



AMERICAN ACADEMY *of* ACTUARIES

**Report on Low Interest Rates and Standard Nonforfeiture Law
for Individual Deferred Annuities**

**Presented to the National Association of Insurance Commissioners'
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Low Interest Rates and the SNFL for Individual Deferred Annuities

I. Executive Summary

Guarantees in the current Standard Nonforfeiture Law (SNFL) are causing a solvency concern today. Current annuity products remain solvent and make money primarily by maintaining an interest rate spread. With the severe decline of interest rates in the recent past, earned rates available in the marketplace are at historic lows. The SNFL requires a minimum guaranteed rate of 3 percent. In many cases, companies are no longer able to earn a sufficient yield in the marketplace to support this guarantee.

There are three layers of increased risk in today's environment:

- Risk exists when a policy is issued and the earned rate of the underlying assets less a spread is insufficient to support the credited rate for the duration of the underlying assets.
- Reinvestment risk also exists since even if a spread is sufficient at issue, there is much greater likelihood of earned rates being insufficient when the underlying assets need to be reinvested due to the continuation of a policy – a unilateral decision of the policyholder.
- If one believes that today's low interest rates are a temporary aberration, then there is also a much greater likelihood of policyholders leaving when interest rates snap back up (an event not really seen since the 1980's).

In the past 40 years, interest rates have fluctuated dramatically. In the past 20 years, the volatility of interest rates has increased. Predicting future interest rates is a futile task. There are a variety of theories and competing models, however, none is able to predict future rates with any guarantees. The continued solvency of insurance companies needs to be ensured, regardless of future interest rates, so that consumers can continue to be confident of receiving the benefits they have been promised.

Virtually all annuity products, and even life products, are either currently affected or have the potential to be affected in the future. The timing of the risks is different for different product structures, however, the risks are the same and are very real for all types of products.

After expanding on the above observations in the report that follows, the final section lists some possible alternatives to the current SNFL and their corresponding advantages and disadvantages. The goal of a SNFL is protection for the consumer, based on the following key characteristics:

- Impact on Solvency (assurance that benefits will be paid when promised)
- Nonforfeiture (guaranteed and non-guaranteed values provided to consumers)
- Understandability of products and guarantees
- Availability of a diverse range of products to serve a wide range of consumer needs.

II. What are the Risks?

The risk is insufficient spread between the earned rate on assets and the credited rate on liabilities. Sound risk practice dictates that the duration of the assets be similar to the duration of the liabilities. The duration of the liabilities varies primarily with the surrender charge period, but is also influenced by the frequency with which the credited rate can change. Contracts with a longer surrender charge period and less frequent changes in credited rates, have a higher duration than those with a shorter surrender charge period or more frequent changes in credited rates. This section will discuss a contract with an interest rate guarantee period equal to the surrender charge period.

At the issue date of the contract, assume the company will buy an asset with a maturity date equal to the surrender charge period. Generally, the credited rate is equal to the earned rate less a spread. If the initial earned rate minus the spread is less than the guaranteed rate for the contract, there is certainly a profitability issue and possibly a solvency issue. The company can only control this risk by not issuing products that guarantee this insufficient spread.

Suppose a company can profitably issue a product today with existing spreads and interest rate guarantees. At the end of the presumed contract period (surrender charge period, for example), the policyholder can choose to continue (renew) the contract, annuitize, or move their account value to another insurance product. In a competitive environment, absent any interest rate guarantees, the insurance company will offer a renewal credited rate and interest margin equal to that available on new business.

