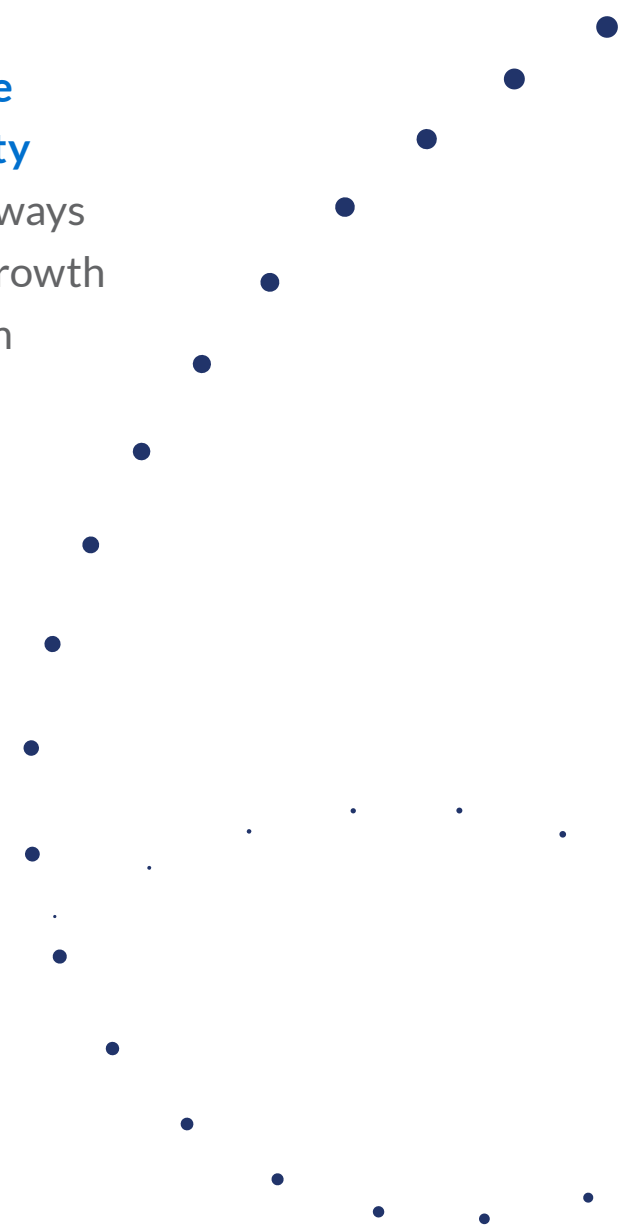


Index Protector 5 MVA Renewal History

from MassMutual Ascend Life Insurance Company

Over the last five years, renewal rates on the Index Protector 5 MVA fixed-indexed annuity have remained consistent. This is one of the ways in which we have helped support long-term growth opportunities while providing protection from market loss.

Take a closer look at the renewal history for Second Quarter 2023-2026 (for purchase payments \$250,000 and over).



The renewal history shown is not a guarantee or representation of rates for future terms. Strategy rates and caps are set at the start of each term and guaranteed for that term only. Rates for renewal terms may increase or decrease.

Not a bank or credit union deposit or obligation • Not FDIC or NCUA-Insured • Not insured by any federal government agency • May lose value • Not guaranteed by any bank or credit union

Index Protector 5 MVA renewal history

Start of First Term	Fixed Account (Declared Rate Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	2.50%	2.50%	2.50%	2.50%	2.50%
4/20/22	3.00%	3.00%	3.00%	3.00%	3.00%
5/6/22	3.00%	3.00%	3.00%	3.00%	3.00%
5/20/22	3.50%	3.50%	3.50%	3.50%	3.50%
6/6/22	3.50%	3.50%	3.50%	3.50%	3.50%
6/20/22	3.50%	3.50%	3.50%	3.50%	3.50%
4/6/23	5.00%	N/A	5.00%	5.00%	5.00%
4/20/23	4.55%	N/A	4.55%	4.55%	4.55%
5/6/23	4.55%	N/A	4.55%	4.55%	4.55%
5/20/23	4.20%	N/A	4.20%	4.20%	4.20%
6/6/23	4.20%	N/A	4.20%	4.20%	4.20%
6/20/23	4.20%	N/A	4.20%	4.20%	4.20%
4/6/24	5.25%	N/A	N/A	5.25%	5.25%
4/20/24	5.25%	N/A	N/A	5.25%	5.25%
5/6/24	5.50%	N/A	N/A	5.50%	5.50%
5/20/24	5.50%	N/A	N/A	5.50%	5.50%
6/6/24	5.50%	N/A	N/A	5.50%	5.50%
6/20/24	5.50%	N/A	N/A	5.50%	5.50%
4/6/25	5.50%	N/A	N/A	N/A	5.50%
4/20/25	5.50%	N/A	N/A	N/A	5.50%
5/6/25	5.50%	N/A	N/A	N/A	5.50%
5/20/25	5.50%	N/A	N/A	N/A	5.50%
6/6/25	5.50%	N/A	N/A	N/A	5.50%
6/20/25	5.50%	N/A	N/A	N/A	5.50%

