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June 2024

TECHNICAL NOTE ON INSURANCE REGULATION AND SUPERVISION

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

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May 20, 2024

TECHNICAL NOTE

INSURANCE REGULATION AND SUPERVISION

Prepared By
Monetary and Capital Markets Department

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

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Glossary

AML/CFT	Anti-Money Laundering and Combating the Financing of Terrorism
BSCR	Basic Solvency Capital Requirement
CAA	Commissariat aux Assurances
CdRS	Comité du Risque Systemique
CRF	Cellule de Renseignement Financier
CSSF	Commission de Surveillance du Secteur Financier
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pensions Authority
ESRB	European Systemic Risk Board
EU	European Union
FATF	Financial Action Task Force
FPS	Freedom to Provide Services
FSAP	Financial Sector Assessment Program
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
IAIS	International Association of Insurance Supervisors
ICP	Insurance Core Principle
LAC_DT	Loss-Absorbing Capacity of Deferred Taxes
LAC_TP	Loss-Absorbing Capacity of Technical Provisions
LTG	Long-Term Guarantee
MCR	Minimum Capital Requirement
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MMoU	Multilateral Memorandum of Understanding
ORSA	Own Risk and Solvency Assessment
QRT	Quantitative Reporting Template
SCR	Solvency Capital Requirement
SFCR	Solvency and Financial Condition Report
TP	Technical Provisions
VA	Volatility Adjustment

EXECUTIVE SUMMARY

The insurance sector in Luxembourg is very large and serves as a European hub, specifically in the non-life (re)insurance sector and in unit-linked life insurance. Sector assets equaled EUR 289bn in June 2023, corresponding to 372 percent of GDP, significantly higher than in other European peers, Luxembourg insurance business is conducted mainly cross-border, both in the life and the non-life sector. The sector's international role has been strengthened further after the Brexit vote when several U.K. insurers resettled to Luxembourg to continue cross-border business in the EEA through the passporting system. Business underwritten for domestic risks represents only 6 percent of the sector's total technical provisions. Both the life and the non-life sector have undergone some consolidation recently, and most Luxembourgish insurers are subsidiaries of foreign groups.

Since 2022, rising interest rates had a notable impact on policyholder behavior, resulting in higher lapse rates—still, liquidity risks appear largely contained, also due to the possibility in many unit-linked contracts to redeem in kind. Most products sold to high-net-worth individuals do not have significant redemption penalties. While normally tax treatments would discourage early surrenders, the recent rapid increase in interest rates has led policyholders to consider redemptions, either to repay variable interest rate loans or to invest in other higher-yielding products. Hence, Luxembourgish life insurers experienced a higher increase in lapse rates compared to peers in other markets, particularly in life insurance products with interest rate guarantees. However, assets backing unit-linked products need to be liquid, or the product's terms and conditions need to allow for a redemption in kind.

Solvency II has been fully implemented in Luxembourg without any significant frictions. Still, certain national rules continue to exist under LUX-GAAP, adding an additional layer of prudence specifically for the valuation of liabilities. The CAA's supervisory approach is risk-based and early warning signals have been defined. The off-site review of reporting files is comprehensive, and on-site inspections are scheduled according to a minimum engagement plan. For internal model users, the CAA monitors model appropriateness on an ongoing basis. As a host supervisor, the CAA participates in around 40 supervisory colleges and takes the role as the European lead supervisor for one of the largest reinsurers. After the Brexit decision, the CAA licensed twelve U.K. insurers in close cooperation with the U.K. authorities.

After having grown substantially in size, it is recommended to further strengthen the CAA's independence and its internal governance. The CAA's staff has roughly doubled since the last FSAP but should be constantly reviewed with further expanding tasks. The authority's independence could be further strengthened by safeguarding the independence of its Board members and narrowing down in the Insurance Act the reasons on which the CAA's Directorate could be dismissed. The governance of the CAA would benefit from setting up an internal audit function, and strengthening IT governance as projects are currently conducted largely in-house. The maximum limits to monetary sanctions should be reviewed and potentially aligned with other financial sector regulation, e.g., by using relative limits based on revenues. In day-to-day supervision, the CAA is

recommended to further upgrade the robustness of its on-site inspection tool; conduct supervision would benefit from the development of risk-based indicators; and climate risk and potential protection gaps should be assessed together with all relevant stakeholders.

Table 1. Luxembourg: Main Recommendations on Insurance Regulation and Supervision

#	Recommendations	Addressee	Timing*	Priority**
1	Safeguard the independence of CAA board members through proposing changes to the law, or through subsidiary legislation within the constraints provided under the law(¶21)	MoF	MT	M
2	Narrow down and spell out more explicitly the reasons on which the CAA's Directorate could be dismissed (¶22)	MoF	MT	M
3	Set up an internal audit framework to evaluate and improve the effectiveness of risk management, control and governance processes (¶26)	CAA	ST	H
4	Strengthen IT governance in order to improve internal controls and mitigate key person risks (¶27)	CAA	ST	M
5	Ensure commensurate resources with expanding tasks going forward, especially with regard to upcoming EU legislation (¶28)	CAA	C	M
6	Review the maximum limit of monetary sanctions in the Insurance Act, potentially aligning them more with other financial sector regulation, e.g., by using relative limits based on revenues (¶31)	MoF	ST	M
7	Transition the on-site inspection tool to a more robust and audit-proof IT platform (¶49)	CAA	MT	M
8	Coordinate closely, together with the insurance sector, on the role of insurance in the management of climate risk and natural disasters (¶56)	Ministry of State, MoF, CAA	C	M
9	Expand supervisory disclosure by publishing key figures at company level (¶66)	CAA	ST	M
10	Develop business conduct indicators and use them as part of a risk-based supervisory methodology (¶71)	CAA	ST	M

* C = Continuous; I = Immediate (within one year); ST = Short Term (within 1-3 years); MT = Medium Term (within 3-5 years).

** H = High; M = Medium; L = Low.

INTRODUCTION[1]

1. This technical note analyzes the key aspects of the regulatory and supervisory regime for insurance companies in Luxembourg. The analysis is part of the 2024 Financial Sector Assessment Program (FSAP) and based on the regulatory framework in place and the supervisory practices employed as of October 2023. This note is based on a review of regulations, market analyses, and meetings with the Luxembourgish authorities, in particular the Commissariat aux Assurances (CAA) and the Ministry of Finance (MoF). The FSAP team also met with representatives from insurers, industry associations, and other private sector bodies. The work benefitted greatly from their readiness to discuss critical issues and share information.

2. The FSAP reviewed recent developments and the structure of the Luxembourgish insurance sector. The sector is large, well developed, and highly interconnected with other insurance markets through internationally active insurance groups and cross-border business. In the reinsurance sector, Luxembourg is a key market within the European Union. A separate technical note summarizes the results of the stress tests carried out on the insurance sector and elaborates more on current market risk sensitivities.

3. This note does not include a detailed assessment of observance of the Insurance Core Principles. The FSAP team carried out a focused review of insurance oversight based on a subset of the Insurance Core Principles (ICPs) issued by the International Association of Insurance Supervisors (IAIS) in October 2019. The ICPs selected for review are broadly those with macrofinancial relevance[2] and those where material regulatory changes have occurred since the last FSAP. They include the ICPs on solvency requirements (valuation and capital adequacy; ICPs 14 and 17), corporate governance and risk management (including reinsurance; ICPs 8, 16 and 13), business conduct and consumer protection (ICP 19), supervisory approach (including supervisory authority, supervisory review, and macroprudential surveillance; ICPs 2, 9 and 24), as well as supervisory cooperation (ICPs 3 and 25). In respect of the twelve ICPs analyzed in the note, the CAA provided a full self-assessment, supported by examples of actual supervisory practices and assessments.

4. The 2017 FSAP found Luxembourg's oversight framework at an adequate level of consistency with IAIS standards; still, it recommended an enhancement of the CAA's resources and governance arrangements. The CAA was found to have worked diligently to ensure the insurance industry has adjusted smoothly to the introduction of Solvency II. It was recommended to prioritize the implementation of a revised early warning system, calibrated to new Solvency II parameters once the data become available. The FSAP commented on the CAA's staff level being modest and suggested enhancing the CAA's governance structure through: (i) subjecting board members to a formal code of conduct; (ii) having board activities periodically reviewed by an

[1] The main author of this note is Timo Broszeit, independent expert on insurance regulation.

[2] See "A Macrofinancial Approach to Supervisory Standards Assessments," IMF (2014).

independent committee; and (iii) limiting the government's power to dismiss the Executive Committee, thus safeguarding the CAA's operational independence.

5. **Since 2017, the authorities have implemented some of these recommendations.** The governance of the CAA's board has been strengthened through the introduction of a code of conduct, and formal independence of the CAA is made more explicit by an amendment of the Insurance Act from 2021 which ends the practice of having the licenses of new insurers formally signed off by the Minister of Finance. Operationally, the staff numbers of the CAA have doubled, and processes, e.g., for off-site analysis and on-site inspections, have been further strengthened. An early-warning system based on Solvency II has been implemented.

INSURANCE MARKET DEVELOPMENTS[3]

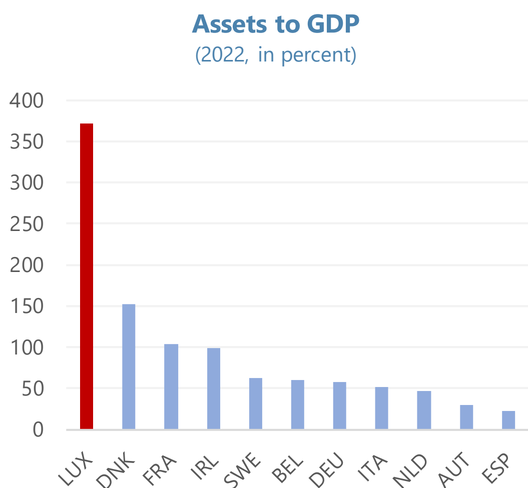
6. **The insurance sector in Luxembourg is very large compared to its economy, albeit small in domestic penetration.** Sector assets equaled EUR 289bn in June 2023, corresponding to 372 percent of GDP, significantly higher than in other European peers (Figure 1). Business underwritten for domestic risks represents only 6 percent of the sector's total technical provisions. To some extent, such 'domestic' business furthermore relates to legal persons domiciled in Luxembourg but without a real link to the domestic economy—hence, the true share percentage of local business is even lower. Calculating the insurance penetration and density without cross-border business shows that the insurance sector is in fact smaller than in some of the European peers. The penetration, measured as premiums for domestic business as a share of GDP, amounts to 1.9 percent each in life and in non-life, and the density (annual premiums per capita) reaches US$4,762.

