



Macroprudential Policy for Investment Funds: Considerations by the CSSF

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Context

Investment funds as well as the overall Non-Bank Financial Intermediation (NBFI)¹ sector, of which investment funds are an important component, have grown considerably since the global financial crisis in 2007/2008, at global as well as at European level. At the global level, as indicated by the [FSB](#), total financial assets of investment funds increased from USD 24.7 trillion at the end of 2009 to USD 74.8 trillion at the end of 2022. At the European level, the [ECB](#) confirms the increase of total assets from USD 7.1 trillion at the end of 2009 to USD 18.6 trillion at the end of 2022².

In the context of the past low interest rate environment and the search for yield, combined with growing assets under management, international and European institutions with macroprudential mandates as well as central banks and national competent authorities (NCAs), have become increasingly concerned about the systemic risk impact investment funds might have. As a result, these institutions developed, from 2015 onwards, various policy recommendations to address potential vulnerabilities related to liquidity mismatches in open-ended investment funds (OEFs), the build-up of excessive leverage, as well as interconnectedness (see [FSB's 2017 Policy Recommendations](#), [IOSCO's 2018 Liquidity Risk Management Recommendations](#) with [Good practices](#) for industry implementation, and [ESRB's 2017 Recommendation on Investment Funds](#)).

Discussions intensified again in the context of recently experienced crises, such as the market tensions during the outbreak of the COVID-19 pandemic in spring 2020 (see [FSB's 2020 Holistic Review](#), [FSB's 2021 Policy Proposals for MMFs](#), [ESRB's 2021 Issues Note on MMFs](#), and [ESRB's 2020 Recommendation on Investment Funds](#)) or the UK gilt crisis in autumn 2022 impacting funds pursuing liability-driven investment (LDI) strategies (see, e.g. [ESRB's 2023 NBFI Monitor](#)), in both of which pockets of vulnerabilities were identified.

At the beginning of COVID-19, stress was particularly related to liquidity mismatches in non-government money market funds (MMFs) and OEFs investing into less liquid assets, such as corporate / high-yield, as well as real estate investment funds (REIFs), whereas the LDI episode also highlighted issues of leverage and interconnectedness. In the context of these stress episodes, central banks, supervisory authorities and governments took important support measures to stabilise financial markets in a context of uncertainties and adverse movements. Investment funds in general proved to be overall resilient, with no widespread systemic risk materialising. It is also worth highlighting that investment fund managers (IFMs) have so far managed well the economic and financial challenges resulting from the Ukraine/Russia crisis as well as the related recent significant

¹ The Non-Bank Financial Intermediation (NBFI) sector includes a diverse set of entities including investment funds, finance companies, broker-dealers, securitisation vehicles, insurance companies or pension funds. Measures of NBFI might differ across reports with the investment funds sector making up for an important part at European as well as global level (see the [ESRB's 2023 NBFI Monitor](#) and the [FSB's 2023 Global Monitoring Report on NBFI](#)).

² For the NBFI sector, data available on the [homepage of the FSB](#) indicates that the FSB's overall NBFI measure increased from USD 100.6 trillion at the end of 2009 to USD 217.9 trillion at the end of 2022 on a global level, and from USD 25.0 trillion at the end of 2009 to USD 50.6 trillion at the end of 2022 for the Euro area using constant end of 2022 exchange rates. Concerning investment funds, the aggregate contains MMFs, REITs/REIFs, Hedge Funds and Other Investment Funds.

interest rate hikes, without incurring major problems for the funds they manage.

Recommendations addressing the identified pockets of vulnerabilities have been elaborated, recently published (see [FSB's 2023 Revised Policy Recommendations](#) and [IOSCO's 2023 Guidance on LMTs](#)), and are currently being implemented, together with earlier recommendations at international and European level (see the [AIFMD/UCITS review](#) with related Level 2 measures).

Vulnerabilities and Macroprudential Policy Responses

IFMs and investment funds are different from banks and insurance companies and are therefore also subject to **specific targeted regulatory requirements and macroprudential policies**. More particularly, IFMs manage investment funds on behalf of investors who own the assets and benefit from the return of the investments on the basis of a pre-agreed investment policy and risk profile (so-called "agency model"). IFMs therefore have to comply with fiduciary obligations with the objective of acting in the best interest of their investors.

