Wilshire

WILSHIRE ASSOCIATES

Wilshire Consulting

Retirement Board of Allegheny County

Executive Summary of Investment Performance

March 31, 2019

TOTAL FUND

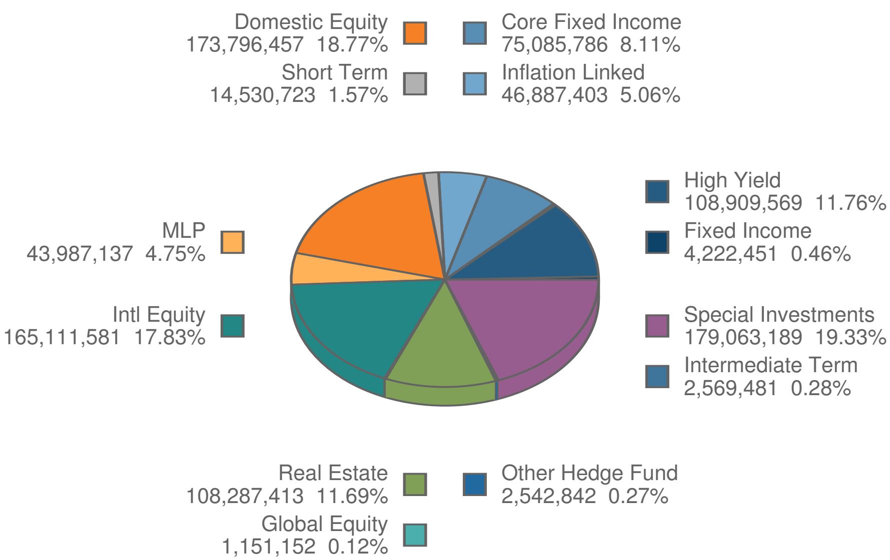
Wilshire Consulting

ACTUAL ALLOCATION VS POLICY ALLOCATION

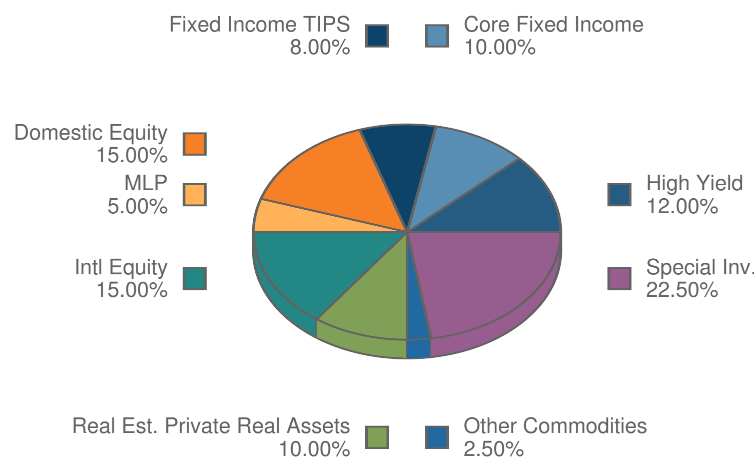
Total Fund Composite

As of March 31, 2019

Total Fund



Policy Index



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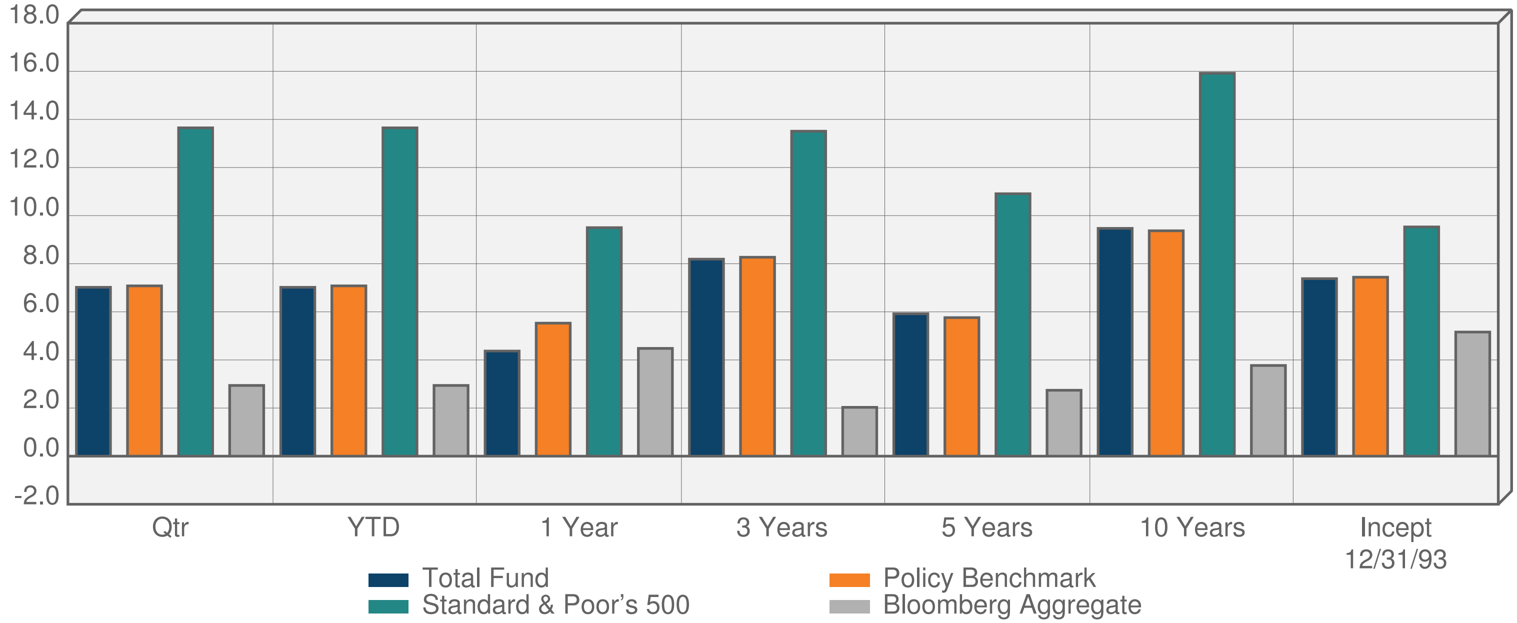
INVESTMENT PERFORMANCE

Total Fund Composite

Periods Ended March 31, 2019



Total Returns	Qtr	YTD	1 Year	3 Years	5 Years	10 Years	Incept 12/31/93
Total Fund	7.02	7.02	4.37	8.19	5.92	9.47	7.38
Policy Benchmark	7.08	7.08	5.53	8.27	5.76	9.37	7.44
Standard & Poor's 500	13.65	13.65	9.50	13.51	10.91	15.92	9.53
Bloomberg Aggregate	2.94	2.94	4.48	2.03	2.74	3.77	5.16

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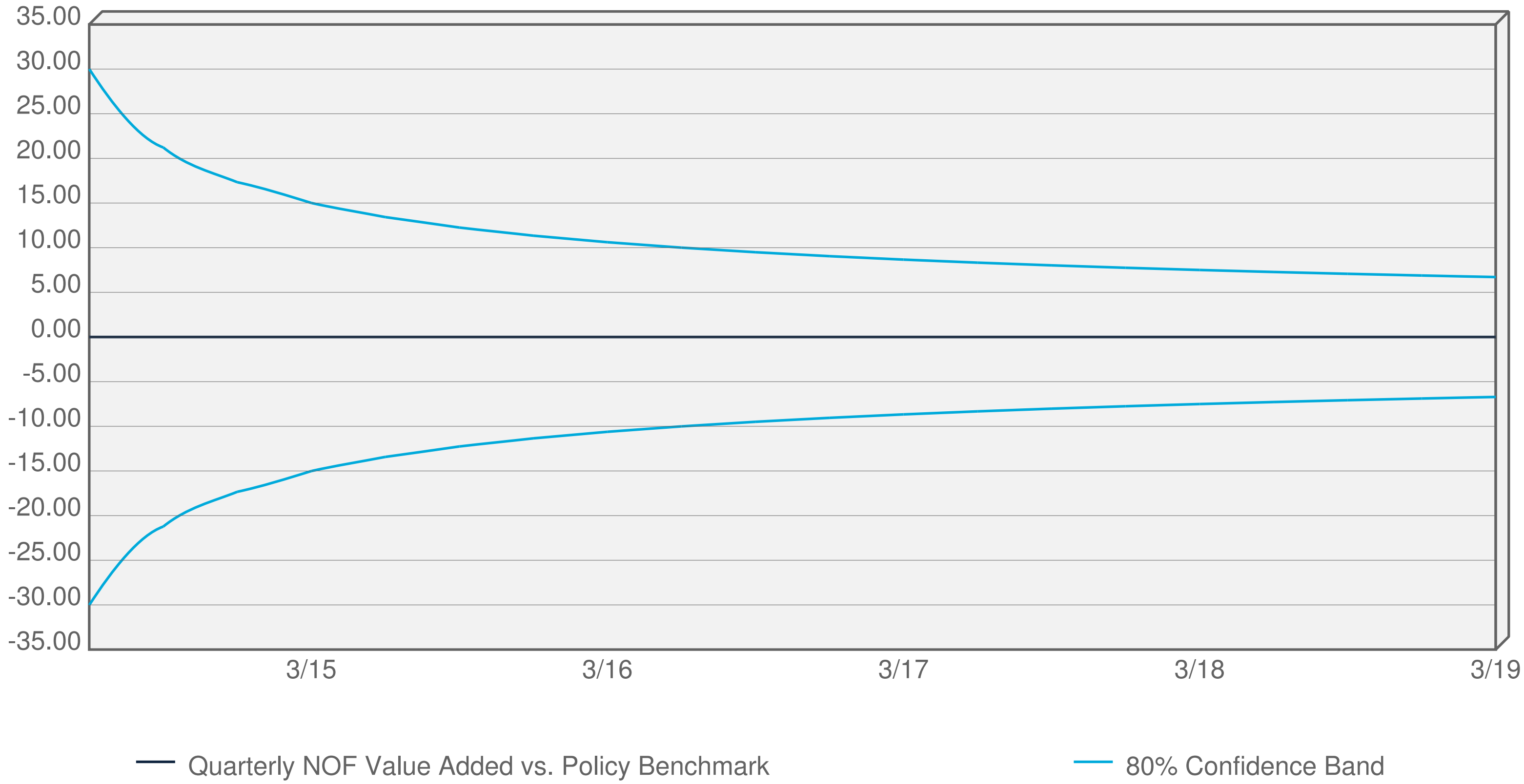
CUMULATIVE SKILL ANALYSIS

Total Fund Composite

Five Years Ending March 31, 2019



Excess Return:	1.27	Information Ratio:	0.14
Excess Risk:	9.13	T-Stat:	0.31

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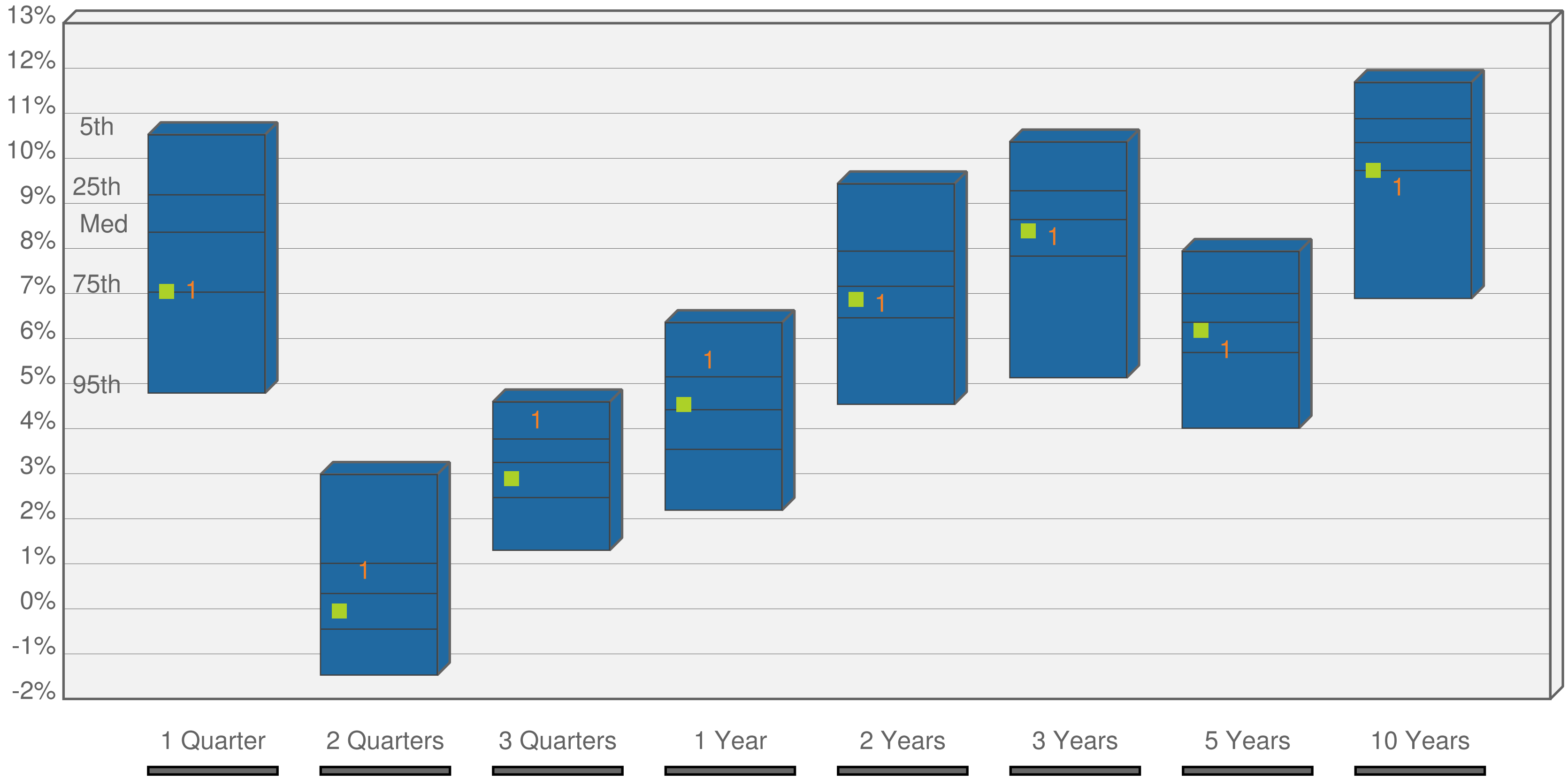
PERFORMANCE COMPARISON

Total Fund Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Total Fund	7.07 (73)	-0.02 (58)	2.92 (63)	4.56 (45)	6.90 (61)	8.42 (57)	6.21 (56)	9.76 (74)
1 Policy Benchmark	7.08 (73)	0.86 (30)	4.20 (13)	5.53 (15)	6.79 (67)	8.27 (64)	5.76 (74)	9.37 (79)
5th %tile	10.52	2.98	4.59	6.35	9.43	10.36	7.93	11.68
25th %tile	9.19	1.01	3.77	5.15	7.94	9.28	7.00	10.88
Median	8.36	0.34	3.25	4.42	7.16	8.64	6.36	10.35
75th %tile	7.03	-0.45	2.47	3.54	6.46	7.83	5.69	9.73
95th %tile	4.79	-1.47	1.30	2.19	4.54	5.13	4.01	6.89
Number of Funds	174	173	173	173	165	164	155	137

*TUCS Total Ret of Master Trusts - Public Universe - Gross of Fees

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PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
US Equity Composite									
Net of Fee Return	**14.12**	**-3.37**	**2.98**	**7.15**	**13.17**	**9.77**	**15.39**	**12/31/93**	**8.79**
Wilshire 5000	14.11	-2.20	4.91	8.93	13.59	10.52	15.99	12/31/93	9.51
Value Added	0.01	-1.17	-1.93	-1.78	-0.42	-0.75	-0.60	12/31/93	-0.71
Non US Equity Composite									
Net of Fee Return	**11.64**	**-4.28**	**-4.10**	**-6.90**	**8.28**	**3.83**	**9.32**	**12/31/00**	**4.80**
Policy Index	10.31	-2.80	-2.42	-4.96	7.94	2.74	8.94	12/31/00	3.85
Value Added	1.33	-1.48	-1.68	-1.93	0.34	1.09	0.38	12/31/00	0.95
Global Equity									
Net of Fee Return	**11.09**	**0.37**	**1.98**	**0.13**	**8.25**			**12/31/14**	**4.75**
MSCI ACWI (N)	12.18	-2.13	2.06	2.60	10.67			12/31/14	6.88
Value Added	-1.09	2.50	-0.08	-2.47	-2.42			12/31/14	-2.13
Core Fixed Composite									
Net of Fee Return	**3.18**	**3.92**	**4.16**	**4.10**	**2.14**	**2.52**	**4.03**	**9/30/82**	**7.65**
Bloomberg Aggregate	2.94	4.63	4.65	4.48	2.03	2.74	3.77	9/30/82	7.24
Value Added	0.24	-0.71	-0.49	-0.38	0.12	-0.22	0.27	9/30/82	0.40
High Yield Fixed Composite									
Net of Fee Return	**7.25**	**1.84**	**4.08**	**4.95**	**7.53**	**2.84**	**9.45**	**3/31/08**	**7.02**
Citi High Yield Market Capped	7.37	2.28	4.66	5.77	8.53	4.30	10.67	3/31/08	7.49
Value Added	-0.13	-0.45	-0.58	-0.81	-0.99	-1.46	-1.22	3/31/08	-0.47
TIPS Fixed Composite									
Net of Fee Return	**3.20**	**2.76**	**1.92**	**2.70**	**2.33**	**1.80**	**3.86**	**3/31/08**	**2.96**
Bloomberg U.S. TIPS	3.19	2.76	1.92	2.70	1.70	1.94	3.41	3/31/08	2.90
Value Added	0.00	-0.00	0.00	-0.00	0.63	-0.14	0.45	3/31/08	0.05

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PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
ERECT Composite									
Net of Fee Return	**4.06**	**14.39**	**16.07**	**16.76**	**9.26**	**8.04**		**9/30/10**	**7.70**
Real Estate Composite									
Net of Fee Return	**0.94**	**3.02**	**5.71**	**11.09**	**9.62**	**10.48**	**8.62**	**3/31/03**	**8.96**
NCREIF ODCE NOF	1.20	2.74	4.66	6.55	7.01	9.17	7.73	3/31/03	7.27
Value Added	-0.26	0.28	1.05	4.53	2.61	1.30	0.89	3/31/03	1.69
Hedge Fund Composite									
Net of Fee Return	**0.43**	**-4.80**	**-4.25**	**-1.51**	**3.01**	**-3.27**		**9/30/11**	**0.18**
91 Day T-Bill Index + 3%	1.34	2.66	3.91	5.13	4.19	3.74		9/30/11	3.52
Value Added	-0.91	-7.46	-8.16	-6.64	-1.19	-7.02		9/30/11	-3.35
MLP Composite									
Net of Fee Return	**20.53**	**-3.06**	**1.84**	**15.56**				**3/31/18**	**15.56**
Alerian MLP Index	16.82	-3.38	2.96	15.11				3/31/18	15.11
Value Added	3.70	0.33	-1.12	0.44				3/31/18	0.44
Life Settlement Composite									
Net of Fee Return	**0.19**	**-1.20**	**-0.65**	**-1.41**	**-5.23**	**-5.14**		**9/30/09**	**8.41**
Israel Bonds and Cash									
Net of Fee Return	**0.54**	**1.54**	**2.36**	**2.85**	**1.45**	**1.86**	**2.11**	**3/31/99**	**2.89**
Private Equity Composite									
Net of Fee Return	**0.93**	**2.65**	**7.97**	**8.70**	**9.71**	**11.12**	**10.60**	**3/31/03**	**6.57**
RBAC Custom Private Equity Bench	0.93	2.65	7.97	8.70	9.71	11.12	10.60	3/31/03	6.57
Value Added	-0.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	3/31/03	0.00

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PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Total Fund									
Net of Fee Return	**7.02**	**-0.11**	**2.78**	**4.37**	**8.19**	**5.92**	**9.47**	**12/31/93**	**7.38**
Policy Benchmark	7.08	0.86	4.20	5.53	8.27	5.76	9.37	12/31/93	7.44
Value Added	-0.06	-0.97	-1.42	-1.16	-0.08	0.16	0.10	12/31/93	-0.05

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CUSTOM BENCHMARK SPECIFICATION

Total Fund

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Policy Benchmark	12/93	12/06	65.00	Russell 3000
			35.00	Bloomberg Aggregate
	3/07	6/08	5.00	RBAC Custom Private Equity Benchmark
			45.00	Wilshire 5000
			25.00	Bloomberg Aggregate
			10.00	MSCI EAFE Index (N)
			5.00	Bloomberg Commodity Index
			5.00	91-Day T-Bill + 3.0% Ann (Monthly)
			5.00	NCREIF ODCE NOF
	9/08	9/08	5.00	RBAC Custom Private Equity Benchmark
			5.00	NCREIF ODCE NOF
			5.00	91-Day T-Bill + 3.0% Ann (Monthly)
			5.00	Bloomberg Commodity Index
			10.00	MSCI ACWI ex US (N)
			25.00	Bloomberg Aggregate
			45.00	Wilshire 5000
	12/08	6/09	5.00	RBAC Custom Private Equity Benchmark
			2.50	91-Day T-Bill + 3.0% Ann (Monthly)
			5.00	FTSE High Yield Market Capped
			5.00	Bloomberg U.S. TIPS
			5.00	Bloomberg Commodity Index
			7.50	NCREIF ODCE NOF
			15.00	MSCI ACWI ex US (N)
			20.00	Bloomberg Aggregate
			35.00	Wilshire 5000
	9/09	3/10	5.00	RBAC Custom Private Equity Benchmark
			30.00	Wilshire 5000
			20.00	MSCI ACWI ex US (N)
			15.00	Bloomberg Aggregate

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CUSTOM BENCHMARK SPECIFICATION

Total Fund

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Policy Benchmark (cont.)			10.00	FTSE High Yield Market Capped
			10.00	NCREIF ODCE NOF
			7.50	Bloomberg U.S. TIPS
			2.50	Bloomberg Commodity Index
	6/10	12/12	10.00	RBAC Custom Private Equity Benchmark
			5.00	Bloomberg Commodity Index
			6.00	Bloomberg U.S. TIPS
			10.00	NCREIF ODCE NOF
			10.00	FTSE High Yield Market Capped
			14.00	Bloomberg Aggregate
			20.00	Wilshire 5000
			25.00	MSCI ACWI ex US (N)
	3/13	12/17	5.00	Bloomberg U.S. TIPS
			8.00	Bloomberg Commodity Index
			10.00	NCREIF ODCE NOF
			10.00	Bloomberg Aggregate
			12.00	FTSE High Yield Market Capped
			16.10	Wilshire 5000
			18.90	MSCI ACWI ex US (N)
			20.00	RBAC Custom Private Equity Benchmark
	3/18	3/18	100.00	RBAC Custom Transition Benchmark
	6/18	3/19	10.00	NCREIF ODCE NOF
			5.00	Alerian MLP Index
			12.00	FTSE High Yield Market Capped
			10.00	Bloomberg Aggregate
			20.00	RBAC Custom Private Equity Benchmark
			19.00	MSCI ACWI ex US (N)
			19.00	Wilshire 5000
			5.00	Bloomberg U.S. TIPS

US EQUITY

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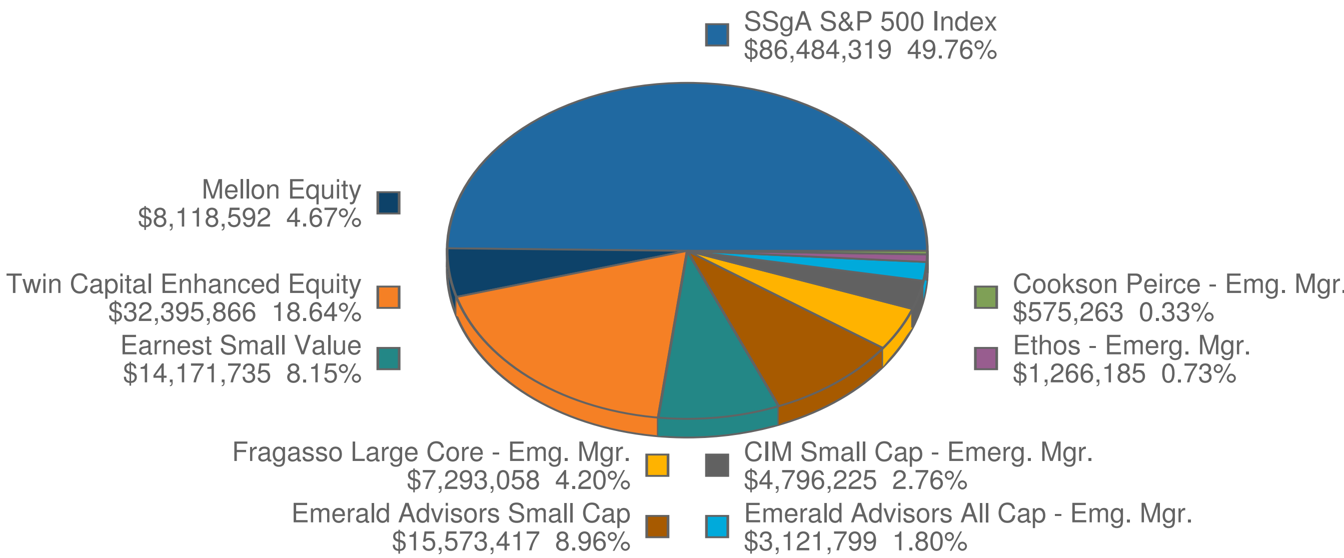
MANAGER ALLOCATION

US Equity Composite

As of March 31, 2019



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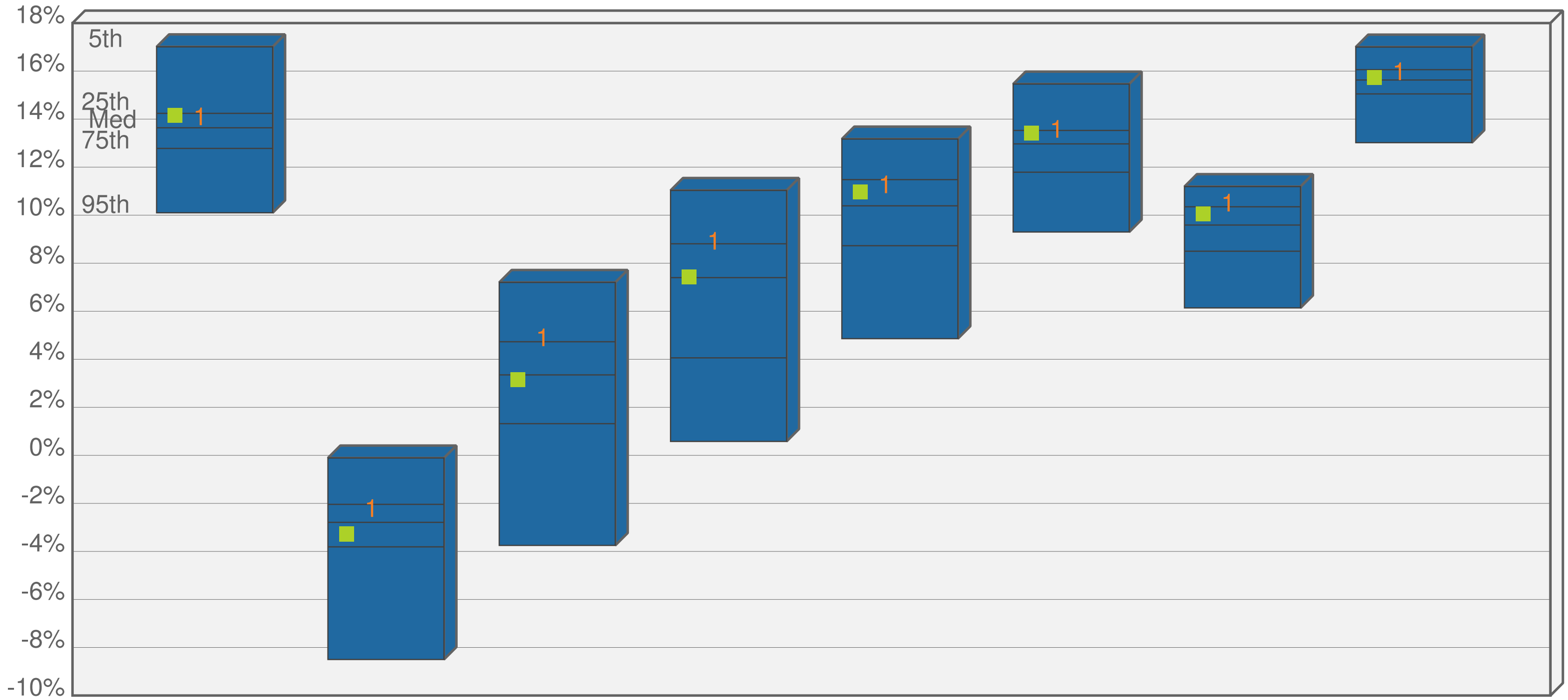
PERFORMANCE COMPARISON

US Equity Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
US Equity Composite	14.20 (26)	-3.23 (67)	3.21 (51)	7.49 (48)	11.02 (36)	13.48 (30)	10.10 (34)	15.79 (45)
1 Wilshire 5000	14.11 (28)	-2.20 (26)	4.91 (21)	8.93 (19)	11.28 (33)	13.59 (21)	10.52 (20)	15.99 (30)
5th %tile	17.01	-0.11	7.20	11.03	13.17	15.46	11.19	17.00
25th %tile	14.24	-2.04	4.73	8.81	11.48	13.53	10.35	16.06
Median	13.64	-2.79	3.35	7.40	10.39	12.97	9.59	15.63
75th %tile	12.78	-3.81	1.32	4.06	8.73	11.79	8.50	15.05
95th %tile	10.10	-8.50	-3.75	0.58	4.86	9.30	6.14	13.02
Number of Funds	147	147	145	142	123	116	105	84

