AMIC/EFAMA response to IOSCO consultation on open-ended funds:
LRM recommendations and Market Stress of 2020
21 April 2021

Introduction

ICMA's AMIC and EFAMA would like to share with IOSCO secretariat a high-level response highlighting how industry practices and existing regulatory provisions in Europe are aligning with the 2018 LRM and providing a broad assessment of liquidity risk management by open-ended funds during the March/April 2020 market turmoil. This high-level joint response from AMIC and EFAMA is complementary to the more granular and illustrative responses that some Asset Management Companies members of our two associations have provided directly to IOSCO.

The response highlights how industry practices and existing regulatory provisions in Europe are well aligned with the Liquidity Risk Management (LRM) recommendations issued by IOSCO in 2018.

AMIC and EFAMA also acknowledge the positive impact of the LRM recommendations, as they have incentivised national supervisors to encourage and facilitate the use of LMTs, which are now available in most European jurisdictions and in all main fund domicile centres, covering almost all AuM managed by UCITS and AIFs.

The response notes that, in the context of the COVID-19 market downturn in March/April 2020, liquidity risk was well management by investment funds domiciled in Europe and refer to an ESMA report which concluded that (1) out of the 174 AIFs studied, none used substantial leverage nor had to suspend redemption and (2) out of the 459 UCITS fund studied, only 6 UCITS funds suspended temporarily (up to 13 days).

This shows that fund liquidity risk management is overall sound in European funds and that existing EU rules - including those implementing IOSCO LRM - are sufficient. However, AMIC and EFAMA reiterate the need to facilitate the access to information related to shares/units held by the different categories of underlying investors to better appraise liability risks.

A. Review of the 2018 Liquidity Risk Management Recommendations

1. Application of the 2018 LRM recommendations in European rules for open-ended funds

Sound fund liquidity management is a prerequisite for all fund managers and failing to live up to expectations on this can create irreversible reputational issues. It is therefore not only important to protect investors, it is also essential from a business perspective. As such the 2018 LRM recommendations were already largely in line with industry practices and welcomed by market participants. 2018 LRM recommendations are now largely embedded in EU rules for funds. This means that a significant part of the market applies most of the 2018 LRM recommendations as highlighted below.

Many EU regulatory provisions can sometimes contribute to implement one recommendation. The table below shows how specific provisions of UCITS and the AIFMD frameworks – composed of

Directives and implementation measures such as ESMA's Liquidity Stress-Test Guidelines first implemented in 2020 - are directly relevant to implement the 2018 LRM recommendations reviewed by this consultation paper.

CIS Design Phase: Recommendations 1-4 and 7		
IOSCO 2018 recommendations	**UCITS**	**AIFMD**
Recommendation 1: effective liquidity risk management process	√ **Art. 51.1 Directive 2009/65/EC** Art 9.2 (f) Directive 2010/43/EU	√ Art.15 and 16 Directive 2011/61/EU **Art. 39 to 49 Commission Delegated Regulation (EU) No 231/2013**
Recommendation 2: set appropriate liquidity thresholds	√ Art. 1, 50, 52 (1) Directive 2009/65/EC **Art. 40 (2) § (d), (e) and (f) Directive 2010/43/EU**	√ Art. 16.1 Directive 2011/61/EU **Art.44 and 48 Commission Delegated Regulation (EU) No 231/2013**
Recommendation 3: suitable dealing frequency	√ Art. 84 (1) Directive 2009/65/EC **Art.40 (2), (3) and (4) Directive 2010/43/EU** Art.76 Directive 2010/43/EU § 40 of ESMA LST guidelines	√ Art.16.2 Directive 2011/61/EU **Art.32 and 49 Commission Delegated Regulation (EU) No 231/2013**
Recommendation 4: dealing appropriate for its investment strategy and underlying assets throughout the entire product life cycle	√ Art. 84 (1) Directive 2009/65/EC **Art. 40 (2), (3) and (4) Directive 2010/43/EU** § 40 of ESMA LST guidelines	√ Art.16.2 Directive 2011/61/EU **Art.32 and 49 Commission Delegated Regulation (EU) No 231/2013**
Recommendation 7: liquidity risk management process are effectively disclosed to investors and prospective investors	√ **Art.69 & Annex I Schedule A Directive 2009/65/EC** Art.76 Directive 2009/65/EC	√ **Art.23.1 (h) Directive 2011/61/EU** Recital 71 Commission Delegated Regulation (EU) No 231/2013
Recommendation 10: The responsible entity should regularly assess the liquidity of the assets held in the portfolio	√ Art. 84 (1) Directive 2009/65/EC Article 40 (3) Directive 2010/43/EU **§ 17 of CESR guidelines on eligible assets**	√ Art. 16.1 Directive 2011/61/EU **Art. 47 Commission Delegated Regulation (EU) No 231/2013**
Recommendation 12: ability of the responsible entity to identify an emerging liquidity shortage before it occurs	√ Art 9.2 (f) and Art 9.4 Directive 2010/43/EU **Art. 12.3 (e) Directive 2010/43/EU**	√ **Art.39.1 (d) and (e) Commission Delegated Regulation (EU) No 231/2013**
Recommendation 14: ongoing liquidity assessments in different scenarios, which could include fund level stress testing	√ **Art 40.2 (c) and Art.40.3 Directive 2010/43/EU** **ESMA LST guidelines (in particular § 31)**	√ Art. 16.1 Directive 2011/61/EU Art 48.2 Commission Delegated Regulation (EU) No 231/2013 **ESMA LST guidelines (in particular § 31)**
Recommendation 16: The responsible entity should put in place and periodically test contingency plans	√ **ESMA LST guidelines (in particular § 24 and 29)**	√ **ESMA LST guidelines (in particular § 24 and 29)**
Recommendation 17: consider the implementation of additional liquidity management tools	√ **ESMA LST guidelines (in particular § 29 and 30.d)**	√ Art. 47.1 (e) Commission Delegated Regulation (EU) No 231/2013 **ESMA LST guidelines (in particular § 29 and 30.d)**

In addition, in the EU, some national competent authorities (NCAs) have decided either to directly incorporate the 2018 LRM recommendations in their own regulatory framework (e.g. CSSF in Luxembourg), while others have decided to update their relevant provisions accordingly (e.g. AMF in France).

More recently, in March 2021, ESMA published the results of the 2020 Common Supervisory Action (CSA) on UCITS liquidity risk management (LRM) made in the context of the COVID-19 market downturn in March/April 2020 which concludes that *"Overall, most UCITS managers have demonstrated that they have implemented and applied sufficiently sound LRM processes"*. However, ESMA also noted that *"in a few cases, some adverse supervisory findings were identified, particularly linked to documentation, procedures and methodology. In some cases, the liquidity assessment before investing should be strengthened, as well as the data reliability verification and the internal control framework*."

