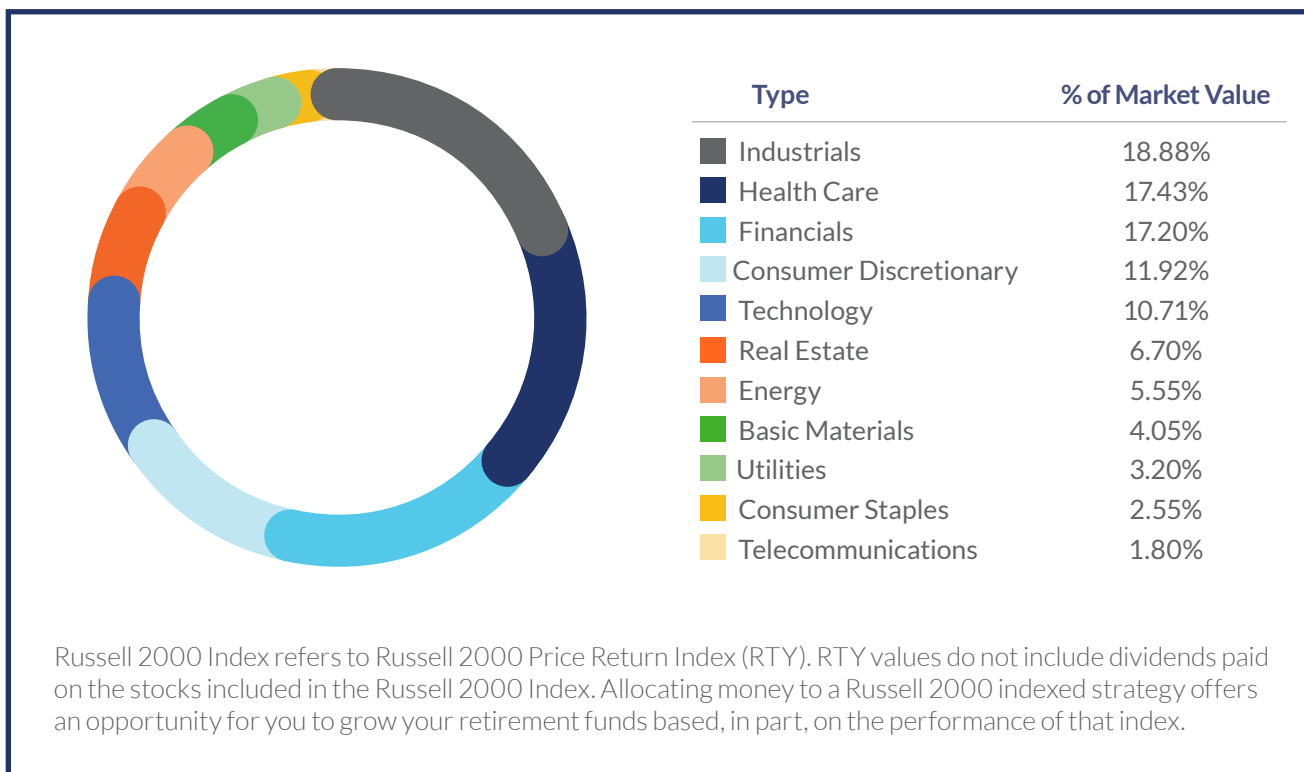


Understanding the Russell 2000 Index

When you purchase a registered index-linked annuity from MassMutual Ascend Life Insurance Company, you may have the opportunity to allocate funds to an indexed strategy linked to the Russell 2000 Index.

The Russell 2000 Index seeks to provide a comprehensive, unbiased barometer of the small cap segment of the U.S. equity market by measuring the performance of about 2,000 small-cap U.S. equities. It is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.

The Russell 2000 Index provides exposure to small-cap stocks from various industries. The pie chart below shows the industry makeup of the Russell 2000 Index as of September 30, 2024.



For more information on the Russell 2000 Index and indexed strategies available with your particular registered index-linked annuity, please talk with your financial professional. Before you invest in a registered index-linked annuity, you should read its prospectus, which contains more information about the registered index-linked annuity and its risks.

Registered index-linked annuities can only be sold through a Broker/Dealer that is contracted with MassMutual Ascend Life Insurance CompanySM. Any sales solicitation must be accompanied or preceded by a prospectus. To obtain a copy of the prospectus, please visit [MassMutualAscend.com/RILArates](https://www.MassMutualAscend.com/RILArates).

Principal Underwriter/Distributor: MM Ascend Investor Services, LLC., member FINRA and an affiliate of MassMutual Ascend Life Insurance Company.

MassMutual AscendSM is not an investment adviser and the information provided in this document is not investment advice. You should consult your investment professional for advice based on your personal circumstances and financial situation.

When you allocate funds to an indexed strategy linked to the Russell 2000 Index, you are not investing directly in the index. Russell 2000 indexed strategy returns are based on the performance of the Russell 2000 Price Return Index, excluding dividends paid on the underlying stocks included in the index. Limitations on strategy returns may include caps, participation rates, trigger rates, floors, buffer and daily value percentages. In addition, strategy returns reflect changes over terms, not over calendar years.

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