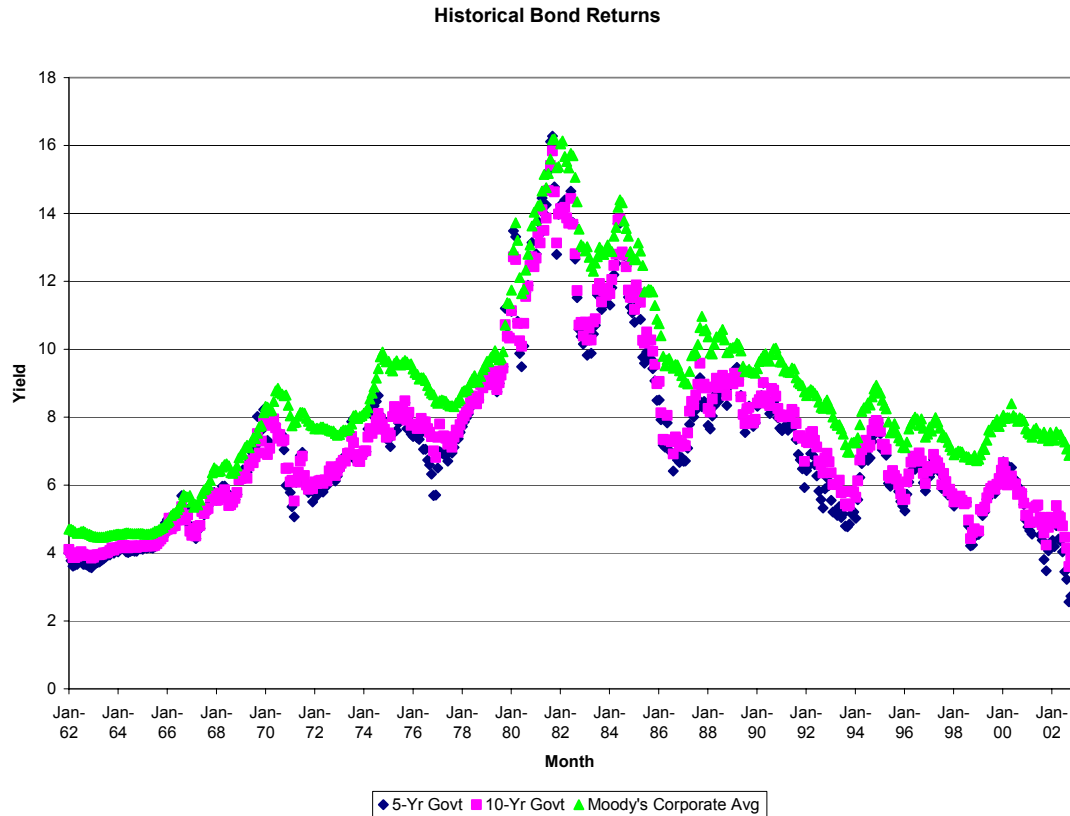
The future interest rate guarantee gives the policyholder an option to continue a contract that may be unsupportable at the renewal date if interest rates have declined sufficiently since issue. The value of this option can be determined using methods like Black-Scholes. This is a risk that the company cannot control, since the guaranteed rate is locked in at issue and the company has no control over future interest rates.

Additionally, if there is no longer a surrender charge or market value adjustment in place, a policyholder has no cost for leaving his current contract. This allows him/her to continually “shop the market” for the best available rate. This produces a short liability that generally requires the company to invest in short assets. These short assets will typically have a lower earned rate that exaggerates the risk of the interest rate guarantee being unsupportable, even if the yield curve has stayed the same or increased. If the company ignores the short duration of the liability and purchases longer assets to increase yield to afford the guaranteed rate, then the company is exposed to increased disintermediation risk if interest rates subsequently increase.

One last risk which is important to mention here, but which will not be analyzed in the later sections, is taken by flexible premium products where premiums can be added in the future. This will greatly magnify the risk on the downside of interest rates dropping below acceptable levels to maintain profits and solvency. This risk is mitigated somewhat in the current SNFL by allowing larger loads on these types of products.

III. What Will Future Interest Rates Look Like?

Interest rates have fluctuated significantly over time. The volatility of interest rates has increased in the last 20 years. The five-year Treasury has ranged from a high of 16.3 percent in 1981 to a low of 2.56 percent in 2002. The following graph shows the history of select interest rates over the last 40 years.



The average rate for the five-year treasury over the 40 years has been 7.2 percent. However, over this same 40-year period, inflation as measured by the CPI has averaged 4.6 percent annually, implying a real or excess return of 2.6 percent for five-year Treasuries. In addition, the U.S. Federal Reserve Board has implemented a new regime of monetary policy with stated inflation targets of 2 percent annually.

