MILLIMAN REPORT

Analysis of non-life insurers' Solvency and Financial Condition Reports

United Kingdom and Gibraltar non-life insurers

Year-end 2022

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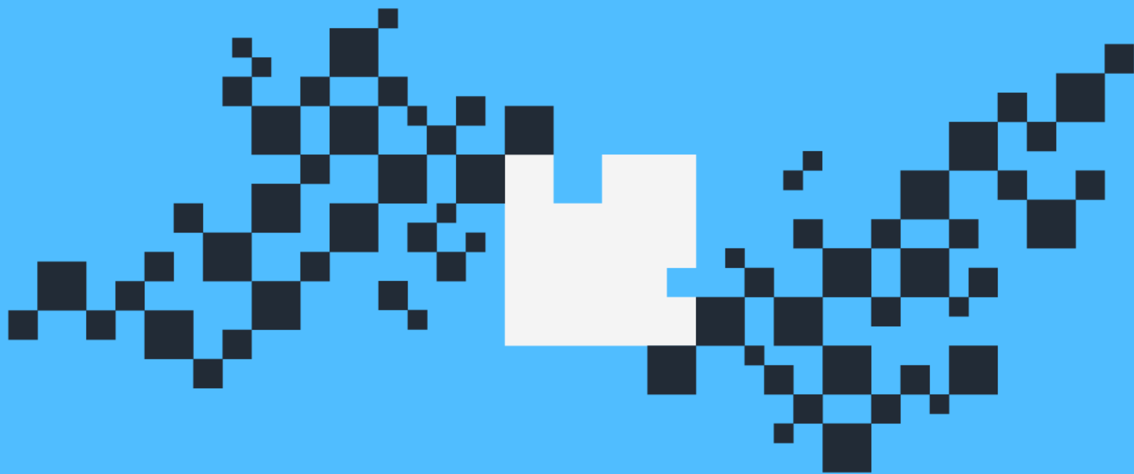

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Executive Summary

Based on our analysis of 88 solo companies that are both pursuing primarily non-life business in the UK and are regulated in either the UK or Gibraltar, we have found that financial performance varied across 2022, as the UK entered a high inflationary environment.

1. **Across all Solvency II lines of business, the aggregate operating margin[1] fell by 1.5% in 2022**, driven predominantly by motor vehicle liability and other motor lines. The operating margin was 2.1% for calendar year 2021, decreasing to 0.6% for calendar year 2022.

2. **Gross written premiums (GWP) increased from £48 billion as at year-end 2021 to £54 billion as at year-end 2022.** The majority of the Solvency II lines of business experienced premium growth, but the largest increases were observed in the fire, motor vehicle liability and general liability lines of business, with growth of £2.0 billion, £1.0 billion and £1.0 billion, respectively. The largest decrease was observed in medical expense insurance, with GWP reducing by £0.2 billion.

3. **The ratio of eligible own funds to the solvency capital requirements (SCR) has increased,** from 175% as at year-end 2021 to 178% as at year-end 2022. This is also higher than the equivalent figure as at year-end 2020. For one of the top 30 companies in our sample (in terms of GWP), the solvency coverage ratio increased by over 35%, whereas for five of the top 30 companies in our sample, the solvency coverage ratio decreased by over 35%.

4. **The ratio of eligible own funds to the minimum capital requirement (MCR) has decreased slightly,** from 518% as at year-end 2021 to 512% as at year-end 2022. At year-end 2020, the equivalent figure was also the same as at year-end 2021.

5. **More than half of Solvency II lines of business experienced unfavourable movement in their loss ratios**, both gross and net of reinsurance. General liability experienced the largest decrease in its loss ratio, gross of reinsurance; the loss ratios were 61% for calendar year 2021 and 53% for calendar year 2022. Net of reinsurance, the non-proportional casualty loss ratio decreased from 92% across calendar year 2021 to 71% across calendar year 2022. Non-proportional MAT[2] experienced the largest percentage increase in loss ratio, both gross and net of reinsurance; the loss ratios were 43% for calendar year 2021 and 76% for calendar year 2022 on a gross level, and net of reinsurance they were 47% for calendar year 2021 and 69% for calendar year 2022. Fire, the largest class in terms of GWP, had unfavourable movements of 8% in its gross loss ratio, and 7% in its net of reinsurance loss ratio.

6. **Motor vehicle liability and other motor were two of the lines of business that experienced less favourable movement in their gross loss ratios over the last two years**. For motor vehicle liability, the gross loss ratio increased from 59% in calendar year 2020 to 74% in calendar year 2022. For other motor, the gross loss ratio increased from 62% for calendar year 2020 to 81% for calendar year 2022. Both lines of business were impacted by an increase in incurred claims, driven particularly by increased claim severities.

7. **Overall, technical provisions (excluding the risk margin) remained broadly similar between year-end 2021 and year-end 2022**. At year-end 2022, the held technical provisions (excluding the risk margin), gross of reinsurance, totalled just under £61 billion, and just over £37 billion net of reinsurance. At year-end 2021, the technical provisions (excluding the risk margin), gross of reinsurance, totalled almost £59 billion, and just under £36 billion net of reinsurance. The increase in the technical revisions could in part reflect overall market growth over time, but would also result from strengthening of current and prior year reserves to allow for higher expected claim costs due to heightened inflation levels that are unlikely to recede quickly.

1 The operating margin is defined as (net earned premium – net claims incurred – expenses incurred) / (gross earned premium).

2 ‘MAT’ refers to marine, aviation and transport insurance.

Introduction

In 2023, (re)insurance undertakings across the European Union (EU) published their seventh annual set of Solvency and Financial Condition Reports (SFCRs). In this report, we summarise and discuss key metrics from those SFCRs as they relate to non-life insurers regulated in the UK or in Gibraltar, comparing the figures in the 2022 year-end SFCRs with their counterparts as at the 2021 year-end (and at earlier year-ends, where relevant).

The analyses underlying this report focus on the quantitative information contained in the Quantitative Reporting Templates (QRTs) within the SFCRs, but we have also studied the text within the SFCRs in order to gain additional insights into various companies, in particular those that displayed characteristics that differed materially from the market average. Our focus has been on solo entities rather than groups.

In this report we consider:

- The solvency position of the market as a whole, before taking a closer look at the top 30 companies by GWP
- The components of the SCR, for the market as a whole and individually for the top 30, and the quality of the components of the own funds
- The main Solvency II balance sheet items, including invested assets and technical provisions
- Key underwriting performance indicators, such as loss ratios and operating margins, split by Solvency II lines of business

UNITED KINGDOM MARKET COVERAGE

Our analyses are based upon the SFCRs for 88 solo companies that are both pursuing primarily non-life business in the UK and are regulated in either the UK or Gibraltar. Seventy-four of the 88 companies were also included in last year's sample. These 74 companies make up 94% of the total GWP and 93% of the total SCR of the companies in this year's report. Therefore, while the sample this year does not precisely mirror that of last year, we believe that the overlap is sufficient for year-on-year comparisons to be meaningful.

The Society of Lloyd's produces a single publicly available SFCR, covering in aggregate all of its syndicates. We have excluded it from our study because of its size compared with the rest of the market, because much of its activities relate to insurance coverage outside of the UK, and because it contains significant reinsurance and retrocessional business. The Society of Lloyd's represents £48 billion of GWP and £71 billion of gross technical provisions (compared with a total £54 billion of GWP and £61 billion of gross technical provisions for the 88 solo companies that we analysed), and exhibits a solvency coverage ratio of 181% (made up of £43 billion of eligible own funds and £24 billion of SCR).

Our analysis of the **UK and Gibraltar non-life insurance market** covers:

88 COMPANIES

£54 BILLION
in gross written premiums

£61 BILLION
of gross technical provisions

Appendix A contains a list of all of the companies that were included in our analysis. It also sets out shortened versions of those insurers' names; we have used these shortened names when referring to the insurers within this report.

Appendix B lists the Solvency II lines of business. It also sets out the shorter versions of the names of those lines of business that we use within this report when stating relevant figures.

Appendix C contains the solvency coverage ratios for the 30 largest companies (in terms of GWP for calendar year 2022) as at year-ends 2020, 2021 and 2022.

UNDERLYING DATA

In carrying out our analysis and producing this research report, we relied on the data and information provided in the SFCRs and QRTs of our sample companies, as obtained from Solvency II Wire Data. The database tool is available via subscription from: https://solvencyiiwiredata.com/about/. We have not audited or verified the data or other information within Solvency II Wire Data. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. We have not made any changes to the data to reflect additional information or changes following the reporting date.

This research report is intended solely for educational purposes and presents information of a general nature. The underlying data and analysis have been reviewed on this basis. This research report is not intended to guide or determine any specific individual situation, and readers should consult qualified professionals before taking specific actions.

INFLATION

As many UK and Gibraltarian insurers have highlighted in their SFCRs at year-end 2022, the UK economy has experienced persistent inflation during 2022.

The high inflationary economic environment and the likelihood that it will continue for a while longer has had negative effects on the claims severities and gross loss ratios for most lines of business, especially motor vehicle liability and other motor lines of business. This has been acknowledged in their SFCRs by some of the largest insurers in our sample. RSA acknowledged a deterioration in its UK underwriting result as a result of inflationary pressure on its claims severities. UK Insurance experienced claims severities increasing by 14% across the year for its motor lines of business, leading to a large underwriting loss and a fall in its solvency ratio, which was part of its board’s decision not to not pay a final dividend to shareholders in 2022.

Other companies, such as Aviva International, highlighted in their SFCRs the negative effect that high inflation has had on their solvency ratios. AIG, upon performing multiple stress tests to understand the possible impact of material risks and events, found that, of the stresses tested, stagflation (the combination of high inflation combined with high unemployment and stagnant demand) and persistent inflation caused the largest decreases to its forecast 2023 year-end solvency ratio.

We note that inflation has persisted throughout the first half of 2023 at high levels and that, since most of the insurers in our sample prepared their 2022 year-end accounts, the Bank of England has altered its forecast of earlier in the year, now predicting that it will take longer than previously expected for inflation levels to reduce to target levels. Therefore, it is likely that many insurers will need to strengthen their claims reserves during 2023, especially for longer tailed classes.

RUSSIA UKRAINE CONFLICT

As noted in our analysis last year, Russia’s invasion of Ukraine resulted in financial and trade sanctions being imposed on Russia, which led to further upward pressure on inflation and to disruption to supply chains. As the conflict continues, those insurers that have material direct exposure to Russia or Ukraine may continue to experience significant claims, particularly in lines of business such as marine, aviation, transport, fire, political violence, cyber and trade credit. As well as this, the value of some insurers’ assets continues to be affected, impacting the level of market risk and the total Solvency Capital Requirement (SCR).

Through our analysis of UK and Gibraltar SFCRs, we have observed insurers explaining the extent of their exposure to this conflict event. For some insurers, such as Methodist Insurance, material exposure to equities has resulted in a fall in the total value of assets over the last year.

CLIMATE CHANGE

Many insurers have recognised in their year-end 2022 SFCRs that climate change will materially affect their risk exposure (to physical, transition and liability risks) and financial performance. Indeed, extreme weather events—which appear to be occurring more frequently—caused insurance losses in 2022; UK Insurance attribute severe weather events as a key driver to the material fall in group operating profit and solvency ratio.

Some of the largest insurers in our sample have repeated climate pledges synchronised with their business model in their SFCRs. For example, Aviva International has pledged to become a net zero carbon company by 2040; AIG announced a similar measure (albeit with a target date of 2050), as well as committing to phasing out by 2030 all of its investments and business related to coal-fired power, thermal coal mines or oil sands.

Some insurers in our sample have been actively cooperated with regulatory guidance, such as the Prudential Regulation Authority's Supervisory Statement SS3/19 disclosure, which provides a roadmap on the regulatory supervision of climate change risk management. Some larger companies, such as AIG, have actively participated in the Climate Biennial Exploratory Scenario as a result of the growing prominence of climate change risks, and have stated this in their SFCRs.

Climate change will continue to affect insurers, with likely greater severity. As a result, we expect that the disclosures provided in the SFCRs by insurers will grow in size and importance.

COVID-19

The COVID-19 pandemic, although officially over, is still causing uncertainty in insurers' performances. The main areas of residual uncertainty cited by insurers in their SFCRs are high inflation due to supply chain issues and settlement delays, distortion in claim development patterns and uncertainty due to the continuing appeals process in business interruption class action cases.

1. United Kingdom (and Gibraltar) non-life undertakings

SOLVENCY COVERAGE RATIOS: HOW DID THE MARKET DO? HOW FINANCIALLY SECURE IS THE MARKET?

FIGURE 1: UK SOLVENCY COVERAGE RATIOS AS AT THE 2020, 2021, AND 2022 YEAR-ENDS

	YEAR-END 2020	YEAR-END 2021	YEAR-END 2022
RATIO OF ELIGIBLE OWN FUNDS TO SCR	174%	175%	178%
RATIO OF ELIGIBLE OWN FUNDS TO MCR	518%	518%	512%
MCR AS A % OF THE SCR	34%	34%	35%

In aggregate, the UK non-life insurers that comprise our sample are more than sufficiently capitalised, with an average solvency coverage ratio of 178% (weighted by SCR). This is higher than the equivalent figure reported in the previous set of SFCRs as at year-end 2021 of 175%. However, the MCR coverage ratio has decreased slightly from 518% to 512%.

Similarly to previous year-ends, there are a wide range of solvency coverage ratios between individual insurers as at the 2022 year-end. Several insurers are very well capitalised (with solvency coverage ratios well over 250%). Hovever, one insurer in our analysis, Municipal Mutual, has a solvency coverage ratio below 100% as at the 2022 year-end. We note that this insurer was also in breach of its solvency coverage ratio in the previous two year-ends, but the solvency coverage ratio has increased year-on-year (2020: -111%; 2021: -80%; and 2022: -33%). Municipal Mutual expects to remain in capital deficit until the business has completely run-off.

UK non-life insurers have an

Average Solvency Coverage Ratio of

178%

Ambac had a solvency coverage ratio of 72% as at year end 2020. This increased to 101% as at year-end 2021, due to the run-off of the insured portfolio and the increase in risk-free interest rates. In its year-end 2021 SFCR, Ambac stated that it aimed to strengthen its financial position further whilst it remained in run-off. This strengthening is evident at year-end 2022 as the solvency coverage ratio has increased to 159%.

Three companies have eligible own funds that are more than 10 times their regulatory capital requirements. Two of these are small entities within major insurance groups, such as The Marine (part of the RSA Group) and The Ocean Marine (part of the Aviva Group). The third company, Wausau, has been in run-off since 1991.

The Standard Formula (SF) remains the preferred means of calculating capital requirements for most insurers (69 of the 88 insurers included in our sample), although only 38% of the aggregated value of all of the SCRs in our sample were generated using the SF. Of those insurers that did not use the SF, 13 have used a full internal model (FIM) and 6 have used a partial internal model (PIM). As in previous years, those insurers using a PIM have used it predominantly to model underwriting risk, although British Gas also uses the PIM to model its operational and counterparty risk, while NFU Mutual also uses a PIM for market, liquidity and counterparty risk. As at the 2022 year-end, 34% of the total value of the aggregated SCRs were generated using a FIM and 28% using a PIM. This highlights the fact that FIM and PIM are primarily used by larger companies and groups. We note that both Ageas and AIG moved from a PIM to a FIM during 2022.

