

Index Protector 7 Renewal History

from MassMutual Ascend Life Insurance Company



Index Protector 7 renewal history

A fixed-indexed annuity offers interest crediting strategies that help protect your savings from loss while providing the opportunity for growth. Strategy rates and caps are set at the start of each term and guaranteed for that term.

Here is a closer look at the renewal history for the Index Protector 7 for Fourth Quarter 2019-2023 (for purchase payments \$250,000 and over).

Start of First Term	Fixed Account (Declared Rate Strategy)						S&P 500® 1-year Point-to-Point (Indexed Strategy)						S&P 500® Risk Control 1-year Point-to-Point (Indexed Strategy)					
	Initial Rate	Renewal Rates					Initial Cap	Renewal Caps					Initial Par. Rate	Renewal Par. Rates				
	2019	2020	2021	2022	2023		2019	2020	2021	2022	2023		2019	2020	2021	2022	2023	
10/6/18	3.60%	3.60%	3.60%	3.60%	3.60%	3.60%	7.40%	7.40%	7.40%	7.40%	7.40%	7.40%	80%	80%	80%	80%	80%	80%
11/6/18	3.85%	3.85%	3.85%	3.85%	3.85%	3.85%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	85%	85%	85%	85%	85%	85%
12/6/18	3.85%	3.85%	3.85%	3.85%	3.85%	3.85%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	85%	85%	85%	85%	85%	85%
10/6/19	3.30%	N/A	3.30%	3.30%	3.30%	3.30%	6.65%	N/A	6.65%	6.65%	6.65%	6.65%	75%	N/A	75%	75%	75%	75%
11/6/19	3.30%	N/A	3.30%	3.30%	3.30%	3.30%	6.65%	N/A	6.65%	6.65%	6.65%	6.65%	75%	N/A	75%	75%	75%	75%
12/6/19	3.30%	N/A	3.30%	3.30%	3.30%	3.30%	6.65%	N/A	6.65%	6.65%	6.65%	6.65%	75%	N/A	75%	75%	75%	75%
10/6/20	2.50%	N/A	N/A	2.50%	2.50%	2.50%	5.65%	N/A	N/A	5.65%	5.65%	5.65%	65%	N/A	N/A	65%	65%	65%
11/6/20	2.50%	N/A	N/A	2.50%	2.50%	2.50%	5.65%	N/A	N/A	5.65%	5.65%	5.65%	65%	N/A	N/A	65%	65%	65%
12/6/20	2.50%	N/A	N/A	2.50%	2.50%	2.50%	5.65%	N/A	N/A	5.65%	5.65%	5.65%	65%	N/A	N/A	65%	65%	65%
10/6/21	2.35%	N/A	N/A	N/A	2.35%	2.35%	5.50%	N/A	N/A	N/A	5.50%	5.50%	65%	N/A	N/A	N/A	65%	65%
11/6/21	2.35%	N/A	N/A	N/A	2.35%	2.35%	5.50%	N/A	N/A	N/A	5.50%	5.50%	65%	N/A	N/A	N/A	65%	65%
12/6/21	2.35%	N/A	N/A	N/A	2.35%	2.35%	5.50%	N/A	N/A	N/A	5.50%	5.50%	65%	N/A	N/A	N/A	65%	65%
10/6/22	5.25%	N/A	N/A	N/A	N/A	5.25%	12.00%	N/A	N/A	N/A	N/A	12.00%	90%	N/A	N/A	N/A	N/A	90%
11/6/22	5.25%	N/A	N/A	N/A	N/A	5.25%	12.00%	N/A	N/A	N/A	N/A	12.00%	90%	N/A	N/A	N/A	N/A	90%
12/6/22	5.25%	N/A	N/A	N/A	N/A	5.25%	12.00%	N/A	N/A	N/A	N/A	12.00%	90%	N/A	N/A	N/A	N/A	90%

Continued on next page

Index Protector 7 renewal history (continued)

