

Benchmarks Exist to be Beaten

Retirement plan advisers build investment line ups for their clients. It is hard work. Work that gives retirement plan participants a realistic foundation on which to build a financially secure future.

For some retirement plan advisers and their clients, a packaged solution made up of low-cost, index-based funds may be a good fit, even though an index fund never outperforms its benchmark because of fees.

During the five-year period ending Dec. 31, 2016, 88.3% of large-cap managers, 89.95% of mid-cap managers, and 96.57% of small-cap managers under-performed their respective benchmarks... Across all time horizons, the majority of managers across all international equity categories underperformed their benchmarks.

- SPIVA® U.S. Scorecard
Year-end 2016

Some clients want "better than average" for their plan participants. They expect their advisers to both support their fiduciary responsibility and recommend products capable of delivering better-than-benchmark performance for their plan participants. For them, adequate is not good enough.

The retirement plan adviser who serves this more demanding community of clients:

- **Understands the letter and the intent of regulations.** They guide their clients through fiduciary best practice to an institutional quality retirement plan line up that serves the best interests of the plan's participants.
- **Respects that investing is complicated.** When it comes to designing a plan's investment line up, one size does not fit all. Both index-based and actively managed funds play a role in building investment lineups suitable to meet client needs.
- **Knows that quality is not accidental.** By the time these advisers suggest an investment line up, they've studied the options carefully, vetted the companies and fund managers who offer those options, and are assured that each fund helps meets their client's needs.

MassMutual Funds offers a broad selection of funds designed for the retirement and institutional market. While past performance is no guarantee of future results, we believe it is worth doing business with fund managers who demonstrate strong performance records built on repeatable investment processes. That is why we take a multi-managed approach to building our fund family. We engage some of the best-known money managers in the investment industry with the goal to deliver benchmark-beating results. Results you can see in the ten MassMutual Funds listed on the following pages.

Data reflects I share class current as of 12/31/17

Domestic Equity

		1 year	3 year	5 year	10 year
MassMutual Select Blue Chip Growth T. Rowe Price Loomis Sayles MBCZX	+/- Benchmark:	+4.87%	+1.56%	+1.53%	+0.60%
	Annualized Return:	35.08%	15.35%	18.85%	10.60%
	Morningstar Rank:	9	4	5	10
	Peer Group Size:	1363	1216	1109	787
	Benchmark:	Russell 1000 Growth TR			
MassMutual Select Equity Opportunities T. Rowe Price Wellington MFVZX	+/- Benchmark:	-0.01%	-1.79%	-0.36%	+2.31%
	Annualized Return:	21.68%	9.44%	15.35%	10.90%
	Morningstar Rank:	33	65	31	2
	Peer Group Size:	1396	1217	1079	800
	Benchmark:	Russell 1000 TR			
MassMutual Select Mid Cap Growth T. Rowe Price Frontier MEFZX	+/- Benchmark:	-0.61%	+1.64%	+1.35%	+1.21%
	Annualized Return:	24.66%	11.94%	16.66%	10.31%
	Morningstar Rank:	45	11	8	8
	Peer Group Size:	617	562	490	362
	Benchmark:	Russell Mid Cap Growth TR			
MassMutual Premier Small Cap Opportunities OFI Global MSOOX	+/- Benchmark:	-0.28%	-1.40%	+0.91%	+0.50%
	Annualized Return:	14.37%	8.55%	15.03%	9.21%
	Morningstar Rank:	29	61	16	29
	Peer Group Size:	802	652	558	400
	Benchmark:	Russell 2000 TR			

International

MassMutual Select Overseas JP Morgan MFS Harris MOSZX	+/- Benchmark:	+2.17%	+0.70%	+0.09%	+2.23%
	Annualized Return:	27.20%	8.50%	7.99%	4.18%
	Morningstar Rank:	27	29	28	7
	Peer Group Size:	756	597	535	347
	Benchmark:	MSCI EAFE NR			
MassMutual Premier Global OppenheimerFunds, Inc MGFZX	+/- Benchmark:	+12.43%	+3.06%	+2.16%	+2.22%
	Annualized Return:	36.40%	12.35%	12.96%	6.87%
	Morningstar Rank:	4	9	12	10
	Peer Group Size:	860	720	589	333
	Benchmark:	MSCI ACWI NR			

Expenses for the funds listed above are as follows:

Ticker	Gross	Net	Morningstar Category	Ticker	Gross	Net	Morningstar Category
MBCZX	0.66	0.66	US OE Large Growth	MSOOX	0.71	0.71	US OE Small Blend
MFVZX	0.73	0.73	US OE Large Blend	MOSZX	0.92	0.92	US OE Foreign Large Blend
MEFZX	0.73	0.73	US OE Mid-Cap Growth	MGFZX	0.85	0.85	US OE World Stock

Performance shown is adjusted to reflect all actual ongoing expenses and assumes reinvestment of dividends and capital gains (if applicable).