Finally, we note that, again, in the context of the COVID-19 market downturn in March/April 2020, NCAs across the EU collected a very large amount of data – based on a common ESMA questionnaire template - to closely monitor fund liquidity issues across some UCITS and open-ended AIFs with large exposure to corporate debt or real assets, following recommendations from the ESRB. We certainly hope that this information was transmitted to IOSCO secretariat for the purpose of this consultation. Following that exercise, ESMA issued a report on liquidity risk in investment funds focusing on 541 corporate debt funds (€2.07 trillion NAV) and 92 real estate assets (€294 billion NAV) between 17 February and 31 March 2020.

For corporate debt funds, ESMA observed net inflows for AIFs and outflows for UCITS (5.9% of NAV). ESMA concluded that (1) out of the 174 AIFs studied, none used substantial leverage nor had to suspend redemption and (2) out of the 459 UCITS fund studied, only 6 UCITS funds suspended temporarily (up to 13 days). **This shows that fund liquidity risk management is overall sound in European funds** and that existing EU rules including those implementing IOSCO LRM - are sufficient.

2. The positive impact of the 2018 LRM on European rules and practices

If overall the EU framework was already in line with the recommendations in 2018, we note that they have positively contributed to further consolidate industry best practices and inspired important regulatory developments in the EU, such as the creation of pan-European principles for fund stress-testing (ESMA LST Guidelines adopted in 2019 and implemented in 2020) and the adoption and use of liquidity management tools at European level with the adoption of LMTs at local level. The recent crisis has indeed (1) contributed to accelerate the adoption of LMT tools in jurisdictions where they were not yet available (e.g. Germany and Italy) as recommended by IOSCO and (2) pushed national supervisors to encourage and facilitate the use of LMTs, which proved to be very helpful to tackle some redemption shocks. Most LMT tools are now available in most European jurisdictions and in all main fund domicile centres, covering almost all of the AuM managed by UCITS and AIFs.

Availability of LMTs in top domiciles for UCITS and AIFs in 2020

Country	% of net assets	Redemption fees	Swing pricing	Anti-dilution levy	Redemption in kind	Gate	Suspension	Side pockets
Luxembourg	26,6%	✓	✓	✓	✓	✓	✓	*
Ireland	17,6%	✓	✓	✓	✓	✓	✓	*
Germany	13,3%	✓	✓		✓	✓	✓	
France **	11,2%	✓	✓	✓	✓	✓	✓	✓
UK	9,6%	✓	✓	✓	✓	✓	✓	*
Netherlands	5,3%	✓	✓	✓	✓	✓	✓	✓
Switzerland ***	4,2%	✓	✓	✓	✓	✓	✓	

Sweden	2,7%	√	*	√	*	*	√	*
Italy	1,6%	Only as alternative to entry fees		Only for relevant redemptions		Professional open-ended AIF	√	Professional open-ended AIF
Spain	1,1%	√	√	√	√	*	√	√
Belgium	1,1%	√	√	√	*	√	√	*
Denmark	1,1%	√			√		√	
Availability of LMTs according total % of net assets	**95,6%**	**95,6%**	**90%**	**80%**	**90%**	**89%**	**95,6%**	**64% for AIFs**

Sources: EFAMA, ESMA
* Only for AIFs
** There are certain specificities depending on the type of AIFs
***Funds domiciled in Switzerland that fulfil the UCITS criteria are classified as UCITS

3. Responses to IOSCO CP questions

ICMA's AMIC and EFAMA cannot speak for each member but can highlight general practices.

Recommendation 1: The responsible entity should draw up an effective liquidity risk management process, compliant with local jurisdictional liquidity requirements

1.1 Please describe (i) your liquidity risk management process in general, and (ii) what systems capabilities are important to enabling you to implement and monitor the liquidity risk management process (e.g., can the responsible entity's systems demonstrate that a percentage of assets are kept in liquid instruments and monitored over time, if required)?

Overall, the liquidity risk management process is largely influenced by regulatory obligations. For instance, in the case of UCITS and AIFs, the management company is required to have in place risk management process that enables them to monitor all material risks including market risks, liquidity risks, counterparty risks and operational risks and their contribution to the overall risk profile of the portfolio at any time. The risk policy management needs to be reviewed regularly by senior management and also be functionally independent. The management company needs to establish, implement and maintain a documented system of internal limits concerning the measures used to manage and control the relevant risks for each UCITS/AIF. The permanent and independent risk management function provide regular reports to the senior management outlining the current level of risk incurred by each managed UCITS/AIF and any actual or foreseeable breaches to their limits, so as to ensure that prompt and appropriate action can be taken.

1.2 Please describe how the liquidity risk management process considers the specific characteristics of the CIS, including the investment strategy, the type of vehicle, target investor base, and type of investors, and the redemption frequency (e.g., daily or less frequently).

Our members do consider liquidity risk management at product level in two distinct phases as described in the question: (i) the prelaunch (product development) stage, and (ii) the post-launch (ongoing management) stage.

Generally speaking, the first phase involves careful consideration of a number of factors, including the strategy of the product, how it will achieve its stated investment goals or outcomes, the expected asset mix that the product will invest in, the product's target audience and that audience's risk appetite, the risk profile that the fund would be expected to maintain, and the suitability of such risk for the target audience. The product design phase gives representatives from investments, risk, compliance, operations and legal functions and senior management, the opportunity to assess the appropriateness of the product from the point of view of liquidity. Together they assess, based on portfolio and strategy characteristics, the need for specific liquidity limits or other controls to either restrict or highlight exposure to less liquid products, as approved by senior management. For instance, any structural liquidity mismatch is addressed on the asset and/or liability side. Technical details, such as the frequency of valuations, notice period, cut-off times for subscriptions and redemptions and settlement dates, etc. will be considered. In addition, it must be remembered that prior to the launch of a regulated fund (in particular UCITS and a large portion of AIFs), National Competent Authorities (NCAs) themselves play a key role by delivering two types of licenses: one license for authorising the fund management company; and another license for each regulated fund. Depending on the characteristics of the funds and applicable laws, asset managers – in close contact with the NCAs - will determine the appropriate structure: type of vehicle (open-ended vs closed-ended), redemption frequency and relevant liquidity risk management process.

During the life of the fund itself, the fund manager has a number of internal processes and tools available to manage risks. At the product launch stage, liquidity and capacity controls are put in place, and during the product life these are performed on a regular basis such as stress testing. All alerts and thresholds are used to trigger discussions with fund managers and assess what action, if any, might be necessary. Regular reporting on liquidity risk is provided to senior management and to regulators as per regulatory requirements. In addition, the overall fund governance setup also includes the issuance, and validation by senior management, of a contingency plan related to liquidity risk.

