

Luxembourg: Financial Sector Assessment Program — Technical Note on Investment Funds: Regulation and Supervision



LUXEMBOURG

FINANCIAL SECTOR ASSESSMENT PROGRAM

TECHNICAL NOTE ON INVESTMENT FUNDS: REGULATION AND SUPERVISION

June 2024

This Technical Note on Investment Funds: Regulation and Supervision for the Luxembourg FSAP was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on January 2024.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: <http://www.imf.org>
Price: \$18.00 per printed copy

International Monetary Fund
Washington, D.C.



LUXEMBOURG

FINANCIAL SECTOR ASSESSMENT PROGRAM

May 20, 2024

TECHNICAL NOTE

INVESTMENT FUNDS: REGULATION AND SUPERVISION

Prepared By
**Monetary and Capital Markets
Department**

This Technical Note was prepared by IMF staff in the context of the Financial Sector Assessment Program in Luxembourg. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Further information on the FSAP can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>

CONTENTS

Glossary	<u>3</u>
EXECUTIVE SUMMARY	<u>4</u>
INTRODUCTION	<u>7</u>
A. Background	<u>7</u>
B. Institutional Structure for Regulation and Supervision	<u>11</u>
C. Legal and Market Structure	<u>11</u>
OVERSIGHT FRAMEWORK FOR INVESTMENT FUNDS	<u>16</u>
A. Regulation	<u>16</u>
B. Authorization	<u>28</u>
C. Supervision	<u>30</u>
D. Enforcement	<u>37</u>
E. Cross-Border Cooperation	<u>39</u>
F. Institutional Mechanisms for Systemic Risk Monitoring	<u>40</u>
BOXES	
1. Use of Artificial Intelligence/ Machine Learning by Asset Managers	<u>28</u>
2. Money Market Funds	<u>36</u>
FIGURES	
1. Assets of the Financial Sector in Luxembourg: Investment Funds, Banks, and the Insurance Sector	<u>7</u>
2. Total Assets of Regulated Investment Fund Sector in Europe	<u>8</u>
3. Share of UCITS and AIFs Domiciled in Luxembourg Over the Years	<u>9</u>
4. AUM of MMFs Domiciled in Luxembourg	<u>9</u>
5. Total AUM by Investment Fund Strategy	<u>10</u>
6. AUM of UCITS and Different Types of AIFs	<u>15</u>
TABLES	
1. Main Recommendations on the Oversight of Investment Funds	<u>6</u>
2. Investment Fund Types	<u>13</u>
APPENDICES	
I. Some Key EU Requirements Relating to Segregation of Assets and Custody	<u>43</u>
II. Liquidity Management Tools in Luxembourg	<u>44</u>
III. Supervisory Response to Global Events	<u>45</u>

Glossary

AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Alternative Investment Fund Managers Directive
AUM	Assets Under Management
BCL	Banque Centrale du Luxembourg
CIS	Collective Investment Scheme
CNAV	Constant Net Asset Value
CdRS	Comité du Risque Systémique
CSSF	Commission de Surveillance du Secteur Financier
ECB	European Central Bank
EEA	European Economic Area
ESMA	European Securities and Markets Authority
EU	European Union
FCP	Fonds Commun de Placement
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
GDP	Gross Domestic Product
IF	Investment Fund
IFM	Investment Fund Manager
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
LMT	Liquidity Management Tool
MMF	Money Market Fund
NAV	Net Asset Value
PDAOFI	Professional Depositary of Assets Other than Financial Instruments
RAIF	Reserved Alternative Investment Fund
SCS	Société en Commandite Simple
SCSp	Société en commandite spéciale
SICAF	Société d'Investissement à Capital Fixe
SICAR	Société d'Investissement en Capital à Risque
SICAV	Société d'Investissement à Capital Variable
SIF	Specialized Investment Fund
UCI	Undertaking for Collective Investment
UCITS	Undertaking for Collective Investment in Transferable Securities
VaR	Value At Risk

EXECUTIVE SUMMARY

The Investment Funds (IFs) industry in Luxembourg dominates the domestic financial sector and the EU funds landscape. The Assets Under Management (AUM) of the IF industry in Luxembourg is around 80 times its GDP, much higher than banking (13 times GDP) and insurance (3 times GDP). Based on IF domicile, Luxembourg has the largest fund industry by AUM in Europe, followed by Ireland; it is also the second largest fund industry in the world, next only to the USA.

Luxembourg has made good progress in implementing IF related recommendations from the previous FSAP. The key authority for supervision of the investment funds sector, the Commission de Surveillance du Secteur Financier (CSSF), has strengthened its supervisory framework. As in other EU countries, the regulatory framework for IFs and fund managers in Luxembourg is largely based on EU level requirements, where there have been substantial improvements since the last FSAP, and many more are underway.

CSSF has a robust supervisory framework with substantive improvements since the last FSAP, but some areas could be further strengthened. Considering more than half of the depositaries in Luxembourg have group links with fund managers, CSSF should consider integration of such links as key risks in the risk-based supervision approach for both fund managers and depositaries. Luxembourg has a large third-party fund managers industry (also called white-label service providers) with a business model very different from the traditional intra-group fund managers, each posing a different set of risks, especially on conflicts of interest. The current supervisory framework should be enhanced by suitably incorporating the differentiated sets of risks between the two different types of fund managers. With a view to enhancing its capabilities on analyzing liquidity risks, CSSF should obtain clear and granular data on credit lines put in place by IFs, including on the extent of sharing, commitment, and drawdown.

Given the structural importance of delegation for Luxembourg domiciled funds, initiating an on-site inspection framework for delegates outside Luxembourg assumes importance.

Delegation of portfolio management to entities outside Luxembourg is the dominant structure used by fund managers domiciled in Luxembourg. Although no problems have arisen out of this structure so far, given its wide prevalence in Luxembourg, an on-site inspection regime for delegates outside Luxembourg is warranted. Based on the recommendations in the previous FSAP, CSSF has already initiated talks with foreign supervisors on this subject. CSSF should continue these discussions with a view to initiating an onsite inspection framework, with a risk-based approach, of the delegates outside Luxembourg, whether jointly with the relevant supervisor or by CSSF itself (with the supervisor's consent).

CSSF's enforcement framework could be substantially improved through enhancements on four key fronts. First, the enforcement and investigation powers under different laws are currently inconsistent and could be harmonized to ensure that CSSF has a comprehensive set of powers to investigate and take enforcement actions against the wide set of entities in the IF sector. Second, CSSF's power to impose fines under certain laws is very limited, lacks clarity in certain others, and needs overall harmonization. The government should review the relevant Laws with respect to the amount of fines, scope, thresholds, clarity, and harmonization, and substantially strengthen the

overall sanctioning regime for administrative fines to have a deterrent effect. Third, CSSF should integrate, in the enforcement approach against entities, the accountability of relevant individuals/boards and consider taking enforcement action against such individuals, whether individually or collectively, as appropriate. Fourth, Luxembourg lacks a regime for collective action by IF investors and the ongoing legislative efforts to introduce a mechanism for class action suits should be prioritized.

CSSF could improve the domestic regulatory framework on areas such as winding up, valuation, and approach to indirectly regulated AIFs. Luxembourg has increasingly become a popular domicile for Alternative Investment Funds (AIFs), of which the unregulated/indirectly regulated AIFs are the most popular structures for new funds. Certain new proposals are proposed to be applicable only to regulated AIFs, which may create regulatory arbitrage. To avoid such arbitrage, while introducing new regulatory requirements, CSSF should consider whether such requirements should be applicable to indirectly regulated AIFs. Secondly, IF Product Laws generally permit significant deviation from fair valuation, if provided for in certain fund constitution documents. While it is understood that practically this is usually not the case and is subject to CSSF's review during the authorization process, the specific situations where deviation from fair valuation by AIFs is permitted should be clarified in order to avoid potential misuse of the wide discretion provided in the Laws. Further, as a part of its ongoing efforts to strengthen the winding up framework, CSSF should harmonize various winding up provisions in the Product Laws, as much as possible, especially those involving rights of the investors/shareholders and consider incorporation of the IOSCO's good practices on termination of funds to the extent not covered in the current framework.

Given Luxembourg's position as the domicile of EU's largest IF sector, CSSF should actively continue to promote and contribute to EU level reforms on various topics. CSSF should take an active role in promoting reforms to strengthen depositary independence at the EU level, including harmonization between requirements under UCITS and AIFM Directives, given the significant depositary-fund manager linkages. With respect to liquidity risks, CSSF should continue to actively contribute to the European Securities and Markets Authority's (ESMA) guidance on the use of Liquidity Management Tools (LMTs) and to engage closely with ESMA and the EU Commission on the proposed revision of the Eligible Assets Directive.

Table 1. Luxembourg: Main Recommendations on the Oversight of Investment Funds

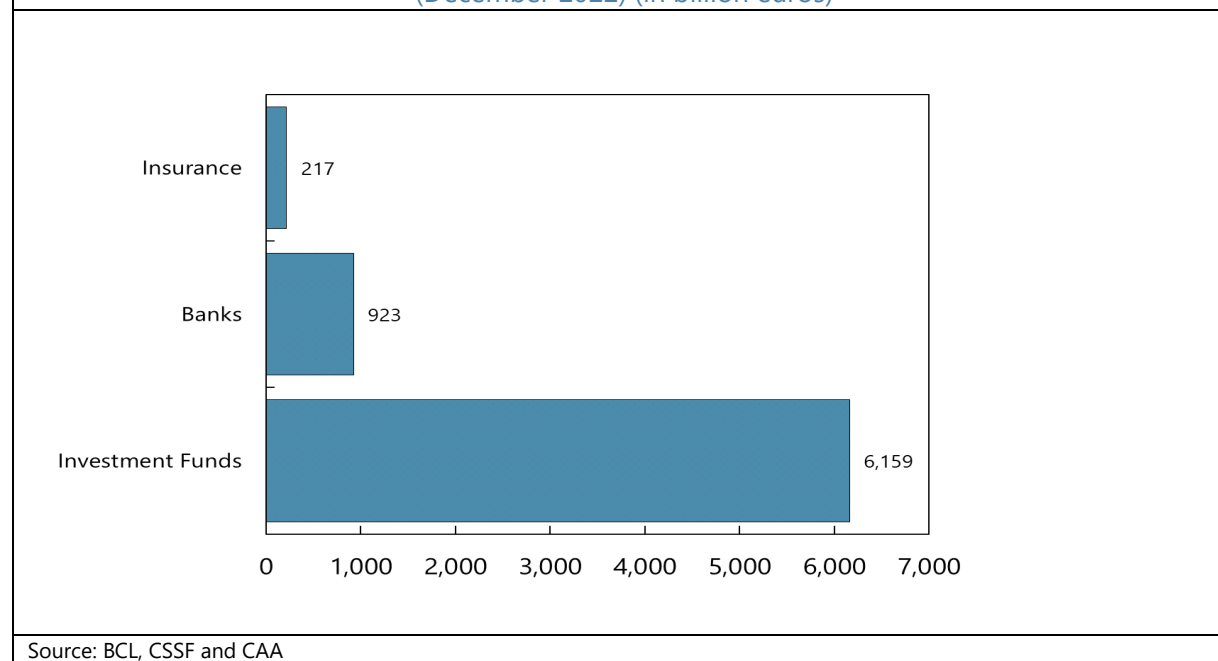
#	Recommendations	Addressee	Timing*	Priority**
1.	While introducing new regulatory requirements, consider applicability to indirectly regulated AIFs to avoid regulatory arbitrage.	CSSF; Ministry of Finance	ST	H
2.	Promote depositary independence reforms at the EU level; meanwhile, CSSF should strengthen supervision of depositary-fund manager group links through integration as risk factors into the risk-based approach.	CSSF; Ministry of Finance	Reforms-LT; Supervision-ST	M
3.	Clarify the specific situations where deviation from fair valuation by AIFs is permitted.	CSSF/ Ministry of Finance	MT	M
4.	Given Luxembourg's position as the leading fund domicile in Europe, and based on its significant experience, continue to actively contribute to EU regulatory initiatives relating to Liquidity Management Tools Guidance and revisions to Eligible Assets Directive.	CSSF	MT	H
5.	As a part of its ongoing efforts on revision of winding up provisions, harmonize provisions in Product Laws and consider incorporation of IOSCO's good practices, as appropriate.	CSSF; Ministry of Finance	MT	M
6.	Enhance the overall supervisory approach incorporating the differentiated nature of risks of third party and intra-group fund managers, as appropriate.	CSSF	MT	M
7.	Continue efforts to initiate an on-site inspection framework of delegates outside Luxembourg, with a risk-based approach.	CSSF	ST	H
8.	Enhance the reporting framework to include clear and granular details on credit lines put in place by IFs.	CSSF	MT	M
9.	Strengthen the enforcement framework in terms of harmonization of powers, increasing administrative fines, and accountability of individuals.	CSSF; Ministry of Finance	MT	H
10	Prioritize the ongoing legislative efforts to introduce a class action suits mechanism.	Ministry of Finance	MT	H
* ST = Short Term; MT = Medium Term; LT: Long Term				
** H = High; M = Medium; L = Low.				

INTRODUCTION¹

A. Background

1. Luxembourg has the largest IF industry (in terms of AUM) in Europe and second largest in the world, behind the US, by fund domicile.² The AUM of IFs managed by Luxembourg domiciled fund managers is €6.1 trillion (Figure 1), roughly 40 percent more than Ireland (Figure 2), Europe's second largest IF industry by fund domicile.³ IFs constitute the largest component of Luxembourg's financial sector, much larger than banking and insurance. The AUM of Luxembourg-domiciled IFs amount to roughly 80 times Luxembourg's GDP in 2023, up from 62 times GDP during the last FSAP in 2016.⁴ This dwarfs the other key financial sectors in the economy by its sheer size; with banking at 13 times GDP and insurance at 3 times GDP. Further, a significant portion of the banking business includes depositary, administration, and other services to investment funds. The insurance industry is also closely linked to the IF industry through unit-linked products.

**Figure 1. Assets of the Financial Sector in Luxembourg:
Investment Funds, Banks, and the Insurance Sector**
(December 2022) (in billion euros)



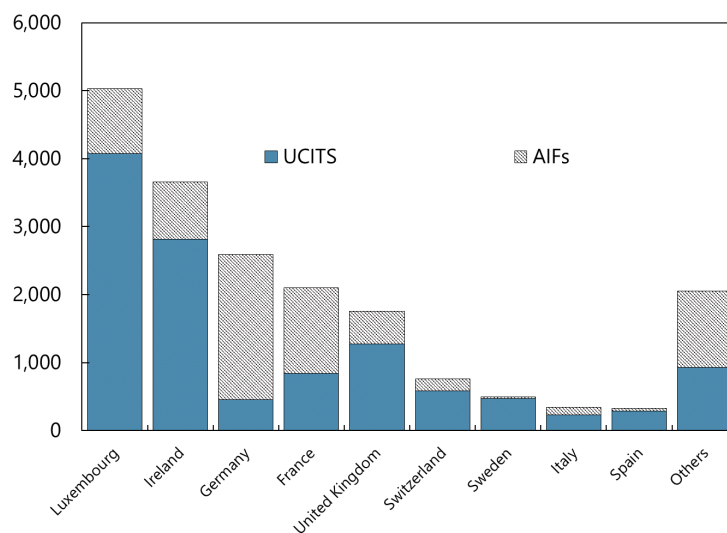
¹ The author of this Technical Note is Nila Khanolkar. This Technical Note should be read in conjunction with the Technical Note on Risk Analysis of the Luxembourg IF sector.

² [FR01/23 IOSCO Investment Funds Statistics Report](#)

³ Includes UCITS, regulated AIFs and unregulated/ indirectly regulated AIFs with AUM of more than €500 million.

