Impact of rising interest rates globally: A blessing or a curse for the solvency position?

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Rapidly rising rates and high inflation have not had a "one-size-fits-all" impact on the solvency positions of life insurers. In this paper, we take you on a deep dive through various regions to showcase how those impacts have differed for life insurers across the globe.

The wide range of results demonstrate the unexpected opportunities that arise from the concentration of certain types of products (e.g., recurring premium products in Germany) or challenges from regulatory frameworks (e.g., mass lapse shock formulas in Italy). Despite the diversity of results, data points from this current environment will influence insurers and regulators for years to come with one uniform goal – staying solvent in turbulent times.

Benelux

For the Belgium, Netherlands and Luxembourg (Benelux) region, the year-end disclosures for the largest life insurers (Achmea, Aegon, Ageas, a.s.r., Athora and NN) have been analysed. Where information separate from the life insurance entity is not available, group figures are used as the basis for any observations. Life insurance entities analysed are:

- Achmea Pensioen-en Levensverzekering N.V. (Achmea life) [1]
- Aegon Levensverzekering N.V. (Aegon life) [2]
- ASR Levensverzekering N.V (a.s.r. life) [3]
- SRLEV N.V. (Athora life) [4]
- Nationale-Nederlanden Levensverzekering Maatschappij N.V. (NN life)[5]
- For Ageas, only group disclosures have been analysed (for Pillar 1 reporting under Solvency II) [6]

[1] Achmea life SFCR 2022. Retrieved 1 September 2023 from https://www.achmea.nl/-/media/achmea/documenten/investors/publicaties/2022/sfcr-2022-achmea-group.pdf.

[2] Aegon life SFCR 2022. Retrieved 1 September 2023 from https://www.aegon.nl/sites/default/files/2023-04/SFCR%202022%20-%20Aegon%20Levensverzekering_0.pdf.

[3] a.s.r. life SFCR 2022. Retrieved 1 September 2023 from https://www.asrnl.com/-/media/files/asrnederland-nl/investor-relations/jaarverslagen/2022/2022-asr-levensverzekering-nv-sfcr.pdf?la=en (PDF download).

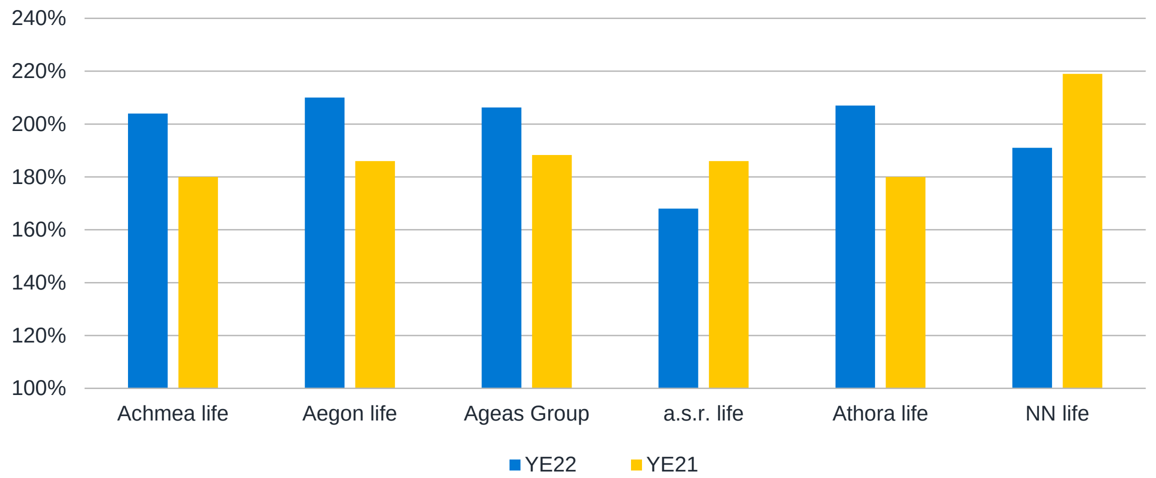
[4] Athora life SFCR 2022. Retrieved 1 September 2023 from https://www.athora.nl/496420/siteassets/reports/2022/solvency-financial-condition-report-2022-athora-netherlands-nv.pdf.

[5] NN life Annual Report 2022. Retrieved 1 September 2023 from https://www.nn.nl/Over-NationaleNederlanden/Wie-zijn-wij/Jaarverslagen.htm.

[6] Ageas. Impact for Growth: Annual Report 2022. Retrieved 1 September 2023 from https://www.ageas.com/sites/default/files/file/file/ageas-ar-en-22_0.pdf.

SOLVENCY RATIO MOVEMENTS

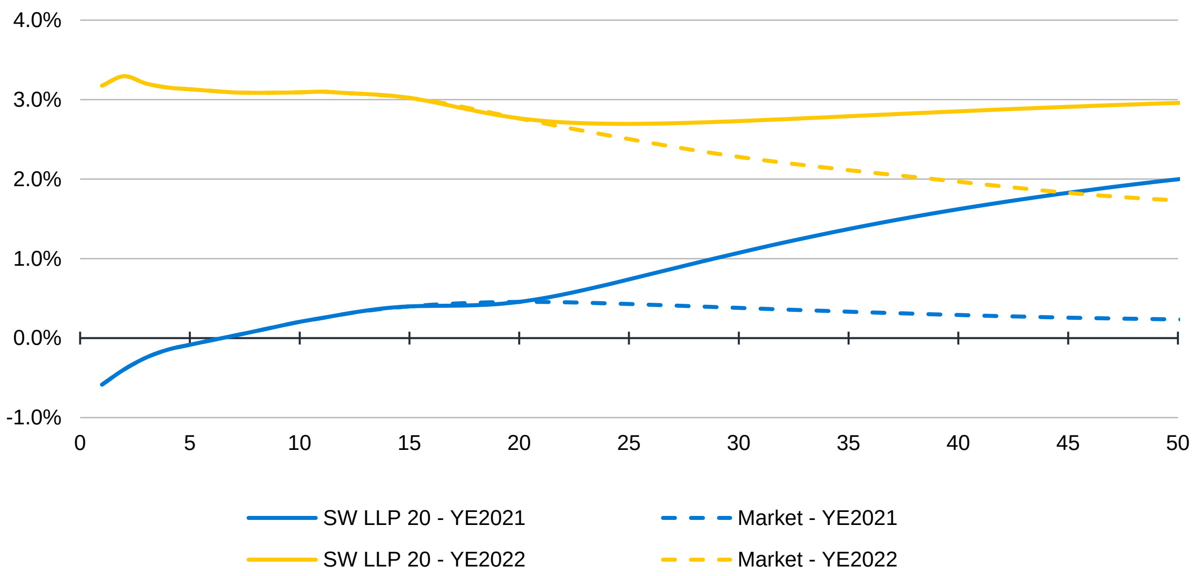
FIGURE 1: SOLVENCY II RATIOS BENELUX LIFE INSURERS PER YE22 AND YE21



In Figure 1, the development of the solvency ratio over 2022 is shown for the largest life insurers in the Benelux region. These developments have been partly driven by interest rates, but also by other market impacts (spreads, equity, real estate, inflation), management actions (including dividend upstream) and model/assumptions updates, including the lowering of the Ultimate Forward Rate (UFR) under Solvency II from 3.6% to 3.45%.