In relation to investment funds, the following **vulnerabilities** have been identified:

OEFs may be redeemable at short notice, which could result in situations where they are invested in less liquid assets at a moment when a large number of investors wishes to redeem their fund shares at the same time, in times of market tensions, thus presenting a **liquidity mismatch**. This might lead to increased sales of the underlying assets by IFMs with a potential impact on market prices as well as consequences for other market participants being exposed to the same or correlated asset types. Furthermore, in the case of less liquid assets, central banks and macroprudential authorities have highlighted potential first-mover advantages, which might exist when the costs of sales of the underlying assets are not allocated properly to transacting investors via the use of anti-dilution liquidity management tools (Liquidity Management Tools - LMTs) but are borne by the existing/remaining investors.

Investment funds with higher levels of **leverage** are in general more exposed to larger market swings with potential knock-on effects on direct counterparties, investors, and the companies they invest in. They might in addition act in a procyclical manner during market stress, leading also to an amplification of liquidity risks when deleveraging.

In relation to **interconnectedness** with other market participants (either via direct links or via derivatives or similar asset holdings), investment funds might spread risk and market tensions to other market participants and sectors thereby possibly contributing to systemic risk as well (cf. LDI episode).

The discussions relating to these vulnerabilities and the potential need for additional macroprudential policies/tools are to be considered in the context where the investment fund sector in the EU, subject to the UCITS and AIFM regulations, is governed by a robust framework that has supported the overall resilience of investment funds during past crises. In general, a sound regulation at a microprudential level has relevant benefits

from a macroprudential perspective³. In addition, many policy recommendations have been or are currently being implemented, hence complementing and further enhancing the initial focus on microprudential and investor protection issues with a wider macroprudential perspective.

At the global level, the recently published FSB's 2023 Revised Policy Recommendations as well as the IOSCO's 2023 Guidance on LMTs address the challenges in liquidity risk management for OEFs observed at the outbreak of the COVID-19 crisis. In particular, they suggest a **liquidity bucketing approach** to ensure a better alignment between a funds' asset liquidity and its redemption terms as well as a **wider availability and use of LMTs in stressed market conditions**. Given the large amount of policy tools already available in a number of jurisdictions, the CSSF shares the approach explained in [FSB's 2022 Progress Report](#) and [ESRB's 2023 Issues Note on Policy Options](#) which suggests to focus first on a repurposing/adaptation of existing tools and to decide, after a later assessment, whether the repurposed/adapted tools for systemic risk mitigation (with appropriate modifications to their design and use) are sufficient or whether new ones should be developed.

At the European level, the existing legal framework for **UCITS and AIFMs addresses liquidity and leverage risk** at different levels. UCITS are notably required to invest in transferable assets and other financial instruments that are sufficiently liquid and sufficiently diversified, with leverage limitations in place. Equally, AIFMs must ensure that the investment strategy, liquidity profile and redemption policy are consistent for each AIF they manage. A direct **macroprudential tool regarding leverage** is available for AIFs in the context of **Art. 25 AIFMD** and is being used⁴. The CSSF considers that this tool provides an appropriate framework for monitoring and mitigating potential systemic risks arising from leverage in AIFs.

In addition, recently published texts in the context of the **AIFMD/UCITS review** implement **new measures** on the common availability of **LMTs** for AIFs and UCITS across the EU and mandate ESMA to develop further specifications in the form of guidelines on the application of LMTs to harmonise and ease their use. Furthermore, improvements in **data reporting** for AIFs/AIFMs and UCITS as well as data sharing between national and European authorities will be implemented via dedicated workstreams, overall addressing issues that have been recommended from a macroprudential perspective and enhancing the European framework accordingly.

In addition, the current work on UCITS funds via the review of the **Eligible Assets Directive (EAD)** will also help to improve the framework addressing further questions on liquidity risk, particularly for less liquid asset classes.

In the special case of **MMFs**, recommendations have been published earlier (see FSB's 2021 Policy Proposals for MMFs, the [ESMA's 2022 Opinion on the Review of the MMFR](#), and the [ESRB's 2021 Recommendation on Reform of MMFs](#)), with the European Commission having published its own assessment report in 2023 (see the [EC's 2023 Report on the Adequacy of the European MMF Regulation](#)) indicating that *"The Commission report highlights that the MMF Regulation has enhanced financial stability and overall successfully passed the test of the recent market stress episodes. It also identifies certain vulnerabilities in the market for MMFs and areas which would merit further assessment"*.

³ See, e.g. Recommendation C of ESRB's 2017 Recommendation on Investment Funds.

