The NAIC's Capital Markets Bureau monitors developments in the capital markets globally and analyzes their potential impact on the investment portfolios of U.S. insurance companies. Please see the Capital Markets Bureau website at INDEX.

The Impact of Rising Rates on U.S. Insurer Investments

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Executive Summary

- Rising interest rates support investment income and create more attractive investment and reinvestment opportunities, benefitting insurers' spread business and making their products more attractive.
- However, higher interest rates can potentially result in increased financing costs, as well as realized and/or unrealized investment losses due to a decline in the market value of certain investments.
- Insurers should feel less pressure to invest in riskier assets to achieve an attractive spread in an extremely low interest rate environment as they have over the past decade.
- Yields on U.S. Treasuries have been rising due to the Federal Reserve's (Fed's) increases to the federal funds rate, and the yield curve inverted to the widest point since 1981, which is an indicator of a possible recession.
- Corporate bond yields have increased significantly since the beginning of 2022 with rising interest rates; at current levels, this should generally allow U.S. insurers to reinvest proceeds of maturing corporate bond investments at greater yields than those rolling off.
- Increasing interest rates benefit mostly floating rate structured securities investments, such as collateralized loan obligations (CLOs), as well as the underlying bank loan collateral, which is also variable rate.
- With mortgage rates at a decade high, existing mortgage loans at lesser rates could decline in market value, resulting in higher loan-to-value ratios.

Insurers have faced a challenging investment environment for more than 10 years with interest rates at historically low levels for a prolonged period. However, the investment environment is becoming more favorable for investors from a rate perspective with interest rates on the rise. In efforts to combat the highest inflation rate in the U.S. in 40 years, the Fed increased the federal funds rate by a total of 450 basis points (bps) over eight separate but consecutive actions throughout 2022 and in January 2023, such that the federal funds rate range is set between 4.5% and 4.75%, which is the highest range since early 2007. Rates are expected to continue increasing throughout 2023, with the Fed predicting the median to be 5.1% by the end of the year. However, the Fed is not expected to increase the federal funds rate as much as in previous sessions, because it feels it is on a path to achieving its inflation rate target.

Rising rates support investment income and create more attractive investment and reinvestment opportunities. Insurers should, therefore, feel less pressured to invest in riskier assets to achieve an attractive spread in an extremely low interest rate environment, as they have over the past decade.

Insurers that engage in a "spread business," particularly life companies, will benefit from increased interest rates by earning more from higher yields; i.e., they will generate more income from the simple difference between investment income and the amount paid out on annuity guarantees and other liabilities. Other spread-based investments, such as those with the Federal Home Loan Bank (FHLB), Funding Agreement-Backed Notes (FABN), and securities lending and repurchase agreements, will also generate more income due to wider spreads with rising rates. Furthermore, insurers can offer higher crediting rates, making their products more attractive.

Notwithstanding, while increasing rates for the most part are a benefit, insurance companies seeking to issue bonds or roll existing short-term funding may experience substantially higher borrowing costs. Higher financing costs could pressure profitability in the form of higher interest expenses. The cost of capital, capital structures, lines of credit, and debt issuance that include subordinated notes, among other types of issuances, could be adversely affected.

In addition, the market value of existing investments in insurer portfolios will decline because bond prices fall as yields rise. However, insurers generally hold investments to maturity, which allows time for values to recover, so they can withstand some price volatility over the life of a bond. For the most part, losses will be categorized as unrealized investment losses and will not be realized until investments are sold, if at all. However, in cases where insurers are required to mark investments to market, investment losses would be realized, thereby reducing capital.

Fixed versus Floating Rate Investments

In terms of yield, rising interest rates benefit insurers' investment portfolio yield through existing investments that are tied to a benchmark rate; i.e., a floating rate. This includes investments such as bank loans; CLOs, which also have indirect exposure to bank loans; and mortgage loans, whose exposures have been increasing year-over-year. Bank loans are only about 2% of U.S. insurers' total cash and invested assets, while CLOs and mortgage loans are about 3% and 8% of total cash and invested assets, respectively. In turn, an increase in floating rate investments also increases investment income as interest rates are rising. Older bonds with fixed rates, however, are at risk of becoming less valuable because their interest rates are lower than those of new bonds being offered at higher rates. As a result, the price of the older bonds decreases and will likely trade at a discount.

Reinvestment at Higher Rates and the Potential for Improved Portfolio Credit Quality

Bonds and other investments that are maturing in the near term may be invested at higher coupons as rates increase, benefiting portfolio income. This is a welcome relief following the lower-for-longer interest rate environment. Given the nature of their liabilities, this trend may be more noticeable first with property/casualty (P/C) companies because of their shorter-term asset-liability management strategy than life companies, for example. The most recent annual statement filings by U.S. insurers identified about 4% of bond investments maturing in one year or less and 25% maturing in five years or less.

With the potential for increased income in more traditional investments, perhaps there is potential for a shift away from reinvesting in riskier investments as rates rise. Perhaps this will affect portfolio credit quality; i.e., with reinvestment in more traditional asset classes, there may be a marginal decrease in speculative-grade and alternative investments that previously were relied upon for yield pick-up.