The relevant movements in (euro-denominated) interest rates are shown in Figure 2, which shows a comparison of various discount curves between year-end (YE) 2021 and YE 2022. Under Solvency II (SII), the liability discount curve is currently determined using market rates that are extrapolated to a UFR based on the Smith-Wilson (SW) extrapolation method. This extrapolation starts at the last liquid point (LLP) of year 20. The substantial increase in the SII discount curve has led to a significant decrease of the value of technical provisions for insurers in the Benelux region over 2022. Figure 2 also shows a curve (including credit risk adjustment) which is fully based on (an interpolation of) market observable rates until year 50. Movements in this curve are more representative for the interest rate impacts observed for assets held by insurers in the region.

FIGURE 2: DISCOUNT CURVES AT YE2021 AND YE2022 INCLUDING CREDIT RISK ADJUSTMENT AND EXCLUDING VOLATILITY ADJUSTMENT



Source: Refinitiv, tooling for interpolation and extrapolation by Milliman.

In most disclosures analysed, interest rates have been called out as a driver decreasing the Eligible Own Funds (EOF), but no further quantitative attribution of the standalone interest rate impact is disclosed.

Similarly, the increase in interest rates is listed as one of the main causes of the decrease of the Solvency Capital Requirement (SCR), particularly for market risk SCR and life underwriting risk SCR. The decrease in SCR is generally in line with the decreasing impact the rise in interest rates has had on the market value of fixed income assets and on the technical provisions, and associated impacts on spread risk, interest rate risk, expense risk and mortality/longevity risk. Athora has disclosed that a further reduction in SCR was also driven by rising interest rates increasing the loss-absorbing capacity of deferred taxes (LAC DT).

In some cases, increasing effects on the SCR have been disclosed for the rise in interest rates. Ageas and a.s.r. life saw increases in (mass) lapse risk. For NN life, the decrease in interest rate risk had a net increasing impact on the SCR, due to its lowering effect on the market risk diversification benefit.

It should be noted that from the disclosures no exact solvency impacts can be distilled, as the interest rate impacts are disclosed only directionally or combined with other market impacts. With these limitations, it is generally also not possible to distil from the disclosures whether the 2022 interest rate impact has been beneficial for the solvency ratio. In most cases (with some exceptions), the interest impact on EOF and SCR offset each other from a solvency ratio perspective. A quantitative attribution of these offsetting effects needs to be known, to determine the directional impact on the solvency ratio.

Athora life disclosed that market impacts have had a positive impact on its Solvency II ratio, whereas for NN life a negative market impact on the Solvency II ratio was disclosed. However, no explicit or directional impact is disclosed for interest rates standalone.

INTEREST RATE SENSITIVITIES

FIGURE 3: IMPACT OF INTEREST RATES ON SOLVENCY II RATIOS OF BENELUX LIFE INSURERS PER YE22 AND YE21

INTEREST RATE SENSITIVITY SOLVENCY II RATIO	YE22 +0.5%	YE22 -0.5%	YE21 +0.5%	YE21 -0.5%
Achmea Group[7]	-1%	1%	-3%	0%
Aegon life[8]	-5%	4%	-8%	7%
a.s.r. life	4%	-5%	3%	-3%
Athora life	-5%	4%	3%	0%
NN Group[9,10]	1%	-2%	-4%	5%

Figure 3 shows the development over 2022 in the interest rate sensitivity of the Solvency II ratio for the major life insurers in the Benelux. The scope of Benelux insurers is somewhat different from the previous section, as for Achmea life, Ageas Group and NN life no interest rate sensitivities of the Solvency II ratio are disclosed. For Achmea life and NN life, the disclosed sensitivities for Achmea Group and NN Group, respectively, are shown instead.

Achmea Group, Aegon life, a.s.r. life and NN Group also disclosed (both per YE22 and YE21) that when interest rates rise both the EOF and SCR decrease, and vice versa when interest rates decrease. These movements are in line with the directional impacts of interest rates disclosed over 2022 (as discussed in in the previous section). The net ratio impacts of interest rates can differ per insurer—and over time—depending on the balance between the EOF and SCR impacts.

[7] Achmea Group SFCR 2021. Retrieved 1 September 2023 from https://www.achmea.nl/-/media/achmea/documenten/investors/publicaties/2021/sfcr-2021-achmea-group.pdf.

[8] Aegon life SFCR 2021. Retrieved 1 September 2023 from https://www.aegon.nl/sites/default/files/2022-05/SFCR%202021%20-%20Aegon%20Levensverzekering%20%285%29.pdf.

[9] NN Group analyst presentation 2H22. Retrieved 1 September 2023 from https://www.nn-group.com/article-display-on-page-no-index/nn-group_analyst-presentation_2h22.htm (PDF download).

[10] NN Group analyst presentation 2H21. Retrieved 1 September 2023 from https://www.nn-group.com/article-display-on-page-no-index/nn-group-analyst-presentation-2h21.htm (PDF download).

Where disclosed, a decrease is also observed in the sensitivity of the EOF and SCR, as one would expect due to convexity impacts of interest rate increases.

In the disclosure of a.s.r. life, the change in interest rate sensitivity is indeed attributed to the rise in interest rates. For a.s.r. life, the decrease in interest rate sensitivity of the SCR is particularly attributed to the increased contribution of the interest rate sensitivity of mass lapse risk. The SCR for this risk increases when interest rates increase. This offset with the decreases for other risks has now become larger.

In the disclosure for Athora life, no explicit comments are provided on the changes in the ratio sensitivity towards interest rates. It has been mentioned, however, that the SCR for interest rate risk has decreased due to changes in interest rate hedge rebalancing.