⁴ Technical Note—Fund Management: Regulation, Supervision, And Systemic Risk Monitoring, FSAP 2017.

Figure 2. Total Assets of Regulated Investment Fund Sector in Europe
December 2022 (in billion euros)



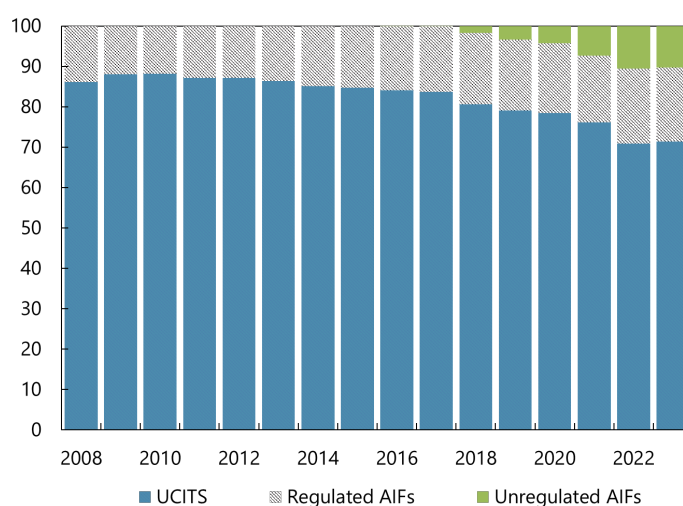
Source: EFAMA

Note: Unregulated/ Indirectly regulated AIFs are not included.

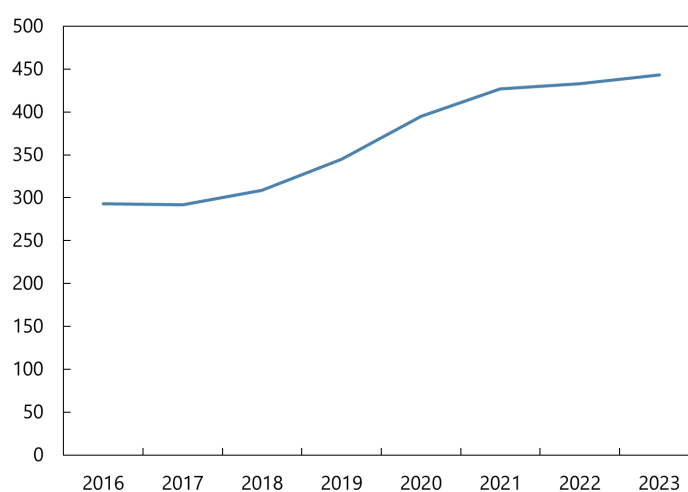
2. Luxembourg is the favored domicile for cross-border funds distributed across the world, particularly across Europe. The introduction of EU Directives for Undertakings for Collective Investment in Transferable Securities (UCITS) and Alternative Investment Fund Managers (AIFM) enabled launch of products that can be domiciled in Luxembourg and distributed across Europe through a passporting regime. Luxembourg has built a brand for its funds over time, particularly UCITS, which has enabled wide distribution of Luxembourg domiciled funds even beyond Europe, including in Asia and the Americas. Next to Luxembourg, Ireland is the next leading domicile for cross-border funds in Europe, particularly for certain types of funds such as hedge funds, money market funds (MMFs), and Exchange Traded Funds (ETFs).

3. While continuing to be the leading UCITS domicile, there is a structural shift in the Luxembourg IF industry with increasing share of Alternative Investment Funds (AIFs). At the time of the last FSAP in 2016, 84 percent of the IFs domiciled in Luxembourg were UCITS and 16 percent were AIFs. In 2023, the composition has shifted to 71 percent being UCITS and 29 percent being AIFs. Therefore, the share of AIFs has almost doubled during this period (Figure 3). Within AIFs, unregulated/ indirectly regulated funds have become a popular choice of structure especially for new AIFs.

4. The MMF industry has seen substantial flows in the last three years. Luxembourg has the second largest MMF industry in Europe (behind Ireland) with an overall share of 29 percent of the entire MMF industry in Europe. Since the last FSAP in 2016, MMFs saw total assets increase by 52 percent, with net inflows of over €200 billion, particularly since 2019 (Figure 4).

Figure 3. Share of UCITS and AIFs Domiciled in Luxembourg Over the Years

Source: BCL. Note: 2023 number refers to March 2023.

Figure 4. AUM of MMFs Domiciled in Luxembourg
(in billion euros)

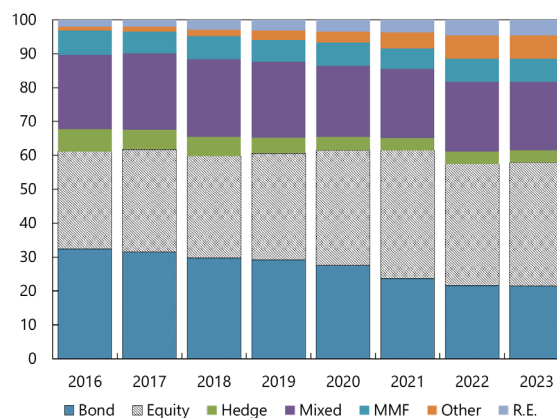
Source: BCL

Note: 2023 number refers to March 2023.

5. Luxembourg is a popular choice of domicile for setting up funds across a wide range of strategies. Bond and equity funds continue to be the largest strategies comprising together almost 60 percent of the AUM. The share for bond funds, however, decreased by almost 10 percentage points since 2016, with the valuation effect (due to rise in interest rates) potentially playing an important role. Funds across a variety of other strategies such as mixed funds, MMFs, real estate, hedge funds, private equity, and debt funds, etc. also have a relevant presence. Real estate and “Other” types of funds have seen their share increasing significantly in recent years, accounting together for nearly 10 percent of total assets in 2023 (Figure 5).

6. Luxembourg has a diverse infrastructure of IF service providers that have boosted its position as a leading asset management center. Close to 85 percent of Luxembourg-domiciled IFs are managed by Luxembourg based Investment Fund Managers (IFMs).⁵ Over time, Luxembourg has also become a key domicile for third-party fund managers (often referred to as white-label service providers)⁶ partnering with (usually) small portfolio managers across the world. Luxembourg also has a robust ecosystem of depositaries, administrators and auditors which support the IF sector, which is often a key determinant for the choice of Luxembourg as the domicile for funds/IFMs. Luxembourg's highly skilled and multilingual workforce is also viewed as a key reason for the popularity of Luxembourg as a fund management center, although increasing costs of labor are often cited as a concern.

Figure 5. Total AUM by Investment Fund Strategy
(in percentage share)



Source: BCL

Note: 2023 number refers to March 2023.

7. The mission reviewed the oversight framework for investment funds in terms of authorization, regulation, supervision, and enforcement as well as for monitoring of systemic risks arising from the sector, using the relevant international standards. The regulatory framework for investment funds is largely harmonized at the EU level. Luxembourg has appropriately transposed and applied the relevant EU level Directives into national legislations, as required. This technical note focuses on those areas where CSSF has issued detailed standards at the national level exercising the discretion granted to member states in the EU level requirements and on those areas which are not covered in EU level requirements.⁷ In addition to the regulatory requirements, the mission also reviewed the overall institutional framework for monitoring of systemic risks in the IF sector in Luxembourg. The review has been done on the basis of the relevant IOSCO and FSB standards, guidance and principles relating to investment funds.⁸ Particular emphasis has been placed on those requirements relevant for financial stability.

⁵ However, as explained later, IFMs domiciled in Luxembourg often delegate portfolio management to entities based in other countries, particularly United States, United Kingdom, and Switzerland.

⁶ This is discussed in more detail in the section on supervision.

⁷ In some cases, recommendations are made for the CSSF to actively promote or continue to contribute to discussions at the EU level on regulatory reforms.

⁸ In particular, this includes Principles 6, 24-28 of the IOSCO Objectives and Principles of Securities Regulation (IOSCO Core Principles). In addition, detailed standards, guidance, and good practices issued by IOSCO and FSB on various topics relating to investment funds have also been considered, particularly focusing on aspects relevant to financial stability.

B. Institutional Structure for Regulation and Supervision

8. The CSSF has the responsibility for regulation and supervision of the investment fund industry in Luxembourg.⁹ Under the Law of 23 December 1998 (“Law of 1998”) establishing CSSF, supervisory powers have been granted to CSSF with respect to IFs, fund managers, depositaries, and central administration/ transfer agents. More generally, CSSF has been designated as the competent authority for supervision of the securities markets, including their operators. CSSF is also the competent authority in Luxembourg under various EU Level Directives/ Regulations relating to IFs. Domestic Laws relating to IFs, including Product Laws, also provide specific powers to CSSF.

9. CSSF’s roles under the Law of 1998 include investor protection, financial stability, and fair markets. The CSSF is responsible, within the limits of its legal powers, for promoting transparency, simplicity, and fairness in the markets of financial products and services. A specific obligation is cast on CSSF under the Law of 1998 to cooperate with the Luxembourgish government, the BCL and with other national, community and international supervisory authorities in order to contribute to ensuring financial stability. CSSF is also required to consider the potential impact of its own decisions on the stability of the financial system at national, community and international level.¹⁰

10. The regulatory and supervisory framework in Luxembourg, including CSSF’s roles and powers, should be understood against the background of the EU framework. The regulation of investment funds / fund managers in Luxembourg is primarily based on the European framework, a unified set of capital market rules.¹¹ Under this framework, CSSF’s regulatory role as a National Competent Authority (NCA) is relatively restricted primarily to areas where discretion is granted to member states in the EU level requirements and those areas which are not covered in EU level requirements. While regulation is heavily EU based, market oversight is primarily the task of NCAs, which carry out most supervision and enforcement.¹² However, ESMA is playing an increasingly important role with respect to supervision of investment funds / fund managers as part of its efforts towards supervisory convergence, especially through its Common Supervisory Actions (CSAs). Enforcement continues to be primarily the role of NCAs.

C. Legal and Market Structure

11. All Luxembourg domiciled funds fall into one of two categories: UCITS or AIFs. This is derived from the status of Luxembourg as an EU member state and therefore, the requirement to comply with UCITS and AIFM Directives. Unlike the UCITS Directive, which is product based, AIFMD

⁹ CSSF is an integrated regulator and supervisor for both banks and investment funds. Aspects relating to independence and the institutional structure of CSSF have been included in detail in the Technical Note on banking supervision and hence, not included under this Technical Note to avoid redundancies.

¹⁰ “Community” in this context is a reference to the European Economic Community, the predecessor of the European Union (EU).

¹¹ While UCITS Directive is fund based, AIFMD is manager-based. Accordingly, both investment funds and fund managers have been specified.

¹² However, ESMA is responsible for direct supervision of credit rating agencies, trade repositories, securitization repositories and third country central counterparties.

is a manager-based Directive and obligations accordingly apply to the fund manager. UCITS are funds which can invest only in transferable securities or in other liquid financial assets whose eligibility rules are detailed in a specific Eligible Assets Directive.¹³ UCITS are open-ended funds, primarily retail vehicles, and subject to significant restrictions relating to type of investments, leverage, and diversification. Under the AIFMD, AIFs do not have restrictions on liquidity, leverage¹⁴, or diversification and may invest in financial instruments that are not eligible assets for UCITS, such as private equity, venture capital, real estate, physical commodities, and other alternative assets. However, AIFMD leaves broad discretion to EU member states to apply rules specifically to AIFs on these aspects. Accordingly, Luxembourg has a set of Product Laws under which it has imposed some restrictions on certain specific types of AIFs (see Table 2).

12. UCITS continue to be the dominant product in Luxembourg; however, the shift in the composition to AIFs is significant. During the last FSAP, around 84 percent of the IFs domiciled in Luxembourg (by AUM) were UCITS. The share of UCITS has, since then fallen to 71 percent due to the rising popularity of Luxembourg as a domicile for AIFs, with AIFs now holding a 29 percent market share. An active push by the Luxembourgish government and the authorities to make Luxembourg an attractive domicile for AIFs has played a large role in the increasing share of AIFs over the years.

13. AIFs are classified into regulated and unregulated/ indirectly regulated AIFs.¹⁵ Part II UCIs, SIFs and SICARs are together referred to as “regulated AIFs” (Refer Table 2) since they are directly regulated, authorized, and supervised by CSSF through the Product Laws applicable to each of them. RAIFs and other AIFs which are set up under the commercial law are referred to as “unregulated AIFs”/ “indirectly regulated AIFs,” since they are not directly regulated, authorized, or supervised by CSSF although the AIFMs managing these AIFs are regulated, authorized/ registered and supervised by the CSSF.¹⁶ In case of RAIFs, it is mandatory to have an authorized AIFM while in case of other unregulated AIFs, the AIFM may be a registered or authorized AIFM depending on the AUM. Details about the regulatory requirements for each of these products can be found in Table 2.

¹³ [LexUriServ.do \(europa.eu\)](http://LexUriServ.do(europa.eu))

¹⁴ Other than the maximum level of leverage AIFMs need to set in accordance with article 15(4) of the AIFMD and those contemplated under article 25 of the AIFMD.

¹⁵ While the term “unregulated” has been used in this report in line with the usage of the term in CSSF’s and BCL’s frameworks, in practice, such funds are indirectly regulated and supervised through the relevant AIFMs. In case the AIFMs are incorporated in Luxembourg, the supervision is by CSSF.

¹⁶ In case of unregulated/ indirectly regulated AIFs (incorporated in Luxembourg) other than RAIFs, if the AUM managed by an AIFM is below threshold laid down in the AIFMD, they are not subject to CSSF’s authorization. In such cases, they are required to be registered with the CSSF (for AIFMs domiciled in Luxembourg) and subject to some reporting requirements.

Table 2. Luxembourg: Investment Fund Types

Type of fund	Domestic categorization	Key Requirements
UCITS	Part I UCI	<ul style="list-style-type: none"> • Can be marketed to retail investors. • Open-ended; redemption rights as per UCITS Directive. • Stringent restrictions with respect to portfolio composition, diversification, and leverage as per UCITS Directive. • Can only be managed by UCITS compliant Management Companies (Mancos) authorized by CSSF/ another EU supervisor.¹ • Must appoint a credit institution as a depository.
Regulated AIF	Part II UCI	<ul style="list-style-type: none"> • Can be marketed to retail investors. • Open/closed-ended; redemption rights as per fund documents. • No restriction on type of assets; however, strict diversification obligations comparable to European Long-Term Investment Funds (ELTIFs)² and leverage restrictions (e.g., up to 300 percent NAV). • Same depository regime as UCITS if marketed to retail investors; otherwise, same as other regulated AIFs.
	Specialized Investment Fund (SIF) ³	<ul style="list-style-type: none"> • Can only be marketed to well-informed investors. • Open/closed-ended; redemption rights as per fund documents. • No restriction on type of assets or leverage; however, there is a general diversification obligation (generally 30 percent). • Must appoint a depository; can be credit institution, investment firm or a professional depository of assets other than financial instruments (PDAOFI).⁴
	Société d'investissement en capital à risque (SICAR)	<ul style="list-style-type: none"> • Can only be marketed to well-informed investors. • Open/closed-ended; redemption rights as per fund documents. • Can only invest in securities representing risk capital (e.g., private equity funds/ venture capital funds), no diversification obligations or restrictions on leverage. • Must appoint a depository; can be credit institution, investment firm or a professional depository (PDAOFI)
<p>¹ Unless self-managed, in which case the authorization for the UCITS itself includes authorization for the management function.</p> <p>² See Footnote 22 on ELTIFs and the trend of "retailization"/ "democratization" of private assets.</p> <p>³ Unlike Part II UCIs and RAIFs which automatically qualify as AIFs, SIFs and SICARs also include funds which may not qualify as AIFs.</p> <p>⁴ PDAOFI could be appointed as depository only for some AIFs presenting some specific characteristics as elaborated in the later section on custody.</p>		

Table 2. Luxembourg: Investment Fund Types (Concluded)

Type of fund	Domestic categorization	Key Requirements
Unregulated AIFs (or Indirectly Regulated AIFs)	Reserved AIFs (RAIFs)	<ul style="list-style-type: none"> • Can only be marketed to well-informed investors. • Must appoint an authorized AIFM. • Unlike SIFs, SICARs and Part II UCIs, RAIFs are not directly authorized or supervised by CSSF; such funds are indirectly supervised through the authorized AIFM. • No restriction on type of assets or leverage; however, there is a general risk- diversification obligation (except if investing in risk capital). • Open/closed-ended; redemption rights as per fund documents. • Must appoint a depositary; can be credit institution, investment firm or PDAOFI.
	Other unregulated AIFs	<ul style="list-style-type: none"> • Any entity not covered above but meets the criteria of an AIF as defined in article 1(39) of the AIFM Law. • No authorization or supervision by CSSF. • Can only be marketed to professional investors. • No restrictions on type of assets, leverage, diversification. • Open/closed-ended; redemption rights as per fund documents. • Subject to AIFMD requirements (including relevant depositary requirements) depending on whether it is managed by an authorized AIFM or registered AIFM, as appropriate; such funds are indirectly supervised through the AIFM, depending on whether the AIFM is authorized or registered.

