



LUXEMBOURG

FINANCIAL SECTOR ASSESSMENT PROGRAM

TECHNICAL NOTE—FUND MANAGEMENT: REGULATION, SUPERVISION, AND SYSTEMIC RISK MONITORING

August 2017

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SYSTEMIC RISK MONITORING

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>

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Glossary

AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Alternative Investment Fund Managers Directive
AUM	Assets Under Management
BCL	Banque Centrale Luxembourgeoise
CIS	Collective Investment Scheme
CNAV	Constant Net Asset Value
CRS	Conseil du Risque Systemique
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
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
LMT	Liquidity Management Tool
MMF	Net Asset Value
NAV	Money Market Fund
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

Luxembourg has an internationally significant fund management sector, to which it applies a strong and comprehensive regulatory framework. The industry is the largest in Europe by domiciled assets, and the second largest in the world, with funds that take the form of Undertakings for Collective Investment in Transferable Securities (UCITS) dominant.

The Luxembourg authorities have reflected at a national level the requirements set out in European Union (EU) legislation and the standards and principles developed by the International Organization of Securities Commissions (IOSCO). In some cases, the decision has been taken to go further than the relevant rule or principle in order to achieve a stronger framework. The authority with responsibility for oversight of the fund management sector, the Commission de Surveillance du Secteur Financier (CSSF), is an authoritative body which takes a pragmatic approach and applies its extensive experience and expertise in an appropriate manner. Following the recommendations of the 2011 FSAP Update, the CSSF has shed its industry promotional role.

Certain structural elements of the Luxembourg fund management industry, particularly the extensive use of delegation and concentration of fund directorships, merit increased supervisory analysis and attention beyond the current activities. The typical model adopted by Luxembourg fund managers involves significant delegation of activities, often including portfolio and risk management. Although this structure has not given rise to problems in the past, given the rapid growth in the industry in recent years and the extent to which funds in Luxembourg avail of delegated activities, additional supervisory scrutiny is warranted. Formal guidance on the substantial presence threshold would be welcome, and the CSSF should take steps to engage actively with regulators in the jurisdiction where the delegated activities are being carried out. Another area that merits increased focus by the CSSF is directorships of funds, their managers and service providers. Comprehensive data should be gathered on the number of mandates held by individuals, including at entities outside Luxembourg. In the light of this exercise, the CSSF should determine an appropriate threshold (in terms of aggregate time commitment) for directorships and issue guidance to that effect. Each of these measures could contribute to safeguarding the hard-earned reputational integrity of the regulatory and supervisory regime.

The Luxembourg framework for liquidity management tools (LMTs) compares favorably to its peers at both EU and international level. The CSSF should leverage on its extensive experience in this area by conducting an assessment of the effectiveness of LMTs for different types of funds for financial stability purposes and, on the basis of this review, consider issuing guidance to fund managers to include those LMTs deemed to be most effective in their founding documents.

Information on leverage of funds is of potential relevance from a systemic risk perspective. The CSSF should continue to contribute to discussions at European and international level on the development of a single method of calculating leverage.

Given the importance of the role of depositaries with respect to oversight and asset safekeeping, the CSSF should, in addition to its ongoing engagement with the Luxembourg industry, assess the impact of the recent changes and identify whether any risks remain with respect to depositary independence. The CSSF should also consider whether additional safeguards should be put in place to enshrine the independence of the depositary.

While the CSSF has a sound supervisory approach, enhancements to its inspection program and better data access would further improve supervisory effectiveness. Since the last FSAP in 2011 the CSSF has significantly increased its resources, including in the fund management area, which has allowed it to increase the number of thematic on-site inspections that it carries out. Efforts should be made to increase this number further in the coming years, and to introduce comprehensive on-site inspections as a further element of the supervisory toolkit. The CSSF has access to a broad range of periodic reports from regulated entities in the fund sector, and can complement this through ad hoc requests. It should continue its efforts to obtain access to the ECB's Centralized Securities Database in order to fill possible data gaps, and discuss with its peers at EU level the issue of data on the liability side of funds.

The Luxembourg authorities have been actively monitoring and contributing to the discussions on the EU Money Market Funds (MMF) Regulation. The final outcome, may result in consequential changes to the MMF industry in Luxembourg. It will be important for the CSSF to monitor those changes and, once the Regulation has started to apply, assess whether any particular supervisory actions would be warranted.

Table 1. Luxembourg: Main Recommendations

Recommendation	Priority
Require Luxembourg UCITS to carry out liquidity stress testing under normal liquidity conditions (the current rules require only stress testing which enables assessment of liquidity risk under exceptional circumstances).	High
Assess effectiveness of liquidity management tools and consider issuing guidance to industry on the merits of having access to particular tools.	High
Engage with the Luxembourg industry to assess the impact of the recent changes on depositary independence and identify whether any risks remain; consider whether additional safeguards should be put in place to enshrine the independence of the depositary.	High
Strengthen guidance on substance in the context of delegated activities and engage actively with regulators in jurisdiction of delegate.	High
Gather data on the holdings of directorships of funds, their managers, depositaries and administrators; determine an appropriate threshold and issue guidance.	High
Continue to increase the frequency of on-site inspections (and introduce comprehensive inspections) of regulated entities in the fund sector.	High
Continue to contribute to discussions within ESMA on leverage (with a view to developing a single methodology for measurement of leverage across the fund industry) and asset safekeeping (aimed at clarifying the rules on asset segregation throughout the custody chain).	Medium
Continue to engage with the Banque Centrale du Luxembourg (BCL) and ECB to close data gaps such as on individual securities holdings of funds.	Medium
Raise for discussion within ESMA the issue of data on fund liabilities (i.e. the categorization of underlying investors in the fund).	Medium
The CSSF should monitor the consequential changes to the Luxembourg MMF industry arising from the EU Regulation currently under negotiation and assess whether any particular supervisory actions would be warranted once the Regulation starts to apply.	Medium

INTRODUCTION

1. Luxembourg has long been home to one of the world’s largest markets for fund management, in line with its status as a key hub for international financial intermediation. As

of November 2016, total investment fund net assets domiciled in Luxembourg stood at approximately €3.35 trillion according to CSSF figures, equivalent to around 62 times Luxembourgish GDP.¹ Luxembourg’s investment fund sector is the world’s second largest by assets under management (second only to the United States), broadly equivalent to the combined size of its nearest two regional competitors (Ireland and France). Luxembourg-domiciled investment funds² and money market funds account for 28 and 24 percent of euro area totals respectively.

2. The mission reviewed the effectiveness of the regulation, supervision and systemic risk monitoring³ of investment funds and their managers, using the relevant International

Organization of Securities Commissions (IOSCO) principles and standards as benchmarks. A significant proportion of the regulatory framework in this area, in particular that related to conduct of business and disclosure requirements, has been harmonized at the European Union (EU) level and is largely in line with the relevant international standards.⁴ As a result, this technical note focuses on the areas where the EU requirements leave room for discretion by member states and where IOSCO has issued more detailed standards.⁵ Particular emphasis has been placed on requirements with most direct relevance for financial stability, namely valuation, segregation and safekeeping of fund assets, and redemption of fund units. Robust valuation requirements and appropriate tools to address a surge in redemption requests are particularly relevant in containing the impact of a run on investment funds. In addition, the mission reviewed how the Commission de Surveillance du Secteur Financier (CSSF) has in practice applied the EU and domestic regulatory framework in authorizing and supervising funds and firms, and how the authorities have analysed the potential systemic risk arising from fund management.

3. The CSSF—which has the responsibility for the regulation and supervision of fund management—has four key objectives covering both micro- and macroprudential responsibilities:

¹ See Table 3 of the Luxembourg Financial Sector Stability Assessment.

² Including assets held in funds subject to the Directive for Undertakings for Collective Investment in Transferable Securities (UCITS) and Alternative Investment Funds (AIFs).

³ In the context of systemic risk monitoring, issues related to investment fund stress testing are covered in the technical note on Macroprudential Framework and Policies.

⁴ The EU and Luxembourgish regulatory frameworks have been compared with Principles 24-28 of the IOSCO Objectives and Principles of Securities Regulation (IOSCO Principles).

⁵ Principles of Suspensions of Redemptions in Collective Investment Schemes (CIS), January 2012; Policy Recommendations for Money Market Funds (MMFs), October 2012; Principles of Liquidity Risk Management for CIS, March 2013; Principles for the Valuation of CIS Assets, May 2013; and Standards for the Custody of CIS Assets, November 2015.

- a. promoting a considered and prudent business policy in compliance with the regulatory requirements;
- b. protecting the financial stability of the supervised companies and of the financial sector as a whole;
- c. supervising the quality of the organization and internal control systems of the supervised companies;
- d. strengthening the quality of supervised companies' risk management.

4. The CSSF cooperates with the Banque Centrale du Luxembourg (BCL), the European Supervisory Authorities (ESAs) and the other supervisory authorities at the European and international level. With respect to investment funds, the collaboration with the BCL takes two main forms: (i) data sharing; and (ii) ad hoc discussion within the Comité du risque systémique (CRS).

FUND MANAGEMENT

A. Market Structure

5. UCITS represent 84 percent of investment fund assets in Luxembourg. Most of the remainder is comprised of assets held in alternative investment funds (AIFs), with a small residual held in fund vehicles that are neither UCITS nor AIFs. The distribution of asset classes by volume of assets under management (AUM), in descending order, is as follows: bonds, equity, mixed, money market, other funds, real estate, and hedge funds.

B. Regulation

6. Luxembourg has a comprehensive legislative and regulatory framework for fund management largely based on the EU framework, i.e. the Directives on Undertakings for Collective Investment in Transferable Securities (UCITS) and Alternative Investment Fund Managers (AIFMD). The key provisions are set out in primary legislation through which the relevant EU legislation is transposed and includes additional requirements for fund managers and funds that are specific to Luxembourg. Luxembourg legislation is complemented by an extensive set of circulars and FAQs issued by the CSSF. Circulars give guidance to supervised entities on best practice. The Luxembourg legal doctrine considers that circulars have *de facto* binding force, meaning that the CSSF may enforce their application. FAQs have no legal content but provide a steer to regulated entities on the CSSF's expectations.

7. Both the UCITS Directive and AIFMD include a comprehensive set of regulatory requirements. The former covers both fund managers and funds, whereas the focus of the AIFMD is on the managers (AIFMs). Another key distinction is that the AIFMD includes a detailed framework for non-EEA AIFMs and the management and marketing of non-EEA AIFs in the EEA. This framework is not yet fully applicable; instead, non-EEA AIFMs and AIFs are currently subject to National Private Placement Regimes (NPPRs) implemented by some member states, including Luxembourg.

8. In Luxembourg, UCITS are subject to the provisions of part I of the Luxembourg law of December 17, 2010 relating to undertakings for collective investment (Law of 2010), as amended. Collective investment schemes (CIS) governed by part I of the Law of 2010 comply with the provisions of the UCITS Directive. The EU's most recent UCITS V Directive was transposed into law in Luxembourg in June 2016.

9. The rules for AIFs are set out in the law of July 12, 2013 transposing the AIFMD (the AIFM Law) and the Luxembourg AIF product laws for those AIFs which elect to be established under one of those product laws. The different types of investment fund structure are set out in Box 1. Where a particular type of collective investment scheme (CIS) is both an AIF and a regulated CIS under Luxembourg law, they are subject to dual authorization and supervision by the CSSF, in application of both the AIFM law and the applicable product law.

10. Under Luxembourg legislation, so-called Part II Funds are CIS whose units are intended to be marketed to the public. Part II Funds are AIFs that are allowed to be marketed to retail investors in Luxembourg, given the additional requirements in terms of investor protection imposed by Luxembourg legislation for this type of funds (including among others risk diversification requirements and adequate investor information).

11. The concept of AIF covers not only regulated entities, but also any entity not regulated under a specific product law (the Law of 2010, the SIF Law or the SICAR Law) that meets the criteria of an AIF as defined in article 1(39) of the AIFM Law. These AIFs do not have to be authorized by the CSSF under a specific product law but are included in the supervision of their AIFM to the extent that such AIFM is established and authorized in Luxembourg.

12. On July 14, 2016, the Luxembourg Parliament adopted new legislation on reserved alternative investment funds (RAIFs). The purpose of this law, which entered into force in August 2016, is to introduce a new type of investment vehicle that is reserved to Luxembourg AIFs managed by an authorized external AIFM (which may or may not be established in Luxembourg). RAIFs, which will be open only to qualified investors, will not be subject to authorization and direct supervision by the CSSF. However, as they qualify as AIFs managed by a duly authorized AIFM subject to the full AIFMD requirements, RAIFs will be subject to the AIFMD rules, among others: appointment of a depositary, minimum content of the annual report, information to investors, valuation of assets, and leverage rules regarding certain types of asset. An attractive feature of RAIFs from the perspective of the industry is that they can take the form of an umbrella fund, allowing for the periodic launch of sub-funds (also referred to as compartments). It will be important for the CSSF to monitor the take-up of these new vehicles and, where needed, adjust their supervision of the relevant AIFMs accordingly.