In addition, beyond disclosure to investors, ongoing dialogue with investors about their intentions can be a crucial liquidity management tool, particularly with those who have large holdings and where a single large redemption could significantly impact other investors seeking to redeem at the same dealing point.

Portfolio managers and their trading desks may adjust portfolio composition by reacting to changes in market conditions e.g. in times of stress, by trading in smaller lot sizes, changing the composition of the portfolio in favour of more liquid securities, decreasing the concentration of particular securities within the portfolio, or by sourcing additional liquidity. Management companies are also aware of their responsibilities to all their investors, for instance by mitigating any first mover advantage to ensure that the fund maintains its overall risk profile and exposure, or by selling a vertical slice of the fund's assets (i.e. selling underlying assets across all liquidity profiles), rather than horizontally (i.e. selling the most liquid assets first) and ongoing portfolio rebalancing to maintain the ongoing liquidity and risk profile of a fund. A further array of operational tools available to asset managers to manage their liquidity profile and protect investors staying in the fund is LMTs. These tools are not necessarily appropriate in all cases and have to be assessed and used depending on the specific circumstances (for instance, some tools are more appropriate when dealing with professional investors rather than retail investors). Again, this is the result of regulatory obligations and, in some cases, of industry practices.

1.3 Please describe at a high level any policies and procedures you may have for classifying the liquidity profile of a new CIS for each type of instrument or asset class, and the portfolio as a whole, taking into account the nature and expected redemption of investors.

Generally AMIC/EFAMA members do not classify the liquidity profile of a new CIS for each type of instrument or asset class. Instead they conduct assessments for each fund, on a case-by-case basis.

Beyond the type of asset class, many factors need to be considered on the asset side (bid-ask spreads, volatility and daily volume rating, currency denomination, country of risk) and on the liability side (types of investors, investor concentration, margin obligations, historical outflows etc…).

Recent history has proven that an approach over relying on liquid asset buffers is not always efficient in a liquidity event: during the March/April market turmoil, certain assets such as government bonds, which are deemed highly liquid in normal times, experienced an abrupt widening of bid-ask spreads, stopping investors from selling them at sensible prices. Furthermore, deviating from the agreed strategy by holding excess cash/liquid assets inevitably penalises those investors who have a lower preference for liquidity over and above other factors such as investment returns.

Instead the focus is and should be on the evolving cost to access liquidity and the ability to perform vertical slicing to preserve the composition and the liquidity profile of funds. This is key to avoid a liquidity crisis of second order.

1.4 Does the liquidity risk management process involve updates to management when illiquid asset limits are exceeded? If so, please describe the general substance and frequency of the updates.

Yes, alerts and thresholds are used to trigger discussions with management assess what action, if any, might be necessary. Liquidity thresholds are adapted depending on each fund design and profile. Regular reporting on liquidity risk is provided to senior management. The updates include an assessment of the portfolio composition and classification, investor composition, stress tests and redemption scenario analysis and reviews of net flows during the period. Escalation parameters are factored into the analysis and triggered as necessary when a tolerance is exceeded.

For instance in the case of UCITS the management company needs to:

- Establish, implement and maintain a documented system of internal limits concerning the measures used to manage and control the relevant risks for each UCITS;
- Ensure that the current level of risk complies with the risk limit system for each UCITS;
- Establish, implement and maintain adequate procedures that, in the event of actual or anticipated breaches to the risk limit system of the UCITS, result in timely remedial actions in the best interests of unit-holders.
- Any passive (e.g. asset price growth) and active breaches of ratios mandatory portfolio diversification (“5-10-40 rule”) and concentration ratios are to be reported to national supervisors.

AIFMs are also subject to similar provisions and need to:

- Establish, implement and maintain adequate procedures that, in the event of actual or anticipated breaches of the risk limits of the AIF, result in timely remedial actions in the best interest of investors;
- Implement and maintain adequate limits for the liquidity or illiquidity of the AIF consistent with its underlying obligations and redemption policy;
- Monitor compliance with those limits and where limits are exceeded or likely to be exceeded, they shall determine the required (or necessary) course of action. In determining appropriate action, AIFMs shall consider the adequacy of the liquidity management policies and procedures, the appropriateness of the liquidity profile of the AIF’s assets and the effect of atypical levels of redemption requests.

IOSCO 2018 recommendations	UCITS	AIFMD
Recommendation 1: effective liquidity risk management process	✓ **Art. 51.1 Directive 2009/65/EC**	✓ Art.15 and 16 Directive 2011/61/EU

	Art 9.2 (f) Directive 2010/43/EU	**Art. 39 to 49 Commission Delegated Regulation (EU) No 231/2013**
Recommendation 2: set appropriate liquidity thresholds	✓ Art. 1, 50, 52 (1) Directive 2009/65/EC **Art. 40 (2) § (d), (e) and (f) Directive 2010/43/EU**	✓ Art. 16.1 Directive 2011/61/EU **Art.44 and 48 Commission Delegated Regulation (EU) No 231/2013**

Recommendation 2: The responsible entity should set appropriate liquidity thresholds which are proportionate to the redemption obligations and liabilities of the CIS.

2.1 Please describe how the responsible entity assesses the liquidity of a CIS, whether qualitatively or quantitatively.

Both qualitative and quantitative assessment may be used in the assessment of the fund's liquidity profile. For further info please refer to our response to question 1.2

2.2 Does the responsible entity use liquidity thresholds to carry out more extensive in-depth, quantitative and/or qualitative liquidity analysis that, in case of vulnerabilities, can trigger appropriate remedial steps? Please describe the governance process for setting any such thresholds and actions to be considered, such as additional analysis before taking remedial steps in the event of exceeding a threshold.

Please refer to our response to question 1.4

2.3 Please briefly describe any liquidity requirements or mechanisms to manage liquidity that the responsible entity has in place for its CIS, or certain types of CIS it manages, that may be stricter than its regulatory requirements. If applicable, please include a discussion of mechanisms for continuous monitoring of fund liquidity profiles and associated thresholds/buffers.

Members adapt the liquidity requirements or mechanisms to the liquidity profile of each fund. Liquidity management is not set in stone and also needs to be adapted according to evolving market conditions (cost to access to liquidity varies).