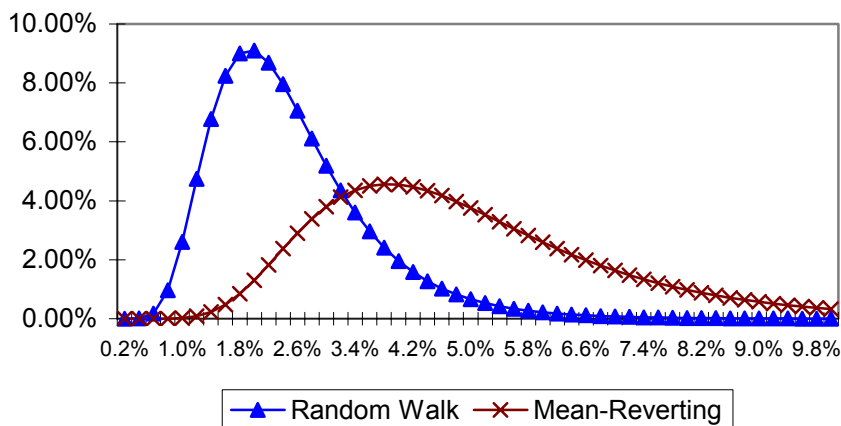
These facts have led many leading economists and, arguably, the capital markets to expectations that going forward, interest rates will not revert to historical averages and that we have entered a new era of low interest rates.

Another important point, made by the key note speaker at the October 2002 Annual Meeting of the Society of Actuaries, Peter Bernstein, is that while long-term averages are important, it is even more important to focus on the outliers. In other words, while the long-term average may or may not revert to its previous rate, there definitely will be times of very high rates and very low rates. The duration and size of these outliers is, of course, unknown.

There are two competing theories commonly used in interest rate modeling. One says that rates will generally move from today's rate to the long-term average. The rate at which it moves towards the long-term average is determined by the annual correlation rate. This model is called mean reversion. The annual correlation rate for a mean reversion model of interest rates over the last 40 years is 87 percent. So in five years, we expect interest rates to move 50 percent of the way from today's level back to their long term average ($.87^5=50$ percent). With a current rate of roughly 2.5 percent and a long-term average of roughly 7.5 percent, this means that we expect rates to be about 5 percent in five years.

The other model says that there is no mean reversion from year to year, so that the current level of rates is the long-term average and there is variability around today's level. This is called a random walk. Random walk is a specialized case of mean reversion with an annual correlation rate of 100 percent.

The following graph shows a probability distribution function of future expected interest rates under each of the two models assuming an initial five-year treasury rate of 2.5 percent (the rate as of 9/30/02 was 2.56 percent). The bottom axis shows the range of possible future interest rates and the left axis shows the percent of time that interest rate occurs. The random walk model, since it does not revert to the long-term average over time, has many more cases where interest rates are low.



A recently developed, more complex, model combines these two models into what is called a regime switching model. Here, two random variables are at play. The first defines a small probability that the “regime” or mean reversion “target” has moved in a significant way to a new regime. The second variable then defines the amount of random change from the prior period, independent of whether there was a regime change or not.

IV. What are the Products?

Deferred annuity products can be grouped loosely by “duration”. Short duration annuities consist of those with annual resets, surrender charge periods of three years or less, fixed accounts in variable annuities, and other fixed annuities with the ability to transfer money to different buckets without penalty. Medium and longer-term annuities are an extension of the short-term annuities with longer surrender charge schedules or longer guaranteed periods on a credited rate. Equity indexed annuities also fall under a medium or long classification.

The previously mentioned risks (duration matching at issue and reinvestment risk) will occur for each type of product. The primary difference is the timing of the risk. In a low interest rate environment, the shorter duration annuities will generally be affected before the longer duration annuities. Life products will also be affected. Generally, life products are longer in duration than “long duration” annuities, however, this is dependent upon individual contract characteristics.

Estimates of the current “supportable” credited rates are 1.5 percent - 2.5 percent for “short duration” annuities. They are in the range of 2.5 percent - 4.5 percent for “medium duration” annuities, and 4.0 percent - 6.0 percent for “long duration” annuities. These supportable rates reflect only the required interest spread, and do not account for the cost or increased risk associated with providing the guarantees.

Products that reward annuitization also serve to increase duration, since the company will pay out benefits in a series of payments rather than in a lump sum. Immediate annuities are not addressed explicitly here, but the concept is very similar.