*TUCS Total Ret of US Equity Investment Pools Universe - Gross of Fees

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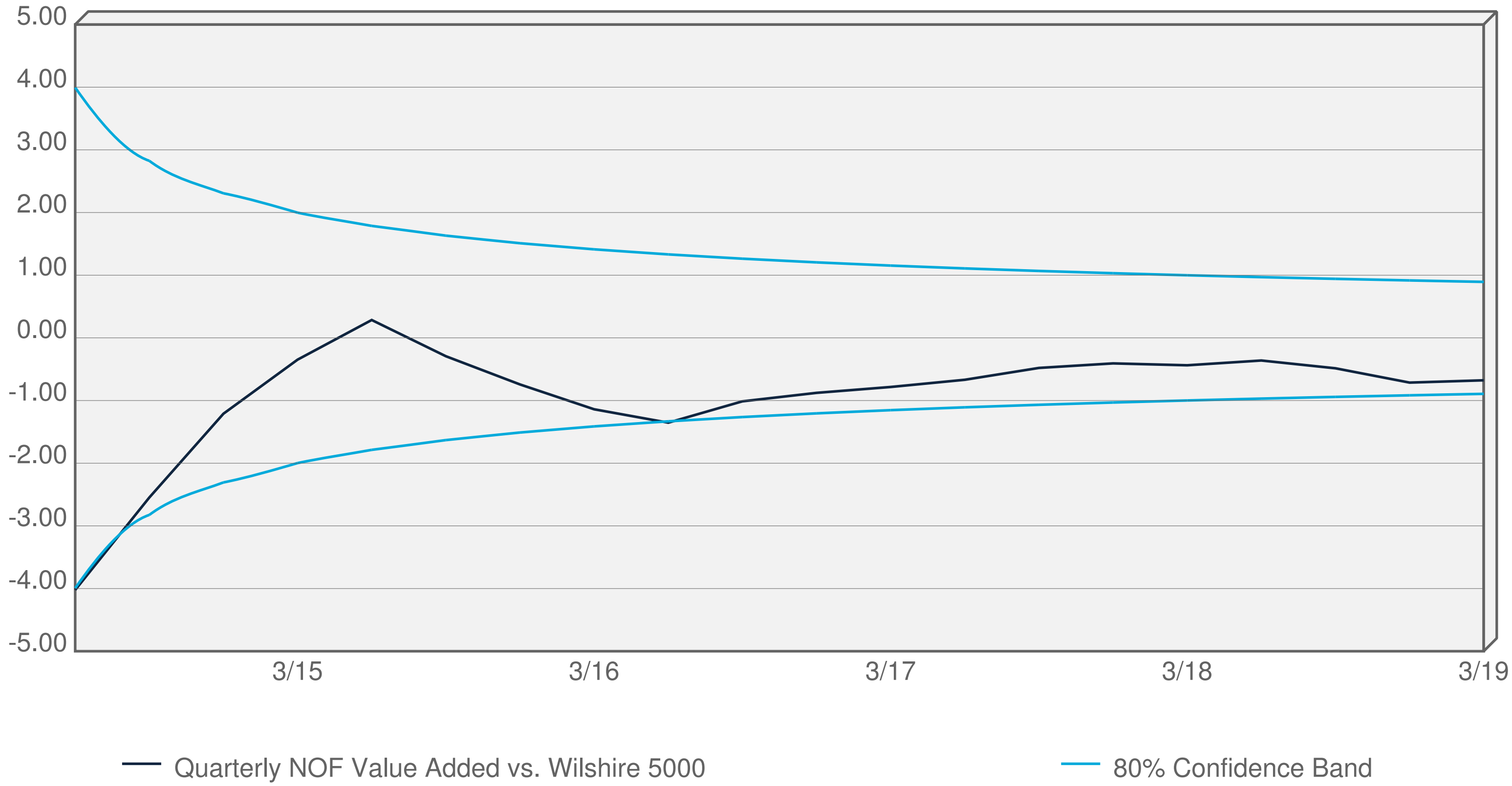
CUMULATIVE SKILL ANALYSIS

US Equity Composite

Five Years Ending March 31, 2019



Excess Return:	-0.68	Information Ratio:	-0.56
Excess Risk:	1.21	T-Stat:	-1.25

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PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
SSgA S&P 500 Index									
Net of Fee Return	**13.64**	**-1.71**	**5.85**	**9.47**	**13.52**	**10.93**	**15.95**	**12/31/07**	**8.35**
Standard & Poor's 500	13.65	-1.72	5.86	9.50	13.51	10.91	15.92	12/31/07	8.31
Value Added	-0.01	0.00	-0.01	-0.03	0.01	0.02	0.03	12/31/07	0.04
Mellon Equity									
Net of Fee Return	**11.82**	**-3.48**	**2.05**	**4.57**	**11.27**	**8.97**	**14.81**	**3/31/94**	**9.53**
Standard & Poor's 500	13.65	-1.72	5.86	9.50	13.51	10.91	15.92	3/31/94	9.80
Value Added	-1.83	-1.76	-3.81	-4.93	-2.24	-1.94	-1.10	3/31/94	-0.28
Twin Capital Enhanced Equity									
Net of Fee Return	**12.74**	**-2.78**	**3.64**	**6.73**	**12.01**	**10.08**	**15.56**	**12/31/05**	**8.52**
Standard & Poor's 500	13.65	-1.72	5.86	9.50	13.51	10.91	15.92	12/31/05	8.65
Value Added	-0.91	-1.06	-2.22	-2.77	-1.50	-0.83	-0.36	12/31/05	-0.13
Earnest Small Value									
Net of Fee Return	**12.51**	**-8.69**	**-6.44**	**-2.69**	**11.72**	**7.89**		**6/30/09**	**13.60**
Russell 2000 Value	11.93	-8.97	-7.51	0.17	10.86	5.59		6/30/09	12.58
Value Added	0.58	0.28	1.07	-2.86	0.86	2.29		6/30/09	1.02
Emerald Advisors Small Cap									
Net of Fee Return	**20.68**	**-6.57**	**-0.64**	**8.48**	**16.78**	**9.91**	**18.40**	**9/30/04**	**10.85**
Russell 2000 Growth	17.14	-8.22	-3.15	3.85	14.87	8.41	16.52	9/30/04	9.48
Value Added	3.54	1.65	2.51	4.62	1.91	1.50	1.88	9/30/04	1.37
Fragasso Large Core - Emg. Mgr.									
Net of Fee Return	**12.63**	**-0.06**	**8.46**	**11.44**	**12.97**	**9.16**		**9/30/12**	**12.20**
Standard & Poor's 500	13.65	-1.72	5.86	9.50	13.51	10.91		9/30/12	13.32
Value Added	-1.02	1.66	2.60	1.94	-0.54	-1.75		9/30/12	-1.12

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PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

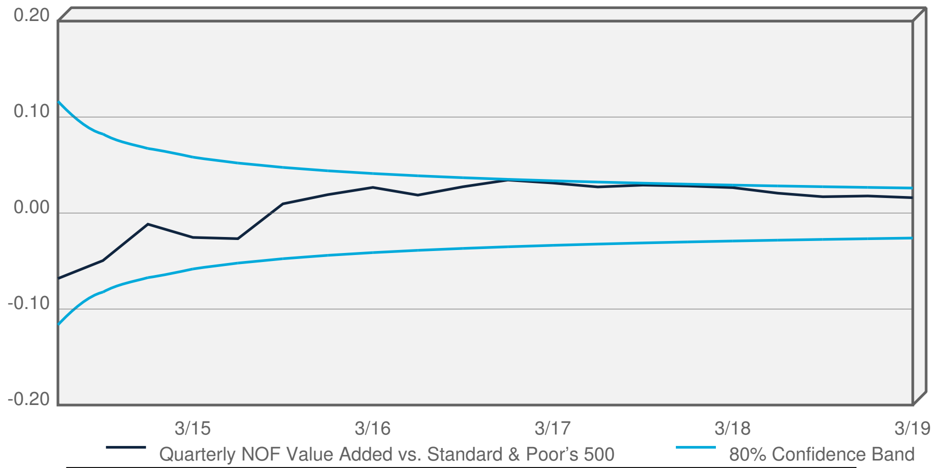
	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Ethos - Emerg. Mgr.									
Net of Fee Return	**15.89**	**-0.63**	**5.36**	**9.11**				**9/30/16**	**14.70**
Standard & Poor's 500	13.65	-1.72	5.86	9.50				9/30/16	13.57
Value Added	2.25	1.09	-0.51	-0.39				9/30/16	1.13
CIM Small Cap - Emerg. Mgr.									
Net of Fee Return	**14.34**	**-11.86**	**-9.70**	**-2.85**	**9.61**	**4.69**		**12/31/13**	**4.95**
Russell 2000	14.58	-8.56	-5.29	2.05	12.92	7.05		12/31/13	6.93
Value Added	-0.25	-3.30	-4.41	-4.90	-3.31	-2.36		12/31/13	-1.98
Emerald Advisors All Cap - Emg. Mgr.									
Net of Fee Return	**19.90**	**-6.54**	**1.11**	**8.64**	**18.02**			**9/30/15**	**13.06**
Russell 3000 Growth	16.18	-2.80	5.84	12.06	16.40			9/30/15	16.27
Value Added	3.72	-3.75	-4.73	-3.42	1.61			9/30/15	-3.21
Cookson Peirce - Emg. Mgr.									
Net of Fee Return	**14.38**							**12/31/18**	**14.38**
Russell 3000	14.04							12/31/18	14.04
Value Added	0.34							12/31/18	0.34
US Equity Composite									
Net of Fee Return	**14.12**	**-3.37**	**2.98**	**7.15**	**13.17**	**9.77**	**15.39**	**12/31/93**	**8.79**
Wilshire 5000	14.11	-2.20	4.91	8.93	13.59	10.52	15.99	12/31/93	9.51
Value Added	0.01	-1.17	-1.93	-1.78	-0.42	-0.75	-0.60	12/31/93	-0.71

INVESTMENT MANAGER ANALYSIS

SSgA S&P 500 Index

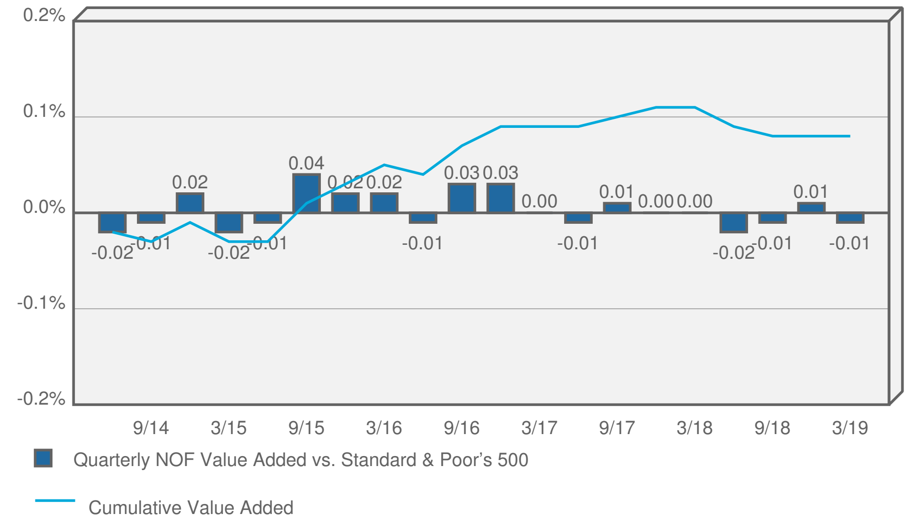
March 31, 2019

Cumulative Skill Analysis vs Benchmark

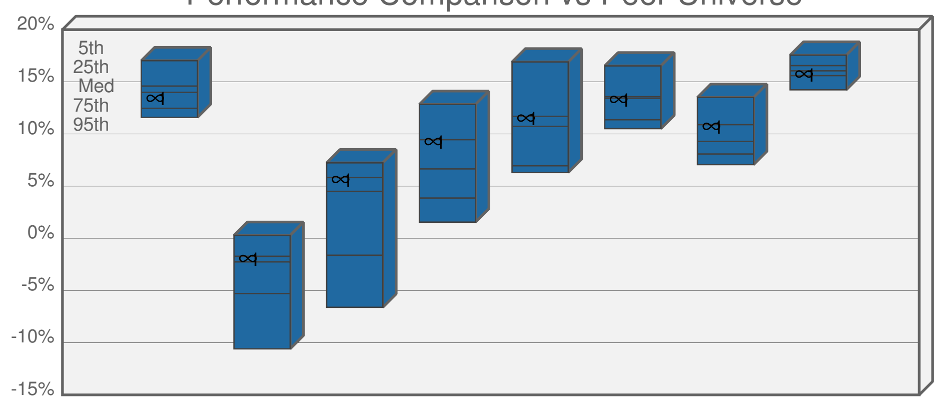


Excess Return:	0.02	Information Ratio:	0.45
Excess Risk:	0.04	T-Stat:	1.01

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
∞ SSgA S&P 500 I	13.64 (63)	-1.71 (24)	5.86 (22)	9.49 (22)	11.74 (17)	13.53 (32)	10.95 (18)	15.96 (56)
1 Standard & Poo	13.65 (62)	-1.72 (29)	5.86 (22)	9.50 (20)	11.72 (23)	13.51 (38)	10.91 (23)	15.92 (65)
Median	13.99	-2.26	4.50	6.65	10.73	13.42	9.29	16.05
Number of Funds	124	124	124	124	124	120	107	96

*Compass Total Returns of Passive U.S. Equity Portfolios Universe - Gross of Fees

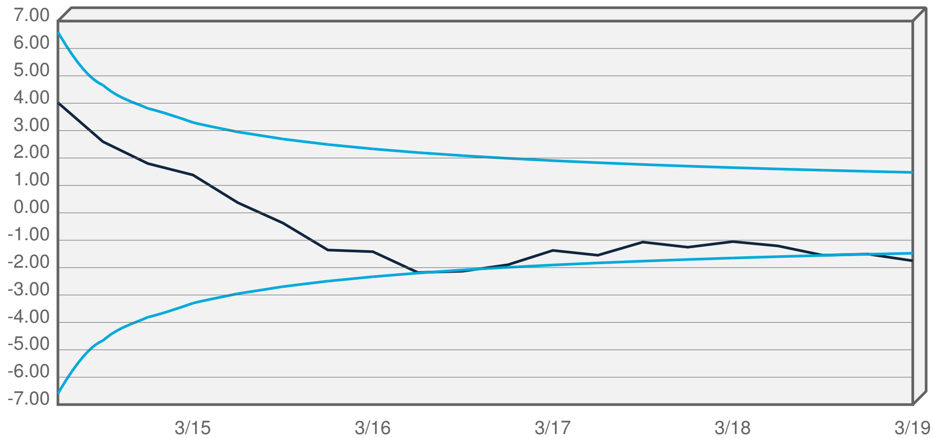
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Mellon Equity

March 31, 2019

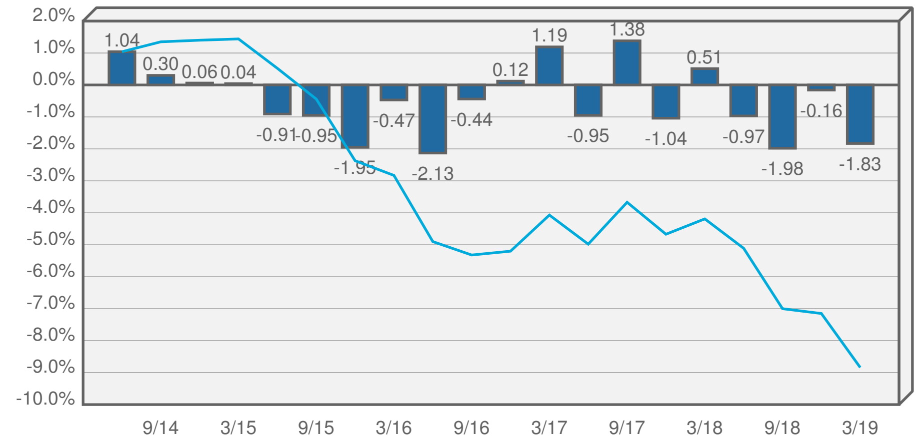
Cumulative Skill Analysis vs Benchmark



Quarterly NOF Value Added vs. Standard & Poor's 500 — 80% Confidence Band

Excess Return:	-1.75	Information Ratio:	-0.87
Excess Risk:	2.01	T-Stat:	-1.95

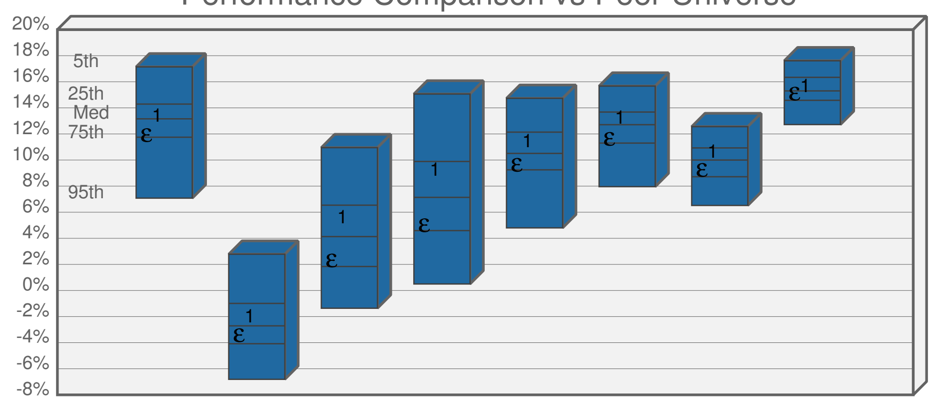
Value-Added Analysis vs Benchmark



Quarterly NOF Value Added vs. Standard & Poor's 500

Cumulative Value Added

Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
ε Mellon Equity	12.13 (70)	-3.21 (55)	2.52 (67)	5.22 (69)	9.85 (64)	11.84 (67)	9.46 (66)	15.31 (49)
1 Standard & Poo	13.65 (35)	-1.72 (35)	5.86 (31)	9.50 (27)	11.72 (30)	13.51 (32)	10.91 (25)	15.92 (34)
Median	13.16	-2.71	4.13	7.14	10.51	12.71	10.00	15.30
Number of Funds	157	156	155	155	154	152	146	121

*Compass Total Returns of Active Large Core Equity Portfolios Universe - Gross of Fees

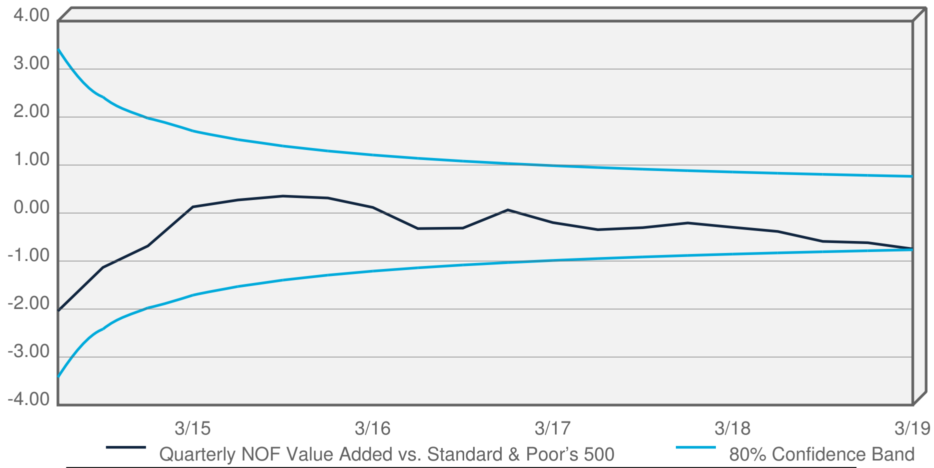
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Twin Capital Enhanced Equity

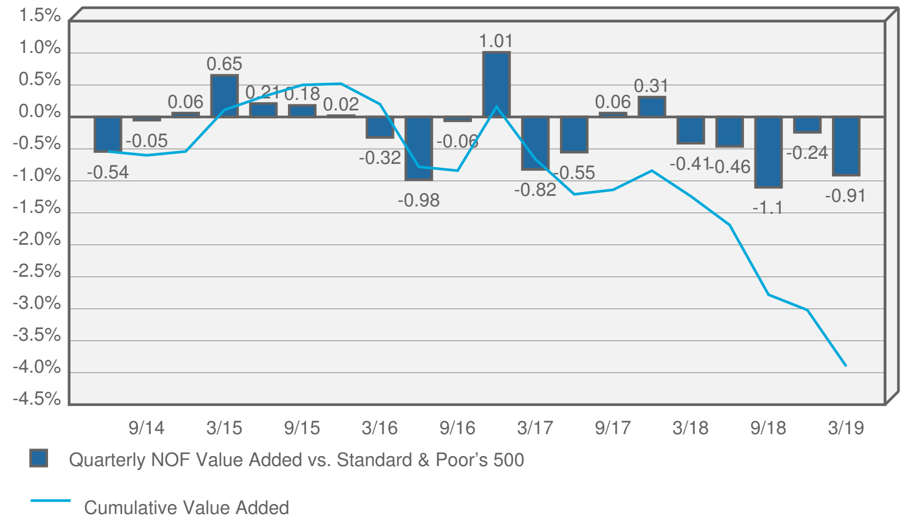
March 31, 2019

Cumulative Skill Analysis vs Benchmark

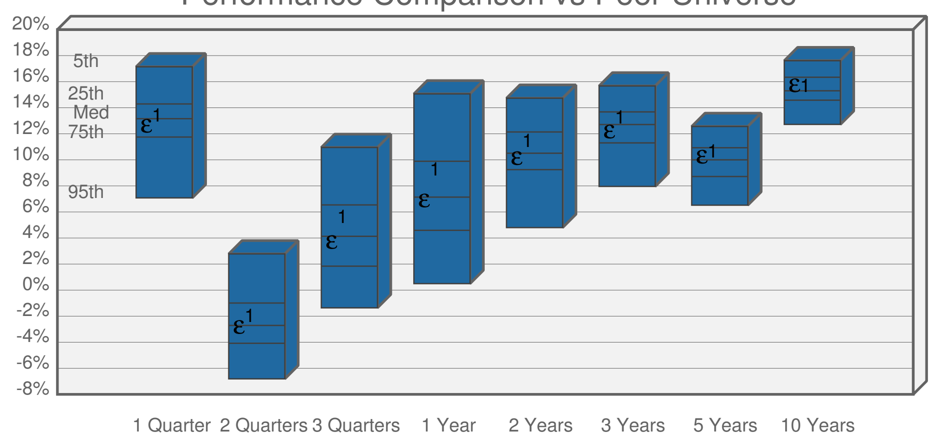


Excess Return:	-0.75	Information Ratio:	-0.72
Excess Risk:	1.04	T-Stat:	-1.61

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
ε Twin Capital E	12.83 (55)	-2.61 (48)	3.91 (54)	7.10 (50)	10.35 (51)	12.39 (55)	10.46 (34)	15.94 (34)
1 Standard & Poo	13.65 (35)	-1.72 (35)	5.86 (31)	9.50 (27)	11.72 (30)	13.51 (32)	10.91 (25)	15.92 (34)
Median	13.16	-2.71	4.13	7.14	10.51	12.71	10.00	15.30
Number of Funds	157	156	155	155	154	152	146	121

*Compass Total Returns of Active Large Core Equity Portfolios Universe - Gross of Fees

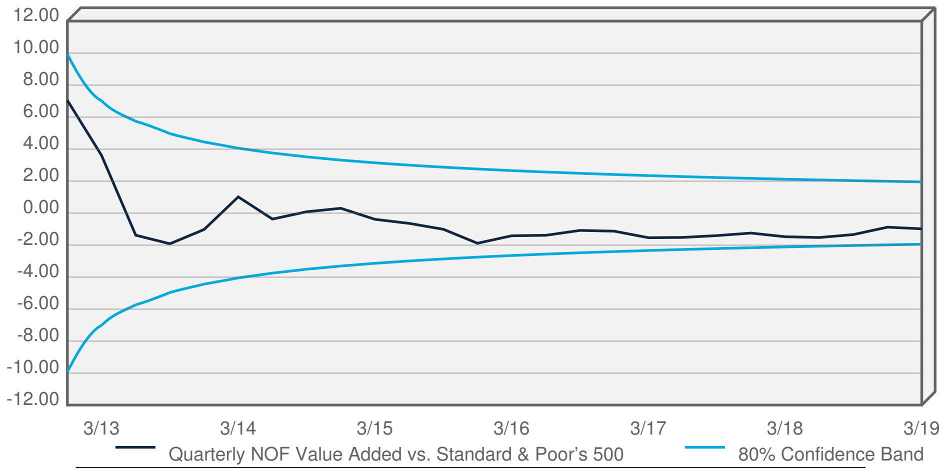
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Fragasso Large Core - Emg. Mgr.

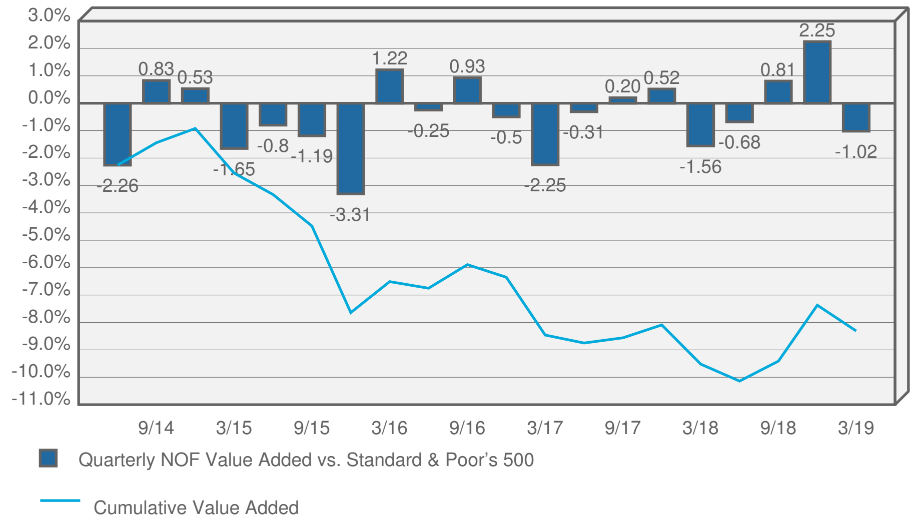
March 31, 2019

Cumulative Skill Analysis vs Benchmark

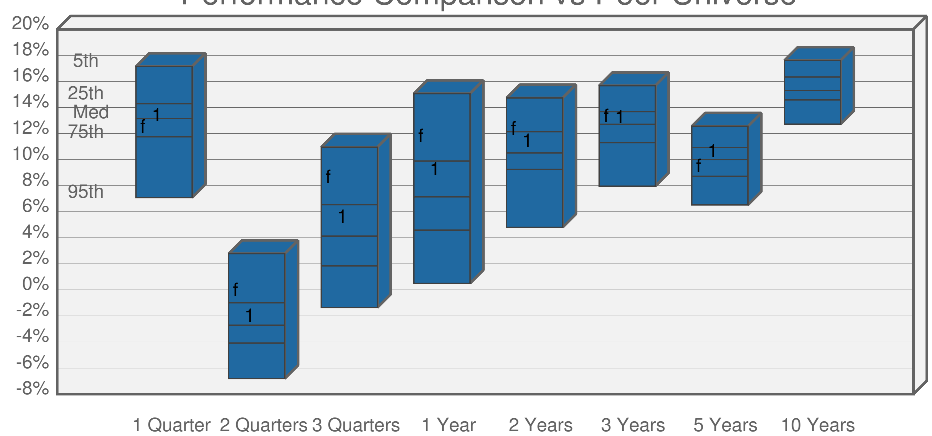


Excess Return:	-0.99	Information Ratio:	-0.33
Excess Risk:	3.02	T-Stat:	-0.80

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
f Fragasso Large	12.78 (56)	0.21 (17)	8.90 (11)	12.05 (10)	12.64 (16)	13.58 (30)	9.75 (58)	
1 Standard & Poo	13.65 (35)	-1.72 (35)	5.86 (31)	9.50 (27)	11.72 (30)	13.51 (32)	10.91 (25)	
Median	13.16	-2.71	4.13	7.14	10.51	12.71	10.00	15.30
Number of Funds	157	156	155	155	154	152	146	121

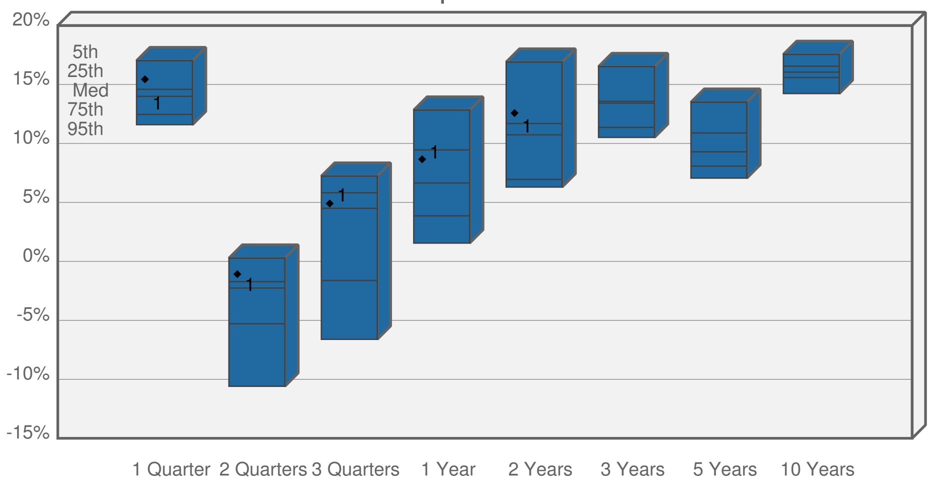
*Compass Total Returns of Active Large Core Equity Portfolios Universe - Gross of Fees

INVESTMENT MANAGER ANALYSIS

Ethos - Emerg. Mgr.

