

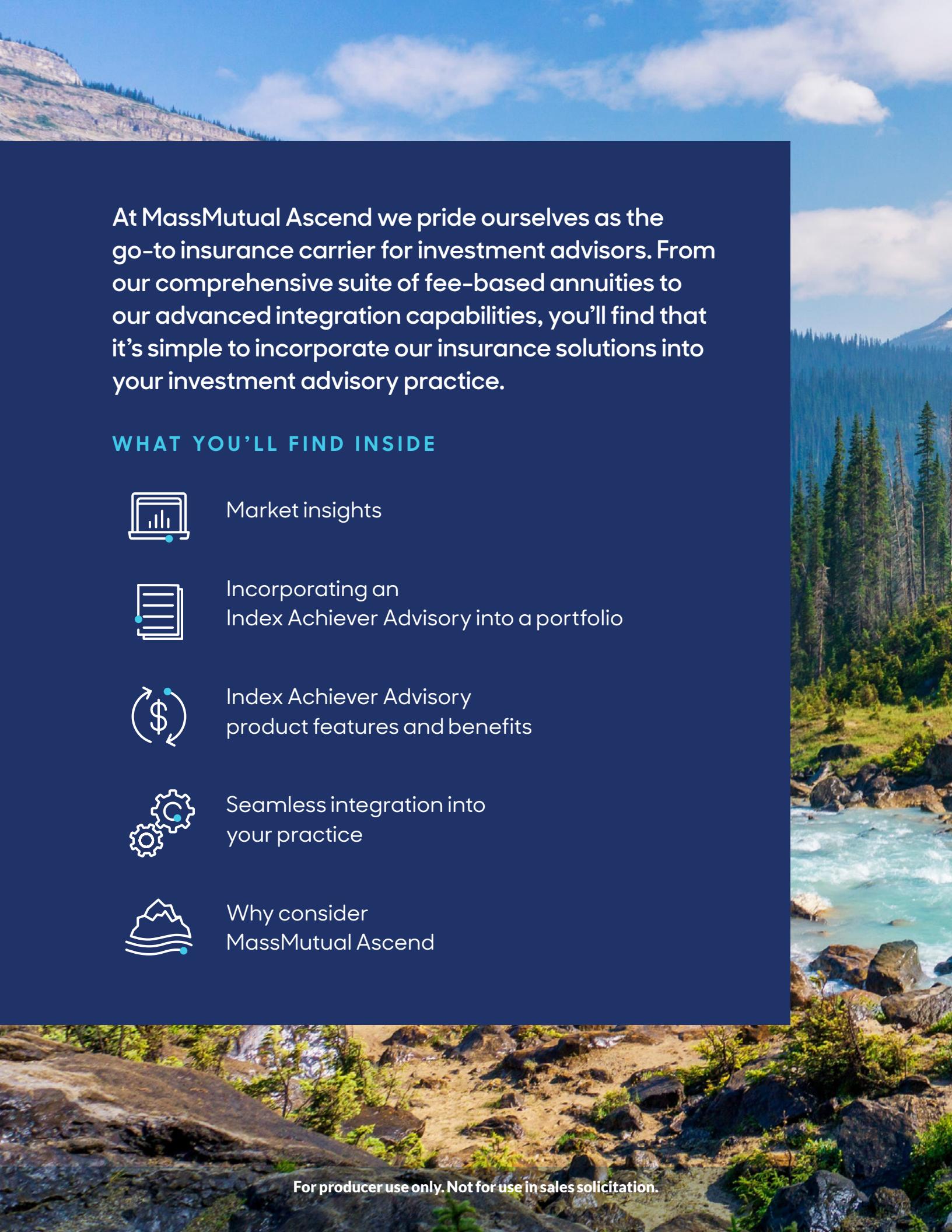


Why offer the Index Achiever Advisory?

A registered index-linked annuity

For producer use only. Not for use in sales solicitation.

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



At MassMutual Ascend we pride ourselves as the go-to insurance carrier for investment advisors. From our comprehensive suite of fee-based annuities to our advanced integration capabilities, you'll find that it's simple to incorporate our insurance solutions into your investment advisory practice.

