommendation 13

Responsible entities should have adequate and appropriate governance arrangements in place for their liquidity risk management processes, including clear decision-making processes for the use of liquidity management tools and other liquidity management measures in normal and stressed market conditions.[56]

Governance is of paramount importance for an effective liquidity risk management process, as even the most sophisticated liquidity modelling and perfectly predicted cash flows can be made redundant by the lack of effective oversight or controls to deal with the information produced.

While governance structures for CIS differ across jurisdictions and, to an extent, with the size of the responsible entity, appropriate escalation procedures should be in place if

[56] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

problems are envisaged or identified.

Governance arrangements should also ensure that risks to the CIS are considered and managed as a whole (for example, as noted earlier, the inter-relationship between valuation and liquidity).

Again, related to the particular governance structure and size of the responsible entity, there should be an appropriate degree of independent oversight involved in reviews of the liquidity risk management process.[57]

The liquidity risk management process

After a liquidity risk-management process is established or an existing one adapted[58] pre-launch, it must be effectively performed and maintained during the life of the CIS, for example by establishing independent oversight, appropriate escalation procedures, periodic review and proper recordkeeping. The remainder of the recommendations in this section set out some of the relevant considerations relating to such performance and maintenance.

In performing its liquidity risk management process, the responsible entity should take account of the investment strategy, liquidity profile of the assets and, in the case of OEFs, the redemption policy of the OEF (see Recommendations 3 and 4). The liquidity risk management process must also take account of other delivery and payment obligations such as margin calls, obligations to counterparties and other creditors. The risk management process should be commensurate with the portfolio profile (e.g., fund size, complexity of strategies, types of asset classes, investment sectors, etc.) of the CIS under management and be properly documented. The liquidity risk management process should also include a strategy on how to proceed in the case of an unexpected liquidation of the portfolio.

The liquidity risk management process could be performed as part of the wider risk-management arrangements adopted by the responsible entity, involving resource from its risk management and/or compliance functions (where relevant). Risk management and measurement arrangements that are more adaptive (rather than static) and systems that can rapidly alter underlying assumptions to reflect current circumstances are likely to be at the forefront of good liquidity risk management, as are those which utilise a wide range of information and different perspectives and those which incorporate varied scenario analysis in their performance.

Regular periodic reviews of the effectiveness of the liquidity risk management process

[57] Consideration at the level of the asset class may not be sufficiently granular - for example, some equities can be liquid and some illiquid.

[58] There may be an existing liquidity risk management process that can be reviewed and adapted, if necessary, to cover the additional new CIS.

should be undertaken by the responsible entity and the process should be updated as appropriate. An additional review and possible updates may also be necessitated by the occurrence of certain events. For example, if the CIS is to invest in a new type of asset or if the investor profile has changed materially (from that anticipated) – for example, if an OEF originally expected to have a large number of retail investors but in fact only attracts a small number of institutional investors each owning a significant share of the OEF – the policy should be reviewed and updated, if deemed appropriate.

Governance Structure

The responsible entity should have adequate and appropriate arrangements for internal governance of all aspects of liquidity risk management and, for the OEFs it manages, the use of LMTs or liquidity management measures. The objective is to ensure that liquidity decisions and such tools or measures are applied in accordance with the internal procedure and that extraordinary decisions to reflect changing market situations can be made in a timely and efficient way, especially in a stressed situation, taking into consideration external stakeholders such as fund administrators and distributors.

To achieve that, the internal governance arrangements should include at least the following elements for the OEFs the responsible entity manages: (i) objective criteria[59] for making decisions and for the application of LMTs and other liquidity management measures; (ii) methodology, including calibration,[60] of LMTs and liquidity management measures; (iii) parties involved (e.g., senior management, risk management, administration, etc.), their respective functions and responsibilities as well as how these parties should be coordinated; (iv) sources of information and data used; (v) controls to be carried out (including reviews on the use of LMTs and liquidity management measures) and their frequency; (vi) documentation of recommendations and decisions made about the use of LMTs and liquidity management measures and the basis of them; (vii) escalation processes and (viii) oversight by the governing body.

The internal governance arrangements should be commensurate with the portfolio profile (e.g., fund size, complexity of strategies, types of asset classes, investment sectors, etc.) of the CIS under management and be properly documented. The governance framework should also foresee adequate approval levels for the internal procedure to ensure there are no unwanted or inappropriate modifications.

In this regard, an internal governance committee/structure,[61] bringing together the various parts of the business that have an interest in liquidity risk management and fund

[59] These criteria are meant to be non-exhaustive such that responsible entities maintain flexibility to activate LMTs and other liquidity management measures beyond general circumstances.

[60] The calibration should set out how all relevant explicit and implicit costs of subscriptions / redemptions (including any significant market impact of asset purchases / sales) should be taken into account.

[61] Depending on the corporate organization structure, responsible entities may adopt a dedicated committee or other appropriate governance arrangements, for example, through a board or an existing specialist committee overseeing liquidity risk and/or fund pricing.

valuation / pricing, would be appropriate for most responsible entities. The committee or other structure dedicated to oversight of LMTs and other liquidity management measures, could be part of a committee with broader responsibilities (e.g., for oversight of all aspects of liquidity risk management or to seek fair outcomes for investors).

The exact composition of any internal governance structure should be appropriate to the size and organization of the responsible entity, bearing in mind any potential conflicts of interests, and the characteristics of the CIS managed by it.[62] If the portfolio manager is not a member of the structure, the responsible entity should have a process in place to keep the portfolio manager informed of decisions about the use of LMTs and other liquidity management measures, and to require the fund manager to give proper weight to them when making investment decisions.

Skills, Knowledge and Data

The internal governance structure should ensure that persons of suitable seniority, who individually or collectively possess adequate skills and knowledge, are involved in decisions about liquidity risk management and, in the case of OEFs, the use of LMTs and other liquidity management measures.