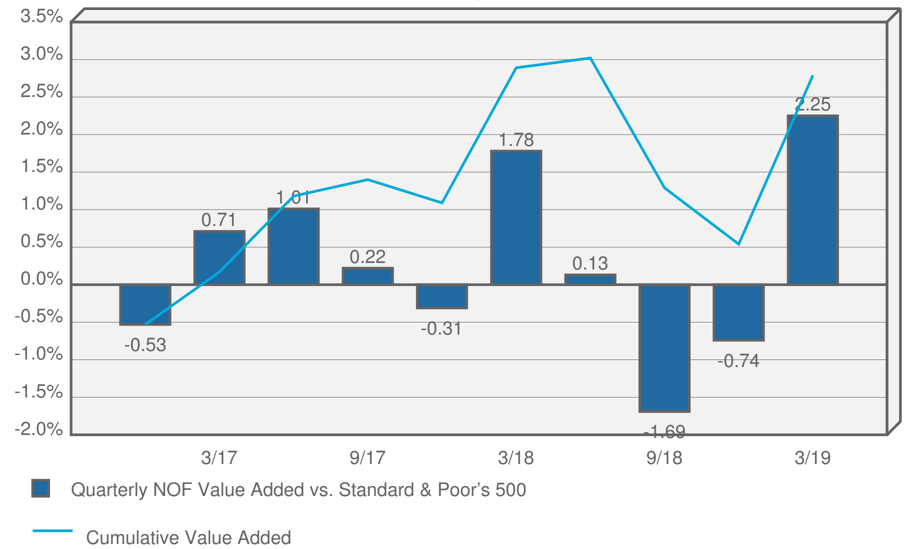
March 31, 2019

Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◆ Ethos - Emerg.	15.89 (15)	-0.63 (6)	5.36 (35)	9.11 (33)	13.03 (9)			
1 Standard & Poo	13.65 (62)	-1.72 (29)	5.86 (22)	9.50 (20)	11.72 (23)			
Median	13.99	-2.26	4.50	6.65	10.73	13.42	9.29	16.05
Number of Funds	124	124	124	124	124	120	107	96

Value-Added Analysis vs Benchmark



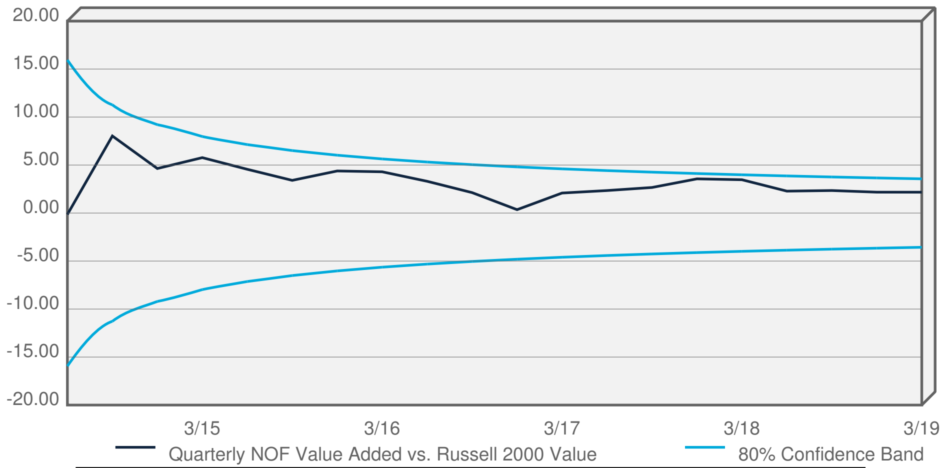
*Compass Total Returns of Passive U.S. Equity Portfolios Universe - Gross of Fees

INVESTMENT MANAGER ANALYSIS

Earnest Small Value

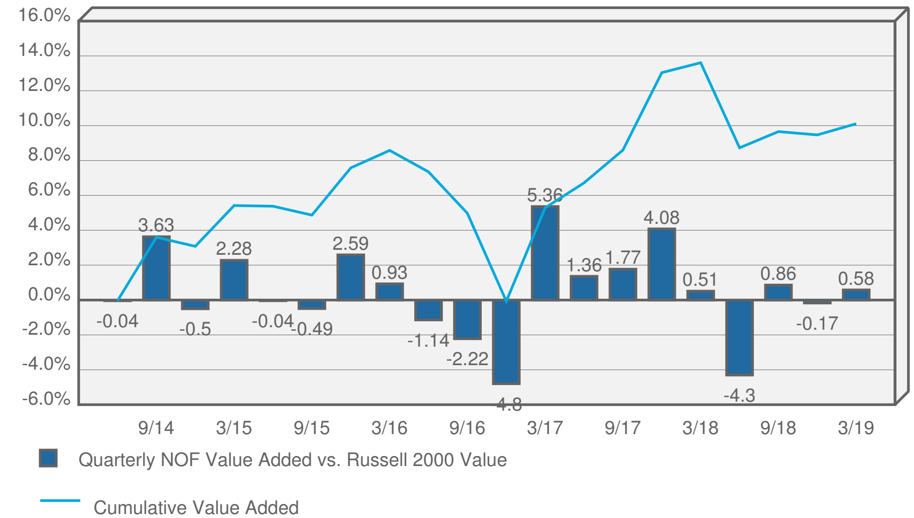
March 31, 2019

Cumulative Skill Analysis vs Benchmark

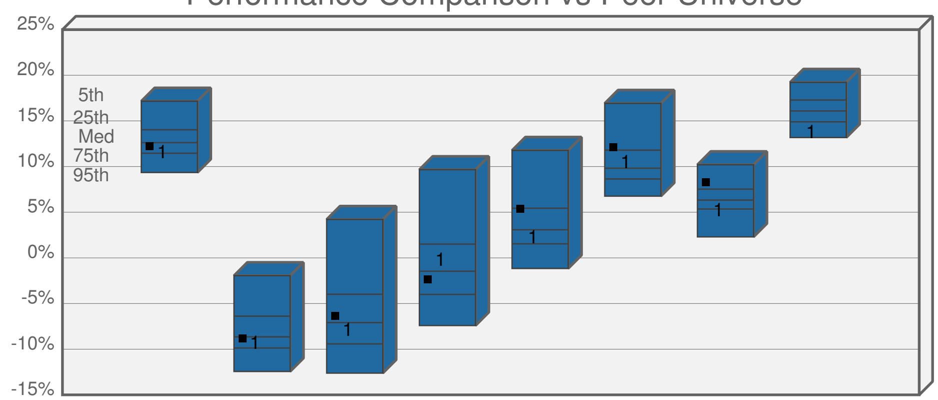


Excess Return:	2.17	Information Ratio:	0.45
Excess Risk:	4.85	T-Stat:	1.00

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ Earnest Small	12.79 (47)	-8.23 (41)	-5.78 (37)	-1.79 (54)	5.94 (20)	12.73 (18)	8.88 (11)	
1 Russell 2000 V	11.93 (67)	-8.97 (57)	-7.51 (57)	0.17 (36)	2.62 (55)	10.86 (33)	5.59 (68)	14.11 (89)
Median	12.62	-8.65	-7.09	-1.46	3.08	9.82	6.33	16.09
Number of Funds	169	169	166	166	165	164	158	139

*Compass Total Returns of Active Small Cap Value Equity Portfolios Universe - Gross of Fees

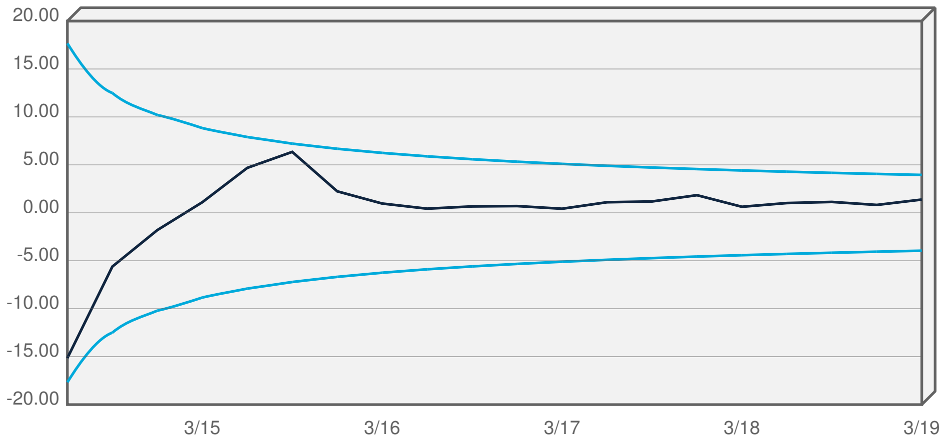
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Emerald Advisors Small Cap

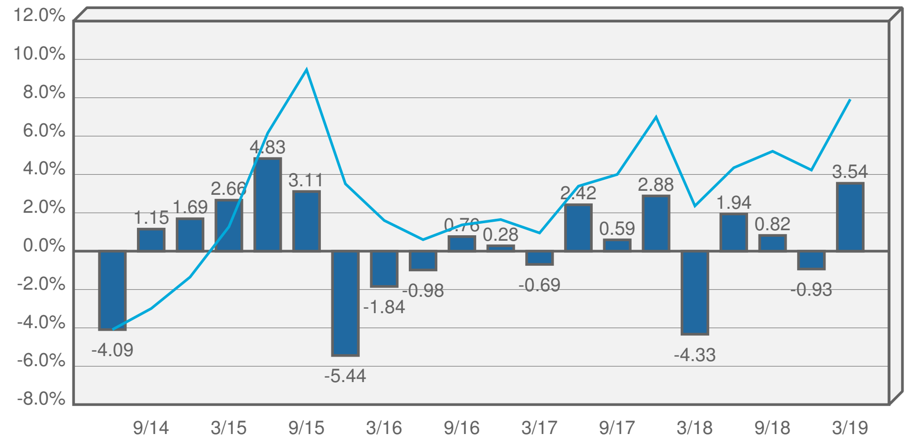
March 31, 2019

Cumulative Skill Analysis vs Benchmark

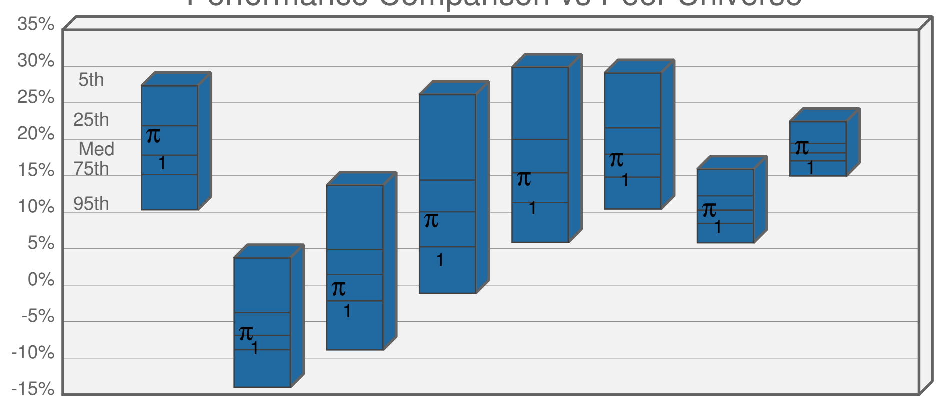


Excess Return:	1.38	Information Ratio:	0.26
Excess Risk:	5.37	T-Stat:	0.58

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π Emerald Adviso	20.88 (30)	-6.22 (44)	-0.09 (57)	9.27 (56)	14.98 (54)	17.61 (53)	10.71 (44)	19.26 (27)
1 Russell 2000 G	17.14 (56)	-8.22 (69)	-3.15 (81)	3.85 (81)	11.00 (77)	14.87 (74)	8.41 (77)	16.52 (82)
Median	17.82	-6.90	1.47	10.06	15.40	17.95	10.29	18.13
Number of Funds	139	139	137	137	137	137	135	127

*Compass Total Returns of Active Small Cap Growth Equity Portfolios Universe - Gross of Fees

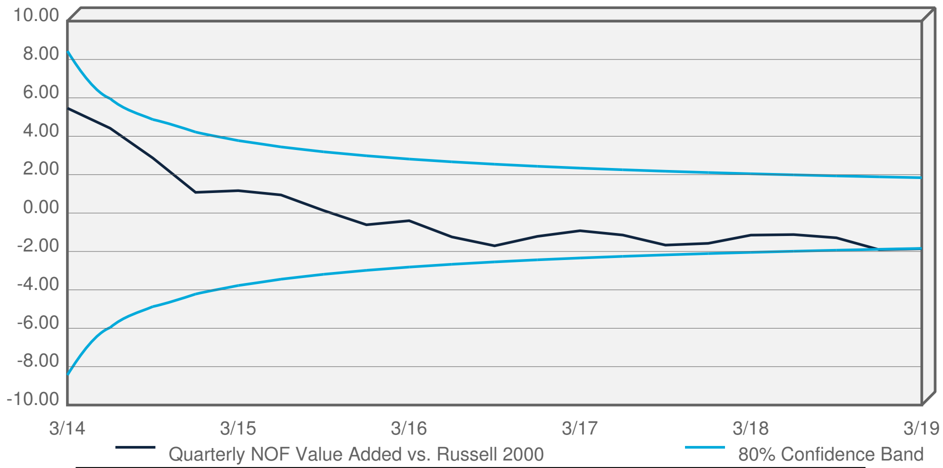
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

CIM Small Cap - Emerg. Mgr.

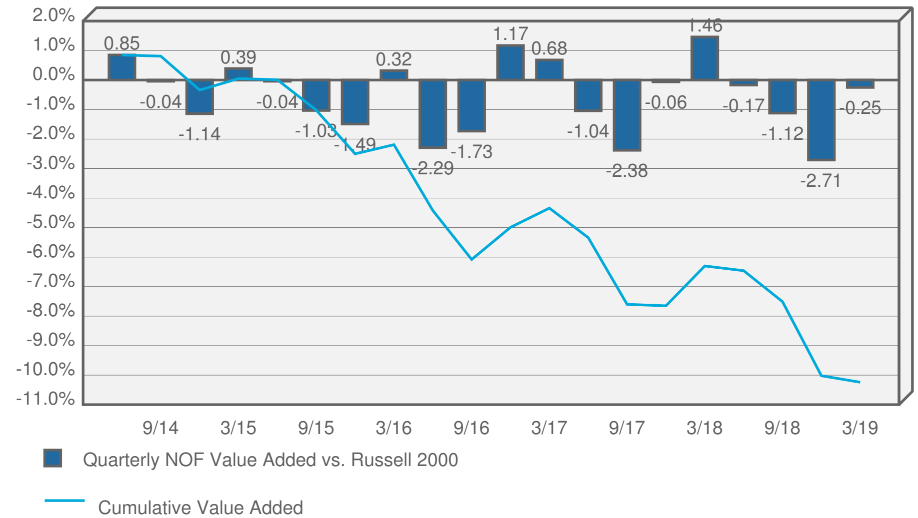
March 31, 2019

Cumulative Skill Analysis vs Benchmark

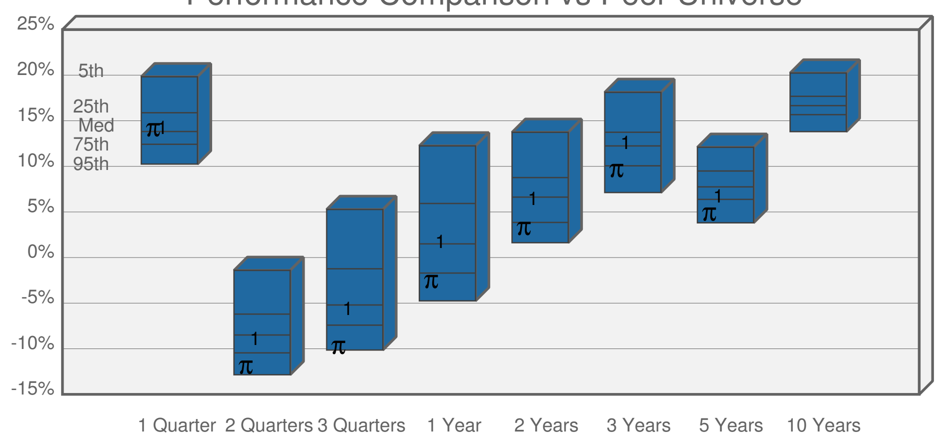


Excess Return:	-1.86	Information Ratio:	-0.72
Excess Risk:	2.56	T-Stat:	-1.62

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π CIM Small Cap	14.34 (45)	-11.69 (87)	-9.52 (91)	-2.30 (80)	3.52 (77)	9.87 (78)	5.09 (89)	
1 Russell 2000	14.58 (43)	-8.56 (50)	-5.29 (52)	2.05 (47)	6.81 (46)	12.92 (35)	7.05 (68)	
Median	13.82	-8.49	-5.20	1.50	6.63	12.24	7.75	16.66
Number of Funds	117	116	115	114	113	113	111	97

*Compass Total Returns of Active Small Cap Core Equity Portfolios Universe - Gross of Fees

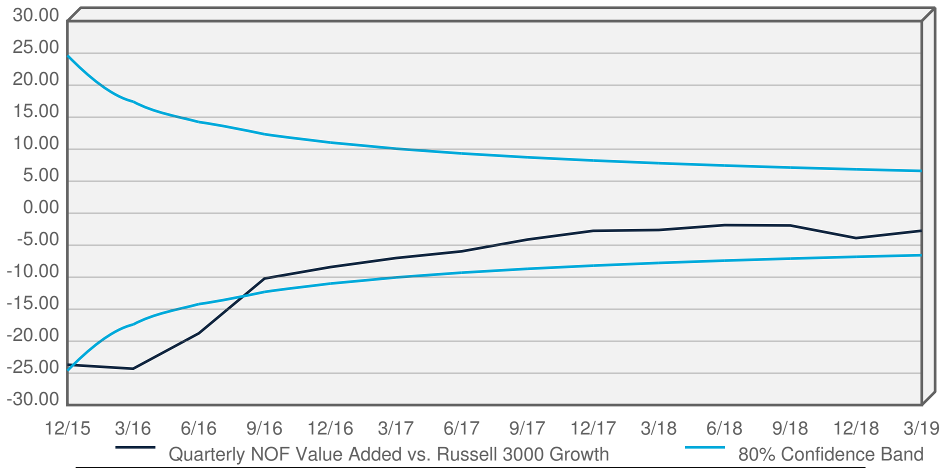
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Emerald Advisors All Cap - Emg. Mgr.

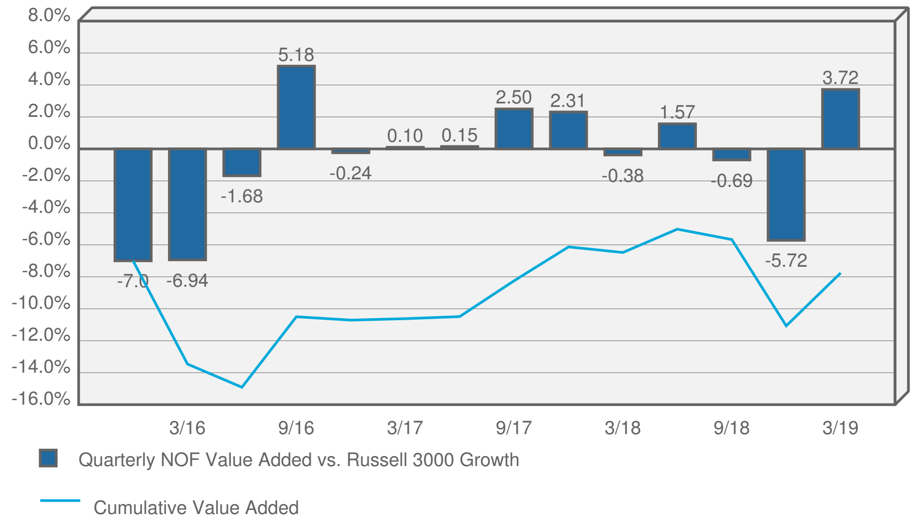
March 31, 2019

Cumulative Skill Analysis vs Benchmark

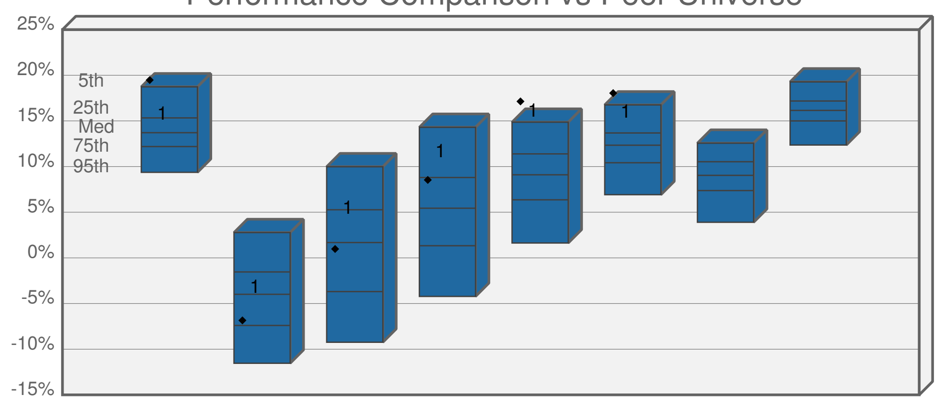


Excess Return:	-2.76	Information Ratio:	-0.37
Excess Risk:	7.49	T-Stat:	-0.64

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◆ Emerald Adviso	20.06 (1)	-6.26 (68)	1.56 (50)	9.12 (23)	17.72 (2)	18.63 (1)		
1 Russell 3000 G	16.18 (17)	-2.80 (37)	5.84 (19)	12.06 (9)	16.47 (2)	16.40 (6)		
Median	13.71	-3.99	1.68	5.44	9.10	12.34	9.04	16.15
Number of Funds	449	444	442	441	437	430	414	343

*Compass Total Returns of Active Core Equity Portfolios Universe - Gross of Fees

Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

US Equity Composite

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Wilshire 5000	9/93	3/19	100.00	Wilshire 5000

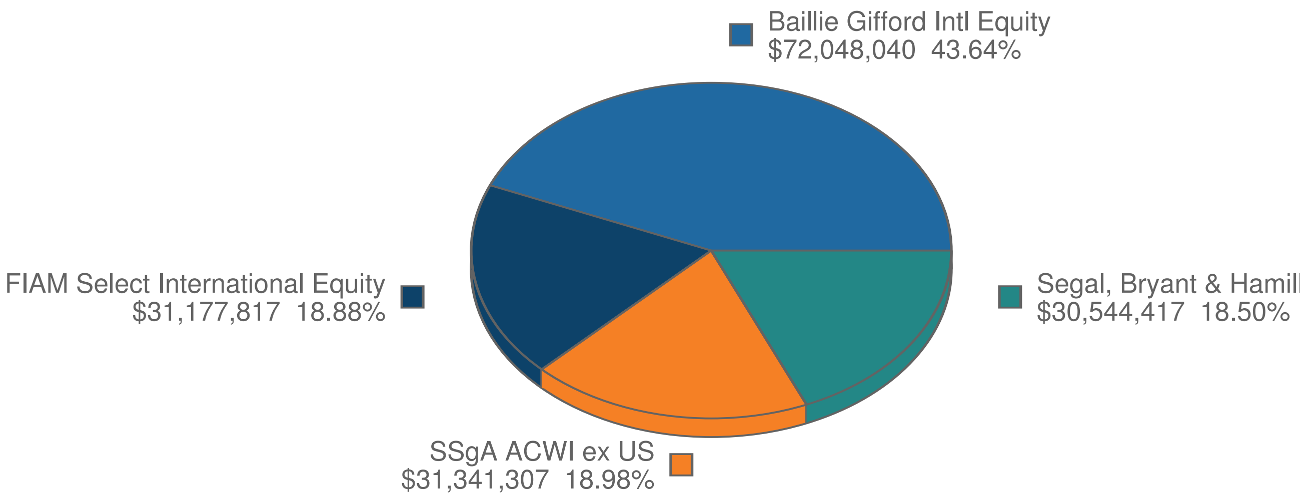
NON US EQUITY

Wilshire Consulting

MANAGER ALLOCATION

Non US Equity Composite

As of March 31, 2019

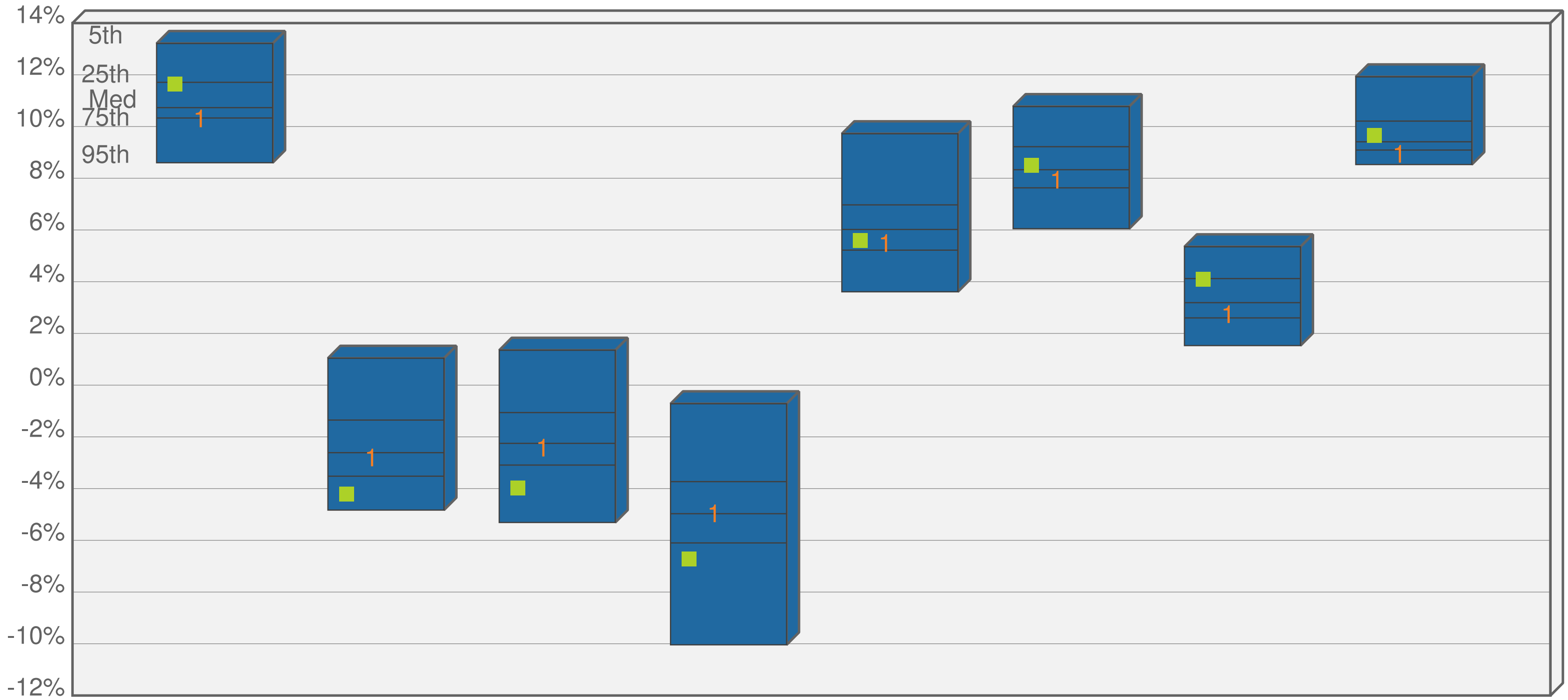


Wilshire Consulting

PERFORMANCE COMPARISON

Non US Equity Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Non US Equity Composite	11.69 (26)	-4.17 (86)	-3.93 (83)	-6.68 (83)	5.65 (65)	8.54 (38)	4.14 (23)	9.71 (36)
1 Policy Index	10.31 (76)	-2.80 (57)	-2.42 (55)	-4.96 (48)	5.49 (69)	7.94 (63)	2.74 (68)	8.94 (81)
5th %tile	13.21	1.04	1.35	-0.72	9.72	10.77	5.35	11.92
25th %tile	11.71	-1.35	-1.06	-3.73	6.97	9.22	4.12	10.21
Median	10.73	-2.61	-2.25	-4.97	6.02	8.33	3.19	9.41
75th %tile	10.33	-3.52	-3.09	-6.10	5.22	7.63	2.60	9.09
95th %tile	8.60	-4.83	-5.31	-10.04	3.61	6.05	1.53	8.53
Number of Funds	87	87	85	83	75	72	66	52

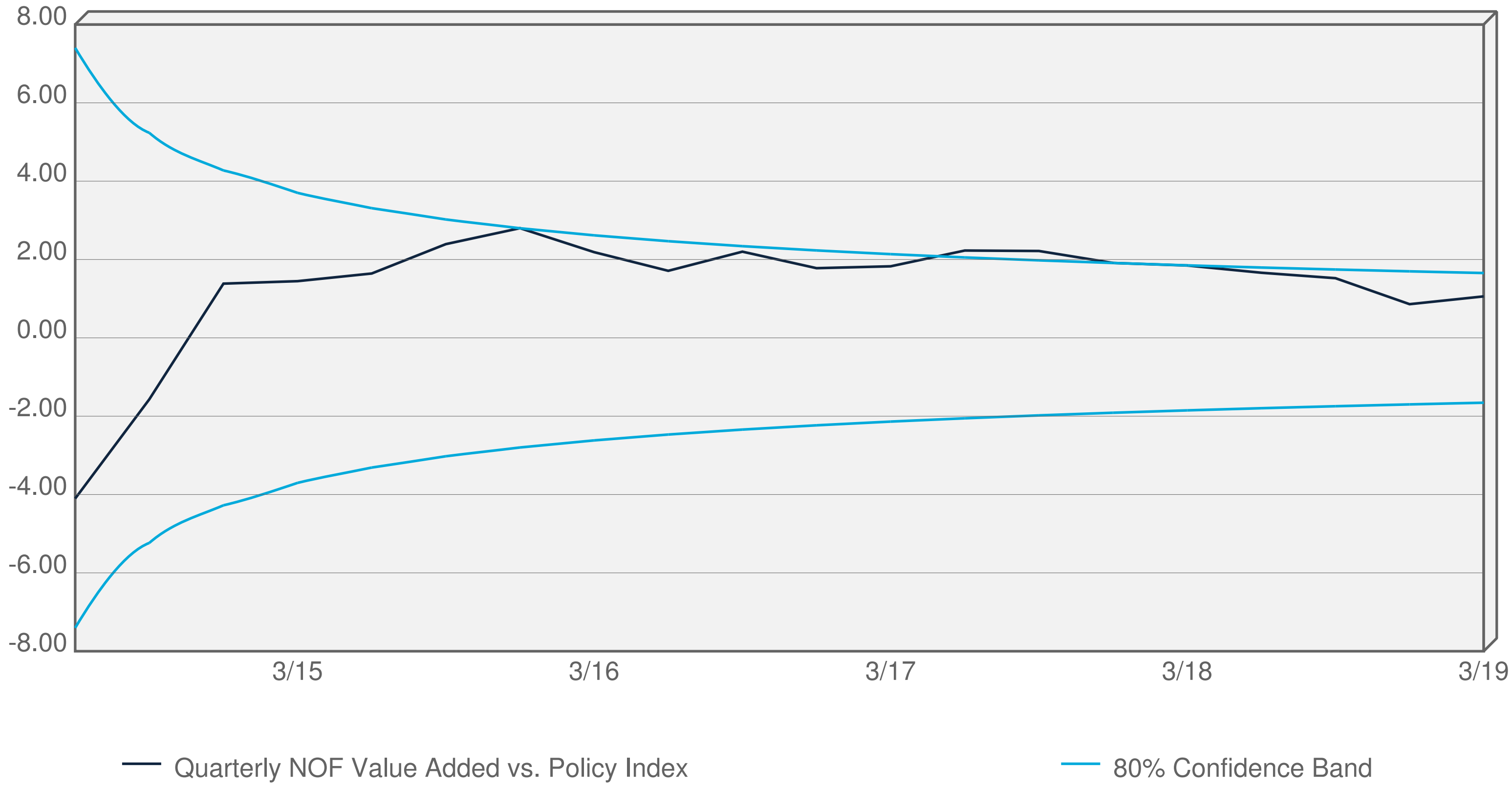
*TUCS Total Ret of Non-US Equity Investment Pools Universe - Gross of Fees

