

Viewpoint

March 2023

ASSET MANAGEMENT | WHITE PAPER

As Rates Rise, Investment Strategies Must Meet IMR Challenges

By **Jeremy Lachtrupp, Managing Director, Insurance Solutions** and **Matt Reilly, Managing Director, Insurance Solutions**

The recent turn upward in interest rates has been long-awaited by life insurers, but it also poses portfolio management challenges as realizing losses could negatively impact balance sheet strength. The Interest Maintenance Reserve (IMR), a 30-year-old accounting standard, has helped smooth insurers' annual income amid changing market conditions but has never seen an extended period of rising interest rates. And as rates are expected to keep increasing, the impact on IMR could harm insurers' capital and income.

When rates were falling, many insurers saw growth in their IMR balances due to gains from the sale of bonds prior to maturity; the gains were eventually amortized from the IMR into net investment income (NII) over the remaining life of the sold asset. As rates rose in 2022 however, the opposite dynamic took effect: insurers experienced losses from selling lower-yielding bonds to replace them with higher-yielding ones, leading to declines in IMRs and a likely drag in future NII. Many insurers risk their IMR balances shrinking further or even turning negative should they continue to sell bonds in pursuit of higher yields.

However, statutory accounting rules treat negative IMR as a non-admitted asset so IMR values below zero fall directly to capital and surplus, reducing the value of these critical financial health measures. Yes, insurers could look weaker even as their portfolios may be generating greater yields. The ACLI has petitioned the NAIC to adjust how statutory accounting treats negative IMR, but for now the rule stands.

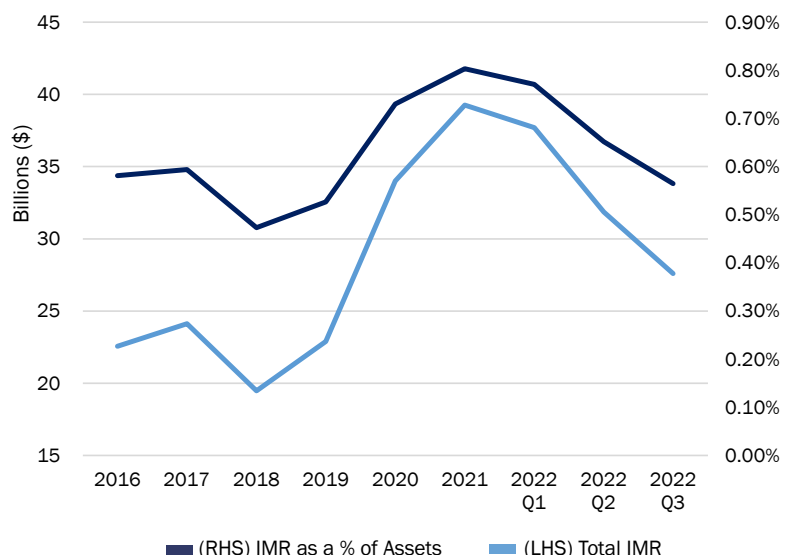
A desire to avoid having negative IMR may make insurers increasingly reluctant to trade as they seek to minimize losses and even forgo opportunities that could benefit their long-term economic value. It has become abundantly clear that accounting for IMR is now a vital constraint that insurers must incorporate when managing their portfolios and setting investment strategy, adding another level of complexity to the process.

Steady Growth in IMR Balances Reversed in 2022

Aggregate IMR for the U.S. life insurance industry more than doubled between 2018 and 2021, from \$19.5 billion in 2018 to \$39.3 billion (see Figure 1). This increase isn't simply the result of a growing asset book: the percentage of IMR relative to net admitted assets increased to 80 basis points from 47 during that same period.

The 2022 spike in interest rates significantly disrupted the historical trend and many insurers face the prospect of a negative IMR balance. The economic offset that IMR provides to the right side of the balance sheet will no longer be available if the current Statutory Accounting Principle (SAP) guidance continues to disallow the admittance of aggregate negative IMR.

Figure 1 Industry-Wide Changes in IMR Since 2016-2022



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Additionally, IMR amortization has made a steady contribution to NII during the last decade, ranging from 6 to 11 basis points since 2011. With the advent of higher rates and of insurers selling assets at losses, this positive IMR contribution to NII will shrink and can eventually become negative.

