



MassMutual Ascend: Where insurance meets investing

Fee-based solutions designed with investment advisors in mind

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



Incorporating annuities into a portfolio



Fee-based products designed with you in mind



Guaranteed lifetime income options



Seamless integration into your practice



Why consider MassMutual Ascend





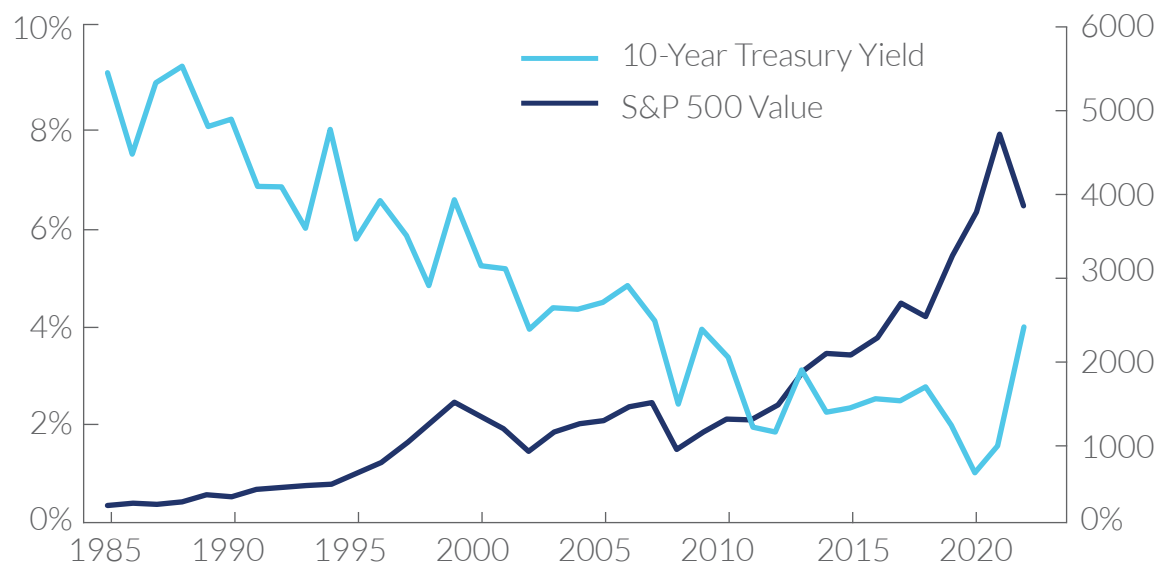
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Are your clients receiving the protection and growth they need?

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.



Values as of December 31 of each year.

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

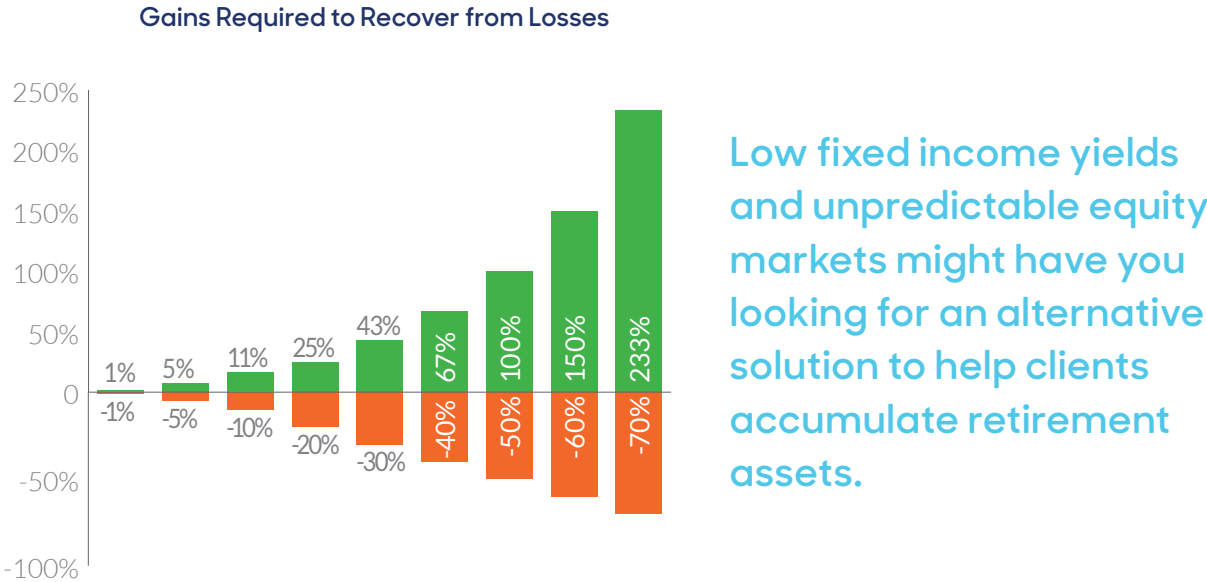
Data as of December 31, 2022.