WHAT YOU'LL FIND INSIDE



Market insights



Incorporating an Index Achiever Advisory into a portfolio



Index Achiever Advisory product features and benefits



Seamless integration into your practice



Why consider MassMutual Ascend

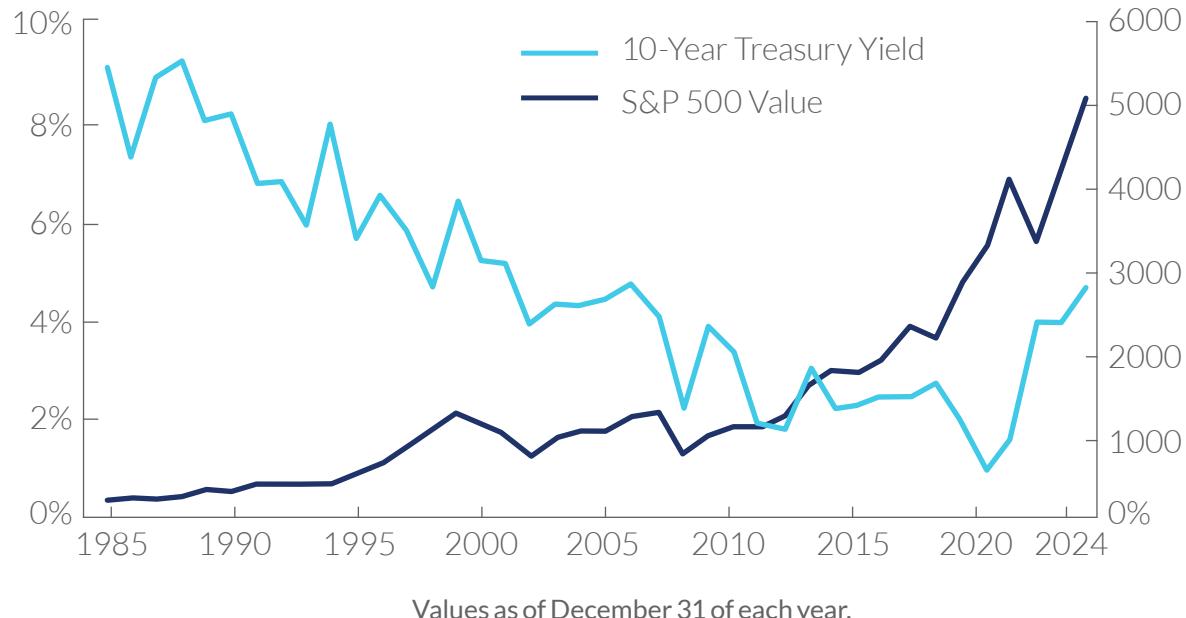


For producer use only. Not for use in sales solicitation.

Are your clients receiving the protection and growth they need?

Unpredictable equity markets may make fixed income investments look like an attractive way to bring safety and stability to your clients' portfolios. However, interest rates and yields have generally trended down over the last 35 years.

Equity investments offer growth potential, but may be too volatile for individuals with a shorter investment horizon, like those in or near retirement. While the S&P 500® is hovering near all-time highs, there is no knowing where it will go next.



Sources: S&P Dow Jones Indices and <https://fred.stlouisfed.org>.

Data as of December 31, 2024.

Early 2020 marked the end of the longest-running bull market in modern history. Unfortunately, when long-run bull markets end, the decline can be dramatic. In fact, the average bear market return since 1929 is -40%.

Historical Bear Markets	Decline from all time high
1929-1932	-86%
1937-1942	-60%
1946-1949	-30%
1956-1957	-22%
1961-1962	-28%
1966	-22%
1968-1970	-36%
1973-1974	-48%
1980-1982	-27%
1987	-34%
2000-2002	-49%
2007-2009	-57%
2020	-34%
2022	-25%