14. Within UCITS and AIFs, there are other EU level product level classifications which result in the application of additional regulatory requirements to such products. This includes MMFs, which can be set up as UCITS or AIFs, and other products, which can only be set up as AIFs- European long-term investment funds (“ELTIFs”), European venture capital funds (“EuVECA”) and European social entrepreneurship funds (“EuSEF”).¹⁷ For each of these products, there are dedicated EU Regulations with specific regulatory requirements. Luxembourg is a popular domicile for MMFs, as explained earlier. Luxembourg is also home to more than half of the ELTIFs domiciled in Europe. With the revisions to the ELTIF Regulations (ELTIF 2.0) and the trend towards “retailization”/ “democratization” of AIFs, the market expects the number of ELTIFs could rise significantly in the future.¹⁸ The trend of retailization/democratization is also seen in other AIF structures, other than

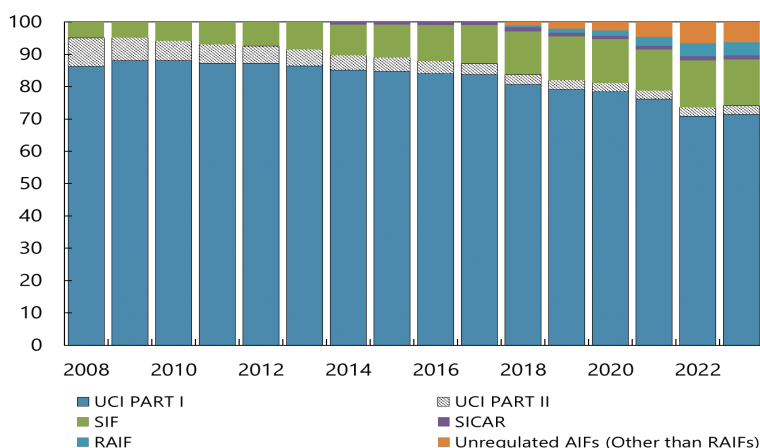
¹⁷ Practically, most MMFs are set up as UCITS. EuVECAs and EuSEFs are small by size.

¹⁸ ELTIF is an EU level product permitting investors to invest in long-term capital. A key aspect about ELTIF is that it provides retail investors an access route to private markets, an asset class that has historically only been open to institutional and professional investors. The rising interest in ELTIFs (with revisions to the Regulation- ELTIF 2.0) links to the trend of “retailization”/“democratization” of AIFs/ private markets wherein funds are increasingly targeting raising capital through non-institutional investors, mainly high net worth individuals. With Luxembourg being currently home to more than half of ELTIFs in Europe, it is expected to be a key domicile for such funds in the future as well based on discussions with the industry. Most ELTIFs are structured as Part II UCIs since it offers the flexibility to offer AIFs to retail investors. Certain tax benefits have already been provided through legislative amendments in 2023. ESMA has also recently finalized the technical standards for ELTIFs 2.0, including granular requirements, in particular, around liquidity risks.

ELTIFs, including at a local level. CSSF should closely supervise these new trends, especially for potential liquidity risks and investor protection concerns.

15. The structure adopted for setting up an AIF depends on the strategy and choice of investors, among others. As mentioned earlier, regulated AIFs include Part II UCIs, SIFs and SICARs and unregulated/ indirectly regulated AIFs include RAIFs and other legal structures. Part II UCIs are typically the structures adopted for retail vehicles that do not qualify to be a UCITS.¹⁹ While there was little interest for Part II UCIs over the past few years, the interest has picked up recently, especially with the trend of “retailization”/ “democratization” of AIFs and increasingly popularity of ELTIFs. SIFs have been the traditional vehicle for structuring different types of AIFs for sophisticated investors for a variety of strategies and continues to be an important structuring option for AIFs. This is especially true for those investors who seek a regulated product, based on their choice or investment restrictions. SICARs are AIFs which are structured mainly to invest in risk capital (e.g., private equity/venture capital funds). However, the structure has not been very popular to date. Since the introduction of Special Limited Partnership (SCSp; a new type of company) in 2013 and RAIFs (a new investment vehicle) in 2016, these unregulated/ indirectly regulated funds have become preferred vehicles for new AIF launches.²⁰ SCSp became popular since it provided a vehicle similar to the Anglo-Saxon limited partnerships (LPs) providing a familiar structure to investors used to investing in the LP structure. RAIFs became popular due to efficiency in time-to-market (no authorization from CSSF) and an umbrella structure, enabling quicker sub-fund launches (see Figure 6).

Figure 6. AUM of UCITS and different types of AIFs
(percentage share in total AUM)



¹⁹ Since these are not UCITS, they are automatically classified as AIFs, but are closer to UCITS in terms of being retail vehicles. However, it is not required that a Part II UCI to be a retail vehicle. They can also be structured as products for sophisticated/well-informed investors.

²⁰ Introduction of AIFMD which provided for a fund manager-based regulatory framework allowed for introduction of such ‘unregulated funds’ where the regulation, authorization and supervision was applicable to the fund manager rather than the fund.

16. Regulated Funds and RAIFs can be launched under the contractual form or the corporate form. The contractual form—i.e., Fonds commun de placement (“FCP”)—is an undivided collection of assets which is managed according to the principle of risk spreading on behalf of joint owners (the investors). The investors are liable only up to the amount contributed by them and their rights are represented by units in the FCP. Funds set up as FCPs are necessarily managed by a management company in accordance with the management regulations set up by the latter. On the other hand, funds set up as investment companies have their own legal personality and can be set up with a variable capital (“SICAV”) or a fixed capital (“SICAF”). Such funds are managed in accordance with their articles of incorporation. Unlike FCPs, funds set up as investment companies can be self-managed and their investors have the right to vote at shareholder meetings as shareholders. While broadly FCPs and investment companies are both permitted structures for setting up funds, there are certain product specific restrictions. For instance, if UCITS choose a corporate form, they must be set up as a public limited company (société anonyme). SICARs can only be launched in the corporate form. An important point to note is that unregulated/ indirectly regulated AIFs (other than RAIFs) cannot be organized as FCPs or investment companies, but they can choose any other legal form under the Company Law.²¹

OVERSIGHT FRAMEWORK FOR INVESTMENT FUNDS

A. Regulation

17. Like other EU jurisdictions, the Luxembourgish regulatory framework for the IF industry is primarily based on the EU requirements. The key EU requirements underpinning the legislative and regulatory framework for IFs in Luxembourg are the UCITS Directive and the AIFMD.²² The UCITS and AIFM Directives have been transposed in Luxembourg in the Law of 2010 and Law of 2013 respectively. The Law of 2010, under Part I, lays down rules on the authorization and supervision of UCITS funds and the companies that manage them, as well as UCITS depositaries.²³ The Law of 2013 on AIFMs (manager-based) lays down requirements for managers’ compliance and operational frameworks, regulatory and investor reporting obligations. Based on the discretion under the AIFMD to EU member states to apply rules specifically to AIFs, the legislative framework also includes Product Laws for specific AIFs. These include Laws for regulated AIFs like UCI Part II, SIF, SICAR and among indirectly regulated AIFs, RAIFs. In addition, funds which are covered by specific/ dedicated Regulations such as MMFs, ELTIFs, EuVECAs or EuSEFs have to additionally comply with the regulatory requirements under the respective European Regulations. Certain

²¹ Usually, these tend to be structured as partnerships limited by shares (sociétés en commandite par actions), limited partnerships (sociétés en commandite simple) or special limited partnerships (sociétés en commandite spéciale).

²² Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS); Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010.

²³ Part II of the same law deals with UCI Part II Funds which are set up as AIFs.

aspects of the IF activities also attract provisions of other European frameworks—e.g., MiFID II for distribution of IFs, SFDR for sustainable finance disclosures, among others.

18. The legislation is complemented by an extensive set of CSSF Regulations, circulars and FAQs issued by CSSF. These are primarily intended to clarify various aspects of the relevant Laws. CSSF enforces circulars and FAQs in conjunction with the relevant provisions of the Laws.

19. CSSF has key regulatory initiatives in its pipeline, including at a fund level where applicability to unregulated/indirectly regulated funds needs to be considered. CSSF is proposing to strengthen protection of investors in case of NAV calculation errors and correction of the consequences resulting from non-compliance with the investment rules through a review of its Circular 02/77. Two key circulars are also being updated, one on risk management and another one called Circular 18/698, the primary circular applicable to fund managers. As new regulatory initiatives are being considered, some are being considered to apply only for regulated AIFs. The current incentive to opt for unregulated/ indirectly regulated AIFs is the time-to-market.²⁴ If the new initiatives are applied only to regulated AIFs, the gap between the regulated and indirectly regulated AIFs will widen, resulting in a potential regulatory arbitrage.

20. Recommendation: While introducing new regulatory requirements, CSSF should consider whether such requirements should be applicable to indirectly regulated AIFs, in order to avoid regulatory arbitrage.

21. CSSF adopts a consultative approach on regulation and supervision. CSSF has created several standing Consultative Committees with representation of various stakeholders including industry associations. CSSF regularly consults these Committees before introducing major regulatory and supervisory proposals. As a complement to such Committees, CSSF may consider adopting wide public consultation of key long-term proposals for improved transparency and the ability to provide an opportunity for a variety of stakeholders to respond and contribute, resulting in a more fair, transparent, and equitable rulemaking process.²⁵

Segregation and Custody of Assets

22. The UCITS and AIFM Directives require appointment of a “depository” for safekeeping and segregation of the fund assets. Depositories are key gatekeepers in the investment funds structure with three key functions of safekeeping, cashflow monitoring and oversight. The Directives

²⁴ The lack of authorization checks for such AIFs is currently being substituted for increased supervision by CSSF of the relevant managers through an attached risk factor to management of such funds.

²⁵ Under IOSCO Principle 4, one of the key issues is ‘in exercising its powers and discharging its functions, the regulator should adopt processes which are consistently applied, comprehensible, transparent to the public, and fair and equitable’. A key question for the assessment of this principle is whether the authority has a process for consulting with the public, or a section of the public, including those who may be affected by a rule or policy, for example, by publishing proposed rules for public comment, circulating exposure drafts, or using advisory committees or informal contacts.

require the appointment of a single depositary for each UCITS and AIF.²⁶ As a general rule, in order to ensure that the depositary can properly exercise its safekeeping and oversight duties, a depositary is required to have its registered office or a branch in the same country where the fund is domiciled.²⁷ The competent authority of the UCITS' home state must approve the choice of the depositary for a fund domiciled in that state. There is no such requirement in the AIFMD, but, in Luxembourg, pursuant to sectorial laws and regulations, a specific approval by the CSSF is required for any entity seeking to act as depositary for a regulated AIF. Under both the UCITS Directive and AIFMD, the fund manager and the depositary must enter into a detailed written agreement that regulates the flow of information necessary for them to perform their respective roles. Some other key EU provisions on safekeeping are included in Appendix I.

23. In Luxembourg, UCITS can only appoint credit institutions as depositaries, while there is more flexibility in case of AIFs. Similar to UCITS, only credit institutions may act as the depositary of a Part II UCI marketed to retail investors. In case of other AIFs such as SIFs, SICARs, RAIFs and Part II UCIs (offered to well-informed investors), the depositary can be either a credit institution, an investment firm or a Professional Depositary of Assets Other than Financial Instruments (PDAOFI).²⁸ The biggest depositaries in Luxembourg are banks offering services to both UCITS and AIFs. Most depositary banks offer a bundle of IF-related services (including fund administration), with depositary services being one of them. Some 145 regulated AIFs domiciled in Luxembourg have PDAOFIs as their depositaries (Sept. 2023).

24. The IOSCO Standards require that the assets of an IF be entrusted to a third-party custodian that is functionally independent. Under the AIFMD and UCITS V Directive, AIFMs and UCITS management companies are prohibited from acting as a depositary, and there are restrictions on common management of the UCITS management company/AIFM and the depositary. The depositary is also required to functionally and hierarchically separate the performance of its depositary tasks from its other potentially conflicting tasks, and ensure that the potential conflicts of interest are properly identified, managed, monitored and disclosed to the investors of the funds.

25. In case of UCITS, some additional safeguards have been put in place in case of group links between the manager and the depositary. While functional independence between the depositary and fund manager is required, the fund managers and depositaries can still be part of the same group. In case of such group links, there are certain safeguards specifically for UCITS including justification if sought by investors/ regulator, conflict of interest policies (including

²⁶ This requirement was introduced in the EU by the UCITS V Directive and is more stringent than IOSCO requirements.

²⁷ Currently, the AIFMD/ UCITS V Directive do not provide for depositary passports. While this was initially considered in the proposed review of AIFMD/UCITS Directive, it is understood that the subsequent revisions to the draft do not have this provision. However, it has been proposed that an NCA could permit depositary services to be procured in other member states where there is a lack of sufficient depositary services in its own jurisdiction. At this stage, a political agreement has been reached but the review is yet to be finalized.

²⁸ For a PDAOFI to be eligible to act as depositary: (i) the fund must have no redemption rights exercisable during the period of five years from the date of the initial investments; and (ii) the fund does not generally invest in assets to be held in custody or generally invests in issuers or non-listed companies in order to potentially acquire control over such companies.

disclosure), and independence of certain board members. More specifically, where the management company and depositary belong to the same group, at least one third of the members (or, if lower, two members) of the body in charge of the supervisory functions in both the manager and the depositary are required to be independent. In case of AIFs, while there are certain conflict of interest provisions, the other detailed safeguards, especially requirement of independent directors, are absent; CSSF recommends AIFMs to apply such requirements, but it is not binding.

26. In Luxembourg, as of October 2023, 55 percent of the depositaries have group links to at least one fund manager for whose funds they act as depositary. The revenues from the related fund manager to the depositary with respect to its depositary business may be significant. Such conflicts, if not adequately managed, may have adverse impacts on key functions of the depositary, including custody and oversight. Managers with related depositaries may have enhanced conflict risks from a depositary oversight perspective, which may rise to systemic proportions in case such risks translate into actual failures. In the last FSAP, recommendations were made to CSSF to engage with the Luxembourg industry to identify whether additional regulatory safeguards (over and above the current UCITS requirements) should be put in place to enshrine the independence of the depositary. Accordingly, CSSF engaged with the industry and noted that any enhancements to the depositary independence requirements at the Luxembourg level may not be appropriate for level playing field with other EU jurisdictions and are better addressed at the European Level. At the supervisory level, currently, the group links are being considered during on-site inspections of the fund managers and depositaries. However, at an overall supervisory framework level for both fund managers and depositaries including for off-site supervision, the potential risks of conflicts of interest arising from the group links should be integrated in a better manner, especially in the risk-based supervision approach.