Wilshire Consulting

CUMULATIVE SKILL ANALYSIS

Non US Equity Composite

Five Years Ending March 31, 2019



Excess Return:	1.06	Information Ratio:	0.47
Excess Risk:	2.25	T-Stat:	1.05

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Baillie Gifford Intl Equity									
Net of Fee Return	**13.90**	**-2.15**	**-2.05**	**-4.86**	**10.51**	**5.56**		**9/30/09**	**7.73**
MSCI ACWI X US (N)	10.31	-2.33	-1.64	-4.22	8.09	2.57		9/30/09	4.57
Value Added	3.58	0.18	-0.41	-0.65	2.43	2.99		9/30/09	3.15
FIAM Select International Equity									
Net of Fee Return	**10.94**	**-3.16**	**-2.54**	**-6.32**	**6.71**	**1.90**	**8.35**	**12/31/00**	**4.13**
Policy Benchmark	10.31	-2.33	-1.64	-4.22	8.09	2.57	8.85	12/31/00	3.80
Value Added	0.62	-0.83	-0.89	-2.11	-1.38	-0.67	-0.50	12/31/00	0.33
SSgA ACWI ex US									
Net of Fee Return	**10.59**	**-3.58**	**-2.34**	**-2.87**	**7.59**			**6/30/15**	**3.45**
MSCI World X-US (N)	10.45	-3.67	-2.41	-3.14	7.29			6/30/15	3.20
Value Added	0.14	0.09	0.07	0.27	0.30			6/30/15	0.25
Segal, Bryant & Hamill									
Net of Fee Return	**8.32**	**-10.58**	**-11.57**	**-15.32**	**5.58**			**6/30/15**	**3.83**
MSCI EAFE Small Cap (N)	10.66	-7.10	-7.92	-9.36	7.50			6/30/15	5.64
Value Added	-2.34	-3.47	-3.65	-5.96	-1.92			6/30/15	-1.81
Non US Equity Composite									
Net of Fee Return	**11.64**	**-4.28**	**-4.10**	**-6.90**	**8.28**	**3.83**	**9.32**	**12/31/00**	**4.80**
Policy Index	10.31	-2.80	-2.42	-4.96	7.94	2.74	8.94	12/31/00	3.85
Value Added	1.33	-1.48	-1.68	-1.93	0.34	1.09	0.38	12/31/00	0.95

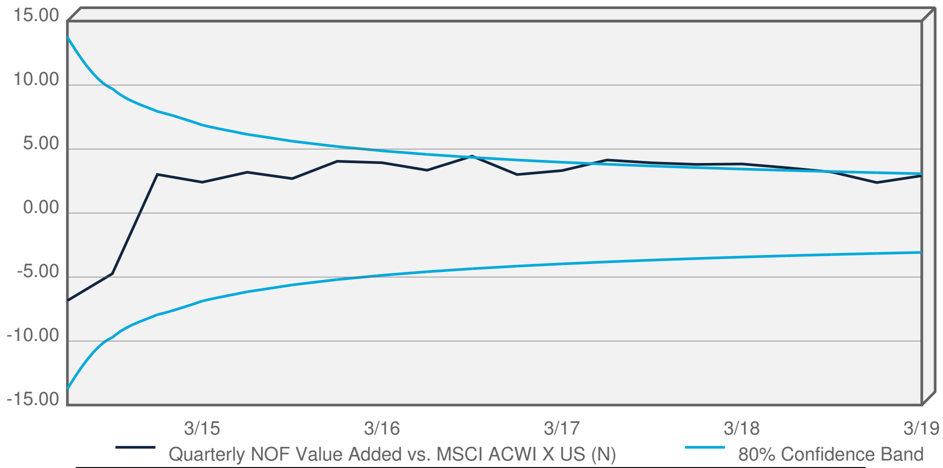
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Baillie Gifford Intl Equity

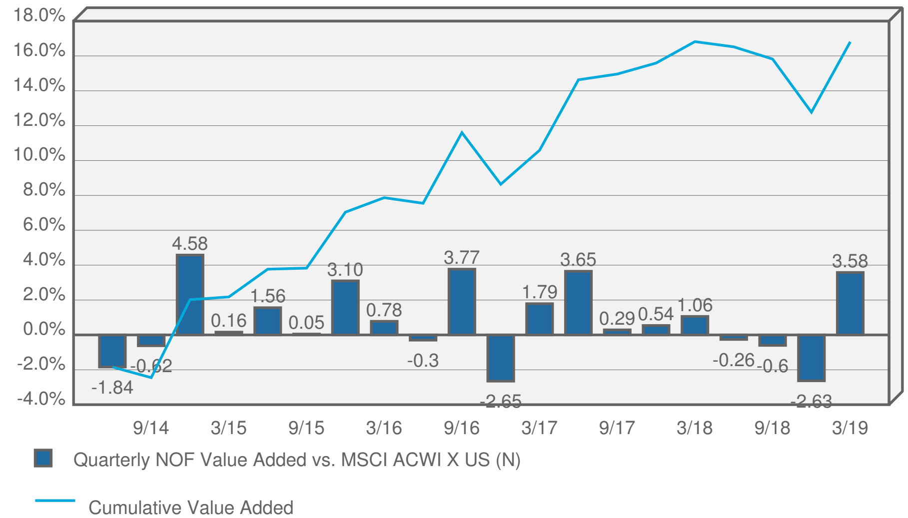
March 31, 2019

Cumulative Skill Analysis vs Benchmark

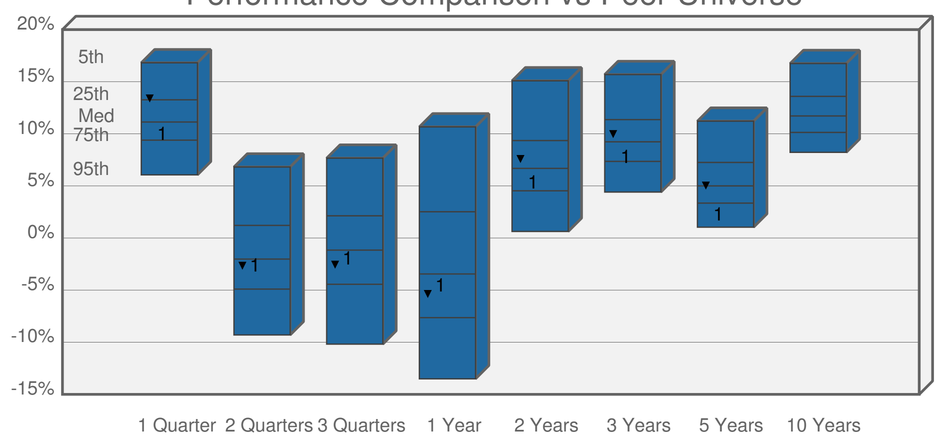


Excess Return:	2.92	Information Ratio:	0.70
Excess Risk:	4.18	T-Stat:	1.56

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▼ Baillie Giffor	13.90 (19)	-2.15 (50)	-2.05 (57)	-4.86 (58)	8.09 (35)	10.48 (33)	5.54 (43)	
1 MSCI ACWI X US	10.31 (62)	-2.33 (52)	-1.64 (54)	-4.22 (55)	5.65 (60)	8.09 (65)	2.57 (84)	
Median	11.13	-2.02	-1.16	-3.45	6.68	9.23	5.00	11.71
Number of Funds	1522	1518	1497	1487	1454	1416	1264	860

*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

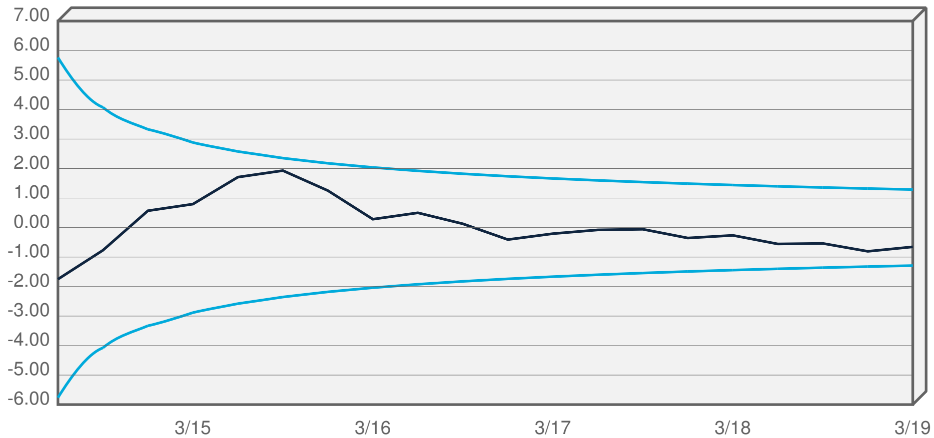
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

FIAM Select International Equity

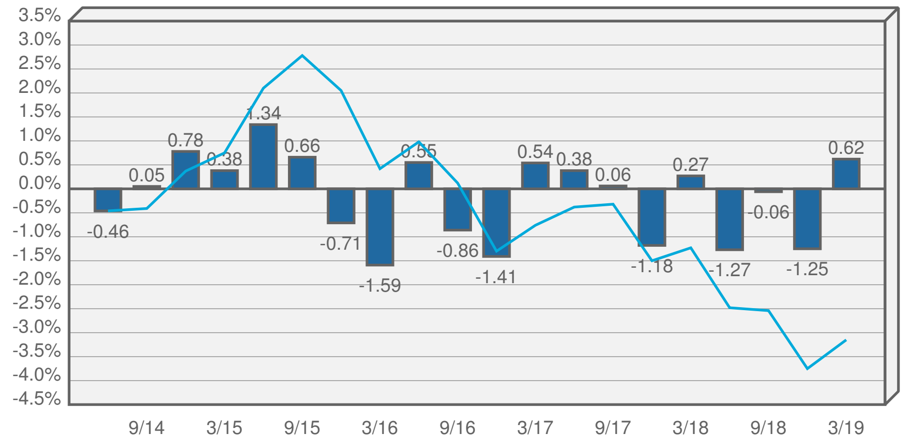
March 31, 2019

Cumulative Skill Analysis vs Benchmark

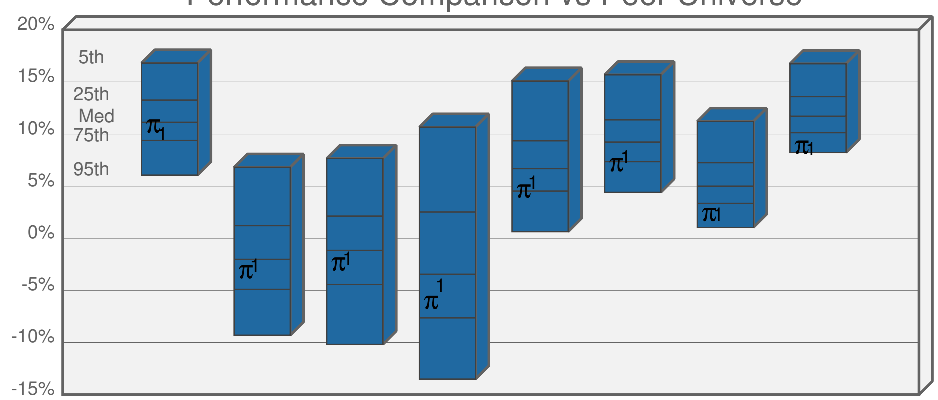


Excess Return:	-0.65	Information Ratio:	-0.37
Excess Risk:	1.75	T-Stat:	-0.83

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π FIAM Select In	11.06 (50)	-2.93 (57)	-2.18 (58)	-5.86 (64)	4.82 (72)	7.34 (75)	2.57 (84)	9.03 (89)
1 Policy Benchma	10.31 (62)	-2.33 (52)	-1.64 (54)	-4.22 (55)	5.65 (60)	8.09 (65)	2.57 (84)	8.85 (90)
Median	11.13	-2.02	-1.16	-3.45	6.68	9.23	5.00	11.71
Number of Funds	1522	1518	1497	1487	1454	1416	1264	860

*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

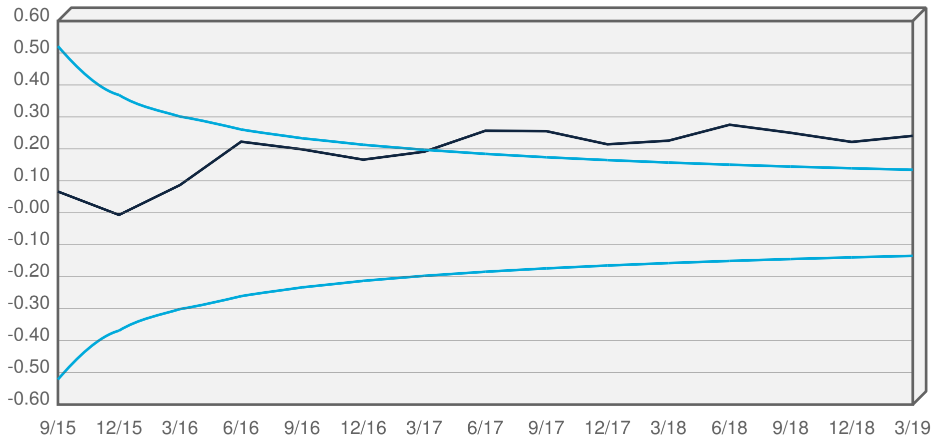
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

SSgA ACWI ex US

March 31, 2019

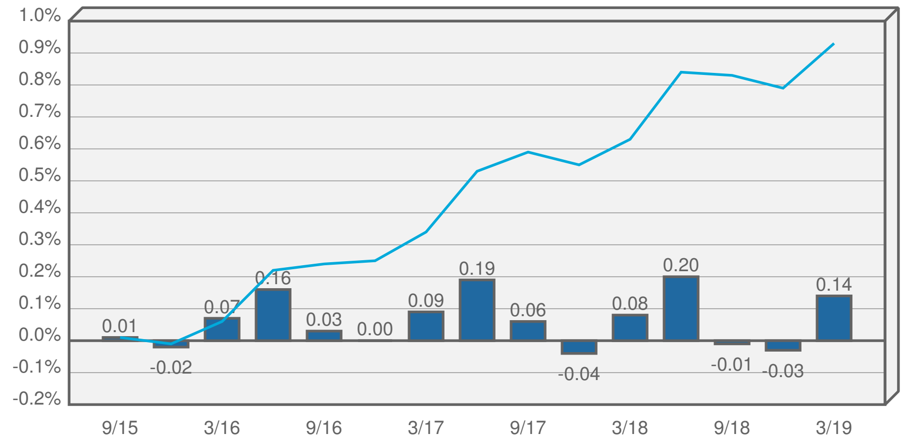
Cumulative Skill Analysis vs Benchmark



Quarterly NOF Value Added vs. MSCI World X-US (N) 80% Confidence Band

Excess Return:	0.24	Information Ratio:	1.52
Excess Risk:	0.16	T-Stat:	2.63

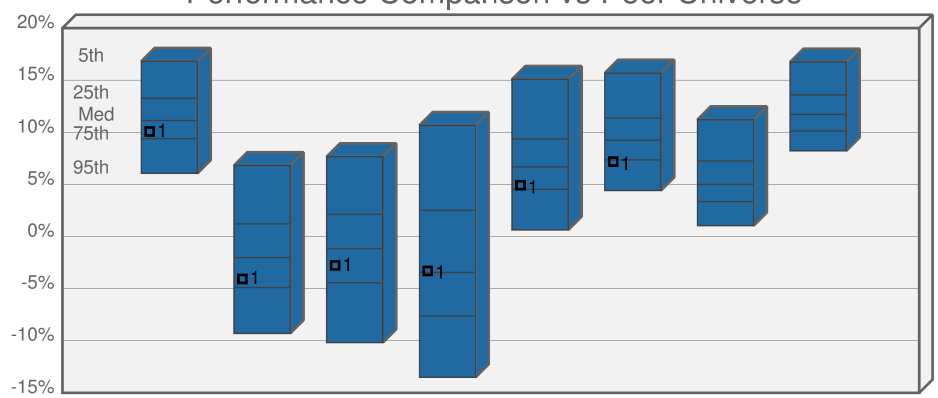
Value-Added Analysis vs Benchmark



Quarterly NOF Value Added vs. MSCI World X-US (N)

Cumulative Value Added

Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◻ SSgA ACWI ex U	10.59 (57)	-3.56 (63)	-2.26 (58)	-2.79 (46)	5.43 (64)	7.70 (71)		
1 MSCI World X-U	10.45 (59)	-3.67 (64)	-2.41 (60)	-3.14 (47)	5.04 (69)	7.29 (75)		
Median	11.13	-2.02	-1.16	-3.45	6.68	9.23	5.00	11.71
Number of Funds	1522	1518	1497	1487	1454	1416	1264	860

*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

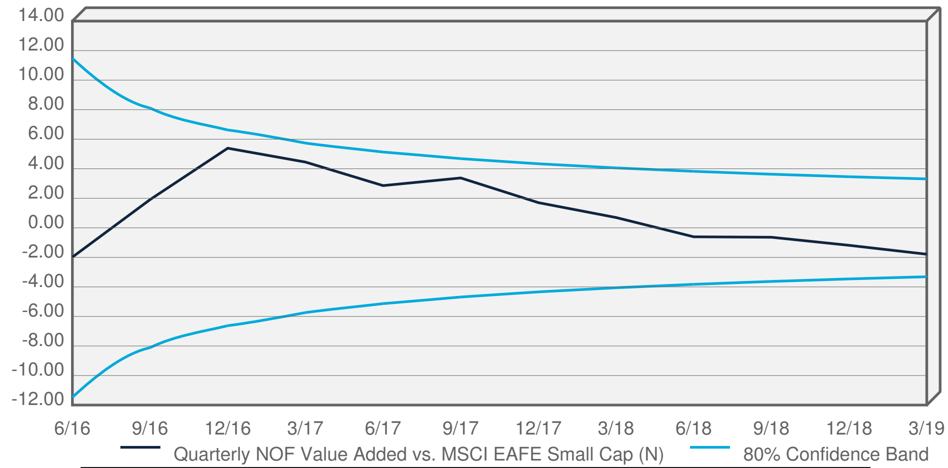
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Segal, Bryant & Hamill

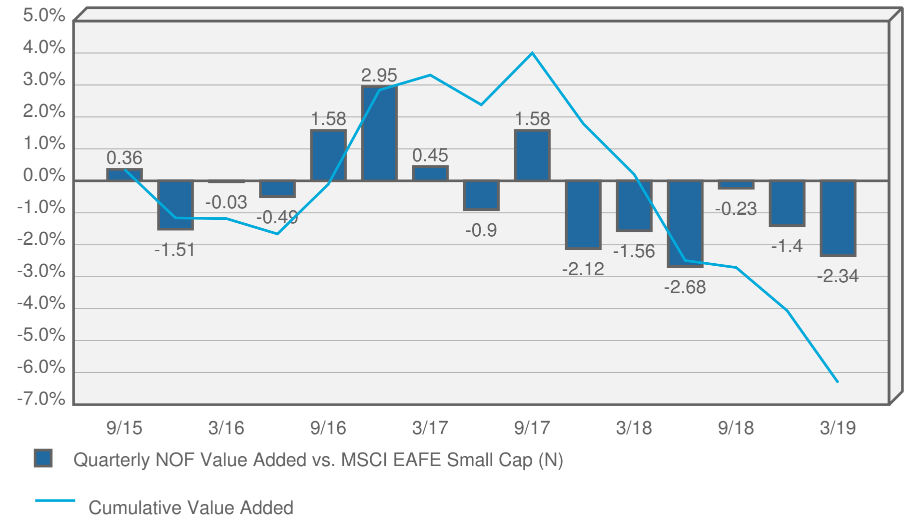
March 31, 2019

Cumulative Skill Analysis vs Benchmark

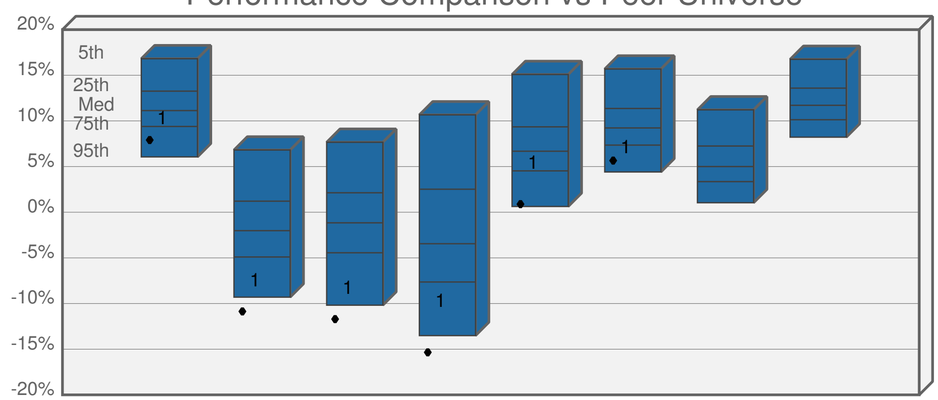


Excess Return:	-1.79	Information Ratio:	-0.51
Excess Risk:	3.49	T-Stat:	-0.89

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◆ Segal, Bryant	8.49 (82)	-10.28 (96)	-11.12 (96)	-14.76 (96)	1.47 (93)	6.24 (85)		
1 MSCI EAFE Small	10.66 (56)	-7.10 (87)	-7.92 (90)	-9.36 (84)	5.80 (59)	7.50 (73)		
Median	11.13	-2.02	-1.16	-3.45	6.68	9.23	5.00	11.71
Number of Funds	1522	1518	1497	1487	1454	1416	1264	860

*Compass Total Returns of International Equity Portfolios Universe - Gross of Fees

Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

Non US Equity Composite

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Policy Index	12/00	6/08	100.00	MSCI EAFE Index (N)
	9/08	12/14	100.00	MSCI ACWI ex US (N)
	3/15	3/19	100.00	MSCI ACWI X US IMI Index (N)

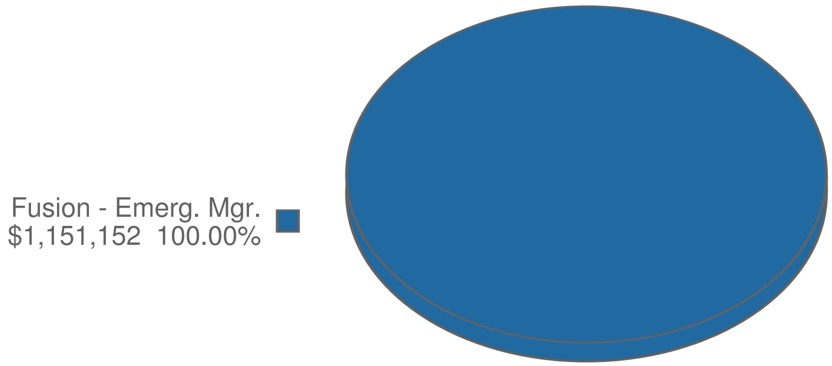
GLOBAL EQUITY

Wilshire Consulting

MANAGER ALLOCATION

Global Equity Composite

As of March 31, 2019

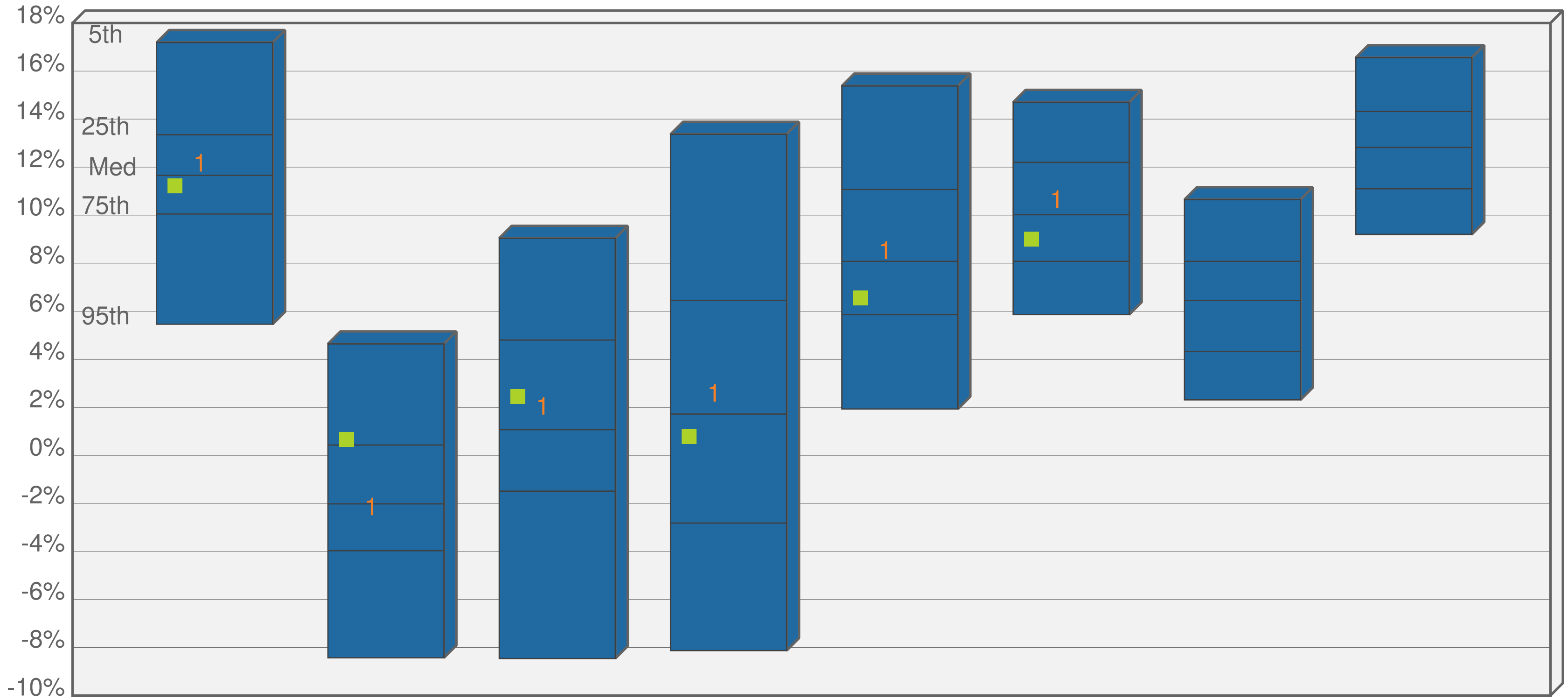


Wilshire Consulting

PERFORMANCE COMPARISON

Global Equity Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ Global Equity	11.27 (55)	0.72 (23)	2.51 (36)	0.83 (56)	6.61 (66)	9.06 (65)		
1 MSCI ACWI (N)	12.18 (42)	-2.13 (52)	2.06 (42)	2.60 (42)	8.55 (45)	10.67 (41)		
5th %tile	17.19	4.64	9.04	13.37	15.38	14.70	10.65	16.56
25th %tile	13.35	0.43	4.80	6.45	11.07	12.20	8.08	14.32
Median	11.66	-2.02	1.07	1.72	8.08	10.02	6.45	12.82
75th %tile	10.05	-3.97	-1.49	-2.82	5.86	8.08	4.33	11.10
95th %tile	5.46	-8.43	-8.46	-8.13	1.93	5.86	2.31	9.20
Number of Funds	311	309	297	293	266	259	239	165

*TUCS Total Ret of Global Equity Portfolios Universe - Gross of Fees

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Fusion - Emerg. Mgr.									
Net of Fee Return	**11.09**	**0.37**	**1.98**	**0.13**	**8.25**			**12/31/14**	**4.75**
MSCI ACWI (N)	12.18	-2.13	2.06	2.60	10.67			12/31/14	6.88
Value Added	-1.09	2.50	-0.08	-2.47	-2.42			12/31/14	-2.13
Global Equity									
Net of Fee Return	**11.09**	**0.37**	**1.98**	**0.13**	**8.25**			**12/31/14**	**4.75**
MSCI ACWI (N)	12.18	-2.13	2.06	2.60	10.67			12/31/14	6.88
Value Added	-1.09	2.50	-0.08	-2.47	-2.42			12/31/14	-2.13

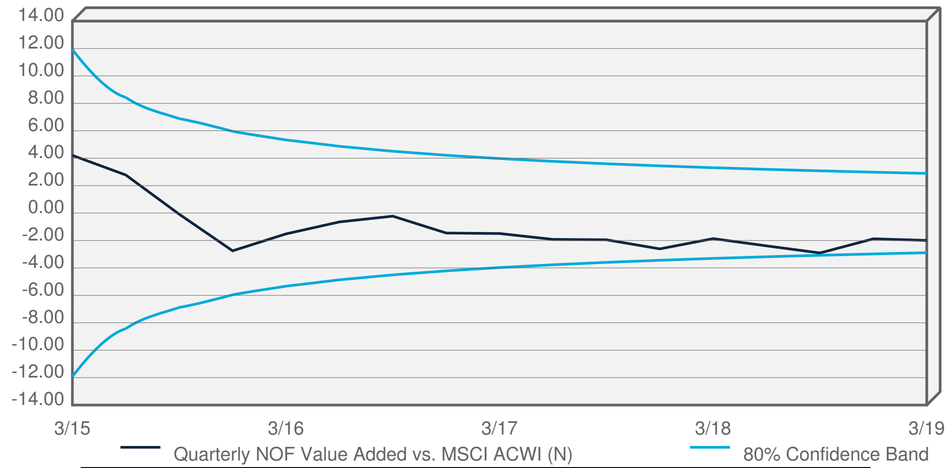
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Fusion - Emerg. Mgr.