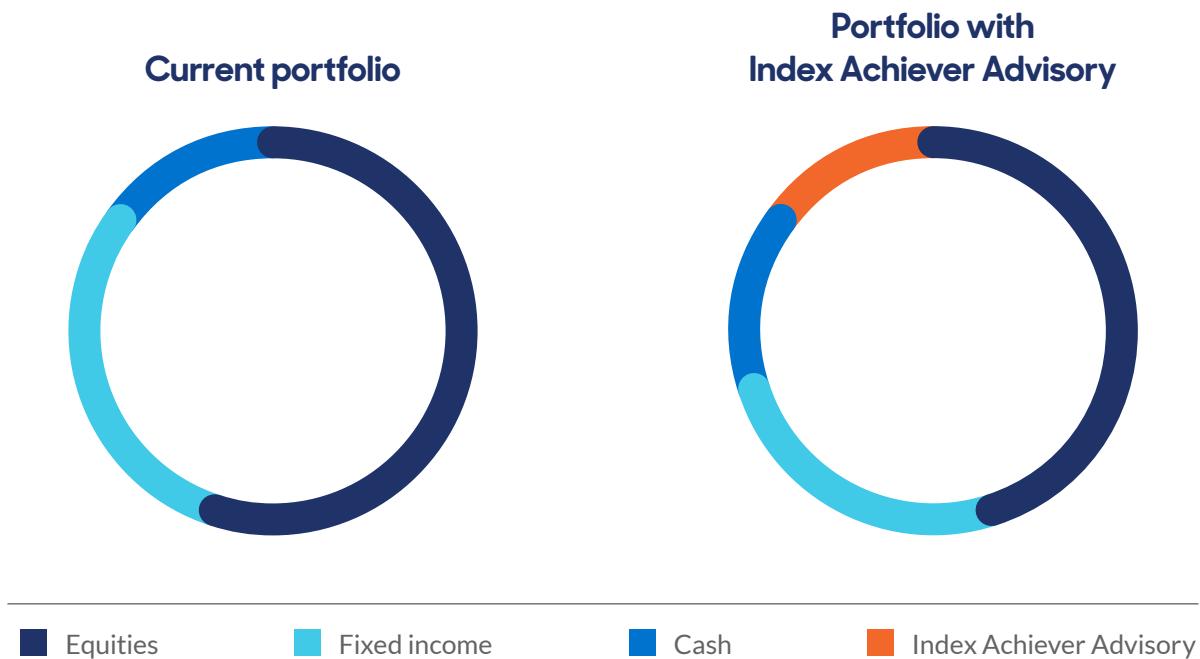
Average bear market return (1929-2024): -40%

Low fixed income yields and unpredictable equity markets might have you looking for an alternative solution to help clients accumulate retirement assets.

An alternative solution designed for growth and reduced risk

So how can you help your growth-focused clients take advantage of positive market performance without exposing them to too much risk? Allocating a portion of their portfolio to an Index Achiever® Advisory registered index-linked annuity may be the answer.

Some of your clients may follow the traditional 60/40 allocation model, with 60% invested in equities and 40% in bonds. Here's how an Index Achiever Advisory could be incorporated into and help reduce risk in a client's portfolio:



Reallocating a portion of a client's portfolio to an Index Achiever Advisory registered index-linked annuity can help complement the rest of their investment portfolio and strengthen their retirement strategy.



For producer use only. Not for use in sales solicitation.

Finding the right balance

As your clients plan for a secure future, they may be looking for a tool to help balance their need for growth and protection. An Index Achiever Advisory registered index-linked annuity could be a good solution. It's designed to help your clients grow their retirement assets by taking advantage of some market growth, while reducing exposure to market loss.

THE INDEX ACHIEVER ADVISORY REGISTERED INDEX-LINKED ANNUITY OFFERS:



Growth opportunity

Clients have the opportunity to grow their money without investing directly in the market.



Tax treatment that allows faster growth

Clients' money may grow at a faster rate since taxes are deferred until they take a withdrawal or annuitize their contract.



Partial protection from loss

Indexed strategies offer floors, buffers and downside participation rates to help reduce exposure to market risk. Plus, strategies are linked to a variety of indexes and ETFs, allowing clients to diversify their exposure to different markets.



No fees

Many retirement products charge administrative fees that can drag down performance. The Index Achiever Advisory has no upfront or recurring charges. A market value adjustment will apply to withdrawals or surrenders from indexed strategies during the first six contract years, unless used to pay advisory fees.



Access to money

While annuities are long-term products, we understand the need for liquidity. With this product, clients can allocate up to 12% of their account value to the declared rate strategy, which they can make a withdrawal from at any time, penalty-free.



A legacy for your loved ones



Market volatility and taxes can jeopardize clients' legacies – but the return of premium death benefit can help ensure your clients' loved ones are taken care of. The death benefit is the greater of the account value or purchase payments reduced proportionately for withdrawals.

Guaranteed income



Unlike equity and fixed income investments, the Index Achiever Advisory provides the opportunity to turn the money accumulated into a guaranteed stream of retirement income that can last your clients' lifetimes.

Future indexed strategies on the Index Achiever Advisory could offer different floors, buffers and downside participation rates. The Index Achiever Advisory is a security that can only be sold through a Broker/Dealer that is contracted with MassMutual Ascend Life Insurance CompanySM. This material must be preceded or accompanied by a prospectus. To obtain a copy of the prospectus, visit MassMutualAscend.com/RILArates.