⁴ See recently adopted measures by the CBI and CSSF on LDI Funds (see the [CSSF communication on macroprudential measures for GBP denominated LDI funds from April 2024](#)).

The ESRB issued in 2023 a Recommendation on vulnerabilities in the commercial real estate sector (see the [ESRB's 2023 Recommendation on Vulnerabilities in the CRE Sector](#)), concerning also **REIFs**, which aims, via closer coordination at both national and European level, at improving the monitoring of systemic risks stemming from commercial real estate (including financing practices and financial institutions resilience), complementing [ESRB's 2019 Recommendation on Closing Real Estate Data Gaps](#).

A [joint research paper by the BIS and the CSSF](#)⁵ assessed investment funds' **LMTs** and found that LMTs “work well in normal times, but could be made more effective during episodes of stress by improving their calibration, timing and operationalisation” and concluded that “providing related guidance would further enhance investor protection and strengthen the resilience of the fund sector”.

An internal [macroprudential liquidity stress testing](#)⁶ exercise, carried out by the CSSF on a yearly basis, with shocks calibrated on a macro model fed with ESRB stress scenarios, shows that some funds (e.g. high-yield funds) are more vulnerable in the case of larger liquidity shocks than others and confirms the relevance of international efforts in addressing the liquidity risk of OEFs, especially the ongoing work of IOSCO and the FSB on structural liquidity mismatches and the use of fund and system-wide stress testing. The price impact resulting from the redemption shocks applied were relatively limited, while the second-round effects were found to amplify the initial shocks only moderately.

Views of the CSSF

The CSSF is of the view that the **UCITS and AIFMD rulesets** present a **robust and proven framework** that generally provides for the resilience of the investment fund sector. However, the CSSF also acknowledges that **pockets of vulnerabilities** have been identified during **recent crises** and should be addressed.

In this context, the CSSF supports the view of the FSB and the ESRB that the initial focus should be on a repurposing/adaptation of existing tools and then, in a next step, to assess whether the repurposed/adapted tools are sufficient and effective. If necessary, existing tools should then be further refined, respectively additional macroprudential policies/tools be developed. The CSSF supports the work at FSB and IOSCO level as well as the AIFMD/UCITS review. The CSSF outlines the **following priorities** in particular:

- **Liquidity risk in OEFs: use of a wide range of LMTs and further enhancing liquidity risk requirements for UCITS**

The CSSF is fully supportive of the ongoing work at international and European level regarding the availability and use of LMTs. **In this context, the CSSF considers the provision of further guidance on the selection and use of LMTs, their calibration, timing and operationalisation as particularly important**⁷. In general,

⁵ See Lewrick, U., J. Schanz, J.-F. Carpentier, and S. Rasqué (2022), “An Assessment of Investment Funds’ Liquidity Management Tools”, CSSF Working Paper.

⁶ See Lô, S. and J.-F. Carpentier (2023), “Liquidity Stress Test for Luxembourg Investment Funds: the Time to Liquidation Approach”, CSSF Working Paper.

⁷ In order to assist the industry in times of market tensions, the CSSF has notably provided dedicated additional guidance on the application of LMTs with its [FAQs on swing pricing](#) at the outbreak of the COVID-19 pandemic and with the [FAQs on the application of LMTs by investment funds](#) at the beginning of the Ukraine/Russia crisis.

LMTs should be adapted to the risk profile of investment funds by taking into account their diversity, especially in relation to AIFs. As part of the design of an investment fund, the asset/liability profile and LMTs that may be used, should provide for an ongoing resilient fund structure. For instance, REIFs should either be closed-ended or define an adequate asset/liability profile with the appropriate LMTs, such as redemption deferral mechanisms, to ensure that redemption processes do not give rise to procyclical sales. Similarly, corporate bond funds offering daily redemptions and having no notice periods available should generally have an anti-dilution LMT at their disposal.

The **main responsibility for activating LMTs lies with the IFMs and not the competent authorities**. IFMs, in charge of the day-to-day management of investment funds, are best positioned to activate LMTs, subject to guidance from competent authorities. Having authorities decide on the activation of these tools could entail significant moral hazard issues for IFMs and would in addition possibly provide the market with (unintended) signals that competent authorities see a specific market situation as being critical, and thereby possibly aggravating the situation. Similar concerns can be raised with respect to countercyclical liquidity buffers. In addition to the issues surrounding the risk of procyclicality, such buffers are not in line with the economic functions played by non-MMF investment funds.

