

Annual report 2021



Commission de Surveillance
du Secteur Financier





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Throughout 2021, the EU economy has been rebounding from the pandemic recession. It was on an expansionary path, facing only a few headwinds, like bottlenecks and disruptions in the global supply chains or energy prices returning to pre-pandemic levels, thus weighing on consumption and investment.

The ECB continued its accommodating monetary policy. The financial system was resilient and helped the recovery effort. Luxembourg banks showed strong balance sheets, and well above the norm solvency and liquidity ratios. At the end of 2021, net assets of Luxembourg investment funds had reached an all-time high of EUR 5.9 trillion. Private equity was a fast-growing asset class.

The invasion of Ukraine by Russia in February 2022 and the resulting war have definitely upended

the fragile economic recovery from the pandemic. It led to increasing food and commodity prices and globally exacerbating inflationary pressures. The consequences on the global economy and the financial system have yet to be seen, but they will be far more severe and long-lasting than the ones caused by the COVID-19 crisis. This will be another test, shortly after the first one, for the banking and financial services regulatory architecture put in place post-financial crisis.

This context will also exacerbate known challenges, such as, most importantly, coping with regulatory cost, which can only be achieved through solid and sustainable business plans.

In this difficult environment, what will be the main challenges for supervised entities as well as for the CSSF?

Sustainable finance

Huge investments will be needed to transition the economy to net zero, as per the Paris agreement targets and the intermediary targets set by the EU. The EU's regulatory framework is the most advanced in the world, but should not be further complexified by additional layers of rules. Financial service providers must prioritise timely implementation of the taxonomy, non-financial ESG reporting and other requirements. The use of reliable data sources and transparency will be key in order to avoid greenwashing. Clients will benefit from the new ESG requirements under MiFID, but unless they clearly understand the basics of sustainable investments, the correlation with and the impact on global warming and other social and governance objectives, they will not trust ESG products and investments are at risk of being directed to other products. The CSSF will play its role by making financial education, or rather sustainable finance education, a key priority.

Financial innovation and digitalisation

There is no doubt that in order to be efficient and to remain profitable as well as attractive to clients and staff, financial service providers will have to accelerate making use of financial innovation, including, amongst others, distributed ledger technology (DLT), machine learning, automated credit scoring and artificial intelligence. Big data remain largely underexploited by traditional financial service providers, compared for instance to large online retailers or modern payment institutions. Financial services will be further disintermediated at an increased pace; trusted third parties which still play a central role today will gradually become less relevant. European initiatives and regulation will be key to provide a rigorous, consistent and yet flexible environment, fostering innovation whilst protecting consumers. The DLT pilot project and MiCA regulation are important in this sense. The CSSF's approach will be a technologically neutral one, also bearing in mind that new technologies, products and services carry mostly classical risks. The CSSF will also have to continue its educational efforts on new products. The CSSF supports mutualisation efforts through the use of technology, one example being KYC utilities. Such initiatives also help financial service providers to focus on their core business and to reduce cost.

Capital Markets Union

In the current high inflation environment, but also to finance the transition to a green and digital economy, savings will need to be put to better use and cash deposits reduced. The CSSF will support EU initiatives to develop the Capital Markets Union, also through financial education of investors. The need to direct savings to the real economy and to the green transition and the risks associated with such investments will have to be explained and carefully balanced.

Governance and talent

A robust and modern governance is key in the current economic and regulatory environment. This starts at the top of the organisation, at board level, where more talent in terms of sustainable finance and digitalisation will be needed. The same is true for senior management. The CSSF will ensure that enough substance is kept at supervised entities that are deploying teleworking, but also that questions like gender balance, which have been debated for decades without being addressed, are

resolved, and that the EBA guidelines are properly implemented, not only in letter but also in spirit. Talent acquisition is a challenge, talent retention is equally important, as is adequate training and reskilling/upskilling, to accompany the green and digital transitions.

The CSSF

The CSSF has started a modernisation and efficiency programme before the pandemic. It comprises three components: (i) a process review and implementation of lean management techniques and tools, (ii) the increased use of digital tools (for its own use and to enhance communication with supervised entities), and (iii) training. This programme, called CSSF 4.0, could not be fully rolled out during the pandemic, but has resumed and will accelerate in the coming years to ensure that the CSSF is future fit and able to fulfil its dual mission, contributing to financial stability and protecting consumers and investors, in the best possible way, whilst taking into account also the ever-increasing complexity of regulation and budgetary constraints. Just as supervised entities could make better use of data, the CSSF will strive to exploit data better and in a more automated way whilst applying a risk-based approach.

I would like to thank my colleagues at the executive committee and staff for their continued efforts throughout 2021, the second year of the pandemic.

I hope you enjoy reading the report and additional information made available through our dedicated micro-site <https://panorama-cssf.lu/en/>.

Claude Marx
Director General

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Banks: Circular CSSF 21/773 on the management of climate-related and environmental risks

Interview with Claude Wampach, Director

What is the CSSF's mission with regard to climate-related and environmental risk management?

The CSSF has both prudential and conduct-related mandates with respect to climate-related and environmental risks. I'll call them CE risks. For conduct, the CSSF's legal mandate explicitly derives from the European regulation on transparency and on customer protection, that is MiFID. On the prudential side, the CE risks are covered by the European capital requirements regulatory package, albeit in an implicit manner.

What is the purpose of Circular CSSF 21/773 on the management of CE risks?

In June 2021, to make things explicit, the CSSF published Circular CSSF 21/773 on the management of CE risks. The circular explains how the treatment of CE risks neatly fits into

the capital requirements regulation's risk categories and sets expectations as regards the management of CE risks. As is common throughout prudential regulation, the circular insists on the role of internal governance – in particular the tone from the top – for the sound and prudent management of CE risks.

**In terms of
climate-related and
environmental risks,
the tone from the top
is paramount.**



Are Luxembourg banks particularly exposed to CE risks?

The operations per se of Luxembourg banks do not appear particularly exposed to CE risks. While the country is partly exposed to flood risk, banks' infrastructure is generally safe from related physical damage. However, CE risks could impact Luxembourg banks through their exposure to vulnerable borrowers.

Indeed, carbon intensive sectors, including construction, represent up to 70% of the Luxembourg banking sector's aggregate loan book at year end 2021. Nevertheless, sector-based measures only provide crude approximations since there is material heterogeneity across borrowers as regards their carbon footprint and across financing arrangements in terms of the CE risk sensitivity of the underlying project and the related collateral.

I should also mention that there is significant variance among Luxembourg banks. For the significant cluster of private and depositary banks, the risk is mainly an indirect one. It might materialise from the loss of value of brown assets, decreasing custody fees, or from poorly managed operations that cristalise as conduct, operational and reputation risks.

What are the CSSF's expectations towards banks on this matter?

The CSSF expects banks to implement robust processes for the management of CE risks. In the short run and in line with Circular CSSF 21/773, we expect banks to continue to sharpen their exposure measures as a first step to properly manage CE risks. Admittedly, progress is not straightforward. Measuring CE risk exposure remains challenging as of today, given scarcity of data.

Hence banks need to come up with workarounds until they are able to reap the full benefits from recent transparency regulations that aim to enhance data quality and availability.





Residential real estate lending framework

Interview with Vânia Tinoco Pereira, Macroprudential Division

Consumer protection and financial sector stability are closely linked in the area of residential real estate lending. Can you explain this link?

The CSSF's mission is to protect consumers and to preserve financial stability.

Consumer protection refers notably to protecting customers who take out a loan to finance their property. According to the Law of 23 December 2016 which extends the scope of consumer protection, banks must ensure that borrowers can afford such a loan. The aim is to protect borrowers against over-indebtedness. Reimbursing the loan, including the interest rate cost, should not lead to a situation where borrowers do not have sufficient resources to cover their daily expenses.

In this context, the CSSF verifies that Luxembourg banks comply with the Law of 23 December 2016.

From a financial stability point of view, a high level of household indebtedness combined with overvalued property prices may jeopardise economic growth. This is particularly true if, due to economic shocks, banks and households would fall simultaneously into financial distress.

The law empowers the CSSF with a certain number of borrower-based macroprudential instruments to strengthen banks' and households' resilience in such situations. Can you give us some examples?

The CSSF may, upon recommendation from the Systemic Risk Committee, impose limits on the share of loans that are considered risky for financial stability, i.e. loans whose loan-to-value ratio or debt-service-to-income ratio is considered high. The loan-to-value ratio (also called LTV ratio) indicates the amount of own funds that the borrower brings in relation to the borrowed amount. As a general rule, a sound LTV ratio should be below 80%, meaning that a borrower needs to bring at least 20% of own funds.

The debt-service-to-income ratio (also called DsTI ratio) represents the service of the debt, i.e. the payment of the monthly instalment in relation to the income. A 30% DsTI ratio means that the monthly instalment should not represent more than approximately a third of the monthly income.

What is your assessment of your recent policy action in the area of residential real estate lending?

At the beginning of 2021, the CSSF introduced differentiated LTV limits upon recommendation of the Systemic Risk Committee. Until then, Luxembourg banks were allowed to finance, for instance, more than 100% of value of the property purchased. This is no longer possible.

Based on the most recent data available, from June 2021, we draw a positive conclusion from the LTV measure.

In the first half of 2021, there was no loan granted with an LTV ratio above 100%.

The share of new loans with a high LTV ratio (above 90%) - i.e. where households have brought less than 10% of the value of the property as own funds - also decreased in 2021.

As a consequence, the average LTV ratio has improved.

As the LTV ratio is only partially addressing the issue of household indebtedness, it should be assessed in the coming months whether it will be necessary to activate an additional instrument, i.e. the debt-service-to-income ratio.

We draw a positive conclusion from the LTV measure.





Fund industry: supervisory actions and challenges

Interview with Marco Zwick, Director, Shaneera Rasqué, ESG-UCI Coordinator, Alain Hoscheid, Head of department, UCI Prudential supervision and risk management, and Guilhem Ros, Head of department, UCI AML

What were the main 2021 priorities for the CSSF in terms of fund supervision?

MARCO ZWICK: In line with the strong evolution of the investment fund industry, the main priorities of the CSSF have remained sustainable finance, liquidity risk management and anti-money laundering/counter-terrorist financing.

2021 was a year marked by the ongoing strong development of the Luxembourg fund centre with assets under management reaching

almost EUR 5.9 trillion, the highest value observed to date. The regulatory environment continued to evolve in parallel. The regulatory topics mentioned before and identified in the previous year have remained priorities for 2021.

Why is sustainable finance important for the CSSF?

MARCO ZWICK: Facing the climate emergency, the CSSF will foster a transition to a more sustainable

financial framework by fully playing its role as a regulator and by using its supervisory powers.

Climate change is the challenge of our time. The world is increasingly witnessing the impacts; to name but a few examples, floods, storms and wildfires are intensifying, sea levels are rising, threatening coastal communities and impacting biodiversity. Climate change is reshaping our way of life.

SHANEERA RASQUÉ: Only a shared and collective response can succeed in combating its effects. The COP 21 held in Paris is a landmark agreement in this regard. For the first time, countries agreed to work together to limit global warming to well below 2 degrees and to aim for 1.5 degrees compared to pre-industrial levels. The European Green Deal has been unveiled by the European Commission in December 2019. It is a legislative and regulatory action plan with an ultimate aim to make the EU climate neutral by 2050. It acknowledges that sustainable finance has a key role to play in this green transition.

Sustainable finance has a key role to play in this green transition.



Sustainable finance refers to the process of taking environmental, social and governance considerations into account when making investment decisions in the financial sector, leading to investments in sustainable economic activities or projects. Sustainable finance thus channels private investment into the transition to a climate neutral economy, as a complement to public funding, by considering social and governance factors at the same time.

The EU sustainable financial framework builds on three main pillars: a taxonomy for sustainable activities, a disclosure framework for non-financial and financial companies and investment tools including benchmarks, standards and labels. The EU legislative package is still underway but a set of related regulations has already entered into force, namely the Sustainable Finance Disclosure Regulation and a set of provisions under the Taxonomy Regulation.

Does the Luxembourg financial center have a role to play in the international landscape around sustainable finance?

SHANEERA RASQUÉ: The significant position Luxembourg holds in the financial world makes it clear that we have a key role and card to play on the sustainable agenda. Luxembourg is notably home to international banks, asset managers and investment funds as well as insurance companies. The redistribution of the capital held in those financial vehicles to sustainable investments represents an opportunity for Luxembourg to distinctively contribute to the private financing of the EU Green Deal and to ESG more generally.

What is the CSSF's stance on this important topic?

MARCO ZWICK: Sustainable finance stands top on the agenda of the CSSF in its role as a regulator. The sustainability rules underlying the EU Green Deal and ESG are being integrated in the CSSF fundamental missions of investor and consumer protection and safeguard of financial stability. The CSSF was an early adopter of an awareness-raising approach in the field and will continue to guide market participants. For sure, this is a journey and everything will not be perfect from the start.

SHANEERA RASQUÉ: On sustainable finance, two important regulatory deadlines must be mentioned with regard to the past year: the date of 10 March 2021 in relation to compliance with the main requirements under SFDR and the date of 1 January 2022 in relation to sustainability-related disclosures in the financial sector, the so-called Taxonomy Regulation.

In both cases, the CSSF has implemented a fast-track procedure in order to allow market players to submit and get reviewed the relevant fund documentation.

The CSSF also intervenes actively at the level of European and international working groups, bearing in mind that supervisory convergence is absolutely fundamental to address this important topic. Adding to this, financial literacy is very dear to the heart of the CSSF. And we will continue in our role of financial education to make people aware of the importance of sustainable finance and embrace the change.



Sustainable finance is not just another piece of regulation.



What do you respond to people criticising the current developments in terms of sustainable finance?

MARCO ZWICK: The sustainable finance package has sparked some criticism and debates in the recent times, for example on the timing or the imperfect aspect. But we need to remember that sustainable finance is not just another piece of regulation. It is about defining the legacy left for future generations and about saving our planet. We all need to get our act together to make this possible.

What were the main issues concerning liquidity management in the fund industry during the last months?

MARCO ZWICK: The work programme of international authorities and national regulators with regard to the liquidity mismatch in open-ended investment funds was further intensified during 2020. This happened when some money market funds and bond funds experienced liquidity stress as a result of the COVID-19 pandemic. At that time, light was shed on vulnerabilities in the functioning of these funds. In 2021, this important work continued, with the CSSF performing again significant supervisory work on liquidity risk at a local level.

What are the key objectives of the CSSF in this supervisory work, especially also from an investor protection perspective?

MARCO ZWICK: Our mission as a regulator is to ensure that investment fund managers employ holistic and effective liquidity risk management processes. These must provide for robust and orderly functioning investment funds in order to safeguard the interests of the investors and to contribute to the stability of the financial system.

ALAIN HOSCHEID: These processes have to ensure that the liquidity profile of the funds' assets is appropriate regarding their redemption policy. This is to allow a proper and fair handling of investors' redemption requests. Should market conditions and/or investor behavior make it necessary, the effective usage of appropriate liquidity management tools should also be guaranteed in order to safeguard the interests of all investors. Swing pricing or also, in more exceptional circumstances, suspensions are examples of such tools.

Should market conditions and/or investor behavior make it necessary, the effective usage of appropriate liquidity management tools should also be guaranteed in order to safeguard the interests of all investors.



What were the main actions of the CSSF on liquidity risk in 2021?

ALAIN HOSCHEID: ESMA organised a Common Supervisory Action on UCITS liquidity risk management performed over 2020. In June 2021, as a result of this exercise, we issued recommendations to the local fund industry with the objective to improve the liquidity risk management processes of investment fund managers. We also requested a number of managers to remediate the deficiencies we observed.

For a significant number of open-ended investment funds, we also checked that an adequate asset/liability liquidity profile was in place. This exercise did profit from the results of our own liquidity stress testing programme which we also further refined.

Finally, we contributed to various international workstreams that aimed at increasing the resilience of some categories of open-ended investment funds. This work led, for instance, to the issuance of concrete policy options for money market funds by the FSB in October 2021 and the ESRB and ESMA beginning of 2022.

What is the outlook for 2022 concerning liquidity risk?

MARCO ZWICK: The extensive work programme on liquidity risk continues in 2022, with vulnerabilities of open-ended investment funds remaining high on the regulatory agendas. Today, unfortunately, we are facing a new particular and difficult situation with the Ukraine crisis.

ALAIN HOSCHEID: We reacted promptly by issuing guidance to market participants in order to assist them in managing the illiquidity of affected assets in the best interest of investors. The risk of a potential deterioration of market liquidity resulting from an expected monetary policy tightening is a further area of attention.

Why is the action against money laundering and terrorism financing such an important issue for financial supervisors?

MARCO ZWICK: Crimes should not benefit criminals. But, where crimes provide an economic benefit, we need to take utmost care that the financial sector is not abused by criminals to launder their proceeds gained from illegal activities.

Crimes should not benefit criminals.



Is money laundering an issue in the Luxembourg collective investment industry?

GUILHEM ROS: Money laundering consists in using several techniques to hide the true origin of illicit proceeds. These have been acquired through a predicate offence such as illegal drug trafficking, human trafficking, etc. The collective investment sector, named as such because it consists of several parties pooling money together in investment funds, can be occasionally abused by money launderers. By investing in investment funds for laundering purposes, criminals may even increase the return on monies which they have gained illegally. Consequently, investment funds may substantially increase investment returns, as opposed to simple bank accounts or deposits where a criminal parks dirty proceeds. That is why it is very important to supervise them for AML/CFT purposes.

MARCO ZWICK: The Luxembourg financial centre is at risk due to three main factors: the size of the sector, with currently about EUR 5.9 trillion in terms of assets under management, the cross-border nature of the distribution of investment funds, and the international investments done by investment funds. We mentioned these facts in several documents, in particular the Sub-Sector Risk Assessment on the Collective Investment Sector.



What is precisely the CSSF's role in the fight against money laundering in the UCI industry?

MARCO ZWICK: The CSSF has been granted specific powers to supervise a large number of entities in the financial sector. An investment fund is usually managed by an investment fund manager, which is a legal entity subject to our AML/CFT supervision. The investment fund itself is also subject to our AML/CFT supervision when it is licensed by the CSSF. Examples of such entities are for instance UCITS funds which are usually targeting retail investors, but also some alternative investment funds such as SIFs or SICARs which may provide a higher performance by taking more investment risks and therefore targeting well-informed investors.

GUILHEM ROS: The AML/CFT supervision by the CSSF is paramount to curb money laundering and terrorist financing but also to safeguard the investors' and the public's trust. To achieve our missions, we provide guidance through exchange with the private sector.

To that end, we have established an external UCI AML working group with representatives of the industry and other AML authorities in 2018.

In October 2021, we have hosted our annual AML/CFT conference where we discussed the results of the on-site and off-site supervisory measures. We also highlighted the importance of AML/CFT controls in the voluntary liquidation process of investment funds. And the Financial Intelligence Unit presented its own findings for the sector for the year 2021.

What is the CSSF's approach in terms of AML/CFT supervision?

GUILHEM ROS: The risk-based approach is the cornerstone of our AML/CFT supervision. It basically means that the higher the risk faced by an entity, the more mitigation measures it is expected to implement. And, as a regulator, we are going to assess the effectiveness of these measures and ensure that they are commensurate with the risks taken.

It is important to note that the CSSF, in its role as an AML/CFT supervisory authority, does not primarily challenge the risk appetite, but focuses on the adequation of mitigation measures with risk appetite.

The higher the risk faced by an entity, the more mitigation measures it is expected to implement.



What is the current landscape of AML/CFT in the collective investment sector?

GUILHEM ROS: The fight against ML/TF is a dynamic battlefield which calls for quick adaptability and reaction. Therefore, we work on an ongoing basis to identify new ML/TF threats faced by the supervised entities and we have implemented a risk-based approach for the supervision. To that end, we have worked closely with the industry to curb the risk of ML/TF on the investments' side of the funds.

Historically, the focus was on the investors as they bring money into the funds. However, with the rise of AIFs and specific strategies such as Private Equity and Real Estate, we have noted that the investments could also be abused through sales and purchases of assets by money launderers.

Since August 2020, a specific article in the CSSF Regulation No 12-02 makes it mandatory to perform AML/CFT risk scoring and related due diligence when a fund performs an investment operation.

As money laundering and terrorist financing are cross-border crimes, international cooperation is paramount. Following the guidance of the European Supervisory Authorities, we have participated in or led 35 AML Colleges with other European AML/CFT authorities. This is in order to ensure supervisory convergence when dealing with financial groups located in multiple EU Member States.

MARCO ZWICK: In 2021, the CSSF has further formalised the AML/CFT work performed by the statutory auditors during their certification of annual accounts of Luxembourg investment fund managers. This led to the implementation of an IT-based solution which streamlines the AML work and the subsequent analysis by the CSSF.

The same IT solution is being used in the context of the reform of the long form reports for investment fund managers and investment funds. This is an important strategic project which the CSSF has finalised in 2021 and which will become fully operational in 2022.





Building bridges between innovation and sustainability

Interview with Françoise Kauthen, Director, Natasha Deloge, in charge of the Innovation Hub, and Cécile Gellenoncourt, Head of department, Supervision of information systems

Innovation and sustainability, aren't these two contradictory topics?

FRANÇOISE KAUTHEN: The European Commission imposes a very tight schedule as regards the new digital finance and sustainable finance regulations. As regulator in charge of the supervision of the financial sector, we fully subscribe to the objectives pursued: to direct the internal market towards an innovating, climate-neutral and resource-efficient economy.

NATASHA DELOGE: When performing our supervisory missions, we are particularly aware of the links between innovation and sustainable finance. Account must be taken of the impacts, the objectives and the interdependencies of the two areas when establishing and implementing rules relating thereto.

We are particularly aware of the links between innovation and sustainable finance.



How do these synergies between innovation and sustainability translate in practice?

NATASHA DELOGE: On the one hand, indeed, an innovative activity project, a traditional financial sector activity carried out based on new technologies or a virtual asset-related activity can only fully develop its benefits if it is coupled with a robust internal governance. Such a governance must also take into account the risks related to the technologies used, including

the risks that may arise from the assessment of sustainability criteria.

On the other hand, the use of new technologies is essential to create ESG data collection, governance and analysis tools that are necessary for the development of sustainable finance.

FRANÇOISE KAUTHEN: In a climate emergency context in which the economic instability hampers the achievement of sustainable objectives, the integration of innovation and sustainability in our financial sector supervisory activities as well as the analysis of the synergies between these two areas are a priority for us.

What are the major regulatory developments in these two areas?

FRANÇOISE KAUTHEN: The financial sector is preparing to undergo sweeping changes. Indeed, we are on the eve of the phasing-in of two major sets of regulations: one set resulting from the 2020 Digital Finance Package, the other set resulting from the 2018 action plan and the 2021 sustainable finance strategy of the European Commission.

NATASHA DELOGE: In the first case, this transformation aims to propel the financial sector players into the digital era. In this context, three digital finance initiatives are currently in the focus of the CSSF's attention. These include the Markets in Crypto-Assets (MiCA) Regulation, the Digital Operational Resilience Act (DORA) and the Regulation on a pilot regime for market infrastructures based on distributed ledger technology (DLT).

In the second case, this transformation gives rise to sustainable finance initiatives aiming to integrate ESG principles into the whole chain of values of financial services. This has notably been reflected in new rules for transparency, for risk management, or in product-related rules, with the ultimate goal of redirecting financial flows towards a greener economy.

What is the CSSF's approach with respect to these two regulatory packages?

FRANÇOISE KAUTHEN: I would like to stress that the CSSF has no intention to approach these two frameworks as two separate issues. On the contrary, we are convinced that they should be interpreted one in the light of the other. Financial innovation, which was made possible through the use of new technologies, cannot be achieved without taking account of ESG considerations, including the climate and environmental impacts of these technologies.

Financial innovation, which was made possible through the use of new technologies, cannot be achieved without taking account of ESG considerations.

NATASHA DELOGE: Certain consensus modes of the DLT technology are, indeed, highly energy-consuming and must be challenged as regards their carbon footprint and environmental impact. The fact is that there are solutions that are consistent with environmental considerations and initiatives should therefore be supported in this respect.



These two regulatory frameworks thus complement each other, but can one also actively contribute to the achievement of the other one's objectives?

NATASHA DELOGE: We are convinced that this is the case. Worth mentioning in this context is the role of artificial intelligence as a facilitator in the use of large volumes of ESG reporting data. Similarly, predictive analytics tools resulting from the artificial intelligence technology could become strong allies in the analysis of climate-risk scenarios.

FRANÇOISE KAUTHEN: Studies on the synergies between financial technologies and sustainability are thus a priority for the CSSF. We have been studying, in particular, the concrete articulation between these two concepts and have been following researches undertaken in this regard by different bodies.

NATASHA DELOGE: We are already now, via our Innovation Hub, in regular contact with entities proposing business models that link the innovation aspect to ESG considerations. Hence, early signs of a GreenTech wave are just around the corner, for example with the emergence of new business models financing environmental projects with the issue of tokens.

But for innovation to be sustainable, the risks it entails must also be controlled.

FRANÇOISE KAUTHEN: Absolutely. The increasing innovation and digitalisation offer many opportunities for the financial sector. They also bring about their own risks, especially those associated with the use of information and communication technologies; the well-known ICT. To ensure the security and the sound functioning of digital finance serving the society, it is essential that these ICT risks are properly managed.

CÉCILE GELLENONCOURT: Thus, the growing dependence of the financial sector on ICT further increases the need for digital resilience. It is in this context that the European Commission published, in September 2020, a proposal for a regulation, the famous DORA or Digital Operational Resilience Act. As already mentioned, it is a key piece of the Digital Finance Package of the European Commission. DORA proposes a single, harmonised and ambitious regulatory and supervisory framework for the digital resilience of the whole European financial sector.

The increasing dependence of the financial sector on ICT further increases the need for digital resilience.



What are the main measures provided by DORA?

CÉCILE GELLENONCOURT: They cover five levels: first, governance and ICT risk management; then, compulsory reporting of major ICT-related incidents. The third topic concerns digital operational resilience testing programmes. Those can include, for the most mature institutions in terms of security, advanced penetration testing simulating real cyber-attacks. The fourth topic covers the management of ICT third-party risk and the creation of a European oversight framework for the most critical ICT third-party service providers. And finally, the fifth and last topic concerns the voluntary exchange of cyber threat intelligence.

FRANÇOISE KAUTHEN: At the CSSF, we continue to follow the development of this important text which is expected to come into force before year end of 2022. Our mission will also be to raise awareness of the Luxembourg financial sector on the arrival of DORA and the need to prepare for it.

CÉCILE GELLENONCOURT: To some extent in anticipation of certain requirements under DORA, the CSSF, jointly with the Banque centrale du Luxembourg, adopted, in 2021, a testing framework for controlled cyber-attacks, called TIBER-LU. This framework encourages the most critical financial institutions to carry out TIBER exercises. The latter imitate the modus operandi of hackers and simulate a cyber-attack. Again, the objective is to help the institutions to better understand their abilities in terms of protection, detection and reaction, and to fight cyber-attacks.

Beyond resilience aspects, can the use of new technologies such as artificial intelligence or blockchain also present specific technological risks?

CÉCILE GELLENONCOURT: Here too, a good understanding of the risks and their proper management are absolute prerequisites for a safe and controlled use of these new technologies. In order to acquire this understanding, the CSSF carries out a technology watch. Thus, we exchange with undertakings behind projects based on these new technologies. We also participate in national and European working groups dedicated to these topics.

FRANÇOISE KAUTHEN: Although the role of the CSSF is to regulate and supervise the financial sector, we also wish to accompany and guide it during these major transformations. It is for that reason in particular that the CSSF published, in 2018, a white paper on artificial intelligence and more recently, in January 2022, a white paper on distributed ledger technologies (DLT) and blockchain.





Sustainability information: meeting the challenge of reliability and comprehensibility

Interview with Françoise Kauthen, Director, and Jérôme Tourscher, Deputy head of department, Financial markets, Enforcement and regulation

Why has data become an issue when it comes to sustainable finance?

FRANÇOISE KAUTHEN: In recent years, ESG and sustainability criteria have become increasingly prevalent in the financial world. Aware of the major environmental and societal issues facing us, investors are turning more towards products and companies that have a positive impact on these issues. Hence the importance of providing quality data on sustainability. Indeed, the starting point for all assessment of sustainable criteria is robust and granular data on companies and products. Data is the new oil: it is a basic good collected and intended to be processed for its use by a wide community of different users. The output has to serve an important number of purposes such as the assessment of sustainable impact or sustainable risk.

JÉRÔME TOURSCHER: Since the entry into force of the Non-Financial Reporting Directive, transposed into the Luxembourg Law of July 2016, issuers are required to publish such non-financial information.

Data is a basic good collected and intended to be processed for its use by a wide community.



However, if the sustainability information published by issuers is insufficient or of poor quality, investors and financial actors will be affected. They need to have such information in order to do their business, but also to meet their own reporting obligations.

In short, for the sustainable investment market to be credible, investors need reliable sustainability information from the companies they invest in. Without this, how can funding be directed towards environmentally friendly activities?

What is the CSSF's role in assuring that investors receive reliable information on sustainability?

FRANÇOISE KAUTHEN: We, as a regulator, are issuing rules which define raw data to be provided in a structured and secure manner to us and to the market. An increasing part of such rules are sustainability reporting requirements. As a prudential and markets supervisory authority, we are using raw and processed data in our daily supervision of markets, entities and financial products with the aim to ensure market stability, transparency and integrity.

ESG elements are fully integrating and supporting this aim. In order to allow market participants, consumers and investors to make an orderly assessment of sustainability criteria, which is a precondition to a growing ESG market, we also have to take special care of data quality and reliability. More generally, transparent, high quality and centralised information, easily accessible in electronic format, is essential for orderly markets and for all users thereof. This is one major objective of our interventions in the field of data.

JÉRÔME TOURSCHER: Under the Transparency Law, we are responsible for ensuring that the required non-financial information is correctly disclosed by the issuers. We regularly communicate on the outcome of our reviews. Their objective is to contribute to the improvement of the information published but also to raise the awareness of issuers of sustainable finance issues.

What is the state of play in terms of regulation on sustainable information?

FRANÇOISE KAUTHEN: More needs to be done! As many studies, but also practice, show, we need to go further in terms of comprehensible and reliable sustainability information made available by issuers.

JÉRÔME TOURSCHER: Therefore, in April 2021, the European Commission proposed a new Corporate Sustainability Reporting Directive. This proposal foresees reporting obligations to be extended to other categories of companies, like all large companies and listed SMEs, to follow European standards to be developed

and to be subject to external assurance. The objective is to bring sustainability reporting to the highest level, to make it robust, transparent and reliable. This proposal also provides for the availability of this information in an electronic format. In fact, being able to process and analyse this information efficiently is also a challenge.

The EU's objective is to bring sustainability reporting to the highest level, to make it robust, transparent and reliable.

What is to be expected from issuers in the coming months?

JÉRÔME TOURSCHER: Issuers must continue to improve their non-financial disclosure to provide investors with high quality data. They must also comply with the new requirements in this area, notably the information required by Article 8 of the Taxonomy Regulation.

FRANÇOISE KAUTHEN: Concerning the upcoming regulations, it is important for issuers to prepare themselves now, without waiting for the publication of the official texts. They must take advantage of this time to identify the impacts on their organisation or business and to think about the developments to be implemented. This is certainly the best way to ensure that they can respond effectively and in time to these new challenges.



Developments in financial information structuring

Interview with David Deltgen, Deputy head of department, Financial markets,
Market abuse and issuer monitoring

Why is the structuring of data and information becoming ever so important?

We live in a world of accelerating change where structuring data and information is becoming ever more important. It is crucial for the success of EU securities markets, notably for efficiency reasons and in view of the reuse of such data. Therefore, initiatives have arisen in the field of regulation in order to improve such data and information. And this also has an impact on the CSSF, because as a supervisory authority, we are notably in charge of ensuring market integrity and investor protection, amongst others by promoting transparency.

How does such transparency translate into practice and how does it interact with regulatory initiatives?

Listed companies and their shareholders are required to disclose a wide range of information in order to allow the market to make informed investment decisions. This transparency aims to safeguard confidence in markets and their smooth functioning. A series of recent initiatives aims at improving the quality and structuring of information and data. As data is widely considered as the new oil, such initiatives become ever more important and it is vital to keep track with technical developments.

Transparency aims to safeguard confidence in markets and their smooth functioning.



What are the most relevant initiatives to recently emerge in that context?

First of all, the European Single Electronic Format (ESEF) stands out. The first steps for its implementation have been launched roughly 10 years ago. ESEF is a structured format for annual financial reports required to be disclosed by listed companies under the Transparency Directive. ESEF allows such annual financial reports to be human readable and machine readable at the same time and thus opens new horizons for processing such information.

The second initiative of interest is the so-called ESAP, the European Single Access Point. ESAP is the flagship action of the European Commission's Capital Markets Union action plan. It aims at centralising the EU wide access to information disclosed by companies relating to capital markets, financial services and sustainability. While such information is currently already available under EU legislation, access is considered as fairly fragmented. The legislative proposal to establish ESAP is currently under discussion and the extent and architecture of ESAP will be known in the coming months.

These are initiatives taken at EU level, but did the CSSF also take steps on its own?

Of course, we have done so by recently launching eRIIS, our online filing platform for information concerning issuers of securities. eRIIS allows to improve structuring of data and ensures a high level of security of correspondence between issuers or holders of securities and their supervisory authority. It also offers a high degree of interactivity. These persons can for instance follow up on their individual filings. Furthermore, reports drawn up under the ESEF format are automatically processed in order to provide instant feedback to the relevant entities.

While these initiatives are largely beneficial for market participants, they also risk to significantly increase administrative burden for the persons and entities concerned. It is therefore important to strike the right balance between new requirements and red tape and resulting costs. Bearing this in mind when setting up eRIIS, we have worked in close collaboration with the Luxembourg Stock Exchange in its capacity as operator of the OAM database. This allowed us to provide for the facility to directly take over OAM filings of listed companies and as such avoid duplicate filings in eRIIS.

And what for the future?

All initiatives in that context allow to stand up to current challenges but the three examples I mentioned also perfectly illustrate that these initiatives in themselves constitute challenges. One of these being to quickly move forward and keep up with the technical evolutions, without penalising market participants with unnecessary administrative burden.

We therefore aim to tackle these challenges in close cooperation with issuers and market participants and we look forward to doing so in the coming months and years.



The CSSF pursues its transformation and harnesses the power of data.

Interview with Jean-Pierre Faber, Director

For five years now, the CSSF has accelerated its transformation. But why does the CSSF have to transform itself?

We are in a context of major transformations. Wars and geopolitical tensions put democracy at risk. Societal and environmental challenges are changing the expectations of the general public and governments in terms of ethics, governance and transparency. The development of new financial services and products is accelerated by digitalisation. The entities we supervise have expectations of the CSSF in terms of processing time, improvement of time to market and reduction of the regulatory burden, as improving the supervised entity digital experience whilst interacting with the CSSF.

All these expectations imply a necessary transition of the CSSF's operational model.

What is the common thread of these transformations?

The CSSF acts for the development of a more sustainable financial system, by contributing to ensuring a framework of confidence for all stakeholders and by taking care to prevent crises and protect consumers.

In order to keep pace with our mission in a changing world, we have been engaged for five years in a profound transformation. This involves a particular attention to the training of our staff. But it also comes with the adaptation of our processes through the use of lean management and, of course, the digitalisation of exchanges with the entities we supervise.

On this latter topic, data plays a key role.

Why is data so important?

Better use of data will bring productivity gains for the industry. It will increase the speed and relevance of both decision-making and business processes. And it will have a beneficial impact on the cost of compliance.

I will illustrate this last point with a practical example. By having better data on the entities supervised by the CSSF and therefore a more refined track record, we will be able to go further in terms of our risk-based approach by focusing on the minority of entities that are classified as “risky” in certain areas and by adapting the prudential review towards the less risky entities within the ecosystem of the industry supervised in Luxembourg.

Beyond that, a better use of data will allow the CSSF, whilst pursuing its public service mission, to come closer to a real-time supervision and thus to better prevent problems, crises or abuses.

Our aim is to come closer to a real-time supervision and thus to better prevent problems, crises or abuses.

In the long term, our ambition is to go even further. Through the mass of data that we collect, we have a horizontal view of the market. If we manage to process and analyse it even better, this will enable us to identify major trends more easily, in order to be able to share best practices with the market or to raise awareness of the risk factors.

So, in concrete terms, what are the projects you have implemented in recent months to harness the power of data?

For more than two years, we have been pursuing a strategy of deploying digital portals, particularly in the field of UCIs, but also more recently for market operators. This strategy aims to streamline exchanges with the entities and make them faster and more transparent in all the industry stakeholders supervised by the CSSF.

In 2021, in collaboration with the audit professionals, we overhauled the long form report, as well as the management letter for the investment fund sector. In addition to standardising practices, harmonising the sometimes disparate texts and clarifying our requests to the industry, the aim of this overhaul was to digitise the process for greater speed, transparency and security and to allow better and more direct use of the data.

In terms of accomplished projects, I would also mention the creation of a centralised register of bank accounts, of which we are both the operator and one of the users.



And what are the challenges ahead of the CSSF?

One that is particularly important to me is to integrate co-design stages with market players into the process of each new project. This in no way means that we lower our standards. But through this type of process we can develop more operational solutions for the market and establish a better dialogue around our respective expectations.

We want to integrate co-design stages with market players into the process of each new project.



We also know that we still have progress to make in terms of the user experience of the solutions we provide. We certainly don't have the resources of the major tech companies, but we must continue to invest in order to get closer to the best practices of the market.

Finally, we must work on the quality of the data by expressing our requests better and formatting them even better, and where possible, hand in hand with the industry. This is a challenge that we have in common with the industry, because the better the quality of the data we receive, the faster we can process it and focus on the 'sticky points' that the reporting provides to the CSSF.

And if I were to point to one major opportunity for the future, it would certainly be the developments in ESG reporting. That is a rather recent area for us and for the industry. The amount of data to be processed will be significant, as there will be both mandatory and voluntary reportings. But the benefits for society and our planet will be immense.



Human resources : The CSSF pursues its transformation by focussing on the upskilling of its agents.

Interview with Françoise Jaminet, Head of department, Human resources and finance

Why must the CSSF transform itself?

We need to change because our environment changes. For the past 10 years, following the 2008/2009 crisis, the CSSF has been assigned a growing number of duties.

In order to address this challenge, our first response was to strengthen our workforce to come up to the expectations of the public, politics and financial industry. We now count almost 1,000 agents, an adequate number considering the size of the Luxembourg financial sector and our responsibilities. Today, our objective is to perform as well, if not better, with a stable headcount.

In parallel, we need to take into account two movements that are transforming the society, the industry, but also our supervisory practice: digitalisation and sustainable finance. Like the entities that we supervise, we need to transform ourselves to accompany these movements.

What transformations are taking place within the CSSF?

There are three strands to this transformation: firstly, reviewing our processes, notably through lean management; secondly, digitalising our exchanges with the industry; thirdly, upskilling our agents.

Why is it important to upskill CSSF agents?

It is extremely important for the following reasons. First of all, our agents must be able to understand, accompany and supervise the deep transformations brought about by concepts such as Artificial Intelligence, Blockchain, but also Sustainable Finance.

Also, we invest in the digitalisation of our processes and provide our agents with new tools based on the latest technologies. But, to be able to use them, our colleagues need to make them their own. That's why we take extra care of their digital curriculum.

The right people with the right technical skills in the right job.



Concretely, what actions have you taken as regards upskilling?

In 2021, 7,287 training sessions were provided, which represents about eight training days per agent. It should be noted that about 20% of the training provided in 2021 was directly linked to digital transformation.

As regards ESC, all our agents will follow a general mandatory training programme. Moreover, the agents more directly involved in this subject will follow a more specific and even certifying training course.

Ultimately, our ambition is to have the right people with the right technical skills in the right job.

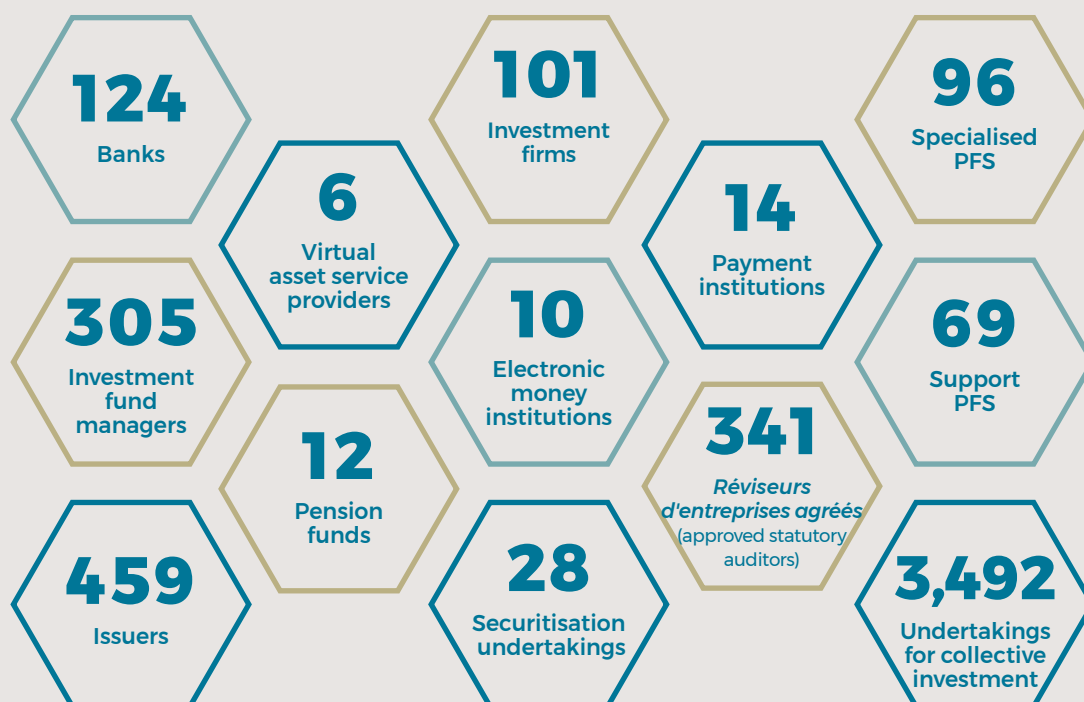
Do these transformations also have an impact on the department "Human resources and finance"?

In order to accompany this movement, we at the HR and Finance Department also need to change. That's why we will focus on four dimensions in 2022: strengthen our position as strategic partner of the Executive Board, but also of the different departments; accompany our agents in the changes affecting them and act ourselves as agents of change by establishing a succession plan and a matrix of skills; support our agents, by facilitating staff mobility or by establishing more regular communication with our departments; and finally, strengthen our skills as administrative experts.



2021 Major events

Number of supervised entities as
at 31 December 2021



Sustainable finance

- Entry into force, on 10 March 2021, of the level 1 requirements regarding the pre-contractual information required under Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR):
 - Publication of several communiqués providing guidance for the implementation of the SFDR.
 - Implementation of two fast track procedures to facilitate the submission of UCITS prospectus updates and amended offering documents of alternative investment fund managers.
- Publication of a communiqué drawing, proactively, the attention of issuers on the phased-in implementation of Article 8 of the **Taxonomy Regulation** as from 1 January 2022.
- **Review of the 2020 non-financial reporting** of issuers subject to the requirements of the Non-Financial Reporting Directive (NFRD) and publication of a review on the evolution of non-financial information reported by issuers on environmental and climate-related issues.
- Publication of **Circular CSSF 21/773** on the management of climate-related and environmental risks in the banking sector.

Virtual assets and financial innovation

- **Increased interest** of consumers for crypto-assets and multiplication of industry projects related to tokenisation and Securities Token Offerings (STO).
- Publication of a **guidance on virtual assets**, as well as Questions/Answers on the use of virtual assets in the UCI and banking sectors.
- Publication in January 2022 of a **white paper on the Distributed Ledger Technology (DLT)**.
- Registration of the first six **virtual asset service providers**.

- Launch of a questionnaire on the use of **artificial intelligence** in collaboration with the BCL.

Authorisation procedure

- Entry into force of the Law of 21 July 2021: henceforth, the CSSF is competent for **granting authorisation**, refusing applications for authorisation as well as withdrawing authorisation for entities under its supervision.

Fight against money laundering and terrorist financing (AML/CFT)

- Setting-up of **AML/CFT colleges**.
- **Implementation of the register of payment and banking accounts** identified by an IBAN number.
- Organisation of different **AML/CFT awareness-raising conferences**.
- **Regulatory developments**
 - **Amendments to the Law of 12 November 2004 relating to AML/CFT**, Regulation CSSF No 12-02 of 14 December 2012 relating to AML/CFT and Grand-ducal Regulation of 1 February 2010 specifying certain provisions of the 2004 Law.
 - **Entry into force of the Law of 19 December 2020 on the implementation of restrictive measures in financial matters**. Strengthening of the CSSF's role and of its powers to impose sanctions with respect to international financial sanctions.
 - **Publication of the AML package** by the European Commission aiming at strengthening and harmonising AML/CFT regulations and supervision.
 - **Publication of Circular CSSF 21/788** regarding the formalisation of AML/CFT work of *réviseurs d'entreprises agréés* (approved statutory auditors) of Luxembourg investment fund managers (including registered managers) and Luxembourg investment funds.

- **Evolution of the sector's practices**

- Adaptation of the **processes of entering into a business relationship or client identification in response to the situation arising from the COVID-19 pandemic**. Increased use of the remote identification modes, or use of robotic systems.
- **Investments in AI analysis tools**, notably for the follow-up and analysis of transactional behaviours of customers.
- As a response to the clarifications brought about by Regulation CSSF No 20-05, **strengthening at the banking level of the control environment in terms of AML/CFT and formalisation of a specific AML/CFT risk appetite**.
- **Improvement of the screening arrangements** relating to international financial sanctions.
- Better consideration of **tax risk**.

Banks

- **Good resilience** of Luxembourg banks during the **COVID-19** pandemic crisis period.
- **Monitoring of credit risk**. Confirmation of adequate management by the banks and low level of non-performing loans.
- Positive effects of the **introduction of loan-to-value maximum limits** for new credits relating to residential immovable property located in Luxembourg.
- Start of the work relating to the **reform of the long form report**.
- Work on the **amendment of the regulatory framework of prudential requirements applicable to credit institutions (CRR3/CRD VI)**.
- Introduction, through the entry into force of CRR2, of the minimum requirements for the Net Stable Funding Ratio (NSFR) (100%) and of the binding Basel III Leverage Ratio set at a minimum of 3%.

Resolution

- Adoption by the Single Resolution Board (SRB) of **resolution plans** of several banking groups including Luxembourg banking subsidiaries and of resolution plans of Luxembourg banking groups or systemic banks. Drafting of resolution plans for less significant banks under the direct responsibility of the Resolution Board.
- Chairing of **four** cross-border **resolution colleges**.

Fonds de garantie des dépôts Luxembourg (FGDL)

- **Cooperation agreement between the CSSF, the FGDL and the Dutch deposit guarantee scheme** in order to resolve operational issues of cross-border reimbursement of depositors of branches.
- Mandate given to two Luxembourg banks to set up a **syndicated credit line for the FGDL**.

Investment funds

- **Reform of the long form report** for investment funds and investment fund managers and the external AML/CFT report.
- Launch by ESMA of a **Common Supervisory Action** on the supervision of **costs and fees of UCITS** across the EU with a view to promoting supervisory convergence.
- Work on the issue of **liquidity risk management** within UCITS.
- Transposition into Luxembourg law of **Directive (EU) 2019/1160 with regard to cross-border distribution of collective investment undertakings**.

- Adoption by the European Commission, in the framework of the Capital Markets Union, of a **set of measures aiming to ensure better access of investors to data** on undertakings and transactions, which notably includes the following proposals:
 - European Single Access Point (**ESAP**).
 - Review of the European Long-Term Investment Funds (**ELTIFs**) Regulation.
 - Review of **Directive 2011/61/EU on Alternative Investment Fund Managers**.
 - Review of the European Markets in Financial Instruments Regulation (**MiFIR**).

Investment firms

- **Introduction of a new legal framework applicable to investment firms:**
 - Entry into force of Regulation (EU) 2019/2033 on the prudential requirements applicable to investment firms (IFR).
 - Transposition of Directive (EU) 2019/2034 on the prudential supervision of investment firms (IFD) into the Law of 5 April 1993 on the financial sector (Law of 21 July 2021).
 - Implementation of new uniform European reporting requirements for the prudential supervision and publication of a Reporting Handbook.
 - Phased-in adaptation of the regulatory framework applicable to investment firms in view of the transposition of the relevant EBA Guidelines.
- ESMA Peer review on **supervision of cross-border activities of investment firms**.

Supervision of information systems

- **Replacement of the prior authorisation obligation by a prior notification obligation** in the case of material IT outsourcing (Circular CSSF 21/785).
- Follow-up on EU work on digital resilience, including negotiations concerning the **Digital Operational Resilience Act (DORA)**.
- Joint adoption with the BCL of a testing framework for controlled cyber-attacks, called **TIBER-LU** (Threat Intelligence-based Ethical Red Teaming).
- Analysis and monitoring of the compliance of payment service providers with **PSD2** and related regulations and guidelines.

Support PFS

- Survey of support PFS activities and **classification based on risks**.
- **Recast of the prudential supervisory framework of support PFS** (enhancement of the risk-based supervisory approach, update of the governance requirements).

Payments

- **Significant growth** of the payment institution and electronic money institution sector.
- Finalisation of the authorisation process for **Central Securities Depositories (CSDs)** and implementation of the **CSDR** supervision for authorised CSDs.

Remuneration and governance

- **Continuation of the regulatory work** with respect to remuneration and governance for credit institutions and investment firms following the publication of the CRR2/CRD V and IFD/IFR packages.

Financial markets

- Implementation of the **e-Prospectus portal**.
- ESMA Peer review of the **review and approval process of prospectuses for securities**.

On-site inspections

- **144 on-site inspections** in off-site mode (cf. impact of the COVID-19 pandemic).
- **Review of the organisational processes** by means of the lean management methodology.

Financial education (Lëtzfîn initiative)

- Launch with the different stakeholders of the **senior webbanking training cycle** (*Ech kann dat och*).
- Increasing number of **public awareness-raising** initiatives (strengthening of the presence on social media, partnership with a public radio station, production of videos, etc.).

Transformation strategy CSSF 4.0

- **Digitalisation**
 - Improvement of the processes through the introduction of **new data exchange platforms** (e-Prospectus for the supervision of financial markets; eDesk AML/CFT Market Entry Form) and development of existing platforms.
 - New **scoring and analysis tools** for the processing of Big Data, as well as risk assessment.
- **Training**
 - **25,770 ongoing training sessions**, i.e. 27.53 hours per agent on average.

- **Process review, efficiency**
 - **Certification of 26 agents** as Lean Experts.
 - **67 Kaizen projects** leading to about 700 improvement actions.
 - Implementation of **Visual Management** and **Dynamic Team Meetings** tools.