The internal governance structure should have an informed understanding of, or reliable data about, all relevant aspects of the CIS under management by the responsible entity to support its recommendations / decisions for example:

- The liquidity profile of the portfolio of each CIS, in particular its exposure to less liquid or illiquid assets based on the analysis of relevant factors such as volumes traded, days to trade, valuation certainty, the number of intermediaries that quote bid / ask prices and other relevant inputs from other market participants;

- The investor profile of the CIS (for OEFs);

- Historical and predicted inflows / outflows of cash; current state of the market(s) for the assets held, including current bid-ask spread information, executed prices and differences with quoted bid-ask prices;

- Assessments of the ability to execute transactions in underlying instruments, in terms of likely market impact of transacting in average / above-average lot sizes;

- Liquidity stress testing data; and

- Operational readiness to apply or adjust relevant LMTs or liquidity management

[62] The oversight arrangements are expected to be commensurate with the operations of the responsible entity including its size and nature of the CIS (e.g., their size and complexity) it manages. In some cases, the oversight may be performed by an individual.

measures, both for the responsible entity itself, its delegates / agents, and others in the distribution network (for OEFs).

Recommendations and Decisions from the Governance Structure

Recommendations and decisions of the internal governance structure should be appropriate for each CIS under management, having regard to its individual profile (e.g., investment strategy, investor profiles, nature, size and complexity) and circumstances. This may result in different features, factors and calibrations being applied to different CIS in different situations.

All recommendations and decisions made by the internal governance structure on liquidity risk management and the use of LMTs and other liquidity management measures should be properly documented. For example, the responsible entity should keep a record of the days on which the adjustment to the NAV was made or should have been made, the basis and the supporting documentation of the decisions adopted (whether or not the adjustment factor was finally applied).

Review and Escalation Processes

For the OEFs the responsible entity manages, the internal governance structure should conduct both ex-ante and ex-post reviews on the use and calibration of LMTs and liquidity management measures on a sufficiently frequent basis and in a documented manner, having regard to the frequency of dealing in shares / units. For example, risk management procedures should set a minimum frequency at which arrangements will be reviewed. The responsible entity should consider whether to specify, in its procedures, thresholds for trigger events that would automatically trigger an escalation or cause a review to be carried out, e.g., a market movement above a certain percentage, or a dealing order above a certain percentage of CIS's assets.

Ex-ante reviews could enable LMTs and liquidity management measures to reflect frequent changes in market conditions, dealing trends and portfolio investment decisions. There should be an escalation process in circumstances when liquidity is becoming more stressed, to ensure that oversight arrangements are promptly stepped up. Contingency plans (e.g., specific operational arrangements for stressed market conditions) should also be in place and tested periodically to ensure LMTs and liquidity management measures can be used in a prompt and orderly manner.

Ex-post reviews of decisions / recommendations against data could enable senior management to assess how effective the liquidity risk management process and LMTs and liquidity management measures were in practice and to make informed future decisions (including the calibration of adjustment factors for LMTs and liquidity management measures and whether actual material dilution occurred). Such ex-post reviews could include, for example:

- An assessment of the execution quality of transactions in portfolio assets carried out following a particular dealing point,[63] comparing the adjustment factors (which reflect the cost of liquidity) with the actual dealing prices achieved with a view to improving estimates of market impact for future trading;

- An assessment of the implementation of LMTs and liquidity management measures during the fund valuation process, for example, by reviewing the causes for LMT or liquidity management measure related NAV errors: incorrect swing factors, prices swung in the wrong direction, failure to apply a swing where the criteria for doing so were met, etc. with a view to improving implementation effectiveness;

- Comparisons of portfolios, pre- and post-execution of significant investor redemptions, with particular focus on the portfolio's 'category' of least liquid assets and the pricing thereof, to treat redeeming and remaining investors fairly.

Reporting to Senior Management or Board

The oversight process should result in adequate and timely management information being produced and reported to the senior management / board of the responsible entity. The board should consider this information and appropriately address any weaknesses that have been identified.

The content and amount of management information to be produced and the arrangements for who considers it should be decided in a proportionate way, taking account of the size of the responsible entity, the characteristics of the CIS it manages (e.g., their size and complexity) and the levels of management within its corporate structure. Such arrangements should however ensure that the most senior level of management explicitly considers liquidity risk management processes on a periodic basis, making use of relevant management information when doing so, in order to satisfy itself that the processes are adequate and are operating in the best interests of the CIS and their investors. This might also be done with review reports from the internal audit function.

Depositary and External Auditor Roles

Where an external third party, such as a fund depositary or external auditor, has duties of oversight of the responsible entity's valuation, pricing and dealing processes, they should periodically review the implementation of the documented processes put in place by the

[63] Thereby, risk management may be able to leverage from work done and data gathered from other departments, in particular, best execution checks on trades performed by compliance.

responsible entity for the use of LMTs and other liquidity management measures.[64]

A depositary or auditor may have a role in independently checking the calculation of unit prices and / or the relevant governance framework, for example to verify that they are calculated in accordance with the documented procedures in place by the responsible entity and within parameters set by national regulation. It is not expected that these third parties would need to carry out additional real-time checks at each dealing point in line with these recommendations, but rather on an ex-post basis. The review might be done through direct testing of samples or a review of the responsible entity's own ex-post reviews.

The resulting report of findings should be considered by the responsible entity's board alongside internal management information. It may be useful for such reports to be shared with the responsible entity's regulator.

Recommendation 14

The responsible entity should put in place and periodically test contingency plans with an aim to ensure that any applicable liquidity management tools and liquidity management measures can be used where necessary, and if being activated, can be exercised in a prompt and orderly manner.

The testing of operational capacity should be such that to the extent possible and on a reasonable basis, the OEF can use all available LMTs and liquidity management measures, including in stressed market conditions, that will allow for the continued orderly management of the OEF and maintain investor confidence in the management of the OEF.