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 -41%.

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

Average Bear Market Return (1929-2022): -41%

Plus, it can take a significant return to recover from loss.



Will your clients have enough retirement income?

With retirees living longer and healthier lives, developing a reliable lifetime income strategy is an important step that shouldn't be overlooked. Fixed income investments are commonly used as a source of retirement income. But when interest rates lie near historic lows for extended periods of time, it can be easy to forget the negative impact that rising rates can have on fixed income portfolios. When interest rates rise, the value of a fixed income portfolio could decrease and ultimately generate less retirement income.

Bond Duration	Interest Rate	
	+1%	+2%
Resulting Decrease In Bond Values		
2-year bond	-1.9%	-3.7%
3-year bond	-2.8%	-5.5%
4-year bond	-3.7%	-7.1%
5-year bond	-4.5%	-8.7%
10-year bond	-8.1%	-15.5%

For example, if rates rise by 2%, the value of an existing three-year bond would decrease by 5.5%.

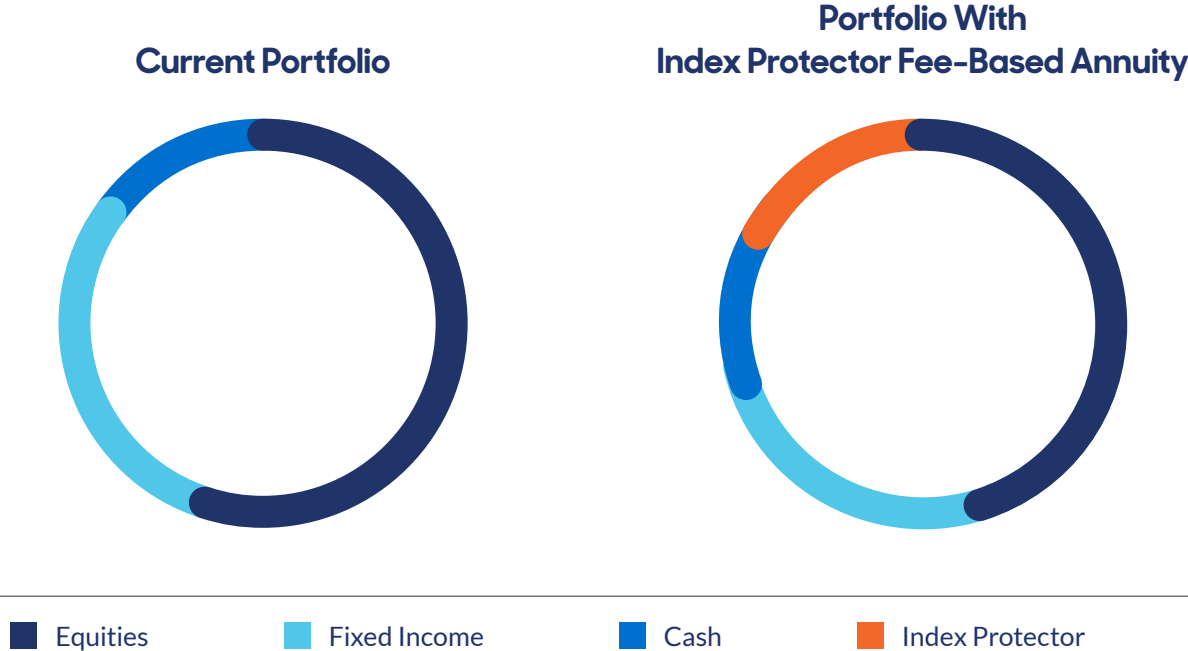
The inverse relationship between bonds and interest rates could reduce the value of your clients' fixed income portfolios, putting their retirement income at risk.