Local guidance by trade associations, which is the result of industry collaboration, also results in asset managers going beyond regulatory requirements. In Europe at the moment, a number of industry guidance, built on the applicable legal and regulatory requirements, contribute to the robustness of the sound liquidity framework. Below is a (non-exhaustive) list:

- **France** - AFG has published a Practical Guide in September 2020 to explain how to build an efficient risk framework to deal with liquidity stress tests. This work builds on a previous Guide on liquidity risk management tools in open-ended funds published in 2017.
- **Ireland** - Members of Irish Funds Investment Risk Working Group have prepared a paper on fund governance and liquidity risk management framework (to be updated as necessary for legislative, regulatory and industry practice developments).
- **Luxembourg**: ALFI has a number of guidelines available to its members. ALFI and ALRiM guidelines for UCITS liquidity risk management – March 2013 and ALFI guidelines on Liquidity Stress Testing Considerations for Real Estate Funds –May 2018.
- **UK** – The Investment Association is updating and consolidating its existing guidance on liquidity risk management and the guidance will be published once the Bank of England/FCA joint work on liquidity mismatch in investment funds concludes.

Other Trade Associations have also conducted extensive work in this area, like AIMA, which has recently published a paper on LRM in alternative funds which primarily examines LRM in relation to alternative investment funds and private funds (predominant types of funds managed by AIMA members).

In addition to the industry guidance above, national industry bodies were also instrumental in the operationalisation of the introduction or operationalisation of LMTs by NCAs following the pandemic. Few examples below:

- **Germany** - In 2020, at BVI's express request, the German legislator introduced new liquidity management tools in the German Capital Investment Code (KAGB), specifically redemption gates, notice periods and swing pricing, applicable to UCITS and certain retail open-ended securities AIFs. The practical implementation of the new tools requires some technical adaptions on the side of the depositaries and custodians. In addition, BVI is working on additional guidance on use of gating (which will be published in May 2021).
- **Italy** - In 2021, taking into consideration requests from Assogestioni, Bank of Italy introduced a further hypothesis of suspension of the redemption to investors in Italian open-end funds UCITs (which would allow the ManCo to suspend the redemption for a period, in any case not exceeding fifteen days, if cumulative requests of not less than 5% of the fund NAV are submitted on the same day).

2.4 Does the responsible entity have a process for estimating the redemption flows and other liquidity demands, considering the characteristics of the CIS (e.g., investor profile, margin calls)?

Yes, ongoing dialogue with institutional investors about their intentions is a useful tool to estimate redemptions, particularly with those who have large holdings and where a single large redemption could significantly impact other investors seeking to redeem at the same dealing point.

For retail investors, fund managers have also developed such a process aiming at detecting any material deterioration of the liquidity risk arising from the liability side, even if modelling behaviour is made more difficult by the fact retail funds are mostly sold via distributors. For fund managers, the availability of data from distributors on underlying investors is a key challenge for conducting liquidity stress tests, which requires considering investor behaviour as required by ESMA LST Guidelines adopted in September 2019 (guideline 7). The challenge of access to data was recognised by ESMA in its LST guidelines (guideline 9) but unfortunately was not yet resolved. EFAMA and AMIC have already raised this issue in the updated version of the joint report: Managing Fund Liquidity Risk in Europe. For the purpose of improving risk management, we believe that the communication of information by fund distributors or intermediaries to fund managers, including at least investor profiles and shares/units held by the different categories of underlying investors, should be made mandatory and free of charge by regulators and for the collective interest.

Recommendation 3: The responsible entity should carefully determine a suitable dealing frequency for units in the CIS.

3.1 Please discuss the considerations you take into account in deciding whether a fund should be open-ended (and the terms on which it would be so).

Several parameters are being considered (e.g. target market, assets and strategy). It is important to note that this is not always entirely at the discretion of fund managers and is subject to the scrutiny and approval process by national supervisors regarding regulated funds. Depending on the characteristics of the funds and applicable laws, asset managers and the national supervisors will determine the appropriate structure: type of vehicle (open-ended vs closed-ended), redemption frequency and relevant liquidity risk management process. Some of our members based in some jurisdictions have flagged that for new types of funds, this is very much an iterative process involving detailed questionnaire and discussions, which can last several months before approval is granted (model portfolio stress testing).

3.2 Please discuss the considerations you take into account in deciding on an appropriate dealing frequency for an open-ended fund, notably for a fund that offers investors' exposure to assets that are less liquid or likely to become less liquid under stress (e.g., real estate or high yield bonds). In particular, please discuss factors such as (i) the dealing frequency having regard to the target investor base, (ii) the investment strategy and objectives, and (iii) the expected liquidity of the assets.

In the event where assets are deemed to be less liquid, a number of tests are considered when determining the dealing frequency. The expected client base and their likely access requirements to their investments, the regulatory regime, the liquidity management tools permitted by regulation or market convention and disclosed in the prospectus, the permissible assets outlined in the objective and policy of the fund and the ability of the portfolio manager to fully utilise any allocation tools to help manage liquidity constraints. Liquidity scenario testing on model portfolios are conducted to ensure underlying assets can be liquidated to satisfy client redemption.

But again this is not entirely at the discretion of asset managers. Some jurisdictions allow real estate investment funds opting for open-ended vehicle while others require using for a close-ended vehicle. This was already well documented by IOSCO in 2018 in its report *Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration*. For instance, real estate funds are generally structured as close-ended funds, and when they are structured as open-ended funds the dealing frequency tends to be weekly/monthly and rarely offered on a daily basis. The choice regarding the vehicle and the dealing frequency depends on the type of real estate assets and notably if they are listed or not.

It is common to offer exposure to bonds including HY bonds via an open-ended fund offering daily dealing. Secondary liquidity for bonds and in particular HY bonds may vary over time and therefore require a robust liquidity risk management by the open-ended fund. This may involve monitoring the cost to access to liquidity on a regular basis and the deployment of LMTs if necessary.

<u>**Recommendation 4: The responsible entity should ensure that the CIS' dealing (subscription and redemption) arrangements are appropriate for its investment strategy and underlying assets throughout the entire product life cycle, starting at the product design phase.**</u>

4.1 Please briefly describe the internal governance process for managing liquidity risk for the design and launch of a new CIS, including (i) the factors that the senior managers and/or board consider in the approval process; (ii) the required approval level by senior managers and/or the board; and (iii) steps for assessing the design features in both normal and reasonably foreseeable stressed market conditions.

Please refer to our response to question 1.2.

4.2 Please briefly discuss the extent to which the design process considers the following to help ensure that the fund can meet its redemption obligations on an ongoing basis: (i) the type or likely risk appetite of the investors a CIS is designed to target and in line with the underlying investment mandate; (ii) the current and historical liquidity of the assets and investments to be invested in, and (iii) the appropriateness of additional liquidity management tools.

Please refer to our response to question 1.2

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<u>Recommendation 7: The responsible entity should ensure that liquidity risk and its liquidity risk management process are effectively disclosed to investors and prospective investors.</u>

7.1 The Recommendations provide that liquidity information disclosure is expected to be proportionate to the corresponding liquidity risks. Please describe the disclosures that responsible entities make to investors regarding liquidity, liquidity risk, and liquidity risk management.

a) If applicable, please discuss how responsible entities balance the proprietary aspects of their portfolio management process and the degree of details of liquidity information that are disclosed to investors.