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Index Protector 5 MVA renewal history

Start of First Term	S&P 500® 1-year Point-to-Point (Indexed Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	6.25%	6.25%	6.25%	6.25%	6.25%
4/20/22	8.00%	8.00%	8.00%	8.00%	8.00%
5/6/22	8.00%	8.00%	8.00%	8.00%	8.00%
5/20/22	8.50%	8.50%	8.50%	8.50%	8.50%
6/6/22	8.50%	8.50%	8.50%	8.50%	8.50%
6/20/22	8.50%	8.50%	8.50%	8.50%	8.50%
4/6/23	11.25%	N/A	11.25%	11.25%	11.25%
4/20/23	10.50%	N/A	10.50%	10.50%	10.50%
5/6/23	10.50%	N/A	10.50%	10.50%	10.50%
5/20/23	10.00%	N/A	10.00%	10.00%	10.00%
6/6/23	10.00%	N/A	10.00%	10.00%	10.00%
6/20/23	10.50%	N/A	10.50%	10.50%	10.50%
4/6/24	12.50%	N/A	N/A	12.50%	12.50%
4/20/24	12.50%	N/A	N/A	12.50%	12.50%
5/6/24	13.00%	N/A	N/A	13.00%	13.00%
5/20/24	13.00%	N/A	N/A	13.00%	13.00%
6/6/24	13.00%	N/A	N/A	13.00%	13.00%
6/20/24	13.00%	N/A	N/A	13.00%	13.00%
4/6/25	12.00%	N/A	N/A	N/A	12.00%
4/20/25	12.00%	N/A	N/A	N/A	12.00%
5/6/25	12.00%	N/A	N/A	N/A	12.00%
5/20/25	12.00%	N/A	N/A	N/A	12.00%
6/6/25	12.00%	N/A	N/A	N/A	12.00%
6/20/25	12.00%	N/A	N/A	N/A	12.00%

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Index Protector 5 MVA renewal history

Start of First Term	S&P 500® Risk Control 1-year Point-to-Point (Indexed Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	65.00%	65.00%	65.00%	65.00%	65.00%
4/20/22	80.00%	80.00%	80.00%	80.00%	80.00%
5/6/22	80.00%	80.00%	80.00%	80.00%	80.00%
5/20/22	80.00%	80.00%	80.00%	80.00%	80.00%
6/6/22	80.00%	80.00%	80.00%	80.00%	80.00%
6/20/22	80.00%	80.00%	80.00%	80.00%	80.00%
4/6/23	85.00%	N/A	85.00%	85.00%	85.00%
4/20/23	80.00%	N/A	80.00%	80.00%	80.00%
5/6/23	80.00%	N/A	80.00%	80.00%	80.00%
5/20/23	75.00%	N/A	75.00%	75.00%	75.00%
6/6/23	75.00%	N/A	75.00%	75.00%	75.00%
6/20/23	80.00%	N/A	80.00%	80.00%	80.00%
4/6/24	95.00%	N/A	N/A	95.00%	95.00%
4/20/24	95.00%	N/A	N/A	95.00%	95.00%
5/6/24	95.00%	N/A	N/A	95.00%	95.00%
5/20/24	95.00%	N/A	N/A	95.00%	95.00%
6/6/24	95.00%	N/A	N/A	95.00%	95.00%
6/20/24	95.00%	N/A	N/A	95.00%	95.00%
4/6/25	95.00%	N/A	N/A	N/A	95.00%
4/20/25	95.00%	N/A	N/A	N/A	95.00%
5/6/25	95.00%	N/A	N/A	N/A	95.00%
5/20/25	95.00%	N/A	N/A	N/A	95.00%
6/6/25	95.00%	N/A	N/A	N/A	95.00%
6/20/25	95.00%	N/A	N/A	N/A	95.00%

