

# Federated MDT Mid Cap Growth Fund

**4Q**  
2019

12/31/19

## Fund Facts

### Performance Inception Date

R6 Shares: 8/23/84  
Institutional Shares: 8/23/84  
A Shares: 8/23/84  
C Shares: 8/16/95

### Benchmark

Russell Midcap<sup>®</sup> Growth Index

### Morningstar Category

Mid-Cap Growth

### Lipper Classification

Mid-Cap Growth Funds

### Fund Assets

\$549.1 million

### Ticker Symbols

R6 Shares - FGSKX  
Institutional Shares - FGSIX  
A Shares - FGSAX  
C Shares - FGSCX

### Key Investment Team

Daniel Mahr, CFA  
Frederick Konopka, CFA  
John Paul Lewicke  
Damien Zhang, CFA

## Fund Description

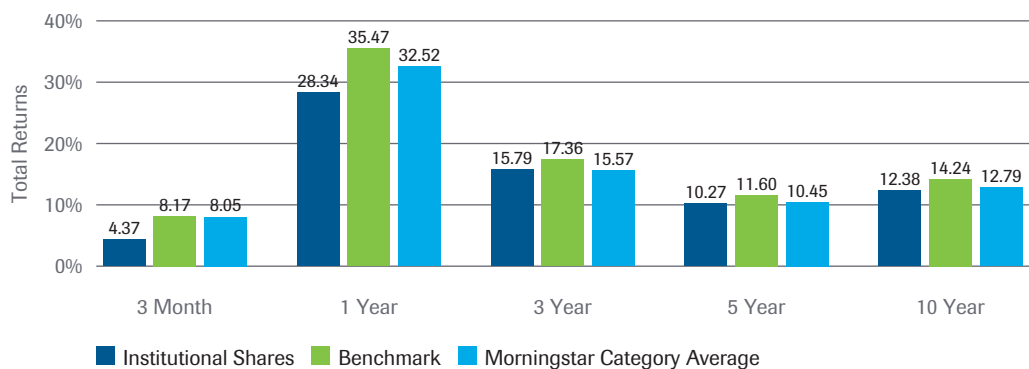
The fund pursues capital appreciation by investing in a diversified portfolio of U.S. mid-cap companies from the Russell Midcap Growth Index. Through a fundamentally based, bottom up, systematic approach, it seeks to remove subjective and emotional influences from the stock-selection process.

## Performance

### Average Annual Total Returns (%)

Performance shown is before tax.

	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	15 Year	Since Inception	Expense Ratio*	
									Before Waivers	After Waivers
R6 Shares	4.38	28.35	28.35	15.79	10.00	11.84	8.17	10.35	0.95	0.84
Institutional Shares	4.37	28.34	28.34	15.79	10.27	12.38	8.65	11.02	1.06	0.85
A Shares (NAV)	4.30	27.95	27.95	15.48	9.98	12.10	8.50	10.97	1.25	1.15
A Shares (MOP)	-1.45	20.92	20.92	13.33	8.75	11.47	8.09	10.80	1.25	1.15
Benchmark	8.17	35.47	35.47	17.36	11.60	14.24	10.15	-	-	-



### Calendar Year Returns (%)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Institutional Shares	28.34	-3.03	24.74	10.21	-4.70	13.93	40.44	6.98	-3.36	19.15
Benchmark	35.47	-4.75	25.27	7.33	-0.20	11.90	35.74	15.81	-1.65	26.38
Morningstar Category Average	32.52	-6.65	23.91	6.03	-0.95	7.00	34.93	14.07	-3.96	24.61

Performance quoted represents past performance, which is no guarantee of future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than what is stated. To view performance current to the most recent month-end, and for after-tax returns, contact us or visit [FederatedInvestors.com](http://FederatedInvestors.com). Maximum Offering Price figures reflect the maximum sales charge of 5.5% for A Shares. See the prospectus for other fees and expenses that apply to a continued investment in the fund.

\* The fund's expense ratio is from the most recent prospectus. The expense ratio may reflect voluntary fee waivers and/or expense reimbursements determined by the fund's Advisor and its affiliates. The voluntary waivers and/or reimbursements, if applicable, are in effect up to but not including the later of 1/1/21 or the date of the fund's next effective prospectus.

## Investment Process

### Fundamentally Based Research

Research identifies powerful combinations of classic fundamentals enhanced with behavioral signals that work across market environments.

### Stock Selection

Stock alphas are forecasted based on each company's characteristics.

### Portfolio Optimization

Proprietary software is used to maximize portfolio alpha, net of trading costs, while managing risk.