Higher bond yields are generally positive for all insurers. They support life insurers' profitability and allow them to be more competitive, and they improve P/C insurers' profitability through increased investment income. However, on the flip side, they can result in unrealized and/or realized losses depending on accounting guidelines and investment sales activity.

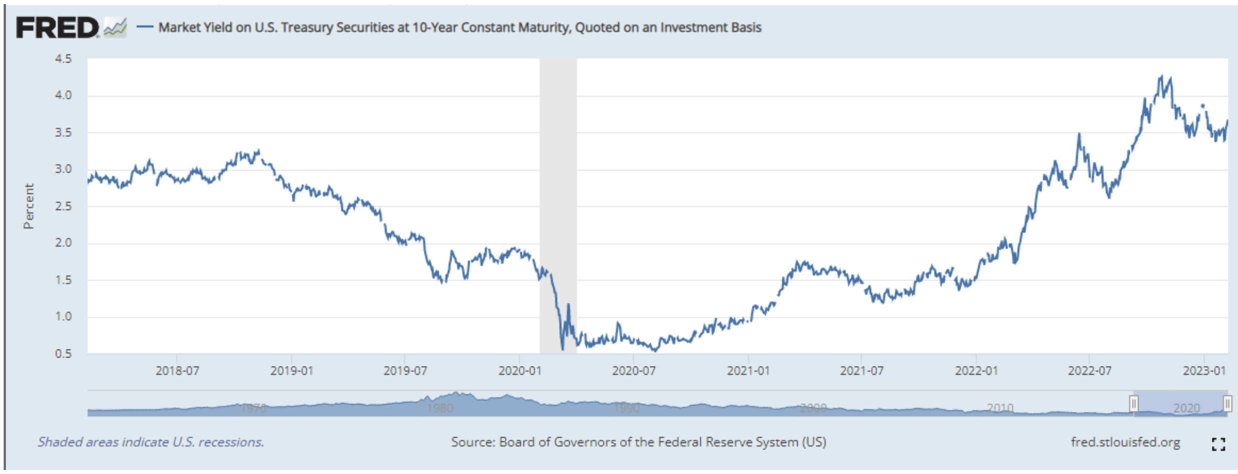
With continued market volatility due in part to geopolitical issues and concerns over a pending recession, investment opportunities in 2023 may depend on the asset type, as well as the position of the yield curve. That is, with an inverted yield curve—i.e., short-term rates are higher than long-term rates—investors anticipate a recession and will likely be risk averse. In addition, insurer type will also play a role as they differ in asset-type concentrations due to asset-liability management duration differences.

THE IMPACT OF HIGHER INTEREST RATES ON INVESTMENTS

U.S. Treasury Yields on the Rise

As rates have been rising, U.S. Treasury yields have also increased from historical lows in 2022. U.S. insurers have about 6% of total bonds invested in U.S. government bonds, which includes U.S. Treasuries. U.S. Treasuries are considered safe haven investments during times of market turmoil. A yield curve inversion—i.e., the yield on the 10-year U.S. Treasury dropped by more than 85 bps below the yield on the two-year U.S. Treasury, resulting in the most inverted yield curve since 1981—has been a long-time indicator of a possible recession. U.S. government bonds tend not to be a large portion of U.S. insurer investments, but the increase in yield will be beneficial to portfolio income going forward. The 10-year U.S. Treasury yield was about 3.5% in late January 2023, compared to 1.8% a year prior. In addition, U.S. Treasuries have a zero capital charge, so AAA-rated structured securities, such as CLOs that carry higher capital charges, may not be as attractive of an investment going forward.

Chart 1: 10-year U.S. Treasury Yield



Source: Federal Reserve Bank of St. Louis, Board of Governors of the Federal Reserve System (U.S.).

Corporate Bonds – Investment Grade and Speculative-Grade Yields Increase

As corporate bonds are mainly fixed rate, their relative value will decrease as floating rate investments become more attractive with higher benchmark rates. That is, bond prices will fall as yields rise to make them more attractive, given that their fixed-rate coupons will be lower. About half of insurer bond investments are corporate bonds, and the vast majority of U.S. insurer corporate bond investments are investment grade credit quality. From January 2022 to January 2023, the ICE Bank of America (BofA) Investment Grade Corporate Bond Index, which measures the performance of investment grade corporate debt, was down by about 14%.

Corporate bond yields have increased significantly since the beginning of 2022 with rising interest rates and widening credit spreads. As of year-end 2022, investment grade and high-yield corporate bond yields averaged 5.5% and 8.9%, respectively (refer to Table 1). Investment grade yields increased by approximately 270 bps during 2022, while speculative-grade yields increased by about 370 bps.

Table 1: Corporate Bond Yields, January 2000 – January 2023

	January 2023	December 2022	January 2022	January 2020	January 2010	January 2000
Investment Grade	5.0%	5.5%	2.8%	2.6%	4.6%	7.9%
High-Yield	8.0%	8.9%	5.2%	5.4%	8.8%	11.6%

Source: Federal Reserve Bank of St. Louis, Board of Governors of the Federal Reserve System (U.S.).