Easier recovery from loss with reduced market exposure

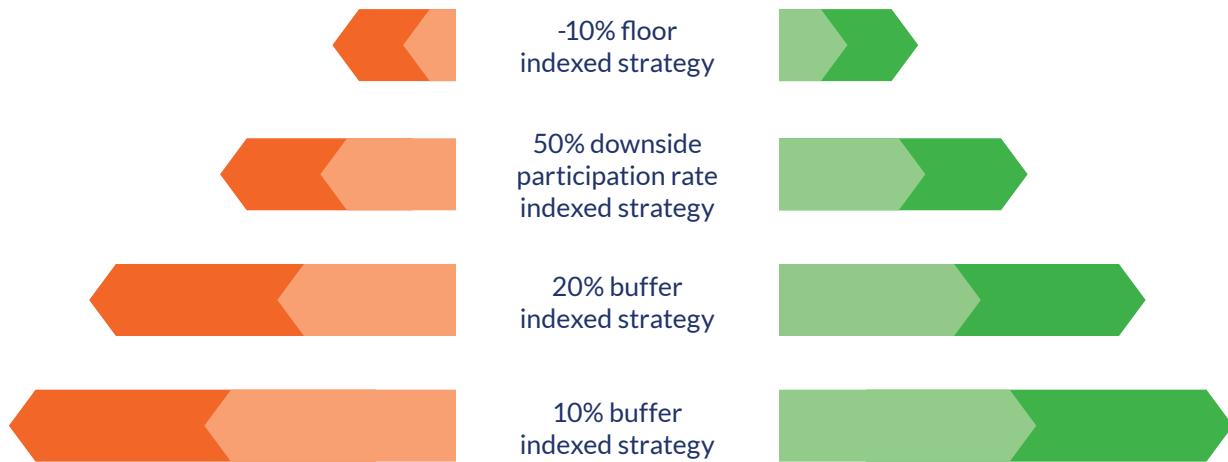
When market volatility hits, it can take a significant return to recover from loss – and as your clients near retirement, they may not have time to rebuild those lost savings. Take a look at the returns that would be required to break even after various market downturns.

The Index Achiever Advisory offers indexed strategies with several types of downside protection: -10% floor, 50% downside participation rate, 20% buffer and 10% buffer. All types of indexed strategies provide market-linked growth potential and partial to complete downside protection, which can make it easier to recover from market downturns.

Managing risk and reward with indexed strategies

Like with most investments, with greater risk comes greater opportunity for reward. With several types of downside protection to choose from, your clients can align their strategy allocations to their risk tolerance.

Market Loss	Required Return
-10%	11%
-20%	25%
-30%	43%
-40%	67%
-50%	100%
-60%	150%
-70%	233%



The graphic above is a generalized representation of upside potential in exchange for downside risk – upside potential rates are subject to many factors and may vary.

Determining Strategy Value

To determine strategy values, we first calculate the index percentage change by comparing the index value at the end of a term to the index value on the first day of the term.

If the index change is positive, we apply the applicable cap, upside participation rate, trigger rate, and in some cases, an upside participation rate and cap for the term.

If the change is negative, for all strategies except those with a dual performance trigger, we apply the -10% floor, 50% downside participation rate, 20% buffer or 10% buffer. If the change is negative for a strategy with a dual performance trigger, the strategy value will decrease if the index loss exceeds the buffer for the term.

Please note that indexed strategy values during a term are calculated daily. The method used to calculate daily values differs from that used at the end of a term. For more information on daily value calculation, please see the product prospectus.

Future indexed strategies could offer different floors, downside participation rates or buffers.

For producer use only. Not for use in sales solicitation.



Daily value information for the underlying indexes and ETFs is readily available from reliable and credible sources.



Diversification with multiple indexed strategy options

Index Achiever Advisory offers growth opportunity with strategies that earn returns based on the following index and exchange traded funds (ETFs):

- **S&P 500® Index:** Includes stocks issued by 500 of the top companies in leading industries of the U.S. economy
- **Russell 2000:** Measures the performance of about 2,000 small-cap U.S. equities
- **iShares MSCI EAFE ETF:** Seeks to track the investment results of an index composed of developed market equities, including those in Europe, Australia, Asia and the Far East
- **iShares U.S. Real Estate ETF:** Seeks to track the performance of the Dow Jones U.S. Real Estate Index, which is composed primarily of U.S. equities in the real estate sector and real estate investment trusts (REITs)
- **SPDR Gold Shares ETF:** Designed to reflect the market value of gold bullion
- **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.