Of our sample of **UK Non-Life Firms:**

69 use the **STANDARD FORMULA**

13 use a **PARTIAL INTERNAL MODEL**

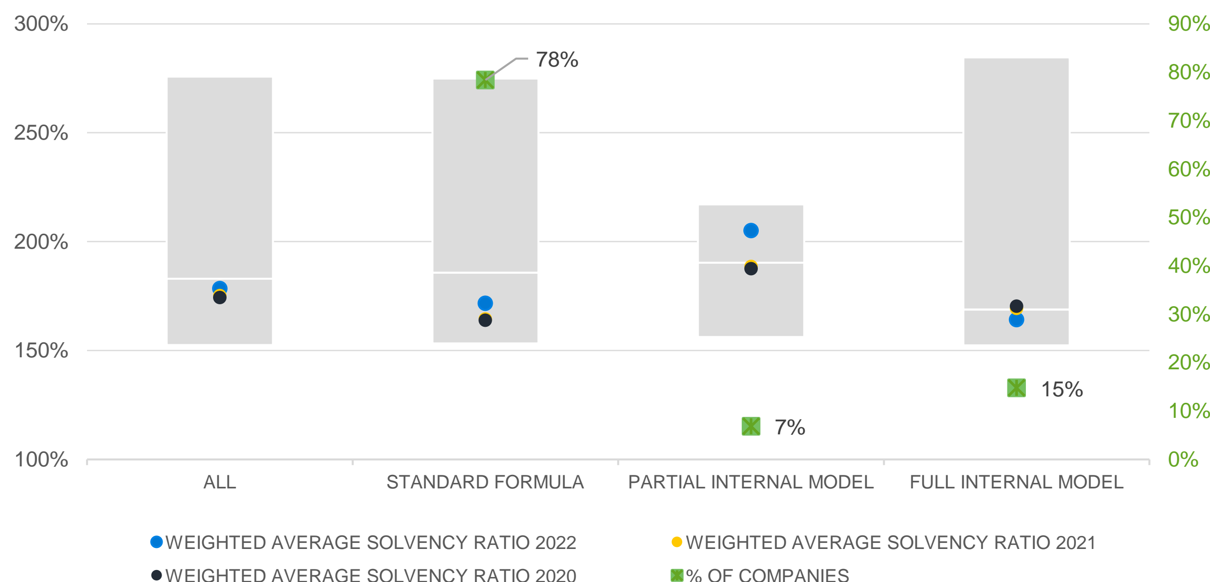
6 use a **FULL INTERNAL MODEL**

These findings are illustrated in Figure 2, in which the green squares show the proportions of the 88 insurers using SF, FIM, and PIM to evaluate their solvency requirements. Figure 2 also shows how the solvency coverage ratios are distributed among the insurers whose SFCRs we analysed. It sets out the median, 25th and 75th percentiles and weighted average of the points of the distribution of the solvency coverage ratios as at the 2022 year-end, for the market as a whole and then separately for insurers using the SF, PIM or FIM. Figure 2 also shows, for comparison purposes, the weighted average of the solvency coverage ratios as at the preceding two year-ends. Overall, we see the following:

- For insurers using the SF, their (weighted) average solvency coverage ratio has increased (relative to that as at the 2021 year-end) by about 8%, from 164% to 172%. This is well below the median as at 2022 year-end (186%), which implies that smaller insurers have, in general, higher solvency coverage ratios.
- For insurers using PIMs, their (weighted) average solvency coverage ratio has increased by 16%, from 189% to 205%.
- For companies using FIMs, their (weighted) average solvency coverage ratio has decreased by 5%, from 169% to 164%.

The under-capitalised company, Municipal Mutual, mentioned above, uses the SF to derive its capital requirements. With this company removed, the weighted average solvency ratio, for insurers using the SF, would be slightly higher at 173% (and 179% across all insurers).

FIGURE 2: DISTRIBUTION OF SOLVENCY COVERAGE RATIOS AS AT YEAR-END 2022



By design, the MCR as set out in Solvency II, is 'calibrated' to be the 85th percentile of the distribution of own funds over a one-year period. It means that, in theory, for each insurer, there is a 15% likelihood that, over the following 12-month period, it would suffer deterioration in its own funds of a magnitude equal to or greater than the amount of the MCR.[3] Fourteen percent of the firms within our sample would see their solvency coverage ratios (against the SCR) falling to levels below 100% should they suffer such deterioration.

3 The theory is slightly distorted for some insurers by the constraints on the size of the MCR i.e. that it is between 25% and 45% of the SCR, subject to the absolute floor value (which itself was increased at the end of 2022).

Figure 3 shows the solvency coverage ratios for the 30 largest companies (in terms of GWP) and the impact on those ratios of a deterioration in the eligible own funds equal to the size of those companies' MCRs. The companies are ranked based on their solvency coverage ratios. We have highlighted in yellow those solvency coverage ratios that would be below 100% were eligible own funds to deteriorate by the size of the relevant company's MCR.

FIGURE 3: SOLVENCY COVERAGE RATIOS BOTH BEFORE AND AFTER A LOSS EQUAL TO THE MCR, GWP TOP 30

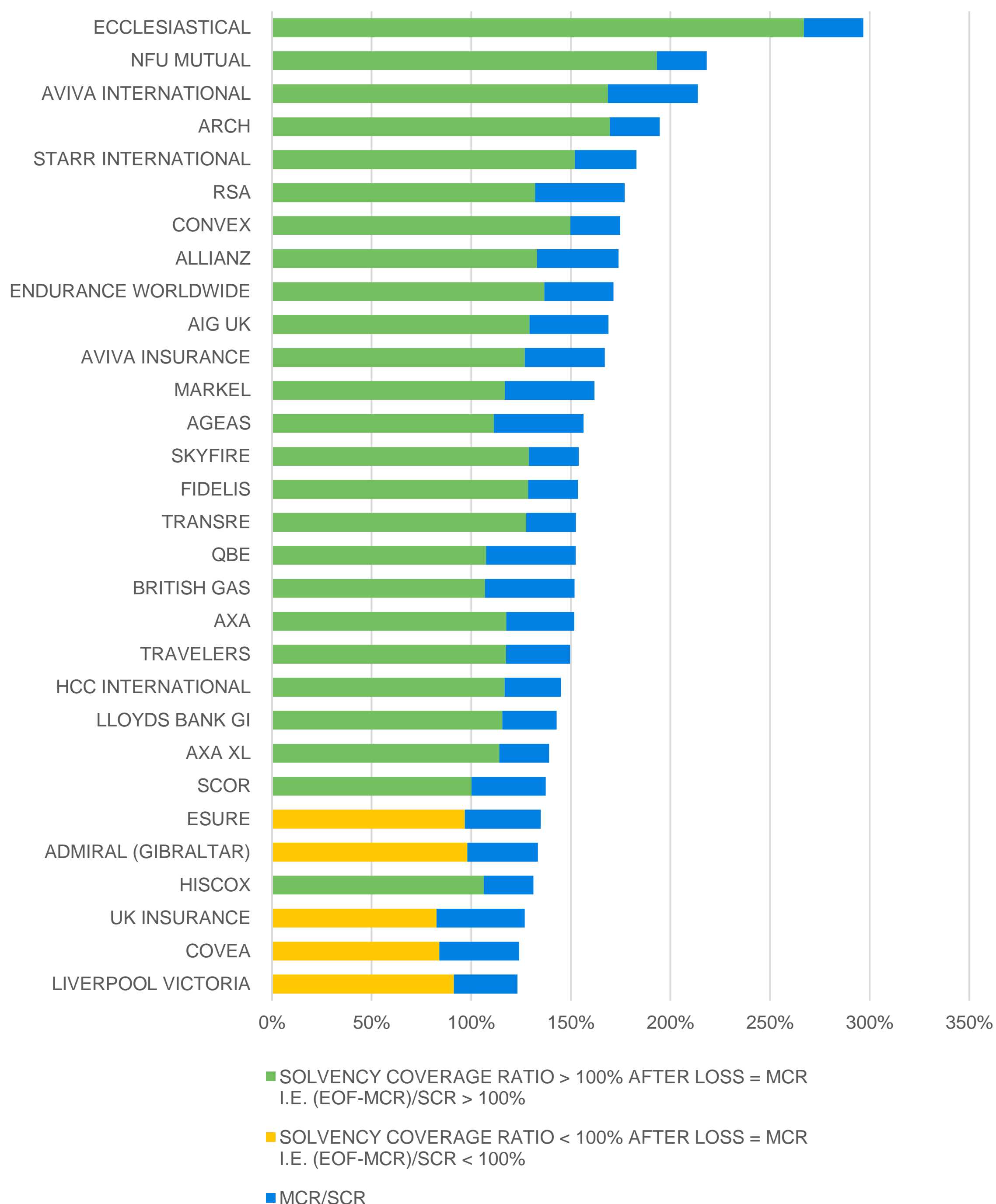


Figure 4 shows how the solvency coverage ratios have changed between the 2021 and 2022 year-ends for the top 30 companies (defined in terms of GWP) that we have included in our sample.

FIGURE 4: SOLVENCY COVERAGE RATIOS AS AT YEAR-ENDS 2021 AND 2022, GWP TOP 30[4]

The companies shown above the diagonal line have strengthened their solvency coverage ratios between the 2021 and 2022 year-ends, whereas the solvency coverage ratios for those companies below the line have weakened over the 12-month period.

We note that 26 out of the top 30 firms exhibit a solvency coverage ratio between 120% and 190%, with the remaining 4 firms having a solvency coverage ratio above 190%. The solvency coverage ratios for the top 30 firms, as at year-ends 2020 to 2022, can be found in Appendix C.

The solvency coverage ratio for one of the top 30 companies, Ecclesiastical, increased by 36% (this company is shown furthest above the line), from 261% as at the 2021 year-end to 297% as at year-end 2022. This is due to a reduction in the SCR, from £237 million to £214 million, and an increase in own funds, from £617 million to £635 million. The SCR has decreased mainly due to a reduction in undiversified market risk, from £239 million to £216 million. This results from Ecclesiastical having reduced its investment exposure to equity and property over the year, paired with increasing expected investment returns as a result of higher interest rate rises through the year. The SCR has also decreased due to an increased proportional diversification effect on the balance sheet, resulting from an increase in the loss absorbing capacity of Ecclesiastical's assets. The own funds have increased due to increases to the reconciliation reserve over the year, and hence the Tier 1 own funds.

4 In Figure 4, the solvency coverage ratio for QBE is 139% for 2021 and 152% for 2022, while for TransRe the solvency coverage ratio is 139% for 2021 and 153% for 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 4, above, overlap each other.

The solvency coverage ratios for 4 of the top 30 firms reduced by more than 35%:

- **Markel:** The solvency coverage ratio reduced from 266% as at year-end 2021 to 162% as at year-end 2022; this was the largest decrease out of any of the top 30 firms. The decrease was driven by a large increase in the SCR from £202 million to £383 million. The increase in the SCR is explained by increases to reserves, particularly in long tail classes, growth in premium income planned for 2023, and reduced reinsurance protection in extreme scenarios. These are reflected in the undiversified non-life underwriting risk increasing from £203 million to £404 million. Also contributing to the total increase in SCR is a strengthened view of dependencies, which has led to a management adjustment in the level of recognised diversification. Diversification reduced Markel's total undiversified SCR by 48% at year-end 2022, whereas the corresponding figure was 59% at year-end 2021.
- **esure:** The solvency coverage ratio reduced from 178% as at year end 2021 to 135% as at year end 2022. This was driven by a reduction in eligible own funds to meet the SCR, from £464 million at year-end 2021 to £345 million at year-end 2022. The decrease in eligible own funds is mainly driven by a reduction in the reconciliation reserve and therefore a reduction in Tier 1 own funds. The reduction in the reconciliation reserve is due to a reduction in the amount of UK GAAP retained earnings, available for sale reserves and capital redemption account, from £256 million in 2021 to £175 million in 2022.
- **Aviva Insurance:** The solvency coverage ratio reduced from 209% as at year-end 2021 to 167% as at year-end 2022. This was mainly due to a decrease in eligible own funds from £2,226 million to £1,685 million. This reduction was partially mitigated by a small decrease in the SCR, from £1,065 million to £1,008 million. The reduction in own funds is largely due to an increase in liabilities, whilst assets have remained relatively similar at year-end 2022 compared to year-end 2021. There are several small increases on the liabilities side of the Solvency II balance sheet. The main movements are due to increases to technical provisions, outstanding amounts payable to group companies, increases to derivative liabilities, increased deposits from reinsurers and financial liabiltites owed to non-credit instituitions.
- **Liverpool Victoria:** The solvency coverage ratio reduced from 161% as at year-end 2021 to 123% as at year-end 2022. This was driven by a reduction in eligible own funds to meet the SCR, from £559 million at year-end 2021 to £447 million at year-end 2022. The decrease in eligible own funds is mainly driven by a reduction in the reconciliation reserve and therefore a reduction in Tier 1 own funds. Reductions in the reconciliation reserve are driven by losses after tax earned in 2022 and, more significantly, net unrealised losses after tax on the investment portfolio.

The solvency coverage ratio for U K Insurance fell by just under 35% during 2022. As mentioned previously in this report, this was mainly due to high inflationary pressure causing claims severities to increase as well as extreme weather events causing increased total claims costs.

ANALYSIS OF SCR AND MCR: WHERE IS THE RISK?

When conducting their SCR calculations, insurers have to cover all the risks that may affect their balance sheets and, consequently, their solvency positions. Figure 5 shows, on an aggregated basis, the breakdown of the SCR for firms using the SF. As expected, underwriting risk is the most material of the standard risks for UK non-life insurers, comprising, on average, 72% of the overall SCR (before the application of any diversification benefits).

FIGURE 5: SCR BREAKDOWN BY RISK MODULE AS AT YEAR-END 2022: FIRMS USING STANDARD FORMULA ONLY[5]

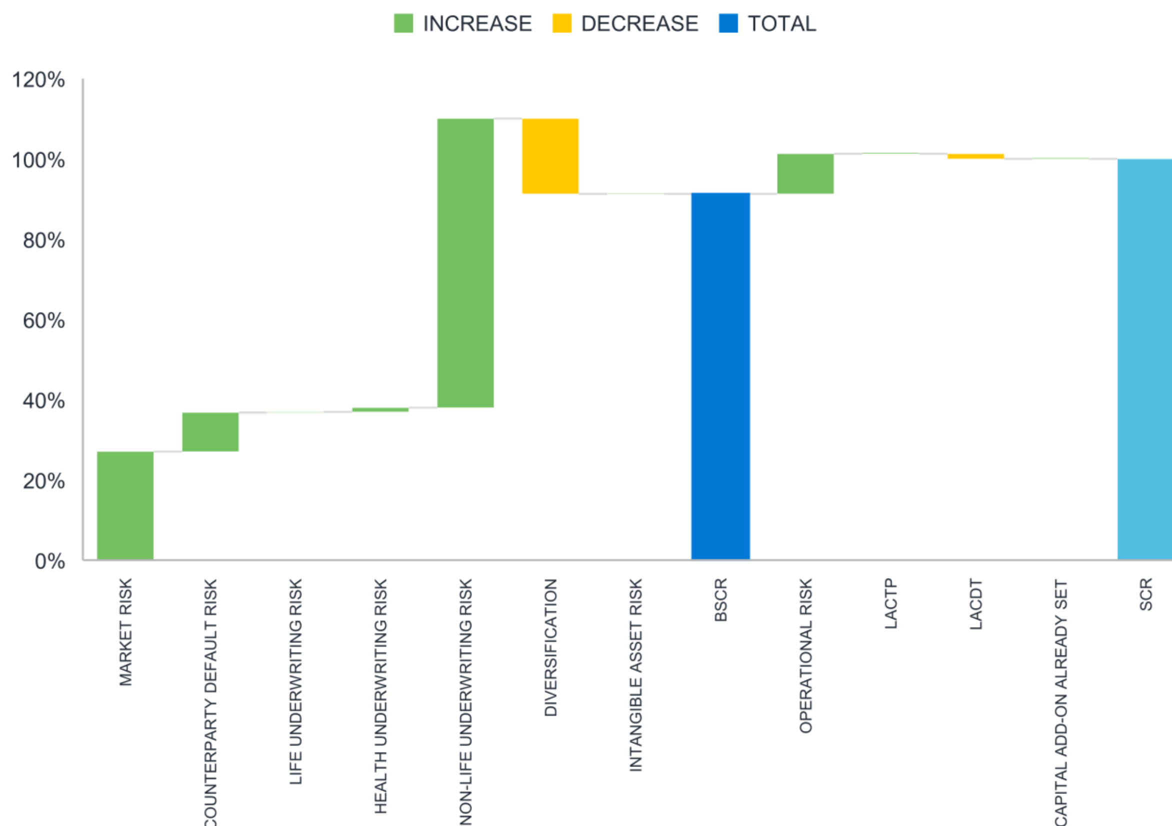
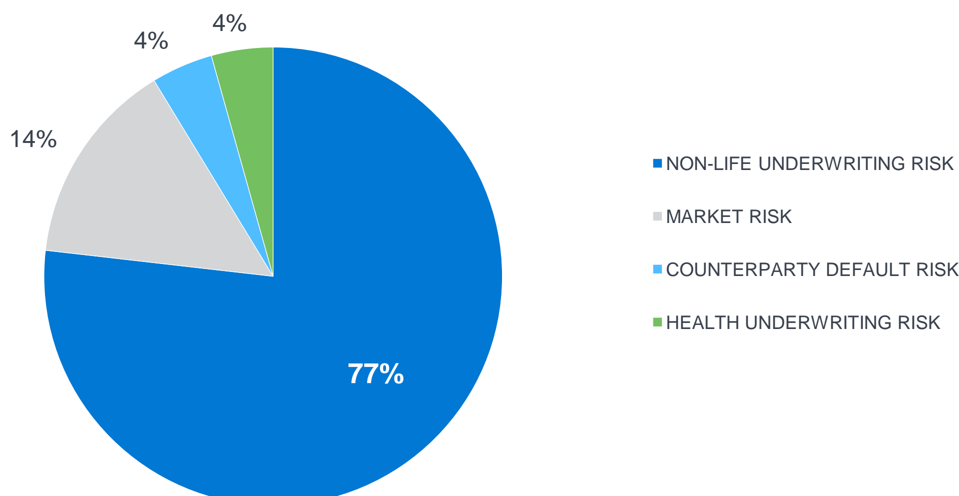


Figure 6 shows that underwriting risk is the major absorber of capital for about 77% of the companies in our sample that use SF only, at year-end 2022, compared to 72% at year-end 2021. Market risk or counterparty default risk is the main contributor to the SCR for a further 18% of the companies at year-end 2022, compared to 22% at year-end 2021.