27. Recommendation: Luxembourg being a key depositary domicile combined with significant extent of group links of depositaries with fund managers, the government/ authorities, as appropriate, should consider taking an active role in promoting reforms to strengthen depositary independence at the EU level, including harmonization between requirements under UCITS and AIFM Directives on the subject. Meanwhile, CSSF should integrate such group links as important risk factors into its risk-based supervision approach for both fund managers and depositaries.

Valuation and Accounting

28. The Investment Fund Manager is responsible for the valuation of the IF, even if this function is delegated.²⁹ The IFM / the delegate is required to justify that they have the necessary resources, infrastructure, experience, and expertise to perform the function, and have written valuation policies (including risk management) and procedures. The valuation procedures and requirements (including independence, delegation, and sub-delegation) applicable to IFMs under AIFMD are more detailed than for UCITS, presumably because of the nature of underlying assets. CSSF, in its Circular 18/698, recommends to UCITS Management Companies to also apply requirements currently applicable to AIFMs.

²⁹ In case of a self-managed IF, this responsibility falls on the IF itself.

29. Investment Funds can choose between Lux GAAP and IFRS, and more than 95 percent opt for Lux GAAP.³⁰ Lux-GAAP and the Product Laws predominately require a valuation of assets with the last known stock exchange quotation, the probable realization value (for UCITS and Part II Funds) or the fair value. For UCITS, additional detailed valuation requirements are specified for OTC derivatives.

30. IFs are expected to calculate their NAV at least as frequently as they allow subscriptions and redemptions. These are derived mainly from EU level requirements. For UCITS and open-ended AIFs, there are clear requirements to calculate NAV (and for UCITS, also to make prices public) every time they sell, issue, repurchase or redeem units/shares. In addition, there is a requirement to calculate NAV at least twice a month (and make the price public) for UCITS and at least once a year for open-ended AIFs. Most UCITS offer daily dealing; AIFs, less so, by the nature of their strategy. Some 35 percent of AIFs domiciled in Luxembourg are open-ended, of which 31 percent offer daily, 33 percent weekly to monthly and 24 percent quarterly redemptions.

31. The legal framework for valuation of IFs could be strengthened. Currently, different Product Laws provide significant discretion for funds in terms of valuation (referred to as “derogation from fair valuation”) by providing that “unless otherwise provided in articles of incorporation, management regulations or partnership agreement,” requirements for fair valuation need to be followed. Such provisions are present in all Product Laws except the SICAR Law. This provides wide discretion to funds for deviating from the fair valuation requirements.³¹ Based on discussions with the industry, it is understood that practically, this may not arise in many situations, especially due to investor pressures.³² It is also noted that CSSF reviews valuation policies and procedures (of regulated funds) as a part of its authorization framework as well as closely monitors valuation aspects in its on-site and off-site supervision framework. However, the Product Laws continue to provide significant scope for deviating from fair valuation for all types of funds (except SICAR) thereby keeping open the potential scope for misuse.

32. Recommendation: CSSF/ the government should clarify the specific situations where deviation from fair valuation by AIFs is permitted.

33. CSSF has had a strong and robust regulatory framework with respect to pricing errors (including investor compensation) since 2002, which is currently under review for further strengthening.³³ Detailed requirements apply in case of NAV calculation errors and non-compliance with investment rules, including on investor compensation and reporting to CSSF. For NAV calculation errors, materiality thresholds have been laid down beyond which investor

³⁰ The Accounting Law in Luxembourg provides for the following accounting and financial reporting options for Luxembourg domiciled IFs: (i) Lux GAAP which uses the acquisition cost less impairment model; (ii) Lux GAAP with fair value requirement or fair value option, and (iii) IFRS.

³¹ It is noted that AIFMD implementing measures require that all assets of an AIF are fairly valued.

³² However, based on the discussions with stakeholders, it is also noted that in some cases such as closed-ended funds with a buy-and-hold strategy, investors (mainly sophisticated investors) may prefer valuation at cost rather than fair valuation to avoid the associated valuation costs.

³³ (Circular 02/77 will be replaced by Circular 2024/856 from January 1, 2025).

compensation and intimation to the CSSF is triggered; these thresholds do not apply in case of non-compliance with investment rules. Detailed requirements have been laid down for reporting to CSSF, auditors, and promoters; investor compensation; communication to investors, among others. Since this is a framework which has been existence since 2002, it is currently under review for updating in line with the evolution of the industry and further strengthening. The review proposes expanding the scope of the circular to include regulated AIFs (other than UCI Part II which was already covered under the scope; also includes ELTIF, EuVECA, EuSEF and MMFs), laying down the roles of different stakeholders, expanding scope to other errors (e.g., swing pricing errors), review in the role of auditor, among others.

Delegation and Substance³⁴

34. Delegation structures, particularly relating to portfolio management, are extensively adopted by IFs in Luxembourg.³⁵ In fact, delegation of portfolio management is a critical element contributing to the success of Luxembourg as a popular domicile for investment funds. Under the EU requirements, if a manager delegates a certain function to another entity, it remains fully responsible for such function. In practice, if delegated, the role of the fund manager is primarily to oversee such activity of the delegate for that function. The UK is the main country to which portfolio management is delegated, with fund managers delegating AUM of close to €1.2 trillion to portfolio managers located in UK. This is followed by USA (€0.7 trillion), Switzerland (€0.5 trillion), France (€0.38 trillion), Germany (€0.38 trillion), and so on. In some cases, portfolio management is delegated to more than one entity, in more than one jurisdiction. While fund managers are also permitted to delegate risk management³⁶, such delegation is rare.

35. Delegation is permitted under both UCITS and AIFM Directives, subject to certain conditions. The arrangements must be disclosed to the CSSF and must not prevent the effectiveness of the CSSF's supervision. The fund manager must be in a position to monitor the activities of the delegate on an ongoing basis. Where the delegation involves portfolio/investment management, the mandate can only be given to entities authorized or registered for the purpose of asset management and that are subject to prudential supervision by their home authorities.³⁷ Under both Directives, delegation of portfolio/investment management to a non-EU/EEA entity is subject to cooperation arrangements being in place between CSSF and the supervisory authorities in the domicile of the delegate.

36. The regulatory requirements around delegation center on ensuring that the fund manager in Luxembourg does not become a "letter-box entity." IOSCO Principles require that

³⁴ Aspects relating to supervision of delegation framework are covered in the supervision section.

³⁵ There is no single definition of portfolio management in the relevant regulations. However, it usually involves the process of selecting, acquiring, managing, and disposing of the assets of the fund.

³⁶ Only one of portfolio management and risk management can be delegated at a time under the AIFMD. Usually, portfolio management is delegated by the AIFM while retaining risk management. While investment decisions (portfolio management) and risk management are intertwined, in practice, the investment paper prepared by the portfolio manager from the commercial perspective is reviewed by the AIFMD for risk management.

³⁷ Where this condition cannot be met for AIFMs, delegation is subject to prior approval of the CSSF.

the use of delegates should not, in any way, be permitted to diminish the effectiveness of the primary regulation and supervision of a CIS (fund) and the CIS operator (fund manager, in this case) should not be allowed to delegate its functions to the extent that it becomes a letter box. The broad principle relating to delegation is the same in the UCITS Directive and the AIFMD; however, the AIFMD and its implementing rules set out a much more detailed framework against which to assess whether an entity has become a letter-box.³⁸ This includes a description of circumstances that would lead to the entity being considered a letter-box (such as where it no longer retains the necessary expertise and resources to supervise the delegated tasks effectively, or it delegates the performance of investment management functions to an extent that exceeds by a substantial margin the investment management functions performed by the AIFM itself).

37. Since the last FSAP, CSSF has laid down granular requirements with respect to delegation and substance in its circular (18/698) issued in 2018. The circular lays down granular requirements on aspects such as limits to the scope of delegation, the delegation framework (including relating to reporting to CSSF, drawing up a contract, initial due diligence, and ongoing monitoring) and specific conditions applicable in case certain functions are delegated including portfolio management, administration, marketing, risk management and depositary function. A key aspect of the 2018 circular pertains to clarification on the substantial presence threshold, in line with the recommendation in the previous FSAP. The circular now clarifies that CSSF expectations as to the number of persons required on the ground is at least three full-time equivalent (FTE) at the head office in Luxembourg who perform key functions. It also lays down detailed substance requirements with respect to conducting officers: the minimum number of such officers should be two; in principle, they need to be permanently located in Luxembourg; their maximum number of mandates as conducting officers should be two.

38. The EU regulatory requirements on delegation were recently reviewed, with a renewed focus post Brexit. Delegation has come under increased scrutiny at the European Level post Brexit since a significant amount of delegation of portfolio management by fund managers domiciled in Europe, particularly in Luxembourg and Ireland, will now sit outside the EU. As a part of the recent AIFMD/UCITS review, requirements with respect to delegation are also reviewed. The review strengthened the regulatory requirements arounds delegation, including on transparency, substance as well as alignment of delegation requirements for UCITS with the AIFMD requirements. Post adoption of Circular 18/698 in 2018, especially on substance requirements, it is understood that the impact of the proposed review on the Luxembourgish fund industry will not be significant.

Redemption and Liquidity Risk Management

39. UCITS are open-ended funds (most offering daily redemptions) while AIFs may be closed-ended or open-ended, with differing redemption frequencies depending on the strategy. The stringent requirements on UCITS to invest in certain assets, predominantly considered to be liquid, permits the widespread use of daily dealing structures. On the other hand, 35 percent of the AIFs (by Total Net Assets) domiciled in Luxembourg are open-ended; of which 31 percent

³⁸ See Article 82 of the AIFMD Level 2 Regulation.

offer daily redemptions, 33 percent weekly to monthly and 24 percent quarterly redemptions.³⁹ While AIFMs have flexibility in designing the redemption frequency for their funds, under the EU requirements, the investment strategy, liquidity profile and redemption policy of each of the AIF are required to be aligned.

40. CSSF issued a specific circular in 2019 for implementation of IOSCO's recommendations for liquidity risk management (LRM) in collective investment schemes (2018).⁴⁰ Inter-alia, this includes requirements relating to the LRM design process, the day-to-day liquidity management of UCIs and contingency planning. IOSCO conducted a review of the implementation of its above recommendations in 2022 and considered Luxembourg as fully compliant with all of its recommendations.⁴¹

41. IFs in Luxembourg have a wide range of liquidity management tools (LMTs) available to them and have been active in deploying LMTs, especially swing pricing, in particular (see Appendix II). Luxembourgish IFs have been actively deploying swing pricing as anti-dilution tools in normal times. Swing pricing was also widely used during the COVID crisis.

42. The choice of LMTs is largely at the discretion of the fund manager rather than a requirement under the regulatory framework. The regulatory framework does not generally prescribe concrete approaches to be taken in terms of LMTs. However, in certain cases, some tools are mentioned in the Product Laws/ circulars⁴². The vast majority of LMTs are set up in the funds' constitutional documents (i.e., fund rules/articles of incorporation and/or prospectus). It is up to the IF (via its governing body) or its manager to decide which tools to include in the fund toolkit through incorporation in the fund documentation. These are reviewed by the CSSF at the initial IF authorization process.

43. CSSF undertook an assessment of LMTs used by IFs domiciled in Luxembourg in collaboration with the BIS (published in 2022) focusing in particular on swing pricing and temporary suspensions by UCITS funds.⁴³ This was in line with the previous FSAP recommendation. The assessment included broadly the following findings: (i) most funds have sufficient liquidity buffers to generally cover the maximum daily redemptions (ii) estimates of how the liquidity of the portfolio would be affected under stress vary considerably, some of which may underestimate the impact of sales (iii) Funds frequently use swing pricing as an anti-dilution tool; while use of swing pricing dampens outflows during elevated market volatility, it is not very effective

³⁹ Liquidity risks are dealt with in more detail in the Technical Note on IF risks.

⁴⁰ https://www.cssf.lu/wp-content/uploads/files/Lois_reglements/Circulaires/Hors_blanchiment_terrorisme/cssf19_733eng.pdf.

⁴¹ [FR13/22 Thematic Review on Liquidity Risk Management Recommendations \(iosco.org\)](https://www.iosco.org/publications/FR1322-Thematic-Review-on-Liquidity-Risk-Management-Recommendations).

⁴² Temporary borrowings, suspension of redemptions, gates, and redemption-in-kind for UCITS (see the Law of 2010 and Circular CSSF 91/75 (gating)) and suspension of redemptions for AIF (see the AIFM Law).

⁴³ Suspension of redemptions is permitted in case of both UCITS and AIFs in the respective Product Laws. In addition to voluntary suspension, powers are also granted to CSSF to suspend redemptions in the interest of investors or public.

during stress episodes such as the March 2020 turmoil. (iv) Funds rarely suspend redemptions; suspensions usually precede permanent closures and liquidations. (v) Further guidance would be beneficial on the use and timing of suspensions as well as the calibration of swing pricing.⁴⁴

44. CSSF proactively issued guidance on the use of swing pricing and side pockets during the March 2020 turmoil and the early stages of the Ukraine-Russia war (in 2022), respectively.

Swing pricing was the commonly used LMT during the March 2020 turmoil and CSSF's guidance on the topic helped clarify important operational aspects on its use. Further, side-pockets are not commonly permitted to be used by UCITS funds. However, given the unique situation during the Russia-Ukraine crisis, the CSSF adapted the application of LMTs for UCITS by permitting use of side-pockets through issuance of FAQs.

45. The recent AIFMD/UCITS review at the EU level has important amendments regarding LMTs. As per the latest text, every open-ended fund should have at least two LMTs in its toolkit on a mandatory basis, except for MMFs which may have only one.⁴⁵ ESMA has been mandated to issue guidance at the European level on LMTs. While CSSF has issued guidance on use of swing pricing and side pockets, in particular, during crisis situations, overall EU level guidance would be helpful in terms of wider scope as well as consistency across EU jurisdictions. CSSF, with its extensive experience on use of LMTs by Luxembourgish IFs, is engaging with ESMA on this topic, among others.

46. Recommendation: CSSF should continue to actively contribute to ESMA's guidance on LMTs at the European level, using its growing body of analytical work based on empirical evidence on the deployment of those tools in Luxembourg.

47. The recent recommendations on product design and LMTs by IOSCO and FSB may have a larger impact on the Luxembourg IF industry, if adopted. FSB and IOSCO have come out with far reaching recommendations on LMTs and product design.⁴⁶ If implemented, these will have a large impact on the nature of the fund industry worldwide, including in Luxembourg. CSSF has been contributing actively to these discussions at the level of both FSB and IOSCO and should continue to review and consider the impact on the Luxembourgish IF industry of such proposals, if adopted.

48. ESMA issued guidelines for liquidity stress testing in UCITS, AIFs and MMFs, which have been adopted suitably in Luxembourg. The guidelines were developed in 2019 and adopted by the CSSF via Circular 20/752 in 2020. ESMA also developed stress testing guidelines for MMFs that requires inclusion of LMTs in the stress test. In January 2023, ESMA started a consultation on the

⁴⁴ Recommendations pertaining to guidance follows later in the section.

⁴⁵ Similar provisions also applicable in case of the revised ELTIF Regulation (EU) 2023/606.