Having included the appropriate mechanisms in the design of the OEF, the responsible entities should engage in sufficient contingency planning to ensure that any LMT or liquidity management measures that the OEF can use under applicable law and regulation can be exercised in a prompt and orderly manner. To this end, the responsible entities should plan for such events having regard to whether:

a) the operational capacity exists to implement and unwind any such tools and measures in a transparent, fair and orderly manner in the best interests of investors;

b) in those jurisdictions where relevant, the operational capacity continues to exist to exercise such tools and measures at short notice if required by a relevant authority

[64] It is recognised that not all jurisdictions impose an obligation for an independent third party to have an oversight of the responsible entity's relevant processes. This section applies when such an obligation is required under the relevant regulatory requirements or agreed between the relevant parties.

to do so;

c) the legal basis for the exercise of every tool and measure disclosed in the OEF documentation continues to be assured by the responsible entity to the satisfaction of the relevant decision makers of the responsible entity;

d) the escalation process for the implementation of any such tools and measures can be conducted in a prompt and orderly manner;

e) there continues to be procedural clarity as to who is responsible for initiating consideration of and deciding on the exercise any such tools and measures;

f) there are policies in place as to when the tools and measures will be actively considered, these policies are documented, clear, accessible to relevant responsible entity decision makers, and continue to be aligned with the nature of the OEF and to be understood clearly by relevant decision makers. These policies should take into account applicable law and regulation and be sufficiently detailed to make the governance of and responsibility for the relevant decisions clear;

g) the capacity exists to keep investors, intermediaries, relevant service providers and authorities informed promptly of developments and, if needed in that jurisdiction, all necessary information should be provided at short notice to seek consent from relevant authorities for the use of such tools and measures.

Through such a procedure, responsible entities will establish a reasonable level of internal assurance regarding the policies and procedures in place for triggering and applying LMTs and liquidity management measures.

Recommendation 15

The responsible entity should ensure appropriate records are kept relating to the performance of its liquidity risk management process.[65]

As part of performing their liquidity risk management process, responsible entities should be able to demonstrate (to authorities, for example) that robust liquidity arrangements are in place and that they work effectively.

In order to support the successful implementation of and adherence to the process it should be effectively documented and communicated across the responsible entity's business. Such documentation should be reviewed as needed, and at least annually in any event.

[65] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

4.6. Disclosures to Investors and Authorities Recommendations

Recommendation 16

The responsible entity should ensure that liquidity risk of CIS it manages and its liquidity risk management process, including the availability and use of liquidity management tools and liquidity management measures, are effectively disclosed to investors and prospective investors.[66]

Disclosure of liquidity risks

As part of the disclosures in a CIS's offering documents[67] about the risks involved in investing in the CIS, there should be a proportionate and appropriate explanation of the CIS' liquidity risk and information about the relationship between liquidity and valuation, such as the potential for rapid declines in asset prices when liquidity is impaired and, in the case of OEFs, the challenge around providing redemptions when accurate fair valuation is difficult. This should include an explanation as to why and in which general circumstances it might crystallise (for example, in case of severe market dislocations); its significance and potential impact on the CIS and its unit-holders, and a summary of the process by which the responsible entity aims to mitigate the risk.

For example, disclosure of what actions the responsible entity would take in the event of a liquidity problem would be useful information. The explanation should set out clearly how the investor could be affected. In some jurisdictions large unit-holder concentration risk may have to be disclosed.[68]

Regular reporting requirements may require risk disclosures, for example in the CIS's annual report, and in some cases it may be appropriate to detail liquidity risks or issues in this context.

Where there has been a material change to liquidity risk either due to changing market conditions or due to a change to the responsible entity's approach or, for example in the case of an OEF, if the responsible entity is planning to introduce a new LMT or measure that could affect redemption rights or change the OEF's dealing policy, the responsible entity should inform investors appropriately. In some jurisdictions this may require (prior) approval by or notice to authorities and/or existing investors.

Disclosure of LMTs and liquidity management measures

[66] Depending on the jurisdiction, this recommendation may be relevant to closed-ended CIS.

[67] The term 'offering documents' here refers to documents that are freely available to investors.

[68] The responsible entity should take into consideration that such disclosures could lead to market speculation about large holders, potentially increasing volatility and liquidity issues.

Explanation of the availability and use of LMTs or liquidity management measures for use by the responsible entity in normal and stressed market conditions as part of the liquidity risk management process (see Recommendations 6 and 7) should be included in the OEF's offering documents. Recommendations 17 provides more details in this regard.

Disclosure of CIS and asset liquidity

The relevant disclosures concerning liquidity of the CIS should be properly designed taking into account the nature of the assets the CIS intends to invest in and the degree of sophistication of the investor profile.

Basic day-to-day liquidity information (for example, in the case of OEFs, the dealing frequency of the OEF and how to buy/sell units) should be disclosed to investors. Disclosures to investors should aim at treating all investors equally.

Disclosures concerning liquidity have the potential to provide investors with information to determine whether their liquidity risk appetite matches the liquidity risk profile of the CIS. In particular, such disclosure is most likely to be beneficial where the CIS is invested in assets or instruments which have a record of significantly varying liquidity across the financial cycle or where there is insufficient historical evidence[69] to assess whether liquidity will vary significantly across the financial cycle.

Additional disclosure requirements to investors should include one or more of the following:

- Periodic disclosure of the investment portfolios of the CIS that may allow investors to assess the liquidity risk attached to the CIS e.g. holdings of various asset classes/types of securities, detailed holdings of individual securities;

- Disclosure in the OEF offering documents of the general approach the OEF will take in dealing with situations where it is under liquidity pressure from a heightened level of net redemption requests.

The disclosure of the liquidity of assets to investors may be transparently done by profiling the actual or projected asset portfolio/asset class(es) which the CIS is currently or expected to invest in. At the time of the launch of the CIS, disclosure of liquidity in the offering documents can be focused on the types of prospective assets targeted by the investment strategy. Thereafter it can be disclosed or reported based on the actual investment strategy and/or assets and instruments held by the CIS. While disclosure regarding liquidity should be balanced against maintaining the confidentiality of market strategies where this is in the interests of investors, sufficient detail should be disclosed to

[69] For example, where a particular asset has only come into existence in recent times, and therefore does not provide a sufficient period of historical evidence. A further example includes where an asset is primarily traded off market, and thus does not provide sufficient historical evidence of performance.

make investors aware of material liquidity risks. Disclosures should be proportionate to their risks.