7. **Luxembourg serves as a European hub, specifically in the non-life (re)insurance sector and in unit-linked life insurance, and the sector's international role has been strengthened even further after the Brexit vote.** Luxembourg insurance business is conducted mainly cross-border, both in the life and the non-life sector. For the life business, France is by far the most important host market (42 percent of gross premiums), while non-life business is more diversified and includes a sizable share outside the European Economic Area (EEA). After the Brexit vote, several U.K. insurers resettled to Luxembourg to continue cross-border business in the EEA through the passporting system.

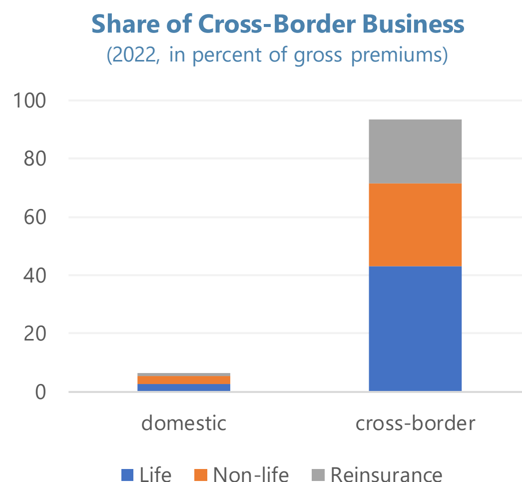
[3] A detailed discussion of risks and vulnerabilities in the insurance sector is included in the Technical Note on Stress Testing and Systemic Risk Analysis.

Figure 1. Luxembourg: Insurance Sector Size and Cross-Border Business

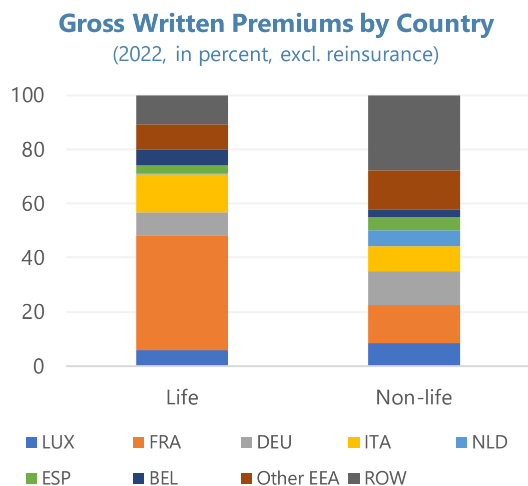
Assets of the insurance sector amount to 372 percent of GDP, much higher than in other European countries.



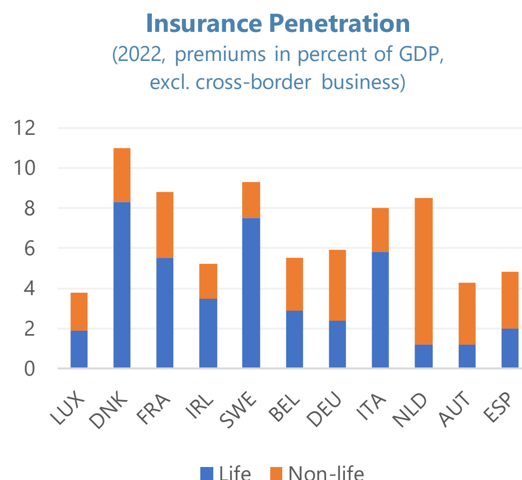
More than 90 percent of gross written premiums stem from cross-border business.



In life insurance, France is—by a wide margin—the most important host country, while the split in non-life business is more diverse.



When excluding cross-border business, insurance penetration is—at 3.8 percent—closer to the EU average.



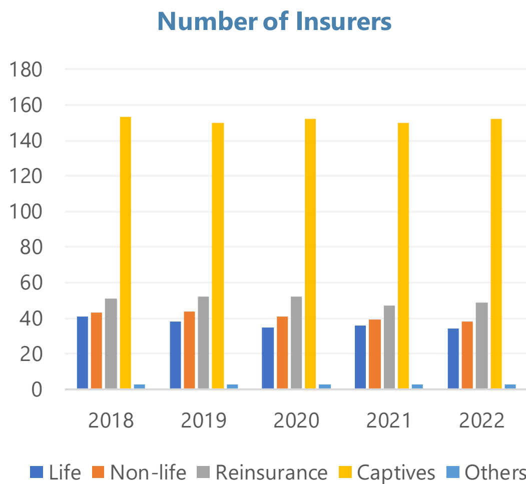
Source: EIOPA, Eurostat, CAA, Swiss Re Sigma, IMF staff calculations.

8. **Both the life and the non-life sector have undergone some consolidation recently, and most Luxembourgish insurers are subsidiaries of foreign groups** (Figure 2). The number of life insurers has consolidated in recent years, from 41 at end-2018 to 34 at the end of 2022. The consolidation was driven mainly by domestic mergers, hence assets remained largely within the Luxembourgish insurance sector. At the same time, the number of non-life insurers has been more stable after the relocation of twelve British insurers in 2018–19 which resulted in a significant expansion of non-life business in the Luxembourgish market—in this sector, 38 insurers were licensed at end-2022, in addition to 49 reinsurers and 152 captive insurers. Concentration is particularly high in the reinsurance sector, where the largest three entities account for a market

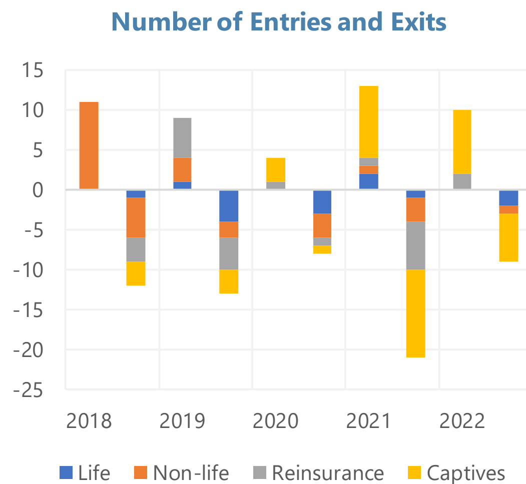
share of 76 percent in terms of assets—the respective shares in the life and non-life sector are 42 and 62 percent, respectively. Most insurers domiciled in Luxembourg are subsidiaries of foreign insurance groups, and only 23 out of 126 insurers (excluding captives) have a domestic parent, mostly from the insurance sector.

Figure 2. Luxembourg: Structure of the Insurance Sector

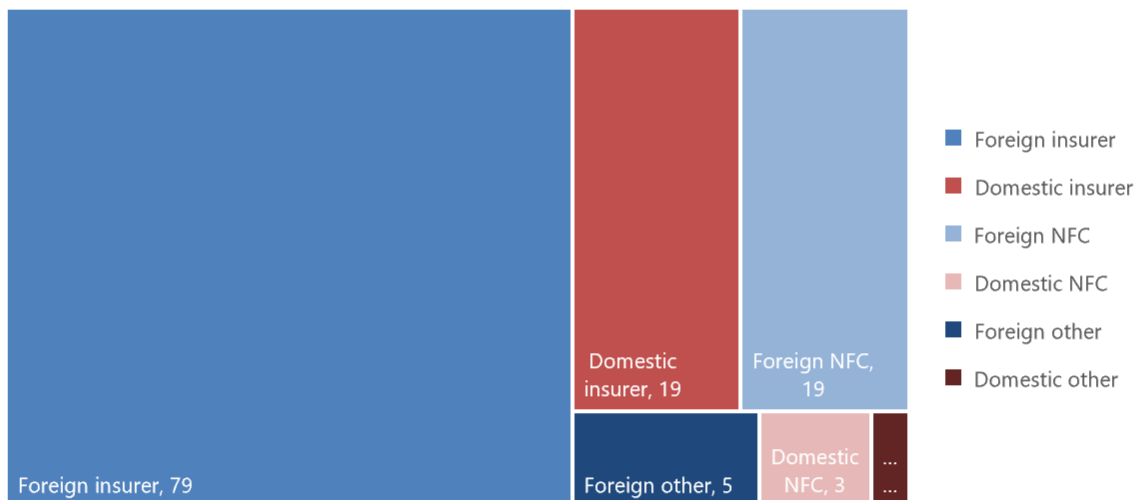
The number of insurers is slightly declining, driven by some consolidation, but overall, still very high.



The market is dynamic with many entries and exits. In particular after the Brexit vote, a number of non-life insurers moved their location to Luxembourg.



Most entities are subsidiaries of foreign insurers, and only 23 out of 126 insurers (excluding captives) have a domestic parent, mostly from the insurance sector.



Source: IMF staff calculations based on CAA data.

9. Life insurance business is dominated by index- and unit-linked (UL) products, predominantly for (ultra) high net-worth individuals (Table 2). Gross premiums in this line of business amounted to EUR 17.9bn in 2022 or 68 percent of total life premiums. With-profit products and life reinsurance account for another 17 and 9 percent of the total market. The dominance of wealth management products is further evidenced by the large share of single premiums—93 percent in 2022. Brokers and banks are the main distribution channels with 47 and 39 percent, respectively.

Table 2. Luxembourg: Premium Income

In life insurance, index- and unit-linked business accounted for 68 percent of gross premiums in 2022. In non-life, the dominant lines of business are fire and other damage to property (29 percent) as well as general liability insurance (26 percent).

