

Semi-Annual Shareholder Report

January 31, 2019

Share Class | Ticker **A** | QALGX **B** | QBLGX **C** | QCLGX **Institutional** | QILGX

Federated MDT Large Cap Growth Fund

Fund Established 2005

A Portfolio of Federated MDT Series

IMPORTANT NOTICE REGARDING REPORT DELIVERY

Beginning on January 1, 2021, as permitted by regulations adopted by the Securities and Exchange Commission, paper copies of the Fund's shareholder reports like this one will no longer be sent by mail, unless you specifically request paper copies of the reports from the Fund or from your financial intermediary, such as a broker-dealer or bank. Instead, the reports will be made available on a website, and you will be notified by mail each time a report is posted and provided with a website link to access the report.

If you already elected to receive shareholder reports electronically, you will not be affected by this change and you need not take any action. You may elect to receive shareholder reports and other communications from the Fund or your financial intermediary electronically by contacting your financial intermediary (such as a broker-dealer or bank); other shareholders may call the Fund at 1-800-341-7400, Option 4.

You may elect to receive all future reports in paper free of charge. You can inform the Fund or your financial intermediary that you wish to continue receiving paper copies of your shareholder reports by contacting your financial intermediary (such as a broker-dealer or bank); other shareholders may call the Fund at 1-800-341-7400, Option 4. Your election to receive reports in paper will apply to all funds held with the Fund complex or your financial intermediary.

Not FDIC Insured • May Lose Value • No Bank Guarantee



**J. Christopher
Donahue**

President

Federated MDT Large
Cap Growth Fund

Letter from the President

Dear Valued Shareholder,

I am pleased to present the Semi-Annual Shareholder Report for your fund covering the period from August 1, 2018 through January 31, 2019. This report includes a complete listing of your fund's holdings, performance information and financial statements along with other important fund information.

In addition, our website, FederatedInvestors.com, offers easy access to Federated resources that include timely fund updates, economic and market insights from our investment strategists, and financial planning tools.

Thank you for investing with Federated. I hope you find this information useful and look forward to keeping you informed.

Sincerely,

A handwritten signature in cursive script that reads "J. Christopher Donahue". The signature is written in dark ink and is positioned above the printed name.

J. Christopher Donahue, President

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In Memoriam

With profound sadness, Federated announces the passing of Richard B. (“Dick”) Fisher. He will be greatly missed.

RICHARD B. FISHER

(Former Officer of the Federated Funds, Chairman of Federated Securities Corp., and Vice Chairman of Federated Investors, Inc.)

Dick Fisher, along with John F. (“Jack”) Donahue and Thomas J. Donnelly, Esq., co-founded Federated in 1955 and served as a leader, particularly for Federated’s sales division, and an officer of the Federated Funds. Mr. Fisher was a family man of deep faith, with exemplary character, prodigious generosity, immeasurable devotion, undeniable charm and a good sense of humor. He served his religion, family, community, and the Federated Funds and Federated, as well as their shareholders, officers and employees, with distinction. His integrity, intelligence, and keen sense of duty to shareholders, coupled with his faith and devotion to family, allowed him to become the consummate gentleman and salesman par excellence who will be greatly missed. Among his many achievements, Mr. Fisher led the sales strategy and execution for Federated’s Fund for U.S. Government Securities, the first fund to invest exclusively in government bonds, and spearheaded the campaign for sales of Federated’s Government Income Securities Fund, the first of what would become Federated’s Fortress family of funds. Federated expresses deep gratitude to Mr. Fisher for his inspiring leadership, distinguished service and contributions as a husband, father, co-founder, officer, colleague and friend.

Portfolio of Investments Summary Table (unaudited)

At January 31, 2019, the Fund's sector composition¹ was as follows:

Sector Composition	Percentage of Total Net Assets
Information Technology	31.8%
Consumer Discretionary	15.8%
Health Care	13.0%
Communication Services	12.7%
Industrials	12.6%
Financials	5.4%
Consumer Staples	4.4%
Materials	2.2%
Securities Lending Collateral ^{2,3}	0.0%
Cash Equivalents ⁴	2.0%
Other Assets and Liabilities—Net ⁵	0.1%
TOTAL	100.0%

- 1 Except for Cash Equivalents and Other Assets and Liabilities, sector classifications are based upon, and individual portfolio securities are assigned to, the classifications of the Global Industry Classification Standard (GICS) except that the Adviser assigns a classification to securities not classified by the GICS and to securities for which the Adviser does not have access to the classification made by the GICS.*
- 2 Represents cash collateral received for portfolio securities on loan that may be invested in affiliated money market funds, other money market instruments and/or repurchase agreements.*
- 3 Represents less than 0.1%.*
- 4 Cash Equivalents include any investments in money market mutual funds and/or overnight repurchase agreements other than those representing cash collateral for securities lending.*
- 5 Assets, other than investments in securities, less liabilities. See Statement of Assets and Liabilities.*

Portfolio of Investments

January 31, 2019 (unaudited)

Shares		Value
	COMMON STOCKS—97.9%	
	Communication Services—12.7%	
540	¹ AMC Networks, Inc.	\$ 33,987
4,098	¹ Alphabet, Inc.	4,613,897
3,670	¹ DISH Network Corp., Class A	112,559
9,100	¹ Discovery, Inc.	258,258
6,938	¹ Electronic Arts, Inc.	639,961
16,398	¹ Facebook, Inc.	2,733,383
51,233	¹ Live Nation Entertainment, Inc.	2,741,478
72,797	¹ MSG Networks, Inc.	1,630,653
20,898	Verizon Communications, Inc.	1,150,644
	TOTAL	13,914,820
	Consumer Discretionary—15.8%	
2,746	¹ Amazon.com, Inc.	4,719,632
60	¹ AutoZone, Inc.	50,840
14,365	Bed Bath & Beyond, Inc.	216,768
111	¹ Booking Holdings, Inc.	203,442
10,673	¹ Burlington Stores, Inc.	1,832,661
805	Choice Hotels International, Inc.	63,724
12,031	D. R. Horton, Inc.	462,592
2,873	Dillard's, Inc., Class A	191,888
8,341	Dunkin' Brands Group, Inc.	570,441
14,863	Expedia Group, Inc.	1,772,413
1,414	Foot Locker, Inc.	79,028
25,317	Ford Motor Co.	222,789
5,804	¹ Fossil, Inc.	98,436
4,516	^{1,2} GNC Holdings, Inc.	13,774
12,926	Home Depot, Inc.	2,372,309
5,279	Lowe's Cos., Inc.	507,629
4,458	¹ Lululemon Athletica, Inc.	658,937
1,188	Macy's, Inc.	31,244
3,095	¹ O'Reilly Automotive, Inc.	1,066,723
5,600	¹ Sally Beauty Holdings, Inc.	96,432
2,169	Toll Brothers, Inc.	80,123
9,449	Tupperware Brands Corp.	257,674
1,088	¹ Urban Outfitters, Inc.	35,142
3,087	V.F. Corp.	259,833

Shares

Value

COMMON STOCKS—continued

Consumer Discretionary—continued

1,921	¹ Weight Watchers International, Inc.	\$ 61,472
29,559	Wyndham Destinations, Inc.	1,245,616
1,716	Yum! Brands, Inc.	161,270
	TOTAL	17,332,832

Consumer Staples—4.4%

996	Church and Dwight, Inc.	64,352
1,191	Costco Wholesale Corp.	255,624
6,294	Estee Lauder Cos., Inc., Class A	858,627
12,348	Flowers Foods, Inc.	242,762
28,398	PepsiCo, Inc.	3,199,603
609	¹ Post Holdings, Inc.	56,527
2,760	Sysco Corp.	176,226
	TOTAL	4,853,721

Financials—5.4%

28,222	Citizens Financial Group, Inc.	957,290
4,208	Everest Re Group Ltd.	921,762
2,292	LPL Investment Holdings, Inc.	161,288
46,005	Progressive Corp., OH	3,095,677
7,206	Prudential Financial, Inc.	663,961
2,300	² Waddell & Reed Financial, Inc., Class A	39,376
	TOTAL	5,839,354

Health Care—13.0%

769	¹ Alexion Pharmaceuticals, Inc.	94,556
427	Bristol-Myers Squibb Co.	21,081
5,266	Eli Lilly & Co.	631,183
14,816	HCA Healthcare, Inc.	2,065,795
2,885	Humana, Inc.	891,436
4,390	¹ Intuitive Surgical, Inc.	2,298,780
2,283	¹ Ionis Pharmaceuticals, Inc.	132,414
2,701	¹ Molina Healthcare, Inc.	359,179
3,637	¹ Myriad Genetics, Inc.	102,527
2,327	¹ Regeneron Pharmaceuticals, Inc.	998,911
18,245	Stryker Corp.	3,239,765
16,406	¹ Veeva Systems, Inc.	1,789,238
8,275	¹ Vertex Pharmaceuticals, Inc.	1,579,780
	TOTAL	14,204,645

