

Index Frontier 5

A registered index-linked annuity



Participate in market growth

Growth is limited by a cap



Benefit from tax deferral

Assets grow tax-deferred and may accumulate at a faster rate



Manage downside risk

Downside risk is limited by a floor or buffer



No annual or recurring fees

An early withdrawal charge applies to withdrawals in excess of 10% during the first five contract years

Rates effective: 11/21/2022-12/06/2022 For terms starting on: 12/06/2022	1-Year Term Declared Rate		1-Year Term 10% Buffer with Cap		1-Year Term -10% Floor with Cap		1-Year Term 0% Floor with Cap	
	Earns interest at a fixed rate		Protects against the first 10% of index losses		Protects against index losses in excess of -10%		Complete protection against index losses	
	Purchase payments \$250k and over	Purchase payments less than \$250k	Purchase payments \$250k and over	Purchase payments less than \$250k	Purchase payments \$250k and over	Purchase payments less than \$250k	Purchase payments \$250k and over	Purchase payments less than \$250k
Declared Rate	3.50%	3.40%						
S&P 500			25.00%	23.00%	15.00%	14.50%	7.50%	7.00%
iShares MSCI EAFE					15.75%	14.75%	7.75%	7.25%
iShares U.S. Real Estate					17.00%	16.00%	8.25%	7.75%
SPDR Gold Shares					20.00%	19.00%	9.50%	8.50%

Your financial representative's Broker/Dealer has authorized the above strategies to be offered. Available strategies may vary by Broker/Dealer.

State Approvals and Variations: Index Frontier 5 is not available in AK, NY, OR, PR. The Declared Rate Strategy is not available in MO. S&P 500 Buffer and MSCI EAFE strategies not available in HI.

Extended Care and Terminal Illness waivers not available in MA. Residents are only permitted to purchase annuity products within their resident state in MN and UT.

Bailout Right: On indexed strategies, early withdrawal charges are waived if the cap for an indexed strategy ever falls below its bailout trigger. Buffer Indexed Strategies have a bailout trigger of 5%; -10% Floor Indexed Strategies have a bailout trigger of 5%; 0% Floor Indexed Strategies have a bailout trigger of 2%.

The Index Frontier 5 can only be sold through a Broker/Dealer that is contracted with MassMutual Ascend Life Insurance Company. This material must be preceded or accompanied by a prospectus for MassMutual Ascend's Index Frontier 5. The prospectus contains important information about the Index Frontier 5 annuity and MassMutual Ascend. Read it carefully before you purchase an Index Frontier 5 contract. In the Index Frontier 5 contract and prospectus, a cap is referred to as a maximum gain, and a floor is referred to as a maximum loss. Visit [MassMutualAscend.com/RILArates](https://www.massmutualascend.com/RILArates) to obtain a free prospectus.

MassMutual Ascend 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. Annuities are intended to be long-term investments and may not be suitable for all investors. Withdrawals from an annuity contract may have tax consequences.

Indexed strategy caps are current as of the date shown and are subject to change at any time. An indexed strategy's return is based, in part, on the change in the value of the applicable index or exchange-traded fund. The return for a term of an indexed strategy will never be more than its cap for that term. Caps may vary from term to term. A cap for a strategy for a term will never be lower than 1.00%. Future indexed strategies could offer different cap guarantees. Buffer strategies offer a 10% buffer each term. Future indexed strategies could offer different buffers or floors.

S&P 500 refers to the S&P 500 Price Return Index (SPX) and the strategies linked to an ETF are based on the change in closing price and do not include dividends. For more information, visit us.spindices.com (keyword SPX). SPDR Gold refers to the SPDR Gold Shares ETF (GLD). For more information, visit spdrgoldshares.com/usa. iShares U.S. Real Estate refers to iShares US Real Estate ETF (IYR). iShares MSCI EAFE refers to iShares MSCI EAFE ETF (EFA). For more information, visit iShares.com (ticker symbols IYR and EFA).

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Index Frontier 7

A registered index-linked annuity



Participate in market growth

Growth is limited by a cap



Benefit from tax deferral

Assets grow tax-deferred and may accumulate at a faster rate



Manage downside risk

Downside risk is limited by a floor or buffer



No annual or recurring fees

An early withdrawal charge applies to withdrawals in excess of 10% during the first seven contract years

Rates effective: 11/21/2022-12/06/2022 For terms starting on: 12/06/2022	1-Year Term Declared Rate		1-Year Term 10% Buffer with Cap		1-Year Term -10% Floor with Cap		1-Year Term 0% Floor with Cap	
	Earns interest at a fixed rate		Protects against the first 10% of index losses		Protects against index losses in excess of -10%		Complete protection against index losses	
	Purchase payments \$250k and over	Purchase payments less than \$250k	Purchase payments \$250k and over	Purchase payments less than \$250k	Purchase payments \$250k and over	Purchase payments less than \$250k	Purchase payments \$250k and over	Purchase payments less than \$250k
Declared Rate	3.60%	3.50%						
S&P 500			26.00%	24.00%	16.50%	16.00%	8.00%	7.50%
iShares MSCI EAFE					16.00%	15.00%	8.00%	7.50%
iShares U.S. Real Estate					18.00%	17.00%	8.50%	8.00%
SPDR Gold Shares					21.00%	20.00%	10.00%	9.00%

Your financial representative's Broker/Dealer has authorized the above strategies to be offered. Available strategies may vary by Broker/Dealer.