SUMMARY

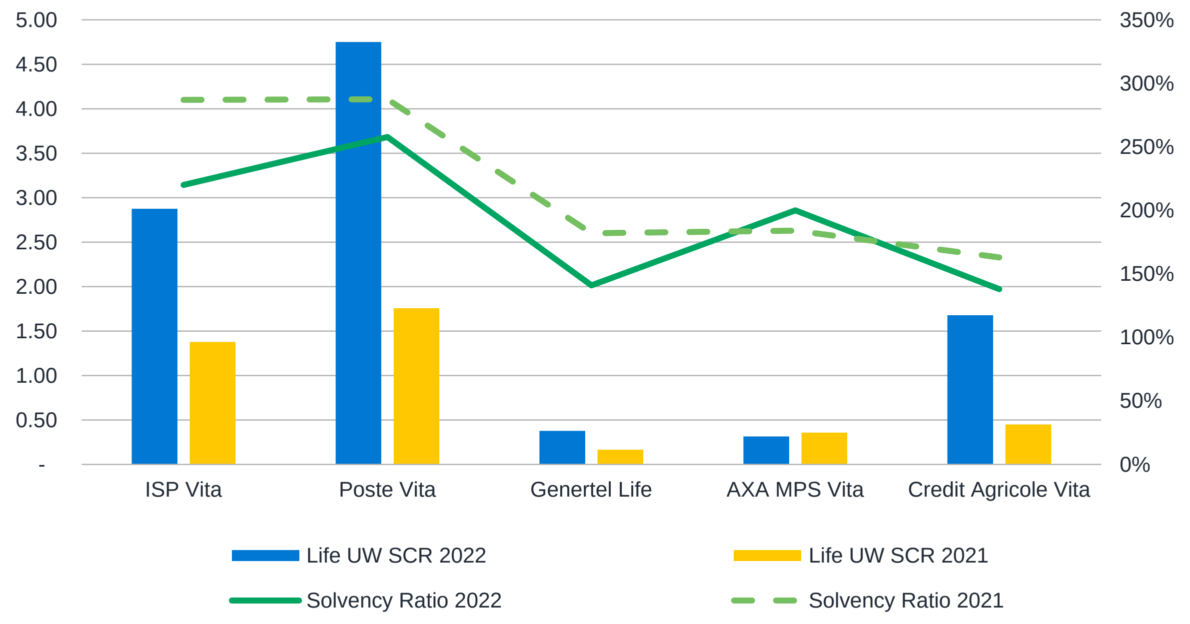
For insurers in the Benelux the rise in interest rates is generally seen to both decrease EOF and SCR. One exception is formed by insurers with material mass lapse risk exposure, where the decrease in market risk and life underwriting risk SCR is dampened by the opposite interest rate sensitivity of mass lapse risk (which increases if interest rates increase).

A decrease in EOF decreases the Solvency II ratio, whereas a decrease in SCR increases the Solvency II ratio. The balance between the two determines whether a rise in interest rates increases or decreases the Solvency II ratio. The disclosed interest rate sensitivities indicate this balance can differ per insurer, but also over time. To see to what extent these sensitivities have materialised over 2022—and to what extent interest rate increases were beneficial for the Solvency II ratio or not—more information is needed on the further quantitative attribution of the EOF and SCR impacts driven by interest rates over 2022.

Italy

In contrast to the situation in some other European countries, the impact of the change in interest rate environment has generally been negative for Italian life insurers, although the situation is not completely uniform. The graph in Figure 4 shows the movement in solvency ratio for five large Italian life insurers, as well as the life underwriting (UW) SCR, which is the component that has changed most (for reasons explained below).

FIGURE 4: SELECTED LEADING ITALIAN LIFE INSURERS: LIFE UW SCR (EUROS BILLIONS) AND SOLVENCY RATIO, 2022 AND 2021



In general, the companies report in their Solvency and Financial Condition Reports (SFCRs) that a further rise in interest rates will negatively impact their solvency ratios. It is important to note that Genertel Life and AXA MPS Vita are believed to be using an internal model basis whereas the other companies are all using the standard formula.

The deterioration in solvency ratio following the interest rate rise occurs even though Italian insurers are generally quite well duration matched. In fact, the Own Funds of these companies have generally not decreased that much (a 5% difference which can be fully explained by the increase in risk margin), but the SCR has increased by 12%. The main driver for the increase in SCR was an increase in life underwriting risk, driven by lapse risk and in particular by the mass lapse shock under the standard formula.

It is worth explaining the characteristics of Italian life business which give rise to mass lapse risk when interest rates rise. All Italian life companies have significant volumes of participating business, with unit-linked making up only 17% of technical provisions for the above sample of companies. Profit sharing is based on the book value investment return and for most business there is the possibility to surrender with no or little penalty for a policy value which consolidates historical profit sharing. When interest rates rise, then the value of this surrender option increases for business with low minimum guarantees.

The European Insurance and Occupational Pensions Authority (EIOPA) standard formula mass lapse shock involves a 40% instantaneous additional lapsation. If the expected best estimate liability (BEL) cash flows were well matched, and assuming that under a low interest rate environment the BEL and mathematical reserves were the same and the surrender value equals the mathematical reserve, then the mass lapse shock might be low or zero. When interest rates move up materially, mathematical reserves can significantly exceed both the BEL and the value of the assets (which now have unrealised losses), and a mass lapse shock under which 40% of policyholders lapse to take a surrender value equal to the mathematical reserve is now very costly. Prior to the rise in interest rates, many companies were primarily exposed to the lapse down risk, but now the mass lapse risk is typically the “biting” stress. When the value becomes very large then diversification may be low. For example, Poste Vita has a lapse SCR of EUR 4.6 billion out of a total SCR of EUR 5.0 billion.

It can be argued that the standard formula mass lapse shock is mis-calibrated for Italian participating business, that the past variability in lapse rates for this business is low and the risk of such a large mass lapse shock is very low. One immediate solution which has been sought by several players is to purchase mass lapse reinsurance cover. Because the risk of the mass lapse scenario is believed to be very low and yet the capital requirements can be very high, then reinsurance may be an attractive option. Poste Vita disclosed that it had taken out a mass lapse treaty at the end of 2022 which led to an improvement in solvency ratio of 32 percentage points. We may also observe companies seeing value in implementing internal models to try to better capture their risk profiles if they believe that the standard formula greatly overstates the risk of lapses and has a material impact on their total SCRs.

THE CASE OF EUROVITA

The most dramatic case of the negative impact of the interest rate rise in the Italian life market has been the case of Eurovita. Eurovita was formed from the merger of four different life companies acquired by the private equity fund Cinven. Eurovita had been subject to more than one regulatory inspection[11] with the Institute for the Supervision of Insurance (IVASS) looking at various aspects and finding some deficiencies in the methodology and assumptions used in the calculation of the technical provisions and SCR as well as the valuation of certain categories of assets. Already at YE 2021, before the major rise in interest rates started, Eurovita had fallen below its soft solvency limit of 150%. It was therefore very exposed to the adverse impact of the rise in interest rates described above.

[11] Messia, Anna. Eurovita, Ivass chiede 150 mln. Assinews.it. Retrieved on September 22, 2023 from https://www.assinews.it/06/2022/eurovita-ivass-chiede-150-mln/660097561/.

In September 2022, press reports said that IVASS had requested an increase in capital of around EUR 250 million and that this had pushed Cinven to search for an acquirer.[12] In fact, Cinven had already been reported as trying to sell the company in summer 2021.[13]

By the first months of 2023, there were reports that the solvency ratio had fallen under 100%[14] and IVASS placed the company under extraordinary administration status, with an IVASS-appointed administrator taking over management of the company. A block was placed on clients surrendering policies and this has been extended whilst a rescue has been arranged. This is expected to involve the breakup of the company, with the portfolio distributed amongst five leading Italian insurers.