Industrials—12.6%

1,596	Allegion PLC	137,033
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Shares

Value

COMMON STOCKS—continued		
Industrials—continued		
17,348	Allison Transmission Holdings, Inc.	\$ 844,327
5,600	Boeing Co.	2,159,472
4,801	C.H. Robinson Worldwide, Inc.	416,583
36,732	CSX Corp.	2,413,292
12,049	Caterpillar, Inc.	1,604,445
4,449	Fortune Brands Home & Security, Inc.	201,540
1,628	Grainger (W.W.), Inc.	480,895
13,961	¹ Jet Blue Airways Corp.	251,158
11,700	Lennox International, Inc.	2,682,576
7,248	Lockheed Martin Corp.	2,099,673
770	Masco Corp.	24,956
28,428	Pitney Bowes, Inc.	204,966
3,882	R.R. Donnelley & Sons Co.	19,798
744	Raytheon Co.	122,581
1,092	Waste Management, Inc.	104,472
845	¹ XPO Logistics, Inc.	51,359
	TOTAL	13,819,126
Information Technology—31.8%		
10,171	¹ Adobe, Inc.	2,520,577
1,951	¹ Ansys, Inc.	320,647
34,030	Apple, Inc.	5,663,953
4,845	¹ Autodesk, Inc.	713,184
15,725	Automatic Data Processing, Inc.	2,198,984
5,027	¹ Coherent, Inc.	594,191
234	¹ EPAM Systems, Inc.	33,106
17,192	¹ Fortinet, Inc.	1,316,391
25,869	Global Payments, Inc.	2,904,571
1,689	¹ IPG Photonics Corp.	224,637
18,872	Intel Corp.	889,249
17,298	Mastercard, Inc.	3,652,127
37,198	Microsoft Corp.	3,884,587
3,155	Nvidia Corp.	453,531
12,754	NetApp, Inc.	813,323
7,331	¹ PayPal, Inc.	650,700
6,196	¹ ServiceNow, Inc.	1,363,244
7,994	¹ Tableau Software, Inc.	1,021,953
12,731	Total System Services, Inc.	1,140,825
3,423	¹ VMware, Inc., Class A	517,113

Shares		Value
	COMMON STOCKS—continued	
	Information Technology—continued	
44,090	Western Union Co.	\$ 804,643
28,030	Xilinx, Inc.	3,137,678
	TOTAL	34,819,214
	Materials—2.2%	
2,170	Avery Dennison Corp.	226,656
713	Berry Global Group, Inc.	35,115
1,050	Sherwin-Williams Co.	442,596
23,054	Westlake Chemical Corp.	1,703,691
	TOTAL	2,408,058
	TOTAL COMMON STOCKS (IDENTIFIED COST \$95,126,335)	107,191,770
	INVESTMENT COMPANIES—2.0%	
52,505	Federated Government Obligations Fund, Premier Shares, 2.30% ³	52,505
2,114,483	Federated Institutional Prime Value Obligations Fund, Institutional Shares, 2.57% ³	2,114,907
	TOTAL INVESTMENT COMPANIES (IDENTIFIED COST \$2,166,960)	2,167,412
	TOTAL INVESTMENT IN SECURITIES—99.9% (IDENTIFIED COST \$97,293,295) ⁴	109,359,182
	OTHER ASSETS AND LIABILITIES - NET—0.1% ⁵	136,402
	TOTAL NET ASSETS—100%	\$109,495,584

Affiliated fund holdings are investment companies which are managed by the Adviser or an affiliate of the Adviser. Transactions with affiliated fund holdings during the period ended January 31, 2019, were as follows:

	Federated Government Obligations Fund, Premier Shares*	Federated Institutional Prime Value Obligations Fund, Institutional Shares	Total Affiliated Transactions
Balance of Shares Held 7/31/2018	280,960	1,197,370	1,478,330
Purchases/Additions	5,055,919	12,360,455	17,416,374
Sales/Reductions	(5,284,374)	(11,443,342)	(16,727,716)
Balance of Shares Held 1/31/2019	52,505	2,114,483	2,166,988
Value	\$ 52,505	\$ 2,114,907	\$ 2,167,412
Change in Unrealized Appreciation/ Depreciation	N/A	\$ 90	\$ 90
Net Realized Gain/(Loss)	N/A	\$ (133)	\$ (133)
Dividend Income	\$ 4,443	\$ 30,613	\$ 35,056

- * *All or a portion of the balance/activity for the fund relates to cash collateral received on securities lending transactions.*
- 1 *Non-income-producing security.*
- 2 *All or a portion of these securities are temporarily on loan to unaffiliated broker/dealers.*
- 3 *7-day net yield.*
- 4 *Also represents cost for federal tax purposes.*
- 5 *Assets, other than investments in securities, less liabilities. See Statement of Assets and Liabilities.*

Note: The categories of investments are shown as a percentage of total net assets at January 31, 2019.

Various inputs are used in determining the value of the Fund's investments. These inputs are summarized in the three broad levels listed below:

Level 1—quoted prices in active markets for identical securities.

Level 2—other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.). Also includes securities valued at amortized cost.

Level 3—significant unobservable inputs (including the Fund's own assumptions in determining the fair value of investments).

The inputs or methodology used for valuing securities are not an indication of the risk associated with investing in those securities.

As of January 31, 2019, all investments of the Fund utilized Level 1 inputs in valuing the Fund's assets carried at fair value.

See Notes which are an integral part of the Financial Statements

Financial Highlights – Class A Shares

(For a Share Outstanding Throughout Each Period)

	Six Months Ended (unaudited) 1/31/2019	Year Ended July 31,				
		2018	2017	2016	2015	2014
Net Asset Value, Beginning of Period	\$20.66	\$17.46	\$15.18	\$17.64	\$16.15	\$13.58
Income From Investment Operations:						
Net investment income (loss) ¹	(0.04)	(0.07)	0.01	0.04	0.02	0.03
Net realized and unrealized gain (loss)	(0.46)	4.67	2.36	(0.70)	1.47	2.54
TOTAL FROM INVESTMENT OPERATIONS	(0.50)	4.60	2.37	(0.66)	1.49	2.57
Less Distributions:						
Distributions from net realized gain	(1.81)	(1.40)	(0.09)	(1.80)	—	—
Net Asset Value, End of Period	\$18.35	\$20.66	\$17.46	\$15.18	\$17.64	\$16.15
Total Return²	(1.87)%	27.38%	15.66%	(3.62)%	9.23%	18.92%
Ratios to Average Net Assets:						
Net expenses	1.49% ³	1.52%	1.52%	1.50%	1.50%	1.50%
Net investment income (loss)	(0.39)% ³	(0.38)%	0.02%	0.28%	0.13%	0.17%
Expense waiver/reimbursement ⁴	0.00% ^{3,5}	0.02%	0.08%	0.07%	0.03%	0.11%
Supplemental Data:						
Net assets, end of period (000 omitted)	\$61,613	\$59,355	\$49,794	\$45,661	\$55,033	\$54,573
Portfolio turnover	65%	104%	104%	69%	91%	51%

1 *Per share numbers have been calculated using the average shares method.*

2 *Based on net asset value, which does not reflect the sales charge, redemption fee or contingent deferred sales charge, if applicable. Total returns for periods of less than one year are not annualized.*

3 *Computed on an annualized basis.*

4 *This expense decrease is reflected in both the net expense and the net investment income (loss) ratios shown above.*

5 *Amount is less than 0.01%.*

See Notes which are an integral part of the Financial Statements

Financial Highlights – Class B Shares

(For a Share Outstanding Throughout Each Period)

	Six Months Ended (unaudited) 1/31/2019	Year Ended July 31,				
		2018	2017	2016	2015	2014
Net Asset Value, Beginning of Period	\$18.85	\$16.16	\$14.16	\$16.71	\$15.41	\$13.05
Income From Investment Operations:						
Net investment income (loss) ¹	(0.10)	(0.20)	(0.11)	(0.07)	(0.11)	(0.09)
Net realized and unrealized gain (loss)	(0.42)	4.29	2.20	(0.68)	1.41	2.45
TOTAL FROM INVESTMENT OPERATIONS	(0.52)	4.09	2.09	(0.75)	1.30	2.36
Less Distributions:						
Distributions from net realized gain	(1.81)	(1.40)	(0.09)	(1.80)	—	—
Net Asset Value, End of Period	\$16.52	\$18.85	\$16.16	\$14.16	\$16.71	\$15.41
Total Return²	(2.17)%	26.38%	14.81%	(4.41)%	8.44%	18.08%
Ratios to Average Net Assets:						
Net expenses	2.24% ³	2.27%	2.27%	2.25%	2.25%	2.25%
Net investment income (loss)	(1.13)% ³	(1.13)%	(0.71)%	(0.49)%	(0.65)%	(0.59)%
Expense waiver/reimbursement ⁴	0.00% ^{3,5}	0.02%	0.08%	0.08%	0.03%	0.11%
Supplemental Data:						
Net assets, end of period (000 omitted)	\$12,385	\$14,432	\$13,654	\$14,925	\$16,175	\$10,519
Portfolio turnover	65%	104%	104%	69%	91%	51%

