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# Managing Long-Term Interest Rate Guarantees for Deferred Annuities

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**Disclosure**

This paper was developed to provide a general overview of the issues related to its subject matter. The comments and recommendations contained in this paper are not intended to provide specific consulting advice or a statement of actuarial opinion. The unique situation of an individual company should always be considered in determining an appropriate response.

**Background**

For the better part of the last decade, the nonforfeiture interest rate for deferred annuities has been at the 1% floor. This has allowed companies to set their long-term interest rate guarantees (guaranteed minimum interest rate) to 1% without any effort. This came as a particular relief to companies that have been struggling to support annuity contracts with 3 to 4% guaranteed minimum interest rates that were issued when interest rates were much higher. With the significant increase in interest rates in 2022, many of these companies are finding themselves asking whether they really have to go back to 3% long-term interest rate guarantees. With the right policy form language, companies can continue to set their long-term interest rate guarantees at 1% or lower. This paper outlines strategies for limiting exposure to long-term interest rate guarantees even when new business is issued in a relatively high interest rate environment.

**Role of the Nonforfeiture Interest Rate**

The nonforfeiture interest rate is tied to an average of the 5-year Treasury yield over a recent specified period. Companies have discretion over the frequency that the nonforfeiture rate is redetermined and some discretion over the averaging period. The averaging period can be as short as one day and cannot begin more than fifteen months prior to the issue date of the contract.

The nonforfeiture interest rate is subject to a cap of 3% and a floor of 1% (0.15% in states that have adopted the most recent update to the NAIC Standard Nonforfeiture Law for Individual Deferred Annuities).

The nonforfeiture interest rate is used to define the minimum nonforfeiture value under the retrospective test. The retrospective test defines the minimum nonforfeiture value as 87.5% of the premiums paid, less withdrawal benefits received, and accumulated at the nonforfeiture interest rate (companies may include a $50 annual policy fee).

**Options for Setting the Guaranteed Minimum Interest Rate**

Policies without a market value adjustment generally comply with retrospective minimum value by defining the guaranteed minimum interest rate as the nonforfeiture interest rate.

Contracts with a market value adjustment define a guaranteed minimum surrender value in order to ensure compliance with the retrospective test (otherwise, a sufficiently large increase in interest rates could result in a market value adjustment that reduces the surrender value below this floor). This allows these contracts to decouple the guaranteed minimum interest rate from the nonforfeiture interest rate.

This strategy isn't limited to contracts with a market value adjustment. All that is required is to define an appropriate guaranteed minimum surrender value in the contract and the administrative capability to track and apply this value when required.

Decoupling the guaranteed minimum interest rate and the nonforfeiture rate will require two additional nonforfeiture demonstrations when filing in the Interstate Insurance Product Regulation Commission. The first is a demonstration of the retrospective test at the guaranteed minimum interest rate, and the second is a demonstration of the prospective test at the interest rate that results in a deemed maturity benefit equal to the guaranteed minimum surrender value on the deemed maturity date based on a 3% nonforfeiture rate.

**Limitations**

If the declared interest rate is less than the nonforfeiture rate for a prolonged period, it is possible for the account value to be less than the guaranteed minimum surrender value. The 12.5% premium load permitted by the retrospective test provides a considerable time period before the guaranteed minimum surrender value kicks in. A couple of specific examples follow based on a guaranteed minimum interest rate of 1% and a nonforfeiture interest rate of 3%.

Example 1: If no interest is credited above the 1% guaranteed minimum interest rate, it will take 6.8 years before the guaranteed minimum surrender value exceeds the account value. Although the annual effective crediting rate will be 3% following this period, the average annual effective crediting rate over the life of the annuity will be considerably less. For example, the average annual effective crediting rate would be 1.63% and 2.31% for a 10 and 20-year period, respectively. This example demonstrates the shortest period that the minimum guaranteed surrender value would be less than the account value based on the assumed rate. The actual period is likely to be considerably longer because the company is likely to credit a rate in excess of the nonforfeiture rate for a significant period which creates additional margin.

Example 2: Suppose instead that 5% interest is credited for 5 years (e.g., under a 5-year Multi-Year Guarantee Annuity or MYGA). In this case, it will take 16.7 years before the guaranteed minimum surrender value exceeds the account value if the interest rate is reduced to 1% on the fifth contract anniversary.

**Redetermination Provision**

The standard nonforfeiture law for deferred annuities allows companies to redetermine the nonforfeiture interest rate periodically. Adding an optional nonforfeiture rate redetermination provision can further reduce the exposure to high long-term interest rate guarantees. Such a provision could be added to the data section of new policy forms and made subject to the statement of variability.

In periods when the nonforfeiture interest rate is relatively low, contracts can be issued without this provision, locking in a relatively low nonforfeiture interest rate for the life of the contract.

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In periods when the nonforfeiture rate is close to the cap, contracts can be issued with this provision, allowing the company to benefit from any future reduction in interest rates.

**Selecting the Redetermination Frequency and Averaging Period**

Initial Determination Frequency

The frequency used to determine the initial nonforfeiture rate for new contracts will affect the length of the measurement period that can be used to determine the nonforfeiture intertest rate. Many companies reset the nonforfeiture rate annually on a calendar year basis. This limits the measurement period to the last three months of the prior calendar year to comply with the requirement that the measurement period begin no more than fifteen months prior to the issue date. Since some lead time will be desired before the nonforfeiture rate becomes effective, this limits the measurement to less than one calendar quarter (e.g., the potential measurement period is limited to the months of October and November if a one-month lag between the determination date and effective date is desired). While the interest rate is updated only once a year, the measurement period is relatively short which can lead to increased volatility between reset points.

By contrast, resetting the nonforfeiture rate on a calendar month basis would allow a measurement period as long as fourteen months. Again, since some lead time will be desired, the maximum measurement period will generally be limited to thirteen months (assuming a one-month lag between the determination date and effective date is desired). While the interest rate is reset more frequently under this approach, the longer potential measurement period can reduce volatility between reset points.

Redetermination strategies with an annual reset or a monthly reset with a relatively long measurement period will generally lag behind significant interest rate changes (both up and down). On the other hand, strategies with a monthly reset and a short measurement period will be more reactive to changes in interest rates.

Redetermination Frequency

Redetermining the nonforfeiture interest rate at the beginning of each new interest rate guarantee period is a good choice for products with renewable multi-year interest rate guarantees. During periods that aren’t subject to a multi-year interest rate guarantee, redetermining the nonforfeiture interest rate on contract anniversaries will keep the redetermination reactive to changes in interest rates without the administrative burden that could be created by more frequent updates. This is also consistent with the fact that many companies guarantee current crediting rates for the duration of the current contract year).

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## Conclusions

Although interest rates have increased significantly over the past year, it may be prudent for companies to design and manage their deferred annuity forms to minimize exposure to significant long-term interest rate guarantees, particularly if the surrender charges aren't periodically renewed (e.g., CD MYGA products). By implementing a guaranteed minimum surrender value and/or implementing an optional nonforfeiture interest rate redetermination provision, companies can significantly reduce their exposure to long-term interest rate guarantees.

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