By allocating money among the various strategies, clients can diversify their earning potential.

Strategies linked to 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), and the SPDR Gold Shares ETF (GLD) provide returns based, in part, on the change in the price of the Index or ETF. 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 (FTEDGE7) 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.

Not all strategies available with all indexes and ETFs. See Product Overview for strategy availability.

The power of tax deferral

While many investment vehicles are subject to income tax on an annual basis, the Index Achiever Advisory allows assets to grow tax-deferred. This means returns compound at a faster rate and provide greater earning potential than a taxable investment. The following chart shows how a purchase payment of \$100,000 grows in a tax-deferred annuity compared to a taxable product over the course of 20 years.



After paying a 24% tax on its earnings, the tax-deferred annuity outgrew the taxable product by more than \$8,000.

This graph assumes the taxable product and the tax-deferred annuity grow at an annual rate of 4%. This is a hypothetical scenario for illustration purposes only, and does not reflect interest rates of any specific annuity offered by MassMutual Ascend. The rate of return presented does not represent a guaranteed rate.

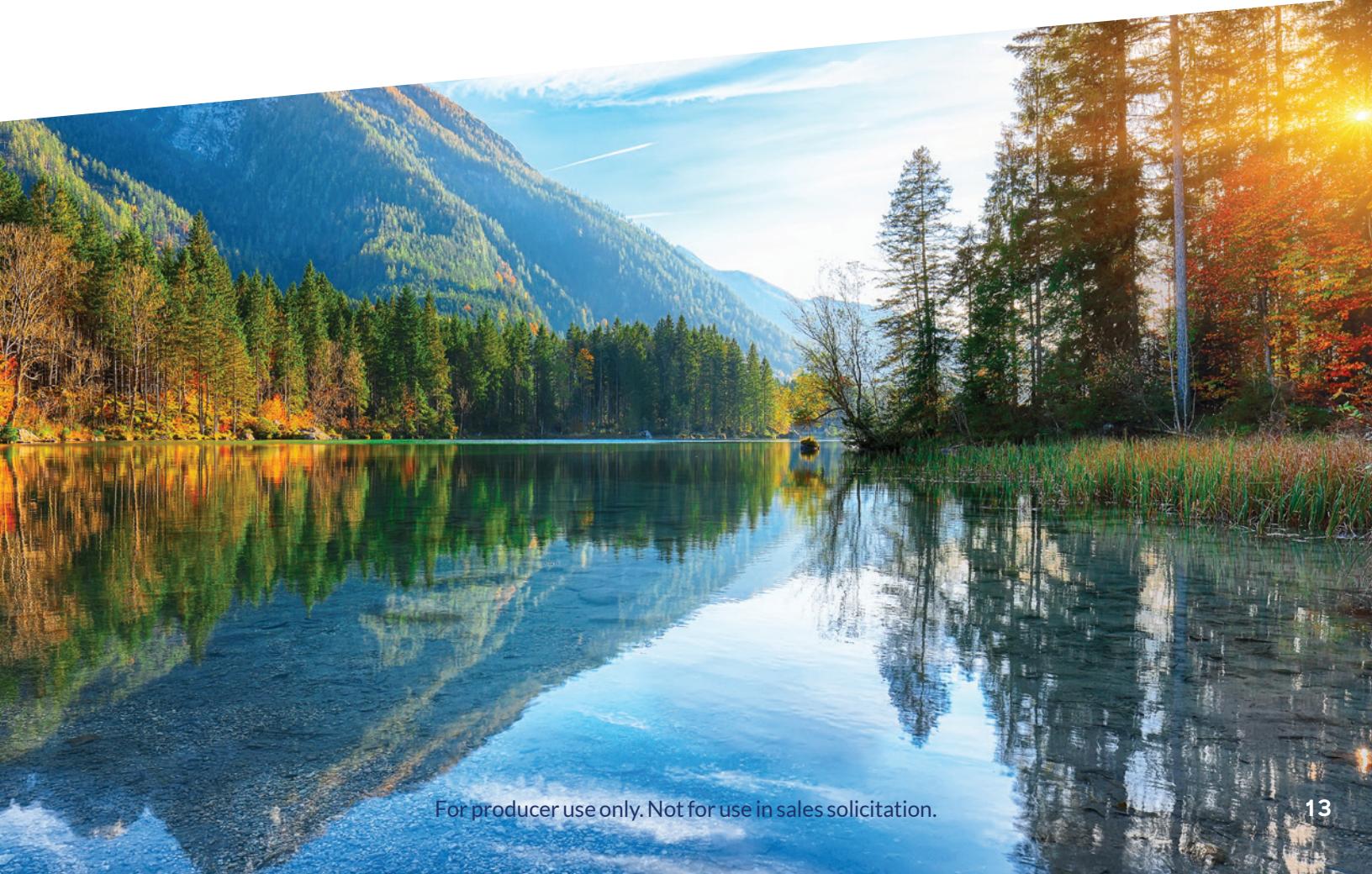
This graph assumes the investing party has a marginal tax bracket of 24%. In 2025, the 24% tax bracket for a married couple applies to taxable income over \$206,700 and not over \$394,600. Capital gains and dividend tax rates may be lower than the 24% illustrated rate and change the comparison results. Clients should consider their current and anticipated tax brackets in making investment decisions, as they may also impact comparison results. Certain qualified investments, such as a traditional IRA, offer an upfront tax deduction or exclusion for contributions. Other qualified investments, such as a Roth IRA, offer a tax exclusion for earnings. The value of these additional benefits is not illustrated. If clients are under age 59½, the taxable amount withdrawn from a qualified or non-qualified annuity is generally subject to a 10% federal penalty tax.