1 *Per share numbers have been calculated using the average shares method.*

2 *Based on net asset value, which does not reflect the sales charge, redemption fee or contingent deferred sales charge, if applicable. Total returns for periods of less than one year are not annualized.*

3 *Computed on an annualized basis.*

4 *This expense decrease is reflected in both the net expense and the net investment income (loss) ratios shown above.*

5 *Amount is less than 0.01%.*

See Notes which are an integral part of the Financial Statements

Financial Highlights – Class C Shares

(For a Share Outstanding Throughout Each Period)

	Six Months Ended (unaudited) 1/31/2019	Year Ended July 31,				
		2018	2017	2016	2015	2014
Net Asset Value, Beginning of Period	\$18.35	\$15.76	\$13.81	\$16.34	\$15.07	\$12.76
Income From Investment Operations:						
Net investment income (loss) ¹	(0.10)	(0.19)	(0.11)	(0.06)	(0.10)	(0.08)
Net realized and unrealized gain (loss)	(0.41)	4.18	2.15	(0.67)	1.37	2.39
TOTAL FROM INVESTMENT OPERATIONS	(0.51)	3.99	2.04	(0.73)	1.27	2.31
Less Distributions:						
Distributions from net realized gain	(1.81)	(1.40)	(0.09)	(1.80)	—	—
Net Asset Value, End of Period	\$16.03	\$18.35	\$15.76	\$13.81	\$16.34	\$15.07
Total Return²	(2.17)%	26.42%	14.82%	(4.39)%	8.43%	18.10%
Ratios to Average Net Assets:						
Net expenses	2.24% ³	2.27%	2.27%	2.25%	2.25%	2.25%
Net investment income (loss)	(1.15)% ³	(1.13)%	(0.72)%	(0.46)%	(0.63)%	(0.59)%
Expense waiver/reimbursement ⁴	0.00% ^{3,5}	0.02%	0.08%	0.07%	0.03%	0.11%
Supplemental Data:						
Net assets, end of period (000 omitted)	\$10,314	\$10,685	\$9,672	\$10,052	\$12,904	\$11,991
Portfolio turnover	65%	104%	104%	69%	91%	51%

1 *Per share numbers have been calculated using the average shares method.*

2 *Based on net asset value, which does not reflect the sales charge, redemption fee or contingent deferred sales charge, if applicable. Total returns for periods of less than one year are not annualized.*

3 *Computed on an annualized basis.*

4 *This expense decrease is reflected in both the net expense and the net investment income (loss) ratios shown above.*

5 *Amount is less than 0.01%.*

See Notes which are an integral part of the Financial Statements

Financial Highlights – Institutional Shares

(For a Share Outstanding Throughout Each Period)

	Six Months Ended (unaudited) 1/31/2019	Year Ended July 31,				
		2018	2017	2016	2015	2014
Net Asset Value, Beginning of Period	\$21.52	\$18.10	\$15.69	\$18.13	\$16.55	\$13.88
Income From Investment Operations:						
Net investment income (loss) ¹	(0.02)	(0.03)	0.05	0.08	0.07	0.06
Net realized and unrealized gain (loss)	(0.46)	4.85	2.45	(0.72)	1.51	2.61
TOTAL FROM INVESTMENT OPERATIONS	(0.48)	4.82	2.50	(0.64)	1.58	2.67
Less Distributions:						
Distributions from net realized gain	(1.81)	(1.40)	(0.09)	(1.80)	—	—
Net Asset Value, End of Period	\$19.23	\$21.52	\$18.10	\$15.69	\$18.13	\$16.55
Total Return²	(1.70)%	27.65%	15.98%	(3.40)%	9.55%	19.24%

Ratios to Average Net Assets:

Net expenses	1.25% ³	1.27%	1.27%	1.25%	1.25%	1.25%
Net investment income (loss)	(0.16)% ³	(0.14)%	0.27%	0.52%	0.37%	0.40%
Expense waiver/reimbursement ⁴	0.00% ^{3,5}	0.02%	0.08%	0.07%	0.03%	0.10%

Supplemental Data:

Net assets, end of period (000 omitted)	\$25,183	\$11,966	\$7,649	\$7,469	\$7,888	\$7,502
Portfolio turnover	65%	104%	104%	69%	91%	51%

- 1 *Per share numbers have been calculated using the average shares method.*
- 2 *Based on net asset value. Total returns for periods of less than one year are not annualized.*
- 3 *Computed on an annualized basis.*
- 4 *This expense decrease is reflected in both the net expense and the net investment income ratios shown above.*
- 5 *Amount is less than 0.01%.*

See Notes which are an integral part of the Financial Statements

Statement of Assets and Liabilities

January 31, 2019 (unaudited)

Assets:

Investment in securities, at value including \$51,396 of securities loaned and \$2,167,412 of investment in affiliated holdings (identified cost \$97,293,295)	\$109,359,182
Income receivable	43,716
Income receivable from affiliated holdings	9,555
Receivable for investments sold	427,774
Receivable for shares sold	396,082
TOTAL ASSETS	110,236,309

Liabilities:

Payable for investments purchased	\$475,265
Payable for shares redeemed	102,156
Payable for collateral due to broker for securities lending	52,505
Payable for investment adviser fee (Note 5)	2,221
Payable for administrative fees (Note 5)	237
Payable for transfer agent fee	20,935
Payable for Directors'/Trustees' fees (Note 5)	314
Payable for portfolio accounting fees	27,238
Payable for distribution services fee (Note 5)	13,787
Payable for other service fees (Notes 2 and 5)	28,376
Accrued expenses (Note 5)	17,691
TOTAL LIABILITIES	740,725
Net assets for 6,060,294 shares outstanding	\$109,495,584

Net Assets Consist of:

Paid-in capital	\$ 92,619,044
Total distributable earnings	16,876,540
TOTAL NET ASSETS	\$109,495,584

Statement of Assets and Liabilities – continued

Net Asset Value, Offering Price and Redemption Proceeds Per Share

Class A Shares:

Net asset value per share (\$61,613,255 ÷ 3,356,967 shares outstanding), no par value, unlimited shares authorized	\$18.35
Offering price per share (100/94.50 of \$18.35)	\$19.42
Redemption proceeds per share	\$18.35

Class B Shares:

Net asset value per share (\$12,385,062 ÷ 749,919 shares outstanding), no par value, unlimited shares authorized	\$16.52
Offering price per share	\$16.52
Redemption proceeds per share (94.50/100 of \$16.52)	\$15.61

Class C Shares:

Net asset value per share (\$10,314,162 ÷ 643,627 shares outstanding), no par value, unlimited shares authorized	\$16.03
Offering price per share	\$16.03
Redemption proceeds per share (99.00/100 of \$16.03)	\$15.87

Institutional Shares:

Net asset value per share (\$25,183,105 ÷ 1,309,781 shares outstanding), no par value, unlimited shares authorized	\$19.23
Offering price per share	\$19.23
Redemption proceeds per share	\$19.23

See Notes which are an integral part of the Financial Statements

Statement of Operations

Six Months Ended January 31, 2019 (unaudited)

Investment Income:

Dividends (including \$30,613 received from an affiliated holding*)	\$ 572,053
Net income on securities loaned (includes \$4,443 received from affiliated holdings related to cash collateral balances*)	1,646
TOTAL INCOME	573,699

Expenses:

Investment adviser fee (Note 5)	\$391,107
Administrative fee (Note 5)	41,935
Custodian fees	12,127
Transfer agent fee	79,186
Directors'/Trustees' fees (Note 5)	1,150
Auditing fees	13,478
Legal fees	6,152
Portfolio accounting fees	42,345
Distribution services fee (Note 5)	86,955
Other service fees (Notes 2 and 5)	105,922
Share registration costs	33,750
Printing and postage	14,071
Miscellaneous (Note 5)	13,795
TOTAL EXPENSES	841,973
Reimbursement of investment adviser fee (Note 5)	(721)
Net expenses	841,252
Net investment income (loss)	(267,553)

Realized and Unrealized Gain (Loss) on Investments:

Net realized gain on investments (including net realized loss of \$(133) on sales of investments in affiliated holdings*)	5,148,770
Net change in unrealized appreciation of investments (including net change in unrealized appreciation of \$90 of investments in affiliated holdings*)	(7,163,256)
Net realized and unrealized gain (loss) on investments	(2,014,486)
Change in net assets resulting from operations	\$(2,282,039)

* See information listed after the Fund's Portfolio of Investments.