⁴⁶ FSB Report (2023): "Revised Policy Recommendations to Address Structural Vulnerabilities from Liquidity Mismatch in Open-Ended Funds;" IOSCO Report (2023): "Anti-dilution Liquidity Management Tool—Guidance for Effective Implementation of the Recommendations for Liquidity Risk Management for Collective Investment Schemes."

review of the methodology in the guidelines on stress test scenarios for MMFs under the MMFR, to be finalized by end 2023.

Leverage

49. Under EU requirements, unlike AIFs, UCITS have clear limits on the use of leverage.⁴⁷

The UCITS Directive limits a UCITS fund's global exposure from derivative instruments to 100 percent of the total net value of the UCITS portfolio. Global exposure is calculated using either the commitment approach or the Value-at-Risk (VaR) method.⁴⁸ Borrowing is not considered when determining the global exposure of a UCITS, but UCITS are permitted to borrow, on a temporary basis, up to 10 percent of their NAV. AIFMD requires AIFMs to set leverage limits in respect of each AIF they manage but does not set maximum limits. Leverage must be calculated using two methods: the gross method and the commitment method.⁴⁹ The overall leverage of an AIF is expressed as the ratio between the AIF's exposure and its NAV.

50. While AIFMD does not lay down limits on leverage, it mandates an active supervision regime for leverage risks under Article 25.

AIFs beyond a threshold (if the exposure of the AIF calculated according to the commitment method exceeds three times its NAV) are considered to be 'substantially leveraged' and additional reporting for such funds is required. Reporting includes the overall level of leverage employed by each AIF and the extent to which the AIF's assets have been reused under leveraging arrangements. In December 2020, ESMA published guidance on application of Article 25 of the AIFMD, which has been complied with by CSSF.⁵⁰ CSSF actively monitors leverage risks under Article 25 on a quarterly basis and sends a report to ESMA every year. This exercise also involves close interaction and follow-up by CSSF with the relevant managers. Article 25 also permits the NCAs (CSSF, in this case) to impose leverage limits, if needed, after notifying ESMA, ESRB and if applicable, competent authorities of the relevant AIF. CSSF monitors use of leverage by AIFs closely and has so far, not deemed necessary to exercise this discretion and accordingly, there are no regulatory limits on leverage exercised under this section by the CSSF.

51. Regulatory requirements pertaining to leverage risk management also apply for both UCITS Management Companies and AIFMs.

For UCITS, management companies are required to employ a risk-management process which enables it to monitor and measure at any time the risk of the positions and their contribution to the overall risk profile of the portfolio of a UCITS. General requirements applicable regarding risk management also apply to leverage risks in case of both UCITS Management Companies and AIFMs.

⁴⁷ Some EU product Regulations for AIFs, especially those that permit investment by retail investors, apply restrictions on leverage. See, e.g., leverage restrictions on ELTIFs.

⁴⁸ UCITS using a VaR method may have leverage in excess of the 100 percent limit.

⁴⁹ For more details, see the Technical Note on IFs for the 2017 Luxembourg FSAP.

⁵⁰ Including on assessing the extent of leverage and its contribution to the build-up of systemic risk in the financial system as well as guidance on macroprudential leverage limits.

Operational/Conduct of Business Requirements

52. Extensive rules on operational and conduct of business requirements apply to IFs and their managers. Depending on the activity, these rules primarily stem from the UCITS Directive and AIFMD. If a manager is authorized both as an AIFM and a UCITS management company (called “Super ManCo” in Luxembourg), it must comply with operational and conduct of business requirements of both the regimes. Since it is common for most managers (except few managing only AIFs) in Luxembourg to be “Super ManCos,” requirements of both apply to most managers.

Composition of IF Portfolios

53. Detailed eligibility requirements apply in relation to UCITS’ portfolio composition, while AIFs are permitted extensive discretion. The EU Eligible Assets Directive and ESMA’s guidelines on the subject provide for detailed requirements on the type of assets in which UCITS are permitted to invest. UCITS can invest in certain specified assets which include transferable securities, UCITS and other investment funds under certain conditions, financial derivative instruments, deposits with credit institutions, and specific money market instruments.⁵¹ Diversification and leverage restrictions also apply to UCITS. On the other hand, AIFMD does not impose restrictions on portfolio composition, leverage, or diversification. However, individual EU member states have discretion to impose more stringent rules in this regard. Accordingly, CSSF’s Product Laws provide for certain restrictions on different products.

54. A revision of the Eligible Assets Directive for UCITS Assets is currently underway at the European Level. The Directive has been in force since 2007 and the review has been proposed considering that there have been significant market and regulatory developments since then. The European Commission has requested ESMA to provide technical advice on the review. Considering that Luxembourg is the leading domicile for UCITS, any significant revision is likely to have a large impact on the Luxembourg IF industry, in general, and its UCITS industry, in particular.

55. Recommendation: CSSF should continue to engage closely with ESMA and the EU Commission on the revision of the Eligible Assets Directive, considering that Luxembourg is the leading UCITS domicile in the EU.

56. Luxembourg AIFs can invest in all types of assets; however, some diversification requirements usually apply, depending on the type of AIF. AIFs in Luxembourg generally can invest in all types of (listed/unlisted) securities, cash and equivalents, derivatives, real assets, loans, and collective investment undertakings. However, some product specific restrictions may apply. For example, SICARs are permitted to invest only in risk capital. Part II UCIs, SIFs and RAIFs are subject to diversification requirements.⁵² At the AIF level, neither the AIFM Directive nor the Luxembourg

⁵¹ Covered in great detail in EU’s Eligible Assets Directive for UCITS.

⁵² Part II UCIs, being open to retail investors, are subject to stricter diversification requirements; the investment limits being comparable to those adopted for ELTIFs under the ELTIF review (i.e., in principle 10 percent/20 percent). For SIFs, the limit set is generally 30percent per issuer as detailed in Circular CSSF 07/309, but this percentage may be higher if duly justified. Although the diversification requirements for RAIFs have not been detailed, it should be noted that the general risk-diversification principle laid down in the respective law is drafted in the same way as the one applicable to SIFs (except if investing in risk capital).

law imposes specific liquidity buffers on Luxembourg based IFs.⁵³ The AIFs to which certain EU Product Regulations apply—e.g., MMFs, ELTIFs, EuSEF, EuVECA—have certain specific portfolio composition requirements applicable under the relevant Regulations.

57. Currently, Luxembourg IFs have a limited exposure to crypto assets. CSSF has issued FAQs clarifying that UCITS, UCIs addressing non-professional investors and pension funds cannot directly or indirectly invest in crypto assets (unless investments are in financial instruments); however, AIFs marketed to well informed investors can invest directly or indirectly in crypto assets. Based on the data provided by the authorities, it is understood that crypto exposure of Luxembourg domiciled IFs is limited at present (less than €1 bn). CSSF also covers risks relating to crypto asset exposure of IFs in its supervisory framework under the relevant topics such as disclosure, valuation, etc.

Winding Up

58. The regulatory framework has provisions relating to winding up, primarily depending on the legal form of the IF. The respective Product Laws provide for provisions with respect to winding up, which differ depending on whether the IF has been set up under the corporate or contractual type. Provisions differ depending on whether the winding up is voluntary, due to the operation of the law or a judicial decision. The general rules governing commercial companies also apply as provided by the Company Law, except if they are expressly derogated from by the Product Laws. In case of unregulated AIFs (other than RAIFs), only the provisions deriving from the Company Law apply, in the absence of a Product Law applicable to them.

59. There are some gaps and lack of harmonization in the regulatory framework for winding up. For instance, in case of voluntary winding up, for an IF of corporate type, a voluntary winding up is pursuant to an extraordinary meeting of the shareholders in the presence of a notary public. However, in case of voluntary winding up of an IF of a contractual type, it is the decision of the management company and there is no power to the investors to decide on winding up of the IF, unless the management regulations provide accordingly. Investor rights in terms of right to receive disclosures, appoint liquidators, etc. also differ depending on whether the AIF is of a contractual type or a corporate form. Prior approval of CSSF is required for appointment of the liquidator in case of UCITS and regulated AIFs, but not for unregulated AIFs.

60. IOSCO laid down certain Good Practices for the Termination of Investment Funds in 2017. The good practices include detailed regulatory requirements relating to voluntary termination of funds relating to disclosures to investors, obligations on the responsible entities, rights of the investors, among others. While some aspects, particularly relating to disclosures to investors, are covered in the current winding up framework, many of the good practices, especially the granular requirements, are not incorporated in the extant regulatory framework.

⁵³ For ELTIFs, liquidity requirements are foreseen in article 18 (2) of the ELTIF Regulation. In article 13 (1) of the ELTIF Regulation, investments in UCITS-like assets, which initially were destined to constitute the ELTIF's liquidity reserve, are capped at a maximum of 30percent of the capital (increased to 45percent under the revised Regulation). No minimum liquidity buffer is currently foreseen.

61. CSSF is in the process of upgrading its winding up framework. Some provisions pertaining to liquidation were already amended as a part of the legislative changes in 2023. CSSF is in the process of amending certain other aspects of the winding up framework for various IFs through further amendments to the Product Laws. This presents a good opportunity for CSSF to harmonize various winding up provisions as well as considering incorporating IOSCO's good practices, to the extent the current framework does not cover the same.

62. Recommendation: As a part of its ongoing efforts to strengthen the winding up framework, the government/ CSSF should harmonize various winding up provisions in the Product Laws, as much as possible, especially those involving rights of the investors, and consider incorporation of IOSCO's good practices on termination of funds, as appropriate and to the extent not covered in the current framework.

Box 1. Use of Artificial Intelligence/ Machine Learning by Asset Managers

CSSF undertook a survey regarding the use of artificial intelligence (AI) by its supervised institutions between Oct 2021-Jan 2022. The survey was aimed at analyzing use of AI by its supervised institutions, the AI use cases and application of certain ethical principles CSSF had outlined in its white paper on the subject published in 2018. The survey showed that the level of adoption of AI and other innovative technologies by the supervised institutions was fairly limited and still at early stage, but also found a general increase of investments in the technology and a lack of specific AI related governance mechanisms.

IOSCO issued guidance on the use of artificial intelligence and machine learning by asset managers in 2021. It lays down six guidance areas that may be incorporated by regulators in their regulatory and supervisory framework to address the conduct risks associated with the development, testing and deployment of Artificial Intelligence and Machine Learning by asset managers. These include areas like governance framework, testing, resources, third-party providers disclosures and controls. Currently, IOSCO's guidance has not been incorporated in CSSF's regulatory framework.

CSSF proposes to incorporate IOSCO's guidance in its ongoing revisions to the regulatory framework for fund managers, while awaiting clarity on EU level developments. After discussions with CSSF during the FSAP mission on the topic, CSSF indicated that IOSCO's guidance is being incorporated in the proposed update of the CSSF circular 18/698 regarding the authorization and organization of investment fund managers incorporated under Luxembourg law. Considering the increase in the use of AI in general since 2022, incorporation of IOSCO's guidance in CSSF's regulatory framework would help strengthen the resilience of the IF industry to AI/ML risks. Further, CSSF is also still following the evolution of the EU AI Act (to be finalized by end 2023) and AI in general also by participating actively in different working groups at the EU level.

B. Authorization

63. CSSF grants authorization to funds, fund managers and other key service providers domiciled in Luxembourg including depositaries, administrators, and auditors. The passporting regimes for UCITS and AIFMs permit entities authorized in another EU State to operate in Luxembourg without obtaining a separate authorization from CSSF. Therefore, a UCITS or an AIF domiciled in Luxembourg can have a manager authorized in another EU Member State. Similarly, a manager authorized by CSSF can manage UCITS/ AIFs domiciled in another EU Member State. Key

service providers to the fund industry domiciled in Luxembourg—depositories, administrators, and auditors—are also authorized by CSSF.

64. All UCITS Management Companies (ManCos) domiciled in Luxembourg need to be authorized by the CSSF; an AIFM domiciled in Luxembourg may be authorized or registered by the CSSF depending on the AUM. A UCITS authorization is approved only if the ManCo is authorized. However, an AIFM may be authorized or registered depending on the AUM managed. In case an AIFM has AUM less than €100m including leveraged assets or €500m unleveraged with no redemption rights for 5 years, the AIFM does not need to be authorized. In such cases, the AIFM is registered with the CSSF with some basic reporting requirements. However, if the thresholds are exceeded more than temporarily, the registered AIFM must seek authorization as an authorized AIFM. The key authorization requirements for managers are covered under CSSF's Circular 18/698; criteria include shareholding, fitness and probity, financial capacity, internal controls, delegation and substance, valuation, etc. CSSF's authorization approach for UCITS ManCos and AIFMs is largely the same, while providing for differences due to the detailed requirements for AIFMs at the EU level.

65. All UCITS and regulated AIFs need to be authorized by the CSSF.⁵⁴ For regulated AIFs (Part II UCIs, SIFs, and SICARs), there is dual authorization i.e., both the fund and the manager are authorized by the CSSF⁵⁵. In case of unregulated/ indirectly regulated AIFs (RAIFs and other AIFs which do not elect to be covered under any of the Product Laws), the fund is not authorized, and the reliance is on indirect supervision through the manager.⁵⁶ This one level of authorization has contributed significantly to the popularity of such unregulated/ indirectly regulated AIFs, due to time-to-market efficiencies. At the authorization stage, key checks by CSSF for funds include review of the prospectus, initiator, manager, key service providers, fitness and probity, sub-fund and share class information, delegation arrangements, among others. The process does not distinguish in terms of the depth of scrutiny depending on the nature of investors; therefore, UCITS and AIFs have the same level of scrutiny. However, in case of retail funds (UCITS and Part II UCIs), if the strategies are seen to be very risky (e.g., high leverage), at the authorization stage itself, CSSF may advise the fund to restrict the nature of investors permitted to invest in the fund.⁵⁷ The funds are currently authorized through an electronic portal called eDesk which has improved the efficiency in the authorization process for funds resulting in improved ability in risk monitoring during the authorization process. CSSF is currently examining extension of eDesk authorization process of other entities to bring in similar efficiencies. CSSF should consider continuing on its path of improving efficiency in the authorization process through extension of eDesk to authorization applications beyond funds to managers as well as other key service providers, as appropriate. In its

⁵⁴ Funds set up in corporate form are usually also permitted to be self-managed. In such cases, the same entity undergoes authorization procedure applicable to both fund and the fund manager. In practice, self-managed funds are not common.

⁵⁵ Provided that such manager is domiciled in Luxembourg.

⁵⁶ RAIF is required to be managed by an authorized AIFM—i.e., the full set of AIFMD requirements apply. In case of other unregulated AIFs, the AIFM may be authorized or registered (as explained above) and AIFMD requirements apply accordingly.

⁵⁷ Based on discussion with CSSF, it is understood that this has been exercised practically in certain cases.

efforts towards improvements in use of technology for supervision, CSSF should move, in the long term, towards an integrated approach to leverage on synergies and avoid redundancies.

66. CSSF also grants authorization to depositaries, administrators, and auditors of investment funds. As mentioned earlier, the current EU level requirements require the depositary of a Luxembourg domiciled fund to be based in Luxembourg. Recently, CSSF revamped and updated its authorization procedure for administrators (handling functions relating to registrar, calculation of NAV, fund accounting and client communication) domiciled in Luxembourg. CSSF, being the regulator for auditors, also authorizes auditors, a key gatekeeper in the IF industry.

C. Supervision

Risk-Based Supervision

67. CSSF uses a risk-based approach for compliance checks and monitoring of risks. This is based on the information received by CSSF from various sources including regulatory reporting by the supervised entities (regular and ad hoc), other authorities, legal advisors, auditors, whistleblowers, investor complaints and media. This risk-based approach is adopted at three levels (considered as three pillars of the supervisory framework): authorization, off-site supervision, and on-site inspections. Criteria considered include complexity, risk profile, type of investors, level of net assets, quality of internal control, quality of information and the source of information.