### Pre-Trade Review

All trades are reviewed to ensure they are based on the most recent and accurate information. Insights from pre-trade review provide important feedback to the team and inspire further research.



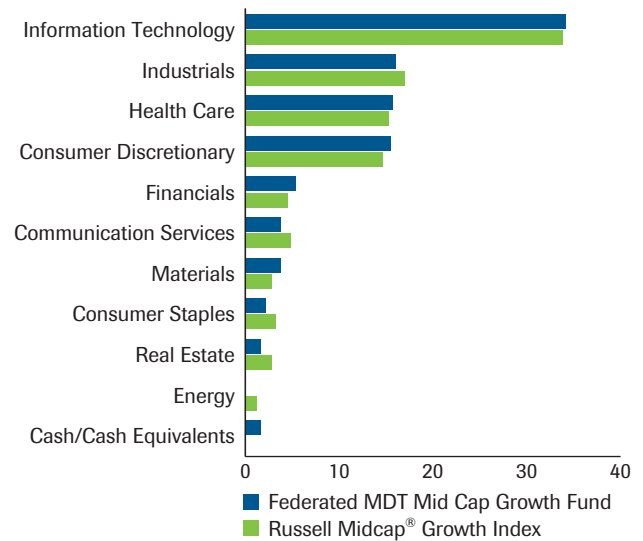
## Portfolio Statistics

Weighted Median P/E (LTM)	31.6x
Weighted Median P/E (NTM)	23.9x
Weighted Median Market Cap	\$15.5 b
Weighted Median Price/Book	8.6x
Number of Securities	114

## Top Holdings (%)

Ansys, Inc.	3.4
RenaissanceRe Holdings Ltd.	2.8
Cintas Corp.	2.7
Fortinet Inc.	2.7
Wyndham Destinations, Inc.	2.7
Heico Corp.	2.6
Dunkin' Brands Group Inc.	2.5
Keysight Technologies, Inc.	2.5
Booz Allen Hamilton Holding Corp.	2.3
TransUnion	2.3
<b>Total % of Portfolio</b>	<b>26.5</b>

## Sector Weightings (%)



Portfolio composition is based on net assets at the close of business on 12/31/19 and may not necessarily reflect adjustments that are routinely made when presenting net assets for formal financial statement purposes. Because this is a managed portfolio, the investment mix will change.

## Highlights

- The fourth quarter was a growth quarter during which our regular underweight of companies with lower quality (weak financial structures, low cash flow, etc.) worked against us
- Fund ended quarter roughly sector-neutral to benchmark

## Looking Back

The fourth quarter of 2019, with the whole-market Russell 3000 Index returning 9.10%, was a revisit to the very positive markets of the first quarter. With trade-war tensions lessening and the impeachment of the president counteracted by the support he is likely to receive in the Senate, the market reached record highs. The micro-capitalization range had the highest return (Russell Microcap at 13.45%, after having had the lowest return in the third quarter), followed by small caps (Russell 2000 at 9.94%), mega-caps (Russell Top 200 at 9.79%) and finally midcaps (Russell Midcap at 7.06%). Growth stocks led value stocks in every capitalization range. The largest differential between growth and value was in the microcaps (Russell Microcap Growth was ahead of its value sibling by 7.22%). In the other capitalization ranges, growth had an advantage over value of roughly two to three percentage points.

For the year as a whole, returns were the highest they have been in the domestic market since 2013. In 2013, small caps led the way, but this year mega-caps had the highest return (Russell Top 200 Index at 31.75%) followed by the cap ranges in descending order of size (Russell Midcap at 30.54%, Russell 2000 at 25.52% and Russell Microcap at 22.43%). Given that growth has led value almost every quarter this year, it is not surprising that growth led value for the full year in every capitalization range.

The fourth quarter was a growth quarter during which the companies that did the best were largely companies that had weaker financial structures. Because our research shows that companies with weak financial structures do not outperform over the long run, we avoid most of those companies, and we were not in the sweet spot of the market.

## Performance

Federated MDT Mid Cap Growth Fund Institutional Shares returned 4.37% in the fourth quarter of 2019, underperforming the 8.17% return of its benchmark, the Russell Midcap Growth Index.

### Performance Contributors

- Strong performers overweighted by the fund: ANSYS, Inc., Universal Display Corporation and Wyndham Destinations, Inc.