See Notes which are an integral part of the Financial Statements

Statement of Changes in Net Assets

	Six Months Ended (unaudited) 1/31/2019	Year Ended 7/31/2018
Increase (Decrease) in Net Assets		
Operations:		
Net investment income (loss)	\$ (267,553)	\$ (499,782)
Net realized gain	5,148,770	10,083,407
Net change in unrealized appreciation/depreciation	(7,163,256)	11,109,591
CHANGE IN NET ASSETS RESULTING FROM OPERATIONS	(2,282,039)	20,693,216
Distributions to Shareholders (Note 2):		
Class A Shares	(5,477,815)	(4,029,431)
Class B Shares	(1,293,241)	(1,111,920)
Class C Shares	(969,378)	(797,120)
Institutional Shares	(1,895,731)	(476,552)
CHANGE IN NET ASSETS RESULTING FROM DISTRIBUTIONS TO SHAREHOLDERS	(9,636,165)	(6,415,023)
Share Transactions:		
Proceeds from sale of shares	30,538,989	18,205,541
Net asset value of shares issued to shareholders in payment of distributions declared	9,069,033	5,896,339
Cost of shares redeemed	(14,631,162)	(22,712,943)
CHANGE IN NET ASSETS RESULTING FROM SHARE TRANSACTIONS	24,976,860	1,388,937
Change in net assets	13,058,656	15,667,130
Net Assets:		
Beginning of period	96,436,928	80,769,798
End of period	\$109,495,584	\$ 96,436,928

See Notes which are an integral part of the Financial Statements

Notes to Financial Statements

January 31, 2019 (unaudited)

1. ORGANIZATION

Federated MDT Series (the “Trust”) is registered under the Investment Company Act of 1940, as amended (the “Act”), as an open-end management investment company. The Trust consists of five portfolios. The financial statements included herein are only those of Federated MDT Large Cap Growth Fund (the “Fund”), a diversified portfolio. The financial statements of the other portfolios are presented separately. The assets of each portfolio are segregated and a shareholder’s interest is limited to the portfolio in which shares are held. Each portfolio pays its own expenses. The Fund offers four classes of shares: Class A Shares, Class B Shares, Class C Shares and Institutional Shares. All shares of the Fund have equal rights with respect to voting, except on class-specific matters. The investment objective of the Fund is long-term capital appreciation.

On March 30, 2017, the Fund’s T Share class became effective with the Securities and Exchange Commission (SEC), but is not yet offered for sale.

Effective February 1, 2018, Class B Shares were closed to exchanges from Class B Shares of other Federated Funds and to new purchases made by existing shareholders (excluding reinvestment of dividends and capital gains).

Effective August 1, 2018, an automatic conversion feature for Class C Shares was implemented. Pursuant to this automatic conversion feature, after Class C Shares have been held for ten years from the date of purchase, they will automatically convert to Class A Shares on the next monthly conversion processing date.

2. SIGNIFICANT ACCOUNTING POLICIES

The following is a summary of significant accounting policies consistently followed by the Fund in the preparation of its financial statements. These policies are in conformity with U.S. generally accepted accounting principles (GAAP).

Investment Valuation

In calculating its net asset value (NAV), the Fund generally values investments as follows:

- Equity securities listed on an exchange or traded through a regulated market system are valued at their last reported sale price or official closing price in their principal exchange or market.
- Shares of other mutual funds or non-exchange-traded investment companies are valued based upon their reported NAVs.
- Fixed-income securities are fair valued using price evaluations provided by a pricing service approved by the Fund’s Board of Trustees (the “Trustees”).
- Derivative contracts listed on exchanges are valued at their reported settlement or closing price, except that options are valued at the mean of closing bid and asked quotations.
- Over-the-counter (OTC) derivative contracts are fair valued using price evaluations provided by a pricing service approved by the Trustees.
- For securities that are fair valued in accordance with procedures established by and under the general supervision of the Trustees, certain factors may be considered, such as: the last traded or purchase price of the security, information obtained by contacting the issuer or dealers, analysis of the issuer’s financial statements or other available documents, fundamental analytical data, the nature and duration of restrictions on disposition, the movement of the market in which the security is normally traded, public trading in similar

securities or derivative contracts of the issuer or comparable issuers, movement of a relevant index, or other factors including but not limited to industry changes and relevant government actions.

If any price, quotation, price evaluation or other pricing source is not readily available when the NAV is calculated, if the Fund cannot obtain price evaluations from a pricing service or from more than one dealer for an investment within a reasonable period of time as set forth in the Fund's valuation policies and procedures, or if information furnished by a pricing service, in the opinion of the valuation committee ("Valuation Committee"), is deemed not representative of the fair value of such security, the Fund uses the fair value of the investment determined in accordance with the procedures described below. There can be no assurance that the Fund could obtain the fair value assigned to an investment if it sold the investment at approximately the time at which the Fund determines its NAV per share.

Fair Valuation Procedures

The Trustees have ultimate responsibility for determining the fair value of investments for which market quotations are not readily available. The Trustees have appointed a Valuation Committee comprised of officers of the Fund, Federated MDTA LLC (the "Adviser") and certain of the Adviser's affiliated companies to assist in determining fair value and in overseeing the calculation of the NAV. The Trustees have also authorized the use of pricing services recommended by the Valuation Committee to provide fair value evaluations of the current value of certain investments for purposes of calculating the NAV. The Valuation Committee employs various methods for reviewing third-party pricing-service evaluations including periodic reviews of third-party pricing services' policies, procedures and valuation methods (including key inputs, methods, models and assumptions), transactional back-testing, comparisons of evaluations of different pricing services, and review of price challenges by the Adviser based on recent market activity. In the event that market quotations and price evaluations are not available for an investment, the Valuation Committee determines the fair value of the investment in accordance with procedures adopted by the Trustees. The Trustees periodically review and approve the fair valuations made by the Valuation Committee and any changes made to the procedures.

Factors considered by pricing services in evaluating an investment include the yields or prices of investments of comparable quality, coupon, maturity, call rights and other potential prepayments, terms and type, reported transactions, indications as to values from dealers and general market conditions. Some pricing services provide a single price evaluation reflecting the bid-side of the market for an investment (a "bid" evaluation). Other pricing services offer both bid evaluations and price evaluations indicative of a price between the prices bid and asked for the investment (a "mid" evaluation). The Fund normally uses bid evaluations for any U.S. Treasury and Agency securities, mortgage-backed securities and municipal securities. The Fund normally uses mid evaluations for any other types of fixed-income securities and any OTC derivative contracts. In the event that market quotations and price evaluations are not available for an investment, the fair value of the investment is determined in accordance with procedures adopted by the Trustees.

Repurchase Agreements

The Fund may invest in repurchase agreements for short-term liquidity purposes. It is the policy of the Fund to require the other party to a repurchase agreement to transfer to the Fund's custodian or sub-custodian eligible securities or cash with a market value (after transaction costs) at least equal to the repurchase price to be paid under the repurchase agreement. The eligible securities are transferred to accounts with the custodian or sub-custodian in which the Fund holds a "securities entitlement" and exercises "control" as those terms are defined in the Uniform Commercial Code. The Fund has established procedures for monitoring the market value of the transferred securities and requiring the transfer of additional eligible securities if necessary to equal at least the repurchase price. These procedures also allow the other party to require securities to be transferred from the account to the extent that their market value exceeds the repurchase price or in exchange for other eligible securities of equivalent market value.

The insolvency of the other party or other failure to repurchase the securities may delay the disposition of the underlying securities or cause the Fund to receive less than the full repurchase price. Under the terms of the repurchase agreement, any amounts received by the Fund in excess of the repurchase price and related transaction costs must be remitted to the other party.

The Fund may enter into repurchase agreements in which eligible securities are transferred into joint trading accounts maintained by the custodian or sub-custodian for investment companies and other clients advised by the Fund's Adviser and its affiliates. The Fund will participate on a pro rata basis with the other investment companies and clients in its share of the securities transferred under such repurchase agreements and in its share of proceeds from any repurchase or other disposition of such securities.

Investment Income, Gains and Losses, Expenses and Distributions

Investment transactions are accounted for on a trade-date basis. Realized gains and losses from investment transactions are recorded on an identified-cost basis. Interest income and expenses are accrued daily. Dividend income and distributions to shareholders are recorded on the ex-dividend date. Foreign dividends are recorded on the ex-dividend date or when the Fund is informed of the ex-dividend date. Distributions of net investment income, if any, are declared and paid annually. Non-cash dividends included in dividend income, if any, are recorded at fair value. Amortization/accretion of premium and discount is included in investment income. Investment income, realized and unrealized gains and losses, and certain fund-level expenses are allocated to each class based on relative average daily net assets, except that select classes will bear certain expenses unique to those classes. The detail of the total fund expense reimbursement of \$721 is disclosed in Note 5.

Dividends are declared separately for each class. No class has preferential dividend rights; differences in per share dividend rates are generally due to differences in separate class expenses. All distributions as indicated on the Statement of Changes in Net Assets for the year ended July 31, 2018, were from net realized gains. Accumulated net investment (loss) at July 31, 2018, was \$(1,325).

