

MassMutual® Guaranteed Interest Account

Product Features¹

The MassMutual Guaranteed Interest Account (or “GIA”) is a stable value investment with a guaranteed rate of return and a guarantee of principal that is backed by the Massachusetts Mutual Life Insurance Company (“MassMutual®”) general investment account. The GIA is provided through a group annuity contract issued by MassMutual to a retirement plan. Under the contract, a crediting rate is established for a six-month period of time (a “rate period”) and all assets invested in the GIA are credited with that rate. At the expiration of each rate period, a new crediting rate is declared. MassMutual assumes market, credit, and interest rate risks for the assets supporting the GIA.

The GIA offers participants these stable value features:

- Guarantee of principal
- Guaranteed credited rate that is set in advance for six-month period
- Guarantee of principal and crediting rate are backed by the financial strength of MassMutual
- Safeguard against potential adverse market volatility
- Investment management expertise of MassMutual
- Full liquidity at book value for participant-directed benefit payments and transfers to non-competing investments²

Investor Profiles

The GIA may be suitable for a variety of investor types, including the following:

- Pre-retirees who are interested in protecting their assets in case of a market downturn
- Risk-averse investors of any age who desire a stable value investment with a stated rate of return
- Investors with various risk tolerances and an asset allocation strategy that includes a guaranteed rate component

Determination of the Guaranteed Rate

MassMutual re-sets GIA guaranteed rates semiannually, taking into consideration a number of factors, including the following:

- **Investment Year Method (IYM) experience of the contract or pool.** For each contract (if individually rated) or pool (if not individually rated), MassMutual tracks the cash flow into and out of the GIA during the calendar year and the earnings yield of the retirement segment of MassMutual’s general account. This provides exposure to various interest rate environments that contribute to the GIA contract’s crediting rate stability.

- **Projected maturity of the underlying investments.** The impact of current interest rates from maturity reinvestment of a portion of underlying investments in the retirement segment of the general account is estimated. Underlying investments are structured with a range of maturities which also contribute to interest rate exposure stability.
- **A target spread level.** This is comprised of annual administrative services revenue as well as a risk charge for the interest rate guarantee, investment expenses, and other distribution and administrative costs. The Guaranteed Interest Account operates without a stated expense ratio because it does not have a set management fee and credits a pre-set guaranteed rate regardless of the financial performance of MassMutual's general account. The target spread levels for administration revenue and the risk charge are disclosed on the Cost and Revenue Disclosure for each plan.

Generally speaking, the GIA crediting rates will typically show less volatility than current market rates. In a rising interest rate environment, credited rates will lag market rates because much of the contract's or pool's assets are backed by investments made in prior years with earnings that reflect the lower rates that prevailed in those years. Over time, as new contributions are made and investments mature and are reinvested at current interest rates, rates could be expected to move toward market levels. Conversely, as market rates decrease, the GIA crediting rates would also be expected to fall, but generally more slowly than market rates.

Participant Liquidity

All bona fide participant-initiated withdrawals from the GIA, including benefit payments at termination or retirement, loans and transfers to other non-competing investment options, are paid at book value. Similar to other stable value alternatives, transfers to competing fixed income investments are not allowed. Employer-initiated events such as layoffs, a sale of a business unit, a company merger, or a change in the stable value option offered under a plan are considered market value events and are subject to the plan sponsor liquidity provisions discussed below.

Plan Sponsor Liquidity

Upon full or partial contract or plan termination and certain other sponsor initiated events, distributions from the GIA may be subject to a liquidation value (market value) adjustment pursuant to a formula specified in the contract. The market value formula may produce a value that is more or less than the book value of the plan's investment in the GIA. For 403(b) plans with the GIA: If the market value of a plan's investment in the GIA is greater than the book value, the market value may be paid in one sum according to contract provisions. If the market value of a plan's investment in the GIA is less than the book value, the book value of GIA assets will be liquidated in annual installment payments. While this is required for 403(b) plans, other plan sponsors have the choice to elect this installment payment method.