Some elements of proprietary information are to remain private to precisely protect investors against arbitrage, duplication of strategies or predatory short selling. Excessive transparency can put funds and ultimately end investors under unnecessary pressure if they are exposed to strategies facing temporary outflows or fund liquidity challenges (short selling by other market participants). Providing information with a certain time lag is therefore key. However, all the details are obviously made available to regulators on request – and sometimes are compulsorily provided to regulators due to regulations.

b) If applicable, please discuss how responsible entities provide clear, transparent, and understandable information to investors.

It is important to highlight that that investors should be informed of and accept all risks associated with investing through clear and transparent product documentation and/or the advice process which highlights liquidity risk prior to making any commitment.

In Europe the information to be provided to investors is regulated and is precisely meant to ensure that it is clear, transparent, and understandable. This information is contained in pre-contractual documents (such as the Prospectus of the fund and Key Information Document) and periodic reporting (yearly and half-yearly). These documents are usually gathered on one dedicated page of the website of the asset managers where additional information is available (e.g. Top 10 holdings of the fund).

Periodic reporting, the prospectus and the annual report include relevant information on liquidity risk management including the description of the related risk management procedures and systems, information on redemption rights both in normal and in exceptional circumstances, as well as how the management company plans to ensure the fair treatment of all investors. In this regard, investors may find information on notice periods in relation to redemptions, details of lock-up periods, an indication of circumstances in which normal redemption mechanisms might not apply or may be suspended, including how a suspension will be managed and will affect the investor, and details of any measure that may be considered by the governing body, such as gates or side pockets, as they have an impact on the specific redemption rights of investors.

KIIDs display a synthetic risk indicator (SRRI) providing an overview of the key risks investors may encounter by investing in a given fund. The Synthetic Risk and Reward Indicator (SRRI) displays the historic volatility of the fund’s performance and categorises it accordingly. The values will range from 1 to 7, where 1 will mean lower risk and 7 indicates that the level of risk is relatively high.

<u>Recommendation 10: The responsible entity should regularly assess the liquidity of the assets held in the portfolio.</u>

10.1 Please describe how the responsible entity regularly measures, monitors, and manages liquidity.

Please refer to our response to question 1.2 and 1.4

10.2 Please describe whether the liquidity assessment of the CIS's assets considers obligations to creditors, counterparties and other third parties.

Analysis of fund liabilities is undertaken using as much available data as possible, including, but not limited to historical redemptions, investor concentration, investor type etc. In addition, other sources of fund liability information are incorporated (e.g. margin obligations arising from derivatives exposures) where available.

10.3 Does the assessment of liquidity risk take into account the interconnection of liquidity risk with other risk factors such as market risk or reputational risk? Please describe.

Yes, this is an industry practice (c.f. response to question 10.2) but also a regulatory obligation. For instance, UCITS Risk management process needs to monitor all material risks including market risks, liquidity risks, counterparty risks and operational risks and their contribution to the overall risk profile of the UCITS portfolio at any time.

<u>**Recommendation 12: The liquidity risk management process should facilitate the ability of the responsible entity to identify an emerging liquidity shortage before it occurs**</u>

12.1 How do you identify potential liquidity shortfalls before they emerge?

Please refer to our responses to question 1.4 and 14.1 on the use of internal liquidity limits and liquidity stress testing by UCITS and AIFs.

12.2 What mitigation strategies do you take to reduce the impact of potential liquidity shortfalls you identify, e.g. monitoring and management of large redemptions by investors which have the potential to reduce the normal liquidity profile, negotiating for a pre-notice period with brokers before changes in margin call formulas become effective, or for longer periods for repo agreements?

Portfolio managers and their trading desks may adjust portfolio composition by reacting to changes in market conditions (e.g. in times of stress), by trading in smaller lot sizes, changing the composition of the portfolio in favour of more liquid securities, decreasing the concentration of particular securities within the portfolio, or by sourcing additional liquidity. Management companies are also aware of their responsibilities to all their investors, for instance by mitigating any first mover advantage to ensure that the fund maintains its overall risk profile and exposure, or by selling a vertical slice of the fund's assets (i.e. selling underlying assets across all liquidity profiles), rather than horizontally (i.e. selling the most liquid assets first) and ongoing portfolio rebalancing to maintain the ongoing liquidity and risk profile of a fund. A further array of operational tools available to asset managers to manage their liquidity profile and protect investors staying in the fund is LMTs. These tools are not necessarily appropriate in all cases and have to be assessed and used depending on the specific circumstances (for instance, some tools are more appropriate when dealing with professional investors rather than retail investors).

12.3 During stressed market conditions, how do you ensure that all investors are treated fairly (e.g., balancing the goals of meeting redemption requests while ensuring remaining investors are not left with a disproportionate share of potentially illiquid assets)?

Please see our response to question 12.2

<u>**Recommendation 14: The responsible entity should conduct ongoing liquidity assessments in different scenarios, which could include fund level stress testing, in line with regulatory guidance.**</u>

14.1 Please generally describe the responsible entity's use of ongoing liquidity assessments (including stress testing) of CIS, including the frequency of testing, types of scenarios used and conditions that require increased testing.

A dynamic and risk-based approach is used to determine the frequency of LST – this is established at the pre-product launch stage and reviewed on an ongoing and dynamic basis. The default frequency is set by ESMA LST Guidelines, which apply to both UCITS and AIFs. The Guidelines have also set minimum requirements in terms of scenarios. If the minimum legal requirement to perform LST is annual, ESMA recommends a quarterly frequency for LST and recognises that there are situations where a higher or lower frequency may be necessary. LST should employ hypothetical and historical scenarios. Historical scenarios for LST could include the global financial crisis 2008-2010 or the European debt crisis 2010-2012. Hypothetical scenarios could include rising interest rates, credit spread widening, or political events. Frequency is adjusted or ad hoc reviews are produced if deemed necessary (for example in response to certain market events).

14.2 Please describe the governance arrangements in place for liquidity assessment processes including: (i) how the performance and oversight of liquidity assessments are carried out in a manner that provides sufficient independence from the portfolio management function, and (ii) the measures taken to ensure appropriate documentation of is maintained.

Please see our response to question 1.2 and 1.4

14.3 How do you use feedback from experiences to improve the quality of output from future stress testing?

Yes, asset managers generally use feedback from stress episodes and specific situations on markets/products, to refine existing stress testing scenarios and upgrade their general process. The liquidity assumptions are regularly reviewed and challenged, as this is a dynamic - rather than static – process.