Duration is a measurement of a bond fund's sensitivity to interest rate fluctuations. It is not the same as the bond fund's average time to maturity or average term. Example assumes starting interest rates of 2.52% for 2-year duration bond fund, 2.636% for 3-year, 2.80% for 5-year and 2.97% for 10-year.

Alternative solutions designed for protection, growth and income

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 Protector fee-based fixed-indexed 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. However, low bond yields may make this approach less appealing. Here's how an Index Protector could be incorporated into and help protect a client's portfolio:



Reallocating a portion of a client's portfolio to a fee-based annuity can help provide greater accumulation potential than other low-yielding fixed income investments, while also protecting their assets from market volatility.

A comprehensive suite of fee-based annuities

Accumulation and Income Focus

Index Protector 7

The Index Protector 7, MassMutual Ascend's flagship fee-based annuity, may be attractive for clients focused on greater accumulation and income opportunity. This product features early withdrawal charges and market value adjustments that end after seven years, making it a good fit for those with a longer-term investment horizon. Additionally, it offers an optional income rider, enabling clients to take advantage of guaranteed income while maintaining control of their assets.

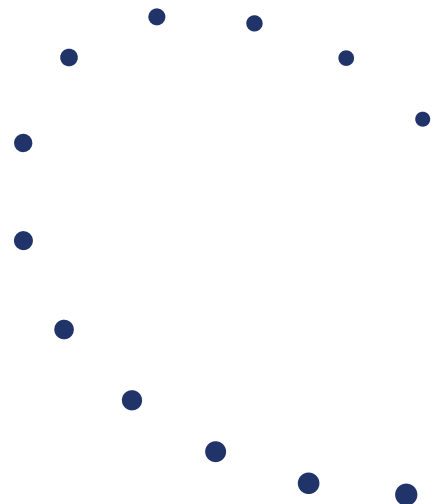
Accumulation Focus

Index Protector 5 MVA

The Index Protector 5 MVA may be a good fit for clients who want a product without early withdrawal charges. Instead of early withdrawal charges, this product features a market value adjustment that ends after five years.

Index Protector 4

The Index Protector 4 has no market value adjustments and features a four-year early withdrawal charge schedule, allowing clients to access their funds penalty-free after just four years.



Index Protector fee-based annuity comparison

	Index Protector 7 (MVA)	Index Protector 5 MVA	Index Protector 4 (No MVA)
Principal protection ¹	✓	✓	✓
Multiple declared rate strategies		✓	
Multiple indexed strategies	✓	✓	✓
10% free withdrawals	✓	✓	✓
Early withdrawal charges	✓		✓
Market value adjustments	✓	✓	
Tax-deferred growth	✓	✓	✓
Optional riders for additional income benefits	✓		
Return of premium	✓		

For additional product details, see page 16-17.

¹ Unless a withdrawal or surrender occurs during the early withdrawal charge or market value adjustment period.

Growth opportunity through indexed strategies

An Index Protector fee-based annuity can help clients grow their assets with strategies that earn interest based on the following indexes and ETFs:

- S&P 500® Index
- S&P 500 Risk Control 10% Index
- S&P U.S. Retiree Spending Index
- iShares U.S. Real Estate ETF
- iShares MSCI EAFE ETF

The following analysis uses one-year rolling periods to analyze the performance of each strategy. Observations represent how each strategy would have performed if someone allocated money to it every day and a term started every day during the specified time frame.