Box 1. Investment Fund Types in Luxembourg

As an EU member state, Luxembourg has to comply with the EU UCITS Directive and Alternative Investment Fund Managers Directive (AIFMD). This means that most Luxembourg investment funds fall into one of two categories: UCITS or AIFs. The UCITS Directive requires a UCITS fund to be authorized, whereas the AIFMD applies to the manager (rather than the fund). As in other EU countries, further distinctions are made in Luxembourg between different types of AIF and specific national laws apply to each type.

Type of fund	Luxembourg Categorization	Legal form
UCITS	Part I UCI	Contractual investment fund or common fund (fonds commun de placement (FCP)) Investment company with variable capital (SICAV ¹) or fixed capital (SICAF)
Regulated AIFs	Part II UCI	FCP SICAV taking one of the following legal forms: <ul style="list-style-type: none"> • a public limited company (société anonyme (SA)); • a partnership limited by shares (société en commandite par actions (SCA)); • a limited partnership (société en commandite simple (SCS)); • a special limited partnership (société en commandite spéciale (SCSp)); • a limited company (société à responsabilité limitée (SàrL)); or • a cooperative in the form of a public limited company (société cooperative organisée sous forme de société anonyme). SICAF
	Specialized Investment Fund (SIF)	FCP SICAV taking one of the following legal forms: <ul style="list-style-type: none"> • a public limited company (société anonyme (SA)); • a partnership limited by shares (société en commandite par actions (SCA)); • a limited partnership (société en commandite simple (SCS)); • a special limited partnership (société en commandite spéciale (SCSp)); • a limited company (société à responsabilité limitée (SàrL)); or • a cooperative in the form of a public limited company (société cooperative organisée sous forme de société anonyme (SCoSa)).

Box 1. Investment Fund Types in Luxembourg (concluded)		
	SICAR	<ul style="list-style-type: none"> • a public limited company (société anonyme (SA)); • a partnership limited by shares (société en commandite par actions (SCA)); • a limited partnership (société en commandite simple (SCS)); • a special limited partnership (société en commandite spéciale (SCSp)); • a limited company (société à responsabilité limitée (SàrL)), or • a cooperative in the form of a public limited company (société cooperative organisée sous forme de société anonyme (SCoSa)).
Unregulated AIFs	Some fund vehicles in Luxembourg fall outside the scope of the specific product laws mentioned above (e.g. SIF, SICAR etc.) and are therefore unregulated AIFs (e.g. Reserved Alternative Investment Funds (RAIFs)).	
Other		

¹In the form of a public limited company only.

13. The discussion below focuses on the elements of the regulatory framework that are considered most relevant for financial stability. It highlights the areas where the Luxembourg framework is directly based on EU requirements and those where discretion has been used to apply different or additional requirements. It points out the areas where the regulatory framework is not compliant with the relevant IOSCO Principles or Standards, or where enhancements are otherwise recommended to be made. The manner in which CSSF addresses compliance with the regulatory framework when authorizing and supervising firms and funds and monitoring the sector risks is discussed in sections C, D, and E.

Valuation of Assets

UCITS

14. The UCITS Directive leaves the determination of valuation requirements for UCITS funds to the member state of the fund. It only requires that the rules for valuing the assets and calculating the price of UCITS units be laid down in the applicable national law, in the fund rules, or

in the instruments of incorporation of the investment company.⁶ A management company managing a UCITS fund domiciled in another EEA state has to comply with that state's valuation, accounting and pricing rules.

15. UCITS fund managers are responsible for calculating the net asset value (NAV) of the fund and determining the related subscription and redemption prices. To achieve this, they are required to have accounting policies and procedures in accordance with the accounting rules of the UCITS fund's home state and procedures to ensure the proper and accurate valuation of the assets and liabilities of the fund in accordance with the fund rules and prospectus.

16. In accordance with the UCITS Directive, valuation has to be carried out at least twice a month, unless the fund applies limited redemption arrangements. Luxembourg UCITS must publish the issue, sale and redemption price of their units each time they issue, sell and redeem their units, and at least twice a month. The CSSF may, however, permit a UCITS to reduce this frequency to once a month, on condition that such derogation does not prejudice the interests of unitholders. Such derogations are exceptional and may only be accepted based on detailed, reasoned explanations addressing constraints and rationale that justify the single monthly calculation. The knowledge of the investor base concerned is also essential for the decision. Currently there is only one UCITS in Luxembourg that permits monthly redemptions. The vast majority of UCITS offer daily redemptions.

17. For all Luxembourg UCITS the general principle is that the valuation of listed assets is based on the last known stock exchange quotation. For securities not listed and for securities which are listed but for which the latest quotation is not representative, the valuation shall be based on the probable realization value which must be estimated with care and in good faith. This value must be determined in accordance with the rules set forth in the fund rules.

18. Specific rules apply in the case of valuation of OTC derivatives. Listed derivatives or derivatives dealt in on a regulated market are to be valued on the basis of the latest available market quotation. OTC derivatives must be subject to reliable and verifiable valuation on a daily basis and capable of being sold, liquidated or closed by an offsetting transaction at any time at their fair value at the UCITS initiative. OTC derivatives are to be valued at fair value (i.e. amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction), on the basis of either a reliable up-to-date market value or, if such a value is not available, a pricing model using an adequate recognized methodology. The UCITS shall thereby not rely only on market quotations by the counterparty. For OTC derivatives the rules require an independent verification of the valuation by either an appropriate third party or an independent unit within the UCITS.

19. The UCITS framework sets out more specific rules for the valuation of securities (including money market instruments). In particular, these instruments shall be valued in an

⁶ Further references to fund rules in this technical note cover also the instruments of incorporation of an investment company.

accurate, reliable and fair way by referring to market prices or valuation systems/models. For money market instruments (MMI), this includes an amortized cost valuation system where the UCITS must ensure that this will not result in a material discrepancy between the value of the MMI and the value calculated according to the amortization method⁷. For unlisted/unquoted securities a reliable valuation is a valuation on a periodic basis derived from information from the issuer of the security or from competent investment research.

AIFs

20. The AIFMD contains an extensive set of valuation requirements for AIFs covering such aspects as which entities are permitted to carry out valuations, the development of period review of valuation policies, and the use of models. AIF assets must be valued and the NAV per unit calculated at least once a year. Where an AIF is open-ended, such valuations and calculations must also be carried out at a frequency that is appropriate to the assets held by the AIF and its issuance and redemption frequency. The valuation of financial instruments must take place every time the NAV per unit is calculated, and other assets must be valued at least once a year and every time there is evidence that the last determined value is no longer fair or proper. Where an AIF is closed-ended, such valuations and calculations must also be carried out in case of an increase or decrease of the AIF's capital. AIFMD implementing measures include detailed requirements on the content, consistency of application and periodic review of the valuation policies and procedures, use of models to value assets, and review of individual asset values.

21. AIFMD also includes requirements as to who can conduct the valuation. If the AIFM performs the valuation, those responsible for valuation must be functionally independent from the portfolio management function and the remuneration policy and other measures must ensure conflicts of interest are mitigated. Any external valuer must be independent from the AIF, the AIFM and any other person with close links to the AIF or the AIFM. The AIF's depositary cannot be appointed as an external valuer of the AIF, unless it has functionally and hierarchically separated the performance of its depositary functions from its external valuer tasks; and potential conflicts of interest are properly identified, managed, monitored and disclosed to the investors. The external valuer is prohibited from delegating the valuation function. The AIFM must notify the competent authority of the appointment of the external valuer. If the valuation function is not performed by an independent external valuer, the AIFM competent authority may require it to have its valuation procedures and/or valuations verified by an external valuer or auditor. The competent authority can require an external valuer to verify the independence of internal valuation.

22. Rules for the valuation of AIFs can be divided between those that apply at the level of the AIFM (set out in paragraph 21 above) versus those that apply across—and vary according to—the different types of AIF. For AIFs that are so-called Part II AIFs, some of the rules (namely those relating to pricing of units) that apply to UCITS must be complied with. Disclosure requirements regarding determination of the sale or issue price and the redemption or repurchase

⁷ Box 4 provides further detail on the latest developments regarding the regulation of money market funds in Luxembourg.

price of units applicable to UCITS must also be applied by Part II funds. For SIFs, the general principle is that the valuation of the assets of the fund must be based on the fair value. This value must be determined in accordance with the rules set out in the constitutive documents, management regulations, the articles of incorporation or the partnership agreement, as applicable.

23. Specific rules apply to AIFs investing in real estate. AIFMs of such funds may use the valuation established at year-end throughout the following year unless there is a change in the general economic situation or in the condition of the properties which requires new valuations to be carried out under the same conditions as the annual valuation. Other specificities include that: the directors must appoint one or more independent property valuers with specific experience in the field of property valuation to value the real estate assets; properties may not be acquired or sold unless they have been valued by the property valuer(s), although a new valuation is unnecessary if the sale of the property takes place within six months after the last valuation; and acquisition prices may not be noticeably higher, nor may sales prices be noticeably lower, than the relevant valuation except in exceptional circumstances which are duly justified. In such case, the managers must justify their decision in the next financial report.

24. In the case of SICARs, the general principle of fair value also applies to the valuation of assets. This value must be determined in accordance with the rules set out in the articles of incorporation or partnership agreement.

Accounting Rules

25. Overall, the accounting law gives the possibility to prepare and file stand-alone and consolidated accounts according to one of the following regimes:

- a. Luxgaap under historical cost conventions;
- b. Luxgaap with some fair value options; or
- c. IFRS as implemented via EU legislation.

However, for investment companies, the accounting and CIS laws require that the valuation is to be done on the basis of fair value. As a consequence, CIS prepare and file their annual accounts according to the accounting regimes set out under points b and c above. By analogy, these two accounting regimes are also applicable, in practice, to common (mutual) funds. Luxembourg legislation provides that entities may request derogations, exceptionally, for the application of another recognised accounting standard (e.g., US GAAP).

26. The accounting standard most commonly used by collective investment schemes (CIS) established in Luxembourg is the Luxembourg Generally Accepted Accounting Principles (Luxgaap).⁸ As an exception to this general rule, listed (closed-ended) CIS must establish their financial statements under International Financial Reporting Standards (IFRS) as implemented via EU legislation. CIS may also, on a voluntary basis, choose to apply IFRS as the accounting standard for the establishment of their financial statements and for the calculation of the NAV.⁹ CIS opting for IFRS over Luxgaap generally do so at the request of the shareholders/institutional investors, due to the fact that the fund is consolidated at parent level that is using IFRS or the need for consolidated reporting in the group.

27. The Luxembourg requirements appear to comply with Principles 26 and 27 of the IOSCO Principles that require that the CIS accounts are prepared and their NAV is calculated in accordance with high quality, internationally acceptable accounting standards.¹⁰ The main differences between Luxembourg GAAP and IFRS relate to the presentation of the annual accounts and the treatment of formation expenses. Regarding the presentation, the differences relate primarily to the schedule of investments vs statement of cash flows and the volume of information contained in the notes to the annual accounts (i.e. financial instruments, fair value hierarchy etc.). IFRS require more extensive disclosures than Luxgaap on these aspects. Regarding formation expenses, Luxgaap allows them to be capitalized and written off within a maximum period of five years. Under IFRS (IAS 38) formation expenses are expensed as incurred and cannot be capitalised. These differences do not have an impact on the ability of the CSSF to carry out its supervision of funds as both sets of standards provide for an appropriate level of disclosure.

Role of Auditors

28. External auditors play an important role in regard to the verification of accounting information for both UCITS and AIFs. Luxembourg UCITS must have the accounting information given in their annual report audited by an external auditor (authorized by the CSSF and a member of the IRE (Institut des réviseurs d'entreprises)). This also applies to Part II funds, SIFs and SICARs. Whenever the valuation is delegated, the UCITS management company or AIFM has to perform a verification of such valuation.

29. With respect to AIFs, the law provides that the accounting information given in the annual report of each AIF must be audited by one or more persons empowered by law to audit accounts in accordance with EU accounting legislation.¹¹ The auditor's report, including any qualifications, have to be reproduced in full in the annual report. A derogation is foreseen in the case of AIFMs marketing non-EU AIFs, whereby the annual reports of those AIFs may be subject to

⁸ Approximately 95 percent of the Luxembourg CIS.

⁹ This is the case for approximately 5 percent of the Luxembourg CIS.

¹⁰ In the context of this mission it has not been possible to conduct a detailed comparison of the accounting requirements.

¹¹ Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts.

an audit meeting international auditing standards in force in the country where the AIF has its registered office.