Other Service Fees

The Fund may pay other service fees up to 0.25% of the average daily net assets of the Fund's Class A Shares, Class B Shares and Class C Shares to unaffiliated financial intermediaries or to Federated Shareholder Services Company (FSSC) for providing services to shareholders and maintaining shareholder accounts. Subject to the terms described in the Expense Limitation note, FSSC may voluntarily reimburse the Fund for other service fees. For the six months ended January 31, 2019, other service fees for the Fund were as follows:

	Other Service Fees Incurred
Class A Shares	\$ 76,937
Class B Shares	17,099
Class C Shares	11,886
TOTAL	\$105,922

Federal Taxes

It is the Fund's policy to comply with the Subchapter M provision of the Internal Revenue Code and to distribute to shareholders each year substantially all of its income. Accordingly, no provision for federal income tax is necessary. As of and during the six months ended January 31, 2019, the Fund did not have a liability for any uncertain tax positions. The Fund recognizes interest and penalties, if any, related to tax liabilities as income tax expense in the Statement of Operations. As of January 31, 2019, tax years 2015 through 2018 remain subject to examination by the Fund's major tax jurisdictions, which include the United States of America and the Commonwealth of Massachusetts.

The Fund may be subject to taxes imposed by governments of countries in which it invests. Such taxes are generally based on either income or gains earned or repatriated. The Fund accrues and applies such taxes to net investment income, net realized gains and net unrealized gains as income and/or gains are earned.

When-Issued and Delayed-Delivery Transactions

The Fund may engage in when-issued or delayed-delivery transactions. The Fund records when-issued securities on the trade date and maintains security positions such that sufficient liquid assets will be available to make payment for the securities purchased. Securities purchased on a when-issued or delayed-delivery basis are marked to market daily and begin earning interest on the settlement date. Losses may occur on these transactions due to changes in market conditions or the failure of counterparties to perform under the contract.

Securities Lending

The Fund participates in a securities lending program providing for the lending of equity securities to qualified brokers. The term of the loans within the program is one year or less. The Fund normally receives cash collateral for securities loaned that may be invested in affiliated money market funds, other money market instruments and/or repurchase agreements. Investments in money market funds may include funds with a "floating" NAV that can impose redemption fees and liquidity gates, impose certain operational impediments to investing cash collateral, and, if the investee fund's NAV decreases, result in the Fund recognizing losses and being required to cover the decrease in the value of the cash collateral. Collateral is maintained at a minimum level of 100% of the market value of investments loaned, plus interest, if applicable. In accordance with the Fund's securities lending agreement, the

market value of securities on loan is determined each day at the close of business and any additional collateral required to cover the value of securities on loan is delivered to the Fund on the next business day. Earnings on collateral are allocated between the borrower of the security, the securities lending agent, as a fee for its services under the program and the Fund, according to agreed-upon rates.

Securities lending transactions are subject to Master Netting Agreements which are agreements between the Fund and its counterparties that provide for the net settlement of all transactions and collateral with the Fund, through a single payment, in the event of default or termination. Amounts presented on the Portfolio of Investments and Statement of Assets and Liabilities are not net settlement amounts but gross. As indicated below, the cash collateral received by the Fund exceeds the market value of the securities loaned reducing the net settlement amount to zero. The chart below identifies the amount of collateral received as well as the market value of securities on loan. Additionally, the securities lending agreement executed by the Fund includes an indemnification clause. This clause stipulates that the borrower will reimburse the Fund for any losses as a result of any failure of the borrower to return equivalent securities to the Fund.

As of January 31, 2019, securities subject to this type of arrangement and related collateral were as follows:

Market Value of Securities Loaned	Market Value of Collateral
\$51,396	\$52,505

Other

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts of assets, liabilities, expenses and revenues reported in the financial statements. Actual results could differ from those estimated. The Fund applies investment company accounting and reporting guidance.

3. SHARES OF BENEFICIAL INTEREST

The following tables summarize share activity:

	Six Months Ended 1/31/2019		Year Ended 7/31/2018	
	Shares	Amount	Shares	Amount
Class A Shares:				
Shares sold	477,189	\$ 9,537,840	467,958	\$ 8,917,991
Shares issued to shareholders in payment of distributions declared	287,970	4,964,605	197,851	3,618,696
Shares redeemed	(281,264)	(5,550,023)	(644,382)	(12,286,884)
NET CHANGE RESULTING FROM CLASS A SHARE TRANSACTIONS	483,895	\$ 8,952,422	21,427	\$ 249,803

	Six Months Ended 1/31/2019		Year Ended 7/31/2018	
	Shares	Amount	Shares	Amount
Class B Shares:				
Shares sold	10,459	\$ 186,742	66,852	\$ 1,147,577
Shares issued to shareholders in payment of distributions declared	81,777	1,269,989	64,836	1,087,294
Shares redeemed	(107,742)	(1,853,377)	(211,128)	(3,561,428)
NET CHANGE RESULTING FROM CLASS B SHARE TRANSACTIONS	(15,506)	\$ (396,646)	(79,440)	\$(1,326,557)

	Six Months Ended 1/31/2019		Year Ended 7/31/2018	
	Shares	Amount	Shares	Amount
Class C Shares:				
Shares sold	182,766	\$ 3,160,322	141,746	\$ 2,436,968
Shares issued to shareholders in payment of distributions declared	64,160	966,884	47,820	780,418
Shares redeemed	(185,468)	(3,395,726)	(220,940)	(3,759,274)
NET CHANGE RESULTING FROM CLASS C SHARE TRANSACTIONS	61,458	\$ 731,480	(31,374)	\$(541,888)

	Six Months Ended 1/31/2019		Year Ended 7/31/2018	
	Shares	Amount	Shares	Amount
Institutional Shares:				
Shares sold	845,358	\$17,654,085	267,065	\$ 5,703,005
Shares issued to shareholders in payment of distributions declared	103,408	1,867,555	21,553	409,931
Shares redeemed	(194,987)	(3,832,036)	(155,328)	(3,105,357)
NET CHANGE RESULTING FROM INSTITUTIONAL SHARE TRANSACTIONS	753,779	\$15,689,604	133,290	\$ 3,007,579
NET CHANGE RESULTING FROM TOTAL FUND SHARE TRANSACTIONS	1,283,626	\$24,976,860	43,903	\$ 1,388,937

4. FEDERAL TAX INFORMATION

At January 31, 2019, the cost of investments for federal tax purposes was \$97,293,295. The net unrealized appreciation of investments for federal tax purposes was \$12,065,887. This consists of net unrealized appreciation from investments for those securities having an excess of value over cost of \$15,343,535 and net unrealized depreciation from investments for those securities having an excess of cost over value of \$3,277,648.

5. INVESTMENT ADVISER FEE AND OTHER TRANSACTIONS WITH AFFILIATES

Investment Adviser Fee

The advisory agreement between the Fund and the Adviser provides for an annual fee equal to 0.75% of the Fund's average daily net assets. Subject to the terms described in the Expense Limitation note, the Adviser may voluntarily choose to waive any portion of its fee. The Adviser has agreed to reimburse the Fund for certain investment adviser fees as a result of transactions in other affiliated investment companies. For the six months ended January 31, 2019, the Adviser reimbursed \$721.

Administrative Fee

Federated Administrative Services (FAS), under the Administrative Services Agreement, provides the Fund with administrative personnel and services. For purposes of determining the appropriate rate breakpoint, "Investment Complex" is defined as all of the Federated Funds subject to a fee under the Administrative Services Agreement. The fee paid to FAS is based on the average daily net assets of the Investment Complex as specified below:

Administrative Fee	Average Daily Net Assets of the Investment Complex
0.100%	on assets up to \$50 billion
0.075%	on assets over \$50 billion

Subject to the terms described in the Expense Limitation note, FAS may voluntarily choose to waive any portion of its fee. For the six months ended January 31, 2019, the annualized fee paid to FAS was 0.080% of average daily net assets of the Fund.

Prior to September 1, 2017, the breakpoints of the Administrative Fee paid to FAS, described above, were:

Administrative Fee	Average Daily Net Assets of the Investment Complex
0.150%	on the first \$5 billion
0.125%	on the next \$5 billion
0.100%	on the next \$10 billion
0.075%	on assets in excess of \$20 billion

In addition, FAS may charge certain out-of-pocket expenses to the Fund.

Distribution Services Fee

The Fund has adopted a Distribution Plan (the “Plan”) pursuant to Rule 12b-1 under the Act. Under the terms of the Plan, the Fund will compensate Federated Securities Corp. (FSC), the principal distributor, from the daily net assets of the Fund’s Class A Shares, Class B Shares and Class C Shares to finance activities intended to result in the sale of these shares. The Plan provides that the Fund may incur distribution expenses at the following percentages of average daily net assets annually, to compensate FSC:

	Percentage of Average Daily Net Assets of Class
Class A Shares	0.05%
Class B Shares	0.75%
Class C Shares	0.75%

Subject to the terms described in the Expense Limitation note, FSC may voluntarily choose to waive any portion of its fee. For the six months ended January 31, 2019, distribution services fees for the Fund were as follows:

	Distribution Services Fees Incurred
Class B Shares	\$51,297
Class C Shares	35,658
TOTAL	\$86,955

When FSC receives fees, it may pay some or all of them to financial intermediaries whose customers purchase shares. For the six months ended January 31, 2019, FSC retained \$55,408 of fees paid by the Fund. For the six months ended January 31, 2019, the Fund’s Class A Shares did not incur a distribution services fee; however, it may begin to incur this fee upon approval of the Trustees.

