

Index Frontier 5 Plus

A registered index-linked annuity
from MassMutual Ascend Life Insurance Company

RATES EFFECTIVE:

12/07/2024 - 12/20/2024

FOR TERMS STARTING ON:

12/20/2024

To see newly added feature and strategy availability by state, visit MMAscendConnect.com/IF5PlusApprovals.

Purchase Payments \$250,000 and over	S&P 500 Index	iShares MSCI EAFE ETF	iShares U.S. Real Estate ETF	SPDR Gold Shares ETF	First Trust Barclays Edge Index
---	----------------------------------	--------------------------------------	---	-------------------------------------	--

1-Year					
10% Buffer with Cap	10.75%				13.75%
10% Buffer with Performance Trigger	8.00%				
10% Buffer with Dual Performance Trigger	6.00%				
20% Buffer with Cap	7.50%				
20% Buffer with Performance Trigger	6.50%				
-10% Floor with Cap	11.00%	13.00%	18.00%	21.00%	

5-Year					
10% Buffer with Upside Participation Rate	101.00%				
20% Buffer with Cap	45.00%				

Declared Rate: 3.70%

Index Frontier 5 Plus



A registered index-linked annuity
from MassMutual Ascend Life Insurance Company

RATES EFFECTIVE:

FOR TERMS STARTING ON:

12/07/2024 - 12/20/2024

12/20/2024

To see newly added feature and strategy availability by state, visit MMAscendConnect.com/IF5PlusApprovals.

Purchase Payments less than \$250k	S&P 500 Index	iShares MSCI EAFE ETF	iShares U.S. Real Estate ETF	SPDR Gold Shares ETF	First Trust Barclays Edge Index
1-Year					
10% Buffer with Cap	10.50%				13.50%
10% Buffer with Performance Trigger	7.75%				
10% Buffer with Dual Performance Trigger	5.50%				
20% Buffer with Cap	7.00%				
20% Buffer with Performance Trigger	6.25%				
-10% Floor with Cap	10.00%	12.00%	17.00%	20.00%	

5-Year					
10% Buffer with Upside Participation Rate	100.00%				
20% Buffer with Cap	43.00%				

Declared Rate: 3.60%

Available strategies may vary by Broker/Dealer and by state. Please talk with your financial professional to determine the strategies available.

State Approvals and Variations: Index Frontier 5 Plus is not available in MO, NY, OR, PA, PR.

Strategies with a 5-year term are only available for terms beginning in the first contract year.

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.

The Index Frontier 5 Plus can only be sold through a Broker/Dealer that is contracted with MassMutual Ascend Life Insurance CompanySM and MM Ascend Life Investors Services, LLC. This material must be preceded or accompanied by a prospectus for MassMutual Ascend's Index Frontier 5 Plus. The prospectus contains important information about the Index Frontier 5 Plus annuity and MassMutual Ascend. Read it carefully before you purchase an Index Frontier 5 Plus contract. To obtain a copy of the prospectus, please visit MassMutualAscend.com/RILArates.

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.

Declared rates and indexed strategy caps, upside participation rates and trigger 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, upside participation rate or trigger rate for that term. These caps, participation rates and trigger rates may vary from term to term. For current strategies, the cap for a term will never be less than 1%. The upside participation rate for a term will never be less than 5%, and the trigger rate for a term will never be lower than 1%. Future indexed strategies could offer different minimum caps. For each indexed strategy that we currently offer, any negative return for a term is limited by a -10% floor or 10% or 20% buffer. Future indexed strategies could offer different floors or buffers.

Each indexed strategy provides returns based, in part, on the change in the price of a specific Index or ETF: the S&P 500[®] Index (SPX), the Russell 2000 Index (RTY), the iShares MSCI EAFE ETF (EFA), the iShares U.S. Real Estate ETF (IYR), the First Trust Barclays Edge Index (FTEDGE7) or the SPDR Gold Shares ETF (GLD). The price change does not include dividends that might be paid on the underlying investments of the Index or ETF.

Strategies linked to the First Trust Barclays Edge Index provide returns based, in part, on the change in net asset value of the underlying investments of the Index. The net asset value change includes dividends that might be paid on the underlying investments of the Index.