Treatment of Pricing Errors

30. IOSCO’s Principles for the Valuation of Collective Investment Schemes state that “responsible entities” should have policies and procedures in place that seek to detect, prevent and correct pricing errors. The Principles also state that pricing errors that result in a material harm to CIS investors should be addressed promptly, and investors fully compensated. The UCITS Directive and AIFMD include only general references to the treatment of pricing errors. The UCITS Directive only notes that UCITS home member state rules apply to the errors in the NAV calculation and related investor compensation. AIFMD implementing measures require an AIFM to ensure that remedial procedures are in place in the event of an incorrect calculation of the NAV.

31. The regulatory requirements related to the treatment of CIS pricing errors are laid down in a CSSF circular,¹² which applies to errors in the administration or management of UCITS and Part II UCIs qualifying as AIFs. The circular sets out the minimum rules of conduct to be followed by collective investment professionals in Luxembourg in case of errors in the administration or management of the UCITS for which they are responsible. The circular clearly underlines that it is the responsibility of the UCITS promoters (management company or investment company) to ensure that any errors are correctly dealt with in strictest compliance with the rules of conduct specified in the circular. In case of irregularities, the CSSF sets deadlines for rectifying the situation.

32. The Circular further clarifies the procedures to be followed for the correction of calculation errors which have a material impact on the NAV. This includes the information to be provided to the management company and the depositary of the UCI and to the CSSF, and the rules in relation to the determination of the financial impact of significant calculation errors (by making a distinction between cases where the NAV is undervalued and those where the NAV is overvalued).

33. SIFs may either opt for the application of the same circular or set out other internal rules that must remain within reasonable limits with respect to the SIF’s investment policy. In this context, the CSSF considers that SIFs that have not set out specific internal rules must apply the aforementioned circular. As regards the notification process, any NAV calculation error by a SIF must be notified to the CSSF, as well as information on whether the SIF chose to apply the relevant circular or to rely on internal rules.

34. The following table shows the number of NAV calculation errors notified during the last three years and indicates the proportion represented by pricing errors. The increase in the number of NAV calculation and pricing errors notified is primarily due to the decision of the CSSF to extend to SIFs the regime set out in circular 02/77.

¹² CSSF 02/77 on the Protection of investors in case of NAV calculation error and correction of the consequences resulting from non-compliance with the investment rules applicable to undertakings for collective investment.

Table 2. Luxembourg: NAV Calculation Errors

	2015	2014	2013
Number of NAV calculation errors notified to the CSSF	343	226	215
Number of pricing errors notified, including valuation differences of derivative instruments	107	71	59
Proportion (in percent)	31	31	27

Risk and Liquidity Management

35. UCITS funds are subject to investment limits and the fund manager is required to manage and measure the funds' risk on a continuous basis. The detailed investment limits are set out in the UCITS Directive, which also requires the manager 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. UCITS Implementing Directive includes additional requirements on due diligence in the selection of investments and on risk management and measurement. The risk management policy must comprise procedures to enable the manager to assess the exposure of each UCITS to market, liquidity and counterparty risk, as well as other relevant risks. The competent authority must review the risk management policy when authorizing the manager and on an ongoing basis. Any material changes to the policy must be notified to the competent authority.

36. A management company must adopt effective arrangements, processes and techniques to establish, implement and maintain a documented system of internal risk limits, including for liquidity risk, where relevant. The manager must employ an appropriate liquidity risk management process to ensure that each UCITS complies with its redemption obligation and, where appropriate, conduct stress tests which enable assessment of the UCITS liquidity risk under exceptional circumstances. The liquidity profile of the UCITS must be appropriate to the disclosed redemption policy. The robustness of the regulatory framework would be enhanced by requiring UCITS fund managers to conduct liquidity stress tests also under normal liquidity conditions. This would also align the requirement with that in the AIFMD (see below). The CSSF is encouraged to seek enhancements to the liquidity risk management requirements for UCITS fund managers, either through changes to the UCITS Directive or through its own measures.

37. In addition to comprehensive risk management requirements, AIFMD includes detailed obligations on the AIFM's liquidity management system and procedures. An AIFM must ensure that the investment strategy, liquidity profile and redemption policy of each AIF it manages are consistent. It must also employ an appropriate liquidity management system and adopt procedures which enable it to monitor the AIF's liquidity risk and to ensure that the liquidity profile of the AIF's investments complies with its underlying obligations. It must also regularly conduct stress tests, under normal and exceptional liquidity conditions, which enable it to assess and monitor the liquidity risk of the AIF. Further, the AIFMD requires the AIFM to disclose to investors a description

of the AIF's liquidity risk management, including the redemption rights both in normal and in exceptional circumstances, and the existing redemption arrangements with investors. AIFMs are also required to identify, manage and monitor conflicts of interest between redeeming and remaining investors and between the AIFM's incentive to invest in illiquid assets and its redemption policy.

38. Recommendation: It would be beneficial to require Luxembourg UCITS to carry out liquidity stress testing also under normal liquidity conditions. This would have the merit of aligning the approaches between funds covered by the AIFMD and those covered by the UCITS Directive. This is particularly important given the predominance of UCITS as a proportion of the Luxembourg fund industry.

Liquidity Management Tools

39. Suspensions or deferrals of redemptions can be considered as ex post liquidity management tools in the sense that they are typically used once a liquidity risk has crystallized. Suspensions in particular may also be seen as a rather blunt tool. A range of tools exists that can be helpful either in avoiding that such a situation arises in the first place, or in allowing greater flexibility in addressing problems when they occur.

40. Equally, a characteristic of frequent trading is that various costs are incurred and this dilutes the value of existing shareholders' interests. This fall in value happens because the price at which investors buy and sell the fund's shares only reflects the value of its net assets. It does not take into account the costs that arise when the portfolio manager trades as a result of capital activity incurring a spread on the underlying securities. In other words, the charges incurred fall not on the client who has just traded, but on all investors in the fund. This can give rise to incentives for investors to be the first to redeem (the so-called first mover advantage), which can potentially be an exacerbating factor when there is a run on the fund.

41. A broader range of pricing tools can be useful in protecting existing investors from the costs that arise from redemption activity, and in reducing the first mover advantage. The recent consultation by the Financial Stability Board (FSB) seeks views on its recommendation that authorities should make a broad range of liquidity management tools—including swing pricing—available to CIS.¹³ While such situations should ideally be prevented from arising at all due to proper liquidity risk management and appropriate supervision, fund share pricing rules that increase investors' incentives to run should be revised. In this context, so-called swing- or dual-pricing rules could play a role.¹⁴ Charging redemption fees, which are found to be effective in smoothing redemptions, is another alternative for pricing-in the cost of liquidity.

¹³ Proposed Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities, June 22, 2016.

¹⁴ Swing pricing is a mechanism by which investors buying or selling a fund at a volume that could materially impact ongoing investors bear the trading costs incurred, rather than other shareholders bearing them on their behalf. There are two main methods of swing pricing. The first, known as "full" swinging, means that a fund's NAV is adjusted each

(continued)

42. Luxembourg CIS can call on an extensive set of liquidity management tools. The scope of the available tools is typically set by the CIS itself in its fund rules, which are approved by the CSSF. Only suspensions of redemptions are included in the relevant product laws. The main tools available to CIS in Luxembourg are set out in Box 2.

Box 2. Liquidity Management and Pricing Tools in Luxembourg	
Tool	Description
Swing pricing	A fund uses swing pricing to ensure that an investor with a large redemption pays for the market impact of the redemption on the portfolio, so that the holdings of investors who remain in the fund, and the performance of the fund, will not be diluted.
Redemption fees	This is the imposition of an exit fee or redemption fee. The imposition can be made to deter redemptions in particular (stress) scenarios.
Anti-dilution levy	This is the imposition of a fee to ensure that an investor with a large redemption pays for the market impact of the redemption on the portfolio, so that the holdings of investors who remain in the fund, and the performance of the fund, will not be diluted.
Redemption gates	A limit on redemptions (for example, 10 percent of net assets) limits substantial redemptions from a fund in a short period of time. Such limits may be established by the fund (through the constitution/offer document). The limits effectively prevent or defer the redemptions above the limits placed. When redemption orders from one or more unit holders exceed the specified limit, the redemption orders will be partially executed, and the rest of the orders are postponed. During times of market crisis when the redemptions are substantial, it serves to stagger redemptions over a longer period.
Redemptions in kind	The fund's constitution/offer document may provide for the fund to redeem by payment in the underlying investments of an equivalent value rather than selling assets and paying in cash. This may have limited use with retail investors (particularly in public funds) who may be unable or unwilling to receive the asset but may be more appropriately used with large redemptions by wholesale investors. Redemptions in kind require valuation by any external auditor (<i>réviseur d'entreprises agréé</i>).

time there is any net capital activity (i.e. flows in or out), with its direction being determined by the net flows of the day. The second, known as "partial," means the process is triggered, and the NAV swung, only when the net capital activity exceeds a predefined threshold known as the "swing threshold."

Box 2. Liquidity Management and Pricing Tools in Luxembourg (continued)	
Side pockets	This is a type of sub-account used by a CIS (non-UCITS) to separate illiquid assets from other more liquid investments. Once an investment enters a side pocket account, only the present participants in the fund will be entitled to a share of it, while new investors can buy into the remaining portfolio (without the "side-pocketed" assets) on a normal basis.
Timing restrictions between subscription and redemption	A lock-up period is a window of time in which investors of a fund are not allowed to redeem or sell shares. The lock-up period helps portfolio managers avoid liquidity problems while capital is put to work in sometimes illiquid investments.
Limits on illiquid asset investment	Some funds may be subject to requirements regarding the holding of liquid assets and limits on illiquid investments, which may derive from regulatory obligations (in particular, for retail funds, their assets are often invested substantially in liquid assets). This may be a requirement that the fund maintains a certain percentage of highly liquid assets (for example, 20 percent) of net assets.
Limits on asset concentration	Diversification rules may derive from regulatory obligations (in particular for retail funds), and/or fund specific requirements. The fund may have particular limits on the asset concentration (for example, holdings of securities by a single issuer), issuer type, credit rating, maturity, value, counterparty or industry classifications. The fund may also specify diversification ranges for assets and country exposures. A diversified holding of assets or securities may reduce the risk of an inability to sell a specific security or types of assets. This may assist in managing a liquidity event when investors of a particular asset class are exiting the market.
Limits on leverage or derivative use	A limit on leverage may derive from regulatory obligations (e.g. global exposure limitation under UCITS) and/or be fund specific. It is generally a hard limit when established by law, with very little discretion and explicit time periods in which any deviation from the limit must be restored. In the case of borrowing, this may require that a manager limits the amount of borrowing or gearing by the fund to a certain percentage (for example 20 percent). This limit may be important in the case of a liquidity event as the fund may be required to ungear the fund in order to manage redemption requests.

Box 2. Liquidity Management and Pricing Tools in Luxembourg (concluded)	
Limits on leverage or derivative use (concluded)	In the case of synthetic leverage, the limits are placed on the leverage that is derived from using derivatives. Appropriate limits on leverage will limit the effect of liquidity risk. If the fund is highly geared, the manager may be forced to unwind the borrowing at short notice, compounding the effect of the illiquidity and potentially impacting the stability of the market.
Maturity restriction	Restrictions on maturity of assets (applicable to money market and possibly fixed income funds) may derive from regulatory obligations and/or be fund specific. As a consequence, there may be limits regarding the amount of assets of a given maturity so that the fund is able to meet short term obligations (such as redemption requests) in a range of scenarios.
Short term borrowings	Temporary borrowing or entering repos by the manager allows for external liquidity to meet redemptions. The manager may borrow cash or enter into repos to access cash, on the basis that the liquidity event is temporary and that the manager will be able to realize assets at a later stage to repay borrowings and close out the repo. Sources of funding could e.g. come from a line of credit or a bank overdraft.
Valuation at bid price	Funds may also use bid prices to value their fixed income securities. Under this pricing method, a redeeming investor, in effect, would pay a share of the transaction costs associated with the redemption.

Sources: CSSF, FSB, and IOSCO.

43. As evidenced by Box 2, there is a broad range of liquidity management tools available to CIS domiciled in Luxembourg. The availability of tools means that Luxembourg compares favorably to other important fund centers, as set out in IOSCO's *Liquidity Management Tools in Collective Investment Schemes: Results from an IOSCO Committee 5 survey to members*, published in December 2015.¹⁵ It is important to note, however, that the CSSF only has the power to require that redemptions be suspended. For all other tools, their use is at the discretion of the CIS or its manager.

44. Recommendation: The extensive set of liquidity management tools available to CIS in Luxembourg is welcome in helping reduce liquidity risk in funds such as issues with asset illiquidity, first-mover advantage etc, but the discretion left to CIS managers means that not all funds choose to include the full range of tools in their rules or instruments of incorporation. The CSSF should carry

¹⁵ <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD517.pdf>

out a study to assess which tools have been most efficient from a financial stability perspective at addressing possible issues of illiquidity and/or investor runs. In the light of the outcome of the study, the CSSF should consider the merits of issuing guidance—in line with the recommendations of the aforementioned FSB consultation—encouraging CIS managers to incorporate the most effective liquidity management tools in their founding documents. While such guidance should leave some discretion to CIS and their managers, it would give the CSSF a firm basis on which to challenge the decision by a CIS manager not to incorporate a particular tool (e.g., at the authorization stage).