5 LACTP refers to Loss Absorbing Capacity of Technical Provisions. LACDT refers to Loss Absorbing Capacity of Deferred Taxes. BSCR refers to Basic Solvency Capital Requirement.

FIGURE 6: BREAKDOWN OF LARGEST RISK AREAS AS AT YEAR-END 2022: FIRMS USING STANDARD FORMULA ONLY



NON-LIFE UNDERWRITING RISK is the largest risk to UK non-life insurers using the standard formula, **contributing 77%** of the undiversified SCR

We note that the Prudential Regulation Authority has the power (under Section 55M of the Financial Services Market Act 2000) to apply a capital add-on in cases where it deems there to be a significant risk issue or governance deviation from Solvency II requirements. In most cases where a company requires a capital add-on, it is because the SF does not capture, fully and/or appropriately, some of the risks to which the company is exposed. Currently, none of the companies in our analysis, as at year-end 2022 or year-end 2021, have a capital add-on applied.

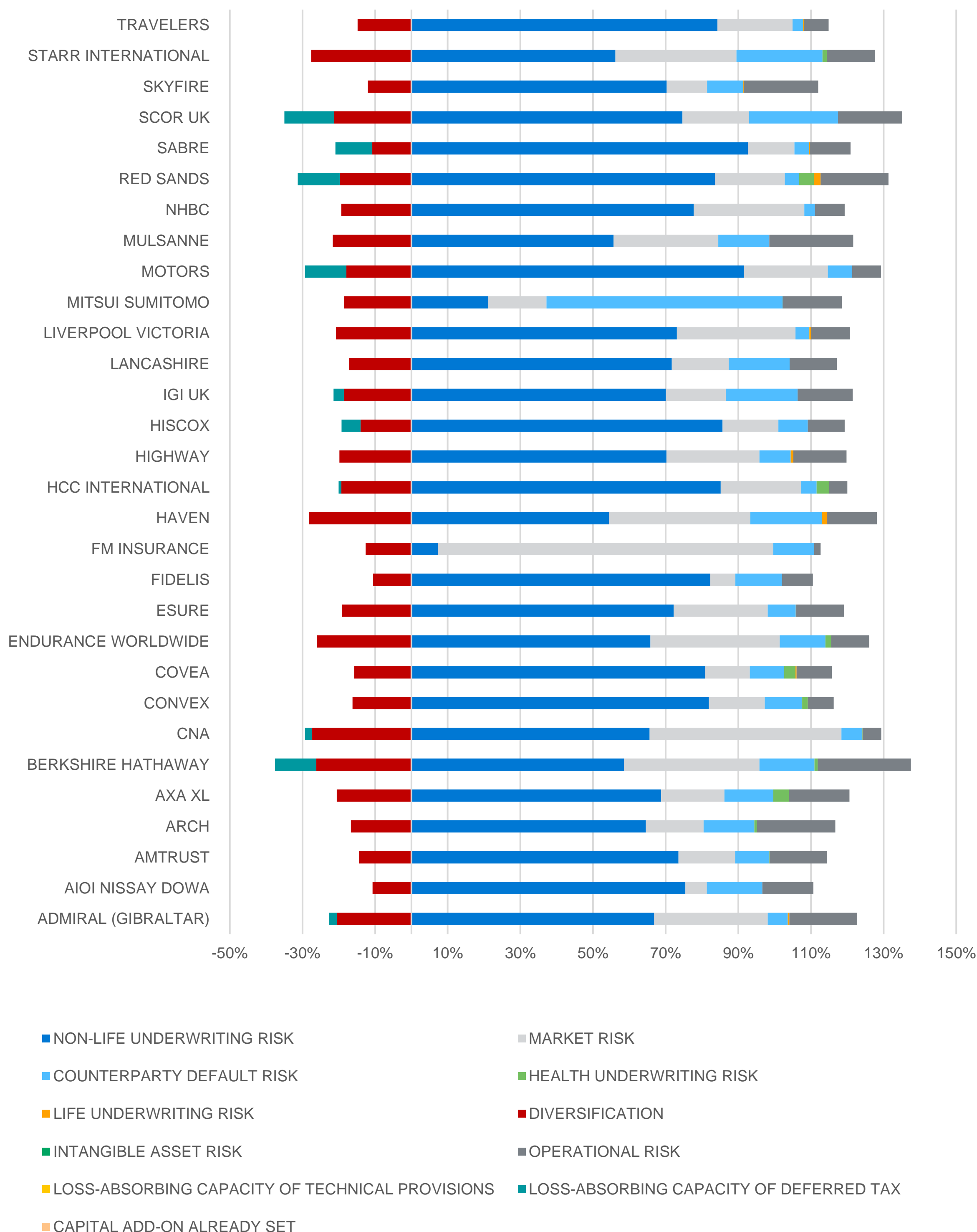
We also note that adjustments for LACDT, which reduce the SCRs, totalled £844 million as at year-end 2022 (compared to £984 million as at year-end 2021), of which £103 million relates to companies using the SF (£162 million as at year-end 2021). The Solvency II balance sheets indicate that the net deferred tax liabilities[6] for the whole market were £755 million, a marginal increase from £752 million as at year-end 2021. Therefore, at least £89 million of the LACDT arose either from tax rules that allow companies to carry back the 1-in-200-year instantaneous loss against taxable profit in the prior 12-month tax period or from expected tax payable on future profits not already recognised in the best estimate of liabilities (following a 1-in-200-year instantaneous loss) over a reasonable timeframe.

6 We define net deferred tax liabilities, for each company, as the maximum of zero and the deferred tax liabilities less the deferred tax assets.

In Figure 7 we show the breakdown of SCRs for the 30 largest companies (in terms of GWP) within our sample that use the SF. Underwriting risk is the predominant risk for most of the biggest firms.

The counterparty default risk remains a low risk for UK non-life insurers, most of them having secured the bulk of their outwards reinsurance from well-rated carriers and most having few, if any, bad debts.

FIGURE 7: SCR BREAKDOWN BY RISK MODULE AND BY COMPANY AS AT YEAR-END 2022 (TOP 30 BY GWP - SF ONLY)



ANALYSIS OF OWN FUNDS

Own funds 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 and other permitted intangible assets. As shown in Figure 8, insurers' eligible own funds are considered to be of good quality, with 91.4% classified in Tier 1. There was no material change to the tiering of own funds, to meet both the SCR and the MCR, when compared to the 2021 year-end, with the largest change being the movement in proportion of Tier 3 (an increase of 1.1%).

FIGURE 8: TIERING OF OWN FUNDS AS AT YEAR-ENDS 2021 AND 2022[7]

ELIGIBLE OWN FUNDS TO MEET THE SCR	YEAR-END 2021	YEAR-END 2022
TIER 1 UNRESTRICTED	92.2%	91.4%
TIER 1 RESTRICTED	0.5%	0.5%
TIER 2	5.4%	5.0%
TIER 3	1.9%	3.0%
ELIGIBLE OWN FUNDS TO MEET THE MCR		
TIER 1 UNRESTRICTED	98.3%	98.5%
TIER 1 RESTRICTED	0.6%	0.5%
TIER 2	1.1%	0.9%

91.4% of own funds

for UK non-life insurers is held in

Tier 1 Unrestricted Capital

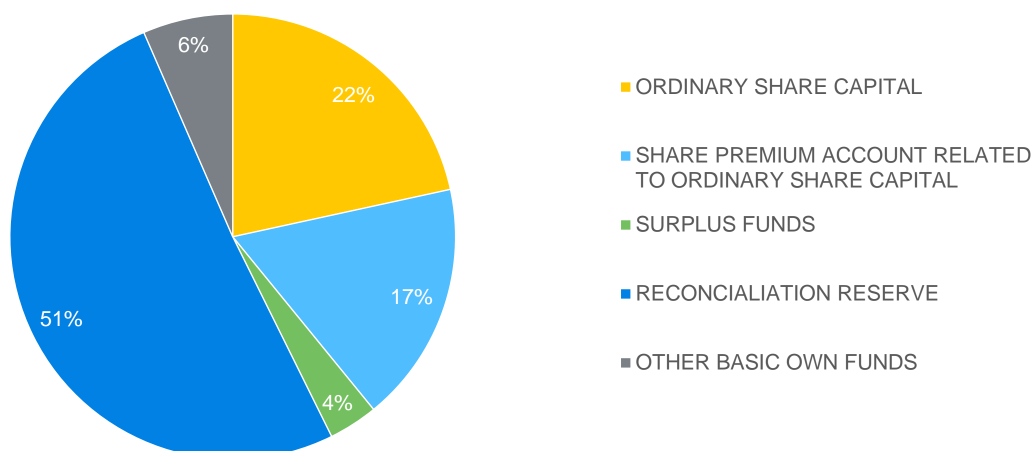
We also note that Tier 2 eligible own funds are slightly more common for larger insurers (in terms of GWP), with 5.6% of own funds for the 30 largest companies being classified as Tier 2 against 5.0% for the whole market.

For 92% of the companies that we analysed, the available own funds were 100% eligible to cover the SCR, which is the same proportion as at year-end 2021.

In Figure 9, we look at the split of basic own funds by type as at year-end 2022. It appears that basic own funds primarily comprise the reconciliation reserve, which makes up 51%, and share capital (both ordinary share capital and share premium account) making up approximately 39%. Own funds in subordinated liabilities, deferred tax assets, and other basic own funds are all very small, making up around 10% of the entire own funds when combined. The proportions in Figure 9 are broadly similar to the values observed as at year-end 2021, although the proportion of own funds consisting of the reconciliation reserve has decreased by 3%, with the share premium account and surplus funds increasing by roughly the same proportion.

7 Note that figures contributing to the total eligible own funds to meet both the SCR and the MCR may not add to 100% as each percentage has been rounded individually to one decimal place.

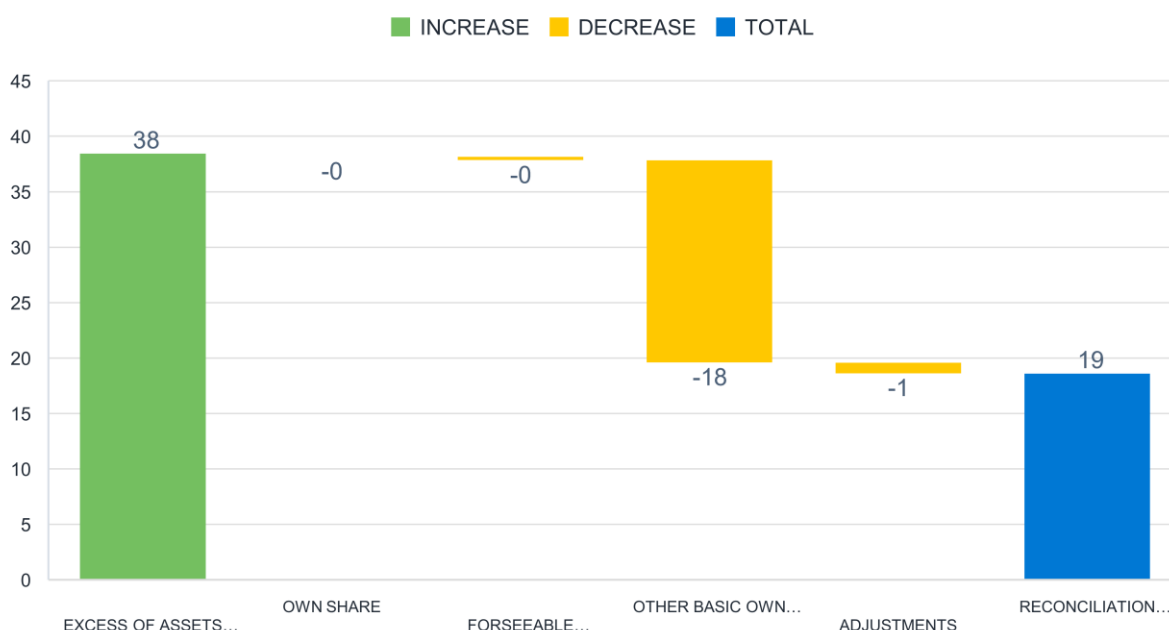
FIGURE 9: COMPONENTS OF BASIC OWN FUNDS AS AT YEAR-END 2022



We have also looked at the split of ancillary own funds by type. We observe that, as at year-end 2022, 67% (66% as at year-end 2021) of ancillary own funds comprises letters of credit and guarantees, with other ancillary own funds making up the rest. Most of the total value of letters of credit and guarantees comes from AIG, which has held £400 million at both 2021 and 2022 year-ends in letters of credit (one for £300 million and one for £100 million). These count as Tier 2 capital in the solvency calculations, subject to eligibility rules. For the companies included in our sample, ancillary own funds were far less common than basic own funds, with 97% of total eligible own funds comprising basic own funds.

The breakdown of the reconciliation reserve as at year-end 2022 is shown in Figure 10. The reconciliation reserve is constructed from the excess of assets over liabilities, with deductions made for own shares, foreseeable dividends, other basic own fund items and adjustments (for restricted own funds items in respect of matching adjustment portfolios, and ring-fenced funds).

FIGURE 10: BREAKDOWN OF THE RECONCILIATION RESERVE AS AT YEAR-END 2022



The breakdown of the reconciliation reserve is very similar to that observed as at the 2021 year-end, including no impact for own shares. Foreseeable dividends and adjustments act to decrease the reconciliation reserve less so than at year-end 2021, and vice versa for other basic own funds.

We note in passing that the expected profits included in future premiums represent 21% of the overall reconciliation reserve. This is higher than the equivalent figure (16%) as at the 2021 year-end.

ANALYSIS OF MAIN BALANCE SHEET ITEMS
Assets

Investments in corporate and government bonds dominate the assets of the companies that we analysed, accounting for 59% of total investments. Beyond their attractive nature—regular payments allowing non-life insurers to match the future claims payments—such bonds are also less expensive in terms of capital than are more volatile assets such as equities. The remainder of investments is concentrated in collective investment undertakings (16%) and holdings in related undertakings (7%).

GOVERNMENT AND CORPORATE BONDS account for **59%** of the top 30 companies' financial investments

Figure 11 shows how the split of assets, by asset class, has changed between the 2021 and 2022 year-ends for the top 30 companies (defined in terms of GWP) included in our sample. Figure 12 shows the equivalent, but for companies excluding the top 30 companies.