The key characteristic of any insurance product is the total expected duration of the liability. The liability duration affects the duration of the assets purchased, which in turn affects how soon the product will be affected in a low interest rate environment. Shorter duration products are affected in the current interest rate environment at issue and at reinvestment. Longer duration products are less affected at issue, but are just as exposed to reinvestment risk.

Identification of specific products that are currently affected is a function of the current yield curve, default risk if lower rated bonds are purchased, company spread requirements, company expenses, required return to shareholders, and a variety of factors that vary by company and product.

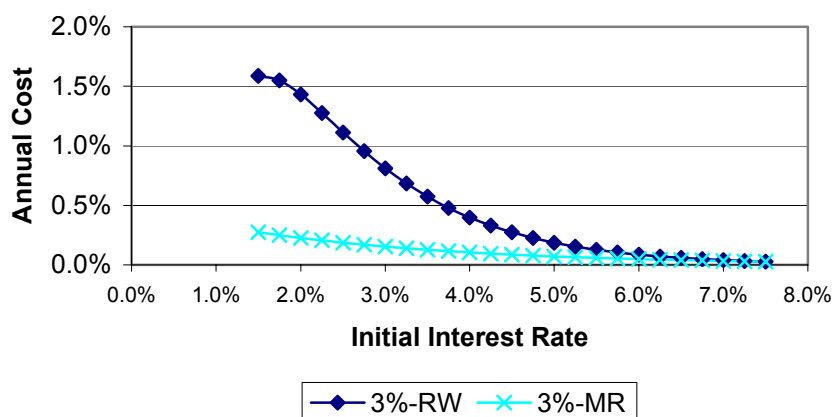
V. What is the Cost of Providing Guarantees?

Identifying an explicit cost of providing guarantees is a complicated exercise requiring many detailed assumptions. This section will quantify the cost for a deferred annuity with a five-year interest rate guarantee. The cost should be broken up into two components – the cost at issue and the cost at renewal or reinvestment. One way to look at the cost is to calculate the present value of expected future economic costs, which is the difference between the earned rate and the credited rate. The credited rate used for this is the greater of the guaranteed minimum rate and the five-year treasury less an arbitrary required spread of 50 bps.

The cost for the initial guaranteed period is a straightforward calculation. If the earned rate minus the spread is equal to or greater than the credited rate, the cost is zero. For lower earned rates, the cost is the present value of the difference.

The cost for the renewal period is more complicated. It requires a probability distribution of future interest rates according to the interest rate model. It is the present value of the lost interest margin for each potential future interest rate times the probability of that interest rate occurring (see the second table in Section III for the probability of future interest rates). The cost is expressed as an economic cost *per year* at issue, to hedge against possible future interest guarantees. This economic cost is what a company would pay to a reinsurer or option writer (plus appropriate transaction costs, risk loading, and profit to the reinsurer or option writer) each year for various initial interest rates.

The following chart shows the annual economic cost of an option for a variety of initial interest rates with a 3 percent minimum guaranteed credited rate. So for the Random Walk model the cost is about 111 bps per year with an initial five-year Treasury rate of 2.5 percent, and about 81 bps per year with an initial Treasury rate of 3.0 percent. For the Mean Reversion model, the cost is about 19 bps and 15 bps respectively.



Similarly, the following chart shows the annual economic cost of an option for a variety of initial Treasury rates with a two percent minimum guaranteed credited rate. So for the Random Walk model the cost is about 39 bps per year with an initial Treasury rate of 2.5 percent, and about 24 bps per year with an initial Treasury rate of 3.0 percent. For the Mean Reversion model, the cost is about three bps and two bps respectively.



The following chart summarizes the costs for specific points in the above graphs.

Annual cost of option with different initial Treasury rates and different interest rate models				
Guaranteed Interest Rate	Mean Reversion		Random Walk	
	2.5%	3.0%	2.5%	3.0%
3% Guar	19 bps	15 bps	111 bps	81 bps
2% Guar	3 bps	2 bps	39 bps	24 bps

Clearly, the higher the initial interest rate, the greater the tendency to revert to a higher interest rate, or the lower the guaranteed minimum interest rate, the lower the cost of the guarantee.