Continued on next page

Index Protector 5 MVA renewal history

Start of First Term	iShares® U.S. Real Estate 1-year Point-to-Point (Indexed Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	6.50%	6.50%	6.50%	6.50%	6.50%
4/20/22	9.00%	9.00%	9.00%	9.00%	9.00%
5/6/22	9.00%	9.00%	9.00%	9.00%	9.00%
5/20/22	10.00%	10.00%	10.00%	10.00%	10.00%
6/6/22	10.00%	10.00%	10.00%	10.00%	10.00%
6/20/22	10.00%	10.00%	10.00%	10.00%	10.00%
4/6/23	14.00%	N/A	14.00%	14.00%	14.00%
4/20/23	14.00%	N/A	14.00%	14.00%	14.00%
5/6/23	14.00%	N/A	14.00%	14.00%	14.00%
5/20/23	13.00%	N/A	13.00%	13.00%	13.00%
6/6/23	13.00%	N/A	13.00%	13.00%	13.00%
6/20/23	13.50%	N/A	13.50%	13.50%	13.50%
4/6/24	16.50%	N/A	N/A	16.50%	16.50%
4/20/24	16.50%	N/A	N/A	16.50%	16.50%
5/6/24	16.50%	N/A	N/A	16.50%	16.50%
5/20/24	16.50%	N/A	N/A	16.50%	16.50%
6/6/24	16.50%	N/A	N/A	16.50%	16.50%
6/20/24	16.50%	N/A	N/A	16.50%	16.50%
4/6/25	17.50%	N/A	N/A	N/A	17.50%
4/20/25	17.50%	N/A	N/A	N/A	17.50%
5/6/25	17.50%	N/A	N/A	N/A	17.50%
5/20/25	17.50%	N/A	N/A	N/A	17.50%
6/6/25	17.50%	N/A	N/A	N/A	17.50%
6/20/25	17.50%	N/A	N/A	N/A	17.50%

Continued on next page

Index Protector 5 MVA renewal history

Start of First Term	S&P U.S. Retiree Spending 1-year Point-to-Point (Indexed Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	90.00%	90.00%	90.00%	90.00%	90.00%
4/20/22	105.00%	105.00%	105.00%	105.00%	105.00%
5/6/22	105.00%	105.00%	105.00%	105.00%	105.00%
5/20/22	105.00%	105.00%	105.00%	105.00%	105.00%
6/6/22	105.00%	105.00%	105.00%	105.00%	100.00%
6/20/22	105.00%	105.00%	105.00%	105.00%	100.00%
4/6/23	90.00%	N/A	90.00%	90.00%	90.00%
4/20/23	85.00%	N/A	85.00%	85.00%	85.00%
5/6/23	85.00%	N/A	85.00%	85.00%	85.00%
5/20/23	80.00%	N/A	80.00%	80.00%	80.00%
6/6/23	80.00%	N/A	80.00%	80.00%	80.00%
6/20/23	85.00%	N/A	85.00%	85.00%	85.00%
4/6/24	100.00%	N/A	N/A	100.00%	100.00%
4/20/24	100.00%	N/A	N/A	100.00%	100.00%
5/6/24	100.00%	N/A	N/A	100.00%	100.00%
5/20/24	100.00%	N/A	N/A	100.00%	100.00%
6/6/24	100.00%	N/A	N/A	100.00%	100.00%
6/20/24	100.00%	N/A	N/A	100.00%	100.00%
4/6/25	95.00%	N/A	N/A	N/A	95.00%
4/20/25	95.00%	N/A	N/A	N/A	95.00%
5/6/25	95.00%	N/A	N/A	N/A	95.00%
5/20/25	95.00%	N/A	N/A	N/A	95.00%
6/6/25	95.00%	N/A	N/A	N/A	95.00%
6/20/25	95.00%	N/A	N/A	N/A	95.00%