Premiums - Life business 2022, in EUR million	**Gross written premiums**	**Reinsurers' share**	**Net written premiums**
Index-linked and unit-linked insurance	17,906	130	17,777
Insurance with profit participation	4,545	2,707	1,838
Life reinsurance	2,416	1,661	756
Health reinsurance	953	595	358
Other life insurance	476	223	253
Health insurance	51	3	48
Total	**26,348**	**5,319**	**21,029**
of which			
Single premiums	24,531	n.a.	n.a.
Regular premiums	1,817	n.a.	n.a.

Premiums - Non-life business 2022, in EUR million	**Gross written premiums - direct business**	**Gross written premiums - proportional reinsurance accepted**	**Gross written premiums - non-proportional reinsurance accepted**	**Reinsurers' share**	**Net written premiums**
General liability insurance	4,459	1,484	--	3,033	2,910
Fire and other damage to property insurance	3,992	2,710	--	3,987	2,715
Marine, aviation and transport insurance	2,191	518	--	1,686	1,023
Credit and suretyship insurance	1,233	843	--	1,284	793
Motor vehicle liability insurance	880	1,324	--	939	1,266
Miscellaneous financial loss	839	498	--	740	597
Other motor insurance	714	218	--	244	687
Income protection insurance	453	154	--	118	490
Other direct insurance	362	393	--	133	621
Non-proportional reinsurance	--	--	3,557	2,065	1,492
Total	**15,122**	**8,143**	**3,557**	**14,228**	**12,594**

Source: CAA.

10. In the non-life and reinsurance sector, underwritten risks are very diversified with a large share of accepted reinsurance. In 2022, total gross written premiums amounted to EUR 26.8bn, of which 8.1bn (30 percent) came through proportional reinsurance and 3.6bn (13 percent) through non-proportional reinsurance. A large part of business is reinsured (or retroceded) and only 47 percent are retained, resulting in net written premiums of EUR 12.6bn. The

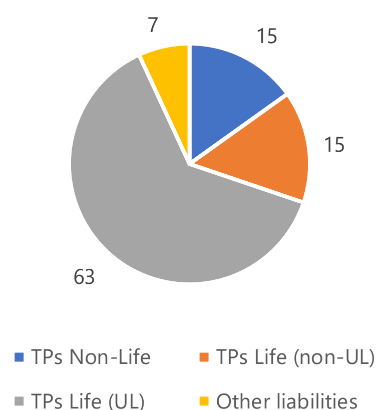
most important lines of business are fire and other damage to property with 29 percent of gross written premiums and general liabilities with 26 percent. Non-life business is mainly intermediated through brokers (72 percent).

11. Insurance liabilities are dominated by technical provisions for unit-linked business with a share much higher than in most other European countries (Figure 3). While technical provisions for traditional life insurance and non-life insurance account for 15 percent each of aggregated insurance liabilities, unit-linked life insurance accounts for 63 percent. Only Swedish and Irish life insurers hold a higher share on their balance sheets. Even in absolute numbers, Luxembourg is the sixth largest market for unit-linked business in the European Union (EU) with around EUR 164bn.

Figure 3. Luxembourg: Insurance Sector Liabilities

Technical provisions (TPs) for unit-linked business form the largest part of insurers' liabilities (63 percent), as well as TPs for non-UL life business and non-life business (15 percent each).

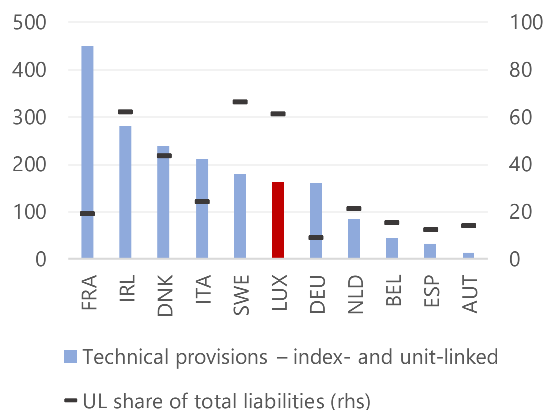
Breakdown of Liabilities
(2023-Q2, in percent of total liabilities)



■ TPs Non-Life ■ TPs Life (non-UL)
■ TPs Life (UL) ■ Other liabilities

Compared with European peers, the share of unit-linked business is amongst the highest, similar to Sweden and Ireland.

Unit-Linked Liabilities
(2023-Q1, in EUR billions, in percent)



■ Technical provisions – index- and unit-linked
▬ UL share of total liabilities (rhs)

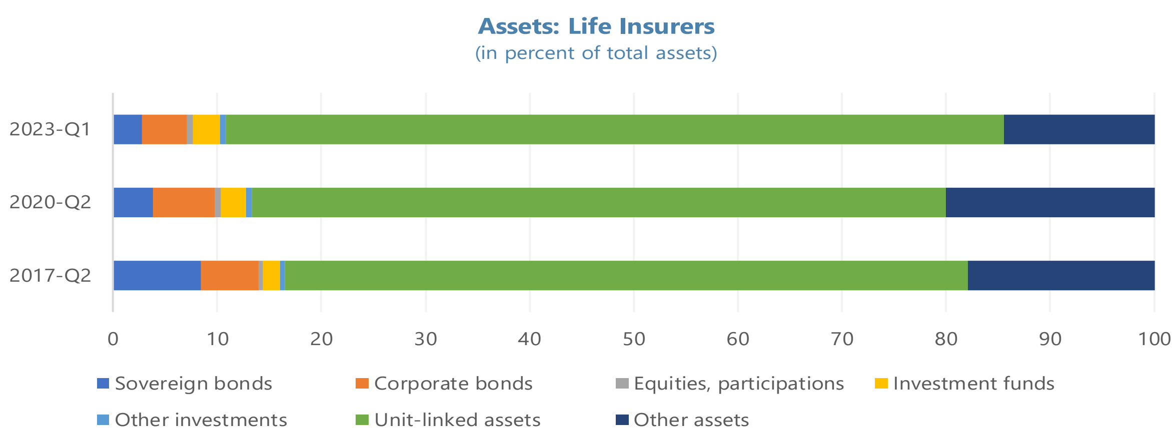
Source: IMF staff calculations based on CAA, EIOPA.

12. The investment asset allocation is largely reflecting the high share of unit-linked life insurance and is rather conservative and geared toward bonds for non-life insurers (Figure 4). Assets backing unit-linked insurance account for 75 percent of life insurers total assets (up from 67 percent in 2017)—59 percent of these assets are investment funds. Other life insurers' investments have been partially shifted from bonds towards investment funds over the last few years. In the non-life sector, conservative investments like sovereign and corporate bonds are the most important asset class (34 percent of total assets). With around EUR 2bn, insurers' real estate exposures are rather limited as a share of total investment assets, comprising direct exposure (19 percent), indirect

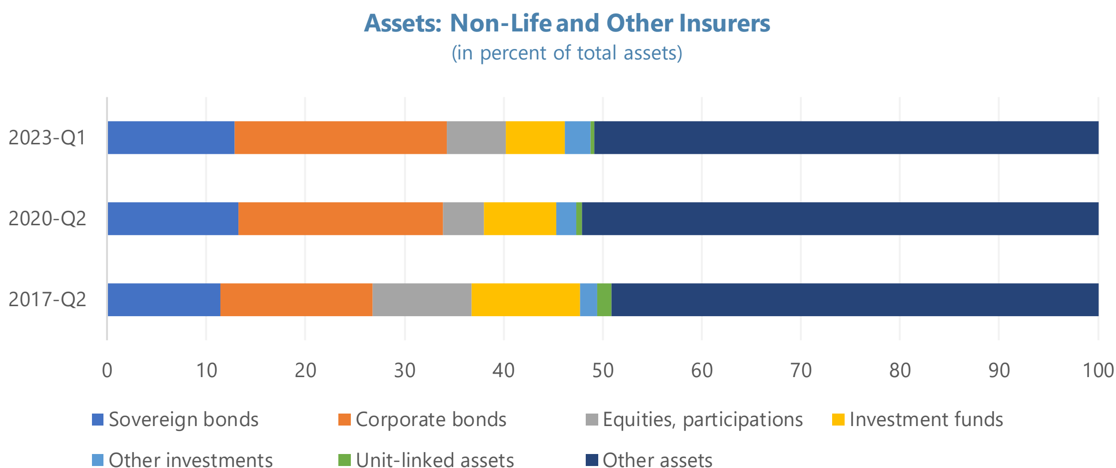
exposure mostly through investment funds (42 percent), mortgage loans[4] (29 percent), and collateralized securities mainly exposed to real estate risk (11 percent). Investments are geographically diverse: While in unit-linked business, assets (before applying a look-through) are concentrated in markets with large investment fund sectors (besides Luxembourg also France and Ireland), assets backing traditional business are more diversified.

Figure 4. Luxembourg: Insurance Asset Allocation

Assets of life insurers are largely composed of investments underlying index- or unit-linked insurance (75 percent). The share of sovereign and corporate bonds has decreased from 14 percent in 2017 to 7 percent in 2023.



Non-life and other insurers have instead expanded their holdings in bonds, in particular between 2017 and 2020. Sector-typical is a large share of other (non-investment) assets, in particular reinsurance recoverables with 27 percent of total assets—while being five times higher than the EU/EEA average, the large share is typical for a reinsurance hub.

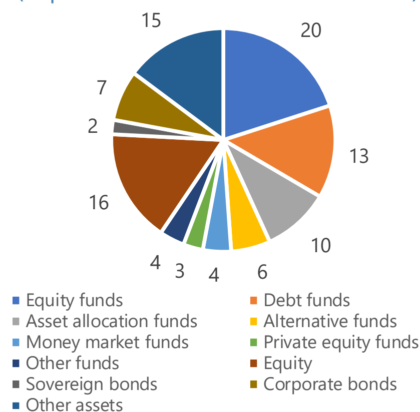


Source: IMF staff calculations based on CAA data.

