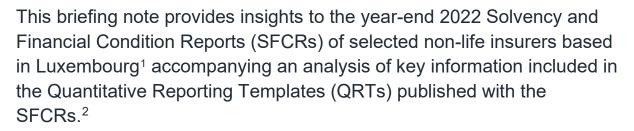
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Market insight from year-end 2022 SFCRs: Analysis of non-life insurers based in Luxembourg

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The current briefing note presents the SFCRs' analysis of 10 Luxembourgish non-life insurance entities, selected based on the volume of gross written premiums in 2022. These 10 insurers account for €13.7 billion, representing about 51³% of the total gross written premium for non-life insurers based in Luxembourg. The insurers selected are outlined in the table in Figure 1.

FIGURE 1: REPORTED TOTAL GROSS WRITTEN PREMIUM4 2022 VERSUS 2021 AND AS PERCENTAGE OF THE TOTAL LUXEMBOURG MARKET (FIGURE IN € BILLION)

Rank	Insurer	GWP 2022	GWP 2021	CHANGE	MARKET SHARE (%)
1	AIG	4.30	3.82	+ 0.48	16%
2	Liberty Mutual	2.99	2.85	+ 0.14	11%
3	Swiss Re Int	2.52	1.87	+ 0.65	9%
4	FM Insurance	0.98	0.45	+ 0.53	4%
5	Tokio Marine	0.57	0.52	+ 0.05	2%
6	HISCOX	0.52	0.45	+ 0.06	2%
7	Foyer	0.49	0.44	+ 0.05	2%
8	SI Insurance	0.48	0.42	+ 0.06	2%

¹ This analysis is based on insurance companies only, considering their direct business but also their proportional and non-proportional reinsurance written premiums. Reinsurers were excluded from the analysis.

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² The data of individual insurers included in this briefing note has been sourced from Solvency II Wire data and companies disclosed SFCRs and QRTs. The data is available via subscription from https://www.solvencyiiwire.com/solvency-ii-wire-data-demo/.

³ Based on FY2022 reported EIOPA figures, taking the sum over direct, proportional and non-proportional written premiums (https://www.eiopa.eu/tools-and-data/insurance-statistics_en).

⁴ Please note that this includes direct, proportional and non-proportional written premiums

9	RSA	0.45	0.40	+ 0.05	2%
10	iptiQ	0.39	0.27	+ 0.12	1%

Analysis of premiums

The gross written premiums increased over the last three years for all selected insurers, with an increase of 15% between 2021 and 2022. It is noticeable that the three largest insurers, which account for about 37% of the total market, are significantly larger compared to the other insurers in terms of gross written premiums, ranging from €2.5 billion to €4.3 billion in 2022. The other seven selected insurers have significantly lower gross written premiums.

The largest lines of business are fire and general liability, representing about 62% on non-life premium written in 2022, followed by marine (10%).

A distinction can be seen in the lines of business where the three largest insurers write business, which are mainly fire and general liability, as well as marine and credit and surety.

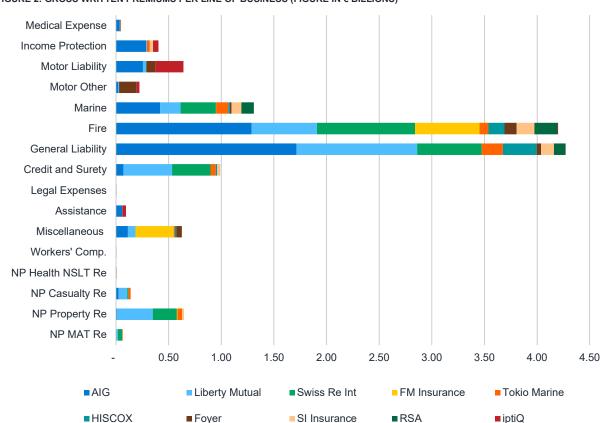


FIGURE 2: GROSS WRITTEN PREMIUMS PER LINE OF BUSINESS (FIGURE IN € BILLIONS)⁵

DOMESTIC BUSINESS

Within the Luxembourgish insurance industry, a significant number of companies are selling cross-border non-life insurance, generally into the EU on a freedom to provide services or freedom of establishment basis. Of the total non-life premiums written by the selected Luxembourgish non-life insurers in 2022, only about €1.1 billion (8%) were written in the 'home country' (i.e. Luxembourg) against €1 billion (8%) in 2021.