Suspension and Deferral of Redemptions

45. The IOSCO Principles of Liquidity Risk Management for Collective Investment Schemes provide that, where permissible and appropriate for a particular CIS, and in the interests of investors, the responsible entity should include in the CIS’s constitutional documents the ability to use specific tools or exceptional measures which could affect redemption rights. The

only such tool for which there are express requirements in the UCITS Directive or AIFMD is suspension of redemptions. Under Article 84 of the Directive, a UCITS may, in accordance with the applicable national law and the fund rules, temporarily suspend the redemption of its units. This is possible only in exceptional cases, where the suspension is in the interest of unitholders. The competent authority and investors must be informed about any suspension. These requirements are reflected in Luxembourg law. The CSSF also has the power to order the management company to suspend redemption of fund units if this is necessary in the interests of investors or the public. This power was used in relation to seven sub-funds of one umbrella-structure in 2008 in the context of the financial crisis affecting the Icelandic banking sector, but has been used only once in the past three years.

46. The circumstances in which a CIS or its fund manager is entitled to suspend or defer regular valuation and redemption of CIS shares or units are to be spelled out in the governing documentation of a fund. This includes the articles of association, management regulation, partnership agreement and prospectus/offering documents. Suspensions and deferrals of valuation and redemptions are generally decided by the CIS or its fund manager, as opposed to being formally imposed by the CSSF. In cases of suspension of redemption, the management company must immediately communicate its decision to the CSSF and, if the units of the fund are marketed in other member states, to the competent authorities of those member states.

47. In principle, for UCITS a suspension of the NAV calculation is only permitted for reasons clearly beyond the control of the fund. Such reasons would typically relate to situations where the specific market is closed and/or prices do not appear to reflect plausible prices to dispose of the asset on the market). Deferrals (i.e. gates) are only permitted in the cases set out in the fund rules e.g., where more than 10 percent of the NAV of a sub-fund is impacted by redemption orders.

48. Suspensions and deferrals are considered as exceptional measures to temporarily defend the UCITS against uncertain or adverse conditions, such that the suspension of the NAV calculation and redemptions is expected not to exceed a reasonable number of days.

Suspensions or deferrals are monitored by the CSSF to ensure that NAV calculation is resumed within a reasonable time. The determination of what is reasonable in the case of a suspension is done on a case-by-case basis taking into account the particular circumstances of the market. Where redemptions are not resumed within a short period of time, the CSSF carries out ongoing monitoring.

49. The CSSF has been notified of 511 suspensions of redemptions since 2007.¹⁶ One third of these were due to redemption pressure and/or illiquidity of assets, while a further quarter were technical suspensions caused by e.g., the temporary closure of the referenced market. Other important drivers were market events, such as the sub-prime crisis, or difficulties in the valuation of the assets. Around two-fifths of suspensions lasted less than seven days, while almost two-thirds were resolved within 90 days.

50. It is important to distinguish the possibility for the CIS or fund manager to suspend or defer from the power of the CSSF to do so. In the case of UCITS, the fund rules must specify the circumstances in which a temporary suspension of redemptions is permitted.

51. With respect to AIFs, the AIFMD obliges AIFMs to notify investors immediately where they activate gates, side pockets or similar special arrangements or where they decide to suspend redemptions. In accordance with Annex IV of the AIFM Delegated Regulation,¹⁷ information on what percentage of the AIF's NAV is subject to suspension of dealing as of the relevant reporting date has to be reported to authorities as specified in the reporting template related to AIF-specific information (Articles 3(3)(d) and 24(1) of the AIFMD). Within the specific Luxembourg rules that apply to the different types of AIF, there is a common principle that the circumstances in which suspensions or deferrals can be introduced by the CIS or its manager must be disclosed in the fund's rules, instruments of incorporation or equivalent.

Use of Leverage

52. The EU regulatory framework on the use of leverage in UCITS funds and AIFs is very different. 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. The global exposure has to be calculated using either the commitment approach or the Value-at-Risk (VaR) method.¹⁸ Borrowing is not taken into account when determining the global exposure of a UCITS fund, but UCITS funds are permitted to borrow, on a temporary basis, only up to 10 percent of their NAV. The AIFMD defines leverage as "any method by which the AIFM increases the exposure of an AIF whether through borrowing of cash or securities, or leverage embedded in derivative positions or by any other means." The Directive requires AIFMs to set leverage limits in respect of each AIF they manage, but does not set

¹⁶ As at August 2016.

¹⁷ Commission Delegated Regulation (EU) No 231/2013 of December 19, 2012.

¹⁸ UCITS that use a VaR method for the calculation may have a global exposure in excess of the 100 percent limit.

(continued)

maximum limits on leverage.¹⁹ Leverage must be calculated using two methods: the gross method and the commitment method. The overall leverage of an AIF is expressed as a ratio between the exposure of the AIF and its NAV.

53. Recommendation: In order to allow authorities to have a clearer overview of the use of leverage by CIS, it would be useful to work towards a common method for the calculation of leverage in the investment funds area. The Luxembourg authorities should therefore continue to contribute to regional and international initiatives aimed at developing a common global approach to measuring CIS leverage, such as the work already performed by FSB and IOSCO, building on their extensive supervisory experience and analysis of existing data.

¹⁹ However, an AIF is considered to be “substantially leveraged” when the exposure of the AIF calculated according to the commitment method exceeds three times its net asset value. AIFMs that manage AIFs employing leverage on a substantial basis have to make available additional information to their competent authorities, including the overall level of leverage employed by each AIF and the extent to which the AIF’s assets have been reused under leveraging arrangements.

Box 3. Leverage Calculation Methods (concluded)

The commitment method under AIFMD is calculated in the following manner:

Direct positions: Accounting value
+
Derivatives: Sum of the market value of the equivalent position in the underlying asset (after netting and hedging)
+
SFT: market value of the collateral received (including cash) when reinvested
+
Reuse of cash borrowing: the higher of the market value of the investment realized or the total amount of the cash borrowed

The gross method under AIFMD is calculated as follows:

Direct positions: accounting value
-
Cash equivalents
+
Derivatives: Sum of the absolute values of derivative positions converted into equivalent positions in the underlying assets
+
SFT: market value of the collateral received (including cash) when reinvested in assets.
+
Reuse of cash borrowings: the higher of the market value of the investment realized or the total amount of the cash borrowed

Depositaries

54. The IOSCO Standards for the Custody of Collective Investment Schemes' Assets²⁰ provide that the regulatory regime should make appropriate provision for the custodial arrangements of the CIS. The Principles further provide that this may include requiring the appointment of a single custodian²⁰ for each CIS in order to have certainty over who is ultimately responsible for the custody of all CIS assets within a given CIS. The UCITS Directive and AIFMD are more prescriptive and require the appointment of a single depositary²¹ for each UCITS fund and AIF. As a general rule, a depositary must have its registered office or a branch in the same country where the fund is domiciled. This is aimed at ensuring that the depositary can properly exercise its safekeeping and oversight duties. However, a non-EEA AIF's depositary may be established in the AIFM home state. The competent authority of the UCITS' home state must approve the depositary to act as a depositary for a fund domiciled in that EEA state. There is no such requirement in the AIFMD, but in Luxembourg specific approval by the CSSF is required for any entity seeking to act as depositary for an AIF. Under the UCITS Directive and AIFMD the fund manager and the depositary

²⁰ <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD512.pdf>

²¹ Such a requirement was specifically introduced in the EU by the UCITS V Directive.

must enter into a detailed written agreement that regulates the flow of information necessary for them to perform their roles.

Prudential Requirements

55. The Luxembourg requirements for UCITS depositaries are more stringent than those of the UCITS Directive. The UCITS Directive requires a depositary to be an institution subject to prudential regulation and ongoing supervision (these criteria are elaborated further in the Directive). In Luxembourg only credit institutions may act as the depositary of a UCITS. The credit institution must have its registered office in Luxembourg or have a branch in Luxembourg if its registered office is in another member state. Credit institutions in Luxembourg are required to have capital of at least €8,700,000.

56. A depositary for a Luxembourg AIF can be either a credit institution or an investment firm within the meaning of the Law of 1993 on the financial sector. In line with the AIFMD, the depositary of a Luxembourg AIF must either have its registered office in Luxembourg or have a branch there if its registered office is in another Member State.

57. For EU AIFs the depositary must be established in the home Member State of the AIF. For non-EU AIFs, it must be established in the third country where the AIF is established or in the home Member State of the AIFM managing the AIF or—once the passporting regime for non-EU managers is in place—in the Member State of reference of the AIFM managing the AIF.

58. Under certain conditions, a specialized professional of the financial sector (PSF) called a ‘professional depositary of assets other than financial instruments’ under article 26 of the Law of 1993 may also act as depositary. Such a possibility is foreseen by the AIFMD. Both of the following conditions must be fulfilled by the AIF for such a PSF to be eligible to act as depositary:

- a. it must have no redemption rights exercisable during the period of five years from the date of the initial investments; and
- b. it 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.

Seventy-six Luxembourg-based AIFs (52 regulated AIFs and 24 non-regulated AIFs) have a PSF as their depositary.

Depositary Independence

59. AIFMD and UCITS Directive include depositary independence requirements that go beyond a general prohibition for the management company to act as the depositary. They prohibit a depositary from carrying out activities with regard to a fund or its manager unless the depositary has functionally and hierarchically separated the performance of its depositary tasks from its other potentially conflicting tasks, and the potential conflicts of interest are properly identified, managed, monitored and disclosed. AIFMD also specifically prohibits an AIF’s prime broker from

acting as the AIF's depository, unless the prime brokerage and depository functions are separated and conflicts of interest are properly identified, managed, monitored, and disclosed.

60. The rules on depository independence were strengthened by the UCITS V Directive.

While it remains possible that a UCITS or UCITS management company appoints a depository that belongs to the same corporate group, certain principles and safeguards need to be complied with in such cases. These include the general principle that a UCITS or a UCITS management company, as well as the depository of a UCITS fund, are required to act independently and solely in the interest of the unitholders of a given UCITS. There are also rules on the identification and management of conflicts of interest.

61. The CSSF issued a circular regarding the authorization and organization of UCITS management companies²² that clarifies, inter alia, the relationship between conducting officers²³ and employees of a UCITS depository. In relation to the senior management of UCITS management companies, the circular extends the principle of independence of the senior management by providing that a conducting officer may not be employed by the depository of a UCITS which the management company manages. This Circular was complemented by Circular CSFF 14/587, which has been replaced by Circular CSSF 16/644 as of October 13, 2016. This Circular specifies organizational requirements specifically applicable to credit institutions acting as depository for UCITS established in Luxembourg.

62. The UCITS V Directive introduced additional requirements in situations where a link exists between the UCITS management company and the depository. More specifically, where the management company and depository belong to the same group, at least one third of the members (or, if lower, two members)²⁴ of the body in charge of the supervisory functions should be independent.

63. In 2015 the CSSF carried out an assessment of the impact of the UCITS V requirements on depository independence. The CSSF reached the conclusion that 47 Luxembourg fund managers (44 management companies and three SICAVs) belonged to the same group as their depository. This corresponds to 31 percent of total UCITS assets in Luxembourg.²⁵ On that basis, and depending on the size of the relevant board of directors (i.e. three members or more), the CSSF estimated that at least 64 additional directors had to be appointed in order to ensure that each of these fund managers complied with the requirements on independence of board members.

²² Circular CSSF 12/546, http://www.cssf.lu/fileadmin/files/Lois_reglements/Circulaires/Hors_blanchiment_terrorisme/cssf12_546eng_upd2912_15.pdf

²³ Conducting officers are to be understood as the persons who effectively conduct the business of the management company.

²⁴ In practice this means that boards of three or four members would need one independent member.

²⁵ Based on the same data-gathering exercise, the figure ranged from 0 percent to 100 percent across the EU member states.

64. Recommendation: Several member states already impose more stringent depositary independence requirements on their local depositaries than the UCITS V minima. Given the existence of links between depositaries and management companies in a significant number of fund structures in Luxembourg, the CSSF should assess whether the independence of the depositary is achieved to a sufficient degree in practice following the introduction of the new UCITS V regime. Taking into account the results of those assessments, the CSSF should consider further strengthening depositary independence requirements. A number of options can be considered to achieve that purpose e.g., requiring more independent directors, or even prohibiting intra-group links in instances of non-compliance with existing safeguards (the depth and diversity of the depositary sector in Luxembourg would make such a prohibition more feasible than in some other member states where there may only be one or two depositaries).