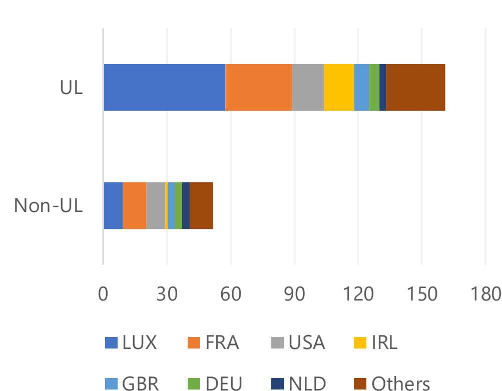
[4] Generally, the specialization principle forbids Luxembourgish insurance companies to engage in mortgage lending. Mortgage loans shown here are to the largest extent held by only one single life insurer, related to a specific product distributed in the Netherlands and secured by real estate located there—credit risks remain with the issuing bank.

Figure 4. Luxembourg: Insurance Asset Allocation (Concluded)

Assets backing unit-linked business are mostly investment funds (59 percent), but also contain a sizable share of other assets.



While in unit-linked (UL) business, assets (before applying a look-through) are concentrated in markets with large investment fund sectors (LUX, FRA, IRL), assets backing traditional business are more diversified.



Source: IMF staff calculations based on CAA data.

13. Since 2022, rising interest rates had a notable impact on policyholder behavior, resulting in higher lapse rates (Figure 5). Most products sold to high-net-worth individuals do not have significant redemption penalties. While normally tax treatments would discourage early surrenders, the recent rapid increase in interest rates has led these (financially very literate) policyholders to consider redemptions, either to repay variable interest rate loans or to invest in other higher-yielding products. Hence, Luxembourgish life insurers experienced a higher increase in lapse rates compared to peers in other markets, particularly in life insurance products with interest rate guarantees (19 percent compared to 6 percent for unit-linked business in 2022). However, lapse rates differ significantly across different host markets.

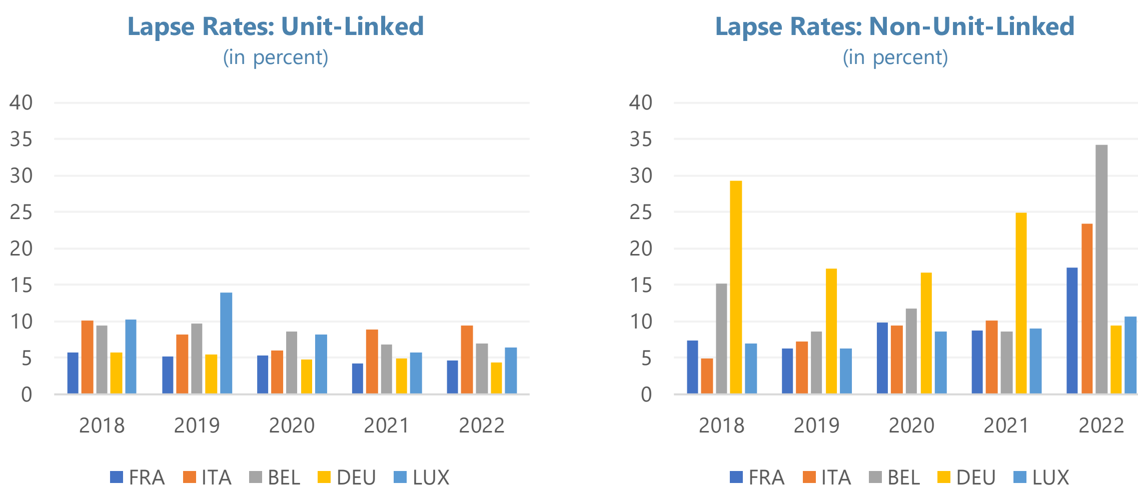
14. Despite higher lapse rates, liquidity risks appear largely contained, also due to the possibility in many unit-linked contracts to redeem in kind.[5] In unit-linked products, external funds must be liquid and internal funds must invest in liquid assets. Certain dedicated internal funds can, however, invest in illiquid assets under certain conditions, in particular if the terms and conditions foresee that illiquid assets can be returned in kind, thereby effectively reducing liquidity risks. In traditional life insurance products, liquidity risk is more pronounced and therefore monitored by the CAA, especially since interest rates started rising. To be able to cope with potential mass lapses, insurers have put in place credit lines. Some insurers also use repo and securities lending mechanisms.

[5] Redemption in kind can be a component in wealth management products which can in Luxembourg be structured in a rather flexible and bespoke way. Such a structure could, e.g., allow policyholders to bring in an already existing portfolio of assets at the initiation of a unit-linked life insurance policy—similarly redemption might be arranged in a way that assets are transferred back to a policyholder at termination instead of the contract being paid out in cash.

Figure 5. Luxembourg: Lapses of Life Insurance Policies

Lapse rates in unit-linked business are not very volatile but can differ significantly across the different host markets in which Luxembourgish insurers operate.

In non-unit linked life insurance, lapse rates in most host markets have increased in 2022, with wide variations across markets.

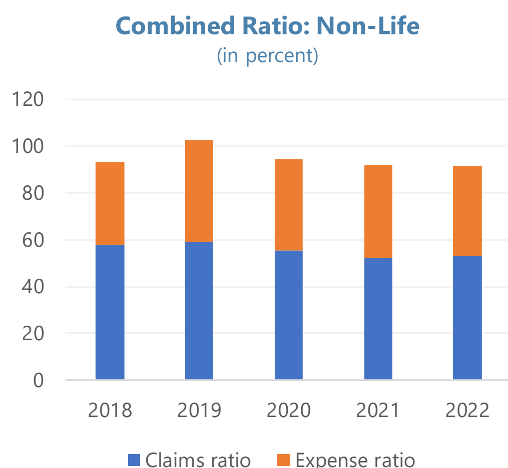


Source: IMF staff calculations based on CAA data.

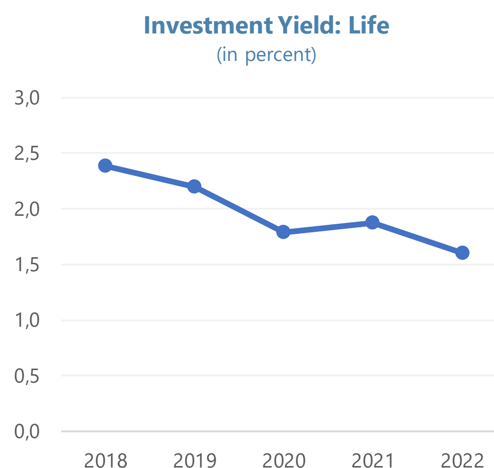
15. Profitability in the Luxembourgish insurance sector is rather subdued (Figure 6). In the non-life sector, inflation had some impact, especially in 2022. While domestically, policyholders are rather insensitive to prices, and contracts in property and third-party liability are typically subject to an automatic indexation, more specialized business was characterized by rising claims. Overall, underwriting is still profitable: The combined ratio—the sum of claims and expenses, divided by premiums—stood at 91.5 percent in 2022. Life insurers' profitability is largely determined by investment returns. Since 2018, investment yields have steadily decreased, reaching 1.6 percent on average in 2022. When considering the return on equity (RoE), Luxembourgish insurers record a rather subdued profitability, both in the life and the non-life sector. This can be partly explained by competitive forces in the life insurance market targeting high net worth individuals, while in the non-life sector, captive insurers which only conduct business for a related group of corporates are typically not aiming for high profit margins.

Figure 6. Luxembourg: Insurance Profitability

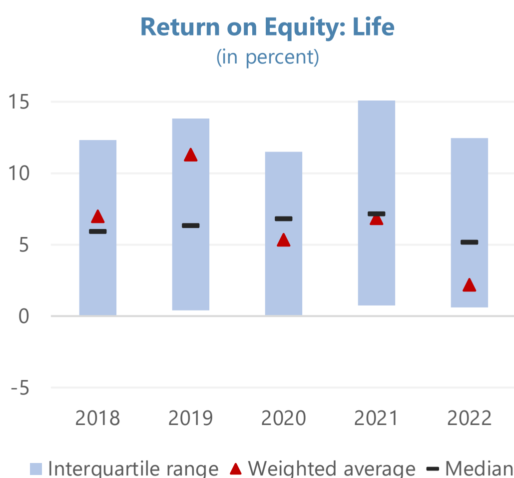
Non-life insurers are profitable on aggregate in their underwriting business. In 2022, the combined ratio (the sum of the claims ratio and the expense ratio) stood at 91.5 percent.



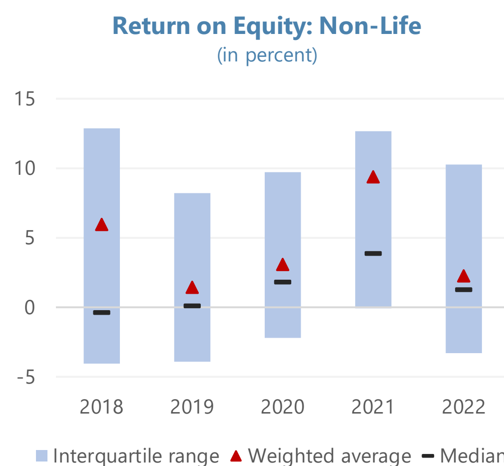
Life insurers profitability is mainly driven by the investment yield which has been declining amid lower interest rates since 2018 and reached 1.6 percent in 2022.



Profitability in the life sector is subdued: For the median life insurer, the return on equity amounted to 5 percent in 2022, slightly below the five-year average.



In the non-life sector, profitability is even more dispersed than in the life sector, and the median RoE was only 1.2 percent in 2022.