I. Governance and functioning of the CSSF

1. Governing bodies and Committees

1.1. CSSF Board

The powers conferred upon the Board notably include the annual adoption of the CSSF's budget and the approval of the financial statements and of the management report of the CSSF's Executive Board, which are submitted to the Board before being presented to the Government for approval. The Board also sets the general policy as well as the annual and long-term investment programmes which are submitted to it by the Executive Board before being submitted for approval to the Minister of Finance. The Board is not competent to intervene in the CSSF's prudential supervisory matters.

CSSF Board composition

Chairwoman	Maureen Wiwinius
Members	Catherine Bourin
	Daniel Croisé
	Yasmin Gabriel
	Andy Pepin
	Camille Thommes
Secretary	Pascale Toussing
	Danielle Mander

1.2. Resolution Board

The Resolution Board is the internal executive body of the CSSF in charge of the resolution function, i.e. the duties and powers conferred on the CSSF as the resolution authority by the Law of 18 December 2015 on the failure of credit institutions and certain investment firms (BRRD Law), Regulation (EU) No 806/2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and

a Single Resolution Fund (SRM Regulation) and their implementing measures.

Resolution Board composition

Chairman	Romain Strock
Members	Bob Kieffer
	Gaston Reinesch
	Claude Wampach
	Karin Guillaume
Secretary	Nicole Lahire

1.3. Council for the Protection of Depositors and Investors

The Council for the Protection of Depositors and Investors (CPDI) is the internal executive body of the CSSF in charge of managing and administering the Fonds de garantie des dépôts Luxembourg (FGDL) and the Système d'indemnisation des investisseurs Luxembourg (SIIL). Its missions and powers are assigned to it by Part Three of the BRRD Law. Its functioning is governed by the provisions of Section 4-2 of the Law of 23 December 1998 establishing the CSSF. The CPDI is the designated authority referred to in point (18) of Article 2(1) of Directive 2014/49/EU of 16 April 2014 on deposit guarantee schemes.

Council for the Protection of Depositors and Investors composition

Chairman	Claude Wampach
Members	Bob Kieffer
	Gaston Reinesch
	Karin Guillaume
Secretary	Laurent Goergen



Left to right: Françoise Kauthen, Claude Wampach, Claude Marx, Marco Zwick, Jean-Pierre Faber

1.4. Executive Board

The senior executive authority of the CSSF is the Executive Board, composed of a Director General and four Directors. It develops the measures and takes the decisions it deems useful and necessary for the fulfilment of the CSSF’s mission and its organisation. Moreover, it sets up a five-year “target contract” with the Minister of Finance. The Executive Board is responsible for the reports and proposals it must submit to the Board and the Government as part of its responsibilities.

Executive Board composition

Director General	Claude Marx
Directors	Françoise Kauthen
	Jean-Pierre Faber
	Marco Zwick
	Claude Wampach

1.5. Consultative Committee for Prudential Regulation

The Government may seek the advice from the committee, established by the Law of 23 December 1998 creating the CSSF, concerning any draft law or grand-ducal regulation as regards regulations in the area of the supervision of the financial sector falling within the competence of the CSSF. The CSSF's Executive Board seeks the opinion of the committee on any draft CSSF regulation other than those related to statutory audits and the audit profession. Members of the committee may also seek its advice concerning the implementation or application of prudential regulations overall or for specific questions.

Consultative Committee for Prudential Regulation composition

Executive Board of the CSSF	Claude Marx (Chairman) Françoise Kauthen Jean-Pierre Faber Marco Zwick Claude Wampach
Members	Julie Becker Emmanuel Gutton Guy Hoffmann Camille Seillès Camille Thommes Vincent Thurmes
Secretary	Danielle Mander

1.6. Consultative Committee for the Audit Profession

The Government may seek advice from the committee, established by the Law of 18 December 2009 concerning the audit profession, on any draft law or grand-ducal regulation related to statutory audits and the audit profession subject to the oversight of the CSSF. The CSSF's Executive Board seeks the opinion of the committee on any draft CSSF regulation related to statutory audits and the audit profession. Members of the committee may also seek its advice concerning the implementation or application of the legislation regarding the public oversight of the audit profession overall or for specific questions.

Consultative Committee for the Audit Profession composition

Executive Board of the CSSF	Claude Marx (Chairman) Françoise Kauthen Jean-Pierre Faber Marco Zwick Claude Wampach
Members	Marc-André Bechet Christiane Chadoeuf Emmanuel Dollé Thierry Flamand Andy Pepin Gilles Pierre Daniel Ruppert Anne-Sophie Theissen Hugues Wangen
Secretary	Danielle Mander

1.7. Consultative Committee for Resolution

The Government may seek advice from the committee, established by the BRRD Law, on any draft law or grand-ducal regulation as regards regulations in the resolution field falling within the competence of the CSSF. The Resolution Board seeks an opinion of this committee on any draft CSSF regulation relating to resolution. Members of the committee may also seek its advice concerning the implementation or application of the regulations on resolution overall or for specific questions.

Consultative Committee for Resolution composition

Resolution Board	Romain Strock (Chairman)
	Karin Guillaume
	Bob Kieffer
	Gaston Reinesch
	Claude Wampach
Members	Jean-Louis Barbier
	Doris Engel
	Claude Eyschen
	Nico Picard
	Philippe Sergiel
	Vincent Thurmes
Secretary	Nicole Lahire

1.8. Permanent and ad hoc expert committees

The expert committees assist the CSSF in analysing the development of the different financial sector segments, give their advice on any issue relating to their activities and contribute to the drawing-up and interpretation of the regulations relating to the specific areas covered by the respective committees. In addition to the permanent committees, ad hoc committees are formed to examine specific subjects.

The permanent expert committees are currently the following:

- Committee Anti-Money Laundering

Permanent external members:

The Luxembourg Bankers' Association (ABBL), Association of Luxembourg Compliance Officers (ALCO), Association of the Luxembourg Fund Industry (ALFI), Association Luxembourgeoise des Professionnels du Patrimoine (ALPP), Luxembourg Association for Risk Management (ALRiM), Luxembourg Institute of Internal

Auditors (IIA), Institute of Statutory Auditors (IRE), Administration de l'enregistrement et des domaines (AED), Commissariat aux Assurances (CAA), Financial Intelligence Unit (FIU), Ministry of Finance, Ministry of Justice, Luxembourg State Prosecutor's Office (*Parquet*)

- Investment Fund Managers Committee

CSSF members:

Marco Zwick (Chairman), Pascal Berchem, Géraldine Bouvy, Michel Friob, Jean-Paul Heger, François Hentgen, Alain Hoscheid, Laurent Van Burik, Rudi Dickhoff (Secretary)

External members:

Ravi Beegun, Hermann Beythan, Stéphane Brunet, Ruth Bültmann, Olivier Carré, David Claus, Jacques Elvinger, Jean-Marc Goy, Emmanuel Gutton, Emmanuel-Frédéric Henrion, Alain Kinsch, Corinne Lamesch, Charles Muller, Virginie Ng Wing Lit-Boulot, Pierre Schleimer, Denise Voss, Pierre Weimerskirch, Serge Weyland, Thomas Seale, Julien Zimmer

- Capital Markets Committee

CSSF members:

Françoise Kauthen (Chairwoman), Marc Limpach, Paul Wiltzius (Secretary)

External members:

Julie Becker, Philippe Hoss, Nicki Kayser, Christian Kremer, Henri Wagner

- Audit Technical Committee

CSSF members:

Frédéric Tabak (Chairman), Agathe Pignon, Anne Wirard, Pedro Da Costa, Mathieu Antoine (Secretary)

External members:

Yohan Blaise, Bettina Blinn, Christelle Bousser, Olivier Lefèvre, Sylvie Testa

2. Human resources

2.1. CSSF staff

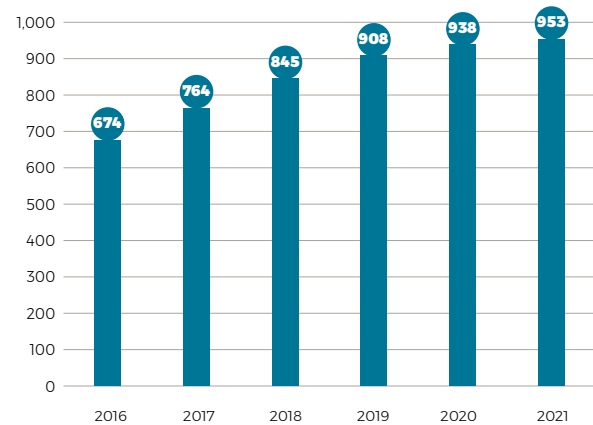
As a response to the constant increase in the missions conferred on it, the number of CSSF staff has been growing continuously since 2010. The year 2021 confirmed this trend with the recruitment of 55 new agents. In parallel, 40 agents left the CSSF during the year, which resulted in a net increase of 15 agents and bringing the CSSF staff to a total of 953 agents as at 31 December 2021 (+1.60%). This is the equivalent of 860.65 full-time jobs (+1.85 %).

The number of agents with alternate work arrangements (part-time, partial leave, parental leave or unpaid leave) amounted to 253 as at 31 December 2021, representing 26.55% of total staff.

As regards parental leave, it is worth noting that the split leave of eight hours per week, i.e. a 20% reduction in weekly working time, is very popular among CSSF agents and represented 58.49% of all granted parental leaves.

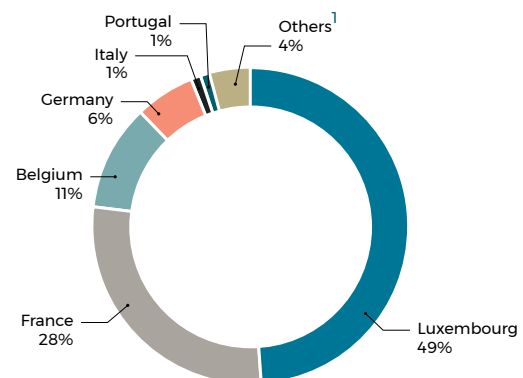
In 2021, the CSSF analysed 3,551 application forms. Recruitment efforts focussed, on the one hand, on IT and HR profiles and, on the other hand, on the strengthening of prudential supervision departments, including AML/CFT. The CSSF continued to be present at recruitment events which were mainly held remotely due to the health situation. However, recruitment interviews were held both on-site and by videoconference depending on the applicable health measures.

Movements in staff numbers



CSSF agents represent 17 nationalities, the Luxembourg nationality being the most represented with 48.68% of total staff. However, this percentage decreases from year to year.

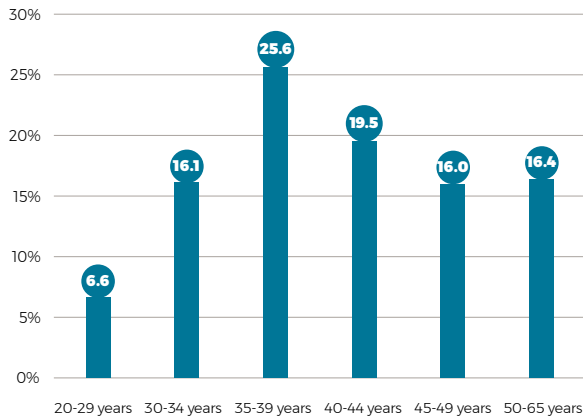
Breakdown of staff by nationality



The average age of the CSSF staff members slightly increased from 40.52 years as at 31 December 2020 to 40.93 years at the end of 2021.

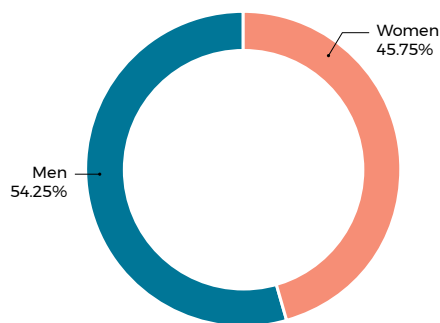
¹ Spain (0.74%), the Netherlands (0.63%), Austria (0.53%), Poland (0.42%), Romania (0.32%), Bulgaria (0.32%), Greece (0.32%), Finland (0.11%), Sweden (0.11%), Ireland (0.11%), Hungary (0.11%)

Breakdown of staff by age



Women make up 45.75% of total staff and men 54.25% as at 31 December 2021.

Breakdown of staff by gender



As regards the position of men and women in the hierarchical structure, out of a total of 146 people with hierarchical responsibility, 46 were women (31.51%) and 100 men (68.49%) as at 31 December 2021.

CSSF hierarchy structure

	Women	Men	Total
Director General	0	1	1
Directors	1	3	4
Resolution Director	0	1	1
Heads of department	10	17	27
Deputy heads of department	19	25	44
Heads of division	16	53	69
Total	46	100	146
In %	31.51%	68.49%	100.00%

2.2. Training

The CSSF has always given special attention to the training of its agents to enable them to deal with the challenges they face in the context of continuous regulatory developments and methodology changes that come with a constantly changing environment.

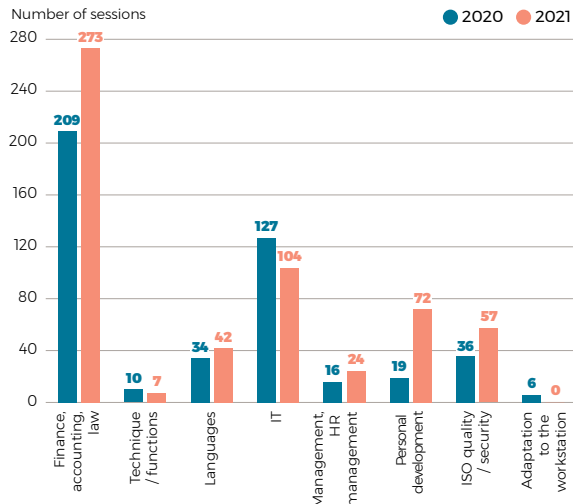
Today, the CSSF has an extremely broad training catalogue as regards functions and IT as well as management and leadership.

Despite the constraints linked to the health crisis which resulted in the cancellation of training courses abroad and the organisation of remote training or on-site training with a reduced number of participants, training began to pick up in 2021. Indeed, the CSSF agents completed a total of 25,770 continuing training hours, averaging 27.53 hours per agent (compared to 18,577 training hours, averaging 19.79 hours per agent, in 2020).

As the CSSF introduced French courses in 2021, the catalogue of language courses has been fleshed out with eight more language sessions. A rise in “personal development” training was recorded, which is due to the partial resumption of the on-site courses (reduced audience). During the year, the entire CSSF staff, moreover, has passed the first module of a compulsory internal training cycle in information security.

In the context of “Lean Expert – Green Belt” training, nine additional agents successfully completed their certification in 2021, each agent leading a Lean/Kaizen project within his/her department. Thus, a total of 26 agents have already successfully completed this certification. In addition to the initial objective to train and certify as “Lean Expert – Green Belt” 10% of the staff, there is an ambition to train the rest of the agents in the fundamentals of Lean Management, certifying White Belt, with the launch of two training modules in 2022.

Breakdown of training according to topic



2.3. Organisation chart

The organisation chart of the CSSF is available on the CSSF's website (About the CSSF > General organisation > Documentation > Publications).

3. IT infrastructure of the CSSF and CSSF 4.0 strategy

3.1. IT driving sustainable finance

In the face of a fast-changing world, the CSSF places its information systems at the service of the development of a sustainable finance. To meet this challenge, it strengthens the implementation of its CSSF 4.0 strategy. Acting in favour of the development of sustainable finance by providing a trust framework to all the stakeholders and by preventing crises and protecting consumers, enables the CSSF to be a pragmatic actor of this change. The financial protagonists of this evolution must integrate ESG in their business model, develop talents and make the digital revolution their own.

The IT of the CSSF contributes thereto via the CSSF 4.0 strategy which notably aims at improving the efficiency of the IT solutions on an ongoing basis:

- by digitalising the exchanges with the industry (more standardisation, speed, transparency and security);
- by automating and robotising analyses (humans will be involved only in case of identified deviation from the standard);
- by agglomerating and analysing the data in order to restore them qualitatively to its partners (supervised entities, government bodies, final consumers, etc.).

The "Information systems" (IT) department – support function of the CSSF departments – acts as catalyst for this transformation by mobilising and providing the necessary resources to accomplish this mission.

3.2. Importance of Data

Data address a twofold challenge:

- For entities, when developing their business model, data allow, in the medium term, shortening the time taken to process files, improving the time-to-market by inducing productivity gains while ensuring that the decision-making and the implementation of the administrative processes but also the cost of the supervision are relevant. The CSSF could, for example, take its risk-based approach further by streamlining as far as possible certain requests for less risky entities.
- For the CSSF, within the framework of its public service mission, data allow making further progress towards a real-time supervision and, thus, better preventing problems, crises or abuses.

In the long term, the CSSF has the ambition to allow enhanced visibility and transparency. It has a horizontal view of the market due to the amount of data it collects. Emphasis on the processing and the analysis will allow it to identify in real time major trends, notably in order to be able to share them with the market or to raise market awareness of the focus points.

In this context, three big sets of IT projects have been conducted over the last months:

- For over two years, the CSSF has pursued a strategy of deployment of e-portals, notably in the field of UCIs but also more recently in the field of market operators. This strategy aims at streamlining the exchanges with the entities, making them faster and more transparent.
- In 2021, in cooperation with the *réviseurs d'entreprises* (statutory auditors), a recast of the long form report was initiated, with the management letter for investment funds. Beyond the standardisation of practices, the harmonisation of sometimes disparate texts or the clarification of the requests to the industry, the purpose of this recast is to digitalise the process for greater speed, transparency and security by implementing a more direct solution to using data.
- Finally, there are the development and implementation of a centralised register of bank accounts, of which the CSSF is both operator and user.

3.3. Forthcoming challenges for the CSSF

The CSSF continues its digital transformation and will have to meet the following challenges:

- integrating the co-design steps with the market players in the process of each new project; through this type of approach, the CSSF may develop solutions that are more operational for the market and set up a better dialogue on the respective expectations;
- developing and strengthening the relations allowing the CSSF to have regular and constructive feedback as regards the solutions it makes available; the CSSF certainly does not have the same means in this respect as some big GAFA, but it must continue to invest in order to match the best market practices;
- increasing the quality of the data requested by the CSSF, which is a challenge shared by all (the CSSF and supervised entities): the higher the quality of the data received is, the shorter the processing time.

3.4. Process reviews

The CSSF continued to invest in Lean Management notwithstanding the constraints related to the COVID-19 pandemic. The review and optimisation of the processes continued with 15 new Lean/Kaizen projects and the deployment of 12 additional eWhiteboards within the CSSF teams. After completion of these projects, a significant part of the non-value-added tasks has been converted into value-added tasks to take advantage of new regulations to be applied and skills developed by the CSSF's agents. To initiate other Lean projects with the support of agents trained in Lean Management, new training offers prepared in 2021 by the Lean Management function will be launched in 2022.

4. CSSF library

The CSSF library is a reference library which has been part of the Luxembourg libraries' network bibnet.lu since 2009. It is specialised in banking and financial law as well as financial economy. It contains around 5,000 books and around 50 periodicals and update publications. The library also has a certain number of specialised electronic databases.

All the books in the library are listed in the general catalogue of the bibnet.lu network. The unified search engine of the collections of the network (www.a-z.lu) enables an easy search of the books available in the CSSF library and in all Luxembourg libraries.

The library is open to the public on prior request and by appointment, Monday through Friday from 9 a.m. to 11 a.m. and from 2 p.m. to 4 p.m.

5. Budget and annual accounts of the CSSF - 2021

5.1. CSSF budget

Budget planning is part of a multi-year planning of the CSSF's income/expenses; it thereby allows guaranteeing the financial balance of the CSSF in the long term.

The 2021 budget was approved by the Board of the CSSF on 15 December 2020 and the 2021 annual accounts related to the financial results on 28 March 2022.

The CSSF's finance division closely monitors the budget and draws up monthly reports for the Executive Board. An analysis detailing the gaps between the budgeted figures and the real figures is made at the end of every financial year.

The key factors that have affected the 2021 budget are the following:

- grant of an operating subsidy of EUR 13 million in support of the CSSF's digitalisation;
- stabilisation of the operating costs compared to 2020 thanks to the control of expenses linked to the measures associated with the management of the pandemic.

5.2. CSSF annual accounts - 2021

BALANCE SHEET AS AT 31 DECEMBER 2021

Assets	EUR
Fixed assets	59,017,570.73
Intangible fixed assets	3,626,767.82
Development coast	2,207,116.69
Payments on account and intangible assets in progress	1,419,651.13
Tangible fixed assets	55,390,802.91
Land and constructions	46,718,827.70
Other fixtures, fittings, tools and equipment	8,451,939.25
Payments on account and tangible assets in progress	220,035.96
Current assets	73,653,460.81
Debtors	5,731,924.12
Trade debtors with a residual term of up to one year	5,665,375.08
Other debtors with a residual term of up to one year	66,549.04
Cash at banks, in postal cheque accounts, cheques in hand	67,921,536.69
Prepayment and accrued income	6,314,027.42
BALANCE SHEET TOTAL (ASSETS)	138,985,058.96

Own capital and liabilities	EUR
Own capital	58,874,582.42
Profit brought forward	59,057,548.24
Result for the financial year	-182,965.82
Provisions	23,001,431.49
Other provisions	23,001,431.49
Liabilities	57,109,045.05
Amounts owed to credit institutions	52,502,682.20
with a residual term of up to one year	5,343,505.55
with a residual term of over one year	47,159,176.65
Debts on purchases and provision of services	2,244,896.03
with a residual term of up to one year	2,244,896.03
Other debts	2,361,466.82
Tax debts	213,085.49
Social security debts	1,486,272.29
Other debts with a residual term of up to one year	662,109.04
BALANCE SHEET TOTAL (LIABILITIES)	138,985,058.96

**PROFIT AND LOSS ACCOUNT AS AT
31 DECEMBER 2021**

	EUR
Net turnover	123,971,886.24
Other operating income	13,464,127.03
Raw materials and consumables and other external charges	13,899,493.87
Raw materials and consumables	427,426.47
Other external charges	13,472,067.40
Staff costs	114,986,136.21
Wages and salaries	108,651,533.72
Social security costs	3,997,538.49
relating to pensions	551,245.48
other social security costs	3,446,293.01
Other staff costs	2,337,064.00
Value adjustments	5,309,251.48
on formation expenses and tangible and intangible fixed assets	5,309,251.48
Other operating charges	3,034,770.79
Interests and other financial charges	389,326.74
Other interests and financial charges	389,326.74
Results for the financial year	-182,965.82

Financial controller : EY

II. The European dimension of the supervision of the financial sector

1. Supervision of banks

1.1. Single Supervisory Mechanism (SSM)

In 2021, the CSSF participated in 17 meetings of the SSM Supervisory Board and in 10 meetings of the Steering Committee, and contributed to around 2,362 decisions concerning specific supervised entities in the SSM. The CSSF also contributed at a technical level to the work of a large number of working groups set up by the ECB.

In 2021, the activities of the SSM focussed mainly on managing the vulnerabilities in the context of the COVID-19 pandemic. In parallel, the SSM conducted several activities to advance on its ESG and digitalisation agenda.

In this context, the SSM published a guide on climate-related and environmental risk management as well as the results of the banks' self-assessment regarding the compliance of their practices with the expectations addressed in the guide¹. In 2022, the SSM will continue this work notably by conducting a stress test on climate-related risks. As regards IT and cyber risks, the SSM continued to strengthen its use of supervisory instruments such as the annual SREP, the SSM cyber incident reporting process, on-site inspections and other targeted horizontal activities.

While national competent authorities remain responsible for the direct supervision of LSIs, the SSM also has an oversight function for these institutions where it aims to ensure that high supervisory standards are applied across the Banking Union. As of 2022, LSIs are to be separately classified based on impact and risk criteria. LSIs

considered as high-risk or high-impact will be subject to enhanced oversight by the SSM.

For a detailed description of the SSM's action, reference should be made to the SSM's annual report 2021².

1.2. Regulatory developments

1.2.1. National transposition and implementation of the banking package CRR2/CRD V

In 2021, the CSSF continued to provide technical expertise to the Ministry of Finance in relation to the bill that resulted in the Law of 20 May 2021, which transposes Directive (EU) 2019/878 (CRD V) of 20 May 2019 amending Directive 2013/36/EU (CRD IV) as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures. The Law of 20 May 2021 also implements the provisions of Regulation (EU) 2019/876 (CRR2) amending Regulation (EU) No 575/2013 (CRR) and transposes Directive (EU) 2019/879 (BRRD2) amending Directive 2014/59/EU (BRRD) as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC.

CRD V and CRR2 form part of a banking reform package proposed by the European Commission in November 2016 in order to complete the European post-crisis regulatory reforms. These measures aim at reducing the risks in the financial sector and implementing the global standards issued by the Basel Committee (Basel III) to make the financial

¹ www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202111guideonclimate-relatedandenvironmentalrisks~4b25454055.en.pdf

² www.bankingsupervision.europa.eu/press/publications/annual-report/html/ssm.ar2021~52a7d32451.en.html

system more resilient.

1.2.2. Proposal of a new banking package CRR3/CRD VI

The implementation of the Basel III standards continued in 2021 with the publication on 27 October 2021 by the European Commission of a new banking package comprising a proposal of Regulation (CRR3) amending the CRR as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor, as well as a proposal of Directive (CRD VI) amending Directive 2013/36/EU as regards supervisory powers, sanctions, third-country branches, and environmental, social and governance risks. The banking package CRR3/CRD VI also includes a separate legislative proposal to amend the CRR in the area of banking resolution.

These texts notably aim at finalising the implementation of Basel III international standards, improving the management and the measurement of environmental, social and governance risks of the banking sector, and strengthening supervisory powers and tools that are available to supervisory authorities. The new measures are meant to contribute to stimulating the post-pandemic economic recovery and foster the completion of the Banking Union and the Capital Markets Union, while maintaining the European Union's goal of climate neutrality by 2050.

2. Supervision of financial markets

At the level of the European Securities and Markets Authority (ESMA), the CSSF participates actively in the work of the Investment Management Standing Committee (IMSC) and its sub-group, the Operational Working Group on Supervisory Convergence (OWG), which are composed of experts of the national competent authorities from Member States, assisted and coordinated by agents of ESMA.

Since the outbreak of the COVID-19 pandemic, ESMA replaced the face-to-face meetings of the committees, working groups and the Board of Supervisors by conference calls in order to discuss, among others, the developments in the financial markets and investment funds impacted by the crisis.

All the publications of ESMA are available on the website www.esma.europa.eu. As regards collective investment management, the following publications and developments are worth

mentioning for 2021.

On 4 January 2021, ESMA published the memoranda of understanding (MoUs) between the supervisory authorities of the EU and the United Kingdom covering cooperation, enforcement and information exchange, which entered into force on 1 January 2021 at the end of the transition period of the withdrawal agreement between the EU and the UK. The MoUs cover the consultation, cooperation and information exchange between ESMA and the Financial Conduct Authority (FCA), as well as between every national competent authority of the EU and the FCA.

On 6 January 2021, ESMA launched a Common Supervisory Action on the supervision of costs and fees charged by investment fund managers in the EU. The purpose of this exercise is to assess compliance by UCITS with the relevant provisions relating to costs and the obligation to prevent undue costs being charged to investors. To this end, the national competent authorities take into account the *Supervisory briefing on the supervision of costs in UCITS and AIFs* published by ESMA in June 2020 (ref. ESMA34-39-1042). ESMA is expected to release the final report on this exercise in the course of 2022.

On 1 February 2021, ESMA published a final report (ref. ESMA34-39-961) presenting draft implementing technical standards (ITS) under Regulation (EU) 2019/1156 on cross-border distribution of undertakings for collective investment (CBDF Regulation). The final report includes all the relevant ITS required under the Regulation and focusses on: (i) information relating to national rules governing fund marketing requirements to be published on the websites of the national competent authorities, and (ii) the regulatory fees and charges levied by the national competent authorities for cross-border activities of fund managers. It also includes provisions on the communication of information by the national competent authorities to ESMA in order to develop and maintain a central database of AIFs and UCITS marketed cross-border.

On 3 February 2021, ESMA published a letter to the European Commission (ref. ESMA34-46-99) following its review of Regulation (EU) 2015/760 on European long-term investment funds (ELTIFs). In order to bring ELTIFs more in line with the needs of retail and professional investors, the letter presents proposals for a modification of the ELTIF Regulation. It should be noted in this

context that the review of the ELTIF Regulation (just like the review of the Directive on alternative investment fund managers) is part of the European Commission's package of legislative proposals published on 25 November 2021 in the framework of the implementation of the Capital Markets Union action plan.

On 3 February 2021 as well, the three European Supervisory Authorities (EBA, ESMA and EIOPA) submitted to the European Commission their draft regulatory technical standards (RTS) on the amendments to be brought to Regulation (EU) 1286/2014 (PRIIPs Regulation) on the key information document (KID) (ref. JC 2021 13 and JC 2020 66). The draft RTS concern the presentation and content of the KID, including methodologies for the calculation and presentation of risks, rewards and costs.

On 17 March 2021, ESMA published its first *Report on Trends, Risks and Vulnerabilities in 2021* (Ref. ESMA50-165-1524). The report notably analyses the impact of the COVID-19 pandemic on financial markets in the second half of 2020 and highlights the rising credit risks linked to a high level of corporate over-indebtedness, the risks of rising public debt and the risks related to investments in non-regulated crypto-assets. Moreover, the report examines the vulnerabilities of money market funds and the climate-related financial risks in the investment fund sector. It also includes a stress simulation exercise in the context of the COVID-19 crisis and outlines the challenges related to ESG ratings. It should be noted that on 31 March 2021, the three European Supervisory Authorities also published their first joint report on risks and vulnerabilities in the EU financial system for 2021 (ref. JC 2021 27).

On 24 March 2021, ESMA published the results of its 2020 Common Supervisory Action on UCITS liquidity risk management (ref. ESMA34-43-880). In this context, the CSSF published, on 22 June 2021, its Feedback Report which presents its main observations in the context of the Common Supervisory Action as well as the related recommendations for improvements in view of the applicable regulatory requirements.

On 26 March 2021, ESMA launched a consultation on the review of Regulation (EU) 2017/1131 on money market funds (MMF Regulation) and its implementation (ref. ESMA34-49-309), in particular in the light of the vulnerabilities observed

in these funds during the COVID-19 pandemic in March 2020. The consultation ended on 30 June 2021 and ESMA published its opinion (ref. ESMA34-49-437) on the review of the MMF Regulation on 14 February 2022.

On 14 April 2021, ESMA published its third annual statistical report on the *Performance and Costs of Retail Investment Products* (Ref. ESMA50-165-1710) which provides a comprehensive overview of the EU retail investment products (UCITS, AIFs and structured retail products) from 2010 to 2019.

On 20 May 2021, the Board of Supervisors of ESMA approved the mandate for a Brexit Peer Review which, as regards the part "fund managers", aims at reviewing relocation projects to the EU that are processed more particularly by the AFM (the Netherlands), the AMF (France), the Central Bank of Ireland and the CSSF.

On 27 May 2021, ESMA published its final report (ref. ESMA34-45-1244) defining its guidelines on marketing communications under the CBDF Regulation. These guidelines aim at clarifying the requirements according to which marketing communications of funds addressed to investors or potential investors for UCITS and AIFs must (i) be identifiable as such, (ii) describe the risks and rewards of the marketed investment in an equally prominent manner, and (iii) contain fair, clear and non-misleading information.

On 1 July 2021, ESMA submitted its first report (ref. ESMA34-45-1219) on national rules governing the marketing of investment funds under the CBDF Regulation to the European Parliament, the Council and the European Commission.

On 2 August 2021, ESMA published its *Guidelines on marketing communications under the CBDF Regulation* (ref. ESMA34-45-1272) that apply as from 2 February 2022. On 31 January 2022, the CSSF published Circular CSSF 22/795 through which it informs Luxembourg alternative investment fund managers that they are required to comply with these guidelines which it has integrated into its administrative practices and regulatory approach with a view to promoting supervisory convergence in this field at European level.

On 21 October 2021, ESMA, the EBA and EIOPA opened a call for evidence regarding the PRIIPs Regulation (ref. JC 2021 61). The input provided will feed into the technical advice of the European

Supervisory Authorities to the European Commission on the retail investment strategy and, in particular, on a review of the KID for PRIIPs.

On 22 October 2021, the three European Supervisory Authorities published their final report (ref. JC 2021 50) on draft RTS under Regulation (EU) 2019/2088 with regard to disclosures on sustainability in the financial services sector (SFDR). These draft RTS aim at establishing a single ruleset for sustainability-related disclosures under the SFDR and Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment (Taxonomy Regulation) by amending the existing RTS and providing information to the end-investors concerning the sustainable investments contributing to environmental objectives made by the financial products in order to allow them to make reasoned investment choices.

Following the Common Supervisory Actions on the supervision of costs and fees and on liquidity risk management, ESMA launched, on 20 January 2022, a third action on the valuation of UCITS and open-ended AIFs across the EU. The aim of the Action is to assess the compliance of supervised entities with the relevant valuation-related provisions in the framework of the UCITS and AIFM Directives, including in particular the valuation of less liquid assets. The assessment will be done using a common assessment framework developed by ESMA, which sets out the scope, methodology, supervisory expectations and timeline to carry out a comprehensive supervisory action in a convergent manner.

III. Macprudential supervision of the financial sector

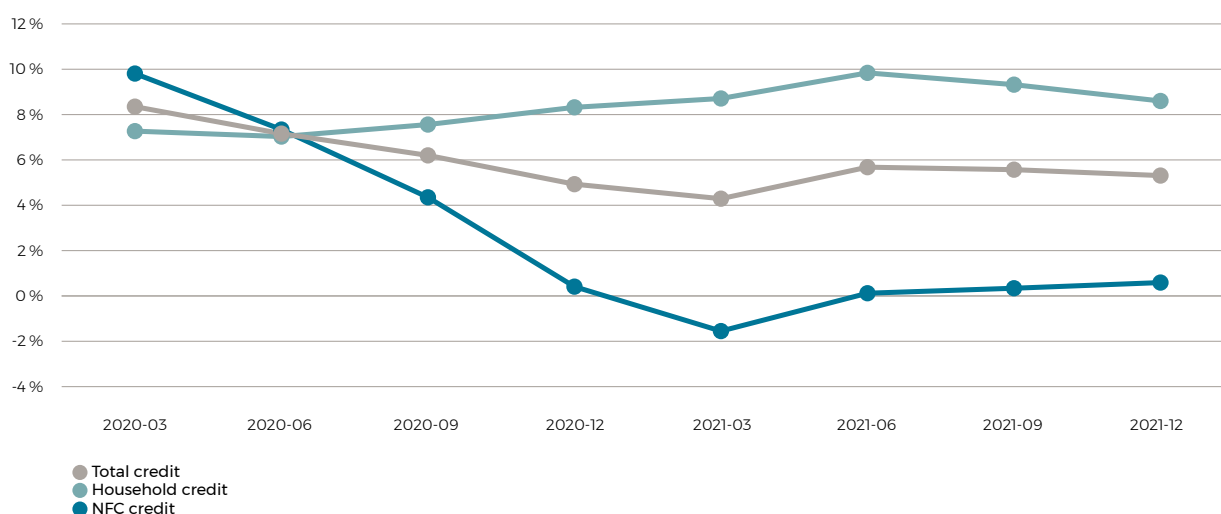
- **The threat of the pandemic to financial stability receded.**

By early 2021, the direct threat of the pandemic to financial stability had receded. The fiscal and financial support measures had effectively supported the economy and by then most support measures had expired.

The Memorandum of Understanding between Luxembourgish banks on loan moratoria that was launched in March 2020 and that had peaked with requests for moratoria at EUR 3.7 billion by June 2020 expired at end-September 2020. By the end of

2020, the total volume of active moratoria on loans had materially receded to about EUR 450 million. It continued to decline throughout 2021. In 2020, banks had built provisions on performing loans to protect themselves against potential losses from the weaknesses in the real economy. During 2021, the recovery proceeded more quickly than expected, impairments remained generally low with the exception of some specific sectors and the stock of provisions was reduced accordingly.

Credit to the non-financial private sector - year-on-year growth rate¹



¹ Source: BCL statistical reporting

Despite the relative stability in the real economy, the year 2021 was marked by a significant slowdown in credit to the non-financial corporate (NFC) sector. While NFC credit grew by about 10% on average between 2017 and 2019, it dropped to around 0% in 2021. By contrast, household credit growth which hovered around 7% between 2017 and 2019, increased to above 8% throughout 2021. This development was largely due to a buoyant real estate market (see next section). In this context, the Comité du Risque Systémique (CdRS) decided to maintain the countercyclical capital buffer at 0.5% in order to maintain resilience in the banking sector and to signal its stance with respect to the credit cycle.

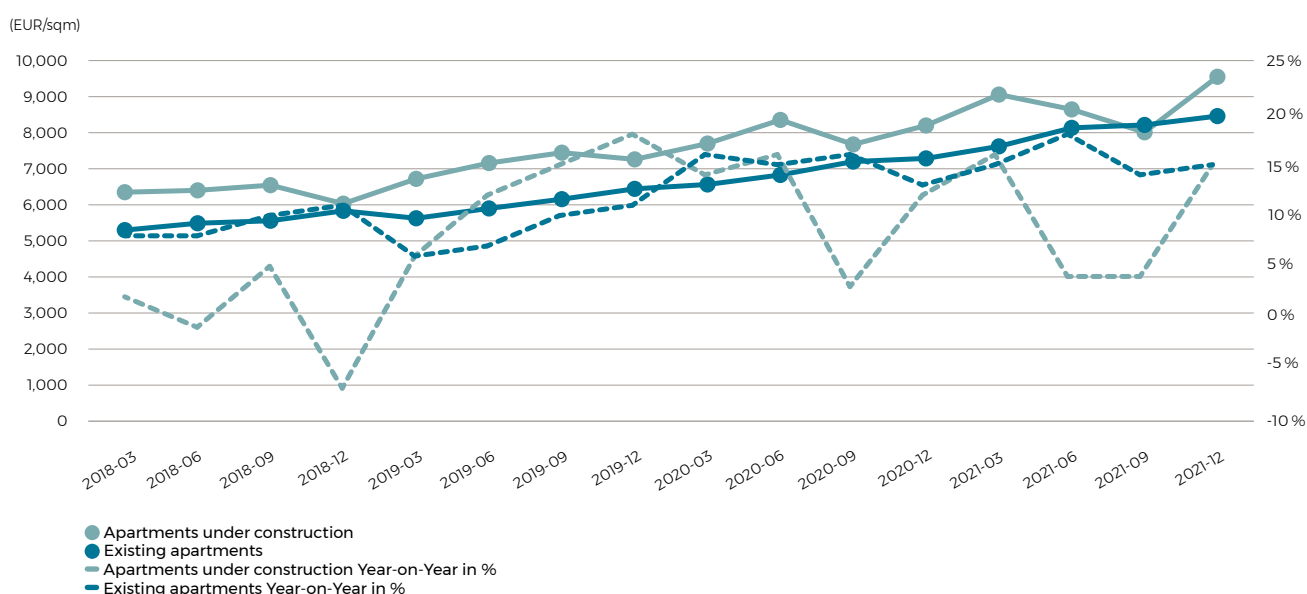
At European level, the European Systemic Risk Board (ESRB) issued recommendation ESRB/2020/15 with a view to limit the distribution of dividends during the crisis. The measure was originally implemented in mid-2020 and, given uncertainties around the path of recovery, was extended further until the third quarter of 2021. The goal was to maintain additional capital in the banking sector and thereby strengthen its resilience in the face of the pandemic. Given the quick recovery during 2021, it was decided to let the measure lapse at the end of the third quarter. The decision took into account the information collected as a result

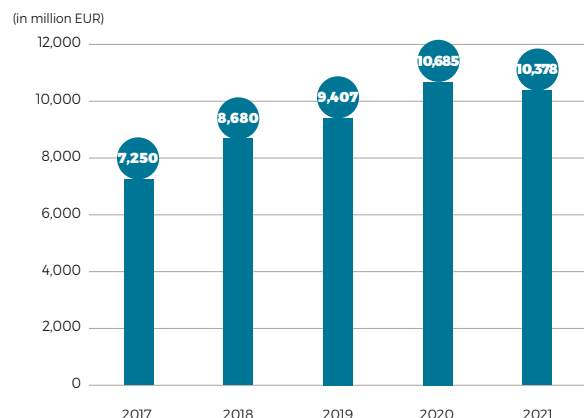
of recommendation ESRB/2020/8 by which the ESRB had encouraged Member States to monitor the effectiveness of the fiscal and other support measures introduced during the pandemic.

• Households' exposure to real estate markets remains high.

The price growth in the real estate sector remained high in 2021, similar to the developments in 2020. Also, mortgage credit remained strong although the peak at end-2020 remains unsurpassed and total issuance in 2021 has declined by about 3% compared to 2020. Total mortgage credit issuance to the residential sector amounted to EUR 10.4 billion for 2021 compared to EUR 10.7 billion in 2020.

Apartment price developments in Luxembourg²



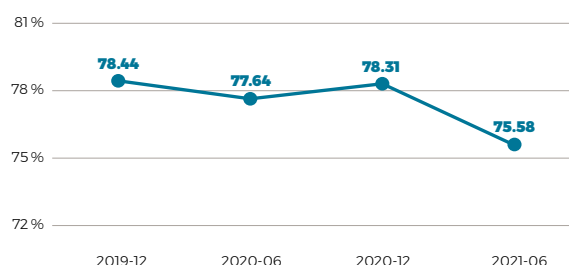
New mortgage credit issuance in Luxembourg³

Figures regarding household debt amounted to 175.3%⁴ of gross disposable income in 2020. Mortgaged debt amounted to just above 140% of disposable income in mid-2021. Hence the aggregate household balance sheet remains strongly affected by liabilities related to the real estate sector. Also, the vast majority of household assets are in real estate⁵. This composition makes households vulnerable to shocks at the macro level including interest rate shocks, shocks to employment and price shocks.

- **CdRS measures to preserve household debt sustainability were effective.**

At the end of 2020, the CdRS recommended to effectively limit the Loan-to-Value (LTV) ratio for mortgage borrowers. The CSSF followed up on this recommendation and issued the CSSF Regulation No 20-08⁶, tying the loan amount that a household can borrow for the acquisition of RRE property to its own funds' contribution, thus contributing to limit indebtedness and leverage.

Preliminary evidence from the CSSF borrower-based data survey⁷ provides an indication that the LTV measure has had a tangible and beneficial effect on borrower-based lending standards. Over the first half of 2021, the share of loans issued with an LTV above 90% has declined by 4.2%. When comparing to the situation at the end of 2020, the share of loans issued with an LTV above 90% has declined by 30%. On aggregate, the average LTV at origination which had been hovering around 78% in previous periods has declined to 75.6% in the first half of 2021.

Loan-to-Value at origination⁸

In 2021, most of the other key income-related borrower-based ratios, which were not directly targeted by the CSSF Regulation No 20-08, also stabilised somewhat. The loan-to-income (LTI) and debt-to-income (DTI) ratios measure the value of the mortgage debt and the value of the household's total debt relative to the borrower's total income. While in the first half of 2021, the average borrower had a loan that amounted to 794% of his/her annual income, this ratio stood at 811% six months before. Similarly, the average DTI stabilized from a value of 975% at end-2020 to 971% in the first six months of 2021. With regard to the distribution, about 31% of loans had an LTI above 800% in the first half of 2021 whereas 35% had a DTI above 900%⁹.

³ Source: BCL statistical reporting

⁴ Source: Eurostat ESA 2010

⁵ See "The Luxembourg Household Finance and Consumption Survey: Results from the third wave" by Chen et al. (www.bcl.lu/fr/publications/cahiers_etudes/142/BCLWP142.pdf)

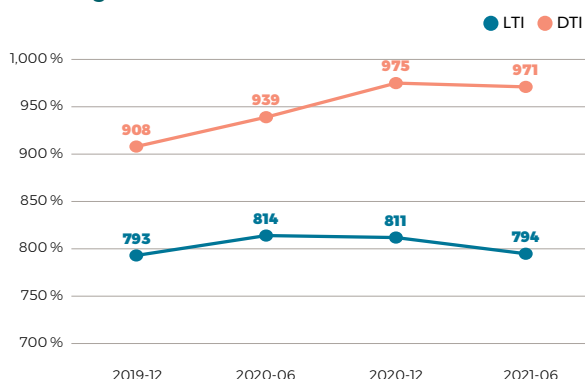
⁶ www.cssf.lu/en/Document/cssf-regulation-no-20-08-of-3-december-2020/

⁷ www.cssf.lu/en/Document/circular-cssf-18-703/

⁸ CSSF reporting under Circular CSSF 18/703

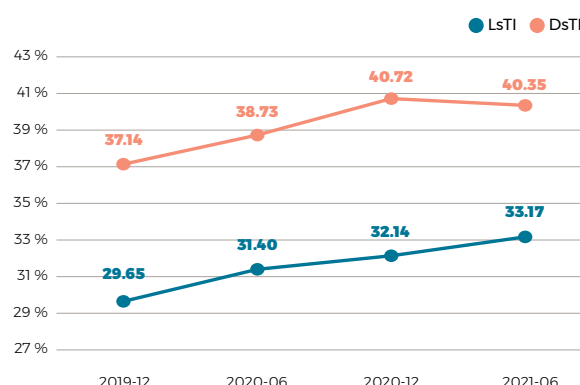
⁹ All shares are expressed as share of the total amount of loans issued in the period.

Average Loan-to-income and Debt-to-income at origination¹⁰



With respect to the DsTI (Debt service To Income), a similar stabilisation took place. During the first half of 2021, the average DsTI slightly declined from 40.7% to 40.4%. However, the LsTI (Loan service To Income) increased by a full percentage point to 33.2%. The share of new loans with an LsTI greater than 50% stood at 7% and the share of new loans with a DsTI greater than 50% stood at 17%. Thus, about one sixth of the euro amount of newly issued loans is associated with loan servicing charges that represent more than 50% of the household's income. Conversely, such households have less than half their income left to cover all living expenses other than those related to servicing their loan. Adversity, including detrimental exposure to raising interest rates, might put such households into unsustainable loan arrangements, unless the nominal level of income permits them to still make up for their living. As the proportion of such vulnerable households increases, the risk to financial stability rises.

Average Loan-service-to-income and Debt-service-to-income at origination¹¹



• **Activities in commercial real estate were affected by the pandemic.**

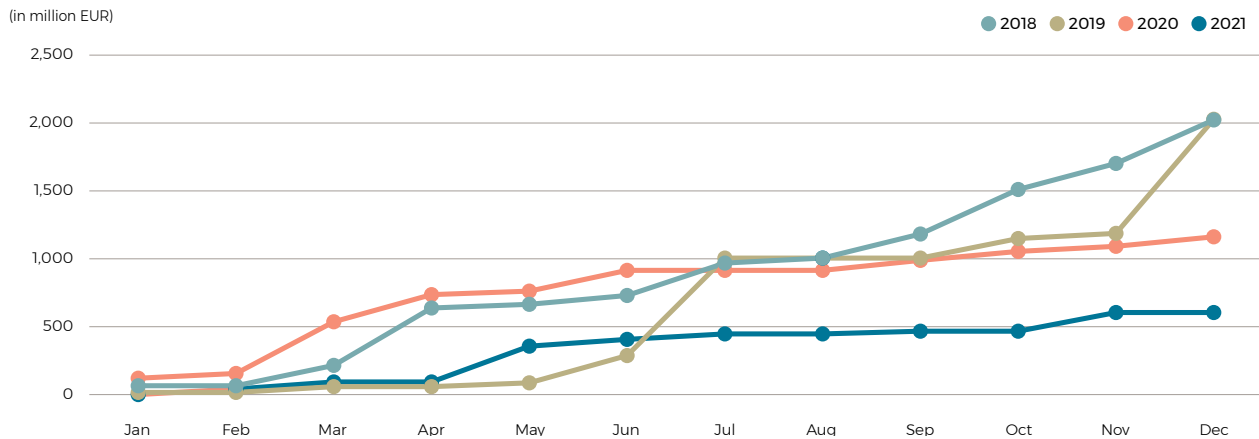
Commercial real estate markets had come under strain with the outbreak of the pandemic. While CRE market activity had been vigorous at the beginning of 2020, transactions flattened out in the second half of the year. In 2021, the market remained subdued with total transactions of just above EUR 600 million at end-2021 (comparing to around EUR 2 billion in 2018 and 2019). The sector was suffering from uncertainty relating to the pandemic but also more broadly as certain underlying trends such as more homeoffice were affecting the industry.

In order to better assess developments in CRE markets and to satisfy the requirements of ESRB recommendations ESRB/2016/14 and ESRB/2019/3 on closing real estate data gaps, the CSSF in collaboration with the CdRS and the BCL established in 2021 two new data collections on CRE exposures of the financial sector. While one of the two covers the fund industry, the other covers the exposures of the domestic banking sector.

10 CSSF reporting under Circular CSSF 18/703

11 CSSF reporting under Circular CSSF 18/703

Cumulative transaction volume of investment in CRE in Luxembourg¹²



- **At national and international level, the CSSF participated in discussions concerning the financial stability of other financial intermediaries.**

The European Systemic Risk Board (ESRB) is the authority in charge of macroprudential supervision at the European level. Its remit covers financial stability issues relating to the entire financial sector. The ESRB analyses dependencies, interconnectedness and contagion mechanisms between different sub-sectors of the economy. As a designated authority, the CSSF participates in the work of the ESRB through its committees and working groups. The ESRB issues opinions and recommendations which are followed up by the CSSF.

The ESRB developed and issued recommendations to the European Commission and ESMA on 14 February 2018 regarding liquidity risks and leverage in investment funds. In this context, the CSSF published on 23 August 2021 a statement on the entry into force of the ESMA guidance on Article 25 of Directive 2011/61/EU.