FIGURE 11: SPLIT OF INVESTMENTS BY ASSET CLASS AS AT YEAR-ENDS 2021 AND 2022 (TOP 30 BY GWP)

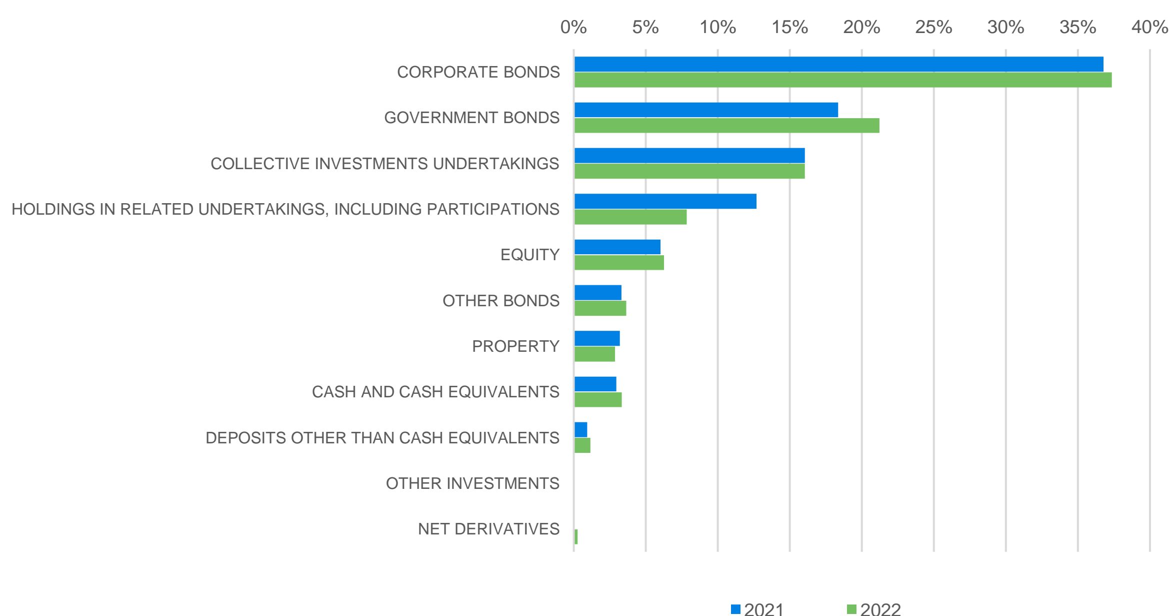
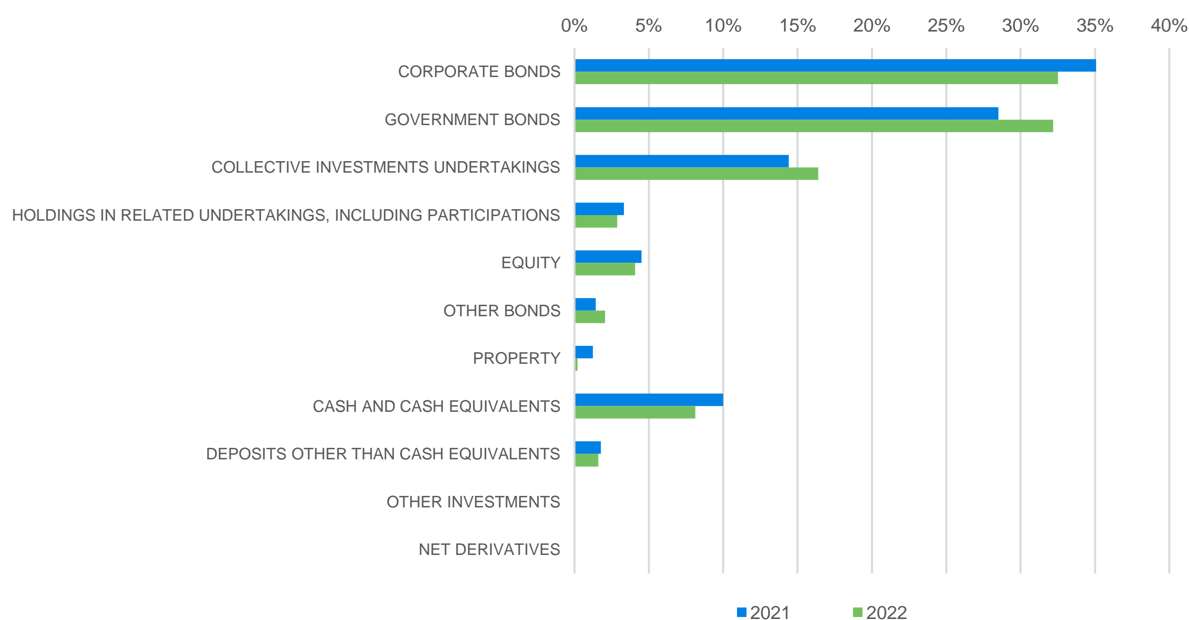


FIGURE 12: SPLIT OF INVESTMENTS BY ASSET CLASS AS AT YEAR-ENDS 2021 AND 2022 (EXCLUDING TOP 30 BY GWP)



We can see from Figures 11 and 12 that the mix of assets varies by the size of the company. As one would expect, larger firms hold a higher share of their invested assets in participations than do smaller firms. On the other hand, smaller insurers hold higher proportions of their assets in cash and deposits (such assets are more liquid and less risky, but provide lower returns).

We note from Figure 11 that, over the year, in general, larger insurers have increased the proportions of their assets invested in bonds (both government and corporate) and equities, while smaller insurers have increased their proportions invested in government bonds from their level at year-end 2021 but decreased their proportions invested in corporate bonds.

Larger insurers have reduced their proportions invested in holdings in related undertakings significantly from year-end 2021. This reduction is mainly due to RSA reducing its holding in related undertakings from £5,173 million at year-end 2021 to £1,133 million at year-end 2022.

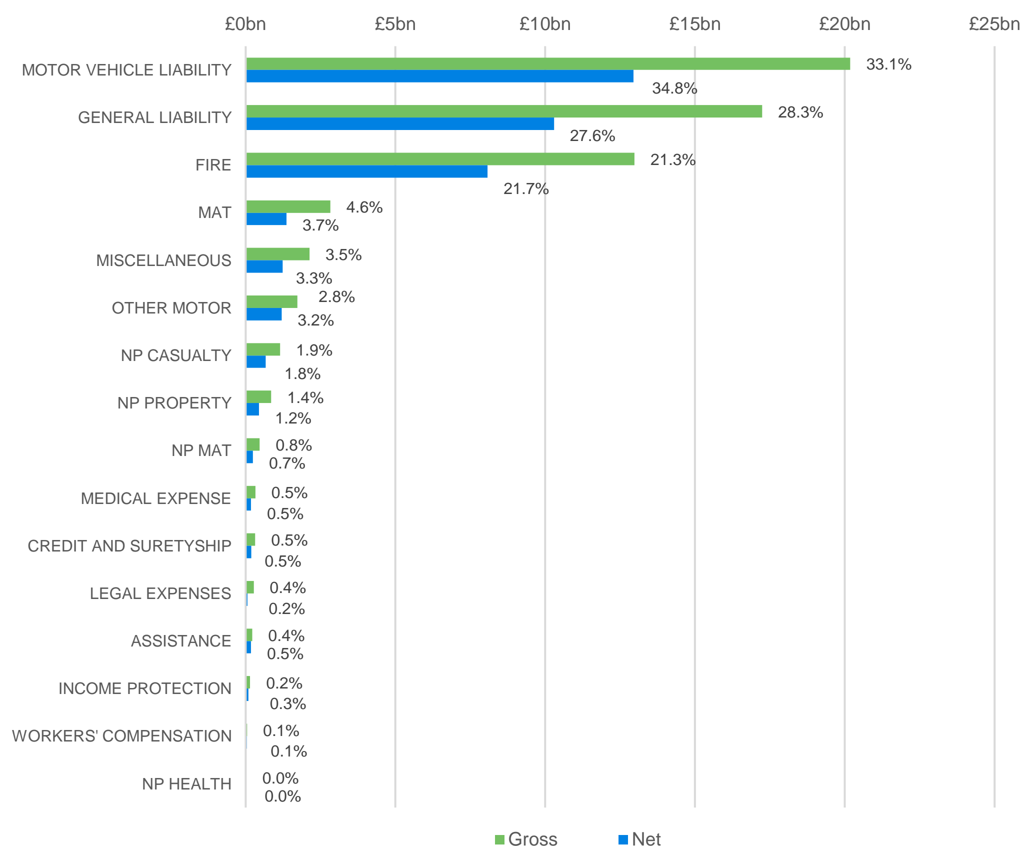
In general, as expected and as demonstrated by Figures 11 and 12, larger firms tend to hold a higher share of their invested assets in equities than do smaller firms. However, there are examples of smaller firms which have material proportions of their assets invested in equities. FM Insurance has investment holdings in equity which amount to 25% of its total asset holding. Methodist Insurance has an even greater proportion of equity holdings, of 41%. However, Methodist Insurance’s proportion of total asset value invested in equities reduced by 14% over the last year, due to adverse performance resulting from Russia’s invasion of Ukraine.

From year-end 2018 to year-end 2022, we have observed a roughly decreasing trend in the proportion of equities held by larger firms, from around 9% of total assets held to 6%. We also note that the difference between larger and smaller firms in the proportions invested in equities stayed roughly the same at year-end 2022 as year-end 2021 (6% invested for larger firms and 4% invested for smaller firms). Some larger firms, such as NFU Mutual, have increased the proportion of their assets invested in equities over the course of 2022 (26.1% as at year-end 2022, up from 22.5% as at year-end 2021).

Technical provisions

Figure 13 shows the composition of technical provisions across non-life lines of business (as categorised under Solvency II) as at the 2022 year-end.

FIGURE 13: TECHNICAL PROVISIONS (EXCLUDING THE RISK MARGIN) AS AT YEAR-END 2022, SPLIT BY SOLVENCY II LINE OF BUSINESS[8]



The 88 insurers included in our sample have technical provisions (excluding the risk margin) totalling £61 billion, gross of reinsurance, and £37 billion net of reinsurance. In comparison to year-end 2021, gross technical provisions totalled £59 billion and net technical provisions totalled £36 billion, for the companies in our sample. Sixty-one percent of the gross technical provisions and 62% of the net technical provisions are in respect of the long-tail business lines of business, i.e., general liability and motor vehicle liability. The equivalent gross and net figures at 2021 year-end were 65% and 66%, respectively.

As at the 2022 year-end, the technical provisions in respect of annuities stemming from non-life insurance contracts (these have not been included in Figure 13) were £2.5 billion, gross of reinsurance, and £0.9 billion, net of reinsurance. These annuities mainly relate to Periodic Payment Order (PPOs) liabilities and are a key component of UK non-life firms' liabilities (ranking fifth in terms of gross technical provisions). Figure 14 shows the technical provisions in respect of annuities stemming from non-life insurance contracts as a proportion of the technical provisions for motor vehicle liability, both gross and net, and how this has changed relative to the 2020 and 2021 year-ends.

8 'NP' refers to non-proportional reinsurance.

FIGURE 14: PROPORTION OF TECHNICAL PROVISIONS FOR MOTOR VEHICLE LIABILITY BUSINESS IN RESPECT OF ANNUITIES AS AT YEAR-ENDS 2020, 2021, & 2022 (£ MILLIONS)

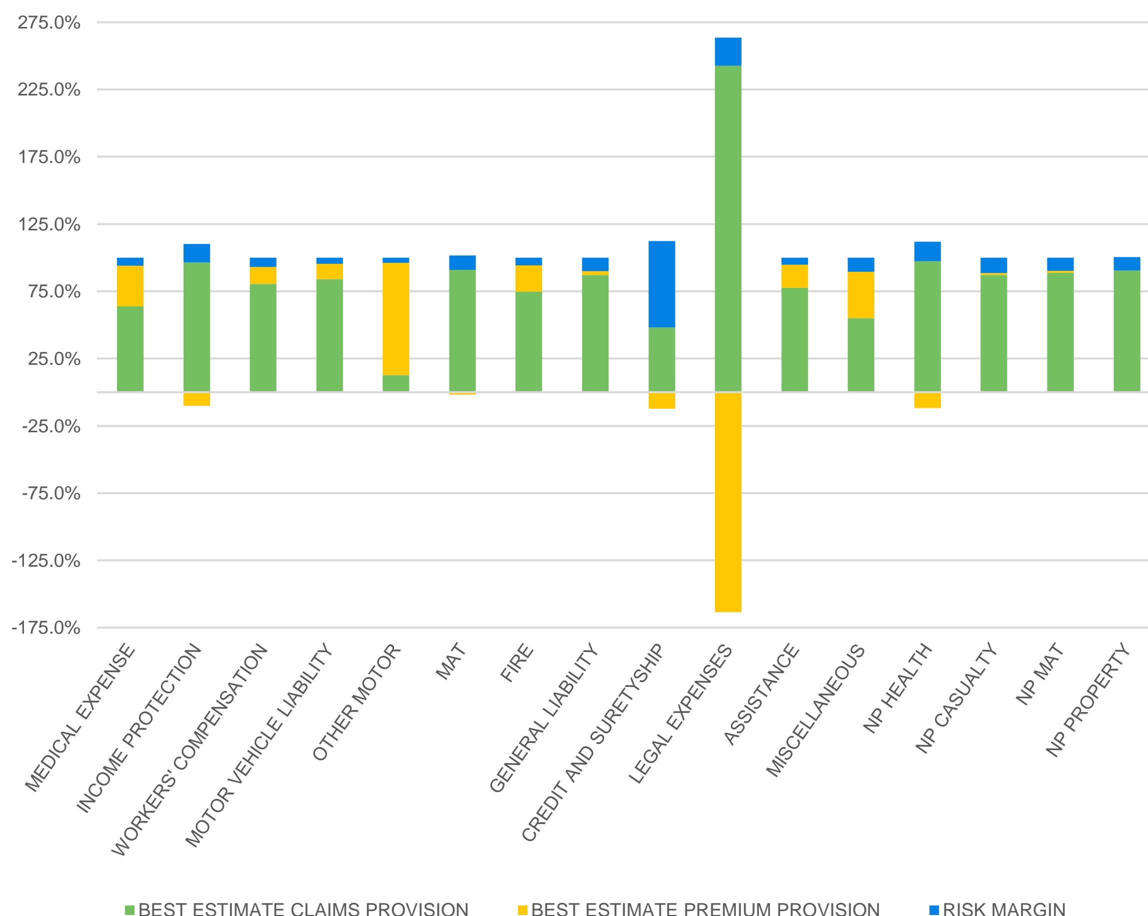
		MOTOR VEHICLE LIABILITY TECHNICAL PROVISIONS	TECHNICAL PROVISIONS IN RESPECT OF ANNUITIES	PROPORTION
GROSS	2020	20,532	3,445	16.8%
	2021	20,731	3,488	16.8%
	2022	20,180	2,467	12.2%
NET	2020	13,405	1,163	8.7%
	2021	13,248	1,216	9.2%
	2022	12,944	938	7.2%

Technical provisions in respect of annuities have decreased from year-end 2021 to 2022 in absolute terms and as a proportion of motor vehicle liability technical provisions, both gross and net of reinsurance. This may be as a result of an increase in the risk free yield curve used to discount Solvency II technical provisions, which would dilute the effect of inflation on the present value of future PPO payments.

Figure 15 sets out the component elements of the net technical provisions. It shows that, for most lines of business, the best estimate of claims provisions represents the biggest part of the Solvency II technical provisions.

The best estimates shown here include allowance for claims events not in the data (ENIDs) and are discounted at the appropriate rate.

