WILSHIRE ASSOCIATES

Wilshire Consulting

Retirement Board of Allegheny County

Quarterly Executive Summary

March 31, 2020

CAPITAL MARKET UPDATE

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MARKET COMMENTARY

U.S. Equity

The U.S. stock market was down -20.7% for the first quarter, the worst quarter since the Global Financial Crisis. Uncertainty and a declining outlook were the driving forces behind the sell-off as the COVID-19 pandemic worsened, resulting in significant limitations on global commerce. Government action so far has included cutting short-term rates to near zero and the passage of a $2 trillion stimulus bill.

The world of investing has been introduced to an unprecedented set of conditions in 2020. As the COVID-19 virus spreads globally, the response has been to separate people and close nonessential businesses, with others working remotely. The economic expectations are that the unemployment rate will rise into the teens and U.S. GDP will fall by one-third. Investors are facing challenges reminiscent of the Global Financial Crisis.

Non-U.S. Equity

Economic growth in the U.K. was already nonexistent during the fourth quarter, before the country had to deal with the virus in earnest. Across continental Europe, quarantine efforts are starting to bear fruit as cases in Italy and Spain appear to be approaching a peak. China has recently been relaxing severe travel restrictions while the official Purchasing Manager’s Index for China indicates that manufacturing in the country expanded during March after a dramatic slowdown.

Fixed Income

The U.S. Treasury yield curve fell dramatically during the quarter. The 10-year Treasury yield ended the quarter at 0.70%, down 122 basis points. The FOMC decreased its overnight rate by a total of 1.50% during two unscheduled meetings in March. The Fed also announced quantitative easing measures totaling at least $700 billion over the coming months.

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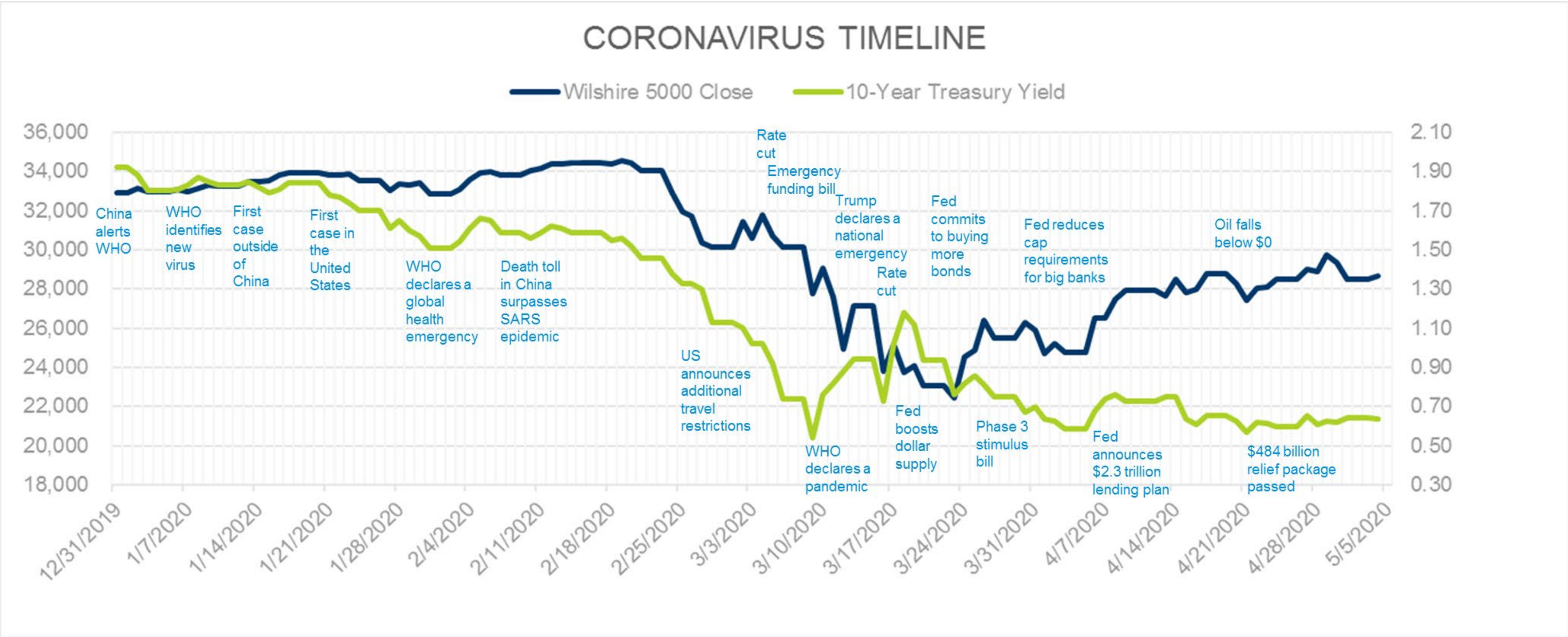
CORONAVIRUS TIMELINE

