

MM S&P® Mid Cap Index Fund

Northern Trust Investments, Inc.

I:MDKZX

R5:MDKIX

SVC:MDKSX

ADM:MDKYX

A:MDKAX

R4:MDKFX

R3:MDKTX

Fund Objective:

The Fund seeks to provide investment results approximating (before fees and expenses) the aggregate price and dividend performance of the securities included in the Standard & Poor's MidCap 400® Index ("S&P MidCap 400 Index")†.

Morningstar Category: Mid-Cap Blend

Fund Net Assets: \$382M

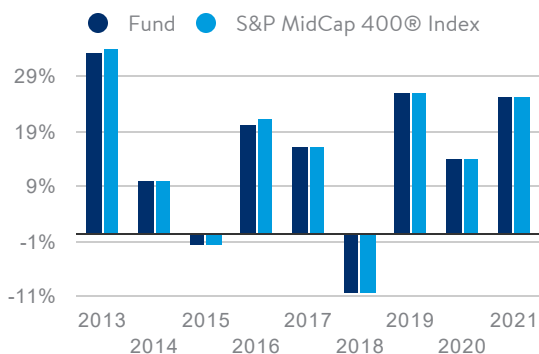
Fund Inception Date: 07/26/2012

Trailing Returns:*

	Average Annual Total Return					
	QTD	YTD	1Yr	3Yr	5Yr	Since Inception
MM S&P® Mid Cap Index I	-4.95	-4.95	4.42	13.98	10.91	13.32
S&P MidCap 400® Index	-4.88	-4.88	4.59	14.14	11.10	13.37
Category Average Return	-	-	5.63	13.50	10.72	-
Category Rank¹	-	-	64	41	49	-
# Funds in Category¹	-	-	399	360	318	-

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

Calendar Year Returns:*

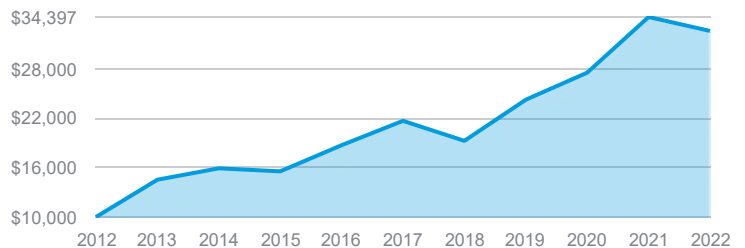


Asset Allocation:

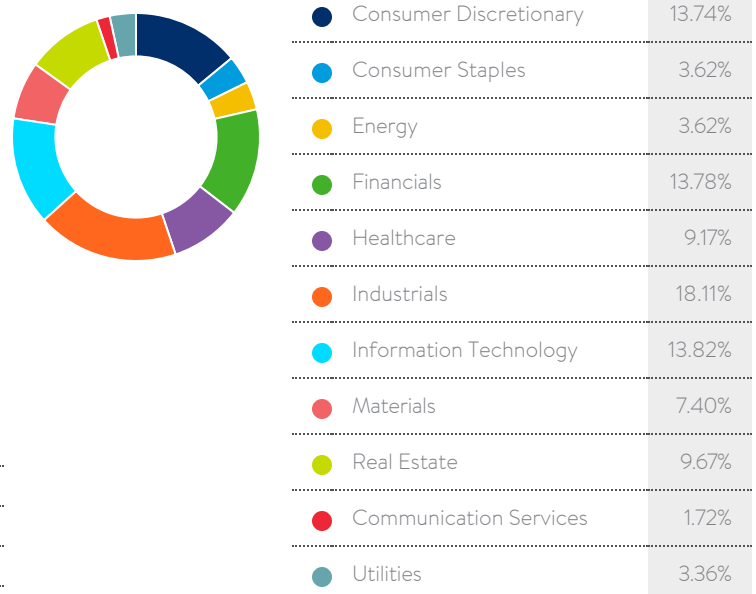
Cash	0.50 %
US Equity	96.77 %
Non-US Equity	1.24 %
Other	1.49 %
# of Stock Holdings	400

Growth of \$10,000:*

Fund Performance Over 10 Years



Sector Allocation:



*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.

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MM S&P® Mid Cap Index Fund

Top 10 Holdings:

Targa Resources Corp	0.72%
Camden Property Trust	0.71%
Alcoa Corp	0.69%
Steel Dynamics Inc	0.66%
Cleveland-Cliffs Inc	0.65%
Wolfspeed Inc	0.59%
Cognex Corp	0.57%
Darling Ingredients Inc	0.55%
Carlisle Companies Inc	0.54%
Medical Properties Trust Inc	0.53%

Expense Ratios:

	Inception Date	Gross Expense	Net Expense
I	07/26/2012	0.18%	0.18%
R5	07/26/2012	0.28%	0.28%
Svc	07/26/2012	0.43%	0.43%
Admin	07/26/2012	0.53%	0.53%
A	07/26/2012	0.78%	0.78%
R4	04/01/2014	0.68%	0.68%
R3	04/01/2014	0.93%	0.93%

Risk/Return Statistics:**

	Fund	Benchmark
Standard Deviation	19.50	19.51
Information Ratio	-1.57	-
Alpha	-0.18	-
Beta	1.00	1.00
R2	1.00	1.00
Tracking Error	0.12	-
Sharpe Ratio	0.57	0.58
Upside Capture	99.63	100.00
Downside Capture	100.33	100.00
Batting Average	30.00	-

Fund Rankings:¹

	MorningStar Rating	Funds in Category
Overall Rating	★★★★	360
3 Year	★★★★	360
5 Year	★★★★	318
10 Year		209

Portfolio Managers:

	Managed Since
Brent D. Reeder Northern Trust	Jul. 2012

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

1Morningstar Rating™ - Category-Mid-Cap Blend. 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. ©2021 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, Derivatives Risk, Indexing Risk, Industry Concentration Risk, Cash Position Risk, Management Risk, Market 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.

S&P MidCap 400® Index measures the performance of mid-sized U.S. companies, reflecting the distinctive risk and return characteristics of this market segment. It comprises stocks in the middle capitalization range, covering approximately 7% of the U.S. equity market. The Index does not reflect any deduction for fees, expenses, or taxes and cannot be purchased directly by investors.

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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.

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