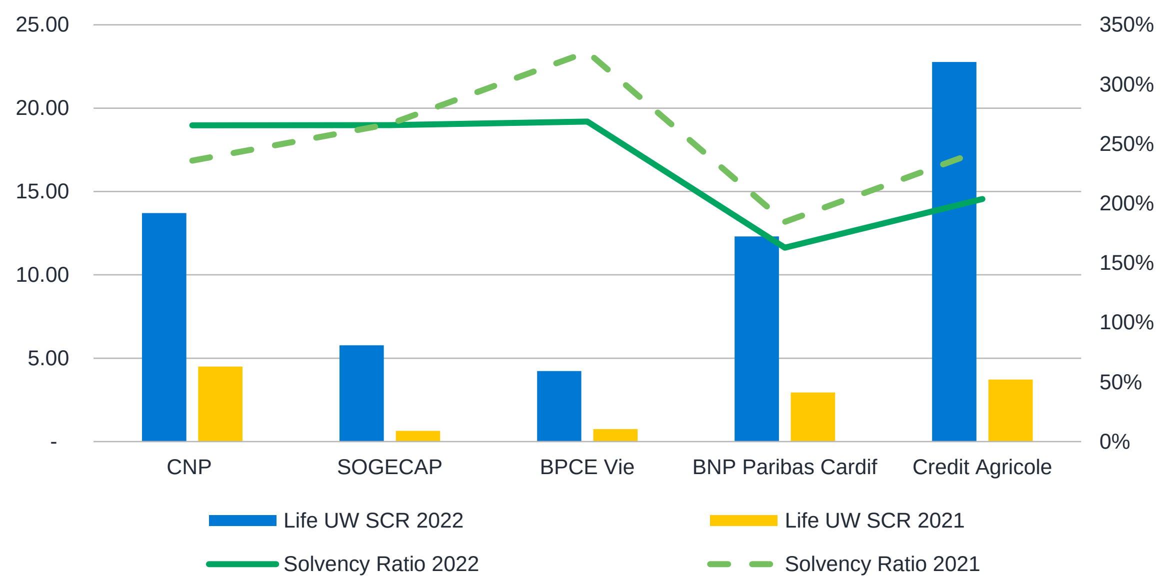
The case of Eurovita has caused a lot of debate, including about the Solvency II system and the role of private equity owners in insurance. Even if the 40% mass lapse scenario seems remote in normal circumstances, when the solvency of an insurer was threatened it proved necessary to block surrenders to secure an orderly rescue.

France and Germany

The French life insurance market has similarities to the Italian one, the German market less so.

The same type of graph as above is shown in Figure 5 for five French life insurers.

FIGURE 5: SELECTED LEADING FRENCH LIFE INSURERS: LIFE UW SCR (EUROS BILLIONS) AND SOLVENCY RATIO, 2022 AND 2021



These companies share the same pattern as the Italian ones of seeing large increases in the life underwriting SCR. Although the detail is not usually disclosed in public reporting, we believe that the driver of this increase is lapse risk and likely mass lapse risk in particular.

There are several similarities between the nature of the liabilities of French and Italian life insurers, which explain the consistent impact of the interest rate movement:

- Most business is participating with profit sharing mainly based on book value investment returns and guaranteed surrender values.
- Majority of business is single premium.
- Material amount of low-guarantee business, including with 0% guarantee.

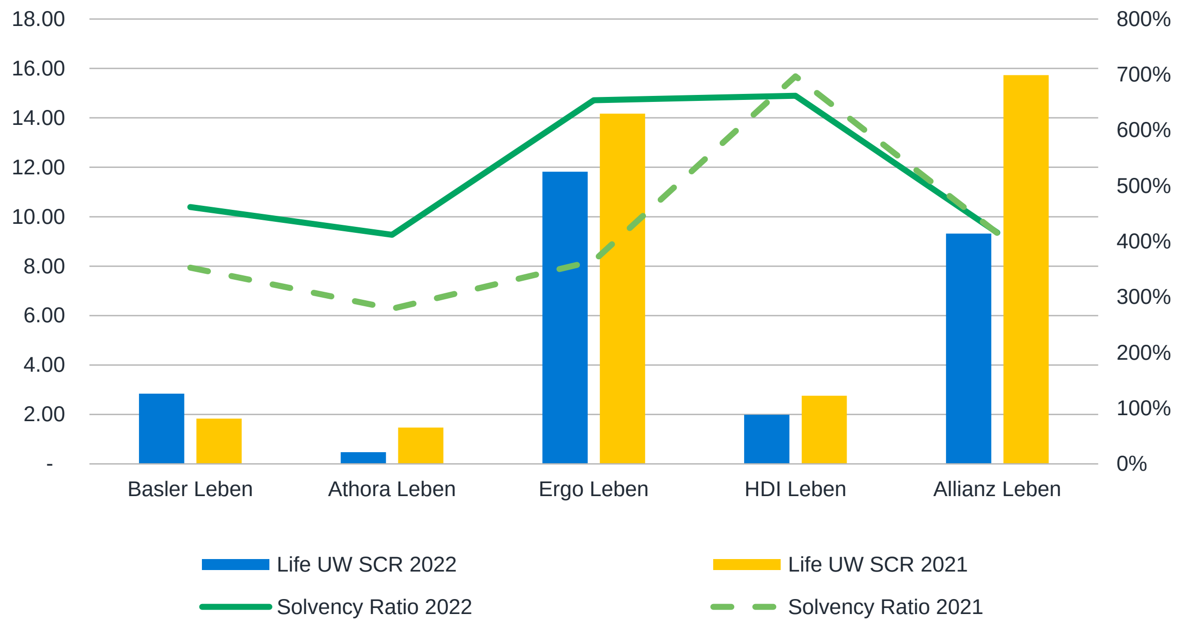
[12] Eurovita, Ivass chiede più capitale o la cession. InsuranceTrade.it. Retrieved on September 22, 2023 from https://www.insurancetrade.it/insurance/contenuti/mercato/12781/eurovita-ivass-chiede-piu-capitale-o-la-cessione.

[13] Magri, Valentina. Stop di Cinven alla vendita di Eurovita. BeBeez.it. Retrieved on September 22, 2023 from https://bebeez.it/private-equity/stop-di-cinven-alla-vendita-di-eurovita/.

[14] Eurovita: rischi e scenari. I punti critici del piano B. Quotidiano Nazionale. Retrieved on September 22, 2023 from https://www.quotidiano.net/economia/eurovita-assicurazioni-pronte-a-intervenire-824c69e3.

In other markets, such as Germany, where the average minimum guarantee is much higher and much of the in-force business is regular premium, the risk of additional lapses is likely to be much less important and a higher reinvestment rate much more beneficial. As can be seen by the data shown in Figure 6, based on a selection of German life insurers, there has generally been an improvement in solvency ratio and a reduction in life underwriting SCR.

FIGURE 6: SELECTED GERMAN LIFE INSURERS: LIFE UW SCR (EUROS BILLIONS) AND SOLVENCY RATIO, 2022 AND 2021



Israel

Under Solvency II, Israeli insurers are required to publish Solvency Reports every six months. The solvency reports contain a significant amount of information, including details on business performance, risk profile, balance sheet and capital position. Insurers are also required to submit to the insurance regulator in Quantitative Reporting Templates (QRTs), which are not accessible to the public.

The market is dominated by five large insurance companies, which are composite insurers selling life, health and property and casualty (P&C) business. There are two medium-sized composite insurers and two direct insurers focussed on P&C and risk products. For the traditional insurers, the main distribution channel is via multiple agents and brokers.

Israel has a high level of regulation. The insurance commissioner is very active and traditionally has been consumer-focused. The commissioner issues circulars frequently, dealing with reporting, solvency, product design, distribution channels, claims handling and disclosures to policyholders.