The most important question is “what should the guaranteed rate be today in order to have the same risk as we had in interest rates one year ago and interest rates at the long term average.” This is answered for the reinvestment portion of the risk only here.

- **One year ago, the five-year treasury was roughly 4.25 percent and the guaranteed interest rate was 3.0 percent. To have the same amount of reinvestment risk today that existed one year ago, the guaranteed rate should be 2.0 percent.**

- **The long-term average for the five-year treasury over the last 40 years is 7.2 percent. To have the same amount of reinvestment risk today that exists at the long-term average, the guaranteed rate should be 1.25 percent and a year ago it should have been 1.75 percent.**

VI. What is the Impact of Asset Duration?

Increasing asset duration increases the benefits that are available to policyholders.. These benefits include interest credited in excess of minimum guarantees, equity participation, and many other benefits.

A. Impact on Credited Rate Benefit Obtained by Consumer

Insurance companies have access to a generally upward sloping yield curve. Investing in longer securities allows the insurance company to pass higher value on to the policyholder. In order to offer higher yields to consumers, insurance companies must be protected against the cost of early disintermediation. Any product characteristic that has the important incentive of encouraging persistency in an insurance contract lengthens the duration of the liability. Such characteristics include surrender charges, market value adjustments, limitation on transfers and withdrawals, and rewarding annuitization of the contract. Increasing the length of the liability allows the insurance company to increase the length of the asset. The result is the insurance company earns a higher return that is passed on to the policyholder through higher credited rates or additional benefits. If the liabilities are short, a company has two choices. It can either buy short assets, resulting in lower yields and lower credited rates, or it can buy longer assets to increase yield, then face disintermediation risk if interest rates should rise.

The increase in return for each doubling of the asset duration is roughly 45 bps (moving from two to five to 10 to 20 years). The following table shows the average increase in yield across different time periods and credit quality over the last 10 years. It also shows the minimum and maximum spread. For example, if the twoyear Treasury rate were 3.0 percent, then the average five-year rate would be 3.56 percent. The lowest rate for the five year rate would have been 2.89 percent (3.0 - 0.19) and the highest rate would have been 4.53 percent (3.0 + 1.53).

Spread	Treasury	AAA	AA	A	BBB
2 yr – 5 yr	56	64	62	67	67
(min,max)	(-19, 153)	(-1, 180)	(-1, 165)	(2, 158)	(15, 157)
5 yr – 10 yr	34	42	44	45	46
	(-32, 103)	(0, 124)	(1, 127)	(0, 117)	(-1, 105)
10 yr – 20 yr	44	41	44	59	49
	(2, 100)	(-2, 108)	(4, 114)	(18, 137)	(4, 110)

The following table shows the incremental value available by having longer contracts. In other words, this table shows that by purchasing longer assets, the incremental credited rate from the previous table increases the value passed through to policyholders. The initial credited rate is hypothetically chosen to be four percent.

Incremental Value of Longer Contracts

Contract	Additional rate	Credited Rate	Ending Value	Incremental Value
10 2-yr terms	0	4.00%	21,911	-
4 5-yr terms	0.65%	4.65%	24,819	2,908
2 10-yr terms	0.45%	5.10%	27,043	2,224
1 20-yr term	0.45%	5.55%	29,455	2,412

B. Impact on Alternative Additional Benefits Obtained by Consumer

A popular alternative in the market over the last five years, has been to use the longer values available under longer asset durations to purchase equity participation benefits in lieu of enhanced interest benefits. The policyholder accepts a minimum guaranteed interest rate value and uses the rest of the value to purchase participation in an index such as the Standard’s & Poor 500. These products provide a valuable option to those who wish to benefit from equity growth, while safeguarding their principal from the kinds of declines in equity value as have happened in the last two years. One way to help understand how the nonforfeiture interest rate discussions impact the equity benefits available in these products, is to review what the different load and interest rate minimums do to the amount of time needed to guarantee a return of premium. This provides one way to capture the amount of “room” provided by loads, to allow these products to provide equity indexed benefits in addition to a product guarantee.