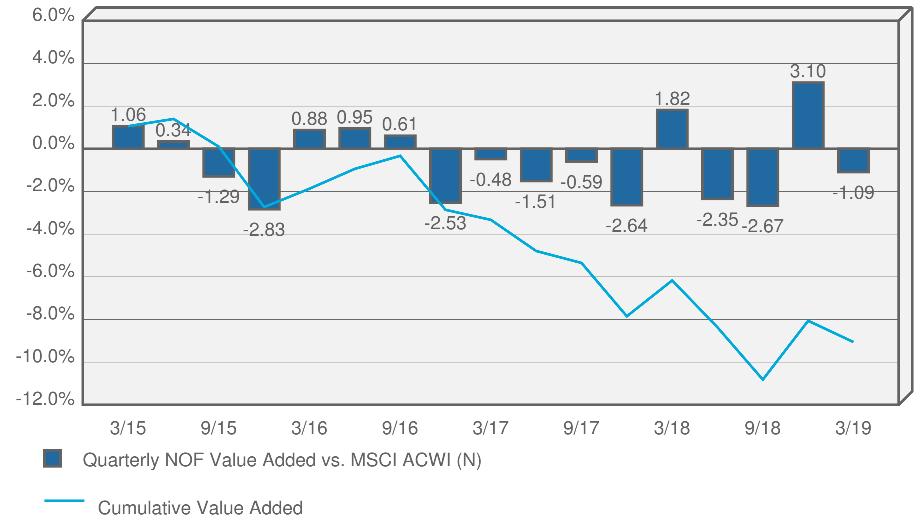
March 31, 2019

Cumulative Skill Analysis vs Benchmark

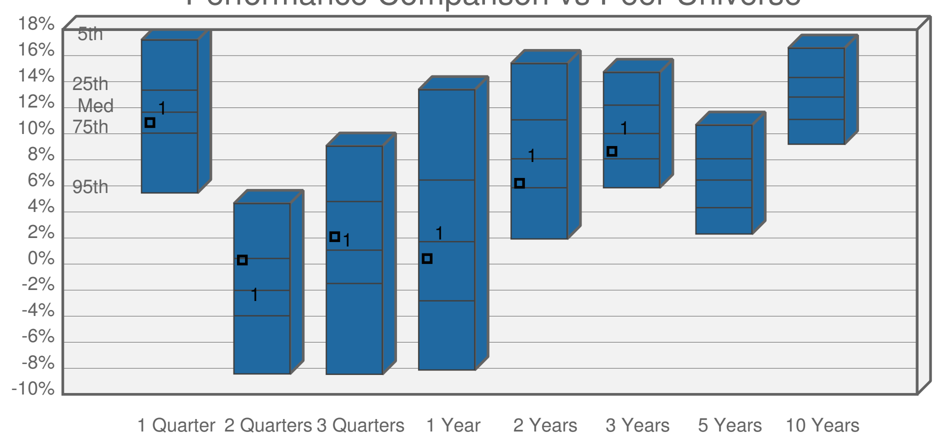


Excess Return:	-1.99	Information Ratio:	-0.55
Excess Risk:	3.62	T-Stat:	-1.10

Value-Added Analysis vs Benchmark

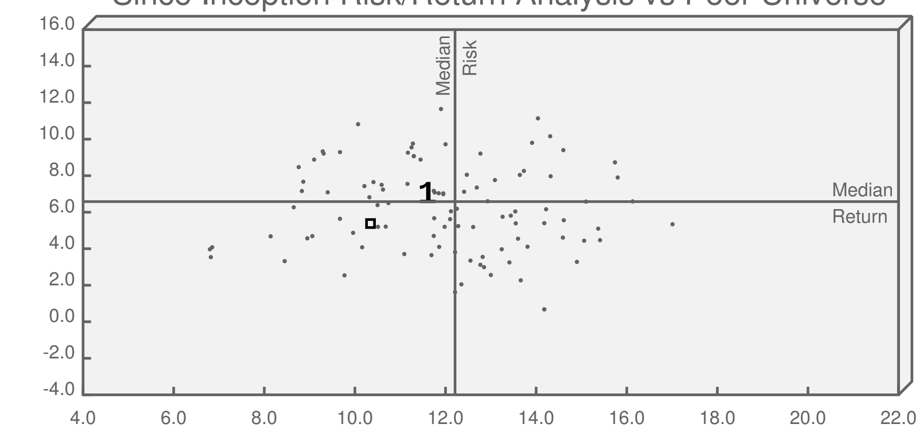


Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
◻ Fusion - Emerg	11.27 (55)	0.72 (23)	2.51 (36)	0.83 (56)	6.61 (66)	9.06 (65)		
1 MSCI ACWI (N)	12.18 (42)	-2.13 (52)	2.06 (42)	2.60 (42)	8.55 (45)	10.67 (41)		
Median	11.66	-2.02	1.07	1.72	8.08	10.02	6.45	12.82
Number of Funds	311	309	297	293	266	259	239	165

Since Inception Risk/Return Analysis vs Peer Universe*



Description	Legend	Gross Fee Ret Value	Gross Fee Ret Rank	Standard Deviation Value	Standard Deviation Rank
Fusion - Emerg. Mgr.	◻	5.54	64	10.58	80
MSCI ACWI (N)	1	6.88	45	11.71	66
Median		6.58		12.21	

*TUCS Total Returns of Global Equity Portfolios Universe - Gross of Fees

Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

Global Equity

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
MSCI ACWI (N)	12/14	3/19	100.00	MSCI ACWI (N)

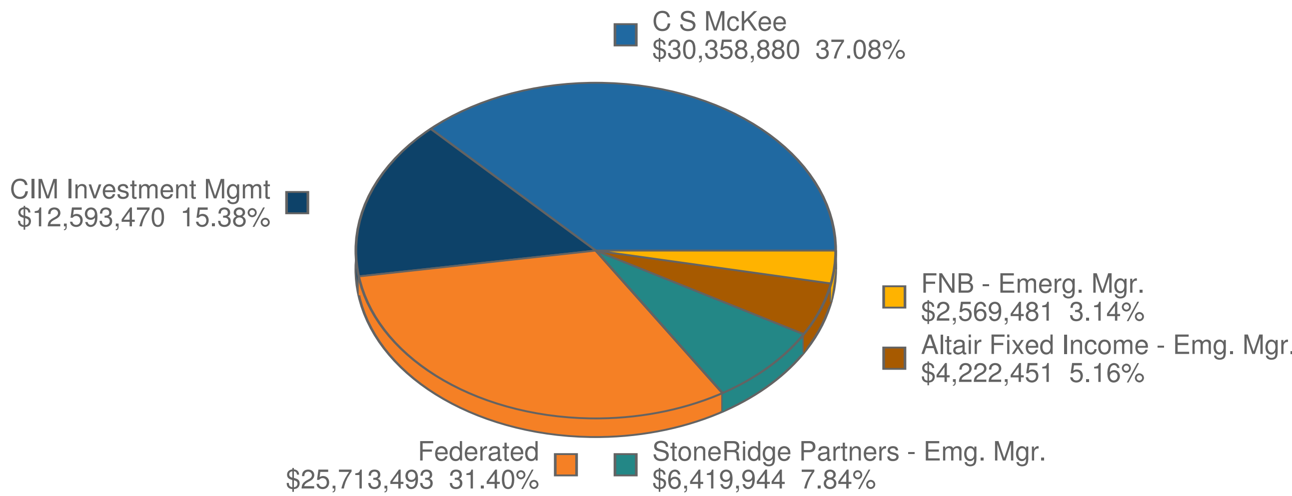
CORE FIXED INCOME

Wilshire Consulting

MANAGER ALLOCATION

Core Fixed Composite

As of March 31, 2019

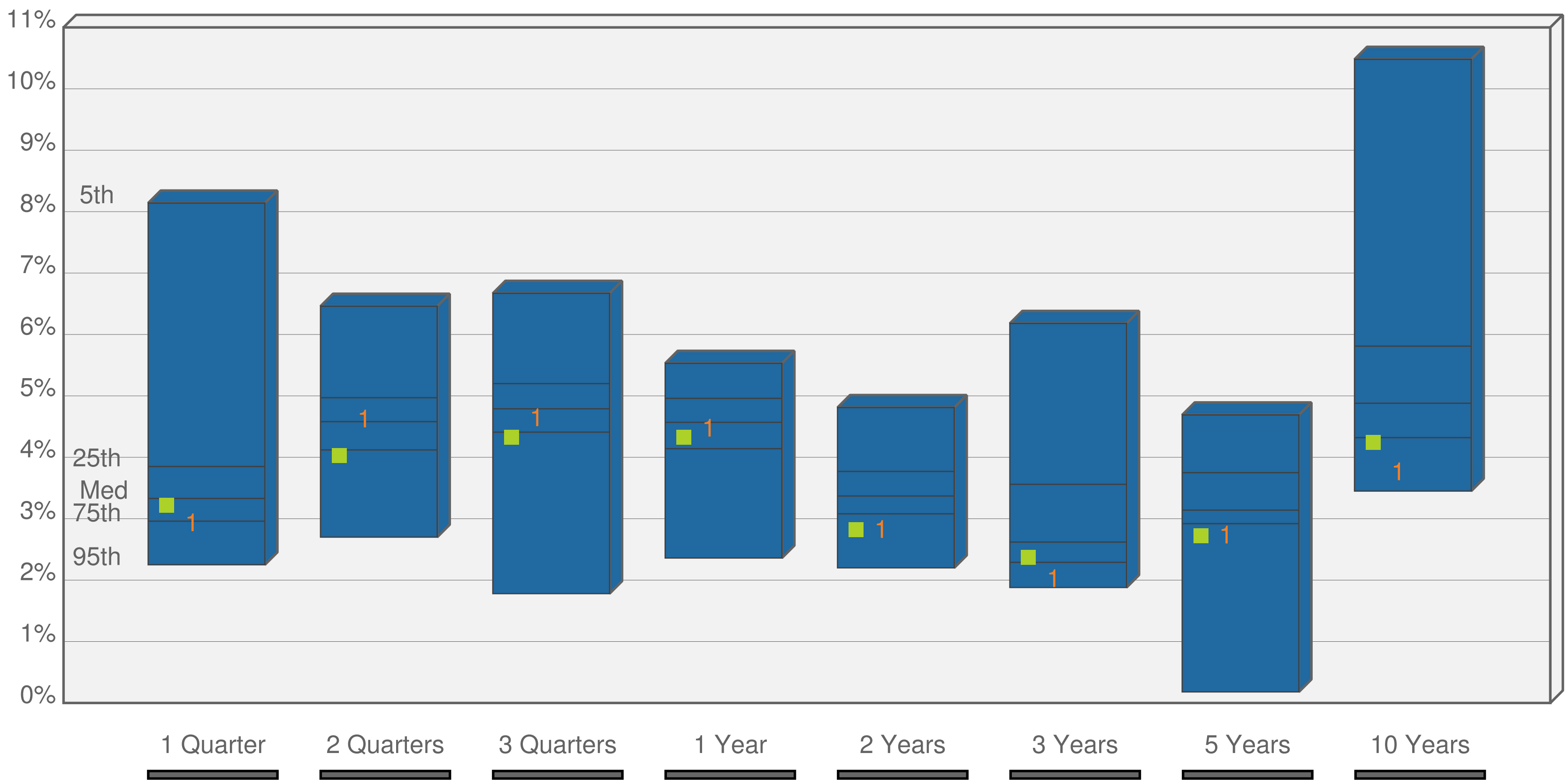


Wilshire Consulting

PERFORMANCE COMPARISON

Core Fixed Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Core Fixed Composite	3.24 (55)	4.05 (75)	4.35 (75)	4.35 (67)	2.84 (81)	2.39 (61)	2.74 (79)	4.26 (75)
1 Bloomberg Aggreg	2.94 (80)	4.63 (42)	4.65 (62)	4.48 (60)	2.83 (81)	2.03 (87)	2.74 (79)	3.77 (88)
5th %tile	8.14	6.46	6.67	5.53	4.81	6.18	4.69	10.48
25th %tile	3.85	4.97	5.20	4.96	3.77	3.56	3.75	5.81
Median	3.33	4.58	4.79	4.57	3.37	2.62	3.14	4.88
75th %tile	2.96	4.12	4.41	4.14	3.08	2.29	2.92	4.32
95th %tile	2.25	2.70	1.78	2.36	2.20	1.88	0.18	3.45
Number of Funds	58	58	57	57	53	53	47	33

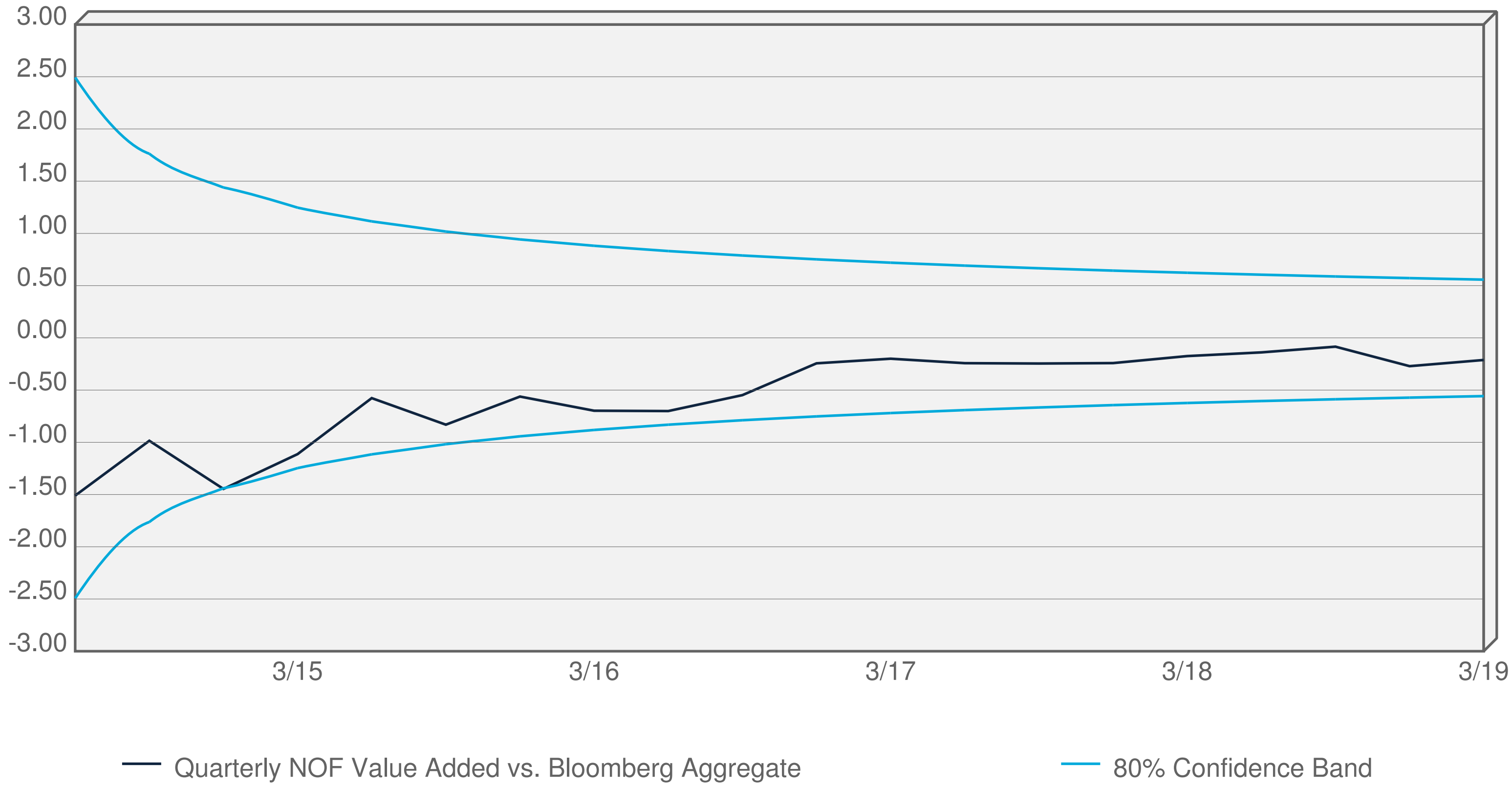
*TUCS Total Ret of Fixed Income Portfolios - Core Universe - Gross of Fees

Wilshire Consulting

CUMULATIVE SKILL ANALYSIS

Core Fixed Composite

Five Years Ending March 31, 2019



Excess Return:	-0.21	Information Ratio:	-0.28
Excess Risk:	0.76	T-Stat:	-0.62

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Altair Fixed Income - Emg. Mgr.									
Net of Fee Return	**7.47**	**4.73**	**4.93**	**4.92**				**3/31/17**	**2.61**
Bloomberg Aggregate	2.94	4.63	4.65	4.48				3/31/17	2.83
Value Added	4.53	0.11	0.28	0.43				3/31/17	-0.22
C S McKee									
Net of Fee Return	**2.99**	**4.39**	**4.53**	**4.52**	**2.05**	**2.94**	**4.16**	**12/31/82**	**7.41**
Bloomberg Aggregate	2.94	4.63	4.65	4.48	2.03	2.74	3.77	12/31/82	7.05
Value Added	0.05	-0.23	-0.11	0.04	0.03	0.20	0.39	12/31/82	0.36
CIM Investment Mgmt									
Net of Fee Return	**2.04**	**3.35**	**3.55**	**3.67**	**1.15**	**1.42**	**2.93**	**12/31/05**	**3.17**
Bloomberg Int Govt/Credit Index	2.32	4.01	4.23	4.24	1.66	2.12	3.14	12/31/05	3.61
Value Added	-0.28	-0.66	-0.69	-0.57	-0.50	-0.70	-0.22	12/31/05	-0.44
Federated									
Net of Fee Return	**3.66**	**4.03**	**4.35**	**4.31**	**3.01**	**2.82**	**4.79**	**9/30/06**	**4.66**
Bloomberg Aggregate	2.94	4.63	4.65	4.48	2.03	2.74	3.77	9/30/06	4.09
Value Added	0.72	-0.60	-0.30	-0.17	0.98	0.08	1.03	9/30/06	0.57
StoneRidge Partners - Emg. Mgr.									
Net of Fee Return	**1.71**	**2.99**	**3.14**	**3.30**	**1.89**			**9/30/15**	**2.09**
Policy Index	2.76	4.13	4.54	4.51	2.02			9/30/15	2.28
Value Added	-1.05	-1.14	-1.40	-1.22	-0.13			9/30/15	-0.19
FNB - Emerg. Mgr.									
Net of Fee Return	**3.04**	**3.23**	**3.71**	**3.67**				**6/30/17**	**1.47**
Bloomberg Intermediate Agg.	2.28	4.12	4.24	4.33				6/30/17	2.21
Value Added	0.76	-0.90	-0.53	-0.65				6/30/17	-0.74

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Core Fixed Composite									
Net of Fee Return	**3.18**	**3.92**	**4.16**	**4.10**	**2.14**	**2.52**	**4.03**	**9/30/82**	**7.65**
Bloomberg Aggregate	2.94	4.63	4.65	4.48	2.03	2.74	3.77	9/30/82	7.24
Value Added	0.24	-0.71	-0.49	-0.38	0.12	-0.22	0.27	9/30/82	0.40

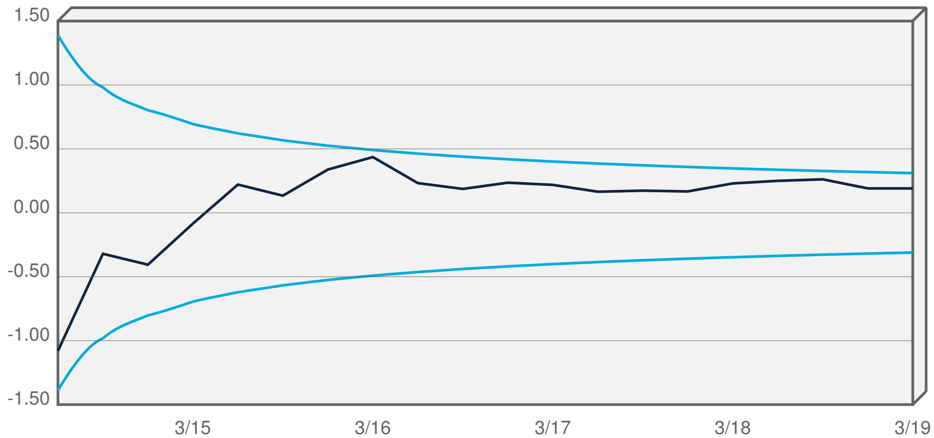
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

C S McKee

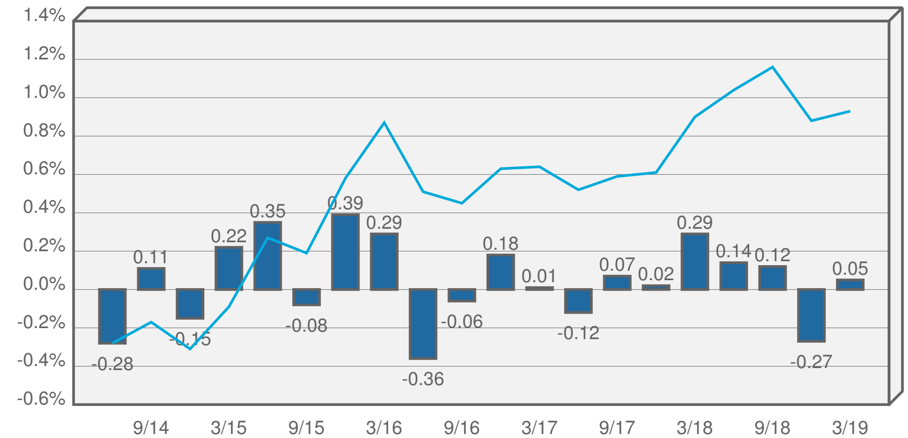
March 31, 2019

Cumulative Skill Analysis vs Benchmark

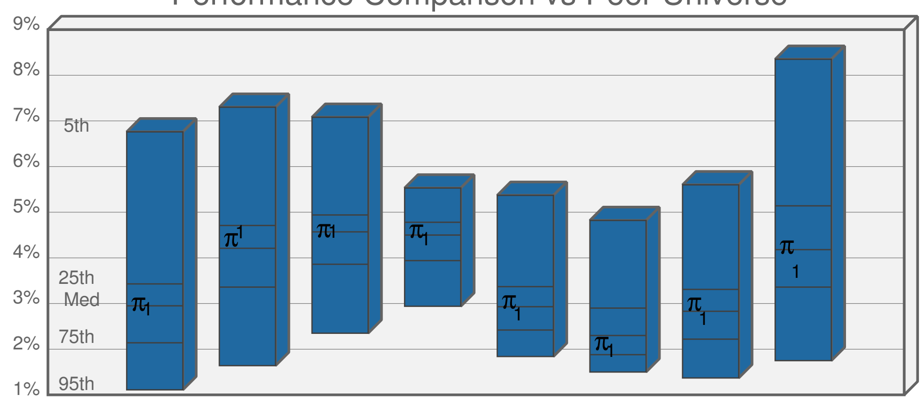


Excess Return:	0.19	Information Ratio:	0.45
Excess Risk:	0.42	T-Stat:	1.01

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π C S McKee	3.05 (44)	4.46 (41)	4.66 (46)	4.65 (37)	3.10 (37)	2.19 (57)	3.05 (36)	4.30 (45)
1 Bloomberg Aggr	2.94 (50)	4.63 (30)	4.65 (46)	4.48 (52)	2.83 (56)	2.03 (67)	2.74 (54)	3.77 (64)
Median	2.95	4.21	4.57	4.50	2.93	2.30	2.83	4.18
Number of Funds	413	411	410	407	403	398	383	335

*Compass Total Returns of Active Core Fixed Income Portfolios Universe - Gross of Fees

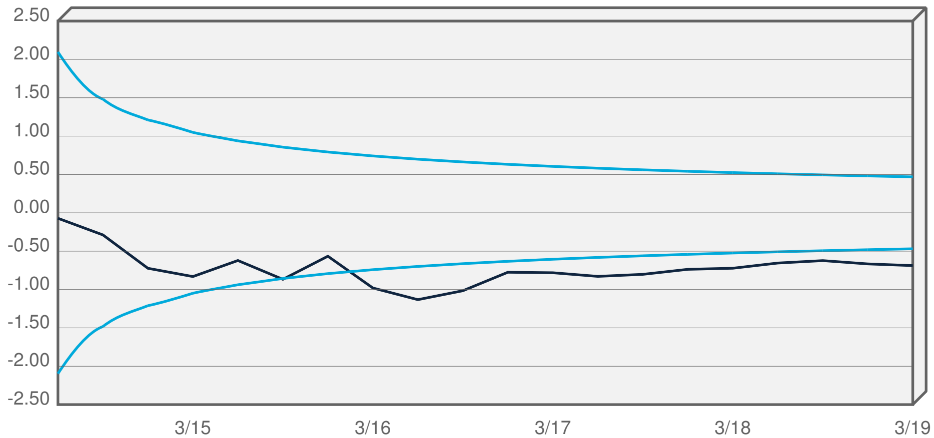
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

CIM Investment Mgmt

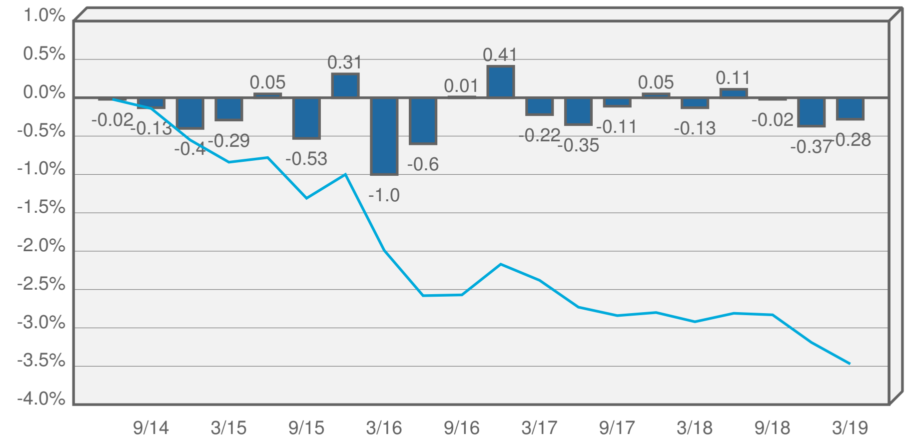
March 31, 2019

Cumulative Skill Analysis vs Benchmark

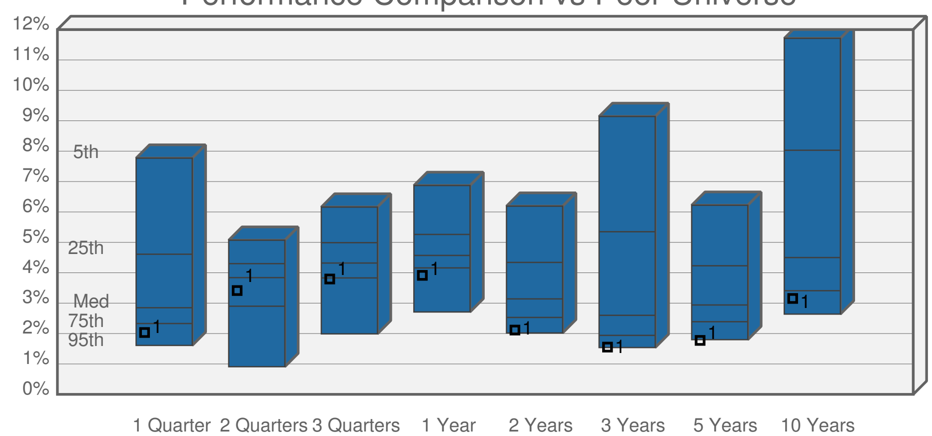


Excess Return:	-0.69	Information Ratio:	-1.08
Excess Risk:	0.64	T-Stat:	-2.41

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
CIM Investment	2.21 (82)	3.59 (62)	3.97 (70)	4.09 (78)	2.29 (89)	1.73 (88)	1.95 (92)	3.33 (77)
1 Bloomberg Int	2.32 (76)	4.01 (38)	4.24 (57)	4.24 (71)	2.28 (89)	1.66 (90)	2.12 (89)	3.14 (83)
Median	2.85	3.84	4.32	4.57	3.14	2.60	2.94	4.50
Number of Funds	434	433	430	427	423	421	402	347

*Compass Total Returns of Active Intermediate Fixed Income Portfolios Universe - Gross of Fees

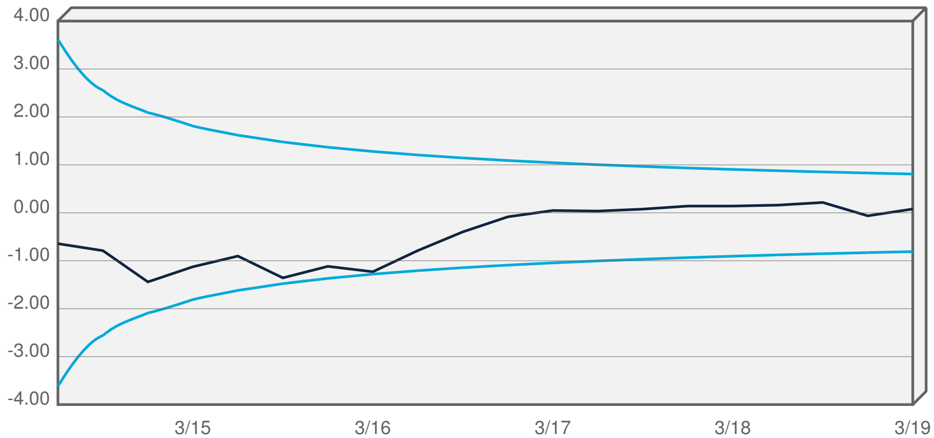
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Federated