Israel has followed Europe and adopted the Solvency II framework with some minor adjustments for the local market. Solvency ratios are relatively low compared to Europe and the regulator has allowed transitional measures, with capital relief gradually reducing until 2032. Company boards are required to set the target solvency ratio and a dividend distribution policy based on the company's solvency ratio.

INTEREST RATES 2020-2022

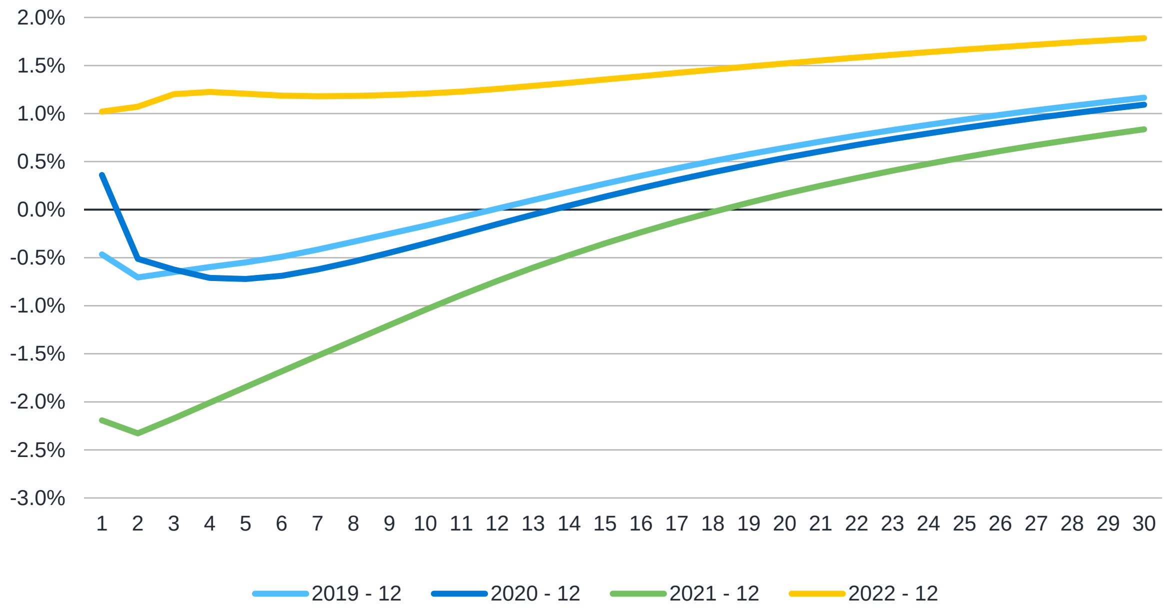
Real vs. nominal

In Israel, almost all insurance liabilities are linked to the consumer inflation index. As such, cash flow modeling is done on a real basis, using real interest and discount rates. Expenses are assumed to move in line with inflation and allowance is made for medical and salary inflation above the regular inflation level. Therefore, throughout this analysis “rates” always refers to real rates, unless explicitly stated otherwise.

Risk-free rates

Historically, the risk-free rate vector has been low and, until recently, insurers had to deal with continuing falls in the risk-free rate vector. During 2022 the risk-free rate vector rose significantly, as can be seen from the graph in Figure 7.

FIGURE 7: LIABILITY DISCOUNT CURVES FROM FY2019 TO FY2022



SOLVENCY MOVEMENTS

There have been significant movements in solvency ratios in the market over the past year. The 2022 increase in interest rates had a very positive effect on the 2022 year-end results and most companies reported an increased solvency ratio. Other significant impacts during this period which were also responsible for the variations seen by company are:

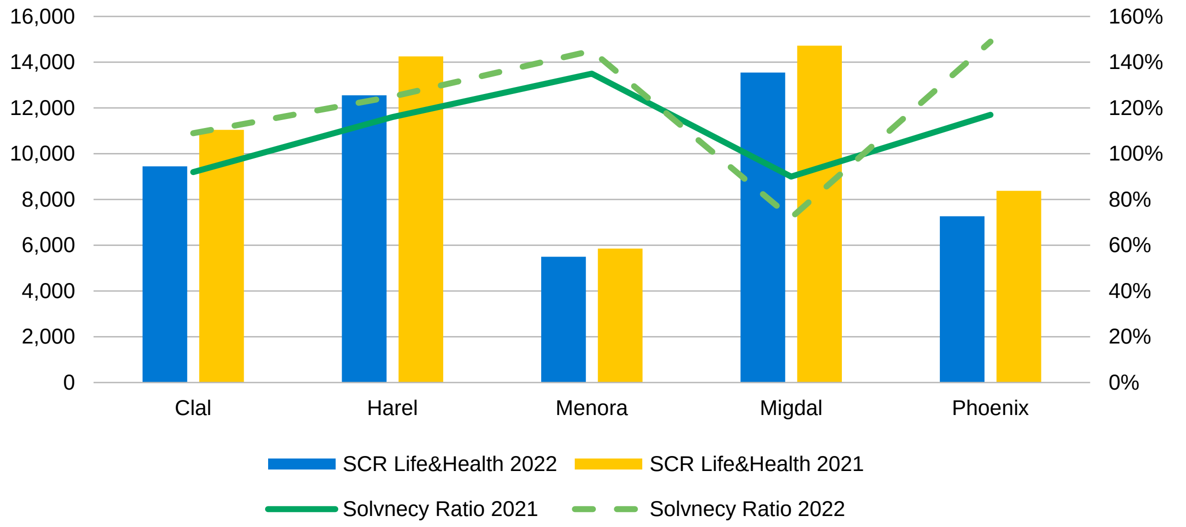
- Negative investment returns – from a fall in equity values and a fall in bond values due to rising interest rates. Some companies held a better hedged position on their fixed interest portfolios to absorb the interest rate increase.
- Decrease in annuitant mortality – an updated mortality study published by the commissioner just before June 2022 caused a significant increase to liabilities. Companies that have a higher exposure to longevity risk (Migdal and Clal) were affected more than others.
- Various updates to demographic experience which had material impacts on the solvency positions.

Both the negative investment returns and the decrease in annuitant mortality decreased the solvency ratios. However, for most companies, the impact of the increased interest rates outweighed this negative impact and the overall solvency ratios increased.

Movement of Solvency Ratios 2020-2022

The graph in Figure 8 shows the movement in solvency ratios (without transitional measures) from 2020 to 2022 for the top five insurance companies.

FIGURE 8: SOLVENCY II RATIOS: ISRAELI INSURERS FROM FY2021 TO FY2022



Source: 2022 and 2021 Solvency Reports, published May 2023.

All insurers except Migdal saw significant improvements in solvency ratios over 2022. The increased interest rates had a significant effect on the SCR for life and health (which are approximately 60% of the total SCR before correlation effects). The risk margin was subsequently reduced by the decreased life and health SCRs and then further reduced by the increased discount rates.