The five Luxembourgish non-life insurers with the highest gross written premiums in the domestic market in 2022 and their evolution from 2021 are shown in Figure 3.⁶ We observed a significant increase in 2022 domestic GWP for Liberty Mutual and Convex Europe. Liberty Mutual UK business has been transferred EEA domiciled business

⁵ Lines of business with 0 written premiums are excluded from the graph and NP stands for non-proportional.

⁶ The analysis of the domestic business extends the sample of the 10 selected insurers.

written by the UK branch into the Luxembourg branch, resulting the significant growth in the domestic market.⁷ As Convex Europe starts writing business in November 2021, the volume of premium written in 2021 is limited⁸ and explains the material growth when comparing with 2022.

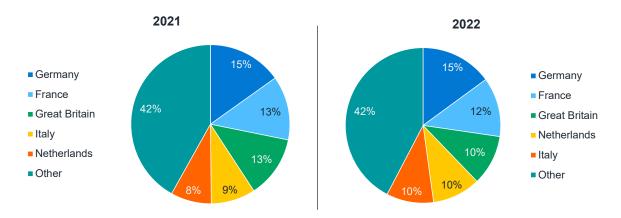
FIGURE 3: TOP FIVE GWP IN HOME COUNTRY (FIGURE IN € BILLION)

COMPANY NAME	GWP 2022	GWP 2021	Change
Foyer	0.45	0.42	+ 0.03
AIG	0.31	0.43	- 0.12
Convex Europe	0.15	0.01	+ 0.14
AXA Assurances	0.14	0.13	+ 0.01
Liberty Mutual	0.17	0.01	+ 0.16

CROSS-BORDER BUSINESS

In Figure 4, split of gross written premiums for 2022 between the top five countries for the 10 selected non-life insurers can be observed. The percentages show the total GWP⁹ written in that country divided by the total GWP written outside of Luxembourg for the 10 insurers in our sample. The largest cross-border markets for Luxembourgish non-life insurers included in the sample are Germany, France and the UK, which account for 38% of cross-border gross written premiums in 2022.

FIGURE 4: PROPORTION OF TOP FIVE GWP BY COUNTRY FOR THE 10 SELECTED INSURANCE ENTITIES



Combined ratio

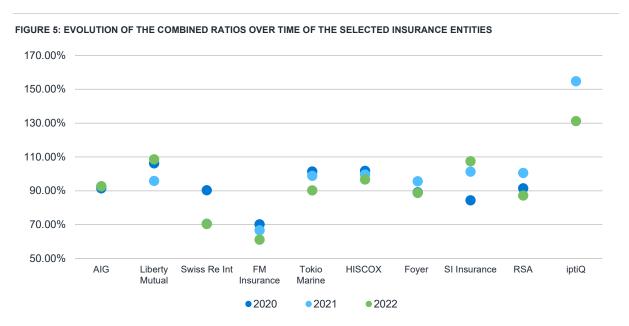
The combined ratio is calculated by dividing the sum of net claims paid, the change in net technical provisions and expenses incurred by the net earned premium. The 2022 reported combined ratios have decreased for most of insurers in this selection compared to 2021, except for Liberty Mutual and SI International. Most of the 10 insurers in the sample show a combined ratio below 100%. We also note that the combined ratios for AIG and Swiss Re remain stable from 2021 to 2022. The 2020 combined ratio for IptiQ is high (578%) and therefore not shown on the graph. The high COR in 2020 is due to administrative expenses incurred to build and set up the business, which was introduced on the Luxembourg market in 2019 as they mention in their SFCR. ¹⁰

⁷ Please see SFCR for Liberty Mutual 2022: Liberty Mutual SFCR 2022.

⁸ Please see SFCR for convex Europe 2022: CES SFCR 2022 (convexin.com).

⁹ Direct, non-proportional and proportional.

