

# MDT Mid Cap Growth Managed Account

## Firm Overview

Since its founding in 1955, Federated Investors, Inc. (NYSE:FII) and its subsidiaries have grown to become one of the nation's largest investment management organizations with assets under management of \$459.9 billion (as of 12/31/18) in investment strategies of domestic and international equity, fixed income and money market asset classes. Federated offers depth and breadth in its selection of products to meet the needs of virtually any client, from the large institutional investor and high net worth individuals, to retirement plan participants.

## Composite

MDT Mid Cap Growth  
Managed Account

## Benchmark

Russell Midcap® Growth  
(Index)

## MDT Advisers Investment Team Key Personnel

**Daniel Mahr, CFA**  
Managing Director, Research,  
Head of MDT Team  
16 Years Experience

**Frederick Konopka, CFA**  
Portfolio and Trading Manager  
21 Years Experience

**John Paul Lewicke**  
Research Manager  
11 Years Experience

**Sarah Stahl, CIPM**  
Managing Director  
21 Years Experience

**Damien Zhang, CFA**  
Research Manager  
9 Years Experience

Past performance is no guarantee of future results.

## Investment Philosophy

Our goal is to seek superior risk-adjusted performance for our clients. We believe that an unemotional, disciplined process will lead to superior portfolio selection. We believe that companies with strong combinations of fundamentals will outperform their peers in the long run. We believe that clients should hold a well-diversified portfolio with moderate tracking error and strong alpha potential.

## Investment Process

Every trading day, we analyze the most recent data for each stock in the MDT Mid Cap Growth universe. We evaluate all companies bottom-up according to fundamental and technical factors that measure a company's value, growth, and quality characteristics. We build a portfolio of stocks with a variety of combinations of fundamental characteristics that obeys layered risk controls. The end result of our disciplined process is a well-diversified portfolio with moderate tracking error and strong alpha potential net of trading costs.

Investment Process	Risk Management	Advantages
<ul style="list-style-type: none"> <li>450-500 stocks screened daily using fundamental and technical factors</li> <li>High potential stocks identified by looking for combinations of factors that outperform</li> <li>Top stocks purchased for portfolio, subject to risk controls</li> <li>Trading costs built into the model—trades are only made if they improve the portfolio net of expected trading costs</li> </ul>	<ul style="list-style-type: none"> <li>Portfolios tuned for relatively low risk given the potential alpha</li> <li>Typically 90-110 stocks in portfolio</li> <li>Diversification constraints designed to                             <ul style="list-style-type: none"> <li>limit position size</li> <li>limit benchmark-relative exposure to businesses, industries and sectors</li> <li>limit benchmark-relative exposure to correlated companies in different sectors</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Daily bottom-up, fundamental stock selection</li> <li>Differentiated process</li> <li>Transparent process</li> <li>Disciplined, unemotional, repeatable process</li> <li>Constant research and reevaluation of model</li> </ul>

## Annualized Returns (%)\*

The MDT Mid Cap Growth has outperformed its benchmark, the Russell Midcap® Growth Index, by 2.73% (gross of fees) since inception 8/1/00 through 12/31/18.



Data as of 12/31/18. Information is supplemental to the GIPS presentation.

\*For a comparison of gross to net returns, see chart on page 3. "Pure" gross-of-fees returns do not reflect the deduction of any expenses, including trading costs. "Pure" gross-of-fees returns are supplemental to net returns. This information is supplemental to the attached GIPS presentation which should be referred to for the current performance, including the net figures.

# MDT Mid Cap Growth Managed Account

## Portfolio Characteristics

	Portfolio	Index*
5-Year Forward EPS Growth (%)	16.8	15.0
P/E Forward Fiscal Year Est.	18.3	21.5
Wtd. Median Cap** (Mil.)	\$10,882	\$12,394
Price/Book	7.3x	7.5x
Dividend Yield (%)	1.0	0.9

## Sector Weightings (%)

	Portfolio	Index*
Communication Services	4.6	4.0
Consumer Discretionary	17.4	16.4
Consumer Staples	2.4	3.4
Energy	1.5	1.5
Financials	7.7	6.6
Health Care	13.7	14.7
Industrials	15.4	15.9
Information Technology	32.6	31.6
Materials	4.7	3.6
Real Estate	0.0	2.3
Utilities	0.0	0.0

## Calendar Year Returns (%)\*\*\*

	Composite (Gross)	Index
2009	24.51	46.29
2010	39.44	26.38
2011	3.99	-1.65
2012	20.89	15.81
2013	40.94	35.74
2014	12.44	11.90
2015	-3.90	-0.20
2016	11.61	7.33
2017	26.29	25.27
2018	-2.01	-4.75

## Benchmark Analysis\*\*\*\*

	Portfolio	Index
Annualized Return (%)	16.47	15.12
Annualized Standard Deviation (%)	15.30	15.37
Annualized Sharpe Ratio	1.05	0.97
Beta	0.93	1.00
Tracking Error (%)	5.76	0.00
Annualized Alpha (%)	2.28	0.00
R-Squared (%)	86.42	100.00
Up Capture Ratio (%)	100.25	100.00
Down Capture Ratio (%)	92.48	100.00

Information is supplemental to the attached GIPS presentation.