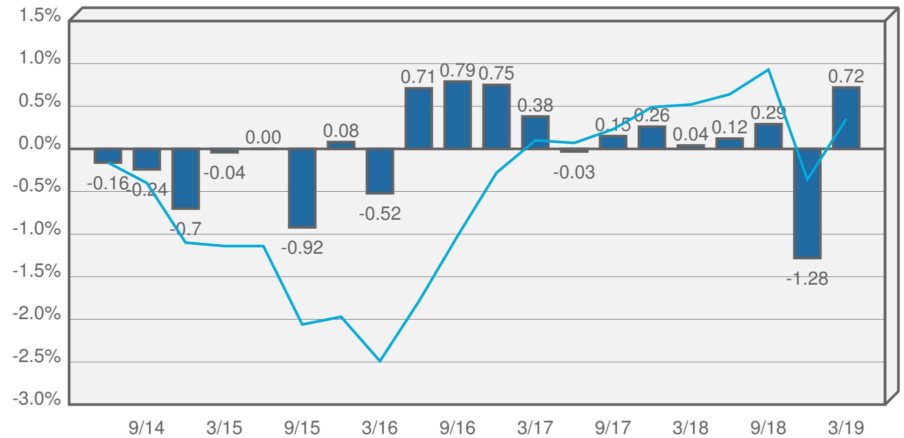
March 31, 2019

Cumulative Skill Analysis vs Benchmark

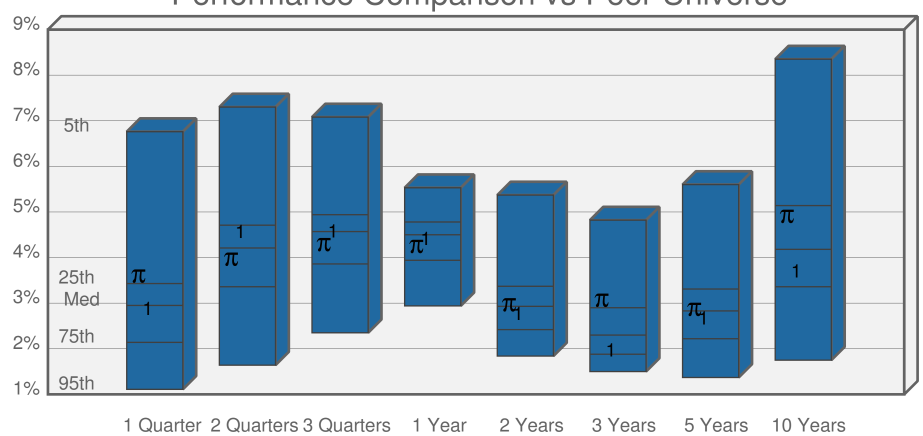


Excess Return:	0.08	Information Ratio:	0.07
Excess Risk:	1.10	T-Stat:	0.16

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
π Federated	3.66 (17)	4.03 (57)	4.35 (60)	4.31 (62)	3.03 (44)	3.13 (19)	2.93 (44)	4.97 (27)
1 Bloomberg Aggr	2.94 (50)	4.63 (30)	4.65 (46)	4.48 (52)	2.83 (56)	2.03 (67)	2.74 (54)	3.77 (64)
Median	2.95	4.21	4.57	4.50	2.93	2.30	2.83	4.18
Number of Funds	413	411	410	407	403	398	383	335

*Compass Total Returns of Active Core Fixed Income Portfolios Universe - Gross of Fees

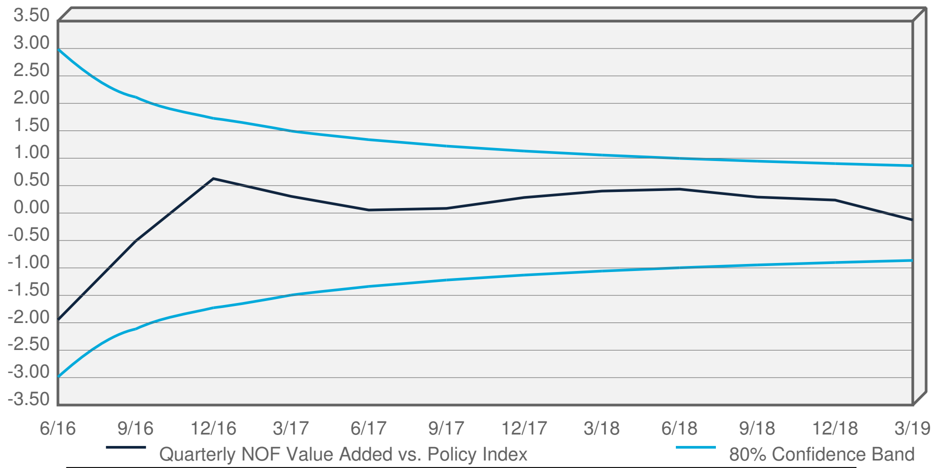
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

StoneRidge Partners - Emg. Mgr.

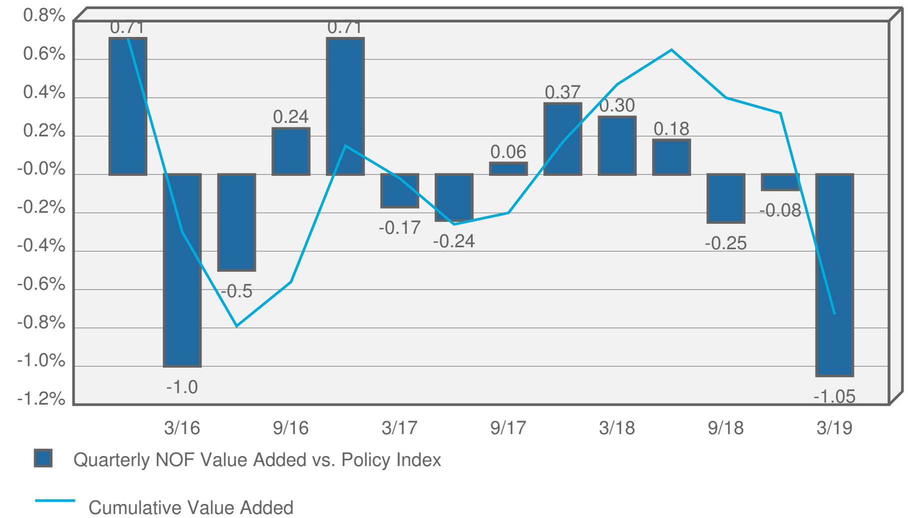
March 31, 2019

Cumulative Skill Analysis vs Benchmark

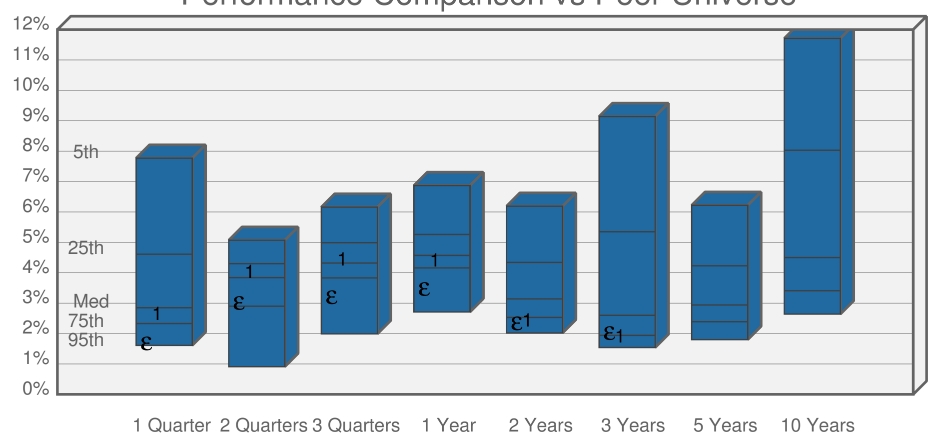


Excess Return:	-0.13	Information Ratio:	-0.14
Excess Risk:	0.91	T-Stat:	-0.24

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
ε StoneRidge Par	1.77 (93)	3.10 (71)	3.29 (85)	3.56 (87)	2.43 (82)	2.11 (65)		
1 Policy Index	2.76 (53)	4.14 (30)	4.54 (38)	4.52 (54)	2.54 (74)	2.02 (69)		
Median	2.85	3.84	4.32	4.57	3.14	2.60	2.94	4.50
Number of Funds	434	433	430	427	423	421	402	347

*Compass Total Returns of Active Intermediate Fixed Income Portfolios Universe - Gross of Fees

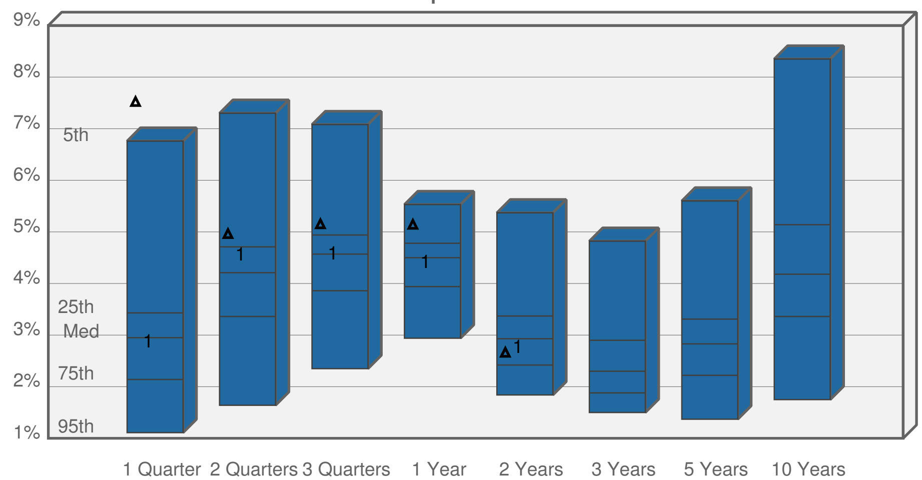
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Altair Fixed Income - Emg. Mgr.

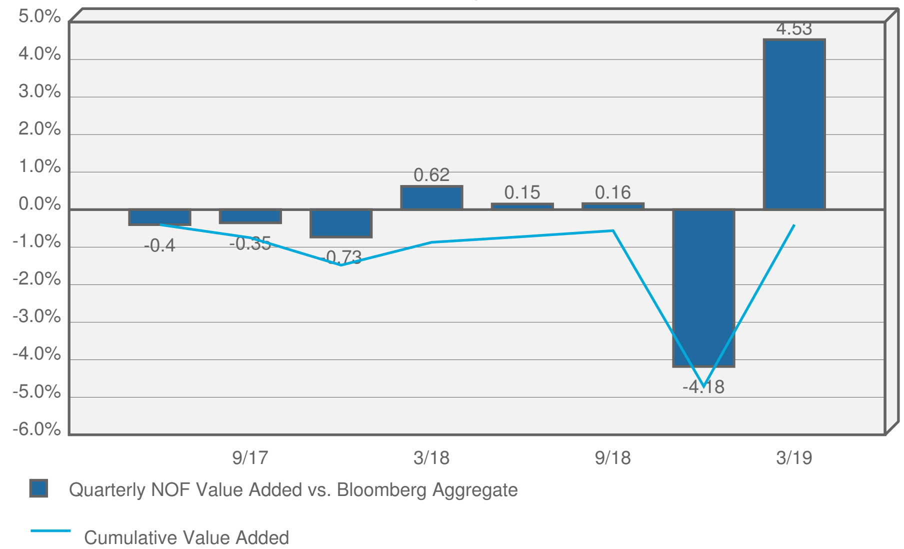
March 31, 2019

Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▲ Altair Fixed I	7.63 (2)	5.07 (13)	5.26 (15)	5.25 (11)	2.77 (58)			
1 Bloomberg Aggr	2.94 (50)	4.63 (30)	4.65 (46)	4.48 (52)	2.83 (56)			
Median	2.95	4.21	4.57	4.50	2.93	2.30	2.83	4.18
Number of Funds	413	411	410	407	403	398	383	335

Value-Added Analysis vs Benchmark



*Compass Total Returns of Active Core Fixed Income Portfolios Universe - Gross of Fees

Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

Core Fixed Composite

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Bloomberg Aggregate	12/82	3/19	100.00	Bloomberg Aggregate

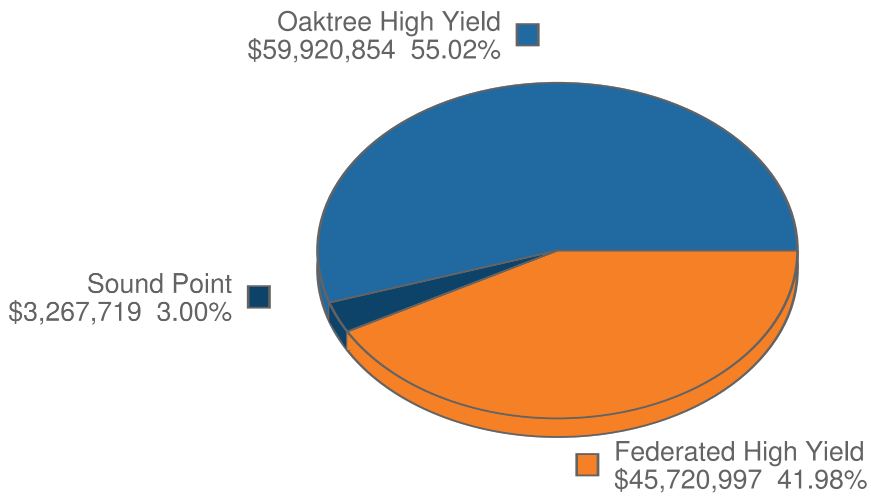
HIGH YIELD

Wilshire Consulting

MANAGER ALLOCATION

High Yield Fixed Composite

As of March 31, 2019

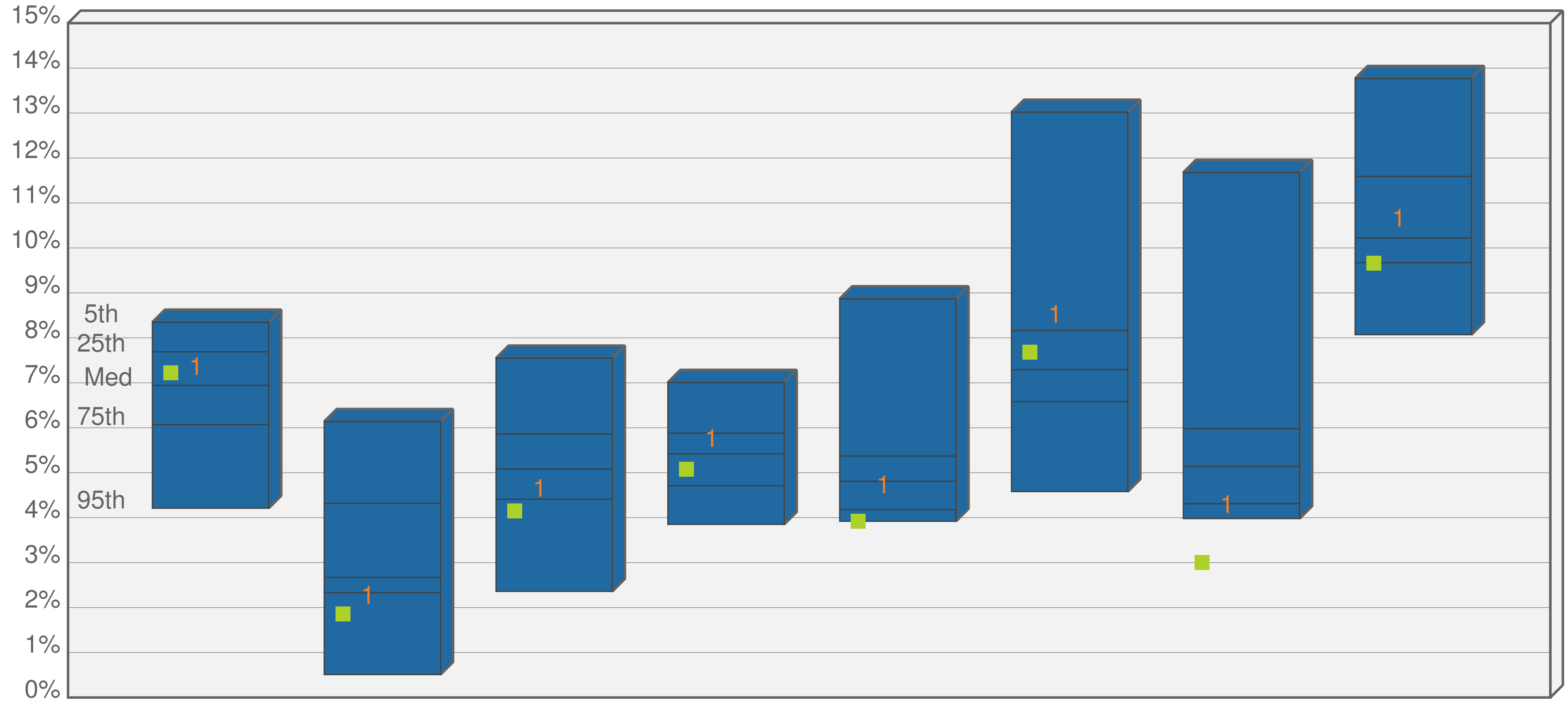


Wilshire Consulting

PERFORMANCE COMPARISON

High Yield Fixed Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ High Yield Fixed Composi	7.25 (36)	1.89 (90)	4.18 (90)	5.11 (61)	3.95 (93)	7.71 (31)	3.03 (100)	9.69 (66)
1 Citi High Yield	7.37 (33)	2.28 (81)	4.66 (63)	5.77 (27)	4.74 (53)	8.53 (19)	4.30 (83)	10.67 (38)
5th %tile	8.35	6.14	7.55	7.01	8.87	13.02	11.68	13.77
25th %tile	7.69	4.32	5.86	5.88	5.37	8.16	5.98	11.59
Median	6.94	2.67	5.08	5.42	4.81	7.29	5.14	10.22
75th %tile	6.07	2.33	4.41	4.71	4.18	6.58	4.31	9.67
95th %tile	4.21	0.51	2.36	3.85	3.92	4.58	3.98	8.07
Number of Funds	37	37	36	36	34	33	26	13

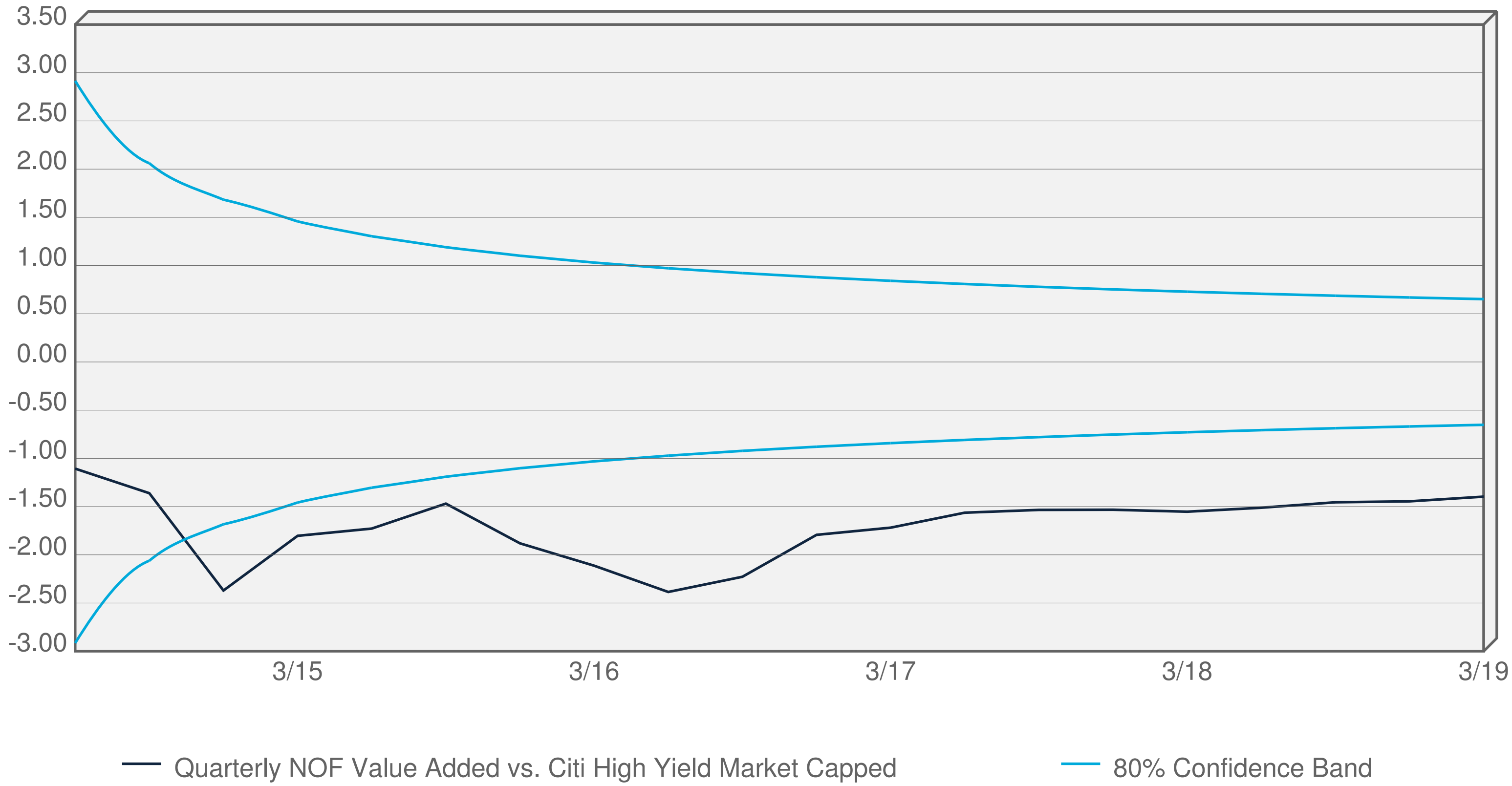
*TUCS Total Ret of Fixed Income Portfolios - High Yield Universe - Gross of Fees

Wilshire Consulting

CUMULATIVE SKILL ANALYSIS

High Yield Fixed Composite

Five Years Ending March 31, 2019



Excess Return:	-1.40	Information Ratio:	-1.58
Excess Risk:	0.89	T-Stat:	-3.52

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Oaktree High Yield									
Net of Fee Return	**6.91**	**1.18**	**3.27**	**4.12**	**6.82**	**3.03**	**9.22**	**3/31/08**	**7.03**
Citigroup HY Cash Pay Capped	7.36	2.29	4.67	5.78	8.45	4.27	10.48	3/31/08	7.43
Value Added	-0.45	-1.11	-1.41	-1.65	-1.63	-1.24	-1.26	3/31/08	-0.40
Sound Point									
Net of Fee Return	**3.17**	**0.75**	**2.73**	**3.76**	**5.99**	**4.50**		**9/30/13**	**4.87**
CSFB Leveraged Loan	3.78	0.58	2.53	3.33	5.87	3.83		9/30/13	4.06
Value Added	-0.61	0.16	0.21	0.43	0.12	0.67		9/30/13	0.81
Federated High Yield									
Net of Fee Return	**7.99**	**2.80**	**5.26**	**6.15**				**6/30/17**	**4.07**
Bloomberg US HY 2% Capped Index	7.26	2.39	4.85	5.93				6/30/17	4.28
Value Added	0.74	0.41	0.40	0.22				6/30/17	-0.21
High Yield Fixed Composite									
Net of Fee Return	**7.25**	**1.84**	**4.08**	**4.95**	**7.53**	**2.84**	**9.45**	**3/31/08**	**7.02**
Citi High Yield Market Capped	7.37	2.28	4.66	5.77	8.53	4.30	10.67	3/31/08	7.49
Value Added	-0.13	-0.45	-0.58	-0.81	-0.99	-1.46	-1.22	3/31/08	-0.47

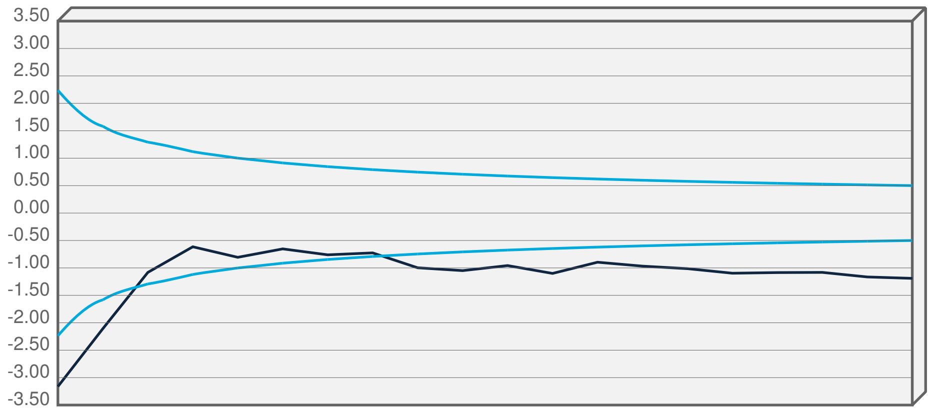
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Oaktree High Yield

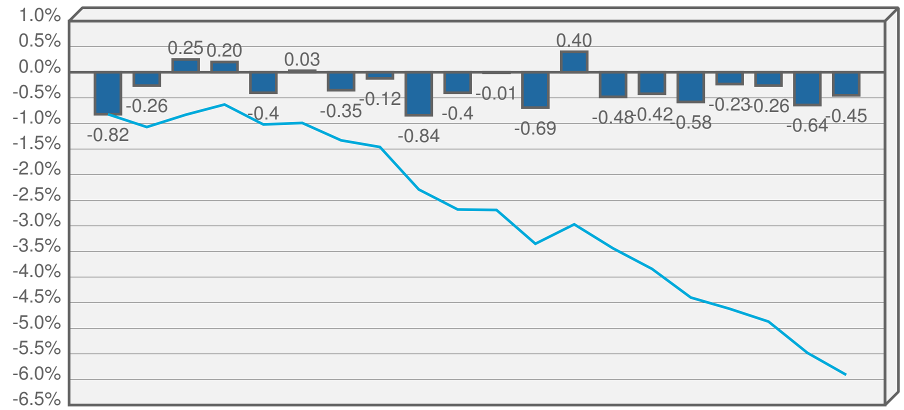
March 31, 2019

Cumulative Skill Analysis vs Benchmark

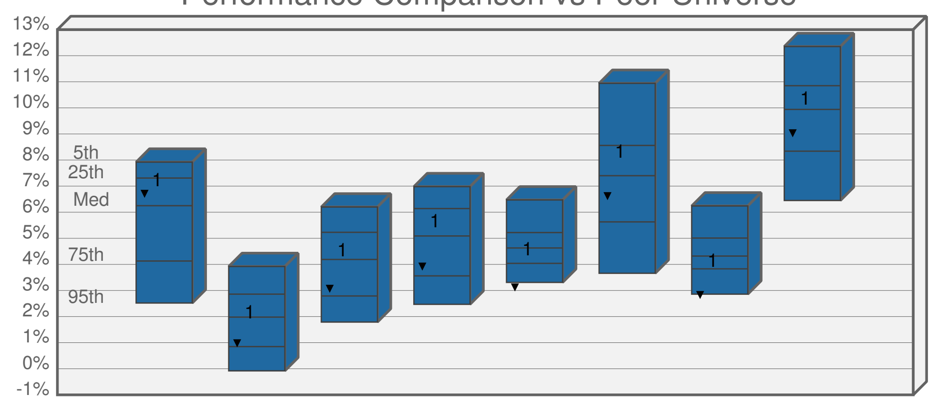


Excess Return:	-1.19	Information Ratio:	-1.75
Excess Risk:	0.68	T-Stat:	-3.91

Value-Added Analysis vs Benchmark



Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▾ Oaktree High Y	6.91 (38)	1.18 (67)	3.27 (65)	4.12 (68)	3.32 (94)	6.82 (59)	3.03 (93)	9.23 (64)
1 Citigroup HY C	7.36 (23)	2.29 (45)	4.67 (39)	5.78 (35)	4.71 (45)	8.45 (27)	4.27 (54)	10.48 (39)
Median	6.25	1.98	4.19	5.09	4.63	7.40	4.32	9.94
Number of Funds	221	220	218	218	215	211	198	127

*Compass Total Returns of Active High Yield Fixed Income Portfolios Universe - Gross of Fees

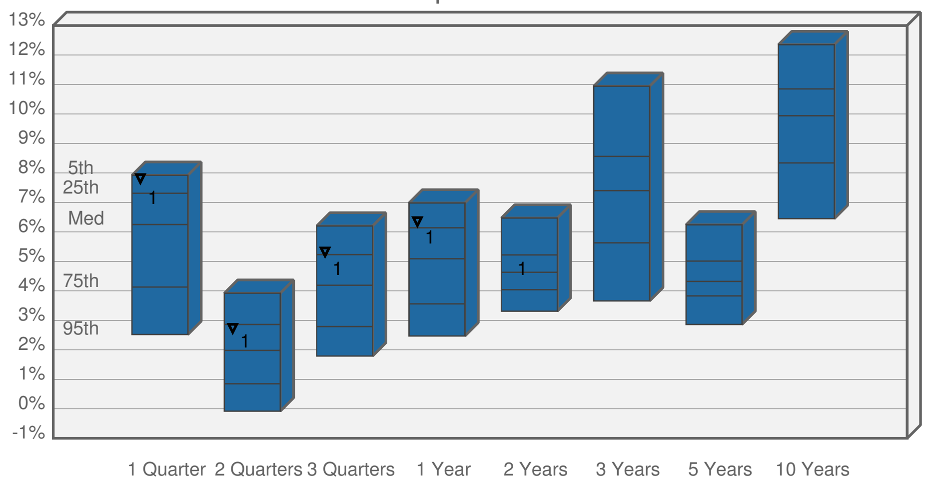
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Federated High Yield