For example, a common equity indexed annuity (EIA) product design will highlight that the guaranteed portion of the product will return one’s premium in 10 years, along with X percent participation in the market. This meets the current nonforfeiture requirement as it equates to a 25 percent product load accumulated at a 3 percent interest rate. (The maximum return period allowed under the current 35 percent load equates to a 13-year horizon.) A load of 12.5 percent (as in the current SNFL proposal) accumulated at 2.25 percent equates to a six-year horizon. This limits the amount of money available to purchase equity benefits, and may not be enough to provide more than an ancillary benefit for products sold in today’s environment. A solution is to either maintain current loads, or to recognize that lowering the guaranteed interest rate will also work. For example, 87.5 percent accumulated at 1.5 percent equates to a nine-year horizon and thus maintains access to increased participation in equity returns via either higher participation rates or higher guaranteed caps.

This is an example of a higher level of guarantees (a lower allowable load) having a potential negative impact on consumer values through reduced equity participation.

VII. What is the Potential Impact of a Senior Return of Premium Provision?

There is a section in the proposed draft of SNFL that contains an extended premium refund provision for older ages (currently defined as age 70 and above). For these ages, this provision adds considerable liquidity risk which means that the duration of the liabilities is shortened. The only effective way to handle this risk is to invest in shorter assets that have a lower yield (except in those rare instances of an inverted yield curve). This lower yield must then be passed on to the consumer. It could be passed on to all purchasers of a policy form, but more likely, separate policy forms would be developed for those ages 70 and older. This would severely decrease the value available to older consumers. According to the LIMRA Deferred Annuity Buyer Study, the following table shows age characteristics of total annuity purchasers.

Age	Percentage
65+	29%
70+	20%
75+	11%
80+	4%

This would limit consumer choice and value by either requiring lower credited rates to seniors or products not being available. This is another demonstration of the irony of the cost of higher guarantees resulting in lesser benefits available to the consumer in a competitive market.

Possible alternative solutions include:

1. Require an additional signature for those ages 70 and older
2. Additional disclosure highlighting the existence of a surrender charge
3. Similar to LTC insurance, require the offer of a product with no surrender charges
4. Ask the American Academy of Actuaries (Academy) to review the disclosure law and encourage adoption by the states.

Each alternative requires additional research to ensure the sufficiency of the solution as well as ensure there are no unintended consequences.

VIII. How does the Current SNFL Work?

Any impact that the SNFL has upon minimum required interest rates and, ultimately, solvency, results from the SNFL “retrospective test”, which establishes a floor for cash surrender values. There are different requirements, based upon the contents of a state’s version or interpretation of their nonforfeiture law. The various versions of the laws and their implications are:

Model Law (most states)

The National Association of Insurance Commissioners’ (NAIC) Model SNFL for Individual Annuities generated few questions of interpretation from its development in 1977 until the emergence of equity indexed annuities in 1996. The discussions in 1996 and 1997 led to a common interpretation that the minimum nonforfeiture value requirement was net considerations minus certain expense allowances and withdrawals, all accumulated at three percent.

Net considerations are 90 percent of premium for single premium deferred annuities (SPDA) and 65 percent in the first year and 87.5 percent thereafter for flexible premium deferred annuities (FPDA). It was only on the basis of this interpretation that, equity indexed annuities in their current form, were possible.

To the extent that surrender charges and policy loadings are below the SNFL “loadings” (i.e., 10 percent on SPDA’s and 35 percent / 12.5 percent on FPDA’s), the differential may be used to provide a cumulative allowance for interest crediting below the 3 percent SNFL interest rate. For typical annuities with a declining surrender charge scale, this would result in a cumulative allowance that increases as duration increases.

Implicit in this description is the lack of a relationship between the interest rate in the SNFL and either minimum guaranteed or actually credited interest rates on the account value. The SNFL creates a cumulative floor for cash surrender values and the actual account values may grow in any fashion. This includes years of high credited rates compensating for years with rates below the SNFL rate. Although the minimum guaranteed crediting rate is not required to be at least equal to the SNFL interest rate according to this interpretation of the SNFL, several states nevertheless impose that requirement. Ultimately, the loading also compensates for years with rates below the SNFL rate.

Other States

The SNFL in WA and OR consider the floor to include “existing additional amounts credited by the company”. The specific meaning of existing additional amounts may be open to interpretation, but the general effect is to eliminate the ability of high credited rates to compensate for years with rates below 3 percent. Effectively, the loading provides the only allowance for credited rates to fall below the SNFL rate.