68. The risk-based approach (RBA) has been further developed since the last FSAP, integrating new elements into the process. The CSSF has a scoring model referred to as “global RBA IFM,” which is based on indicators not only at the fund manager level, but also at sub-fund and fund level. Factors considered for determining this score include net assets, frequency of NAV calculation errors and investment breaches, issues highlighted in management letter issued by the independent auditor, stability of the shareholders of the IF manager, activities performed by the IF manager, AML/KYC risks, etc.⁵⁸ This enables CSSF to concentrate its supervision efforts on the riskiest entities. In addition, the CSSF relies on different dedicated thematic RBAs including the RBA on funds’ and fund managers’ closing documents⁵⁹ and the RBA for critical files. The extension of global scoring at IFM and Fund level is currently under development; proposal being to integrate the individual supervisory actions/measures and the results of the existing thematic RBA tools, and to extend the current RBA tool by integrating indicators covering AIFs, expanding existing indicators on UCITS (e.g., liquidity risk), integrating scoring of the onsite inspections, among others. Some of these have been recently implemented.⁶⁰ The pending ongoing improvements should be implemented on a priority basis.

⁵⁸ Including a specific factor for AUM of unregulated/ indirectly regulated funds managed by the IFM.

⁵⁹ Annual report (including audit opinion), Management Letter (by auditor), Self-Assessment Questionnaire, and Separate report (by auditor).

⁶⁰ These include improvements relating to integration of certain indicators covering AIFs, enhancement of certain liquidity and leverage risk indicators, and integration of the thematic RBA results relating to closing documents, which were undertaken after the first FSAP mission in October 2023.

69. Certain elements of the risk-based approach, relating to nature of business of the fund managers, could be enhanced further. Luxembourg has a significant proportion of third-party fund managers, often referred to as white-label service providers.⁶¹ While such entities may provide opportunities for small portfolio managers, their business models result in a different nature of risks vis-à-vis other fund managers, where the delegate is usually a part of the same group.⁶² The risks, in particular, pertaining to conflicts of interest, are usually different for such providers due to the very nature of their business model. In case of intra-group fund managers as well, conflicts of interest risks are significant, but they play out very differently. CSSF already considers the differences during its on-site inspections, when a targeted review of a particular entity is conducted. It would be advisable for the overall supervision framework to similarly incorporate the differences in the nature of risks, while a review of the regulatory requirements for such providers is being discussed at the European level.

70. Recommendation: CSSF should enhance its overall supervisory approach incorporating the differentiated nature of risks of third party and intra-group fund managers, as appropriate.

Off-Site Supervision

71. The off-site supervision regime is performed notably through the review of the quarterly and annual financial reporting as well as the annual closing documents filed with the CSSF. The annual closing documents of the manager include the audited annual report, the management letter (issued by the independent auditor of the IF manager), the report of the compliance function, the internal audit report as well as the report of the permanent risk management function assessing the adequacy and effectiveness of the risk management. In addition, the funds prudential supervision is also based on the fund's annual closing documents and the findings raised by the independent auditor of each fund. The fund's annual closing documents include the audited annual report of each fund, the management letter, the fund's self-assessment questionnaire and the fund's auditor separate report. Additionally, since 2019, an annual review of the risk management process pertaining to a representative sample of IFMs is performed.

72. The off-site supervision framework also includes other components such as ad-hoc supervision on certain subjects, outlier analysis based on reporting and micro-prudential analysis for certain funds. For instance, CSSF receives notifications from time to time on NAV calculation error and investment breaches, which are reviewed and analyzed in accordance with the risk-based approach. Further, CSSF has defined thresholds for certain reporting to identify statistical outliers, based on which CSSF engages on a regular basis with the relevant managers, requests additional information if needed, requires remedial actions where necessary and follows up

⁶¹ Such providers have a fund manager license (AIFM/ UCITS ManCo license) in Luxembourg and provide services to partners (typically small portfolio managers) by setting up funds for such partners and typically, delegating portfolio management to them. The influence of such partners on such managers is likely to be significant due to revenue dependencies, giving rise to unique conflict and investor protection risks which need to be analyzed and supervised differently.

⁶² This is not to be interpreted to say that the latter do not pose such risks—e.g., pertaining to conflicts of interest. The risks are indeed present in both the models. However, the different nature of the business models of the two types of managers results in different nature of the same risk (e.g., conflicts of interest) which should be analyzed accordingly.

subsequently. In addition, micro-prudential analysis is carried out for certain UCITS and regulated AIFs depending on particular risk(s), in the context of their current activities or following the occurrence of a particular event.⁶³ Further, any other problem(s) communicated to the CSSF in relation to a current UCITS or regulated AIF, will be analyzed by dedicated teams, typically after requests for cooperation by foreign national competent authorities, submission of complaints or whistleblowing.

73. The approach to off-site supervision towards depositaries is very similar to the ones applied for IF and their managers. On a periodic basis, the reporting by such depositaries is analyzed and follow-up supervisory action implemented, as appropriate. The approach chosen is based on the assessment of the various risks associated with this function including the operational risks of processing transactions, and the risk of non-compliance with the fund regulations.

74. Thematic reviews are also carried out, a significant portion of which, since the last FSAP have been towards ESMA's Common Supervisory Actions (CSAs) for supervisory convergence. In the last five years, twelve thematic off-site reviews have been done on various topics, many initiated during and post crises, especially the COVID and Russia-Ukraine crisis. Since the last FSAP, ESMA has significantly stepped up its involvement on supervisory convergence through use of Common Supervisory Actions (CSAs) which has evidently directed significant supervisory efforts of CSSF. Three CSAs have been done so far on liquidity risk management, valuation, and cost and fees of UCITS and a CSA on ESG is currently ongoing. During these thematic reviews, CSSF closely interacts with the funds and fund managers, including follow-ups. Most of the reviews resulted in recommendations and advice to the industry on the respective topics, often reminding the industry of the relevant regulatory provisions and advising strict compliance.

On-Site Inspections

75. CSSF has two key departments primarily charged with on-site inspection responsibilities relating to the IF industry. These are (i) On-site Inspections (OSI), and (ii) "Contrôles Sur Place" of the Métier OPC ("OPC-CSP"). The OSI department is in charge of coordinating all on-site inspections conducted by the CSSF and has dedicated teams to cover certain topics such as AML/CFT (on transfer agent) and Central Administration/Depositary Bank. The OPC-CSP service has been put in place during the year 2015, to specifically focus on IF related requirements deriving from specifically substance requirements applicable to Luxembourg managers or IF, besides others under the provisions of the AIFM Directive or the UCITS Directive. OPC-CSP is hence charged specifically with the preparation, execution, and follow-up of on-site inspections of management companies, AIFMs and investment vehicles. OPC-PRUD service conducts on-site inspections in relation to IFMs involving the risk management system and NAV errors and breaches of investment restrictions.

⁶³ This includes, for example, UCITS/ regulated AIFs considered by CSSF's management "to be closely monitored," after completion of the authorization process, throughout its lifetime or after a particular event requiring periodic screening; UCITS/ regulated AIFs identified as critical or exposed to higher risk according to a risk-based approach; UCITS/ regulated AIFs exposed during their lifetime to a failure or risk of failure to comply with legal and regulatory provisions.

76. OSI undertakes the planning and coordination of all CSSF inspections for the forthcoming year using a standard planning tool. For the respective areas under its responsibilities, OPC CSP undertakes the planning and coordination of all onsite inspections for the UCI Department. The frequency is determined by the off-site supervision department's RBA and the scope by the issues arising from the supervision activities carried out by the various supervision departments, including issues that may have been raised in the IF closing documents. OSI and OPC CSP aggregate and analyze these inputs and plan each inspection accordingly. The planning is presented to the senior management of CSSF for review and approval.

77. There are four types of on-site inspections done by CSSF: thematic, full scope/ partial scope and ad hoc. Thematic inspections cut across the industry and focus on specific topics, with the objective being to establish a benchmark and identify outliers. Since the last FSAP which recommended comprehensive inspections, CSSF has initiated full scope/ partial scope inspections. The subjects covered in such inspections usually include AML/CFT, Risk Management, Corporate Governance, NAV Errors and Breaches of Investment Restrictions, Money Market Funds, UCI Administration and Depositary function. Ad hoc missions are intended to identify a very specific situation and/or problem related to the entity and are usually identified through off-site prudential supervision (e.g., problems noted by the external auditor, delay in reporting, suspicion of fraud, whistleblowing, etc.). On average over the last five years, CSSF has conducted around 57 on-site inspections every year. Areas of focus included governance of managers (covering a variety of conduct obligations), risk management, AML/CFT, depositary and administrative functions.

78. On-site Inspections are carried out at the level of the fund manager, depositaries, and administrators. If located in Luxembourg, inspections are also carried out at the investment manager and distributor level. One of the key recommendations in the last FSAP was to initiate on-site inspections of the delegate, especially portfolio managers, where they are located outside Luxembourg. CSSF has initiated discussions with foreign regulatory authorities on this subject, which is currently in progress. Based on discussions with CSSF, it is understood that the discussions have been delayed by the Covid crisis. Considering the extensive use of delegation, especially portfolio management, by the fund managers in Luxembourg, it is important that such on-site inspections are initiated on a priority basis. The current risk-based approach may be extended to such inspections.

79. Recommendation: CSSF should continue its discussions with relevant supervisors so as to initiate an on-site inspection framework with a risk-based approach, of the delegates outside Luxembourg, whether jointly with such supervisors or by CSSF itself (with that supervisor's consent).

Investigation

80. Potential breaches of legal and regulatory requirements undergo detailed investigation. The main sources of information for such investigations are various reports submitted by such entities. Every case is analyzed for priority (e.g., retail funds are prioritized) and the process is initiated accordingly. The investigation starts with compilation of relevant information from supervisory teams and from external public sources before sending formal notice to the entity. CSSF generally, in this regard, has right to access to any document in any form and to receive a copy, to require information from any person (including through summons and questioning), instruct an auditor or expert to carry out verification or investigations, and carry out on-site

inspections (including surprise inspections).⁶⁴ The investigation may conclude with recommendations to close the investigation, to send an observation letter or to engage formal enforcement/sanction proceedings.

81. In addition, there are other investigations relating to investor complaints, properness assessment, service providers and whistle-blower reports. The major sources among these tend to be properness assessments and service providers. Negative information retrieved from various sources—e.g., press, other supervisory authority, self-denunciation—is examined during properness assessment of a person in the process of approval by CSSF, which may trigger investigations. Investigations relating to service providers (e.g., depositary, central administration agent, management company) may also relate to the decision of such providers to terminate their relationship with a regulated fund.

Data Reporting

82. Data reporting has been enhanced since the last FSAP, supporting CSSF’s data-driven supervision approach. CSSF receives extensive data through its reporting requirements from IFs, fund managers and other service providers. The reporting is in two forms: regular and ad hoc. The regular reports include annual/ semi-annual, quarterly, and monthly reporting by UCITS and all regulated AIFs, semi-annual UCITS Risk Reporting, MMFR Reporting, extensive data reporting by managers under the AIFMD, among others.⁶⁵ Ad-hoc reporting includes VaR and Leverage Report, net redemptions reporting (early warning), large redemptions reporting, etc.⁶⁶ Both regular and ad hoc reporting have been stepped up since the last FSAP; ad hoc reporting especially in the course of various crises over time. In addition, reporting is also required from depositaries, both banks and PDAOFIs.⁶⁷

83. CSSF required increased reporting during crises for better risk monitoring. For instance, during COVID19 and Ukraine/Russia crises, CSSF implemented a specific crisis monitoring of the largest fund managers, requiring notification of significant developments and issues as well as on related decisions and measures taken by fund managers—e.g., daily net redemptions exceeding 5 percent of the NAV, net redemptions over a calendar week exceeding 15 percent of the NAV and/or application of gates/deferred redemptions. This reporting is still in place.

84. CSSF receives security-by-security information from BCL and this has enhanced its supervision capability. This is in line with the recommendation in the last FSAP that recommended CSSF to continue to engage with BCL and ECB to close data gaps such as on individual securities holdings of funds. The CSSF discussions with the BCL and ECB are ongoing on access to the centralized securities data base (CSDB), while securities-by-securities data exchange is working

⁶⁴ Aspects relating to investigation powers are covered later in the enforcement section.

⁶⁵ UCITS Risk Reporting is required (for the full scope) for UCITS with a leverage (in terms of notional amount) exceeding 250 percent and/or net assets above €500 mn.

⁶⁶ VaR and Leverage Report is for those UCITS Funds which use VaR method and employ leverage beyond a certain threshold.

⁶⁷ For banks, reporting relating to depositary function is a part of the overall reporting under the banking regulation. For PDAOFIs, reporting is as applicable to the specialized professionals of the financial sector (hereafter “Specialized PFS”) (monthly and quarterly reporting, annual review of the closing documents).

smoothly between BCL and CSSF. For licensing reasons, the CSSF has not yet been granted full access to all the descriptive data of the portfolio holdings (e.g., credit quality of the security, name of issuer, etc.), but discussions are ongoing to get such an access. Simultaneously, to address the credit quality data gap, CSSF has also entered into an agreement to obtain rating data from one of the credit rating agencies. The proposed revisions to the UCITS Reporting framework under the ongoing reforms to the UCITS Directive is also expected to enhance the data availability with CSSF. While continuing discussions on the access to CDSB, CSSF should maintain its ongoing efforts to plug data gaps, as much as possible.

85. Since 2021, CSSF has required funds and fund managers to submit a self-assessment questionnaire, subjected to a selected review by the auditor.⁶⁸ These self-assessment questionnaires, which replaced the earlier Long Form reports required for UCITS and Part II funds (now extended to managers, other regulated funds), includes questions on predefined topics and takes into account, the characteristics and risks of the IF managers and the different IF types (e.g., asset valuation, compliance of investments, costs/expenses). Its main purpose is to require a self-assessment by fund managers and IFs of their legal and regulatory compliance. This is a significant enhancement in reporting obligations compared to the last FSAP. The auditor also plays a key role in this process by performing certain checks and procedures on the responses to the self-assessment questionnaire and other additional specific checks on legal and regulatory compliance. The scope and results of these reviews and checks are included in the auditor separate reports at fund manager and the IF level. This is in addition to the audit opinion on the financial statements and the 'management letter' wherein the auditor details significant process/control deficiencies/weaknesses and/or point of improvements noted in the context of the statutory audit of the IF. All these documents are together referred to by CSSF as "closing documents."⁶⁹

86. While there has been a significant expansion in the scope of data collected by CSSF, some gaps remain. Based on discussions with the industry during the mission, it is understood that credit lines in place with credit institutions are often an important liquidity management tool that funds rely on to help them manage short-term liquidity pressures. UCITS provide some information on such credit lines in the "other tools" section of the UCITS Risk Reporting on LMTs, but there continues to be lack of clear and granular reporting for the same.⁷⁰ AIFM reporting under the AIFMD also includes some data on credit lines (under Item 210),⁷¹ but it lacks the detailed break-down and granularity necessary to clearly ascertain the extent to which credit lines could effectively act as a liquidity management tool for the funds sector in Luxembourg. Having access to detailed and granular information on credit lines, including whether they are shared with other funds/ within the group, whether they are committed, and to what extent they are drawn down, gives a clearer picture

⁶⁸ For funds, this is applicable only to regulated funds.

⁶⁹ Annual report (including audit opinion), Management Letter (by auditor), Self-Assessment Questionnaire, and Separate report (by auditor).

⁷⁰ UCITS should report under the URR reporting, information on "other tools" to manage liquidity in adverse conditions such as committed credit lines and on borrowing.