This information is not intended or written to be used as legal or tax advice. It was written solely to provide general information and support the sale of annuity products.

Liquidity Options

While the Index Achiever Advisory is intended to bring long-term value to a portfolio, liquidity options are available.

A maximum of 12% can be allocated to the declared rate strategy each term, which provides complete downside protection, earns interest at a fixed rate and allows for free withdrawals without a market value adjustment. If liquidity is a priority to your clients, they should consider allocating to the declared rate strategy. Should their needs change over time, they can adjust their allocations among strategies at the end of each term.



Seamless integration into your practice

In addition to offering innovative fee-based annuities, MassMutual Ascend is making it easy for you to seamlessly integrate these solutions into your practice.

State-of-the-art tools and resources

Thousands of advisors have visited **MassMutualAscendRIA.com** to explore the innovative tools and resources that illustrate the potential benefits of including a fee-based annuity in clients' portfolios.

Streamlined business process

As part of our continued effort to keep things simple, MassMutual Ascend offers the following integrations and technologies that allow you to manage clients' annuity business at your fingertips:

MassMutual Ascend launched the industry's first fee-based fixed-indexed annuity in 2016. Since then, we've introduced several technology solutions to support the needs of investment advisors – making it simple to integrate fee-based annuities into your practice.

Service and support every step of the way

Our CRM integration capabilities allow you to import client information into our application system, saving you time and avoiding the need to enter information you have stored elsewhere.

Clients can choose to have their annuity contract delivered right to their inbox. Contracts are available to you and your clients within 24 hours of being activated.

After pushing for industry change, MassMutual Ascend received a Private Letter Ruling from the IRS that allows advisory fees to be withdrawn from a contract without creating a taxable event.

QuickApp, our electronic application platform designed specifically for investment advisors, allows you to quickly submit an annuity application and provides real-time alerts to help eliminate the chance of errors.

No need to print forms and obtain a wet signature – DocuSign integration supports the electronic signature process.

We've built relationships with many of the top financial planning, portfolio management and reporting software companies, as well as data aggregation platforms, which allow you to receive detailed annuity values within the same software you are already using to manage client portfolios.



MassMutual Ascend

Taking financial futures above and beyond

At MassMutual Ascend, we are committed to going above and beyond – so when it comes to your financial future, the impossible feels possible.

As a leading provider of annuities, the status quo isn't a status we ever want. We'll always be in pursuit of better.

Our "A++" rating by AM Best follows more than 40 consecutive years of an "A" or higher rating. This means you can have confidence knowing we'll be here when you need us. We are a wholly owned subsidiary of MassMutual, one of the largest life insurance companies in the U.S., founded in 1851.

And finally, everything we do is rooted in a culture of service. From our people to our technology, we strive to always provide you with what you need, when you need it so you can navigate your future with confidence.

Learn more at MassMutualAscend.com.