FIGURE 15: COMPONENTS OF NET TECHNICAL PROVISIONS AS AT YEAR-END 2022

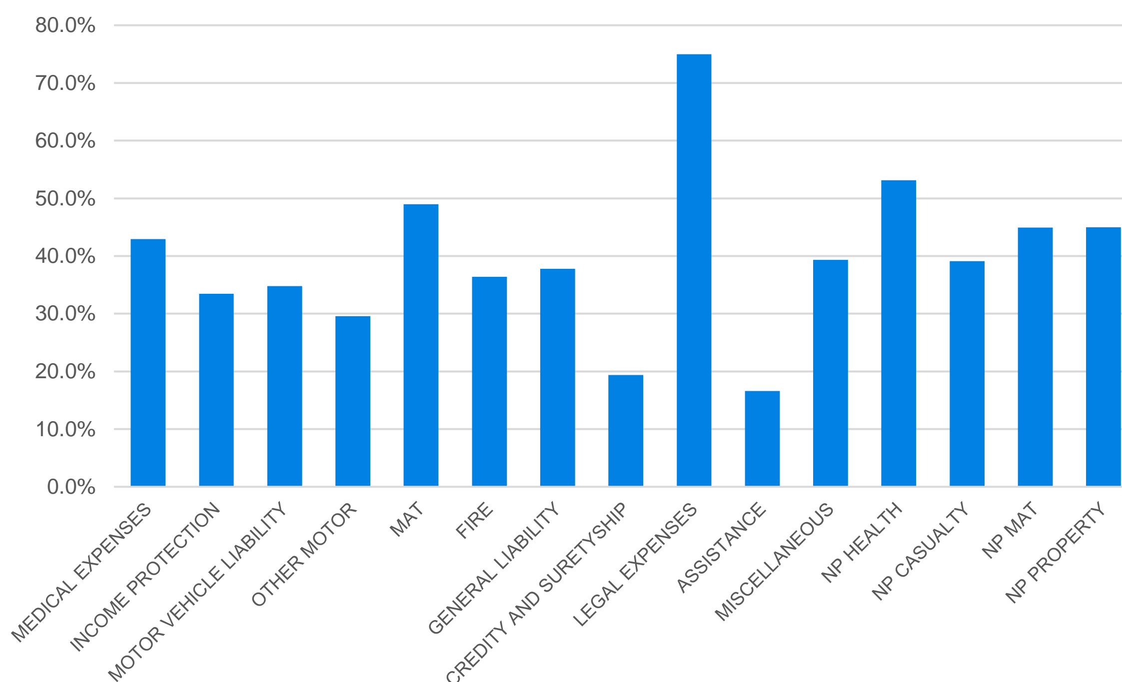


The following lines of business show negative best estimates of premium provisions: income protection, credit and suretyship, legal expenses, NP health and NP property. We note that, for legal expenses, the premium provision component of the technical provisions reaches approximately -163%, while the claims provision component reaches approximately 243%.[9] On the other hand, the best estimate of premium provisions for other motor is materially higher than the best estimate of claims provisions, which reflects the short-term nature of many of the outstanding claims liabilities within this category.

Reinsurance is widely used by UK non-life insurers, with reinsurance recoverables equal to 37.0% of the non-life technical provisions (gross of reinsurance) as at the 2022 year-end, aggregated across the 88 non-life insurers. This is an increase of 0.5% on the proportion as at year-end 2021.

Figure 16 shows the reinsurance recoverables as a percentage of the gross technical provisions for each of the main Solvency II lines of business as at year-end 2022.

FIGURE 16: REINSURANCE RECOVERABLES AS PERCENTAGES OF GROSS TECHNICAL PROVISIONS AS AT YEAR-END 2022



The lines of business with the highest ceded level of reinsurance both at year-end 2022 and year-end 2021 were legal expenses (75% in 2022, 73% in 2021). The assistance line of business has the lowest ceded level of reinsurance as at both year-ends 2022 and 2021 (17% in 2022, 9% in 2021). The largest positive percentage movement in the last year in comparison to the previous ceded level of reinsurance is for the line of business miscellaneous financial loss, which moved from being 26% ceded to 39% ceded, an increase of 13%. This is mainly due to an increase in the ceded proportion of NHBC's business. Specifically, this is due to an increase in the whole-of-account quota share cession percentage being applied to the most recent underwriting year. The largest negative percentage movement in the last year in comparison to the previous ceded level of reinsurance is for the line of business NP MAT, which moved from being 53% ceded to 45% ceded, a decrease of 9%. This is largely due to Markel and HCC reducing their overall ceded proportions.

9 We note that Allianz, DAS Legal Expenses and Markel contribute a large proportion of both the aggregate premium and claims provisions for the legal expenses line of business. Were these three companies to be excluded from the data, the aggregate premium provision for legal expense cover across the remaining companies would have been -15.9% of the overall technical provision, and the claims provision would have been 107.9% of the total technical provision.

Figure 17 shows how the risk margin as a proportion of the net technical provisions for each Solvency II line of business has changed between the 2021 and 2022 year-ends.

FIGURE 17: RATIO OF RISK MARGIN TO NET TECHNICAL PROVISIONS BY PRODUCT GROUP AS AT YEAR-ENDS 2021 AND 2022

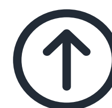
SOLVENCY II LINE OF BUSINESS	RISK MARGIN / NET TECHNICAL PROVISIONS	
	2022	2021
CREDIT AND SURETYSHIP	64.2%	70.7%
LEGAL EXPENSE	20.8%	19.5%
NP HEALTH	14.5%	7.1%
INCOME PROTECTION	14.0%	10.6%
NP CASUALTY	11.4%	13.2%
MAT	10.8%	9.7%
MISCELLANEOUS	10.4%	9.0%
GENERAL LIABILITY	10.0%	11.2%
NP PROPERTY	10.0%	11.0%
NP MAT	9.9%	13.3%
WORKERS' COMPENSATION	6.8%	6.9%
FIRE & OTHER DAMAGE	5.8%	6.1%
MEDICAL EXPENSE	5.8%	5.8%
ASSISTANCE	5.3%	6.3%
MOTOR VEHICLE LIABILITY	4.6%	5.8%
OTHER MOTOR	3.9%	5.1%
TOTAL	7.9%	9.0%

We note that, for more than half of the lines of business, the risk margin has decreased from year-end 2021 to year-end 2022, with the largest decrease seen in credit and suretyship.

On an aggregated basis, the risk margin represents 7.9% of the net technical provisions. This is lower than the equivalent figure as at year-end 2021, of 9.0%.

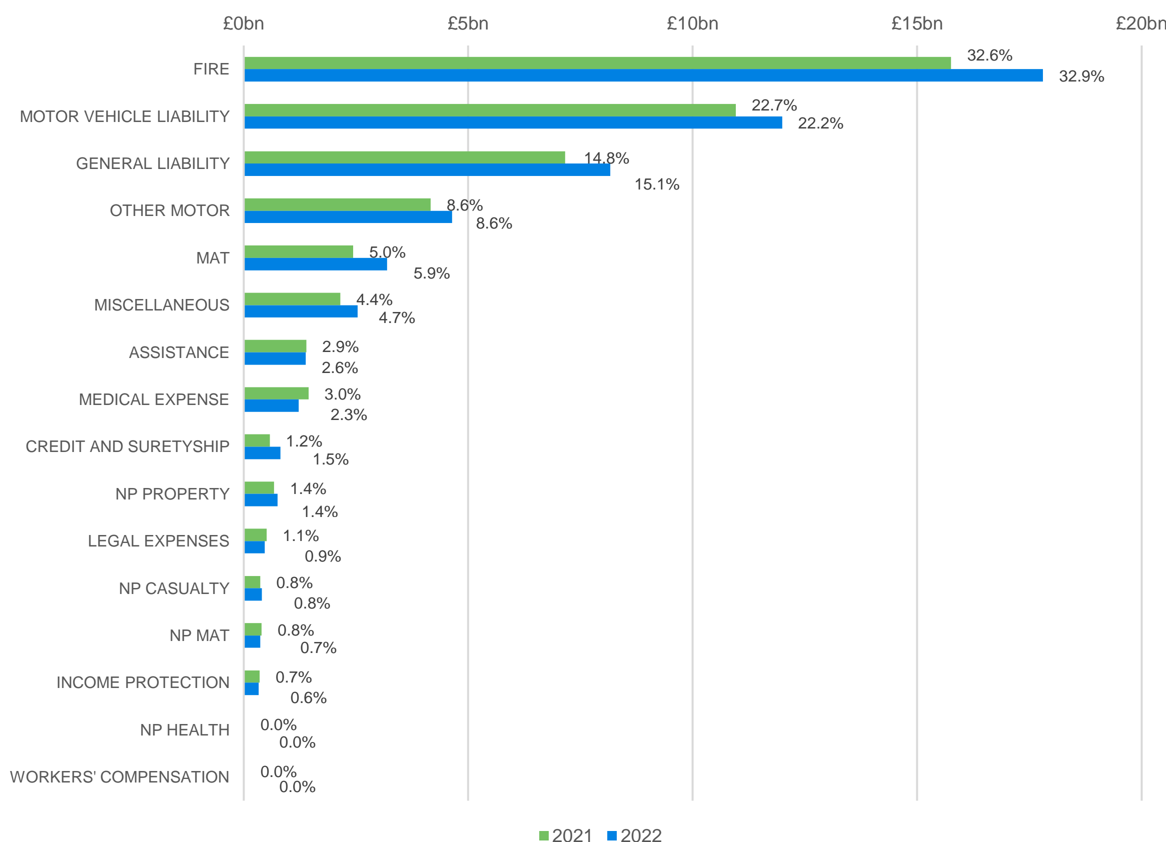
ANALYSIS OF UNDERWRITING

In 2022, our sample of UK non-life insurers wrote over £54 billion of gross premiums, increasing from £48 billion in 2021. The increases were mainly observed in fire, motor vehicle liability and general liability; over £4 billion of the increase in GWP across the last year was seen in these lines. Medical expense insurance saw the largest decrease in 2022, with GWP reducing by £218 million. Thirty-three percent of the premium written relates to fire covers, with 22% relating to motor liability and 15% general liability, these last two lines being the main contributors of technical provisions. We illustrate the GWP by line of business in Figure 18, with percentages of premium written that year shown next to each item.



GROSS WRITTEN PREMIUMS for non-life insurance have INCREASED over the year

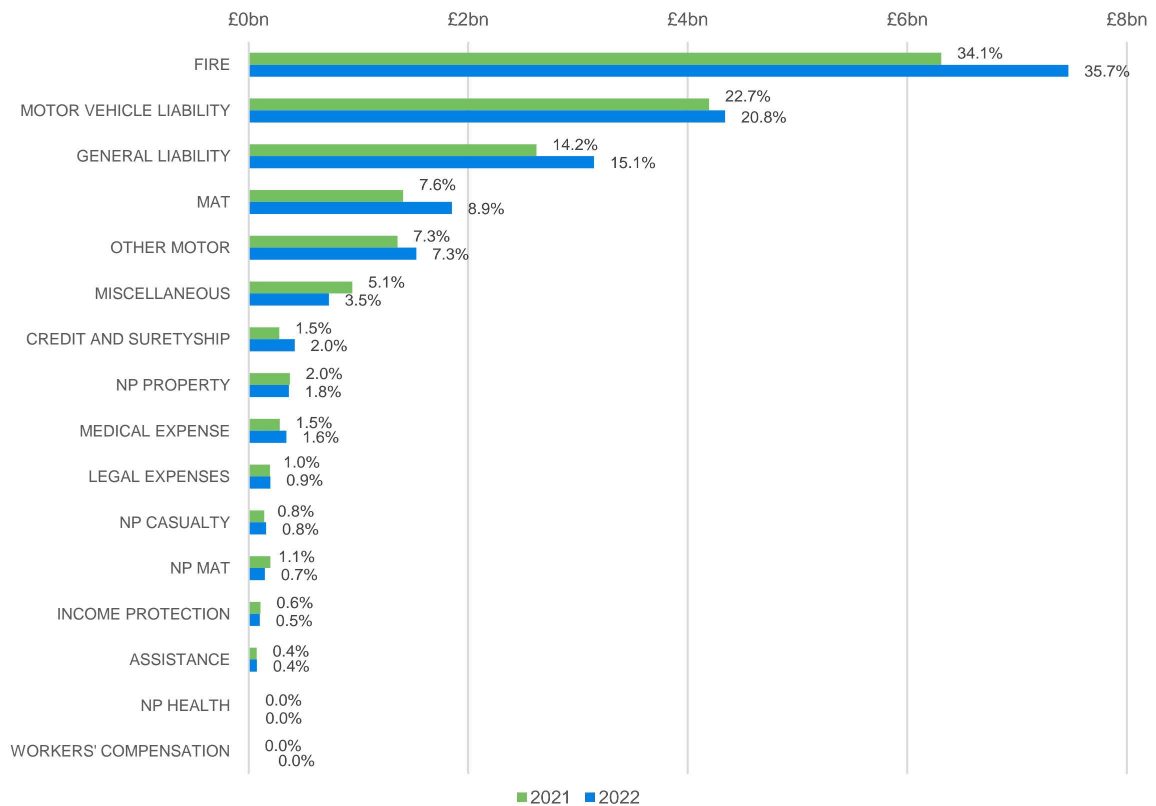
FIGURE 18: GROSS WRITTEN PREMIUMS IN 2022 BY LINE OF BUSINESS



FIRE & OTHER DAMAGE TO PROPERTY AND MOTOR VEHICLE LIABILITY 57% account for the largest volume of ceded premiums

In 2022, our sample of UK non-life insurers ceded over £21 billion of reinsurance premiums, increasing from £18 billion in 2021. The greatest increase over the year was seen in fire (£1.2 billion), with notable increases in general liability (£0.5 billion) and MAT (£0.4 billion). All lines of business experienced increases in their ceded reinsurance premiums with the exception of miscellaneous, NP property, NP MAT and income protection. In our sample, 36% of the ceded premiums relate to fire covers, with 21% relating to motor vehicle liability and 15% to general liability. We illustrate this in Figure 19.

FIGURE 19: CEDED REINSURANCE PREMIUMS IN 2022 BY LINE OF BUSINESS



In Figure 20, we show the gross and net of reinsurance loss ratios by line of business (sorted by GWP volumes, as per Figure 18).

FIGURE 20: GROSS AND NET LOSS RATIOS BY LINE OF BUSINESS AS AT YEAR-END 2022

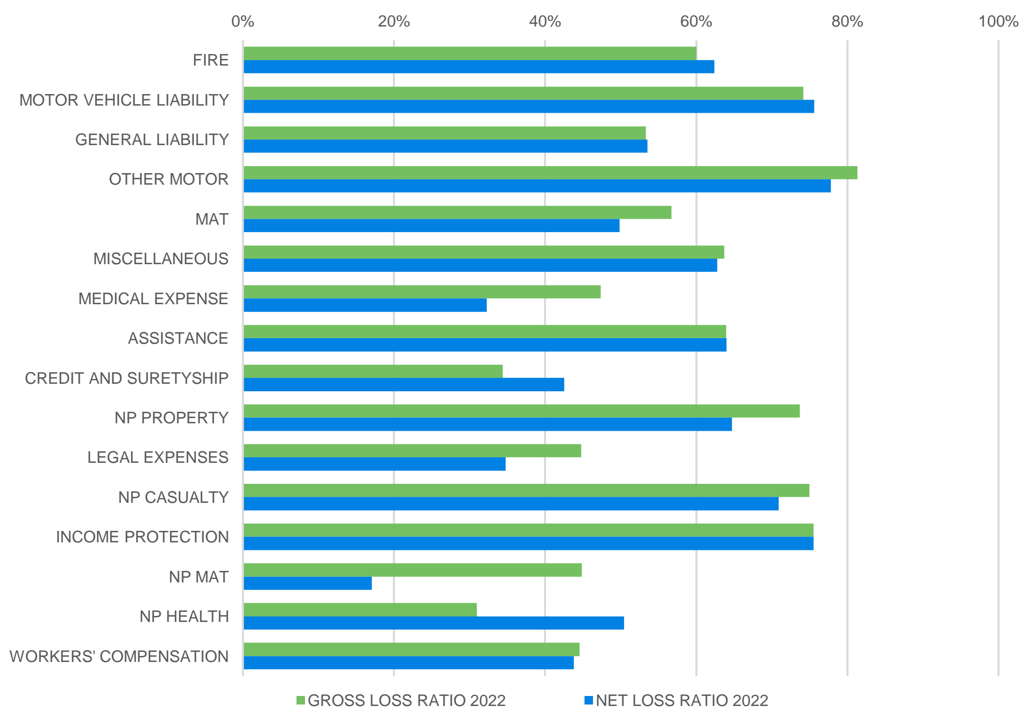
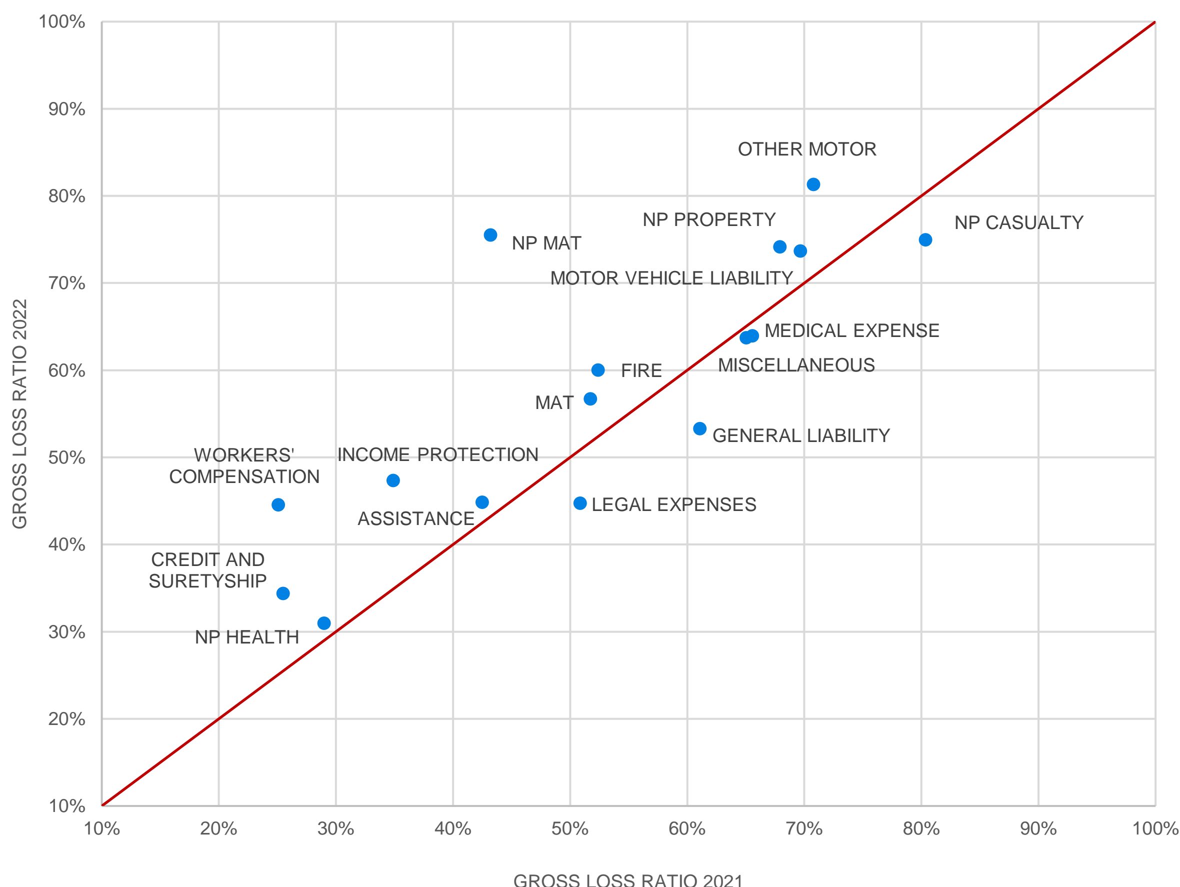