The First Trust Barclays Edge Index seeks to provide equity and fixed income exposure through a blend of the Capital Strength Index and Value Line Dividend Index and Barclays' US 2-year Treasury Futures, 5-year Treasury Futures and 10-year Note Futures Indexes while aiming to control risk by maintaining a volatility target at or below 7%. Since the index is on an excess return basis (i.e., it returns the index performance in excess of risk-free rates), the risk free return is deducted from the equity underliers. The risk free rate used in this calculation is the U.S. Fed funds Rate published by the Federal Reserve of New York (ticker: FEDL01) for each day divided by 360. No such adjustment is needed to the US Treasury futures indexes as these securities returns are naturally on an excess return basis.

The "S&P 500 Index" is a product 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[®], SPDR[®], 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.

MassMutual Ascend's products have been developed solely by MassMutual Ascend Life Insurance Company. MassMutual Ascend's products are not in any way connected to or sponsored, endorsed, sold or promoted by the London Stock Exchange Group plc and its group undertakings (collectively, the "LSE Group"). FTSE Russell is a trading name of certain of the LSE Group companies.

All rights in the Russell 2000 Index (the "Index") vest in the relevant LSE Group company which owns the Index. "FTSE[®]" "Russell[®]" and "FTSE Russell[®]" are a trade mark(s) of the relevant LSE Group company and is/are used by any other LSE Group company under license.

The Index is calculated by or on behalf of Frank Russell Company or its affiliate, agent or partner. The LSE Group does not accept any liability whatsoever to any person arising out of (a) the use of, reliance on or any error in the Index or (b) investment in or operation of the MassMutual Ascend product(s). The LSE Group makes no claim, prediction, warranty or representation either as to the results to be obtained from the MassMutual Ascend product(s) or the suitability of the Index for the purpose to which it is being put by MassMutual Ascend Life Insurance Company.

The First Trust Barclays Edge Index ("FTIS Index") is a product of FT Indexing Solutions LLC ("FTIS") and is administered and calculated by Bloomberg Index Service Limited and its affiliates (collectively, "BISL"). FIRST TRUST® and First Trust Barclays Edge Index are trademarks of First Trust Portfolios L.P. (collectively, with FTIS and their respective affiliates, "First Trust"). The foregoing index and trademarks have been licensed for use for certain purposes by Barclays, Bloomberg, and MassMutual Ascend Life Insurance Company (collectively, the "Licensees") in connection with the FTIS Index and certain products utilizing the FTIS Index (collectively, the "Products").

The Capital Strength Index ("Nasdaq Index") is a product of Nasdaq, Inc. (collectively, with its affiliates, "Nasdaq"). NASDAQ®, CAPITAL STRENGTH INDEX™, NQCAPST™, and NQCAPSTT™ are trademarks of Nasdaq. The foregoing index and trademarks have been licensed for use for certain purposes by FTIS and Licensees in connection with the FTIS Index and the Products.

The Value Line Dividend Index ("Value Line Index") is a product of Value Line, Inc. ("Value Line"). VALUE LINE® and VALUE LINE DIVIDEND INDEX™ are trademarks or registered trademarks of Value Line. The foregoing index and trademarks have been licensed for use for certain purposes by FTIS and Licensees in connection with the FTIS Index and the Products. The FTIS Index is not sponsored, endorsed, recommended, sold or promoted by Value Line and Value Line makes no representation regarding the advisability of investing in any product utilizing the FTIS Index.

BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. Bloomberg Finance L.P., BISL, and their affiliates ("Bloomberg") are not affiliated with First Trust or Barclays. Bloomberg's relationship to First Trust and Barclays is only (1) in the licensing of the FIRST TRUST®, BARCLAYS®, and FIRST TRUST BARCLAYS EDGE INDEX™ trademarks and (2) to act as the administrator and calculation agent of the FTIS Index, which is the property of FTIS. Bloomberg does not guarantee the timeliness, accurateness, or completeness of the FTIS Index or any data or information relating thereto and shall have no liability in connection with the FTIS Index or any data or information relating thereto.