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.

	1 year	3 year	5 year	10 year	
+/- Benchmark:	+1.54%	+0.43%	+0.84%	+0.81%	MassMutual Premier Diversified Bond Barings MDBZX
Annualized Return:	5.09%	2.67%	2.94%	4.81%	
Morningstar Rank:	10	27	10	20	
Peer Group Size:	986	847	778	554	
Benchmark: BloombergBarclays US Aggregate Bond TR					
+/- Benchmark:	+0.23%	+0.88%	+1.21%	-0.27%	MassMutual Premier High Yield Fund Barings MPHZX
Annualized Return:	7.73%	7.23%	6.99%	7.76%	
Morningstar Rank:	22	3	2	11	
Peer Group Size:	699	609	501	319	
Benchmark: BloombergBarclays US Corporate High Yield TR					
+/- Benchmark:	+2.11%	+1.45%	+1.23%	+1.03%	MassMutual Select Strategic Bond Western Asset Management MSBZX
Annualized Return:	5.65%	3.69%	3.33%	5.04%	
Morningstar Rank:	6	3	4	11	
Peer Group Size:	986	847	778	554	
Benchmark: BloombergBarclays US Aggregate Bond TR					
+/- Benchmark:	+2.19%	+1.50%	+1.27%	+1.76%	MassMutual Premier Short Duration Bond Barings MSTZX
Annualized Return:	2.64%	2.12%	1.85%	3.28%	
Morningstar Rank:	11	16	13	9	
Peer Group Size:	513	462	399	257	
Benchmark: BloombergBarclays U.S. 1-3 Year Government Bond TR					

Expenses for the funds listed above are as follows:

Ticker	Gross	Net	Morningstar Category	Ticker	Gross	Net	Morningstar Category
MDBZX	0.52	0.52	US OE Intermediate-Term Bond	MSTZX	0.40	0.40	US OE Short-Term Bond
MPHZX	0.57	0.55*	US OE High Yield Bond	MSBZX	0.54	0.48*	US OE Intermediate-Term Bond

*Net expenses reflect a contractual agreement by MML Advisers to cap the fees and expenses of the Fund through January 31, 2018. Please refer to the Funds prospectus for more information.

Performance shown is net of expenses, but before any applicable contract or plan charges. The performance data given represents past performance and should not be considered indicative of future results. Current performance may be lower or higher than return data quoted herein. For more current information, including month-end performance, please visit www.massmutualfunds.com. Principal value and investment return will fluctuate, so an investor's shares/units when redeemed may be worth more or less than the original investment. Investment portfolio statistics change over time and there are no assurances investment objectives will be achieved. Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in the fund prospectuses and summary prospectuses, which can be obtained from www.massmutualfunds.com and should be read carefully before investing. The investment is not FDIC-insured, may lose value and is not guaranteed by a bank or other financial institution.

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About Massachusetts Mutual Life Insurance Company (MassMutual)

MassMutual's focus is on maintaining the financial strength and stability of the company to meet future obligations and to serve the long-term interests of our customers. As a mutual company, MassMutual does not have stockholders, so our value as a company is not dependent upon short-term investor perception. The mutual structure also allows us to take a disciplined approach to growth.

- Mutually owned and independent for 165 years, providing retirement services for more than 60 years
- Named a top 100 company on the FORTUNE 500 (Fortune Magazine, 2016)
- \$675 billion in assets under management as of 12/31/2016 (Assets under management include assets and certain external investment funds managed by OppenheimerFunds, Barings and other MassMutual subsidiaries)

Financial Strength Ratings:

- A.M. Best Company A++ Superior (top category of 15)
- Fitch Ratings AA+ Very strong (2nd highest category of 21)
- Moody's Investors Service Aa2 Excellent (3rd highest category of 21)
- Standard & Poor's AA+ Very strong (2nd highest category of 21)

Financial strength ratings are for Massachusetts Mutual Life Insurance Company and do not apply to any separate investment accounts or mutual funds offered. Ratings are as of 1/1/2017 and are subject to change. For more information: <https://www.massmutual.com/about-us/our-financial-strength-and-documents>.

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