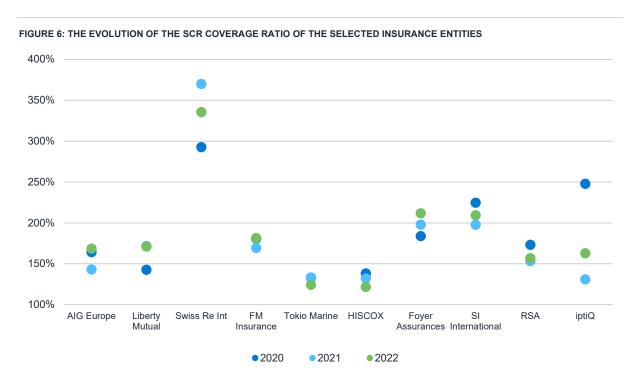
¹⁰ Please see p5 of IptiQ SFCR report 2020: SFCR_2020_iptiQPnC.pdf.



SCR coverage ratio

The weighted average SCR coverage ratio for the companies included in our sample was 176% at year-end 2022, an increase of 11% compared to 2021. This shows that non-life insurers based in Luxembourg continue to hold a significant capital buffer in excess of the required SCR coverage ratio of 100%. In 2022, the majority of companies have a solvency coverage ratio between 150% and 225%, with the minimum in the sample amounting to 122% (Hiscox) and the maximum to 336% (Swiss Re Int who uses an internal model).

Solvency coverage can change year on year for a variety of reasons. Figure 6 shows the SCR coverage ratio of the companies included in our sample for the past three years (when available).



SCR - Standard formula

The standard formula solvency capital requirement (SCR)¹¹ as per 31 December 2022 for the companies in our sample is unsurprisingly dominated by non-life underwriting risk, followed by market risk. The diversification and LACDT benefits offset these risks to reduce the SCR.

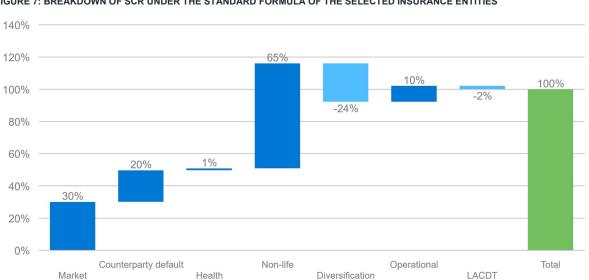


FIGURE 7: BREAKDOWN OF SCR UNDER THE STANDARD FORMULA OF THE SELECTED INSURANCE ENTITIES

Own funds

Eligible own funds (EOF) are divided into three tiers based on quality: Tier 1 capital is the highest ranking with the greatest loss-absorbing capacity, such as retained earnings and share capital. Tier 2 funds are typically composed of hybrid debt, and Tier 3 typically comprises deferred tax assets. Own funds of the selected insurers are dominated by Tier 1, which make up 87% of the own funds in 2022. These percentages are stable over the last three years.

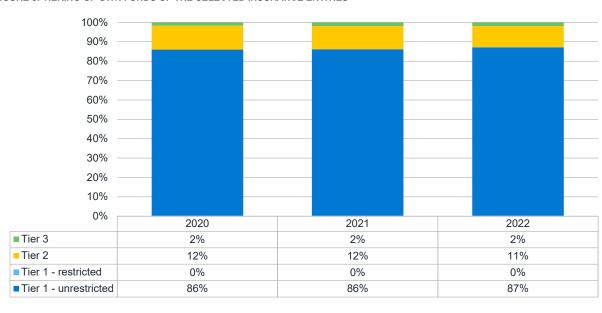
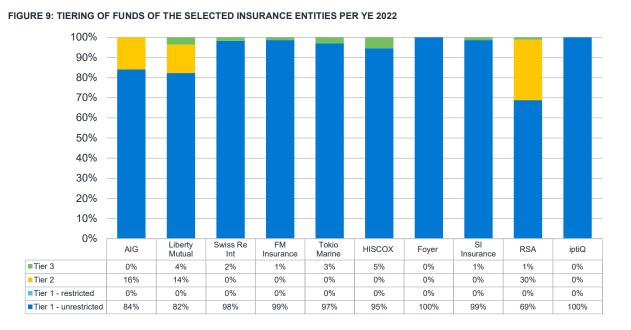


FIGURE 8: TIERING OF OWN FUNDS OF THE SELECTED INSURANCE ENTITIES

¹¹ AIG and Swiss Re Int have been excluded in the breakdown shown in Figure 7, as they apply internal models.

