

MassMutual Mid Cap Growth Fund

T. Rowe Price & Associates, Inc. | Frontier Capital Management Company, LLC

I:MEFZX R5:MGRFX SVC:MEFYX ADM:MMELX A:MEFAX R4:MEFFX R3:MEFNX Y:MMNGX

Fund Objective:

This Fund seeks growth of capital over the long-term.

Morningstar Category: Mid-Cap Growth

Fund Net Assets: \$5.3B

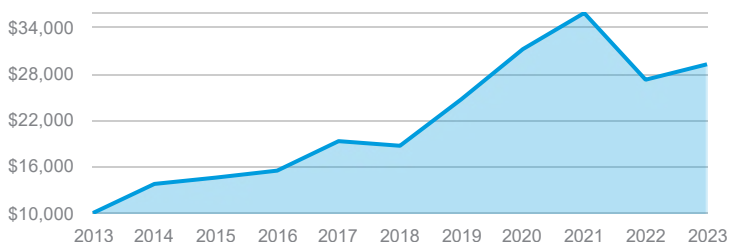
Fund Inception Date: 05/31/2000

Trailing Returns:**

	Average Annual Total Return					
	QTD	YTD	1Yr	3Yr	5Yr	10Yr
MassMutual Mid Cap Growth I	7.33	7.33	-8.02	15.39	7.92	11.33
Russell MidCap® Growth Index	9.14	9.14	-8.52	15.20	9.07	11.17
Category Average Return	-	-	-11.95	14.85	8.12	10.34
Category Rank ¹	-	-	25	47	58	27
# Funds in Category ¹	-	-	577	529	498	387

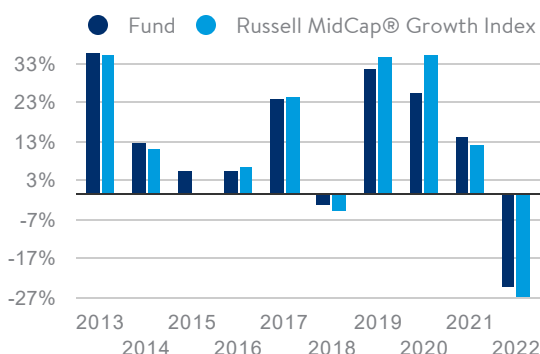
Growth of \$10,000:**

Fund Performance Over 10 Years

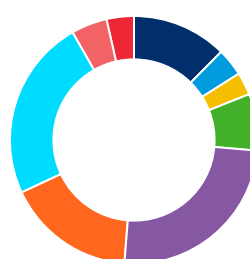


Performance shown is for class I shares. Max Sales charge for I is 0%.

Calendar Year Returns:**



Sector Allocation:



Consumer Discretionary	12.05%
Consumer Staples	3.51%
Energy	2.87%
Financials	7.19%
Healthcare	24.14%
Industrials	16.34%
Information Technology	23.01%
Materials	4.55%
Real Estate	0.00%
Communication Services	3.47%
Utilities	0.00%

Asset Allocation:

Cash	2.80%
US Equity	92.39%
Non-US Equity	4.75%
Other	0.07%
# of Stock Holdings	188

**Performance shown is for class I shares. Current performance may be higher or lower. Max Sales charge for I is 0%.

Performance shown is past performance. Past performance does not guarantee future results. The investment return and the principal value of an investment will fluctuate; so an investor's shares, when redeemed, may be worth more or less than their original cost. For more current information, including a list of the fund's holdings and month-end performance, please call 1-866-444-2601. You cannot invest directly in an index.

Performance Returns - reflect performance of the investment without adjusting for sales charges or the effects of taxation, but is adjusted to reflect all actual ongoing investment expenses and assumes reinvestment of dividends and capital gains (if applicable). If adjusted, sales charges would reduce the performance quoted. In addition, due to market volatility, performance may vary greatly over short periods of time. The investment's performance is generally compared with that of an index. The index is an unmanaged portfolio of specified securities and does not reflect any initial or ongoing expenses nor can it be invested in directly. An investment's portfolio may differ significantly from the securities in the index. The Index may not be the same as the comparative index noted in the investment's prospectus (if applicable).

The Growth of \$10,000 - graph shows an investment's performance based on how \$10,000 invested in the investment would have grown over time. The growth of \$10,000 begins at the investment's inception date or the first year listed on the graph, whichever is appropriate.

MassMutual Mid Cap Growth Fund

Top 10 Holdings:

Microchip Technology Inc	2.78%
Hologic Inc	2.66%
Agilent Technologies Inc	2.17%
Teleflex Inc	2.00%
Ingersoll Rand Inc	1.84%
Marvell Technology Inc	1.79%
Textron Inc	1.69%
Burlington Stores Inc	1.55%
Veeva Systems Inc Class A	1.46%
The Trade Desk Inc Class A	1.46%

Expense Ratios:

	Inception Date	Gross Expense	Net Expense
I	11/15/2010	0.71%	0.66%
R5	05/31/2000	0.81%	0.76%
Svc	05/31/2000	0.91%	0.86%
Admin	05/31/2000	1.01%	0.96%
A	05/31/2000	1.26%	1.21%
R4	04/01/2014	1.16%	1.11%
R3	12/30/2002	1.41%	1.36%
Y	02/01/2023	0.81%	0.76%

The expenses in the above table reflect a contractual agreement by MML Advisers to cap the fees and expenses of the Fund through January 31, 2024. Please refer to the Funds prospectus for more information.

