AMIC
The buy side voice of ICMA
Asset Management & Investors Council

EFAMA
European Fund and Asset Management Association

Managing fund liquidity risk in Europe

Recent regulatory enhancements & proposals for further improvements

First published April 2016

Updated version 6 January 2020

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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

EFAMA, the voice of the European investment management industry, represents 28 member associations and 59 corporate members. At end 2018, total net assets of European investment funds reached EUR 15.2 trillion. These assets were managed by close to 33,400 UCITS (Undertakings for Collective Investments in Transferable Securities) and 28,600 AIFs (Alternative Investment Funds). More information available at www.efama.org.

Executive Summary

The International Capital Market Association's (ICMA) Asset Management and Investors Council (AMIC) and the European Fund and Asset Management Association (EFAMA) joined forces in 2016 to write this report on the legislative requirements and market based tools available to manage liquidity risk in investment funds in Europe and offer some recommendations further improving the general liquidity management environment. Given the largely EU focus of AMIC and EFAMA membership the report focuses on EU legislation and EU fund structures, namely UCITS and AIFMD. This January 2020 version is an update of the report published in April 2016.

Background information on the AMIC/EFAMA report published in April 2016

The 2016 report was written in response to public concerns that liquidity had become more fragmented, whether as a result of the reduced role of banks as market makers and liquidity providers or the prolonged accommodative monetary policy of the world's most prominent central banks.

The focus of the 2016 report was first on the significant regulatory requirements for investment funds in EU legislation and EU fund structures, namely UCITS funds and AIFs. This comprehensive review attested to the far-reaching requirements regarding fund liquidity currently in place in the European regulatory framework.

As part of the review of existing practices, the 2016 report also outlined the practical liquidity risk management processes that fund management companies follow when setting up a fund and operate during the life of the fund itself. It explored the widespread use of complementary liquidity risk management tools (LMT) available in a number of EU jurisdictions (e.g. swing pricing; dual pricing/redemption fees; dilution levy; in-kind redemptions; out of the money gates; suspension of dealings; side-pockets; and temporary borrowing from non-government sources). Availability of these tools is common across several jurisdictions and they have proven successful by enabling fund management companies to counter a wide range of market events.

However, not all of LMT were at the time available in all EU jurisdictions, which has led us to call for making them available to fund managers at pan-European level.

AMIC/EFAMA 2020 update (new sections highlighted)

In 2019, AMIC and EFAMA decided to publish an updated version of the report following important policy and regulatory developments at EU and international level, in addition to the requirements we had documented in 2016. The purpose of this updated report remains outlining the practical liquidity risk management processes that fund management companies follow when setting up a fund and operate during the life of the fund. Moreover, the objective is to highlight existing European and international regulatory frameworks in the area of liquidity risk management.

The updated report shows that since 2016, the EU regulatory framework was further enhanced as a result of important new policy developments, including:

- The EU *Regulation on Money Market Funds* (MMFs) (June 2017) and ESMA's *Guidelines on Stress Test Scenarios under the MMF Regulation* (July 2019): following the Financial Stability Board's (FSB) 2017 recommendations[1], Money Market Funds are now subject to dedicated regulation including, among others, stringent asset diversification and liquidity rules, and specific liquidity stress tests;
- ESMA's *Guidelines on Liquidity Stress Testing (LST) in UCITS and AIFs* (September 2019): following the 2017 FSB[2] and ESRB recommendations[3], UCITS and AIFs, already subject to LST requirements under level 1 and 2, will have to comply with ESMA guidelines which will converge and enhance LST practices; and
- IOSCO's *Recommendations on Liquidity Risk Management for Collective Investment Schemes* (February 2018): this report shows that following IOSCO's 2018 recommendations several EU jurisdictions have decided to make liquidity management tools available or introduce new provisions at national level.

Following recent market events, this update is also an opportunity to remind that the UCITS framework clearly states that there should be no presumption of liquidity for listed securities and that it allows national competent authorities to oversee where hitherto unlisted securities held by a UCITS fund may be listed.

1 https://www.fsb.org/wp-content/uploads/FSB-Policy-Recommendations-on-Asset-Management-Structural-Vulnerabilities.pdf
2 https://www.fsb.org/wp-content/uploads/FSB-Policy-Recommendations-on-Asset-Management-Structural-Vulnerabilities.pdf
3 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf?723f0fa99b1e8886e651e4950d2a55af

This stock-taking exercise is here to remind fund managers of their own duties but also provides an overview for supervisors and policy makers of what was accomplished at EU level over the last decades. This part of the report will hopefully also be valuable in the context of IOSCO's 2020 review of its liquidity risk management recommendations for investment funds, which we support.

The updated report also shows that since 2016 this comprehensive framework has been tested under various market conditions and scenarios via a number of additional reports, including:

- ESMA's *Annual Statistical Report on EU Alternative Investment Funds* (March 2019): despite potential areas of vulnerability, this first AIFMD report shows that overall most AIFs do not have significant liquidity mismatches; and
- ESMA's *Economic Report on Stress Simulation for Investment Funds* (September 2019): despite potential areas of vulnerability, this first sector-wide stress simulation (6000 UCITS bond funds) highlights that *"overall most funds are able to cope with such extreme but plausible shocks, as they have enough liquid assets to meet investors' redemption requests"*.

Our report welcomes these assessments conducted by securities regulators and also recalls that they do not take into account the potential mitigating effects of liquidity risk management tools, as highlighted by IOSCO's reports on *Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration* (February 2018) and on *Liquidity in Corporate Bond Markets Under Stressed Conditions* (June 2019).

Finally, the report articulates a series of recommendations, as follows:

- Focus on supervision and enforcement of the current comprehensive EU rules: after several years dedicated to the development of new rules, we believe the focus should now be on supervision and enforcement of these updated rules, which is instrumental to the framework's effectiveness. In this context, we support ESMA's intention to ensure, in 2020, an effective and consistent implementation of existing liquidity provisions contained in the UCITS Directive.
- Make the full IOSCO suggested Liquidity Management Tools (LMT) available across the EU: we note, that despite progress being made since 2016, LMT are not yet fully available across the EU. We therefore encourage ESMA to work with national authorities to make LMT available to fund managers when appropriate, and in this context, we also welcome the forthcoming IOSCO's 2020 assessment of local implementations of its liquidity risk management recommendations for investment funds.
- Improve transparency and managers' knowledge of end-investors to enhance liquidity stress tests and ease the management of potential redemption shocks: for fund managers, the access to certain data from distributors on underlying investors would be a great improvement for conducting liquidity stress tests, which involves considering investor behaviour as required by ESMA LST Guidelines adopted in September 2019. For the purpose of improved risk management, we believe that the communication of basic information to fund managers including at least investor profiles and shares/units held by these categories of underlying investors should be mandatory and free of charge.
- Enhance market liquidity for corporate bonds and small and medium cap stocks: we call on the European Commission to follow up on the policy recommendations of its expert group on corporate bonds and, in particular, to repeal or at least phase in the implementation of the mandatory buy-in regime under CSDR, which could significantly hinder market liquidity as shown by a recent study released by ICMA[4].

4 https://www.icmagroup.org/assets/documents/Regulatory/Secondary-markets/CSDR-Settlement-Regulation/Mandatory-buy-ins-under-CSDR-and-the-European-bond-markets-Impact-Study-271119.pdf

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1. Introduction

This report represents the joint work of AMIC and EFAMA. It aims to help interested audiences understand the comprehensive set of tools that are currently available in Europe, by law or through industry practices, for asset managers to manage potential liquidity mismatches in their funds.

It is designed as a practical report with information about existing fund liquidity management provisions. It also recommends some areas where the current regulatory and supervisory environment could be improved. Given the largely European focus of the AMIC and EFAMA membership, the report focuses on EU legislation and EU fund structures, namely UCITS funds and AIFs (Alternative Investment Funds).

However, this report is not directly attempting to address liquidity conditions in financial markets and how fund management companies, among other actors, react to these conditions. This topic is explored in a number of other papers, such as the ICMA paper Liquidity in the European secondary bond market: perspectives from the market.

Furthermore, this report does not address the decision-making process of individual fund managers when deciding whether or not to employ fund liquidity tools in relation to individual funds they manage. The report merely attempts to outline the comprehensive set of policies and tools already available, either through imposed legislation or based on industry standards.

Basel III, other post-crisis legislation and prolonged accommodative monetary policy have brought about structural changes in the way credit institutions have had to reduce their asset inventories and pare back their long-held intermediary roles as principal dealers thus negatively impacting/fragmenting market liquidity in some markets (e.g., fixed income). This in turn has created public discussion on whether managers of open-ended funds are able to match the liquidity of their portfolio with the potential redemption demands of their investors in all market conditions.

In addressing such concerns, AMIC and EFAMA believe that it is important to remember the value and the specific characteristics of the European asset management industry as a provider of capital for long-term investments. As stated by Steven Maijoor, the Chair of the European Securities and Markets Authority (ESMA): *"Asset management differs significantly from banking and insurance activities. Firms manage assets on behalf of their clients, who agree to bear losses and gains. Banks and insurance companies, on the other hand, typically act as principals: accepting deposits with a liability of redemption at par and on demand, or assuming specified liabilities with respect to policy holders. Therefore, redemptions in the fund sector do not entail the same consequences as bank runs. While asset managers protect the interest of their investors, as institutions they generally do not suffer from selling assets in difficult market conditions. In contrast, a bank selling assets to close the liquidity gap would record the potential value loss for itself. Moreover, undermined confidence in the institution would further depreciate its balance sheet and increase its financing cost."*[5]

It is important to highlight that the existing and robust liquidity risk management requirements and enhanced supervisory reporting, strengthened by comprehensive post-crisis legislation in the European investment fund market, have been designed to address liquidity management issues in a suitable manner. Investment funds are fundamentally different from bank-like products or insurance products and that is the reason why appropriate and specific tools were progressively put in place in the EU to address fund liquidity risk appropriately.

5 https://www.esma.europa.eu/sites/default/files/library/esma71-319-157_steven_maijoor_keynote_speech_-_efama_conference_22_nov_2019.pdf

2. Liquidity risk management in funds during their lifetime

Before exploring the specific liquidity risk management requirements and liquidity management tools available, AMIC and EFAMA believe it is important to bear in mind that fund managers manage liquidity risk systematically and consistently throughout the lifetime of the fund.

Broadly speaking, risk management must be considered in two distinct phases of the product lifecycle: (i) the pre-launch (product development) stage, and (ii) the post-launch (ongoing management) stage. Within each stage, the fund's management will consider and implement an appropriate liquidity risk management framework – this takes place within the overarching framework of regulatory requirements.

2.1 Pre-launch: Design and structure of the fund and product

The most important aspect of liquidity risk management for a fund management company is the product design when setting up the fund itself. This stage 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. In particular, consideration will be taken of the liquidity of the underlying investments against the liquidity required by the target audience and/or distribution channels of the product.

The product design phase gives portfolio managers, senior management, and control functions (including the dedicated risk management function) 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.

From a disclosure perspective, liquidity risk and liquidity risk management policy must be included in legal documents such as the prospectus and in the key information document which are reviewed and approved pre-launch. Beyond these documents, NCAs have also the opportunity to assess the liquidity of the underlying investments against redemption terms and expected patterns, and the liquidity required by the target audience and the distribution channels of the vehicle. It is indeed a common practice for national regulators to enter into a dialogue with managers before the launch of a new product to understand the proposed fund structure, reviewing a model portfolio and its liquidity structure and discussing how the manager expects to respond in times of stressed market conditions. Furthermore, the management company will also ensure that the fund liquidity profile is aligned to that of its intended investors on an on-going basis. Depending on these characteristics and applicable laws, asset managers and the NCAs will determine the appropriate structure: type of vehicle (open-ended vs closed-ended), redemption frequency and relevant liquidity risk management process.

2.2 Post-launch: Liquidity risk management tools during the life of the fund

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. 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.

Specific risk management processes and tools are not the only way that the fund management company manages risk in the fund. The company will also ensure that the portfolio of assets reflects the appropriate risk profile of the fund, taking into account market conditions and the macroeconomic environment. This includes liquidity management (in both UCITS funds and AIFs, respectively subject to the UCITS Directive and the AIFM Directive) and is an important element of the broader area of risk management, forming a "first line of defence" in case of market dislocations. 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.

Although beyond the scope of this report, broadly speaking, fund management companies are also increasingly developing trading techniques to respond to the longer-term changes in market liquidity.[6]

6 These themes are explored in publications such as the ICMA's corporate bond liquidity survey.

3. Existing regulatory requirements in European legislation

The sections below outline the existing regulatory requirements in EU legislation across the AIFM and UCITS regimes, both evidence of far-reaching legal requirements regarding fund liquidity, which have already been successfully implemented.

