FIXED RATE ANNUITIES

Are High Returns An Anomaly?

By Michael Finke, PhD, and David Blanchett, PhD, CFA®, CFP®
Fixed Rate Annuities

ARE HIGH RETURNS AN ANOMALY?

By Michael Finke, PhD, and David Blanchett, PhD, CFA®, CFP®

ABSTRACT

Fixed-rate annuities, also called multi-year guaranteed annuities, or MYGAs, offer expected returns protected by state guaranty associations similar to other safe investments such as certificates of deposit, money market accounts, or Treasury bonds. Yields on MYGAs have risen considerably, in relative terms, in recent years compared to historical levels. MYGAs offered by highly rated insurers had a 100–basis-point (bps) yield premium above Treasury bonds in 2020 and 2021, with premiums exceeding 200 bps from lower-rated insurers. Expected MYGA returns were approximately 100 bps higher than yields on similarly rated corporate bonds and have significantly lower default risk. We explore this apparent anomaly and discuss possible explanations including rent extraction from less sophisticated or inattentive consumers, and an increase in portfolio risk among insurers owned by private equity.

INTRODUCTION

Insurance companies offer fixed-rate annuities to individual investors as an alternative to safe savings instruments such as certificates of deposit (CDs), money market accounts, or Treasury bonds. Returns among these low-risk assets historically have been nearly identical (Fama 1985). Relative returns on fixed-rate annuities, commonly referred to as multi-year guaranteed annuities, increased sharply during 2018–2020, especially compared to long-term historical averages. For example, MYGA guaranteed expected returns are 100 bps higher than yields on corporate bond indexes with comparable maturities and credit ratings and are 200 bps higher than yields on guaranteed return assets such as CDs or Treasuries.

MYGAs issued by insurers with lower financial strength ratings and longer terms historically have exhibited consistently higher returns given the lack of defaults, especially among highly rated insurers. As of December 2020, expected MYGA returns generally exceed the yields of corporate bond indexes with the same approximate financial rating as the issuing insurer. Although high guaranteed returns could be explained partially by idiosyncrasies in the way insurance company ratings are applied, the fact that insurance companies can offer investors higher returns with seemingly less risk appears to be a form of alchemy.

Comparing MYGA rates to corporate bond yields is somewhat misleading given the impact of defaults, calls, and credit downgrades on realized bond returns (Ilmanen 2011), especially for lower-rated bonds. MYGA investors also benefit from the additional explicit backstop protection of state guaranty associations. With secondary capital protection and few historical investor losses, MYGAs likely dominate corporate bonds for many investors assuming reasonable historical insurer failure rates and recovery rates in the presence of state guaranty associations.

There are a variety of potential explanations for higher MYGA returns such as increasing private equity ownership among insurers, expected lapse and automatic renewals among annuitants, greater illiquidity, and increased risk-taking among insurers. MYGAs represent a unique market for financial instruments that is limited to individual investors. Because institutional investors are not able to arbitrage high MYGA rates, sophisticated MYGA investors can receive an above-market rate that may be subsidized by less-sophisticated investors or by the increase in portfolio risk among insurers owned by private equity.

We use historical MYGA return data to document the recent rise in guaranteed returns relative to yields on Treasury and corporate bonds. Since early 2019, A++ rated insurers with a near zero risk of default have offered MYGAs with guaranteed returns that are 1 percent higher than Treasury bonds. Among lower-rated insurers, MYGA returns are higher than non-guaranteed yields on corporate bonds. In other words, an insurer who invests the proceeds from MYGA sales into a portfolio of corporate bonds is transferring wealth to the investor who buys an MYGA and liquidates at maturity. State guaranty associations provide additional protection against MYGA risk among lower-rated insurers.

Our results add to an emerging literature that documents price trends that may be influenced by aggressive sales practices among insurers owned by private equity firms. Kirti and Sarin (2020a) find evidence that lower-rated insurers owned by private equity firms offered MYGA rates in 2017 that were significantly higher than rates offered by higher-rated insurers, and
that portfolio risk within insurer general accounts rose after acquisition by a private equity firm.