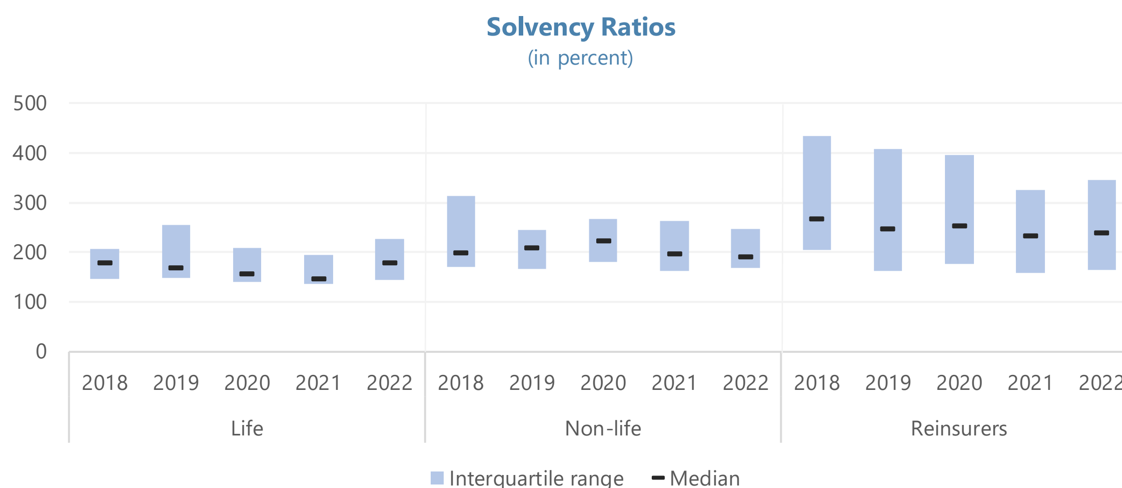


Source: IMF staff calculations based on CAA data.

16. Solvency ratios of Luxembourgish insurers are mostly well above the regulatory threshold of 100 percent, though below the European average (Figure 7). At the end of 2022, the median life insurer recorded a coverage of its solvency capital requirement (SCR) of 180 percent, an improvement compared to the previous year. In the non-life sector, SCR coverage ratios have slightly declined since 2020, with a median of 193 percent at end-2022. Reinsurers maintain traditionally higher capital levels than primary insurers, and also the dispersion across the sector is larger.

Figure 7. Luxembourg: Solvency Coverage

SCR ratios of life insurers have improved in 2022 (median: 180 percent) but remain below the EU average. In the non-life sector, the median SCR ratio has hovered around 200 percent, while reinsurers hold traditionally more capital.



Source: IMF staff calculations based on CAA data.

Box 1. Luxembourg: The Impact of COVID-19

In the life sector, the COVID-19 pandemic resulted in a substantial decline in premiums (-22 percent in 2020 compared to the previous year) and a slight increase in lapses (8.2 percent lapse rate in 2020 compared to 7.4 percent in 2019). Profitability declined after a very profitable year 2019. One life insurer had to increase its capital following the abrupt decline in asset values in March 2020.

The non-life sector was rather resilient in terms of premiums, claims, provisioning, and profitability. Motor insurance benefited in the first half of 2020 from lower mobility during the first lockdown. Insurers active in credit and surety business increased their provisions based on expectations of higher failures going forward—these provisions were released in 2021. Finally, supply chain disruptions and higher inflation had an impact on property lines, though this development set in only in 2021 and was further accentuated in 2022 by the war in Ukraine.

The CAA intensified its monitoring of the sector during the pandemic and restricted the payout of dividends. including through questionnaires and remote meetings with individual insurers. Annual reporting deadlines (for year-end 2019 reporting) were delayed, while quarterly reporting deadlines have been maintained. The CAA followed the recommendations by the European Systemic Risk Board (ESRB) and the European Insurance and Occupational Pensions Authority (EIOPA) on the restrictions of dividend distributions in 2020.

INSTITUTIONAL AND REGULATORY SETTING

A. Institutional Set-Up of Insurance Supervision

17. Insurance supervision in Luxembourg is exercised by the *Commissariat aux Assurances* (CAA). Its supervisory powers are laid out in Article 2 of the amended Law of December 7, 2015 on the Insurance Sector ("Insurance Act"). The CAA is entrusted with the prudential supervision of insurers, reinsurers, certain occupational pension funds, insurance and reinsurance intermediaries, and insurance sector professionals. It also supervises the market of insurance products which are marketed, distributed or sold within or from Luxembourg. Finally, the CAA oversees compliance with the professional obligations relating to the fight against money laundering and the financing of terrorism by all entities and persons under its supervision. The CAA's internal bodies are the Supervisory Board ("the Board") and the Directorate.

18. The Board determines the CAA's budget and annual accounts before they are presented to the Government for approval. According to Article 15 of the Insurance Act it also issues an opinion on the general guidelines concerning the CAA's conditions and charges, including those relating to the conditions under which the supervised undertakings and persons shall contribute to the CAA's staff and operating costs. It makes a proposal to the Government concerning the appointment of the CAA's approved auditor and may ask the approved auditor to carry out specific verifications. Finally, it issues an opinion on any question raised by the Minister or the CAA's Director concerning the development and supervision of the insurance sector. The Board has no power to intervene, directly or indirectly, on prudential and supervisory matters or on the day-to-day management of the CAA. The Board is composed of five members appointed by the Government in Council. Three shall be appointed for a term of five years on a proposal from the Minister responsible for the CAA, one from among the professionals of the insurance sector and one from among insurance policyholders.

19. The Directorate is the CAA's principal executive body. Article 19 of the Insurance Act determines that it is composed of a Director, acting as its President, and at most two members who shall report to the Director. The Directorate takes its decisions collegiately. The Directorate's members are appointed by the Grand Duke on a proposal from the Government in Council for a term of six years. Appointments are renewable. The Government may make proposals to the Grand Duke regarding the dismissal of the Directorate's members if any fundamental disagreement should arise between the Government and the Directorate over policy and execution of the CAA's remit. In such cases, the dismissal shall apply to the Directorate as a whole. Likewise, the Government may make a proposal to the Grand Duke regarding the dismissal of a Directorate member who is in the long term unable to perform his duties or has committed a serious offence. The Government shall consult the CAA's Board before submitting a proposal for dismissal to the Grand Duke.

20. Despite there being no current evidence of the governance structure constraining operational independence, the legal setup of the CAA's Board could give rise to questions about its independence and compliance with international standards. The government's

majority and the presence of industry representatives on the CAA's board introduce the potential for government or industry interference. Sound international practices call for supervisory authorities to be free from the influence of government and industry, however the CAA does not enjoy an independent board composed primarily of unaffiliated members. the importance of introducing such permanent safeguards, to the extent feasible within the constraints provided under the law, is emphasized to future-proof against undue pressures.

21. Recommendation 1: Safeguard the independence of CAA Board members through proposing changes to the law as required. As recommended in other FSAPs, the independence of Board members should be enshrined in law. In cases where legal amendments are not feasible, consider issuing subsidiary legislation to establish procedural safeguards to the extent feasible within the constraints provided under the law. This should define clear roles for both the Board and Directorate in the existing two-tier board structure and develop criteria regarding government actions related to budget proposals, Board member nominations, and dismissals.

22. Recommendation 2: Narrow down and spell out more explicitly the reasons on which the CAA's Directorate could be dismissed. The process should be fully transparent—including a publication of the Board's considerations and a right for the Directorate to be heard—and based on clearly established criteria.

23. The CAA has increased its staff considerably since the last FSAP and formalized processes. Compared to mid-2016, staff has increased from 38 to 81 in mid-2023. This increase, which was spread over the whole period, was even welcomed by the insurance sector, which saw the further professionalization of insurance supervision as positive for the reputation of the Luxembourgish financial sector.

24. The CAA will take over additional tasks, in particular to recently implemented EU regulations, which will require additional resources. New tasks will include the support to the insolvency scheme in motor insurance, competencies under the Digital Operational Resilience Act (DORA) as well as under the Insurance Recovery and Resolution Directive (IRRD). Such additional tasks will need to be appropriately reflected in the medium-term budgeting.

25. Going forward, the growth of the CAA will require further safeguards in its internal governance and formalization of processes. The CAA does currently not have an internal audit function, and also the role of the external auditor is limited to auditing the financial accounts only. Furthermore, the CAA is not subject to investigations by the Luxembourg Court of Audit as it does not receive any public funding. More specifically related to IT governance, the CAA could benefit from more formalized processes. IT solutions are predominantly developed in-house, which positively increases the buy-in from staff when applying any such new tools, but also results in increased key person risks.

26. Recommendation 3: Set up an internal audit framework to evaluate and improve the effectiveness of risk management, control and governance processes. The internal audit charter of the Commission de Surveillance du Secteur Financier (CSSF) might serve as a model framework.

27. Recommendation 4: Strengthen IT governance in order to improve internal controls and mitigate key person risks. This should comprise more formalization of processes, clearly outlining the ownership and responsibility for tools and underlying data, including all relevant aspect of IT security.

28. Recommendation 5: Going forward, ensure commensurate resources with expanding tasks, especially with regard to upcoming EU legislation.

B. Enforcement

29. The CAA has a robust enforcement framework in place which is based on clear, objective and consistent criteria. It regularly issues formal orders and injunctions related to prudential, market conduct, or AML/CFT supervision, e.g., after annual or quarterly reporting, thematic off-site activity, or on-site inspections. A formal order or injunction results in a remediation plan to be set up by the insurer.

30. The CAA uses monetary sanctions depending on the type of non-compliance. Less severe cases of non-compliance give raise to smaller fixed fines whereas more severe cases can, on a case-by-case basis result in a higher amount. In any case, an administrative procedure must be launched which can take a few months before the sanction is finally issued. In this procedure the concerned undertaking has a right to be heard and to defend itself. The amount of sanctions is typically capped at a fixed amount which in some cases might not always be sufficiently deterring as in other legislation, e.g. in the field of capital markets regulations where fines are capped by e.g., 5 or 10 percent of a company's revenues. Final sanctions are generally published on the CAA website. In case the sanction is not relevant for stakeholders, the publication can be done anonymously.

31. Recommendation 6: Review the maximum limit of monetary sanctions in the Insurance Act, potentially aligning them more with other financial sector regulation, e.g., by using relative limits based on revenues. Recent EU Regulations, e.g., the Market Abuse Regulation, could serve as a guidance for reviewing the current sanctioning regime.

MAIN FINDINGS

A. Solvency II Implementation

32. With the implementation of Solvency II[6] in 2016, prudential insurance regulation in the EU was harmonized.[7] Solvency II created an economic valuation regime for assets and liabilities, a risk-based solvency framework, enhanced governance and risk management practices as well as more transparency through public disclosures. In addition to these prudential requirements, new EU regulations were adopted to improve business conduct and policyholder protection.