3.1 The AIFM Directive

To date, the liquidity risk management requirements of the Level 1 AIFM Directive (2011/61/EU) and its implementing acts have proven their merit since their implementation, in particular in the context of several significant market dislocations which have occurred since then. Such requirements are specifically aimed at ensuring appropriate liquidity management for alternative investment portfolios containing less liquid assets.

3.1.1 General permanent and independent risk management function

According to Article 39 of the delegated Regulation (No. 231/2013) to the AIFM Directive, implementing Article 15 of the Level 1 text dedicated to Risk Management, an AIFM shall establish and maintain a permanent risk management function. This function will have to, firstly, implement effective risk management policies and procedures in order to identify, measure, manage and monitor on an ongoing basis all risks (including liquidity-risk) relevant to each AIF's investment strategy, and secondly, ensure that the risk profile of the AIF disclosed to investors is consistent with the risk limits that have been set in accordance with Article 44 of the Regulation *(see infra)*. Moreover, this function must comply with the obligation to monitor compliance with the above risk limits, notifying the management company's management and/or supervisory functions when the AIF no longer adheres (or risks no longer adhering) to such limits. Regular updates to the management and/or supervisory functions are also required.

3.1.2. Specific liquidity risk management requirements

In addition to the general risk management requirements mentioned above, the AIFM Directive provides specifically for a robust liquidity management framework through its Article 16, notably through the first paragraph which states that AIFMs shall for each fund managed which is not a closed- end fund employ an *appropriate liquidity management system, including procedures to monitor the liquidity risk of the AIF and to ensure that the liquidity profile of the investments of the AIF complies with its underlying obligations.* The subsequent sub-paragraph reinforces such requirement by also mandating that the companies *regularly conduct stress-tests*, under normal and exceptional liquidity conditions (…) to assess and monitor the liquidity profile and risk of the AIFs. The second paragraph adds that the companies must also ensure that the AIFs' *investment strategy, their liquidity profile and their redemption policy are consistent.*

The accompanying delegated Regulation (EU) No. 231/2013 – under Article 46 thereof - further consolidates these provisions by requiring that managers demonstrate to the NCAs of their home Member State that an appropriate liquidity management system and effective procedures referred to in Article 16 of the Directive are in place, and that these are calibrated to the investment strategy, the liquidity profile and the redemption policy of each AIF.

Article 44 of the Regulation introduces quantitative and/or qualitative risk limits for each managed AIF, taking into account all relevant risks. These must include the following risks: (i) market risks, (ii) credit risks, (iii) liquidity risks, (iv) counterparty risks, and (v) operational risks. When setting these, the management company shall take into account the individual strategies and assets invested in for each AIF it manages, as well as the national rules applicable to each of these.

3.1.3. Specific controls to monitor performance of illiquid assets

Article 47(1) of the delegated Regulation lays out the specific details of the liquidity management system and procedures for each AIF as follows:

(a) the AIFM maintains a level of liquidity in the AIF appropriate to its underlying obligations, based on an assessment of the relative liquidity of the AIF's assets in the market, taking account of the time required for liquidation and the price or value at which those assets can be liquidated, and their sensitivity to other market risks or factors;

(b) the AIFM monitors the liquidity profile of the AIF's portfolio of assets, with regard to the marginal contribution of individual assets which may have a material impact on liquidity, and the material liabilities and commitments, contingent or otherwise, which the AIF may have in relation to its underlying obligations.

For these purposes the AIFM shall take into account the profile of the investor base of the AIF, including the type of investors, the relative size of investments and the redemption terms to which these investments are subject;

(c) the AIFM, where the AIF invests in other collective investment undertakings, monitors the approach adopted by the managers of those other collective investment undertakings to the management of liquidity, including through conducting periodic reviews to monitor changes to the redemption provisions of the underlying collective investment undertakings in which the AIF invests. (…);

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

(e) the AIFM considers and puts into effect the tools and arrangements, including special arrangements, necessary to manage the liquidity risk of each AIF under its management. The AIFM shall identify the types of circumstances where these tools and arrangements may be used in both normal and exceptional circumstances, taking into account the fair treatment of all AIF investors in relation to each AIF under management. (…).

Such requirements are complemented by the obligation for the asset management company to document its liquidity management policies and procedures, as well as to review them on at least an annual basis or when a significant event occurs. Appropriate escalation measures have to be necessarily in-built to the above systems and procedures to address anticipated or actual liquidity shortages or other distressed situations of the AIF.

Article 48(1) of the Regulation requires the management company to monitor compliance with the limits of Article 44 and, where these are exceeded or likely to be exceeded, it is to determine a required (or necessary) course of action. In doing so, a manager should consider its liquidity management policies and procedures, the liquidity profile of the AIF's assets and the effect of "atypical" levels of redemption requests. Regular use of stress testing also focuses on the performance of illiquid assets under exceptional or stressed conditions (please see also 3.1.4).

3.1.4. Stress-testing

3.1.4.1 Provisions of AIFMD Level 2

Paragraph 2 of Article 48 of the delegated Regulation mandates the conduct of stress-tests, both under normal and exceptional market conditions. Their design is specified as follows, with stress-tests to:

(a) be conducted on the basis of reliable and up-to-date information in quantitative terms or, where this is not appropriate, in qualitative terms;

(b) where appropriate, simulate a shortage of liquidity of the assets in the AIF and atypical redemption requests;

(c) cover market risks and any resulting impact, including on margin calls, collateral requirements or credit lines;

(d) account for valuation sensitivities under stressed conditions; and

(e) be conducted at a frequency which is appropriate to the nature of the AIF, taking in to account the investment strategy, liquidity profile, type of investor and redemption policy of the AIF, and at least once a year.

Finally, Article 49 of the delegated Regulation foresees the conditions for a fundamental alignment between the investment strategy, liquidity profile and redemption policy of each AIF managed. Such condition is satisfied when *investors have the ability to redeem their investments in a manner consistent with the fair treatment of all AIF investors and in accordance with the AIF's redemption policy and its obligations.*

3.1.4.2 ESMA Guidelines on Liquidity Stress Testing in Investment Funds (September 2019)

Please see below § 3.2.4.2

3.1.5. Disclosures

Disclosures to regulators and investors help both audiences better understand the funds and their liquidity risks.

3.1.5.1. Disclosures to regulators

In terms of regulatory disclosures, Article 24(1) of the Level 1 Directive provides that a management company must regularly report to the NCAs of its home Member State to inform them of the principal markets and instruments in which it trades for the AIFs it manages, including a break-down of financial instruments and

other assets, the AIF's investment strategies and their geographical and sectoral investment focus. Information shall include the mainly traded instruments, the principal exposures and most important concentrations for each of the AIFs it manages.

The following paragraph mandates that details concerning the liquidity profile of each AIF, including the results of the stress-tests performed, be shared with the NCAs. More specifically, the management company shall for each managed AIF disclose to the Authorities:

(a) the percentage of the AIF's assets which are subject to special arrangements arising from their illiquid nature;

(b) any new arrangements for managing the liquidity of the AIF;

(c) the current risk profile of the AIF and the risk management systems employed by the AIFM to manage the market risk, liquidity risk, counterparty risk and other risks including operational risk;

(d) information on the main categories of assets in which the AIF invested; and

(e) the results of the stress-tests performed (…).

For those AIFs that employ leverage on a substantial basis – defined as a leverage factor above 3:1 relative to NAV – additional reporting requirements to the NCAs are triggered, including information on the overall level of leverage employed by each AIF managed, a break-down between leverage arising from the borrowing of cash or securities vs. leverage embedded in financial derivatives, as well as the extent to which the AIF's assets have been reused under leveraging arrangements. Such information shall include the identity of the five largest sources of borrowed cash or securities for each of the AIFs and the amounts of leverage received from each of those sources for each AIF.

Where necessary for the effective monitoring of systemic risk, the NCAs may require additional information on a periodic, as well as on an ad hoc basis, and inform ESMA accordingly[7]. The AIFM Directive provides for AIFs and their managers to report this data to NCAs for onward transmission to ESMA and the ESRB. Now that these transmission channels are operational, we would also support more frequent feedback from ESMA, which could then be considered by firms when building/updating risk management processes and scenarios.

We welcome as a first step the publication by ESMA of the first AIFMD statistical report in March 2019[8]. The report shows that overall most AIFs do not seem to have significant liquidity mismatches. Fund of funds *"faces limited mismatch, with investors able to redeem 83% of the NAV within one week, while 77% of assets could be liquidated within this time frame"*. Hedge funds *"are exposed to limited liquidity mismatch, as they typically invest in liquid instruments"*. Private equity funds have limited liquidity risk, given that they are overwhelmingly closed-ended. Most types of other AIFs have very limited liquidity risk, although some faces some liquidity mismatch. Regarding real estate funds, within one week investors can redeem up to 20% of Net Asset Value (NAV) while real estate funds can quickly liquidate 8% of their assets.

Regarding real estate investment funds, we recognise that offering frequent redemptions can be more challenging and that EU jurisdictions have taken different approaches to address this specific point. In some cases, real estate investment funds can only be offered via close-ended vehicle. In other jurisdictions, specific requirements apply for open-ended funds (e.g. liquidity buffer, notice period) as documented by IOSCO's Report on Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration (February 2018).

Finally, we note that ESMA final assessment of fund liquidity risks of AIFs does not take into account the availability and potential mitigating effects of liquidity management tools (LMTs) at the fund level. We encourage ESMA to include them in their next assessment in 2020.

3.1.5.2. Disclosures to investors

As a complement to the in-depth regulatory disclosures to their competent authorities as described above, AIF management companies must also comply with an extensive list of investor disclosures. As per Article 23 of the Level 1 Directive, these include *inter alia* a description of the investment strategy and objectives of the AIF (including specific information for AIF master-feeder structures), a description of the types of assets in which the AIF may invest, the techniques it may employ and all associated risks and any applicable investment restrictions. On leverage, the circumstances in which the AIF may have recourse to leverage shall be communicated, as well as the types and sources of leverage permitted up to a maximum level and the associated risks, along with any restrictions on its use. Collateral and asset reuse arrangements should also be indicated, including any specific treatment for assets

7 Please refer to Annex I, which illustrates the relevant reporting template for the liquidity profile for each AIF, covering both the composition of the asset side (i.e. of the portfolio), as well as of the AIF's investors investor profiles.
8 https://www.esma.europa.eu/sites/default/files/library/esma50-165-748_aif_report_2019.pdf

of a relatively illiquid nature. Article 108(2), letter a) of the delegated Regulation No. 231/2013 substantiates these information requirements vis-à-vis illiquid assets by demanding that investors be offered an overview of any special arrangements in place, including whether they relate to side pockets, gates or other similar arrangements, the valuation methodology applied to assets which are subject to such arrangements and how management and performance fees apply to these specific assets. This is to be accompanied by a description of the procedures by which the AIF may change its investment strategy or investment policy.

Pertinent to liquidity risk management is the description of the AIF's related risk management procedures and systems, including 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 in the particular AIF.

The information above should be disclosed as part of the AIF's periodic reporting to investors, as required by the AIF's rules or instruments of incorporation or at the same time as the prospectus and offering document and — as a minimum — at the same time as the annual report is made available or made public.

3.2. The UCITS Directive

Pre-dating the AIFM Directive by over two decades, the UCITS Directive (2009/65/EC) of 1985 (regularly updated since then) is a unique investment product legislation - justified by the retail nature of the UCITS pan-European passporting. It is characterised by the offer to investors of on-demand liquidity[9] and built around a significant and prescriptive regulatory framework. For the informative purposes of this report, we wish to stress that the liquidity requirements illustrated above in reality already represent a second "line of defence" against liquidity risk. The first and most important element that has successfully guaranteed the liquidity of the UCITS product in line with its Article 84(1) obligation, from its inception in 1985 until the present day, are the specific portfolio diversification requirements under Article 52 et seq. of the Directive, as reinforced by a list of eligible and non-eligible assets under the previous Article 50.

Succinctly, UCITS portfolio diversification is based on the so-called "5-10-40 Rule", set out in Article 52(1) and (2). Accordingly, a UCITS shall invest no more than 5% of its assets in transferable securities or money market instruments issued by the same body. The risk exposure to a counterparty of the UCITS in an OTC derivative transaction shall not exceed 10% of its assets when the counterparty is a credit institution (or 5% of its assets in other cases). The above 5% limit may be raised to a maximum of 10%, albeit the total value of the transferable securities and the money market instruments held by the UCITS in the issuing bodies in each of which it invests more than 5% of its assets shall not exceed 40% of the value of its assets. Notwithstanding these individual limits, a UCITS shall not combine, where this would lead to investment of more than 20% of its assets in a single body, (i) investments in transferable securities or money market instruments issued by that body, (ii) deposits made with that body, or (iii) exposures arising from OTC derivative transactions undertaken with that body as a counterparty. Articles 53 to 57 allow for adjustments to these limits and prescribe additional ones that we do not address here as they would go beyond the specific scope of this report. As above with the AIFM Directive, we present the corresponding liquidity risk management requirements for UCITS management companies in the following sub-sections.