Insurers also may offer above-market rates on MYGAs to attract consumers who are likely to either incur fees through early liquidation, fail to liquidate the MYGA at maturity thereby initiating an automatic renewal at below-market returns, or who will transfer gains into another higher-margin insurance product. Effective use of MYGAs requires monitoring of maturity dates to avoid automatic renewal, and a consistent percentage of consumers will fail to devote the costly attention needed to take action (Gabaix 2019). Offering incentive or teaser returns thus represents a potential wealth transfer from attentive consumers to inattentive consumers. Less-sophisticated consumers also may be unaware of the probability and cost of early liquidation and may be more likely to accept transfer of funds to a more-costly insurance product by an insurance agent. Extraction of rents from inattentive consumers can explain the near parity of guaranteed MYGA returns with Treasury bonds prior to 2019 but cannot explain the sharp subsequent increase in rates we document in this analysis.

ARE MYGA RETURNS AN ANOMALY?
Although MYGAs have been sold for decades, demand rose sharply starting in 2019 through 2022. For example, MYGA sales increased by 86 percent in 2020 compared to 2019, and sales of other annuities generally fell in the United States over the same period. Sales of fixed-rate annuities as a percentage of total annuity sales was 36.4 percent higher between 2018 and 2020 (21.0 percent) than between 2010 and 2017 (15.4 percent), rising to 36 percent of all annuity sales by the second quarter of 2022.

MYGAs are issued by insurance companies with terms typically ranging from two years to ten years and are similar to CDs in that they provide a fixed guaranteed return over the term. Surrender charges typically decline over the product term and can be higher than withdrawal penalties common with CDs. For example, a higher-yielding MYGA may charge 9 percent if liquidated in the first year, falling to 5 percent on a five-year contract. Because broker commissions are front-loaded, the surrender charge protects the insurer against losses from contracts that terminate before spread revenue is earned. MYGA issuers also may be protected against loss through a market value adjustment (MVA) that reduces the interest earned on an MYGA that is liquidated prior to maturity if rates rise after the initial purchase. A CD owner may be better off than an MYGA investor subject to an MVA following a sharp rise in interest rates if the benefit of reinvestment at a higher rate exceeds the costs of early liquidation.

MYGAs typically are purchased for accumulation purposes, although they can be converted, i.e., annuitized, to guaranteed lifetime income at the end of the term. There can be penalties if the monies are accessed before the annuitant turns 59½. Unlike CDs, where taxes must be paid annually on interest, gains in an MYGA are not taxed until distributions are taken resulting in an increase in after-tax return on MYGAs compared to bonds or CDs held in taxable accounts for individuals who remain the same (or lower) tax bracket at liquidation.

The deferred taxation of MYGAs purchased from nonqualified assets, i.e., a taxable investment account, favors investors who either expect a lower future marginal tax rate when gains are realized or who ultimately use a 1035 exchange to purchase an income annuity or long-term care insurance to avoid taxes on gains. The tax-deferral benefit of annuitizing an MYGA is compounded by the unique taxation of annuity income spread over an expected lifetime, known as the exclusion ratio. Relative to annually taxable bond or cash investments, investors who simply cash out an MYGA receive a modest improvement in after-tax return from compounded gains if marginal tax rates are equal over time, and a potentially significant improvement in net returns if tax rates at maturity are lower than during the growth period or if the growth is exchanged for another insurance product. An example of an MYGA client would be a high-earner near retirement who expects lower income after retirement or has moved to a lower-tax state.

Unlike corporate bonds, where only the assets of the issuing company are available for recovery in the event of default, insurance companies also are covered by state guaranty associations. With state guaranty associations, each insurance company doing business in that state is assessed a share of the amount required to meet the portion of the guaranty association’s covered claims not covered with the insurer’s assets based on the amount of premiums each insurance company collects in that respective state. Although the amount of coverage varies by state, a common limit is $250,000.