14.4 Please explain how the responsible entity determines the parameters to use for the liquidity assessment?

In order to determine the parameters to be used for the liquidity assessment, feedback is received from various parties, including front office and risk management teams. The parameters are then defined based for example on fund's level of AUM, investors type, investment objective, type of assets, etc.

14.5 If applicable, please provide examples of measures that could be taken following a liquidity assessment.

Portfolio managers and their trading desks may for example adjust portfolio composition in favour of more liquid securities, decreasing the concentration of particular securities within the portfolio, or by sourcing additional liquidity. This may involve greater scrutiny of a fund through ad hoc reviews of the scenario and stress tests reports to further determine potential scenarios where liquidity deficits may occur.

<u>**Recommendation 16: The responsible entity should put in place and periodically test contingency plans with an aim to ensure that any applicable liquidity management tools can be used where necessary, and if being activated, can be exercised in a prompt and orderly manner.**</u>

16.1 Please briefly describe the responsible entity's contingency plans for the CIS's use of available liquidity management tools in stressed market conditions and any operational testing of these processes. For example, do the plans address the issues identified in (a) through (g) of the Means of Implementation?

Contingency planning typically include a list of LMTs available, people to contact and escalation procedure (notification, sign off) to deploy LMTs. These procedures are regularly reviewed, and key stakeholders are aware of such procedures to make sure that whenever necessary, they can be used.

In Europe, ESMA LST guidelines suggest that "*LST should assist a manager in preparing a fund for a crisis, and in its broader contingency planning. This contingency planning may involve a manager's plans to operationalise applying ex post a-LMT to a fund*".

Recommendation 17: The responsible entity should consider the implementation of additional liquidity management tools to the extent allowed by local law and regulation, in order to protect investors from unfair treatment, amongst other things, or prevent the CIS from diverging significantly from its investment strategy.

17.1 Please describe tools (e.g., swing pricing, anti-dilution levies, redemption fees, notice periods) aimed at treating redeeming and remaining investors fairly that are available in your jurisdiction, whether you have implemented any of the tools, and what factors you consider in implementing the tools, including any market impact/financial stability considerations.

LMTs are used on a case-by-case basis depending of specific circumstances.

Availability of LMTs in top domiciles for UCITS and AIFs in 2020

Country	% of net assets	Redemption fees	Swing pricing	Anti-dilution levy	Redemption in kind	Gate	Suspension	Side pockets
Luxembourg	26,6%	✓	✓	✓	✓	✓	✓	*
Ireland	17,6%	✓	✓	✓	✓	✓	✓	*
Germany	13,3%	✓	✓		✓	✓	✓	
France **	11,2%	✓	✓	✓	✓	✓	✓	✓
UK	9,6%	✓	✓	✓	✓	✓	✓	*
Netherlands	5,3%	✓	✓	✓	✓	✓	✓	✓
Switzerland ***	4,2%	✓	✓	✓	✓	✓	✓	
Sweden	2,7%	✓	*	✓	*	*	✓	*
Italy	1,6%	Only as alternative to entry fees		Only for relevant redemptions		Professional open-ended AIF	✓	Professional open-ended AIF
Spain	1,1%	✓	✓	✓	✓	*	✓	✓
Belgium	1,1%	✓	✓	✓	*	✓	✓	*
Denmark	1,1%	✓			✓		✓	
Availability of LMTs according total % of net assets	**95,6%**	**95,6%**	**90%**	**80%**	**90%**	**89%**	**95,6%**	**64% for AIFs**

Sources: EFAMA, ESMA
* Only for AIFs
** There are certain specificities depending on the type of AIFs
***Funds domiciled in Switzerland that fulfil the UCITS criteria are classified as UCITS

B. Joint IOSCO-FSB Analysis of OEF Liquidity during the Market Stresses of 2020

1. **(Recommendation 1) Have you updated (or are you planning to update) your liquidity risk management processes (e.g., applicable liquid and illiquid instrument thresholds, portfolio analysis, monitoring) since the onset of the COVID-19 crisis? If yes, which areas of your liquidity risk management processes were updated, and were the changes due to your experiences in March and April?**

Generally speaking, liquidity management processes are not static but dynamic, meaning that they are reviewed on an ongoing basis (and upgraded if needed) based on continuous dialogue within firms as described above. Furthermore, members recently had to update their liquidity risk management processes during the COVID-19 crisis – but not due to the COVID-19 crisis – as they had to implement ESMA's Guidelines on Fund Liquidity Stress-Tests by September 2020.

2. **(Recommendation 3) For each of the primary investment strategies or asset classes of the funds you manage (e.g. large/small cap equity, investment grade/high yield corporate/emerging market/municipal/government bonds, absolute return), what is the dealing frequency of those funds?**

Please see our response to question 3.2

3. **(Recommendation 3) Did you change or are you currently planning to change the dealing frequency of certain funds (e.g., certain investment strategies or asset classes) due to the market events in March and April (or thereafter)? If yes, can you please provide more detail on why, including the newly implemented approaches?**

To our knowledge dealing frequency of funds were not permanently changed due to March/April 2020 market events. Only a handful of investment funds had to suspend redemptions temporarily, mainly due to price uncertainties rather than liquidity issues.

4. **(Recommendation 12) Please describe the process by which you estimate future redemption demand and use these estimates to adjust a fund's level of cash and cash-equivalent holdings.**

Observations based on different levels of historical redemptions are defined under normal and stressed conditions and those are then compared to the asset side liquidity to ensure the funds have enough asset liquidity to meet those redemptions (with often even more extreme/tail assumptions of redemption demand than historical levels). In addition to the historical analysis, a forward-looking view of liability demand is also used and compared against asset liquidity profile. Ongoing dialogue with institutional investors about their intentions is a useful tool to estimate redemptions, particularly with those who have large holdings and where a single large redemption could significantly impact other investors seeking to redeem at the same dealing point. For retail investors, fund managers have also developed such a process aiming at detecting any material deterioration of the liquidity risk arising from the liability side, even if modelling behaviour is made more difficult by the fact retail funds are mostly sold via distributors. For fund managers, the availability of data from distributors on underlying investors is a key challenge for conducting liquidity stress tests, which requires considering investor behaviour as required by ESMA LST Guidelines adopted in September 2019 (guideline 7). The challenge of access to data, already highlighted in a previous AMIC/EFAMA report mentioned above, was recognised by ESMA in its LST guidelines (guideline 9) but unfortunately was not yet resolved in this context. For the purpose of improving risk management, we believe that the communication of information by fund distributors or intermediaries to fund managers including at least investor profiles and shares/units held by the different categories of underlying investors should be made mandatory and free of charge by regulators – in the general collective interest.