3.2.1. General permanent and independent risk management function

Article 51(1) of the Level 1 Directive provides that a UCITS management company shall employ a risk-management process which enables it to monitor and measure the risk of the positions and their contribution to the overall risk profile of the UCITS portfolio at any time. Such a process comprises procedures which enable the management company to assess the UCITS' exposure to all material risks including market risks, liquidity risks, counterparty risks and operational risks.

The implementing Directive 2010/43/EU further specifies – under Article 9(2) letter f) - that the senior management of the management company approve and review for each managed UCITS and on a periodic basis the risk management policy, together with the arrangements, processes and techniques for its implementation. The following Article 12(2) requires the permanent risk management function to be hierarchically and functionally independent from other operating units of the management company. *Inter alia*, it shall additionally implement the risk management policy and procedures; ensure compliance with the UCITS' risk limits, including statutory limits concerning global exposure and counterparty risk in accordance with the relevant provisions of the main directive and more recent 2012

9 Please refer to Article 84(1) of the Directive, whereby *a UCITS shall repurchase or redeem its units at the request of any unit-holder.*

ESMA Guidelines *(see infra)*; advise senior management and/or the supervisory function with regard to the risk profile for each managed UCITS and its consistency with current risk levels, as well as to the adequacy of the risk management process (indicating in particular whether appropriate remedial measures have been taken in case of eventual deficiencies); and provide regular reports to senior management outlining the current level of risk incurred by each managed UCITS and any actual or foreseeable breaches of their limits.

3.2.2. Specific liquidity risk management requirements

Under the Level 1 Directive, liquidity risk management requirements to which UCITS funds and their management companies are subject stem from the general obligation of Article 84(1), whereby *a UCITS shall repurchase or redeem its units at the request of any unit-holder*. By way of derogation, the subsequent paragraph 2 further provides that a UCITS may, in accordance with the applicable national law, the fund rules or the instruments of incorporation of the investment company, *temporarily suspend the repurchase or redemption of its units and its NCAs may require the suspension of the repurchase or redemption of units in the interest of the unit-holders or of the public*. Moreover, the previous Article 76 requires that a UCITS *make public in an appropriate manner the issue, sale, repurchase or redemption price of its units each time it issues, sells, repurchases or redeems them, and at least twice a month*[10].

More detailed obligations derive from the implementing Directive 2010/43/EU, whereby Article 23(4) obliges UCITS management companies in implementing their risk management policy to *formulate forecasts and perform analyses concerning the investment's contribution to the UCITS portfolio composition, liquidity and risk and reward profile* prior to their investment. In terms of risk- management policy, the following Article 38(1) prescribes *procedures as are necessary to enable the management company to assess for each UCITS it manages the exposure of that UCITS to market, liquidity and counterparty risks, and the exposure of the UCITS to all other risks, including operational risks, which may be material for each UCITS it manages*. According to the following paragraph 2, such risk-management policy and resulting activity are to be reported to the UCITS board of directors, senior management and the depositary, as well as to eventual internal supervisory function. Any material changes to the risk management process are to be reported to the NCAs.

3.2.3. Specific controls to monitor performance of illiquid assets

Article 39(1) of the implementing Directive 2010/43/EU obliges UCITS management companies to assess, monitor and periodically review the effectiveness of their risk management policy, their degree of compliance with it and the adequacy of measures taken to address any deficiencies in the risk management process. Moreover, the companies are to notify to NCAs any material changes to their risk management process and ensure that the above requirements are subject to regulatory review on an on-going basis even after authorisation is granted.

According to the following Article 40(3) of the implementing Directive 2010/43/EU, UCITS are to employ an appropriate liquidity risk management process in order to ensure that each UCITS they manage is able to comply at *any time* with allowing investors to redeem their units on demand. Paragraph 4 adds that UCITS management companies are *to ensure that for each UCITS they manage the liquidity profile of the investments of the UCITS is appropriate to the redemption policy laid down in the fund rules or the instruments of incorporation or the prospectus*.

According to the Committee of European Securities Regulators' (CESR) 2007 *Guidelines* concerning eligible assets (CESR/07-044b) the liquidity of any financial instrument should not be assumed but assessed considering:

- *the volume and turnover in the transferable security;*
- *if price is determined by supply and demand in the market, the issue size, and the portion of the issue that the asset manager plans to buy; also evaluation of the opportunity and timeframe to buy or sell;*
- *where necessary, an independent analysis of bid and offer prices over a period of time may indicate the relative liquidity and marketability of the instrument, as may the comparability of available prices; and*
- *in assessing the quality of secondary market activity in a transferable security, analysis of the quality and number of intermediaries and market makers dealing in the transferable security concerned should be considered.*

10 The NCAs may, however, permit a UCITS to reduce the frequency to once a month on the condition that such derogation does not prejudice the interests of unit-holders.

It is worth noting that the UCITS Directive already requires the listing of securities to happen *"on a stock exchange or to another regulated market which operates regularly and is recognised and open to the public, provided that the choice of stock exchange or market has been approved by the competent authorities or is provided for in law or the fund rules or the instruments of incorporation of the investment company"*[11].

The admission to trading on a regulated market does not provide as such an absolute presumption of liquidity of the financial instruments, as listing cannot guarantee that the assets issued under a programme will have a high secondary market liquidity. In this context, the Eligible Assets Directive states that for instruments which are admitted or dealt in on a regulated market the liquidity presumption applies, unless there is information available to the UCITS that would lead to a different determination[12].

Complementary guidelines that address liquidity are also to be found in ESMA's 2012 *Guidelines on ETFs and other UCITS issues* (as revised in 2014), albeit these address the liquidity of collateral received in the context of efficient portfolio management (EPM) transactions and/or OTC derivative ones[13]. For instance, under paragraph 43 letter a) of the *Guidelines*, the liquidity of received collateral – other than cash – is to be ensured by trading it on a regulated market or multilateral trading facility, with transparent pricing, in order for it to be sold rapidly and at a price that is close to pre-sale valuation. Paragraph 45 recommends that a UCITS receiving collateral for over 30% of its NAV conduct regular stress-tests, to be carried out under normal and exceptional liquidity conditions. Such tests should at least specify a) the design of stress-test scenario analysis including calibration, certification and a sensitivity analysis, b) the empirical approach to impact assessment, including back-testing of liquidity risk estimates, c) the reporting frequency and limit/loss tolerance threshold/s, and d) mitigating actions to reduce losses (including a haircut policy and gap risk protection).

3.2.4. Stress-testing

3.2.4.1 General provisions of the UCITS Directive Level 2

Although not expressly in the text of the Level 1 Directive, stress-tests have become a core requirement even for UCITS funds, following the implementing Directive 2010/43/EU and the CESR 2010 *Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS*[14] and the 2019 ESMA Guidelines on Liquidity Stress Testing (see next point).

Implementing Directive, Article 40(2) subsections b) and c) prescribe that for each UCITS they manage, companies must conduct periodic back-tests in order to review the validity of risk measurement arrangements (including model-based forecasts and estimates), as well as periodic stress-tests and scenario analyses to address risks arising from potential changes in market conditions that might adversely impact the value of the UCITS portfolio.

In addition, Article 40(3) states that Member States shall ensure that management companies employ an appropriate liquidity risk management process. In particular, Article 40(3) requires that where appropriate, management companies shall conduct stress tests which enable assessment of the liquidity risk of the UCITS under exceptional circumstances.

With regard to the *Guidelines*, these specify that where the Value at Risk (VaR) approach is used to calculate global exposure, each UCITS should adopt a *rigorous and comprehensive* stress-testing programme in accordance with qualitative and quantitative requirements. Such a programme should be designed to measure any potential major depreciation of the UCITS value as a result of unexpected changes in the relevant market parameters and correlation factors. Conversely, where appropriate, it should also measure changes to these parameters and factors, which could result in major depreciation of the UCITS value. Such tests should be adequately integrated into the UCITS risk management process and results considered when making investment decisions on behalf of investors in the UCITS, i.e. results should be monitored and analysed by the responsible risk management function and submitted for review to the senior management. Where particular vulnerabilities are revealed, prompt steps/corrective actions should be taken (e.g. hedging or a reduction in the relevant exposure).

The accompanying quantitative requirements in Box 20 of the *Guidelines* specify that stress tests should cover all risks which affect the value or the fluctuations in value of the UCITS portfolio to a significant degree. In particular, those risks which are not fully captured by the VaR model used. In terms of focus, the stress-tests should address those risks which, though not significant in normal circumstances, are likely to be significant in stress scenarios (e.g. unusual correlations, spikes in market illiquidity, behaviour of complex structured products, etc.). Finally, the accompanying

11 Article 50.1 of the UCITS Directive
12 Art. 2, par. 1, last paragraph Eligible Asset Directive
13 Please refer to the ESMA *Guidelines on ETFs and other UCITS issues*, as revised and published on 1 August 2014; available at: https://www.esma.europa.eu/sites/default/files/library/2015/11/esma-2014-0011-01- 00_en_0.pdf
14 Please refer to the CESR *Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS* (CESR/10-788) of 28 July 2010, particularly to Box 19 - 21.

qualitative requirements (Box 21) prescribe that stress-tests be carried out on a regular basis at least once a month, or earlier whenever a change in the value or the composition of a UCITS or a change in market conditions makes it likely that the test results will differ significantly from the ones performed previously. Ultimately, the management company should implement clear procedures relating to the design and ongoing adaptation of the stress-tests.

3.2.4.2 ESMA Guidelines on Liquidity Stress Testing in UCITS and AIFs

In September 2019 and based on a mandate received by ESRB via its report related to liquidity mismatches and the use of leverage in investment funds, ESMA published a dedicated set of Guidelines on Liquidity Stress Tests (LST) for UCITS and AIFs.

The Guidelines cover notably:

- the design of LST models: ESMA issued minimum requirements in building LST models which should be outcome oriented;
- scenarios: hypothetical and historical scenarios required and where appropriate reverse stress tests;
- governance principles: LST to be performed independently and appropriate governance and oversight, including escalations procedures required;
- disclosure requirements to be documented within the UCITS and AIF Risk Management Process:
    - definition of the role of senior management in the process;
    - which management function(s) is/are responsible for its performance;
    - its interaction with other liquidity risk management procedures;
    - a requirement for regular internal reporting of LST results specifying the frequency and recipients of the report;
    - periodic review and documentation of the results and a procedure for amending the policy where required by the review;
    - the circumstances requiring escalation, including when liquidity limits/thresholds are breached;
    - the funds subject to LST;
    - initial validation of the LST models and assumptions underpinning them, which should be performed independently from portfolio management, though not necessarily by an entity/person external to the manager;
    - the types and severity of stress test scenarios used and the reasons for selecting those scenarios;
    - the assumptions used relating to data availability for the scenarios, their rationale and how frequently they are revisited;
    - the frequency at which LST is carried out and the reasons for selecting that frequency; and
    - the methods for liquidating assets, including the limitations and assumptions used.
- the frequency and occurrence of LST (including during pre-launch phase); and
- stress testing of assets, liabilities and the combination of the two.

We agree with the general approach of this set of Guidelines as it requires the nature, scale and complexity of the funds in scope, as well as the underlying investment strategy when the stress test scenarios are formulated to be taken into consideration. The scope of the Guidelines is wide, covering all types of open-ended investment funds (including MMFs and ETFs) as well as leveraged closed-ended funds. As already highlighted in the EFAMA/AMIC Paper on LST in investment funds published in January 2019[15], it is important to give managers the flexibility to tailor LST to their funds based on their liquidity profile.

However, we remain sceptical on some particular points included in the Guidelines, in particular relating to the frequency of LST and some of the provisions as to the methodology used for LST of assets and liabilities where we consider the rules are becoming more detailed than necessary and appropriate.

It is important that regulators keep in mind when implementing the ESMA Guidelines the significant constraints that asset managers are faced with regarding access to data that allow the understanding of the underlying investors' profile.

Indeed, the main challenge for modelling/projecting fund redemptions is the availability of and access to investor data and information on fund flows. For many retail funds, investor transactions are incorporated into omnibus trades provided to fund managers by fund distributors who sell products issued by a number of asset managers. Thus, asset managers with retail funds distributed by third parties do not necessarily have access to the detailed transactional history needed to fully study investor redemption behaviours across investor segments within individual funds. The position varies considerably depending on the relevant securities law regime applied to the holding of fund units in a relevant EU member state. The key overall objective remains for both market participants and regulators to be able to get the complete picture of the distribution of funds' liabilities by investor type.