	Maximum Return	Average Return
S&P 500® Index 1-year point-to-point strategy with 10% cap	10.00%	7.06%
S&P 500 Risk Control 10% Index 1-year point-to-point strategy with 80% participation rate	20.25%	6.21%
S&P U.S. Retiree Spending Index 1-year point-to-point strategy with 80% participation rate	9.76%	3.90%
iShares U.S. Real Estate ETF 1-year point-to-point strategy with 13% cap	13.00%	5.48%
iShares MSCI EAFE ETF 1-year point-to-point strategy with 11% cap	11.00%	4.19%

Index returns are from December 31, 2012 to December 31, 2022 and are based on 2,350 observations.

Maximum return for a strategy with a participation rate is based on the single highest return for any one-year period during the specified time frame. Indexed interest rates for a strategy are based on index changes over one-year terms, which begin on the 6th and 20th of a month. The information presented above reflects hypothetical caps and participation rates, which are not guaranteed rates. The actual caps and participation rates that we might have applied during this period would have been different and might have been significantly lower.

Historical values of the S&P 500 are based on the S&P 500 Price Return Index (SPX). Historical values of the S&P 500 Risk Control 10% Index are based on the S&P 500 Average Daily Risk Control 10% Price Return Index. These indexes do not include dividends paid on any of the stocks included in the index. You cannot invest directly in an index.

Historical values of the iShares US Real Estate ETF and iShares MSCI EAFE ETF strategies are based on ETF closing prices and do not include dividends earned on the ETFs.

The launch date of S&P 500 Risk Control 10% Index was April 4, 2013. The launch date of the S&P U.S. Retiree Spending Index was September 26, 2016. The launch date of the iShares U.S. Real Estate ETF was June 12, 2000.

Returns prior to the index launch date are back-tested. Back-tested performance is not actual performance, but is hypothetical. Back-tested returns were calculated using the same methodology that was in effect when the index was officially launched. Back-tested performance is subject to inherent limitations because it reflects application of an index methodology and selection of index constituents in hindsight. No theoretical approach can take into account all of the factors in the markets in general and the impact of decisions that might have been made during the actual operation of an index. Past performance does not guarantee future results. Historical and back-tested returns are not indicative of the interest that would have been credited to a fixed-indexed annuity during the same time period.

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. To learn more about the iShares U.S. Real Estate ETF, visit iShares.com and search ticker symbol IYR. To learn more about the iShares MSCI EAFE ETF, visit iShares.com and search ticker symbol EFA.

Indexed strategies in action

Not only do indexed strategies provide the opportunity to earn interest based on market growth, but they keep your clients' money protected in the event of market declines.

When index performance is positive, interest is credited and locked in. This means the annuity cannot lose value due to future market performance.

On the other hand, if index performance is negative, the annuity won't lose money – but can still earn interest during future terms. Let's take a look at how it works.



YEAR 1

Index performance is positive.

The annuity earns interest that is locked in and protected from future index declines.

YEAR 2

Index performance is negative.

The principal and earnings remain protected, leaving the account value unchanged.

YEAR 3

The index begins to recover.

The annuity earns interest, even though the index has not made up its previous loss.