### Performance Detractors

- Overweight of growth stocks with high analyst conviction and prices near 52-week highs
- Overweight of stocks with neutral to high analyst conviction and without notably worsening earnings-to-price
- Security selection in Health Care, Industrials and Communication Services sectors
- Weak performer overweighted by the fund: Expedia Group, Inc.
- Strong performer underweighted by the fund: Advanced Micro Devices, Inc.
- Strong performer not held by the fund: Centene Corporation

*Performance quoted represents past performance, which is no guarantee of future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than what is stated. To view performance current to the most recent month-end, and for after-tax returns, contact us or visit [FederatedInvestors.com](http://FederatedInvestors.com).*

## How We Are Positioned

The fund ended the fourth quarter roughly sector-neutral to the benchmark according to the GICS sectors. Within the sectors, there was a significant overweight position in the commercial & professional services industry and smaller overweight positions in the software & services and insurance industries. There was a significant underweight position in the capital goods industry.

*See disclosure section for important disclosures and definitions.*

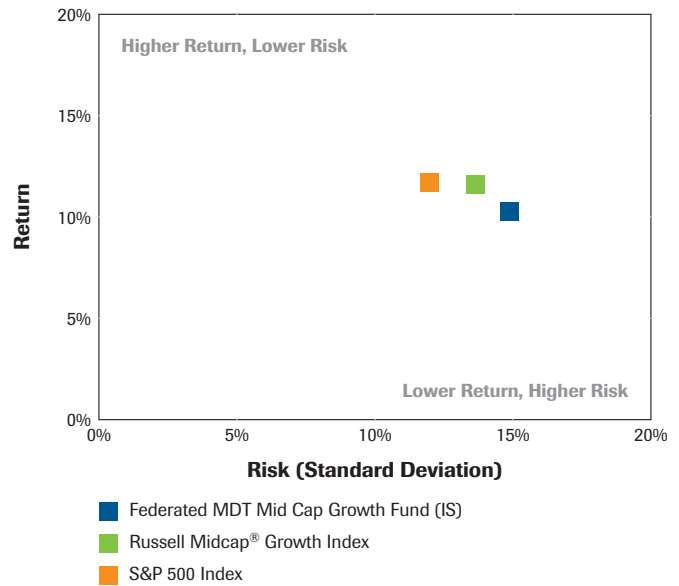
### Risk Statistics

	3 Year	5 Year	7 Year	10 Year
Standard Deviation	15.25	14.87	13.82	15.26
Alpha	-2.04	-1.49	-0.42	-1.71
Beta	1.05	1.04	1.03	1.01
Correlation	0.97	0.96	0.96	0.96
R <sup>2</sup>	94.78	91.39	91.32	93.11
Up Capture Ratio	96.47	99.21	100.88	98.33
Down Capture Ratio	103.51	108.05	102.95	108.72
Sharpe Ratio	0.91	0.61	1.00	0.77
Tracking Error	3.57	4.39	4.09	4.01

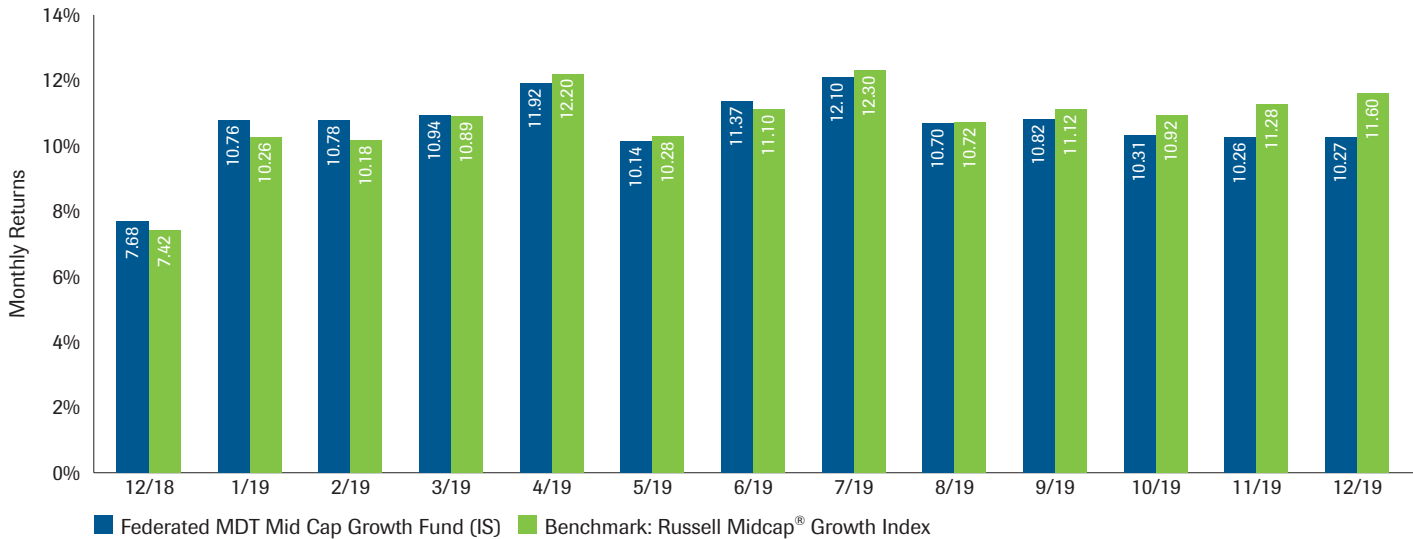
Sources: Federated Investors, Morningstar, Inc.  
Fund vs. Russell Midcap<sup>®</sup> Growth Index