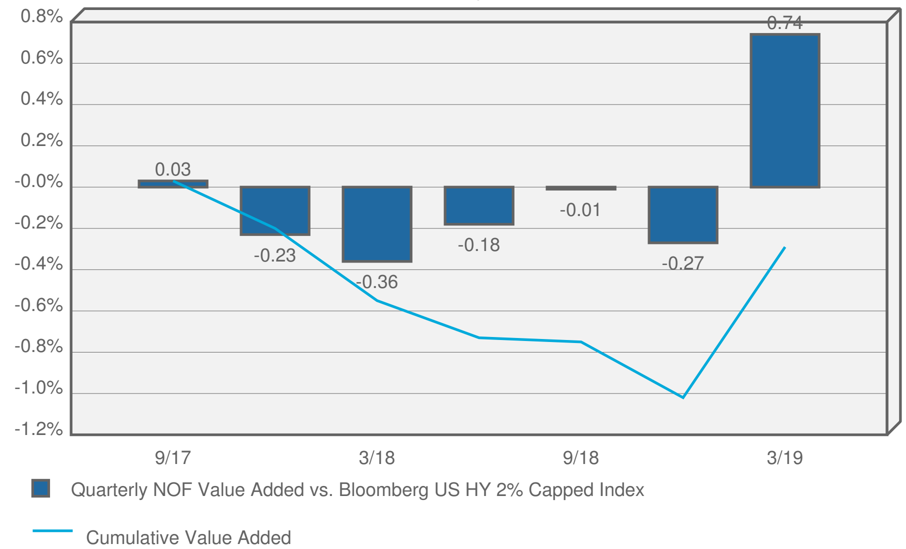
March 31, 2019

Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▼ Federated High	7.99 (4)	2.91 (22)	5.50 (15)	6.53 (12)				
1 Bloomberg US H	7.26 (26)	2.39 (40)	4.85 (34)	5.93 (31)	4.85 (40)			
Median	6.25	1.98	4.19	5.09	4.63	7.40	4.32	9.94
Number of Funds	221	220	218	218	215	211	198	127

Value-Added Analysis vs Benchmark



*Compass Total Returns of Active High Yield Fixed Income Portfolios Universe - Gross of Fees

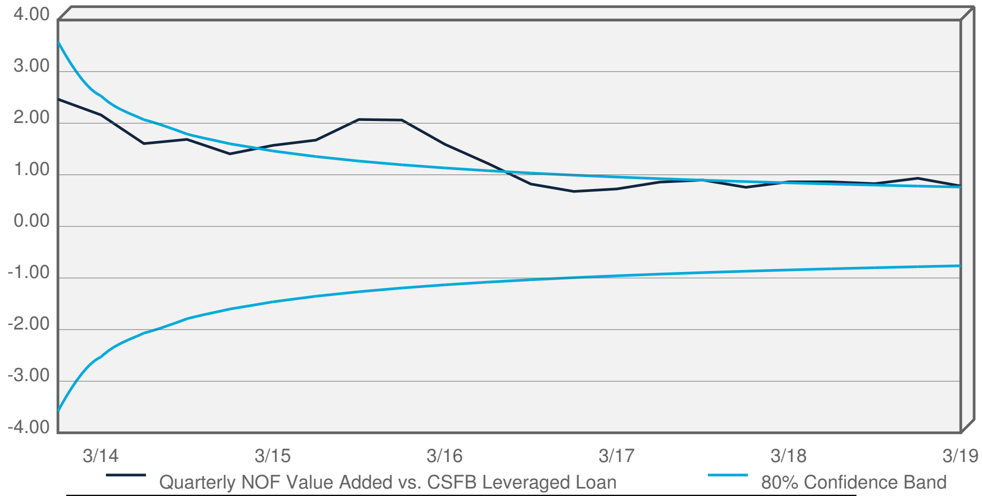
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Sound Point

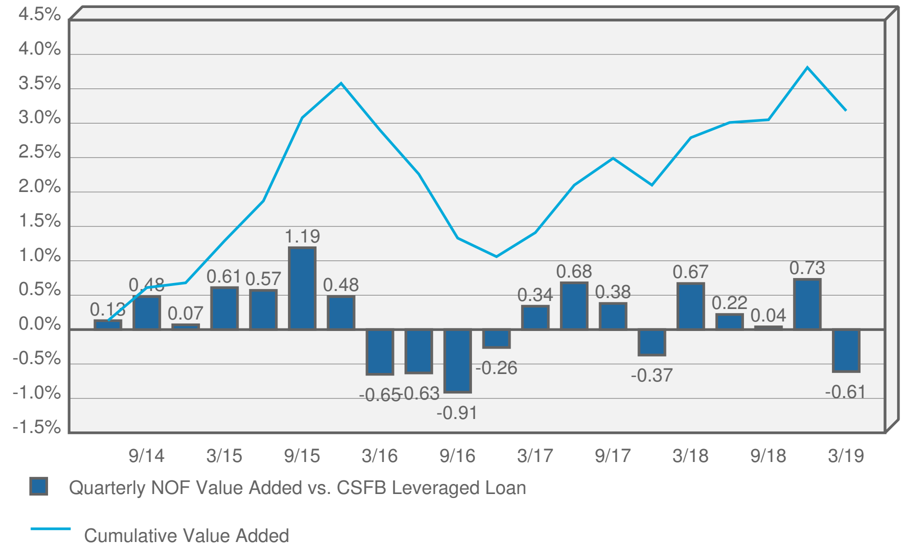
March 31, 2019

Cumulative Skill Analysis vs Benchmark



Excess Return:	0.78	Information Ratio:	0.72
Excess Risk:	1.09	T-Stat:	1.61

Value-Added Analysis vs Benchmark



Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

High Yield Fixed Composite

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Citi High Yield Market Capped	6/08	3/19	100.00	FTSE High Yield Market Capped

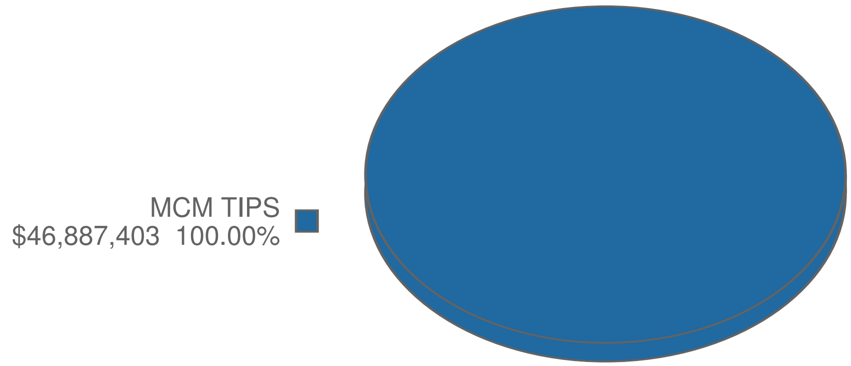
TIPS

Wilshire Consulting

MANAGER ALLOCATION

TIPS Fixed Composite

As of March 31, 2019

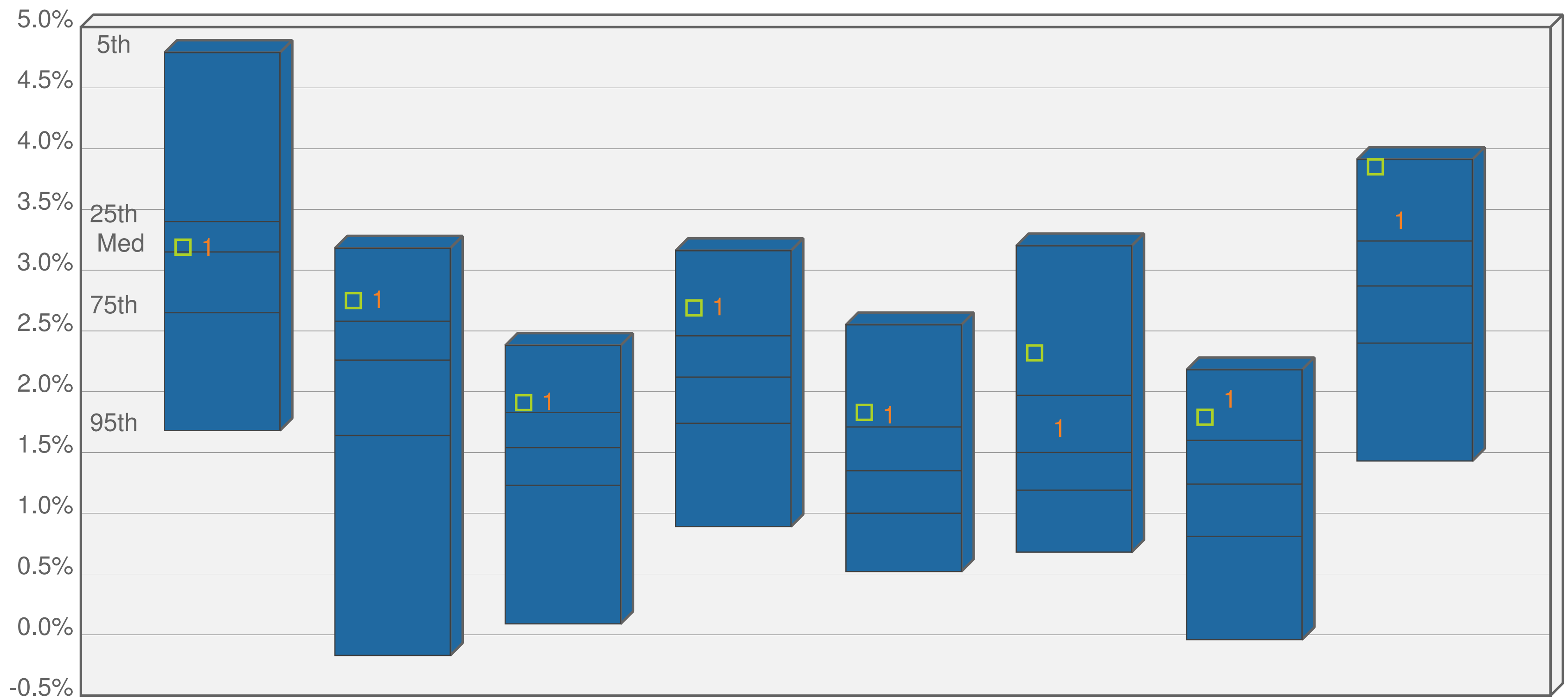


Wilshire Consulting

PERFORMANCE COMPARISON

TIPS Fixed Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
□ TIPS Fixed Composite	3.20 (43)	2.76 (14)	1.92 (19)	2.70 (11)	1.84 (17)	2.33 (16)	1.80 (16)	3.86 (5)
1 Bloomberg U.S. T	3.19 (43)	2.76 (14)	1.92 (19)	2.70 (11)	1.81 (19)	1.70 (33)	1.94 (9)	3.41 (14)
5th %tile	4.79	3.18	2.38	3.16	2.55	3.20	2.18	3.91
25th %tile	3.40	2.58	1.83	2.46	1.71	1.97	1.60	3.24
Median	3.15	2.26	1.54	2.12	1.35	1.50	1.24	2.87
75th %tile	2.65	1.64	1.23	1.74	1.00	1.19	0.81	2.40
95th %tile	1.68	-0.17	0.09	0.89	0.52	0.68	-0.04	1.43
Number of Funds	238	236	234	229	213	204	165	98

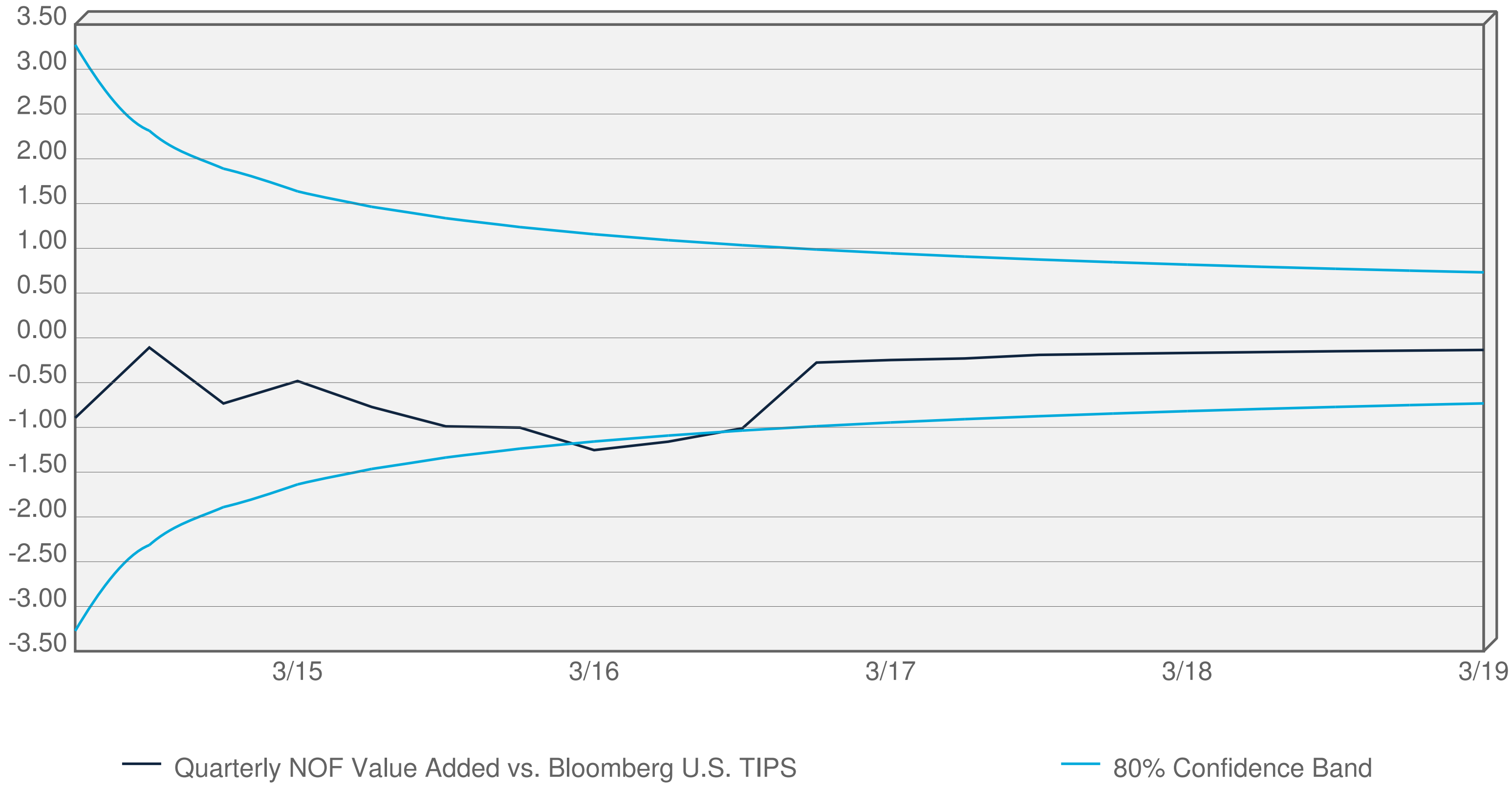
*Total Returns of TIPS Mutual Funds Universe - Net of Fees

Wilshire Consulting

CUMULATIVE SKILL ANALYSIS

TIPS Fixed Composite

Five Years Ending March 31, 2019



Excess Return:	-0.13	Information Ratio:	-0.14
Excess Risk:	0.99	T-Stat:	-0.30

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
MCM TIPS									
Net of Fee Return	**3.20**	**2.76**	**1.92**	**2.70**				**12/31/16**	**2.21**
Bloomberg U.S. TIPS	3.19	2.76	1.92	2.70				12/31/16	2.17
Value Added	0.00	-0.00	0.00	-0.00				12/31/16	0.04
TIPS Fixed Composite									
Net of Fee Return	**3.20**	**2.76**	**1.92**	**2.70**	**2.33**	**1.80**	**3.86**	**3/31/08**	**2.96**
Bloomberg U.S. TIPS	3.19	2.76	1.92	2.70	1.70	1.94	3.41	3/31/08	2.90
Value Added	0.00	-0.00	0.00	-0.00	0.63	-0.14	0.45	3/31/08	0.05

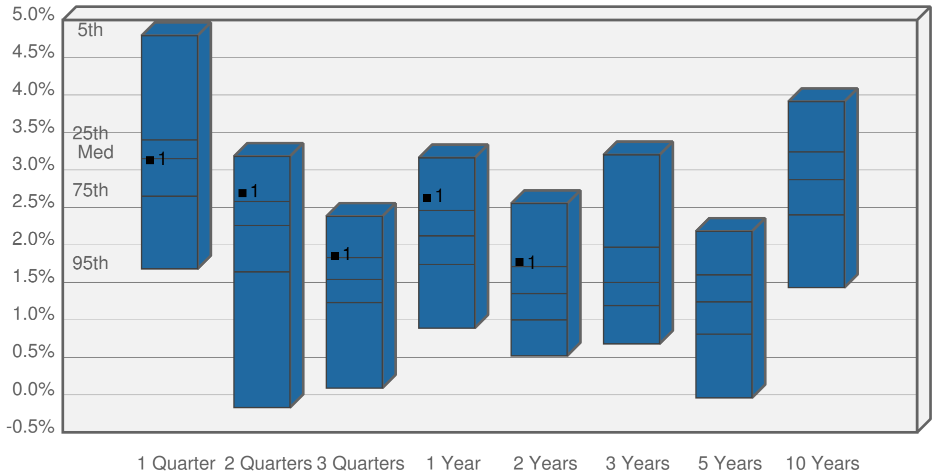
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

MCM TIPS

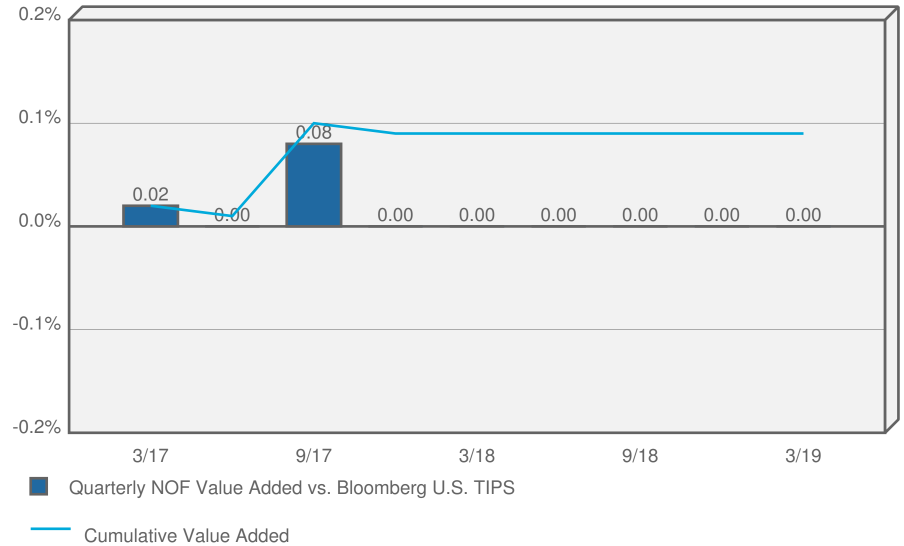
March 31, 2019

Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ MCM TIPS	3.20 (43)	2.76 (14)	1.92 (19)	2.70 (11)	1.84 (17)			
1 Bloomberg U.S.	3.19 (43)	2.76 (14)	1.92 (19)	2.70 (11)	1.81 (19)			
Median	3.15	2.26	1.54	2.12	1.35	1.50	1.24	2.87
Number of Funds	238	236	234	229	213	204	165	98

Value-Added Analysis vs Benchmark



*Lipper Total Returns of TIPS Mutual Funds Universe - Net of Fees

Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

TIPS Fixed Composite

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
Bloomberg U.S. TIPS	6/08	3/19	100.00	Bloomberg U.S. TIPS

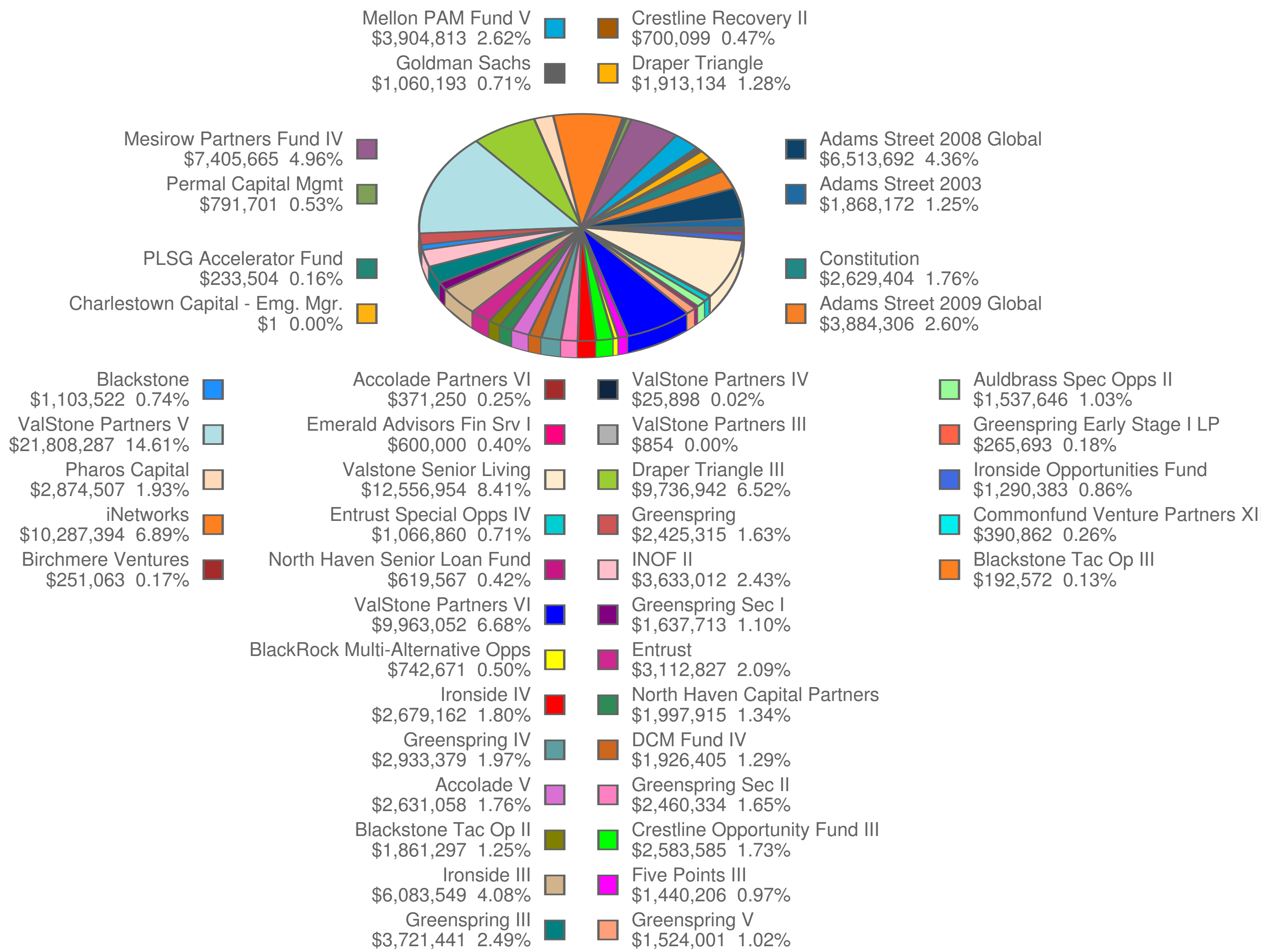
ALTERNATIVE INVESTMENTS

Wilshire Consulting

MANAGER ALLOCATION

Private Equity Composite

As of March 31, 2019



Wilshire Consulting

INTERNAL RATE OF RETURN

Private Equity Composite*

March 31, 2019

	Quarter End Market Value	Commitment Value	Inception Date	IRR Since Inception
Adams Street 2003	1,868	13,733	5/08/07	34.39
Adams Street 2008 Global	6,514	10,000	1/07/08	12.98
Adams Street 2009 Global	3,884	5,000	1/12/09	11.64
Constitution	2,629	6,000	8/04/11	13.65
Crestline Recovery II	700	3,000	7/14/11	6.50
Draper Triangle	1,913	10,000	2/22/07	8.13
Goldman Sachs	1,060	10,000	2/02/07	18.41
Mellon PAM Fund V	3,905	10,000	7/10/07	17.23
Mesirow Partners Fund IV	7,406	17,000	6/01/07	12.08
Permal Capital Mgmt	792	3,000	8/15/11	11.93
ValStone Partners IV	26	20,000	7/01/08	13.78
ValStone Partners III	1	10,000	2/08/07	54.11
PLSG Accelerator Fund	234	250	12/27/11	1.00
Charlestown Capital - Emg. Mgr.	0	1,000	1/09/12	
Birchmere Ventures	251	500	3/07/12	-10.01
iNetworks	10,287	5,000	1/07/13	0.50
Pharos Capital	2,875	3,000	3/21/13	5.25
Draper Triangle III	9,737	10,000	4/01/13	-9.77
ValStone Partners V	21,808	20,000	4/22/13	8.10
Greenspring	2,425	3,000	7/26/13	23.14
Blackstone	1,104	2,000	11/18/13	7.09
INOF II	3,633	1,000	12/13/13	26.22
Greenspring III	3,721	0	8/07/14	17.08
Greenspring Sec I	1,638	0	8/07/14	27.54
Ironside III	6,084	0	11/12/14	13.76
Entrust	3,113	0	2/11/15	5.83
Blackstone Tac Op II	1,861	0	3/15/15	7.72
North Haven Capital Partners	1,998	0	7/30/15	10.43
Accolade V	2,631	0	8/12/15	11.73

*Dollar values are shown in thousands

Wilshire Consulting

INTERNAL RATE OF RETURN

Private Equity Composite*

March 31, 2019

	Quarter End Market Value	Commitment Value	Inception Date	IRR Since Inception
DCM Fund IV	1,926	3,000	11/09/15	3.23
Greenspring IV	2,933	0	4/28/16	7.27
Greenspring Sec II	2,460	0	6/20/16	44.56
Ironside IV	2,679	0	6/08/16	4.03
Crestline Opportunity Fund III	2,584	0	12/23/16	5.84
BlackRock Multi-Alternative Opps	743	0	6/21/17	10.25
Five Points III	1,440	0	8/01/17	0.00
ValStone Partners VI	9,963	0	8/29/17	0.01
Greenspring V	1,524	0	1/22/18	14.80
North Haven Senior Loan Fund	620	0	2/08/18	-1.52
Auldbrass Spec Opps II	1,538	0	3/13/18	32.37
Entrust Special Opps IV	1,067	0	3/27/18	5.13
Greenspring Early Stage I LP	266	0	7/27/18	-9.76
Valstone Senior Living	12,557	0	7/15/18	117.89
Ironside Opportunities Fund	1,290	0	9/27/18	-1.70
Emerald Advisors Fin Srv I	600	0	10/25/18	0.00
Commonfund Venture Partners XII	391	0	10/12/18	0.00
Accolade Partners VI	371	0	12/07/18	0.00
Blackstone Tac Op III	193	0	2/15/19	0.00
Private Equity Composite	**149,242**	**166,483**	**2/02/07**	**14.81**

*Dollar values are shown in thousands

CUSTOM BENCHMARK SPECIFICATION

Private Equity Composite

March 31, 2019

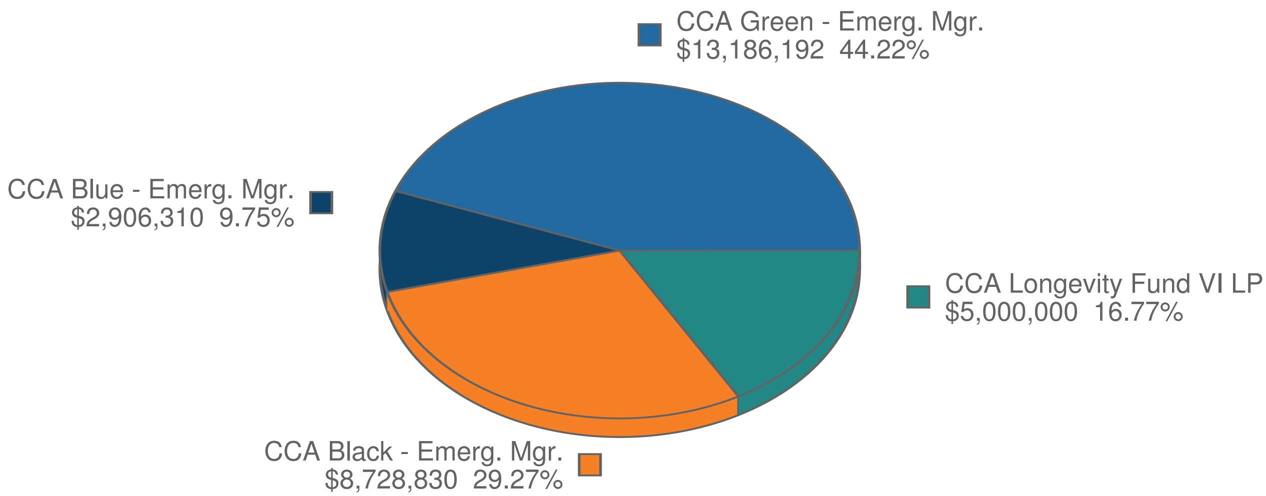
	Quarter Start	Quarter End	Percent	Description
RBAC Custom Private Equity Bench	6/03	3/19	100.00	RBAC Custom Private Equity Benchmark