The sector and style weights and portfolio characteristics were derived through analysis of all accounts that are "shadowed" on MDT's APL portfolio accounting system.

\*Information is derived from a universe that approximates the Russell Midcap® Growth Index.

\*\*Market cap at which 50% of assets are invested in higher market caps and 50% of assets are invested in lower market caps.

\*\*\*For a comparison of gross to net returns, see chart on page 3. "Pure" gross-of-fees returns do not reflect the deduction of any expenses, including trading costs.

"Pure" gross-of-fees returns are supplemental to net returns. This information is supplemental to the attached GIPS presentation which should be referred to for the current performance, including the net figures.

\*\*\*\*Data from 1/1/09-12/31/18

The portfolio sector weightings have changed over time and may change at any time. Sector weightings are measured as a percentage of the market value of the equity in the portfolio as of the date indicated above. Totals may not add to 100% due to rounding. The Russell Midcap® Growth Index measures the performance of the midcap growth segment of the U.S. equity universe. It includes those Russell Midcap® Index companies with higher price-to-book ratios and higher forecasted growth values. It is calculated on a total return basis with dividends reinvested. The Russell Midcap® Growth Index is unmanaged and not available for direct investment. Investing in equities is speculative and involves substantial risk. Individual client accounts will vary. MDT seeks to optimize every portfolio on a daily basis. However, not all portfolios may trade daily, due to operational issues or liquidity constraints. All charts and tables were created using information from Morningstar Inc. and MDT's internal Investment Team. The benchmark analysis presented herein is calculated using software developed by Morningstar Inc.

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**Past performance is no guarantee of future results.**

# Schedule of Rates of Return and Statistics

Composite **MDT Mid Cap Growth Managed Account Composite**  
 Index **Russell Midcap Growth Index**  
 Periods Ending **12/31/2018**

Returns (%)			
	Gross Composite Return	Index	Net Composite Return (Assuming Maximum Fee)
<b>Q4 18</b>	-18.19	-15.99	-18.84
<b>1 Year</b>	-2.01	-4.75	-4.92
<b>3 Years (Annlzd)</b>	11.37	8.59	8.10
<b>5 Years (Annlzd)</b>	8.34	7.42	5.16
<b>7 Years (Annlzd)</b>	14.27	12.27	10.92
<b>10 Years (Annlzd)</b>	16.47	15.12	13.06
<b>15 Years (Annlzd)</b>	11.67	8.98	8.39
<b>Aug 00 - Dec 18 (Annlzd)</b>	7.89	5.16	4.71

	Composite Gross Return	Composite Net Return	Benchmark Return	Composite* 3-Yr St Dev	Benchmark* 3-Yr St Dev	Number of Portfolios	Dispersion**	% of Carve-Outs	Composite Assets (\$mil)	Firm Assets (\$bil)
<b>2009</b>	24.51	20.88	46.29	21.29	24.01	172	0.99	0.00%	50.6	384.4
<b>2010</b>	39.44	35.41	26.38	24.39	26.37	170	0.21	0.00%	59.2	354.3
<b>2011</b>	3.99	0.92	-1.65	19.67	20.82	160	0.58	0.00%	48.9	363.9
<b>2012</b>	20.89	17.36	15.81	18.22	17.91	151	0.48	0.00%	53.2	371.3
<b>2013</b>	40.94	36.88	35.74	14.56	14.62	187	0.60	0.00%	82.2	366.8
<b>2014</b>	12.47	9.17	11.90	10.17	10.87	196	0.63	0.00%	88.4	349.3
<b>2015</b>	-3.90	-6.76	-0.20	10.88	11.31	224	0.41	0.00%	90.9	343.4
<b>2016</b>	11.61	8.33	7.33	12.78	12.18	9	0.23	0.00%	13.6	342.3
<b>2017</b>	26.29	22.63	25.27	12.16	10.89	5	0.70	0.00%	5.6	354.7
<b>2018</b>	-2.01	-4.92	-4.75	15.10	12.82	6	2.34	0.00%	3.5	377.2

\*Represents the 3-year annualized standard deviation for both the composite and index returns. The statistic is used to measure the volatility of composite returns.