Figure 21 shows the changes in the gross loss ratios between year-end 2021 and year-end 2022. For those lines of business above the diagonal line, the gross loss ratios increased in 2022 relative to the equivalent gross loss ratios in 2021. Conversely, if a line of business lies below the line, its gross loss ratio reduced in 2022 relative to 2021. The loss ratios shown are on a calendar-year basis, and therefore reflect the gross loss ratio for the risks exposed during the calendar year, adjusted by any strengthening or weakening of the outstanding claims reserves relating to prior years' exposure.

FIGURE 21: GROSS LOSS RATIOS BY LINE OF BUSINESS, FOR CALENDAR YEARS 2021 AND 2022[10]

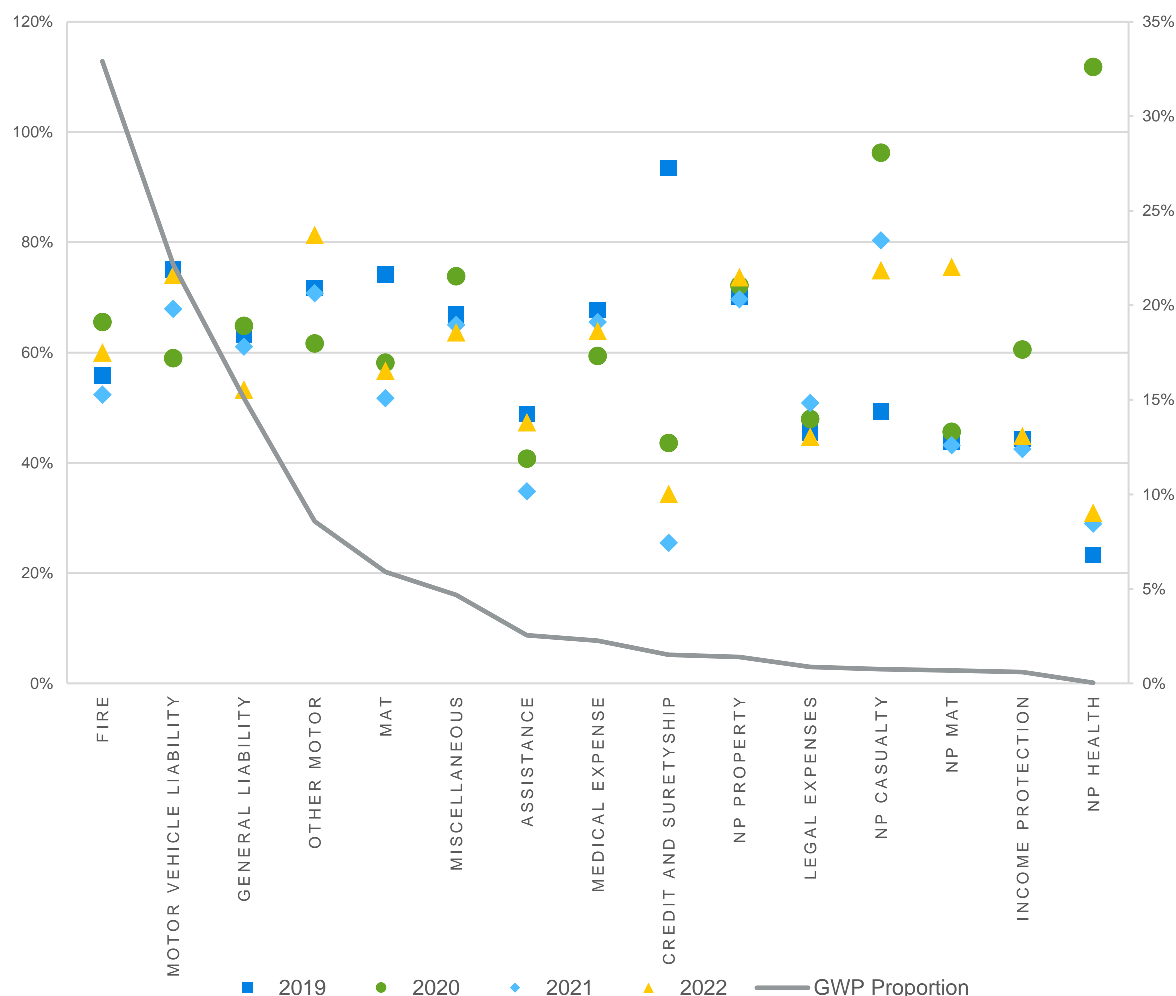


We note that more lines of business have seen increasing loss ratios over the year rather than lowered loss ratios. NP MAT has seen an increase over the past year of 32%. This is due to QBE reducing its exposure to this line of business over the year, while it operated on a favourable loss ratio. Removing this section of business from the total loss ratio calculated for NP MAT contributed significantly to its increase. Workers' compensation insurance also saw a large increase in the loss ratio of 19%, but the total values of gross premiums and claims are, by a long distance, the smallest in our sample, so we may expect the figures to carry more volatility year-on-year. In 2022, the gross incurred losses reduced significantly for medical expense insurance, from £930 million to £800 million. Premiums also reduced significantly, from £1,419 million to £1,252 million. Both premium and claim movements were driven by large reductions to both by Royal and Sun Alliance. Interestingly, the gross earned premiums for general liability increased by £1,208 million over the last year but claims only increased by £137 million. We also note that general liability experienced the largest decrease in its loss ratio, gross of reinsurance; the loss ratios were 61% for calendar year 2021 and 53% for calendar year 2022. Fire, the largest class in terms of GWP, had unfavourable movements of 8% in its gross loss ratio.

10 In Figure 21, the gross loss ratio for miscellaneous is 65% for 2021 and 64% for 2022, while for medical expense the gross loss ratio is 66% for 2021 and 64% for 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 21 overlap each other

We show in Figure 22 the development of the gross loss ratios for all lines of business over the last four years. The grey line indicates the GWP for the lines of business as a proportion of the total GWP.

FIGURE 22: MOVEMENT OF GROSS LOSS RATIOS BY CALENDAR YEAR AND BY LINE OF BUSINESS



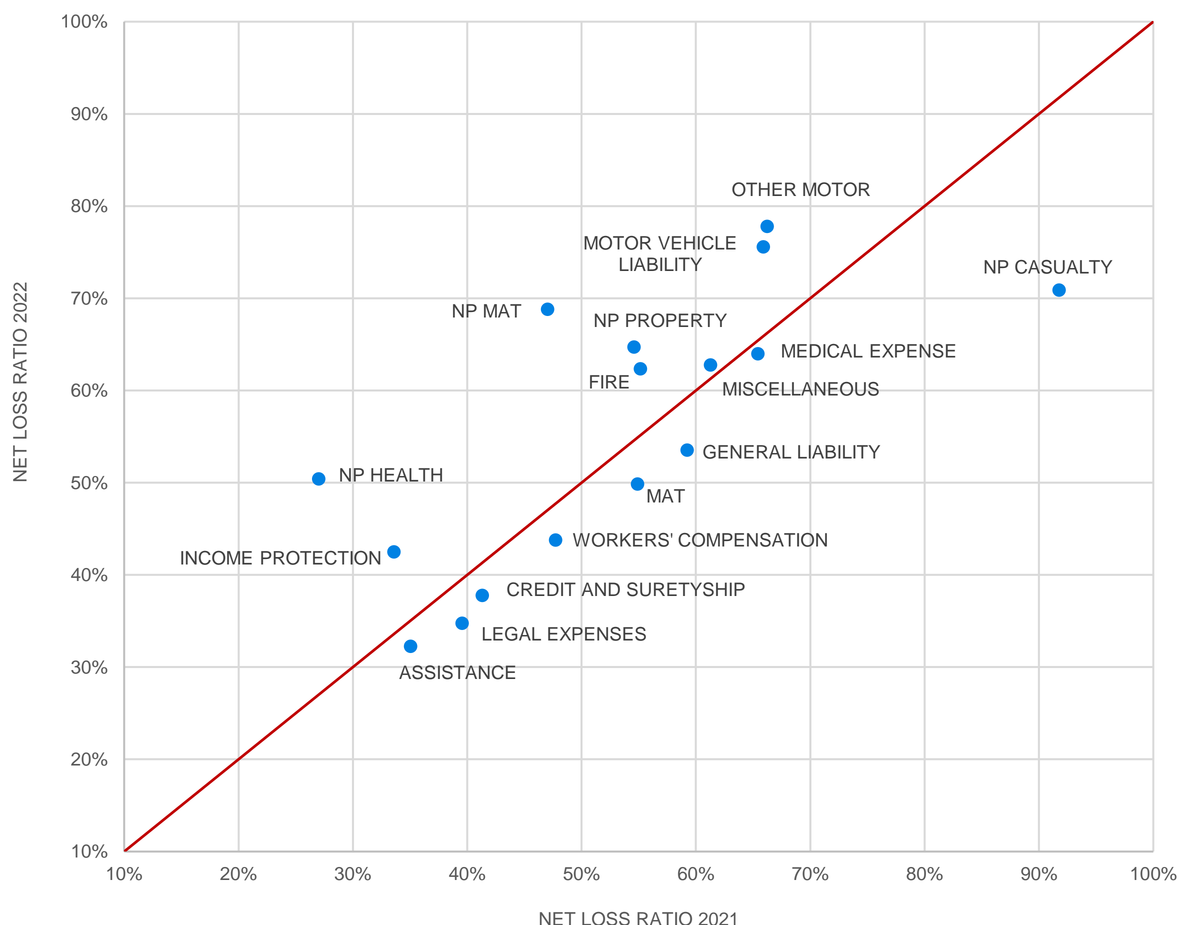
As one would expect, the lines of business that have the larger volumes of premiums have, in general, far less volatility in their gross loss ratios over the last four years.

We note that, for NP health, the gross loss ratio for year-end 2020 appears to be an outlier when compared to the prior three years. As can be observed in Figure 22, the premium volume for NP health is materially lower, leading to more volatility in the loss ratios.

The gross loss ratios for motor liability and other motor have increased between year-end 2020 and year-end 2022, from 59% to 74% and from 62% to 81%, respectively, both primarily driven by increases in incurred losses. Lockdown measures introduced in the UK during 2020 and in the first half of 2021 led to lower claim frequencies in motor, due to a reduction in the numbers of vehicles on the roads and some apparent changes in driving behaviour. With lockdown measures removed in the second half of 2021, road usage increased and claims experience returned towards pre-pandemic levels for motor vehicle liability business. In 2022, the gross loss ratio has surpassed pre-pandemic levels for other motor business. A contributing factor to the increase in the gross loss ratio in the last year for motor vehicle liability and other motor may be the persistent inflationary economic environment experienced throughout 2022.

Figure 23 shows the changes in the net loss ratios between year-end 2021 and year-end 2022. Similar to the gross loss ratios, the net loss ratios shown are on a calendar-year basis, and therefore reflect the net loss ratio for the risks exposed during the calendar year, adjusted by any strengthening or weakening of the outstanding claims reserves relating to prior years' exposure.

FIGURE 23: NET LOSS RATIOS BY LINE OF BUSINESS, FOR CALENDAR YEARS 2021 AND 2022

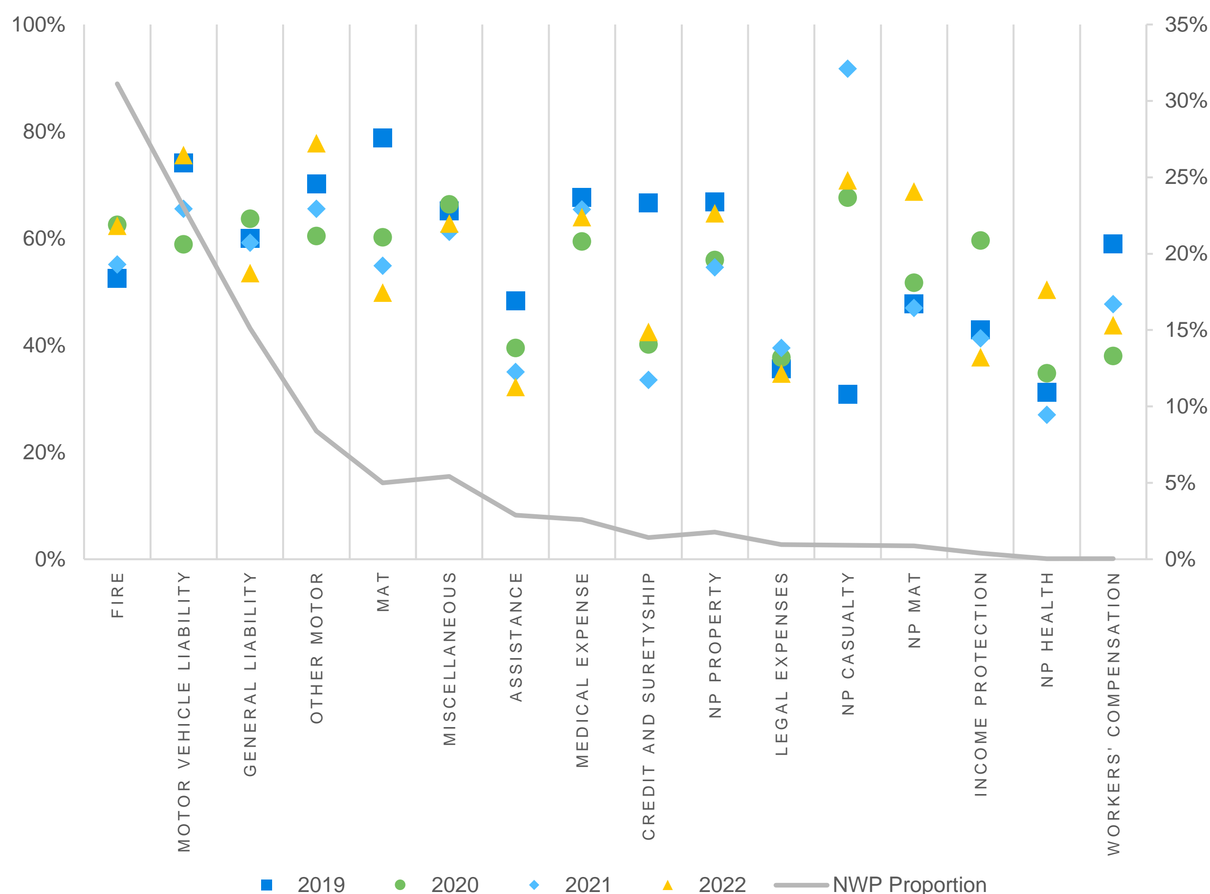


Figures 21 and 23 paint a similar picture in that, generally, the lines of business above the line in one figure are also above the line in the other, and similarly regarding those lines of business below the line. However, their positions differ between the two figures, reflecting the use and effectiveness of reinsurance within each line of business.