Recommendation 17

The responsible entity should publish clear disclosures of the objectives and operation (including design and use) of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures to improve awareness among investors and enable them to better incorporate their potential use and the cost of liquidity into their investment decisions and mitigate potential adverse trigger effects.

Transparency of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures is important to investors and careful consideration is needed as to the extent and timing of information to be provided to them, to strike an appropriate balance between transparency and efficacy of the tool. This is relevant both in terms of investor protection and financial stability. Investors should be given enough information prior to investing in the OEF to enable them to have a good understanding of the implications of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures, and to facilitate investors' incorporation of potential use of LMTs and measures and the cost of liquidity into their investment decisions.

Disclosure about the use of anti-dilution LMTs

Investors subscribing to or redeeming from the OEF should be aware in broad terms of the liquidity profile of the portfolio and be prepared to bear the liquidity cost associated with portfolio transactions passed on to them through the use of anti-dilution LMTs.

Responsible entities should exercise judgment on the extent of information to be disclosed in the relevant OEF constitutional document (such as the prospectus). These disclosures should include the anti-dilution LMTs that may be applied, the basis on which they may operate and the objective and implications of the mechanisms. The disclosure should indicate that the main purpose of anti-dilution LMTs is to facilitate fair treatment of investors by protecting the ones that remain invested from bearing the costs generated by the subscription and redemption activities of others. In particular, the fund documents should provide general descriptions of the constituents of the costs and the estimation basis used to calculate the adjustment factor. The disclosure may also differentiate between the contexts of normal and stressed market conditions.

To enable liquidity costs to be sufficiently passed on to transacting investors, the relevant OEF constitutional documents should not constrain the adjustment factors to be applied. Where a range of adjustment factors, in particular those applicable under normal market conditions, is disclosed, such disclosures should also state that such a range may be exceeded to allow for changes, if necessary, to reflect higher liquidity costs in changing market situations. The circumstances under which such a range may be exceeded should also be disclosed.

Periodic ex-post disclosures of an OEF's historical use of anti-dilution LMTs[70] may (i) help investors understand the potential cost implications of redeeming from, and subscribing to, an OEF at different points in time; and (ii) enhance the ability of oversight by authorities or other stakeholders. Such periodic disclosure could be included in the OEF's annual or semi-annual financial statements or websites and presented in an appropriate manner, such as in summary form. Consideration is also required of what information should be disclosed to investors at the time they submit a subscription or redemption request and after such a request has been executed.

However, concerning the type of information and the timing to disclose it should be carefully considered to balance the benefits of providing transparency and useful information to investors and any potential risk of unintended consequences. There are concerns that disclosure of detailed calibration of anti-dilution LMTs and the activation thresholds may allow some investors to game the mechanism to the detriment of other investors, which will circumvent the objective of anti-dilution LMTs. There may also be concerns that the disclosure in public reports of the actual adjustment factors that have been used by OEFs could result in stigma effects or front-running which may jeopardise the effectiveness of anti-dilution LMTs. Disclosing a range of thresholds and factors that have been used, rather than specific figures, or delayed disclosure after application, could help to mitigate this risk. However, responsible entities should be able to demonstrate or showcase to authorities (in line with the authorities' supervisory approaches) the details of how LMTs were used (e.g. the record of anti-dilution LMT adjustment factors used and how they were estimated), as contemplated in Recommendation 15.

Disclosure about the use of quantity-based LMTs and other liquidity management measures

In the case of quantity-based LMTs and other liquidity management measures, disclosure would help investors understand how and when such tools and measures might be used. It may also help reduce stigma related to these tools and measures and increase awareness that their use, while infrequent, is a possibility. Spillover effects to other OEFs may also be mitigated if investors are able to understand the specific reasons why certain OEFs have to use such tools and measures. The responsible entity should thus provide sufficient clarity on the general circumstances under which OEFs may use quantity-based LMTs or other liquidity management measures, as well as the fund governance process and communication plan to investors and authorities.

When the responsible entity makes a decision to trigger the use of quantity-based LMTs or other liquidity management measures, it should consider how long the tools or measures should continue to be implemented before taking other actions, considering the market and the expected liquidity of the respective instruments/assets held by the OEF, the particular reasons for the activation and on the applicable regulations, and the

[70] Such as the date on which anti-dilution LMT was applied, the amount of dilution cost adjustment applied, or the NAV per share before and after application of anti-dilution LMTs.

best interests of investors. OEF investors should be appropriately and timely informed about such decision with clear and sufficient information. The communication strategy of the responsible entities is crucial to avoid a significant loss of confidence and reputation and therefore also spillover effects in the market.

In addition, the relevant authorities should be provided with all relevant information as soon as practicable, at least in such cases where the use of the tool occurs in exceptional circumstances and is not in the ordinary course of business, including the reasons for the use of such tools or measures as well as any information the authorities require. Some jurisdictions may require a prior authorisation of the use of such tools and measures. In any case, an early engagement with authorities is encouraged. Other relevant parties, e.g. intermediaries and distributors should also be informed as soon as practicable.

Lastly, appropriate disclosure and communication to investors, authorities and intermediaries should continue for the period of time during which the tools or measures remain activated.

ANNEX 1: SUMMARY OF FEEDBACK AND IOSCO RESPONSES

IOSCO's Consultation on the Proposed Revised Liquidity Recommendations closed on 11 February 2025, having received a total of 33 responses from trade associations and industry participants.

The Consultation questions sought input on the Proposed Revised Recommendations 3,6, 13 and 17 specifically, as well as more general comments on other Revised Liquidity Recommendations put forth.

The IOSCO Board is grateful to all respondents who took the time to answer the Consultation. All responses have been considered when finalising the Recommendations.

This Annex sets out a summary of the feedback received, as well as the key positions taken by IOSCO in response to the Consultation responses.

The Consultation questions on the Proposed Revised Liquidity Recommendations were as follows:

1) Are the identified common components of OEF's structure including notice periods, lock-up periods, settlement periods and redemption caps accurately described? Are there any relevant additional considerations when setting the notice periods, lock-up periods, settlement periods or redemption caps?