Safekeeping and Segregation of Fund Assets

65. IOSCO Principles²⁶ require adequate segregation of investment funds' assets from the assets of the fund manager, custodian and other custody clients. The safekeeping of fund assets should be entrusted to independent depositaries. If the use of an independent depositary is not possible, special legal or regulatory safeguards should be applied to ensure the protection of client assets. Client assets should be identified to the depositary and to any sub-custodian it uses. Investment fund assets should be segregated from: (i) the assets of the fund manager and its related entities; (ii) the assets of the custodian/sub-custodian throughout the custody chain; and (iii) the assets of other investment funds and other clients of the custodian throughout the custody chain (unless investment fund assets are held in a permissible omnibus account). With regards to the independence of the depositary/custodian, IOSCO Standards highlight some options that may be used to enhance the independence of a related party custodian.²⁷

66. UCITS and AIF depositaries are subject to similar requirements with respect to the delegation of safekeeping functions to third parties. For financial instruments which can be held in custody the depositary ensures that all financial instruments which can be booked on a securities account are registered in the books of the depositary on separate accounts opened in the name of the UCITS/AIF or its management company, so that the financial instruments can be clearly identified at all times as belonging to the UCITS or AIF. For other assets the depositary verifies the ownership title of the UCITS/AIF or its management company and keeps records of those assets. Further segregation obligations stem directly from the UCITS V Level 2 Regulation and the AIFMD Level 2 Regulation.

67. Assets which cannot be held in custody must be monitored by the depositary on an ongoing basis. In order to ensure such monitoring, the depositary agreement must stipulate that

²⁶ Principle 25, Key Issues 3 and 4 and Key Questions 7 and 8 and IOSCO Standards for the Custody of Collective Investment Schemes' Assets.

²⁷ Restrictions that seek to ensure the protection of investment funds assets in such situations may include: additional disclosure requirements; additional capital requirements; designating specific persons who are permitted to access the CIS assets; and requiring an independent public accountant to verify the assets held and to conduct a certain number of examinations without giving prior notice to the responsible entity.

the management company promptly and comprehensively informs the depositary about each transaction. In addition, the depositary is obliged to maintain a list of the assets which cannot be held in custody.

68. The depositary may only delegate its safekeeping function to a third party (sub-custodian) if certain requirements are fulfilled. One of the requirements is that the sub-custodian separates the assets of the clients of the depositary from its own assets and from the assets of the depositary in a manner that they can be clearly and at all times identified as belonging to the clients of a particular depositary. This segregation obligation is further specified in the Level 2 Regulations of the AIFMD and UCITS Directive, which state that the depositary must ensure that the sub-custodian keeps such records and accounts as are necessary to enable it at any time and without delay to distinguish assets of the depositary's UCITS or AIF clients from its own assets, assets of its other clients, assets held by the depositary for its own account and assets held for clients of the depositary which are not AIFs. The sub-custodian cannot make use of the assets unless it has received prior consent from the AIF or the AIFM and notified the depositary.

69. Particular requirements apply in the case of delegation of custody to third parties based outside the EU. Where the law of a third country requires that certain financial instruments be held in custody by a local entity and no local entities satisfy the delegation requirements laid down elsewhere in the AIFMD and UCITS Directive, the depositary may delegate its functions to such a local entity only to the extent required by the law of the third country and only for as long as there are no local entities that satisfy the delegation requirements. In such cases, the investors of the relevant AIF or UCITS must be duly informed that such delegation is required due to legal constraints in the law of the third country and of the circumstances justifying the delegation, prior to their investment; and the UCITS or AIF must instruct the depositary to delegate the custody of such financial instruments to such local entity.

70. Recommendation: The AIFMD and UCITS V Directives introduced specific requirements on asset segregation and these have been incorporated into Luxembourg law. These changes go a long way to addressing the recommendations of the 2011 FSAP in this area. However, given the current lack of clarity on the proper interpretation of the segregation obligations in the AIFMD and UCITS Directive when safekeeping duties are delegated, the CSSF should continue to contribute actively to discussions within ESMA on the development of a common approach with a view to increased investor protection and reduced scope for regulatory arbitrage.

Depositary Liability

71. The AIFMD depositary liability requirements allow contractual discharge of liability in case of delegation. Notwithstanding delegation, the depositary remains liable for any loss of financial instruments held in custody. If this happens, the depositary will have to return to the AIF or the AIFM a financial instrument identical to the type lost or the corresponding amount. The depositary will, however, not be liable if it can prove that the loss has arisen as a result of an external event beyond its reasonable control, the consequences of which would have been unavoidable despite all reasonable efforts to the contrary (*force majeure*). Subject to the AIF's agreement, the

depository can also discharge itself of liability if it can prove that a written contract between the depository and the delegate expressly transfers the liability to the delegate and makes it possible to make a claim against the delegate.

72. The UCITS Directive depository liability requirements are largely aligned with those of the AIFMD. However, the UCITS V Directive is even more stringent since it does not allow any discharge of liability (including for loss of assets) when safekeeping duties have been delegated to a third party. The UCITS V Directive also requires member states to ensure that, in the event of insolvency of the depository or a delegated third party, the assets of the UCITS held in custody are unavailable for distribution among creditors of the depository or of the third party delegate. Luxembourg law reflects the requirements of the AIFMD and UCITS Directive on these aspects.

C. Authorization

73. CSSF is responsible for authorizing UCITS funds, entities that wish to act as a management company of a UCITS or market a UCITS, third parties that wish to manage the assets of a UCITS and entities seeking to act as a depository of a UCITS, to the extent that those entities are established in Luxembourg. The overall approach to the authorization of each entity is broadly similar and is in line with IOSCO Principles.

74. CSSF is also responsible for authorizing regulated AIFs (Part II UCIs, SIFs and SICARs), entities that wish to manage regulated AIFs and entities seeking to act as a depository of a regulated AIF. The rules that apply when the management of a regulated AIF is delegated to a third party are covered in the section on “Delegated management” below.

Funds

75. Prior authorization by the CSSF of UCITS and regulated AIFs (Part II UCIs, SIFs and SICARs) is required before any activities can be undertaken. The authorization is dependent on approval by the CSSF of the fund rules and the choice of depository. Similarly, the fund can be approved only if the CSSF has approved the application of the manager designated to manage the relevant CIS. Finally, the fund authorization implies that the CSSF has assessed the directors of the CIS as being of sufficiently good repute and sufficiently experienced in relation to the type of CIS concerned. For both UCITS and AIFs, the fact that a CIS is put on the official list may not be presented as a positive assessment by the CSSF of the quality of the securities offered for sale.

76. The CSSF typically meets with key individuals from a management company as part of the fund authorization process. In many cases there will also be a meeting with the CSSF during the year following the granting of the authorization.

Fund Management Companies

77. Principle 24 of the IOSCO Objectives and Principles of Securities Regulation state that the regulatory system should set standards for the eligibility, governance, organization and operational conduct of those who wish to market or operate a collective investment scheme.

The CSSF considers a range of key criteria when assessing applications for authorization from prospective UCITS management companies and AIFMs. These are: (i) honesty and integrity of the management bodies; (ii) having appropriate and sufficient human and technical resources to ensure that it is capable of carrying out the necessary functions; (iii) financial capacity of the management company/AIFM and their shareholder(s); (iv) appropriate identification, monitoring and management of risks, based on, among other things, the size, the complexity and the risk profile of the CIS; and (v) having internal controls and compliance arrangements sufficient to ensure it can carry out its business diligently, effectively, honestly and fairly. These eligibility criteria are appraised by the CSSF either at the level of the management company or at the level of the directors/persons conducting the business of the management company. These criteria reflect the methodology for assessment of the IOSCO Principles (see in particular Principle 24, key question 2).

Third Party Asset Managers

78. The CSSF applies specific criteria to the assessment of entities that wish to manage the assets of a CIS on the basis of a delegation from the fund management company. These are described further in paragraphs 86 and 87 below.

Depositaries

79. As noted above, only credit institutions which have their registered office in Luxembourg or branches of credit institutions that have their registered office in another EU member state are eligible to act as depositary of a CIS in Luxembourg (with the exception of depositaries for AIFs which are not Part II funds—see below). The entity concerned needs to have received a specific authorization from the CSSF to act as depositary of a CIS. The authorization is granted on the basis of the criteria set out in a dedicated CSSF circular.²⁸ These criteria include that the person(s) responsible for the depositary activity be of good repute and have the requisite experience, particularly having regard to the type of CIS for which the credit institution intends to act as depositary. The CSSF requires a precise and detailed description of the organization of the human and technical resources that the credit institution has at its disposal to perform all the tasks relating to the function of the depositary. This description must take into account the type of CIS for which the credit institution intends to act as a depositary.

²⁸ Circulaire 16/644

http://www.cssf.lu/fileadmin/files/Lois_reglements/Circulaires/Hors_blanchiment_terrorisme/cssf16_644.pdf

Other Service Providers

80. Specific rules apply to the delegation of the central administration function. When this function (fund accounting and NAV calculation and/or transfer agency and registrar) is delegated by the management company or AIFM of a Luxembourg-based fund to a third party, only Luxembourg-based entities regulated under the Law of 1993 and under the supervision of the CSSF (credit institutions, professionals of the financial sector) can be designated. For AIFs established in Luxembourg but not regulated under a specific Luxembourg product law, the central administration function must not necessarily be located in Luxembourg. When granting its authorization, the CSSF will specifically check that the entity has appropriate and sufficient human and technical resources to ensure that it is capable of carrying out these functions.

Delegated Management

81. IOSCO Principles require that the use of delegates should not, in any way, be permitted to diminish the effectiveness of the primary regulation and supervision of a CIS.²⁹ In addition, the CIS operator should not be allowed to delegate its functions to the extent that it becomes a letter box.

82. The EU rules that apply to delegation of investment management functions are broadly similar for UCITS and AIFs, reflecting the overall consistency of the relevant provisions in the UCITS Directive and the AIFMD. Common principles include that the delegation arrangement must not undermine the effectiveness of supervision of the management company/AIFM, that the entity to which functions are delegated is qualified and capable of undertaking the functions in question and that the management company/AIFM retains liability for the performance of the functions. However, the AIFMD contains a more detailed set of criteria to be assessed when determining whether the AIFM has delegated to such an extent that it has become a letter-box entity.³⁰

83. Extensive use of delegation arrangements can create additional challenges for supervisors. The CSSF has put in place specific processes and procedures in order to address the risks that could arise from this practice. This starts at the moment of the notification of the delegation, where specific emphasis is put on such aspects as the need for written due diligence on each external service provider, extensive requirements on the information to be provided to the CSSF about the scope of the delegation and the procedures that will be put in place to monitor the performance of the delegated activities. Where the mandate has been given to an undertaking outside the EU, the CSSF will check that the cooperation between the CSSF and the supervisory authority of this country is ensured.

84. Once authorization of the delegation has been granted, the CSSF carries out its supervision of the activity by means of assessing the periodic reports submitted to it and

²⁹ Principle 24, Key Issues 8 and 9 and Key Questions 15 to 17.

³⁰ See in particular Article 82 of the AIFMD Delegation Regulation.

through on- and off-site supervision. Where the delegation is conferred on a non-Luxembourg entity (based in the EU or elsewhere), the CSSF has less power to intervene with respect to this foreign entity (as it is not supervised by the CSSF) and must largely rely on the supervision in place in the home country of the foreign entity. The ongoing supervision of delegated functions will in that case rely on information received and exchanged with the home authority.

85. The CIS industry in Luxembourg is typically based on a model that involves extensive delegation of portfolio and risk management activities to entities based outside Luxembourg.³¹ While responsibility for oversight of those activities remains with the Luxembourg-based entities, the CSSF has no direct supervisory oversight of the entities performing the activities on a day-to-day basis. The existence of clear and comprehensive regulatory cooperation arrangements between the CSSF and other authorities is an important safeguard in this respect.

86. Recommendation: The requirements in place regarding delegation by UCITS should be strengthened. This could be done by, for example, applying the same criteria to UCITS as are already set out in the AIFMD. In addition, the CSSF should take steps to engage actively with regulators in the jurisdiction where the delegated activities are being carried out. This could include carrying out on-site inspections of the delegate (jointly with the foreign supervisor or, with that supervisor's consent, by the CSSF itself), as some other securities regulators have already done, and making more ad hoc requests for information. The CSSF could also consider adding a delegation-related factor to its risk scoring methodology (see paragraphs 95 to 97 for further details).

Governance of CIS, Their Operators, and related Service Providers

87. The IOSCO Principles require that the regulatory system set out clear criteria and standards on governance of CIS.³² The CSSF circular 12/546 provides guidance on the expectations of the regulator with respect to fund governance. In addition, the industry association, ALFI, issued a code of conduct in 2013³³ which, while not binding, does exert some peer pressure on regulated entities. The CSSF approves all individuals that apply to hold directorships of CIS and their Luxembourg-based operators, and assesses the extent to which the individuals concerned can fulfil the responsibilities that will be assigned to them.