In addition, the ESRB published recommendations in the context of the COVID-19 turmoil in spring 2020 in relation to liquidity risks in investment funds (ref. ESRB/2020/4), liquidity risks related to margin calls (ref. ESRB/2020/6) and other risks resulting from the COVID-19 crisis (ref. ESRB/2020/7+8)¹³. The CSSF has actively

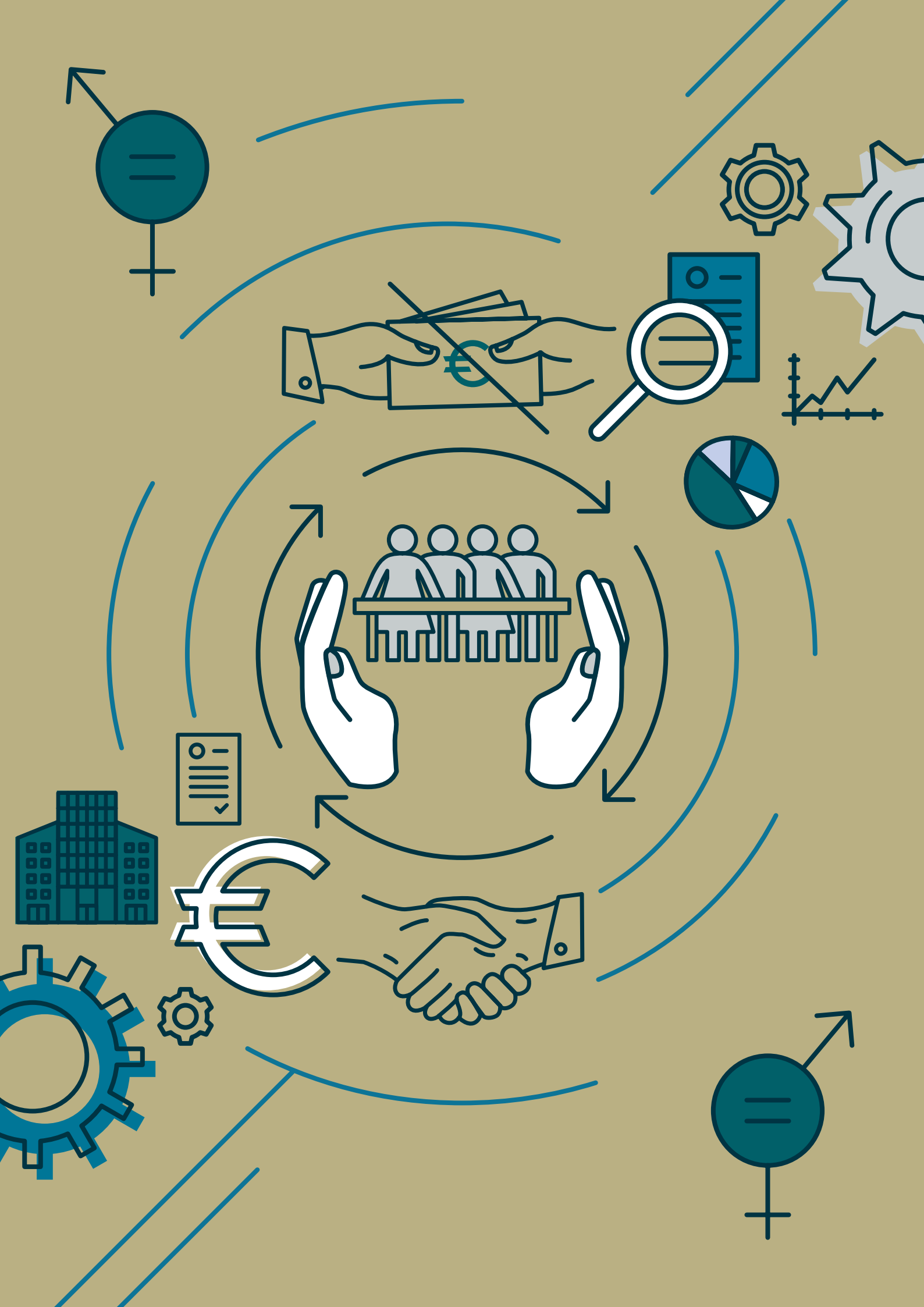
contributed to this work, particularly with regard to recommendation ESRB/2020/4 and participated in the follow-up of this topic during the second half of 2021 (ESMA published its report in November 2020, ref. ESMA 34-39-1119).

The CSSF also contributed to the development of the ESRB's recommendations on the reform of money market funds (ref. ESRB/2021/9) which were published on 2 December 2021.

As with the work at the European level, the CdRS in Luxembourg addressed the turmoil related to the COVID-19 crisis during 2021 and followed all related developments. The CSSF produced detailed reports on the situation of investment funds and related developments, contributing to a close monitoring of financial stability risks across the financial sector. In addition, the Committee also discussed developments in money market funds and particularly European and international proposals to improve their resilience.

¹² Source: Real Capital Analytics (RCA)

¹³ www.esrb.europa.eu/mppa/recommendations/html/index.en.html



IV. The international dimension of the CSSF's mission

1. Basel Committee on Banking Supervision

The CSSF participates in the work of the Basel Committee, the main sub-committees (Policy and Standards Group, Supervisory Cooperation Group and Risks and Vulnerabilities Assessment Group) and some expert groups which are particularly relevant for banking supervision in Luxembourg. These are the groups dedicated to the fight against money laundering and terrorist financing, large exposures, liquidity, or subjects covering operational aspects such as digitalisation, or complementing measures aiming at combating the effects of global warming.

In 2021, the Basel Committee continued to monitor the banking risks and vulnerabilities linked to the COVID-19 pandemic in order to coordinate the regulatory initiatives in this regard. However, the medium-term agenda was not sacrificed to COVID-19, as evidenced by the work on digitalisation and climate risks. Particularly noteworthy in this context is the publication, on 10 June 2021, of a consultative document on the prudential treatment of crypto-asset exposures, as well as the publication, on 14 April 2021, of two reports on climate-related risk factors and their measurement.

The Basel Committee's publications and information on its mission and recently restructured organisation are available on the website www.bis.org. Publications were enriched by a new category of short and targeted document, the Newsletter, the first edition of which, dated 20 September 2021, focuses on cyber risks.

2. International Organization of Securities Commissions

2.1. 46th Annual Conference of the International Organization of Securities Commissions (IOSCO)

Owing to the COVID-19 pandemic and as in the previous year, the Annual Conference of IOSCO, which was planned to take place in Lisbon, was replaced by a series of virtual meetings from 8 to 16 November 2021 between the securities and futures markets regulators, including the CSSF, and other members of the international financial community. The meetings took place under the aegis of the new secretary general of IOSCO, Mr Martin Moloney, who was appointed on 1 July 2021 for a period of three years.

Among the priority themes broached during these meetings, mention may be made of the discussions on financial stability and sustainable finance. In this context, the preparatory work in two working groups, established at the level of the IOSCO Board, is worth pointing out: (i) the Financial Stability Engagement Group (FSEG), the purpose of which is to support and strengthen IOSCO's work, in collaboration with the Financial Stability Board (FSB), on the financial stability risks in capital markets (including the response to the pandemic and the resilience of non-bank financial intermediation activities (NBFI, cf. point 2.2.1. below), and (ii) the Sustainable Finance Task Force which drafted two reports proposing recommendations on the "Sustainability-Related Practices, Policies, Procedures and Disclosure in Asset Management" and the "Environmental, Social and Governance (ESG) Ratings and Data Products Providers" and published by IOSCO in November 2021.

2.2. Work of the IOSCO Committees

2.2.1. Financial Stability Engagement Group (FSEG)

Established by IOSCO at Board level, the FSEG held six meetings in 2021 that mainly focused on the contribution to NBFI-related work.

Since the beginning of the COVID-19 pandemic, the FSEG has been intensely collaborating with the FSB Steering Committee on NBFI (FSB SCN) as regards financial stability topics. The work notably focused on liquidity risk in open-ended type investment funds and on the difficulties of certain money market funds in March/April 2020 (*Money Market Funds during the March-April Episode – Thematic Note*, OR03/2020). As regards money market funds, work continued within the FSB Technical Expert Group on MMF, gathering IOSCO members (including the CSSF) and FSB members in order to work jointly on follow-up action for money market funds in order to enhance their resilience. The FSB published relevant recommendations on 11 October 2021 and will review their implementation in the different jurisdictions in 2023.

Throughout 2021, the IOSCO and FSB members focused on liquidity risks in open-ended investment funds. They organised two stakeholder workshops in May 2021 and drafted a common report for the G20 meeting in October 2021 (not released). Work will continue in 2022 with a dedicated team of the FSB and IOSCO in order to assess the efficiency of the FSB's 2017 recommendations for investment funds and to develop potential follow-up measures.

IOSCO also worked on various reports, including a report concerning market analysis for corporate bonds which will be published in 2022.

2.2.2. Committee 5 on Investment Management

Notwithstanding the fact that the committee's work had been slowed down by the COVID-19 pandemic, IOSCO published the following documents prepared by Committee 5 in 2021.

On 24 May 2021, IOSCO published four questionnaires for industry participants on conduct risk in Leveraged Loans (LL) and Collateralised Loan Obligations (CLOs) targeting bank lenders, CLO investors, CLO managers and LL sponsors. IOSCO, through its Committee 3 on Regulation of

Market Intermediaries and its Committee 5, is thus conducting work to better understand the potential conflicts of interest and misaligned incentives among participants in the LL and CLO markets across the chain of intermediation, i.e. from credit origination to the sale to end-investors.

On 12 August 2021, IOSCO published a thematic note that examines the behaviour of ETFs during the COVID-19 induced market stresses, drawing on market data and observations gathered (and prepared by Committee 5) over the course of the first half of 2020. IOSCO continued working on ETFs in 2021 and will publish a consultation on the potential options in 2022.

The publication, on 7 September 2021, of the final report *The use of artificial intelligence and machine learning by market intermediaries and asset managers* which was drafted by Committee 3 and Committee 5 (for the asset management aspect) with the support of a Committee 5 working group chaired by the CSSF and the Monetary Authority of Singapore is also worth mentioning.

On 4 January 2022, IOSCO published the first edition of its *Investment Funds Statistics Report*. Since 2010, IOSCO has undertaken a biennial data collection exercise in the form of the *Hedge Funds Survey*. However, the scope of this latest report goes beyond hedge funds to include, for the first time, an analysis of the open-ended and closed-ended fund sectors. It is based on a comprehensive collection of supervisory data from IOSCO members. Going forward, the report will be an annual exercise that aims to facilitate the regular collection and analysis of investment funds data, enabling regulators (including the CSSF) to share information and observe trends regarding trading activities, leverage, liquidity management, markets and funding in the global investment fund sector.

In 2021, Committee 5 continued working on the analysis of index providers in order to study governance structures, potential conflicts of interest and experience of the COVID-19 crisis. Workshops were organised during the summer, supplemented by an additional survey addressed to regulators. IOSCO has planned to publish a report in this respect during the first half of 2022.

2.2.3. Assessment Committee

The CSSF participates actively in the work of the IOSCO Assessment Committee and its Implementation Task Force Sub-Committee. The Assessment Committee is responsible, among other things, for maintaining the IOSCO Principles and Methodology, which involves supporting the users of the methodology, updating the methodology and assessing the need to update the IOSCO Principles. It should be noted that a new thematic review was launched on 11 March 2021 with the aim of assessing the extent to which the IOSCO liquidity risk recommendations for investment funds issued in March 2018 have been implemented through the regulatory frameworks of the assessed jurisdictions (including Luxembourg), but also by certain market players. The final report on this review is expected in the course of 2022.

2.2.4. European Regional Committee

The CSSF is a member of the European Regional Committee, which is one of the four regional committees set up by IOSCO in order to allow the national competent authorities to exchange views on issues relating to securities regulation in the European region.

3. The MiFIR third-country national regime

In 2021, the CSSF continued analysing files submitted by third-country firms in relation with the provision of cross-border investment services by non-EU/EEA firms to clients in Luxembourg under the national third-country regime permitted under Regulation (EU) No 600/2014 (MiFIR). This regime, as well as the conditions to be met by firms to make use of it, is described at length in Circular CSSF 19/716. Circular CSSF 20/743, which complements Circular CSSF 19/716, clarifies the criteria that firms need to take into account to make their own assessment of whether their services are deemed to be provided in Luxembourg (the principle of territoriality).

In conjunction with Circular CSSF 19/716, as amended by Circular CSSF 20/743, and in particular the national third-country regime under MiFIR, the CSSF has followed up on the equivalence of the regimes of Canada, the Swiss Confederation, the United States of America, Japan, Hong Kong Special Administrative Region of the People's Republic of China and Republic of Singapore through CSSF Regulation No 20-02, as well as the equivalence of the United Kingdom of Great Britain and Northern Ireland through CSSF Regulation No 20-09.



V. Financial innovation

The year 2021 was, first and foremost, a year of transition and preparation of the financial sector, between the announcement in 2020 of the Digital Finance Strategy by the European Commission, the concrete discussion at the European level on the proposals for a Regulation (i) on Markets in Crypto-Assets (MiCA), (ii) on a Pilot Regime for market infrastructures based on distributed ledger technology, and (iii) on Digital Operational Resilience (DORA), and the implementation of these texts appearing on the horizon.

In 2021, the momentum of financial innovation in the financial sector accelerated and the CSSF was confronted with a rising number of initiatives, notably with respect to virtual assets. Indeed, virtual assets sparked a growing interest among financial industry participants. The CSSF dealt with many questions from the professionals under its supervision, including notably the investment fund industry as well as the professional associations, as regards concrete opportunities and possibilities to engage in activities involving virtual assets.

The CSSF's approach to financial innovation has always been characterised by proactivity, a supervisory approach based on risks and technological neutrality, as described in the document *Financial Innovation: a challenge and an ambition for the CSSF*¹. Given, however, the specific questions raised and the ad hoc guidance needed by many financial sector players, the CSSF considered that it was necessary to make its position on this topic known even before the entry into force of the aforementioned European texts. Thus, in its capacity as regulator in charge of the prudential supervision and the supervision of the markets with the purpose of guaranteeing the security and

soundness of the financial sector, the CSSF, with consumer protection and risk management in mind, had to engage in a proactive approach and provide certain clarifications concerning the activities involving crypto-assets.

The CSSF thus published guidelines² for the professionals concerning virtual assets in which it reaffirms its general position of openness and provides clear indications as to the fundamental and prior conditions to comply with in order to engage in activities involving virtual assets. At the same time, it stresses that every entity subject to its prudential supervision interested in pursuing such an activity bears the responsibility to carry out thorough due diligence and to carefully weigh up the associated risks and benefits with respect to the entity's existing business model and risk appetite. The professionals must therefore be sure to understand these very specific activities and be aware of the associated risks.

A virtual asset-related project must be supported by sound internal governance arrangements, which directly empower the management body of the entity to develop an operational strategy as regards the activities involving virtual assets and by taking into account all the specific risks linked to virtual assets. The management body must establish a risk strategy concerning virtual assets, including, in particular, risk appetite and the general risk-taking and risk management framework.

Moreover, for the CSSF to be able to exercise its supervision in the best possible manner, the initiators of such a project must engage proactively with the CSSF when planning any activity involving virtual assets.

¹ Financial Innovation: a challenge and an ambition for the CSSF – CSSF

² www.cssf.lu/en/2021/11/cssf-guidance-on-virtual-assets/

The professionals under the prudential supervision of the CSSF must, at any moment, bear in mind that investing in virtual assets does not suit every type of investor nor all investment objectives.

Moreover, the professionals must follow closely all the regulatory developments concerning the prudential treatment of virtual assets and the practical implications for their investments and customers. They must permanently weigh the risks and benefits against the applicable regulations and adapt their commercial and operational activities where necessary.

The aforementioned guidelines were supplemented by a set of FAQs for credit institutions³ and for UCIs⁴ in order to clarify the concrete possibilities for the different types of professionals. The FAQs will be regularly updated according to the regulatory developments (such as the entry into force of the MiCA Regulation).

It must also be noted that with the development of virtual asset-related activities, the need for consumer education rises. The CSSF will take this into account in its financial education initiatives.

In order to respond to the numerous questions of the industry as regards the risks generated by distributed ledger technologies (DLT), the CSSF published a White Paper which is further described in point 1.1. of Chapter XV “Supervision of information systems”.

The year 2021 is also the year during which the Innovation Hub of the CSSF became fully operational. Created in 2020, its main purpose is to follow and accompany the digital transition of the financial sector, which entails a certain number of both external and internal missions which are described in more detail in Chapter V of the CSSF’s Annual Report of 2020.

The interest for virtual assets and the application possibilities of DLT technologies in the financial sector impacted the work of the Innovation Hub which was solicited for a certain number of projects in this field, including notably projects of fund-raising from the public through tokenisation. The principle of tokenisation implies that a participant in such a project receives digital tokens that allocate certain rights to its owner against the owner’s participation

in the financing of the project. These rights are freely defined by the initiator and may take different forms. Therefore, it is crucial that initiators of such a project provide a detailed reasoned opinion to the CSSF to determine the different rights attached to these tokens, allowing them to be legally qualified. If these tokens qualify, for example, as virtual asset or financial instrument, the Innovation Hub, together with the different specialised departments of the CSSF, will then be able to guide the initiators with respect to the applicable regulatory frameworks.

In 2021, the Innovation Hub also dealt with projects based on more or less developed artificial intelligence. In this field, it notably launched a data collection exercise in order to measure the extent to which such solutions have been adopted within credit institutions and payment and electronic money institutions. The results of this survey will feed into future considerations of the CSSF.

As regards the projects whose purpose is to provide application tools for technological innovations allowing a supervised entity to meet regulatory, compliance and reporting requirements, the main business models viewed concerned solutions in the fields of know-your-customer, analysis/supervision of virtual asset-related transactions, onboarding of remote clients, data governance, data aggregation and provision, and creation of regulatory reports.

The Innovation Hub is also regularly contacted with respect to business models linking innovation to ESG (Environmental, Social and Governance) considerations, such as fund-raising from the public by using the blockchain technology for reforestation projects or provision of ESG data through the use of artificial intelligence. Given the rising interest of all the financial sector players in sustainable finance, it seems obvious that the number of initiatives in this field will multiply.

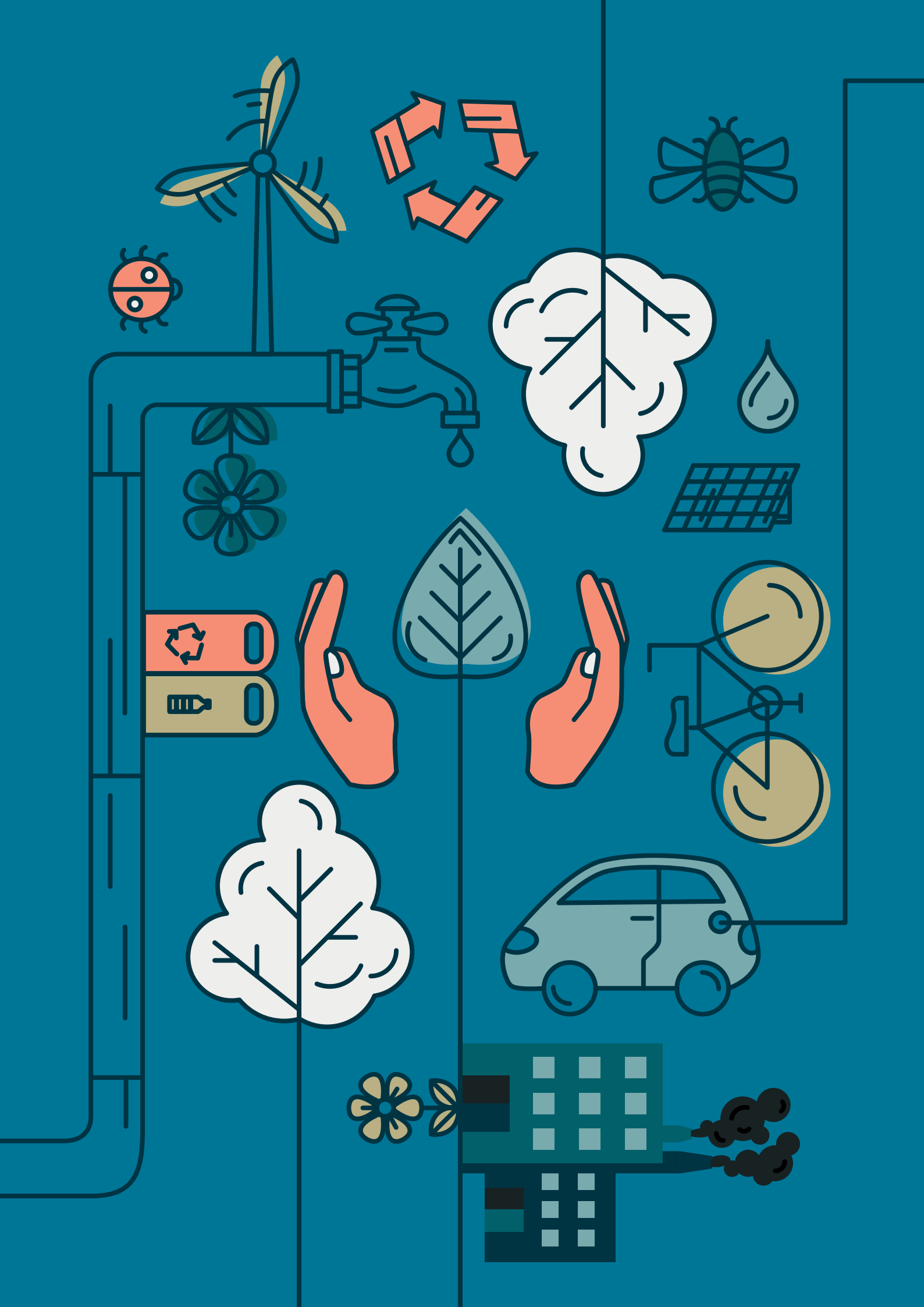
It should be mentioned at this stage that the CSSF does not intend to treat financial innovation and sustainable finance as two separate areas without link. It considers indeed that the impacts and interdependence of both areas should be taken into account for the establishment and implementation of the relating rules. The risks and benefits resulting from financial innovation must also be analysed in the light of the objectives pursued by sustainable finance. Thus, sound internal governance arrangements, necessary to support a business project involving virtual assets as mentioned above, must also take into consideration

3 www.cssf.lu/en/Document/faq-virtual-assets-credit-institutions/

4 www.cssf.lu/en/Document/faq-virtual-assets-ucis/

sustainability criteria. The same is true for any other innovative initiative of a supervised entity. In the application tools of technological innovations and certain business models referenced above, the emergence of collection, governance and ESG data analysis tools can contribute to the creation of robust sources of information necessary to realise objectives of sustainable finance. It must therefore be acknowledged that these two areas, in addition to being supplementary to each other, can also actively contribute to realising their respective objectives.

With a view, more specifically, to the emergencies relating to the realisation of climate objectives, it is a priority for the CSSF to analyse the synergies between financial technologies and environmental sustainability, notably by studying the specific interaction between both concepts and by following the research and the reflections undertaken in this field.





VI. Sustainable finance

Given the more and more imminent threats of climate changes and environmental and social issues, the European Commission is speeding up and multiplying its initiatives to promote the advent of a new European regulatory framework resulting from its 2018 Action Plan and its renewed 2021 strategy, the purpose of which is in particular to actively contribute to the reorientation of financial flows towards more sustainable finance.

As supervisory authority of the financial sector, the CSSF is aware that a massive reorientation of financial flows cannot happen overnight. The same is true for the preparation by the financial sector entities for the practical implementation of the rules governing this reorientation. Thus, given the transversal nature of the regulatory provisions whose scope is very extended, the CSSF draws the attention of all the players to the fact that the current and future rules can only be applied if preparations have been started on time.

Almost all the new European regulations and their accompanying measures (including the disclosure, benchmark and taxonomy regulations) were adopted in 2021 and the conditions of application have become very concrete in the meantime. Some texts have already entered into force or will enter into force in a near future. The entry into force of the very ambitious new regulatory framework continues requiring a lot of planning and adaptation from professionals.

The CSSF is convinced that the regulator has an important role to play not only in guiding, but also in accelerating transformation, while preserving the conditions for financial stability and ensuring that the financial services industry remains competitive. It accompanies the transition of the financial sector and its players in a proactive way, concentrating its efforts on support, regulation, risk-based supervision, awareness-raising and education.

In 2021, the CSSF took different initiatives to prepare itself and the financial sector for the impact of new European rules by encouraging the integration, in general, of ESG factors in the supervisory strategies and internal processes.

This overview presents the different publications, communications and circulars of the CSSF, in the context of the preparation and guidance of the financial sector for the advent and application of the new rules.

1. European regulation

1.1. SFDR

Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR) lays down harmonised rules for financial market participants and financial advisers relating to transparency with regard to the integration of sustainability risks and the consideration of adverse sustainability impacts in their processes and the provision of sustainability-related information with respect to financial products.

As regards the pre-contractual information required under the SFDR, the level 1 requirements entered into force on 10 March 2021 while the level 2 requirements will apply from 1 January 2023. In this context, the European Commission adopted, on 6 April 2022, draft regulatory technical standards (RTS) which are henceforth submitted to the European Parliament and to the Council for scrutiny.

Moreover, the CSSF published several communiqués¹ with respect to the SFDR which are based on statements and letters issued by the three European supervisory authorities and the European Commission. The purpose is to provide guidance as regards the implementation of the SFDR to ensure a harmonised supervision at European level and to avoid market fragmentation.

Thus, the CSSF encourages the financial market participants to use, until the date of entry into force of the RTS from 1 January 2023, the templates for sustainability-related pre-contractual and periodic information on products and the entity-level principal adverse impact statement that have been provided. The different sections of these templates must be filled in as far as possible during the transition period.

The CSSF also implemented two fast-track procedures² to facilitate the submission of updated UCITS prospectuses and amended issuing documents of alternative investment fund managers.

1.2. Taxonomy Regulation

Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment (Taxonomy Regulation) identifies the economic activities that can be considered as sustainable at environmental level according to technical screening criteria defined in the delegated acts adopted by the European Commission in accordance with this regulation. The first delegated act establishing technical screening criteria for economic activities that qualify as contributing substantially to climate change mitigation and climate change adaptation was formally adopted for scrutiny by the co-legislators on 4 June 2021 (Climate Delegated Act).

On 6 July 2021, the European Commission adopted a delegated act supplementing Article 8 of the Taxonomy Regulation for scrutiny by the co-legislators (Disclosures Delegated Act). This act specifies the content, methodology and presentation of information to be disclosed by both financial and non-financial undertakings concerning the proportion of environmentally sustainable economic activities in their business, investments or lending activities. The rules set out allow companies to translate the technical screening criteria of the Climate Delegated Act and the future Environmental Delegated Act into quantitative economic performance indicators which will be publicly disclosed.

¹ www.cssf.lu/en/2021/03/announcement-on-the-application-of-regulation-eu-2019-2088-on-the-sustainability-related-disclosures-in-the-financial-services-sector-and-related-technical-standards/ and <https://www.cssf.lu/en/2021/07/european-commission-announcements-related-to-regulation-eu-2019-2088-sfdr/>

² www.cssf.lu/en/2021/02/communication-on-the-sfdr-fast-track-procedure-and-the-deadline-of-10-march-2021/ and www.cssf.lu/en/2021/12/communication-on-regulatory-requirements-and-fast-track-procedure-in-relation-to-regulation-eu-2020-852-on-the-establishment-of-a-framework-to-facilitate-sustainable-investments-and-regulation-2019/

2. Issuers

The CSSF published a communiqué³ to proactively inform issuers on the phased-in implementation of Article 8 of the Taxonomy Regulation as from 1 January 2022. This article aims to increase transparency in the market and prevent greenwashing by providing investors with information on the environmental performance of the assets and economic activities of issuers subject to the NFRD⁴. The information requested may differ for financial or non-financial undertakings. The issuers concerned are required to disclose information on how and to what extent the undertaking's activities are associated with economic activities that qualify as environmentally sustainable under the Taxonomy Regulation.

The communiqué also reminds of the phasing-in dates for the rules, which differ for financial and non-financial undertakings, and specifies the next steps provided for by the delegated act.

In 2021, the CSSF started reviewing the non-financial 2020 reports of issuers subject to the requirements of the NFRD (as transposed into the Law of 23 July 2016) and issued a report on the evolution of non-financial information published by the issuers on environmental and climate-related topics.

A major challenge in 2022 will be the review of the new disclosure requirements for issuers under Article 8 of the Taxonomy Regulation. Moreover, the manner in which the climate change-related topics impact the financial statements of the issuers under the supervision of the CSSF (consistency between financial and non-financial statements, review of assumptions and judgements) should be reviewed.

3. Climate-related risk

Climate-related and environmental risks may translate into transition risks that could materially impair the financial situation and the operational capacity of a credit institution.

Following the publication of the *Guide for Supervisors: Integrating climate-related and environmental risks into prudential supervision* by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) in May 2020 and of the *Guide on climate-related and environmental risks* for significant banks by the ECB in November 2020, the CSSF published Circular CSSF 21/773 on the management of climate-related and environmental risks, addressed at less significant banks and branches of non-EU banks, in order to cover the entire banking sector and in line with the aforementioned publications.

The purpose of the circular is to raise credit institutions' awareness about the need to consider and assess climate-related and environmental risks and to increase awareness of members of the management body and institutions' staff about these risks. It describes how the CSSF expects credit institutions to consider and integrate climate-related and environmental risks, as drivers of existing categories of risks, into their operations. These expectations are most relevant when credit institutions implement their business strategy, governance and risk management frameworks.

The CSSF contributed actively to the working streams of the European Commission and the European supervisory authorities as well as to international working groups such as the Basel Committee and the NGFS, whose purpose is to help strengthen the global response required to meet the objectives of the Paris Agreement and to enhance the role of the financial system in risk management and mobilisation of capital for green and low-carbon investments in the broader context of environmentally sustainable development.

On the occasion of the 2021 UN Climate Change Conference (COP26), the NGFS reiterated, in its Glasgow Declaration, its willingness to contribute to the global response required to meet the objectives of the Paris Agreement. To that end, it will expand and strengthen the collective efforts towards greening the financial system.

³ www.cssf.lu/en/2021/11/issuers-phased-in-implementation-of-article-8-of-the-eu-taxonomy-regulation-as-from-1-january-2022/

⁴ Directive 2014/95/EU of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups

4. Working groups

4.1. Internal Group on Sustainable Finance

At the CSSF level, the internal sustainable finance group drafted, in 2021, an implementation plan for the SFDR requirements for the different departments concerned. Supervision with respect to SFDR for financial products (portfolio management and investment advice services) is part of the supervision carried out by the CSSF.

Moreover, to ensure specific knowledge in sustainable finance matters, the CSSF launched an internal ESG training programme for agents in charge of the supervision of entities and integrated a mandatory training module on sustainable finance in the training programme of the probationary civil servants.

4.2. International working groups

The CSSF contributes to the development and harmonisation of the requirements related to sustainable finance via its participation in the working groups of the European Commission and the European supervisory authorities, as well as in the international working groups such as the NGFS, the Basel Committee and IOSCO.

One example is ESMA's Coordination Network on Sustainability (CNS) which was founded in 2019 to facilitate ESMA's transversal work and to develop its views on cross-cutting issues. The CNS notably monitors the major European and international developments in sustainable finance and provides advice to ESMA's sectorial Standing Committees and Networks on this field.

In the context of these groups, the CSSF is involved in the work concerning the future prudential requirements for credit institutions and investment firms, the European corporate sustainability reporting directive (CSRD) and the future reporting standards developed by EFRAG, the EU Green Label for financial products, the development of green securitisation or the integration of ESG factors by the credit rating agencies, among other legislative actions planned in the renewed strategy of the European Commission regarding sustainable finance.

It should be noted that the CSSF also cooperates with other competent authorities in order to share experiences and harmonise supervisory practices.

VII. Supervision of banks

1. Banking supervision practice

1.1. Organisation of the supervision

For banks, the responsibility for direct prudential supervision in the strict sense is organised as follows.

Banks established in Luxembourg by category

Type of credit institution	Competent authority	Number	
		2020	2021
Significant institutions incorporated under Luxembourg law	ECB	31	30
Less significant institutions incorporated under Luxembourg law	CSSF	56	53
Branches of a significant institution	ECB	20	20
Branches of a less significant institution	Supervisory authority of the head office	8	8
Branches of a non-EU institution	CSSF	13	13
Total		128	124

Prudential supervision in the strict sense includes the supervision of solvency, liquidity and internal governance. It does not include the other areas of supervision that fall under the sole competence of the CSSF, namely:

- the supervision of compliance with the professional obligations regarding anti-money laundering and combating the financing of terrorism (AML/CFT);
- the supervision of regulations for consumer protection: MiFID, laws on mortgage credits and consumer credits;
- the supervision of regulations relating to market integrity: European Market Infrastructure Regulation (EMIR), Securities Financing Transactions Regulation (SFTR), Benchmark Regulation (BMR) and covered bonds directive;
- the supervision of the obligations deriving from sectoral laws on UCIs, including, in particular, the obligations related to the function of depositary bank of UCIs;
- the supervision of obligations deriving from other European or national regulations, like PSD2, Directive NIS¹ and the law on payment accounts.

¹ Directive (EU) 2016/1148 of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union

Number of agents in charge of the off-site supervision of the different areas of supervision

Area of supervision	Full-time equivalents
	2021
Prudential supervision of significant institutions	18.7
Prudential supervision of other institutions	25.6
Monitoring of compliance with the AML/CFT professional obligations	9.0
Depositary bank function	3.8
Recovery plans	2.8
Consumer/investor protection	2.0
EMIR/SFTR	1.0
Payment services	1.0
Legal and authorisations	8.3
Methodology and reporting	8.1
Risk analysis/stress testing	6.0
Internal model supervision/Market risk/Interest rate risk/Liquidity risk	8.0
IT and statistics	1.5
SSM liaison	6.0
Secretariat	4.0

As regards the institutions directly supervised by the ECB, the CSSF is a member of 25 Joint Supervisory Teams (JSTs).

Agents in charge of authorisations and validation and supervision of internal models mostly perform tasks under the responsibility of the ECB.

As regards the areas of supervision referred to above, the CSSF agents also participate actively in working groups which meet at European and international level.

1.2. Priorities with respect to prudential supervision and banking risks

The CSSF sets its priorities for the supervision of credit institutions falling within its remit on an annual basis. In order to use the resources as efficiently as possible, the determination of the supervisory priorities is based on an approach considering the main risks and major vulnerabilities of the Luxembourg banking centre (risk-based approach).

As a member of the Single Supervisory Mechanism (SSM), the CSSF takes into consideration the supervisory priorities defined by the ECB for the supervision of significant institutions as well as the relevant EBA guidelines. In 2021, in response to the high uncertainty in the macroeconomic outlook due to the COVID-19 pandemic, the priorities of the ECB concerned mainly credit risk as well as different aspects related to the banks' resilience and the repricing of financial markets.

In the same vein, the priorities of the CSSF for the prudential supervision in 2021 were the following.

1.2.1. Credit risk

As the business model of a significant portion of Luxembourg banks focusses on wealth management and custodian activities, credit risk in general and non-performing loans in particular are not considered as the main risk for the Luxembourg banking centre under normal circumstances. Nevertheless, for two years, the COVID-19 pandemic has been an unprecedented event affecting real economy and giving rise to uncertainty about the quality of the debtors severely impacted by the pandemic. Thus, in 2021, the CSSF continued to prioritise credit risk. Throughout the year, the level of non-performing debts and the banks' exposure to risky assets remained limited. State support measures, such as moratoria and state-guaranteed loans, have been gradually phased out without a significant increase in bankruptcies being recorded so far.

1.2.2. Conduct risk, including money laundering and terrorist financing

Money laundering and terrorist financing (ML/TF) are risks inherent in the activities of international financial centres such as Luxembourg. In banks, wealth management activities involving international customers are particularly exposed to them. Within the CSSF, the control of these risks has undergone significant developments over the last years with, in particular, a substantial increase in the number of staff and systems allowing an efficient fight against ML/TF. These developments continued in 2021 in a context of prevention (via targeted communications) as well as control. Similar to the previous years, in 2021, the AML/CFT on-site inspections² resulted in the CSSF imposing administrative fines on banks which did not comply with their AML/CFT professional obligations³.

1.2.3. Profitability risk

The profitability risk remains challenging for many banks in Luxembourg. These last years, this risk has continued to be mainly related to the following factors: (i) a business volume lower than the critical mass, (ii) great pressure on interest margins in the current context of a low interest rate environment, (iii) ongoing rise in operational costs linked particularly to compliance with regulatory requirements, and (iv) necessary investments in digitalisation projects.

The profitability risk is greater in small banks which often do not have the critical mass to cover their costs. Small banks have a cost-to-income ratio which is, on average, higher than that of big banks. In the future, it is probable that the number of credit institutions will continue to decrease and that non-profitable banks will leave the market or be absorbed by larger institutions. However, the means of action of the supervisor with respect to the profitability risk are limited. The CSSF mainly ensures that low profitability does not lead to excessive risk-taking by banks thereby jeopardising depositors.

1.2.4. Operational risk

The main activity of banks in wealth and asset management (depository banks and private banks) is the custody and management of their customers'

financial assets. The main risks linked to this type of banking activity are operational in nature and include, besides ML/TF risks and the other risks mentioned above, IT risk with cyber risks for instance, business continuity risk and risks related to the use of sub-depository institutions.

1.3. Supervision of significant institutions

At the end of 2021, 50 banks established in Luxembourg were directly supervised by the ECB, either because they fulfil the criteria to qualify as significant institution (SI) at solo or consolidated level, or because they were part of a group considered as significant. These banks represented 70.4% of the total assets of the Luxembourg banks.

Supervision of SIs is exercised by JSTs formed of staff members from the ECB and from the national competent authorities. At the end of 2021, the CSSF was a member of 25 JSTs for as many banking groups. Twenty-four CSSF supervisors were directly involved in this supervisory system.

SIs established in Luxembourg by category

SSM status	Number of banks	In % of assets
Significant banks, group head in Luxembourg	5	19.4%
Significant banks, subsidiaries of an SI	25	29.6%
Branches of an SI	20	21.4%
<i>Sub-total SIs</i>	<i>50</i>	<i>70.4%</i>
Total Luxembourg banking sector	124	100.0%

The SSM's supervisory approach is described in detail in the document *Guide to banking supervision*⁴.

1.4. Supervisory review and evaluation process (SREP)

Since 2015, a common SREP methodology has been applied to less significant institutions (LSIs). It is based on the EBA guidelines on SREP (EBA/GL/2018/03) and on the methodology applied to SIs by the ECB.

² For further details on this subject, please refer to point 1.2. of Chapter XXI "Financial crime".

³ For further details on this subject, please refer to point 2. of Chapter XVIII "Instruments of supervision".

⁴ www.bankingsupervision.europa.eu/ecb/pub/pdf/ssmguidetobanking supervision201411.en.pdf?404fd6cb61dbde0095c8722d5aff29cd. In this regard, see also the annual reports of the ECB published under www.ecb.europa.eu/pub/annual/html/index.en.html

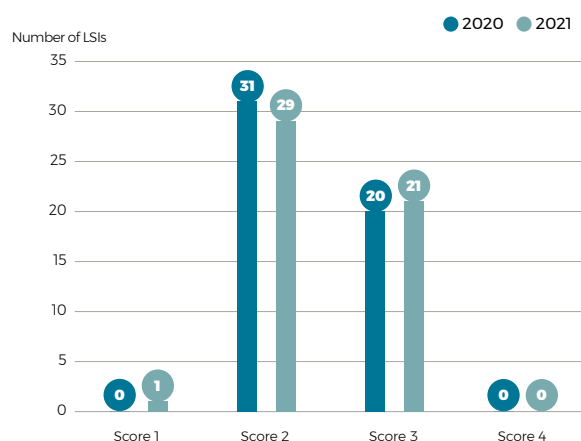
In general, the SREP is carried out annually based on a large range of quantitative and qualitative information sources, among which the prudential reporting and internal reports provided by the bank, the reports of on-site inspections, the ICAAP⁵ and the ILAAP⁶ as well as the different stress tests. The SREP is applied, in a proportionate manner, to credit institutions having regard to the nature, scale and complexity of their activities and risks and, if relevant, their situation within the group.

The COVID-19 pandemic required, in line with the EBA and the ECB, a review of the SREP priorities for credit institutions by assessing, in 2021, the impact of the crisis on the LSIs' profitability and risk profiles of business models as well as on the governance during the crisis and on the development of credit risk. These elements were assessed based on the regular exchanges and the ad hoc information provided by credit institutions to the CSSF. More specifically, the monitoring of credit risk and of specific support measures decided by the Government has been performed via a specific COVID-19 reporting.

In parallel, this crisis has led to an accelerated digitalisation of banking services which is accompanied by the ongoing assessment of and awareness-raising on IT risks.

The distribution of overall SREP scores, which vary on a scale of 1 (low risk for the viability of the institution) to 4 (high risk for the viability of the institution), remained stable from 2020 to 2021 with an average of 2.4 for all LSIs.

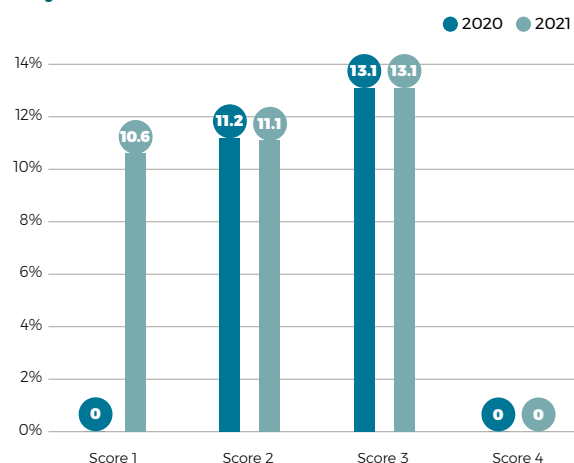
Breakdown of the SREP scores



Based on the conclusions of the SREP, the LSIs were required to implement a range of qualitative and quantitative measures, mainly in relation to capital ratios.

The applicable own funds requirements under the CRR should appropriately cover the incurred risks, including in stressed conditions. Where the results of the stress tests suggest that an institution is unable to fulfil the own funds requirements under stress, or where it is extremely sensitive to the assumed scenarios, the CSSF requires additional own funds in the form of Pillar 2 Guidance (P2G) to ensure that the institution remains appropriately capitalised.

Own funds requirements (P1+P2R+buffers+P2G) in % by SREP score



As regards all LSIs, on average, Pillar 1 (P1) and Pillar 2 (P2R) capital requirements, combined capital buffers and the non-binding Pillar 2 Guidance (P2G) cumulatively amounted to 11.91% and remained stable compared to 2020 (11.95%).

In addition to the minimum capital requirements, the CSSF took some qualitative supervisory measures in 2021. As in the past, these measures focus mostly on strategic planning by requiring, for example, restrictions for certain activities, a better management of liquidity risk and/or the strengthening of the internal governance framework.

1.5. Authorisations

The CSSF mainly intervenes in four banking-related authorisation processes.

⁵ Internal Capital Adequacy Assessment Process

⁶ Internal Liquidity Adequacy Assessment Process

1.5.1. Authorisation of new credit institutions

Since the introduction of the SSM, the ECB is exclusively competent for the authorisation of new credit institutions in all SSM countries. The competence for the authorisation of branches of non-EU credit institutions remains at national level.

However, the CSSF is still the entry point for the submission of all the authorisation files. Upon receipt of an application, the CSSF analyses it in order to verify compliance with the legal and regulatory requirements, focussing in particular on compliance with the AML/CFT legislation. In the case of Luxembourg credit institutions, the CSSF drafts a proposal, after the examination of the file, and submits it for decision to the ECB. As regards branches of non-EU credit institutions, the authorisation is granted by the CSSF.

In 2021, the CSSF worked on three authorisation requests for new credit institutions. One authorisation was granted by the ECB. As regards two files, the examination continues in 2022.

1.5.2. Authorisation for acquisitions of qualifying holdings

Like the authorisation of a new institution which requires prior examination of the file by the CSSF, the subsequent acquisitions of shareholdings that reach or exceed 10% of the capital or that give significant influence over the institution concerned (qualifying holding) are also examined by the CSSF and authorised by the ECB in accordance with the applicable legal and regulatory requirements.

In 2021, the CSSF examined 20 qualifying holding files, 12 of which led to an authorisation by the ECB during the year. Two files were withdrawn during the examination and the examination of the other files continues in 2022.

1.5.3. Authorisation of directors and managers of banks

In 2021, the CSSF dealt with 143 applications for nomination of new directors and authorised managers in Luxembourg credit institutions. The CSSF verifies the compliance of the candidates, notably in terms of good repute, professional experience and availability, with legal and regulatory requirements. Particular attention is given to compliance with the AML/CFT legislation. Following the examination of the files by the CSSF, the nominations in SIs are forwarded to the ECB for authorisation, whereas the nominations

in LSIs and third-country branches are directly authorised by the CSSF.

1.5.4. Authorisation of financial holding companies

Following the transposition of CRD V, some financial holding companies are subject to a procedure for approval or for exemption from approval. These procedures aim to clarify the role and responsibilities of these parent undertakings in accordance with the consolidated prudential requirements. Depending on the situation, the CSSF examines these files jointly with another competent authority.

In 2021, the CSSF, as consolidating supervisor, processed two applications for approval, the examination of which continues in 2022, and 10 requests for exemption from approval, five of which have been approved and the other five withdrawn or suspended during the examination. The CSSF, as competent authority of the Member State where the financial holding company is incorporated, also participated in joint decision-making with the competent authority for consolidated supervision with respect to three requests for exemption from approval, among which one file was approved, one refused and one file continues to be processed in 2022.

1.6. Depositary banks of Luxembourg-domiciled UCIs

The CSSF's supervision aims to verify that the depositaries continuously observe all the legal and regulatory provisions relating to their depositary function.

On 31 December 2021, 47 banks had an administrative authorisation to act as depositary bank of Luxembourg-domiciled UCIs. Prior to starting any depositary activities for Luxembourg-domiciled UCIs, an administrative authorisation has to be obtained from the CSSF. Any major subsequent change of the elements underlying the initial authorisation as a UCI depositary (e.g. extension of initial authorisation to other investment vehicles or major change in the operational model) must also be subject to CSSF approval. Furthermore, the banks which intend to act as depositary of AIFs investing in virtual assets must inform the CSSF thereof in due time.

In 2021, the CSSF processed six administrative authorisations to act as UCI depositary, among which three new applications, two for the extension of the

initial authorisation to other investment vehicles and one for material change in the operational model. In addition, it processed six files regarding delegation of supporting tasks in the depositary function.

1.7. MiFID

The supervision of the credit institutions' compliance with MiFID II regulations is based on:

- the annual report of compliance to be issued by the external *réviseur* (auditor), namely the long form report covering, among others, the professional obligations regarding the conduct of business rules and the arrangements concerning the protection of customer assets;
- the different reports issued by the internal control functions;
- the on-site inspections performed by the CSSF's teams on MiFID II legislation in general as well as on specific topics. During 2021, seven on-site inspections were carried out⁷.

Furthermore, a certain number of questionnaires were sent to credit institutions, mostly at ESMA's request, as regards, for example, product governance rules, fees and charges for retail banking products or cross-border provision of investment services/activities.

In addition, ESMA conducted a peer review on the supervisory approach on cross-border activities under MiFID II within the CSSF as well as within other national supervisory authorities.

1.8. EMIR

The European Market Infrastructure Regulation (EU) No 648/2012 (EMIR), as amended by Regulation (EU) 2019/834 (EMIR Refit) in 2019, aims to improve the transparency of over-the-counter derivatives markets and to reduce the risks associated with these markets.

The objective of the CSSF's work is to continually improve the accuracy, precision and reliability of the reported transactions via a data analysis module. In 2021, 37 observation letters and one injunction letter were sent to banks established in Luxembourg highlighting identified

deficiencies. In addition, based on the risk-based approach, on-site inspections are performed in order to ensure compliance with the regulatory requirements under EMIR.

1.9. Payment services

Under Directive (EU) 2015/2366 of 25 November 2015 on payment services (PSD2), transposed into national law by the Law of 20 July 2018 amending the Law of 10 November 2009 on payment services, the CSSF analysed, in 2021, the following reports submitted by credit institutions in their capacity as payment service provider:

- biannual statistical data on fraud relating to different payment means which are collected by the BCL based on the operational collaboration between the BCL and the CSSF;
- annual assessment of ICT and security risks relating to payment services;
- notifications in connection with 68 major operational or security incidents which were shared by the CSSF with the EBA and the BCL.

The CSSF also carried out random checks on the websites of credit institutions to find out whether they publish, where applicable:

- the information leaflet of the European Commission according to Article 105-4 of the Law of 10 November 2009 on payment services;
- the quarterly statistics on the availability and performance of the dedicated interface and of the interface(s) used by their payment service users according to Article 32(4) of the Regulatory Technical Standards on strong customer authentication and common and secure open standards of communication (RTS on SCA&CSC).

Furthermore, with respect to the dedicated interface, the CSSF requested a sample of account servicing payment service providers to perform a self-assessment on the identification and remediation of possible obstacles in the existing dedicated interfaces offered to third-party payment service providers in order to ensure compliance with the EBA's opinion on obstacles within the meaning of Article 32(3) of the RTS on SCA&CSC.

⁷ For further details on this subject, please refer to point 1.10. of Chapter XVIII "Instruments of supervision".

1.10. Recovery plans

Directive 2014/59/EU of 15 May 2014 (BRRD) and Directive (EU) 2019/879 of 20 May 2019 (BRRD2) establishing a framework for the recovery and resolution of credit institutions and investment firms provide authorities with instruments which should allow them to deal with failing banks and, thus, to limit their systemic impact.

Among the arrangements implemented by the BRRD and BRRD2, transposed by the Law of 18 December 2015 and the Law of 20 May 2021 respectively, is the obligation to establish a recovery plan indicating notably the measures planned by an institution to restore its viability following financial deterioration.

In 2021, the CSSF received, at national level, 37 recovery plans (including three group recovery plans from groups it supervises on a consolidated basis) of which it assessed the comprehensiveness, the quality and the general credibility. Nineteen of these plans are subject to simplified obligations for banks fulfilling certain criteria. In addition, the CSSF organised submission meetings with banks submitting their recovery plans annually so that they may present their plan.

At international level, the CSSF participated, in its capacity as host authority, in six joint decisions on group recovery plans involving less significant banks within the meaning of the SSM. It also contributed to the assessment of recovery plans of banks under the direct responsibility of the ECB. Finally, it took part in three meetings of the Crisis Management Group organised by the home authorities of systemic banking groups having a material entity in Luxembourg.

1.11. Benchmarks

Regulation (EU) 2016/1011 of 8 June 2016 (Benchmark Regulation – BMR) defines a common framework to ensure the accuracy and integrity of the indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds in the EU. The Law of 17 April 2018 has designated the CSSF as the Luxembourg competent authority to ensure compliance with the BMR by the supervised entities governed by this regulation.

The Banking Departments are in charge of supervising the contributing banks and the LSIs

which are using benchmarks. With regard to users, 2021 was marked by the imminent cessation of the LIBOR and EONIA benchmarks. In this context, the CSSF sent 66 letters to LSIs in order to ensure a smooth transition to alternative rates. At international level, the CSSF contributed to the analyses on the same topic published by the EBA, the Financial Stability Board (FSB) and the Basel Committee.

As far as the single local bank acting as contributor is concerned, the role taken by this bank also requires the CSSF to participate in the Euribor college which consists of all national competent authorities of banks contributing to Euribor.

1.12. Cooperation in banking supervision

In 2021, the CSSF organised three supervisory colleges concerning banks for which it exercised the ultimate consolidated prudential supervision at European level. Due to the COVID-19 pandemic, these colleges did not meet face-to-face.

As a large number of banking groups is present in the Luxembourg financial sector through subsidiaries, the CSSF regularly participates, as host supervisor, in colleges, including colleges organised by supervisory authorities from non-EEA countries. In addition to the colleges, periodical bilateral meetings take place between the CSSF and the Swiss supervisory authority, the FINMA. Cooperation with the Chinese and US authorities is mainly done via the participation in supervisory colleges organised by these authorities.

One of the main objectives of the colleges is the performance of a Joint Risk Assessment based on which the colleges assess the capital adequacy of the banking groups and their subsidiaries with regard to the incurred risks, as well as their liquidity situation. Following this assessment, they make a Joint Decision on Capital and Liquidity (for EEA colleges) which is served on the banking groups and their subsidiaries. Moreover, the purpose of the colleges is to promote the exchange of information between authorities, including information on the situation of ML/TF compliance risks.