15 https://www.efama.org/Publications/Public/AMIC-EFAMA%20joint%20paper%20on%20liquidity%20stress%20tests%20in%20investment%20funds%20January%202019.pdf#search=liquidity%20stress%20tests

National authorities should work together with market participants to ensure the necessary access for asset managers to overcome challenges in obtaining more information on underlying funds' investors from distributors. The access to such additional data should aim at highlighting the set of useful information points that can improve the stress test models through better profiling of underlying investor types. This type of data would include data sorted in a more generic way – e.g. by number of underlying end investors and investor types (e.g. professional and retail investors) – and differentiating between investors who are incentivised not to redeem (e.g. in tax incentivised accounts or pensions savings account) and those investor types who are more volatile.

We understand that ESMA in its LST Guidelines acknowledges this constraint, stating however that there is no immediate remedy and that in the context of these Guidelines it cannot act to address this issue (ESMA is not empowered to enforce such data availability from intermediaries or platforms). At the same time asset managers are expected under these Guidelines to demonstrate that they are able to overcome such limitations, e.g. by avoiding optimistic assumptions, justifying reliance on third party models and exercising expert judgement. However, this falls short of recognising that for some suggested models the analysis is not feasible due to lack of data.

It is therefore crucial that national authorities support asset managers in obtaining more information on funds' investor bases from distributors without additional cost. In this respect ESMA could facilitate progress by organising a roundtable discussion with some of the major transfer agents, distributors and registrars as to what level of granularity could be provided without an excessive cost burden. It is also necessary that national regulators give due consideration to the importance of the availability of comprehensive and good quality trading and other market liquidity data for OTC instruments, such as bonds and derivatives. Without these, the effectiveness of liquidity quantification (including stress testing) will be constrained.

Beyond the availability of data on the liability side for the purpose of stress testing, AMIC and EFAMA members repeat our call for national authorities to ensure that funds structures in the EU have access to the full range of liquidity management tools in order to facilitate asset managers' liquidity risk management. Please refer to the recommendation 5.2.

3.2.5. Disclosures

3.2.5.1. Disclosures to regulators

The regulatory disclosures regarding the features of the risk management process – upon authorisation and on a periodic, ongoing basis in the event of material changes – to NCAs have been described in the section on AIFs above.

3.2.5.2. Disclosures to investors

As for AIF management companies, apart from the regulatory disclosures, Chapter IX of the Level 1 Directive provides for an extensive list of necessary disclosures to investors to be inserted in fund prospectuses, yearly and half-yearly reports, as well as in key investor information documents. These are complemented by the investor transparency requirements stemming from the above-cited 2010 CESR Guidelines insofar as exposure-related information in the fund prospectuses and in the annual reports are concerned.

3.3. Money Market Fund Regulation

Money Market Funds are a considerable source of short-term financing for credit institutions, governments and corporations. For investors, MMFs are mainly used to invest excess cash within short timeframes and offer diversification of their investment portfolio while maintaining a high level of liquidity.

Following the 2007-2008 financial crisis and the subprime crisis which caused strains among MMFs in Europe, in June 2017 the EU adopted an exhaustive piece of regulation for MMFs with a strong focus on the structural requirements needed to support the prime objective of preserving both the principal and the daily liquidity of the fund.

3.3.1. General permanent and independent risk management function

MMFs are AIFs or UCITS that are managed by alternative investment fund managers (AIFMs), UCITS management companies or investment companies and therefore follow the rules already described above when it comes to the risk management function.

3.3.2. Specific liquidity risk management requirements

Similarly, to UCITS funds, the first "line of defence" of MMFs against liquidity risk are investment policy requirements regarding eligible assets (articles 9 to 16), diversification (article 17) and concentration restrictions (article 18). For instance, in order to reduce the portfolio risk of MMFs, rules on eligible assets impose maturity

limitations. Furthermore, in order to strengthen MMFs' ability to face redemptions and prevent their assets from being liquidated at heavily discounted prices, MMFs must hold on an ongoing basis a minimum amount of liquid assets that mature daily and weekly. Daily maturing assets must comprise assets such as cash which is able to be withdrawn by giving one working day's prior notice, eligible securities that mature within one working day and reverse repurchase agreements which are able to be terminated by giving one working day's prior notice. Weekly maturing assets must comprise similar assets but have enough flexibility in terms of maturity, withdrawal and termination to be able to be effected within five working days.

3.3.3. Specifics on stress-testing

As part of prudent risk management, MMFs must, at least bi-annually, conduct stress testing that identifies possible events or future changes in economic conditions which could have unfavourable effects on the MMF. The MMF or the manager of an MMF must assess the possible impact that those events or changes could have on the MMF and is expected to act in order to strengthen the MMF's robustness whenever the results of stress testing point to vulnerabilities. For Public Debt Constant Net Asset Value (CNAV) MMFs and Low Volatility Net Asset Value (LVNAV) MMFs, the stress tests must also estimate, for different scenarios, the difference between the constant net asset value per share and the net asset value per share. An extensive report with the results of the stress testing and proposed action plan must be submitted for examination to the board of directors of the MMF, where applicable, or the board of directors of the manager of an MMF. The board of directors must amend the proposed action plan if necessary and approve the final action plan. The extensive report and the action plan must be kept for a period of at least five years. The extensive report and the action plan must be submitted for review to the competent authority of the MMF who in turn must send the extensive report to ESMA.

ESMA has issued Level 3 guidelines with a view to establishing common reference parameters for the stress test scenarios to be included in the stress tests which managers of MMFs are required to conduct. The guidelines include stress test scenarios in relation to hypothetical changes in MMFs:

- liquidity levels;
- credit and interest rate risks;
- redemptions levels;
- widening/narrowing of spreads among indexes to which interest rates of portfolio securities are tied; and
- macro-economic shocks.

The guidelines and calibration are expected to be updated at least annually, taking the latest market developments into consideration.

MMFs are also subject to several of ESMA' guidelines on *Liquidity Stress Tests for investment funds:* paragraphs 16 to 24 on LST models, governance principles, and disclosures.

3.3.4. Disclosures to regulators and investors

In addition to reporting already required under the UCITS Directive and the AIFM Directive, the manager of an MMF must report to the competent authority of the MMF on at least a quarterly basis (or at least annually where the AUM of the MMF does not exceed €100 million) a detailed list of information including the type and characteristics of the MMF, portfolio indicators, results of stress tests and information on the assets and liabilities held in the portfolio. Competent authorities must collect and transmit that data to ESMA which is tasked with creating a central database of MMFs.

The manager of a LVNAV MMF must also report the following additional information:

- every event in which the price of an asset valued by using the amortised cost method deviates from the price of that asset calculated in accordance with the mark-to-market/mark-to-model by more than 10 basis points;
- every event in which the constant NAV per share deviates from the NAV per share by more than 20 basis points; and
- every event in which (i) the proportion of weekly maturing assets falls bellows 30% and net daily redemptions on a single business day exceed 10%; or (ii) the proportion of weekly maturing assets falls below 10%, and in either case the measures taken by the board of the MMF.

The credit quality assessment methodologies must be reviewed at least annually by the manager to determine whether they remain appropriate and the review must be transmitted to the competent authority of the manager.

3.4 Existing regulatory requirements applicable to the NCAs

It is important to note that NCAs have their own series of regulatory requirements and that enforcement is instrumental to the regimes' effectiveness. The following EU provisions, which come on top of the national provisions, empower them to ensure that regulated funds are complying with EU rules.

3.4.1 AIFM Directive

3.4.1.1: Relations between AIF managers and the NCAs

Article 7(1) of Directive 2011/61/EU obliges managers to require the authorisation of competent authorities: *"Member States shall require that AIFMs apply for authorisation from the competent authorities of their home Member State."*

3.4.1.2: Relations between the NCAs and ESMA

Article 7(5) of Directive 2011/61/EU obliges NCAs to inform ESMA of authorisation granted or withdrawn: *"The competent authorities shall, on a quarterly basis, inform ESMA of authorisations granted or withdrawn in accordance with this Chapter."*

Article 48 (3) of Directive 2011/61/EU obliges NCAs to draw up an annual report on the application of administrative measures and imposition of penalties:

"ESMA shall draw up an annual report on the application of administrative measures and imposition of penalties in the case of breaches of the provisions adopted in the implementation of this Directive in the different Member States. Competent authorities shall provide ESMA with the necessary information for that purpose."

3.4.1.3: Supervisory and investigatory powers of the NCAs:

Article 46 of Directive 2011/61/EU obliges competent authorities to have all supervisory and investigatory powers that are necessary for the exercise of their functions:

"1. Competent authorities shall be given all supervisory and investigatory powers that are necessary for the exercise of their functions. Such powers shall be exercised in any of the following ways:

(a) directly;

(b) in collaboration with other authorities;

(c) under their responsibility by delegation to entities to which tasks have been delegated; and

(d) by application to the competent judicial authorities.

2. The competent authorities shall have the power to:

(a) have access to any document in any form and to receive a copy of it;

(b) require information from any person related to the activities of the AIFM or the AIF and if necessary to summon and question a person with a view to obtaining information;

(c) carry out on-site inspections with or without prior announcements;

(d) require existing telephone and existing data traffic records;

(e) require the cessation of any practice that is contrary to the provisions adopted in the implementation of this Directive;

(f) request the freezing or the sequestration of assets;

(g) request the temporary prohibition of professional activity;

(h) require authorised AIFM, depositaries or auditors to provide information;

(i) adopt any type of measure to ensure that AIFMs or depositaries continue to comply with the requirements of this Directive applicable to them;

(j) require the suspension of the issue, repurchase or redemption of units in the interest of the unit-holders or of the public;

(k) withdraw the authorisation granted to an AIFM or a depositary;

(l) refer matters for criminal prosecution; and

(m) request that auditors or experts carry out verifications or investigations."

3.4.2 UCITS Directive

3.4.2.1: Relations between UCITS managers and the NCAs

Article 5 of Directive 2009/65/EC obliges UCITS managers to have the authorisation of competent authorities to pursue activities:

"1. No UCITS shall pursue activities as such unless it has been authorised in accordance with this Directive. Such authorisation shall be valid for all Member States.

2. A common fund shall be authorised only if the competent authorities of its home Member State have approved the application of the management company to manage that common fund, the fund rules and the choice of depositary. An investment company shall be authorised only if the competent authorities of its home Member State have approved both its instruments of incorporation and the choice of depositary, and, where relevant, the application of the designated management company to manage that investment company."

3.4.2.2: Relations between the NCAs and ESMA

Article 99 (1) of Directive 2009/65/EC obliges the NCAs to provide to ESMA an annual report of all penalties and measure imposed in accordance with article 99:

"Competent authorities shall provide ESMA annually with aggregated information regarding all penalties and measures imposed in accordance with Article 99. ESMA shall publish that information in an annual report."

3.4.2.3 Supervisory and investigatory powers of the NCAs

Article 98 of Directive 2009/65/EC says that the NCAs shall have all supervisory and investigatory powers that are necessary for the exercise of their functions:

"1. The competent authorities shall be given all supervisory and investigatory powers that are necessary for the exercise of their functions. Such powers shall be exercised:

(a) directly;

(b) in collaboration with other authorities;

(c) under the responsibility of the competent authorities, by delegation to entities to which tasks have been delegated; or

(d) by application to the competent judicial authorities.

2. Under paragraph 1, competent authorities shall have the power, at least, to:

(a) access any document in any form and receive a copy thereof

(b) require any person to provide information and, if necessary, to summon and question a person with a view to obtaining information;

(c) carry out on-site inspections;

(d) require: (i) in so far as permitted by national law, existing data traffic records held by a telecommunications operator, where there is a reasonable suspicion of an infringement and where such records may be relevant to an investigation into infringements of this Directive;

(ii) existing recordings of telephone conversations or electronic communications or other data traffic records held by UCITS, management companies, investment companies, depositaries or any other entities regulated by this Directive;

(e) require the cessation of any practice that is contrary to the provisions adopted in the implementation of this Directive;

(f) request the freezing or the sequestration of assets;

(g) request the temporary prohibition of professional activity;

(h) require authorised investment companies, management companies or depositaries to provide information;

(i) adopt any type of measure to ensure that investment companies, management companies or depositaries continue to comply with the requirements of this Directive;

(j) require the suspension of the issue, repurchase or redemption of units in the interest of the unit-holders or of the public;

(k) withdraw the authorisation granted to a UCITS, a management company or a depositary;

(l) refer matters for criminal prosecution; and

(m) allow auditors or experts to carry out verifications or investigations."

3.5 IOSCO initiatives

Since the publication of the AMIC/EFAMA report in 2016, IOSCO issued final recommendations, and more recently published an official statement on fund liquidity. Recommendations from IOSCO are key to shaping local rules set by national supervisors across the world, as well as guiding their convergence globally, and ultimately contributing to the enhancement of regulatory standards worldwide.