33. Solvency II has been fully implemented in Luxembourg without any significant frictions. The Solvency II Directive was transposed into Luxembourgish law through the Law of December 7, 2015 on the Insurance Sector ("Insurance Act"), and the legislation entered into force on January 1, 2016.

34. All insurers and reinsurers in Luxembourg have to apply the Solvency II regime. Some 35 health mutual companies according to the Law of August 1, 2019 on Mutual Societies are exempted based on Article 5(2) of the Solvency II Directive. These health mutual companies fall under the supervision of the Ministry of Social Security which approves the statutes and any subsequent modifications.

Valuation of Assets and Liabilities

35. In addition to the Solvency II valuation rules, technical liabilities need to be valued also under LUX-GAAP, which follows a more conservative approach. As an example, the valuation of life insurance liabilities takes into account (i) a maximum technical interest rate as determined by the CAA, (ii) mortality tables without deductions, based on general population and adapted to the type of risk (death risk, survival risk) for which coverage is planned in the contract, and (iii) no lapse rates. The valuation of financial assets for general accounting principles is based on historic values and prudent assumptions (lower of cost or market for equity type investments and amortized cost for bond type investments), while for Solvency II a market valuation is used.

36. The Insurance Act requires the coverage of insurance liabilities by representative assets. For non-life and for life insurance undertakings, all insurance liabilities must be covered by

[6] Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the Taking-up and Pursuit of the Business of Insurance and Reinsurance.

[7] See also the 2018 Euro Area FSAP Technical Note on Insurance, Investment Firm, and Macroprudential Oversight, Country Report No. 18/230. Insurance regulation is, to a large degree, harmonized by a set of EU rules, the so-called single rulebook. Level 1 measures comprise EU directives and regulations adopted by the European Parliament and the Council of the EU: regulations are directly applicable; directives must be transposed into national law. Level 2 measures take the form of implementing regulations or directives issued by the European Commission under delegated authority, or regulatory or implementing technical standards drafted by the ESAs. Level 3 measures are nonbinding guidelines issued by the ESAs to ensure consistent national application of the Level 1 and Level 2 measures.

dedicated eligible assets meaning that the market value of these assets must always be equal to or exceed the maximum of the total insurance liabilities under Solvency II and the total insurance liabilities under local-GAAP.[8]

Capital Adequacy

37. An insurance undertaking's eligible own funds must cover the solvency capital requirement calculated by the company at all times according to Article 104 of the Insurance Act. The solvency capital requirement is calculated using either the standard formula or an internal model authorized by the CAA. Should the risk profile of an insurance company deviate substantially from the prerequisites on which the standard formula is based, the CAA may require the undertaking to use an authorized internal model to calculate the solvency capital requirement for the relevant risk modules, or alternatively prescribe a capital add-on. Total capital requirements of the sector amounted to EUR 14bn at end-2022, with most of these requirements stemming from the modular SCR components for market risks and non-life underwriting risks (Figure 8).

38. The CAA supervises the use of internal models which insurers can use—after having received approval from the supervisor—to calculate the solvency capital requirement. Five (re)insurers use internal models, of which three use a full internal model and two a partial internal model for their non-life underwriting risks. Assets of these internal model users account for around 11 percent of total insurance sector assets. The CAA monitors the ongoing appropriateness of internal models through an analysis of specific reporting templates; an analysis of the evolution of the risk profile of the companies; an analysis of minor model change log report; participation to the expert network on internal models and comparative studies at EIOPA; and—when deemed useful—a comparison against the standard formula. As a result of this monitoring, the CAA requested model changes on several occasions, including on the calibration, methodology, revision of the dependencies, and internal model governance.

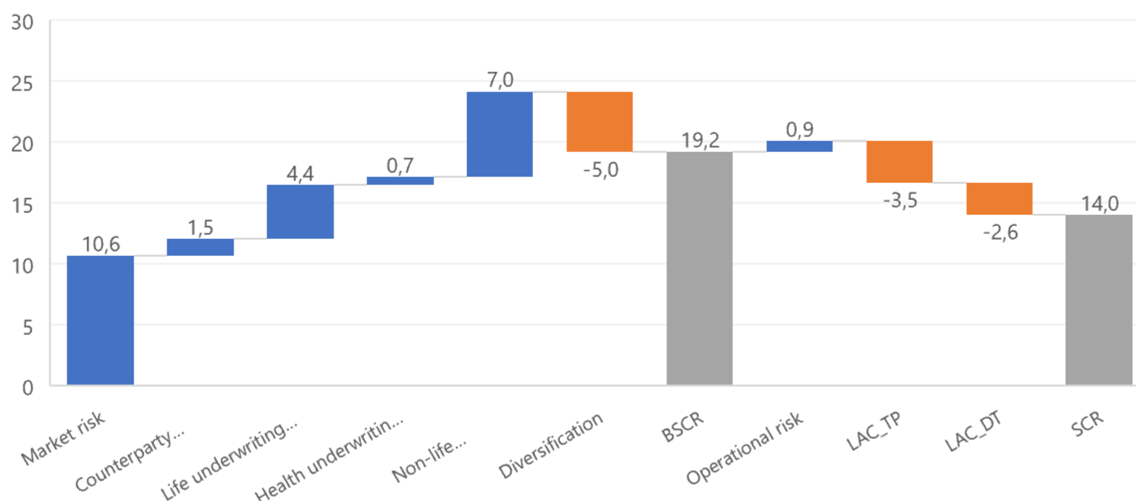
39. Of the Solvency II Long-Term Guarantee Measures,[9] only the Volatility Adjustment (VA) is of some relevance, but the overall impact is very limited. 39 solo entities use the VA, and its use is not subject to an approval by the CAA. For those insurers that use the VA, technical provisions are reduced by 0.2 percent by that measure, and eligible own funds are 0.3 percent higher.

[8] On top of this coverage rule, Luxembourg's system of deposit agreements (in direct insurance) provides an additional layer of security.

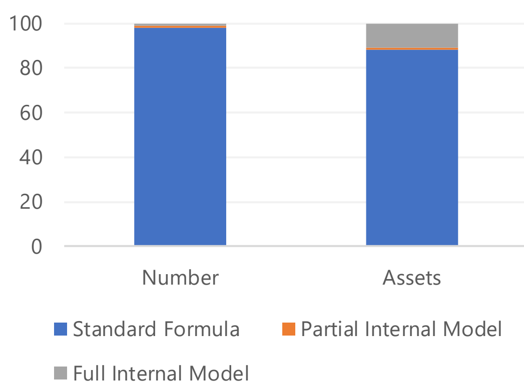
[9] See the Euro Area 2018 FSAP Technical Note on Insurance, Investment Firm, and Macroprudential Oversight for an overview.

Figure 8. Luxembourg: Solvency Capital Requirement

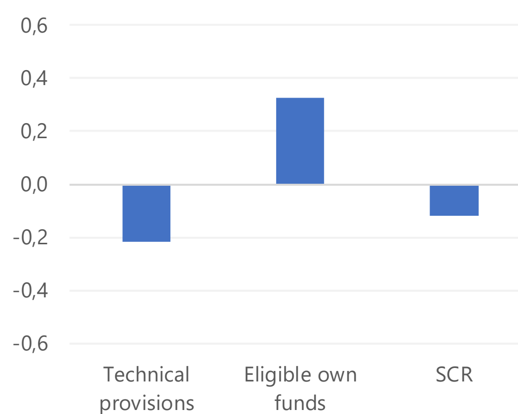
The largest components in the aggregated solvency capital requirement are market risks (44 percent) and non-life underwriting risks (29 percent of the undiversified basic solvency capital requirement).



Only five insurers use a partial or full internal model, accounting for 12 percent of total sector assets.



The long-term guarantee measures have only a minor impact on technical provisions and the solvency position.



Source: IMF staff calculations based on CAA reporting data.

B. Supervisory Review and Reporting

Reporting

40. Reporting requirements for insurers were significantly expanded with Solvency II in 2016. Examples of submitted data include:

- Balance sheet and certain key elements from the income statement;
- Detailed list of assets;
- Calculation of the solvency capital requirement and information on available own funds;
- Technical provisions and projection of future cash flows;

In addition, the CAA continues requesting national reporting templates based on LUX-GAAP.

41. Since the introduction of the Solvency II Quantitative Reporting Templates (QRTs) the CAA has been carrying out ongoing work to improve data quality. The CAA performs extensive quality checks on submitted data (including on the national reporting templates) and requires corrections if the submitted data does not appear accurate.

42. Regular quantitative reporting is complemented by various other regular reports and ad-hoc reporting. Insurers are required to disclose their annual financial statements and a Solvency and Financial Conditions Report, the latter having been introduced with Solvency II. In addition, they submit to the CAA a report on their Own Risk and Solvency Assessment (annually, or ad-hoc when the risk profile of the undertaking changes) and a Regular Supervisory Report (at least every three years)—undertakings using an internal model need to make a yearly submission. Ad-hoc reporting is typically used for thematic reviews or stress tests and can also be used to fulfil data request by EIOPA.

Supervisory Review

43. The CAA employs a comprehensive framework for reviewing reporting data and other reports submitted by insurers—the intensity is determined by the respective risk score. An insurer is allocated to one of four risk categories, and expert judgement may shift the automatic score up or down by one category. The risk score combines different quantitative and qualitative factors including the size, the growth, the solvency ratio, and the quality of the annual reporting. In total, almost 30 indicators are analyzed as part of the supervisory review. Dashboards are used for an analysis of profitability (annual) and solvency (quarterly, and annually for captives)[10].

44. As a follow-up to the recommendation of the 2017 FSAP, the CAA has developed early-warning signals. These include (i) an SCR ratio with a significant variation or below 110

[10] CAA's dashboard is run every quarter for the whole sector but the undertakings that have an exemption to the quarterly reporting will feed the data only once a year. Typically, captives benefit from such kind of exemption.

percent; (ii) the coverage of insurance liabilities by tied assets; and (iii) stress test results in actuarial report (as part of the annual reporting analysis).