Management Team

Most of the assets in MassMutual's general investment account, including those backing the Guaranteed Interest Account, are managed by Barings LLC (Barings), a subsidiary of MassMutual. Barings' investment professionals specialize in various fixed income sectors, including Treasuries, agencies, public bonds, private placements, bank loans, commercial mortgage loans, mortgage-backed securities, and other types of debt. Sector managers discuss the relative attractiveness of different areas of the market on an ongoing basis to decide where to deploy new cash and how to manage current holdings. Analysts within each sector perform bottom-up analyses of potential investments and choose those with the best risk/reward tradeoffs from the available alternatives.

Barings structures portfolios with reference to their associated liabilities, so product specifications and obligations to clients can be met with a high degree of certainty, even in very unusual market conditions. Investment risk management is a high priority. Strict diversification among industries and individual issuers helps mitigate credit risk. Barings utilizes various quantitative tools and systems to manage interest rate risk and liquidity risk.

Portfolio

The discussion below is focused on the MassMutual General Investment Account portfolio that backs the GIA contract.

Underlying Investments: MassMutual believes that broad diversification across asset classes, sectors, and individual issuers is key to successful management and an important safeguard against many investment risks. We believe that diversification adds both strength and safety to the portfolio. Among the asset types included in the GIA portfolio are:

- Long-term bonds
- Mortgage loans
- Short-term investments and cash
- Small positions of common stock, partnership arrangements, and real estate

Duration: The duration of the general account assets supporting the GIA varies over time and is managed with the objective of meeting liabilities and limiting investment risk.

Credit Quality: The fixed income securities in MassMutual's general investment account have historically been managed to ensure investment-grade quality.

Credit Quality of MassMutual: As mentioned above MassMutual stands behind all GIA guarantees. MassMutual is proud to say that our financial strength ratings are among the highest in our industry.³

GIA Performance

The table on the next page illustrates sample rates of return of the GIA versus a blended benchmark index and 91-day U.S. Treasury bills, which have a high degree of safety and liquidity. Past performance does not guarantee future results.

Sample Performance as of September 30, 2020

Calendar Year Crediting Rate History⁶

| Year | GIA Credit Rate ⁴ | Blended Benchmark Index ⁵ | 91-Day U.S. Treasury Bills ⁵ |
|--|---------------------------------------|--|--|
| 2004 | 4.93% | 1.08% | 1.24% |
| 2005 | 4.54% | 2.33% | 3.00% |
| 2006 | 4.71% | 4.36% | 4.76% |
| 2007 | 4.38% | 6.02% | 4.74% |
| 2008 | 4.19% | 4.18% | 1.80% |
| 2009 | 3.63% | 0.48% | 0.13% |
| 2010 | 3.36% | 1.23% | 0.13% |
| 2011 | 3.85% | 0.81% | 0.08% |
| 2012 | 3.45% | 0.25% | 0.06% |
| 2013 | 3.38% | 0.20% | 0.05% |
| 2014 | 3.39% | 0.32% | 0.03% |
| 2015 | 3.47% | 0.28% | 0.03% |
| 2016 | 2.76% | 0.58% | 0.27% |
| 2017 | 2.64% | 0.63% | 0.84% |
| 2018 | 2.54% | 1.72% | 1.86% |
| 2019 | 2.29% | 2.90% | 2.25% |
| Trailing Period Average Annual Return⁷ | GIA Crediting Rate⁴ | Blended Benchmark Index⁵ | 91- Day U.S. Treasury Bills⁵ |
| 2020 Year-to-Date ⁸ | 1.09% | 1.80% | 0.56% |
| 1 Year Average | 1.80% | 2.30% | 1.02% |
| 3 Year Average | 2.09% | 2.15% | 1.65% |
| 5 Year Average | 2.00% | 1.48% | 1.16% |
| 10 Year Average | 2.84% | 0.94% | 0.61% |

About MassMutual

MassMutual has been serving retirement plans for more than 65 years. It offers a full range of products and services for corporate, union, nonprofit and governmental employers' defined benefit, defined contribution and nonqualified deferred compensation plans. It serves approximately 3 million participants.