\*\*Standard deviation is calculated using gross returns. Standard deviation is not applicable ("N/A") for any period if fewer than five accounts are in the composite for that period. (See footnote 5)

This strategy utilizes a disciplined, quantitative investment process which analyzes a diverse universe of approximately 400 publicly traded domestic equities on a daily basis. The process selects stocks based on fundamental variables, controls risk through diversification constraints, and controls turnover by taking into account the impact of trading cost. The universe of stocks available to this strategy is the MDT Mid Cap Growth Universe, which approximates the Russell Mid Cap Growth Universe. The Russell Midcap Growth Index measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Midcap Index companies with higher price-to-book ratios and higher forecasted growth values. Indexes are unmanaged and cannot be invested in directly. Prior to October 2006, this composite consisted of the MDT Mid Cap Growth Institutional Composite. Beginning October 2006, wrap fee accounts make up 100% of this composite. This composite was created October 2006. MDT Advisers, a Federated Advisory Company, has managed portfolios in this investment style since August 2000. Firm assets prior January 2007 are of an acquired entity of Federated Investors. Performance presented prior to January 2007 occurred while the Portfolio Management Team members were affiliated with a prior firm. Performance shown for 2000 is for a partial period starting on August 1, 2000. Federated Investors claims compliance with the Global Investment Performance Standards ("GIPS") and has prepared and presented this report in compliance with the GIPS standards. Federated Investors has been independently verified for the period of January 1, 1992, through September 30, 2018. The verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis, and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation. Accounts eligible for this composite must follow this style, be fully discretionary, and must have wrapped or bundled fees. Performance results are presented both net and gross of total wrap fees and reflect the reinvestment of income. "Pure" gross returns are shown as supplemental and do not reflect the deduction of transaction costs. Net returns reflect the deduction of a maximum fee. A fee equal to the highest anticipated wrap fee that a client could pay (3.00% annually as charged by the program sponsor, inclusive of up to a maximum investment advisory fee of 1.00%) is used. This total wrap fee includes all charges for trading costs, portfolio management, custody and other administrative fees. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Gross returns prior to October 2006 are shown gross of fees and expenses, but net of direct transaction costs.

See Notes to the Schedule of Rates of Return and Statistics.

# Notes to the Schedule of Rates of Return and Statistics

- 1. Federated Investors is a global, independent, multi-strategy investment management firm with offices in Pittsburgh, New York, Rochester, Boston, London, Dublin, and Frankfurt. For GIPS® purposes, Federated Investors is defined to include the assets of registered investment companies, separate (or private) accounts, managed accounts (including wrap accounts) and commingled or collective trusts that are advised or sub-advised by the following subsidiaries: Federated Advisory Services Co.; Federated Equity Management Co. of PA; Federated Investment Counseling; Federated Investment Management Co.; Federated Global Investment Management Corp.; International Management Limited; MDT Advisers; Federated Securities Corp.; effective December, 2008, (the date of acquisition) the institutional assets of Federated Clover Investment Advisors, and effective September, 2009, (the date the assets were brought into compliance) the SMA/Wrap assets of Federated Clover Investment Advisors; and effective April, 2012 (the date of acquisition) Federated Investors (UK) LLP. Effective with the January 1, 2011, change in GIPS® policies regarding fair value, the assets of the Capital Preservation Fund (a Guaranteed Investment Contract vehicle) were included in the defined firm assets. Prior to that date they were excluded as they are not market value based investments. Firm assets on this report exclude the advisory-only, model-based assets that maybe included in other reports providing total firm assets*
- 2. Interest income and dividends are recognized on an accrual basis. Returns include the reinvestment of all income.*
- 3. All market values and performance information are valued in U.S. dollars unless currency is denoted in composite title.*
- 4. With the exception of the Federated Clover Investment Advisors composites, annual composite dispersion is measured and presented using the asset weighted standard deviation of the returns of all of the portfolios included in the composite over the entire year. Quarterly dispersion is measured using all portfolios included in the composite for that quarter. With regard to Federated Clover Investment Advisors composites, annual dispersion is measured using the equal weighted standard deviation of the returns of all the portfolios included in the composite over the entire year.*
- 5. Composite dispersion does not measure the risk of the product presented, it simply measures the return variance among portfolios managed in a similar fashion. This variance can be affected by variations in cash flow or specific client parameters among the portfolios comprising the composites, as well as by Federated's execution of strategy across accounts.*
- 6. See the composite description language on the prior page for a discussion on appropriate fees currently applied to calculate composite performance. With regard to the institutional composites not managed by the Federated Clover or MDT Advisers teams, for the period July 1, 1992 through September 30, 2009, net of fee performance was calculated monthly by reducing the gross composite return by the highest actual fee of any account in the composite for that month, regardless of investment vehicle. Prior to this, the maximum management fee charged for the period July 1, 1992 through September 30, 1992 was used to calculate net of fee performance back to inception of the composite. In addition, further fee information can be obtained from Federated's respective Forms ADV Part 2 Brochure Item 5.*
- 7. Additional information regarding the policies for valuing portfolios, calculating performance, and preparing compliant presentations, as well as a complete list and description of the firm's composites is available upon request.*
- 8. Past performance is not indicative of future results.*
- 9. See disclosures on the Schedule of Rates of Return and Statistics Reports for additional information.*



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