DEFAULT RISK OF MYGAS AND BONDS
An MYGA investor faces no risk of loss if the insurer does not default and may experience either a delayed return of principal or no return of gains if the insurer is liquidated assuming protection by the state guaranty association. AM Best provides ratings on insurance companies as well as historical data on impairments. AM Best identifies a firm as impaired when the first regulatory action is taken by a state insurance department when it deems that the insurer’s ability to conduct normal insurance operations is adversely affected, its capital and surplus have been deemed inadequate to meet regulatory requirements, and/or the general financial condition has triggered regulatory concern. Insurer liquidation resembles a corporate bond default because there is the potential for investor losses; however, actual losses are rare. Figure 1 includes the average cumulative liquidation rates from periods one to ten years for AM Best ratings from A** to B+. We include only this rating range because it matches the ratings for the companies available for the analysis.
Liquidation rates for insurance companies have been relatively small. Over a five-year period, which is the primary period of analysis, the probability of liquidation ranges from 0.00 percent for A++ rated insurers to 1.83 percent for B++ rated insurers. Liquidation of an insurance company does not mean that annuitants lose their capital. The assets of an insurance company are used to return capital to annuitants should the insurance company default, and state guaranty associations serve as an additional backstop if the insurer’s assets are not enough to make consumers whole, up to a limit per individual that varies by contract type and state. Therefore, annuities purchased from insurance companies, especially those from higher-rated insurers, historically have carried little risk of loss.

Figure 2 shows default rate for corporate bonds during this same time period. Credit ratings for the respective Bloomberg Barclays indexes are based on the middle rating of Moody’s, S&P, and Fitch. We convert the Bloomberg Barclays rating levels to approximate AM Best rating levels, based on the approach in table 1, which is notably simplistic (and subjective) and likely overestimates the risk to MYGA investors.

Because defaults are higher among lower-rated bonds, their higher yields will not result in proportionally higher returns, especially among lower-rated corporate bonds that will experience higher expected defaults. The probability of default increases significantly as credit quality declines and over longer time horizons. For example, the average cumulative probability of default for an AAA-rated bond over a ten-year period is 0.83 percent, increasing to 14.07 percent for a BB-rated bond. This effect is demonstrated more fully in figure 2, which includes average cumulative default rates for U.S. corporate bonds during 1981–2021.

A default most often results in a partial capital loss for bondholders, i.e., the principal not being fully returned. Research by Moody’s notes that corporate family recovery rates, which measure the enterprise value of the corporate family relative to its total liabilities at default resolution, are widely dispersed with a mean recovery rate of 52 percent and a standard deviation of 26 percent. IImanen (2011) suggests assuming a recovery rate of 40 percent is common.

Defaults will reduce the realized return from owning bonds (controlling for interest rate changes). For example, Dimson et al. (2002) estimate that long U.S. corporates outperformed long Treasuries by 50 bps from 1900 to 2000. IImanen (2011) estimates outperformance is 2 bps for AAA/AA bonds, 33 bps for A-rated bonds, 3 bps for BBB bonds, and 189 bps for B-rated bonds during 1973–2009. The excess return of corporate debt over Treasuries has been positive, but it is significantly lower than the ex-ante yield spreads. In other words, yields of corporate-rate bonds do not accurately capture the expected return differential because they are not guaranteed.

**Table 1**

<table>
<thead>
<tr>
<th>Bloomberg Indexes</th>
<th>Implied AM Best Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaa</td>
<td>100</td>
</tr>
<tr>
<td>Aa</td>
<td>100</td>
</tr>
<tr>
<td>A</td>
<td>100 50</td>
</tr>
<tr>
<td>Baa</td>
<td>50 100</td>
</tr>
<tr>
<td>Ba</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1**

**Figure 2**

MYGA PAYOUT RATES

Historical MYGA payout data is obtained from Blueprint Income, an online marketplace for annuities, including MYGAs, from August 20, 2018, to December 31, 2021. The quotes come from 36 different carriers with terms of two to ten years. Five years is the most common quote term (27.65 percent of quotes), followed by seven years (25.67 percent of quotes), then three years (13.61 percent of quotes).
We focus on the five-year quotes for this analysis because that reflects the same approximate maturity as the respective Bloomberg Barclays Corporate Bond Index, which allows us to roughly control for credit quality and maturity when comparing yields. Figure 3 shows the average daily payout by AM Best rating over the period.