Other Service Fees

For the six months ended January 31, 2019, FSSC received \$23,388 of the other service fees disclosed in Note 2.

Sales Charges

Front-end sales charges and contingent deferred sales charges (CDSC) do not represent expenses of the Fund. They are deducted from the proceeds of sales of Fund shares prior to investment or from redemption proceeds prior to remittance, as applicable. For the six months ended January 31, 2019, FSC retained \$6,512 in sales charges from the sale of Class A Shares. FSC also retained \$15,961 and \$705 of CDSC relating to redemptions of Class B Shares and Class C Shares, respectively.

Expense Limitation

The Adviser and certain of its affiliates (which may include FSC, FAS and FSSC) on their own initiative have agreed to waive certain amounts of their respective fees and/or reimburse expenses. Effective October 1, 2018, total annual fund operating expenses (as shown in the financial highlights, excluding interest expenses, extraordinary expenses, and proxy-related expenses paid by the Fund, if any) paid by the Fund’s Class A Shares, Class B Shares, Class C Shares and Institutional Shares (after the voluntary waivers and/or reimbursements) will not exceed 1.51%, 2.26%, 2.26% and 1.26% (the “Fee Limit”), respectively, up to but not including

the later of (the "Termination Date"): (a) October 1, 2019; or (b) the date of the Fund's next effective Prospectus. While the Adviser and its applicable affiliates currently do not anticipate terminating or increasing these arrangements prior to the Termination Date, these arrangements may only be terminated or the Fee Limit increased prior to the Termination Date with the agreement of the Trustees.

Directors'/Trustees' and Miscellaneous Fees

Certain Officers and Trustees of the Fund are Officers and Directors or Trustees of certain of the above companies. To efficiently facilitate payment, Directors'/Trustees' fees and certain expenses related to conducting meetings of the Directors/Trustees and other miscellaneous expenses are paid by an affiliate of the Adviser which in due course are reimbursed by the Fund. These expenses related to conducting meetings of the Directors/Trustees and other miscellaneous expenses may be included in Accrued and Miscellaneous Expenses on the Statement of Assets and Liabilities and Statement of Operations, respectively.

6. INVESTMENT TRANSACTIONS

Purchases and sales of investments, excluding long-term U.S. government securities and short-term obligations, for the six months ended January 31, 2019, were as follows:

Purchases	\$81,899,405
Sales	\$67,412,397

7. CONCENTRATION OF RISK

The Fund may invest a portion of its assets in securities of companies that are deemed by the Fund's management to be classified in similar business sectors. Economic developments may have an effect on the liquidity and volatility of the portfolio securities.

8. LINE OF CREDIT

The Fund participates with certain other Federated Funds, on a several basis, in an up to \$500,000,000 unsecured, 364-day, committed, revolving line of credit (LOC) agreement. The LOC was made available to finance temporarily the repurchase or redemption of shares of the Fund, failed trades, payment of dividends, settlement of trades and for other short-term, temporary or emergency general business purposes. The Fund cannot borrow under the LOC if an inter-fund loan is outstanding. The Fund's ability to borrow under the LOC also is subject to the limitations of the Act and various conditions precedent that must be satisfied before the Fund can borrow. Loans under the LOC are charged interest at a fluctuating rate per annum equal to the highest, on any day, of (a) (i) the federal funds effective rate, (ii) the one month London Interbank Offered Rate (LIBOR), and (iii) 0.0%, plus (b) a margin. The LOC also requires the Fund to pay, quarterly in arrears and at maturity, its pro rata share of a commitment fee based on the amount of the lenders' commitment that has not been utilized. As of January 31, 2019, the Fund had no outstanding loans. During the six months ended January 31, 2019, the Fund did not utilize the LOC.

9. INTERFUND LENDING

Pursuant to an Exemptive Order issued by the SEC, the Fund, along with other funds advised by subsidiaries of Federated Investors, Inc., may participate in an interfund lending program. This program provides an alternative credit facility allowing the Fund to borrow from other participating affiliated funds. As of January 31, 2019, there were no outstanding loans. During the six months ended January 31, 2019, the program was not utilized.

Shareholder Expense Example (unaudited)

As a shareholder of the Fund, you incur two types of costs: (1) transaction costs, including sales charges (loads) on purchase or redemption payments; and (2) ongoing costs, including management fees and to the extent applicable, distribution (12b-1) fees and/or other service fees and other Fund expenses. This Example is intended to help you to understand your ongoing costs (in dollars) of investing in the Fund and to compare these costs with the ongoing costs of investing in other mutual funds. It is based on an investment of \$1,000 invested at the beginning of the period and held for the entire period from August 1, 2018 to January 31, 2019.

ACTUAL EXPENSES

The first section of the table below provides information about actual account values and actual expenses. You may use the information in this section, together with the amount you invested, to *estimate* the expenses that you incurred over the period. Simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number in the first section under the heading entitled “Expenses Paid During Period” to estimate the expenses attributable to your investment during this period.

HYPOTHETICAL EXAMPLE FOR COMPARISON PURPOSES

The second section of the table below provides information about hypothetical account values and hypothetical expenses based on the Fund’s actual expense ratio and an *assumed* rate of return of 5% per year before expenses, which is not the Fund’s actual return. Thus, you should *not* use the hypothetical account values and expenses to estimate the actual ending account balance or your expenses for the period. Rather, these figures are required to be provided to enable you to compare the ongoing costs of investing in the Fund with other funds. To do so, compare this 5% hypothetical example with the 5% hypothetical examples that appear in the shareholder reports of the other funds.

Please note that the expenses shown in the table are meant to highlight your ongoing costs only and do not reflect any transaction costs, such as sales charges (loads) on purchase or redemption payments. Therefore, the second section of the table is useful in comparing ongoing costs only, and will not help you determine the relative *total* costs of owning different funds. In addition, if these transaction costs were included, your costs would have been higher.

	Beginning Account Value 8/1/2018	Ending Account Value 1/31/2019	Expenses Paid During Period ¹
Actual:			
Class A Shares	\$1,000	\$ 981.30	\$ 7.44
Class B Shares	\$1,000	\$ 978.30	\$11.17
Class C Shares	\$1,000	\$ 978.30	\$11.17
Institutional Shares	\$1,000	\$ 983.00	\$ 6.25
Hypothetical (assuming a 5% return before expenses):			
Class A Shares	\$1,000	\$1,017.70	\$ 7.58
Class B Shares	\$1,000	\$1,013.90	\$11.37
Class C Shares	\$1,000	\$1,013.90	\$11.37
Institutional Shares	\$1,000	\$1,018.90	\$ 6.36

¹ Expenses are equal to the Fund's annualized net expense ratios, multiplied by the average account value over the period, multiplied by 184/365 (to reflect the one-half-year period). The annualized net expense ratios are as follows:

Class A Shares	1.49%
Class B Shares	2.24%
Class C Shares	2.24%
Institutional Shares	1.25%

Evaluation and Approval of Advisory Contract – May 2018

FEDERATED MDT LARGE CAP GROWTH FUND (THE “FUND”)

At its meetings in May 2018, the Fund’s Board of Trustees (the “Board”), including a majority of those Trustees who are not “interested persons” of the Fund, as defined in the Investment Company Act of 1940 (the “Independent Trustees”) reviewed and unanimously approved the continuation of the Fund’s investment advisory contract for an additional one-year term. The Board’s decision regarding the contract reflects the exercise of its business judgment after considering all of the information received on whether to continue the existing arrangements.

The Board had previously appointed a Senior Officer, whose duties included specified responsibilities relating to the process by which advisory fees are to be charged to a fund advised by Federated MDTA LLC (the “Adviser”) or its affiliates (collectively, “Federated”) (each, a “Federated fund”). The Senior Officer’s responsibilities included preparation and furnishing to the Board an annual independent written evaluation that covered topics discussed below. In December 2017, the Senior Officer position was eliminated. Notwithstanding the elimination of the Senior Officer position, at the request of the Independent Trustees, the Fund’s Chief Compliance Officer (the CCO) furnished to the Board in advance of its May 2018 meetings an independent written evaluation covering substantially the same topics that had been covered in the Senior Officer’s written evaluation in prior years. The Board considered the CCO’s independent written evaluation (the “CCO Fee Evaluation Report”), along with other information, in evaluating the reasonableness of the Fund’s management fee and in deciding to approve the continuation of the investment advisory contract. Consistent with the former Senior Officer position, the CCO, in preparing the CCO Fee Evaluation Report, has the authority to retain consultants, experts or staff as reasonably necessary to assist in the performance of his duties, reports directly to the Board, and can be terminated only with the approval of a majority of the Independent Trustees.