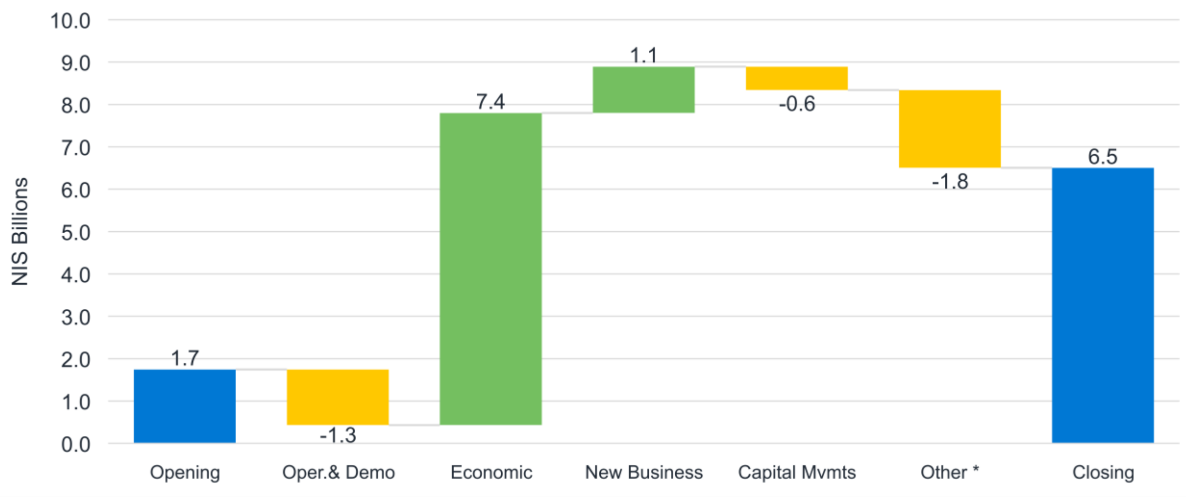
Movement of surplus capital

In the published solvency reports for the 2022 year-end results, companies disclosed the main drivers of movement in the solvency surplus capital over the year.

It can be noted that, for all insurers except Migdal, the economic changes were the main contributor to the increased surplus capital during 2022. According to the disclosures, the economic effects include:

1. Changes in asset values
2. Changes in market SCR
3. Inflation effect
4. Changes in the risk-free rate vector

FIGURE 9: DEVELOPMENT OF SURPLUS CAPITAL, TOP 5 FROM FY2021 TO FY2022



Source: 2022 Solvency Reports, published May 2023.

With respect to the significant economic impact, companies noted that increased interest rates caused:

- A decrease in BELs
- A decrease in SCRs
- A decrease in the risk margin (RM)

This was partially offset by:

- Negative investment returns
- Inflation of 5.3% in 2022

Approximately half the economic effect was in the reduced SCR.

INTEREST RATE IMPACTS BY PRODUCT

Product investment exposure

The life and health portfolios are most sensitive to movements in interest rates due to the long-term nature of the liabilities, investment guarantees and variable management fees. The interest rate sensitivity is summarized in the table in Figure 10.

FIGURE 10: INTEREST RATE SENSITIVITIES

Segment	Product	Issued	% of BEL	Interest Sensitivity	Impact of Increasing real rates
Life	Guaranteed Savings. These are partially backed (~50% to 86%) by special government bonds backing the guaranteed return.	Until 1990		High	Decreases BEL
Life	Investment Participating Savings with fixed and variable management fee structures. When there are negative real returns, no variable management fee may be collected until the accumulated return is positive.	From 1991 until 2003		Medium -High	Decreases BEL
Life	Investment Participating with fixed asset management fee. Increasing interest rates have a secondary impact on projected management fees but an overall negative impact due to the impact from the higher discount rate.	From 2004 onwards		Low	Increases BEL
Life/Health	Risk products covering death, medical expenses and disability. They are generally profitable and have negative BELs.	Ongoing		Medium	Increases BEL
Health	Long-term care sold with a guaranteed level premium rate. These policies were sold either with investment participation or with guaranteed interest rates.	Until 2019		High	Decreases BEL

SUMMARY

In summary, the key points noted in our analysis of Israeli insurers' solvency results are:

- A significant improvement in solvency ratios overall.
- Liabilities with interest guarantees and long-term duration are highly sensitive to the interest rates.
- An unhedged asset portfolio will reduce the beneficial effects of the interest rate rise.
- The increased interest rate environment is beneficial to companies and will allow higher dividend payouts.

Japan

Japan is in the process of moving towards a generally market-consistent solvency regime, which will be compatible with International Capital Standards (ICS) and is drawn substantially from Solvency II.

Under the current solvency regime, where in concept statutory reserves are fixed at issue, but assets are marked to market, a mismatch is created in the case of rising interest rates. In the case of a significant rise in interest rates, under the current regime liabilities could significantly exceed assets. This is somewhat a matter of optics, in that regulatory action levels allow losses from certain categories of assets (reserve-matching assets or held-to-maturity assets) to be excluded from the calculations.

The revised solvency framework (to be effective FY2025, or the year ended March 31, 2026) helps to improve this mismatch, but nonetheless, as in the case of Solvency II, it has some challenges—for example, the ability to reflect credit spreads in discount rates.

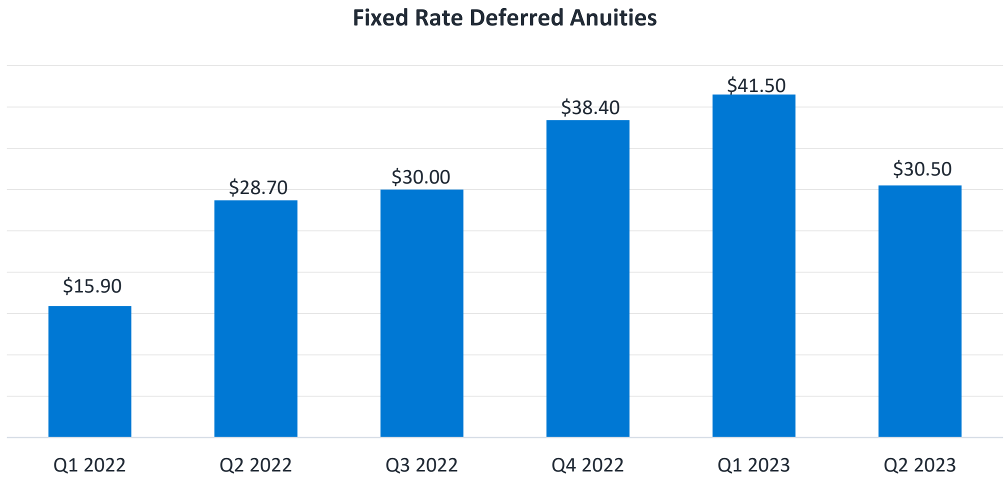
It may be worth noting that most large Japanese insurers have been publishing market-consistent embedded values (MCEVs) for 10 or more years, and in many cases have substantially adapted asset-liability management (ALM) strategies to this metric. As a result, at least in the case of moderately rising rates, the impact on market-consistent surplus is small. As seen from recent MCEV publications, many companies are quite well matched. For understanding the Japan situation under the future solvency regime, the history of MCEV reports (as monitored in Milliman publications) is very useful.