There are notable variations in payouts, especially across financial strength ratings. MYGA payout rates rise significantly as credit ratings decline, which is expected. Higher-rated insurers also reduced payout rates during the first quarter of 2020, i.e., during the initial period of the COVID-19 crisis, but companies with lower ratings did not.

COMPARISON TO BOND YIELDS
Although MYGA payouts declined over the period, so too have interest rates in general. Therefore, perhaps what is more noteworthy is the relative spread between MYGAs and other bond investments. This is demonstrated in Figure 4, which includes the average rate for five-year MYGAs, grouped by AM Best rating versus the yield on five-year government bonds from August 2018 to December 2021.

U.S. Treasuries commonly are assumed to be the default risk-free asset in investment research. Government bond investors bear interest rate risk if the bonds are sold before maturity, or if they are held in some type of pooled investment such as a mutual fund. There is also reinvestment risk because changes in future interest rates are going to impact the future returns on coupons over the entire investment period.

MYGA yields in August 2018 were likely consistent with investor expectations of approximate yield parity between highly rated insurance companies (with near zero default risk) and Treasuries, increasing to approximately 100 bps for B+ rated insurers. The spread across insurer ratings from A++ to B+, which has been relatively constant over the period, can be explained by the use of riskier assets, lower asset reserves, or lower margins among insurers with lower financial strength ratings.

Between August 2018 and December 2021, the spread between five-year Treasuries and low-rated guaranteed fixed-rate annuities rose consistently to approximately 2 percent by June 2019 and nearly 3 percent by July 2020 before settling at 2 percent again through the end of 2021. The gradual rise in fixed annuity payouts from lower-rated insurers appears to have created pressure on higher-rated insurers to offer guaranteed returns above Treasuries. By December 2020, the spread between five-year MYGAs among A++ insurers and five-year Treasuries increased to approximately 100 bps and remained at 100 bps through the end of 2021. Insurers were offering guaranteed rates roughly equal to the historical five-year average credit risk premium on U.S. corporate bonds (Asvanunt and Richardson 2017). Although receiving the credit risk/premium from bonds requires taking investment risk, MYGA rates are guaranteed and there is almost no incidence of default among highest-rated insurers.

Next, we compare MYGA payout rates to the yield of similarly rated corporate bonds, based on the financial strength rating of the issuing insurance company. Because the B++ rated companies have higher payouts than B+ rated companies and a higher credit rating, these are excluded for the yield comparison purposes. The results are shown in Figure 5.

Although bond credit rating categories are not necessarily directly comparable to insurer ratings (because the MYGA returns are guaranteed and defaults will reduce the realized returns from owning corporate bonds), the yields were similar through early 2019 with a consistent negative spread for insurance products (which would be expected given their reduced capital risk). There is a notable increase in the expected returns for MYGAs over similarly rated corporate bonds after 2019,
other than the spike in bond yields caused by the liquidity crisis of March 2020. By December 2020, MYGAs had yields that were all at least 100 bps higher than yields on similarly rated corporate bonds, and A++ rated bonds continued to offer guaranteed returns that were 83 bps above highly rated corporate bonds on December 31, 2021. A 100–bps MYGA yield spread over bond assets is unexpected because realized bond returns will be less than the yield, and significantly less for lower credit quality bonds given the higher likelihood of defaults.