AS OF MAY 4



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MARCH 2020 ASSET CLASS ASSUMPTIONS

	EQUITY						FIXED INCOME						REAL ASSETS					
													Real Estate					
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Dev ex-US Bond (Hdg)	US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
COMPOUND RETURN (%)	6.75	7.25	7.25	7.50	7.20	8.40	0.70	1.80	2.70	0.70	5.40	0.80	5.60	5.80	7.00	1.85	5.65	1.15
ARITHMETIC RETURN (%)	8.05	8.70	10.20	9.10	8.50	11.75	0.70	1.95	3.15	0.90	5.85	0.85	6.95	6.95	7.90	2.95	6.00	1.15
EXPECTED RISK (%)	17.00	18.00	26.00	18.95	17.10	28.00	1.25	5.15	9.85	6.00	10.00	3.50	17.00	15.80	14.00	15.00	8.75	1.75
CASH YIELD (%)	2.25	3.75	3.00	3.55	2.80	0.00	0.70	1.90	2.65	1.15	7.40	1.10	4.75	4.75	2.95	0.70	2.50	0.00
CORRELATIONS																		
US Stock	1.00																	
Dev ex-US Stock (USD)	0.81	1.00																
Emerging Mkt Stock	0.74	0.74	1.00															
Global ex-US Stock	0.83	0.96	0.87	1.00														
Global Stock	0.95	0.92	0.83	0.94	1.00													
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.93	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.60	0.47	1.00								
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.18	0.18	0.26	0.10	0.67	0.66	0.39	0.26	1.00						
US RE Securities	0.59	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
Global RE Securities	0.65	0.59	0.56	0.62	0.66	0.58	-0.05	0.17	0.22	0.11	0.62	0.03	0.94	1.00				
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.78	0.76	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.42	0.43	0.50	0.48	0.47	0.43	0.01	0.24	0.25	0.41	0.53	0.06	0.65	0.69	0.69	0.59	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

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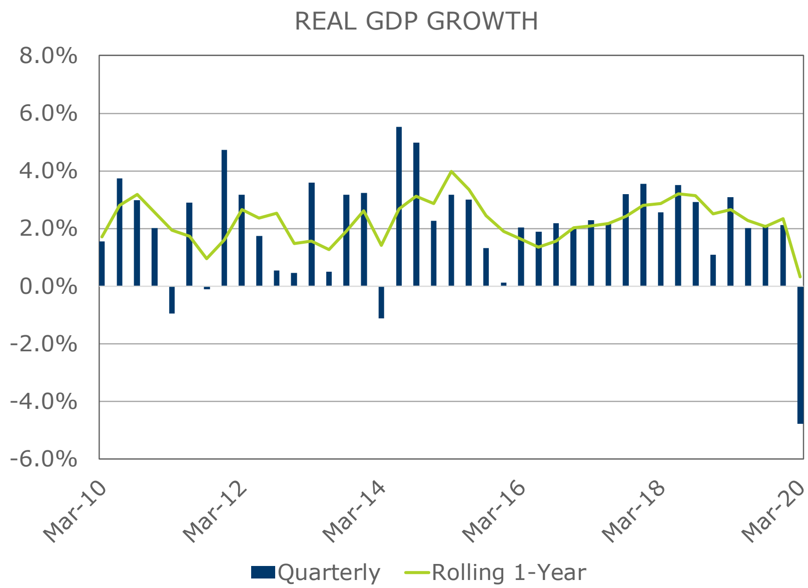
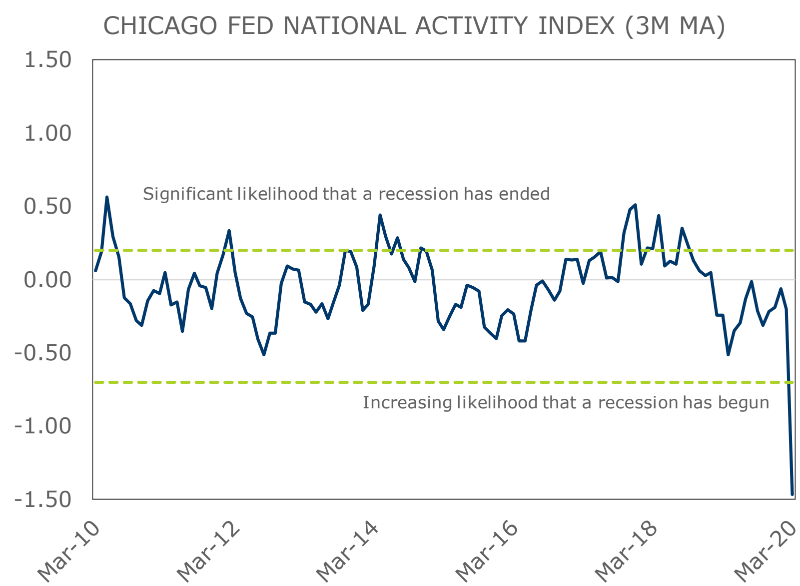
ECONOMIC GROWTH