LIFE SETTLEMENT

MANAGER ALLOCATION

Life Settlement Composite

As of March 31, 2019

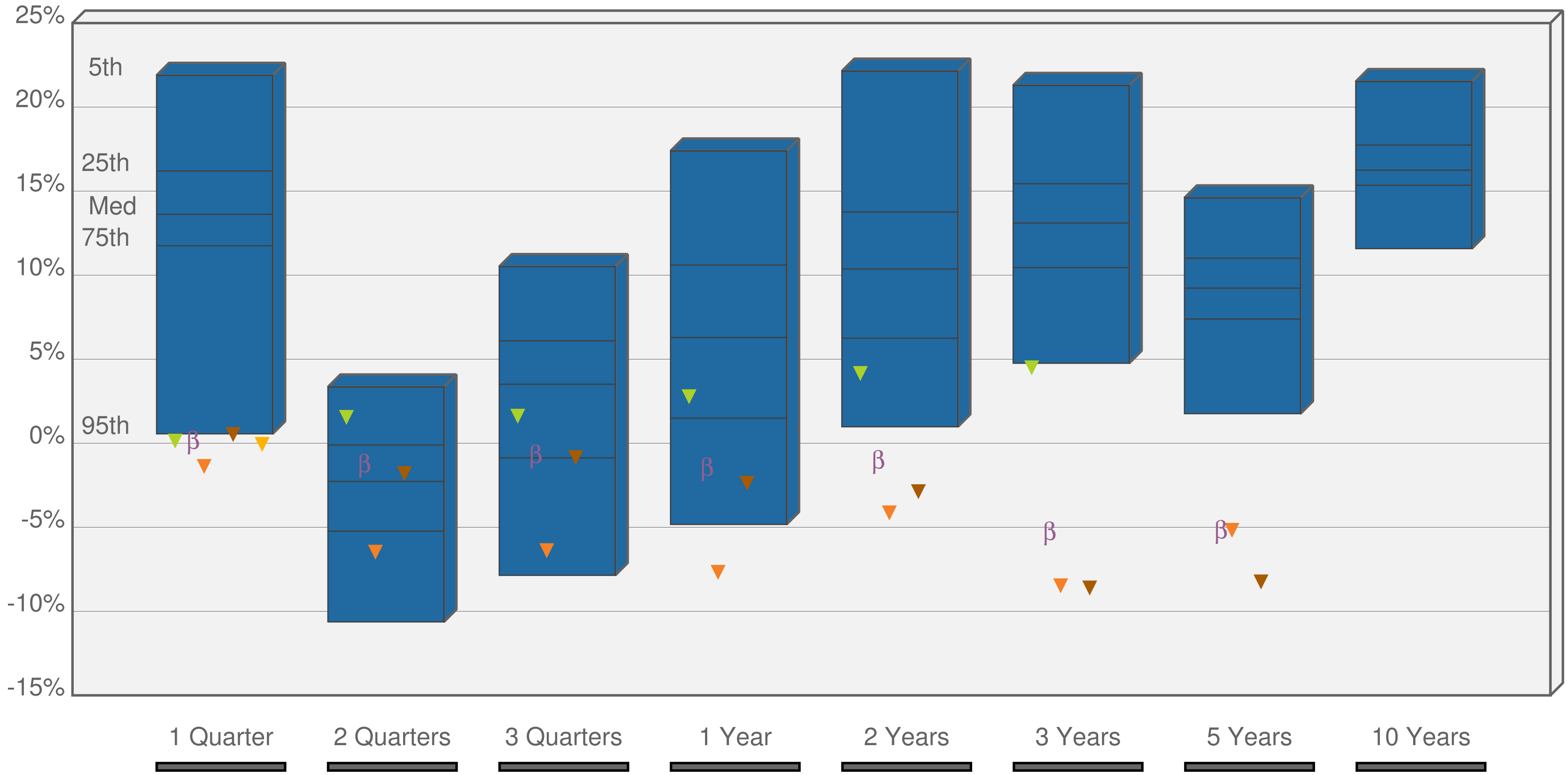


Wilshire Consulting

PERFORMANCE COMPARISON

Universe Analysis

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
▼ CCA Black - Emerg. Mgr.	0.20 (95)	1.61 (13)	1.68 (60)	2.84 (68)	4.22 (84)	4.56 (95)		
▼ CCA Blue - Emerg. Mgr.	-1.31 (99)	-6.41 (81)	-6.32 (91)	-7.61 (97)	-4.07 (98)	-8.41 (99)	-5.11 (98)	
▼ CCA Green - Emerg. Mgr.	0.59 (94)	-1.73 (41)	-0.78 (74)	-2.31 (91)	-2.81 (97)	-8.54 (99)	-8.18 (99)	
▼ CCA Longevity Fund VI LP	0.00 (98)							
β Life Settlement Composit	0.19 (95)	-1.20 (33)	-0.65 (74)	-1.41 (88)	-0.98 (97)	-5.23 (99)	-5.14 (98)	
5th %tile	21.89	3.35	10.51	17.39	22.14	21.29	14.60	21.52
25th %tile	16.20	-0.10	6.09	10.60	13.76	15.44	11.01	17.74
Median	13.62	-2.27	3.51	6.29	10.37	13.10	9.23	16.25
75th %tile	11.75	-5.23	-0.87	1.49	6.25	10.45	7.39	15.35
95th %tile	0.56	-10.63	-7.86	-4.83	0.98	4.76	1.76	11.58
Number of Funds	763	760	756	741	712	692	569	295

*Equity Ret of Balanced and Equity Portfolios Universe - Gross of Fees

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
CCA Green - Emerg. Mgr.									
Net of Fee Return	**0.59**	**-1.73**	**-0.78**	**-2.31**	**-8.54**	**-8.18**		**9/30/09**	**6.72**
CCA Blue - Emerg. Mgr.									
Net of Fee Return	**-1.31**	**-6.41**	**-6.32**	**-7.61**	**-8.41**	**-5.11**		**12/31/12**	**-4.20**
CCA Black - Emerg. Mgr.									
Net of Fee Return	**0.20**	**1.61**	**1.68**	**2.84**	**4.56**			**12/31/14**	**6.57**
CCA Longevity Fund VI LP									
Net of Fee Return	**0.00**							**12/31/18**	**0.00**
Life Settlement Composite									
Net of Fee Return	**0.19**	**-1.20**	**-0.65**	**-1.41**	**-5.23**	**-5.14**		**9/30/09**	**8.41**

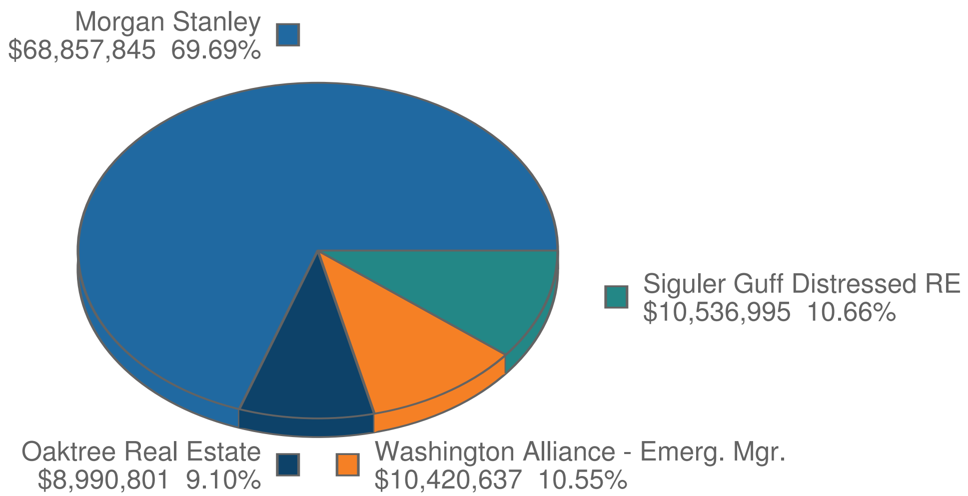
REAL ESTATE

Wilshire Consulting

MANAGER ALLOCATION

Real Estate Composite

As of March 31, 2019

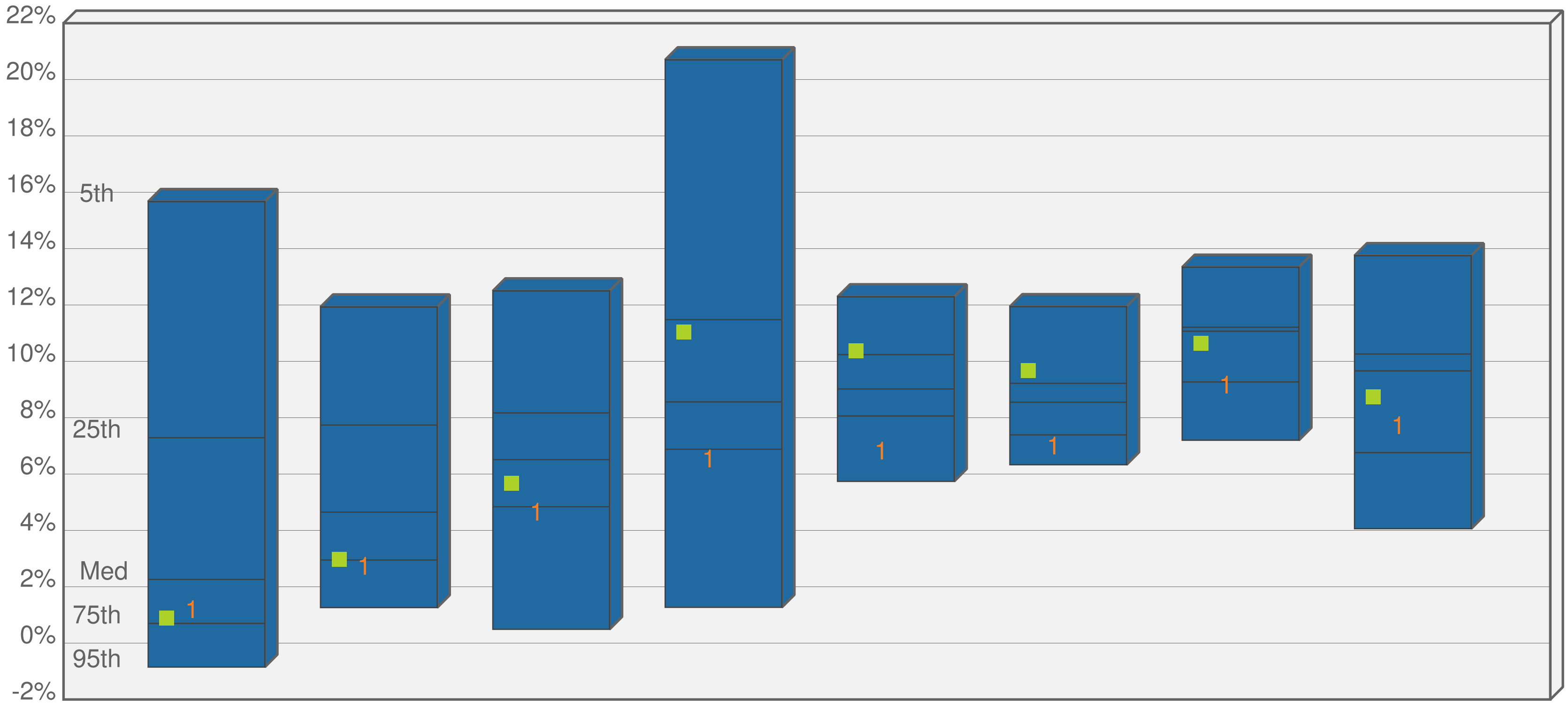


Wilshire Consulting

PERFORMANCE COMPARISON

Real Estate Composite

Periods Ended March 31, 2019



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
Real Estate Composite	0.94 (70)	3.02 (58)	5.71 (54)	11.09 (25)	10.41 (24)	9.72 (24)	10.68 (61)	8.78 (53)
1 NCREIF ODCE NOF	1.20 (66)	2.74 (87)	4.66 (75)	6.55 (79)	6.83 (86)	7.01 (79)	9.17 (88)	7.73 (56)
5th %tile	15.67	11.93	12.50	20.70	12.29	11.94	13.34	13.75
25th %tile	7.29	7.74	8.17	11.48	10.24	9.22	11.21	10.26
Median	2.26	4.65	6.51	8.56	9.02	8.55	11.07	9.66
75th %tile	0.70	2.95	4.84	6.88	8.06	7.39	9.27	6.76
95th %tile	-0.85	1.26	0.49	1.27	5.74	6.33	7.20	4.06
Number of Funds	27	27	25	25	20	19	18	13

*TUCS Total Ret of Real Estate Investment Pools Universe - Gross of Fees

Wilshire Consulting

PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Morgan Stanley									
Net of Fee Return	**1.27**	**3.26**	**5.28**	**7.19**	**8.43**	**10.62**	**8.68**	**3/31/03**	**8.83**
NCREIF ODCE NOF	1.20	2.74	4.66	6.55	7.01	9.17	7.73	3/31/03	7.27
Value Added	0.07	0.52	0.62	0.64	1.42	1.44	0.95	3/31/03	1.55
Oaktree Real Estate									
Net of Fee Return	**0.59**	**3.13**	**5.78**	**7.91**	**5.57**	**8.64**		**9/30/13**	**6.98**
Siguler Guff Distressed RE									
Net of Fee Return	**0.00**	**2.94**	**9.63**	**21.07**	**15.03**	**8.94**		**3/31/14**	**8.94**
Washington Alliance - Emerg. Mgr.									
Net of Fee Return	**0.00**	**1.32**	**3.97**	**31.57**	**19.69**	**16.73**		**9/30/13**	**15.10**
Real Estate Composite									
Net of Fee Return	**0.94**	**3.02**	**5.71**	**11.09**	**9.62**	**10.48**	**8.62**	**3/31/03**	**8.96**
NCREIF ODCE NOF	1.20	2.74	4.66	6.55	7.01	9.17	7.73	3/31/03	7.27
Value Added	-0.26	0.28	1.05	4.53	2.61	1.30	0.89	3/31/03	1.69
ERECT Fund II									
Net of Fee Return	**4.06**	**14.39**	**16.07**	**16.76**	**9.26**	**8.04**	**8.30**	**6/30/05**	**7.41**
Consumer Price Index	1.18	0.70	0.88	1.86	2.20	1.47	1.80	6/30/05	1.97
Value Added	2.88	13.69	15.19	14.89	7.06	6.57	6.51	6/30/05	5.45
ERECT Composite									
Net of Fee Return	**4.06**	**14.39**	**16.07**	**16.76**	**9.26**	**8.04**		**9/30/10**	**7.70**

Real Estate Composites returns do not include ERECT Funds

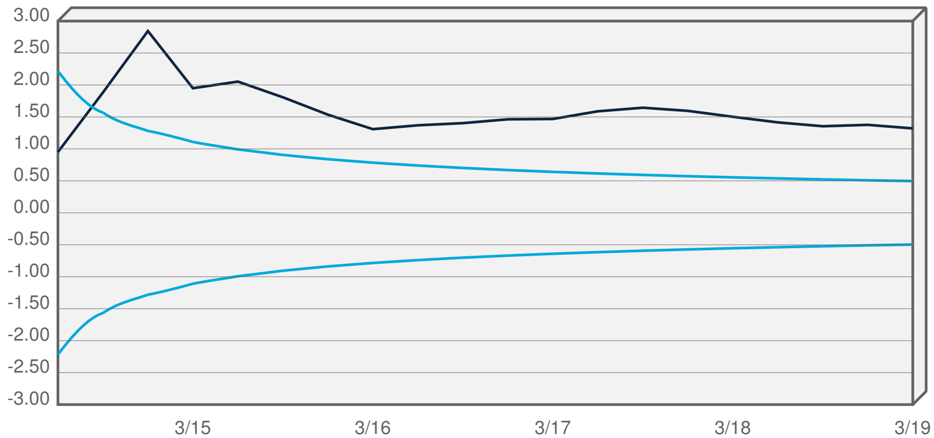
Wilshire Consulting

INVESTMENT MANAGER ANALYSIS

Morgan Stanley

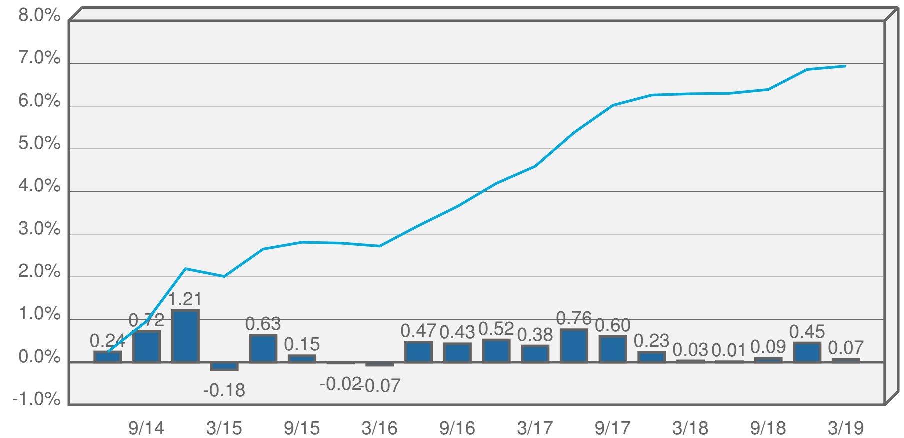
March 31, 2019

Cumulative Skill Analysis vs Benchmark

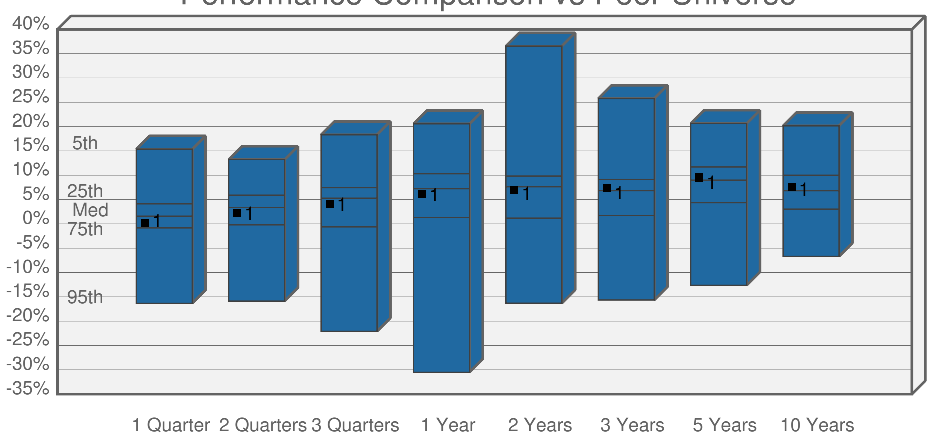


Excess Return:	1.32	Information Ratio:	1.96
Excess Risk:	0.67	T-Stat:	4.38

Value-Added Analysis vs Benchmark

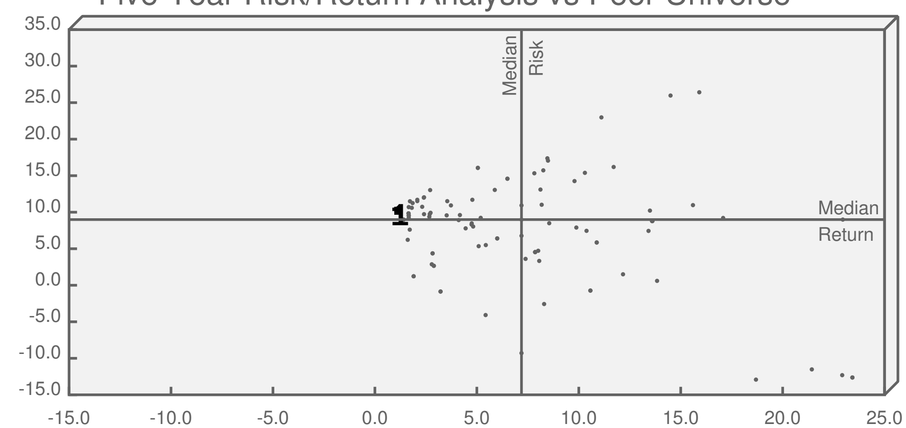


Performance Comparison vs Peer Universe*



	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	5 Years	10 Years
■ Morgan Stanley	1.27 (52)	3.26 (52)	5.28 (50)	7.19 (52)	8.01 (46)	8.43 (32)	10.62 (34)	8.68 (35)
1 NCREIF ODCE NOF	1.20 (53)	2.74 (56)	4.66 (54)	6.55 (53)	6.83 (56)	7.01 (47)	9.17 (49)	7.73 (45)
Median	1.58	3.37	5.28	7.23	7.63	6.83	8.99	6.82
Number of Funds	122	125	125	125	127	122	117	66

Five Year Risk/Return Analysis vs Peer Universe*



Description	Legend	Gross Fee Ret		Standard Deviation	
		Value	Rank	Value	Rank
Morgan Stanley	■	10.62	34	1.67	91
NCREIF ODCE NOF	1	9.17	49	1.47	97
Median		8.99		7.19	

*TUCS Total Returns of Real Estate Portfolios Universe - Gross of Fees

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PORTFOLIO RATE OF RETURN

Oaktree Real Estate*

As of March 31, 2019

Quarter	Commitment Value $	Beginning Capital Account	Contribution	Distribution	Appreciation	Expenses	Investment Fees	Ending Capital Account	Internal Rate of Return	Annualized IRR
09/13	20,000	0	9,400	0	0	0	0	9,400	0.00	NA
12/13		9,400	309	1,410	-19	0	309	7,971	-3.76	NA
03/14		7,971	4,000	0	-64	0	0	11,907	-4.16	NA
06/14		11,907	2,074	0	316	0	74	14,223	-1.39	NA
09/14		14,223	74	0	552	0	74	14,775	2.81	2.72
12/14		14,775	1,275	0	925	0	75	16,900	9.56	7.36
03/15		16,900	1,875	0	944	0	75	19,643	15.85	10.08
06/15		19,643	1,075	0	946	0	75	21,590	21.58	11.60
09/15		21,590	2,075	0	771	0	75	24,361	25.63	11.88
12/15		24,361	75	2,490	493	0	75	22,364	27.44	11.20
03/16		22,364	385	600	105	310	75	21,869	27.02	9.90
06/16		21,869	0	913	0	287	0	20,669	26.64	8.85
09/16		20,669	0	0	0	0	0	20,669	26.43	8.03
12/16		20,669	214	2,821	513	0	214	18,362	28.46	7.91
03/17		18,362	200	400	-15	139	61	17,947	28.08	7.25
06/17		17,947	0	964	0	236	0	16,747	28.27	6.80
09/17		16,747	0	524	0	76	0	16,147	28.54	6.42
12/17		16,147	0	2,738	1,103	0	0	14,511	36.38	7.50
03/18		14,511	0	2,082	134	67	0	12,497	38.03	7.37
06/18		12,497	0	725	251	186	0	11,836	40.69	7.40
09/18		11,836	0	1,464	304	0	0	10,677	43.92	7.50
12/18		10,677	0	913	269	185	0	9,848	47.13	7.58
03/19		9,848	0	856	58	60	0	8,991	48.90	7.46
Total	**20,000**		**23,032**	**18,898**	**7,586**	**1,546**	**1,182**	**8,991**	**48.90**	**7.46**

*Dollar values are shown in thousands

Wilshire Consulting

PORTFOLIO RATE OF RETURN

Washington Alliance - Emerg. Mgr.*

As of March 31, 2019

Quarter	Commitment Value $	Beginning Capital Account	Contribution	Distribution	Appreciation	Expenses	Investment Fees	Ending Capital Account	Internal Rate of Return	Annualized IRR
09/13	5,000	0	1,376	0	0	0	0	1,376	0.00	NA
12/13		1,376	203	0	0	0	0	1,579	0.00	NA
03/14		1,579	819	0	0	0	0	2,397	0.00	NA
06/14		2,397	7	27	-124	0	7	2,246	-6.89	NA
09/14		2,246	1,810	90	200	0	0	4,166	3.25	3.21
12/14		4,166	0	152	95	0	0	4,109	6.55	5.14
03/15		4,109	0	0	0	0	0	4,109	6.00	3.93
06/15		4,109	803	0	462	0	11	5,363	20.84	11.34
09/15		5,363	0	200	355	0	0	5,519	31.06	14.38
12/15		5,519	0	214	160	0	0	5,465	34.65	14.03
03/16		5,465	0	0	0	0	0	5,465	33.58	12.20
06/16		5,465	829	0	0	0	0	6,294	32.68	10.77
09/16		6,294	0	200	0	0	0	6,094	31.56	9.52
12/16		6,094	0	0	778	0	0	6,872	52.51	13.78
03/17		6,872	371	227	0	0	0	7,016	51.32	12.51
06/17		7,016	0	0	364	0	0	7,380	60.03	13.30
09/17		7,380	0	226	530	0	0	7,683	73.24	14.66
12/17		7,683	384	256	185	0	0	7,997	76.78	14.28
03/18		7,997	1,213	0	0	0	0	9,210	75.28	13.23
06/18		9,210	0	329	2,446	0	0	11,327	136.99	19.85
09/18		11,327	0	0	296	0	0	11,622	141.97	19.26
12/18		11,622	0	2,016	131	0	0	9,738	144.01	18.45
03/19		9,738	683	0	0	0	0	10,421	143.48	17.51
Total	**5,000**		**8,498**	**3,938**	**5,878**	**0**	**18**	**10,421**	**143.48**	**17.51**

*Dollar values are shown in thousands

Wilshire Consulting

PORTFOLIO RATE OF RETURN

Siguler Guff Distressed RE*

As of March 31, 2019

Quarter	Commitment Value $	Beginning Capital Account	Contribution	Distribution	Appreciation	Expenses	Investment Fees	Ending Capital Account	Internal Rate of Return	Annualized IRR
03/14	15,000	0	4,200	0	0	0	0	4,200	0.00	NA
06/14		4,200	0	900	0	0	0	3,300	0.00	NA
09/14		3,300	900	0	141	0	0	4,341	3.60	NA
12/14		4,341	900	0	-8	0	0	5,233	3.28	NA
03/15		5,233	0	462	0	0	0	4,771	3.13	2.83
06/15		4,771	690	2	-61	0	0	5,398	1.67	1.23
09/15		5,398	2,250	2	-182	0	0	7,465	-2.36	-1.48
12/15		7,465	375	2	108	0	0	7,946	-0.03	-0.02
03/16		7,946	465	2	0	0	0	8,409	-0.03	-0.01
06/16		8,409	1,163	2	0	0	0	9,570	-0.03	-0.01
09/16		9,570	264	2	609	0	0	10,441	9.88	3.67
12/16		10,441	570	186	0	0	0	10,826	9.37	3.18
03/17		10,826	0	2	450	0	0	11,273	15.70	4.80
06/17		11,273	0	369	0	0	0	10,904	15.15	4.29
09/17		10,904	0	2	694	0	0	11,597	24.61	6.28
12/17		11,597	0	406	785	0	0	11,976	35.15	8.11
03/18		11,976	0	541	0	0	0	11,434	34.55	7.49
06/18		11,434	0	1,514	1,039	0	0	10,960	48.88	9.56
09/18		10,960	180	429	710	0	0	11,421	58.77	10.55
12/18		11,421	0	1,485	303	0	0	10,239	63.26	10.61
03/19		10,239	428	129	0	0	0	10,537	63.71	10.13
Total	**15,000**		**12,384**	**6,436**	**4,589**	**0**	**0**	**10,537**	**63.71**	**10.13**

*Dollar values are shown in thousands

Wilshire Consulting

CUSTOM BENCHMARK SPECIFICATION

Real Estate Composite

March 31, 2019

	Quarter Start	Quarter End	Percent	Description
NCREIF ODCE NOF	12/01	3/19	100.00	NCREIF ODCE NOF

MLP

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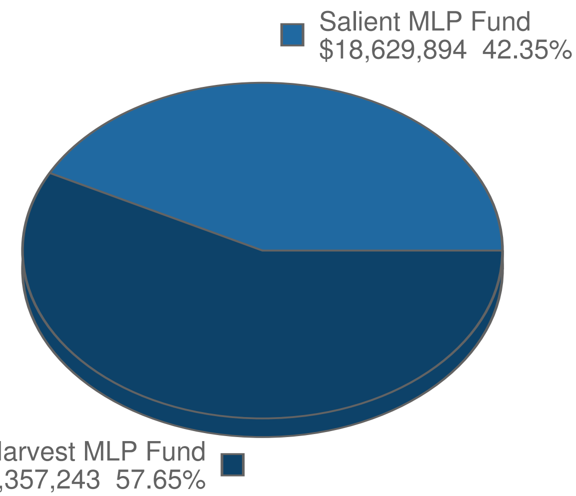
MANAGER ALLOCATION

MLP Composite

As of March 31, 2019



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PERFORMANCE COMPARISON

Trailing Returns

Periods Ended March 31, 2019

	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years	Incept Date	Incept Ret
Salient MLP Fund									
Net of Fee Return	**20.02**	**-1.41**	**2.30**	**15.87**				**12/31/17**	**2.83**
Alerian MLP Index	16.82	-3.38	2.96	15.11				12/31/17	1.85
Value Added	3.20	1.98	-0.66	0.76				12/31/17	0.99
Harvest MLP Fund									
Net of Fee Return	**20.90**	**-4.23**	**1.51**	**15.32**				**3/31/18**	**15.32**
Alerian MLP Index	16.82	-3.38	2.96	15.11				3/31/18	15.11
Value Added	4.08	-0.85	-1.45	0.21				3/31/18	0.21
MLP Composite									
Net of Fee Return	**20.53**	**-3.06**	**1.84**	**15.56**				**3/31/18**	**15.56**
Alerian MLP Index	16.82	-3.38	2.96	15.11				3/31/18	15.11
Value Added	3.70	0.33	-1.12	0.44				3/31/18	0.44

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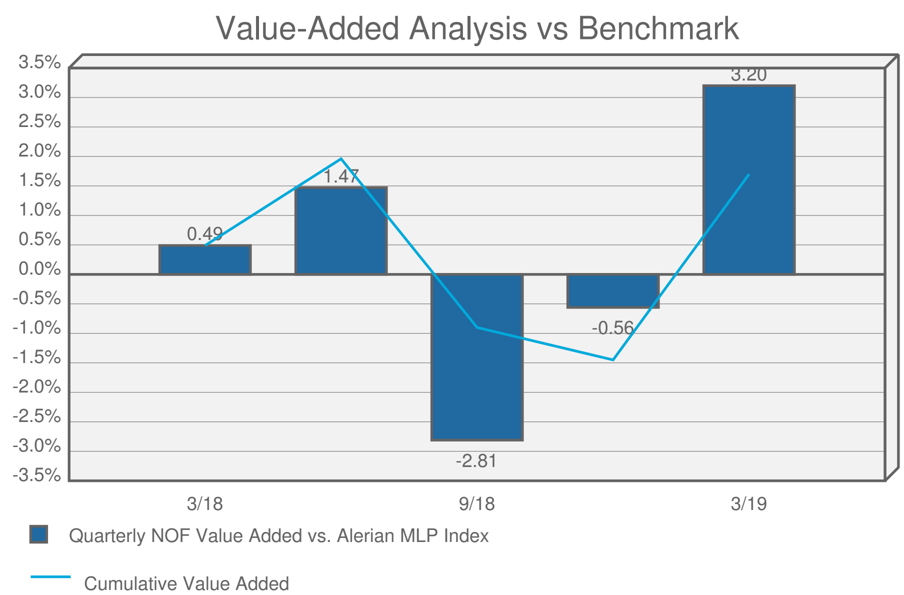
INVESTMENT MANAGER ANALYSIS

Salient MLP Fund

March 31, 2019



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INVESTMENT MANAGER ANALYSIS

Harvest MLP Fund

March 31, 2019