MassMutual was founded on May 15, 1851. And from the beginning, we've had a single purpose: to help people secure their future and protect the ones they love. More than 160 years later, that commitment remains our guiding principle. It's behind everything we do and every decision we make. It's how we continue to deliver products and services to help our customers achieve their financial goals, and protect those who matter most.

Notes:

A series of horizontal dotted lines for taking notes.

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¹ The product features discussed here describe MassMutual's current GIA product offering backed by the Massachusetts Mutual Life Insurance Company (MassMutual) general investment account. Although much of the material presented here is applicable to earlier contracts, some details may not apply for contracts issued prior to 2004. The focus in this piece is also on the GIA within defined contribution plans; some statements may not apply to defined benefit plans. Plans may also refer to this investment option as Guaranteed Fund, Fixed Interest Account, Experience Account, Active Life Fund, or some other variation of these names.

² Competing investments are subject to asset transfer restrictions with regard to other investments in a retirement plan. Competing investments for the GIA include certain fixed-income investments and self-directed brokerage accounts.

³ Ratings are for Massachusetts Mutual Life Insurance Company and do not apply to any separate investment accounts or mutual funds offered by MassMutual or its affiliates. For current ratings, please visit www.MassMutual.com/ratings.

⁴ This investment is only available through a MassMutual group annuity contract (the "Contract"). Actual historical crediting rates may vary from those shown due to cash flow as well as fees and expenses associated with individually rated Contracts. Calendar year rates shown are based on an initial lump-sum deposit made on January 1, 1999; trailing periods rates shown (for Year-to-Date, 1-, 3-, 5-, and 10-year returns) are based on an initial lump-sum deposit at the beginning of each period. Past performance does not guarantee future results. Performance is based on the book value account; a higher or lower return might have been realized had the contract been discontinued by the plan sponsor and, consequently, the market value adjustment would be applied to the book value upon distribution.

⁵ Source Morningstar® Direct and Zephyr Style ADVISOR — Indexes are unmanaged, do not incur expenses, and cannot be purchased directly. 91-Day U.S. Treasury bills are a measure of short-term investments representing the average yield of three-month U.S. Treasury bills. Blended Benchmark Index comprises 50% FTSE Treasury Bill 3 month and 50% ICE BofAML 1-3 year Treasury note.

⁶ The calendar year rates in this table are based on a single lump sum deposit made to a MassMutual group annuity contract (the "Contract") on January 1, 1999, which reflects what MassMutual would have credited as a new money rate in that year. The new money rate is the rate credited to a Contract when first issued. The subsequent yearly rates are not the new money rates that would have been credited if a lump sum payment had been made to a Contract in each of those years but rather reflect what would have been credited to that same Contract in those subsequent years based on the 1999 lump sum deposit with no cash flow into or out of the Contract. This investment is only available through a Contract. Actual historical crediting rates may vary from those shown due to fees and expenses associated with individually rated Contracts. Past performance does not guarantee future results.

⁷ The returns in this table are based on the rates that would have been credited to a Contract to which a single lump sum deposit was made at the beginning of the indicated periods (for Year-to-Date, 1-, 3-, 5- and 10-year returns), assuming no cash flow into or out of the Contract during the indicated time periods. The returns represent the annualized total return for the applicable time period if greater than 1-year. This investment is only available through a Contract. Actual historical crediting rates may vary from those used in this calculation due to fees and expenses associated with individually rated Contracts. Past performance does not guarantee future results. Performance is based on the book value account; a higher or lower return might have been realized had a Contract been discontinued by the plan sponsor as a consequence of applying the market value adjustment to the book value upon distribution.

⁸ The 2020 Year-To-Date return on an annual basis is 1.45%.