Data source: Bloomberg

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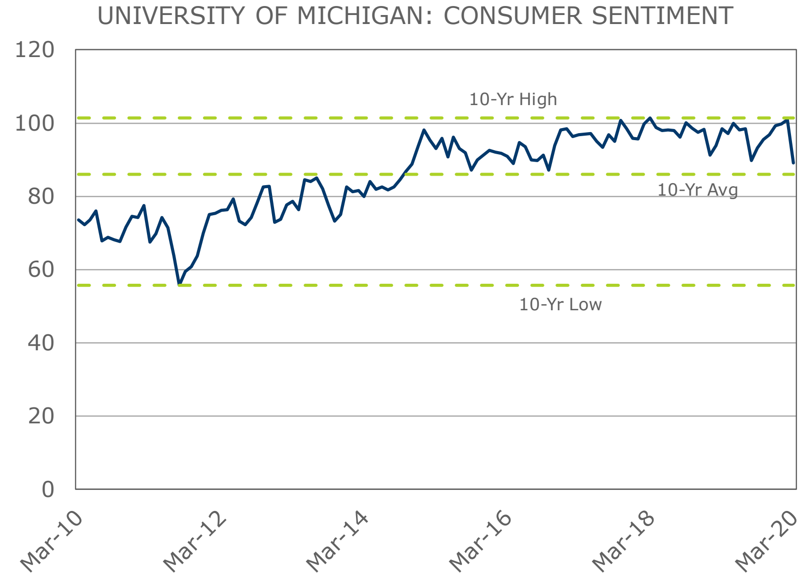
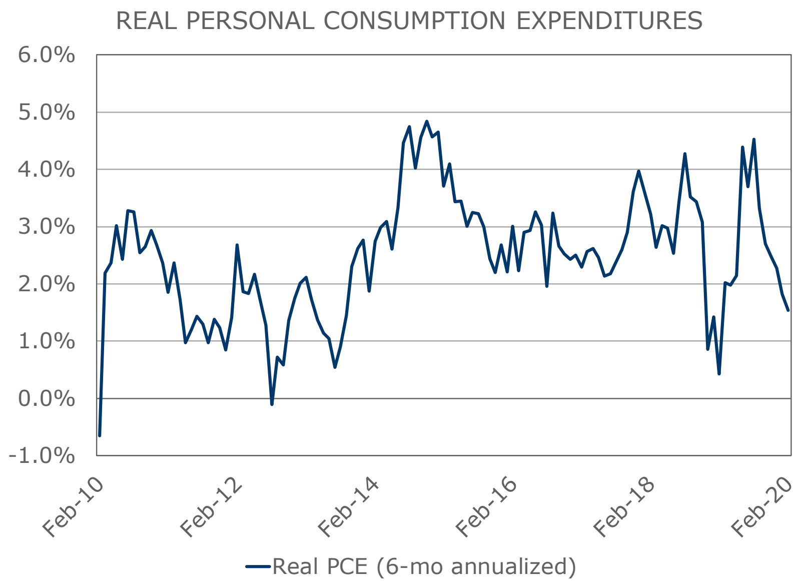
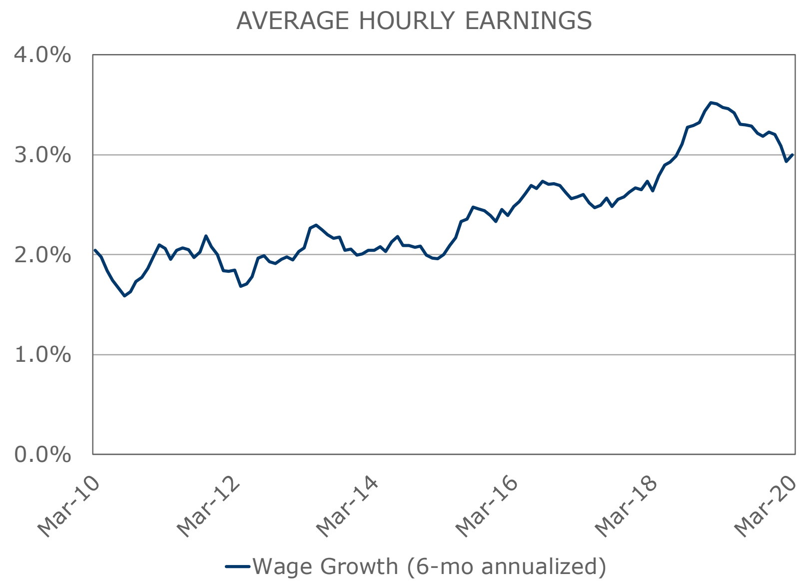
CONSUMER ACTIVITY