In accordance with the AML/CFT College Guidelines of the EBA, the CSSF performed a mapping of the AML/CFT colleges it had to put in place as the lead authority before 10 January 2022. In 2021, the CSSF thus organised 19 colleges. Furthermore, the CSSF participated in 31 colleges organised by supervisory

authorities of other EU Member States, covering around 30 banking groups established in Luxembourg.

The CSSF closely collaborates with the foreign supervisory authorities within the context of the consultations provided for by the European directives and in all circumstances in which cooperation is needed.

Finally, the CSSF cooperates with the national judicial and law enforcement authorities as well as with the Commissariat aux Assurances in accordance with Article 2 of the Law of 23 December 1998 establishing a financial sector supervisory commission (Commission de surveillance du secteur financier) and Articles 9-1 and 9-1a of the Law of 12 November 2004 on the fight against money laundering and terrorist financing. Moreover, the CSSF consults the intelligence unit in the context of the procedures for authorisation and qualifying holdings, if deemed necessary.

1.13. Stress testing

Stress tests are exercises aiming to identify sources of risks and vulnerabilities which banks may face and to determine their impact on banks.

The CSSF is involved in stress tests at three levels:

- At EU level, the CSSF assists the EBA in the development of the methodology of its EU-wide stress test relating to solvency which is carried out every two years.
- At SSM level, the CSSF assists the ECB in its annual stress test exercise, in the development of a methodology and during the performance of the stress test. During the 2021 EU-wide stress test coordinated by the EBA (which replaced the 2020 exercise postponed by one year due to the COVID-19 pandemic), the ECB examined 38 significant banks of the euro area which represented around 70% of the total euro area banking assets. The EBA published the results for the individual banks at the end of July 2021. In parallel, the ECB conducted its own stress test for 51 banks it supervises directly but which were not included in the EBA-led stress test sample. The CSSF's assistance consisted of its technical expertise in relation to the five significant banks having their group head in Luxembourg.

- At local level, the CSSF carries out solvency tests and other stress tests or sensitivity analyses on an annual or half-yearly basis. The aggregated results of these analyses are regularly presented to international organisations such as the IMF or the OECD which frequently request the CSSF's point of view on the stability of the Luxembourg banking sector.

The results of the solvency tests are a source of information to (i) compare, judge and, where appropriate, challenge the results of the stress tests carried out internally by banks in the framework of their ICAAP, (ii) help assess the solvency risk of the institutions, and (iii) help assess the situation and future capital requirements of a bank as a preventive approach. The results of the stress tests form a starting point for the determination of the capital levels under Pillar 2 (Pillar 2 Guidance – P2G) for LSIs.

1.14. Intra-group credit risks

One of the main risks monitored by the CSSF is related to the significant exposures of Luxembourg banks to banking entities of their group.

The Luxembourg banking sector is primarily composed of subsidiaries and branches of large international banking groups which carry out activities of private banking and/or custody of financial assets in Luxembourg. These activities generate excess liquidity which is either maintained in Luxembourg as liquidity buffer (often deposited with the BCL) or lent to the parent company.

In total, intra-group exposures represented 30% of the assets of the Luxembourg banking sector at the end of 2021. In line with the European rules in this regard and Article 56-1 of the Law of 5 April 1993 on the financial sector, these exposures often represent a multiple of a bank's own funds. In these cases, the CSSF follows and controls compliance with the legal conditions provided for in the above-mentioned Article 56-1.

2. Developments in the banking sector in 2021

2.1. Development in the number of credit institutions

With 124 entities authorised at the end of the financial year 2021, the number of banks decreased by four entities as compared to 31 December 2020.

Four banks started their activities in 2021.

Denomination	Start date of the activity	Type of activities
Alpha Bank S.A., Luxembourg Branch	16 April 2021	Corporate finance
China Merchants Bank (Europe) S.A.	28 May 2021	Corporate finance
Itaú BBA Europe, S.A. - Luxembourg Branch	16 October 2021	Corporate finance
Allfunds Bank S.A.U., Luxembourg Branch	15 December 2021	Depository bank

Eight banks were deregistered from the official list during 2021.

Denomination	Date of deregistration	Reason
Banque Hapoalim (Luxembourg) S.A.	13 January 2021	Cessation of activities
Hapoalim (Switzerland) Ltd, Luxembourg Branch	22 February 2021	Cessation of activities
Joh. Berenberg, Gossler & Co. KG, Niederlassung Luxemburg	28 February 2021	Cessation of activities
Alpha Bank A.E., Luxembourg Branch	16 April 2021	Transfer of activities to Alpha S.A., Luxembourg Branch
Öhman Bank S.A.	7 July 2021	Cessation of activities
HCOB Securities S.A.	18 October 2021	Cessation of activities
Catella Bank S.A.	17 November 2021	Cessation of activities
Allfunds Bank International S.A.	15 December 2021	Cross-border merger with its parent undertaking Allfunds Bank S.A.U. and continuation of business in a branch

2.2. Development in banking employment

As at 31 December 2021, the number of employees in Luxembourg credit institutions⁸ amounted to 25,966 compared to 26,106 as at 31 December 2020, representing a decrease of 140 people on an annual basis. In 48% of banks, employment increased whereas in 35% of them it decreased.

Compared to the figures of end December 2020, the distribution of employment according to men and women remains almost unchanged with 55% men and 45% women.

2.3. Development of balance sheet and off-balance sheet items

The 11.95% increase of the total balance sheet reaching EUR 951.7 billion is a continuation of the upward trend observed since 2017. In 2021, it has its origin once again from the increase in deposits from customers. However, against the backdrop of COVID-19, the increase in deposits comes not only from investment funds but also from corporates and households.

77% of the financial centre's banks, representing 81% of the balance sheet total at the end of 2021, recorded a rise in assets.

With respect to assets, it is worth mentioning the substantial rise of assets held with central banks (+32.72%). Among the increase in loans and advances to customers (+10.62%), loans and advances to non-financial corporations rose after the decrease in 2020 due to economic uncertainties in relation to the COVID-19 pandemic.

⁸ Figures at the lowest level of consolidation available

Aggregate balance sheet total - in million EUR⁹

ASSETS	2020	2021¹⁰	Variation
Loans and advances to central banks	150,677	199,985	32.72%
Loans and advances to central governments	4,745	3,912	-17.56%
Loans and advances to credit institutions	306,296	334,254	9.13%
Loans and advances to customers	229,784	254,192	10.62%
Fixed-income transferable securities	128,557	129,419	0.67%
Variable-yield transferable securities	6,446	7,379	14.47%
Fixed assets and other assets	23,610	22,568	-4.41%
Total	850,116	951,708	11.95%

LIABILITIES	2020	2021¹¹	Variation
Amounts owed to central banks	9,204	15,899	72.74%
Amounts owed to credit institutions	269,967	291,693	8.05%
Amounts owed to customers	424,209	494,304	16.52%
Amounts owed represented by securities	58,574	59,993	2.42%
Liabilities (other than deposits) held for trading	7,706	6,088	-20.99%
Provisions	2,906	2,942	1.24%
Subordinated liabilities	2,125	3,886	82.86%
Other liabilities	15,447	13,682	-11.43%
Capital and reserves	59,978	63,222	5.41%
Total	850,116	951,708	11.95%

As regards off-balance sheet exposures, the Luxembourg banking sector had loan commitments and financial guarantees amounting to EUR 165.3 billion as at 31 December 2021 (+4.31% over a year).

⁹ Figures at the lowest level of consolidation available

¹⁰ Preliminary figures

¹¹ Preliminary figures

2.4. Development in the profit and loss account

Net profit for the year 2021 stood at EUR 4,044 million, i.e. an increase of 30.8% compared to the financial year 2020. This increase is largely due to higher net fee and commission income and higher other net income but also to the decrease in risk provisioning. Result before provisions ended the year up by 10.7%. It should be noted that 81% of the banks ended the year 2021 with a positive net result (79% in 2020).

Net interest income declined by 3.4% year-on-year. The decrease of this item was shared by 61% of the credit institutions, representing 52% of the aggregated net interest income of the financial centre. This drop was mainly due to reduced intermediation margins.

Net fee and commission income, which mainly results from asset management activities on behalf of private and institutional customers, including the

services provided to investment funds, grew by 17.7%. This growth can be explained by the increase in the amount of deposited assets which led to a rise in the commissions on custody of assets. The rise of net fee and commission income was shared by 72% of Luxembourg banks.

The development of other net income (+35.8%) continued to be marked by a strong volatility dominated by non-recurring results for a limited number of banks.

General expenses continued their upward trend of the last years with a rise of 10.6% year-on-year (+7.7% in 2020). This growth in general expenses, which concerns both general administrative expenses (+15.3%) and staff costs (+4.6%), was registered by 79% of the banks.

It should be noted that an important share of all general expenses was due to continuously increasing costs of regulation. The contributions to the Single

Development in the profit and loss account – in million EUR¹²

	2020	Relative share	2021 ¹³	Relative share	Variation	
					in volume	in %
Net interest income	5,061	44%	4,890	38%	-171	-3.4%
Net fee and commission income	5,038	44%	5,931	47%	893	17.7%
Other net income	1,401	12%	1,903	15%	502	35.8%
Banking income	11,501	100%	12,724	100%	1,223	10.6%
General expenses	6,893	60%	7,623	60%	730	10.6%
<i>of which: staff costs</i>	<i>3,016</i>	<i>26%</i>	<i>3,155</i>	<i>25%</i>	<i>139</i>	<i>4.6%</i>
<i>of which: general administrative expenses</i>	<i>3,876</i>	<i>34%</i>	<i>4,467</i>	<i>35%</i>	<i>591</i>	<i>15.3%</i>
Result before provisions	4,608	40%	5,101	40%	493	10.7%
Net creation of provisions	922	8%	254	2%	-668	-72.4%
Taxes	595	5%	803	6%	208	34.9%
Net result for the year	3,091	27%	4,044	32%	953	30.8%

¹² Figures at the lowest level of consolidation available

¹³ Preliminary figures

Resolution Fund (SRF) of EUR 245 million in 2021 represent the lion's share of direct regulatory costs.

Net creation of provisions decreased by 72.4%. This reduction is the consequence of existing provisions on still performing exposures set up in 2020 due to the anticipated increase in credit risks related to the COVID-19 pandemic.

The cost-to-income ratio remained stable year-on-year at 60%. Moreover, 20 banks (21 at the end of 2020) recorded a cost-to-income ratio higher than 100%. They represent 7% (5% at the end of 2020) of the balance sheet total of the financial centre and 8% (9% at the end of 2020) of the employment in the banking sector.

Long-term development of profit and loss account - in million EUR¹⁴

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 ¹⁵
Net interest income	4,761	4,960	4,671	4,281	4,066	4,496	4,717	4,886	4,994	5,384	5,061	4,890
Net fee and commission income	3,587	3,832	3,727	3,962	4,101	4,720	4,602	4,706	4,975	5,132	5,038	5,931
Other net income	1,201	76	1,401	2,213	2,217	2,262	3,038	2,166	1,841	1,550	1,401	1,903
Banking income	9,549	8,868	9,799	10,456	10,384	11,478	12,357	11,758	11,809	12,067	11,501	12,724
General expenses	4,609	4,789	4,994	5,198	5,005	5,942	6,040	6,253	6,737	7,285	6,893	7,623
<i>of which: staff costs</i>	<i>2,497</i>	<i>2,535</i>	<i>2,622</i>	<i>2,745</i>	<i>2,624</i>	<i>3,065</i>	<i>3,109</i>	<i>3,161</i>	<i>3,265</i>	<i>3,545</i>	<i>3,016</i>	<i>3,155</i>
<i>of which: general administrative expenses</i>	<i>2,112</i>	<i>2,253</i>	<i>2,372</i>	<i>2,453</i>	<i>2,381</i>	<i>2,878</i>	<i>2,931</i>	<i>3,092</i>	<i>3,473</i>	<i>3,740</i>	<i>3,876</i>	<i>4,467</i>
Result before provisions	4,940	4,080	4,805	5,258	5,379	5,535	6,317	5,505	5,071	4,782	4,608	5,101
Net creation of provisions	498	1,572	765	865	327	577	757	956	712	441	922	254
Taxes	625	18	503	762	799	85	820	827	714	637	595	803
Net result for the year	3,817	2,490	3,538	3,631	4,253	4,874	4,740	3,721	3,645	3,703	3,091	4,044

¹⁴ Figures at the lowest level of consolidation available. Since 2021, the scope of the data of the Luxembourg banking sector has been based on the banks active at the reference period, excluding their foreign branches and their subsidiaries, in order to better represent the level of national activity. Consequently, the December 2020 figures have been restated to take account of the change in scope.

¹⁵ Preliminary figures

2.5. Solvency and liquidity ratios

The banks of the Luxembourg financial centre continued to register high prudential ratios. The total average capital ratio of the banking sector slightly decreased from 24.6% to 24.3% during 2021. This decrease is due to the rise in the total risk exposure amount at a few banks reflecting the balance sheet growth.

Elements of own funds¹⁶

	2020		2021	
	Amount (in million EUR)	Relative share	Amount (in million EUR)	Relative share
Own funds	55,397.4	100.0%	56,811.7	100.0%
Common Equity Tier 1 capital (CET1)	49,503.3	89.4%	50,275.2	88.5%
Additional Tier 1 capital (AT1)	1,483.0	2.7%	1,622.7	2.9%
Tier 2 capital (T2)	4,411.1	8.0%	4,913.8	8.6%

Risk-weighted exposure amounts

	2020		2021	
	Amount (in million EUR)	Relative share	Amount (in million EUR)	Relative share
Total risk exposure amount	225,685.9	100.0%	234,287.5	100.0%
Risk-weighted exposure amounts for credit risk, counterparty risk and dilution risk and free deliveries	198,705.8	88.0%	207,964.7	88.8%
<i>of which: Standardised Approach (STA)</i>	<i>143,715.4</i>	<i>63.7%</i>	<i>150,956.5</i>	<i>64.4%</i>
<i>of which: Internal ratings-based approach (IRB)</i>	<i>51,920.6</i>	<i>23.0%</i>	<i>53,394.4</i>	<i>22.8%</i>
Risk-weighted exposure amounts for operational risk	22,415.3	9.9%	21,103.5	9.0%
Capital ratio	24.55%		24.25%	
Common Equity Tier 1 capital ratio (CET1 ratio)	21.93%		21.46%	

¹⁶ Figures at the lowest level of consolidation available

- **Liquidity Coverage Requirement (LCR)**

As at 31 December 2021, the weighted average of the LCR of Luxembourg banks and Luxembourg branches of banks having their registered office outside the EU amounted to 214% as compared to 222% at the end of December 2020.

At aggregate level, there was a significant concentration of the liquid assets buffer within Level 1 assets. The short-term deposits made with the BCL still represented the major part of Luxembourg banks' liquid assets.

- **Net Stable Funding Ratio (NSFR)**

The weighted average of the LCR of Luxembourg banks and Luxembourg branches of banks having their registered office outside the EU amounted to 176% in December 2021, as compared to 118% at the end of December 2020 (calculated in 2020 with the proxy tool developed by the EBA).

- **Asset encumbrance ratio**

Luxembourg banks have a low asset encumbrance ratio. As at 31 December 2021, this ratio amounted to 7.91% (8.58% in 2020) on weighted and aggregate basis, showing that most of the Luxembourg banks' assets were unencumbered. Only nine banks had an asset encumbrance ratio exceeding 15% due to their business model. This was especially the case of banks issuing covered bonds. As a consequence, these banks were subject to additional reporting requirements.

VIII. Supervision of PFS

1. Investment firms

1.1. New regulatory provisions applicable to investment firms

New regulatory provisions applicable to investment firms entered into force following:

- the publication of the Law of 21 July 2021 amending the Law of 5 April 1993 on the financial sector in order to transpose, among others, Directive (EU) 2019/2034 of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU (the “IFD”); and
- the entry into force of Regulation (EU) 2019/2033 of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014 (the “IFR”) on 26 June 2021.

The IFD and the IFR together constitute the “IFD package” whose aim is to subject investment firms to a dedicated framework, harmonised at European level, with respect to the prudential supervision which is better suited notably in relation to the nature of the activities of investment firms as well as to their risk level.

The IFD package introduces a new classification methodology, defines new prudential requirements as well as a new reporting framework and reforms certain rules regarding governance.

Investment firms are thus categorised into three different classes, namely “class 1”, “class 2” and “class 3” investment firms. Given that “class 1” investment firms, which are considered as systemic and/or are assimilated to credit institutions due to their size or their activities, are subject to banking regulations, the IFD package applies to “class 2” and “class 3” investment firms. While “class 2” investment firms are entirely subject to the new regime, “class 3” investment firms¹ benefit from a simplified supervisory framework in accordance with the principle of proportionality.

In the context of the new own funds requirements and in order to facilitate a phased-in compliance of investment firms in this respect, the IFD package defines rules intended to mitigate the effects of an increase in own funds requirements during a five-year period as from 26 June 2021.

The IFD package introduces a European prudential reporting framework to report information regarding the level, composition, requirements and calculation of the requirements of own funds, the level of activity, the concentration risk and the liquidity requirements. With reference to the principle of proportionality, “class 2” investment firms are subject to a quarterly IFR reporting as from 30 September 2021, whereas “class 3” investment firms are subject to an annual IFR reporting as from 31 December 2021.

Specific requirements relating to governance and transparency are also detailed in the IFD package.

¹ These are small and non-interconnected investment firms defined in Article 12 of the IFR.

1.2. Development of investment firms in 2021

1.2.1. Development in the number of investment firms

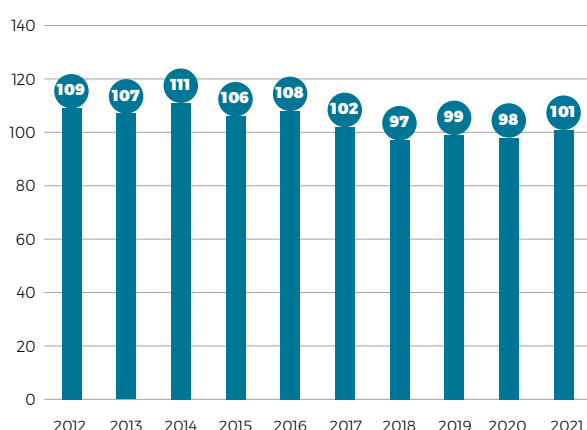
During the year 2021, the number of investment firms rose to 101 entities (against 98 entities at the end of 2020).

Six entities were authorised as investment firms in 2021, against four new entities in 2020.

Three entities gave up their investment firm status during the year (five in 2020) for the following reasons:

- change or cessation of activities so that the entity no longer required an authorisation as investment firm, as it no longer fell within the scope of the Law of 5 April 1993 on the financial sector (one entity);
- change into specialised PFS (one entity);
- merger by acquisition by another investment firm (one entity).

Development in the number of investment firms



Among the investment firms, portfolio management was the most widespread activity with 83 entities authorised as at 31 December 2021 (idem at the end of 2020) to provide this investment service referred to in Annex II, Section A, point (4) of the Law of 5 April 1993 on the financial sector. It is noteworthy however that only one of the six new entities registered on the official list has been authorised to provide the portfolio management investment service.

In the context of the entry into force of the new IFD/IFR, one-third of the entities have been categorised as “class 2” investment firms and two-thirds as “class 3” investment firms. No “class 1” investment firm has been identified.

1.2.2. Development in employment

Similarly to the preceding year, the total number of staff of investment firms increased in 2021, progressing from 1,776 people as at 31 December 2020 to 1,903 people at the end of December 2021.

The increase in staff related to newly authorised investment firms as well as the upward variations observed in a certain number of entities allowed counteracting the downward trend in the total staff figures notably due to the deregistration of some investment firms from the official list and the staff reduction at some investment firms.

Employment in investment firms

Year	Number of investment firms	Total staff
2012	109	2,662
2013	107	2,560
2014	111	2,390
2015	106	2,278
2016	108	2,285
2017	102	2,271
2018	97	2,115
2019	99	1,688
2020	98	1,776
2021	101	1,903

It should also be noted that, as at 31 December 2021, about half of the investment firms had 10 or fewer employees.

1.2.3. Development of balance sheets and net results

The provisional balance sheet total of all investment firms established in Luxembourg amounted to EUR 1,087 million² as at 31 December 2021, against EUR 1,259 million as at 31 December 2020, i.e. a decrease of 13.67%. This decrease is partly attributable to one investment firm which reduced its activities as part of its intention to give up soon its investment firm status as well as to the decline in the balance sheets of other players, thus counteracting the increase in the balance sheets of certain players.

Investment firms recorded a positive development in their net results over a year. Indeed, provisional net results amounted to EUR 129.3 million³ as at 31 December 2021, against EUR 86.6 million as at 31 December 2020, representing a substantial growth of 49.32%.

Development of the balance sheet total and of the net results of investment firms

(in million EUR)	2020	2021	Variation in %
Balance sheet total	1,259	1,087	-13.67 %
Net results	86.6	129.3	+49.32 %

1.3. Prudential supervisory practice

1.3.1. Compliance by investment firms with the quantitative standards

• Capital base

In accordance with Articles 24-1 to 24-9 of the Law of 5 April 1993 on the financial sector, authorisation as investment firm is subject to the production of evidence showing the existence of minimum capital base. This capital base⁴ consisting of subscribed and paid-up share capital, relevant share premiums, legally formed reserves and profits brought forward, after deduction of possible losses for the current

financial year, must be permanently available to the investment firm and invested in its own interest.

Based on the financial data that the investment firms are required to provide to the CSSF on a monthly basis, the CSSF verifies, in particular, ongoing compliance of investment firms with the minimal capital base conditions. In 2021, it intervened at one investment firm for non-compliance with the legal provisions relating to capital base. This entity has taken regularisation measures allowing it to be compliant again with the minimal capital base.

• Capital ratios

2021 was a transitional year in respect of the regulations applicable to “class 2” and “class 3” investment firms on capital ratio requirements pursuant to Article 56 of the Law of 5 April 1993 on the financial sector.

The entry into force of the IFD/IFR in the course of 2021 changed the requirements applicable to investment firms. The new prudential regime defines the composition of own funds and the methods to calculate own funds requirements under Parts II and III of the IFR and it must be complied with at all times by investment firms.

In 2021, the CSSF intervened at one investment firm for non-compliance with the capital ratio. This entity has regularised the situation of non-compliance in the meantime.

The CSSF attaches utmost importance to permanent compliance with the structural ratios that investment firms are required to observe and closely monitors the regularisation processes implemented by investment firms in case of capital ratio deficiency.

• Large exposure limits

Prior to the entry into force of the IFD/IFR in 2021, investment firms, except for those complying with the criteria set out in Article 95(1) or Article 96(1) of the CRR, were subject to the provisions regarding large exposure limits under Part Four on large exposures of the CRR. Simplified rules with respect to large exposure limits continue to apply to investment firms in accordance with Part Four on concentration risk of the IFR.

² The branches established in Luxembourg by investment firms originating from another EU/EEA Member State and included, since 2009, in the total number of investment firms are not included in these figures.

³ Same comment as in the above footnote no 2.

⁴ In accordance with Article 20(5) of the Law of 5 April 1993 on the financial sector, subordinated loans or profits for the current financial year are not to be taken into account for the determination of the minimum capital base of a professional of the financial sector.

In the context of the supervision of compliance with large exposure limits, the CSSF intervened in 2021 with one investment firm in the framework of the CRR regulations applicable to that case.

1.3.2. Introductory visits

Introductory visits are made at the premises of investment firms that recently received their authorisation and, where appropriate, at the premises of existing investment firms that received an authorisation to carry out a new activity in addition to existing authorisations. The purpose of these missions is to verify that the contemplated business plan is being followed and that the systems and infrastructures are correctly implemented. In 2021, the CSSF made one introductory visit which took place via teleconference due to the COVID-19 pandemic.

2. Specialised PFS

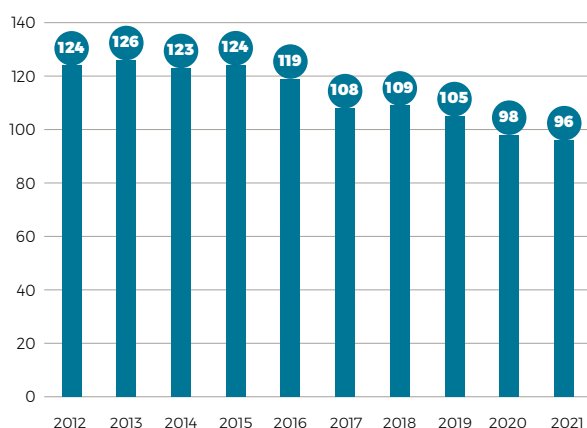
2.1. Development of specialised PFS in 2021

2.1.1. Development in the number of specialised PFS

During the year 2021, the number of specialised PFS decreased and reached 96 entities (against 98 entities at the end of 2020).

In 2021, six entities (four in 2020) were authorised as specialised PFS, including one entity that had been previously authorised as investment firm. Eight entities gave up their status of specialised PFS in 2021, against 11 in 2020.

Development in the number of specialised PFS



Among the specialised PFS, the statuses of corporate domiciliation agent and professional providing company incorporation and management services are the most prevalent with 81 and 83 entities, respectively, authorised under these statuses as at 31 December 2021 (2020: 80 and 84 entities, respectively), followed by the status of registrar agent with 67 entities authorised at that date (2020: 64 entities).

2.1.2. Development in employment

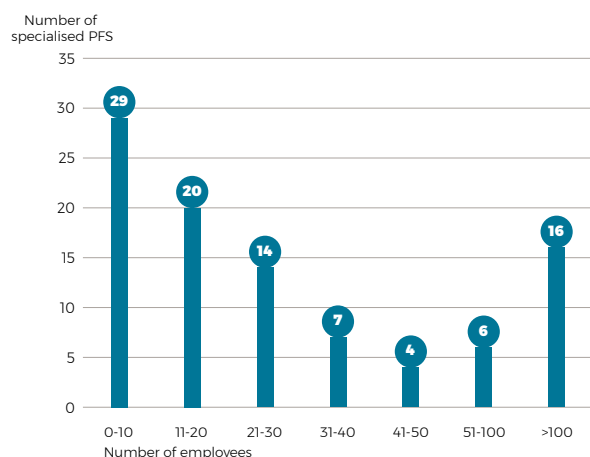
During 2021, the number of people employed by all specialised PFS rose by 473 to a total of 5,949 people, representing an increase of 8.6% as compared to the end of 2020.

Development in employment of specialised PFS

Year	Number of specialised PFS	Total staff
2012	124	3,046
2013	126	3,201
2014	123	3,431
2015	124	3,787
2016	119	3,972
2017	108	4,008
2018	109	4,480
2019	105	5,183
2020	98	5,476
2021	96	5,949

As at 31 December 2021, 16 specialised PFS employed over 100 people (against 14 at the end of 2020) and 29 specialised PFS employed 10 or fewer people (against 33 at the end of 2020).

Breakdown of the number of employees per specialised PFS



2.1.3. Development of balance sheets and net results

Over a one-year period, specialised PFS recorded an overall rise of EUR 400.42 million (+6.9%) in their balance sheets and of EUR 7.69 million (+8.9%) in their net results.

Development of the balance sheet total and of the net results of specialised PFS

(in million EUR)	2020	2021	Variation in %
Balance sheet total	5,790.33	6,190.85	+6.9 %
Net results	86.43	94.12	+8.9 %

2.2. Prudential supervisory practice

In the context of the prudential supervision of specialised PFS, the CSSF verifies compliance by specialised PFS with the quantitative and qualitative standards.

2.2.1. Capital base

In accordance with Article 20 and Articles 25 to 28-10 of the Law of 5 April 1993 on the financial sector, the authorisation of specialised PFS is subject to the production of evidence showing the existence of minimum capital base for a PFS authorised as a legal person, or own assets for a PFS authorised as a natural person.

In 2021, the CSSF identified cases of non-compliance with the legal provisions in this respect at six entities (against five entities in 2020). Their situation was regularised in a satisfactory manner.

2.2.2. Compliance of the day-to-day management and corporate governance

In 2021, the CSSF intervened three times (idem in 2020) by way of observation letters due to situations of non-compliance in the day-to-day management of specialised PFS, notably linked, among others, to insufficient presence and/or effective involvement of one of the two managers in the day-to-day management of the entity or to the need for reorganisation of the entity's administrative or management body composition.

3. Support PFS

3.1. Amendments to support PFS statuses in 2021

3.1.1. Withdrawal of the "mail management" activity

The Law of 21 July 2021 repealed the fourth indent of Article 29-1(1) of the Law of 5 April 1993 on the financial sector. Indeed, the activity referred to in this indent, namely the mail management giving access to confidential data, only poses a non-material operational risk. In addition, Article 41 of the Law of 5 April 1993 determines the arrangements according to which it is possible to outsource the activities involving data subject to professional secrecy to third parties. This article suffices to regulate the appropriate processing of data subject to professional secrecy. Consequently, it is no longer necessary to provide for an authorisation obligation for the activity of mail management giving access to confidential data.

3.1.2. Merger of the statuses "primary IT systems operator of the financial sector" and "secondary IT systems and communication networks operator of the financial sector"

The Law of 21 July 2021 merged the statuses of primary (OSIP) and secondary (OSIS) IT systems operators of the financial sector. The difference between the two statuses which lay in the types of systems (primary and secondary) these operators could operate is now obsolete.

Indeed, this distinction is not always clear in reality. Thus, there are configurations where a secondary operator makes available and operates an environment or an IT platform, and where the customer of the financial sector deploys and manages itself the applications it chooses in this same environment. In this case, the operator could have unwittingly found itself in a situation in which it unknowingly operated part of the primary system (e.g. the operating system supporting the application for the establishment of accounts and financial statements) without the required authorisation.

The importance of some secondary systems (such as payment systems) and the increased IT-related operational risks, notably due to the growing complexity and interconnectedness of the environments as well as of primary and secondary IT systems, no longer justify the existence of two different IT operator statuses.

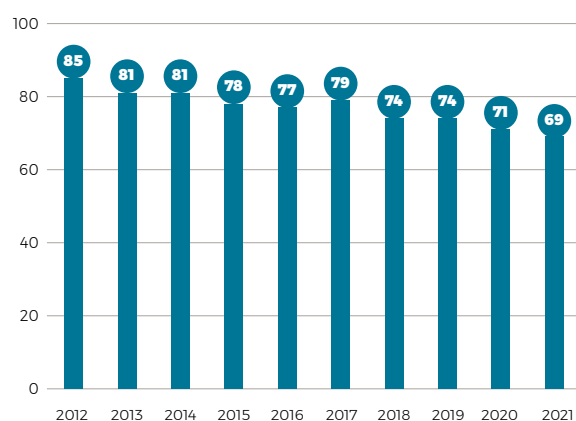
It is noteworthy that a transitional regime is provided for with respect to OSIP and OSIS authorised under the former Articles 29-3 and 29-4 of the Law of 5 April 1993 on the financial sector, so that they benefit ipso jure from the new status of IT systems and communication networks operator of the financial sector (OSIRC) introduced by the new Article 29-3. They have until 31 July 2022 to comply with the new capital requirements which went up from EUR 50,000 to EUR 125,000 for some of them.

3.2. Development of support PFS in 2021

3.2.1. Development in the number of support PFS

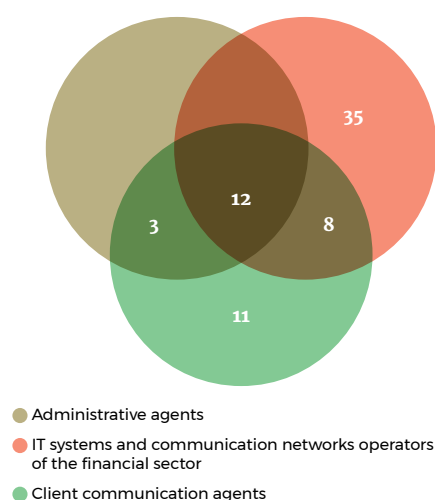
The number of support PFS was 69 as at 31 December 2021.

Development in the number of support PFS



Two new support PFS were authorised in 2021. Three support PFS gave up their authorisation and one support PFS was placed under the supervision of the “Innovation, Payments, Market Infrastructures and Governance” department after obtaining new authorisations.

Breakdown of support PFS by status



As administrative agents are ipso jure authorised to carry out the activities of client communication agents, there is no entity that only has the status of administrative agent.

3.2.2. Development in employment

The slight decrease from 8,987 people as at 31 December 2020 to 8,951 people as at 31 December 2021 shows that the number of support PFS staff remained stable.

Development in support PFS employment

Year	Number of support PFS	Total staff
2012	85	9,016
2013	81	8,971
2014	81	9,043
2015	78	9,218
2016	77	9,185
2017	79	9,656
2018	74	9,931
2019	74	10,005
2020	71	8,987
2021	69	8,951

3.2.3. Development of balance sheets and net results

The balance sheet total of support PFS reached EUR 1,628.9 million as at 31 December 2021, against EUR 1,616.6 million as at 31 December 2020, i.e. a slight increase of 0.8%.

The net results grew by 61.1%, from EUR 43.8 million as at 31 December 2020 to EUR 70.4 million as at 31 December 2021. With respect to this significant rise over a year, it should be borne in mind that 2020 was marked by the COVID-19 pandemic which led to the interruption of many services provided by support PFS (advice, provision of staff, etc.) and a decline in their net results of over 35%.

3.3. Prudential supervisory practice

3.3.1. Qualification of activities and authorisation applications

The qualification of activities under the Law of 5 April 1993 on the financial sector is often the first contact between an entity and the CSSF and allows determining whether a business activity falls under the scope of the aforementioned law and, consequently, requires an authorisation. The CSSF processes on average several tens of qualifications of activities and related questions per year. When

the CSSF qualifies an activity as activity subject to the law, it informs the entity thereof and the authorisation procedure starts.

In 2021, the CSSF received four applications for authorisation as support PFS and two applications for the extension of authorisation. Two applications for authorisation and two applications for the extension of authorisation were granted whereas one authorisation application was withdrawn during the year. The last application file is currently being pre-examined.

3.3.2. Main prudential findings

As regards the obligation to file a notification and obtain prior approval by the CSSF for certain types of changes during the life of the support PFS, the year 2021 confirms the improvement noted in 2020. Indeed, whereas 20.0% of such changes were made without fully complying with the procedures and related deadlines throughout the financial year 2019, this percentage dropped to 14.1% in 2020 and then to 12.5% in 2021. The communication of these changes is an essential supervisory tool and the CSSF requests support PFS to ensure systematic compliance with this obligation.

Moreover, the CSSF observed that the internal audit plans of support PFS are often ill-suited. As stated in Circular IML 98/143, all the audit missions are carried out according to a plan, established by the internal audit department for a period of several years, with the aim to cover all the activities whilst taking into account the risks these activities pose for the entity. Therefore, it is readily apparent that the drawing-up of an audit plan is important and that it cannot fall into the background of the internal audit function, the cornerstone of the internal control system.

However, the CSSF notes a considerable drift in the drawing-up of the internal audit plan, with a constant trend to maintain the same plan from year to year. It reminds the supervised entities that they are required to give attention to the adaptation of the internal audit plan to the activities and risks of the support PFS, in terms of scope of the missions and days-human resources dedicated to their sound completion.

The CSSF recommends thus to all support PFS to adjust, where necessary and to the largest extent possible, the audit plan with primary consideration being given to the specific support PFS activities, i.e. activities for which the entity has been authorised.

3.3.3. Introductory visits

Introductory visits are made at the premises of support PFS that recently received their authorisation and, where appropriate, of existing support PFS that received an authorisation to carry out a new activity in addition to existing authorisations. The purpose of these missions is to verify that the contemplated business plan is being followed and that the systems and infrastructures are correctly implemented. In 2021, the CSSF visited three support PFS. Due to the COVID-19 pandemic, these introductory visits took place remotely. Final introductory visits will be scheduled later and will allow the CSSF in particular to visit the premises of the support PFS.

3.3.4. Work relating to the development of the prudential supervisory framework of support PFS

In 2021, the CSSF wished to put in place a systematic classification method of support PFS according to the risks they pose to professionals of the financial sector, essential prerequisite for developing a consistent risk-based approach. The first exercise thus consisted in completing and confirming the risk profile of each support PFS, notably based on quantitative criteria (turnover, number of customers, etc.), the type of services provided, the compliance with the regulations as well as other criteria relating to an evaluation of PFS activities. It allowed confirming the existing assessment of support PFS and also identifying discrepancies and smoothing them. The classification of support PFS will be reviewed every year. Where appropriate, assessment criteria will have to be further refined.

In the context of this exercise, the CSSF carried out a detailed survey at support PFS of the major and minor activities, subject or not to authorisation, across all activity sectors. This information is indeed a key element of the support PFS' "identity sheet" and allowed supplementing the information already collected through the annual descriptive report.

Although the survey was mainly focussed on a micro (individual) analysis of support PFS, it also provided some interesting information at macro level:

- As regards customers targeted by the activities of support PFS and thus the sectors to which they are directed, most of the services are offered to customers from all sectors. However, a little over one-third of the services provided

aim exclusively to the financial sector and only 14.6% of the services are not offered at all to the financial sector.

- The support PFS activities are numerous and varied (51 different activities identified). The business portfolio of support PFS include on average seven different activities. As a majority of support PFS have, among others, an authorisation as IT systems operator, the IT-related activities remain logically the most quoted, but they may greatly vary in nature with a wide array of services.

In addition, the CSSF began to recast the so-called governance circulars (Circulars CSSF 95/120, 96/126 and 98/143) in order to update and centralise in one single upcoming circular its expectations in this respect vis-à-vis support PFS. 2022 will be marked by the continuation of this work and by the review of the annual information to be provided to the CSSF in the context of the closing of the financial year and Circular CSSF 12/544. An analysis should also be carried out of the potential impacts of the European texts expected in the course of 2022, namely the review of the Directive concerning measures for a high common level of security of network and information systems across the Union (NIS2) and the Digital Operational Resilience Act (DORA).

IX. Supervision of payment institutions and electronic money institutions

1. Regulatory framework and supervisory practice

The Law of 10 November 2009 on payment services imposes authorisation, exercise and supervisory conditions on payment institutions and electronic money institutions that provide payment services or that issue electronic money.

The CSSF's prudential supervision aims to verify that payment institutions and electronic money institutions subject to its supervision continuously observe the provisions of laws, regulations or agreements relating to their organisation and operations, with the objective of ensuring protection of payment service users and electronic money holders as well as the stability of the financial system. In this regard, the CSSF notably attaches particular importance to the establishment, by these institutions, of stable and performing mechanisms for safeguarding the funds of payment service users and electronic money holders.

Moreover, the CSSF is continuing its actions in order to ensure the deployment by payment institutions and electronic money institutions of compliant IT solutions that guarantee the security of the transactions and the secure access to payment accounts as well as of fraud mitigation measures relating to the different payment means in accordance with the European rules in this respect.

2. Payment institutions

During 2021, one new payment institution was listed in the public register of payment institutions. A total of 13 payment institutions incorporated under Luxembourg law were thus listed in the public register of payment institutions as at 31 December 2021 (compared to 12 as at 31 December 2020). Moreover, there were nine branches established in other EU Member States by three of these authorised institutions as well as two branches established in Luxembourg by payment institutions authorised in other EU Member States.

The total balance sheet of payment institutions amounted to EUR 3.2 billion as at 31 December 2021, representing a 52% increase compared to the end of 2020 when the total balance sheet reached EUR 2.1 billion. In 2021, these payment institutions handled a volume of payment transactions of about EUR 113 billion.

Employment within the payment institutions increased by 28% in 2021.

3. Electronic money institutions

A total of nine electronic money institutions were listed in the public register of electronic money institutions authorised in Luxembourg as at 31 December 2021 (idem as at 31 December 2020). Moreover, there was one branch of an institution authorised in Luxembourg as well as one branch established in Luxembourg by an electronic money institution authorised in another EU Member State.

The balance sheet total of electronic money institutions amounted to EUR 4.2 billion as at 31 December 2021, representing a 12% increase compared to the end of 2020 when the total balance sheet reached EUR 3.7 billion. In 2021, these electronic money institutions handled a volume of payment and/or electronic money transactions of about EUR 87 billion.

Employment within the electronic money institutions increased by 10% in 2021.

X. Supervision of investment fund managers and UCIs

1. Key figures for 2021

1.1. Investment fund managers (IFMs)

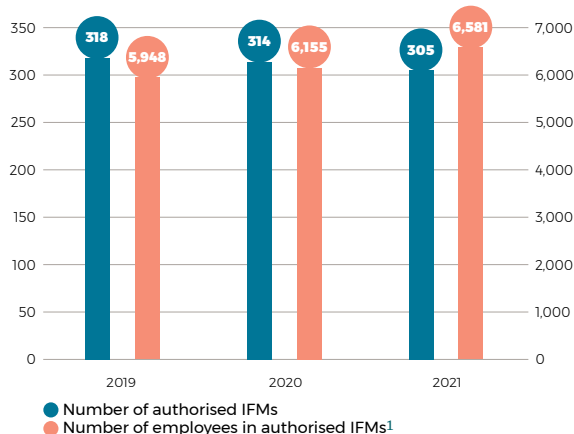
305

authorised IFMs as
at 31 December 2021

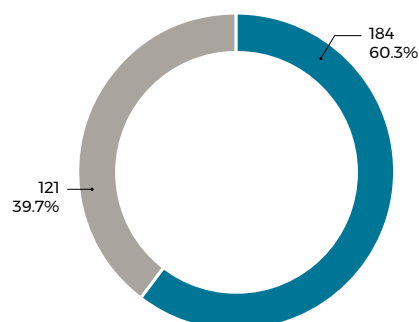
€ 6,460.2 bn

assets under management,
of which 82.3% managed
by authorised IFMs

Evolution of the number of authorised IFMs and of their employees

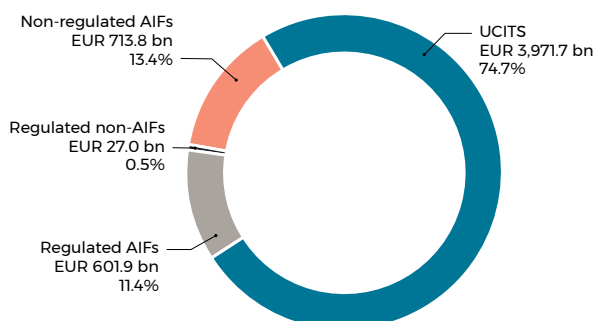


Breakdown of authorised IFMs by category



- Management companies subject to Chapter 15 of the 2010 Law and, where applicable, to the 2013 Law
- Authorised alternative investment fund managers subject to the 2013 Law

Breakdown of assets managed by authorised IFMs by type of investment vehicle



¹ The number of employees does not include employees of these IFMs' branches.

1.2. Undertakings for collective investment (UCIs)

3,492

UCIs registered on the official list as at 31 December 2021

14,445

fund units

€ 5,859.5 bn

net assets

1.3. Prudential supervision

401

interventions related to off-site supervision of UCIs

51

on-site inspections at IFMs, covering 17% of the total assets managed by authorised IFMs

10

sanctions imposed on IFMs

1.4. AML/CFT

42

face-to-face meetings

35

AML/CFT colleges for Luxembourg IFMs fulfilling the conditions defined in the EBA guidelines on AML/CFT colleges

18

AML/CFT on-site inspections

1,200

AML/CFT surveys analysed

800

participants in the virtual AML/CFT conference on collective management of 29 October 2021

3,000

off-site supervision measures

2. Major events in 2021

2.1. Environmental, Social and Governance (ESG)

As regards ESG in the investment fund area, a large part of the provisions of Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial sector (Disclosure Regulation) entered into force on 10 March 2021. These provisions concern the activities of IFMs and investment funds as investment products. In compliance with this deadline, the CSSF published a communiqué explaining the way forward, in particular as regards transparency requirements in the pre-contractual documentation of UCITS and AIFs. This communiqué introduced a fast track procedure for the submission to the CSSF of amendments to the pre-contractual documentation of existing UCITS and AIFs.

On the legislative front, the following two regulations were published in the Official Journal of the EU:

- Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives;
- Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation.

2.2. Revision of the long form report for investment funds: introduction of new supervisory tools for investment funds and IFMs

Over the past years, the legal, regulatory and prudential provisions to which the supervised entities are subject have been reinforced. In this context, the CSSF wanted to put in place new supervisory tools and revise the UCI long form report as provided for in Circular CSSF 02/81.

On 22 December 2021, the CSSF published three circulars introducing new reports to be submitted annually by the entities falling within the scope of these circulars, namely:

- Circular CSSF 21/788 introducing a new AML/CFT external report relating to the formalisation of AML/CFT work of the *réviseurs d'entreprises agréés* (approved statutory auditors – REA) of IFMs (including registered managers) and of UCIs supervised by the CSSF for the purposes of AML/CFT;
- Circulars CSSF 21/789 and CSSF 21/790 introducing a self-assessment questionnaire to be filled in annually by the entities concerned as well as a separate report which includes specific procedures that the CSSF requests the REA to perform in relation to the above-mentioned self-assessment questionnaire. In addition, these two circulars define a specific regulatory framework applicable to the management letter that the REAs of IFMs and UCIs must draw up annually. Circular CSSF 21/790 also specifies the information that investment funds must spontaneously transmit to the CSSF in case the REA issues a modified audit opinion in the context of the statutory audit of accounting data included in the annual report of an investment fund.

The new supervisory tools aim first and foremost to improve the risk-based supervision in relation to IFMs and UCIs. Their purpose is to standardise practices and also to clarify the CSSF's requirements with respect to the entities concerned, to be adaptable to regulatory developments and to digitalise the process in order to gain in efficiency and transparency and to facilitate data harnessing. The expected benefits also include identifying major trends, sharing best practices with the market and raising awareness of some focal points.

The specific requirements as well as the dates of entry into force of the above-mentioned documents are specified in the respective circulars. The procedures and explanations on the practical arrangements for the preparation and filing of the AML/CFT external report, the self-assessment questionnaire, the separate report and the management letter are available to the entities concerned and their REA on the eDesk portal (<https://edesk.apps.cssf.lu>) under the heading "Investment funds and vehicles/Investment fund managers". The requirements relating to the procedures with and requests to the CSSF via

the eDesk portal have been detailed in Circular CSSF 19/721. The user guide *Authentication and user account management* is also available on the eDesk portal of the CSSF.

2.3. Common Supervisory Action by ESMA on costs and fees of UCITS

In January 2021, ESMA launched a Common Supervisory Action (CSA) with the national competent authorities on the supervision of costs and fees of UCITS across the EU.

The purpose of this exercise was to assess the compliance of supervised entities with the relevant UCITS cost-related provisions, including in particular the obligation of not charging investors with undue costs. The CSA also covered entities employing Efficient Portfolio Management (EPM) techniques to assess whether they adhered to the requirements set out notably in the ESMA Guidelines on ETFs and other UCITS issues (ref. ESMA/2014/937).

In 2021, the CSSF analysed the information collected from a sample of IFMs and drew up a summary report for ESMA. More specifically, the CSSF covered 36 UCITS managers domiciled in Luxembourg, among which 10 UCITS managers employing EPM techniques. The final sample comprised 2,654 UCITS sub-funds, among which 147 sub-funds of foreign UCITS.

Although, overall, the CSSF observed a satisfactory level of compliance by the supervised entities with the applicable regulations, it identified however two cases of non-compliance. The first case involved non-compliance with Article 5(b) of the CESR guidelines on the methodology for calculation of the ongoing charges figure in the Key Investor Information Document (ref. CESR/10-674). The second case concerned an inadequacy in the presentation of the reference value compared to the principles provided for in the document *Questions and Answers – Application of the UCITS Directive* (ref. ESMA34-43-392) and especially in Section II on the KIID for UCITS. Given that the fund concerned was not domiciled in Luxembourg, the home national competent authority of the UCITS was contacted to share this observation and address it.

The CSSF also noted some weaknesses with respect to the pricing process which sometimes lacked structure (definition of fee levels, regular review of these levels, decision-making process) and formalisation, particularly in the case of IFMs managing a lower than average amount of assets.

The CSSF highlights the importance for all IFMs to implement and ensure a structured and formalised pricing process, in accordance with the recommendations of the document *Supervisory briefing on the supervision of costs in UCITS and AIFs* (ref. ESMA 34-39-1042), regardless of the characteristics, the size of the UCITS manager and the volume of assets under management.

The fee level must also be periodically reviewed and controlled (at least annually) in order to compare the estimated current fees with the real fees incurred by the fund, taking into account notably the sustainability of the costs over time and the relative weight of fees on the investor's return so as, if possible and necessary, to reduce the level of fees and ensure the sustainability and competitiveness of the fund.

The CSSF also points out the importance of performing an independent analysis of the fee structures as soon as they are established. Over-reliance on the valuation made by the portfolio manager should be avoided and a more active role of the *dirigeants* (directors) of the IFM, of the internal control functions and possible committees concerned should be ensured.

Finally, the CSSF draws the attention of UCITS managers to the costs for funds characterised by low levels of assets under management. Indeed, the risk that investors are charged high costs is more likely due to the presence of fixed costs. The CSSF performed additional analyses of the funds with these characteristics.

As regards the 10 UCITS managers established in Luxembourg which are covered by ESMA's Common Supervisory Action and which use techniques and instruments for the purpose of efficient portfolio management (notably securities lending transactions and repurchase/reverse repurchase agreements covered by Circular CSSF 08/356), the exercise showed that they have a supervisory process for fees related to these transactions which overall complies with the regulations in force. However, the exercise also allowed identifying needs for improvement of the procedural framework which should cover in detail all the organisational and operational arrangements linked to the use of the techniques and instruments. In particular, additional efforts are still required with respect to the procedures for conflict of interest management, the supervisory process for direct and indirect fees and the description of the roles and services provided by third parties.

2.4. Liquidity risk in open-ended investment funds

Following the COVID-19 crisis, liquidity risk in investment funds remained a topical issue in 2021 for the CSSF as well as for European and international regulators.

In June 2021, the CSSF thus communicated² to the market its findings in the framework of its work related to ESMA's Common Supervisory Action on the UCITS liquidity risk management which are consistent with the conclusions published at European level by ESMA in March 2021³. In its publication, the CSSF notably put forth recommendations for improvement in view of the applicable liquidity risk management arrangements and has, on that basis, requested all UCITS managers to carry out, until end of 2021, a comprehensive self-assessment of compliance of their arrangements with the applicable regulatory provisions so as to take, where necessary, the required corrective measures. Follow-ups were also carried out by the CSSF directly with a range of IFMs in the context of the findings during the Common Supervisory Action by requesting them notably to implement corrective measures in relation to the shortcomings observed.

In the context of ESMA's publication, in November 2020, of the results of the supervisory exercise in relation to the ESRB's recommendation on liquidity risk in real estate funds and corporate debt funds⁴, the CSSF carried out, in 2021, a follow-up of the outliers identified during this exercise by means of an additional questionnaire for certain UCITS and AIF managers. The result of these investigations was reported to ESMA in autumn 2021. Follow-up work in relation to the information received via this questionnaire is still being carried out by the CSSF in 2022.

In 2021, the CSSF also continued enhancing its liquidity stress testing programme for Luxembourg investment funds by extending it to new asset classes and by also including second-round effects. An analysis was performed in this context in order

to identify investment funds with a weaker liquidity profile which are likely to be impacted by a stress period on the markets.