C. On-Site Inspections

45. The CAA considers on-site inspections an important supervisory tool and therefore strives for frequent inspections. For life insurance, the minimum frequency of on-site inspections is generally every five years. For the non-life sector, the coverage has recently been a bit lower which was mainly driven by the decision to conduct comprehensive instead of targeted on-site inspections for newly licensed entities, in particular the Brexit movers. Going forward, the CAA plans to conduct more focused reviews, thereby covering more entities per year.

46. The process for on-site inspections is clearly structured, and the scope is communicated to the insurers in a transparent way. The CAA uses a self-developed IT tool for structuring the on-site process, linking twelve different modules to around 500 control points and their respective links to the regulatory framework. Going forward, the tool which is currently build in Microsoft Excel would benefit from transitioning to a more robust and audit-proof platform—this transition is indeed planned by the CAA.

47. After an on-site inspection, the CAA communicates findings and recommendations to the management of the insurer. As a good governance principle—since the board of directors has the ultimate responsibility—the CAA expects the management to share these results with their board. After transmission of the inspection findings, insurers are expected to present a remediation plan. Taking note of these remedial actions the CAA would issue a final report—in the past, this report was typically finalized more than one year after the inspection. The internal audit function of the concerned insurer would be required to regularly follow-up on the remediation plan. The external auditor will follow-up annually in its special audit report.

48. If an on-site inspection has revealed significant weaknesses, the CAA might order an insurer to designate an external party, e.g., an audit firm or a consultant, to review the implementation of the remediation plan and to provide an assessment to the CAA. Alternatively, the CAA would conduct a follow-up inspection shortly after the first one.

49. Recommendation 7: Transition the on-site inspection tool to a more robust and audit-proof IT platform.

D. Governance, Internal Controls, and Risk Management

50. The CAA emphasizes the need for an appropriate corporate governance framework and applies a stringent level of supervision. It assesses the board of directors' and the licensed manager's fitness and propriety in detail upon appointment as well as on a continuous basis. The Board's effectiveness would typically be reviewed during on-site inspections. The collective competence of the board is initially checked by the CAA at the time of licensing or whenever a change in the board composition is notified to the CAA. It is afterwards regularly assessed by the

board itself and reviewed by the CAA during on-site inspections. Circular Letter 22/15 sets out the CAA's expectations regarding the board of directors. Furthermore, the CAA requires insurers to follow EIOPA's Guidelines on the System of Governance.

51. The CAA has defined a total of seven control functions for insurance undertakings. These include the four functions defined in the Solvency II Directive: internal audit, compliance, actuarial, and risk management. In addition, a control function has been defined for distribution (compliance with the Insurance Distribution Directive), a function responsible for compliance with the professional obligations related to anti-money laundering and combating the financing of terrorism (AML/CFT), and an AML/CFT compliance officer. The CAA's expectations regarding the Solvency II key function holders are outlined in Circular Letter 21/12 , and expectations regarding the distribution key function holder are set out in Circular Letter 18/10.

52. Key functions' fitness and propriety is assessed in detail when appointed as well as on a continuous basis—for both, the CAA has internal procedures in place. The frequency of meetings of the CAA with key function holders depends largely on the size, risk and complexity of the entity. For some undertakings, key function holders are met a few times a year, for others these are only met during on-site inspections. The responsibility of the control function itself cannot be outsourced.

53. The CAA reviewed business continuity plans during the COVID-19 pandemic in 2020. Many insurers had concluded that their plans were not adequate with respect to the pandemic as their plans were more targeted towards moving operations from one location to a (physical) replacement site. Circular Letter 22/16 on the outsourcing of critical or important operational functions and activities also includes the CAA's expectations in terms of business continuity planning related to outsourcing.

54. The CAA monitors risk management practices of insurers closely, although direct contacts with the risk management function are less frequent. The CAA's interaction with insurers' risk management function is typically less intense than with the licensed manager or the actuarial function—as a minimum, interaction is sought during on-site inspections.[11] Recently, the CAA's focus of work in the field of risk management was on liquidity risks. Insurers' Own Risk and Solvency Assessments (ORSA) are regularly and comprehensively reviewed and further clarifications are requested if certain aspects should be unclear. A thematic review of life insurers' ORSAs was conducted in 2019, and in 2023 the CAA reviewed how insurers include an assessment of climate risks in the ORSA, noting some room for improvement with regard to the management of transition risks.

55. Physical climate risks have gained some more attention recently after the flood events in July 2021 in Germany and the BeNeLux region. The Ministry of State has established a working group (to which the Association of Luxembourg Insurers and Reinsurers was invited) which discusses

[11] Key function holders typically participate the regular interactions that occur during the year, e.g., quarterly od biannual meetings for larger insurers, and present updates on their work.

potential protection gaps and the conditions under which the government would declare the state of a natural disaster. Discussions might also deal with options to insure against certain perils.

56. Recommendation 8: Coordinate closely, also with the insurance sector, on the role of private insurance in the management of climate risk and natural disasters. Any policy measures aimed at reducing the climate insurance protection gap should provide prompt payouts of claims to policyholders, incentivize risk mitigation and adaptation measures, reduce moral hazard, and lower the share of economic losses borne by the public sector over the long term. In this context, the principles set out by the European Central Bank and EIOPA in a recent discussion paper should be considered.

E. Reinsurance

57. Luxembourg is a hub for reinsurers and captive insurers, and the CAA utilizes its market knowledge and appropriate tools to supervise the sector as well as primary insurers' reinsurance programs. The CAA is the European lead supervisor for one of the globally largest reinsurers, and also the Brexit has shifted some further reinsurance activity to Luxembourg. Given the high concentration of the sector, the CAA supervises the five largest reinsurers through dedicated account managers, while the remaining ones and the captive insurers have an account manager only for the review of the annual reporting. Alternative risk transfer instruments like, e.g., catastrophe bonds are uncommon in Luxembourg.

58. While all captive insurers domiciled in Luxembourg are subject to Solvency II, the CAA applies the proportionality principle in supervision. Specifically, proportionality is in place for certain requirements on key function holders, outsourcing, and supervisory reporting. The CAA is currently aiming for more digital processes with supervised entities in order to increase the overall efficiency of supervision.

59. The CAA follows a prudent approach in requiring collateral for reinsurance contracts. The adequacy of primary insurers' reinsurance program is assessed by the actuary in the actuarial report as part of the annual reporting. For life reinsurance, Article 115 of the Insurance Act allows the CAA to always ask for a full collateralization, as a deposit or a pledge. In practice, the CAA requires 100 percent collateral for reinsurance of life insurance products including a savings element. For pure risk products, the CAA does not require a collateral if the reinsurer is domiciled in the EEA, in an equivalent country, or in the United States, provided the U.S. reinsurer respects the conditions set by the EU-US bilateral agreement.[12]

F. Consolidated Supervision and Supervision of Cross-Border Business

60. The CAA participates in the work of 40 supervisory colleges for 65 (re)insurance companies domiciled in Luxembourg which are part of an international group for which such a college has been established. Supervisory colleges generally meet annually, and for several groups quarterly updates are requested by the lead supervisor. The CAA organizes one college as a

[12] Bilateral Agreement between the European Union and the United Staes of America on prudential measures regarding insurance and reinsurance

home supervisor. For all remaining colleges, it participates as a host supervisor. For one large reinsurance group, the CAA used to organize as the European lead supervisor—on top of the activities organized by the global home supervisor—physical meetings to also liaise with EU host authorities who supervise the branches as these authorities were not participating in the global college. While these meetings were paused during the pandemic and membership of the global college was extended in the meantime to also comprise branch supervisors the CAA plans to resume these meeting from 2024 onwards.

61. Revealing confidential information is only allowed in some defined circumstances in accordance with Article 300 of the Insurance Act. Those exemptions cover outsourcing and the communication with foreign supervisory authorities. In accordance with European legislation, the information exchange with European supervisors is channeled through the CAA, which allows to keep track of the demands of host supervisors.[13] Still, the insurance sector lobbies for a further liberalization of the professional secrecy rules, e.g., with regard to the use of cloud-computing services.

G. Macroprudential Supervision

62. Macroprudential supervision is grounded in the CAA's explicit financial stability mandate. According to mandate, set out in Article 3 of the Insurance Act, the CAA "shall cooperate with the Government, the Central Bank of Luxembourg and the other authorities responsible for prudential supervision at a national, EEA and international level, in order to contribute to ensuring financial stability, in particular within those committees set up for such purpose. In periods of extreme volatility in the financial markets the CAA shall take into account the potential pro-cyclical effects of its actions."

63. The Systemic Risk Committee (Comité du Risque Systemique, CdRS) is the coordinating macroprudential body in Luxembourg. It was established by the Law of April 1, 2015 and brings together, under the chairmanship of the MoF, the Banque Centrale de Luxembourg (BCL), the CSSF and the CAA. The objective of the CdRS is to limit systemic risk in the financial sector as well as to strengthen macroprudential stability.

64. The CAA assesses risks mostly on a microprudential level and its macroprudential mandate is limited to its participation in the CdRS. The most important macroprudential risks for the Luxembourgish insurance are inflation (mostly for non-life) and rising interest rates (mostly for life). These risks are currently managed using a risk-based approach on an undertaking-by-undertaking basis. CAA uses macro indicators to establish controls at micro level (stress tests in actuarial reports, quarterly liabilities coverage statement, control of pledged assets, solvency monitoring).

65. The CAA publishes data and statistics on the insurance sector, but only on an aggregated level. As the main tool to publish statistics, the CAA uses the annex to its annual report

[13] Also, the exchange with foreign tax authorities is channeled through the Luxembourg Tax Authority.

in which market trends are summarized. To be fully aligned with the ICPs, a publication of data also at the level of individual insurers would be necessary in order to facilitate comparisons of an individual insurer to the sector as a whole.

66. Recommendation 9: Expand supervisory disclosure by publishing key figures at company level. This could be done through a dedicated statistics section on the CAA website, including downloadable tables and time series, or through a repository linking to insurers' websites on which the Solvency and Financial Condition Reports are published.[14]

H. Conduct of Business and Consumer Protection

67. The CAA applies business conduct supervision at different layers across all supervisory departments. This includes—inter alia—product governance, the registration of examination of agents, disclosures to (prospective) clients, reporting requirements for brokers (from 2024 also for agents), an analysis of complaints data, and on-site inspections. The CAA also provides an extra-judicial dispute resolution (Box 2).