Based on this analysis, portfolio managers and their trading desks may for example adjust portfolio composition in favour of more liquid securities, decreasing the concentration of particular securities within the portfolio, or by sourcing additional liquidity. But this does not automatically lead to adjust the level of cash in portfolios. Their use is discretionary and determined by the skill and expertise of the manager and relevant to the asset class and/or investor composition rather than being mandated and should not be recognised as a tool to mitigate liquidity mismatch in all circumstances, particularly in stressed markets.

5. (Recommendation 12) During the market events in March and April, please describe whether funds experienced large redemptions or net cashflow pressures and if so, what types of funds (e.g., certain investment strategies or asset classes) experienced the greatest pressures.

a) What were the main drivers of those pressures?

b) Did redemption pressures differ between funds that are open only to (i) institutional or (ii) retail investors?

c) For funds that are open to both groups of investors:

- **Which group redeemed more shares as a proportion of shares outstanding?**
- **Which group redeemed more shares as a proportion of shares owned by the group?**

ICMA's AMIC and EFAMA cannot speak for each member but can offer general observations.

We note that, in the context of the COVID-19 market downturn in March/April 2020, NCAs across the EU, in coordination with ESMA, have collected a large amount of data to closely monitor fund liquidity issues across UCITS and AIFs. We certainly hope that this information were transmitted to IOSCO secretariat for the purpose of this consultation.

ESMA study

Based on this exercise, ESMA issued a report on liquidity risk in investment funds focusing on 541 corporate debt funds (€2.07 trillion NAV) and 92 real estate assets (€294 billion NAV) between 17 February and 31 March 2020.

For corporate debt funds, ESMA observed net inflows for AIFs and outflows for UCITS (5.9% of NAV). ESMA concluded that (1) out of the 174 AIFs studied none used substantial leverage nor had to suspend redemption and (2) out of the 459 UCITS fund studied only 6 UCITS funds with NAV of €10.8 bn & up to 13 days).

EFAMA statistics

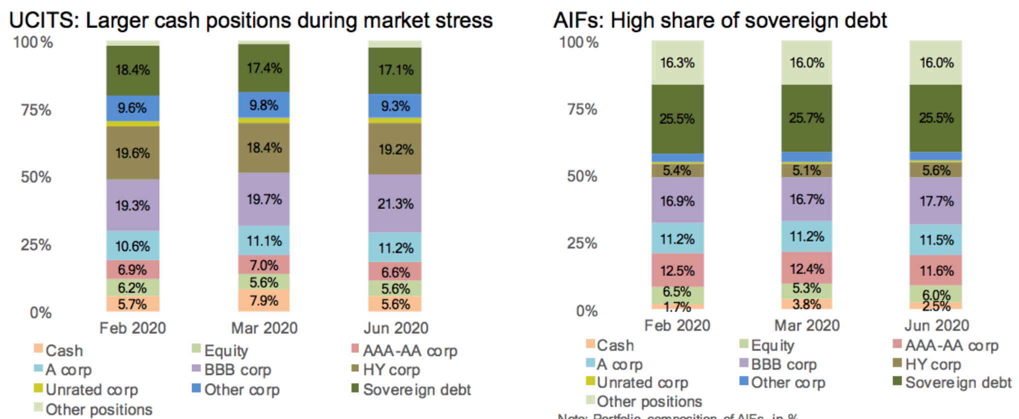
There were large net outflows in the investment management industry in March 2020, clients redeemed over EUR 300 billion from UCITS. The alternative investment sector, on the other hand, registered, EUR 7 billion in net inflows during March 2020.Those outflows are aggregate figures, with some individual asset managers reacting differently under the same conditions.

Despite these significant outflows, the vast majority of UCITS and AIFs were able to function normally. Less than 0.35% of funds (both UCITS and AIFs) had to suspend trading and only for a limited period of time, concentrated in specific jurisdictions and market segments and mainly because of temporary difficulties with the valuation of some of their underlying assets.

By the end of 2020, total net sales of UCITS and AIFs amounted to almost EUR 650 billion.

6. **(Recommendation 12) What liquidation approach(es) did you apply to honour larger redemptions (pro-rata allocation, liquidation waterfalls, using cash buffers, combination of approaches (and which, if so))? In what ways, if any, did market conditions (including the actions of other fund managers) change your approach to liquidating assets or alter your planned liquidity waterfall?**

Vertical slicing was overall preferred to preserve the composition and the liquidity profile of funds. This was confirmed by the ESMA report to ESRB (also see graph below): "*When analysing the portfolio composition of corporate debt funds between mid-February and the end of June 2020 the main conclusion is that funds experiencing outflows managed to maintain the composition of their portfolio broadly stable. This analysis suggests a liquidity management approach consistent with the "vertical slicing" of their portfolio, i.e. selling assets proportional to their investment allocation. A vertical slicing approach reduces the risk of unfair treatment for remaining or redeeming investors. From a financial stability perspective, being able to sell less liquid portfolio assets also reduces the risk of creating a first-mover advantage for investors redeeming their fund shares early*."



Note: Portfolio composition of UCITS funds, in %
Sources: NCAs, ESMA.
Note: Portfolio composition of AIFs, in %.
Sources: NCAs. ESMA.

7. **(Recommendation 12) What steps did you take, if any, to alter fund allocations to cash with a view to meeting future cash flow needs?**

Please see response to question 6

8. **(Recommendation 12) Do the funds you manage take positions in derivatives? If so:**
   - **How do you estimate the size of potential margin calls during stressed market conditions? What information do you use to do this?**
   - **What liquid assets do you use to meet potential margin calls? What liquidation waterfall do you use to meet margin calls if liquid assets are insufficient?**

UCITS and AIFMD have detailed risk management policy requirements including detailed process for overseeing derivatives, counterparty risk and margin calls.

9. **(Recommendation 16) Did you apply contingency plans due to the market events in March and April? Do you have a structure/ set a sequence for the implementation of liquidity risk management tools, or do you analyse the appropriateness of tools case-by-case depending on the specific circumstances?**

Please see our response to question 16.1 Also, LMTs are used on a case-by-case basis depending of specific circumstances.

10. **(Recommendation 17) Please describe the liquidity management tools[1] (i) that were available to your funds during March and April (or thereafter) and (ii) (a) that were activated during the market events in March and April and (b) the length of time during which they applied. Please specify in your response which tools were available and activated by fund type and asset class, if applicable. Also, briefly describe what motivated your decision to act and what factors influenced your choice of which tool(s) to activate. If you did not activate a liquidity management tool, can you briefly describe why not (e.g., ordinary fund liquidity management practices were sufficient, competitive pressures discouraged activation, operational challenges made activation difficult).**

Were any liquidity management tools used during the ordinary course of business as opposed to solely during stressed market conditions? If so, please specify the liquidity management tool, explain the reasons why, and identify any operational challenges you may have encountered.