The NY nonforfeiture law requires that the account value must receive at least 3 percent interest credit annually. This provides no opportunity to credit a rate below 3 percent in any year.

A few states have periodically interpreted the model SNFL differently from others. For example, in MD, SC and PA, for some product designs the state does not allow less than 3 percent annual crediting rate in any year.

Note: Characterizing the SNFL minimum rate as an annual minimum, removes the margin provided by the loading provisions, so that some of the rate relief discussed below would not be available under such a provision. The Academy recommends a uniform adoption of the cumulative interpretation rather than an annual minimum.

IX. What are Possible Solutions?

Several possible solutions to the low interest rate problem are explored below.

Solution #1: Temporarily discontinue offering certain affected annuities during times of low interest rates

Advantage:

- ◆ This would safeguard new products and companies from some of the adverse solvency impact of low interest rates.

Disadvantages:

- ◆ Short-duration annuities sold during higher interest rate periods still pose solvency risk when short-term interest rates subsequently decline.
- ◆ There may be consumer demand for these products, even in low interest rate environments, and this demand would be unmet.
- ◆ Discontinuing and reintroducing product offerings on a regular basis is disruptive and costly.
- ◆ For medium and long-duration products, disadvantages are magnified. Temporarily pulling products off the market would create a major impact on consumers, as core product offerings would not be available. If interest rates reach a low level where these products are not feasible to offer, the annuity market will be very limited.

Solution #2: Utilize excess SNFL loads (above actual loads in the contract) to offer a lower minimum guaranteed interest rate. For example, using the 10 percent SNFL load, an SPDA without surrender charges or other loads could offer a minimum interest rate guarantee that could be expressed as:

- 1) 0.85% for 5 years, and 3% thereafter; or
- 2) 1.92% for 10 years, and 3% thereafter; or
- 3) 2.46% for 20 years, and 3% thereafter.

An FPDA without surrender charges could result in lower minimum interest rates. Note the current draft for a revised SNFL uses a 12.5 percent load for both SPDA and FPDA in all years.

Advantages:

- ◆ This solution provides the company with an additional margin to address low interest rate risk in early contract years.
- ◆ It may allow consumer demand to be met for short-duration annuities during temporary periods of low interest rates.

Disadvantages:

- ◆ The solution does not address long-term solvency risk posed by low interest rates, since ultimate minimum rates would need to grade to three percent.
- ◆ Currently some states do not permit crediting less than three percent in any year.
- ◆ The existence of any surrender charge or load would increase the minimum interest rate required.
- ◆ While the current 35 percent/12.5 percent FPDA SNFL loadings would provide for low minimum interest rates on premiums in contract year one (i.e., 1.53 percent for 30 years, and 3 percent thereafter) premiums in later years would be subject to constraints similar to SPDA's. Draft revisions to SNFL would change the 35 percent to 12.5 percent.
- ◆ For medium and long duration annuities, utilizing SNFL excess loads has limited impact given surrender charge offsets and when spread out over a long period of time.

Solution #3: Change the SNFL to base minimum interest rates on an interest rate index. Possible indices recently discussed include short-term Treasury rates, perhaps reduced by a specified spread and/or subject to a minimum and/or maximum.

Advantages:

- ◆ SNFL would allow some recognition of changing interest rate levels.
- ◆ An index provides the most protection for industry solvency during prolonged periods of low interest rates.

Disadvantages:

- ◆ Since interest rates can vary sharply during short time intervals, the indexing approach may not be sensitive enough to changes in interest rates. This could be addressed by allowing the index to be updated on a frequent basis (e.g., monthly). Consideration of how often the index is reset for an existing contract also needs to be addressed.
- ◆ Many consumers may perceive an indexed minimum guarantee as complex, given the fact that current interest rates would vary in addition to the minimum interest rate guarantee. This disadvantage may suggest including a flat rate in the proposal as well.
- ◆ Many consumers want a single minimum interest rate guarantee for the life of the contract. This also may suggest including a flat rate in the proposal as well.
- ◆ A single-duration index will not provide protection for all types of products. Utilization of a multi-duration index may address this risk.