3.5.1 IOSCO 2018 enhanced Recommendations on Liquidity Risk Management for Collective Investment Schemes

In February 2018 IOSCO published its Final Report on Recommendations for Liquidity Risk Management for Collective Investment Schemes (CIS). These Recommendations are supplemented by a second Final Report titled Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration (the "Good Practices Document", mentioned in a following section), which provides a practical compendium of measures to address liquidity risk management, for the use of supervisors, market actors and investors.

3.5.1.1 IOSCO 2013 Principles of Liquidity Risk Management for Collective Investment Schemes

As a reminder the IOSCO 2013 Principles include the following requirements to be met by "responsible entities" (i.e. fund managers):

- draw up an effective liquidity risk management process;
- set appropriate liquidity thresholds which are proportionate to the redemption obligations and liabilities of investment funds;
- carefully determine a suitable dealing frequency for units in investment funds;
- ensure that investment funds' 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;
- consider liquidity aspects related to its proposed distribution channels;
- consider its information needs/access in order to effectively manage liquidity risk;

- ensure that liquidity risk and its liquidity risk management process are effectively disclosed to investors and prospective investors;
- ensure that the liquidity risk management process is supported by strong and effective governance;
- perform and maintain its liquidity risk management process;
- regularly assess the liquidity of the assets held in the portfolio;
- integrate liquidity management in investment decisions;
- identify an emerging liquidity shortage before it occurs;
- incorporate relevant data and factors into its liquidity risk management process in order to create a robust and holistic view of the possible risks;
- conduct ongoing liquidity assessments in different scenarios, which could include fund level stress testing; and
- ensure appropriate records are kept, and relevant disclosures made, relating to the performance of its liquidity risk management process.

3.5.1.2 The 2018 IOSCO Recommendations

The Recommendations published in 2018 restated the 2013 principles and added two new recommendations covering (a) contingency planning and (b) the consideration of additional liquidity management tools to the extent allowed by local law and regulation and consistent with the pursued fund strategy, the profile of the investor base and of the latter's fair treatment. The updated IOSCO Recommendations still follow a principles-based approach, which is certainly an appropriate stance recognising that there is no "one-size-fits-all" approach that would be effective when managing liquidity risks for different investment strategies and underlying assets.

At the EU level what is of particular importance is the fact that most Recommendations are already well aligned with existing European standards and industry best practices. Equally importantly, IOSCO's Final Report turns away from discussions and suggestions around system-wide stress-tests and entails no further prescriptive management suggestions, such as the pre-selected liquidity "buckets", depending on the underlying assets' contingent liquidity state.

Based on the IOSCO Recommendations, liquidity risk management systems need to be in place in order to monitor – prior to a fund's launch and on an ongoing basis throughout its life-cycle – the overall consistency of the pursued investment strategy with the individual redemption liability profile of the fund. It is on such consistency that a suitable dealing frequency should be determined. The fund's investment strategy and objectives should be designed to ensure that redemptions can be met in both normal and reasonably foreseeable stressed market conditions. Such considerations should also be extended to the liquidity of collateral for the purpose of securities lending and repo transactions, as well as for margining. This assessment must involve an internal approval process, with the participation of senior management and/or the Board, where it can be reviewed and updated on an ongoing basis from both portfolio management and risk management perspectives.

Moreover, IOSCO stressed the need for asset management companies to improve the profiling of their investor base, working closely with fund distributors to improve their understanding of the underlying type of investors and the behavioural characteristics associated with such relevant types of investors. Despite the well-recognised challenges tied to nominee accounts, IOSCO adds that responsible entities should take "all reasonable steps" to improve investor profiling. On that point, we wish again to draw the attention to the important challenges and restricted access asset managers are faced with as regards data on the end-investors' profile. We consider it crucial for asset managers to be able to meet the requirements on better understanding the underlying investors' characteristics for national and European regulators to take the necessary steps to facilitate access to such data. Please see also the points we make on that issue in section 3.2.4.2.

Regarding disclosure requirements and information provided to investors via fund offering documents, IOSCO calls for a proportionate and appropriate explanation of liquidity risks; i.e. an explanation of why and in what circumstances risks might crystallise; their significance and potential impact on the CIS and its unit-holders, and a summary of the process through which the asset manager aims to mitigate the risk. In case additional liquidity management tools (ref. to Recommendation 17) are included in the design of a CIS, the details of how such liquidity management tools would operate and what the activation of such tools would mean for investors should be set out clearly and appropriately for potential investors. We welcome clear information about the relevant conditions being shared with investors, however we believe that, in exceptional circumstances, the degree of detail required to meet the disclosure recommendations (in particular in terms of disclosing publicly the liquidity of assets in which a fund is currently invested) could compromise the minimum level of confidentiality of portfolio holdings vis-à-vis the market. For instance, when a fund is suspended or gated, transparency of portfolio holdings can make a difficult situation worse as short sellers can anticipate the forced trades, aggravate the liquidity crisis and further distort the value of assets.

Concerning the operation of stress-testing, IOSCO suggests it should be performed proportionately and at an individual fund-level only, in line with current practices and be appropriate to the size, investment strategy, underlying assets and investor profile of the CIS, while also accounting for normal and stressed scenarios (e.g. atypical redemption requests). 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. As a possible starting point for the conduct of stress-tests, IOSCO suggests these start from the assumption that the responsible entity has been obliged to implement one of the additional liquidity management tools, to then identify situations where this could occur, and then work through the consequence of operating in such situations.

The proportionate approach endorsed by IOSCO, allowing for a modelling of LST on the basis the size, investment strategy, underlying assets and investor profile of the investment fund, is fully welcome and appropriate. Please see also our points on the need for a principles-based approach highlighted in section 3.2.4.2 in relation to the ESMA LST Guidelines. It is also important that IOSCO notes that stress-testing does not replace a risk managers' best judgment, but only supports it in reasonably foreseeable circumstances. Stress-testing should be carried out at a frequency relevant to the specific CIS, especially in anticipation of foreseeable market corrections.

3.5.1.3 IOSCO 2019 statement on Liquidity Risk Management Recommendations for investment funds

IOSCO published, in July 2019[16], a statement on its Liquidity Risk Management Recommendations for investment funds. This statement is a follow-up to the recent cases of some investment funds dealing with liquidity problems, the relevant media coverage and the announcement made by the Bank of England that they will be reviewing, at domestic level, redemption terms offered by open-ended funds to their investors. It highlights the work done so far by IOSCO, i.e. the Recommendations on Liquidity Risk Management published in February 2018, explaining why they provide a comprehensive framework for regulators to deal with liquidity risks.

Moreover, IOSCO clarifies that the existing framework takes a proportionate approach taking into consideration different investment strategies and the varying degrees of liquidity of the underlying assets, while at the same time it contains practical principles supporting national supervisors to apply the recommendations in a more prescriptive manner to manage specific or idiosyncratic liquidity risks. IOSCO calls once more for securities regulators to ensure effective implementation of its 2018 Recommendations and informs about its intention to conduct a robust assessment exercise beginning in 2020, which will review how its Recommendations have been implemented in practice.

We very much welcome this IOSCO statement (see the EFAMA public statement[17]) as it stresses the need for Liquidity Risk Management rules to remain consistent at a global level and is a reminder of the IOSCO Liquidity Risk Management Recommendations of February 2018 providing a comprehensive framework for regulators to deal with liquidity risks in investment funds.

Ensuring a consistent implementation of these 2018 Liquidity Risk Management Recommendations and avoiding diverging or fragmented national regimes on liquidity risk management is of critical importance and we agree it is essential that the regulatory work remains under the remit of IOSCO.

3.6 Economic report on stress simulation for investment funds by ESMA (September 2019)

ESMA published in September 2019 a framework for stress simulations for the investment fund sector. This sector-wide stress simulation framework is based upon different building blocks and focuses in particular on the calibration of redemption shocks for investment funds, ways to assess the resilience of the sector to shocks and the impact of fund managers' liquidation strategies on financial markets, as well as possible second round effects.

At the same time, ESMA published a first case study regarding the application of this framework on a sample of more than 6000 UCITS bond funds. The main results of this case study include:

- The first part of the report gives an overview of stress simulation in the fund industry: stress tests as a risk management tool, stress-tests performed by supervised entities according to supervisory scenario and stress simulations led exclusively by supervisors. It is worth noting that in this part ESMA recalls that *"as highlighted by the FSB (2017), investment funds (IFs) have generally not caused financial stability concerns in recent periods of stress and heightened volatility, with the exception of some money market funds. However, given their sheer size, it is important to ensure that any risks stemming from IFs are properly understood and addressed."*

16 https://www.iosco.org/news/pdf/IOSCONEWS539.pdf
17 http://www.efama.org/Pages/Submitted%20after%202018-03-12T16%2022%2007/EFAMA-Statement---IOSCO-statement-on-liquidity-risk-management-for-investment-funds.aspx

- The second part of the report considers modelling options available for sector wide simulation, depending on the objective and data constraints. To ensure that the simulation remains realistic the report formulates guiding principles on the three main components of the stress simulation:

  (1) definition of the redemption shock: historical vs event study;
  (2) impact of the shock on IFs: assessment of the liquidity of IFs (HQLA vs time to liquidation), liquidation approaches (slicing vs waterfall), ability of IFs to face large redemptions (redemption coverage ratio vs fund liquidity coverage ratio); and
  (3) impact on markets and investors: price impact, fund liquidity channel and second round effects.

- The last part covers the actual simulation conducted by ESMA. The European supervisor has applied a redemption shock (weekly redemption ranging from 5-10% of NAV) to a sample of around 6,600 UCITS funds (EUR 2,500bn NAV) investing primarily in fixed-income instruments (*"since they are the more likely to face a liquidity mismatch than equity funds"*) and classified into five categories: High-Yield (HY), Emerging markets bonds (EM), euro fixed-income, global fixed-income and mixed funds. The simulation concludes that:

  (1) impact on IFs: *"overall most funds are able to cope with such extreme but plausible shocks, as they have enough liquid assets to meet investors' redemption requests. However, pockets of vulnerabilities are identified, especially for HY bond funds. Under the severe but plausible assumptions of our simulations, up to 40% of HY bond funds could experience a liquidity shortfall (...)."; and*
  (2) impact on markets and investors: *"overall price impact is limited for most asset classes, as sales by funds are only a fraction of aggregate trading volumes. However, for asset classes with more limited liquidity, such as HY bonds and EM bonds, fund sales could have a material impact, ranging from 150 to 300 basis points, and generate material second round effects."*

ESMA suggests that these tests could be conducted regularly and that assessment for AIFs could come at later stage. Before coming to the results of this first case simulation test, it is important to look at the model applied by ESMA for its analysis. We believe there is scope to improve this simulation and the relevant analysis by refining estimates of market liquidity and benchmarking estimated flows to empirical data. Regarding the definition of liquidity, the use of Basel HQLA is an assumption with important limitations when applied to funds. In that context, pure HY funds are judged to have zero liquidity by definition. Therefore, the model implies that regardless the redemption size, HY funds would always fail a redemption test (100% haircut applied to all HY). As regards the redemption calibration, the 1-week flow size chosen for the HY analysis was 8% of retail NAV, which is by far larger than the largest weekly flow from HY funds in the last 10-years. On other words, this is extreme modelling and should be acknowledged before using this as a base for any further regulatory action.

Moving on to the results of this first application of the simulation framework, ESMA stresses that *"overall, most funds are able to cope with these shocks, as they have enough liquid assets to meet investors' redemptions"* and that *"the overall price impact is limited for most asset classes, as sales by funds are only a fraction of aggregate trading volumes"*. However, for asset classes with more limited liquidity, such as HY and EM bonds, fund sales could have a material impact, ranging from 150 to 300 basis points, and generate material second round effects. *"Second round effects are significantly larger when fund managers sell assets in proportion to their weights in the portfolio, as funds exposed to assets that are less liquid need to dispose of those securities."*

We fully agree with the main findings of ESMA in relation to the resilience of the wide majority of UCITS bond funds and their capacity to cope with redemption shocks. At the same time, as already stressed, we consider that the *"modelling choices have had material impact on the results obtained"* – as also explicitly mentioned by ESMA – in particular regarding the overreliance on HQLA and the penalising results this has for HY and EM funds. ESMA already acknowledges this and states that *"the HQLA measure may not adequately represent the level of liquidity risk faced by the fund"*. We also note that ESMA excludes the potential mitigating effects of liquidity risk management tools such as swing pricing and active management of redemption flows. We encourage ESMA to work with national regulators to map out which funds have adopted LMTs to have in the future a more effective assessment of the impact of redemption shocks on EU investment funds. When assessing second round effects, ESMA seems to conclude that regarding the liquidation strategy a slicing approach would weigh more heavily on the market, but we would argue that on a waterfall basis once the cash balance is used this is likely to lead to a worse-off situation for the remaining investors compared to a vertical slice – leading over time to greater second order events.