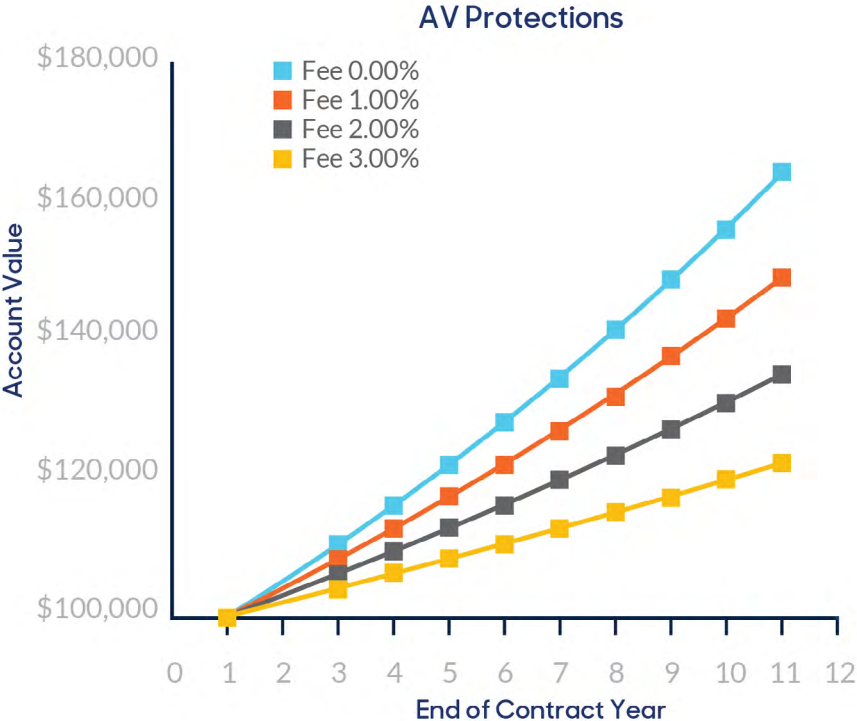
The example above is for illustrative purposes only. It does not reflect actual index performance.

Accumulate more by saving on fees

When determining the right investment or savings product for your client, it's important to look at the product as a whole, which includes fees, expenses or other constraints. The Index Protector products do not include annual administrative charges, rider fees or early withdrawal charges, which may mean your client saves on fees.

How fees impact the account value

The hypothetical example below shows how various fees would impact a \$100,000 investment growing at 5% annually for 10 years. You can see how annual fees can have a significant impact on the account value.



Annual fees for variable annuities include the mortality and expense charge, the average expense ratio of all subaccounts available under the annuity and the charge for an optional guaranteed income rider. These fees do not apply to MassMutual Ascend's fee-based annuities.

Withdrawals may be subject to market value adjustments. Returns may be subject to annual caps. When discussing fees, the investment adviser should include any advisory fee and whether or not it would be withdrawn from the annuity on a periodic basis.

Enhanced income opportunities

While all Index Protector fee-based annuities can be turned into a guaranteed income stream, clients who purchase an **Index Protector 7** can add an optional income rider to enhance their lifetime income opportunity, while maintaining control of their assets.

To determine the maximum annual income payment available under the IncomeDefender optional rider, multiply the benefit base by the income percentage, which is based on age and the selected income option. The income percentage is locked in once payments begin.

IncomeDefender rider
<ul style="list-style-type: none"> • Guaranteed growth of benefit base at the end of each year during the rollup period • 8% rollup credit for 7-year rollup period • Reset feature allows clients to reset benefit base to account value on contract anniversaries before income payments begin • Annual charge of 0.85% • Charges refunded upon death if rider income payments haven't started

Income percentages for the IncomeDefender		
Age at income start date	Single lifetime income option	Joint lifetime income option
55	4.0%	3.0%
60	4.5%	3.5%
65	5.0%	4.0%
66	5.1%	4.1%
67	5.2%	4.2%
68	5.3%	4.3%
69	5.4%	4.4%
70	5.5%	4.5%
71	5.6%	4.6%
72	5.7%	4.7%
73	5.8%	4.8%
74	5.9%	4.9%
75	6.0%	5.0%
80	6.5%	5.5%
85	7.0%	6.0%
90+	7.5%	6.5%

Income percentage increases 0.10% each year until income payments start. Income payments may begin immediately, if age 55+.

Case study: IncomeDefender rider

Meet Doug. As Doug nears retirement, he realizes that to achieve peace of mind and maintain his lifestyle, he will need a source of guaranteed lifetime income. He decides to purchase an Index Protector 7 with a \$100,000 purchase payment and adds the IncomeDefender rider. He is 65 years old at the time of purchase.