In general, Luxembourg investment funds managed the COVID-19 crisis rather well without major adverse impacts. Based on the work performed, the CSSF is nevertheless of the opinion that, overall, the IFMs will have to continue enhancing their liquidity risk management arrangements by working, inter alia, on the following:

- strengthening internal governance around liquidity risk management with, in particular, a reinforced process for reporting to the responsible bodies and a greater involvement of the compliance and internal audit functions in the review of the adequacy of the liquidity risk management arrangements;
- further integrating liquidity risk in the entire life-cycle of investment funds (i.e. from the design phase, throughout its active life, until the final liquidation), including a better consideration of this risk in the funds' investment decisions;
- ensuring that the liquidity risk management arrangements adequately cover all the factors which may have an impact on the liquidity profile of a fund (e.g. possible future commitments in relation to the use of derivative financial instruments) and that the methodologies for measuring liquidity risk encompass, based on reliable and up-to-date data, all assets held by the funds;
- reviewing the availability of liquidity management tools (LMT) in the managed funds and, based on the liquidity profile of the assets held and the respective redemption policy, making sure to have a complete set of LMT whilst ensuring that the operational processes are in place and the calibration of the chosen tools is appropriate;
- strengthening the liquidity stress testing programme.

In the context of liquidity risk, the CSSF also continued to contribute to various workstreams at European and international level (FSB, IOSCO, ESMA, ESRB) aiming to analyse the impact of the COVID-19 pandemic on investment funds so as to improve their resilience in the future, especially

² www.cssf.lu/wp-content/uploads/ESMA-CSA-on-UCITS-Liquidity-Risk-Management.pdf

³ www.esma.europa.eu/sites/default/files/library/esma_34-43-880_-_public_statement_-_2020_csa_ucits_liquidity_risks_management.pdf

⁴ www.esma.europa.eu/sites/default/files/library/esma34-39-1119-report_on_the_esrb_recommendation_on_liquidity_risks_in_funds.pdf

where potential vulnerabilities were identified. This included work on policy options drawn up by the FSB, the ESRB and ESMA to strengthen the regulatory framework of money market funds and liquidity risk of open-ended investment funds where, among others, an analysis was carried out by IOSCO/FSB and submitted at the G20 meeting in autumn of 2021. The work will continue in 2022, leading possibly to additional policy proposals to improve the regulatory framework of open-ended investment funds investing in less liquid asset classes.

2.5. Non-judicial liquidations

The administrative extension following the nine months of non-judicial liquidation of a UCI was abolished but remains nevertheless required for sub-funds in non-judicial liquidation. The CSSF would like to remind that the UCI in non-judicial liquidation remains subject to the CSSF's supervision and that any exceptional or significant change must be notified without delay. It should be noted that the division "Supervision of UCIs in non-judicial liquidation" introduced a form for the half-yearly report of the liquidator on the progress of the liquidation.

2.6. Capital markets union action plan

On 25 November 2021, the European Commission published a package of legislative proposals⁵ which mark an important step in the implementation of the capital markets union action plan presented in 2020. The four new legislative proposals adopted by the European Commission aim to better connect EU companies with investors, improve companies' access to funding, broaden investment opportunities for retail investors and further integrate EU capital markets. The package comprises the following elements.

2.6.1. Creation of the European Single Access Point (ESAP) for financial and sustainability-related information

ESAP should offer a single full access point for public financial and sustainability-related information published by financial and non-financial companies of the EU on their entity and, where applicable, on their investment products. Thus, the companies will be given more visibility towards investors, thereby opening up

more sources of financing. ESAP consists of three main parts.

- **Data access:** defining how information will be collected from entities, such as issuers of securities, funds, auditors, banks, insurance undertakings or intermediaries. To this end, ESAP will build on the existing channels. Depending on the type of information, the entities will only have to communicate the information once to a collection body which may be an existing data repository or an existing authority (i.e. national competent authority for financial services or European supervisory authority). The information collected by each of these bodies will then be entirely made available to ESAP.
- **Data infrastructures:** the European Commission proposed to entrust ESMA with the responsibility of implementing, operating and governing ESAP.
- **Data availability:** obstacles to the use and re-use of data will be removed and the access to information, including its download, will be free of charge.

2.6.2. Review of the European Long-Term Investment Funds (ELTIFs) Regulation

Regulation (EU) 2015/760 on ELTIFs establishes uniform rules on the authorisation, investment policies and operating conditions and marketing of ELTIFs. The ELTIF regulatory framework intends to facilitate long-term investments by institutional and retail investors in types of assets, such as social and transport infrastructure projects, infrastructures for the production and distribution of renewable energy, real estate and SMEs and to provide an alternative and non-bank source of financing to the real economy. While the ELTIF is still a relatively new framework, the available market data indicates that the market's development has not scaled up as expected, particularly given the European Commission's objective of promoting long-term finance in the EU in order to help EU economy on the path to smart, sustainable and inclusive growth. To make this framework more appealing, the proposal aims to make targeted changes in the fund rules. This means, among others, broadening the scope of eligible assets and investments, allowing more flexible investment fund rules (that include the facilitation of fund-of-fund strategies), and reducing the unjustified barriers preventing retail

⁵ https://ec.europa.eu/info/publications/211125-capital-markets-union-package_en

investors from accessing ELTIFs, in particular the EUR 10,000 initial investment requirement and the maximum 10% aggregate threshold requirement for those retail investors whose financial portfolios are below EUR 500,000. Furthermore, the proposal aims to make the ELTIF structure more attractive by easing selected investment fund rules for ELTIFs distributed solely to professional investors. The review of the ELTIF legal framework also introduces an optional liquidity window mechanism to provide extra liquidity to ELTIF investors without requiring a drawdown from the capital of ELTIFs.

2.6.3. Review of Directive 2011/61/EU on alternative investment fund managers (AIFM)

This review proposes targeted and proportionate improvements to the current framework, where EU action is supposedly needed, in order to address a certain number of regulatory gaps. They concern, inter alia:

- common rules on loan-originating funds: a minimum set of common rules on direct lending by AIFs to companies is introduced. The aim is to allow lending funds to carry out their activities across borders and to ensure that they constitute another source of financing for companies besides banking loans. The proposed rules will also deal with the potential risks associated with this type of lending;
- liquidity management tools (LMT): the available liquidity management tools are harmonised to further facilitate liquidity risk management by managers of open-ended AIFs in accordance with ESMA's and the ESRB's recommendations so as to enable a more effective response to liquidity issues that funds may encounter in times of market stress and to ensure better protection of investors;
- depositaries on concentrated markets: the objective is to address the issues observed on some concentrated markets where few or no depositaries are present by allowing the national competent authorities to authorise the AIFs concerned to appoint a depositary in another Member State;

- functioning of the custody chain: central securities depositories present in the custody chain will be considered as delegates of the fund's depositary. This will enable the fund's depositary to obtain the necessary information on the portfolio movements and to perform its oversight duties where the fund's assets are held by a central securities depository;
- safeguarding the interests of investors in case of delegation: the proposal includes new rules proposed by the European Commission with respect to ancillary activities, delegation and technical and human resources of fund managers with the aim to ensure that these managers comply with the high standards applicable across the EU where they delegate (particularly where they use third-country experts). Thus, the purpose of the proposal is to introduce a coherent approach to delegation activities by AIF managers and their supervisors.

It should be noted that the UCITS Directive will also be amended to reflect the amendments of the AIFMD, notably with respect to liquidity management tools and delegation.

2.6.4. Review of the Markets in Financial Instruments Regulation (MiFIR) and Markets in Financial Instruments Directive (MiFID)

This review aims at (i) enhancing transparency by removing, among others, the main obstacles to the creation of the European consolidated tape (system allowing investors to have access to near real-time trading data for stocks, bonds and derivatives across all trading venues in the EU), and (ii) increasing international competitiveness of EU trading venues at global level by removing the open access rule.

3. Prospects for 2022

3.1. Environmental, Social and Governance (ESG)

Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment (Taxonomy Regulation) entered into force on 1 January 2022 in respect of the environmental objectives of climate change mitigation and climate change adaptation. In this context, the CSSF published a communiqué on the steps to be taken and a procedure⁶ facilitating the update of pre-contractual documents of existing UCITS and AIFs, including a fast track procedure exclusively for UCITS. The investment funds' obligations under the Taxonomy Regulation in respect of the other environmental objectives, namely (i) the sustainable use and protection of water and marine resources, (ii) the transition to a circular economy, (iii) pollution prevention and control, and (iv) the protection and restoration of biodiversity and ecosystems enter into force on 1 January 2023.

Compliance of the IFMs' and investment funds' activity with the different levels of EU legislation on sustainable finance is a supervisory priority of the CSSF. This appears to be particularly complex insofar as the two regulations are not specifically addressed to the asset management sector and as the regulations and their relevant technical standards come into force step-by-step and according to an evolving agenda. The technical standards which have been adopted by the European Commission in April 2022 and are still subject to the review of the European Council and of the European Parliament, should enter into force on 1 January 2023.

In this context, the CSSF continues to work in close cooperation with EU bodies to ensure a consistent implementation of the regulation throughout the different Member States and a smooth functioning of passporting rights available to IFMs.

3.2. Implementation of the regulations on cross-border distribution of UCIs (CBDF Regulations)

In the context of the implementation of the CBDF Regulations, notably Regulation (EU) 2019/1156 of 20 June 2019 on facilitating cross-border distribution of collective investment undertakings (CBDF Regulation) and the Law of 21 July 2021 transposing Directive (EU) 2019/1160, the CSSF amended and developed its instructions with regard to notifications and introduced the process of de-notification and pre-marketing⁷.

On 31 January 2022, the CSSF published Circular CSSF 22/795 on the application, as from 2 February 2022, of the ESMA Guidelines on marketing communications (ESMA34-45-1272) under Article 4 of the CBDF Regulation. The circular provides, among others, for the collection of certain information on marketing communications from IFMs.

The CBDF Regulation specifically lays down the obligation for the CSSF to provide ESMA every two years with a report which must cover, inter alia, the most frequent infringements observed based on the ex post verification of a sample of marketing communications.

As from 2022, the CSSF will carry out verifications of compliance of marketing communications with the requirements set out in Article 4 of the CBDF Regulation, as specified in the ESMA Guidelines adopted by the CSSF. The observations of the CSSF will be included in the next report to be submitted to ESMA by 31 March 2023.

3.3. Operationalisation of the reform of the UCI long form report

Following the publication of Circulars CSSF 21/788, CSSF 21/789 and CSSF 21/790 on IFMs and UCIs, the CSSF will continue its work on the reform of the long form report in 2022. This work concerns particularly the integration of the new reports introduced by these circulars into prudential supervisory practice based on risks as well as the monitoring of the practical implementation of the new provisions with the industry and the REAs.

⁶ www.cssf.lu/en/2021/12/communication-on-regulatory-requirements-and-fast-track-procedure-in-relation-to-regulation-eu-2020-852-on-the-establishment-of-a-framework-to-facilitate-sustainable-investments-and-regulation-2019/

⁷ For UCITS: www.cssf.lu/en/national-provisions-governing-the-marketing-requirements-for-ucits/; for AIFMs: www.cssf.lu/en/marketing-alternative-investment-funds/

3.4. Revision of Circular CSSF 02/77

The CSSF will work in 2022 on the revision of Circular 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 UCIs. This work, which will be carried out in consultation with the UCI industry in Luxembourg, aims first and foremost at integrating in the new circular the regulatory developments in the investment fund sector of the past 20 years, while taking into account the experience gained by the CSSF in the framework of the prudential supervision exercised in the area of UCI.

3.5. New CSSF circular on UCI administration

Following the regulatory and market developments, the CSSF started drafting a circular concerning the activity of UCI administration, including notably keeping the register, accounting and calculating the NAV, which will consider the CSSF's current supervisory practice. The new circular which will repeal Chapter D of Circular IML 91/75 (as amended by Circulars CSSF 05/177 and CSSF 18/697) is expected to be published in 2022.

4. Prudential supervisory practice

The CSSF's prudential supervision aims to ensure that IFMs and UCIs subject to its supervision continuously observe all legal, regulatory or contractual provisions relating to their organisation and operation, with the objective to ensure investor protection and stability of the financial system.

Prudential supervision is exercised via:

- off-site supervision based on the analysis of the periodic financial information, annual reports, other reports (including the reports of the *réviseurs d'entreprises agréés* (approved statutory auditors)) and regular or ad hoc information received by the CSSF;
- on-site supervision, i.e. on-site inspections carried out by the CSSF agents at the offices of supervised entities.

4.1. Off-site supervision of UCIs

4.1.1. Supervision based on annual reports, management letters and long form reports

In the framework of the review of annual reports, management letters and long form reports⁸, the CSSF had to intervene at the level of certain funds and/or their IFMs and had to take decisions regarding the *dirigeants* (management body of the fund) of certain UCIs and/or their IFMs. These interventions and decisions aimed notably at addressing the deficiencies noted by the *réviseurs d'entreprises agréés* in the annual reports, management letters and long form reports.

In 2021, in the framework of the review of the above-mentioned documents, the CSSF sent 401 letters and emails with the aim of analysing the deficiencies noted by the *réviseurs d'entreprises agréés*, following up on the measures implemented and/or requiring corrective measures in order to remedy these deficiencies.

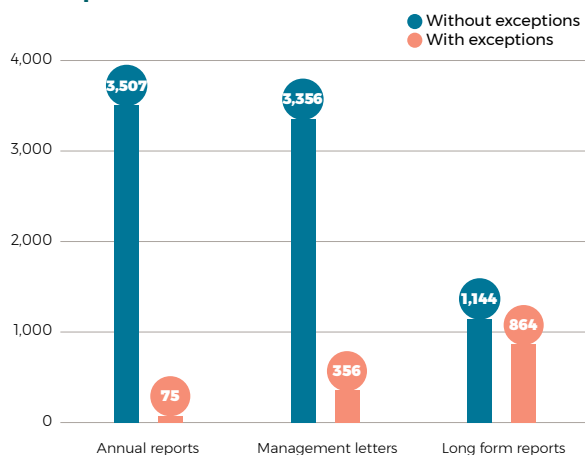
The CSSF's interventions concerned, inter alia, investment valuation, governance, compliance with investment restrictions and policies, AML/CFT arrangements, costs/fees charged to funds as well as transparency and information (disclosure) disclosed in the funds' annual reports.

In addition to these formal interventions regarding more critical files and pursuant to a risk-based supervision, the CSSF also intervened via email or telephone call to clarify or deal with less critical deficiencies.

The following chart highlights, per type of closing document, the number of documents received in 2021 in which one or several exceptions were noted by the *réviseur d'entreprises agréé* and which were subject to a review and/or intervention by the CSSF.

⁸ While the annual reports and management letters concern UCI(TS), SIFs and SICARs, the long form reports only concern UCIs subject to the 2010 Law, i.e. UCITS Part I and UCIs Part II.

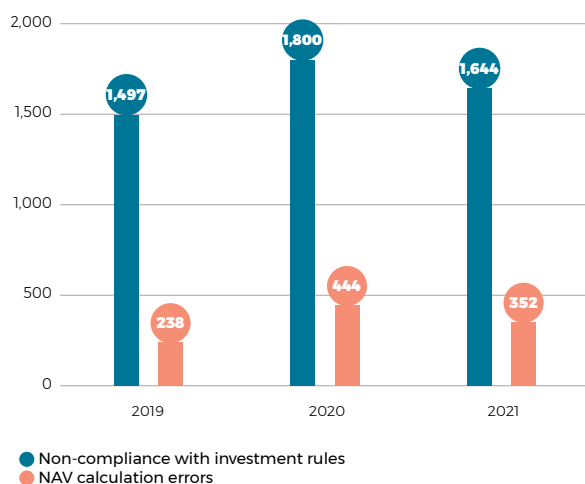
Number of closing documents with or without exceptions noted in 2021



4.1.2. NAV calculation errors and non-compliance instances with investment rules

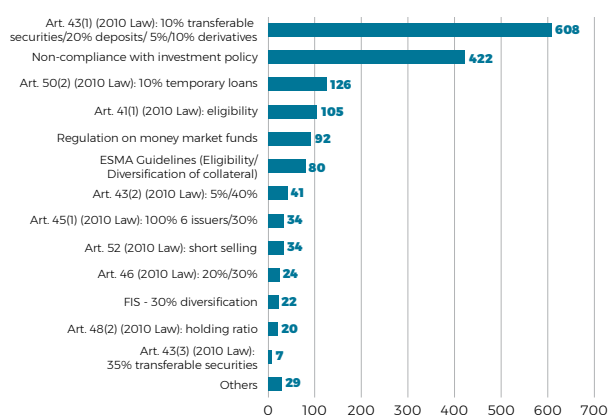
In 2021, the CSSF received 1,996 declarations on the basis of Circular CSSF 02/77, compared with 2,244 declarations in 2020, representing a decrease of 11.1%. Considering that 2020 was marked by a greater number of declarations due notably to higher volatility in financial markets especially at the beginning of the health crisis, a decrease in notifications was noted in 2021. Nevertheless, the number of notifications still remains higher compared to the pre-COVID-19 crisis level.

Evolution of the number of NAV calculation errors and instances of non-compliance with investment rules reported to the CSSF over the last three years



As in the previous years, the simplified procedure provided for in Circular CSSF 02/77 could be applied in most cases of NAV calculation errors and non-compliance with investment rules. As regards the compensation procedures for investment funds and investors that exceed the tolerance thresholds laid down in Circular CSSF 02/77 (“normal procedures”), the CSSF received 113 notifications in 2021 against 166 in 2020, which is a 31.9% decline.

Breakdown of the instances of non-compliance with investment rules in 2021



Failure to observe the legal limits of diversification and holding and borrowing was the main source of non-compliance with investment rules with 1,117 cases (1,276 cases in 2020, i.e. -12.5%), followed by 422 cases of breaches of limits/investment policy rules defined in the sales documents (419 cases in 2020, i.e. +0.7 %) and 105 cases of legal constraints breaches as regards asset eligibility (idem in 2020).

Compensation in relation to correction of NAV calculation errors or instances of non-compliance with investment rules⁹

(in EUR)	Investors		
	2019	2020	2021
Total amount of compensation following NAV calculation errors	5,806,656.7	11,811,192.3	11,349,231.9
Total amount of compensation following non-compliance with investment rules	0.0	0.0	0.0

(in EUR)	UCIs/Sub-funds		
	2019	2020	2021
Total amount of compensation following NAV calculation errors	4,037,199.2	11,846,992.7	4,463,176.3
Total amount of compensation following non-compliance with investment rules	3,943,713.5	6,802,825.3	2,962,426.4

The total amount of compensation paid to UCIs/sub-funds decreased in 2021. Overall, the total amount of compensation still remained moderate as compared to the total amount of assets under management.

4.1.3. Supervision based on the other reports and information received on a regular or ad hoc basis by the CSSF

Since the entry into force, on 23 August 2021, of the ESMA Guidelines on Article 25 of the AIFMD (ref. ESMA34-32-701), a quarterly analysis of AIFs has been carried out by the CSSF to determine the extent to which the use of leverage contributes to the build-up of systemic risk in the financial system. Where it seems necessary to ensure the stability and integrity of the financial system, this analysis may lead to the imposition of leverage limits or other restrictions in the management of AIFs. In accordance with the ESMA Guidelines, the analysis is carried out in two stages: the first consists of identifying the leveraged funds more likely to pose a risk for the financial system and the second aims to assess the potential systemic risks arising from their use of leverage. The

methodologies and first results are regularly discussed within a working group at ESMA level, composed of experts from national competent authorities of Member States and ESMA agents.

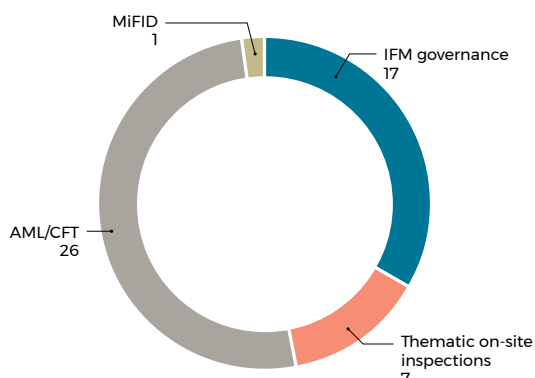
On 4 October 2021, the CSSF published the working paper *The impact of COVID-19 on large redemptions in the Luxembourg investment fund market*. This study, which is based on data collected during the crisis, examines whether net redemptions are associated with the funds' characteristics, such as leverage, portfolio liquidity, size of the fund or past performance. The COVID-19 context allows contrasting the specificities of redemptions in times of stress by comparing them to redemptions observed in "normal" times. The findings show notably that a smaller fund employing leverage and having a reduced investor basis tended to have more redemptions and that the profile of funds with more redemptions in March 2020 was not fundamentally different from that of funds with redemptions during the rest of the year, except that bond and mixed funds were overrepresented. Finally, the study documents the use of liquidity management tools by funds facing large redemptions.

4.2. On-site supervision

The "UCI on-site inspections" department carries out in-depth reviews of the IFMs' business models and governance as well as AML/CFT inspections. The "Prudential supervision and risk management" department performs thematic on-site inspections on risk management, procedures related to Circular CSSF 02/77 and money market UCIs. In the context of the COVID-19 pandemic, inspections took place remotely, mainly through videoconference and by using remote IT verification techniques.

⁹ The data as at 31 December 2021 are incomplete as the final compensation amounts had not yet been finalised for some files.

Number and themes of the on-site inspections performed in 2021 at IFMs



All the inspected entities taken together managed about 17% of the total assets under management at Luxembourg IFMs, among which were 18 inspected authorised IFMs which managed assets amounting to over EUR 10 billion. In addition to the authorised IFMs, the population of the entities inspected in 2021 included registered IFMs and one SIF.

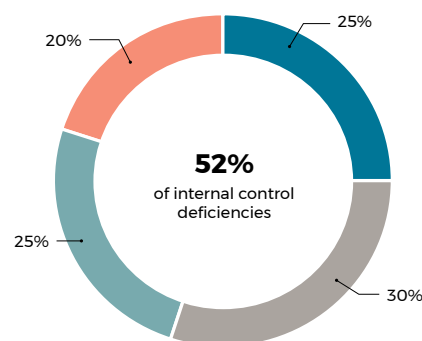
In 2021, the CSSF carried out two thematic controls dedicated to the techniques used for efficient portfolio management and five thematic controls focussed on the supervision carried out by IFMs over their branches.

Twelve on-site inspections were carried out at UCI service providers: 10 at depositary banks and two at professional depositaries of assets other than financial instruments.

- **21 inspected IFMs showed weaknesses within their internal control functions (against 17 in 2020).**

The CSSF noted shortcomings with respect to internal control functions and most significantly regarding the risk management function. Although different weaknesses relating to risk profiles continue to exist, additional deficiencies were identified in 2021 concerning stress test scenarios. Moreover, the CSSF observed that some IFMs do not get involved sufficiently in the assessment of securities portfolios of funds under management (especially where the latter contain securities for which there is no market price available). To this end, the CSSF reminds the industry that all IFMs must be able to prove that the portfolios of the managed funds have been precisely assessed.

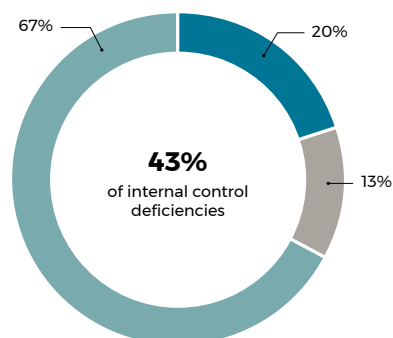
Risk management: weaknesses identified in 2021



- Organisational weaknesses (policies and procedures)
- Weaknesses relating to risk profile
- Weaknesses relating to risk monitoring
- Weaknesses relating to valuation processes

In addition, the CSSF noted that the control plan of the compliance function of some IFMs does not provide an accurate overall view of the activities actually controlled and of the risk assessed for each activity.

Compliance: weaknesses identified in 2021



- Organisational weaknesses (policies and procedures)
- Lack of communication and report comprehensiveness
- Weaknesses relating to the compliance monitoring plan

- **15 inspected IFMs showed shortcomings relating to the supervision of delegated activities (against 14 in 2020).**

In the framework of the on-site inspections concerning the IFMs' governance, the CSSF observed shortcomings regarding the supervision of delegates, particularly during the supervision of intermediaries in charge of marketing. Thus, several IFMs did not implement a supervisory mechanism that is adapted and proportionate to the size of the distribution network.

Breakdown of shortcomings concerning the supervision of delegated activities

	2020	2021
Periodical due diligence	44%	50%
Initial due diligence	35%	32%
Unknown controls	21%	18%

The CSSF also identified deficiencies concerning the comprehensiveness and accuracy of the policies and procedures within several IFMs. Some IFMs did not update their policies and procedures in order to take into consideration the development of their activities. Therefore, the CSSF would like to stress that the greatest care must be taken when drafting and updating the manual of procedures which is an essential element for ensuring the sound functioning of the IFM.

AML/CFT on-site inspections and the observations resulting from them are detailed under point 1.2. of Chapter XXI "Financial crime".

Following the above-mentioned on-site inspections, the CSSF imposed 10 administrative fines on nine IFMs totalling EUR 781,700. These fines¹⁰ break down as follows:

- three fines resulting from non-compliance with the provisions of the 2010 Law;
- three fines following infringements of the 2013 Law;
- three fines for failing to comply with the AML/CFT Law;
- one fine imposed pursuant to the provisions of the EMIR Law.

Moreover, the CSSF used its right of injunction against two IFMs and decided to withdraw the "Fit and Proper" status of two natural persons.

¹⁰ For further details on this subject, please refer to point 2. of Chapter XVIII "Instruments of supervision".

XI. Supervision of securitisation undertakings

1. Development of authorised securitisation undertakings in 2021

During 2021, the CSSF received one application for registration on the official list of authorised securitisation undertakings subject to the Law of 22 March 2004 on securitisation.

Following the deregistration of three securitisation undertakings and the registration of one securitisation undertaking during the year, 28 securitisation companies were registered on the official list of authorised securitisation undertakings as at 31 December 2021, against 30 entities at the end of 2020. The balance sheet total of authorised securitisation undertakings amounted to EUR 47.6 billion at the end of 2021, representing an increase of EUR 5.7 billion against 2020.

The submitted application files reveal that securitisation transactions mainly consist in repackaging transactions in the form of structured products issues linked to various financial assets, notably equity indices or baskets of shares, as well as in securitisation of debt, loans and other comparable assets. The repackaging transactions are mainly synthetic securitisation transactions in respect of the risk transfer technique.

In general, the securities issued by securitisation undertakings are bonds and subject to foreign law. It is also possible for some securitisation undertakings to issue warrants.

To date, no application file for a securitisation fund has been submitted to the CSSF. Neither has the CSSF received any application file for a fiduciary-representative under Luxembourg law, even though the Law of 22 March 2004 on securitisation has established a specific legal framework for these independent professionals in charge of representing investors' interests.

2. Developments in the regulatory framework

In the face of a changing financial world, the Law of 22 March 2004 on securitisation was amended by the Law of 25 February 2022 with the objective of supplementing and adapting the law to market requirements in order to encourage the development of transactions in the Luxembourg financial centre.

XII. Supervision of pension funds

1. Development of pension funds in 2021

1.1. Major events in 2021

As at 31 December 2021, 12 pension funds subject to the Law of 13 July 2005 on institutions for occupational retirement provision in the form of pension savings companies with variable capital (SEPCAVs) and pension savings associations (ASSEPs) were registered on the CSSF's official list of pension funds.

During the year, the CSSF authorised 10 new pension schemes within existing pension funds and 17 pension funds were notified in accordance with Article 11 of Directive (EU) 2016/2341 of 14 December 2016 in order to carry out a cross-border activity on behalf of a sponsoring undertaking established in another EU Member State.

The CSSF expects the growth of the pension fund sector to continue in 2022, in particular through the continuing development of the pension funds' cross-border activities.

1.2. Pension funds activities

The pension funds supervised by the CSSF manage one or several pension schemes set up by Luxembourg companies or, for some of them, by foreign companies for their employees.

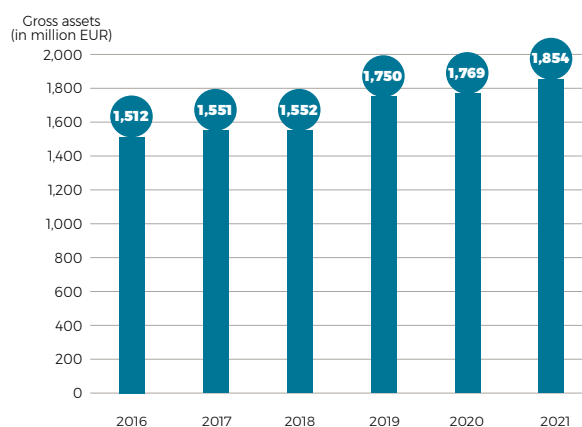
As at 31 December 2021, three pension funds managed cross-border pension schemes, a number which remained unchanged compared to 31 December 2020. These pension funds provided their services to sponsoring undertakings established in Belgium, Germany, Ireland, Portugal, Spain and the Netherlands and as well as to non-EU sponsoring undertakings.

A total of 10 out of the 12 pension funds registered on the CSSF's official list have adopted the legal form of a pension savings association and two have adopted the legal form of a pension savings company with variable capital.

1.3. Development of pension fund assets

At the end of 2021, gross assets of pension funds amounted to EUR 1,854 million against EUR 1,769 million at the end of 2020, representing a 4.8% growth.

Development of pension fund assets



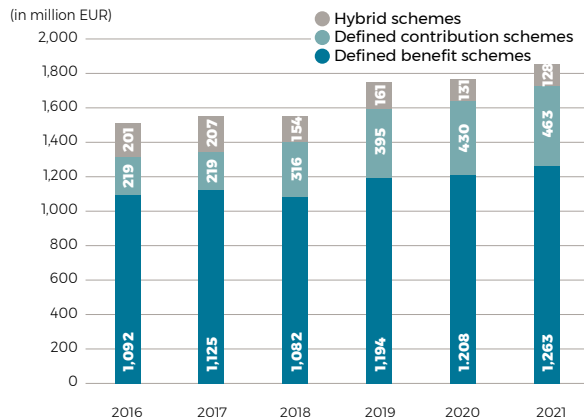
The assets of cross-border pension schemes amounted to EUR 695 million at the end of 2021 against EUR 665 million as at 31 December 2020, i.e. an increase of 4.5%.

1.4. Development of assets according to the type of pension scheme

At the end of 2021, gross assets of the defined benefit schemes amounted to EUR 1,263 million and represented 68.1% of the overall gross assets of pension funds. Gross assets of the defined

contribution and hybrid schemes amounted to EUR 591 million as at 31 December 2021, representing 31.9% of overall gross assets of pension funds.

Breakdown of assets between defined benefit schemes, defined contribution schemes and hybrid schemes

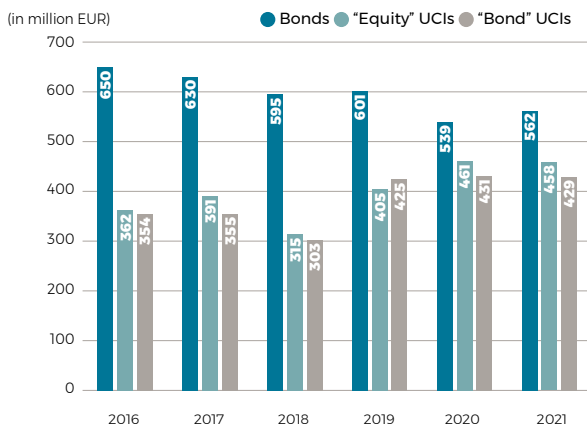


The total amount of direct investments of pension funds in bonds represented EUR 562 million, i.e. 30.3% of the total gross assets of pension funds.

1.5. Allocation of pension fund assets

In 2021, pension funds were mainly invested in investment funds with a total of EUR 1,072 million, including 42.7% (i.e. EUR 458 million) exposed to the equity market, 40.0% (i.e. EUR 429 million) exposed to the bond market and 17.3% (i.e. EUR 185 million) in mixed funds, money market funds and funds with alternative investment policies.

Allocation of pension fund assets

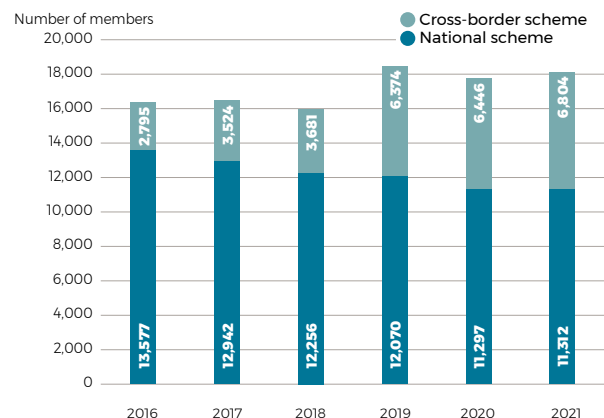


1.6. Development in the number of pension fund members

At the end of 2021, the pension funds had 18,116 members against 17,743 as at 31 December 2020. This rise is, in particular, attributable to the launch of new cross-border schemes.

An analysis of the population of members of pension funds supervised by the CSSF shows that the proportion of international members (6,804 members as at 31 December 2021) is rising compared to the previous years, reflecting the process of globalisation of certain pension funds via schemes offered in multiple host countries. A total of 10 new pension schemes with foreign sponsoring undertakings were approved in 2021.

Development in the number of pension fund members



2. Development of liability managers in 2021

The number of professionals authorised to act as liability managers for pension funds subject to the Law of 13 July 2005 amounted to 16 as at 31 December 2021 against 18 in 2020.

XIII. Supervision of securities markets

1. Prospectuses for securities

1.1. Implementation of the e-prospectus application in 2021

On 1 March 2021, the e-prospectus application has been made available to the public by the CSSF, allowing the filing of the documents to be published by the issuers when securities are offered to the public or admitted to trading on a regulated market in accordance with Regulation (EU) 2017/1129¹ (Prospectus Regulation) and the Law of 16 July 2019 on prospectuses for securities. The launch of the application was preceded by a test phase involving pilot entities, selected on the basis of the high number of filings they had made in previous years. This important step in the realisation of such a large-scale project allowed collecting very constructive comments and making adjustments before the go-live.

Subsequently and throughout 2021, the teams in charge of the e-prospectus application assisted the issuers, their legal advisers and the filing agents acting for and on behalf of the issuers of securities in order to facilitate the use of the e-prospectus.

In this context, the specific email address e-prospectus.support@cssf.lu was created in March 2021. User Guides and the phone numbers of a helpdesk have also been made available to the users via the CSSF website.

In this way, the teams in charge of the follow-up of the process were able to remain in contact with the e-prospectus users and could collect valuable

information on the manner in which users worked with the application. The information has been analysed and several improvements were made in order to facilitate the use of the application or to present new features.

The CSSF will continue to develop and to perfect the application in the years ahead.

1.2. ESMA peer review on prospectuses for securities

In accordance with Article 20(13) of the Prospectus Regulation, ESMA must organise peer reviews in order to assess the impact of different approaches with regard to scrutiny and approval of prospectuses for securities by competent authorities and on issuers' ability to raise capital in the EU.

In this context, ESMA provided, in September 2021, a questionnaire to the CSSF prior to the peer review planned for the beginning of 2022. The last quarter of 2021 was thus marked by the drafting of answers to the questionnaire and by the preparation of virtual visits planned to take place in January 2022. It should be noted that the questionnaire covered the enforcement of regulatory provisions as well as the concrete functioning of the competent authorities and the collection of statistical data. It contained qualitative questions relating to the review process of the documentation submitted for approval, the organisation and the human resources involved in the process, as well as quantitative questions needing statistical input.

During the virtual visit, ESMA representatives focussed in particular on the internal organisation of the CSSF, the methods used by its teams to review prospectuses as well as on the CSSF's IT and other tools installed in order to document and support the review and approval processes.

¹ Regulation (EU) 2017/1129 of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC

During the summer of 2022, ESMA will publish its final report on its findings and conclusions from the peer review.

1.3. Quality control of data transmitted to ESMA with respect to prospectuses for securities

In cooperation with ESMA and the other European authorities, the CSSF started in 2021 analysing the data received during the process of approval of prospectuses for securities as well as during the filing of the final terms.

Under ESMA's leadership, the CSSF participated, within the working group MITF, in the validation of IT tests of data collected in accordance with Article 11 of Delegated Regulation (EU) 2019/979². These tests aimed at revealing inconsistent or missing values in the data filed with the different competent authorities in the process of filing of prospectuses or final terms on the prospectus storage mechanism kept by ESMA (ESMA Register). Once the results had been obtained, the competent authorities, including the CSSF, analysed them and made the necessary adjustments to the ESMA Register so that the report referred to in Article 47 of the Prospectus Regulation could be published without errors.

In order to maintain satisfactory data quality, the CSSF has already established, within the e-prospectus application as well as in the filing form for the final terms, a certain number of management rules allowing or preventing the entry of certain data based on the data already provided.

During 2022, one of the major challenges of the team in charge of quality control will be to continue analysing the data provided by the filing entities when filing prospectuses for approval or the final terms, to contact the filing entities in case of suspicions of errors in a filing and, where applicable, to correct the data provided in order to send even more accurate data to ESMA.

The e-prospectus application will also have to evolve in this direction with the establishment

of new management rules notably regarding CFI codes³, value types or offered amount. Additional management rules can be integrated in order to reduce the most frequent errors.

1.4. SPAC files

The CSSF observed a rise in the transactions performed by SPACs (Special Purpose Acquisition Companies) in the framework of its approval of prospectuses drawn up in accordance with the provisions of the Prospectus Regulation. During 2021, seven prospectuses drawn up by five different SPACs have been approved by the CSSF for the admission to trading of their shares on regulated markets. Two of these SPACs also obtained approval of their respective prospectuses for the purpose of the admission to trading of additional shares issued in the context of the consummation of their business combinations with privately-owned companies (de-SPAC Transactions). The CSSF notes that these transactions may present certain advantages for the SPAC sponsors and the target companies concerned (in particular in terms of costs and fast market access for privately-owned companies). As regards information to provide to investors, the CSSF took into account the potential issues relating to investor protection given the complexity of these transactions and the significant risks related to investment in SPACs.

Through the exercise of its powers under the applicable stock market regulations, including, in particular, the rules relating to the disclosure of information by issuers of securities under the regulations governing the prospectuses for securities, the transparency requirements, market abuse and takeover bids, the CSSF intended to ensure the necessary transparency of these transactions for the markets, so as to allow investors in such SPACs to take their decisions knowledgeably in terms of investment and for the purpose of exercising their voting and redemption rights in the framework of these transactions. Among the disclosure requirements taken into account for SPACs, the CSSF attached particular attention to the information provided to investors and more generally to the market as regards the risk factors related to these transactions, as financial information must be disclosed in the framework of the combination of the companies concerned, the assessments of the target companies by the

² Delegated Regulation (EU) 2019/979 of 14 March 2019 supplementing Regulation (EU) 2017/1129 with regard to regulatory technical standards on key financial information in the summary of a prospectus, the publication and classification of prospectuses, advertisements for securities, supplements to a prospectus, and the notification portal, and repealing Delegated Regulation (EU) No 382/2014 and Delegated Regulation (EU) 2016/30

³ Classification of financial instruments code as defined by the ISO 10962 standard

SPACs, the major shareholdings and the dilution effect of business combinations following the consummation of de-SPAC Transactions, as well as potential conflicts of interest in the context of these transactions.

2. Enforcement of information published by issuers

Within the context of its mission of supervising securities markets, the CSSF is in charge of examining the information published by issuers of securities. Through this activity, generally known as enforcement, the CSSF notably ensures that the financial information complies with the relevant reporting framework, i.e. the applicable accounting standards. Moreover, since the entry into force of the Law of 23 July 2016 on the disclosure of non-financial information and diversity information by certain large undertakings and groups, transposing Directive 2014/95/EU of 22 October 2014, this control also extends to non-financial information referred to in this law. Beyond the legal and regulatory requirements, the examination of the financial and non-financial information contributes to the investors' protection and confidence in the financial markets.

2.1. Enforcement of financial information

In its communiqué of 8 March 2022, the CSSF presented the results of its 2021 enforcement campaign on financial information published by issuers of securities for 2020. The main observations of these reviews refer to issues related to the application of the international financial reporting standards (IFRS), some of which had been specific priorities and communicated by ESMA and the CSSF. These reviews allowed highlighting the following facts:

- The COVID-19 pandemic enhanced the presentation of qualitative information in the notes to the financial statements. Indeed, although the effects of the pandemic had been rapidly anticipated, they nevertheless remain a source of uncertainty for a set of estimations for which issuers must provide the information required under paragraphs 125 to 133 of IAS 1 "Presentation of Financial Statement".
- The issuers have taken into account the impacts of the pandemic in the assessment of the recoverable amounts of the cash-generating units in the framework of

the asset impairment tests required under IAS 36 "Impairment of Assets". They also provided adequate disclosures on how the assumptions have been updated to reflect the latest available information and how these assumptions have changed compared to the last reporting period.

- The information presented according to IFRS 9 "Financial Instruments" and IFRS 7 "Financial Instruments: Disclosures" still remains incomplete, in particular as regards the way the potential impacts of the health crisis are taken into account in the assessment of expected credit losses (ECL) of non-financial undertakings.

2.2. Enforcement of non-financial information

The 2021 campaign focussed on certain general considerations of the Law of 23 July 2016 in order to improve its application. Thus, even though the obligations under this law are in general complied with by the issuers concerned, certain aspects must be improved such as the concept of double materiality which needs to be taken into account, to a greater extent, in the assessment of material matters for the entities concerned.

The CSSF has also carried out a thematic review on climate and environmental-related information disclosed by issuers. Although all the issuers already disclose environmental information, climate-related information is often omitted, or incomplete when addressed.

This thematic review also allowed defining the quantitative and qualitative evolution of information presented since the entry into force of the Law of 23 July 2016, applicable since 1 January 2017.

2.3. Challenges and priorities for 2022

In 2022, the CSSF will continue to follow the prolonged impacts of the COVID-19 pandemic on financial statements, notably in the description of assumptions regarding business continuity, significant judgements, estimation uncertainty, presentation of financial statements and impairment of assets.

The impact of the Ukraine crisis on the financial statements of issuers, notably for the half-yearly closing, will also be monitored more closely.

Moreover, special attention will be paid to the information presented by credit institutions on their ECL.

Indeed, in 2022, the CSSF will control the enforcement of the new disclosure requirements under Article 8 of the Taxonomy Regulation which entered into force on 1 January 2022. It also envisages monitoring the way in which climate-related topics impact the financial statements of issuers under its supervision, as explained in the communiqué of 17 December 2021.

The CSSF also recommends issuers under its supervision to follow the developments with respect to sustainable finance expected at medium term, including in particular the new Corporate Sustainability Reporting Directive and the future European standard as regards green bonds.

3. Supervision of issuers

In order to guarantee a high level of investor protection, the CSSF notably ensures, in the framework of its mission as competent authority under the Law of 11 January 2008 on transparency requirements for issuers (Transparency Law), that the issuers disclose periodic and ongoing information. In this context, several initiatives and projects emerged, aiming in particular at improving the structure of information and data published in relation with issuers of securities, notably in order to deal with the increasing needs of their re-use.

3.1. ESEF requirements

Following the CSSF's decision to use the option to postpone by one year the mandatory application of the European Single Electronic Format (ESEF) requirements, Delegated Regulation (EU) 2019/815 now requires issuers to draw up their annual financial reports in XHTML format. Concretely, this obligation applies to the annual financial reports for periods beginning on or after 1 January 2021. Moreover, issuers subject to the obligation to draw up IFRS consolidated financial statements must mark up those consolidated financial statements using XBRL, as imposed by the aforementioned Delegated Regulation. It should be noted that ESEF only applies to the issuers referred to in Article 3 of the Transparency Law and does thus not concern the issuers benefiting from an exemption under Articles 7(1) and 7(4) of that Law. In the ESEF context, the CSSF intends, in a first step, to focus on the verification of issuers required to draw up IFRS consolidated financial statements.

3.2. Filing platform eRIIS

At the beginning of 2022, the CSSF launched its online portal eRIIS (electronic Reporting of Information concerning Issuers of Securities), a web application allowing entities subject to the Transparency Law and the Market Abuse Regulation⁴ to fulfil a wide range of filing obligations with the CSSF. Thus, eRIIS is not only a system for regulatory filing (allowing for instance to file the regulated information under the Transparency Law or diverse publications under the Market Abuse Regulation), but also a secure channel of communication with the CSSF. eRIIS also provides users with an overview of their exchanges with the CSSF and real-time tracking of regulatory filings, notably by consulting the status of the individual filings or the different dashboards.

This also allowed developing a number of advanced features, such as the automated processing of certain filings (in particular for the annual financial reports established under the new ESEF format) as well as interfacing with the OAM system.

Finally, particular care was taken to design a system sufficiently flexible to allow entities to manage their access rights and delegate access to third parties, without compromising the security.

3.3. European Single Access Point (ESAP)

In November 2021, the European Commission proposed a number of measures to develop the European single public access to the information on the activities and products of capital markets, financial markets and sustainable finance. Concretely, the European Commission is working on the implementation of a European Single Access Point (ESAP) which will be a central means of European access to information made available under a set of regulatory European texts and accessible today through a number of individual European and national databases. In addition to this European access point, the project also provides for provisions aiming to improve the reuse of data and information, with respect to their structure as well as their security.

⁴ Regulation (EU) 596/2014 of 16 April 2014 on market abuse

4. Market abuse

4.1. Suspicious transaction and order reports (STORs)

In 2021, the CSSF received 74 suspicious transaction and order reports (STORs) under Article 16 of the Market Abuse Regulation from the market operator and other professionals established in Luxembourg. The increase as compared to the previous year (+19 STORs) seems to be caused mainly by the introduction, by certain Luxembourg professionals, of automatic monitoring systems. More than half of the STORs transmitted by Luxembourg professionals concerned market manipulation suspicions while the other STORs concerned suspicions of insider dealing.

At the same time, the CSSF received 10 STORs from its foreign counterparties.

The CSSF also continued its endeavours to further engage with Luxembourg investment fund managers (IFMs) as regards their obligations under the STOR regime, in particular through exchanges with ALFI and the integration of this topic in the on-site inspections performed at IFMs. The CSSF's activities in this field continue, including as regards the thematic review mentioned in the CSSF Annual Report 2020.

4.2. Cooperation and exchange of information with foreign supervisory authorities

In 2021, the CSSF opened around 30 inquiries relating to requests for assistance from its foreign counterparties, mainly under IOSCO's Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information and under the Multilateral Memorandum of Understanding providing a legal framework for cooperation arrangements and exchange of information between competent authorities and ESMA.

About half of these requests related to inquiries into insider dealing carried out by the requesting foreign authority. The other requests related either to inquiries into market manipulation or to very diversified and increasingly complex subjects. Among these requests, notably from third-country regulators, the CSSF noted an increasing number of cooperation requests concerning various types of digital platforms (such as crypto-assets trading

platforms) involving a large number of market intermediaries, in the context of cross-border actions, such as offers, distribution or trading of securities, as well as more complex financial instruments, such as derivative products (notably binary options or financial contracts for difference) and various types of crypto-assets. The CSSF also noted a rising number of international administrative cooperation requests that aim at inquiries with concomitant judicial proceedings (at criminal, civil or administrative level).



XIV. Supervision of market infrastructures

1. CSDR and supervision of central securities depositories

In accordance with Article 1(1) of the Law of 6 June 2018 on central securities depositories and implementing Regulation (EU) No 909/2014 of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories (CSDR), the CSSF is the competent authority in charge of exercising the duties under CSDR for the authorisation and supervision of central securities depositories (CSDs) established in Luxembourg.

In the framework of CSDR, the CSSF contributes, through different ESMA working groups, including a joint working group with the ECB (T2S), to the development of implementing measures regarding CSDR and of ESMA publications in order to promote common positions between competent authorities in the application of CSDR.

As at 31 December 2021, two entities were authorised in Luxembourg as CSD under CSDR. Indeed, in April 2021, the CSSF granted a second CSD authorisation pursuant to Article 16 of CSDR to an entity in parallel with the authorisation of an interoperable link pursuant to Article 19 of CSDR and the authorisation to provide, under the banking licence, ancillary banking services to CSD participants pursuant to Article 54 of CSDR.

As regards the supervision of authorised CSDs, the CSSF must carry out a review and evaluation, at least on an annual basis, in accordance with Article 22 of CSDR and, in addition thereto, an assessment in accordance with Article 60 of CSDR of CSDs providing banking services. The evaluation in accordance with Article 22 of CSDR, which was carried out for the first time in 2021 for the CSD that received last year the first authorisation as

CSD in Luxembourg, was coupled with a prudential supervision of the two authorised CSDs. The evaluations under Articles 22 and 60 of CSDR of the CSD authorised in April 2021 will be carried out for the first time in the course of 2022.

In 2021, no additional extension was granted for the date of entry into force of Commission Delegated Regulation (EU) 2018/1229 relating to regulatory technical standards on settlement discipline which remained fixed at 1 February 2022. Following the political agreement of November 2021 between European co-legislators concerning the modification of CSDR in order to postpone the implementation of the mandatory buy-in, ESMA acknowledged that the competent authorities should not prioritise the supervision of this obligation until the procedure for its formal postponement has been implemented in spring 2022. In the fourth quarter of 2021, the CSSF established the technical connections necessary for the receipt and transmission of the reports required under Article 14 of CSDR due for March 2022.

Within the context of monitoring the disruptive effects of the COVID-19 pandemic on the markets, and in particular on settlement fails within European CSDs, the CSSF strengthened the monitoring of the evolution of settlement fails at the entities operating a securities settlement system established in Luxembourg, in close cooperation with ESMA. After an increase of settlement fails at the onset of the crisis, the situation returned to normal and, in 2021, the supervision could base on the usual weekly reporting on the volume of fails, which was implemented between CSDs established in Luxembourg and the CSSF and, subsequently, ESMA via continuous sharing of the data received. This reporting as well as the enhanced monitoring of settlement fails were carried out by the CSSF and ESMA with the aim to also ensure a gradual transition to the new regime entering into force in 2022.

Within the framework of the reporting by settlement internalisers (Article 9 of CSDR), more than 130 entities submitted their reporting, on a regular basis, as required by the regulation.

In 2021, the CSSF also participated in the drafting of the DLT Pilot Regime on the initiative of the European Commission with the aim to strike the right balance between innovation and use of new technologies and reliability and soundness of market infrastructures in the future.

2. EMIR

In the framework of Regulation (EU) 648/2012 of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation – EMIR), the CSSF contributes, through different ESMA working groups, to the development of implementing measures regarding EMIR and of ESMA publications in order to promote common positions between competent authorities in the application of EMIR¹.

In Luxembourg, the CSSF is the competent authority to ensure that the financial counterparties subject to its supervision and the non-financial counterparties comply with certain EMIR provisions, as provided for in the Law of 15 March 2016 on OTC derivatives, central counterparties and trade repositories. Consequently, the CSSF receives 6 million reports per day from trade repositories for a total exceeding 1.3 billion transactions in 2021. These reports concern about 13,000 counterparties established in Luxembourg which are exposed to around one million derivative contracts. The notional amount is about EUR 8,800 billion, which corresponds, based on ESMA estimates, to around 3.61% of the total notional amount of the EEA.