2) Are there any other key considerations related to the availability and use of antidilution LMTs, quantity-based LMTs and other liquidity management measures under normal and stressed market conditions?

3) Are there any other LMTs or liquidity management measures commonly used by OEF managers?

4) Have the proposed changes covered all the essential elements regarding liquidity risk management governance arrangements in relation to the use of liquidity management tools and other liquidity management measures? Are they proportionate to the differing size and complexity of responsible entities' fund ranges?

5) Please describe any material factors of the liquidity risk management governance and oversight arrangements which have not been included.

6) What information can (and should) be disclosed to investors or the public, and within what timeframe should this information be disclosed to enhance transparency when responsible entities activate quantity-based LMTs or other liquidity management measures?

7) Do you have any comments on any of the other Proposed Revised Liquidity Recommendations put forth in this document?

Proposed Recommendation 3: Consistency of OEF asset liquidity and redemption terms Q1. Are the identified common components of OEF's structure including notice periods, lock-up periods, settlement periods and redemption caps accurately described? Are there any relevant additional considerations when setting the notice periods, lock-up periods, settlement periods or redemption caps?

Detailed summary of the feedback:

Respondents generally confirmed the identified common components of OEF's structure are accurately described but suggested some edits for clarification and to account for nuances in different fund types or jurisdictions.

Many respondents advocated for a flexible approach to liquidity management, highlighting the importance of accommodating the diverse attributes of individual funds and their respective investor bases. They perceived the new fund categorization approach as rigid and overly prescriptive, which could limit fund managers' discretion in properly managing liquidity in respect of a particular fund, circumstance or market condition. They expressed a strong preference for a principles-based framework over a uniform fund categorization approach, and are of the view that the current liquidity risk management framework as required by major fund jurisdictions have already achieved the same objective to promote consistency of OEFs' asset liquidity and redemption terms.

Key comments:

- **Definition of common OEF components**: There was general agreement on the definition of the common components of OEF's structure, with several respondents proposing minor or clarificatory edits, for example, clarifications regarding the distinctions between terms such as "redemption in-kind" vs. "redemption in-specie,", "redemption date" vs. "settlement date" and "trade date" vs. "dealing day". Additionally, some respondents suggested including extra components that are specific to real estate funds. Another respondent proposed considering the distribution chain or institutional investor in determining the notice period for redemption as an additional factor.

- **Criticism of the fund categorization approach**: Many respondents criticized the fund categorization approach, finding it impractical given the highly dynamic nature of asset liquidity and overly rigid by focusing too heavily on asset liquidity and neglecting key factors like investor base and market dynamics. Challenges were raised regarding the differentiation of Category 1 and 2 funds, with some disagreeing with the recommendation of adopting ADTs by Category 2 funds offering daily redemption. Many European respondents suggested a principles-based approach similar to the EU's UCITS and AIFMD for greater flexibility.

IOSCO's response:

Given the broad agreement among respondents, only minor or clarificatory edits are made to the definitions of common components of OEF's structure to reflect respondents' suggestions. IOSCO did not take onboard considerations for these OEF redemption terms components as suggested by some respondents to keep the section general and introductory in nature.

To address the feedback received, IOSCO clarified the following points, as explained below. IOSCO has also edited the explanatory text to better convey the flexibilities and expectations, where necessary:

- While the fund categorisation approach itself is not the subject of the consultation question, IOSCO acknowledges the concerns raised, many of which could be addressed by clarifying IOSCO's expectation. As mentioned in the explanatory text, authorities and responsible entities retain the flexibility to build upon this foundation for a refined approach, adapting it to local laws and regulations.

- Additionally, while the approach focuses on asset liquidity, the recommendation has already provided for the possibility of including additional considerations as suggested by respondents, such as historical redemption patterns, investor concentration, and possible engagement with the distribution chain for enhanced understanding of underlying investors' behaviour.

- Regarding the dynamic nature of asset liquidity, some respondents challenged that as assets that are generally regarded as very liquid like US treasuries became momentarily "less liquid" during past market stresses, many funds would therefore fall under Category 2. It should be clarified that IOSCO does not expect the implementation of the asset liquidity classification and fund categorisation to be based on scenarios that are not reasonably foreseeable. In this case, it is acceptable that US treasuries are classified as liquid assets despite the very remote scenario cited in some responses.

Proposed Recommendation 6: Considering and implementing a broad set of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures.

Q2: Are there any other key considerations related to the availability and use of antidilution LMTs, quantity-based LMTs and other liquidity management measures under normal and stressed market conditions?

Detailed summary of the feedback:

There was overall consensus on the need for a flexible approach to liquidity management, including the choice and use of LMTs and liquidity management measures. Many respondents suggested that the list of LMTs should not be exhaustive and restrictive, emphasizing that LMTs should be tailored to the specific characteristics of individual funds, their investor base, and market conditions.

Several respondents questioned the appropriateness of incorporating ADTs into the daily operations of OEFs, noting that dilution may not always be significant and the associated operational challenges and costs for activating ADTs. Some respondents challenged the claim that "exclusive reliance on quantity-based LMTs may result in unintended consequences".

The necessity of capturing market impact as part of the implicit costs imposed on subscribing and redeeming investors was also questioned, with some arguing that estimates of market impact are highly subjective and often lack available underlying data. Clarifications were sought on LMT-related terminology and the definition of "exceptional circumstances" for LMT activation.

Key comments:

- **List of LMTs**: Several respondents advocated the list of LMTs should not be exhaustive or overly prescriptive. These respondents emphasized the importance of allowing responsible entities the flexibility to choose the most suitable LMTs for their funds.

- **Incorporation of ADTs in daily operations**: Some respondents raised concerns about incorporating ADTs into the daily operations of OEFs, noting that dilution may not always be significant and that activating ADTs daily could lead to operational challenges and increased costs that may outweigh the benefits to investors. Additionally, JPMorgan pointed out potential contradictions between Recommendation 6, which calls for incorporating ADTs in daily operations, and Recommendation 7, which suggests using ADTs only when there is material investor dilution. They recommended clarifying that "daily operation" means having the necessary infrastructure ready for deployment if material dilution occurs.