Figure 2 further demonstrates the recent sharp decline in IMR reserves across the life insurance industry. From 2021 Q4 to 2022 Q3, aggregate IMR across the industry fell 32%, or \$13 billion. This actually understates the true drop in IMR, as the liability page in statutory filings stops measuring IMR at 0 and does not track it when it becomes negative. During 2022, 61 companies transitioned from a positive IMR balance to a reported balance of zero. Should the NAIC allow a negative IMR balance in statutory accounting, it could provide insurers more flexibility, limit the capital strain of nonexistent or dwindling IMR balances, and affect the tactical and strategic management of insurance portfolios.

Figure 2 Industry-Wide Decrease in IMR in 2022

Line Item	2020 Q4	2021 Q4	2022 Q1	2022 Q2	2022 Q3
Aggregate IMR*	\$35,229.58	\$40,598.07	\$37,697.18	\$31,859.28	\$27,601.00
Change from Prior Quarter*	-	\$5,368.49	(\$2,900.89)	(\$5,837.90)	(\$4,258.27)
% Change	-	15.2%	-7.1%	-21.5%	-13.4%

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* In millions

IMR: Helping Protect Capital, Smooth Income

To examine the IMR's role in an insurer's balance sheet amid portfolio transactions, we compare the impact of a hypothetical bond sale and purchase on the balance sheet and surplus line items for two virtually identical life insurance companies.¹ The only difference: one has a relatively healthy IMR of \$10 million (1%) and the other's has been depleted to zero. The assumed transaction involves the sale of a 10-year A-rated corporate bond issued in November of 2020 yielding 1.64%, and the purchase of a 10-year A-rated bond issued in November of 2022 yielding 5.05%. (More details and assumptions are in the appendix.²)

Figure 3 demonstrates how insurers can leverage IMR to avoid capital depletion on the balance sheet from this transaction. The IMR allows insurance companies to rebalance their portfolios and portfolio yield while not increasing credit risk, not compromising asset-liability management (ALM) dynamics and - most importantly - not reducing in key capital ratios.

Without IMR, assets are reduced by the amount of the loss with no corresponding offset of liabilities. The marginal decline in risk-based capital (RBC) company action level (CAL) is reflective of the small reduction in assets and the corresponding C1 charge. This results in a direct reduction to the company's Total Adjusted Capital (TAC) and a reduction in the company's RBC ratio from 400% to 362%.

With IMR, the reduction in assets is offset by a reduction in IMR leaving total capital unchanged. In fact, the RBC ratio increases slightly because of the lower capital charges due to the lower book value of assets after the trade. (The balance sheet implications of this trade are also demonstrated in Figures 8 and 9 in the Appendix.)

Figure 3 Balance Sheet Impact of Trade With and Without IMR

	Without IMR			With IMR		
	Initial	Post-Trade	Impact	Initial	Post-Trade	Impact
Assets*	\$1000.00	\$991.25	(\$8.75)	\$1000.00	\$991.25	(\$8.75)
Liability Reserve*	\$910.00	\$910.00	-	\$900.00	\$900.00	-
IMR*	-	-	-	\$10.00	\$1.25	(\$8.75)
RBC CAL*	\$22.50	\$22.45	(\$0.05)	\$22.50	\$22.45	(\$0.05)
TAC*	\$90.00	\$81.25	(\$8.75)	\$90.00	\$90.00	-
RBC TAC/CAL Ratio	400%	362%	-38%	400%	401%	1%

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*In millions

In addition to limiting capital volatility, leveraging IMR allows for smoother behavior.

Figure 4 demonstrates how a sufficient IMR impacts the way losses and yield pickup from this trade flow through NII and book yield. While the historical increase in IMR pushes realized gains into the future, buying and selling securities in the current elevated yield environment reallocates losses to future periods. The percentage changes in book yield and investment income are stated relative to the company's \$40 million allocation to public corporate A-rated 10-year bonds that were involved in the transaction. The benefits to both metrics are shown over the 8-year remaining life of the bonds that were sold and incorporate the amortization of IMR into income due to the initial loss.

Our analysis highlights how IMR allows insurers to increase both economic value and yield by selling lower-yielding assets in exchange for higher-yielding ones and mitigating the losses via IMR.