In 2021, the CSSF continued the action plans to enhance the data quality (CSSF DQAP) of the reports made under Article 9 of EMIR by liaising with entities whose reported data quality raises several questions.

Within the context of the 2021 CSSF DQAP, the CSSF contacted 14 entities representing 219 counterparties in order to discuss questions relating to the reported data. It has moreover focussed on entities not reporting variation margins or contract values and on entities whose values

reported for the business sector or the type of counterparty are not consistent or coherent. Even if the CSSF DQAP revealed a general enhancement of the data quality, some players still encounter difficulties in addressing data quality defects, or previously resolved reporting problems may reappear at a certain time. Thus, it is important to ensure the sustainability of the corrections made. Furthermore, the results show that improvements in the quality of quantitative data (contract value, variation margin and notional amount) must, in particular, aim at the completeness and timeliness of the reports.

In addition to the 2021 CSSF DQAP, the CSSF initiated a one-off exercise in order to correct inconsistencies identified in the reports made by the counterparties in the fields “Sector of the reporting counterparty”, “Clearing threshold” and “Nature of the reporting counterparty”. It was observed that non-financial reporting counterparties lack information on details that must be reported, including in case of delegation of the reporting obligation under EMIR to several entities. This leads to inconsistent and incomplete reports. Consequently, the CSSF invites non-financial reporting counterparties to provide the different entities, to which the reporting obligation under EMIR has been delegated, with the elements of OTC derivative contracts concluded, which the entity actually reporting their transactions cannot be reasonably expected to possess. ESMA’s EMIR Q&A provides useful clarification on this aspect.

As each year since 2015, the CSSF participated in the ESMA EMIR Data Quality Review. In 2021, 11 counterparties were contacted according to common EU criteria. The conclusions of this exercise are in line with the observations in the CSSF DQAP.

EMIR allows benefitting from intragroup exemptions according to Articles 4(2), 9(1) and 11(5) to 11(10). In 2021, the following notifications were submitted and accepted by the CSSF:

- 12 notifications covering 69 counterparty pairs concerning the intragroup exemption from the reporting obligation under EMIR, according to Article 9(1) of EMIR;
- 25 notifications covering 25 counterparty pairs concerning the intragroup exemption from the exchange of collateral obligation under EMIR, according to Article 11 of EMIR.

¹ As regards more specifically the EMIR supervision of credit institutions, see also point 1.8. of Chapter VII “Supervision of banks”.

No notification concerning the intragroup exemption from the clearing obligation under EMIR, in accordance with Article 4(2) of EMIR, has been submitted or accepted.

The CSSF received 28 notifications informing that clearing thresholds have been exceeded for financial or non-financial counterparties (FC+ or NFC+), according to the obligations provided for in Articles 4(a) and 10 of EMIR. This brings the number of counterparties established in Luxembourg that exceed or that have decided not to monitor the clearing threshold to 1,255.

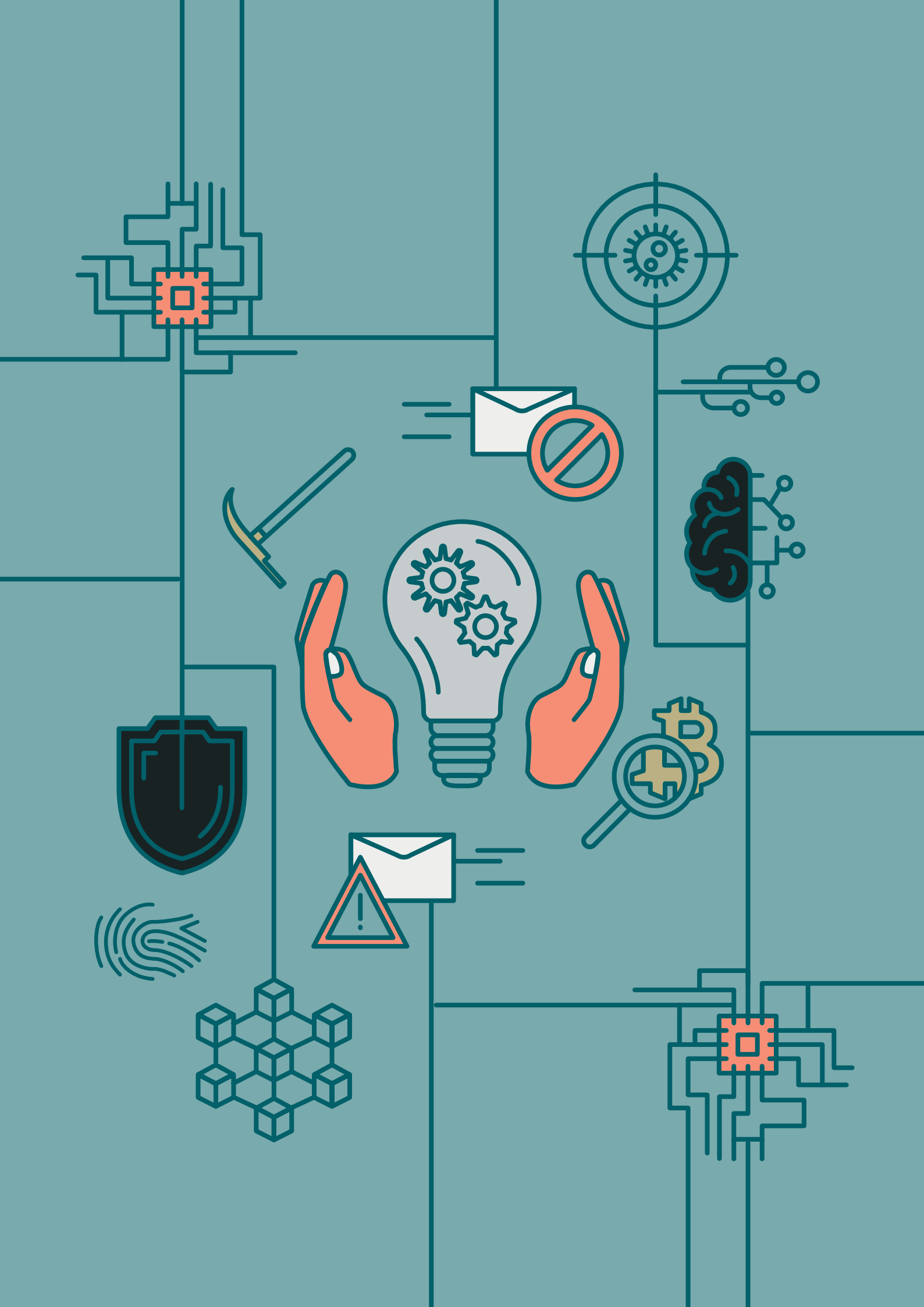
3. Transparency of securities financing transactions

In the framework of Regulation (EU) 2015/2365 of 25 November 2015 on transparency of securities financing transactions and of reuse and amending Regulation (EU) No 648/2012 (Securities Financing Transaction Regulation – SFTR), the CSSF contributes, through different ESMA working groups, to the development of implementing measures regarding SFTR and of ESMA publications in order to promote common positions between competent authorities in the application of SFTR. In accordance with Article 1 of the Law of 6 June 2018 on transparency of securities financing transactions, the CSSF is the competent authority regarding SFTR for financial counterparties subject to its supervision as well as for non-financial counterparties.

Since 11 January 2021, the reporting obligation under SFTR applies to all entities that fall under the scope of SFTR and the CSSF has set up an IT solution to retrieve SFTR data of trade repositories authorised by ESMA.

The CSSF receives 300,000 reports per day from trade repositories for a total exceeding 70 million transactions in 2021. These reports concern approximately 2,700 counterparties established in Luxembourg.

The CSSF participated in two data quality exercises in the context of the ESMA SFTR Data Quality Engagement Framework. In 2021, 11 counterparties, in their role as counterparties or entities responsible for reporting, were contacted according to common EU criteria. The results are being analysed by ESMA. From one financial period to another, some of these entities could demonstrate a significant enhancement of the quality of their reports while others are still engaged in actions aiming to respond to the CSSF's requests or comments.



XV. Supervision of information systems

This chapter deals with the supervision of information systems of financial professionals, including mainly credit institutions, investment firms, specialised PFS, payment institutions and electronic money institutions. As regards the specific supervision of support PFS, reference is made to point 3. of Chapter VIII “Supervision of PFS”.

1. Major events in 2021 and challenges for 2022

1.1. Digital resilience

As a continuation of the activities initiated in 2020 on digital resilience, the CSSF followed the progress of the European Commission’s work on the proposal for a European regulation titled *Digital Operational Resilience Act (DORA)*, published in September 2020. The aim of this ambitious text is to develop a single regulatory and supervisory framework for digital resilience in the financial sector. The proposed measures relate to Information and Communication Technology (ICT) governance, ICT risk management, a harmonised ICT-related incident reporting process, digital operational resilience testing (i.e. advanced intrusion testing simulating real cyberattacks, like for example presented in the TIBER-EU framework), management of risks associated with ICT third-party service providers (in particular through the creation of an oversight framework for designated critical providers) and information sharing. The estimated date of entry into force is at the end of 2022. The different articles of the regulation as well as the related regulatory technical standards are expected to be implemented between one and three years after the entry into force. In 2021, the CSSF continued to assist the Ministry of Finance in reviewing the proposal for a regulation and to suggest improvements.

The CSSF also followed the European Commission’s work on the proposal for a new directive (NIS2) concerning measures for a high common level of security of network and information systems across the EU, repealing Directive (EU) 2016/1148 (NIS1). NIS2 updates the existing legal framework taking into account the increased digitalisation of the EU internal market, the evolution of cybersecurity threats as well as the findings of the European Commission following its assessment of the implementation of NIS1 in the Member States. NIS2 is expected to enter into force in 2022, and to be transposed 18 months after the entry into force.

Moreover, the CSSF followed with interest the European Commission’s proposal dated June 2021 on a European digital identity framework offering a secure and trusted means to authenticate and to exchange qualified data attributes online through a “digital wallet” issued by the Member States and allowing transactions throughout the entire EU. These personal digital wallets will allow citizens to digitally identify themselves, store and manage identity data and official documents in electronic format. The European Commission’s proposal amends and updates the existing eIDAS Regulation, addressing the challenges posed by its structural deficiencies and its limited implementation, as well as the technological developments since it was adopted in 2014. These topics are currently being discussed from a legal perspective, and the development of a common toolbox, dealing with the technical aspects of the future system, is also expected by September 2022.

Another major event of the year 2021 was the joint adoption, by the BCL and the CSSF, of the testing framework for controlled cyberattacks, referred to as TIBER-LU (Threat Intelligence-based Ethical Red Teaming). TIBER-LU represents the national implementation of the TIBER-EU framework,

created and maintained by the ECB. The most critical supervised entities are invited to carry out TIBER exercises, assisted by a joint BCL-CSSF team. Further information is available in a CSSF press release¹ dated 3 November 2021.

Moreover, the CSSF finalised its study and analysis on distributed ledger technologies (DLT), initiated in 2020, in response to a growing market interest. This work, which was conducted in cooperation with various experts in this field, resulted in the publication, on 21 January 2021, of a White Paper² whose purpose is to provide guidance to the financial sector professionals intending to use this innovative technology when performing their risk analysis.

In 2022, the CSSF will continue to follow the development of important ongoing European projects. The CSSF will work towards proper awareness, understanding and implementation of the current requirements relating to ICT and security risk management, and it will oversee, with the BCL, the first TIBER test conducted in Luxembourg.

Aware of the potentially disruptive impact of new technologies (AI, DLT, etc.) applied to the financial industry, the CSSF will also carry out a technology watch to keep abreast of the developments in these areas and to support the financial sector, as far as possible, on these topics. This technology watch will notably include meeting and exchanging with entities involved in projects using these new technologies or participating in national and European working groups focussing on these topics. The resulting discussions and opinions will complement the work of the departments in charge of the entities' prudential supervision and of the Innovation Hub (see also Chapter V "Financial innovation").

1.2. PSD2 requirements relating to payment security and access to payment accounts

The regulatory technical standards (RTS) for strong customer authentication (SCA) and common and secure open standards of communication entered into force in September 2019.

After having considered the specific difficulties related to e-commerce card payments, the EBA granted some flexibility to the supervisory authorities for this type of payments in its opinion on the elements of strong customer authentication to bring the market into compliance by 31 December 2020.

Similarly to the exercises carried out by its European counterparts, the CSSF's regular follow-up on the progress made in Luxembourg in 2020 continued during the first quarter of 2021 to obtain confirmation by the main market players concerned that compliance has been achieved. This confirmation was included in the last report transmitted by the CSSF to the EBA in April 2021.

Concerning the interfaces for access to payment accounts by third-party payment service providers, the EBA published, on 4 June 2020, an opinion to clarify whether certain market practices constitute obstacles to the provision of services by third-party providers under PSD2. After having informed the institutions concerned, i.e. the payment service providers offering payment accounts and interfaces for access or payment initiation, the CSSF followed up, in 2021, on still-existing obstacles and their resolution. This allowed the CSSF to ensure that most obstacles were removed by the end of 2021. A number of remaining obstacles require major modifications to the underlying IT systems. The CSSF will monitor the proper implementation of the resolution plans of the institutions concerned to finalise compliance of their interfaces with the EBA opinion.

Moreover, after having contributed to the consultation aiming at assessing the adequacy of the criteria triggering a major incident report in 2020, the CSSF participated in the drawing-up of the new version of the EBA Guidelines on major incidents reporting published in 2021, applicable as from 1 January 2022. The CSSF will continue its active participation in the EBA working groups which will notably have to respond to the European Commission's consultation on the upcoming PSD2 review in 2022.

¹ www.cssf.lu/en/2021/11/tiber-lu/

² www.cssf.lu/en/Document/white-paper-distributed-ledger-technologies-dlt-and-blockchain/

1.3. Adaptation of the CSSF expectations and practices as regards IT outsourcing

As a follow-up of its analysis carried out in 2020, the CSSF initiated a gradual adaptation of its IT risk supervision strategy in 2021. In this context, Circular CSSF 21/785 of 14 October 2021 replaced the prior authorisation obligation by a prior notification obligation in the case of material IT outsourcing. The internal procedures of the CSSF have been adapted to ensure a more risk-proportionate processing of these notifications.

The finalisation of a comprehensive circular on outsourcing, expected in 2022, presenting all the CSSF expectations on any type of outsourcing, including IT outsourcing, in a single text, will be based on these strategic analyses.

In 2022, the CSSF will continue the implementation of further tools and means supporting its strategy.

It should be noted that about 40% of the requests for advice or authorisation originated from credit institutions.

As regards the on-site supervision of the information systems, the on-site inspections aiming to cover the IT risk are described in more detail in point 1.11. of Chapter XVIII “Instruments of supervision”.

2. Supervision of information systems in practice

Supervision includes verifying that supervised entities comply with the legal and regulatory framework, with the direct (or indirect) aim of maintaining or improving the activities’ professionalism, focussing, in particular, on the technologies implemented as part of the information systems. This implies taking into account the specific nature of the outsourcing of services to support PFS or third parties, within or outside the group.

In the context of the off-site supervision of the information systems, the CSSF processed 330 requests in 2021, i.e.:

- a total of 42 applications for authorisation or for the extension of authorisation (IT-related part) for different types of entities (credit institutions, electronic money institutions, payment institutions, PFS);
- a total of 288 requests for advice or authorisation relating to IT projects submitted by supervised entities (most of them concerned outsourcing, remote access, security of online services or major system changes) and specific IT issues (for example critical items of a management letter from a *réviseur d’entreprises agréé* (approved statutory auditor)).

XVI. Supervision of the remuneration policies

The CSSF ensures compliance with the requirements regarding governance and remuneration in the financial sector. The procedures and arrangements implemented by the entities with respect to remuneration form an integral element of robust internal governance arrangements which ensure that risks are managed in an efficient and lasting manner. In 2021, the CSSF thus continued to carry out reviews in order to ensure compliance with the legal and regulatory requirements applicable to remuneration policies and practices.

Moreover, the CSSF pursued its annual benchmarking exercise of the remuneration practices at national level. In this context, the CSSF noted that credit institutions granted variable remunerations at the same level as in the previous year, amounting, on average, to 44% of the fixed component of the remuneration in 2021 for performance year 2020, that the proportion of the variable remuneration paid out in financial instruments amounted to 40% on average (against 38% in 2020) and that the deferred part of variable remuneration amounted, on average, to 35% (against 32% in 2020), showing a positive trend in the sound and effective risk management.

In 2021, the CSSF continued receiving higher ratio notifications from credit institutions and CRR investment firms, for the purpose of paying variable remuneration exceeding 100% of the fixed component. In this context, the CSSF ensures compliance with the procedure set out in Article 38–6(1)(g) of the Law of 5 April 1993 on the financial sector and clarified in Circular CSSF 15/622.

With reference to the recommendations published in 2020 in the context of the COVID-19 pandemic and the expectations of institutions to be extremely prudent when paying out variable remuneration until September 2021, the CSSF continued to pay

particular attention to the application of these recommendations, especially when analysing the aforementioned notifications and the associated exceptional variable remuneration levels.

Due to the adoption of the regulatory packages CRD V/CRR 2 and IFD/IFR and the new associated prudential regime for credit institutions and investment firms, the EBA continued, in 2021, to update and draft guidelines and delegated regulations in the areas of remuneration and governance for the relevant entities. The update of the guidelines on:

- sound remuneration policies under Directive 2013/36/EU (EBA/GL/2021/04) and under Directive (EU) 2019/2034 (EBA/GL/2021/13);
- internal governance (EBA/GL/2021/05 and EBA/GL/2021/14);
- the assessment of the suitability of members of the management body and key function holders (EBA GL 2021/06), together with ESMA;

will have an impact on the operations of the supervised entities as regards governance and remuneration.

Finally, the CSSF has planned to assess, in 2022, the diversity and gender pay gaps within the management bodies of the supervised entities.

XVII. Public oversight of the audit profession

1. European cooperation

Established by Regulation (EU) No 537/2014, the CEAOB (Committee of European Auditing Oversight Bodies) is the framework for cooperation between the different public audit oversight authorities in the EU. Among its members are the representatives of the European national competent authorities, the European Commission and ESMA. Representatives of the EEA national authorities also participate in the meetings, as well as the EBA and EIOPA as observers.

The CSSF is an active member of the CEAOB. It is represented notably within the consultative group which assists the chairperson of the CEAOB with the coordination of the work, chairs the sub-group relating to inspections and is a member of other sub-working groups.

1.1. Specific activities relating to current topics

The CEAOB anticipated possible impacts that certain European developments could have on the audit profession and its supervision:

- by expressing its views to the European institutions on the application of the proposal for a regulation on digital operational resilience for the financial sector (DORA) to the audit profession;
- by providing a targeted answer to the *Targeted consultation on the supervisory convergence and the single rulebook – Taking stock of the framework for supervising European capital markets, banks, insurers and pension funds*;
- by organising exchanges of views on the proposal for a directive on corporate sustainability reporting (CSRD) and on the

development of European standards, in conjunction with the involvement of the CEAOB in the EFRAG Project Task Force on EU sustainability reporting standards (PTF-ESRS);

- by responding to the public consultation *Corporate reporting – improving its quality and enforcement*, launched in November 2021, concerning the three pillars of corporate reporting: corporate governance, statutory audit and supervision.

More detailed information is available on the website of the CEAOB¹.

1.2. Guidelines issued by the CEAOB

In March 2021, the CEAOB adopted guidelines on the appointment of statutory auditors or audit firms by PIEs² and notably on the circumstances requiring a formal selection procedure (Article 16 of Regulation (EU) No 537/2014). These guidelines were implemented and adapted simultaneously in Luxembourg in the form of an FAQ.

In November 2021, the CEAOB adopted guidelines dealing with the auditors' involvement on financial statements in the European Single Electronic Format (ESEF). They take into account the European Commission Interpretative Communication 2020/C379/01 which was published after the issuance, in November 2019, of the initial guidelines which were thus replaced. They provide for further clarifications drawn from the experience gained in the implementation of the ESEF and

¹ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/regulatory-process-financial-services/expert-groups-comitology-and-other-committees/committee-european-auditing-oversight-bodies_en

² Public-interest entity

the exchanges of views with representatives of the audit profession.

1.3. Comment letters relating to standard setting proposals

The CEAOB provided the point of view of the European audit regulators on the following topics:

- IAASB – Consultation – Fraud and going concern in an audit of financial statements (29 January 2021);
- IESBA – Proposed revisions of the definitions of listed entity and public-interest entity in the Code of Ethics (3 May 2021).

1.4. Other publications

In 2021, the CEAOB also published:

- the common information security and cybersecurity inspection programme in audit firms;
- an infographic relating to the findings from inspections of the IT audit work;
- the 5th report on the statistical and qualitative study of the activity of the CEAOB members with respect to investigations and sanctions.

The analysis of the level of materiality applied by the audit firms (Article 11 of Regulation (EU) No 537/2014) is being finalised and will be published in 2022. Its aim is to compare the audit network methodologies with the results observed by national competent authorities during their inspections and to achieve a better understanding of the interactions between the audit committees and the auditors on how the level of materiality is determined by the auditor.

2. Legal, regulatory and normative framework of the audit profession

In January 2022, the CSSF adopted CSSF Regulation No 22-01 relating to the adoption of auditing standards in the field of statutory audit which repeals and replaces the regulation adopted in 2019. This regulation introduced amendments concerning:

- the revised ISA 220 on quality management for an audit of financial statements which is effective for audits of financial statements for periods beginning on or after 15 December 2022;
- ISA 315, revised in 2019, on the identification and assessment of the risks of material misstatement which is effective for audits of financial statements for periods beginning on or after 15 December 2021 as well as conforming and consequential amendments to other international standards following the publication of this revised standard;
- ISQM1 on quality management for firms that perform audits or reviews of financial statements or other assurance or related services engagement which replaces ISQC1 as from 15 December 2022;
- ISQM2 on engagement quality reviews which is effective for audits of financial statements for periods beginning on or after 15 December 2022;
- revisions of the Code of Ethics concerning the role and state of mind of professional accountants, the objectivity of the individual responsible for the engagement quality control review and the provisions relating to non-audit services and fees received by the statutory auditor;
- some amendments to these standards in order to comply with Regulation (EU) No 537/2014 of 16 April 2014 on specific requirements regarding statutory audit of public-interest entities;
- adoption of guidelines dealing with the auditors' involvement on financial statements in the European Single Electronic Format (ESEF) based on the guidelines issued by the CEAOB (see above).

Circular CSSF 22/794 amended Circular CSSF 19/717 to reflect these amendments concerning the parts “Application and Other Explanatory Material”, and, where appropriate, the “Appendices” to the international standards on auditing. The “Application and Other Explanatory Material” as well as the “Appendices” were also supplemented by provisions introduced by the European directive and regulation and by additional information on the auditors’ involvement on financial statements in ESEF.

3. Quality assurance review

3.1. Scope

By virtue of the Law of 23 July 2016 concerning the audit profession (Audit Law), *réviseurs d’entreprises agréés* (approved statutory auditors) and *cabinets de révision agréés* (approved audit firms) are subject to a quality assurance review of the audit engagements, organised according to the terms laid down by the CSSF in its capacity as oversight authority of the audit profession.

The population of *cabinets de révision agréés* and *réviseurs d’entreprises agréés* that carry out statutory audits is as follows (as at 31 December 2021):

- 52 *cabinets de révision agréés*, 11 of which audit PIEs;
- seven independent *réviseurs d’entreprises agréés*, none of which audits PIEs.

Based on the data collected through the “Annual Annexes” for the year 2021, the audit engagements break down as follows between *cabinets de révision agréés* and independent *réviseurs d’entreprises agréés*:

- 82% of the audit engagements are carried out by the “Big 4”³;
- 10% of the audit engagements are carried out by medium-sized audit firms⁴;
- 8% of the audit engagements are carried out by the other audit firms and independent *réviseurs*.

3.2. Activity programme for 2021

The CSSF set down a multiannual programme for the control of *cabinets de révision agréés/réviseurs d’entreprises agréés* which aims at observing the legal quality assurance review cycle, being three years for firms that audit PIEs and six years for the other ones. This programme is based on the information transmitted by firms and *réviseurs* through the “Annual Annexes” relating to their activity.

Under the 2021 programme, two independent *réviseurs* and 16 firms were reviewed, six of which audit PIEs and nine are members of an international network. The quality assurance reviews focussed on:

- the understanding and documentation of the organisation, policies and procedures established by the reviewed firms in order to assess compliance with the International Standard on Quality Control (ISQC1);
- the review of a sample of audit files relating to audit engagements of the financial years 2021 (three reviewed files) and 2020 (or 2019, 2018, where appropriate);
- the completion of a specific follow-up for professionals for which material weaknesses were noted in the previous financial years.

The two independent *réviseurs* and the 16 reviewed audit firms reported⁵ a total of 9,607 audit engagements, including 435 in relation to PIEs. Under the 2021 review programme, 179 mandates were reviewed, 56 of which concerned PIEs.

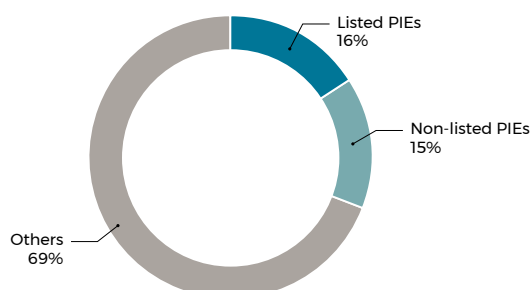
The quality assurance reviews started in January 2021 and were carried out by nine CSSF inspectors with professional audit experience and expert knowledge in the business areas of the financial centre. These reviews represented a total of 9,300 hours.

³ PwC, KPMG, Deloitte, EY

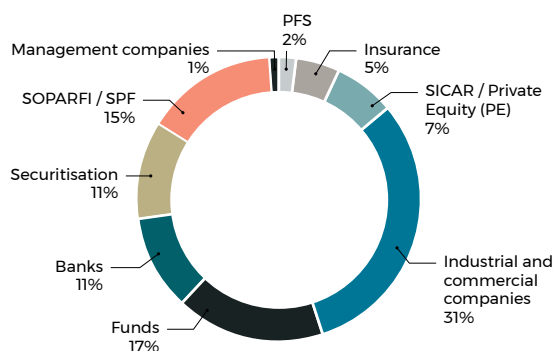
⁴ Firms that carry out over 100 audit engagements (as at 31 December 2021, three firms are concerned)

⁵ Based on the statements of *cabinets de révision agréés* as at 31 December 2021

Breakdown of audit files reviewed by the CSSF in 2021 per entity type



Breakdown of audit files reviewed by the CSSF in 2021 per sector



It should be noted that for the investment fund sector files, a specific inspection has been implemented in addition to the individual review of the audit files. This inspection consists notably of on-site inspections within the firms in relation to the independent valuation processes of portfolio securities and derivative financial instruments.

3.3. Conclusions of the 2021 quality assurance review campaign

Among the 18 reviews, the CSSF carried out a specific follow-up of five *réviseurs d'entreprises agréés* due to previous campaign conclusions. The specific follow-up was maintained for three of them.

For the 2021 campaign (specific follow-ups excluded), the following conclusions were transmitted to the *réviseurs d'entreprises agréés* in the context of 16 inspection reports already issued:

- a training plan was given to one *réviseur d'entreprises agréé*;
- seven *réviseurs d'entreprises agréés* were subject to a specific follow-up.

3.4. Major issues identified during the quality assurance reviews of 2021

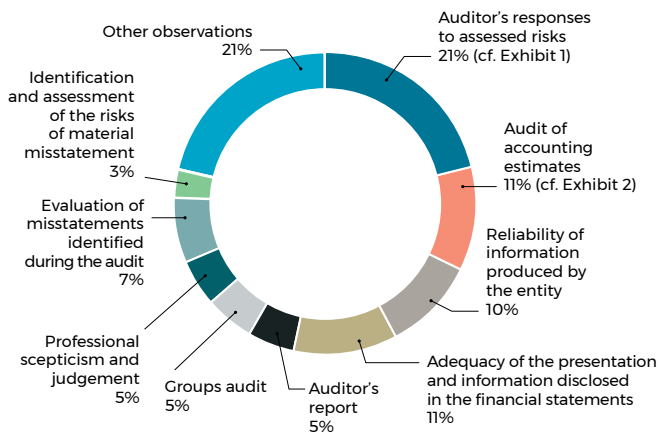
3.4.1. Review of the internal quality control systems

In 2020, the CSSF noted that the follow-up processes with respect to the population of PIEs in order to comply with the requirements of Regulation (EU) No 537/2014 were not sufficiently centralised within the *cabinets de révision agréés* and that they provided conflicting information according to the objectives pursued by the regulation. The follow-up carried out by the CSSF in 2021 shows an improvement, but the processes could be still further improved notably with respect to the follow-up of the rotation of the firm and the disclosure of information on the revenue generated from services provided to PIEs. The CSSF will continue to closely monitor this point.

3.4.2. Audit files

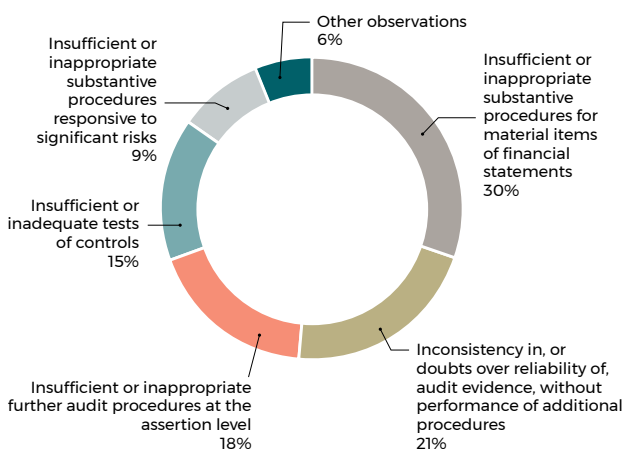
The number of observations made and significant findings identified remains high compared to the number of reviews carried out and has been high for two consecutive years. The conclusions of the inspection carried out in 2021 are thus substantially similar to those of the preceding year, despite the pandemic which greatly affected the performance of audits by imposing the management of remote teams and by focussing the attention of the *réviseurs d'entreprises* (statutory auditors) on compliance with the requirements of the standard ongoing concern. The *cabinets de révision agréés* quickly adapted to these new constraints. However, this observation should prompt the *cabinets de révision agréés* to maintain and increase their efforts concerning key indicators influencing the audit quality.

The following graphs summarise the observations made during the 2021 quality inspections.

Main observations issued on the files

The main observations highlighted by these inspections related to the auditors' responses to assessed risks (see Exhibit 1) and the audit of accounting estimates (see Exhibit 2). Some less frequent observations are grouped in the category "Other observations". They notably fall within the following standards:

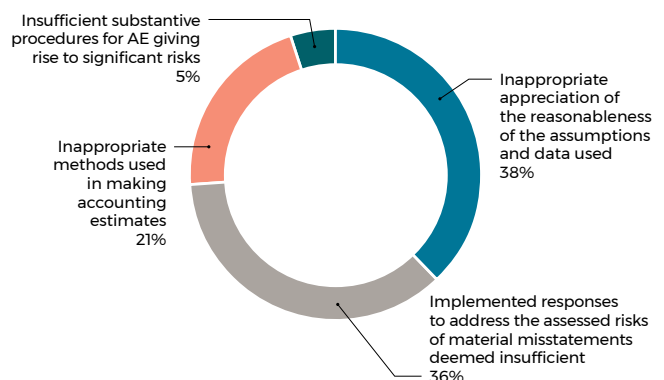
- Engagement quality control;
- Compliance with legal and regulatory texts;
- Analytical procedures;
- Communication with those charged with governance;
- Auditor's responsibilities relating to fraud in an audit of financial statements.

Exhibit 1: Auditor's responses to assessed risks

The CSSF's controls revealed that the audit procedures relating to international auditing standards 330 "The auditor's responses to assessed risks" and 500 "Audit evidence" can still be greatly improved.

ISA 330 requires that the auditors implement substantive procedures for material items of financial statements. These procedures must be carried out irrespective of the result of the risk assessment analysis performed by the auditors and of the level of disaggregation of the item. Moreover, the auditors must ensure that substantive procedures are developed so as to respond to the relevant assertions.

The auditors must also exercise more professional scepticism when assessing the evidence collected to allow them to identify inconsistencies and, thus, implement additional audit procedures.

Exhibit 2: Audit of accounting estimates (AE)

The situation has changed little with respect to the audit of accounting estimates and the CSSF still notes deficiencies in this area. The main deficiency concerns the lack of professional scepticism when assessing the reasonableness of the key assumptions used by the management in the valuation models as well as when assessing the relevance and reliability of information on which the accounting estimates are based. Moreover, where the auditors identify a high risk of material misstatement, they must urgently implement additional audit procedures specifically developed to address this risk.

3.5. Future developments

In 2021, the CSSF started discussions with different *cabinets de révision agréés* on the implementation of ISQM1 which will require a more proactive approach of the quality management and more efficiency in the anticipation of risks and the application of appropriate responses to these risks. Although there are minimum requirements to be complied with by all *cabinets de révision agréés*, the standard remains flexible as the processes must be adapted by taking into account the circumstances and the nature of the engagements carried out. The CSSF will continue its discussions in 2022 in order to identify possible issues related to the implementation.

4. Overview of the population of réviseurs d'entreprises in Luxembourg

4.1. Access to the profession

4.1.1. Activities of the Consultative Commission for the Access to the Audit Profession

The Consultative Commission's task is, among others, to verify the theoretical and professional qualification of the candidates for the access to the audit profession in Luxembourg, as well as that of the service providers from other Member States wishing to exercise the activity by way of free provision of services.

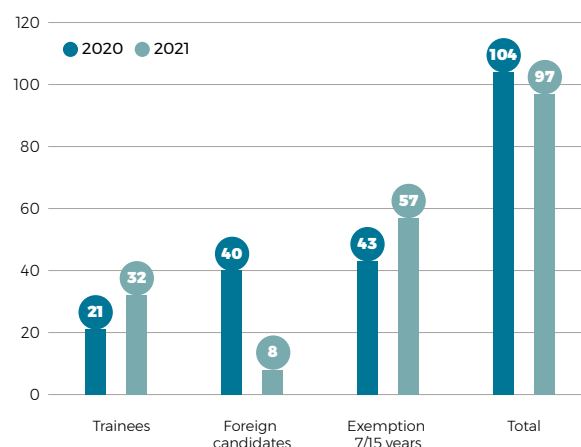
The Commission met seven times in 2021 and analysed the files of 97 candidates, against 104 in 2020.

In 2021, access to training was refused to 13 candidates (13%) as the number of subjects to be completed based on their administrative certificate was greater than four.

There are three categories of candidates:

- trainee *réviseurs d'entreprises*;
- foreign candidates;
- candidates applying for an exemption based on their professional experience of either 7 or 15 years.

Development in the number of application files submitted to the Consultative Commission



The decrease in the number of foreign candidates is due to Brexit as the auditors with a British authorisation are now third-country auditors.

74% of the candidates come from the “Big 4” firms. As regards the nationality, most of the candidates come from France (42%), followed by Belgium (13%), Germany (9%) and Luxembourg with 4%. The remaining 32% originate from various other countries.

4.1.2. Examination of professional competence in 2021

The CSSF administers the examination of professional competence in accordance with Articles 5 and 6 of Grand-ducal Regulation of 14 December 2018 determining the requirements for the professional qualification of *réviseurs d'entreprises*.

Based on the decision of the examination jury, the CSSF granted the title of “*réviseur d'entreprises* (statutory auditor)” to 18 out of the 47 candidates registered for the written and oral exams of the examination of professional competence.

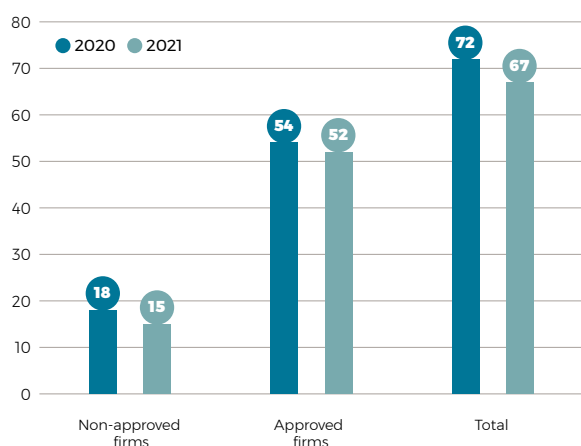
4.2. Public register

The public register of *réviseurs d'entreprises agréés*, *cabinets de révision agréés* and third-country auditors and audit entities is available on the CSSF website (<https://audit.apps.cssf.lu>).

4.2.1. National population as at 31 December 2021

- **Development in the number of *cabinets de révision* and *cabinets de révision agréés***

The total number of *cabinets de révision* and *cabinets de révision agréés* amounted to 67 as at 31 December 2021, against 72 as at 31 December 2020.



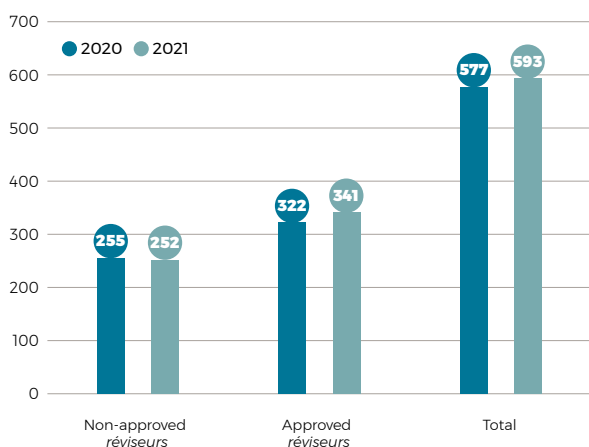
The following firm was approved in 2021:

- Batt Audit Luxembourg.

In 2021, four firms gave up their title of “*cabinet de révision* (audit firm)”, one firm gave up its approval and two firms gave up both, the title and the approval.

- **Development in the number of *réviseurs d'entreprises* and *réviseurs d'entreprises agréés***

The total number of *réviseurs d'entreprises* and *réviseurs d'entreprises agréés* amounted to 593 as at 31 December 2021, against 577 as at 31 December 2020.



In 2021, the CSSF granted the title of “*réviseur d'entreprises* (statutory auditor)” to 34 people and approved 33 *réviseurs d'entreprises*.

During the year under review, 14 *réviseurs d'entreprises* gave up their approval.

The population consists of 68% men and 32% women. The average age of the *réviseurs* is 44.72 years for women and 46.66 years for men.

- **Development in the number of candidates for the audit profession**

The total number of trainee *réviseurs d'entreprises* amounted to 68 as at 31 December 2021, against 61 as at 31 December 2020, which is an 11% increase. This population consists of 63% men and 37% women. The average age is 30.04 years for women and 29.48 years for men.

The number of candidates exempted based on their professional experience of either 7 or 15 years in the financial, legal and accounting areas amounted to 178 as at 31 December 2021, against 136 as at 31 December 2020, i.e. a 31% increase. This population consists of 71% men and 29% women. The average age is 35.92 years for women and 37.04 years for men.

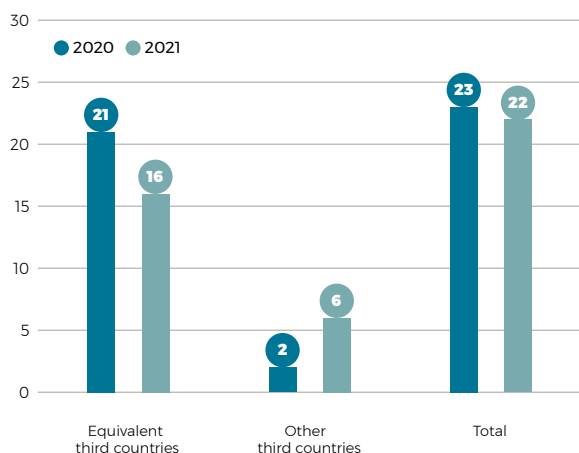
It should be pointed out that 72% of the population of candidates for the access to the audit profession comes from the “Big 4” firms.

4.2.2. Third-country auditors and audit entities

The number of third-country auditors and audit entities that provide an auditor's report on the annual or consolidated financial statements of a company incorporated outside an EU Member State, whose securities are admitted to trading on the regulated market of the Luxembourg Stock Exchange, decreased by one entity in 2021 despite the registration of five audit entities from the United Kingdom. Six entities did not, in fact, renew their registration with the CSSF as their activities no longer fell within the scope of the amended Directive 2006/43/EC.

The public register listing all registered third-country auditors is available on the CSSF website.

Breakdown of registered third-country auditors



5. Cooperation agreements

The CSSF did not sign any new cooperation agreement in 2021. The agreements previously concluded are available on the CSSF website.

In 2021, the CSSF started negotiations with the Public Company Accounting Oversight Board (PCAOB) from the United States concerning amendments to the administrative arrangement relating to personal data protection in accordance with the European regulation on data protection (GDPR) which entered into force on 25 May 2018. Pending the prior opinion of the Commission nationale de protection des données (National Commission for Data Protection – CNPD) and the signature of new agreements, no joint inspection can be performed.

XVIII. Instruments of supervision

1. On-site inspections

The “On-site inspection” (OSI) department is in charge of coordinating all on-site inspections conducted by the CSSF with regard to banks¹, payment institutions, electronic money institutions, UCIs as well as their management companies, investment firms, specialised PFS, support PFS, pension funds, securitisation undertakings, virtual asset service providers and financial market participants. Moreover, the OSI department coordinates on-site inspections of Luxembourg significant banks with the “DG-OMI On-site & internal models inspections” department of the ECB. It should be noted that, besides the OSI department, other CSSF departments also carry out targeted on-site inspections.

On-site inspections are in-depth investigations which provide a better understanding of the functioning and activities of the supervised entities and allow the assessment of the risks to which these entities are exposed and their compliance with the laws and regulations. In general, on-site inspections are proposed, on an annual basis, by the supervisory departments which have developed a risk-based approach in this field to determine which professionals must undergo an on-site inspection. Subsequently, an annual planning is established and validated by the Executive Board of the CSSF. Any change, insertion or deletion in this annual planning must be subject to a formal validation.

The year 2021 was again, albeit to a lesser extent than in 2020, marked by the COVID-19 pandemic, involving a number of challenges, notably in

carrying out remote on-site inspections with professionals. However, the lessons learnt in 2020 allowed minimising the impact on the planning of on-site inspections in 2021.

To fulfil all its tasks, the OSI department’s staff remained stable with 80 agents, representing 71.6 full-time equivalents, as at 31 December 2021. A team composed of eight full-time equivalents of the “Supervision of information systems and support PFS” department, specialised in on-site IT audit, has to be added to this figure.

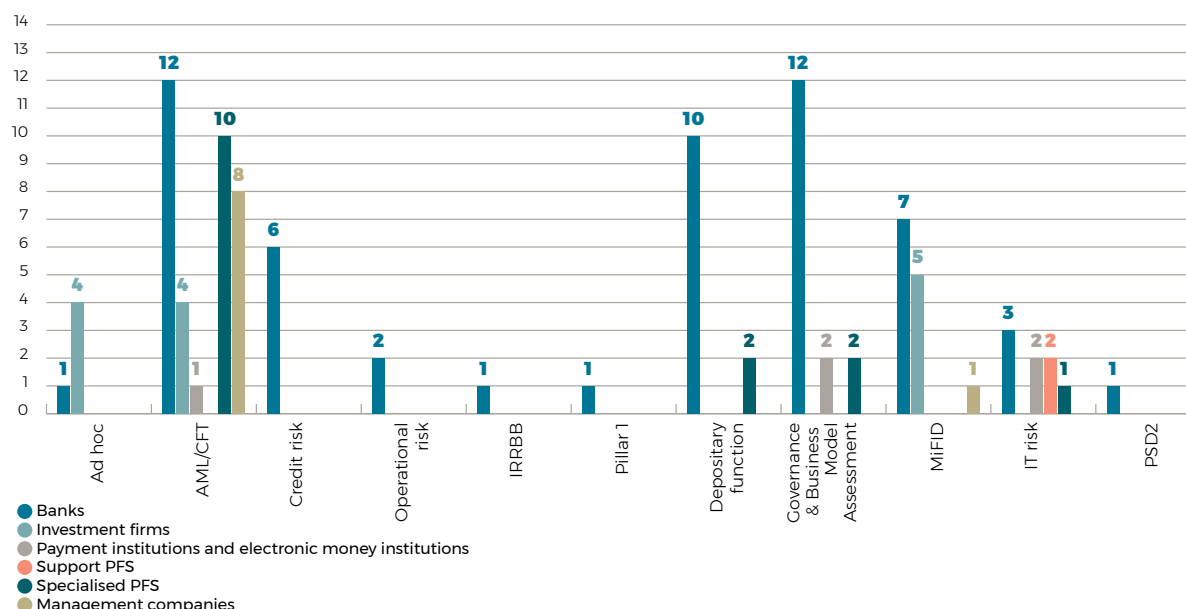
The teams in charge of on-site inspections² are set up based on the nature, scale and scope of the missions and generally involve the participation of the agents of the OSI department and, in certain cases, off-site supervisory departments.

Each on-site inspection results in the drafting of an internal report, by the team in charge of the mission, on the controls performed and weaknesses identified during the mission. The observations are then shared with the professionals during a fact validation meeting. Generally, on-site inspections are followed by an observation letter that is sent to the inspected professional. In the event of more serious failures, the CSSF analyses whether it needs to launch an injunction procedure or a non-litigious administrative procedure in order to impose an administrative sanction pursuant to the sectoral laws in force. Details on sanctions and means of administrative police are described in point 2. of this chapter.

¹ This includes less significant banks which are not directly subject to the SSM as well as AML/CFT, MiFID, Depositary bank and Central administration function on-site inspections of significant and less significant banks as these topics are not directly covered by the SSM.

² With the exception of the missions performed at significant banks which are organised according to the methodology of the ECB.

Breakdown of the on-site inspections carried out in 2021 by topic and type of entity (excluding UCI departments)



The entry into force of the Grand-ducal Regulation of 17 December 2021 relating to the fees to be levied by the CSSF did not modify the lump sum billed for every on-site inspection relating to a specific topic. This lump sum amounts to EUR 25,000 for banks, to EUR 10,000 for the other entities and to EUR 1,500 for agents acting on behalf of a payment institution or electronic money institution.

In 2021, 144 (on-site) inspections were conducted by the CSSF departments or with their participation. Among the missions conducted, 44 were performed by the UCI departments and are described in point 4.2. of Chapter X “Supervision of investment fund managers and UCIs”. The other 100 missions are detailed hereafter.

1.1. Ad hoc on-site inspections

Ad hoc on-site inspections are intended for the investigation of a given situation or a specific, sometimes worrying, issue related to the professional. This particular situation of the professional has in principle already been observed in the context of the off-site prudential supervision. Such missions may either be planned in advance or occur unexpectedly. The nature and scale of ad hoc inspections may vary significantly and, consequently, determine the composition and size of the on-site inspection teams.

In 2021, five ad hoc on-site inspections were performed. They concerned, in particular, governance and anti-money laundering and countering the financing of terrorism issues.

1.2. “Anti-money laundering and countering the financing of terrorism” (AML/CFT) on-site inspections

AML/CFT on-site inspections are described in detail in point 1.2. of Chapter XXII “Financial crime” which relates more particularly to the CSSF’s supervision with respect to AML/CFT.

1.3. “Credit risk” on-site inspections

The purpose of “Credit risk” on-site inspections is to verify the soundness and prudence of credit risk management within credit institutions. They are performed based on the methodology covering credit risk prepared by the ECB.

In 2021, the CSSF carried out six “Credit risk” missions, two of them at significant banks in the framework of the SSM, including one abroad. One mission was still ongoing at the beginning of 2022. These missions covered various subjects such as corporate banking loans, commercial real estate loans and lombard loans.

As regards recurring weaknesses linked to governance, the CSSF notably observed that the Risk Appetite Statement was often incomplete with the absence of an adequate limit-system. In addition, the involvement of the internal control functions (risk control and compliance) was, in general, insufficient or not documented.

Moreover, deficiencies were observed in the credit granting process, in particular due to an insufficient credit risk analysis and an incomplete collection of information for the debtor's creditworthiness assessment, the latter being notably used for the internal rating of clients.

The CSSF also noted that the management processes for non-performing exposures (NPE) or for forbore exposures and the prudential classification/IFRS 9 processes were inadequate:

- indicators for stage 2 and 3 classification unclear or not based on measurable and discriminating criteria;
- classification criteria not aligned across the different internal procedures;
- incomplete indicators of unlikeliness to pay, not aligned with the regulatory framework and not specific to the credit portfolio.

Furthermore, in one case, the CSSF noted that the counting of days past due was missing, leading to an incorrect application of the regulatory backstops (IFRS 9 stages or NPE/default definitions).

As regards the SICR (Significant Increase in Credit Risk) assessment, it was noted that contradictory or inconsistent granting dates had been used for data relating to loans. This assessment was, erroneously, simultaneously based on absolute and relative PD thresholds.

At the level of the ECL (Expected Credit Loss), the CSSF observed that the approach for calculating the ECL was too simplistic with standard PD and LGD parameters having no economic or statistical justification. As regards the ECL model, the CSSF also noted:

- inadequate performance;
- absence of back testing or validation;
- failure to take into account the discount factor;
- application of a time horizon conflicting with the effective duration;
- failure to include a probability-weighted amount for ECL estimates;
- absence or incomplete incorporation of forward-looking information.

Moreover, following the review of a sample of credit files, the CSSF requested several reclassifications in stage 2 or stage 3/NPL with the application of additional provisions and related probation periods.

Finally, during an on-site inspection, the CSSF observed deficiencies in the calculation of the Risk Weighted Assets (RWA) as certain exposures should have been considered as particularly high risk within the meaning of the CRR.

1.4. "Operational risk" on-site inspections

"Operational risk" on-site inspections, excluding internal models, aim to verify how operational risk is identified, controlled, managed and measured by credit institutions. They also include outsourcing-related inspections. They are performed based on the methodology covering operational risk prepared by the ECB.

In 2021, the CSSF carried out two missions on operational risk linked to outsourcing (from a general point of view, but also more specifically for fund administration and private banking activities) at Luxembourg banks.

The CSSF identified a certain number of shortcomings with respect to the initial risk assessment of the project, its periodic review and the correct involvement of the risk control function. Moreover, it has been noted that the outsourcing risk was not considered in the risk strategy and that it was

insufficiently reflected in the reporting to the management bodies.

Lastly, the implementation of the EBA Guidelines EBA/GL/2019/02 is still incomplete regarding, for example, the outsourcing policy, the definition of Key Risk or Key Performance Indicators, the maintenance of the register of outsourcing arrangements, the minimum content of the arrangements, the management of conflicts of interest or the use of scenarios of possible risk events at the level of the outsourcing risk assessments.

1.5. “Interest rate risk” on-site inspections

“Interest rate risk” or “Interest rate risk in the banking book (IRRBB)” on-site inspections aim to assess how interest rate risk arising from non-trading activities is managed and to assess the stress test results. They are performed based on the methodology covering the interest rate risk prepared by the ECB.