- **Reliance on quantity-based LMTs**: Several respondents questioned the claim that "exclusive reliance on quantity-based LMTs may result in unintended consequences". They argued that this concern may not apply to, for example, funds investing in illiquid assets.

- **Inclusion of market impact as part of implicit costs**: Several respondents questioned the necessity of Recommendation 7's insistence on capturing market impact as part of the implicit costs imposed on subscribing and redeeming investors. They argued that estimates of market impact involve highly subjective assessments and often lack available underlying data.

IOSCO's response:

IOSCO clarifies that the list or categorisation of LMTs is not intended to be exhaustive or restrictive. That said, IOSCO maintains that ADTs and quantity-based LMTs have fundamentally different nature and mechanism. As such, IOSCO maintains the expectation that ADTs would be increasingly used by category 2 funds as part of their day-to-day liquidity management, unless such ADTs not being used is clearly justified, subject to (i) oversight of authorities in line with their supervisory approaches and (ii) implementation of other effective liquidity risk management measures that meet the broader policy intent of reducing material structural liquidity mismatches as underpinning the Revised FSB Recommendations.

IOSCO did not consider necessary to amend the statement that "exclusive reliance on quantity-based LMTs may result in unintended consequences", as it has already provided for scenarios where certain funds can appropriately depend solely on such tools. For real estate funds or Category 3 funds, IOSCO recognises their typical use of quantity-based LMTs but suggests integrating potential liquidity demands into portfolio management. This approach could reduce the need to frequently activate quantity-based LMTs during heightened redemptions. Otherwise, investors might come to expect regular use of these tools, potentially encouraging early redemptions and amplifying redemption pressures. IOSCO added clarificatory notes to elaborate on these points.

IOSCO revised the explanatory text to clarify the following key points:

- Implementation of ADTs in the daily operations of OEFs, means the tools would be made ready for activation as needed but not necessarily activated on a daily basis.

- While IOSCO acknowledges the challenges in assessing market impact, this assessment should remain as one of the key considerations in liquidity cost calibration, and responsible entities are expected to make their best efforts in this regard.

IOSCO has also incorporated editorial comments and clarify terminology to enhance understanding and ensure consistency throughout the recommendations, where necessary.

Proposed Recommendation 6: Considering and implementing a broad set of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures.

Q3: Are there any other LMTs or liquidity management measures commonly used by OEF managers:

Detailed summary of the feedback:

Respondents generally emphasized that the list of LMTs should not be exhaustive. Several suggested that funds should have the flexibility to integrate additional measures as they see fit and that new liquidity management techniques may emerge over time.

Some respondents suggested that "soft closures", "slow pay provisions" and "deferral of redemptions at prevailing NAV" may be useful tools for certain funds or in certain circumstances. A few respondents mentioned that credit facilities and repurchase agreements are generally not used to fund redemptions but to avoid leverage or meet margin calls.

Key comments:

- **Non-exhaustive nature of LMT recommendations**: While respondents generally agreed that the recommendation has identified the most commonly used LMTs, they emphasized that such list should be non-exhaustive and non-restrictive, recognizing that new tools and measures may emerge over time.
- **Additional LMT suggestions:**

Soft closures – Several respondents highlighted "soft closures" as a useful tool for restricting subscriptions to prevent dilution.

Deferral of redemptions –Two respondents suggested that real estate funds may use "deferral of redemptions" for real estate funds to meet redemptions within a certain period of time using the prevailing NAV, instead of the redemption date NAV.

Slow pay provisions – One respondent suggested that low pay provisions ensure the redemption policy is fully aligned with the liquidity of the asset as there is no requirement for the fund manager to return capital to the investor prior to the asset maturing or liquidity being available. For example, for lending-based investment strategies where the assets typically have a fixed maturity, such provisions can be an extremely useful LMT and they would not need to hold liquid assets in order to provide liquidity to investors.

Potential inclusion of "lock-up periods": A few respondents suggested adding "lock-up periods" under Recommendation 6.

IOSCO's response:

IOSCO confirms that the list of LMTs is non-exhaustive and recognizes that new tools may emerge over time.

IOSCO revised the explanatory text to include "soft closures" as additional LMTs and measures as suggested by several respondents and added also a reference to "deferral of redemptions". However, IOSCO did not include "slow pay provisions" as this tool is brand new and market practices are only emerging. Nevertheless, as the list of LMTs is non-exhaustive, this would not preclude the relevant funds from deploying it as a LMT.

IOSCO regards lock-up periods as a feature of OEF redemption terms, instead of a LMT as suggested by some respondents.

Proposed Recommendation 13: Effectively maintaining the liquidity risk management process with adequate and appropriate governance Q4: Have the proposed changes covered all the essential elements regarding liquidity risk management governance arrangements in relation to the use of liquidity management tools and other liquidity management measures? Are they proportionate to the differing size and complexity of responsible entities' fund ranges?
Detailed summary of the feedback: Respondents generally agreed that the recommendation has covered essential elements of liquidity risk management governance. There was wide support for the principle that governance arrangements should be proportionate to the attributes of responsible entities and their funds. Many respondents highlighted the importance of flexibility in implementing governance structures, recognizing that a "one-size-fits-all" approach is inappropriate due to the diversity of fund structures and investment strategies. Several respondents expressed concerns regarding the role of depositaries. They explained that depositaries should focus on verifying that responsible entities have documented procedures for utilizing LMTs, but not assessing the adequacy of those procedures. This perspective reflects the view that evaluating the adequacy of LMTs falls within the remit of competent authorities rather than depositaries. Additionally, respondents highlighted the necessity for independent oversight of third parties, such as administrators, distributors, and portfolio managers, while raising concerns about potential information gaps from these entities. Some respondents also addressed practical considerations for implementing governance arrangements. These included ensuring clear escalation pathways, establishing robust data systems for tracking liquidity risks, and maintaining proper documentation of governance decisions. **Key comments:** • **Essential elements of governance arrangements**: Respondents agreed that the proposed changes adequately cover the essential elements of liquidity risk management governance arrangements, which is comprehensive and reflect market practices. Respondents emphasized that internal governance should be proportionate to the size, complexity, and liquidity profile of responsible entities and their funds. Additionally, one respondent suggested that incorporating inputs from market participants, such as fund managers and traders, into market liquidity risk management

is crucial, especially in developing or emerging markets where liquidity metrics are often inaccurate.