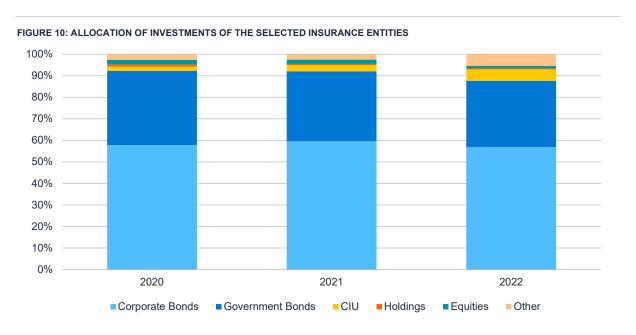
Figure 9 shows that Foyer and IptiQ have EOF composed of 100% of Tier 1 – unrestricted own funds. From the 10 largest insurers, only three insurers in our sample (AIG, Liberty Mutual and RSA) have Tier 2 own funds. The weighted average of Tier 2 capital compared to their total own funds amounts to about 11%. Figure 9 shows, however, that the share of the Tier 2 capital for RSA is much higher. Seven insurers of the sample have Tier 3 capital, and the weighted average of Tier 3 capital with respect to their total own funds is 2%.



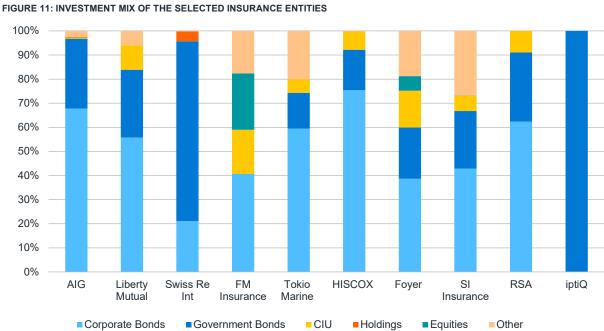
Investments

The total assets on the Solvency II balance sheet for the selected non-life insurers is €29.1 billion per year-end 2022, with about 54% related to investment assets. The latest have a total market value of €15.6 billion, an increase of 3% compared to year-end 2021 (€15.2 billion).

The investment asset portfolio of the selected insurers can be further split into categories as presented in Figure 10. Non-life insurers included in our sample focus on fixed-income investments (about 88%) with main investments in government bonds and corporate bonds. Part of the investment (5%) is allocated to collective investment undertaking (CIU), which slightly increased since 2020.



The three largest insurers invest mainly in fixed-income investments while smaller insurers show more investments in CIU, equities and holdings. We note that IptiQ invests 100% in corporate bonds. Four insurers (FM Insurance, Tokio Marine, Foyer Assurances and SI International) allocate a significant part of their investment portfolio (about 20%) in the other category, which consists mainly of collateralized securities.



What's next?

Milliman Benelux has developed an interactive application to efficiently compare the metrics of insurers as disclosed in their QRTs. If you want to know more and get free access to it, please follow the link https://apps.nl.milliman.com/ or send an email to Benelux.tools@milliman.com

If you have any questions or comments on the information above or want to discuss further capital management solutions for non-life insurers, please contact your usual Milliman consultant.



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Appendix: List of insurers included and Full Name

FULL NAME	NAME USED
aig europe s.a.	AIG
axa assurances luxembourg sa	AXA Assurances
foyer assurances s.a.	Foyer
hiscox s.a.	HISCOX
liberty mutual insurance europe se	Liberty Mutual
rsa luxembourg s.a.	RSA
si insurance (europe), sa	SI Insurance
swiss re international se	Swiss Re Int
tokio marine europe s.a.	Tokio Marine
iptiq emea p&c s.a.	iptiQ

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