3.7 The European Systemic Risk Board (ESRB) Recommendation on action to address systemic risks related to liquidity mismatches and the use of leverage in investment funds (February 2018)

On 14 February 2018, the ESRB published a series of recommendations on liquidity and leverage risks in investment funds (ESRB/2017/6), which it had adopted on 7 December 2017. The Recommendation[18] was supplemented by an Annex I "Compliance criteria for the recommendations"[19] and an Annex II "Economic rationale and assessment"[20]. There were essentially four recommendations regarding fund liquidity.

The first one suggested changing primary legislation to include additional liquidity management tools and to use the power to suspend redemptions. While the accessibility of LMTs is a key priority for AMIC and EFAMA members, we would rather recommend the convergence to happen at the level of ESMA. ESMA should encourage public authorities in certain EU Member States to consider broadening the range of available tools, thereby ultimately contributing positively to the management of liquidity risk. This could take place in 2020 as ESMA has already announced that it will be focusing on fostering convergence and promoting consistent supervision between NCAs with regard to fund liquidity risks. ESMA could start this exercise by updating the table used by the ESRB in its recommendations mapping at European level available liquidity management tools and highlighting gaps (see annex).

The second recommendation suggested changing primary legislation to mandate ESMA to create a list of "inherently less liquid assets" and subject funds investing in such assets to additional supervisory controls. We are strongly concerned as we consider liquidity of an asset as a dynamic notion difficult to capture with a static definition. Therefore, we consider that the EU should abstain from having a definition enshrined into law and fully take into consideration that "liquidity is an elusive concept", requiring on the contrary a flexible and agile regulatory framework.

The third recommendation was to develop guidance for firms for the stress testing of liquidity risk for individual AIFs and UCITS funds. As already mentioned, this was delivered by ESMA (see § 3.2.4.2).

Finally, the ESRB recommended to change legislation in order to require UCITS and UCITS management companies to regularly report data, especially regarding liquidity risk, to their competent authorities.

18 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf?723f0fa99b1e8886e651e4950d2a55af
19 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6_annex_I.en.pdf?4422926c573ffc7debe7f12988e546a3
20 https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6_annex_II.en.pdf?4422926c573ffc7debe7f12988e546a3

4. Complementary operational liquidity tools available to asset managers through national regulatory frameworks and industry codes of conduct

Besides the relevant regulatory requirements under the two relevant EU collective funds' frameworks analysed above, there exists a further array of operational tools available to asset managers to manage their liquidity profile. As acknowledged in the *IOSCO Final Report Liquidity Management Tools in Collective Investment Schemes* of December 2015, recourse to these tools is common across many global jurisdictions and has proved successful by enabling fund management companies to counter all sorts of market events[21]. We have provided a brief outline of the results of the IOSCO survey below in sub-section 4.1. Moreover, within important fund domicile jurisdictions, buy-side industry associations have pro-actively provided some practical guidance and marketplace codes of conduct concerning fund liquidity management[22], or on specific aspects of it[23]. In sub-sections 4.2 to 4.9 we briefly describe some of the most common of these national level tools available in European jurisdictions. For more details about which EU countries these tools are available in, please see Annex II, based on information provided by the 2015 IOSCO survey.

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).

4.1 IOSCO actions and statements

4.1.1 The December 2015 IOSCO survey of liquidity management tools in collective investment schemes

We note that IOSCO issued a report in December 2015, which is relevant to this report. It contains the results of a survey conducted among some of its members (i.e. those represented on IOSCO's Committee 5, responsible for "Investment Management") and addresses collective investment funds' liquidity management frameworks across 26 member jurisdictions (including 10 from the EU)[24]. The survey was designed to specifically look at exceptional situations, such as significant redemptions. It covered topics such as tool availability, use, and outcomes, as well as who has the right to activate such tools.

The IOSCO survey results acknowledge the existing widespread availability of liquidity management tools for fund management companies. The survey found that, *inter alia*:

- fund management companies generally disclose upfront the existence of tools to investors;
- feedback from various national regulators show examples of good practices funds have adopted to address liquidity concerns as part of their ongoing portfolio and risk management, for example, in terms of fund structuring, portfolio composition or meeting redemption requests[25];
- asset managers have a fiduciary duty to their investors and have activated liquidity management tools when these are in the best interests of fund shareholders;
- the range of tools available is very significant:
    - there are mandatory regulatory requirements regulating funds, such as limits on asset concentration, counterparties, the availability of short-term borrowing and limits on leverage to name only a few; and
    - liquidity management tools can also come from industry practices which can be activated optionally, and which include, among others, suspension of redemptions, redemption gates, side pockets and swing pricing (see infra).

These tools are reinforced in many jurisdictions by the funds' internal risk management and control systems, which help ensure material risks are properly identified, assessed, monitored and controlled, under the supervision of regulators. In Europe there is already

21 For a series of concrete examples of suspensions in the recent financial history, please refer to the IOSCO *Final Report Liquidity Management Tools in Collective Investment Schemes: Results from an IOSCO Committee 5 survey to members* of December 2015; available at: https://www.iosco.org/library/pubdocs/pdf/IOSCOPD517.pdf

22 In this respect, please refer to the *AFG Code of Practice on liquidity risk management in Collective Investment Schemes (CIS)*, as adopted in January 2016 by the French asset management industry association (AFG), available at http://www.afg.asso.fr

23 For an in-depth example on swing pricing specifically, please refer for instance to the recent *Guidelines on Swing Pricing*, issued by the Association of the Luxembourg Fund Industry (ALFI) on 10 December 2015; available at http://www.alfi.lu/sites/alfi.lu/files/Swing-Pricing-guidelines-final.pdf

24 The *IOSCO Final Report Liquidity Management Tools in Collective Investment Schemes: Results from an IOSCO Committee 5 survey to members* of December 2015

25 One recent example is the UK FCA: Liquidity management for investment firms: good practice - https://www.fca.org.uk/news/liquidity-management-for-investment-firms-good-practice

prescriptive regulation in place about these aspects (see Section 3 above).

Crucially, IOSCO concluded from its survey that *although the use of such liquidity management tools is rare, there have been occasions in the past where activation is needed to ensure investors are protected. Although the impacts of such actions have been acutely felt by fund investors, the broader, system wide consequences of invoking such tools have been limited*[26].

4.1.2 The February 2018 IOSCO report on Open-ended fund liquidity and risk management-good practices and issues for consideration

In parallel to its recommendations on liquidity risk management (see section 3.5), IOSCO published in February 2018 a report focusing on the practical implementation of liquidity management tools: *Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration*. This "Good Practices Document" covers topics such as: ensuring consistency between a fund's redemption terms and its investment strategy; liquidity risk management tools; and stress testing. When implementing the 2018 Liquidity Recommendations, these good practices provide responsible entities with a useful reference point against which to assess whether their own practices follow a similar approach, or to the extent that they vary, whether they can achieve similar outcomes, and furthermore assist with evolving the most effective approach to the responsible management of liquidity.

IOSCO confirms the resilience of the fund industry noting in its executive summary that *"in a number of cases, large redemptions have not led to the activation of liquidity management tools, nor has there been any substantial impact on asset prices or the broader financial system"*. After highlighting factors to be considered by fund managers and supervisors to ensure consistency between a fund's redemption terms, its investment strategy during both its design-phase and life-cycle, IOSCO also shows concrete examples where asset managers have been successfully using liquidity tools to the benefit of investors (swing pricing, anti-dilution levies, redemption gates, side pockets, notice periods, suspension of redemptions, redemption in-kind).

4.2 National tools recognised by several securities regulators

4.2.1 Swing pricing

The purpose of swing pricing (sometimes referred to as dilution adjustment) is to protect existing investors in a fund against the negative effects tied to the purchase or sale of underlying securities as a result of high volumes of investor activity. In practice, a swing pricing mechanism enables a manager to charge, or "swing", the relevant transaction costs tied to the net subscriptions, or net redemptions, respectively on the incoming or outgoing investors. In other words, transactions costs associated with subscriptions and redemptions are allocated to either the bid or offered side of the market, depending on which side is greater (i.e. net inflows or net outflows) for any given fund. In this manner, those fund investors that remain invested do not bear the incoming or outgoing investors' trading costs which would otherwise affect the former's NAV (especially when buying or selling occurs in volume).

Additionally, there are at least two types of swing pricing, "full" and "partial" swinging. Under full swing pricing, the relative costs are allocated and NAV is adjusted any time there are net inflows or outflows in a fund, as defined above. Under partial swing pricing, the costs are allocated and the NAV is "swung" only when net inflows or net outflows exceed a predefined threshold expressed as a percentage of a fund's NAV. The threshold is calibrated relative to the overall liquidity of the fund.

There is data showing that over time swing pricing protects remaining investors against paying for liquidity provided to redeeming/ subscribing investors and therefore increases long term performance.

4.2.2 Dual Pricing

Like swing pricing, dual pricing constitutes a mechanism by which the subscription or redemption costs are made to fall upon the subscribers or redeemers to or from the fund, rather than on the remaining investors in the fund. Assets held by the fund are priced on a mid-market basis which is used to obtain a mid-NAV per unit/share. Subscriptions and redemptions are matched as portfolio managers trade, so that overall trading and related costs are reduced for subscribers and redeemers. Transaction costs are calculated and then added to the NAV to obtain the subscription price or deducted from the NAV to derive the redemption price, later attributed respectively to the incoming (ask) and outgoing (bi) investors. This protects existing investors from the effects of trades triggered by dealing/trading. Dual pricing historically developed in jurisdictions such as the

26 IOSCO survey page 26

UK where listed securities were themselves dual priced.

4.2.3 Redemption fees

A redemption fee is a charge that some fund groups levy if an investor exits a fund before a certain time. When the redemption fee is collected, it goes directly back into the mutual fund. Shareholders pay a redemption fee in accordance with the amount of shares held.

4.2.4 Dilution levy

A dilution levy (sometimes referred to as an "anti-dilution levy") consists of a charge intended to reflect the transaction costs stemming from large investor outflows (or inflows)[27]. The levy is intended to protect existing or remaining investors against the adverse performance impact of new or leaving investors. Additional charges may therefore be levied on investors buying or selling units/shares in a fund, intended to offset any potential effect on the fund NAV resulting from the additional transaction costs (i.e. market spreads, brokerage charges, stamp duties, etc.). Such tools prove useful particularly in funds experiencing sizeable inflows or outflows, or simply passively tracking a market, where managers would frequently have to buy or sell the fund's underlying holdings to prevent cash overhangs or to be overdrawn.

Per se, the dilution levy is not a standard charge and its application is very much a policy decision at the discretion of the manager, depending on a series of indicative factors, e.g. a fund over a dealing period experiences high net sales or redemptions relative to its size (which should be stated in the prospectus), in the presence of one-off large inflows/outflows, where inflows/outflows are continuously in decline or increasing, etc.

4.2.5 In-kind redemption

In-kind (or *in specie*) redemptions consist of non-cash payments to the redeeming investor of assets in the fund instead, in whole or in part, of cash. There would therefore be no need to sell underlying assets of the fund, thereby protecting both remaining and redeeming investors from any transaction costs.

Rarely used in the retail fund space, in-kind redemption represents a viable alternative to cash payments to redeeming large institutional investors out of a specific fund vehicle. An important driver behind this type of redemption is the preservation of the underlying portfolio's characteristics which may not necessarily be amongst the most liquid and easily convertible to cash, and which the portfolio manager may wish to preserve to avoid generating a performance drag for the other remaining institutional investors.

Redemptions in-kind may nevertheless present a series of potential operational challenges. Firstly, the in-kind transfer is not an automated process for transfer agents and registrars. In the UK, for instance, such redemptions require a depositary to sign-off on them, which may considerably delay the process. To the same effect, in Luxembourg, a special valuation from the fund's auditor is usually required. In both cases these protections are designed to ensure that the assets being transferred are not undervalued to the detriment of remaining investors. Moreover, it may become time-consuming for a fund's custodians to re-register the assets into the investors' names, unless processes are already in place between their respective custodians.

Secondly, in some jurisdictions, in-kind redemptions may also require approval from the local tax authority, which again may contribute to lengthening the process. Without such approval, a redemption could in fact be treated as a taxable event. Further tax requirements are aimed at ensuring a fair distribution of assets on a *pro-rata* basis, so that remaining investors are not at a disadvantage and those exiting are not burdened by what in certain jurisdictions is collected as stamp duty reserve tax (SDRT) on a non-proportionate split.