⁷¹ The reporting includes the aggregate amount of borrowing and cash financing available to the AIFs they manage (including all drawn and undrawn, committed and uncommitted lines of credit as well as any term financing) and the value of borrowings of cash or securities.

of how IFs would be able to cope with unusually high levels of redemptions and/or unexpected illiquidity in their portfolio assets.

87. Recommendation: CSSF should enhance its reporting framework to include clear and granular details on credit lines put in place by IFs, including the extent of sharing, commitment, and drawdown.

Box 2. Money Market Funds

Money Market Funds (MMFs) play a key role in the short-term funding markets. MMFs invest primarily in short term instruments and aim to maintain stable, or near stable, share prices. While being a key source of short-term funding for a variety of issuers, on the other side, MMFs are often used as cash management vehicles by investors. There are three types of MMFs under the EU MMF Regulation—Variable NAV (VNAV), Public Debt Constant NAV (CNAV) and Low Volatility NAV (LVNAV) MMFs—each of which differ by the nature of price offered to the investors.¹ IOSCO has specific recommendations on MMFs that carry a stable NAV (CNAV and LVNAVs in this case) since they have unique features that make them prone to potential systemic risks.²

Luxembourg is home to the second largest MMF industry in Europe, after Ireland.³ Luxembourg accounts for 29 percent of MMF assets in Europe, behind Ireland at 42 percent. Luxembourg MMF assets are spread out across types and currencies, especially in comparison to Ireland and France, the two other major EU MMF domiciles. However, CNAV and LVNAV are still dominant forms of MMFs in Luxembourg constituting around three-fourth of the industry compared to VNAVs. As explained in the background section, MMFs in Luxembourg have seen significant inflows, particularly from 2019 onwards.

The implementation of the EU MMF Regulation (MMFR) in 2019 introduced detailed rules on MMFs, but post March 2020, concerns have been raised and still remain. MMFR introduced detailed norms on liquidity, diversification, and stress testing. However, questions were raised about MMFR's ability to tackle systemic risks effectively after the March 2020 turmoil, when non-public debt MMFs experienced significant outflows resulting from liquidity needs, flight-to-safety and other factors. The Financial Stability Board (FSB) also published policy proposals to enhance MMF resilience in 2021 reflecting on the lessons learnt from the COVID crisis. Given this background, a review of the MMFR was proposed in 2022,⁴ but it was subsequently debated and dropped by the European Commission in 2023.⁵ ESMA in June 2023 published its analysis from stress tests of MMFs across the EU wherein it highlighted potential vulnerabilities of different types of MMFs, in different stress scenarios.

Continued close supervision of the MMF industry remains key. CSSF requires detailed reporting from MMFs and integrates MMF risks into its supervision framework. With the proposed revisions to the MMFR dropped, CSSF should continue its supervision efforts and closely monitor the MMF industry for any financial stability concerns that may arise, especially in light of the stress testing results. Meanwhile, CSSF should continue to monitor the regulatory developments at the EU level on this aspect.

¹ The key distinction between VNAV, CNAV and LVLAV is the price at which investors can redeem from/subscribe to the MMF. VNAV (variable) MMF, as the name suggests, offers a variable price derived from the underlying market value of the assets. CNAV, as the name suggests, offers a constant price, irrespective of the underlying market value of the assets. LVNAV lies between the two by offering a constant price till a certain threshold, beyond which it turns into VNAV.

² See [FR07/12 Policy Recommendations for Money Market Funds \(iosco.org\)](#)

³ [ESMA50-165-2391 ESMA Market Report on EU MMF market 2023 \(europa.eu\)](#)

⁴ The review also proposed incorporating some of the FSB proposals—e.g., removal of amortized cost for LVNAVs, decoupling activation of LMTs from regulatory thresholds, etc.

⁵ In its report on the functioning of the Money Market Funds Regulation published on 20 July 2023 (https://finance.ec.europa.eu/system/files/2023-07/230720-report-money-market-funds_en.pdf), the European Commission identified certain vulnerabilities in the MMF sector, but decided not to propose a revision of the legislation at that stage based on its assessment that MMF Regulation has enhanced financial stability and successfully passed the test of the recent market stress episodes.

D. Enforcement

88. CSSF's investigation and enforcement powers are derived from transversal legislations, including from EU level legislations. For instance, AIFMD and UCITS Directives require the member states to grant certain minimum powers to the competent authorities (CSSF, in this case). This is reflected in the Laws through which these Directives are transposed. Each law is specific in terms of sanctions that may be imposed for breaches of that specific law. Therefore, CSSF's enforcement powers depend on the powers provided under that specific law.

89. CSSF's investigation and enforcement powers are different under different laws. Investigation powers of CSSF, including on access to data and documents, summoning and questioning persons, obtaining telephone and internet records, instructing auditors/experts to carry out verifications/ investigations, etc. differ across different Laws. Enforcement powers that can be taken pursuant to breaches including relating to freezing/ sequestration of assets, prohibition on professional activities, cease and desist, withdrawing authorization, publishing sanctions, etc. also differ across Laws and are not exhaustive in some of the Laws.⁷² Further, in many cases, powers seem to apply only in case of violation of certain specific provisions of that Law. The criteria to be adopted to determine the nature and level of penalties also often differ in various Laws.

90. Recommendation: The enforcement and investigation powers under different laws should be suitably harmonized to ensure that CSSF has a comprehensive set of powers to investigate and take enforcement actions against the wide set of entities in the IF sector.

91. CSSF's powers with respect to administrative fines, in some cases, are not sufficient to have a deterrent effect and in some other cases, lack clarity. For instance, the maximum administrative fine that can be imposed under Law of 2013 (against AIFMs) is €250,000, which is extremely low to have a deterrent effect, especially considering the recent trend of increasing popularity of Luxembourg as a domicile for AIFs and AIFMs. The maximum amount is the same in case of Laws providing for powers of CSSF with respect to SFDR violations. On the other hand, provisions in some other Laws lack clarity. For instance, the Law of 2010 (including UCITS) provides for an administrative fine of €5 million or 10 percent of annual turnover but does not clarify whether this is applicable on the higher or lower of the two.⁷³ In practice, in the absence of clarity, the interpretation, as understood during the discussions during the mission, has been lower of the two which has again limited CSSF's ability to levy heavy fines for UCITS violations. In case of AIFM and SFDR related Laws, there is no corresponding percentage threshold based on turnover which provides for higher sanction powers for larger entities. There is no power for CSSF to levy fines on a SIF or a SICAR; there is only a power to impose fine on individual directors/ management members in certain cases (which is usually used for non-submission of reports) which is up to €12,500 in case of SIFs and even lower at up to €500 in case of SICARs. Further, CSSF has no powers to impose

⁷² For instance, the SICAR Law, Laws laying down powers of CSSF for breaches of provisions of EU Regulations (e.g., MMFR, SFDR, etc.).

⁷³ Same is the case for Laws providing for powers of CSSF to impose sanctions with respect to MMFR, ELTIF Regulations, EuVECAs, and EuSEFs.

sanctions directly against RAIFs or other unregulated AIFs; in such cases, the reliance is on enforcement powers against the relevant AIFMs.

92. The effect of lack of adequate powers with respect to administrative fines can be seen in the level of fines imposed. CSSF imposed around €1 million as administrative fine (total) every year (average of the last five years). This includes fines against funds, UCITS Management Companies, AIFMs, depositary banks, administrators as well as individual directors/ managers (SIFs/SICARs).

93. Recommendation: Laws providing for powers to CSSF to impose administrative fines on the IF industry should be reviewed in terms of amount, scope, thresholds, clarity, and harmonization; and the overall sanctioning regime in terms of administrative fines should be significantly strengthened in order to have a deterrent effect.

94. The procedural aspects relating to enforcement are laid down in internal CSSF guidelines. The internal Enforcement Guidelines outlines the procedure to be followed for the application of enforcement measures with regards to supervised entities, describing the relevant stages of the procedure and in particular the involvement of the so-called “Comité Enforcement” (Enforcement Committee). In any case, the final decision regarding the application of the enforcement measures is thereafter taken by the Management Board of the CSSF in accordance with the Internal Rules of the Management Board. For each department of the CSSF, a specific Enforcement correspondent is appointed and acts as the contact point for any enforcement proceedings regarding such department. In cases where the legal or factual elements do not require a thorough analysis, a simplified enforcement procedure may be applied. In such cases, the Comité Enforcement is not involved. For instance, at the level of UCI department itself, various specific simplified procedures have been implemented where the enforcement department is not required to be consulted (e.g., late filing of certain reports).

95. The common enforcement actions undertaken by CSSF include administrative fines, withdrawal of authorization, and formal injunctions. Broadly, CSSF, like many other European jurisdictions, appears to have a preference for use of escalated supervisory measures over formal enforcement measures.⁷⁴ In the last five years, a total of 46 authorizations (UCITS, Management Companies, SICARs and SIFs) were withdrawn. Formal injunctions were given against 8 depositary banks, 3 administrators, and 36 managers/IFs following on-site and off-site inspections between 2018–2022. In a few cases, CSSF took other actions such as refusal to appoint a person as a Board member and withdrawal of fit and proper status of persons (eight cases between 2018–2022).

96. The enforcement regime against responsible individuals could be strengthened. Generally, enforcement actions appear to focus on the relevant legal entities e.g., funds, fund managers. The overall enforcement approach does not appear to integrate investigation and action against actual individuals responsible for such a breach within the entity (including the Board, in

⁷⁴ See [ESMA publishes 2022 UCITS and AIFMD sanction reports \(europa.eu\)](https://www.esma.europa.eu/press-material/press-conferences-and-news/esma-publishes-2022-ucits-and-aifmd-sanction-reports).

case of collective decisions) except where there is a clear case of misconduct on the part of individuals.⁷⁵ In some cases, indeed the fit and proper status of persons have been revoked, but they do not seem to be integrated as part of a comprehensive enforcement approach against an entity. Certain countries have or are actively considering Individual Accountability Regimes in order to achieve clear accountability on responsible individuals.

97. Recommendation: CSSF should consider integrating in its overall enforcement approach against entities, the accountability of relevant individuals/ boards and consider taking enforcement action against such individuals, whether individually or collectively, as appropriate.

98. Currently, there is no mechanism available for collective redress by investors, including investor compensation. At the European level, the EU Collective Redress Directive envisages at least one such mechanism of collective redress for consumers in every Member State. Under this Directive, the Luxembourg legislator is currently considering a draft law for class action mechanism. It is understood that the initial draft did not consider regulated entities (including the IF industry) but the same has since been expanded to include financial and other regulated actors (including the IF industry) under its scope.

99. Recommendation: Effective and efficient mechanisms for investors in IFs to obtain collective redress should be examined. In this context, the ongoing legislative efforts to introduce a mechanism for class action suits should be prioritized and investors in IFs should be covered under the scope of the legislation.

E. Cross-Border Cooperation

100. Luxembourg, being a cross-border center, has MoUs at the EU level, at the international level (IOSCO Multilateral Memorandum of Understanding (MMoU)) and bilaterally with EU and non-EU countries. At the EU Level, the ESMA MMoU covers cooperation between EU and EEA States and with ESMA. The MMoU extends to authorization, supervision, monitoring, investigation, and enforcement; and therefore, has a very wide scope. CSSF is also a signatory of the MMoU between EU and UK FCA, which is critical considering the extensive linkages between Luxembourg and the UK in the IF industry, particularly through delegation of portfolio management. The CSSF has signed MoUs under the AIFM Directive, negotiated and approved by ESMA, with 47 non-EU securities regulators relating to the supervision and oversight of managers of AIFs, their delegates and depositaries that operate in these jurisdictions. At the international level, CSSF is also a signatory of the IOSCO MMoU which allows for cooperation in enforcement and securing compliance with laws and regulations. Practically, CSSF has relied on many of these MMoUs, including the IOSCO MMoU with respect to fit and proper assessments and more broadly, its authorization and supervision framework and in some cases, for investigation purposes.

⁷⁵ In some cases, such as SIFs and SICARs, where the Law does not provide for powers to CSSF to impose fines against the entity but provides for clear fines against directors/ management members, administrative fines are imposed against the individuals; but even this mainly pertains to non-submission or late submission of certain reporting requirements.

Currently, CSSF is not a signatory to IOSCO's Enhanced MMoU, which provides for cooperation in certain specific areas of enforcement. CSSF has indicated that there are restrictions under EU General Data Protection Regulation (GDPR) and other technical reasons which may not permit CSSF to sign the EMMoU, both Appendices I and II.

F. Institutional Mechanisms for Systemic Risk Monitoring⁷⁶

101. The Systemic Risk Board (“Comité du risque systémique (CdRS)”) is the key institution in Luxembourg for monitoring and managing of systemic risks through its coordinating role.

The CdRS has been set up as a Board composed of the government, BCL, the CSSF and the CAA (the insurance regulator) and is tasked with ensuring national coordination with respect to financial stability in normal as well as crisis situations.⁷⁷ BCL acts as the Secretariat for the CdRS. The BCL and CSSF regularly exchange data and analyses under the umbrella of the CdRS. During crisis situations (COVID-19, Russia-Ukraine war), under the aegis of the CdRS, short-notice ad-hoc meetings were held.

102. CSSF has a clear systemic risk mandate in its founding law along with relevant powers from European and Domestic Laws. As per provisions of the Law of 1998, CSSF should consider the impact of its own decisions on financial stability at the national, international and community level, particularly in emergency situations. In addition, it is provided that CSSF should cooperate with the government, BCL and other national, community and international supervisory authorities to contribute to ensuring financial stability. CSSF also derives powers relating to systemic risks from EU level requirements (e.g., AIFMD) and the national Product Laws.

103. CSSF's authorization and supervision framework integrates elements of systemic risks.

The authorization process allows the CSSF to identify the systemic risk potential with respect to the fund/ manager and to give the necessary regulatory response in addressing such risks. Subsequently, under its supervisory framework, the CSSF monitors the potential systemic implications of investments funds by assessing the regular and ad hoc data reports and through compliance checks of regulatory framework relating to systemic risks (liquidity, leverage, etc.). An overview of CSSF's risk assessment is regularly published on CSSF's website through the UCITS Risk Reporting dashboard, the AIFM Reporting dashboard, and the MMF Reporting dashboard. While publishing of risk dashboards by CSSF on its website is an excellent transparency initiative, CSSF may consider publishing these reports in a timely manner⁷⁸ for better relevance to stakeholders. In addition, the CSSF produces, on a regular basis, a fund risk monitor which monitors the key risk

⁷⁶ For more information on institutional arrangements for systemic risk monitoring, please see the FSAP Technical Note on Macroprudential Policy Framework, Tools, and Calibration.

⁷⁷ The mission of the CdRS is, in accordance with article 1 of the CdRS law “to coordinate the implementation, by the authorities represented in the Committee, of the macroprudential policy whose ultimate goal it is to help maintain the stability of the Luxembourg financial system, including the strengthening of the resilience of the financial system and decreasing the buildup of systemic risks, thereby ensuring a sustainable contribution of the financial sector to economic growth.”

⁷⁸ For instance, the dashboards for December 2021 were published in October 2022. The dashboards for December 2022 were published in November 2023.

factors (such as market risk, liquidity risk, credit risk, contagion risk and sustainability risk) for the Luxembourg IF sector on the basis of macro drivers.

104. BCL has a key role to play in monitoring of systemic risks with respect to the IF sector.

The BCL's IF risk analysis is based on a regular monitoring of the main types of risks to which the sector is exposed: interest rate risk, credit risk, liquidity risk, currency risk, and financial leverage. In the case of an identification of a potential build-up of risks, the BCL informs CdRS which will then discuss the topic. Every year, the BCL publishes a Financial Stability Review containing analyses on current economic and financial issues, which also covers investment funds, considering the size and importance of this sector to the Luxembourgish economy. In line with the ESRB Recommendation on vulnerabilities in the commercial real estate sector in the EEA,⁷⁹ the BCL conducted its analysis on investment funds' exposures to commercial real estate.