While they pulled back in January 2023, corporate bond yields remain at relatively attractive levels. Current yield levels should allow U.S. insurers to reinvest proceeds of maturing investments at greater yields than those rolling off. Based on a cursory analysis of the U.S. insurance industry's year-end 2021 portfolio, the weighted-average coupon rate, as reported by insurers, of corporate bonds maturing in

2022 and 2023 was approximately 3.7% and 3.6%, respectively. This dynamic should remain in the short term, as the Fed is committed to managing inflation through higher rates that will generally support investment income and benefit overall portfolio yield.

Higher interest rates and yields are also affecting capital raising, making it more expensive for all companies, including insurers, to raise capital and more difficult to access capital for some. Before rates began to increase, speculative-grade firms sold more new bonds in 2021 than in any other year, but as rates began to rise in 2022, the pace decreased significantly due in part to wary investors. According to Moody's Investors Service (Moody's), borrowing conditions in 2023 are expected to remain "adverse" given continued higher financing costs.

Structured Securities

Structured securities, such as CLOs, residential mortgage-backed securities (RMBS), and consumer asset-backed securities (ABS), are mostly floating-rate investments based off a benchmark. In particular, as published by the NAIC Capital Markets Bureau (CMB), U.S. insurers have significantly increased their exposure to CLOs in particular over the last few years; although, they are a relatively small portion of total cash and invested assets. CLOs are mostly held by life companies, but exposure among P/C companies is increasing. CLOs are not only floating-rate investments, but they also may be considered alternative investments due to the complexity of their capital structure. As such, yields tend to be higher for CLOs than more traditional bond investments with the same credit quality—i.e., an attractive investment feature in the lower-for-longer interest rate environment that had persisted—because they tend to be less liquid and more volatile than traditional bond investments.

As of the beginning of 2023, CLOs are required to be priced off the base rate of the three-month Secured Overnight Financing Rate (SOFR). As the Fed increases interest rates, SOFR will also rise; consequently, yields on CLOs will also rise. The spread on AAA-rated U.S. CLOs collateralized by broadly syndicated bank loans—the most commonly held tranche by U.S. insurers—averaged about 230 bps over three-month SOFR in Q4 2022 according to Fitch Ratings. As rates are expected to continue to rise, investor demand for floating-rate debt is also expected to increase.

With regard to RMBS and consumer ABS—i.e., student loans, auto loans, and credit cards—an increase in rates affects underlying loan payments. In general, there is a potential for reduced cash flow, as well as a decrease in loan refinancings. Prepayments will also decelerate. In addition to rising interest rates, concern regarding a pending recession, as well as macroeconomic factors, will also affect the residential mortgage loan, auto loan, student loan, and credit card receivables industries in adverse ways. RMBS and consumer ABS are also considered alternative investments; therefore, they are subject to volatility. Mitigating concerns regarding their exposure in U.S. insurer portfolios, they are a relatively small portion of U.S. insurers' overall total cash and invested assets.

Mortgage Loans

U.S. insurers' exposure to mortgage loans, particularly commercial mortgage loans, has increased over the years, as they have become a more conventional investment due in part to the lower-for-longer interest rate environment. According to the Mortgage Bankers Association (MBA), life insurers generally account for holding about 15% of the overall market's outstanding volume of commercial mortgage loans. Life insurers also account for over 90% of the U.S. insurance industry's mortgage loan exposure. Long-term commercial mortgages match well with life companies' long-term liability structure, and they represent a source of portfolio diversification, in addition to serving as an alternative investment to traditional bonds.

When the Fed increases interest rates, borrowing, including via mortgage loans, becomes more expensive. U.S. home mortgage rates are closely tied to the U.S. 10-year Treasury yield in that they tend to rise or fall in tandem. The 30-year fixed U.S. mortgage rate was 6.61% at the end of November; i.e., the highest in over a decade and more than double what it was in October 2021. As of the end of January 2023, the 30-year fixed mortgage rate was 6.4%.

Interest rates on commercial mortgage loans tend to be higher than residential mortgage loans, and they vary based on the type of commercial mortgage loan, loan-to-value (LTV) ratio, and term, among other factors. Current commercial mortgage loan rates range between 5.8% and 17.8% depending on the risk of these factors, according to various commercial mortgage loan rate websites. While the higher mortgage rates benefit U.S. insurers' new mortgage loan investments, the higher cost of financing is not as attractive to borrowers; in turn, home and commercial property purchases could begin to decline. In addition, higher mortgage rates could translate into lower market valuations of the real estate securing these mortgage loans, resulting in higher and riskier LTV ratios. The majority of U.S. insurers' mortgage loan exposure, or about 90% of the total, has been in commercial mortgage loans.

The NAIC CMB will continue to monitor trends with the interest rate environment and report as appropriate.

Questions and comments are always welcome. Please contact the Capital Markets Bureau at CapitalMarkets@naic.org.