**HOW ARE MYGA RATES POSSIBLE?**

MYGAs represent a low–risk fixed income alternative that may be particularly attractive to investors. Higher-rated insurers appear to be increasing guaranteed returns well above yields on similarly rated corporate bonds. Guaranteed returns that exceed non–guaranteed bond yields offered by insurers with little or no historical risk of insolvency present an investing opportunity that appears to be an anomaly that otherwise would be arbitrated by sophisticated investors in competitive markets.

Issuing fixed–rate annuities at rates that are significantly higher than yields on similarly rated corporate bonds and bank CDs is surprising, especially when you consider the realized return on similarly rated corporate bonds will be reduced by defaults, ignoring any changes in interest rates. This is likely to cause some people to question whether the yields associated with MYGAs are simply too good to be true. There are a variety of possible explanations.

Possible explanations include the absorption of risk by financial institutions that capture premiums in their general accounts and then transfer these gains to consumers at no risk—a true form of insurance alchemy. For example, an insurer may hold additional asset classes that benefit from historical risk or illiquidity premia such as real estate or private credit. Other explanations include offering teaser or incentive rates designed to induce inattentive consumers into an illiquid product prone to mistakes, and the emergence of private equity ownership among insurers and subsequent increase in portfolio risk.

First, the underlying credit rating of an insurance company is more a function of its capital ratio than the asset quality of its portfolio, as noted previously. The underlying investment quality obviously factors into the credit rating; however, companies with high ratings can still have relatively risky portfolios, increasing the relative yield. For example, New York Life, which is one of the two companies in the MYGA dataset with an AM Best rating of A++, reported in its 2019 Annual Investment Report that 30 percent of its bonds were rated BBB+ to BBB− and 5 percent were rated BB+ and below. Although the company is able to maintain an A++ AM Best rating, the weighted average rating of the underlying securities is going to be lower than its financial strength rating. Surplus wealth held within the general account portfolio allows the company to capture risk and illiquidity premia for assets that are not subject to the same constraints as insurance reserves. The MYGA premium represents a guaranteed transfer of these anticipated risk premia to consumers. When an institution absorbs investment risk and offers consumers a pure premium with no risk, this is a form of alchemy that unambiguously improves investor performance.

Second, a recent potential driver has been the significant reduction in annuity sales following the COVID pandemic. Insurance companies may be attempting to raise capital through MYGAs. One possible issue with this hypothesis is that it doesn’t explain the rise in rates before COVID. It could be that insurance companies are hoping the monies are relatively sticky upon the term completion or are expecting lapses that reduce the actual eventual payout.

Third, insurers anticipate a high percentage of early liquidations that trigger surrender charges, which can be as high as 9 percent during the first year. Lapse is surprisingly high within the insurance industry (Gottlieb and Smetters 2019), which could mean that a high percentage of MYGA investors either incur a fee to liquidate their contracts early; or they fail to liquidate within a 30-day auto–renewal period at maturity, which extends the contract for an additional five years. This results in a transfer from less–patient or inattentive investors who incur costly surrender charges to more–sophisticated savers as described in Gabaix and Laibson (2006). Lapse–based pricing could explain higher MYGA returns on average, but this does not explain the increase in guaranteed rates we find over the past two years.

Fourth, there has been a notable increase in the number of private equity companies in the annuity space, which may explain the recent trend toward increased risk–taking on bond assets held within general account portfolios of certain insurance...
companies. This increase in risk appears to be driven by sophisticated entities that purchase insurance companies and maximize firm value by rapidly increasing asset risk through the substitution of asset-based securities for corporate bonds (Kirti and Sarin 2020b). A regulatory change allowed insurers to reduce capital requirements for asset-backed securities following the global financial crisis, resulting in an incentive to take on significantly greater portfolio risk (Becker and Opp 2014). The increase in risk by some insurance companies raised the expected return and risk of portfolio assets, allowing insurers to offer consumers higher returns on insurance products and forcing insurers with more conventional portfolios to offer comparable returns to remain competitive.

