MassMutual Ascend

# Index Protector 5 MVA

## OVERVIEW

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| **ISSUE AGES** | **0–89 (qualified); 0–89 (non-qualified); 0–75 (inherited IRA); 0-75 (inherited non-qualified)**<br>Issue age is the owner's age at last birthday. For joint owners, the oldest age will be used as the issue age. If the owner is a non-natural person, the age of the eldest annuitant will be treated as the age of the owner for all purposes under this contract. |
| **PURCHASE PAYMENTS** | This product accepts a single purchase payment for non-qualified, traditional 403(b), Roth 403(b), traditional IRA, Roth IRA, SEP IRA, SIMPLE IRA, Inherited IRA, Inherited non-qualified, 401(a) (including 401(k) traditional and Roth) and 457 plan funds. Additional purchase payments allowed during the first two months of the contract only. Terms begin only on the 6th and 20th of each month. Purchase payments received prior to the beginning of a term will be held in the purchase payment account until the beginning of the next term. Additional purchase payments have their own interest crediting terms.<br>**Minimum:** Initial purchase payment: $50,000; additional purchase payments: $25,000<br>**Maximum:** $2 million for ages 0-75; $1.5 million for ages 76-80, $1 million for ages 81+<br>Maximums apply to the total purchase payments made to all annuities from MassMutual Ascend with the same owners or the same annuitants. |
| **OPTIONAL RIDERS** | For clients seeking lifetime income payments or an enhanced death benefit, optional riders are available. Refer to the Interest Rate or State Approval Charts for available riders. Please see the Rider Overviews for complete details, including terms and limitations. |
| **EXTENDED CARE WAIVER RIDER** | To help ease the strain of certain unforeseen events, an extended care waiver rider is available for no additional charge. If the owner is confined to a nursing home or long-term care facility, then after the first contract year the contract may be surrendered without incurring a negative MVA. The confinement must have begun after the contract effective date and must continue for at least 90 consecutive days after the later of the first contract anniversary or the first date of confinement.<br>*Not available in Massachusetts. In California, the Extended Care Waiver Rider has been replaced with the Waiver of Early Withdrawal Charges for Facility Care or Home Care or Community-Based Services Rider, which provides for a waiver of any negative market value adjustment under an expanded variety of circumstances.* |
| **TERMINAL ILLNESS WAIVER RIDER** | If the owner is diagnosed with a terminal illness, then after the first contract year the contract may be surrendered without incurring a negative MVA. The first diagnosis of terminal illness must be after the contract effective date. A terminal illness is defined as an illness having a prognosis of survival of 12 months or less, or any longer period as required by state law.<br>*This waiver may be used only once. Not available in Massachusetts.* |

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## INTEREST STRATEGIES

Upon issue, the owner selects from two types of interest strategies: a declared rate strategy and indexed strategies. At the end of each term, the owner has the opportunity to transfer funds among the available interest strategies. To transfer funds, the owner must submit a strategy selection form prior to the end of that term. Unless the owner transfers funds at the end of a one-year term, funds are automatically applied to the same strategy for the next one-year term. At the end of the five-year term, funds held in the 5-year declared rate strategy are automatically applied to the 1-year declared rate strategy, unless the owner elects otherwise. Available strategies are subject to change at any time for new sales.

## TERM

- A term is the period over which interest is calculated for an indexed strategy.Indexed strategies available on this product offer either one-year or five-year terms. Clients may reallocate funds among available strategies at the end of each one-year or five-year term.
- The S&P 500 5-Year Cap Lock Annual Point-To-Point strategy has a five-year term. The cap is locked in for the entire five-year term. This strategy may only be selected during the first contract year. At the end of the five-year term, funds held in the strategy are automatically applied to the S&P 500 1-year strategy, unless clients elect otherwise.
- The First Trust Barclays Edge Index 1-Year Point-To-Point with 5-Year Cap Lock strategy has five one-year terms. The cap is locked in for all five one-year terms. This strategy may only be selected during the first contract year. At the end of each one-year term, the ending value of this strategy may be applied to a new term of this strategy. No other amounts may be applied. At the end of each one-year term, clients may also reallocate funds held in this strategy among other available strategies. Funds held in the strategy at the end of the fifth one-year term are automatically applied to the First Trust Barclays Edge Index 1-year point-to-point with cap strategy unless clients elect otherwise.
- All other strategies have one-year terms.
- Interest, if any, is credited on the last day of each term year on all indexed strategies.

## INTEREST RATES

**Purchase payment account interest rate:** Interest is credited daily on amounts held in this account based on an applicable interest rate. This interest rate is guaranteed to be at least equal to the guaranteed minimum interest rate set out in the contract.

**Declared interest rate:** Interest is credited daily on amounts held under a declared rate strategy based on the applicable declared interest rate. The current declared interest rate will not change during the strategy's term and is guaranteed to never be below the guaranteed minimum interest rate set out in the contract.

**Indexed interest rate:** Indexed strategies linked to the S&P 500®(SPX), S&P 500 Risk Control 10% Index (SPXAV10P), S&P U.S. Retiree Spending Index (SPRETIRE), iShares U.S. Real Estate ETF (IYR), SPDR® Gold Shares (SPDR) or the iShares MSCI EAFE ETF (EFA) provide returns based, in part, on the change in the price of the applicable Index or ETF. The price does not include dividends that might be paid on the underlying investments of the Index or ETF.