88. In a sector such as the CIS industry, issues of governance are equally relevant to service providers such as depositaries and administrators. Taken together, Luxembourg has a very high number of actors in the CIS sector relative to its population (although the relevant entities can also draw on a wider pool of experts from other jurisdictions). This can make it more difficult for CIS, their operators and related service providers to find individuals with the relevant expertise and

³¹ Of the 50 largest funds in Luxembourg, only 5 percent of the assets under management (AuM) are managed by a portfolio manager based in Luxembourg. For the same funds, the top two locations of portfolio managers in terms of AuM are the US (over 40 percent) and the UK (almost 30 percent).

³² Principle 24, Key Issue 1 and Key Question 4.

³³ ALFI Code of Conduct for Luxembourg Investment Funds, <http://www.alfi.lu/sites/alfi.lu/files/ALFI-Code-of-Conduct.pdf>

who can devote sufficient time to their duties. While the CSSF assesses prospective directors as part of its general oversight, it does not systematically record information on directorships held outside Luxembourg, nor has it issued guidance setting out what it considers to be an appropriate time commitment.

89. Recommendation: The CSSF is encouraged to take a broader and more systematic approach to gathering detailed information across the CIS sector—covering funds, their managers and related service providers such as depositaries and administrators, whether based in Luxembourg or elsewhere—on the number of directorships held by each director. If this exercise identifies individuals holding an excessive number of directorships, the CSSF should consider appropriate follow-up action as part of its ongoing supervision. In addition, the CSSF should determine an appropriate threshold in terms of time commitment (also taking into account positions that the individual may hold outside the fund sector) for a given individual and issue guidance to the industry. The work of the CSSF could draw on a similar initiative recently undertaken by supervisory authorities in other jurisdictions in relation to their fund sectors.

D. Supervision

Organization and Resources

90. A specific directorate within the CSSF is charged with the authorization and supervision of CIS and their managers. Each department within the directorate can draw on specific expertise from other departments where needed. While this horizontal working method makes it difficult to identify precisely how many staff work on investment funds, the CSSF has determined that there are 216 full-time equivalents working on fund issues across the relevant departments. This compares to a figure of approximately 110 employees in the equivalent departments at the end of 2011.

Supervisory Approach

91. The CSSF uses a risk-based approach to supervision in line with most EU authorities. This approach aims to verify compliance with the applicable legal requirements aimed at ensuring adequate investor protection and transparency, as well as identification of risks. Combined with other steps taken at national level, the approach also contributes to ensuring the ongoing stability of the financial sector overall. The CSSF has regard to an extensive set of information from a broad range of entities for this purpose, as well as its own supervisory work. Criteria and information considered in this context encompass factors such as complexity, type of investors, level of net assets, quality of internal control, quality of information, as well as the source of the information. The resulting analysis determines the scope, level of time and resources allocated to supervision of CIS and their managers.

92. With respect to off-site and on-site inspections, the CSSF is currently rolling out a more formalized risk-based approach. This aims to determine a risk score for each fund, sub-fund and management company, based on all the relevant information collected from different sources

and combining quantitative and qualitative elements (e.g., net assets, frequency of NAV calculation errors and investment breaches, issues highlighted in the management letter, stability of the shareholders of the management company, etc.).

93. Based on this approach, the CSSF expects to be able to assess better the overall risk profile of the regulated entities (by detecting regulated entities requiring more intensive supervision) which can be used to enhance efficiency in the allocation of internal resources. In addition, as the indicators used in the risk-based approach are classified in different themes (e.g., market risk, legal/compliance, etc.), a thematic assessment of the level of risk associated to the CIS and their managers is possible, thus enabling the CSSF to prioritize supervisory actions on the critical areas identified for a given CIS or manager.

94. The first step is to implement this risk-scoring approach for UCITS and UCITS management companies, which covered 83 percent of the assets of the Luxembourg CIS industry as of March 2016. The CSSF plans to extend the approach to AIFs and AIFMs as a second step. Risk-based supervision has been designed to evolve over time, in order to integrate new regulatory developments, additional sources of information (such as from the new UCITS risk reporting) or new risk indicators.

95. An off-site inspection generally involves assessing the various periodic and ad hoc reports submitted to the CSSF by CIS managers and CIS. A common source of information with respect to all regulated entities in the area of CIS supervision are the documents submitted at the time of authorization, any changes to which need to be notified to the CSSF. Information provided on a periodic basis depends on the type of entity concerned.

CIS Managers

96. Periodic off-site supervision of CIS managers is performed through the review of the quarterly and annual financial reporting as well as the annual closing documents filed with the CSSF. These are composed principally of the audited annual report and the management letter issued by the independent auditor of the CIS 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. These documents are reviewed by the CSSF within the framework of the ongoing supervision on a regular basis.

97. Checks are done on the financial situation (including the review of the capital adequacy) and on the reports of the control functions. This allows an assessment not only of the financial solidity but also of the appropriateness of the structure, organization and effectiveness of the processes and procedures established in relation to the nature, volume and complexity of the activities of the CIS manager. The checks are synthesized in a prudential supervision fact sheet.

CIS

98. Periodic off-site supervision of CIS is performed through the general reporting regime applicable in the CIS domain and analysis of a broad range of documentation. This includes the

periodic and ad-hoc financial reports to be drawn up by the CIS and the periodic reporting to be drawn up by the external auditor of each CIS in the form of management letters or reports on the activity of the CIS in accordance with Circular CSSF 02/81. Once received, the reports are screened on a preliminary basis in order to detect those that present irregularities/suspected breaches and categorized into low/medium/high risk.

99. The CSSF also receives information on an ad hoc basis that contributes to its off-site inspection activity. A key element of this are the notifications of investment breaches and NAV calculation errors. Exchange of information and general cooperation with other supervisory authorities can also be a useful source.

100. Other sources of information that further contribute to the off-site supervision performed by the CSSF are investor complaints or whistleblowing. The UCITS V Directive introduced an obligation on member states to establish effective and reliable mechanisms to encourage the reporting of potential or actual infringements to competent authorities, including secure communication channels for reporting such infringements. The CSSF website contains a specific section through which whistleblowers can report relevant information on infringements of financial sector regulations.

Depositories and Administrators

101. The supervisory approach to depositories is very similar to that applied to CIS and their managers. On a periodic basis the reports submitted by these entities are analyzed and follow-up supervisory action may be carried out.

102. Off-site supervision of depository banks is the responsibility of a separate team within the Banking Supervision department of the CSSF. The supervisory approach is based on the assessment of the various risks associated with this function, such as the operational risks of processing transactions and the risk of non-compliance with fund regulations.

103. The CSSF has a number of tools at its disposal to ensure effective oversight of depositories. These include analysis of the Long Form Reports (containing a specific section covering the fund business), receipt of ad-hoc reports prepared by auditors on the depository bank activities and on-site inspections. In future this will be complemented by a self-assessment questionnaire for depositories that will be submitted annually.

On-site Inspections

104. The IOSCO Principles³⁴ require regulators to include in their ongoing monitoring the performance of on-site inspections and to perform proactive investigative activities in order to identify suspected breaches. The CSSF has two departments dedicated to carrying out controls related to supervised entities, called On-site Inspections (“OSI”) and “Contrôles Sur Place” of the

³⁴ Principle 24, Key Issue 4 and Key Questions 8 and 9.

Métier OPC (OPC-CSP). OSI is the general on-site inspection department of the CSSF, in charge of planning, coordinating and following up on all the on-site inspections carried out by the various supervision departments of the CSSF. These inspections may be carried out either by the OSI or by individual supervision departments, or by both working together. OSI has dedicated teams to cover the following topics:

- Anti-Money Laundering/Combating Terrorist Financing (AML/CFT)
- Markets in Financial Instruments Directive (MiFID)
- Corporate Governance
- Central Administration/Depositary Bank
- Banking risks and Ad hoc.

105. The OPC-CSP team was put in place in 2015 in order to focus on CIS-related requirements and, more particularly, those relating to the governance of Luxembourg managers or CIS. OPC-CSP is charged specifically with the preparation, execution and follow-up of on-site inspections of management companies, AIFMs and self-managed investment vehicles. In addition to the work done directly by the CSSF, the external auditors of CIS carry out on-site supervision on a yearly basis consisting of an assessment of the main activities and risks of the CIS and its service providers. The subsequent, detailed “Long Form Report” as well as the management letter are then sent to the CSSF for analysis by an off-site supervision department.

106. OSI undertakes the planning and coordination of all the CSSF inspections for the following calendar year, using a standard planning template. OPC-CSP, as well as the other off-site supervision departments, send their propositions for inspections for the following year to OSI. As a general rule, the frequency of the proposed inspections is determined by the off-site supervision department’s risk-based approach, while the scope is set in light of the issues arising from the supervision activities carried out by the various supervision departments, including issues that may have been raised in the CIS Long Form Reports as well as the management letters. Thereafter, OSI aggregates this input, determines dates and who will lead each inspection and presents the plan to the CSSF hierarchy for review and approval. Any subsequent change to the annual plan approved by the hierarchy must be authorized by the hierarchy and communicated to OSI. Thereafter, OSI updates the plan with follow-up information and actions on a regular basis throughout the year. However, if a material issue of concern comes to the attention of the CSSF and it is considered that an on-site inspection should take place more urgently, this can be done with the approval of the relevant CSSF director.

107. The CSSF broadly distinguishes between thematic inspections and ad hoc inspections. Both types of inspection are carried out at all relevant entities within the CIS sector, including service providers such as central administrators. In addition, where they are located in Luxembourg, inspections are also carried out at the (delegated) investment manager and distributor level.

108. Thematic reviews can be triggered by internal decisions or external initiatives. The latter includes work resulting from the CSSF's involvement in ESMA. There is no systematic program of thematic inspections but they are carried out on a regular basis.

109. The number and scope of these thematic inspections for the last three years are set out in Table 3. The selection of the themes is based on key risk indicators and regulatory experience.

Theme	2013	2014	2015
Anti-money laundering/terrorist financing	13	10	14
Risk Management	3	1	5
Governance of UCTIS management company and AFIM	3	5	4
NAV error and breaches of investment restrictions	1	1	1
Depositary Bank	12	13	10
Central Administration	4	7	1
Total	26	37	35

110. Ad hoc inspections are initiated by the CSSF hierarchy or by the various supervision departments of the CSSF. Such inspections are intended to address a situation or specific problem linked to the supervised entity. The particular situation of the supervised entity is normally identified through off-site supervision e.g., issues raised by the external auditors, reporting delays, suspicion of fraud, whistleblowing etc. Such inspections may be included in the annual planning or may be carried out at short notice. The nature and scope of ad hoc inspections can vary greatly. The number of ad hoc inspections is included in the figures for the thematic visits above.

111. Recommendation: The CSSF should make efforts to strengthen further its regime of on-site inspections, as part of which it should introduce comprehensive on-site inspections as a further element of the supervisory toolkit. In order to make the best use of resources—which are due to increase significantly over the next three years—the detailed scope and content of such a program should take into account the results of the risk scoring of CIS and their managers.

Reporting

112. The CSSF receives an extensive set of reports from Luxembourg-based CIS and their managers. The information consists of two broad categories: (i) regular reporting on financial data (e.g., AIFMD reporting, CIS reporting, UCITS risk reporting, reporting under the European Market Infrastructure Regulation (EMIR)); and (ii) other regular and/or ad hoc reports (e.g., risk management procedures, audited annual reports, management letter, long form report, ad-hoc information requests etc.). A detailed overview of the reports received is included at Appendix I.

113. The periodic financial reports are used for a range of purposes. These typically include to:

- support the micro- and macroprudential supervisory processes/approach of the CSSF, including the assessment of the risk profile of the regulated entities and the related activities. In this sense, the financial reporting data constitutes a key component of the off-site and on-site supervision carried out by the CSSF;
- support, depending on the type of information received from the financial reporting, the assessment of compliance of the regulated entities with the legal and regulatory requirements; and
- produce the CSSF's monthly, quarterly and annual statistics for both internal and external purposes and relevant studies.

114. With regard to the portfolio composition, the CSSF has access to the reports provided by CIS to the BCL, including the "Reporting SbS" encompassing portfolio data on a security-by-security basis. 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.) held in the ECB's Centralized Securities Database, to which the BCL has access, but discussions have been initiated to get such access. In the meantime, the CSSF focuses on the aggregate balance sheet data provided in the BCL reporting (including information on portfolio composition broken down by different factors such as the geographical origin of the issuers as well as their sector) and uses security-by-security data mainly for specific ad-hoc analysis.

115. The CSSF also gathers data that allows it to identify particular risks in the CIS sector. Data on leverage and securities financing transactions is covered by the AIFMD reporting and the UCITS risk reporting recently set up by the CSSF. The data also encompasses information on liquidity, counterparty and credit risk. In addition, highly-leveraged UCITS are subject to the ad-hoc VaR & Leverage Report, while specific reporting requirements have been put in place for a selection of money market funds.