United States and Bermuda

PREMIUM GROWTH AMID RISING INTEREST RATES

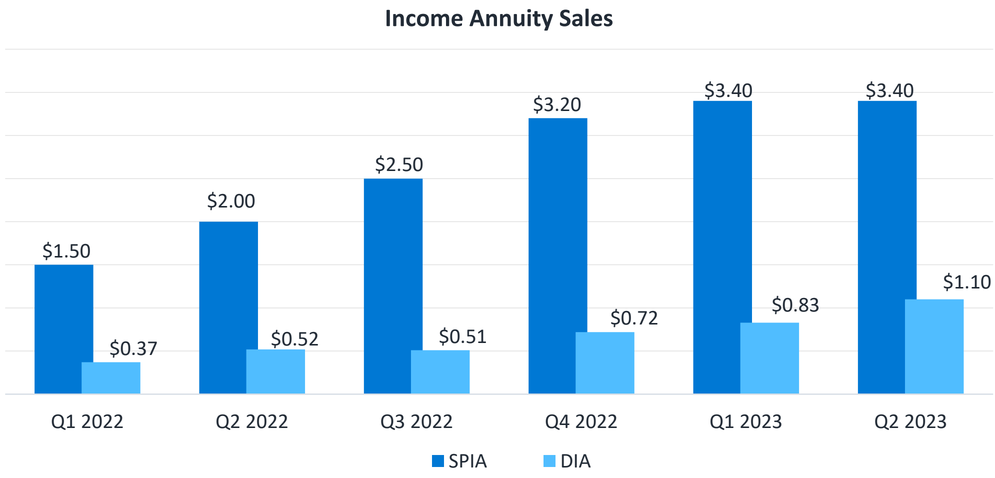
Life and annuity companies reported substantial growth in annuity premiums in 2022, a trend that extended into 2023. Life insurance sales increased by 4% in Q2 2023 on a policy count basis while annuity sales reached a record-breaking $183 billion for the first half of 2023.[15] Climbing equity markets in 2Q 2023 combined with high interest rates have triggered a surge in fixed and indexed annuity offerings. Fixed-rate annuity sales, as shown in Figure 11, have swelled by a staggering 61% year over year to $72 billion in the first half of 2023. Single premium deferred annuity (SPIA) and deferred income annuity (DIA) sales have also risen.

FIGURE 11: ANNUITY SALES



[15] Source: LIMRA

FIGURE 11: ANNUITY SALES (CONTINUED)



This shift is due to the enhanced ability of companies to increase credited rates and payout rates in a high-interest-rate environment. This, coupled with the prevailing equity market volatility, has steered policyholders toward seeking safe, guaranteed income—at levels unseen in the past decade.

FEES, INVESTMENT INCOME AND CAPITAL RATIOS

Despite robust premium growth, the tumultuous markets have caused a decline in fees and investment income. Moreover, risk-based capital (RBC) ratios experienced a reduction at YE 2022 compared to the previous year, with 72% of life insurers in the US reporting a decline. The average drop in RBC ratios for the top 20 companies by assets was 7.7%.[16] Likely contributors to this drop include a change in policyholder behavior assumptions and asset write-downs.

LAPSE BEHAVIOUR AND EXPOSURE REDUCTION

Life insurers, who currently hold 15% of the $4.5 trillion debt backed by commercial real estate, are actively managing their portfolios to decrease exposure to this asset class. The escalating interest rates and the industry's exposure to commercial real estate have necessitated this active portfolio management.

Moreover, rapidly rising interest rates have also intensified the potential for disintermediation risk. Several insurance executives cited an elevated level of policy surrenders due to increasing rates during their Q1 2023 earnings calls. Consequently, insurers are implementing transactions to mitigate risk and release capital.

REINSURANCE TRANSACTIONS AND OFFSHORING

By YE 2022, the ratio of ceded to gross life and annuity reserves reached a new high of 28.2%, not accounting for several large transactions reported in April and May 2023.[17] The recent uptick in ceding business offshore has allowed insurers to enhance their RBC ratios, despite some rating agencies expressing concerns about the offshore business movement.

PENSION RISK TRANSFERS

Pension risk transfers have increased by 28% year over year (YoY) as of Q2 2023.[18] Typically, the first quarter of a given calendar year witnesses subdued activity because many companies allocate significant funds to cover yearly premiums and other financial obligations that arise at the start of the year. However, the rise in interest rates and the surge of new entrants into the pension risk transfer arena have fueled a notable uptick in transactions.

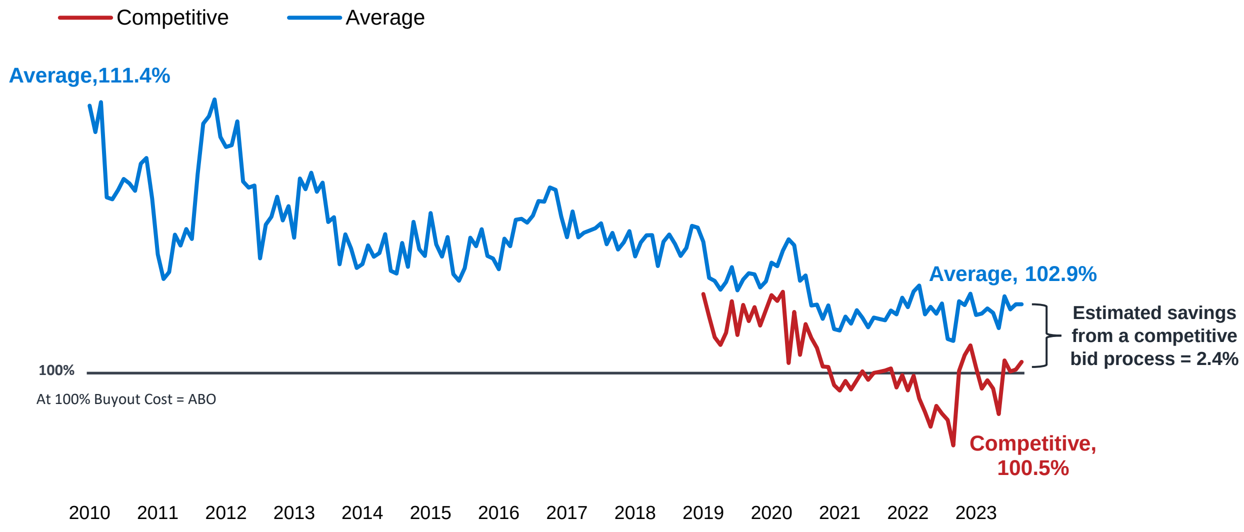
[16] Based on analysis of 2022 YE statutory financial statements.

[17] Source: S&P Global. Affiliated, private equity-backed reinsurers fuel life and annuity cession surge (spglobal.com)

[18] Source: LIMRA

Figure 12 showcases retiree buyout costs as measured by the Milliman Pension Buyout Index.[19] The red line represents only the most competitive insurers' rates from each month, while the blue line represents a straight average of all insurers' rates in this study. These metrics demonstrate two important concepts. First, as of August 31, the competitive bidding process is estimated to save plan sponsors on average around 2.4%; second, retirees could annuitize for an estimated 100.5% of accounting liabilities (accumulated benefit obligations).

