

Asset Category: Stable Value

Fourth Quarter 2019

Total MassMutual General Account Assets: \$190.3 billion²

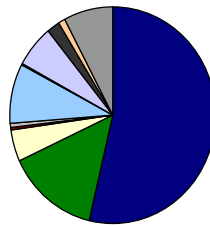
Overview

The Fixed Account has the objective to provide a stable rate of return along with principal preservation for participants regardless of financial market fluctuations. Liquidity is provided at book value, which means at principal value plus earned interest, for participant-directed benefit payments and transfers to non-competing investments. If the Fixed Account contract is fully or partially terminated by a plan sponsor, participants may receive a liquidation value of the Fixed Account that is more or less than the book value of the plan's investment in the Fixed Account contract and may cause a participant's account balance in the Fixed Account to be either increased or decreased. Please contact your record keeper for specific information regarding your plan's termination provisions.

Effective January 1, 2013, Talcott Resolution Life Insurance Company ("TRLIC") (formerly named Hartford Life Insurance Company) entered into a reinsurance agreement with MassMutual with respect to the insurance products issued by TRLIC to its retirement plan customers. Under the reinsurance agreement, TRLIC transferred its economic risks, and the day-to-day operation and servicing, associated with the covered insurance products to MassMutual, and MassMutual agreed to provide administrative and other services for the covered insurance policies for TRLIC, in TRLIC's name. In its role as administrative service provider, MassMutual is responsible for accepting and applying all deposits to the applicable investment options and for paying all claims, including all withdrawals to plans and plan participants. Each covered insurance product, however, is still a contract between TRLIC and the "contract owner" and the contractual guarantees in the TRLIC contract remain as provided in the contract.

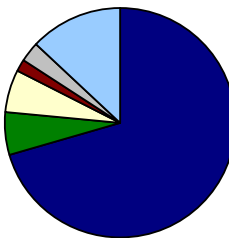
TRLIC is still responsible for performing on its contractual guarantees. However, pursuant to the reinsurance agreement, MassMutual has agreed to be 100% responsible to TRLIC for liabilities under the covered insurance products. Accordingly, to the extent TRLIC is unable to fulfill its obligations under the covered insurance products, MassMutual has agreed to continue paying claims for covered insurance products directly to the related policyholders. While this does not create a legal relationship between MassMutual and the holder of a TRLIC insurance product, it does mean that holders of TRLIC insurance products have an interest in the financial strength and claims paying ability of MassMutual, which is described herein.

Composition of Assets - Carrying Value²



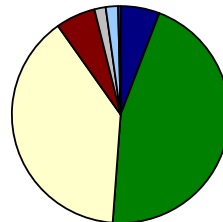
- Long-Term Bonds 53.7%
- Mortgage Loans 14.4%
- Limited Partnerships, Joint Ventures & LLC's 4.7%
- Preferred Stock 0.4%
- Common Stock - Unaffiliated 0.6%
- Common Stock - Affiliated 8.9%
- Real Estate 0.2%
- Derivatives 6.3%
- Cash & Equivalents and Short Terms 2.0%
- Other Assets 1.1%
- Policy Loans 7.7%

Composition of Bonds - Carrying Value²



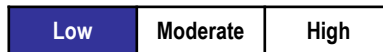
- Corporate Bonds 70.5%
- US Treasuries and Agencies 6.0%
- Municipal & Sovereign Bonds 6.0%
- RMBS 1.7%
- CMBS 2.8%
- Other ABS (includes CLO's) 13.0%

Credit Rating Averages^{2,3} (NAIC) – Carrying Value



- US Treasuries and Agencies 5.8%
- NAIC 1 (Aaa, Aa, A) 45.4%
- NAIC 2 (Baa) 39.0%
- NAIC 3 (Ba) 5.9%
- NAIC 4 (B) 1.7%
- NAIC 5 (Caa and lower) 1.8%
- NAIC 6 (In or near default) 0.4%

Investor Risk Profile



The Fixed Account 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

Financial Strength

- 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)

Investors should consider an investment's objectives, risks, returns and features carefully before investing. Stable value investment risks related to the Fixed Account include credit, termination, event, rate of return, principal and regulatory risk. For more information on stable value investment risks, visit www.massmutual.com/FF/qjarisks.pdf.

¹ The product features discussed here describe the current Talcott Resolution Life Insurance Company Fixed Account product offering administered by the Massachusetts Mutual Life Insurance Company ("MassMutual").

² Dollar amounts and percentages above are based on MassMutual General Account assets not including subsidiaries. Information as of 12/31/2019, data subject to change.

³ The quality of the bond portfolio is determined by the use of the Securities Valuation Office ratings (represented by the NAIC categories) and the equivalent rating agency designations, except for RMBS and CMBS that use outside modelers.

⁴ 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 12/31/2019 ratings, please visit www.massmutual.com/ratings.