68. A recent focus of work has been on product oversight and governance (POG) where the CAA had concerns about an insufficient definition of the target market and insufficient product testing. The CAA sent out a questionnaire to all life insurers with regard to their POG compliance and followed up with some insurers which turned out to be outliers with regard to their approaches. The CAA also started conducting on-site inspections specifically focused on market conduct, largely confirming the findings from the self-assessment questionnaires.

69. In life insurance, the CAA continued its targeted controls of the governance of insurance-based investment products. It carried out an analysis on the fees of the main insurance-based investment products marketed domestically and on a cross-border basis. For products distributed cross-border, the CAA found actual fees being generally lower than those presented in the key information documents. Following this observation, the CAA asked life insurance companies to review their key information documents, ensuring consistency with the binding contractual documents.

70. In non-life insurance, the CAA has recently taken steps to ensure transparency towards policyholders. Since 2022, inflationary surges have led (re)insurers to review their prices either through automatic indexation mechanisms and/or renegotiations of contractual conditions during the renewal period. In this context, the CAA reminded insurers and intermediaries of their transparency obligations towards consumers.

71. Recommendation 10: Develop business conduct indicators and use them as part of a risk-based supervisory methodology.

[14] After completion of the FSAP mission, the CAA has introduced a repository on its website linking to insurers' Solvency and Financial Condition Reports.

Box 2. Luxembourg: Dispute Resolution

Consumers residing in Luxembourg or in another EU Member State have access to the Insurance Ombudsman, which has the mission to process applications of extra-judicial settlement of insurance litigations between Luxembourg-based insurers and consumers.

In addition, the CAA offers free of charge an out-of-court dispute resolution in accordance with CAA Regulation 19/03 in order to find an amicable solution to a complaint made against an entity supervised by the CAA. The procedure for handling the requests—while not being a formal mediation—aims at facilitating the resolution of complaints against professionals outside the judicial proceedings. The intervention of the CAA is subject to the principles of impartiality, independence, transparency, expertise, effectiveness and fairness. The reasoned conclusions of the CAA are not binding on the parties who, after a reasonable period of reflection, are free to accept or refuse to follow them. If the parties do not reach an agreement following the issuance of the reasoned conclusion of the CAA, they have the possibility of seizing the courts and tribunals.

The opening of the procedure is subject to the condition that the complaint has been previously dealt with by the relevant professional, e.g., an insurer or an intermediary. In this respect, the complaint must have been previously sent in writing to the person responsible for complaints handling at the level of the management of the professional concerned by the complaint and the complainant shall not have received an answer or a satisfactory answer from that person within 90 days from the date at which the complaint was sent. Where the complainant has not received a satisfactory answer, a request may be filed with the CAA within one year after having filed the originally complaint with the professional.

Upon concluding its analysis, the CAA addresses a conclusion letter to the parties, including a statement of reasons for the position it has taken. Where it concludes that the request is totally or partly justified, it asks the parties to contact each other to settle their dispute in light of the reasoned conclusion and to inform the CAA of the follow-up. Where the CAA concludes that the positions of the parties are irreconcilable or unverifiable, it informs the parties thereof in writing. The CAA shall issue a reasoned conclusion within 90 days.

The parties are also informed that the reasoned conclusions of the CAA are not binding on the parties and that they are free, after a reasonable period of reflection, to accept or refuse to follow them. In the conclusion letter, the parties' attention is also drawn to the possibility to seek remedies through legal proceedings, in particular, if the parties do not reach an agreement after the CAA issued its reasoned conclusion.

72. Luxembourg does not have a general insurance compensation fund but is currently in the process of transposing the latest EU Motor Insurance Directive[15] into law. A motor

[15] Directive (EU) 2021/2118 of the European Parliament and of the Council of November 24, 2021 amending Directive 2009/103/EC relating to insurance against civil liability in respect of the use of motor vehicles, and the enforcement of the obligation to insure against such liability.

insolvency scheme will be in place within the first quarter of 2024. This insolvency fund will be a public body operationally managed with the support of CAA's employees.

73. In order to protect the rights of creditors of insurance contracts, Luxembourg has in place a privilege granted to insurance claims, as well as a "super-privilege." All the assets matching technical provisions of insurance undertakings constitute segregated assets allocated preferentially to guaranteeing payment of insurance claims. Such preferential right takes precedence over all other preferential rights as soon as the matching assets of underlying technical provisions are registered in the permanent inventory, or as soon as the mortgage registration becomes effective. Insurance undertakings must maintain the permanent inventory of matching assets and report the quarterly positions to the CAA. In addition, in the event of segregated assets proving to be inadequate, the policyholders, insured parties or beneficiaries, retain a preferential claim against the insurance undertaking in respect of any surplus (super-privilege). In case of liquidation of an insurer, the CAA is involved in every step of the process, including the choice of the liquidator.

I. AML/CFT Supervision

74. Luxembourg has a solid AML/CFT framework and a good understanding of its money laundering and terrorist financing risks, as outlined recently by the Financial Action Task Force (FATF). The FATF Mutual Evaluation Report of September 2023 notes that supervisors have expanded supervisory and sanctioning powers, automized tools and processes, increased human resources, and combine off-site and on-site work.

75. According to the AML/CFT Law[16] and CAA Regulation[17] life insurers are required to put in place adequate internal control systems, which include AML/CFT policies and procedures. These policies must also cover the cooperation with competent authorities such as the Financial Intelligence Unit (Cellule de Renseignement Financier, CRF). Furthermore, they are required to provide for two functions: (i) a person to be appointed at senior management level responsible for the compliance with the professional obligations as regards the fight against money-laundering and terrorism financing, including the implementation of an adequate AML/CFT regime that includes appropriate policies and procedures, and (ii) an AML/CFT compliance officer to be appointed at appropriate hierarchical level.

76. The CAA applies a risk-based approach to supervising insurers' compliance with their requirements regarding AML/CFT. In supervising AML/CFT compliance, the CAA conducts on-site inspections and desk-based supervisory activities. The CAA is conducting on-site inspections dedicated to AML/CFT reviewing notably procedures related to the cooperation with authorities and the treatment of (potentially) suspicious transactions. In addition, the CAA regularly requests to be provided with the annual AML/CFT approved statutory auditor report together with the annual AML/CFT Compliance Officer reports of the life insurance undertakings for perusal and integration

[16] Law of 12 November 2004 concerning the fight against money laundering and terrorist financing ("AML/CFT Law")

[17] CAA Regulation 20/03 of July 30, 2020 concerning AML/CFT ("CAA Regulation 20/03")

of the outcome of the analysis of these reports in CAA's risk-based approach and expert judgment. The FATF though recommended that the CAA should make use of the sanctions available for non-compliance including sanctions on individuals where appropriate.

77. The CAA also takes into account information derived from external sources, such as meetings with the CRF or the CSSF to exchange about supervised entities or information provided within the framework of the AML/CFT colleges. To ensure an effective oversight of cross-border groups and an effective supervisory corporation and information exchange, the CAA participates in AML/CFT colleges that are being implemented in accordance with the Joint Guidelines on Cooperation and Information Exchange for the purpose of Directive (EU) 2015/849 between competent authorities supervising credit and financial institutions dated December 16, 2019.

Appendix I. Financial Soundness Indicators of the Insurance Sector *(In percent)*

	2018	2019	2020	2021	2022	2023-Q3
Capital adequacy						
Assets / liabilities	108.0	107.9	108.1	107.9	108.4	109.0
SCR coverage ratio (Solvency II) – life, median	180	171	158	148	180	...
SCR coverage ratio (Solvency II) - non-life, median	201	212	225	198	193	...
SCR coverage ratio (Solvency II) – reinsurance, median	270	249	255	234	240	...
MCR coverage ratio (Solvency II) – life, median	422	579	537	490	541	...
MCR coverage ratio (Solvency II) - non-life, median	600	543	646	653	619	...
MCR coverage ratio (Solvency II) – reinsurance, median	696	670	700	620	724	...
Unrestricted Tier 1 capital / eligible own funds	94.7	93.0	91.7	90.8	91.0	91.3
Tier 3 capital / eligible own funds	0.2	0.8	0.7	1.0	0.4	0.6
Profitability						
Growth in gross written premiums - life	...	7.8	-13.9	23.4	-13.3	...
Growth in gross written premiums - non-life	...	76.7	1.0	10.3	13.8	...
Loss ratio (net paid claims / net premiums) - non-life	57.8	59.2	55.4	52.2	52.7	...
Combined ratio (loss ratio plus expense ratio) - non-life, median	93.4	102.8	94.5	92.1	91.5	...
Investment yield – life	2.4	2.2	1.8	1.9	1.6	...
Return on equity – life, median	5.9	6.3	6.8	7.1	5.1	...
Return on equity – non-life, median	-0.4	0.1	1.8	3.9	1.2	...
Asset quality						
Stocks / total investments excl. unit-linked	2.6	2.2	2.1	2.7	1.4	1.3
Bonds / total investments excl. unit-linked	67.7	72.6	72.7	72.2	69.8	70.8
Average maturity (in years) – life excl. unit-linked	6.6	...	6.9	...	6.9	...
Non-investment-grade / total fixed-income excl. unit-linked	0.9	...	0.6	...	1.0	...
Liquidity						
Liquid assets / technical provisions excl. unit-linked 1/	56.3	59.7	59.1	60.2	62.0	67.4
Lapse rate, based on contracts - life	19.9	20.4	19.3	15.4	8.6	...
Lapse rate, based on volume - life	7.7	7.4	8.2	7.2	9.3	...
Reinsurance						
Risk retention ratio (net technical provisions/ gross technical provisions) - life	82.3	81.5	82.1	83.2	82.1	...
Risk retention ratio (net premium / gross premium) - non-life	35.4	42.2	48.0	45.0	42.3	...

1/ Liquid assets include government bonds, corporate bonds, listed equity, cash and deposits, and investment funds.

Source: IMF staff calculations based on CAA and EIOPA data.