Regardless of the company's IMR balance, the company's portfolio net book yield will materially increase as a result of this trade. Figure 5 projects the gross yield for the company's Corporate A portfolio under three scenarios in which it:

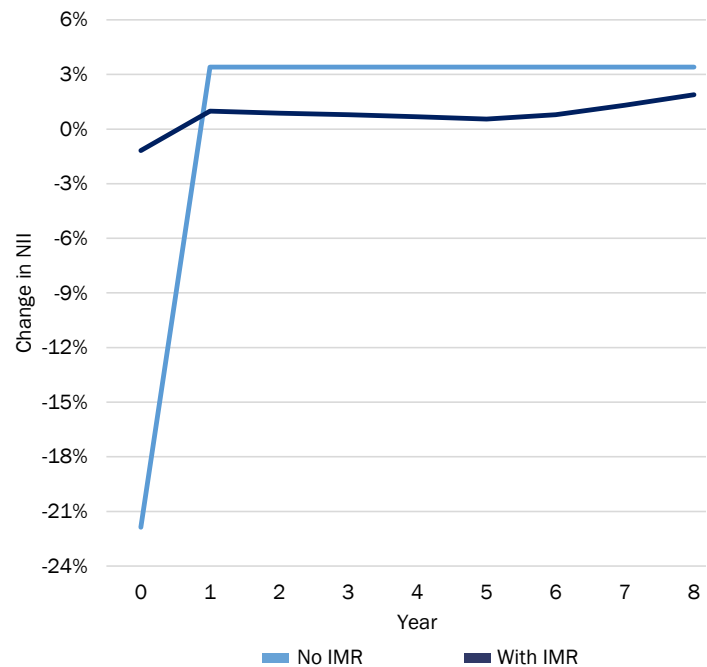
1. Holds the current bonds to maturity³ - no trade
2. Completes the transaction and the loss is amortized through IMR
3. Completes the trade of selling the lower-book-yielding bonds for the higher-yielding bonds and realizes the loss immediately.

IMR reduces the present value of the loss associated with the sale of the lower-yielding bonds by deferring this loss into future periods. This affords the insurer the opportunity to capture the dual benefits of both increased book yield and increased economic benefits to the firm.

Managing IMR to Specific Business Needs

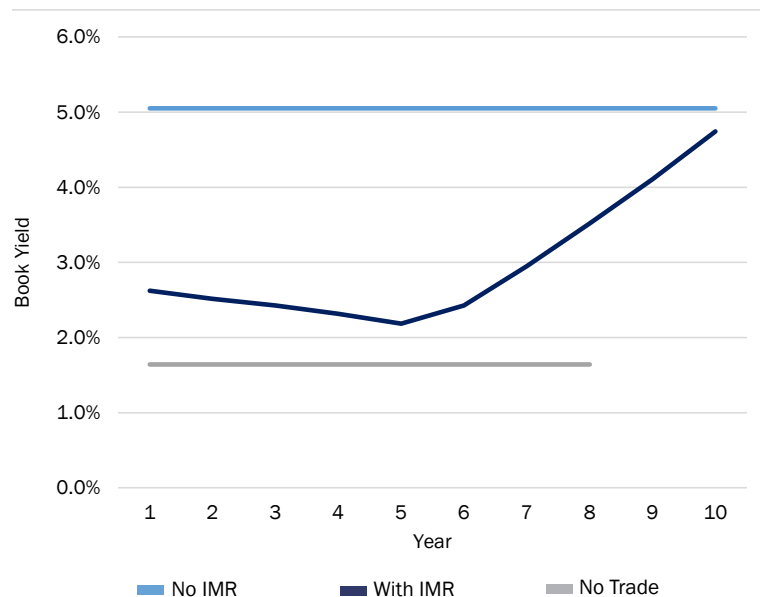
Comprehensive enterprise strategic asset allocation (SAA) modeling could identify additional opportunities to enhance yield and statutory net income by leveraging IMR. For instance, if the ALM model indicates appetite for illiquid assets, the insurer could use proceeds from the sale to invest in higher-yielding assets such as private placements, CLOs, or commercial real estate.

Figure 4 Net Investment Income Impact of Trade With and Without IMR (%)



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Figure 5 Book Yield Change Due to Trade



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However, there are many complex nuances to consider. IMR analysis is often complicated by interest-sensitive liabilities which are difficult to immunize across the various interest rate paths we see in statutory reserving, asset adequacy testing, and economic analysis.

For example, consider dynamic lapses associated with interest-sensitive whole life policies or multi-year guaranteed annuities. In a rising rate scenario, an insurer may be forced to fund surrenders through the sale of low-book-yield bonds that would produce realized losses. These losses would reduce the balance in a healthy IMR and mitigate surplus reduction. However, if rates rise steeply enough, these losses could fully deplete the IMR and possibly even surplus.

Buy-and-hold strategies that continue to hold low-yielding bonds will struggle even more in these pop-up rate scenarios, as the realized losses will be higher when bonds need to be sold to fund surrenders and lapses.