116. The CSSF uses the financial reporting data to undertake analysis both at entity level and on a cross-sectoral basis, depending on the frequency and content of the reporting received. For instance, the VaR and Leverage Reports are analyzed on a quarterly basis at sub-fund level to check compliance of highly-leveraged UCITS with the relevant requirements (e.g., use of financial derivative instruments, including a check on whether the realized leverage is in line with the expected leverage disclosed in the sales prospectus). Another example are the regular sectoral analyses undertaken by the CSSF, which are based partly on the monthly reporting U1.1 in order to assess such aspects as investor flows in the different fund categories.

117. The CSSF may complement the regular reporting with additional ad-hoc reporting if needed. In the past, this possibility was used in periods of heightened uncertainty (e.g., the UK referendum on membership of the EU, stock suspensions in China, EU sovereign debt crisis etc.).

118. The CSSF has taken steps to facilitate the analysis of information it receives both at the initial authorization stage and during its ongoing supervision. Documents such as the sales prospectus or the application file are put into a format that allows electronic processing for statistical or data analysis purposes (e.g., identity of the custodian or fund administrator; identity of members of Board of Directors of a fund/management company, share classes of a fund, type of investment policy, type of MMF (constant or floating NAV), etc.). This relates in particular to information gathered during the entity approval process, including changes occurring during the lifetime of an entity, as well as to NAV calculation errors and breaches of the investment rules.

119. IOSCO Principles underline the importance of reliable information on liquidity of funds both on the asset and liability side. CIS managers should consider how the planned marketing and distribution of the CIS are likely to affect its liquidity. The global nature of distribution channels and the associated use of nominee accounts make it more difficult for fund managers to be fully aware of the make-up of the underlying investor base. In such situations fund managers should take all reasonable steps to obtain investor concentration information from nominees to assist their liquidity management (for example, via contractual arrangements). The CSSF expects fund managers to understand the profile of their underlying investors, while recognizing the challenges that this can present.

120. Recommendation: The CSSF should continue its discussions with the BCL and ECB with a view to obtaining full access to the Centralized Securities Database. This would enhance the ability of the CSSF to monitor trends across the fund sector more generally, and identify risks within a particular fund or group of funds. With respect to data gaps on the liability side of CIS, the CSSF should raise the issue for discussion within ESMA with a view to identifying possible means of improving the availability of data.

E. Enforcement

121. IOSCO Principles require the regulator to have comprehensive inspection, investigation and surveillance powers. The authority should also have comprehensive enforcement powers, and the regulatory system should ensure an effective and credible use of inspection, investigation, surveillance, and enforcement powers and implementation of an effective compliance program.

122. The CSSF's enforcement approach aims to ensure that all regulated entities in the fund sector comply with the relevant requirements. In doing so it seeks to contribute to the CSSF's overall objectives of investor protection and general risk monitoring.

123. Investigations of potential breaches may have different starting points. These include periodic reports such as the annual report, long-form report, or management letter. Other sources of information are investor complaints, whistleblowing, cooperation requests, or information exchange from other supervisory authorities.

124. A preliminary assessment of the urgency, severity and complexity of the eventual investigation is performed. The criteria for this assessment include in particular the type of CIS and type of investors, level of net assets, quality of information and the source of information. More generally, the CSSF gives priority to UCITS and other funds distributed to retail investors. Significant weight is also attached to potential breaches with regard to the organization of the investment fund (in particular, default on legal requirements with regard to services providers) as these could cast doubt on the proper functioning of the investment fund.

125. Based on such analysis, the CSSF makes use of its supervisory powers to question the concerned entity on the potential identified breaches. In this respect, the CSSF has the right to:

- have access to any document in any form and to receive a copy of it;
- require information from any person and, if necessary, to summon and question a person with a view to obtaining information;
- carry out on-site inspections with or without prior notice of entities subject to its prudential supervision.

After the investigation work has been completed, a final memorandum will either suggest closing the investigation based on absence of findings or suggest engaging enforcement/sanction proceedings.

126. The CSSF has an extensive set of enforcement powers at its disposal. For example, in case a management company infringes the relevant provisions on an ongoing basis, the CSSF may revoke its license. The CSSF also has the power (but not the duty) to transmit information to the public prosecutor for the purpose of initiating criminal proceedings.

127. The type of sanction that can be applied depends on whether the fund is a UCITS or an AIF and is derived from the UCITS Directive and AIFMD respectively. With respect to UCITS and their managers, the CSSF has the power to apply the following sanctions and administrative measures in the event of breaches of regulatory requirements:

- (a) a public statement which identifies the person responsible and the nature of the infringement;
- (b) an order requiring the person responsible to cease the conduct and to desist from a repetition of that conduct;
- (c) a suspension or withdrawal of the authorization of the UCITS or the management company;
- (d) a temporary or, for repeated serious infringements, a permanent ban against a member of the management body of the management company or investment company or against

any other natural person who is held responsible, from exercising management functions in those or in other such companies;

(e) in the case of a legal person, maximum administrative pecuniary sanctions of €5,000,000 or 10 percent of the total annual turnover of the legal person according to the last available accounts approved by the management body;

(f) in the case of a natural person, maximum administrative pecuniary sanctions of €5,000,000;

(g) as an alternative to points (e) and (f), maximum administrative pecuniary sanctions of at least twice the amount of the benefit derived from the infringement where that benefit can be determined, even if it exceeds the maximum amounts in points (e) and (f).

128. The range of sanctions that can be applied to AIFs is more limited than for UCITS. The following sanctions are available to the CSSF, in ascending order of severity:

- a warning;
- a reprimand;
- a fine of between €250 and €250,000; and
- in case of certain types of breach,³⁵ one or several of the following measures:
 - a temporary or definitive prohibition on carrying out operations or activities, as well as any other restrictions on the activity of the person or entity;
 - a temporary or definitive prohibition on acting as directors, managers or conducting persons, whether *de jure* or *de facto*, of persons or entities subject to the supervision of the CSSF.

The CSSF may also disclose to the public the penalties imposed, unless such disclosure would seriously jeopardize the financial markets or cause disproportionate damage to the parties involved.

129. The criteria that the CSSF takes into account when determining the type of administrative sanction or measure and the level of administrative pecuniary penalties also vary between UCITS and AIFs. There are some common elements, however, such as the gravity and duration of the infringement, whether the person(s) involved have committed infringements in the past and the extent of the adverse impact on third parties.

³⁵ The entity prevents the CSSF from exercising its powers of supervision, inspection and investigation; the entity fails to act in response to orders of the CSSF; the behavior of the entity risks jeopardizing the sound and prudent management of the institution concerned.

130. The CSSF's general approach to the use of enforcement powers is governed by an internal procedure which sets out the general principles in relation to enforcement aspects for all departments of the CSSF. The guideline outlines the procedure to be followed for the application of enforcement powers with regards to supervised entities and, in particular, the involvement of the so-called "Comité Enforcement" (Enforcement Committee) which selects the cases where the CSSF intends to use its powers.

131. For each department of the CSSF, a specific Enforcement correspondent per department is appointed and acts as the contact point for any enforcement proceedings. The Enforcement correspondent is consulted in order to decide whether the Enforcement Committee should be involved with respect to a specific file.

132. At the level of the CSSF's CIS department, various procedures have been implemented in the context of standardized sanction proceedings and for which no involvement of the Enforcement Committee is necessary. These are the specific administrative fine procedure with regard to the late filing of reporting documentation (annual report, management letter, long-form report) and the specific "withdrawal of approval" procedure with regard to investment funds/management companies breaching material aspects of applicable law. For all other issues which would require the exercise of the CSSF's sanction or supervisory powers, the Enforcement department of the CIS department has to be involved in order to assess the need to involve the Enforcement Committee.

Administrative Fines

133. Administrative fines issued by the CSSF are typically imposed on the directors or members of the management of the CIS and not directly on the CIS itself. This reflects the fact that the CIS is often simply a pool of assets in which the underlying unitholders own a share, and the management company (or the directors in the case of a CIS that takes a corporate form) are a more appropriate addressee of such fines. The most common breaches that have led to administrative fines in recent years include non- or late submission of financial reports and breaches of transparency rules by directors or conducting officers.

Withdrawal of Authorization

134. Withdrawal of authorization is arguably the sanction that brings with it the most significant consequences for the entity concerned. The CSSF has withdrawn a total of 28 authorizations over the past three years³⁶ (this figure includes three management companies and the funds that they were managing). The main reasons for the withdrawal of authorization of these management companies were linked to financial difficulties (suspension of payments or failure to provide for a registered office in Luxembourg in accordance with Luxembourg law). The withdrawals of authorization for the funds (consisting entirely of SIFs and SICARs) were generally

³⁶ The data include decisions taken by the CSSF that are currently being challenged in informal procedures ("recours gracieux"), as well as those decisions that are being challenged at the administrative court.

due to breaches of legal requirements in relation to preparation of the financial reports, minimum capital requirements and/or a failure to appoint fully approved service providers.

Other Supervisory Powers

135. The CSSF has also made use of its supervisory powers in order to ensure compliance with applicable law and regulation. This included issuing formal injunctions:

- to one management company in order to improve the risk management process;
- to one specialized investment fund with regard to updating relevant information in the investment memorandum; and
- to one UCITS with regard to measures to be applied in respect of NAV calculation issues.

136. The CSSF can use moral suasion to achieve its objectives without resorting to formal enforcement action. Recent examples include asking the initiators of four specialized investment funds to withdraw their requests for approval in relation to new funds or sub-funds due to current breaches by funds linked to such initiators and/or ongoing investigations led by the CSSF with regard to such initiators.

F. Systemic Risk Monitoring

137. Processes and procedures are in place in Luxembourg to monitor potential systemic risk arising from the investment fund sector. The processes applied in Luxembourg to monitor, mitigate, and manage potential systemic risk arising from fund management activities are a combination of both individual processes specifically performed at the level of the CSSF, as well as collective processes i.e. in cooperation with other authorities, be it on a local (e.g., with the BCL), regional (e.g., with ESMA, ESRB) or on an international level (e.g., FSB).

Collective Processes, Including Information Sharing/Cooperation Aspects

138. At a domestic level, the main process to monitor, mitigate and manage systemic risk in Luxembourg is the recent installation of the Comité du risque systémique (CRS). More details on the role and functioning of the CRS can be found in the Background note on Macroprudential issues.

139. On a regional level, cooperation in the area of systemic risks and securities markets is assured through the mechanisms established under the European System of Financial Supervision, notably with ESMA and the ESRB. Luxembourg law formally obliges the CSSF to consider the EU and international dimensions of its supervisory work. On an international level, the CSSF is actively engaged and participating in various workgroups and workstreams on topics in the realm of financial stability, such as liquidity (mismatch) and leverage at the level of IOSCO and FSB.

CSSF-Specific Initiatives

140. The law establishing the CSSF³⁷ defines the mission of the CSSF in relation to contributing to financial stability and highlighting the participation and cooperation with other local authorities/ entities such as the CRS in Luxembourg. In this context, Art. 3-2 of the laws states that the CSSF “in exercising its tasks,...shall duly consider the potential impact of its decisions on the stability of the financial system at national, Community and international level and, in particular, in emergency situations, based on the information available at the relevant time. In the light of its supervisory mission and in compliance with the legal competences of the parties, the CSSF shall cooperate with the government, the Luxembourg Central Bank and with the other national, Community and international supervisory authorities in order to contribute to ensuring the financial stability, notably within the authorities established for that purpose at these different levels.”

141. As a securities regulator, the powers for identifying systemic risks by the CSSF are mainly laid down in the different laws governing the regulated financial products under the supervision of the CSSF. Such product laws in general provide that the CSSF, for the purposes of application of a given product law, is granted all supervisory and investigative powers that are necessary for the exercise of their functions. On this basis, the CSSF can request data (either on an ad hoc or periodic basis) to facilitate detection of any developments potentially contributing to the building-up of systemic risk.

142. Furthermore, the AIFMD aims at establishing a regional (i.e. European) framework in relation to the coordination of action with respect to AIFMs and has granted the national supervisory authorities and ESMA specific powers in the area of systemic risk related to the activities of AIFMs. The AIFMD puts in place a coherent approach concerning risks to the financial system that can be generated through the activities of AIFMs, such as risks arising from the use of leverage by AIFMs. Related reporting obligations enable the CSSF to monitor key metrics that could be an indicator of a buildup of systemic risks across the AIF sector in Luxembourg.

Information Collected and Analysis Performed

143. Regarding the investment fund industry, the CSSF has processes in place to identify and address potential systemic risks, with processes applied both at the time of the initial authorization of investment funds as well as during the ongoing supervisory work. The authorization process in particular allows the CSSF to assess the innovative and complex character of application files and to identify their potential to contribute to systemic risk and to give the necessary regulatory response in addressing such risks. One example of the measures available is the power of the CSSF to impose a limit on the leverage employed by an AIFM or group of AIFMs if it considered that the buildup of leverage was excessive.