- **Responsibilities of depositaries**: Several respondents highlighted that the recommendations should not impose additional responsibilities on depositaries. They clarified that depositaries should establish appropriate verification procedures to ensure that fund managers have documented processes for using LMTs, but not assessing the adequacy of these processes, which falls under the supervision of competent authorities.

IOSCO's response:

IOSCO recognizes the importance of proportional governance arrangements that reflect the size, liquidity profile and complexity of funds, allowing flexibility in governance structures.

IOSCO revised the explanatory text to include other relevant inputs from other market participants as an additional factor for analysing portfolio liquidity, as suggested by a respondent.

In response to some respondents' concerns regarding the proposed responsibilities for depositaries, it should be clarified that IOSCO does not intend to impose additional responsibilities on them, and their obligations may vary depending on the jurisdiction. IOSCO concurs that depositaries should primarily focus on verifying that responsible entities have established documented procedures for utilizing LMTs, but not assessing the adequacy of these procedures. The explanatory note may not have been entirely clear on this point, and IOSCO revised it to better reflect this perspective, where necessary.

Proposed Recommendation 13: Effectively maintaining the liquidity risk management process with adequate and appropriate governance

Q5: Please describe any material factors of the liquidity risk management governance and oversight arrangements which have not been included.

Detailed summary of the feedback:

A significant proportion of respondents did not respond to this question. In some cases, respondents cross-referred to their answer to Question 7 and some to their response to Question 4.

A few responses included stress-testing considerations, emphasising that the ability of market participants to conduct high-quality stress-testing was dependent on information received from intermediaries and that stress-testing is not a panacea.

One respondent suggested that liquidity management committees have proven to be a useful governance structure, while another suggested that liquidity governance operations should interact more holistically with a broader risk management framework that takes into account valuation risks and operational constraints.

Similarly, it was suggested that governance arrangements should incorporate insights from past liquidity events, such as those experienced by the Covid-19 pandemic, as well as considering the need to adapt to market conditions.

One respondent noted the need to ensure that individuals who were responsible for overseeing LMT implementation had their expertise and competence assessed on an ongoing basis, while another one suggested that where there were independent 3rd parties (notably auditors and depositaries) who play a critical role in LMT oversight, that considering ways to ensure these 3rd parties always have access to relevant information would be paramount.

A further point raised was that funds which had one large investor, rather than many retail investors, should be offered more flexibility in terms of LMT implementation.

One respondent noted concerns about the term 'back-testing,' which carried a strict statistical meaning that may not always be applicable in this scenario. It suggested replacing this term with 'routine checks' or 'ex-post review.'

Key comments:

The need for a flexible approach to governance committees, and the need for governance around liquidity to be incorporated into a more holistic approach to governance, was also raised by some respondents.

A couple of responses covered stress-testing. These responses noted the need for the Recommendations not to imply stress-testing could always predict sharp market movements, and that the quality of stress-testing was contingent on information received from third parties like CCPs.

IOSCO's response:

The drafting of the original governance proposals seems to be broad enough and provide enough has flexibility, see for instance in Recommendation 13 *"while governance structures for CIS differ across jurisdictions and, to an extent, with the size of the responsible entity, appropriate escalation procedures should be in place if problems are envisaged or identified. Governance arrangements should also ensure that risks to the CIS are considered and managed as a whole."*

IOSCO retained the view that Recommendation 12, as drafted, already acknowledged that stress-testing is only a component of a broader liquidity risk management framework.

One respondent noted the need for personnel involved in governance operations to have their competence and expertise reviewed on an ongoing basis. IOSCO believes that the currently drafting under Recommendation 13 is already robust in this regard, which notes the paramount importance of governance and the requirement for effective oversight and controls.

Proposed Recommendation 17: Disclosures to investors regarding the use of anti-dilution LMTs, quantity-based LMTs and other liquidity management measures. Q6: What information can (and should) be disclosed to investors or the public, and within what timeframe should this information be disclosed to enhance transparency when responsible entities activate quantity-based LMTs or other liquidity management measures?

Detailed summary of the feedback:

Overall, respondents emphasized the need for a balanced approach that provides sufficient information to investors while preserving the operational flexibility of fund managers and safeguarding the effectiveness of LMTs. While there was broad consensus on the importance of informing investors about the potential use and implications of LMTs, significant concerns were raised regarding the disclosure of specific details that could be exploited for opportunistic behaviours, such as front-running or herding.

The prevalent view was that ex-ante disclosures within fund prospectuses should outline the types of LMTs available, how they operate, and the general circumstances under which they might be deployed. However, respondents generally advised against disclosing precise activation thresholds, calibration methodologies, or real-time data on LMT usage. Instead, many advocated for principle-based disclosures focusing on the objectives and governance of LMTs.

There was considerable support for providing ex-post disclosures, such as in annual reports or factsheets, to provide investors with historical data on LMT usage. However, respondents emphasized that these disclosures should avoid granular details that could be used to predict future LMT activations.

Key comments:

- **Disclosure principle – balancing transparency and effectiveness**: Respondents advocated for principles-based disclosures that focus on the objectives, design, and operation of LMTs, cautioning against disclosures that could be exploited or undermine their intended purpose.

- **Ex-ante disclosures (fund prospectus) - LMT description, deployment, and flexibility**: Respondents generally supported the view that fund prospectuses should include a list of LMTs, a description of how they operate, and a high-level description of the general circumstances in which they may be deployed. However, respondents cautioned against (i) overly prescriptive enumeration of circumstances to ensure that the activation of LMTs is not unduly restricted in unforeseen or unprecedented situations and (ii) detailed cost constituents and estimation basis used to calculate adjustment factors. Additionally, this level of detail may increase reporting burdens without providing clear benefits to investors.