In 2021, the CSSF carried out an IRRBB mission at one Luxembourg bank. The shortcomings notably concerned a flawed risk quantification that did not include all the IRRBB components and an inadequate modelling of non-maturity deposits.

1.6. “Pillar 1” on-site inspections

“Pillar 1” on-site inspections aim to verify the correct application of the requirements for the calculation of own funds with respect to the regulatory reporting as provided for in the CRR. They are performed based on the methodology covering Pillar 1 prepared by the ECB.

In 2021, the CSSF carried out one mission of this type covering credit risk for a Luxembourg bank under the standardised approach. The shortcomings identified concerned:

- the classification of exposures;
- the correct eligibility of collateral for the calculation of the RWA;
- the application of the classification requirements on loan exposures (Forbearance, NPE, default, including the indicators of unlikelihood to pay);
- the monitoring of the insurances against the risk of damage.

1.7. “Depositary” on-site inspections

In 2021, the CSSF conducted 12 on-site inspections regarding the depositary function: 10 at banks and two at specialised PFS.

In the framework of these inspections, the CSSF verified whether the supervised entities carry out the depositary function in compliance with the existing laws and regulations. The on-site inspections covered, in particular, the procedures and controls implemented to ensure the safekeeping of the different types of assets, the due diligence processes with respect to the different types of parties involved in the safekeeping of assets, respectively in the management of UCIs, the process of acceptance of new depositary mandates, the monitoring of the delegated activities as well as the specific oversight duties. The CSSF reiterates that the depositary must act in the interest of the investors and independently.

The CSSF identified several significant weaknesses in the ownership verification for other assets, which has not yet been carried out rigorously and systematically. In the context of investments in alternative asset classes, the CSSF stresses that the depositary must agree on a written procedure with the AIFM setting out, in particular, the conditions under which cash may be released by the depositary.

As regards the specific oversight duties, the CSSF noticed, again, that the supervision of tasks under the direct responsibility of the management of the UCI was still not carried out through a risk-based approach, for both the due diligence process of the different parties involved in the UCI management and the permanent control processes. As a reminder, these processes must be devised in a way to take into account the assessment, by the depositary, of the risks associated with the nature, scale and complexity of the UCIs’ strategy and of their management’s organisation, and they must be appropriate for the assets in which the UCIs invest.

The CSSF has also focused on specialised PFS acting as depositaries of assets other than financial instruments, for which deficiencies in their internal control system as well as on the level of their technical and human resources were noted. In addition, the shortcomings identified in the preceding paragraphs have also been observed for these market players.

1.8. “Corporate Governance” on-site inspections

“Corporate Governance” on-site inspections aim to assess the quality of the governance framework set up by the professionals, taking into account the legal and regulatory requirements. Thus, the overall internal governance arrangements, the “head of group” function carried out by a Luxembourg entity over its subsidiaries and/or branches, the organisation and effectiveness of the internal control functions of an entity, the remuneration policies or even the outsourcing organisation, may be subject to such an inspection.

In 2021, 15 “Corporate Governance” on-site inspections were carried out at credit institutions (whether supervised by the CSSF or directly by the ECB, including one significant bank abroad), at electronic money institutions and at specialised PFS. Moreover, in the context of the SSM mixed teams procedure, the CSSF contributed to an additional mission at a significant bank abroad.

The “Corporate Governance” inspections were performed on the functioning of, and the collaboration between, the Board of Directors, the authorised management, their committees and the internal control functions as well as on the remuneration policies and practices. The “Corporate Governance” team also carried out an on-site inspection on the compliance with the regulatory requirements relating to the European Market Infrastructure Regulation (EMIR).

In 2021, the “Corporate Governance” on-site inspections were carried out on the basis of Circular CSSF 12/552 on central administration, internal governance and risk management, as amended in December 2020, in compliance with the *EBA Guidelines on internal governance* (EBA/GL/2017/11) and the *Joint ESMA and EBA Guidelines on the assessment of the suitability of members of the management body and key function holders* (EBA/GL/2017/12).

The major weaknesses, by recurrence or severity, that were observed in 2021 at the level of the Boards of Directors and their specialised committees concerned deficiencies relating to the definition and implementation of the guiding principles governing the appointment, the initial and ongoing assessment and the succession of the members of the supervisory body, the management of existing and potential conflicts of interest and, more

generally, the responsibility the supervisory body is required to take.

In this field, shortcomings were identified as regards the assessment of the internal control system, and in particular the critical and documented assessment of the quality of the work submitted by the authorised management and the internal control functions. Deficiencies were also observed during the process for the assessment of the suitability, succession and performance of the inspected entities’ key functions.

Weaknesses regarding the definition, approval and implementation of the remuneration policy or business strategies of the inspected entities were also identified.

At the level of the authorised management and the management committees, the main gaps identified are related to their functioning and responsibilities. In this area, the formalisation and communication of the decisions on the internal governance management and arrangements, or also the monitoring of the proper implementation of the recommendations issued by the control functions were among the most observed weaknesses. Moreover, actual and potential conflicts of interest, which had not been identified by the inspected entities, were raised in the allocation of responsibilities between authorised managers.

Deficiencies were also identified in the governance of the outsourced activities and functions, be it at the level of the prior identification of risks, the assessment of their materiality level, the establishment of framework contracts and procedures, or even during the supervision of the activities and functions which are outsourced by the inspected entities.

This year, notably as a result of the increasing number of missions focussing more specifically on one of the three internal control functions (compliance, risk management and internal audit) carried out at significant banks, a larger number of shortcomings were observed at the level of these lines of defence.

As regards the Compliance function, it was pointed out that some compliance charters and policies were incomplete in respect of the definition of its own roles and responsibilities vis-à-vis the management bodies of the entities and their branches. Moreover, in certain instances, the Compliance function’s control programmes were either incomplete or did not sufficiently consider

the evaluation of the compliance risk. Shortcomings and delays in the execution of the control plans, in the follow-up on the identified weaknesses and in the content of the reports to governing bodies were also observed. Furthermore, it has also been noted that the Compliance function did not systematically draw up a list of standards and regulations to which the entity is subject. Also, the coverage of all compliance risks was incomplete. Lastly, the actual and potential conflicts of interest within the management bodies were not systematically centralised by the Compliance function.

As far as the risk management function is concerned, shortfalls were identified in the definition and comprehensiveness of the system of limits and risk appetite indicators. In the context of the outsourcing of certain activities, whether within the entity of a group or not, deficiencies were observed in the nature, documentation or supervision of the outsourced activities, which is even more critical due to the importance of the outsourced tasks (loan approvals, limit setting).

As for the third line of defence, weaknesses linked to the independence and objectivity of certain members of the internal audit function, as well as deficiencies in the internal audit function's follow-up of the corrective measures to be implemented as a consequence of their identification were observed. In some cases, the internal audit function did not draw up a procedural framework on the key elements of the audit cycle and some internal audit plans were incomplete or prepared without considering a risk-based approach. Several on-site inspections also revealed gaps in the quality of the internal audit function's work, be it at the level of the scope of the work performed, the comprehensiveness of the identified weaknesses or the communication of correct and relevant information to the governing bodies.

In 2021, the on-site inspections relating to the compliance with EMIR, which were also carried out by the "Corporate Governance" team, revealed weaknesses in the contractual framework and in the quality of the supervision of the outsourcing of certain EMIR-related activities. As far as risk mitigation techniques are concerned, the main shortcomings were identified at the level of the EMIR trade confirmation process, as well as of the effective implementation of the portfolio reconciliation process. Lastly, deficiencies were identified in the quality of the EMIR reporting and of the transaction reporting by the controlled institutions.

As regards sustainable finance, the CSSF actively contributed to the working group of the ECB in order to draw up a control plan to be used during future "Corporate Governance" inspections.

1.9. "Business Model & Profitability Assessment" on-site inspections

The purpose of the "Business Model & Profitability Assessment" on-site inspections is to check the manner in which an institution's business and risk strategies are linked while pursuing its medium- and long-term financial interests. The main purpose of these missions is to better understand the sources of income and to identify vulnerabilities as regards profitability. Thus, a Business Model & Profitability Assessment is an in-depth assessment of the viability and sustainability of an entity.

In 2021, the weaknesses identified through this type of assessment concerned the absence of risk analyses when launching new products and activities or the reliance on analyses performed at group level without taking into account the local context. Moreover, it has been observed that one entity cooperated with a network of independent distributors without having established an adequate follow-up procedure on their performance.

The CSSF also observed discrepancies between the business plan and the strategy of the institution, but also that of the group, as well as an over-reliance on it.

The CSSF noted the absence of documentation relating to the strategy-defining process, which implies weaknesses such as: no involvement of certain internal control functions, no description of the role of the management bodies and no target indicators to track the implementation of an entity's strategy.

The absence of detailed management information, on the one hand, and of analyses of reliable performance factors, on the other hand, did not allow quantifying the influence of the pricing strategy on the profitability of the clients or services and the sustainability of revenues. Moreover, no local governance of the approval and the pricing of new products and services had been implemented.

It was pointed out that the financial planning of a controlled entity was based on assumptions developed by the parent company without the

local management committee's intervention, and, in another case, on assumptions which were not based on an in-depth analysis of the value drivers or economic environment constraints and regulatory constraints. Moreover, one entity was unable to evaluate the viability and sustainability of its business model.

Lastly, in 2021, based on the experience acquired through the "Business Model & Profitability Assessment" on-site inspections, the CSSF actively contributed to the development of an on-site inspection methodology on the digital transformation of credit institutions, in the framework of a new working group set up by the ECB.

1.10. "MiFID" on-site inspections

The purpose of "MiFID" on-site inspections is to assess whether the implemented MiFID framework is in line with the legal and regulatory requirements as regards investor protection and the related organisational measures.

In 2021, the CSSF carried out 13 "MiFID" on-site inspections at credit institutions, investment firms and management companies authorised under Chapter 15 of the Law of 17 December 2010 relating to UCIs.

Ten out of 13 missions carried out had a reduced scope which allowed focusing on a MiFID theme or on a group of MiFID themes according to the risk assessment of the off-site departments. These inspections notably covered product governance, the suitability assessment of investment products or services or the provision of information and reports to clients.

Major weaknesses identified during the "MiFID" on-site inspections mainly concerned the following MiFID themes: suitability assessment of investment products or services, product governance, identification and management of conflicts of interest, best execution and provision of information to clients.

The CSSF underlines the importance of product governance obligations in order to avoid any distribution of products that are inconsistent with the needs, characteristics and objectives based on which they have been conceived. In 2021, shortcomings on this topic were again observed during certain "MiFID" on-site inspections, notably:

- misinterpretation by certain entities of the scope of application of the regulatory requirements when acting as manufacturer and/or distributor of financial products, for example when several entities cooperate to create, develop, issue or design a financial instrument or when an entity acts both as a manufacturer and a distributor of financial products;
- substitution of all or part of the product governance requirements by an assessment of the suitability and appropriateness;
- deficiencies in the information collection process on the target markets and on the distribution strategies determined by manufacturers of financial products;
- systematic use by the distributors of financial products of information originating from the manufacturers of such products, without ex ante critical analysis;
- deficiencies relating to the arrangements allowing to ensure that the distribution of financial products is aligned with the target markets and the distribution strategies that have been defined ex ante;
- insufficient periodic review of the product governance arrangement in place and incomplete second level control of this arrangement;
- absence of communication to the clients concerned on sales performed outside the target market of the distributed financial product.

In this context, the CSSF refers to the *ESMA Guidelines on MiFID II product governance requirements* (ESMA35-43-620) which further clarify these obligations.

1.11. “IT risk” on-site inspections

The “Supervision of information systems and support PFS” department includes a specialised team in charge of conducting IT on-site inspections at the supervised entities. In 2021, this team performed, on behalf of the CSSF, eight on-site inspections at three banks, one payment institution, one electronic money institution, one specialised PFS and two support PFS. It also performed one on-site inspection at a significant bank in Luxembourg in the framework of the SSM. These inspections are performed based on the methodology covering IT risk prepared by the ECB, and one inspection was performed based on PSD2. Moreover, this team cooperated with other CSSF teams in carrying out two AML/CTF inspections at banks.

The main shortcomings, in terms of frequency or seriousness, identified in 2021 during the “IT risk” on-site inspections concerned:

- IT security, including in particular the management of obsolete IT systems and their configurations in order to protect them from malicious events, the privileged access control, the management and remediation of critical vulnerabilities as well as the monitoring of the events related to IT security;
- the inventory of IT assets and the management of IT incidents;
- non-compliance with PSD2;
- the management of IT risks, with a very low, or even no risk coverage by the second line of defence;
- continuity of activities as a whole (governance, plans and tests);
- IT governance, in particular an incomplete and inconsistent IT strategy and a weak monitoring of IT activities;
- outsourcing, in particular the contractual aspect and operational monitoring, often due to overconfidence in parent undertakings.

2. Decisions as regards sanctions and administrative police taken in 2021

In 2021, the CSSF took the following decisions with respect to sanctions and administrative police. It should be noted that the total amount of administrative fines imposed in 2021 amounted to EUR 4,311,250.

2.1. Credit institutions

In 2021, the CSSF imposed seven administrative fines on credit institutions pursuant to Articles 2-1(1) and 8-4(1), (2) and (3) of the Law of 12 November 2004 on the fight against money laundering and terrorist financing, Article 63(1) and (2) of the Law of 5 April 1993 on the financial sector, as well as Article 148 of the Law of 17 December 2010 relating to undertakings for collective investment and Article 51 of the Law of 12 July 2013 on alternative investment fund managers.

Five fines, amounting to EUR 237,000, EUR 225,000, EUR 440,000, EUR 132,000 and EUR 1,320,000, respectively, were imposed for non-compliance with the AML/CFT professional obligations. The other two fines, amounting to EUR 239,800 and EUR 88,000, were imposed due to shortcomings in relation to the depositary bank function.

2.2. Investment firms

In 2021, the CSSF imposed three administrative fines on investment firms as legal persons.

Two fines were imposed on the same investment firm, pursuant to Article 63-2a and Article 63(1) and (2) of the Law of 5 April 1993 on the financial sector, respectively, for the following reasons:

- failure to comply with certain professional obligations as regards MiFID II regulation (EUR 25,000);
- non-compliance with point 116 of Circular CSSF 12/552 on central administration, internal governance and risk management, and with certain provisions of Circular CSSF 07/301 on the implementation of the Internal Capital Adequacy Assessment Process (ICAAP), which were then applicable (EUR 10,000).

Another investment firm had to pay a fine of EUR 60,000, pursuant to Articles 2-1(1) and 8-4(1), (2) and (3) of the Law of 12 November 2004 on the fight against money laundering and terrorist

financing, for non-compliance with certain AML/CFT professional obligations.

The CSSF used its right of injunction in accordance with Article 59 of the Law of 5 April 1993 on the financial sector in 10 cases for the following reasons:

- shortcomings identified as regards the AML/CFT regulation applicable;
- non-compliance with Article 19(3) of the Law of 5 April 1993 on the financial sector;
- missing information in the context of the categorisation of an investment firm following the entry into force, in 2021, of the new regulatory provisions applicable to investment firms (IFD package);
- non-compliance with legal and regulatory deadlines for the submission of closing documents;
- non-compliance with certain legal and regulatory requirements on central administration, internal governance and risk management;
- non-compliance with the obligations relating to the suitability assessment of investment services under MiFID II regulation;
- shortcomings identified in relation to the requirements applicable to corporate governance;
- non-compliance with certain legal and regulatory requirements under MiFID II in relation to product governance;
- shortcomings identified in relation to internal governance and MiFID II arrangements.

The CSSF also used its right of injunction on an investment firm in accordance with point 1 of Article 12(2) of the Law of 23 December 2016 on market abuse and point 2 of Article 47(6) of the MiFID Law for a number of shortcomings in relation to Article 26 of MiFIR and Article 16(2) of the Market Abuse Regulation³.

In 2021, the CSSF transmitted one report to the State Prosecutor pursuant to Article 23(2) of the Code of Criminal Procedure, three reports pursuant to Article 74-2(4)(2) of the Law of 7 March 1980 on judicial organisation, and 12 reports pursuant to Article 23(2) of the Code of Criminal Procedure and Article 74-2(4)(2) of the Law of 7 March 1980 on judicial organisation.

The CSSF reported 82 cases to the Prosecutor's Office, over the course of the year, regarding entities which claimed to be established in Luxembourg and offered investment services without authorisation. The rise in the number of reports since 2018 (13 cases in 2018, 45 cases in 2019 and 55 cases in 2020) can be mainly explained by the emergence of fake websites meant to mislead potential investors.

2.3. Specialised PFS

In 2021, the CSSF imposed two administrative fines of EUR 40,000 and EUR 154,000, respectively, on two specialised PFS. These fines were imposed:

- in accordance with the provisions of Article 63(2) of the Law of 5 April 1993 on the financial sector for non-compliance with AML/CFT professional obligations, following an AML/CFT on-site inspection;
- on the basis of the provisions of Articles 19(7), 19(8)(a) and (b), 19(9)(a) to (e), 19(10), 19(11) and 51(1) of the 2013 Law (as developed by Delegated Regulation (EU) No 231/2013 of 19 December 2012 and Circular CSSF 18/697), following an on-site inspection carried out at the specialised PFS during which the CSSF identified serious infringements of the provisions of the 2013 Law applicable to the depositary function.

The CSSF also issued a reprimand against a specialised PFS in liquidation on the basis of Article 2-1 and in accordance with Article 8-4(1) and (2) of the Law of 12 November 2004 on the fight against money laundering and terrorist financing, as applicable at the time of the on-site inspection.

The CSSF used its right of injunction in accordance with Article 59 of the Law of 5 April 1993 on the financial sector in three cases for the following reasons:

- impossibility for the CSSF to decide on the application of a possible group exception to the PFS;

³ Cf. also point 2.7 below.

- weaknesses identified following an on-site inspection in relation to the depositary function at a specialised PFS;
- delays in filing the annual accounts of domiciled companies.

Two withdrawals of the professional reputation were imposed by the CSSF on a specialised PFS for a period of one year and five years, respectively, for the following reasons:

- non-compliance with the requirements relating to the sound and prudent management of the PFS;
- missing implementation of an adequate internal AML/CFT organisation under the terms of Article 4(1) of the Law of 12 November 2004 on the fight against money laundering and terrorist financing;
- non-compliance with the requirement to ensure an effective exercise of the AML/CFT compliance officer function;
- absence of cooperation and transparency requirements towards the FIU under Article 5(1)(a) of the above-mentioned law;
- non-compliance with the cooperation and transparency requirements towards the CSSF within the meaning of Article 40 of the Law of 5 April 1993 on the financial sector by omitting to transmit important information to the CSSF allowing it to effectively exercise its AML/CFT and prudential supervisory mission.

Moreover, the CSSF transmitted two reports to the State Prosecutor pursuant to Article 74-2(4)(2) of the Law of 7 March 1980 on judicial organisation and one report pursuant to Article 23(2) of the Code of Criminal Procedure and Article 74-2(4)(2) of the Law of 7 March 1980 on judicial organisation.

2.4. Support PFS

In 2021, the CSSF imposed an administrative fine amounting to EUR 16,250 on one support PFS due to insufficient capital base and non-compliance with an injunction of the CSSF, pursuant to Article 63 of the Law of 5 April 1993 on the financial sector.

2.5. Payment institutions

In 2021, the CSSF imposed an administrative fine of EUR 7,500 on one payment institution for late submission of AML/CFT-related information required by the CSSF.

2.6. Investment fund managers (IFMs)⁴ and investment funds

In 2021, the CSSF imposed an administrative fine of a total amount of EUR 24,400 on an AIFM following an on-site inspection during which the CSSF identified some isolated failures to comply with the provisions of the 2013 Law relating to general requirements on procedures and organisation, on valuation of assets and with regard to the delegation of functions.

An administrative fine of a total amount of EUR 50,000 was imposed on an IFM following an on-site inspection which revealed some failures to comply with the provisions of the 2010 Law relating to, notably, the requirements in terms of central administration, the management of conflicts of interest, the obligations in terms of delegation and rules of conduct of the IFM, general requirements in terms of procedures and organisation, the obligation to perform due diligence, obligations in terms of best execution and internal control mechanisms, electronic data processing as well as obligations in terms of accounting organisation.

Another administrative fine of a total amount of EUR 21,500 imposed on an AIFM resulted from an on-site inspection performed by the CSSF which revealed some isolated failures to comply with the provisions of the 2013 Law relating to the requirements concerning risk management and best execution.

The CSSF imposed five administrative fines pursuant to the Law of 12 November 2004 on the fight against money laundering and terrorist financing for late submission of the 2020 AML/CFT questionnaire, made available online by the CSSF: one administrative fine of EUR 5,000 was imposed on a registered AIFM, two administrative fines of a total amount of EUR 7,500 each on two registered AIFMs, one administrative fine of a total amount of EUR 10,000 on another registered AIFM as well

⁴ It should be pointed out that some of these administrative fines are still subject to reviews (*recours gracieux* or *recours administratif*) which are pending before the administrative courts.

as one administrative fine of a total amount of EUR 10,000 on an IFM.

In addition, the CSSF imposed an administrative fine of a total amount of EUR 8,100 on an IFM, in accordance with the provisions of the EMIR Law, following an on-site inspection which revealed some isolated failures to comply with the reporting obligation applicable to derivative contracts provided for in Article 9(1) of EMIR.

The CSSF imposed an administrative fine of a total amount of EUR 173,500 on an IFM, in accordance with the provisions of the 2010 Law, following an on-site inspection concerning the risk management organisation of the IFM during which the CSSF identified, on the one hand, that the information provided to the CSSF in the context of the risk management procedure transmitted by this IFM was incomplete or incorrect, and, on the other hand, some isolated failures to comply with the provisions of the 2010 Law relating to the requirements pertaining to the permanent risk management function.

The CSSF also imposed an administrative fine amounting to EUR 153,400 on an IFM, in accordance with the provisions of the 2010 Law, following an on-site inspection during which some isolated failures to comply with the provisions of the 2010 Law relating to the general requirements on procedures and organisation as well as the requirements in terms of the delegation of functions were identified.

An administrative fine of a total amount of EUR 67,600 was imposed on an IFM, in accordance with the provisions of the Law of 12 November 2004 on the fight against money laundering and terrorist financing, following an on-site inspection which revealed some isolated failures to comply with the provisions of this law relating to customer due diligence requirements, ongoing monitoring, cooperation with the authorities and AML/CFT risk assessment.

The CSSF imposed an administrative fine amounting to EUR 48,500 on an IFM, in accordance with the provisions of the 2010 Law, following an on-site inspection during which the CSSF identified some isolated failures to comply with the provisions of this law relating to the general requirements for procedures and organisation, the delegation of functions, the compliance with rules of conduct and the requirements regarding the risk management processes.

Moreover, the CSSF imposed an administrative fine of a total amount of EUR 22,800 on an IFM, broken down as follows: (i) an amount of EUR 8,800 imposed pursuant to the provisions of the 2010 Law, and (ii) an amount of EUR 14,000 imposed pursuant to the provisions of the Law of 12 November 2004 on the fight against money laundering and terrorist financing. This administrative fine results from an on-site inspection carried out by the CSSF at the professional concerned which revealed some isolated failures to comply with both (i) the provisions of the 2010 Law relating to general requirements on procedures and organisation, requirements regarding the delegation of functions and with regard to the prudential requirements, and (ii) the provisions of the afore-mentioned Law of 12 November 2004 relating to the ongoing monitoring and the AML/CFT risk assessment, as well as the transmission of incorrect information on the use of an automated name screening tool in the context of the annual AML/CFT questionnaires for the years 2017 to 2019.

An administrative fine of a total amount of EUR 261,000 was imposed on an IFM based on the provisions of the Law of 12 November 2004 on the fight against money laundering and terrorist financing and following an on-site inspection targeting the framework of AML/CFT. The deficiencies identified relate specifically to shortcomings regarding the customer due diligence requirements, ongoing due diligence requirements, weaknesses of customer due diligence performed by and the oversight performed on a third party, as well as the supervision of branches in terms of AML/CFT compliance.

The CSSF imposed an administrative fine of a total amount of EUR 10,000 on a registered IFM for failure to submit information or for submission of false or incomplete information to the CSSF.

Moreover, the CSSF imposed administrative fines of an amount of either EUR 2,000 or EUR 4,000 on the *dirigeants* of six SIFs for non-filing of the annual financial report and on the *dirigeants* of five SIFs for non-filing of the management letter.

In accordance with the provisions of the SICAR Law, the CSSF imposed five administrative fines of an amount of EUR 500 each on the *dirigeants* of a SICAR, either for non-filing of the annual financial report, or for non-filing of the management letter.

Lastly, the CSSF imposed an administrative fine of EUR 500 on a natural person for non-filing of information or for filing false or incomplete information with the CSSF.

2.7. Securities markets

The review of financial reports under the Transparency Law led the CSSF to issue, pursuant to Article 25 of this law, four administrative fines amounting to EUR 65,000 due to delays in the disclosure and filing of annual financial reports. At the same time, the CSSF issued seven warnings in relation to information concerning major holdings (provided for in Chapter III of the abovementioned law), of which five concerned shortcomings in shareholder notifications and two concerned shortcomings in relation to the disclosures by the issuers.

In the context of the supervision of the obligations to detect and notify transactions that may constitute market abuse (under Article 16(2) of the Market Abuse Regulation) and of the obligations to report transactions in financial instruments (under Article 26(1) of MiFIR), the CSSF imposed two injunctions upon identifying shortcomings in relation to these obligations.

2.8. Audit profession

Pursuant to the provisions of Article 43(1)(f) of the Audit Law and taking into account the provisions of Article 44 of this law, the CSSF imposed administrative fines on *réviseurs d'entreprises agréés* (approved statutory auditors) amounting, depending on the case, to EUR 6,000, EUR 10,000 and EUR 10,000. These administrative fines were imposed based on the provisions of Articles 40(2) and 43(2) (a) and (b) of the Audit Law for professional misconduct and negligence which led to the infringement of the legal and regulatory requirements relating to statutory audits.

Pursuant to the provisions of Article 43(1)(f) of the Audit Law, the CSSF imposed administrative fines on *réviseurs d'entreprises agréés* amounting, as the case may be, to EUR 1,500, EUR 1,500 and EUR 5,000. These administrative fines were issued in accordance with the provisions of Article 43(2)(a) of the Audit Law for infringement of the legal and regulatory requirements relating to ongoing training.

Pursuant to the provisions of Article 43(1)(e) of the Audit Law, the CSSF imposed an administrative fine of EUR 5,000 on one *cabinet de révision* (audit firm). This fine was imposed on the basis of the provisions of Article 43(2)(g) of the Audit Law for non-compliance with the requirement to publish the transparency report on its website within four months after the end of its financial year, in accordance with Article 13 of Regulation (EU) No 537/2014.

XIX. Resolution

The Law of 18 December 2015 on the failure of credit institutions and certain investment firms (BRRD Law), which notably transposes Directive 2014/59/EU establishing a framework for the recovery and resolution of credit institutions and investment firms (BRRD), designates the CSSF as the resolution authority in Luxembourg¹. The CSSF exercises the missions and powers assigned to it as resolution authority through the Resolution Board, whereas the “Resolution” department (RES department) performs the day-to-day tasks related to these missions. The Resolution Director, Mr Romain Strock, who chairs the Resolution Board, heads the RES department which counted 16 people as at 31 December 2021.

The Resolution Board met once in 2021 and also took decisions by written procedure.

In line with the distribution of responsibilities, particularly between the Resolution Board and the Single Resolution Board (SRB), the RES department is in charge, among other things, at individual and group level, as concerns credit institutions and investment firms falling within the scope of the BRRD Law or Regulation (EU) No 806/2014 (SRM Regulation)², of submitting the following for decision to the Resolution Board:

- adoption of resolution plans and resolvability assessments;
- measures to address or remove impediments to resolvability;
- appointment of a special manager;

- assurance regarding a fair, prudent and realistic valuation of the assets and liabilities;
- application of simplified obligations or granting waivers, among others, to the obligation to draft a resolution plan;
- setting the minimum requirement for own funds and eligible liabilities, in particular its level;
- adoption of resolution decisions and application of resolution tools in accordance with the relevant procedures and safeguards;
- writing-down or conversion of relevant capital instruments;
- execution of the instructions issued by the SRB.

Moreover, the RES department represents the CSSF as resolution authority within international fora, such as the SRB and the EBA.

As far as the EBA is concerned, the RES department is represented in the Resolution Committee (ResCo) which is a permanent internal committee of the EBA, set up in January 2015, for the purposes of taking decisions and fulfilling tasks conferred on the EBA and the national resolution authorities under the BRRD. The voting members are the directors of the national resolution authorities within the EU. In addition, the RES department participates in the work of the Subgroup on Resolution Planning and Preparedness (SGRPP), a subgroup of the Resolution Committee.

With respect to the SRB, the Resolution Director participates in the plenary session of the SRB as well as in the extended executive session when topics concerning Luxembourg entities are being discussed. This was the case in 2021 for the adoption

¹ Following the transposition of BRRD2 (Directive 2019/879/ EU), amending the BRRD, the BRRD Law was updated on 21 July 2021.

² The SRM Regulation (SRMR) was amended by Regulation (EU) 2019/877 (SRMR2).

by the SRB, which met in extended executive session, of resolution plans of several banking groups which included Luxembourg banking subsidiaries and of resolution plans of Luxembourg banking groups or systemic banks.

Moreover, the agents of the RES department participate in the work of the following permanent working sub-committees of the SRB: Resolution and its sub-structures, Contributions, Data collection, Administrative and Budget and Legal Network. The CSSF also participates in the SRB ICT Network.

The RES department continues its collaboration with the SRB for the drafting of resolution plans for Luxembourg significant banks under the competence of the SRB. In this context, frequent meetings, videoconferences and information exchanges take place with the representatives of the SRB, the CSSF's "Banking Supervision" department and the relevant banks. The RES department also participates, within the Internal Resolution Teams coordinated by the SRB, in drafting resolution plans for significant banking groups in the Banking Union which have Luxembourg subsidiaries.

In a cross-border context outside the SRB, the RES department heads four resolution colleges (three colleges relating to banks for which the CSSF is the group-level resolution authority and one "European" college relating to sister banks in several EU Member States which are subsidiaries of a third-country entity). Moreover, the RES department continues to participate in the work, meetings and teleconferences of colleges of resolution authorities chaired by group-level resolution authorities from other EU countries.

The RES department also drafted a certain number of resolution plans for less significant banks under the direct responsibility of the Resolution Board.

Resolution plans for the three colleges relating to banks for which the CSSF is the group-level resolution authority as well as several of the aforementioned resolution plans for less significant banks have been adopted by the Resolution Board.

Two CSSF-CODERES circulars were published in 2021 concerning, on the one hand, the raising of 2021 contributions for the Single Resolution Fund and, on the other hand, the collection of information for the calculation by the SRB of the 2022 contributions to this fund.

Moreover, the manual *Resolution Reporting and Notification Requirements* available on the CSSF website was updated.

Finally, members of the RES department assisted the representatives of the Ministry of Finance during the discussions within the EU Council on the draft proposal of the European Commission to amend the CRR-CRD, as these texts concerned certain resolution-related aspects.

In this second year marked by the health crisis, the RES department was able to ensure the continuity of the CSSF's mission as resolution authority. Consequently, the department's members worked remotely, on a rotational basis, and nearly all meetings with external entities (authorities, institutions, etc.) were held via videoconference or teleconference without adversely affecting the quality of the deliverables.

XX. Protection of depositors and investors

The Council for the Protection of Depositors and Investors (CPDI) is the internal executive body of the CSSF in charge of managing and administering the Fonds de garantie des dépôts Luxembourg (FGDL) and the Système d'indemnisation des investisseurs Luxembourg (SIIL). The FGDL is an *établissement public* (public body) separated from the CSSF and established by Article 154 of the Law of 18 December 2015 on the failure of credit institutions and certain investment firms (BRRD Law). The missions of the CPDI are defined in Part III "Protection of depositors and investors" of the BRRD Law.

The CPDI is assisted in the performance of its duties by the "Depositor and Investor Protection" department (PDI department) of the CSSF which counts five agents. In general, the PDI department performs the operational tasks of the FGDL and of the SIIL.

• Activities of the CPDI and of the PDI department

The CPDI met four times in 2021. Under its management, the PDI department worked, in particular, on the following topics:

- conclusion of a bilateral cooperation agreement with the Dutch deposit guarantee scheme under the Guidelines EBA/GL/2016/02 on cooperation agreements between deposit guarantee schemes in order to resolve certain operational issues of cross-border reimbursement as provided for in Articles 183 of the BRRD Law;
- collection of data on covered deposits through four circulars and verification of the data received;
- verification of the quality of the Single Customer View (SCV) files of all FGDL member institutions by means of an IT tool available to them since 2020;
- support to the FGDL's Management Committee in concluding an agreement with credit institutions in order to provide the FGDL with a syndicated credit line allowing it to meet its commitments should its financial means be insufficient;
- analyses and drafting of procedures on the increase of the maximum amount of the deposit guarantee in relation to the situations laid down in Article 171(2) of the BRRD Law;
- improvement and further development of the IT tool for the management of the FGDL's interventions;
- redesign of the FGDL's website (www.fgdl.lu);
- participation in the drafting of EBA guidelines and opinions, notably as regards the guarantee to be granted to electronic money users and to customers of payment institutions, the strengthening of the deposit guarantee schemes' (DGS) stress-testing framework, as well as the prohibition for DGS to borrow funds to reach the target level laid down in Directive 2014/49/EU;
- continued management of the reimbursement campaign of the depositors of the ABLV Bank Luxembourg S.A. (in liquidation) (cf. below).

• FGDL interventions

As a reminder, the CSSF determined the unavailability of deposits at ABLV Bank Luxembourg S.A. on 24 February 2018, and the Luxembourg *Tribunal d'arrondissement* (District Court) ordered the bank's liquidation on 2 July 2019. Since March 2018, the FGDL has been reimbursing the covered deposits of depositors who transmitted the necessary information and whose eligibility was confirmed by the CPDI. In accordance with Article 176(8) of the BRRD Law, the depositors have ten years, following the date the unavailability has been determined, to request reimbursement of their deposits by the FGDL, even in the absence of a claim accepted by the liquidators. Thus, several depositors have been reimbursed in 2021, bringing the total amount of deposits reimbursed by the FGDL to EUR 10 million.

Furthermore, no other intervention took place either with respect to deposit guarantee or investor compensation.

• Financing of the FGDL

As at 31 December 2021, the FGDL counted 95 member institutions. As covered deposits increased by 11% in 2020, the FGDL had to collect EUR 30.3 million from the member institutions in 2021 (EUR 15.0 million in 2020) in order to maintain the target level of its assets, i.e. 0.8% of the covered deposits. Moreover, the FGDL collected EUR 45.0 million (EUR 34.9 million in 2020) as contributions for the buffer of additional financial means laid down in Article 180 of the BRRD Law.

As at 31 December 2021, the FGDL's available financial means, including the buffer of additional financial means, amounted to EUR 405.4 million. The covered deposits rose by 3% over a year to EUR 38.4 billion as at 31 December 2021.

XXI. Financial crime

The following developments present the CSSF's involvement in the fight against money laundering and terrorist financing (AML/CFT) as well as with respect to international financial sanctions, at national and international level, throughout 2021.

In general, 2021 followed a year which was rich in legal and regulatory developments relating to AML/CFT, and which required efforts from professionals under AML/CFT supervision by the CSSF to align their AML/CFT procedures and governance framework with the latest changes in the legal and regulatory landscape. With respect to the last legislative amendments and in light of the crisis in Ukraine since February 2022, the importance for the professionals to comply with the provisions of the Law of 19 December 2020 on the implementation of restrictive measures in financial matters and the directly applicable European and UN regulations should be emphasised once again.

Among the challenges identified in 2021 and the means implemented by the supervised professionals, the following examples may be mentioned:

- In the face of the COVID-19 pandemic where distance was a rule to be observed by all, certain professionals already adapted their methods for entry into a business relationship and/or identification of the customer by increasingly using different methods of remote identification or by using a robotic process to this end. All these methods shall comply with the directives, as mentioned and specified by the CSSF, notably in Circular CSSF 20/740 on financial crime and AML/CFT implications during the COVID-19 pandemic and in the FAQ on AML/CFT

and IT requirements for specific customer onboarding/KYC methods¹.

- The professionals which deal with a significant number of transactions have been increasingly investing in new technologies like artificial intelligence-type analytical tools, notably for the monitoring and analysis of transactional customer behaviour.
- In response to the clarifications provided, in August 2020, in CSSF Regulation No 12-02, an enhancement of the AML/CFT control framework and of the formalisation of an AML/CFT-specific risk appetite has been observed particularly in banks.
- For professionals concerned by the Law of 25 March 2020, the implementation of the registry of payment and banking accounts identified by an IBAN number emphasised the necessity to maintain electronic databases and to be able to generate data digitally.
- The improvement of the screening arrangements in relation to international financial sanctions in order to be able to put them in place without delay and to inform forthwith the Ministry of Finance in Luxembourg, with copy to the CSSF, must be pursued by the professionals.

¹ www.cssf.lu/wp-content/uploads/FAQ_LBCFT_VIDEO_IDENTIFICATION.pdf

1. CSSF supervision for combating money laundering and terrorist financing

The AML/CFT supervision is an integral part of the supervisory framework put in place by the CSSF and is based on a multiannual control programme which combines off-site and on-site supervisory measures. To this end, the different departments and teams in charge of the AML/CFT at the CSSF follow an ML/TF risk-based approach.

1.1. Off-site AML/CFT supervision

1.1.1. Credit institutions and central securities depositories (CSDs)

The year 2021 was marked notably by the organisation of the first AML/CFT colleges (19 colleges for 25 Luxembourg credit institutions) in the framework of the *AML/CFT Colleges Guidelines* published by the Joint Committee of the European Supervisory Authorities. The CSSF also participated in 27 AML/CFT colleges organised by the European authorities for 39 Luxembourg credit institutions, which makes the CSSF one of the biggest contributors to the implementation of AML/CFT colleges at European level. Given the COVID-19 pandemic, these colleges were held via videoconference.

The European competent authorities for the AML/CFT supervision are full members of the AML/CFT colleges organised by the CSSF as the main supervisory authority. However, other authorities could participate as observers, like the ECB for significant institutions or the FIU, subject to the agreement of all members. In 2022, the CSSF intends to expand the scope of the observers to representatives of third-country supervisors (Switzerland, United Kingdom, etc.). As from 2022, the credit institutions concerned by these colleges will be asked to intervene during meetings organised by the CSSF.

As in 2020, the CSSF requested, in 2021, all credit institutions and CSDs to answer the annual AML/CFT questionnaire in order to collect quantitative and qualitative data. The collected quantitative data are of utmost importance for the CSSF as they are directly integrated in the AML/CFT supervision of credit institutions and in certain statistics for national and international authorities. On 16 December 2021, the CSSF organised a videoconference gathering 350 participants in order

to share its expectations regarding the annual AML/CFT questionnaire.

The off-site AML/CFT supervision also includes the analysis of the long form audit reports drawn up by the *réviseurs d'entreprises agréés* (approved statutory auditors) and the analysis of the reports drawn up by the internal control functions of credit institutions and CSDs (compliance function and internal audit function). In 2021, 86 observation letters were sent to credit institutions with respect to AML/CFT shortcomings identified in the 2020 closing reports and during the follow-up of the on-site inspections carried out by the CSSF. Responses from the credit institutions to these letters provide the CSSF with an updated understanding of the AML/CFT control environment, which is particularly important in the context of exchanges during AML/CFT colleges.

Based on these reports, the CSSF identified very serious AML/CFT shortcomings for some credit institutions and sent three injunction letters and finalised one sanction process. It also initiated seven AML/CFT investigations after becoming aware of negative information.

The CSSF continued its exchanges with the Luxembourg banking sector, in particular through regular meetings and contacts with the Compliance Officers and the members of the management bodies and administrative bodies of these credit institutions. In 2021, 138 interviews concerning specifically AML/CFT aspects were organised. Two meetings of the Expert Workgroup Private Banking, set up jointly with the ABBL and the FIU, were also held by videoconference. It should be noted that this working group will be remodelled in 2022 in order to include more topics than those only related to private banking.

1.1.2. Investment firms

A dedicated team has been set up within the "Supervision of investment firms" department that centrally manages aspects of the off-site AML/CFT supervision of investment firms.

Like every year, the AML/CFT questionnaire, which enables the CSSF to collect quantitative and qualitative data, was sent to investment firms in 2021. Based on these data, the CSSF attributes to each investment firm an automatic rating which is challenged by the expert judgement resulting from all the on-site and off-site information at

the CSSF's disposal, leading to a final ML/TF rating per investment firm. By adopting a risk-based approach, this final rating per investment firm aims at establishing the off-site and on-site AML/CFT supervisory programme of the CSSF. Indeed, these final ratings are used as allocation key of the resources available (on-site and off-site) for the AML/CFT supervision.

The off-site AML/CFT supervision includes, inter alia, the analysis of the long form audit reports drawn up by the *réviseurs d'entreprises agréés* and the analysis of the reports drawn up by the internal control functions of the investment firms (compliance function, internal audit function and risk control function). Observation and injunction letters regarding AML/CFT were sent to investment firms with respect to shortcomings identified in these reports.

Moreover, the CSSF analyses the ML/TF risk self-assessments established by investment firms as well as the AML/CFT procedures where weaknesses were identified by the control functions of the investment firm.

Interviews with the Chief Compliance Officers of investment firms were held to discuss specific AML/CFT focus points, resulting, in particular, from the answers provided in the AML/CFT questionnaires. Following these interviews, and when appropriate, observation letters were sent and an administrative fine was imposed on one investment firm.

In total, 41 observation letters and one injunction letter were sent with respect to AML/CFT in 2021.

During the last quarter of 2021, the CSSF organised the first AML/CFT college in the framework of the *AML/CFT Colleges Guidelines* published by the Joint Committee of the European Supervisory Authorities. It also participated in four AML/CFT colleges organised during the year by the AML/CFT supervisory authorities of other Member States.

1.1.3. Specialised PFS

Since 2020, human resources within the off-site AML/CFT team of the "Supervision of specialised PFS" department have been increasing and the team counts now four agents.

As in 2020, the CSSF requested in 2021 all specialised PFS to answer the annual AML/CFT questionnaire in order to collect quantitative and qualitative data. The quantitative data collected have been integrated in the off-site AML/CFT supervision which is performed by applying a risk-based approach.

A total of 10 observation letters were sent to specialised PFS with respect to shortcomings identified in the reports provided as part of the 2020 closing documents, as well as in the 2020 AML/CFT questionnaires.

After reviewing the appointments proposed by the specialised PFS for the roles of compliance officer in charge of the control of compliance with the professional obligations (RC) and person responsible for compliance with the professional obligations (RR), a total of 38 non-objection letters were sent to specialised PFS.

Eleven off-site AML/CFT investigations were conducted following negative news published in the press, in particular (but not only) in the context of high-profile cases.

In 2021, eight videoconferences with specialised PFS were held concerning specific AML/CFT topics, pursuant to the assessment, in particular, of the answers provided in the 2020 AML/CFT questionnaires. Four videoconferences were organised in relation to specialised PFS acting as depositaries of bearer units.

As regards the cooperation with the private sector, the CSSF organised a videoconference with the Luxembourg Alternative Administrators Association (L3A) in 2021.

At international level, the CSSF participated in two AML/CFT colleges concerning specialised PFS that are part of a group containing supervised entities in other European countries.

For the purpose of information and education of supervised entities, the annual AML/CFT conference dedicated to specialised PFS was organised on 25 January 2021 with the participation of the FIU.

1.1.4. Payment institutions and electronic money institutions

A specialised team in charge of the off-site supervision of ML/TF risks of payment institutions and electronic money institutions has been set up within the “Innovation, payments, market infrastructures and governance” department. This team centrally manages aspects of the AML/CFT supervision of payment institutions and electronic money institutions as well as of branches, agents and distributors of payment institutions or electronic money institutions authorised in other EU Member States.

As with the other professionals of the financial sector, an annual AML/CFT questionnaire is sent to payment institutions and electronic money institutions as well as to branches, agents and distributors of payment institutions or electronic money institutions authorised in other EU Member States. In addition to the data collected via these questionnaires, information is collected in the context of the on-site and off-site supervision of these institutions. These data and information allow a risk assessment and a harmonised evaluation of these entities in Luxembourg, having regard, in particular, to the risk level of their activities. They are also used to allocate the available (on-site and off-site) resources to AML/CFT controls, in accordance with the basic principle governing the risk-based supervision.

The key elements of the off-site supervision of ML/TF risks include the analysis of the reports of the management body, the compliance function and the internal audit function, the work carried out by the *réviseur d'entreprises agréé* as part of the long form report, the analysis of the annual AML/CFT questionnaires and, where relevant, a critical review of the AML/CFT procedures of these entities, in particular, in the event of any material change impacting the provision of payment and/or electronic money services, the structural organisation of the entity (for example the use of agents) and/or the AML/CFT internal control arrangements in a broad sense.

Meetings are also held and contacts are maintained, on a regular basis, with the Compliance Officers and the members of the management bodies and administrative bodies of these entities in order to further examine certain aspects of their reports, to follow the regular developments of their activities (in conjunction with the significant technological

progress in this area) and of their organisation as well as of their internal control arrangements and to raise appropriate awareness about the ML/TF risk.

The AML/CFT team set up within the “Innovation, payments, market infrastructures and governance” department also takes part in the ML/TF risk assessment of the application files of new payment institutions or electronic money institutions and in the monitoring of the AML/CFT remediation plans to be put in place by the institutions identified, notably in the framework of on-site inspections (on-site supervision).

1.1.5. Virtual asset service providers

With reference to the Law of 25 March 2020 amending the Law of 12 November 2004 on the fight against money laundering and terrorist financing, any virtual asset service provider (VASP) established or providing services in Luxembourg, on behalf of or for its customers, is, on the one hand, subject to compliance with all the professional AML/CFT obligations and must, on the other hand, be registered with the VASP register established by the CSSF.

A VASP means any person that provides, on behalf of or for its customers, one or more of the following services:

- the exchange between virtual assets and fiat currencies, including the service of exchange between virtual currencies and fiat currencies;
- the exchange between one or more forms of virtual assets;
- the transfer of virtual assets;
- the safekeeping or administration of virtual assets or instruments enabling control over virtual assets, including the custodian wallet services;
- the participation in and provision of financial services related to an issuer's offer or sale of virtual assets.

In accordance with the legal provisions in force, the CSSF's role vis-à-vis these providers is limited to registration, supervision and enforcement for AML/CFT purposes only.

As at 31 December 2021, six providers were registered as VASP. Other registration files are still being reviewed at the CSSF in order to ensure that the providers fulfil the legal requirements incumbent upon them and show the implementation of an AML/CFT arrangement adapted to the level of risk to which they are exposed.

Throughout 2021, the CSSF continued developing its internal procedures for the registration and supervision of VASPs as well as the assessment and understanding of the ML/TF risk related to virtual asset services. In this regard, it started collecting statistical information in relation to customers and business volume of the registered VASPs. Thus, a volume of almost EUR 107 billion which mainly concerns the activities in connection with cryptocurrencies, such as Bitcoin or Ethereum, was processed by these registered entities in 2021.

The CSSF conducted several exchanges and interviews with the private sector in order to raise awareness about the new professional obligations in order to clarify the requirements and expectations of the regulator with respect to AML/CFT and to answer the sector's questions regarding the provision of virtual asset services. It also exchanged with other national, European and international authorities on issues relating to virtual assets and VASPs.

1.1.6. UCI departments

Within the UCI departments, the "UCI AML" department carries out off-site controls and organises specific face-to-face meetings on AML/CFT together with other UCI departments. As for the other professionals, the CSSF issues an annual AML/CFT questionnaire and analyses the answers provided by the IFMs and the products which have not designated a management company.

On 29 October 2021, an AML/CFT conference, held virtually due to the health context, was organised by the CSSF to exchange views with these supervised entities and to share feedback on the results of the AML/CFT supervisory measures. The event was attended by 800 participants from the private sector. In 2021, the CSSF extended the scope of the subjects addressed in the AML/CFT context. Thus, the speakers shared their expertise concerning the CSSF's control missions, the implications during the liquidation process of investment funds and

the European regulation. The FIU also participated and shared its insights concerning the typological developments in the collective investment sector.

In the framework of the off-site supervision, the CSSF reinforced its supervision with 3,000 AML/CFT supervisory measures carried out in 2021 (+50% compared to 2020). During the year, 42 face-to-face meetings covered specifically AML/CFT in accordance with the annual supervisory plan drawn up using a risk-based approach. Seven administrative sanctions and measures, five of which were nominative, were issued for late submission of the answers to the annual AML/CFT questionnaire.

Moreover, the CSSF cooperated with various foreign supervisory authorities as part of its AML/CFT supervisory mission of the entities of the collective management sector. Thus, it sent 52 international cooperation requests to foreign authorities and received 36 cooperation requests. Still in the context of the international cooperation and AML/CFT supervision of entities of the collective management sector, the CSSF led or participated in 35 AML/CFT colleges in accordance with the AML/CFT guidelines issued by the European supervisory authorities.

Finally, the CSSF continued the activities of the Expert Working Group AML UCI set up in 2018. This working group met eight times in 2021 to deal notably with the draft AML/CFT report for external auditors following the revision of Article 49 of CSSF Regulation No 12-02. This work led to the publication, on 22 December 2021, of Circular CSSF 21/788.

1.2. On-site supervision

AML/CFT on-site inspections are carried out at all the professionals supervised by the CSSF in order to assess whether the quality of their AML/CFT framework is in line with the legal and regulatory requirements.

Whereas the COVID-19 pandemic had a clear impact on on-site inspections carried out by the CSSF², the AML/CFT inspections provided the opportunity to assess the impact of the pandemic on the organisation of professionals with respect to AML/CFT and on new emerging ML/TF risks.

In 2021, the “On-site Inspection” department carried out 35 AML/CFT inspections focussing especially professionals whose sector of activities is exposed to a high inherent ML/TF risk according to the national ML/TF risk assessment. On-site inspections were therefore carried out at credit institutions, and in particular at those providing private banking as well as commercial banking services or those providing credit cards, at specialised PFS providing domiciliation or transfer agent services, at management companies for which the activity of transfer agent or individual discretionary portfolio management was covered, at investment firms and at virtual asset service providers.

Out of these 35 inspections, 24 focussed on the assessment of one or several high-risk processes according to the risk assessment performed by off-site supervision departments. They covered, for example, the processes for assessing ML/TF risks and ML/TF risk appetite, for entering into business relationship, for monitoring transactions or for name matching.

The “Supervision of information systems and support PFS” department continued to be involved in certain AML/CFT inspections carried out at professionals with a complex business model from a technical point of view and using, for example, artificial intelligence in the framework of their transaction monitoring systems.

The most significant shortcomings, in terms of frequency or seriousness, identified in 2021, concern the following issues:

- absence of controls aiming to ensure the efficiency of the name matching tools used by the professionals. The implementation of such controls would have allowed them to identify certain weaknesses observed during the AML/CFT inspections, such as delays in the update of official lists or absence of name matching controls over a given period;
- deficiencies in the ongoing due diligence process applied to transaction monitoring, particularly within payment and electronic money institutions. These deficiencies related to alert scenarios and alert systems or mechanisms which did not appropriately cover risky situations or technical deficiencies resulting in an absence of alerts;
- absence of application of enhanced due diligence measures to customers presenting higher risk factors;
- delay in the regular periodical review of customers leading to an absence of review of the business relationships presenting higher risk factors for a long period;
- failures to meet the obligation to report, or to report without delay, any ML/TF suspicions or any associated predicate offence to the FIU.