In the context of the ongoing review of the EAD, the CSSF advocates that liquidity be systematically assessed at security level to ensure that the liquidity profile of each security of a UCITS is aligned with the fund's redemption policy. The CSSF also sees merit in removing the presumption of liquidity and hence in asking IFMs to have a systematic analysis of the liquidity of the assets on the basis of reliable and up-to-date data.

- **Data/reporting to authorities and system-wide stress testing**

The CSSF is supportive of the changes introduced by the **recently adopted AIFMD/UCITS review**, including the objective to set up an **integrated collection of supervisory data for both UCITS and AIFs** which aims at reducing areas of duplication and inconsistencies, while at the same time improving efficient sharing and use of data across relevant EU and national competent authorities.

The availability of **adequate data** is a prerequisite to identify potential issues at an early stage and to manage potential vulnerabilities as and when they arise. In this respect the CSSF particularly welcomes the upcoming EU reporting for UCITS and sees a need to **enhance data on leverage**, where **consistent leverage definitions** for UCITS and AIFs as well as **risk-sensitive measures** are **lacking**. The 2022 episode on GBP LDI funds illustrates the importance of NCAs being able to properly assess leverage-related risks. The CSSF considers that further work is needed in order to better cover leverage-related risks in the supervisory reporting on the basis of the [IOSCO's 2019 Recommendations for a Framework Assessing Leverage in Investment Funds](#), and the experience gained from analyses in the AIF sector pursuant to the [ESMA's 2020 Guidelines on Article 25 of Directive 2011/61/EU](#). In addition, the **reporting should cover in an adequate manner the risks of the different types of AIFs**, such as REIFs or Private Equity funds, in order to provide the basis for an adequate and meaningful risk assessment.

The CSSF also supports setting up an EU-wide **higher-frequency reporting in times of crises**. Crisis-related reporting is only activated when needed and should contain key risk indicators, while running at a high frequency

(e.g. daily) in order to enable a close monitoring by NCAs. A reporting template with the key indicators should be defined in advance, in order to guarantee a swift activation under stressed market conditions.

The CSSF is keen to contribute to this work on supervisory reporting, by leveraging also on the lessons learned from its own UCITS Risk Reporting introduced back in 2016 and the crisis reporting set up during the past years, such as the reporting on large redemptions and significant events used by the CSSF during the COVID-19 and Ukraine/Russia crises.

Building on enhanced data sets, the CSSF considers that a **system-wide stress test at EU level for investment funds would be beneficial**. In this context, the integration of risk assessments pertaining, for instance, to margin calls and REIFs is of particular interest.

- **Money Market Funds**

Vulnerabilities were observed across all different structures of non-government MMFs at the outbreak of the COVID-19 pandemic (see FSB's 2021 Policy Proposals for MMFs and ESRB's 2021 Issues Note on MMFs). The CSSF is of the opinion that the **MMF framework for non-government MMFs should be strengthened** through adapted liquidity requirements, the "releasability" of buffers in times of market tensions, the availability of anti-dilution LMTs, as well as by a decoupling of regulatory thresholds from mandatory implementation of suspensions, gates, and redemption fees, where applicable. In this context, the CSSF very much looks forward to the incoming next European Commission working on this file. Furthermore, the CSSF is of the opinion that measures to potentially enhance the functioning and resilience of short-term funding markets, as also referred to at international level, should be considered as well.

- **Supervisory cooperation**

Given the international nature of the investment fund sector as well as Europe's integrated capital markets, cooperation between the different competent authorities is necessary and very appropriate. Based on recent experience, the CSSF is of the opinion that international cooperation with peers has been working very well in recent periods of market stress, whether in the context of local NCAs or European and international organisations.

In relation to a recent suggestion on cross-border supervisory colleges, the **CSSF is open to supervisory colleges for large cross-border asset managers which operate in several countries**. Concrete criteria would have to be established to identify such large asset management companies.

Finally, the CSSF very much looks forward to **actively engaging with its peer regulators, as well as all European and international authorities, and to contributing to the important aspects** mentioned above, especially also based on its supervisory expertise, its experience in closing data gaps via reporting, such as the UCITS Risk Reporting, and its active research as demonstrated by published working papers.



Commission de Surveillance du Secteur Financier

283, route d'Arlon

L-2991 Luxembourg (+352) 26 25 1-1

direction@cssf.lu

www.cssf.lu