Solution #4: Lower the SNFL interest rate to a fixed rate below three percent. For example, consider extending the interim solution of 1.5 percent.

Advantages:

- ◆ There has greater potential for expedient and uniform adoption by states. This is a significant key to success. Any interim solution must be widely and uniformly adopted.
- ◆ This alternative is the solution most likely to allow continuance of existing product designs.
- ◆ It mitigates some of the low interest rate risk.
- ◆ The minimum guaranteed rate is determinable from the contract issue date, and many consumers want a single minimum interest rate guarantee for the life of the contract.

- ◆ It is easy to understand and implement.
- ◆ It would allow more time for a generalized nonforfeiture proposal to be developed for both life and annuity products.

Disadvantages:

- ◆ Some regulators have expressed concern with significant reductions in the SNFL interest rate.
- ◆ The solution does not eliminate all low interest rate risk. For example, at today's interest rate levels, a 2.25 percent minimum interest rate (as contained in the draft revised SNFL) will not sustain many existing products
- ◆ A low fixed SNFL rate may be inappropriate for higher interest rate environments.
- ◆ A single rate may not be appropriate for all types of annuities.

X. Recommendation

1. There is a current and urgent solvency issue.
 - a. Shorter-term products are affected both at the time of issue and at time of reinvestment, and longer-term products are affected at the time of reinvestment.
 - b. Since this is an urgent issue, a quick solution is necessary.
2. Discontinuance of some products is not a sufficient answer or viable solution.
 - a. There is still consumer demand for shorter-term products that must be filled.
 - b. Discontinuance of products is expensive, disruptive, and raises costs.
 - c. Current product loads do not sufficiently address the issue.
3. The solution should be all-encompassing.
 - a. The law should not need to be revisited in a continuing low interest rate environment.
 - b. It should address shorter-term products and longer-term products.
 - c. It should address fixed annuities, equity indexed annuities, market value adjusted annuities, and all others equitably.
4. An appropriate index, spread, reset period, etc. should be selected.
 - a. Index and spread should relate to pricing activities.

- b. Reset period should relate to guarantee period.
 - c. Choosing these variables such that all products can continue to be available in a variety of interest rate environments is key.
- 5. The solution should address concerns from a consumer perspective.
 - a. Solvency (assurance that benefits will be paid when promised).
 - b. Nonforfeiture (guaranteed and non-guaranteed values provided to consumers).
 - c. Understandability of products and guarantees.
 - d. Availability of a diverse range of products to serve a wide range of consumer needs.
- 6. The solution should promote state uniformity
 - a. Recommend that all states adopt the cumulative interpretation of the minimum guaranteed rate.

Comments on the language in current LHATF proposal, dated 10/29/02, section 4 B:

- a. There should be a reset period for the index corresponding to the duration of the liability.
- b. Does not appear to provide sufficient relief in current environment.
- c. Would not be an all-encompassing solution for a diverse range of products in a wide range of interest rate environments.

Comments on the language in current LHATF proposal, dated 10/29/02, section 4 Alt B:

- a. Non-level spread does not accommodate the wide array of product designs currently offered in the marketplace, and would add unnecessary complexity to product designs.
- b. Cap of four percent could limit product availability in a time of high interest rates followed by low interest rates.
- c. Without a flat rate alternative, consumer understanding is more difficult and this could limit competition and diversity of product availability if companies are unable to handle the cost or complexity of an indexed interest rate, even if that indexed rate is level for the life of the contract.
- d. The reset period of the index should be related to the liability duration to ensure sufficient solvency protection.

Recommendation of change to Section 4 Alt B in current LHATF proposal, dated 10/29/02:

- a. Have a level spread for all years
- b. Lower the cap to 3 percent
- c. Include a flat rate alternative to the index – the choice of the flat rate involves the trade-offs between solvency risk and guaranteed values
- d. Allow the company to determine, with clear disclosure, the timing and frequency of the index reset feature – range from monthly reset to no reset. Index on which reset is based should be consistently applied and not stale.

Recommendation for LHATF consider alternatives to the senior return of provision, which would allow for more product availability and interest rate levels consistent with consumers in other age ranges. The Academy is willing to work with LHATF to further develop alternative options.