The Board also considered judicial decisions concerning allegedly excessive investment advisory fees in making its decision. Using these judicial decisions as a guide, the Board observed that the following factors may be relevant to an adviser’s fiduciary duty with respect to its receipt of compensation from a fund: (1) the nature and quality of the services provided by an adviser to a fund and its shareholders (including the performance of the fund, its benchmark, and comparable funds); (2) an adviser’s cost of providing the services (including the profitability to an adviser of providing advisory services to a fund); (3) the extent to which an adviser may realize “economies of scale” as a fund grows larger and, if such economies of scale exist, whether they have been shared with a fund and its shareholders or the family of funds; (4) any “fall-out” financial benefits that accrue to an adviser because of its relationship with a fund (including

research services received from brokers that execute fund trades and any fees paid to affiliates of an adviser for services rendered to a fund); (5) comparative fee and expense structures (including a comparison of fees paid to an adviser with those paid by similar funds both internally and externally as well as management fees charged to institutional and other advisory clients of the Adviser or its affiliates for what might be viewed as like services); and (6) the extent of care, conscientiousness and independence with which the fund's board members perform their duties and their expertise (including whether they are fully informed about all facts the board deems relevant to its consideration of an adviser's services and fees). The Board noted that the Securities and Exchange Commission (SEC) disclosure requirements regarding the basis for the Board's approval of the Fund's investment advisory contract generally align with the factors listed above. The Board was aware of these factors and was guided by them in its review of the Fund's investment advisory contract to the extent it considered them to be appropriate and relevant, as discussed further below.

The Board considered and weighed these factors in light of its substantial accumulated experience in governing the Fund and working with Federated on matters relating to the Federated funds. The Independent Trustees were assisted in their deliberations by independent legal counsel.

In addition to the extensive materials that comprise and accompany the CCO Fee Evaluation Report, the Board received detailed information about the Fund and the Federated organization throughout the year, and in connection with its May meetings at which the Board's formal approval of the advisory and subadvisory contracts occurred. In this regard, Federated provided much of this information at each regular meeting of the Board, and furnished additional information specifically in connection with the May meetings. In the months preceding the May meetings, the Board requested and reviewed written materials prepared by Federated in response to requests on behalf of the Independent Trustees encompassing a wide variety of topics. At the May meetings, in addition to meeting in separate sessions of the Independent Trustees without management present, senior management of the Adviser also met with the Independent Trustees and their counsel to discuss the materials presented and such additional matters as the Independent Trustees deemed reasonably necessary to evaluate the advisory and subadvisory contracts. Between regularly scheduled meetings, the Board also received information on particular matters as the need arose.

The Board's consideration of the investment advisory contract included review of the CCO's Fee Evaluation Report, accompanying data and additional information covering the following matters, among others: the Adviser's investment philosophy, revenue, profitability, personnel and processes; investment and operating strategies; the Fund's short-term and long-term performance (in absolute terms, both on a gross basis and net of expenses, as well as in terms relative to its particular investment program and certain competitor or "peer group" funds and/or other benchmarks, as appropriate) and comments on the

reasons for performance; the Fund's investment objectives; the Fund's expenses, including the advisory fee and the overall expense structure of the Fund (both in absolute terms and relative to similar and/or competing funds), with due regard for contractual or voluntary expense limitations; the use and allocation of brokerage commissions derived from trading the Fund's portfolio securities (if any); and the nature, quality and extent of the advisory and other services provided to the Fund by the Adviser and its affiliates. The Board also considered the preferences and expectations of Fund shareholders; the entrepreneurial and other risks assumed by the Adviser in sponsoring the Fund; the continuing state of competition in the mutual fund industry and market practices; the range of comparable fees for similar funds in the mutual fund industry; the Fund's relationship to the Federated funds which include a comprehensive array of funds with different investment objectives, policies and strategies which are generally available for exchange without the incurrence of additional sales charges; compliance and audit reports concerning the Federated funds and the Federated companies that service them (including communications from regulatory agencies), as well as Federated's responses to any issues raised therein; and relevant developments in the mutual fund industry and how the Federated funds and/or Federated are responding to them. The Board's evaluation process is evolutionary. The criteria considered and the emphasis placed on relevant criteria change in recognition of changing circumstances in the mutual fund marketplace.

While mindful that courts have cautioned against giving too much weight to comparative information concerning fees charged by other advisers for managing funds with comparable investment programs, the Board has found the use of such comparisons to be relevant to its deliberations. In this regard, the Board was presented with, and considered, information regarding the contractual advisory fee rates, net advisory fee rates, total expense ratios and each element of the Fund's total expense ratio (i.e., gross and net advisory fees, custody fees, portfolio accounting fees and transfer agency fees) relative to an appropriate group of peer funds compiled by Federated using data supplied by independent fund ranking organizations (the "Peer Group"). The Board received a description of the composition and methodology used to select the Peer Group. The Board focused on comparisons with other similar mutual funds more heavily than non-mutual fund products or services because it is believed that they are more relevant. For example, other mutual funds are the products most like the Fund, in that they are readily available to Fund shareholders as alternative investment vehicles. Also, they are the type of investment vehicle, in fact, chosen and maintained by the Fund's investors. The range of their fees and expenses, therefore, appears to be a relevant indicator of what consumers have found to be reasonable in the marketplace in which the Fund competes.

The Board reviewed the contractual advisory fee rate, net advisory fee rate and other expenses of the Fund and noted the position of the Fund's fee rates relative to its Peer Group. In this regard, the Board noted that the contractual advisory fee rate was above the median of the relevant Peer Group, but the Board noted the applicable waivers and reimbursements, and that the overall expense structure of the Fund remained competitive in the context of other factors considered by the Board. In this regard, the Board had been previously advised that, while comparisons to fund Peer Groups are relevant in judging the reasonableness of advisory fees, the Fund's quantitative focus makes fee and expense comparisons particularly difficult. Although the Fund's advisory fee was above the median of the peer range, the Peer Group of funds varied widely in their complexity, and the Board has been informed that the management of the Fund is among the more complex relative to its Peer Group.

For comparison, the CCO reviewed the fees charged by Federated for providing advisory services to products other than the Federated funds (e.g., institutional and separate accounts and third-party unaffiliated mutual funds for which Federated serves as sub-adviser) (referenced to as "Comparable Funds/Accounts"). With respect to Comparable Funds/Accounts other than third-party mutual funds, the CCO concluded that they are inherently different products. Those differences include, but are not limited to, different types of targeted investors; different applicable laws and regulations; different legal structures; different average account sizes and portfolio management techniques made necessary by different cash flows and different associated costs; and the time spent by portfolio managers and their teams, as well as personnel in the Funds Financial Services, Legal, Compliance and Risk Management departments, in reviewing securities pricing, addressing different administrative responsibilities, addressing different degrees of risk associated with management and a variety of different costs. The CCO also reviewed the differences in the nature of the services required for Federated to manage its proprietary mutual fund business versus managing a discrete pool of assets as a sub-adviser to another institution's mutual fund, and that Federated generally performs significant additional services and assumes substantially greater risk in managing the Fund and other Federated funds than in its role as sub-adviser to an unaffiliated third-party mutual fund. The CCO did not consider the fees for providing advisory services to Comparable Funds/Accounts to be determinative in judging the appropriateness of the Federated funds' advisory fees.

The CCO noted that the services, administrative responsibilities and risks associated with such relationships are quite different than serving as a primary adviser to a fund.

Following such evaluation, and full deliberations, the Board concluded that the fees and expenses of the Fund are reasonable and supported renewal of the Fund's investment advisory contract.

The Board considered the nature, extent and quality of the services provided to the Fund by the Adviser and the resources of the Adviser and its affiliates dedicated to the Fund. In this regard, the Board evaluated, among other things, the Adviser's personnel, experience, track record, overall reputation and willingness to invest in personnel and infrastructure that benefit the Fund. In addition, the Board reviewed the qualifications, backgrounds and responsibilities of the portfolio management team primarily responsible for the day-to-day management of the Fund and the Adviser's ability and experience in attracting and retaining qualified personnel to service the Fund. The Board noted the compliance program of the Adviser and the compliance-related resources provided to the Fund by the Adviser, including the Adviser's commitment to respond to rulemaking initiatives of the SEC. The Fund's ability to deliver competitive performance when compared to its Peer Group was also deemed to be relevant by the Board as a useful indicator of how the Adviser is executing the Fund's investment program. The Adviser's ability to execute this program was one of the Board's considerations in reaching a conclusion that the nature, extent and quality of the Adviser's investment management services warrant the continuation of the investment advisory contract.