Start of First Term	iShares® U.S. Real Estate 1-year Point-to-Point (Indexed Strategy)						S&P U.S. Retiree Spending 1-year Point-to-Point (Indexed Strategy)					
	Initial Cap	Renewal Caps					Initial Par. Rate	Renewal Par. Rates				
	2019	2020	2021	2022	2023		2019	2020	2021	2022	2023	
10/6/18	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	90%	90%	90%	90%	90%	85%
11/6/18	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	90%	90%	90%	90%	90%	85%
12/6/18	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%	90%	90%	90%	90%	90%	90%
10/6/19	7.75%	N/A	7.75%	7.75%	7.75%	7.75%	75%	N/A	75%	75%	75%	75%
11/6/19	7.75%	N/A	7.75%	7.75%	7.75%	7.75%	75%	N/A	75%	75%	75%	75%
12/6/19	7.75%	N/A	7.75%	7.75%	7.75%	7.75%	75%	N/A	75%	75%	75%	75%
10/6/20	6.25%	N/A	N/A	6.25%	6.25%	6.25%	70%	N/A	N/A	70%	70%	70%
11/6/20	6.25%	N/A	N/A	6.25%	6.25%	6.25%	70%	N/A	N/A	70%	70%	70%
12/6/20	6.25%	N/A	N/A	6.25%	6.25%	6.25%	70%	N/A	N/A	70%	70%	70%
10/6/21	6.75%	N/A	N/A	N/A	6.75%	6.75%	80%	N/A	N/A	N/A	80%	80%
11/6/21	6.75%	N/A	N/A	N/A	6.75%	6.75%	80%	N/A	N/A	N/A	80%	80%
12/6/21	6.75%	N/A	N/A	N/A	6.75%	6.75%	80%	N/A	N/A	N/A	80%	80%
10/6/22	13.00%	N/A	N/A	N/A	N/A	13.00%	100%	N/A	N/A	N/A	N/A	100%
11/6/22	13.00%	N/A	N/A	N/A	N/A	13.00%	100%	N/A	N/A	N/A	N/A	100%
12/6/22	13.00%	N/A	N/A	N/A	N/A	13.00%	100%	N/A	N/A	N/A	N/A	100%

Charts show the initial declared rates and indexed strategy caps and participation rates for terms that started in the fourth quarter and on the 6th of each month in years 2018-2022 (Chart Terms) and the corresponding declared rates, caps and participation rates when the terms renewed in years 2019-2023. They do not include information about the declared rates, caps and participation rates for terms that started on the 20th of such months. 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 7 Renewal History table.

The S&P 500 Risk Control 10% Index refers to the S&P 500 Average Daily Risk Control 10% USD Price Return Index. For more information, visit US.SPIndices.com and search keyword SPXAV10P. For more information on the S&P U.S. Retiree Spending Index, visit US.SPIndices.com and search keyword SPRETIRE. For more information on the iShares U.S. Real Estate ETF, visit iShares.com and search ticker symbol IYR.

The “S&P 500® Index”, the “S&P 500 Average Daily Risk Control 10% Price Return Index” and the “S&P U.S. Retiree Spending Index” are products of S&P Dow Jones Indices LLC or its affiliates (“SPDJI”) and has been licensed for use by MassMutual Ascend Life Insurance Company. S&P®, S&P 500®, S&P 500 Average Daily Risk Control 10%™, US 500, The 500, iBoxx®, iTraxx® and CDX® are trademarks of S&P Global, Inc. or its affiliates (“S&P”); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC (“Dow Jones”); MassMutual Ascend Life Insurance Company’s products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such products nor do they have any liability for any errors, omissions, or interruptions of the S&P 500® Index, the S&P 500 Average Daily Risk Control 10% Price Return Index and the S&P U.S. Retiree Spending Index.

The iShares MSCI EAFE ETF and the iShares U.S. Real Estate ETF are distributed by BlackRock Investments, LLC. iShares®, BLACKROCK®, and the corresponding logos are registered and unregistered trademarks of BlackRock, Inc. and its affiliates (“BlackRock”), and these trademarks have been licensed for certain purposes by MassMutual Ascend Life Insurance Company. MassMutual Ascend Life Insurance Company annuity products are not sponsored, endorsed, sold or promoted by BlackRock, and purchasers of an annuity from MassMutual Ascend Life Insurance Company do not acquire any interest in the iShares MSCI EAFE ETF or the iShares U.S. Real Estate ETF nor enter into any relationship of any kind with BlackRock. BlackRock makes no representation or warranty, express or implied, to the owners of any MassMutual Ascend Life Insurance Company annuity product or any member of the public regarding the advisability of purchasing an annuity, nor does it have any liability for any errors, omissions, interruptions or use of the iShares MSCI EAFE ETF or the iShares U.S. Real Estate ETF or any data related thereto.

When you buy a fixed-indexed annuity, you own an insurance contract. You are not buying shares of any stock or index. All guarantees are backed by the claims-paying ability of the issuing insurance company. For amounts held under the declared rate strategy, interest is credited daily at the declared rate. For amounts held under an indexed strategy, interest is credited on the last day of a term at the applicable indexed interest rate, which will never be higher than the cap for that strategy for that term. The guaranteed minimum declared rate and guaranteed minimum caps are set out on the contract specifications page. For each indexed strategy, the guaranteed minimum indexed interest rate for a term is 0%.

MassMutual AscendSM is not an investment adviser and the information provided in this document is not investment advice. You should consult your investment professional for advice based on your personal circumstances and financial situation.

Product issued under contract form numbers P1110416NW, P1110416OR and P1110416ID by MassMutual Ascend Life Insurance CompanySM (Cincinnati, Ohio), a wholly owned subsidiary of Massachusetts Mutual Life Insurance Company (MassMutual). Form number and features may vary by state. Products not available in all states.

This content does not apply in the state of New York.

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