FIGURE 12: MILLIMAN PENSION BUYOUT INDEX AS OF AUGUST 31, 2023



REGULATORY UPDATE – BERMUDA

The Bermuda Monetary Authority (BMA) has recently proposed various regulatory changes for commercial insurers, intending to strengthen the regulatory regime and align it closer to the Solvency II standards. The proposed changes could significantly affect the entire insurance market due to the volume of business reinsured into Bermuda from multiple jurisdictions.

The proposed regulations touch on four main areas:

1. Technical provisions calculation changes: The BMA plans to adjust the risk margin calculation for insurance groups. The proposed adjustment involves shifting to an unconsolidated basis, aligning with the risk margin construction principles. The amendments to the scenario-based approach (SBA) are also notable. The SBA is designed to reflect liquidity premiums embedded in insurers' asset yields when discounting liabilities. The proposals aim to clarify and guide SBA requirements, necessitating insurers to invest substantially in governance, risk management, and modeling systems. Enhanced modeling of assets with optionality or behavioral components and changes related to unsellable assets are among the significant adjustments proposed.
2. Bermuda Solvency Capital Requirements (BCSR) calculation flexibility amendments: These changes include increased risk sensitivity for lapse and expense risks and adjustments to property and casualty catastrophe risk charges to capture man-made risks better. These changes aim to enhance the transparency and risk sensitivity of the BSCR standard approach. In particular, a dedicated man-made catastrophe risk sub-module will promote better risk management.

[19] Pringle, J. & Cook, R. (September 2023). Estimated competitive retiree buyout cost, as a percentage of accounting liability, increased 30 bps from 100.2% to 100.5% during August. Milliman Pension Buyout Index. Retrieved 3 September 2023 from https://www.milliman.com/en/insight/milliman-pension-buyout-index-may-2023.

3. Prudential rules and reporting forms enhancements: These changes under the BMA's Section 6(d) framework will allow the BMA to revise the application process for insurers and reinsurers seeking to modify specific BSCR parameters.
4. Fee revisions for life insurers: The BMA plans to increase its supervisory fees for long-term commercial insurers, justified by the rising costs of supervising increased market entries and more complex entities.

One critical area that stands out in the context of interest rates is the proposed changes to the SBA, which notably will impact the way insurers calculate best estimate liabilities (BELs). The SBA approach hinges heavily on interest rates because it involves the matching of asset and liability cash flows. Any mismatch here would prompt the BMA to apply a mismatching cost by running the calculation through eight alternative interest rate scenarios, resulting in potential financial implications for insurers.

In conclusion, the proposed regulatory changes by the BMA present significant challenges for insurers in the context of their risk management strategies. Interest rate risk, especially concerning the SBA enhancements, will drive insurers to invest significantly in sophisticated risk management and modeling systems. This investment could potentially exert upward pressure on the pricing of both life and non-life reinsurance.

REGULATORY UPDATE – UNITED STATES

The new liquidity requirements from the National Association of Insurance Commissioners (NAIC) pose certain challenges for insurers that could potentially negatively impact their solvency ratios. Here are several key takeaways:

1. Increased regulatory requirements: The NAIC Liquidity Stress Test (LST) Framework calls for extensive data collection, analysis, and regular stress testing. Complying with these regulatory requirements may require substantial operational resources and costs, which might impact the financial health of insurance companies.
2. Impact of stress scenarios: Insurers are required to project cash flows under various stress scenarios, which could reveal vulnerabilities in their financial positions. The NAIC requires insurers to consider a range of stress scenarios that reflect plausible events that could impact their liquidity positions. If these scenarios are particularly harsh and reveal significant potential liquidity shortfalls, it could negatively impact the perceived solvency of insurers and potentially even their actual solvency if they need to raise capital or liquidity buffers.
3. Impact of rising interest rates on insurers: Rising interest rates, under stress test scenarios, can deeply affect insurers' liquidity. The increased rates diminish the market value of insurers' current lower-yielding bonds. Even though insurers typically retain bonds until maturity, averting capital losses, this decline might influence solvency ratios. Notably, a new economic scenario generator is under development in the US, as underscored during the US NAIC 2023 Summer National Meeting. The preliminary test for this generator showed marked rises in statutory reserves and capital (particularly for variable annuities), and a subsequent industry field test may occur in 2024. The "low for long" scenarios in this context hold potential implications for statutory requirements. These rising rates can result in more policyholders surrendering their contracts, seeking to capitalize on higher-yielding opportunities and adding to liquidity stresses. Furthermore, these periods can introduce an asset-liability mismatch, pushing insurers to potentially off-load assets under unfavorable conditions to satisfy immediate policyholder obligations, which can further strain their solvency ratios.
4. Increased scrutiny of non-US and non-life entities: The framework's broad inclusion criteria means that insurers must consider liquidity risk from non-US and non-life entities, as well as holding companies. This additional scrutiny could reveal further liquidity risks that may negatively impact the solvency ratios.

It is important to note that, while these factors could potentially negatively impact insurer solvency ratios, the overall aim of the NAIC LST Framework is to strengthen the insurance industry's resilience to liquidity risks, thereby contributing to overall financial stability. Thus, while some insurers may find a greater need to improve their overall liquidity by transitioning to more liquid asset classes, which could drive reduced RBC ratios in the short-term, the probability of that being significant to long-term solvency is likely to be small. Insurers should be able to manage any necessary portfolio rebalancing efficiently to avoid realizing unfavorable losses that would contribute additional downward pressure on RBC ratios relative to the impacts discussed above.

Overall Summary

This global report highlights the diverse impact rising interest rates can have on the solvency position of life insurers worldwide.

Insurers in the Benelux region had mixed impacts, driven by the product mix of the company portfolio.

In Italy, the impact of rising interest rates has been generally negative for life insurers due to the standard formula mass lapse shock. The sudden increase in interest rates spurred a new market for mass lapse risk reinsurance, caused an insurer collapse and brought private equity ownership of insurers into focus.

German insurers benefitted from most products having recurring premiums, thereby allowing them to take advantage of the rising rates.

Israeli insurers also benefited from lower liabilities and reduced risk margins. The benefits were slightly offset by fixed income write-downs but highlighted the benefits of hedging such extreme interest rates moves.

In the United States, the rising interest rates triggered a surge in fixed annuity offerings. While on one hand insurers are changing the product mix to capitalize on the demand for fixed annuities, on the other they are updating lapse assumptions on existing products and taking write-downs on asset portfolios.

The National Association of Insurance Commissioners (NAIC) and Bermuda Monetary Authority (BMA) have both updated regulatory requirements. The NAIC has proposed various disclosures focused on company liquidity while the BMA has updated capital solvency requirements (e.g., increased risk sensitivity to lapse) and amended the scenario-based approach necessitating insurers to invest substantially in governance, risk management and modeling systems.

While most regions around the world are seeing rising rates, rates are being cut in certain parts of the world to spur economic activity. The verdict is still out if this unprecedented speed of policy change will help us combat inflation, but it clearly demonstrates the need for robust frameworks and nimbleness in management actions in the once slow moving and stable world of life insurance.

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