By substituting asset-backed securities for traditional bonds, selecting offshore reinsurers with reduced oversight, and identifying opportunities to game static risk-based reserve requirement rules, sophisticated firms can increase their value through leverage. However, finding ways to increase leverage when losses are absorbed by competing insurers ultimately results in a wealth extraction from more financially stable insurers. Ironically, these same insurers appear to be sacrificing margins to remain price competitive with these risky insurers. The potential for increased systemic risk posed by private equity-owned insurers motivated the National Association of Insurance Commissioners in 2022 to issue a list of regulatory considerations applicable to private equity-owned insurers, which suggests that private equity firms may be “structuring contractual agreements in a manner to avoid regulatory disclosures and requirements”11 and the use of opaque structured investments.

Finally, the MYGA market is relatively small compared to the entire annuity market. The modest size of the market reduces the possibility of a systemic collapse arising from this risk transfer. Wealthy investors also are limited in their ability to arbitrage these high guaranteed rates because state guaranty funds traditionally reimburse only up to a modest capital loss of between $250,000 and $500,000 (varying by state). Wealthy investors would need to spread their MYGA investments among a range of insurance companies to preserve the risk protection provided by state guarantees. High surrender charges mean that MYGAs are less liquid than other fixed income assets.

**CONCLUSIONS**

Guaranteed returns on MYGAs are higher than returns on comparable fixed income investments. These high MYGA returns appear to be an anomaly in which consumers benefit from annuities that offer a more attractive risk-return trade-off than assets available to more-sophisticated institutional investors. Explanations for the return anomaly range from the benign costless transfer of an anticipated credit risk premium from insurance companies to investors, which can be viewed as a form of alchemy.

Alternative explanations are less benign. High returns on MYGAs that are liquidated at maturity reward attentive consumers who are able to capture above-market returns. Impatient investors may incur costly fees by liquidating MYGAs before maturity, and inattentive consumers may see their MYGAs renew automatically at a below-market rate. This results in a transfer of welfare from less-attractive and less-sophisticated consumers to more-attractive and more-sophisticated consumers and to insurance companies.

The ability to extract wealth from some less-sophisticated consumers can explain why MYGAs offered rates similar to Treasury bonds before 2019, but MYGAs offered a significantly higher guaranteed return than the yields on comparably rated corporate bonds during 2019–2021. This coincides with a period of significant growth in private equity ownership of U.S. insurers with a higher concentration of nontraditional bond investments such as asset-based securities.12 Our analysis suggests that pricing pressure from lower-rated insurers led to higher guaranteed rates by more financially sound insurers resulting in a surprisingly low yield spread between higher- and lower-rated insurers. This may present an additional opportunity for investors who can capture comparatively high returns with little default risk.

If sophisticated private equity firms are investing capital raised from MYGA sales in far riskier assets, it is possible that what may appear to be alchemy will instead lead to higher future default rates among insurers that may ultimately compromise the ability of state guaranty funds to provide a backstop for potential losses.

If high guaranteed MYGA yields reflect assumptions about lapse and transfers into more profitable products, attracting more-sophisticated investors to the market (for example, a reader of this article) may create losses for insurers whose general accounts underperform the promised high guaranteed returns. The magnitude of this risk to insurers is constrained by the limited term of the MYGA agreement as opposed to, for example, losses incurred by underestimates of lifetime income guarantee utilization among variable annuity owners who could achieve a significant wealth gain by exercising their lifetime income benefits. Following the global financial crisis, insurers readjusted their pricing of variable annuities to reflect recognition of this and other added risks (Koijen and Yogo 2022). It is possible that if insurers underestimate the percentage of investors who cash out their MYGAs before automatic renewal, or who transfer to a more competitive product at a different insurer, today’s historically competitive MYGA rates might eventually go away. © 2023 Investments & Wealth Institute. Reprinted with permission. All rights reserved.
ENDNOTES
4. We also use the same scale as average cumulative liquidation rates for corporate bonds, as shown in figure 3, for comparison purposes.

REFERENCES