

Asset Category: Stable Value

Total MassMutual GIA Contract Assets: \$10.16 billion
Second Quarter 2020



Objective and Benefits

The GIA, backed by MassMutual's general assets, is designed to provide a stable, guaranteed rate of return and guarantee of principal.

Benefits:

- Stated rate feature allows participants to make informed decisions regarding current allocations
- Participants' accounts invested in the GIA are available for participant-initiated transactions² at book value (i.e., principal plus earned interest)
- MassMutual backs guarantees of the GIA with its own surplus and capital, and overall financial strength
- MassMutual assumes market, credit and interest rate risk of assets supporting the GIA

Description and Strategy

The GIA is provided through a group annuity contract backed by MassMutual's general investment account. MassMutual is not an investment fiduciary to the GIA.

Most of the assets in MassMutual's general investment account, including those in the segment that determine the GIA Contract's crediting rate, are managed by 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.

General investment account assets are managed with reference to their associated liabilities so product specifications and obligations to clients can be met with a high degree of certainty, even when market conditions change. Investment risk management is a high priority. Strict diversification among industries and individual issuers helps mitigate credit risk. Various quantitative tools and systems, as well as qualitative approaches, are used to manage interest rate risk and liquidity risk.

If the GIA Contract is fully or partially terminated, participants may receive the liquidation value of the GIA instead of the book value (i.e., contract value), which is the value disclosed on participant statements. The liquidation value is determined in accordance with a formula contained in the GIA Contract and is designed to reflect the value of the assets in the general investment account. This liquidation value may be more or less than the book value of the plan's investment in the GIA Contract. This means that upon partial or full termination of the GIA Contract a participant's account balance in the GIA may be either increased or decreased.³

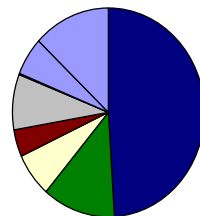
Determination of Guaranteed Rate

The Investment year method (IYM) takes into consideration:

- The investment results of the retirement segment of MassMutual's general investment account for that year.
- Projected levels of cash flows into and out of the GIA within the current interest rate environment.
- Projected maturity of the underlying investments in the general account segment which are attributable to a specific investment year.
- Interest rates that may be applied to the reinvestment of monies attributable to the maturing investments.
- The target spread which is comprised of the annual administrative services revenue, and a risk charge for the interest rate guarantee, investment expenses, and other distribution and administrative costs.

Note: The minimum guaranteed rate is a NAIC based formula based upon prevailing Treasury rate and in no instance will it be less than 1%. Please refer to your Participant Fee Disclosure for the minimum guaranteed rate specific to your GIA. If plan expenses are deducted from the contract, then the net annual rate of return will be less than the stated annual rate of return and may be less than the guaranteed minimum rate.

General Investment Account Allocations⁴



- Bonds 49.0%
- Mortgage Loans 12.3%
- Policy Loans 6.8%
- Partnerships & LLCs 4.2%
- Common & Preferred Stocks 8.6%
- Real Estate 0.2%
- Short-Term & Cash 5.9%
- Derivatives & Other Assets 13.0%

Duration of Assets Backing the GIA

Assets in the MassMutual general investment account that back the GIA were managed as of the most recent quarter to a range of 5.5 to 6.5 years.

Investors should consider an investment's objectives, risks, returns and features carefully before investing. Stable value investment risks related to the GIA include credit, termination, event, rate of return, principal and regulatory risk. For more information on stable value investment risks, visit www.massmutual.com/FF/gjarisks.pdf. For current interest rate information please contact your plan sponsor, visit RetireSMART at www.massmutual.com/retire or call 1-800-743-5274 Monday – Friday, 8 a.m. to 9 p.m., E.T.

Second Quarter 2020

Financial Strength Ratings⁵

A.M. Best Company: A++ (Superior)

Fitch Ratings: AA+ (Very Strong)

Moody's Investors Service: Aa3 (High Quality)

Standard and Poor's: AA+ (Very Strong)

Investor Risk Profile

Low

Moderate

High

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

Investment Profile

Barings

Established in 1940, Barings and its affiliates manage more than \$327.1 billion in assets as of the quarter ended 03/31/2020.

¹ The product features discussed here describe the current GIA product offering backed by the Massachusetts Mutual Life Insurance Company (MassMutual) general investment account. The focus in this piece is also on the GIA within defined contribution plans; some statements may not apply to defined benefit plans. Contracts 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 Note for 403(b) plans with the GIA: If the liquidation value of a plan's investment in the GIA is less than the book value, the GIA assets will be liquidated in annual book value installment payments.

⁴ General investment account information as of 06/30/2020, data subject to change.

⁵ 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.