Indexed strategies linked to the First Trust Barclays Edge Index (FTEDGE7) provide returns based, in part, on the change in the price of the Index. The price change includes dividends that might be paid on components of the Index.

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| **INTEREST RATES CONTINUED** | **Indexed strategies include:**<br>• S&P 500® 1-year point-to-point with cap<br>• S&P 500 Risk Control 1-year point-to-point with participation rate<br>• S&P U.S. Retiree Spending 1-year point-to-point with participation rate<br>• iShares U.S. Real Estate 1-year point-to-point with cap<br>• iShares MSCI EAFE 1-year point-to-point with cap<br>• SPDR® Gold Shares 1-year point-to-point with cap<br>• First Trust Barclays Edge Index 1-year point-to-point with cap<br>• First Trust Barclays Edge Index 1-year point-to-point with 5-year cap lock<br>**Point-to-point indexed strategy:** The indexed interest rate for a term is determined by comparing the index value on the last day of that term to the value on the first day of that term. The indexed interest rate for that term equals the index change, up to the cap or multiplied by the participation rate. The indexed interest rate will never be less than 0%.<br>*Available strategies may vary by state and by distribution.* |
| **ACCOUNT VALUE** | The account value equals the sum of the following values:<br>**Purchase payment account value:** The purchase payment account value equals the purchase payments received, less amounts applied to an interest strategy, less withdrawals, plus or minus applicable MVAs, plus interest credited and less any applicable premium tax or other applicable tax.<br>**Declared rate strategy value:** A declared rate strategy value equals the amount applied to the declared rate strategy, less any amounts withdrawn, plus or minus applicable MVAs, plus interest credited at the declared interest rate.<br>**Interest strategy value:** An interest strategy value equals the amount applied to that strategy, less withdrawals, plus or minus applicable MVAs, plus indexed interest credited. |
| **SURRENDER VALUE** | The surrender value equals the greatest of the account value less any MVAs or the guaranteed minimum surrender value. |
| **GUARANTEED MINIMUM SURRENDER VALUE (GMSV)** | The GMSV equals 87.5% of purchase payments, plus interest credited daily at a guaranteed minimum rate less prior withdrawals, net of applicable market value adjustments. The GMSV will not be less than the minimum values required by each state. |
| **FEES** | There are no up-front sales charges or fees. |
| **EARLY WITHDRAWAL CHARGE** | There are no early withdrawal charges. A market value adjustment will apply during the first five contract years. |

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| **MARKET VALUE ADJUSTMENT (MVA)** | During the first five contract years, a market value adjustment (or MVA) will apply if you surrender your contract or take a withdrawal above the free withdrawal allowance.<br><br>An MVA is an adjustment to the contract values based on changes in interest rates. These changes are measured using the MVA Index Interest Rate specified in the annuity. If the MVA Index Interest Rate has gone up, the adjustment will generally be negative and may decrease contract values. If the MVA Index Interest Rate has gone down, the adjustment will generally be positive and may increase contract values. The MVA does not apply to any amount that qualifies for the free withdrawal allowance.<br><br>An MVA can never be more than the limit, which is the amount by which the account value exceeds the GMSV. A positive MVA can never increase the account value by more than the limit, and a negative MVA can never reduce the MVA by more than the limit..<br><br>*For more information on how the MVA works, refer to the MVA endorsement.* |
| **FREE WITHDRAWAL ALLOWANCE** | During the first contract year, 10% of the purchase payments may be withdrawn without an MVA. After the first contract year, 10% of the account value on the most recent contract anniversary may be withdrawn without an MVA. The sum of all previous withdrawals during the same contract year will be subtracted to determine the amount available. This free withdrawal allowance is not cumulative, and unused amounts do not carry over to the next contract year. |
| **WITHDRAWALS** | Withdrawals are allowed any time prior to the income start date. All withdrawals are subject to IRS regulations and MVAs. Withdrawals will be taken first from amounts applied to the purchase payment account, then from the declared rate strategy, then from the other interest strategy(ies) with the shortest term. If there are multiple interest strategies that meet that criterion, withdrawals will be taken proportionally from all interest strategies with the shortest term. Amounts withdrawn from an indexed strategy prior to the end of a term will not be credited with interest.<br><br>**Minimum withdrawal:** $500;<br>**Minimum account value following withdrawal:** $5,000 |
| **ADVISORY FEE WITHDRAWALS** | Amounts applied to pay advisory fees of up to 1.50% per year are not subject to an early withdrawal charge or MVA and do not reduce the free withdrawal allowance. Additionally, such advisory fee payments do not affect income rider benefits.<br><br>This favorable treatment of advisory fees is provided under endorsement E6061519NW. For states that haven't approved the endorsement, the favorable treatment is non-contractual. |
| **EASY SYSTEMATIC PAYMENT (ESP) PROGRAM (NON-CONTRACTUAL)** | The fixed dollar and RMD options are available. Refer to the Terms and Conditions section of the applicable ESP program election agreement form for eligibility requirements. ESP payments reduce the amount available under the free withdrawal allowance. Indexed interest is credited only at the end of a term. Amounts withdrawn under the ESP program before the end of a term will not earn any indexed interest. |
| **PAYOUT OPTIONS** | The following options are available following the first contract year: fixed period income, life income or life income with payments for at least a fixed period, and joint and one-half survivor income. |
| **DEATH BENEFIT** | The greatest of the account value or GMSV will be paid upon the death of the owner. A spouse who is the surviving joint owner or sole surviving beneficiary may become the successor owner. |

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