Continued on next page

Index Protector 5 MVA renewal history

Start of First Term	iShares MSCI EAFE 1-year Point-to-Point (Indexed Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	5.90%	5.90%	5.90%	5.90%	5.90%
4/20/22	8.50%	8.50%	8.50%	8.50%	8.50%
5/6/22	8.50%	8.50%	8.50%	8.50%	8.50%
5/20/22	9.00%	9.00%	9.00%	9.00%	9.00%
6/6/22	9.00%	9.00%	9.00%	9.00%	9.00%
6/20/22	9.00%	9.00%	9.00%	9.00%	9.00%
4/6/23	11.75%	N/A	11.75%	11.75%	11.75%
4/20/23	11.00%	N/A	11.00%	11.00%	11.00%
5/6/23	11.00%	N/A	11.00%	11.00%	11.00%
5/20/23	10.50%	N/A	10.50%	10.50%	10.50%
6/6/23	10.50%	N/A	10.50%	10.50%	10.50%
6/20/23	11.00%	N/A	11.00%	11.00%	11.00%
4/6/24	13.25%	N/A	N/A	13.25%	13.25%
4/20/24	13.25%	N/A	N/A	13.25%	13.25%
5/6/24	13.75%	N/A	N/A	13.75%	13.75%
5/20/24	13.75%	N/A	N/A	13.75%	13.75%
6/6/24	13.75%	N/A	N/A	13.75%	13.75%
6/20/24	13.75%	N/A	N/A	13.75%	13.75%
4/6/25	14.00%	N/A	N/A	N/A	14.00%
4/20/25	14.00%	N/A	N/A	N/A	14.00%
5/6/25	14.00%	N/A	N/A	N/A	14.00%
5/20/25	14.00%	N/A	N/A	N/A	14.00%
6/6/25	14.00%	N/A	N/A	N/A	14.00%
6/20/25	14.00%	N/A	N/A	N/A	14.00%

Continued on next page

Index Protector 5 MVA renewal history

Start of First Term	First Trust Barclays Edge Index 1-year Point-to-Point (Indexed Strategy)				
	Initial Rate	2023	2024	2025	2026
4/6/22	N/A	N/A	N/A	N/A	N/A
4/20/22	N/A	N/A	N/A	N/A	N/A
5/6/22	N/A	N/A	N/A	N/A	N/A
5/20/22	N/A	N/A	N/A	N/A	N/A
6/6/22	N/A	N/A	N/A	N/A	N/A
6/20/22	N/A	N/A	N/A	N/A	N/A
4/6/23	N/A	N/A	N/A	N/A	N/A
4/20/23	N/A	N/A	N/A	N/A	N/A
5/6/23	N/A	N/A	N/A	N/A	N/A
5/20/23	N/A	N/A	N/A	N/A	N/A
6/6/23	N/A	N/A	N/A	N/A	N/A
6/20/23	N/A	N/A	N/A	N/A	N/A
4/6/24	17.50%	N/A	N/A	17.50%	17.50%
4/20/24	17.50%	N/A	N/A	17.50%	17.50%
5/6/24	18.00%	N/A	N/A	18.00%	18.00%
5/20/24	18.00%	N/A	N/A	18.00%	18.00%
6/6/24	18.00%	N/A	N/A	18.00%	18.00%
6/20/24	18.00%	N/A	N/A	18.00%	18.00%
4/6/25	17.00%	N/A	N/A	N/A	17.00%
4/20/25	17.00%	N/A	N/A	N/A	17.00%
5/6/25	17.00%	N/A	N/A	N/A	17.00%
5/20/25	17.00%	N/A	N/A	N/A	17.00%
6/6/25	17.00%	N/A	N/A	N/A	17.00%
6/20/25	17.00%	N/A	N/A	N/A	17.00%

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Charts show the initial declared rates and indexed strategy caps and participation rates for terms that started in the second quarter and on the 6th and 20th of each month in years 2022-2025 (Chart Terms) and the corresponding declared rates, caps and participation rates when the terms renewed in years 2023-2026. Although the charts show the caps/maximum indexed interest rate for each strategy for each Chart Term, they do not show the indexed interest rate for any strategy for any Chart Term, which may be less than the cap.

Information shown is not a guarantee or representation of future renewal declared rate, cap or participation rate decisions.

When the initial rates and caps we offer for new contracts decrease, our annuity rate lock procedure allows new contracts to receive the previous, higher rate if all required steps are completed within specified time frames. For new contracts in such situations, the initial declared rates, caps or participation rates would have been higher than the relevant figures listed in the Index Protector 5 MVA Renewal History table.

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