State Approvals and Variations: Index Frontier 7 is not available in AK, NY, OR, PR. The Declared Rate Strategy is not available in MO. S&P 500 Buffer and MSCI EAFE strategies not available in HI. Extended Care and Terminal Illness waivers not available in MA. Residents are only permitted to purchase annuity products within their resident state in MN and UT.

Bailout Right: On indexed strategies, early withdrawal charges are waived if the cap for an indexed strategy ever falls below its bailout trigger. Buffer Indexed Strategies have a bailout trigger of 6%; -10% Floor Indexed Strategies have a bailout trigger of 6%; 0% Floor Indexed Strategies have a bailout trigger of 3%.

The Index Frontier 7 can only be sold through a Broker/Dealer that is contracted with MassMutual Ascend Life Insurance Company. This material must be preceded or accompanied by a prospectus for MassMutual Ascend's Index Frontier 7. The prospectus contains important information about the Index Frontier 7 annuity and MassMutual Ascend. Read it carefully before you purchase an Index Frontier 7 contract. In the Index Frontier 7 contract and prospectus, a cap is referred to as a maximum gain, and a floor is referred to as a maximum loss. Visit [MassMutualAscend.com/RILArates](https://www.massmutualascend.com/RILArates) to obtain a free prospectus.

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Indexed strategy caps are current as of the date shown and are subject to change at any time. An indexed strategy's return is based, in part, on the change in the value of the applicable index or exchange-traded fund. The return for a term of an indexed strategy will never be more than its cap for that term. Caps may vary from term to term. A cap for a strategy for a term will never be lower than 1.00%. Future indexed strategies could offer different cap guarantees. Buffer strategies offer a 10% buffer each term. Future indexed strategies could offer different buffers or floors.

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Index Summit 6

A registered index-linked annuity



Participate in market growth

Growth is limited by a cap or upside participation rate



Benefit from tax deferral

Assets grow tax-deferred and may accumulate at a faster rate



Manage downside risk

Downside risk is limited by a downside participation rate or buffer



No annual or recurring fees

An early withdrawal charge applies to withdrawals in excess of 10% during the first six contract years

Rates effective: 11/21/2022-12/06/2022 For terms starting on: 12/06/2022	1-Year Term Declared Rate		1-Year Term with 50% Downside Participation Rate		2-Year Term with 50% Downside Participation Rate		6-Year Term* with 10% Buffer	
	Earns interest at a fixed rate		Protects against half of index losses		Protects against half of index losses		Protects against the first 10% of index losses	
	Purchase payments \$100k and over	Purchase payments less than \$100k	Purchase payments \$100k and over	Purchase payments less than \$100k	Purchase payments \$100k and over	Purchase payments less than \$100k	Purchase payments \$100k and over	Purchase payments less than \$100k
Declared Rate	2.00%	1.90%						
S&P 500 with Cap			15.25%	14.50%	32.00%	30.00%		
S&P 500 with Upside Participation Rate			68%	63%	80%	75%	115%	110%
iShares MSCI EAFE ETF with Upside Participation Rate			68%	63%	82%	77%		
iShares U.S. Real Estate with Upside Participation Rate			67%	62%	80%	75%		

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*6-year term with 10% buffer strategy is only available at issue.

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Declared rates and indexed strategy caps and upside participation rates are current as of the date shown and are subject to change at any time.

An indexed strategy's return is based, in part, on the change in the value of the applicable index or exchange-traded fund. For each indexed strategy that we currently offer, any positive return for a term is subject to the applicable cap or upside participation rate for that term. These caps and upside participation rates may vary from term to term. For current strategies, the cap for a term will never be less than 1%, and the upside participation rate for a term will never be less than 5%. Future indexed strategies could offer different minimum caps and participation rates. For each indexed strategy that we currently offer, any negative return for a term is limited by a 50% downside participation rate. Future indexed strategies could offer different downside participation rates.

For more information on the iShares MSCI EAFE ETF and the iShares U.S. Real Estate ETF, visit [iShares.com](https://www.ishares.com) and search ticker symbols EFA and IYR.

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