³⁷ http://www.cssf.lu/fileadmin/files/Lois_reglements/Legislation/Lois/L_231298_cssf_upd230715_eng.pdf

144. As a second step, the CSSF has processes in place for monitoring the potential systemic implications of investment funds. This includes appraising the data from the regular or ad hoc reporting submitted by regulated entities (such as e.g., flow-data on fund assets (overall and sector-specific), leverage, etc.). This data, which is collected and analyzed according to a risk-based approach, allows the CSSF to detect atypical/emerging developments and/or tendencies and to take the appropriate measures for addressing potential concerns.

145. Within the Risk Management division of the CIS department, the CSSF performs cross-sectoral risk supervision concerning for instance money market funds (MMFs). This supervision includes monitoring of the regular reporting on performance, portfolio indicators (WAM/WAL), risk and valuation. More broadly, the department monitors the use of leverage or risk/performance analysis of investment funds. In this context, the CSSF recently introduced a new UCITS risk reporting to collect from UCITS data on various risk aspects (e.g., market, credit, liquidity risk, use of EPM, leverage) on a cross-sectoral basis. This is a positive initiative, particularly given the importance of UCITS within the Luxembourg fund industry. In view of potential harmonization of data collection for UCITS funds in the EU (taking the current AIFMD model as a template), the CSSF has recently raised the issue at the level of ESMA.

146. Based on a continued exchange with market actors/participants and taking into account prevailing market developments, ad-hoc data/ information collection exercises are implemented. Recent examples were the stress in the Chinese market in the second half of 2015/beginning of 2016, as well as the “Brexit” referendum. The approaches in this area will be expanded in the future e.g., by a planned early-warning system on major market movements. This will consist of a new report to be submitted to the CSSF upon occurrence of significant net redemptions affecting a predefined selection of large UCITS sub-funds (bond funds, mixed funds, and money market funds).

147. The framework for systemic risk monitoring is necessarily constantly evolving. This reflects the changes in the data collected as well as the EU and Luxembourg-coordination among authorities, not the least because of new institutional set-ups (e.g., the CRS) as well as ongoing and continuing work programs at European and international level (e.g., FSB, IOSCO, and ESRB).

Box 4. Money Market Funds in Luxembourg

Money markets funds (MMFs) in Luxembourg represent 22 percent of the EU market (Figure 1).

MMFs are split between two categories: those that have a net asset value (NAV) that fluctuates in line with changes in the value of the underlying assets on a marked-to-market basis (known as variable NAV or VNAV MMFs) and those that seek to sell or redeem shares at a stable NAV (known as constant NAV or CNAV MMFs). CNAV MMFs are allowed to value their holdings using the amortized cost method or share price rounding method.

Along with Ireland, Luxembourg is one of the two centers in the EU for CNAV MMFs. A number of national and international bodies have considered the merits and risks of the CNAV and VNAV models in recent years.³⁸ Notwithstanding the potential weaknesses identified in the CNAV approach, such MMFs continue to exist in Luxembourg. A peer review carried out by IOSCO in 2015 found that “for each of the largest jurisdictions permitting stable NAV MMFs (the U.S., Ireland, Luxembourg and China), further implementation measures are needed either to convert from a stable NAV to a VNAV system [...] or to reinforce stable NAV MMF's resilience and ability to face significant redemptions.”

In 2013 the European Commission issued a proposal for a Regulation on MMFs.³⁹ The Regulation as presented would have required all EU member states to impose a capital cushion (a 3 percent buffer) for CNAV funds that could be activated to support stable redemptions in times of decreasing value of the MMFs' investment assets. It proved difficult to reach a political agreement on this draft Regulation, and at the time of the FSAP mission the European Parliament and Council were continuing to negotiate on the final text. At the end of the first FSAP mission it appeared that a compromise might be found, a key element of which would be the introduction of a new category of MMF i.e. so-called Low Volatility Net Asset Value (LVNAV) MMFs. This element was retained in the final text. These LVNAV MMFs, which would be allowed to have a constant NAV, would be subject to specific requirements in relation to the liquidity of the portfolio.

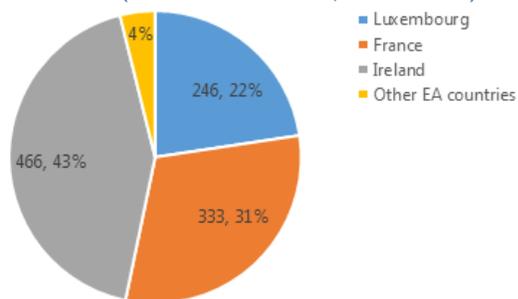
The Luxembourg authorities have been actively monitoring and contributing to the discussions on the Regulation. The final outcome, may result in consequential changes to the MMF industry in Luxembourg. It will be important for the CSSF to monitor those changes and assess whether any particular supervisory actions would be warranted.

³⁸ See, for example, the ESRB Recommendation of December 20, 2012.

³⁹ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013PC0615&from=EN>

Figure 1. Luxembourg: European Money Market Funds

Total net assets (in billions of EUR, June 2016)



Sources: ECB, and IMF staff calculations.

Appendix I. Periodic Reports Received by the CSSF

Name of the reporting	Description	Frequency	Further information
Reporting U1.1	<p>The CSSF's monthly reporting covers each type of UCI (SICAR from June 2016 onwards). It encompasses information on:</p> <ul style="list-style-type: none"> • Financial information on the UCI: net asset value (NAV), subscriptions, redemptions and distributions; • Financial information on the share classes: number of shares outstanding, NAV per share, net return, subscriptions, redemptions and distributions; and • Financial information on income and expenses 	Monthly	<p>CSSF Circular 15/627¹</p> <p>http://www.cssf.lu/en/supervision/ivm/ucits/legal-reporting/</p>
Reporting O4.1	<p>The CSSF's annual reporting covers each type of UCI except SICAR. It encompasses information on:</p> <ul style="list-style-type: none"> • balance sheet positions: assets and liabilities split by investment categories; • income and expenses by categories; and • changes in net assets and changes in the portfolio. 	Annual	<p>IML Circular 97/136</p> <p>http://www.cssf.lu/en/supervision/ivm/ucits/legal-reporting/</p>
Reporting K3.1	<p>The CSSF's semi-annual SICAR reporting encompasses information on:</p> <ul style="list-style-type: none"> • balance sheet positions: assets and liabilities split by investment categories; • income and expenses; and • principal exposures. 	Semi-annual	<p>CSSF Circular 08/376</p> <p>http://www.cssf.lu/en/supervision/ivm/sicar/legal-reporting/</p>
AIFMD Reporting	<p>The AIFMD requires periodic information from the concerned managers (at AIFM & AIF level) at a frequency depending on their assets under management, their investment strategies and their use of leverage.</p>	Quarterly to Annually	<p>CSSF Circular 14/581</p> <p>Commission Delegated Regulation</p> <p>(cf. annex IV)</p>

¹ http://www.cssf.lu/fileadmin/files/Lois_reglements/Circulaires/Hors_blanchiment_terrorisme/cssf15_627eng.pdf

Please note that the requirement to provide the monthly financial information pursuant to LMI Circular 97/136 and CSSF Circular 07/310 (monthly table "O1.1."), as amended by CSSF Circular 08/348, is repealed as from the U 1.1 reporting due for the reference month of June 2016.

	<p>The reporting obligations are set out in Article 3(3)(d) of the AIFMD for registered AIFMs and in Article 24(1),(2) and (4) AIFMD for authorized AIFMs.</p> <p>The reporting template Annex IV of the Commission Delegated Regulation dated December 19, 2012 includes the following information:</p> <ul style="list-style-type: none"> • the investment strategy; • principal exposures and most important portfolio concentration; • instruments traded and individual exposures; • risk profile (market risk, counterparty risk, liquidity risk); • monthly return, NAV changes, subscriptions and redemptions; • results of stress tests; • borrowing and exposure; and • leverage. 		<p>ESMA Guidelines on reporting obligations under Articles 3(3)(d) and 24(1), (2) and (4) of the AIFMD</p>
UCITS Risk Reporting	<p>Reporting recently set up in relation to risk related information on UCITS. The reporting is required (for the full scope) for UCITS with a leverage (in terms of notional amount²) exceeding 250 percent and/or net assets above €500 million with the objective to gradually broaden the scope to all UCITS. It encompasses information on:</p> <ul style="list-style-type: none"> • key investment strategy; • global exposure and leverage; • stress testing and other risk indicators; • efficient portfolio management (EPM) techniques; • counterparty risk and collateral in relation to EPM techniques / OTC financial derivative instruments and traded derivatives; • liquidity risk; and • credit risk. 	Semi-annual ³	http://www.cssf.lu/fileadmin/files/ReportingUCITS.xls

² The leverage, as referred to, is calculated as the sum of the notionals of the derivatives used. No hedging or other risk offsetting is taken into account, meaning that leverage per se cannot be used to assess the risk profile of a given sub-fund.

³ While following the initial launch phase, we intend to increase successively the coverage of the reporting, we do also not exclude an increase of the reporting frequency in light of the developments at international/European level on data in the field of asset management.

VaR & Leverage Report	Adhoc reporting set up for UCITS with an expected leverage (in terms of notional amount) exceeding 600 percent encompassing information on: <ul style="list-style-type: none"> • performance indicators; • key investment strategy and leverage (including on underlying risk factors); • value-at-risk (including internal limit breaches and backtesting); • stress tests (relating to market risk). 	Quarterly	
Money Market Funds (MMF) Regular Reporting	Adhoc reporting set up to monitor the largest Luxembourg-based MMFs , encompassing information on: <ul style="list-style-type: none"> • performance and risk indicators; • portfolio structure and position flows; • subscription and redemption activity; and • portfolio valuation. 	Monthly	
Quarterly prudential reporting for Asset Managers	Prudential reporting applicable to asset managers (i.e. UCITS ManCo and AIFMs) and their branch. This reporting includes mostly: <ul style="list-style-type: none"> • balance sheet & profit and loss accounts • assets under management • number of employees 	Quarterly	CSSF Circular 15/633 (in French only)
Reporting on capital guarantee UCIs	Adhoc reporting set up for UCIs (UCITS and part II UCIs) whose constitutional documents specifically foresee a formal guarantee mechanism promising investors a defined guaranteed minimum amount or guaranteed NAV: <ul style="list-style-type: none"> • evolution of monthly NAV compared to the guaranteed NAV • capital endowment of the external guarantor 	Monthly	
EMIR reporting	Reporting on derivatives (exchange traded and OTC derivatives) to trade repositories in accordance with the EMIR regulation No 648/2012	Daily	See EMIR regulation and related texts ⁴

⁴ The CSSF will shortly receive more extensive information on securities financing transactions as a result of the EU Securities Financing Transactions Regulation.

Appendix II. Summary of 2011 FSAP Recommendations (with Relevance to Investment Funds) and Follow-up Actions

Recommendation	Status
Overall Financial Sector Oversight	
<p>Continue to increase resources and skills for the supervision of banks, the investment fund industry, and financial market infrastructures in order to better perform risk-focused inspections and enforcement, and reduce reliance on the compliance-oriented work of external auditors (CSSF).</p>	<p>Resources and skills have continuously been increased, in particular through new recruitments and education efforts.</p> <p>CSSF staff increased from 357 (December 1, 2010) in 2010 to 651 (June 13, 2016). The headcount of the on-site inspections department (not comprising staff from other services that participate in on-site missions) stands at 40 today and will further be increased by 50 percent till year-end 2016.</p>
Investment Funds/Securities Market Oversight	
<p>Enhance the duties of investment fund depositaries and clarify the investment fund shareholder/ownership rights (CSSF).</p>	<p>1. Enhancement of duties of investment fund depositaries</p> <p>Since 2011, the investment fund depositary regime has been progressively enhanced, in a first step in relation to alternative investment funds and more recently in relation to UCITS funds, thereby covering the entire range of Luxembourg collective investment schemes.</p> <p>In relation to alternative investment funds, the regime has been enhanced by the introduction of the depositary regime resulting from the AIFMD.</p> <p>With respect to UCITS funds, the regime has been enhanced in two steps. In a first step through the adoption of CSSF Circular 14/587 on organizational duties applicable to UCITS depositaries in 2014. In a second, more recent step, through the adoption of the law of 10 May 2016 transposing the depositary regime applicable under the UCITS V Directive. This is completed by Circular 16/644.</p>

	<p>Taken together, the changes introduced by AIFMD and UCITS V, and which are fully reflected in Luxembourg law, represent a significant enhancement of the duties of investment fund depositaries.</p> <p>2. Clarification of the investment fund shareholder/ownership rights</p> <p>The CSSF has implemented measures which have brought helpful clarification of the investment fund shareholder and ownership rights. These measures are designed to ensure increased understanding by investors of their rights and obligations in scenarios where a fund distributor or any other intermediary in a holding chain of funds is registered by the fund's registrar in the fund's shareholder register.</p>
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