Risk/Return Statistics:***

	Fund	Benchmark
Standard Deviation	20.54	22.07
Information Ratio	-0.27	-
Alpha	-0.55	-
Beta	0.92	1.00
R2	0.97	1.00
Tracking Error	4.25	-
Sharpe Ratio	0.41	0.44
Upside Capture	90.10	100.00
Downside Capture	91.39	100.00
Batting Average	40.00	-

Fund Ratings:¹

	Morningstar Rating	Funds in Category
Overall Rating	★★★★★	529
3 Year	★★★★	529
5 Year	★★★★	498
10 Year	★★★★★	387

Portfolio Managers:

	Managed Since
Christopher J. Scarpa Frontier Capital	Aug. 2010
Ravi Dabas Frontier Capital	Jan. 2019

	Managed Since
Brian W.H. Berghuis, CFA T. Rowe Price	May. 2000

***Risk statistics are calculated over a five year period, computed monthly.

¹Morningstar Rating™ - Category-Mid-Cap Growth. For each investment with at least a three-year history, Morningstar calculates a Morningstar Rating™ based on how an investment ranks on a Morningstar Risk-Adjusted Return measure against other investments in the category. This measure takes into account variations in an investment's monthly performance after adjusting for sales loads (except for load-waived A shares), redemption fees, and the risk-free rate, placing more emphasis on downward variations and rewarding consistent performance. The top 10% of investments in each category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars and the bottom 10% receive 1 star. The Overall Morningstar Rating for an investment is derived from a weighted average of the ratings for the three-, five- and ten-year (if applicable) time periods. The Morningstar percentile ranking is based on the fund's total-return percentile rank relative to all funds that have the same category for the same time period. The highest (or most favorable) percentile rank is 1%, and the lowest (or least favorable) percentile rank is 100%. Morningstar total return includes both income and capital gains or losses and is not adjusted for sales charges. ©2023 Morningstar, Inc. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

The Fund's **Principal Risks** include - Equity Securities Risk, Small and Mid-Cap Company Risk, Foreign Investment Risk, Emerging Markets Risk, Currency Risk, Growth Company Risk, Cash Position Risk, Convertible Securities Risk, Liquidity Risk, Management Risk, Market Risk, Preferred Stock Risk, Restricted Securities Risk, Sector Risk, Valuation Risk.

Risk Statistics- Standard Deviation is a statistical measurement, which for a mutual fund depicts how widely the returns varied over a certain period of time. When a fund has a high standard deviation, performance is wide, implying greater volatility. **Information Ratio** measures the performance of an investment compared to a benchmark index, after adjusting for its additional risk. **Alpha** is a measure of the difference between a fund's actual returns and its expected performance, given its level of risk as measured by beta. A positive alpha figure indicates the fund has performed better than its beta would predict. In contrast, a negative alpha indicates the fund's underperformance, given the expectations established by the fund's beta. **Beta** is a measure of sensitivity to market movements. The beta of the market is 1.00. A beta of 1.10 shows that the fund's excess return is expected to be 10% better than the market's excess return in an up market or 10% worse in a down market. A beta of .85 indicates that the fund's excess return is expected to perform 15% less than the market's excess return during up markets and 15% greater during down markets. **R-squared (R2)** measures the degree of relationship between the performance of the fund and that of the index. The higher the R-squared, the more related the fund's performance is to its index. **Tracking Error** is also known as active risk and is the degree to which the strategy differed from its index or benchmark. The higher the Tracking Error, the more the fund deviated from its index. **Sharpe Ratio** measures risk adjusted performance; it is calculated as the real total return of the fund (total return-risk free rate) divided by the risk of the fund (standard deviation). **Upside/downside capture** shows whether a given fund has outperformed--gained more or lost less than--a broad market benchmark during periods of market strength and weakness, and if so, by how much. An upside capture ratio over 100 indicates a fund has generally outperformed the benchmark during periods of positive returns for the benchmark. A downside capture ratio of less than 100 indicates that a fund has lost less than its benchmark in periods when the benchmark has been in the red. **Batting Average** is a measure of a manager's ability to consistently beat its benchmark over the trailing five-year period.

Russell MidCap® Growth Index measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes Russell Midcap® Index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

©2023 Massachusetts Mutual Life Insurance Company (MassMutual®), Springfield, MA. All rights reserved. www.MassMutual.com Principal Underwriter: MML Distributors, LLC. (MMLD), 1295 State St., Springfield, MA 01111. Member FINRA and SIPC (www.FINRA.org and www.SIPC.org). Investment advisory services provided to the Funds by MML Investment Advisers, LLC (MML Investment Advisers). MMLD and MML Investment Advisers are subsidiaries of Massachusetts Mutual Life Insurance Company (MassMutual), Springfield, MA 01111-0001.

Investors should consider an investment option's objectives, risks, fees, and expenses carefully before investing. This and other information can be found in the applicable prospectuses or summary prospectuses, which are available from MassMutual by calling 1-866-444-2601. Please read them carefully before investing.