We observe that the largest increase in net loss ratios, between year-end 2021 and year-end 2022, were for NP MAT and NP health, with the loss ratios increasing from 47% to 69%, and from 27% to 50%, respectively. As noted above, the premium volume for NP health is materially lower than those for the other lines of business, leading to more volatility in the loss ratios. Conversely, the largest reduction is seen in NP casualty, with the net loss ratio reducing from 92% to 71% over 2022. Both these large increases and decreases in movement on non-proportional lines of business may indicate their inherent volatile nature.

We show in Figure 24 the development of the net loss ratios for all lines of business over the last four years. The grey line indicates the net written premium (NWP) for the lines of business as a proportion of the total NWP.

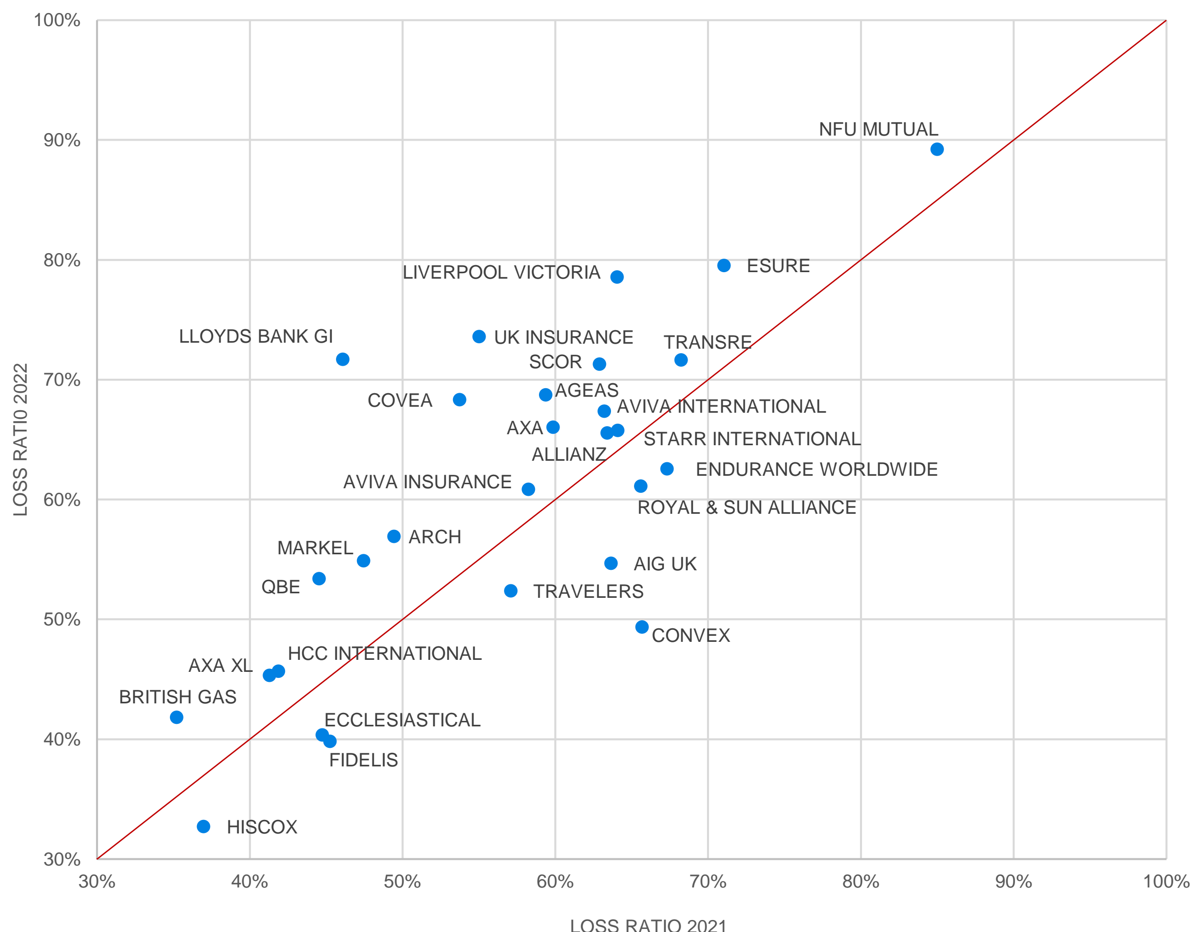
FIGURE 24: DEVELOPMENT OF NET LOSS RATIOS BY LINE OF BUSINESS



Figures 22 and 24 paint a similar picture in that the lines of business with the larger volumes of premiums have, in general, far less volatility in their loss ratios over the last four years.

Figure 25 shows the movements in the net loss ratio between year-end 2021 and year-end 2022 for the top 30 insurers (by GWP).

FIGURE 25: NET LOSS RATIOS FOR CALENDAR YEARS 2021 AND 2022, GWP TOP 30[11 12]



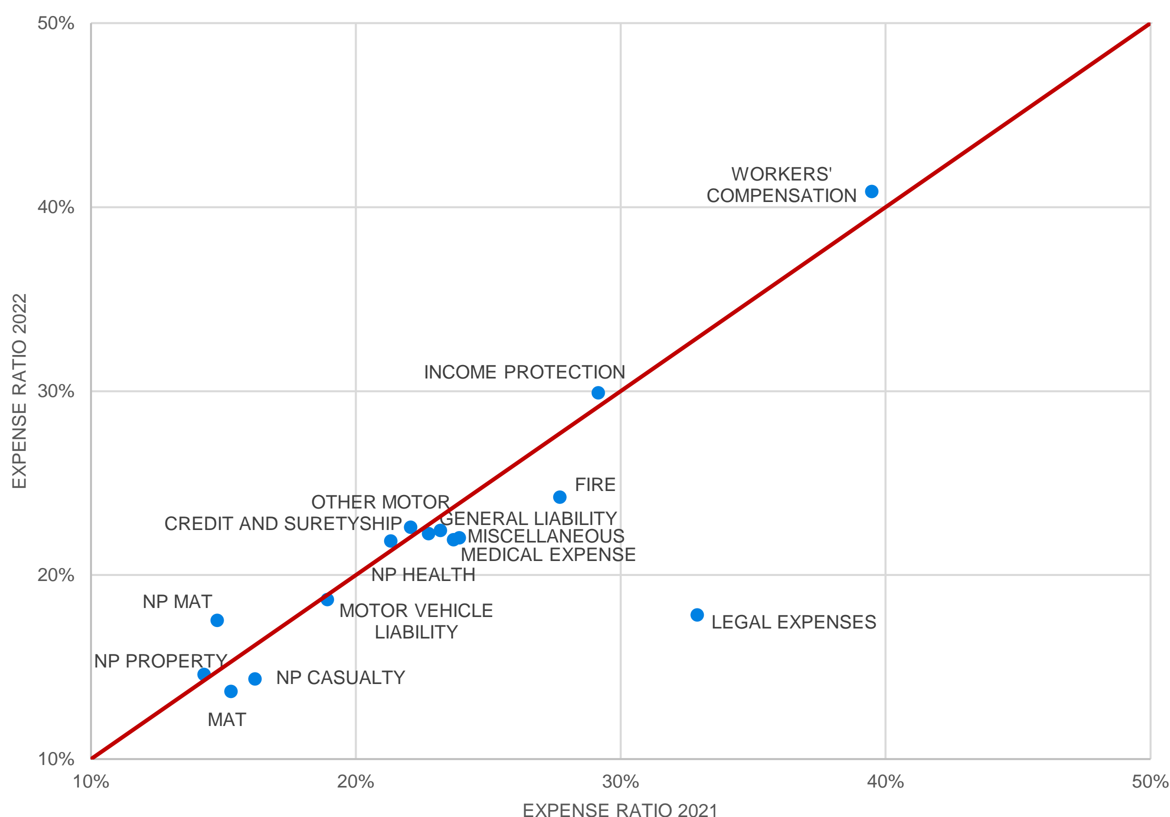
As shown in Figure 25, the movements in the net loss ratios between 2021 and 2022 were not significant for roughly a quarter of the insurers comprising the top 30 (i.e., those close to the diagonal), although some insurers experienced significantly movements in their net loss ratios, with seven experiencing movements greater than +/- 15%.

11 We note that Skyfire has been omitted from this graph as the net loss ratio was 343% in 2021. This fell to 191% in 2022.

12 In Figure 25, the net loss ratio for AXA XL is 41% for 2021 and 45% for 2022, while for HCC International the net loss ratio is 42% for 2021 and 46% for 2022. The net loss ratio for Ecclesiastical is 45% for 2021 and 40% for 2020, while for Fidelis the net loss ratio is 45% for 2021 and 40% for 2022. Due to the close proximity of these ratios, the relevant dots in Figure 25 overlap each other

Figure 26 shows the changes in the expense ratios between year-end 2021 and year-end 2022.

FIGURE 26: EXPENSE RATIOS FOR CALENDAR YEARS 2021 AND 2022[13]

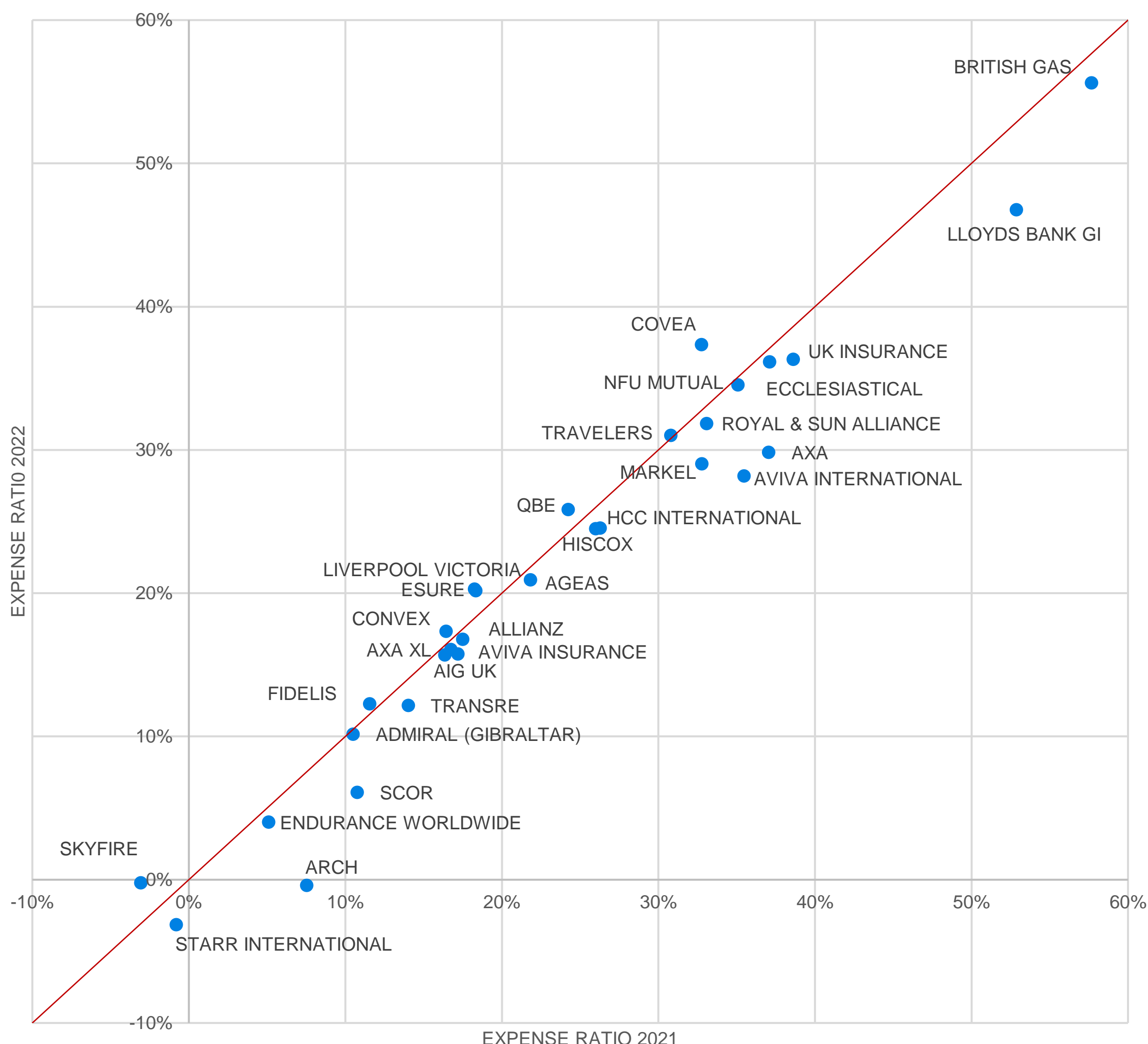


As shown in Figure 26, the movements in the expense ratio between 2021 and 2022 were not significant for the majority of the lines of business. Legal expenses experienced the largest movement between year-end 2021 and year-end 2022, with the expense ratio reducing from 33% to 18%, driven by decrease in NFU Mutual's expenses for this line of business.

13 In Figure 26, the expense ratio for miscellaneous is 22% for 2021 and 23% for 2022, while for medical expense the expense ratio is 24% for 2021 and 22% for 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 26 overlap each other. Similarly, the expense ratio for NP Health is 23% for 2021 and 22% for 2022, while the expense ratio for General Liability is 24% for 2021 and 22% for 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 26 overlap each other.

Figure 27 shows the movements in the expense ratio between year-end 2021 and year-end 2022 for the top 30 insurers (by GWP).

FIGURE 27: EXPENSE RATIOS FOR CALENDAR YEARS 2021 AND 2022, GWP TOP 30[14]



As shown in Figure 27, the movements in the expense ratios between 2021 and 2022 were not significant for most insurers comprising the top 30 (i.e., those close to the diagonal). None of the top 30 insurers in our sample experienced a movement greater than +/-8% in 2022.

Covea experienced the largest adverse movement over the year, with its expense ratios increasing from 33% to 37%, with expenses increasing from £256 million to £320 million. This was across most of the lines of business it writes, but the largest contributors were motor vehicle liability and fire. Arch experienced the most favourable movement over the year, with their expense ratio reducing from 8% to approixmately 0%. The decrease in the expense ratio for Arch was driven by ceding a greater proportion of acqusition and operating expenses in 2022.

14 In Figure 27, the expense ratio for AXA XL is 16% in 2021 and 2022. For both Aviva Insurance and AIG, the expense ratios are 17% in 2021 and 16% in 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 27 overlap each other. Similarly, the expense ratio for Hiscox is 24% in 2021 and 26% in 2022. For HCC, the expense ratio is 26% in 2021 and 25% in 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 27 overlap each other. For Liverpool Victoria and esure the expense ratio is 18% in 2021 and 20% in 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 27 overlap each other.

In Figure 28, we show the operating margin in 2022 for each line of business on an aggregated basis for the insurers included in our panel (sorted by GWP volumes, as per Figure 18). For comparison purposes, we also show the equivalent figure for 2021. We define the operating margin as (net earned premium – net claims incurred – expenses incurred) / gross earned premium). We note that the operating margin as defined includes movements in prior year reserves (part of the net claims incurred) but does not include investment income.