See disclosure section for important definitions.

### 5-Year Risk/Return



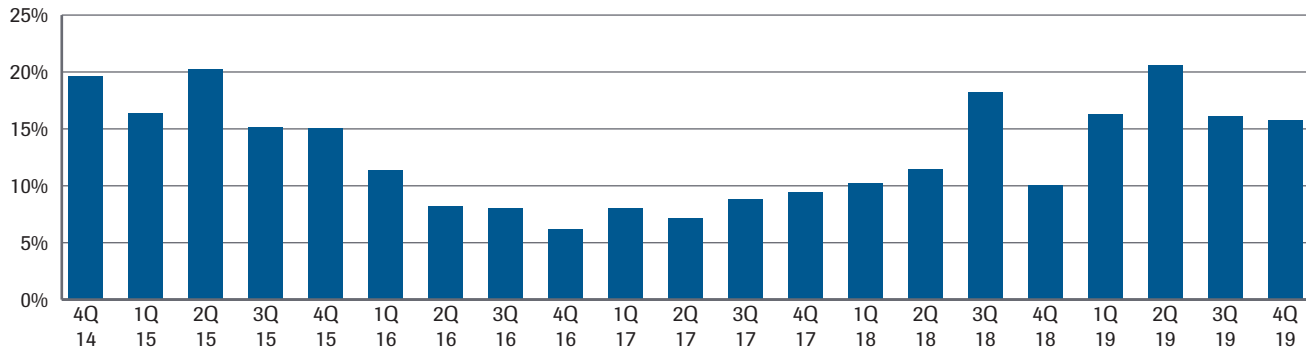
### 5-Year Rolling Monthly Performance vs. Russell Midcap<sup>®</sup> Growth Index



Source: Morningstar, Inc. Performance for 5-year periods (1-month shift) from 1/1/13 - 12/31/19  
Returns are for IS Shares. Other classes of shares are available whose performance will vary due to different charges and expenses.  
Timeframe based on current management style of Federated MDT Mid Cap Growth Fund.

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### 3-Year Rolling Returns (IS)



Performance quoted represents past performance, which is no guarantee of future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than what is stated. To view performance current to the most recent month-end, and for after-tax returns, contact us or visit [FederatedInvestors.com](http://FederatedInvestors.com).

### Category Rankings

#### Morningstar Mid-Cap Growth Category

R6 Shares	1 Year	3 Year	5 Year	10 Year
Morningstar Category % Rank	80	48	59	72
Morningstar Category Rank	536 of 618 Funds	319 of 565 Funds	319 of 501 Funds	296 of 385 Funds
IS Shares	1 Year	3 Year	5 Year	10 Year
Morningstar Category % Rank	80	48	55	62
Morningstar Category Rank	538 of 618 Funds	318 of 565 Funds	296 of 501 Funds	-
A Shares	1 Year	3 Year	5 Year	10 Year
Morningstar Category % Rank	83	54	60	68
Morningstar Category Rank	548 of 618 Funds	345 of 565 Funds	320 of 501 Funds	277 of 385 Funds

#### Lipper Mid-Cap Growth Funds

R6 Shares	1 Year	3 Year	5 Year	10 Year
Lipper Classification % Rank	88	62	71	80
Lipper Classification Rank	359 of 407 Funds	232 of 375 Funds	243 of 343 Funds	213 of 267 Funds
IS Shares	1 Year	3 Year	5 Year	10 Year
Lipper Classification % Rank	89	62	66	-
Lipper Classification Rank	360 of 407 Funds	232 of 375 Funds	227 of 343 Funds	-
A Shares	1 Year	3 Year	5 Year	10 Year
Lipper Classification % Rank	90	66	72	74
Lipper Classification Rank	365 of 407 Funds	248 of 375 Funds	245 of 343 Funds	197 of 267 Funds

Past performance is no guarantee of future results. Rankings are based on total return and do not take sales charges into account.

**Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. To obtain a summary prospectus or a prospectus containing this and other information, contact us or visit [FederatedInvestors.com](http://FederatedInvestors.com). Please carefully read the summary prospectus or the prospectus before investing.**

The fund's Institutional Shares commenced operations on January 29, 2010. For the period prior to the commencement of operations for the Institutional Shares, the performance information shown is for the fund's A Shares. The performance of the A Shares has not been adjusted to reflect the expenses of the Institutional Shares since the Institutional Shares have a lower expense ratio than the expense ratio of the A Shares. The performance of the A Shares has been adjusted to remove any voluntary waiver of the fund's expenses related to the A Shares that may have occurred during the period prior to the commencement of operations of the Institutional Shares. The performance information shown also has been adjusted to reflect the absence of sales charges applicable to the A Shares.

The fund's R Shares, re-designated as R6 Shares on September 1, 2016, commenced operations on December 12, 2006. For the period prior to the commencement of operations of the R Shares (now known as R6 Shares), the performance information shown is for the fund's A Shares, adjusted to reflect the expenses of the R Shares, and the performance information shown for the R6 Shares prior to September 1, 2016 reflects the higher R Shares expenses. The performance information shown also has been adjusted to reflect the absence of sales charges applicable to the A Shares. See the prospectus for other fees and expenses that apply to a continued investment in the fund.

### A Word About Risk

Mutual funds are subject to risks and fluctuate in value.

Mid-capitalization companies often have narrower markets and limited managerial and financial resources compared to larger and more established companies.

The quantitative models and analysis used by the fund may perform differently than expected and negatively affect fund performance.

### Definitions

**Russell Midcap<sup>®</sup> Growth Index** measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Midcap<sup>®</sup> Index companies with higher price-to-book ratios and higher forecasted growth values. The Russell Midcap<sup>®</sup> Growth Index is constructed to provide a comprehensive and unbiased barometer of the mid-cap growth market. The Index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap growth market.

**S&P 500 Index** is an unmanaged capitalization-weighted index of 500 stocks designated to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

Indexes are unmanaged and cannot be invested in directly.

**Alpha** shows how much or how little return is generated, given the risk a portfolio takes. A portfolio with an Alpha greater than 0 has earned more than expected given its Beta—meaning the portfolio has generated excess return without increasing risk. A portfolio with a negative Alpha is producing a lower return than would be expected given its risk.

**Beta** measures a portfolio's volatility relative to the market. A Beta greater than 1.00 suggests the portfolio has historically been more volatile than the market as measured by the fund's benchmark. A Beta less than 1.00 suggests the portfolio has historically had less volatility relative to the market.

**Correlation** is the degree to which one variable (here, the fund's returns) fluctuates relative to another (the returns of the fund's benchmark). Correlation ranges from 1.00, when two variables move identically in the same direction, to -1.00, when two variables move identically in the opposite direction.

**R-Squared** indicates what percentage of a portfolio's movement in performance is explained by movement in performance of the market. R-squared ranges from 0 to 100, and a score of 100 suggests that all movements of a portfolio's performance are completely explained by movements in the market as measured by the fund's benchmark.

**Sharpe Ratio** is calculated by dividing a fund's annualized excess return by the fund's annualized standard deviation. The higher the Sharpe Ratio, the better the fund's historical risk adjusted performance.

**Standard Deviation** is a historical measure of the variability of returns relative to the average annual return. A higher number indicates higher overall volatility.

**Tracking Error** is the difference between a portfolio's returns and the benchmark or index it was meant to mimic or beat.

**Up Capture Ratio/Down Capture Ratio** is a measure of how well a manager was able to replicate or improve on periods of positive benchmark returns and how badly the manager was affected by periods of negative benchmark returns. The up-market capture ratio is a measure of a manager's performance in up markets relative to the index during the same period. For example, a ratio value of 115 indicates that the manager has outperformed the market index by 15% in periods when the index has risen. The down-market capture ratio is the direct opposite of the up-market capture ratio, gauging performance of the manager relative to the index in down markets. A ratio value of 80 would indicate the manager had declined on 80% as much as the declining overall market, indicating relative outperformance.

**Weighted Median Price/Book** is a ratio comparing share price to book value or assets minus liabilities.

**Weighted Median Market Cap** is the calculation representing the median market capitalization of the stocks in the portfolio, weighted by the amount of each stock.

**Weighted Median P/E (LTM—Latest 12 Months)** is a ratio comparing share price to earnings per share using data from the previous 12 months.

**Weighted Median P/E (NTM—Next 12 Months)** is a ratio comparing share price to earnings per share using estimated data for the next 12 months.

### Ratings and Rating Agencies

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