Insurance products issued by:
Minnesota Life Insurance Company
Securian Life Insurance Company

How caps and participation rates are determined

Many considerations go into determining the cap or participation rate, which can be periodically adjusted.

Indexed Universal Life (IUL) insurance policies credit interest based on changes in an index or set of indices. The actual crediting rate is subject to some combination of a floor, participation rate and a maximum cap amount[1]. Typically one or more of these elements are subject to change, whereas the others are contractually guaranteed. The following is a discussion of how the insurance company sets and manages these non-guaranteed elements and not a representation of how an indexed account credits interest.

Key factors in determining rates:

1. Investment earned rate
2. Market-driven cost of options

Investment Earned Rate

The assets invested in the general account to back the index product first must cover the cost of providing the guaranteed floor. Any remaining investment return, often referred to as the "hedge budget," is then available to purchase options that provide for crediting. The higher the investment returns, the greater the hedge budget available to back the index credits.

Options Cost

The options market determines the cost of providing an index credit to the policyholder. Options cost is impacted by multiple factors, including the cap and participation rate. For example, options that provide a 13 percent cap cost more than options providing a 10 percent cap.

Another factor that impacts options cost is market volatility. If volatility increases, the cost of options also increases. If volatility decreases, options cost also decreases, which means we may be able to provide a higher cap.

When setting the cap or participation rate, the company tries to match the hedge budget to the price of the options.

GLOSSARY

Floor
The minimum crediting rate within an index account.

Participation rate
The percentage of the index account performance a policy will be credited.

Cap rate
The maximum growth rate of an index account segment, or term.

Investment earned rate
The amount earned on assets within the general account. This impacts, the guaranteed floor, caps and participation rates.

Options
An investment contract that gives us the right to buy or sell a particular asset, at a later date, at an agreed-upon price. These contracts allow us to credit interest above the floor.

[1] In certain instances, indexed accounts may be uncapped.

Establishing floor, cap and participation rates:

A client pays premium to their IUL contract.

→

That premium is deposited into our general account (not directly into the index used in determining the return of an indexed account).

→

The assets within our general account are used to establish the guaranteed floor.

A portion of the assets are also used to purchase options.

→

This money, along with the investments earned rate and options market, is used to set the cap and participation rates.

How key factors impact rates:

Cap and participation rates will change over time due to a misalignment between how much is available for a hedge budget and the cost of the options contracts.

Market Volatility		
↑	**Low long-term interest rates** **High market volatility** More assets are required to support the guaranteed floor, resulting in a smaller hedge budget combined with higher options cost. **Result:** ▼ Lower cap and participation rates	**High long-term interest rates** **High market volatility** Less assets are required to support the guaranteed floor, resulting in a higher hedge budget combined with higher options cost. **Result:** ▲ High interest rate may offset higher options cost, resulting in the potential for a higher cap ▼ High interest rates may be unable to offset higher options cost, resulting in the potential for a lower cap
↓	**Low long-term interest rates** **Low market volatility** More assets are required to support the guaranteed floor, resulting in a smaller hedge budget combined with lower options cost. **Result:** ▲ Low options cost may offset a smaller hedge budget, resulting in the potential for a higher cap ▼ Low options cost may be unable to offset a smaller hedge budget, resulting in the potential for a lower cap	**High long-term interest rates** **Low market volatility** Less assets are required to support the guaranteed floor, resulting in a higher hedge budget combined with lower options cost. **Result:** ▲ Higher cap and participation rates
	← **Long-term interest rates** →	

Important notes:

- There is often a misconception that a life insurance company profits when the market performance of a particular index is higher than the cap. However, premiums are not actually invested directly into the index for which the performance is based — they're placed into a general account.
- When options are purchased, the amount the options can pay is set on the purchase date. Market returns are realized at some point in the future (e.g., one year). This means that regardless if the market returns a higher rate, the amount the options can pay remains unchanged from the original purchase date.

Companies don't make any additional money on the options or hedging if the market returns are higher than the cap.

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