Index Achiever Advisory

product details

ISSUE AGES	<p>Qualified: 0-80</p> <p>Inherited IRA: 0-75</p> <p>Non-qualified: 0-80</p> <p>Inherited non-qualified: 0-75</p>
PURCHASE PAYMENTS	Clients can purchase this annuity with an initial purchase payment of \$25,000 or more. Clients can add to their annuity during the first two contract months with additional purchase payments of at least \$10,000.
FEES	No upfront or recurring fees are paid to MassMutual Ascend. Clients may choose to have their advisory fee deducted from their annuity.
MARKET VALUE ADJUSTMENT (MVA)	<p>During the first six contract years, an MVA will apply if the contract is surrendered or a withdrawal is taken from indexed strategies.</p> <p>An MVA is an adjustment to the withdrawal based on how market interest rates have changed since the contract was purchased. Interest rate changes are determined based on the BofA Merrill Lynch 5-10 Year US Corporate Bond Index from the Contract Effective Date and the amount of time remaining until the sixth Contract Anniversary. Depending on how interest rates have moved, the MVA may increase or decrease contract values. Withdrawals taken from indexed strategies are subject to a market value adjustment. The amount withdrawn from an indexed strategy is then multiplied by the MVA factor. A performance lock does not lock the MVA. After a performance lock election, the strategy value continues to be subject to the MVA that may apply on a withdrawal or surrender.</p> <p>For more information on how the MVA works, refer to the contract and prospectus.</p>
MVA EXCEPTIONS	The MVA does not apply to any withdrawals taken to pay advisory fees or to withdrawals taken from the declared rate strategy. A maximum of 12% can be allocated to the declared rate strategy for initial allocations and reallocations at the end of a term.
CREDITING STRATEGIES	<p>The owner selects from two types of crediting strategies: a declared rate strategy and indexed strategies. At the end of each term, the owner has the opportunity to reallocate funds among the available strategies. To reallocate funds, the owner must submit a strategy selection form prior to the end of the term. Unless the owner reallocates funds at the end of a term, funds are automatically applied to the same strategy (if available) for the next term. See product prospectus for more information on default strategy reallocations.</p> <p>Product availability, strategy availability and strategy feature availability may vary by state and by distribution. For information specific to your state, please refer to the Product Rate Sheet.</p>

PERFORMANCE LOCK	Performance lock is a feature that allows clients to lock in indexed strategy gains and limit further losses for a term. Performance lock is an election to lock in the daily value percentage for the remainder of a term. A performance lock election for a term is effective on the second market close following our receipt of a request in good order. Once we receive a request in good order, a performance lock election for a term cannot be revoked or changed and clients will not be able to reallocate a performance locked 1-year indexed strategy until the end of the term. If a client makes a performance lock election for a 3-year or 6-year strategy, the term will always end on the next anniversary of the term start date even if it otherwise would have continued for one or more additional years. Performance lock is only available on select strategies. For specific strategy availability, please see the Product Overview.
INDEXED STRATEGY VALUES	<p>The value of an indexed strategy changes from day to day throughout each term. The method used to calculate the strategy value depends on whether the value is being calculated at the end of a term or during a term.</p> <p>For all strategies except the trigger strategies, at the end of a term, the value of an indexed strategy is increased (subject to the upside participation rate and/or cap) for any rise in the applicable index/ETF over the term, or decreased (subject to the floor, buffer or downside participation rate) for any fall in the applicable index/ETF over the term.</p> <p>For strategies with a performance trigger, the trigger rate is credited when index performance is positive or level over the term, or decreased (subject to the buffer) for any fall in the applicable index/ETF over the term.</p> <p>For strategies with a dual performance trigger, the trigger rate is credited when index performance is positive, level, or when the index loss does not exceed the buffer over the term, or decreased when the index loss exceeds the buffer over the term.</p> <p>Before the end of a term, the value of an indexed strategy is increased or decreased by the daily value percentage. The daily value percentage is not tied directly to the underlying index, but is based on the prices of hypothetical options related to the index, adjusted for the costs of acquiring and exiting such options.</p> <p>The prospectus contains more information about the risks of investing in this contract, how withdrawals affect strategy values, a more detailed explanation of how strategy values are calculated and examples of such calculations.</p>
EXTENDED CARE WAIVER RIDER	<p>To help ease the strain of certain unforeseen events, an extended care waiver is available for no additional charge. If the owner is confined to a nursing home or other long-term care facility after the completion of the first contract year for at least 90 consecutive days, any negative MVAs may be waived on withdrawals up to a full surrender.</p> <p><i>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 early withdrawal charges under an expanded variety of circumstances.</i></p>
TERMINAL ILLNESS WAIVER RIDER	<p>Provided that the diagnosis is rendered more than one year after the contract effective date, up to 100% of the account value can be withdrawn without incurring a negative MVA if the owner or joint owner is diagnosed by a physician as having a terminal illness with a prognosis of 12 months or less.</p> <p><i>This waiver may be used only once. Not available in Massachusetts.</i></p>
PAYOUT OPTIONS	The following options are available following the first contract year: fixed period payout, life payout, life payout with payments for at least a fixed period, and joint and one-half survivor payout.
DEATH BENEFIT VALUES	The death benefit amount is the greater of the account value or the purchase payments, reduced proportionally for all withdrawals, but not including market value adjustments. In either case, it is reduced by premium tax or other taxes not previously deducted.