Thirdly, it may not always be possible to process redemptions in-kind, as a fund manager may not possess the details of the underlying investor in whose name the assets should be returned. In practice this implies that in-kind redemptions are limited to institutional clients with whom the manager has a long-established relationship and a high level of existing operational connectivity with the client's custodian. This could be the case where an institutional client invests in the fund as part of a wider discretionary portfolio managed by the manager.

4.2.6 Out of the money (OTM) gates in fund structures

Facing liquidity pressure, a fund may choose to temporarily "gate" an investor's access to its capital, by either partially or fully restricting investors' ability to redeem their interest in the fund. Such gates may be imposed either at the fund-level or at the investor-level with differing thresholds. For instance, a fund-level gate of 10% would translate into a redemption prohibition from the fund should on aggregate fund redemptions over a given period exceed 10% of the fund's assets. An investor-level gate of the same percentage would prevent any single investor from withdrawing more than 10% of their interest in the fund, regardless of the

27 In the case of incoming investors, this levy is more appropriately identified as an "entry fee", as the term "dilution" is more appropriate to define the charge that is levied on outgoing investors to avoid that the share value for those remaining investors be "diluted" through the sale of a part of the fund's assets.

withdrawal behaviour of other investors. In the case of fund- or investor-level gates, redemption requests that exceed the permitted threshold are met on a *pro-rata* basis and any residual request is carried forward to the next redemption period. In terms of the reputational impact of gates, these are similar to using tools like suspension of dealings, explored in greater detail below in the next sub-section.

4.2.7 Suspension of dealings

Where open-end fund structures exist, fund managers (sometimes required by regulators) may be allowed to suspend dealings where they deem that the relevant transactions would go against the interests of the fund and its investors and make further and potentially larger redemption demands on the fund more likely. Such suspensions – when foreseen by a fund's constitutional documents – would allow managers to meet redemptions in an orderly manner, as well as liquidate assets at their full value once pricing conditions improve. Suspensions may be imposed, for instance, where prevailing market conditions do not allow for the fair valuation of the underlying securities, where specific stock exchanges may be closed, or even on occasion of fund mergers or terminations.

In Europe, such practice is also expressly envisaged under the relevant Article 84(2) of the main UCITS Directive, as a derogation to the main UCITS feature of offering investors continuous liquidity. These decisions are taken by senior management of the asset management company and communicated to the national supervisory authority of the fund's domicile, as well as to those in other countries in which the fund has been distributed. The possibility to temporarily suspend the repurchase or redemption of the fund's shares/units in fact may even be required by the national authority in the interest of the investors or of the public.

For UCITS (and arguably for funds under other regimes, at least open-ended funds) suspension of dealings ought not to be routinely imposed. Such a tool should only be used where investors may suffer from the fact that present values cannot be realised in the face of rising redemption demands without significant market impacts. For example, when US markets closed after the 9/11 attacks, in 2001, many European funds suspended both redemptions and subscriptions to avoid dealing on unfair estimates of prices. The recent financial crisis also saw suspensions in dealing because it was not possible even to obtain fair value for some securities with an appropriate degree of accuracy, let alone price them.

4.2.8 "Side-pockets"

Where assets remain hard to value and may not be ordinarily liquidated in the market, an asset manager may have recourse to what are commonly known as "side-pockets". These consist of the segregation of the illiquid portion of a fund's portfolio and its transfer into a separate, illiquid investment vehicle.

From an accounting viewpoint, the remaining liquid securities are reflected in the fund's regular account and are used to derive the value of the fund's unit/shares. As the side-pocket is illiquid and remains so even for lengthy periods until the assets can be sold-off in an orderly manner, the manager may still continue to charge fees on side pockets, though they are typically accrued only once the assets are able to be liquidated again. For those investors that decide to sell out of the fund's regular account, they will still remain invested in the side pocket until the assets can be sold. New investors to the fund following the creation of the side pocket do not share in the side pocket. Both the ongoing and realised returns to old and new investors will therefore differ. As for the suspensions in dealings and out-of-the-money gates, the asset manager would broadly risk the same potential reputational fall-out once side-pockets are activated.

4.2.9 Temporary borrowing

Most regulated fund structures such as UCITS or regulated retail AIFs allow funds to borrow on a temporary short-term basis. Other AIFs may have more comprehensive borrowing facilities. Additionally, as reliance on such short-term borrowings represents some degree of leverage, it is capped in UCITS funds at an amount no higher than 10% of the fund's NAV and must be on a temporary basis.

These borrowing facilities are used as a back-up source of liquidity to be drawn upon in a series of very limited circumstances, e.g. to cover settlement failures, rather than to cover a sudden spike in redemption requests in circumstances of extreme tail risk. Historically managers have agreed overdraft facilities with the fund's depositary or custodian. Within the scope of their powers, some managers typically put in place multiple credit lines with diversified credit institutions. Funds typically may have access to three types of borrowing: (i) an informal overdraft (i.e. with no arrangement fee, no commitment fee, of uncertain availability, and to be paid on use); (ii) an uncommitted facility (i.e. includes an arrangement fee, no commitment fee, of uncertain availability, and to be paid on use); and (iii) a committed facility (i.e. includes an arrangement fee, is of certain availability, and to be paid on use).

While it is possible to draw upon such credit lines to cover a sudden spike in redemption requests in one or more funds, this is not considered a sensible course of action by any fund management company for regulated retail funds, even in circumstances of extreme tail risk, and is therefore to be avoided.

4.3 Review of the liquidity management tools by national regulators since the publication of AMIC/EFAMA 2016 report

Following the publication of IOSCO's 2018 recommendations, we note that some regulators in the EU have been reviewing the effectiveness and the list of liquidity management tools available in their jurisdiction and/or have provided further guidance on how to use these tools and comply with EU and national liquidity requirements. This includes among others:

- Germany: the NCA (BaFin) published liquidity stress tests guidelines for asset management companies (December 2017); and currently a legal proposal is reportedly being considered to introduce the possibility to use of gates, notice periods and swing pricing;
- Luxembourg: the NCA (CSSF) issued an FAQ on swing pricing (July 2019) and a circular (19/733) to implement IOSCO's 2018 recommendations into Luxembourg regulation applicable to open-ended funds (i.e. design process, the day-to-day liquidity management, contingency planning).
- France: the NCA (AMF) issued a guide on stress testing (February 2017) and guidance on the use of gates (December 2016);
- Belgium: legislative changes were adopted[28] by the Belgian parliament in 2018 to make additional liquidity management tools available to all Belgian public open-ended funds (i.e. swing pricing, anti-dilution levies and redemption gates).
- Spain: the NCA (CNMV) extended the list of available tools, by amending their Q&A document to include swing pricing (November 2018). Additional tools for liquidity management are now foreseen in the Spanish regulatory framework such as liquidity buffer at the fund level (minimum 1% of AuM) and "prior notice mechanism" for redemptions[29]. Moreover, in March 2019 the AMCESFI (Macroprudential Authority Financial Stability Council).
- UK: the NCA (FCA) published, in May 2019, a quantitative analysis on alternative pricing rules (i.e. swing or dual pricing) showing that it changes *"open-end funds' operations in a way that enables funds to more effectively manage their liquidity risk and helps funds to retain their investor capital during periods of high market stress"*[30]. The FCA issued, in September 2019, a Policy Statement introducing new rules for Non UCITS Retail Scheme, and a letter on *Effective liquidity management – best practices for Authorised Fund Managers* in November 2019. At the same time, the Bank of England announced, in its Financial Stability Reports published in July and December 2019, working with the FCA on swing pricing and redemption notice period to *"better align the liquidity and the underlying asset with the redemption promise given by the fund"*.
- Ireland: the NCA (CBI) issued a letter on liquidity management to all fund management companies in August 2019[31]. It also released a survey, in July 2017, focusing on the liquidity profile of large Irish-domiciled funds and showing the availability and the deployment of liquidity management tools across 283 funds. We believe there would be merit in applying a similar exercise at EU level; in particular so that ESMA can fully consider the availability and the deployment of liquidity management tools when conducting sector wide stress-tests.

We consider overall that these developments are positive. As already mentioned, we believe that regional and national authorities should take proactive steps to monitor the use of liquidity tools introduced in the EU during the last decade across a significant number of Member States (as referred to by IOSCO in its mapping exercise). This would help to minimise operational impediments that hinder fund manager Liquidity Risk Management efforts.

28 Arrêté royal du 15 octobre 2018
29 Article 78.6 of Royal Decree 1082/2012
30 https://www.fca.org.uk/publication/occasional-papers/occasional-paper-48.pdf
31 https://assets.contentstack.io/v3/assets/blt3de4d56151f717f2/bltda5d470246121a45/5d73f8c4ab721e7ef166764d/Liquidity_Management_Brexit_Letter_August_2019.pdf

4.4 Industry best practices since the publication of AMIC/EFAMA 2016 report

Following the publication of the IOSCO 2018 recommendations and changes introduced in EU jurisdictions as mentioned above, we note that industry best practices have also been updated in the following countries, including:

- AFG: liquidity risk management tools in open-ended funds as of May 2017[32]; and
- AFTI : Application des « GATES » Mode opératoire as of July 2019 (with the cooperation of AFG)[33].

AMIC and EFAMA continue to support and encourage the initiatives of national and European associations to develop codes of best practices on fund liquidity risk management. We believe that sharing and promoting such best practices is a powerful tool to enhance the current framework, improving the resilience of funds and their ability to face periods of adverse liquidity conditions.

4.5 Forthcoming actions at European and International levels

Following the adoption of the new liquidity provisions between 2016 and 2020 at EU and international levels, as highlighted in part 3 and 4 of this report, ESMA and IOSCO have both announced their intention to focus on enforcement of the rules and supervision:

- ESMA has announced[34], in November 2019, that it will facilitate a common supervisory action on liquidity management by UCITS: *"This is an exercise under which EU NCAs will agree to simultaneously conduct supervisory activity in 2020 on the basis of a common methodology to be developed together within ESMA. This initiative, and the related sharing of practices across NCAs, should represent a significant supervisory effort which is expected to help ensuring consistent application of EU rules on UCITS liquidity management and ultimately enhance the protection of investors across the EU."*
- IOSCO has announced, in July 2019, its intention to assess in 2020 how its 2018 Recommendations have been implemented: *"The 2018 LRM Recommendations are directed at preventing liquidity and redemption mismatches from arising in the first place, rather than just mitigating problems as they crystallise. (…) Some domestic regulators have adopted, or are consulting on, liquidity management regimes consistent with the recommendations. IOSCO intends to conduct a robust assessment exercise beginning in 2020 which will review how the 2018 LRM Recommendations have been implemented in practice."*

32 http://www.afg.asso.fr/wp-content/uploads/2017/05/2017_05_Liquidity_risk_management_tools_open-ended_funds-1.pdf
33 https://www.afti.asso.fr/?uuid=341049ab-a943-4769-9ce3-b9d576dc0014&inline=1&tg=addon%2Fpublication%2Fmain&idx=download.uuid
34 https://www.esma.europa.eu/sites/default/files/library/esma71-319-157_steven_maijoor_keynote_speech_-_efama_conference_22_nov_2019.pdf

5. Recommendations

Consistently with the IOSCO 2018 survey and the statement by ESMA's chairman[35], AMIC and EFAMA consider the existing EU regulations and tools available in some European jurisdictions as both comprehensive and appropriate for liquidity management in normal and exceptional circumstances. And we support IOSCO's intention to assess in 2020 the effective implementation of its 2018 recommendations. However, there are still some areas where we believe that further specific actions might lead to improvements in the general liquidity management environment. Please note that due to the scope of this report being limited to Europe, the recommendations only address the European landscape.

5.1 Focusing on supervision and enforcement of existing comprehensive EU rules

As an introduction to this point, we want to reiterate that ensuring effective liquidity management in funds is a central responsibility for fund managers. We have listed in this report their own series of comprehensive duties to be complied with and we will continue to promote industry best practices.

Likewise, we have highlighted in this report that supervisors have their own duties and that enforcement is instrumental to the regimes' effectiveness. They have indeed several opportunities to control that regulated funds are complying with EU rules. Prior to the launch of a fund, supervisors can assess the liquidity of the underlying investments against the redemption terms and expected patterns, and the liquidity required by the target audience and distribution channels of the vehicle. Depending on these characteristics and applicable laws, asset managers and supervisors will determine the appropriate structure: type of vehicle (open-ended vs closed-ended), redemption frequency and relevant liquidity risk management processes. Once the fund is launched, periodic reporting requirements enable supervisors to continue to scrutinise the type of assets (listed/unlisted) held by the fund but also the results of liquidity stress-tests (subject to new ESMA guidelines). Reporting requirements allow supervisors to enforce concentration and diversification ratios. At any moment national supervisors can step in, exercise their power to investigate and question a fund manager. The current regulatory framework already empowers supervisors to oversee fund liquidity risks and protect investors: NCAs benefit from enforcement powers given to them by the AIFM and UCITS directives.