- **Ex-post disclosures (periodic reports) – historical data with limited granularity**: There is support for providing historical data on LMT usage in summary form in annual reports or factsheets to inform investors. However, disclosures should avoid granular details that could be used to predict future LMT activations or provide unfair advantages to sophisticated investors. One respondent further commented that ex-post reporting about activated LMTs should be permitted but not mandated, and it is suggested that the extent of such disclosure be informed by shareholder interest.

- **Prompt activation notifications**: Some respondents suggested that investors should be promptly notified when a non-routine LMT is activated, ideally on the day of activation. Notifications should include details about the activated LMT, the reason for its activation, how the fund and unit-holders are being protected, and any actions that can or cannot be taken by the unit-holder.

IOSCO's response:

Regarding LMT disclosures, IOSCO acknowledges the importance of balancing transparency and flexibility for responsible entities, while preventing exploitative behaviours that may undermine the effectiveness of LMTs.

To address the feedback received, IOSCO clarified the following points, as explained below. IOSCO has also revised the explanatory text under Recommendations 16 and 17, where necessary:

  - Responsible entities should retain the flexibility to exercise their judgment in determining what information is disclosed. For example, disclosures on "cost constituents" and "estimation basis" are expected to be general descriptions instead of detailed calculation methodology.

  - IOSCO replaced the term "circumstances" with "general conditions" in the context of disclosures triggering LMT activation to provide illustrative guidance while allowing for necessary flexibility.

- Regarding disclosure of large unit-holder concentration risks, IOSCO included the consideration that such disclosures could lead to market speculation about large holders, potentially increasing volatility and liquidity issues.

- Regarding periodic ex-post disclosures of an OEF's historical use of LMTs, it is acceptable for such information to be in summary form to mitigate unintended consequences as suggested by some respondents.

- While the public disclosure of LMTs, such as the "cost constituents", "estimation basis" and "historical use of LMTs" could remain general, responsible entities should be ready to demonstrate or showcase to authorities (in line with the authorities' supervisory approaches) the details of these information (e.g. the record of LMT adjustment factors used and how they were estimated), as contemplated in Recommendation 15.

Q7: Do you have any comments on any of the other Proposed Revised Liquidity Recommendations put forth in this document?

Detailed summary of the feedback:

There was general support for the proposed direction of travel, with some respondents noting support for IOSCO's efforts to align with the FSB's approach on liquidity mismatch, as well as general support for regulators ensuring there were a range of anti-dilution and quantity-based LMTs available for use in all market conditions.

As mentioned in many responses to other consultation questions, respondents did generally note the need for IOSCO to consider proportionality and flexibility in the application of the Recommendations, specifically, ensuring that governance and operational requirements were commensurate with the size, investor base and risk profile of funds, ensuring that a 'one-size-fits-all' approach was not taken.

Respondents also noted additional concerns with aspects of the proposal that have not been covered by other consultation questions. Analysis of Q7 responses will focus on noteworthy responses set out below.

Some respondents commented on the scope of the Recommendations, opining on whether ETFs or MMFs would be included. One respondent questioned the exclusion of ETFs and MMFs while another one supported it. Both asked IOSCO to consider the development of a set of recommendations for liquidity risk management dedicated ETFs and MMFs

A number of respondents stated the need for balance when predicting liquidity crises or market conditions before they occurred. Instead, some respondents stated that emphasis should instead be given to ensuring that regulatory guidance acknowledges the limits of what funds can reasonably foresee.

Key comments:

- Among the respondents, two of them asked IOSCO to consider the development of a set of recommendations for liquidity risk management dedicated ETFs and MMFs. One of them (AIMA) sought clarification on whether private equity funds fall within the scope of the recommendations and guidance.

- Ensuring the Recommendations were realistic in terms of how well market participants could foresee liquidity challenges was also raised, as was the need for fund managers to retain autonomy in terms of how final decisions on liquidity risk management were made, taking into account their experience and expertise.

- Additionally, one respondent noted potential challenges with Recommendation 4, as investor concentration information from nominees may not be consistently available, leading to the need to implement manual sourcing methods that could incur high fees and expenses.

IOSCO's response:

IOSCO confirms that it will retain the original drafting from the Consultation Report, which excludes ETFs and MMFs. Regarding the query on private equity funds, the current definition of open-ended CIS as the intended scope of the Recommendations (OEFs as defined in footnote 8) is clear. The definition is independent of the type of assets, allowing for an evolving range of underlying assets of OEFs over time. Hence, OEFs investing in private assets would be in scope. In general, the Recommendations are relevant and useful to all open-ended CIS that are out of the intended scope of the Recommendations and, where applicable, for closed-ended CIS in handling liquidity demands from, for example, margin calls, collateral calls or at the end of the funds' lifetime.

One respondent noted that it was excessive to require asset managers to conduct a market impact assessment as part of the day-to-day liquidity recommendations.

While it would be disproportionate to impose market impact assessments as part of the day-to-day liquidity recommendations as a general principle for all OEFs, IOSCO notes that, as drafted, the Recommendations would not require this. Instead, the Guidance on 'significant market impact,' as drafted, specifies that significant market impact should be considered in the calculation of the cost of liquidity when calibrating anti-dilution LMTs, but that this should be done on a best efforts basis. The relevant section in the Guidance reads:

"Responsible entities should include significant market impact in the calculation of the cost of liquidity when calibrating the anti-dilution LMTs. In order to do so, an assessment (e.g., slippage assessment) is needed before the sale / purchase is made, taking into account the size of the transaction, asset class, market structure and the prevailing market conditions. Responsible entities should use their best efforts to make estimates based on analysis of previous transactions (in consultation with subject matter experts such as their trading desks) or relevant market data / models."

Regarding the point on widening access to information on investor characteristics, IOSCO notes this point for future consideration, but discussion of specific proposals on information availability is outside the scope of the Final Report for now.

Finally, readers should refer to Q4 for further information on governance.

In response to the concern regarding Recommendation 4, IOSCO clarifies that responsible entities are expected to take reasonable steps to obtain investor concentration information from intermediaries, to avoid undue costs or burdens. Consequently, manual sourcing methods with high fees and expenses are not expected.