In evaluating the Fund's investment performance, the Board considered performance results in light of the Fund's investment objective, strategies and risks, as disclosed in the Fund's prospectus. The Board considered detailed investment reports on the Fund's performance that were provided to the Board throughout the year and in connection with the May meetings. The CCO also reviewed information regarding the performance of other mutual funds in the Peer Group, noting the CCO's view that comparisons to fund peer groups may be helpful, though not conclusive, in evaluating the performance of the Adviser in managing the Fund. The Board considered, in evaluating such comparisons, that in some cases individual funds may exhibit significant and unique differences in their objectives and management techniques when compared to other funds within a Peer Group, and that the CCO had specifically noted that the Fund's quantitative focus makes fee and expense comparisons particularly difficult as the Peer Group of funds varied widely in their complexity, and the management of the Fund is among the more complex relative to its Peer Group.

The Fund's performance fell below the median of the relevant Peer Group for the one-year, three-year and five year periods covered by the CCO Fee Evaluation Report. In addition, the Board was informed by the Adviser that, for the same periods, the Fund underperformed its benchmark index for the one-year, three-year and five-year periods. The Board discussed the Fund's performance with the Adviser and recognized the efforts being taken by the Adviser in the context of other factors considered relevant by the Board.

Following such evaluation, and full deliberations, the Board concluded that the performance of the Fund supported renewal of the Fund's advisory contract.

The Board also received financial information about Federated, including information regarding the compensation and ancillary (or “fall-out”) benefits Federated derived from its relationships with the Federated funds. This information covered not only the fees under the investment advisory contracts, but also fees received by Federated’s subsidiaries for providing other services to the Federated funds under separate contracts (e.g., for serving as the Federated funds’ administrator and distributor). In this regard, the Board considered that certain Federated subsidiaries provide distribution and shareholder services to the Federated funds, for which they may be compensated through distribution and servicing fees paid pursuant to Rule 12b-1 plans or otherwise. The information also detailed any indirect benefit Federated may derive from its receipt of research services from brokers who execute Federated fund trades. In addition, the Board considered the fact that, in order for a Federated fund to be competitive in the marketplace, the Adviser and its affiliates frequently waived fees and/or reimbursed expenses and have disclosed to Federated fund investors and/or indicated to the Board their intention to do so in the future. Moreover, the Board receives regular reporting as to the institution, adjustment or elimination of these voluntary waivers. The Board considered Federated’s previous reductions in contractual management fees to certain Federated funds in response to the CCO’s recommendations.

Federated furnished information, requested by the CCO, that reported revenues on a fund-by-fund basis and made estimates of the allocation of expenses on a fund-by-fund basis, using allocation methodologies specified by the CCO. The CCO noted that, while these cost allocation reports apply consistent allocation processes, the inherent difficulties in allocating costs continues to cause the CCO to question the precision of the process and to conclude that such reports may be unreliable, since a single change in an allocation estimate may dramatically alter the resulting estimate of cost and/or profitability of a Federated fund and may produce unintended consequences. The allocation information, including the CCO’s view that fund-by-fund estimations may be unreliable, was considered in the evaluation by the Board.

The Board and the CCO also reviewed information compiled by Federated comparing its profitability information to other publicly held fund management companies, including information regarding profitability trends over time. In this regard, the CCO concluded that Federated’s profit margins did not appear to be excessive. The CCO also noted that Federated appeared financially sound, with the resources necessary to fulfill its obligations under its contracts with the Fund.

The CCO Fee Evaluation Report also discussed the notion of possible realization of “economies of scale” as a fund grows larger. In this regard, the Board considered that the Adviser has made significant and long-term investments in areas that support all of the Federated funds, such as personnel and processes for the portfolio management, shareholder services, compliance, internal audit and risk management functions, as well as systems technology

(including technology relating to cybersecurity) and that the benefits of these efforts (as well as any economies of scale, should they exist) were likely to be shared with the Federated fund family as a whole. The Board noted that the Adviser's investments in these areas are extensive. In addition, the Board considered that the Adviser and its affiliates have frequently waived fees and/or reimbursed expenses and that this has allowed fund shareholders to share potential economies of scale with shareholders. The Board also considered that such waivers and reimbursements can provide protection from an increase in expenses if a Federated fund's assets decline. Federated, as it does throughout the year, and specifically in connection with the Board's review of the advisory and subadvisory contracts, furnished information relative to revenue sharing or adviser-paid fees. Federated and the CCO noted that this information should be viewed to determine if there was an incentive to either not apply breakpoints, or to apply breakpoints at higher levels, and should not be viewed to determine the appropriateness of advisory fees because it would represent marketing and distribution expenses. The Board also noted the absence of any applicable regulatory or industry guidelines on this subject, which (as discussed in the CCO Fee Evaluation Report) is compounded by the lack of any common industry practice or general pattern with respect to structuring fund advisory fees with "breakpoints" that serve to reduce the fee as a fund attains a certain size.

The CCO stated that his observations and the information accompanying the CCO Fee Evaluation Report supported a finding by the Board that the management fee for the Fund was reasonable. Under these circumstances, no changes were recommended to, and no objection was raised to the continuation of, the Fund's investment advisory contract. The CCO also recognized that the Board's evaluation of the Federated funds' advisory and subadvisory arrangements is a continuing and on-going process that is informed by the information that the Board requests and receives from management throughout the course of the year and, in this regard, the CCO noted certain items for future reporting to the Board or further consideration by management as the Board continues its on-going oversight of the Federated funds.

In its decision to continue an existing investment advisory contract, the Board was mindful of the potential disruptions of the Fund's operations and various risks, uncertainties and other effects that could occur as a result of a decision to terminate or not renew an investment advisory contract. In particular, the Board recognized that many shareholders have invested in the Fund on the strength of the Adviser's industry standing and reputation and with the expectation that the Adviser will have a continuing role in providing advisory services to the Fund. Thus, the Board's approval of the investment advisory contract reflected the fact that it is the shareholders who have effectively selected the Adviser by virtue of

having invested in the Fund. The Board concluded that, in light of the factors summarized above, including the nature, quality and scope of the services provided to the Fund by the Adviser and its affiliates, continuation of the investment advisory contract was appropriate.

The Board based its decision to approve the investment advisory contract on the totality of the circumstances and relevant factors and with a view to past and future long-term considerations. Not all of the factors and considerations identified above were necessarily relevant to the Fund, nor did the Board consider any one of them to be determinative. With respect to the factors that were relevant, the Board's decision to approve the continuation of the contract reflects its view that Federated's performance and actions provided a satisfactory basis to support the decision to continue the existing arrangement.

Voting Proxies on Fund Portfolio Securities

A description of the policies and procedures that the Fund uses to determine how to vote proxies, if any, relating to securities held in the Fund's portfolio is available, without charge and upon request, by calling 1-800-341-7400. A report on "Form N-PX" of how the Fund voted any such proxies during the most recent 12-month period ended June 30 is available via the Proxy Voting Record (Form N-PX) link associated with the Fund and share class name at www.FederatedInvestors.com/FundInformation. Form N-PX filings are also available at the SEC's website at www.sec.gov.

Quarterly Portfolio Schedule

Each fiscal quarter, the Fund will file with the SEC a complete schedule of its monthly portfolio holdings on "Form N-PORT." The Fund's holdings as of the end of the third month of every fiscal quarter, as reported on Form N-PORT, will be publicly available on the SEC's website at www.sec.gov within 60 days of the end of the fiscal quarter upon filing. You may also access this information via the link to the Fund and share class name at www.FederatedInvestors.com/FundInformation.

Mutual funds are not bank deposits or obligations, are not guaranteed by any bank and are not insured or guaranteed by the U.S. government, the Federal Deposit Insurance Corporation, the Federal Reserve Board or any other government agency. Investment in mutual funds involves investment risk, including the possible loss of principal.

This Report is authorized for distribution to prospective investors only when preceded or accompanied by the Fund's Prospectus, which contains facts concerning its objective and policies, management fees, expenses and other information.

IMPORTANT NOTICE ABOUT FUND DOCUMENT DELIVERY

In an effort to reduce costs and avoid duplicate mailings, the Fund(s) intend to deliver a single copy of certain documents to each household in which more than one shareholder of the Fund(s) resides (so-called "householding"), as permitted by applicable rules. The Fund's "householding" program covers its/their Prospectus and Statement of Additional Information, and supplements to each, as well as Semi-Annual and Annual Shareholder Reports and any Proxies or information statements. Shareholders must give their written consent to participate in the "householding" program. The Fund is also permitted to treat a shareholder as having given consent ("implied consent") if (i) shareholders with the same last name, or believed to be members of the same family, reside at the same street address or receive mail at the same post office box, (ii) the Fund gives notice of its intent to "household" at least sixty (60) days before it begins "householding" and (iii) none of the shareholders in the household have notified the Fund(s) or their agent of the desire to "opt out" of "householding." Shareholders who have granted written consent, or have been deemed to have granted implied consent, can revoke that consent and opt out of "householding" at any time: shareholders who purchased shares through an intermediary should contact their representative; other shareholders may call the Fund at 1-800-341-7400.

Federated®

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Federated Investors Funds
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Warrendale, PA 15086-7561

Contact us at **FederatedInvestors.com**
or call 1-800-341-7400.

Federated Securities Corp., Distributor

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