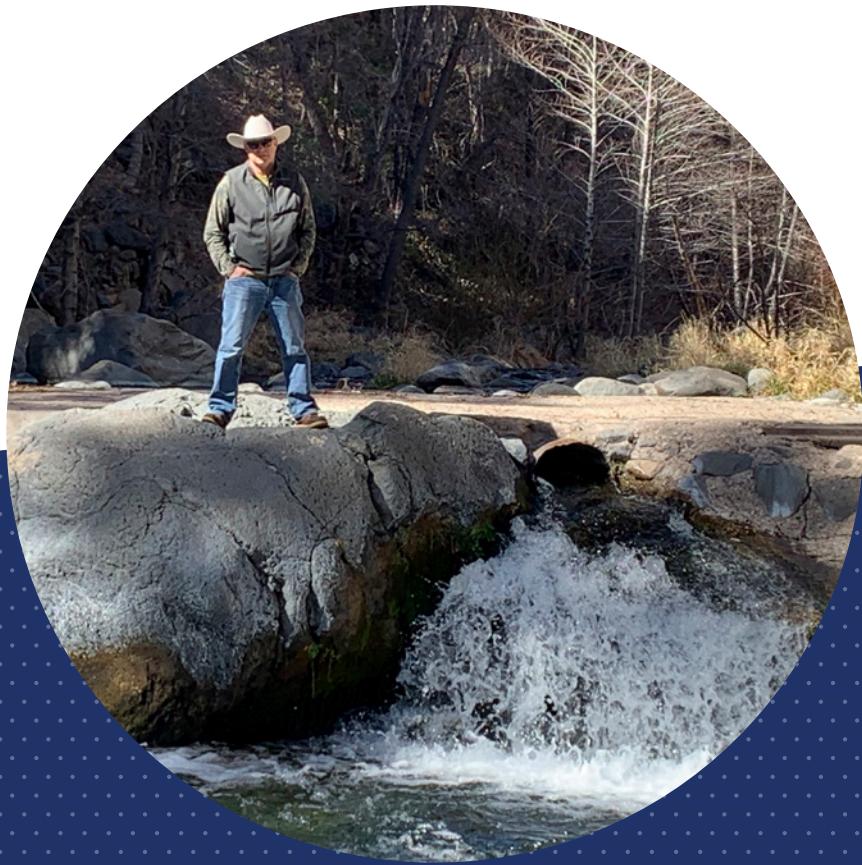


Photo submitted by **Darcy** from California,
valued annuity customer since **1998**.

MassMutual Ascend's registered index-linked annuities can only be sold through a Broker/Dealer that is contracted with MassMutual Ascend Life Insurance Company. Any sales solicitation must be accompanied or preceded by a prospectus. To obtain a copy of the prospectus, please visit MassMutualAscend.com/RILArates.

The Index Achiever Advisory is a fee-based registered index-linked annuity intended for distribution by Investment Advisor Representatives engaged in fee-based planning. MassMutual Ascend is not an investment advisor and the information provided in this document is not investment advice.

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

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 Life Insurance Company ("MassMutual Ascend") 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 FTSE Russell Index ("the Index") vest in the relevant LSE Group company which owns the Index. Russell® is a trade mark of the relevant LSE Group company and is 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 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 AscendSM.

Products issued by MassMutual Ascend Life Insurance Company (Cincinnati, Ohio), a wholly owned subsidiary of Massachusetts Mutual Life Insurance Company (MassMutual), under contract form ICC24-P1841624NW and rider forms ICC22-R1843722NW and ICC22-R1843822NW (not available in Massachusetts). Contract and rider form numbers may vary by state. Products and features may vary by state, and may not be available in all states.

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

For producer use only. Not for use in sales solicitation.

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

MassMutual Ascend

© 2025 MassMutual Ascend Life Insurance Company, Cincinnati, OH 45202.

All rights reserved. www.MassMutualAscend.com

B1844422NW

12/25