Prudently utilizing IMR to increase the book yield of the portfolio can improve the performance of interest-sensitive products in these scenarios. This highlights the importance of being judicious when selecting opportunities to realize losses and enhance portfolio yield. The decision to trade and reduce IMR in favor of higher-yielding assets must take into consideration the dynamic nature of policyholder behavior, and whether the company's existing IMR balance affords an opportunity to make these tactical adjustments to increase book yield.

Incorporate IMR When Developing Investment Strategy

The recent rise in yields has brought with it the opportunity to invest in the highest new-money rates we have seen in decades. While selling low-book-yield securities in the current market environment can produce losses, companies with positive IMR balances can mitigate the impact of these losses on a statutory basis while also enhancing the book yield of the organization.

Seeking prudent opportunities to leverage IMR and increase book yield can result in favorable outcomes on a statutory basis and can also improve a company's ALM dynamics by adding higher-yielding bonds that better support future liability cash flows. Additionally, these higher-yielding assets will better position the life insurers to satisfy asset adequacy testing, for which upward rate shocks can be particularly punitive for interest-sensitive products.

All of these considerations should be incorporated into a robust SAA and investment management framework. The need to incorporate the nuances and complexities around IMR into investment management processes has only increased with the current rate environment and regulatory uncertainty related to IMR.

Adding the IMR consideration is an important step, but Conning understands it only adds to the complexity of the SAA process. Many insurers would benefit from the help of a seasoned manager with the right tools to understand this, as many approaches to portfolio optimization do not effectively address the nuances of IMR.

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Appendix

Figure 6 Sample Life Insurer Assumptions

Insurance Company Assumptions	
Total Portfolio Book Value	\$1,000,000,000
Current Portfolio Book Yield	4.5%
Portfolio Duration	\$7
Policy Reserve	\$900,000,000
IMR	\$10,000,000
RBC CAL	\$22,500,000
TAC with IMR	\$90,000,000
RBC TAC/CAL	400%

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Figure 7 Trade Detail Assumptions

Transaction	Trade Details Assumptions						
	Issue Date	Rating	Maturity	Yield	Purchase Price	Current Price	Par Value (\$)
Buy	11/18/2022	Corp A	10	5.05%	100	\$100.00	\$31,254,731
Sell	11/16/2020	Corp A	10	1.64%	100	\$78.14	\$40,000,000

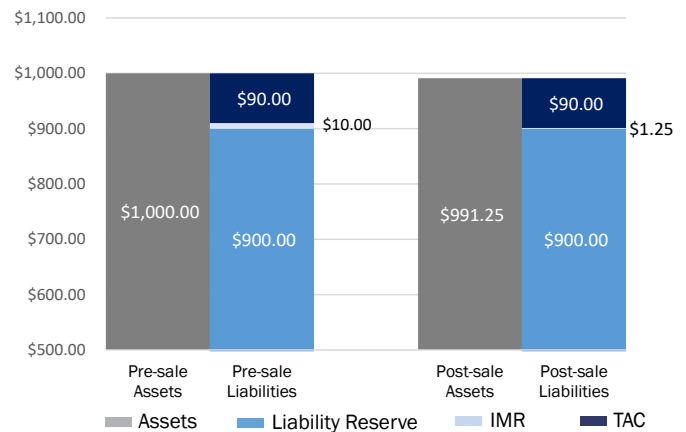
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Figure 8 Balance Sheet Before Trade



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Figure 9 Balance Sheet After Trade



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Jeremy Lachtrupp, ASA, CERA, MAAA, is a Managing Director in Conning's Insurance Solutions group, responsible for the creation of investment strategies and enterprise solutions for insurance companies. He joined Conning's Risk Solutions team in 2018 before assuming his current role in 2020. Previously, he worked for Prudential in its Market Risk Management department. Mr. Lachtrupp earned a degree in economics from Colby College.



Matt Reilly, CFA, is a Managing Director in Conning's Insurance Solutions group and leads the team responsible for the creation of investment strategies and solutions for insurance companies. He joined Conning in 2015 and was a portfolio manager before assuming his current role in 2018. Prior to joining Conning, he was with New England Asset Management. Mr. Reilly earned a degree in economics from Colby College.

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Footnotes:

¹ Each company has \$1 billion in assets, \$90 million of Total Adjusted Capital (TAC), and 400% RBC at the Company Action Level (CAL).

² The transaction details are based on historical market data, and the company's assumed portfolio, RBC components and IMR are reflective of life industry norms.

³ Under this scenario, the bond portfolio's yield is only projected for 8-years because there is only 8-years remaining until the bond matures.

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