The products are not issued, sponsored, endorsed, sold, recommended, or promoted by First Trust, Bloomberg, Nasdaq, Value Line, or their respective affiliates (collectively, the "Companies"). The Companies do not make any representation regarding the advisability of investing in the Products or products based on the FTIS Index, Barclays Indices, Nasdaq Index, or Value Line Index, do not make any warranties or bear any liability with respect to such products, and do not make any warranties or bear any liability with respect to the Products, the FTIS Index, or another party's index.

THE COMPANIES DO NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS, COMPLETENESS, AND/OR UNINTERRUPTED CALCULATION OF THE PRODUCTS, FTIS INDEX, BARCLAYS INDICES, NASDAQ INDEX, VALUE LINE INDEX, OR ANY DATA INCLUDED THEREIN OR ANY COMMUNICATION WITH RESPECT THERETO, INCLUDING, ORAL, WRITTEN, OR ELECTRONIC COMMUNICATIONS. THE COMPANIES SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INTERRUPTIONS IN THE PRODUCTS, FTIS INDEX, BARCLAYS INDICES, NASDAQ INDEX, OR VALUE LINE INDEX. THE COMPANIES MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE RESULTS TO BE OBTAINED BY LICENSEES, OWNERS OF THE PRODUCTS OR OF PRODUCTS BASED ON THE FTIS INDEX, BARCLAYS INDICES, NASDAQ INDEX, OR VALUE LINE INDEX, OR BY ANY OTHER PERSON OR ENTITY FROM THE USE OF THE FTIS INDEX, BARCLAYS INDICES, NASDAQ INDEX, OR VALUE LINE INDEX, OR ANY DATA INCLUDED THEREIN.

Neither Barclays Bank PLC ("BB PLC") nor any of its affiliates (collectively "Barclays") is the issuer or producer of MassMutual Ascend's products and Barclays has no responsibilities, obligations or duties to investors in MassMutual Ascend's products. The Barclays US 2Y Treasury Futures Index, Barclays US 5Y Treasury Futures Index, Barclays US 10Y Treasury Note Index, and Barclays Switch USD Signal Index (collectively, the "Indices"), together with any Barclays indices that are components of the Indices, are trademarks owned by Barclays and, together with any component indices and index data, are licensed for use by FTIS in connection with the First Trust Barclays Edge Index.

Barclays' only relationship with the MassMutual Ascend in respect of the Indices is the licensing of the Indices to FTIS, which are administered, compiled and published by BB PLC in its role as the index sponsor (the "Index Sponsor") without regard to MassMutual Ascend's products or investors in MassMutual Ascend's products. Additionally, MassMutual Ascend as issuer or producer of MassMutual Ascend's products may for itself execute transaction(s) with Barclays in or relating to the Indices in connection with MassMutual Ascend's products. Investors acquire MassMutual Ascend's products from MassMutual Ascend and investors neither acquire any interest in the Indices nor enter into any relationship of any kind whatsoever with Barclays upon making an investment in MassMutual Ascend's products. MassMutual Ascend's products are not sponsored, endorsed, sold or promoted by Barclays and Barclays makes no representation regarding the advisability of MassMutual Ascend's products or use of the Indices or any data included therein. Barclays shall not be liable in any way to MassMutual Ascend, investors or to other third parties in respect of the use or accuracy of the Indices or any data included therein.

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. MassMutual Ascend annuity products are not sponsored, endorsed, sold or promoted by BlackRock, and purchasers of an annuity from MassMutual Ascend 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 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.

Principal Underwriter/Distributor: MM Ascend Life Investor Services, LLC, member FINRA and an affiliate of MassMutual Ascend Life Insurance Company.

Product issued by MassMutual Ascend Life Insurance CompanySM (Cincinnati, Ohio), a wholly owned subsidiary of MassMutual, under contract form numbers P1850822NW and P1850822ID. Product not available in all states. Form numbers and features may vary by state.

All guarantees subject to the claims-paying ability of MassMutual Ascend.

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

**NOT FDIC OR NCUSIF INSURED • NO BANK OR CREDIT UNION GUARANTEE • NOT INSURED BY ANY
FEDERAL GOVERNMENT AGENCY • MAY LOSE VALUE • NOT A DEPOSIT**

∴ MassMutual Ascend