105. CSSF and BCL also collaborate on investment funds financial stability monitoring, including data sharing and stress testing.⁸⁰ Regular data exchange includes sharing of security-by-security reporting by BCL to CSSF and AIFMD reporting (recently started) by CSSF to BCL. Ad hoc data sharing in the past have been made during crisis situations such as Covid, Russian-Ukraine crisis, and 2023 banking stresses. CSSF and BCL also conduct a macroprudential stress testing exercise for IFs which supports ongoing monitoring of liquidity risks.⁸¹ In addition, pursuant to the recommendation in the previous FSAP, a bi-annual stress testing exercise is conducted by the CSSF focusing on interlinkages between banks domiciled in Luxembourg and investment funds.

106. The monitoring of potential systemic risk for the AIF industry is more formalized through implementation of Article 25 of the AIFMD. Under this Article, CSSF is required to use data reporting to identify the extent to which the use of leverage by AIFMs contributes to the build-up of systemic risk in the financial system, risks of disorderly markets or risks to the long-term growth of the economy. The same Article also empowers CSSF to impose leverage limits, if required. Under this framework, as set out in ESMA guidelines, the leverage risk of AIFs is assessed on a quarterly basis through a two-step approach; first step being identification of risky AIFs, second step being a deep dive into such AIFs identified in Step 1. In addition, under the same ESMA guidelines, the CSSF assesses any leverage-related systemic risks posed by group of AIFs. For instance, this year, a specific focus was put on real estate AIFs and Liability Driven Investments (LDI) Funds. Results of the systemic risk assessment conducted by the CSSF are sent on an annual basis to ESMA which then produces an EU-wide report.

107. Thematic analyses are also developed to detect ex-ante and monitor areas where risks are rising or may materialize. Three areas where such thematic analyses have been recently

⁷⁹ <https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation221201.cre~65c7b70017.en.pdf>

⁸⁰ The issue of MoU between CSSF and BCL is covered in greater detail in the Technical Notes on Banking Supervision and Clearstream.

⁸¹ The technical details of the CSSF Liquidity Stress Testing framework have been published and laid out in more detail in a Working Paper in March 2023 by using a reduced sample of funds.

performed include real estate funds, LDI funds and funds with specific exposure to interest rate risk (esp. bond and mixed funds). As the IF industry in Luxembourg continues to evolve in different directions, it is critical to continue monitoring pockets of the industry from the systemic risks perspective. In addition to real estate funds, LDI funds, bond and mixed funds as outlined above, this may include close scrutiny of the emerging trends in the industry. For instance, this may cover “retailization”/ “democratization” of AIFs, and the related liquidity, conduct and investor protection risks; other emerging areas which could potentially pose new risks due to their increasing size such as private credit; among others.⁸² In addition, traditional areas of high risk should continue to be under close monitoring including, but not limited to, CNAV and LVNAV MMFs,⁸³ open-ended AIFs with significant liquidity mismatch, UCITS employing high leverage under the VaR method, and hedge funds, among others.

108. CSSF has a robust and clearly laid down crisis management procedure. The procedure includes a preliminary risk assessment, formulation of a crisis management strategy, ongoing crisis monitoring, activating appropriate communication channels, and based on analyses, prudential actions, as appropriate. This has been used recently in three cases—COVID-19, Ukraine War and United Kingdom LDI crisis. Details about the supervisory responses to various crises in the last five years are elaborated in Appendix III.

109. CSSF and BCL also contribute to systemic risks analysis and monitoring at the EU and international level. At the European level, the cooperation on the IF sector is primarily with ESMA and the ESRB. At the international level, CSSF and BCL participate in expert/ working groups particularly relating to nonbanks (for instance, the FSB Non-Bank Monitoring Experts Group (NMEG)) as well as in the FSB data collection exercise. CSSF also engages in various IOSCO and FSB workstreams on financial stability topics. Bilateral cooperation with authorities from other countries also form an important component of the institutional framework considering the cross-border nature of Luxembourg’s IF industry.

⁸² Authorities may like to refer to IOSCO’s Thematic Analysis: Emerging Risks in Private Finance (Sep 2023), in this context for more details on the potential emerging risks from the private finance industry, in general and private credit, in particular.

⁸³ Also, VNAVs, as appropriate, depending on the risks.

Appendix I. Some Key EU Requirements Relating to Segregation of Assets and Custody

1. **The rules on safe keeping distinguish between financial instruments that can be held in custody and other assets.** The depositary must hold in custody all financial instruments that may be registered in a financial instruments account opened in the depositary's books and all financial instruments that can be physically delivered to the depositary. For that purpose, the depositary must ensure that all financial instruments are registered in the depositary's books within segregated accounts in accordance with the principles set out in Article 16 of Directive 2006/73/EC such that they can be clearly identified as belonging to the relevant UCITS/AIF at all times. For other assets, the depositary has a duty to verify the ownership of the UCITS/AIF of such assets and ensure updated records. The assets held in custody by the depositary is not permitted to be reused¹ by the depositary, or by the delegate, for their own account except in certain limited situations.
2. **Rules on segregation and custody of assets are broadly similar for UCITS and AIFs.** The regulatory system requires adequate segregation of IF assets from the assets of the fund managers, depositaries, delegates, and other clients. The segregation requirements imposed on depositaries also aim to protect the fund assets throughout the custody chain and ultimately protecting them in case of an insolvency event of the depositary (or its delegate). The rules also provide rights to the depositary to be updated with the necessary information for it to perform its duties effectively.
3. **Delegation of custody is permitted under the UCITS Directive and AIFMD, subject to conditions.** For both AIFs and UCITS, the depositary has obligations to exercise all due skill, care and diligence in the selection and appointment of the third party and carry out periodic reviews and ongoing monitoring thereafter. The third party is required to segregate the assets of the depositary's clients from its own assets, from the assets of the third party's other clients and from the assets held for the depositary for its own account, such that the assets can, at any time, be clearly identified as belonging to clients of a particular depositary. In case of delegation of custody functions for financial instruments, the delegate needs to be subject to prudential regulation including minimum capital requirements and supervision and external periodic audit. Further sub-delegation is also permitted, subject to the same requirements.
4. **EU requirements on safekeeping have stringent rules on liability of depositaries in case of loss of assets.** The UCITS and AIFMD requirements provide that the depositary is liable to the UCITS/AIF and the unitholders for any loss suffered by them as a result of "the depositary's negligent or intentional failure to properly fulfil its obligations," which is not affected by delegation. However, unlike the UCITS Directive, the AIFMD allows the depositary to transfer its liability to a third party via a written contract which must establish the objective reason for the transfer.

¹ Reuse comprises any transaction of assets held in custody including, but not limited to, transferring, pledging, selling, and lending.

Appendix II. Liquidity Management Tools in Luxembourg

Anti-Dilution/Price-Based Tools	Quantity Based Tools	Other Tools (Including Relating to Portfolio Composition) ¹
Swing pricing	Redemption gates	Limits on illiquid asset investment
Redemption fees	Redemption in kind	Limits on asset concentration
Anti-dilution levy	Side pockets (for AIFs) ³	Leverage limits
Valuation at bid or ask price		Maturity restrictions
Dual pricing ²		Short term Borrowing
		Timing restrictions between subscription and redemption
		Liquidity buffers

¹ Some of these tools may be on account of regulatory restrictions, e.g., restrictions on investment in certain assets considered illiquid for UCITS funds. Most of the ones included here are the ones which could be adopted by the fund manager for their fund at their discretion.

² While dual pricing and bid/ask valuations are theoretically possible, they are not commonly used in Luxembourg. Instead, other LMTs, such as swing pricing, are more prevalent in Luxembourg.

³ The [CSSF FAQ on the issue of illiquid assets](#) resulting from the Russia-Ukraine crisis was issued in March 2022 and allows the exceptional use of side-pockets by UCITS with a higher exposure to such illiquid assets.

Appendix III. Supervisory Response to Global Events

1. Luxembourgish IF industry, by its cross-border nature, has been significantly impacted by global events in the last five years. This includes impact from events such as Brexit, COVID, the Liability Driven Funds crisis in the United Kingdom, the Russian-Ukraine war, and the banking crisis in 2023. CSSF has taken strong supervisory actions during and post each of these events, as appropriate, including stepping up of reporting obligations, enhanced interactions with the industry and other authorities (domestic and globally), close monitoring of developments and in some cases, issuance of FAQs and regulatory expectations.

2. Luxembourg has been a significant beneficiary of fund relocation post Brexit. CSSF received 40 Brexit application files.¹ Of these, more than half were linked to managers which had already a presence in Luxembourg, and which decided to expand their activities by applying for a MiFID top-up license or for a Super Manco license (i.e., an investment fund manager having both the UCITS and the AIFM license). In CSSF's assessment, new joiners starting from scratch in Luxembourg were limited. CSSF has affirmed that it did not treat Brexit files any differently from non-Brexit files; similar is the case with reporting and supervision. Further, ESMA had organized a Supervisory Coordination Network (SCN) from 2017–2020 with a view of avoid regulatory arbitrage in Brexit relocations. Meetings were held on an almost monthly basis in which the CSSF presented all fund manager files linked to Brexit in order to gather input from others. CSSF asserts that no file has been authorized against the objections by any other authority or ESMA.

3. The Luxembourgish fund industry was significantly impacted by the COVID crisis during Feb-Mar 2020. There was a material liquidity stress combined with significantly higher transaction costs and bid/ask spreads, in certain market segments, such as corporate bonds, high-yield bonds, emerging market bonds and money market instruments. The period saw significant negative effects on valuation and significant outflows, particularly in March 2020. Money Market Funds (US\$ LVNAV MMFs) also saw net outflows during this period. Large-scale public sector support measures that followed resulted in a quick recovery as net inflows resumed. MMFs benefited indirectly, in particular, from the opening of the United States Federal Reserve's Money Market Mutual Fund Liquidity Facility (MMLF). During this period, Luxembourg domiciled funds deployed LMTs, mainly swing pricing and to some extent, gates, and suspensions.

4. During the COVID crisis period, BCL and CSSF undertook several supervisory actions aimed at stemming the systemic risks from and to the IF industry. These actions were mainly in the form on increased data reporting and sharing, and engagements with the industry and various authorities. Under the umbrella of the CdRS, BCL and the CSSF established a daily data exchange in order to monitor the MMF redemptions, engaged in regular exchanges with private market participants as well as European and national authorities from other important fund jurisdictions. CSSF introduced a special crisis reporting covering around 90 percent of total net assets of the

¹ Based on ESMA's definition of the term "relocation." Based on a peer review published by ESMA, in terms of new authorization applications, the highest number was in Ireland (48/50) followed by Luxembourg (18/19) and then France (14/15). In terms of material changes notifications, the highest number was in France (43/43) followed by Luxembourg (22/22) and Ireland (12/14) [(approved/received)].

industry. Specific daily and weekly monitoring for MMFs were introduced. In June/July 2020, a real estate investment fund survey was conducted. CSSF also issued FAQs on swing pricing and clarifications on VaR breaches. CSSF and BCL also engaged significantly through bilateral discussions with other peer authorities and at the EU level.

5. Luxembourg IFs had a direct exposure of ~€18 bn to Russian assets, which while being marginal for the overall industry, were significant for some specific funds, which implemented suspensions and/ or side pockets. In December 2021, 61 investment funds held more than 10 percent of their assets in RU securities, primarily equity (64 percent) in oil and gas corporates and a large Russian bank subject to sanctions. Bond exposures were mainly to Russian sovereign bonds. The impact during this crisis was mainly through the effect on liquidity and valuation of these particular assets. CSSF issued FAQs on side pockets during this crisis. On the ground, however, funds with higher exposures to such assets suspended redemptions while less exposed funds switched to fair valuations without suspending redemptions. Some suspensions lasted beyond 2022, others were liquidated in 2022. A limited number of IFs created side-pockets to segregate the assets concerned and were thus in a position to lift the suspension for the part of the portfolio which was not impacted.

6. In terms of supervisory actions, CSSF and BCL relied on enhanced reporting and issuance of FAQs. From February 2022, CSSF required around 130 IFMs to report significant events/issues, including significant valuation challenges, as well as large redemptions. This information was analyzed and a dedicated valuation questionnaire with instrument-specific price data collection started. CSSF is currently in the final stages of analyzing this information. A significant initiative by CSSF was the issuance of FAQs on side pockets, as explained above, since UCITS funds typically are not permitted to use side pockets as an LMT. Similar to the COVID crisis, there was also increased engagement with the industry and other authorities.

7. Luxembourg hosts the second largest population of liability driven investment (LDI) funds in the EU, behind Ireland.² Based on BCL analysis, Luxembourg hosted 104 LDI funds with a total NAV of €30.8bn (£26.6bn)³ at the end of August 2022—i.e., before the turmoil. Of these, only 3 investment fund managers (IFMs) with a total of 86 LDI sub-funds representing a total NAV of approximately €20bn were exposed to the UK gilt market.⁴ Given the unprecedented and sudden rise of the yields in gilts during this episode, leveraged LDI funds faced significant margin/collateral calls. The liquidity buffer could not withstand the magnitude of the shock and the recapitalization processes, which allow such funds to request further capital from their investors (i.e., UK pension funds), proved to be too slow against the sudden and strong yield moves. One fund manager had to temporarily suspend some LDI funds and there was use of borrowing in some instances. The large volume and complexity of the transactions related to LDI funds during the September episode was

² As of December 2021, LDI funds reported an aggregate NAV of €191bn in Ireland, €44bn in Luxembourg and €10bn in the Netherlands (ESRB figures).

³ A similar estimate was made by ESRB. Based on AIFMD data, the ESRB estimates for end-2021 that Luxembourg hosted 102 LDI funds with an aggregate NAV of €44bn.

⁴ Others were exposed to the euro sovereign debt where no stresses were observed.

also challenging from an operational perspective for the depository banks. The situation stabilized post Bank of England intervention.

8. CSSF responded to the United Kingdom LDI crisis through increased reporting, issue of regulatory expectations of yield buffers, interaction with ESMA, United Kingdom, and Irish authorities as well as with affected managers. On November 30, 2022, the CSSF issued a public letter addressed to LDI fund managers in which it is indicated that, going forward, the CSSF (and the Central Bank of Ireland) expected GBP LDI funds to maintain an average “yield buffer” of 300–400 bps. CSSF also undertook close monitoring, continuous discussions, and daily reporting from the affected managers. The CSSF, in close cooperation with the Central Bank of Ireland, published on November 23, 2023, a consultation on GBP LDI funds, with regard to introducing macroprudential measures by imposing a minimum yield buffer on these funds.⁵ CSSF has been working in close cooperation with authorities in Ireland and Netherlands. Regular coordination meetings between EU authorities and United Kingdom authorities (BoE, FCA, United Kingdom Pensions Regulator (TPR)) are being held, with the recent decision on setting up a common reporting for LDI funds applicable in principle as from end of June 2023 (covering at least the five largest actors) with a relatively high reporting frequency (probably monthly).

9. During the 2023 banking crisis, CSSF actively monitored and collected data to Funds affected by/ exposed to the stressed banks. Overall, CSSF found that the exposures of Luxembourg domiciled funds to such banks were negligible and redemption pressures were also minimal. Moderate net outflows were noted from Luxembourg domiciled LVNAV MMFs (around 4 percent NAV), while broadly similar (in nominal value) cumulated inflows were seen on public debt CNAV (U.S. dollar). CSSF also held discussions with ESMA and other European securities regulators on the subject during the stress period.

⁵ [CSSF communication on GBP Liability Driven Investment Funds consultation – CSSF](#)