The year 2021 was also marked by the publication of several news investigations containing negative information on existing business relationships in Luxembourg, such as OpenLux, FinCen Leaks or Pandora Papers. The AML/CFT inspections were therefore an opportunity to inquire about the arrangements put in place by the professionals allowing them to identify the existence, among their customers, of business relationships linked to these investigations and, more generally, to any other negative press article, as well as the supervisory measures taken by the professionals dealing with such business relationships.

During the AML/CFT inspections carried out at credit institutions, particular consideration was given to the monitoring of linked accounts (for example when there is a common beneficial owner). The presence of accounts linked to one and the same customer implies for professionals

² See point 1. of Chapter XVIII “Instruments of supervision”.

the implementation of adequate controls, notably in terms of transaction monitoring and periodical reviews, allowing them to carry out an appropriate consolidated supervision.

Finally, following an AML/CFT inspection which identified a significant number of cases of non-compliance with the AML/CFT professional obligations, the CSSF decided, in 2021, to withdraw the professional reputé of two authorised managers. Among the reasons given to justify this withdrawal were, *inter alia*, significant shortcomings related to the implementation of adequate AML/CFT arrangements and a governance issue due to the fact that the AML/CFT compliance officer did not carry out this function in practice. Shortcomings related to cooperation with the FIU as well as in transparency and trust principles with respect to the relations with the CSSF have also been observed.

As regards more particularly the collective management sector, the “UCI on-site inspection” department carried out, in 2021, nine inspections at authorised investment fund managers, registered alternative investment fund managers and a SICAV-SIF. These missions resulted in the following main observations about certain players:

- shortcomings in terms of frequency and documentation of controls in respect of the identification of the persons, entities and groups subject to prohibitions or restrictive measures in financial matters, as provided for in Article 33 of CSSF Regulation No 12-02 (however, a particular positive development was noted in terms of review frequency);
- weaknesses in customer due diligence measures, as required by Article 3 of the Law of 12 November 2004 on AML/CFT, and insufficient application of enhanced due diligence on intermediaries, as required by Article 3 of CSSF Regulation No 12-02 (including failures to meet the obligation to systematically keep up-to-date information and documents in order to carry out a periodic review of the business relationship);
- weaknesses in the risk assessment as provided for in Article 2-2 of the Law of 12 November 2004 on AML/CFT and in Circular CSSF 11/529;
- shortcomings concerning work carried out by the compliance officer in charge of the control of compliance with the professional obligations

and the independent audit function as laid down in Article 4(1) of the above-mentioned law;

- failures regarding key performance indicators enabling the ongoing monitoring by IFMs of the activities delegated to registrar and transfer agents in accordance with the requirements of point 466 of Circular CSSF 18/698.

Five missions covered the consideration of indicators concerning the professional obligation to report to the FIU suspicions in relation to predicate offence of money laundering, aggravated tax fraud or tax evasion having regard to Circular CSSF 17/650, as amended by Circular CSSF 20/744. Shortcomings were observed notably with respect to the control and monitoring of tax risks related to the securities lending activity.

The CSSF also carried out four missions concerning the trust and company service provision by investment fund managers.

During the annual AML/CFT conference organised for the collective management sector, the CSSF presented the broad outlines of its programme and its working methodology, the main weaknesses encountered during its inspections and provided guidance on how to prepare for an on-site inspection.

2. Amendments to the regulatory framework regarding the fight against money laundering and terrorist financing

2.1. Amendments to the European AML/CFT framework

2.1.1. Reform proposals by the European Commission

Following the action plan³ it adopted in May 2020, the European Commission published four reform proposals aiming to enhance AML/CFT within the EU (AML package) on 20 July 2021⁴.

These proposals include:

- a proposal for a European regulation in order to create a new European anti-money laundering authority (AMLA) which has specific duties and powers;
- a proposal for a directive, called the 6th Directive, replacing the existing Directive (EU) 2015/849 and containing provisions that will be transposed into national law, such as rules on national supervisors and financial intelligence units in the Member States;
- a proposal for a regulation containing AML/CFT rules directly applicable within the Member States, among others, with respect to customer due diligence and beneficial ownership;
- a revision of Regulation (EU) 2015/847 on transfers of funds in order to expand its scope to crypto-assets.

With this EU single rule book, the goal of the European Commission is to enhance its AML/CFT framework by ensuring, among others, that it is adapted to market developments and the identified ML/TF risks, for instance, in view of the development of the crypto-assets market.

Moreover, the EU legislation will be aligned with the basic standards of the Financial Action Task Force (FATF) in order to take into account the latest

amendments it has adopted, by enhancing, among others, the obligations for the players.

These proposals are currently discussed within the Council and the European Parliament. The European Commission counts on a speedy legislative process. The AMLA should be operational in 2024 and will start its work of direct supervision slightly later, once the directive has been transposed and the new regulatory framework starts to apply.

Please note that the AML package was further detailed in CSSF Newsletter No 251.

2.1.2. Delegated Regulation (EU) 2021/37 of 7 December 2020 identifying countries which present strategic deficiencies in their AML/CFT regimes that pose significant threats to the financial system of the European Union

Published on 18 January 2021, Delegated Regulation (EU) 2021/37 amended Delegated Regulation (EU) 2016/1675 supplementing Directive (EU) 2015/849 as regards deleting Mongolia from the list of countries having strategic deficiencies in their AML/CFT regime.

In line with the criteria set out in Directive (EU) 2015/849, the European Commission takes into account the recent available information, in particular recent FATF Public Statements, FATF documents *Improving Global AML/CFT Compliance: Ongoing Process Statement*, and FATF reports of the International Cooperation Review Group in relation to the risks posed by individual third countries, in accordance with Article 9(4) of Directive (EU) 2015/849.

The European Commission conducts a permanent monitoring of third countries and assesses developments in their legal and institutional frameworks, the powers and procedures of competent authorities, and the effectiveness of their AML/CFT regime, with a view to updating the Annex of Delegated Regulation (EU) 2016/1675⁵.

³ The action plan of the European Commission is available under [https://eur-lex.europa.eu/legal-content/en/TXT/PDF/?uri=PI_COM:C\(2020\)2800&from=EN](https://eur-lex.europa.eu/legal-content/en/TXT/PDF/?uri=PI_COM:C(2020)2800&from=EN).

⁴ https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3690

⁵ The updated and consolidated list is available under EUR-Lex - 02016R1675-20220313 - EN - EUR-Lex (europa.eu).

2.1.3. European list of non-cooperative jurisdictions for tax purposes

Intended to be updated twice a year based on the work of the Code of Conduct Group (Business Taxation) established by the European Council, the EU list of non-cooperative countries and territories for tax purposes is a continuous process aimed to:

- update criteria in line with international tax standards;
- screening countries against these criteria;
- engage with countries that do not comply;
- listing and de-listing countries as they undertake (or not) reforms;
- monitoring developments to ensure that jurisdictions do not backtrack on previous reforms.

In 2021, the European Council de-listed the following countries and territories: Anguilla, Barbados, Dominica (only added in 2021) and Seychelles⁶.

2.1.4. Implementing regulations implementing Regulation (EU) 2020/1998 of 7 December 2020 concerning restrictive measures against serious human rights violations and abuses

The basis Regulation (EU) 2020/1998 provides for the freezing of funds and economic resources of, and the prohibition to make funds and economic resources available to, natural or legal persons, entities or bodies responsible for, providing support to or otherwise involved in serious human rights violations or abuses, as well as those associated with the natural and legal persons, entities and bodies covered.

In 2021, several implementing regulations were adopted in order to designate the persons/entities involved in serious human rights violations, notably in China, the Democratic People's Republic of Korea, Libya, Eritrea, South Sudan and Russia, including torture, extrajudicial executions, enforced disappearance or the systematic use of forced labour⁷.

2.1.5. EBA contributions

In line with the strengthening of its AML/CFT task in 2020, the EBA started establishing, in 2021, a database in which the national authorities must include various important supervisory information, such as, for example, sanctions imposed on professionals. This database, applicable as from January 2022, will facilitate the identification of ML/TF risks and the exchange of information between the national competent authorities and will support the new AML/CFT colleges⁸.

With respect to the European ML/TF risks, the EBA published for the third time, in March 2021, its *Opinion on the risks of money laundering and terrorist financing affecting the European Union's financial sector* (see also CSSF Newsletter No 242). Among the cross-sectoral risks identified in this opinion (which are added to the specific risks identified for each sector), the following risks are analysed:

- risks associated with virtual currencies;
- risks associated with the provision of financial products and services through FinTech firms, including RegTech solutions;
- risks arising from weaknesses in AML/CFT systems and controls of entities;
- risks arising from de-risking;
- risks arising from divergent supervisory practices and divergent national legal frameworks;

⁶ The updated and consolidated list is available under www.consilium.europa.eu/en/policies/eu-list-of-non-cooperative-jurisdictions/.

⁷ The updated and consolidated regulation is available under <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02020R1998-20220413&from=EN#tocId2>

⁸ www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Draft%20Technical%20Standards/2021/1025576/RTS%20on%20AML%20CFT%20central%20data%20base.pdf

- risks arising from different supervisory approaches across the EU;
- risks associated with crowdfunding service providers;
- risks arising from divergent national approaches to tackling market integrity risk;
- risks associated with tax-related crimes;
- risks arising from the COVID-19 pandemic.

The EBA also worked on the drawing-up of draft guidelines concerning the AML/CFT compliance function (published in the second quarter of 2022) for which the private sector was consulted in 2021.

Moreover, the EBA adopted the following documents in 2021:

- guidelines on customer due diligence and the factors that credit and financial institutions should consider when assessing the ML/TF risk associated with individual business relationships and occasional transactions under Articles 17 and 18(4) of Directive (EU) 2015/849 (published on 1 March 2021);
- guidelines on the characteristics of a risk-based approach to AML/CFT supervision, and the steps to be taken when conducting supervision on a risk-sensitive basis under Article 48(10) of Directive (EU) 2015/849 (16 December 2021);
- a factsheet on AML/CFT supervisory colleges (December 2021)⁹.

2.1.6. Other publications

The CSSF draws the attention of financial sector professionals to three opinions of the European Commission concerning European regulations on financial sanctions, the importance of which increased due to the recent European events opposing Russia and Ukraine:

- Commission opinion of 27 May 2021 on changes to the features of frozen funds¹⁰;
- Commission opinion of 8 June 2021 on Article 2(2) of Council Regulation No (EU) 269/2014¹¹;
- Commission opinion of 2 June 2021 on the release of frozen funds under Council Regulation (EU) No 224/2014¹².

2.2. Amendments to the Luxembourg legal and regulatory framework

Since the major legal and regulatory amendments with respect to AML/CFT took place in 2020 (see CSSF's Annual Report of 2020 for more details), only some minor adaptations were made in 2021 by the Law of 25 February 2021 in the Law of 12 November 2004 on the fight against money laundering and terrorist financing, in the Law of 25 March 2020 establishing a central electronic data retrieval system related to IBAN accounts and safe-deposit boxes and in the Law of 10 July 2020 establishing a Register of *Fiducies* and Trusts. All these amended texts are available on the CSSF's website¹³.

Other important documents regarding AML/CFT adopted in 2021 are detailed hereinafter.

⁹ www.eba.europa.eu/sites/default/documents/files/document_library/News%20and%20Press/Communication%20materials/Factsheets/1025034/Factsheet%20on%20AML%20Colleges.pdf

¹⁰ https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210527-frozen-funds-features-opinion_en.pdf

¹¹ https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210608-ukraine-opinion_en_o.pdf

¹² https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210602-frozen-funds-features-central-african-republic-opinion_en.pdf

¹³ <https://www.cssf.lu/en/anti-money-laundering-and-counteracting-the-financing-of-terrorism/>

2.2.1. ML/TF vertical risk assessment on virtual asset service providers of 25 January 2021

Luxembourg finalised its first vertical ML/TF risk assessment on virtual asset service providers (VASPs)¹⁴ which supplements the national risk assessment updated in December 2020 (NRA 2020). The methodology of this report is closely related to the NRA with some adjustments however.

This work is in line in particular with Recommendation 15 of the FATF, according to which “Countries and financial institutions should identify and assess the money laundering or terrorist financing risks that may arise in relation to (a) the development of new products and new business practices, including new delivery mechanisms, and (b) the use of new or developing technologies for both new and pre-existing products”. Moreover, the Interpretive Note of this recommendation indicates that “countries should identify, assess, and understand the money laundering and terrorist financing risks emerging from virtual asset activities and the activities or operations of VASPs”.

2.2.2. Direct applicability of UN Security Council resolutions in national law

Since the entry into force of the Law of 19 December 2020 on the implementation of restrictive measures in financial matters, the publication of a ministerial regulation is no longer mandatory for the transposition of a UN Security Council resolution providing for the freezing of funds.

Consequently, and in accordance with Article 4(2) of the above-mentioned law, any designation by the UN Security Council in this respect applies automatically in national law by simple reference to this resolution.

All the resolutions of the Security Council Committee taken in 2021 are available on the CSSF’s website¹⁵.

2.2.3. CSSF circulars and other information

In 2021, the CSSF informed again three times the professionals, by the way of CSSF circulars, of the FATF statements following its plenary meetings concerning the list of high-risk jurisdictions on which enhanced due diligence and, where appropriate, counter-measures are imposed, as well as on jurisdictions under increased monitoring of the FATF.

Circular CSSF 21/788 provided guidelines for the collective investment sector on the implementation of Article 49 of CSSF Regulation No 12-02 concerning the requirement of an AML/CFT report to be established by a *réviseur d’entreprises agréé*.

Through Circular CSSF 21/782, the CSSF adopted the revised guidelines of the EBA on ML/TF risk factors published in 2021 and mentioned in point 2.1.5. above.

Circulars CSSF 21/765 and 21/768 adapted Circulars CSSF 01/27, 03/113 and 07/325 in order to take into account the changes introduced by the amendment, in August 2020, of CSSF Regulation No 12-02 on AML/CFT.

Moreover, the following documents were updated in 2021:

- good conduct guide of the Ministry of Finance on the implementation of financial sanctions and the relevant FAQ;
- CSSF FAQ regarding AML/CFT for individuals/investors;
- CSSF FAQ regarding persons involved in AML/CFT for a Luxembourg investment fund or investment fund manager supervised by the CSSF for AML/CFT purposes;
- CSSF FAQ in relation to the completion of the AML/CFT Market Entry Form (for funds and IFMs) in eDesk.

¹⁴ <https://www.cssf.lu/en/2021/01/communiqué-of-the-ministry-of-justice-of-25-january-2021-luxembourg-finalises-the-first-money-laundering-and-terrorist-financing-vertical-risk-assessment-on-virtual-asset-service-providers/>

¹⁵ <https://www.cssf.lu/en/international-financial-sanctions/>

3. CSSF participation in meetings regarding the fight against money laundering and terrorist financing and regarding international financial sanctions

3.1. International dimension

Like every year, the CSSF participated in several working groups regarding AML/CFT at EU and international level, the meetings of which took place remotely due to the global pandemic situation. Among these groups, it is worth mentioning the Expert Group on Money Laundering and Terrorist Financing (EGMLTF) of the European Commission with respect to the implementation of the AML package, the AML Coordination NCA Network of the ECB, the Standing Committee on Anti-Money Laundering (AMLSC) of the EBA and the FATF.

As regards, in particular, the work of the FATF in 2021 which is of interest for the financial sector, reference is made, among others, to the following documents:

- *Guidance on Proliferation Financing Risk Assessment and Mitigation* (June 2021);
- *Updated Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers* (October 2021);
- the reports *Trade-based money laundering indicators* (March 2021), *Ethnically or racially motivated terrorism financing* (June 2021), *Money Laundering from Environmental Crime* (June 2021), *Second 12-Month Review of Revised FATF Standards – Virtual Assets and VASPs; Opportunities and Challenges of New Technologies for AML/CFT* (July 2021), *Stocktake on Data Pooling, Collaborative Analytics and Data Protection* (July 2021), *Mitigating the Unintended Consequences of the FATF Standards* (October 2021) and *Cross Border Payments – Survey Results on Implementation of the FATF Standards* (October 2021);
- the webinars (which can still be viewed on the FATF's website) *Trade-Based Money Laundering* (March 2021), *Money Laundering from Environmental Crime* (September 2021), *Risk-Based Supervision* (September 2021) and *Proliferation Financing Risk Assessment and Mitigation* (November 2021).

In October 2021, the FATF adopted amendments to Recommendation 23 by adapting group-wide compliance rules (provided for in Recommendation 18 applicable to the financial sector) to the areas and professionals of the non-financial sector¹⁶.

In June 2021, the CSSF participated in the (virtual) visit of the Council of Europe which was mandated by the European Commission to draw up a report on the actual and effective implementation by all Member States of the fourth AML/CFT Directive. The European Commission will publish an overall report thereon.

Finally, it is noteworthy that the mutual evaluation of Luxembourg by the FATF, for which the date of the evaluation and the on-site visit has been postponed twice, will take place in November 2022.

3.2. National dimension

In 2021, the CSSF continued to develop the cooperation not only at international level, but also at national level in order to further the exchange and coordination, among others, with other AML/CFT supervisors or self-regulatory bodies. For example, it is worth mentioning the meetings with the Commissariat aux Assurances, the Administration de l'enregistrement, des domaines et de la TVA, the Ordre des Experts-Comptables and the Barreau de Luxembourg.

Furthermore, the CSSF held many exchange meetings with representatives of the FIU and participated in all meetings organised in the context of the national prevention committee chaired by the Ministry of Justice or the monitoring committee regarding international financial sanctions chaired by the Ministry of Finance. The CSSF also contributed to the different national initiatives in terms of ML/TF risk assessment, among which the project of vertical terrorist financing risk assessment, the project of vertical risk assessment concerning legal persons and legal arrangements (published in May 2022) and the project of vertical proliferation financing and terrorist financing risk assessment.

¹⁶ www.fatf-gafi.org/fr/publications/gafiengeneral/documents/explanatory-materials-r18-r23.html

XXII. Financial consumer protection

1. Financial consumer protection and financial education

1.1. Financial consumer protection and financial education at national level

As part of its duty of financial education, the CSSF continued to develop its information portal www.letzfin.lu which contains a broad range of information on issues regarding money and finance in general. Thus, sections relating to sustainable development and digital finance were added. Users will also find information on the concepts of sustainability and explanations relating to sustainable and digital financial products.

A Lëtzfin Facebook page was created and a series of videos were produced to inform the public of strong customer authentication for on-line payment.

Lëtzfin also published a series of interviews in which various financial education players in Luxembourg present their organisation and priorities in this respect.

Lëtzfin, together with Eldorado, broadcast an interview on a topical issue relating to financial education on a monthly basis. The following topics were thus covered: over-indebtedness, frauds, the concept of “buy now, pay later”, car leasing, salaries and pocket money.

As part of the World Investor Week (WIW) initiated by IOSCO, the CSSF participated in a webinar organised by the Luxembourg Stock Exchange and published two videos aimed at providing the public with the means to protect against fraud.

1.2. Financial consumer protection and financial education at international level

1.2.1. Task Force on consumer protection of the OECD Committee on Financial Markets

The Task Force’s work concerns the 10 High-Level Principles of the G20 relating to financial consumer protection. The Task Force, in charge of monitoring their implementation, continued to work on the review of the Principles which started in 2020¹. Indeed, almost 10 years after the adoption of the Principles, such review was deemed beneficial. The objectives of the review are the following: (i) assessing the level of implementation of the Principles and the possible barriers to a full implementation, (ii) assessing the importance and relevance of the Principles in terms of overall financial consumer protection, and (iii) identifying whether the new developments regarding financial consumer protection require amendments to the Principles or the adoption of new principles.

In connection with the COVID-19 crisis and following the significant work of the Task Force in this respect since 2020 in order to protect financial consumers, the *G20/OECD Report on Financial Consumer Protection and Financial Inclusion in the Context of COVID-19* was published on 27 October 2021.

Moreover, the Task Force participated in the drafting of the *Business & Finance Outlook 2021 report: AI in Business and Finance*² and in researches on the protection of vulnerable investors, the governance of financial products, sustainable finance and practices referred to as “buy now, pay later”.

1 www.oecd.org/finance/financial-education/g20-oecd-task-force-financial-consumer-protection.htm

2 www.oecd.org/daf/oecd-business-and-finance-outlook-26172577.htm

1.2.2. International Financial Consumer Protection Network (FinCoNet)

FinCoNet is an international organisation gathering supervisory authorities from 27 countries that are responsible for financial consumer protection. It aims at fostering information exchange and cooperation between supervisory authorities in order to encourage proper conduct of the market and strong consumer protection in banking and credit.

In 2021, FinCoNet published several documents in the field of protection of financial consumers, including the *Report on Financial Product Governance and Culture* and the *Report on Supervisory Approaches to Consumers' Creditworthiness Assessments* (cf. www.finconet.org/).

The CSSF, as a member of FinCoNet, also attended two international seminars. The first one was held on 17 March 2021 on the Performance-based Regulation within the framework of financial consumer protection and the second one, held on 12 November 2021, analysed the responses from the market supervisory authorities to the impact of the COVID-19 pandemic.

1.2.3. OECD's International Network on Financial Education (INFE)

This international network created by the OECD seeks to promote and facilitate international cooperation between the different participants (politicians, regulators, associations, etc.) involved in financial education at global level. In 2021, 132 countries were represented in the INFE. A total of 91 authorities, including the CSSF, have the status of full members.

In 2021, the OECD/INFE published a report on the digital delivery of financial education. This report, which is based on more than 70 case studies conducted by the members of the INFE, contributes to a better understanding of the way public authorities worldwide implement digital financial education initiatives. Other topics discussed include, for example, financial education in the workplace and financial education in the context of ageing population. Moreover, discussions focussed on a future survey on adult financial literacy and a proposal to update and review the OECD/INFE toolbox to measure adult financial literacy, including possible measures of financial resilience, financial well-being and digital financial culture.

Further information about projects and events on the activities carried out by the OECD and the INFE in relation to financial education is available on the website www.financial-education.org.

1.2.4. IOSCO's Committee 8 on Retail Investors

The primary mandate of Committee 8 is to conduct IOSCO's policy work on financial education. Its secondary mandate is to advise the IOSCO Board on issues relating to investor protection and to work on the policy to be adopted in this field.

In 2021, the Committee decided to set up a working group on the development of retail investor education tools in the context of sustainable finance markets and products. A second working group was created in order to analyse the impact of the COVID-19 pandemic on the behaviour of investors and financial education. Discussions also addressed topics such as digitisation, virtual assets and frauds.

2. Alternative dispute resolution

In 2021, the CSSF continued to fulfil its functions as entity competent for the alternative resolution of consumer disputes, which it takes on, in particular, pursuant to the provisions of the Consumer Code. In this respect, the CSSF does not only process requests for the alternative resolution of disputes made by consumers as such, but it also deals with disputes between professionals of the financial sector in order to provide an amicable resolution.

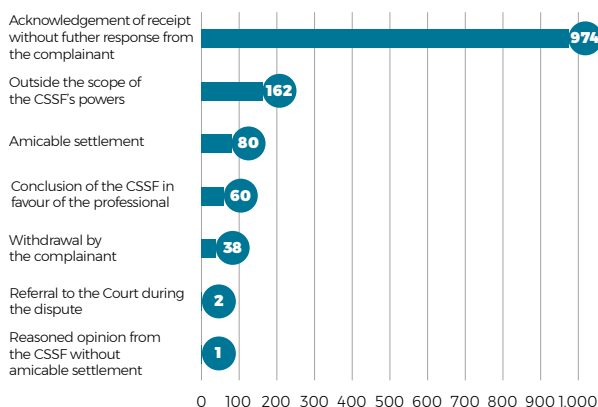
Article L.432-4 of the Consumer Code provides that the entities qualified for alternative consumer dispute resolution shall publish their annual reports. It also determines the information to be included in these reports.

In this chapter, the CSSF informs the public of its activities as qualified entity for alternative consumer dispute resolution, by providing, inter alia, the information required under aforementioned Article L.432-4.

2.1. Statistics regarding CSSF complaint handling in 2021

In 2021, the CSSF received 1,682 and closed 1,317 complaint files (including files received before 1 January 2021).

Outcome of the CSSF's intervention/reasons for closing the files



Upon reception of a complaint, the CSSF generally responds with an acknowledgement of receipt which provides useful instructions for the complainant on how to resolve the dispute with the professional without additional intervention of the CSSF. This acknowledgement of receipt indicates, among others, the full name of the manager in charge of handling complaints whom the complainant should contact at the entity concerned in order to reach an amicable settlement, and the link to the CSSF's webpage where useful information on the alternative handling of complaints by the CSSF is available to the complainant.

Judging by the high number of disputes that have been settled following these first instructions by the CSSF, the CSSF's approach consisting in favouring the dialogue between the parties to the disputes and not intervening immediately with the supervised entity concerned by a complaint, is bearing fruit.

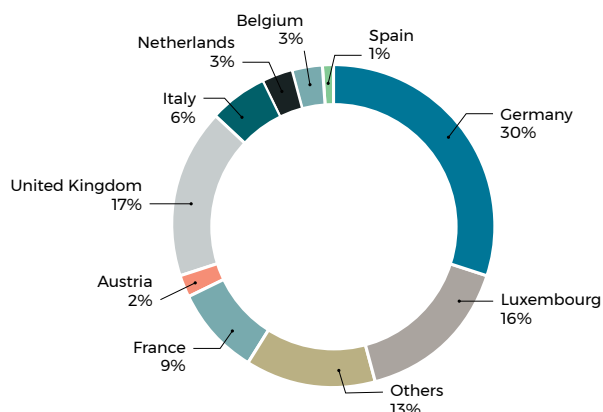
It should be noted that, in 2021, the CSSF took 100 days, on average, to close a duly examined file.

A total of 162 requests for the alternative resolution of complaints were inadmissible for the following reasons:

- complaints involving entities that are not subject to the CSSF's supervision (57%)³;
- failure of the complainant's capacity to act (21%);
- complaints falling within the scope of the insurance sector (10%);
- complaints concerning a non-financial product (9%);
- complaints already heard by a court (2%);
- frivolous requests (1%).

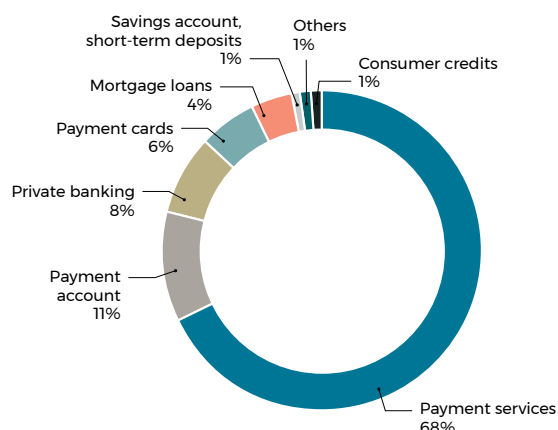
³ Excluding complaints concerning entities of the insurance sector

Breakdown of the disputes according to the complainants' country of residence



There is a large part of complaints from Germany with 30% of the total, which is similar to 2020 (26%). It is noteworthy that the category “Others” covers 58 different countries.

Breakdown of complaints according to their object



The breakdown of complaints according to their object remained stable compared to the previous years. The major share of complaints (68%) concerned problems linked to the use of electronic payment services. The share of complaints relating to payment accounts (11%) decreased as compared to the previous year (15% in 2020). The same applies to complaints relating to payment cards (6% in 2021 against 8% in 2020).

2.2. Complaints handled in 2021

The CSSF recounts here some disputes resolved during 2021 which may be rich in lessons for financial consumers and professionals.

2.2.1. Compensation for early repayment of mortgage loans

The CSSF regularly receives complaints relating to compensation for early repayment of mortgage loans.

In one case, the complainant challenged the compensation amount for early repayment charged by his bank when he sold the immovable property he acquired by way of a mortgage loan. He argued, among other things, that he had not been properly informed of this compensation when signing the mortgage loan agreement and that the compensation term was unfair because the amount could not be objectively determined based on the information included in the loan agreement.

However, the bank refused to uphold the challenges of the complainant by arguing in particular that it met its information and advice obligations, both before the conclusion of the agreement and throughout the loan agreement period. Moreover, it considered that the term providing for the compensation was not unfair.

The CSSF noted from the file documents that the loan agreement signed by the complainant included a term clearly stating that in the event of an early repayment of the fixed-rate loan, the complainant must pay a compensation amount equal to the loss of re-employment of the funds by the bank. This compensation amount was to be calculated at the time of the early repayment. The CSSF also noted that at the time when the complainant considered selling his immovable property, he asked the bank about the compensation amount for early repayment. Therefore, the complainant could not thereafter argue that he was unaware of the existence of such a compensation.

The CSSF concluded from its analysis that the complainant was aware of the early repayment compensation at the time when he sold his immovable property. He was also aware of the amount and the detailed calculation of the compensation amount because the bank calculated the compensation amount for him and provided him with the details at his request.

Consequently, having regard to the contractual provisions relating to compensation for early repayment included in the loan agreement signed by the complainant and in light of the explanations as to the amount and the calculation of the compensation amount the complainant received at the time when he planned to sell his immovable property, the CSSF considered that the complainant was properly informed of the obligation to pay compensation in case of early repayment of his fixed-rate loan agreement and of the detailed calculation of this compensation amount.

As regards the grievance of the complainant with respect to the unfair nature of the term relating to the early repayment of the loan agreement, it should be noted that a person who argues that a contractual term is unfair must demonstrate that:

- the term has the same content as one of the terms referred to in Article L. 211-3 of the Consumer Code which lists terms expressly defined as unfair; or that
- the term creates, in the agreement, an imbalance in the rights and obligations to the detriment of the consumer.

As Article L. 211-3 of the Consumer Code does not provide for an early repayment term in its list of unfair terms, the CSSF examined whether the disputed term resulted in an imbalance in the rights and obligations to the detriment of the complainant.

In this context, the CSSF took note of a decision of the Court of Appeal of 2 June 2016 (roll no 42178, *Pasicrisie luxembourgeoise*, 2017/1, pp. 98-103) which held that the early repayment term was not, in principle, an unfair term in particular if the operation of the term providing for compensation in case of early repayment was not left to the discretion of the bank. By analysing in detail the calculation method used by the bank, the CSSF came to the conclusion that the method for determining the early repayment compensation of the bank referred to objective data, including the interest rate agreed upon at the time of the conclusion of the loan agreement and the interest rate of the monetary market at the time of the early repayment, which excluded any arbitrary decision by the bank. The operation of the term was not left to the bank's discretion either. The loan agreement notably did not provide that the determination of the compensation amount would be left to the bank's discretion unlikely to be reviewed by the borrower or by the courts.

From the foregoing, the CSSF concluded that the disputed term relating to the compensation for early repayment was not unfair and, after having recalculated the compensation amount deducted by the bank, that the calculation of the compensation amount would not entertain any criticism. Consequently, the CSSF settled the dispute by upholding the bank's position.

In another dispute regarding early repayment compensation, the CSSF had, incidentally, to ponder the question whether the complainant's immovable property which was financed by a mortgage loan was the actual main residence of the complainant. Indeed, Article L. 226-20(3) of the Consumer Code⁴ provides that the early repayment compensation shall be limited to maximum six months of interests provided that the immovable property whose acquisition was financed by the mortgage loan has been used by the borrower as actual residence for two consecutive years.

⁴ “Where a mortgage credit agreement was signed in order to acquire a home used as actual main residence by the consumer for at least two consecutive years, the compensation referred to in the first subparagraph may not exceed the value corresponding to six months of interests on the capital repaid during each early repayment, calculated at the borrowing rate applicable to the mortgage loan agreement on the day of the early repayment.”

In this case, the complainant took out a mortgage loan towards the costs of construction relating to an immovable property which, according to him, had been his actual main residence for two consecutive years. When the complainant sold this immovable property, the bank sought early repayment compensation amounting to several tens of thousands of euros, arguing that the immovable property in question had not been used as actual main residence by the borrower for two consecutive years.

The complainant was of the view that he had provided the evidence of actual main residence for at least two consecutive years and, for that reason, the compensation amount claimed by the bank was excessive as its amount should not exceed the value corresponding to six-month's interests on the repaid capital.

The complainant provided the CSSF with a number of documents in order to prove his actual main residence in the immovable property in question, including in particular an income tax assessment, other tax documents and electricity bills. The bank maintained its position by arguing notably that even if the documents provided by the complainant tended to demonstrate that he had occupied the immovable property, these documents did not sufficiently demonstrate that the immovable property had been his actual main residence for at least two consecutive years. It notably drew the CSSF's attention to the fact that it appeared from the salary slip of the complainant as well as from a notarial deed that he had been domiciled at an address other than the address of the disputed property.

The CSSF finally concluded that if the various documents provided by the complainant tended to prove the occupation of the immovable property in question, they did not prove the actual main residence for at least two consecutive years, as provided for in Article L. 226-20(3) of the Consumer Code. Finally, the CSSF settled the dispute by declaring the complainant's request unfounded.

2.2.2. Computer hacking

In a dispute handled by the CSSF, the complainant requested the bank to refund different debits from his account because he denied being at the origin of these debits. He asserted to the CSSF that he had been the victim of a fraud where dishonest people had accessed his bank account without his knowledge.

The bank explained to the CSSF that the disputed transactions had been subject to an extended identity check at the time of their execution. Prior to the execution, the bank had sent a text message with a secret code to the complainant's phone number recorded in the bank's books. The bank stressed that the disputed transactions could have been executed only by entering the unique codes that had been sent beforehand to the complainant. For the bank, it is clear that the transactions had been authorised using these unique codes either by the complainant himself or by a third party to whom the complainant had provided the codes.

When examining the file, the CSSF was struck by a letter in which the complainant admitted that he had allowed third parties to access his computer remotely and that these persons had installed various programmes on his computer remotely. When asked by the CSSF to take position on this letter, the complainant admitted that he had given third parties remote access to his computer, but he pointed out that he had not validated the disputed transactions using the unique codes the bank had sent him and that he had not given these codes to third parties.

The bank challenged this position and provided the CSSF with evidence of the text messages sent to the complainant including the unique codes with which the disputed transactions had been validated. These messages left no doubt that the complainant had actually received these codes on his mobile phone and that the disputed transactions had been validated using these codes.

In the light of all the elements of the file, the CSSF could not respond favourably to the request of the complainant who had been negligent in giving fraudsters access to his computer.

2.2.3. Payments made with a stolen bank card

Within the context of payments which are not authorised by a user of payment services, the CSSF was contacted by a complainant whose bank refused to refund the amounts debited in transactions carried out with his bank card that was stolen during a stop at a service station. The complainant was convinced that he had been the victim of an organised group that had seen the PIN code of his bank card when he used it to make purchases in a shopping mall. Then, a flat tire, which the complainant held the organised band accountable for, had caused him to stop at a service station and the bank card had been stolen while he had been repairing the flat tire.

The bank was able to conclude that the withdrawals had been made using the PIN code of the bank card in one attempt, which suggested that the thieves obviously had known the PIN code of the bank card before using it. This also allowed the interpretation that the complainant had not taken adequate precautions when he entered the PIN code of his bank card when he made the purchases, or that he had written down the PIN code on a medium that was accessible to the thieves when they made their mischief.

The bank also explained to the CSSF that it was clear from the minutes of the complaint filed by the complainant with the judicial authorities that he had left his jacket containing his wallet with his bank card unattended on the front of his car when he had left his car unlocked at the service station. According to the bank, leaving his bank card unattended constituted a serious breach of duty of care by the holder of the bank card.

In support of its position, the bank moreover provided the CSSF with an extract of the repository of authentications linked to the complainant's bank card. This document included a statement of all the disputed transactions made with the bank card. It appeared that all these transactions were made using the right PIN code without abandoning or correcting the code and were authenticated, recorded and accounted for without being affected by a technical failure or other. The bank considered that these circumstances were such as to prove the gross negligence of the complainant and it availed itself of Article 86(2) of the Law of 10 November 2009 on payment services which, inter alia, provides that: "The payment service provider (...) shall provide supporting evidence to prove fraud or gross

negligence on part of the payment service user."

In the case in hand, the CSSF had to decide, based on the elements of fact and law of the file, whether the complainant could be found guilty of gross negligence.

The CSSF concluded that the complainant admitted that he had left his jacket with his wallet unattended in his car unlocked during a stop at a service station. Moreover, the CSSF took note of an assumption made by the complainant, according to which the thief of his bank card probably had gotten in his car when he had left his car to steal his wallet in which his bank card was kept. The complainant did not exclude either that dishonest people had seen the PIN code of his bank card when he used it to make purchases at a store shortly before he stopped at the service station.

Based on the above, the CSSF agreed with the bank's position, having found that the complainant had acted with gross negligence as he had not taken the necessary security measures to protect his bank card and the PIN code.

2.2.4. Fees charged (after business termination)

The complainant challenged the fees charged by the bank for safekeeping his assets, seven years after the termination of the business relationship.

The bank had ended its business relationship with the complainant but the latter had not given any instructions to his bank to transfer his assets. Seven years later, the bank sent a letter to the complainant in which it informed him that in the absence of written instructions within a period of 75 days as regards the transfer of his bank deposits, it would apply fees related to the safekeeping and deposit of these assets. One year after this letter, the complainant requested the bank to transfer his assets to another financial institution. He was then informed that fees for safekeeping his assets were charged to him by his (former) bank.

The complainant refused to accept liability for these fees as the contract which had bound him to his bank had been terminated for several years and because he had not signed any document relating to the application of the disputed fees. Moreover, he argued that the mutual obligations of the parties had ended upon termination of the business relationship.

The bank explained to the CSSF that the complainant had been informed of the disputed pricing and that it had intended to apply this pricing if, at the end of the period specified by the bank, the complainant did not transfer his assets. Moreover, the bank considered that the collection of the disputed fees was valid as they had been communicated to the complainant in accordance with the agreed terms and conditions.

After having analysed the elements of the file, the CSSF did not share the bank's view on the applicability of its fees as the contractual relationship between the complainant and the bank had ended for at least seven years. The complainant could therefore no longer be considered as a client of the bank after this termination of business relationship and no longer have the terms and conditions of the bank imposed on him.

In the end, the CSSF concluded that the collection of fees relating to the safekeeping of the disputed assets as carried out by the bank to the detriment of the complainant more than seven years after the end of the contractual relationship had no legal or contractual basis. Finally, the bank accepted to reimburse the fees charged to the complainant.

2.2.5. Asset management

The CSSF received a complaint where the complainant blamed his asset manager for not having managed his assets in his interest. The complainant stated, *inter alia*, that he suffered significant losses as a result of the poor management of his portfolio by the professional in question.

The asset manager had invested a large part of the complainant's assets in certificates backed by securities of a company which went bankrupt subsequently. During the examination of the file, the CSSF noted that the complainant had found an arrangement with the professional to compensate the losses suffered due to the investment in these certificates, so that the CSSF considered that this point of the complaint was settled, no matter what the complainant may claim in this respect.

The complainant also blamed the professional for having made investments in some risky products that were disproportionate in relation to the weight of the different investments held in his portfolio. The asset manager had invested a significant part of the complainant's assets in the securities of one single foreign issuer which plummeted after a very promising listing.

While assessing whether this investment complied with the investor profile of the complainant, the CSSF noted that, during the business relationship, the risk profile of the complainant had been changed. Apparently, the complainant had signed a document in which he chose to switch from a prudent profile to an aggressive profile which corresponded to the criteria "strategy aiming at significant performance". This strategy was characterised as follows: "The potential to make gains is higher but the risks linked to each investment should not be ignored."

The complainant however considered that the document, which should have certified the change in profile, was doubtful and he did not remember having signed it. The CSSF was unable to verify whether the complainant really agreed to the change in the aforementioned strategy. Consequently, in all objectivity, the CSSF could only attribute a relative weight to the document purporting to certify a change in the complainant's profile.

The CSSF then focussed on other file documents to shed light on this matter. Thus, it noticed that the complainant had expressed an undeniable interest for the issuer in question, even at a time when the securities of this issuer were not yet listed on a stock exchange, notably because the issuer was settled in a country in which he was very interested. The CSSF did not fail to note that the complainant had sent a letter to the asset manager in which he expressed his interest in investing part of his assets in a company which carried out activities in the country where the issuer was settled.

The CSSF's attention was also drawn to a document which the complainant had apparently signed and dated and in which he allowed the professional not to comply with his investment profile as far as the investment in the securities of the issuer in question was concerned. It should be noted that the complainant challenged the authenticity of this document before the CSSF which considered that it could not verify the authenticity of the document.

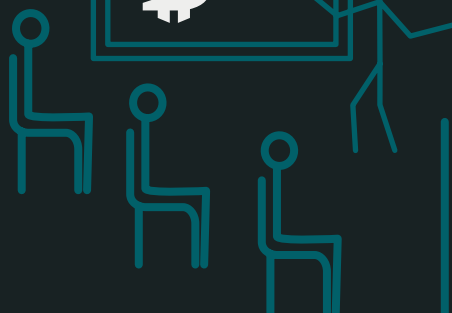
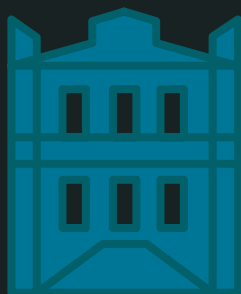
Finally, the CSSF closed the complaint file without concluding to any misconduct by the professional. However, the CSSF admitted, in its closing letter, that it could not ensure the authenticity of some documents essential for this purpose and of which the complainant challenged the authenticity.

2.3. FIN-NET

FIN-NET was launched in 2001 by the European Commission with the purposes of enhancing cooperation between national ombudsmen in financial services and offering consumers easy access to extra-judicial mechanisms for alternative dispute resolution in the area of financial services.

In 2021, the CSSF took part in three FIN-NET plenary meetings. FIN-NET members exchanged their views in particular on the scope of Regulation (EU) 2020/1503 of 7 October 2020 on European crowdfunding service providers for business as regards investor protection. They also discussed the major impacts of the guidelines on loan origination and monitoring (EBA/GL/2020/06), applicable since 30 June 2021 and aiming at processing non-performing loans (NPLs) and maintaining financial stability.

FIN-NET members also focussed on digital financial issues, in particular within the context of the digital financial strategy launched by the European Commission. Discussions included the establishment of a European regulatory framework facilitating digital innovation and the creation of a European data space.



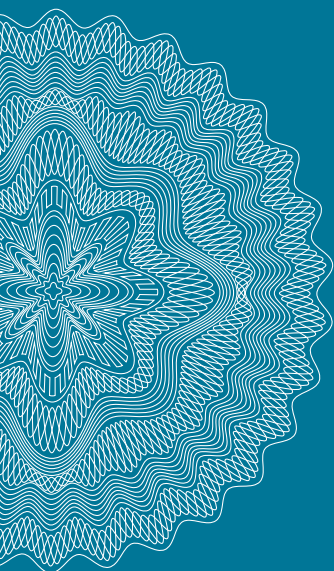
List of abbreviations

2010 Law	Law of 17 December 2010 relating to undertakings for collective investment
2013 Law	Law of 12 July 2013 on alternative investment fund managers
ABBL	Association des Banques et Banquiers Luxembourg - Luxembourg Bankers' Association
AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Directive 2011/61/EU of 8 June 2011 on Alternative Investment Fund Managers
ALFI	Association Luxembourgeoise des Fonds d'Investissement - Association of the Luxembourg Fund Industry
AML/CFT	Anti-Money Laundering and Countering the Financing of Terrorism
ASSEP	Pension savings association
Audit Law	Law of 23 July 2016 concerning the audit profession
BCL	Banque centrale du Luxembourg - Luxembourg Central Bank
BMR	Benchmark Regulation - Regulation (EU) 2016/1011 of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds
BRRD Law	Law of 18 December 2015 on the failure of credit institutions and certain investment firms
BRRD	Bank Recovery and Resolution Directive - Directive 2014/59/EU of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms
BRRD2	Bank Recovery and Resolution Directive 2 - Directive 2019/879/EU of 20 May 2019 amending Directive 2014/59/EU as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC
CdRS	Comité du risque systémique - Luxembourg Systemic Risk Committee
CPDI	Conseil de protection des déposants et des investisseurs - Council for the Protection of Depositors and Investors
CRD IV	Capital Requirements Directive IV - Directive 2013/36/EU of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms
CRD V	Capital Requirements Directive V - Directive (EU) 2019/878 of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures
CRR	Capital Requirements Regulation - Regulation (EU) No 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms
CRR2	Capital Requirements Regulation 2 - Regulation (EU) 2019/876 of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) No 648/2012
CSD	Central securities depository
CSDR	Central Securities Depositories Regulation - Regulation (EU) No 909/2014 of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories
CSSF	Commission de Surveillance du Secteur Financier - Luxembourg supervisory authority of the financial sector
EBA	European Banking Authority
EC	European Community
ECB	European Central Bank
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pensions Authority
ELTIF	European Long-Term Investment Fund
EMIR	European Market Infrastructure Regulation - Regulation (EU) No 648/2012 of 4 July 2012 on OTC derivatives, central counterparties and trade repositories
ESEF	European Single Electronic Format
ESG	Environmental, Social and Governance

ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange-traded fund
EU	European Union
EUR	Euro
FATF	Financial Action Task Force
FGDL	Fonds de garantie des dépôts Luxembourg - Luxembourg Deposit Guarantee Fund
FIU	Financial Intelligence Unit
FSB	Financial Stability Board
ICT	Information and Communication Technology
IFD	Directive (EU) 2019/2034 of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU
IFM	Investment fund manager
IFR	Regulation (EU) 2019/2033 of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISA	International Standard on Auditing
ITS	Implementing Technical Standards
JST	Joint Supervisory Team
LSI	Less significant institution
MiFID	Markets in Financial Instruments Directive - Directive 2014/65/EU of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU
MiFIR	Markets in Financial Instruments Regulation - Regulation (EU) No 600/2014 of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012
ML/TF	Money Laundering and Terrorist Financing
NAV	Net Asset Value
OECD	Organisation for Economic Co-operation and Development
PFS	Professional of the Financial Sector
PIE	Public-Interest Entity
PSD2	Directive (EU) 2015/2366 of 25 November 2015 on payment services in the internal market
REA	<i>Réviser d'entreprises agréé</i> - Approved statutory auditor
RTS	Regulatory Technical Standards
SEPCAV	Pension savings company with variable capital
SFDR	Sustainable Finance Disclosure Regulation - Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector
SFTR	Securities Financing Transactions Regulation - Regulation (EU) 2015/2365 of 25 November 2015 on transparency of securities financing transactions and of reuse
SI	Significant institution
SICAR	Investment company in risk capital
SIF	Specialised Investment Fund
SIIL	Système d'indemnisation des investisseurs Luxembourg - Investor Compensation Scheme Luxembourg
SRB	Single Resolution Board
SREP	Supervisory Review and Evaluation Process
SRM	Single Resolution Mechanism

SSM	Single Supervisory Mechanism
STOR	Suspicious Transaction and Order Report
UCI	Undertaking for Collective Investment
UCITS Directive	Directive 2009/65/EC of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)
UCITS	Undertaking for Collective Investment in Transferable Securities
VASP	Virtual Asset Service Provider

Notes

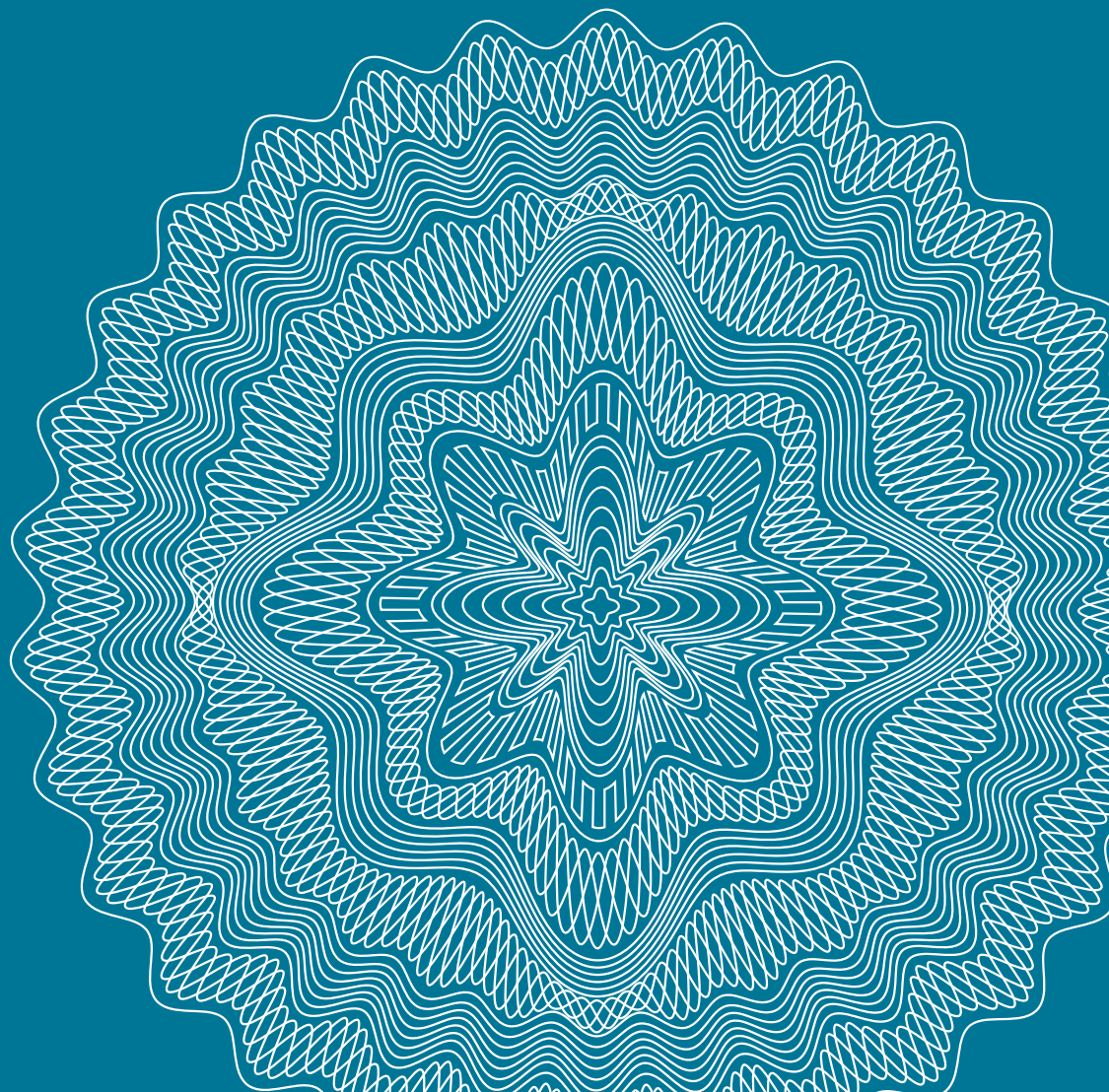


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