FIGURE 28: OPERATING MARGINS IN 2022 (AND IN 2021) BY LINE OF BUSINESS

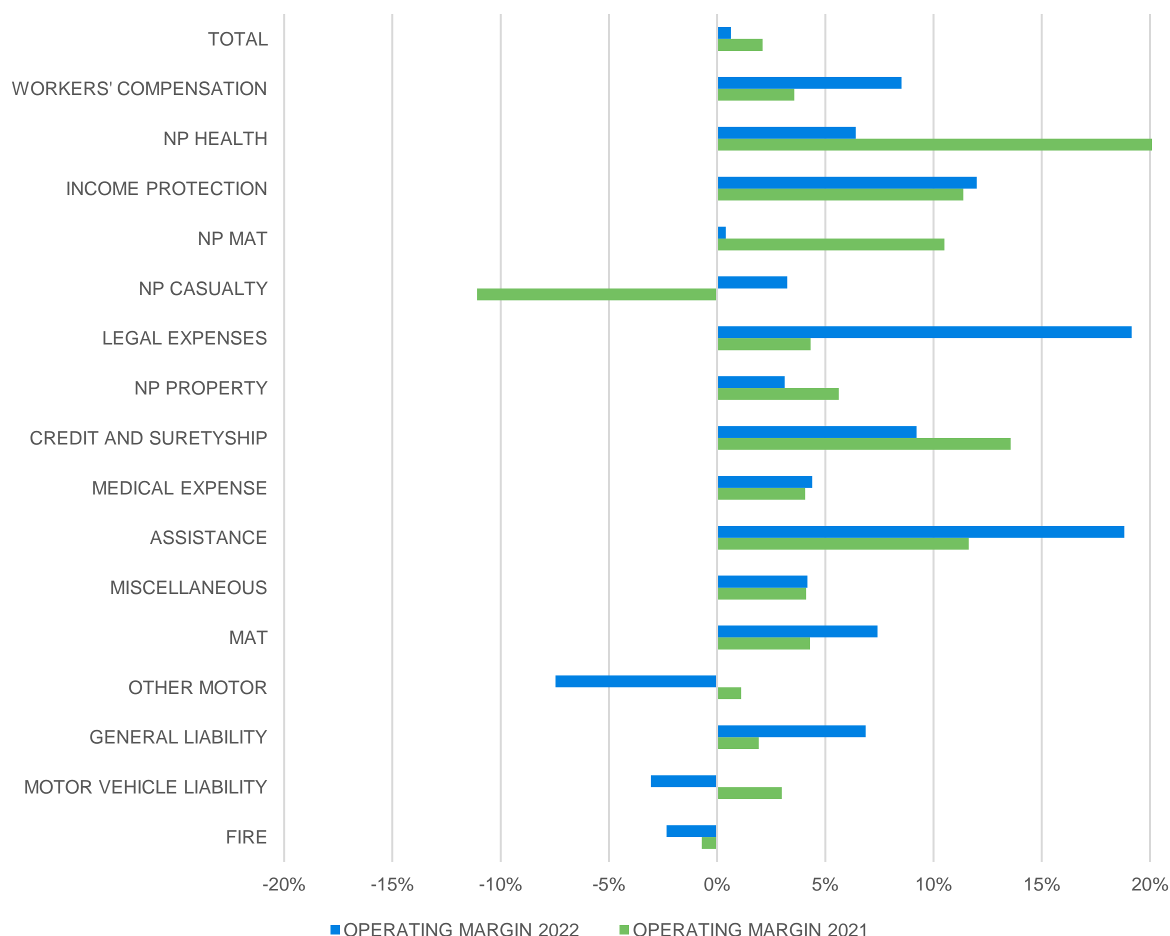


Figure 28 indicates that the following lines of business experienced negative operating margins in 2022: fire, motor vehicle liability and other motor. The four largest movers, positive or negative, are in the bottom six of gross earned premiums; therefore, these lines of business would be expected to experience a greater amount of volatility. Overall, the operating margin in 2022 as reported in the SFCRs was 0.6%. This compares with 2.1% in 2021.

Figure 29 shows the change in operating margin between 2021 and 2022 for the top 30 insurers by GWP. The operating margin in Figure 29 includes 'Other Expenses,' which are not attributed to administrative, investment management, claims management, acquisition or overhead expenses and thus are not allocated by line of business (i.e., they were excluded from the 'Operating Margin' ratios set out in Figure 28).

FIGURE 29: CHANGE IN OPERATING MARGIN BY YEAR, GWP TOP 30[15]

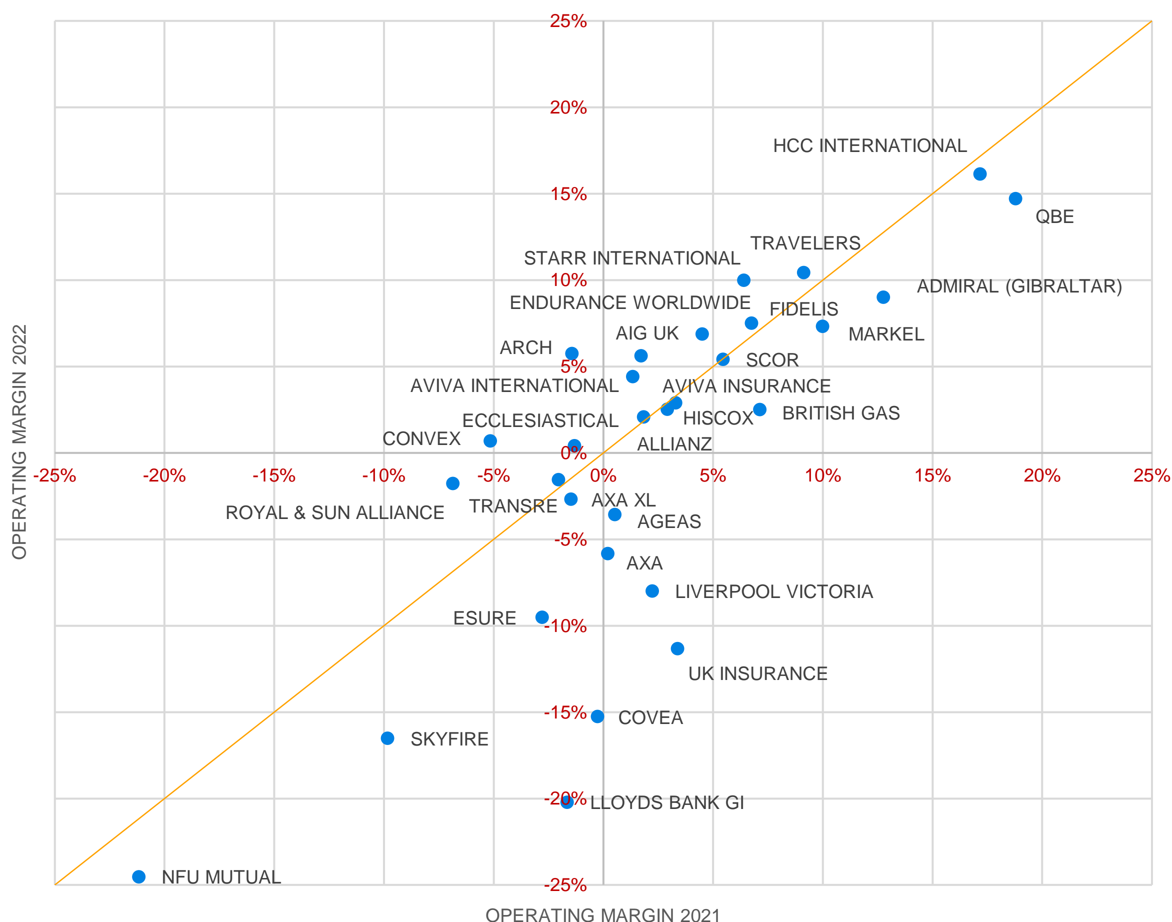


Figure 29 shows that many insurers' operating margins fell by significant amounts during 2022. Covea, Lloyd's Bank GI and UK Insurance all saw decreases to the operating margin of over 14%. Nearly all of these companies saw an increase to their gross incurred claims over 2022. As noted earlier in this report, incurred claim amounts include movements during the year in claims reserves relating to prior years' exposure.

Arch saw the largest increase to its operating margin, from -1% in 2021 to 6% in 2022. This is mainly due to its lower expense ratio, mentioned earlier in the report.

On the same basis as in Figure 29, the operating margin in 2022 for all insurers included in our analysis was 0.4% (1.1% for 2021). As noted above, with 'Other Expenses' excluded, the operating margin in 2022 was 0.6% (2.1% for 2021).

15 In Figure 29, the operating margin for Aviva Insurance is 2% in 2021 and 2% in 2022, while for Hiscox the operating margin is 3% in 2021 and 3% in 2022. Due to the close proximity of these two ratios, the relevant dots in Figure 29 overlap each other.

Appendix A:
List of entities whose data was included within the analysis

FULL NAME[16]	SHORT NAME USED IN THE REPORT
Acasta European Insurance Company Limited*	
Admiral Insurance (Gibraltar) Limited	Admiral (Gibraltar)
Admiral Insurance Company Limited	
Aetna Insurance Company Limited	
Ageas Insurance Limited	Ageas
AIG UK Limited	AIG
Aioi Nissay Dowa Insurance UK Limited*	Aioi Nissay Dowa
Allianz Insurance plc	Allianz
Ambac Assurance UK Limited	Ambac
AmTrust Europe Limited	AmTrust
Arch Insurance (UK) Limited	Arch
Assurant General Insurance Limited	
Assured Guaranty UK Limited	
Aviva Insurance Limited	Aviva Insurance
Aviva International Insurance Limited	Aviva International
Avon Insurance plc	
AXA Insurance UK plc	AXA
AXA XL Insurance Company UK Limited	AXA XL
Bar Mutual Indemnity Fund Limited	
Berkshire Hathaway International Insurance Limited*	Berkshire Hathaway
BHSF Limited	
British Gas Insurance Limited	British Gas
Calpe Insurance Company Limited	
CNA Insurance Company Limited*	CNA
Convex Insurance UK Limited	Convex
Cornish Mutual Assurance Company Limited	
Covea Insurance PLC	Covea
DARAG Insurance UK Limited	
DARAG Legacy UK Limited	
DAS Legal Expenses Insurance Company Limited	DAS Legal Expenses
Ecclesiastical Insurance Office plc	Ecclesiastical
Endurance Worldwide Insurance Limited	Endurance Worldwide
esure Insurance Limited	esure
Evolution Insurance Company Limited	
Fairmead Insurance Limited	
Fidelis Underwriting Limited	Fidelis
Financial & Legal Insurance Company Ltd	
First Title Insurance Plc	
FM Insurance Company Limited	FM
Gencon Insurance Company International Limited*	

16 *Companies that are in our sample as at year-end 2022 but were not in our sample as at year-end 2021.

FULL NAME[17]	SHORT NAME USED IN THE REPORT
Gresham Insurance Company Limited	
Haven Insurance Company Limited*	Haven
HCC International Insurance Company plc*	HCC International
Highway Insurance Company Limited	Highway
Hiscox Insurance Company Limited	Hiscox
Homecare Insurance Ltd*	
International General Insurance Company (UK) Limited	IGI UK
Lancashire Insurance Company (UK) Limited	Lancashire
Liverpool Victoria Insurance Company Limited	Liverpool Victoria
Lloyds Bank General Insurance Limited	Lloyd's Bank GI
London General Insurance Company Limited*	
LV Protection Limited*	
Markel International Insurance Company Limited	Markel International
Methodist Insurance Plc	Methodist Insurance
Mitsui Sumitomo Insurance Company (Europe) Limited	Mitsui Sumitomo
Motors Insurance Company Limited	Motors
Mulsanne Insurance Company Limited*	Mulsanne
Municipal Mutual Insurance Limited	Municipal Mutual
National House-Building Council	NHBC
QBE Insurance (Europe) Limited	QBE
RAC Insurance Limited	
Red Sands Insurance Company (Europe) Limited*	Red Sands
RiverStone Insurance (UK) Limited*	
Royal & Sun Alliance Insurance Limited	RSA
Royal & Sun Alliance Reinsurance Limited	
Sabre Insurance Company Limited	Sabre
Samsung Fire & Marine Insurance Company of Europe Limited	
SCOR UK Company Ltd	SCOR
Skyfire Insurance Company Limited*	Skyfire
Soteria Insurance Limited*	
St. Andrew's Insurance plc	
Starr International (Europe) Limited	Starr International
StarStone Insurance SE	
Stewart Title Limited	
Stonebridge International Insurance	
The Baptist Insurance Company Plc	
The Equine and Livestock Insurance Company Limited	
The Griffin Insurance Association Limited	
The Marine Insurance Company Limited	The Marine
The National Farmers Union Mutual Insurance Society Limited	NFU Mutual
The Ocean Marine Insurance Company Limited	The Ocean Marine
The Wren Insurance Association Limited	

17 *Companies that are in our sample as at year-end 2022 but were not in our sample as at year-end 2021.

FULL NAME[18]	SHORT NAME USED IN THE REPORT
Tradex Insurance Company Limited	
Trafalgar Insurance Limited	
TransRe London Limited	TransRe
Travelers Insurance Company Limited	Travelers
U K Insurance Limited	UK Insurance
Wausau Insurance Company (U.K.) Limited	Wausau

The following companies were included in our sample as at year-end 2021, but are not included in our sample as at year-end 2022.

- AA Underwriting Insurance Company Limited
- Acromas Insurance Company Limited
- Chubb European Group Limited
- Douglas Insurance (Gibraltar) Limited
- FGIC UK Ltd
- Guarantee Protection Insurance Limited
- Markerstudy Insurance Company Limited
- Millennium Insurance Company Limited
- Newline Insurance Company Limited
- Pinnacle Insurance plc
- PREMIUM Insurance Company Limited
- St Julians Insurance Company Limited
- TT Club Mutual Insurance Limited
- West Bay Insurance Plc[19]
- White Rock Insurance (Gibraltar) PCC Limited

18 *Companies that are in our sample as at year-end 2022 but were not in our sample as at year-end 2021.

19 Note that Zenith Insurance Plc has changed its name to West Bay Insurance Plc.

Appendix B: List of Solvency II lines of business

FULL NAME	SHORT NAME USED IN THE REPORT
Assistance	Assistance
Credit and suretyship insurance	Credit and suretyship
Fire and other damage to property insurance	Fire
General liability insurance	General liability
Income protection insurance	Income protection
Legal expenses insurance	Legal expenses
Marine, aviation, and transport insurance	MAT
Medical expense insurance	Medical expense
Miscellaneous financial loss	Miscellaneous
Motor vehicle liability insurance	Motor vehicle liability
Non-proportional reinsurance accepted / Casualty	NP casualty
Non-proportional reinsurance accepted / Health	NP health
Non-proportional reinsurance accepted / Marine, aviation, transport	NP MAT
Non-proportional reinsurance accepted / Property	NP property
Other motor insurance	Other motor
Workers' compensation insurance	Workers' compensation

Appendix C:
Solvency Coverage Ratios for the top 30 insurers

SHORT NAME	SOLVENCY COVERAGE RATIO AS AT YEAR-END 2020	SOLVENCY COVERAGE RATIO AS AT YEAR-END 2021	SOLVENCY COVERAGE RATIO AS AT YEAR-END 2022
Admiral (Gibraltar)	171%	131%	133%
Ageas	158%	159%	156%
AIG	138%	146%	169%
Allianz	152%	156%	174%
Arch	280%	201%	195%
Aviva Insurance	199%	209%	167%
Aviva International	169%	192%	214%
AXA	143%	156%	152%
AXA XL	141%	141%	139%
British Gas	155%	174%	152%
Convex	203%	168%	175%
Covea	136%	128%	124%
Ecclesiastical	197%	261%	297%
Endurance	182%	165%	171%
esure	165%	178%	135%
Fidelis	152%	149%	154%
HCC	177%	162%	145%
Hiscox	131%	153%	131%
Liverpool Victoria	178%	161%	123%
Lloyds Bank GI	177%	141%	143%
Markel	250%	266%	162%
NFU Mutual	203%	204%	218%
QBE	179%	139%	152%
RSA	204%	179%	177%
SCOR	175%	156%	137%
Skyfire	287%	143%	154%
Starr International	135%	158%	183%
TransRe	143%	139%	153%
Travelers	118%	128%	150%
UK Insurance	171%	160%	127%

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