According to the ESMA's report to ESRB: "*The use of swing pricing was more widespread (134 UCITS and four AIFs). This may indicate that during this period most managers were able to meet redemption requests without using the suspension of redemption but decided to use swing pricing to treat fairly remaining investors, by passing part of the cost of liquidity to redeeming investors (see case study below). The use of other LMTs was overall limited. Only few funds had access to anti-dilution levies (17% UCITS, 8% by NAV; 11% AIFs, 8% by NAV), with 3% of funds in the sample using them. Temporary borrowing is the most commonly available liquidity management tool (available to 90% of UCITS and 80% of AIFs in the sample). During the period of COVID-19 market stress 8% (11% NAV) of UCITS and 11% (10% NAV) of AIFs have activated it.*"

11. **(Recommendation 17) Based on your experience in March and April, to what extent did the application of liquidity risk management tools have a deterring effect, if any, on the investors´ intention to redeem?**

In particular:

a) Was there a reduction in redemption requests as a result of utilising a liquidity management tool (i.e., was a tool useful in discouraging an increase in investor redemptions)? Please be as specific as possible in terms of the impact of the individual tools (e.g., implementing swing pricing reduced redemption requests) and why you believe it may have been effective;

b) Were investors notified of a liquidity risk management tool being activated (and if so, in what way);

The LMT are disclosed in the prospectus. Specifically, when a fund is suspended or gated, the investors are notified. Other LMTs such as swing pricing and anti-dilution levy are not communicated further to investors because they are already disclosed in the fund's documentation.

c) Did the use of liquidity management tools such as swing pricing or anti-dilution levies prevent the use of more prescriptive tools such as gating or suspensions;

We cannot evidence that the use of swing pricing or anti-dilution levies prevented gating or suspensions. Though we can confirm that members consider gating/suspensions as ultimate recourses.

d) Specifically, if you implemented swing pricing during the market events in March and April, did you encounter any operational challenges when activating this tool? If yes, what were these challenges and how did you overcome them? and

No, members did not report difficulty with the use swing pricing but market conditions had to be closely monitored to ensure that swing factors were reflective of market as much as possible, and that swing thresholds remained suitable to each fund.

e) Did you observe any unanticipated effects of applying a particular tool (either positive (e.g., mitigating liquidity demands at affiliated funds) or negative (e.g., exacerbating liquidity demands or otherwise causing the fund to incur costs))?

No, we did not observe any disfunction or unanticipated effects in the use of LMTs. When legally available and used in EU jurisdictions they worked well, exactly the way they were supposed and expected to work.

12. **(Recommendation 17) During the market events in March and April, did you encounter any difficulties regarding valuation of the underlying assets of your funds related to your liquidity risk management processes to help ensure that investors redeem at a price that does not harm remaining investors?**

Fair value processes were implemented when concerns arose around the accuracy of published price feeds, and ensured that other information sources were properly taken into account when determining valuations, ensuring that these represented the circumstances in the market as fairly as possible. Few funds chose to suspend dealing due to material uncertainty in the valuation of their assets, ensuring investors were protected from any disadvantage due to subscriptions and redemptions being processed at inaccurate prices. For example some listed funds in the Nordics (publishing their NAV multiple times a day) experienced temporary difficulty with valuation during very volatile days.

Did you amend any applicable valuation methods (e.g., from mark-to-market to fair valuation or from mid-market to bid-market pricing)? Please briefly describe any difficulties and amendments, including whether such items were more applicable to any specific asset class. Do the same valuation policies/methodology apply among funds managed by your firm and that invest in similar asset classes?

Please see our response above.

13. **(Recommendation 17) Did stressed market conditions in March and April give reason to change policies regarding liquidity risk management tools (e.g., swing pricing, anti-dilution levies, redemption fees, notice periods) aimed at treating redeeming and remaining investors fairly?**

If yes, please briefly describe what policies and/or tools were adjusted and what the adjustment was.

The CSSF allowed swing factors to be increased up to the maximum level allowed by the prospectus without prior notification to the CSSF. This was sometimes used on a temporary basis by members to better reflect market conditions and preserve the interest of existing investors. This was communicated to investors.

14. (Recommendation 17) Would you consider, based on your experience from the COVID-crisis, the necessity for further guidance from authorities on liquidity management tools and their usage? If yes, on what specific aspects would you like to have further guidance?

No overall LMTs when they are legally available worked very well. There is no need for further guidance expressed by our members.

15. (Recommendation 17) In what ways, if any, did the events and policy responses in March and April 2020 change your assumptions about the likelihood of central bank support in future periods of stress?

As highlighted throughout our response, ICMA and EFAMA members have designed liquidity management framework relying on a toolkit which allows for swift action balancing the interests of both redeeming and remaining investors. Overall fund managers coped well with redemptions and the March/April episode of stress prior central banks' announcements. And although central banks interventions were essential to restore confidence in certain underlying markets (corporate bonds and commercial paper markets), our members are not concerned this create a situation of moral hazard for the future.

[1] Liquidity management tools could include, for example, suspensions of redemptions, swing pricing, lines of credit, inter-fund lending arrangements, anti-dilution levies, side pockets, redemption fees, redemption gates, and redemptions in-kind, among others. For further examples, *see* the Good Practices, *available at* https://www.iosco.org/library/pubdocs/pdf/IOSCOPD591.pdf.

About ICMA

ICMA is a not-for-profit membership association, headquartered in Switzerland, that serves the needs of its wide range of member firms in global capital markets. As at January 2020 it has more than 580 members in 62 countries. Among its members are private and public sector issuers, banks and securities houses, asset managers and other investors, capital market infrastructure providers, central banks, law firms and others. The International Capital Market Association's (ICMA) Asset Management and Investors Council (AMIC) was established in March 2008 to represent the buy-side members of the ICMA membership.

More information available at: www.icmagroup.org

Contact

Arthur Carabia
Director - Market Practice and Regulatory Policy
Arthur.Carabia@icmagroup.org | +44 (0)20 7213 0339

About EFAMA

EFAMA, the voice of the European investment management industry, represents 28 Member Associations, 58 Corporate Members and 24 Associate Members. At end Q4 2020, total net assets of European investment funds reached EUR 18.8 trillion. These assets were managed by more than 34,350 UCITS (Undertakings for Collective Investments in Transferable Securities) and almost 29,650 AIFs (Alternative Investment Funds). At the end of Q2 2020, assets managed by European asset managers as investment funds and discretionary mandates amounted to an estimated EUR 24.9 trillion.

More information is available at www.efama.org.

Contact

Chiara Sandon
Senior Regulatory Policy Advisor
Chiara.sandon@efama.org | +32 2 548 26 53.