When it comes to UCITS it appears that less than 50% of the NCAs of the whole EEA have notified to ESMA any measures or sanctions taken on their territories in that regard for the years 2016 and 2017. While the number of NCAs issuing sanctions remains stable at 15, for 2018, the total number of sanctions issued has decreased based on a year on year comparison[36]. Furthermore, regarding the application of AIFMD, despite the obligation for ESMA to publish an annual report on measures and penalties regarding AIFs (see Part 3.4 above), to date ESMA has not issued yet such an annual report since the legal implementation of AIFMD in July 2013. As stated by KPMG in 2018, in its report to the European Commission on assessing the current functioning of AIFMD, the *"Low use of sanctions"* by regulators was a limitation for its assessment. More recently, we were also reminded by two market events which have drawn attention to liquidity risk (although it is about two funds out of 33570 UCITS funds in the EU and "both episodes did not turn into systemic events in the end" as highlighted by ESMA[37]) that compliance with EU existing rules needs to better controlled by supervisors post-launch.

In this context, we support ESMA's intention to ensure in 2020 an effective and consistent implementation of existing liquidity provisions contained in the UCITS Directive: "This is an exercise under which EU NCAs will agree to simultaneously conduct supervisory activity in *2020 on the basis of a common methodology to be developed together within ESMA. This initiative, and the related sharing of practices across NCAs, should represent a significant supervisory effort which is expected to help ensuring consistent application of EU rules on UCITS liquidity management and ultimately enhance the protection of investors across the EU*[38]." It is of critical importance to avoid diverging or fragmented national regimes on liquidity risk management.

In parallel and in cooperation with ESMA, we believe that the European Commission should further investigate the effectiveness of ongoing application of both directives making use of Level 3 and 4 before launching any new legislative initiatives regarding these two Directives.

35 https://www.esma.europa.eu/sites/default/files/library/esma71-319-157_steven_maijoor_keynote_speech_-_efama_conference_22_nov_2019.pdf
36 https://www.esma.europa.eu/press-news/esma-news/esma-issues-second-pan-eu-overview-use-supervisory-sanctions-ucits
37 https://www.esma.europa.eu/sites/default/files/library/esma71-319-157_steven_maijoor_keynote_speech_-_efama_conference_22_nov_2019.pdf
38 https://www.esma.europa.eu/press-news/esma-news/esma-publishes-stress-simulation-framework-investment-funds

5.2 Making Liquidity Management Tools available across the EU

Since the adoption of IOSCO's 2018 recommendations, we are pleased to see that some EU jurisdictions have introduced the possibility to use new liquidity management tools at national level.

However, we note that not all EU member states have yet followed IOSCO recommendations. In this context we continue to believe that ESMA should play an active role in Europe in encouraging the appropriate use of non-regulatory liquidity management tools at national level. We note that the operational tools listed under Section 4 above, such as swing pricing, while not mandatory under the AIFM or UCITS frameworks, are useful liquidity management tools for fund management companies as highlighted by several studies conducted by NCAs and various stakeholders. They are already used and recognised in many European jurisdictions but could be considered in others alongside possible changes to domestic rules and regulations. ESRB in its report on actions to address systemic risks related to liquidity mismatches and the use of leverage in investment funds (see section 3.6) already recommended that the European Commission propose EU legislation to incorporate a common legal framework governing the inclusion of liquidity management tools (LMTs) in the design of investment funds originating anywhere in the EU so that the decision on which LMTs to incorporate in the constitutional documents or other pre-contractual information on, investment funds is made individually by each entity responsible for management.

While the accessibility of LMTs is a key priority for AMIC and EFAMA members, we would recommend convergence to happen at the level of ESMA and in coordination with NCAs, which should allow a swifter approval process. ESMA should encourage public authorities in certain EU Member States to consider broadening the range of available tools, thereby ultimately contributing positively to the management of liquidity risk. This could take place in 2020 as ESMA has already announced that it will be focusing on fostering convergence and promoting consistent supervision between NCAs with regard to fund liquidity risks. ESMA could start this exercise by updating the table used by the ESRB in its recommendations mapping at European level available liquidity management tools and highlighting gaps (see annex III).

We also encourage ESMA to work with national regulators to map out which funds have adopted LMTs to have in the future a more effective assessment by supervisors of the impact of redemption shocks on EU investment funds.

5.3 Improving transparency and managers' knowledge of end-investors to enhance LSTs and ease the management of potential redemption shocks

When it comes to anticipating redemptions, it is widely acknowledged that retail investors do not behave as institutional investors. Ongoing dialogue with institutional investors about their intentions is very useful from a liquidity risk management perspective. However, for retail investors, 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 to consider 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 in this context. For the purpose of improving risk management, we believe that the communication of information 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.

5.4 Enhancing market liquidity for corporate bonds and small and medium cap stocks

Since the crisis and to the present day, market liquidity in the corporate bond markets has been continuously deteriorating (the subject of extensive ICMA reports[39]). This can be explained by the combination of new capital charges coupled with a low interest rate and spread environment, which diminishes the potential returns and incentives for market-makers.

Liquidity in the secondary market for fixed-income and for small cap equities is highly dependent upon market-makers being willing to offer 'immediacy' to investors, by continuously quoting prices at which they are committed to trade on demand.

A decrease in market-making has had a significant impact over the last ten years on the corporate bond markets, where although primary activity has expanded, secondary market trading has weakened.

The European Commission (EC) expert group on corporate bonds has made several recommendations to improve corporate bond market liquidity but none has been taken on board so far. We therefore strongly encourage the EC to follow-up the recommendations related to prudential requirements (LCR, NSFR) and the CSDR. We want in particular to draw EC's attention to ICMA's impact study[40] which shows how market liquidity will be even further hindered by mandatory buy-in regime under CSDR (e.g. spread for bonds could widen by up to 250 per cent). For this specific provision of the regulation, we suggest repealing it or at least to phase it in so that the EC can further assess its impact before implementing it.

39 European IG corporate bond secondary market studies in 2014, 2016 and 2019 (available online)
40 https://www.icmagroup.org/assets/documents/Regulatory/Secondary-markets/CSDR-Settlement-Regulation/Mandatory-buy-ins-under-CSDR-and-the-European-bond-markets-Impact-Study-271119.pdf

ANNEX I: Extract from the ESMA AIFM Directive's reporting template (2013/1359) for regulatory disclosures under Article 24(2) of the Directive

3. Liquidity Profile	
Portfolio Liquidity Profile	
Percentage of portfolio capable of being liquidated within:	
1 day or less	
2 – 7 days	
8 – 30 days	
31 - 90 days	
91 - 180 days	
181 – 365 days	
more than 365 days	
Value of unencumbered cash	
Investor Liquidity Profile	
Percentage of investor equity that can be redeemed within (as % of AIF's NAV):	
1 day or less	
2 – 7 days	
8 – 30 days	
31 - 90 days	
91 - 180 days	
181 – 365 days	
more than 365 days	
Investor redemptions	
a) Does the AIF provide investors with withdrawal/ redemption rights in the ordinary course?	
b) What is the frequency of investor redemptions (if multiple classes of shares or units, report for the largest share class by NAV) *[Select one]* *Daily* *Weekly* *Fortnightly* *Monthly* *Quarterly* *Half-yearly* *Yearly* *Other* *None*	

c) What is the notice period required by investors for redemptions in days	
(report asset weighted notice period if multiple classes or shares or units)	
d) What is the investor 'lock-up' period in days (report asset weighted notice period if multiple classes or shares or units)	
Special arrangements and preferential treatment	
a) As at the reporting date, what percentage of the AIFs NAV is subject to the following arrangements:	
Side pockets (in %)	
Gates (in %)	
Suspension of dealing (in %)	
Other arrangements type	
Other arrangements for managing illiquid assets (in %)	
b) Indicate the percentage of net asset value of AIF's assets that are currently subject to the special arrangements arising from their illiquid nature under Article 23 (4) (a) of the AIFMD including those in items 197 to 201?	
Special arrangements as a % of NAV	
c) Are there any investors who obtain preferential treatment or the right to preferential treatment (e.g. through a side letter) and therefore are subject to disclosure to the investors in the AIF in accordance with Article 23(1)(j) of the AIFMD?	
d) If 'yes' to letter c) then please indicate all relevant preferential treatment:	
Concerning different disclosure/reporting to investors	
Concerning different investor liquidity terms	
Concerning different fee terms for investors	
Preferential treatment other than that specified above	

Breakdown of the ownership of units in the AIF by investor group		
as % of NAV of AIF assets; look-through to the beneficial owners where known or possible		
For each investor group type:		
	208	**209**
	Investor Group Type	**Investor group NAV rate**
Non-financial corporations (leave blank if not applicable)	NFCO	
Banks (leave blank if not applicable)	BANK	
Other collective investment undertaking (e.g. fund of funds or master) (leave blank if not applicable)	OCIU	
Other financial institutions (leave blank if not applicable)	OFIN	
Insurance corporations (leave blank if not applicable)	INSC	
Pension funds (leave blank if not applicable)	PFND	

General government (leave blank if not applicable)	GENG	
Households (leave blank if not applicable)	HHLD	
Unknown (leave blank if not applicable)	UNKN	
None (leave blank if not applicable)	NONE	
Financing liquidity		
Provide the aggregate amount of borrowing and cash financing available to the AIF (including all drawn and undrawn, committed and uncommitted lines of credit as well as any term financing)		
1 day or less		
2 – 7 days		
8 – 30 days		
31 - 90 days		
91 - 180 days		
181 – 365 days		
more than 365 days		

ANNEX II: EFAMA 2020 table of available key policy tools to manage internal fund liquidity in some EU fund jurisdictions

Tools	Swing pricing	Dual Pricing/ Redemption fees	Dilution levy	In-kind redemption	OTM gates	Suspension of dealings	Side pockets
Belgium	✓		✓		✓		
France	✓	✓	✓	✓	✓	✓	✓
Germany		✓		✓		✓	
Ireland	✓	✓	✓	✓	✓	✓	✓
Italy		✓[41]	✓[42]		✓[43]	✓	✓[44]
Luxembourg	✓	✓	✓	✓	✓	✓	✓
Netherlands	✓	✓	✓	✓	✓	✓	
Spain	✓	✓		✓	✓	✓	✓
Sweden		✓	✓	✓	✓	✓	
UK	✓	✓	✓	✓	✓	✓	✓[45]

41 No dual pricing and redemption fee limited: it applies as an alternative to entry fees
42 Limited: only when the redemptions is relevant
43 Not allowed in non-retail
44 Not allowed in non-retail
45 Only applicable for non-retail funds

ANNEX III: ESMA 2017 table of available key policy tools to manage internal fund liquidity in some EU fund jurisdictions[46]

	AT	BE	BG	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IE
Gates	NO	NO	NO	YES	NO	NO	NO	YES	YES	NO	YES	NO	NO	NO	YES
Side pockets	YES	NO	NO	YES	NO	NO	NO	YES	YES	NO	YES	NO	NO	NO	YES
Anti-dilution levy	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	YES
Redemption fees	YES	NO	NO	YES	NO	YES	NO	YES	NO	YES	YES	NO	NO	NO	YES
Redemption-in-kind	YES	NO	NO	YES	NO	YES	NO	YES	YES	YES	YES	NO	YES	NO	YES
Suspension of redemptions	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Swing pricing	YES	NO	NO	YES	NO	NO	NO	YES	NO	YES	YES	NO	NO	NO	YES
Short-term borrowings	YES	NO	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO	NO	YES
Mandatory liquidity buffers	YES	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
Side letters	YES	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES
Other tools/ measures	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	YES	NO	NO	NO	NO

46 The European Systemic Risk Board (ESRB) Recommendation on action to address systemic risks related to liquidity mismatches and the use of leverage in investment funds (February 2018)

	IS	IT	LI	LT	LU	LV	MT	NL	NO	PT	RO	SE	SI	SK	UK
Gates	NO	YES	YES	NO	YES	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES
Side pockets	NO	YES	YES	NO	YES	NO	YES	YES	YES	NO	NO	NO	YES	NO	NO
Anti-dilution levy	NO	YES	YES	NO	YES	NO	NO	YES	NO	YES	YES	NO	NO	NO	YES
Redemption fees	NO	YES	YES	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES
Redemption-in-kind	NO	YES	YES	NO	YES	NO	YES	YES	NO	YES	NO	NO	YES	NO	YES
Suspension of redemptions	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Swing pricing	NO	NO	YES	NO	YES	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES
Short-term borrowings	YES	YES	YES	NO	YES	NO	YES	YES	NO	YES	YES	NO	YES	YES	YES
Mandatory liquidity buffers	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO
Side letters	NO	NO	YES	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	YES
Other tools/ measures	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES

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