After five years, he decides to start rider income payments. Since he is now 70, his income percentage is 5.5%.

Contract year	Beginning benefit base	Rollup credit	Ending benefit base
1	\$100,000	\$8,000	\$108,000
2	\$108,000	\$8,000	\$116,000
3	\$116,000	\$8,000	\$124,000
4	\$124,000	\$8,000	\$132,000
5	\$132,000	\$8,000	\$140,000
6	\$140,000		

Years 1-5: Before income payments begin
 The benefit base increases annually by the rollup credit amount. Each year Doug waits to receive income, his income percentage increases by 0.10%.

Years 6+: After income payments begin
 Doug will receive \$7,700 (\$140,000 benefit base x 5.5% income percentage) each year for the rest of his life even if his account value is depleted.

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 MMAAscendRIA.com to explore the innovative tools and resources that illustrate the potential benefits of including a fee-based annuity in clients' portfolios. One of the site's most popular tools is the Portfolio Simulator, which allows you to build a hypothetical portfolio and analyze the impact of adding a fee-based annuity.

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:

Service and support every step of the way

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.

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.



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.

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.

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.

Index Protector product details

	Index Protector 7 (MVA)	Index Protector 5 MVA	Index Protector 4 (No MVA)
ISSUE AGES	<ul style="list-style-type: none"> • Qualified & Non-qualified: 0-85 • Inherited IRA & Inherited Non-qualified: 0-75 	<ul style="list-style-type: none"> • Qualified & Non-qualified: 0-89 • Inherited IRA & Inherited Non-qualified: 0-75 	<ul style="list-style-type: none"> • Qualified & Non-qualified: 0-90 • Inherited IRA & Inherited Non-qualified: 0-75
PURCHASE PAYMENTS	Minimum: \$100,000; additional purchase payments accepted in first two contract months; minimum \$25,000	Minimum: \$50,000; additional purchase payments accepted in first two contract months; minimum \$25,000	Minimum: \$50,000; additional purchase payments accepted in first two contract months; minimum \$25,000
RETURN OF PREMIUM FEATURE	Return of premium value is sum of all purchase payments, minus withdrawals and applicable taxes and rider charges. Available on or after the third contract anniversary. Included at no extra charge.	None	None
FREE WITHDRAWALS	10% free withdrawals beginning first contract year		
EARLY WITHDRAWAL CHARGES	7-year declining: 7%, 7%, 7%, 6%, 5%, 4%, 3%	None	4-year: 5.6%, 5.6%, 5.6%, 5.6%
MARKET VALUE ADJUSTMENTS	MVAs that end after seven years	MVAs that end after five years	None

INDEXED STRATEGIES

- S&P 500® 1-year point-to-point with cap
- S&P 500® 7-year cap lock annual point-to-point (Index Protector 7 only)
- S&P 500 Risk Control 1-year point-to-point with participation rate
- S&P U.S. Retiree Spending 1-year point-to-point with participation rate
- iShares U.S. Real Estate 1-year point-to-point with cap
- iShares MSCI EAFE 1-year point-to-point with cap

Available strategies may vary by state and by distribution.

TERM

- The cap lock strategy has a seven-year term. The cap is locked in for the entire term. This strategy may only be selected during the first contract year.
- All other strategies have a one-year term.
- With all indexed strategies, interest is credited annually on the last day of each term year.
- Clients can change their strategy allocations at the end of each one- or seven-year term. Funds held in the seven-year strategy will automatically reallocate to the S&P 500® 1-year strategy, unless elected otherwise.

PAYOUT OPTIONS

- **Fixed period:** clients receive income payments for a fixed period of time that they choose.
- **Life or life with a minimum fixed period:** clients receive income payments for life. If they select a minimum fixed period of time and pass away before the end of that period, the remaining income payments will be paid to their designated beneficiary.
- **Joint and one-half survivor:** income payments are guaranteed for the life of the client and the life of a designated joint annuitant. If the client is survived by the joint annuitant, he or she will receive 50% of the income benefit payment for life.

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