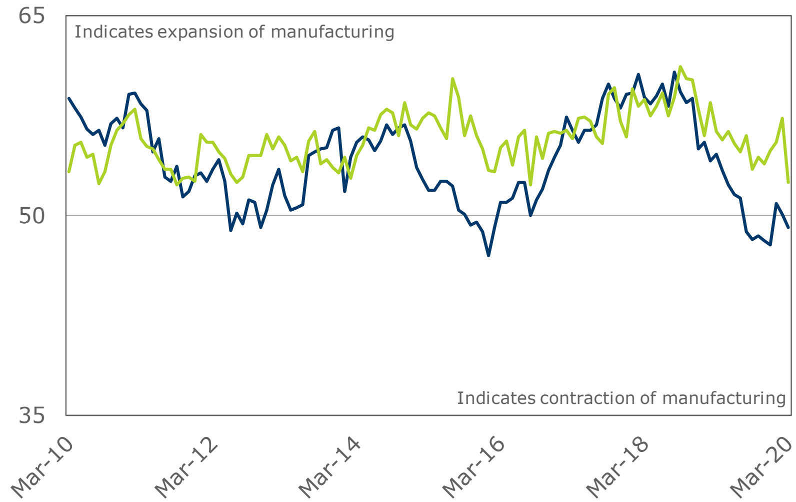




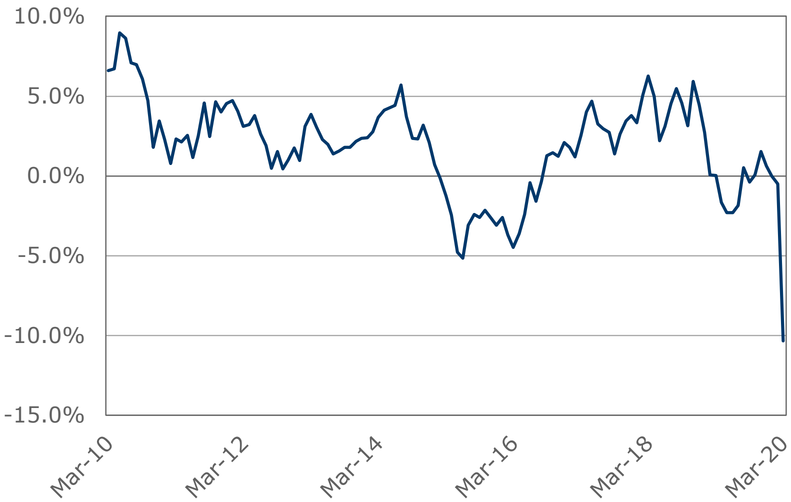
Data source: Bloomberg

BUSINESS ACTIVITY

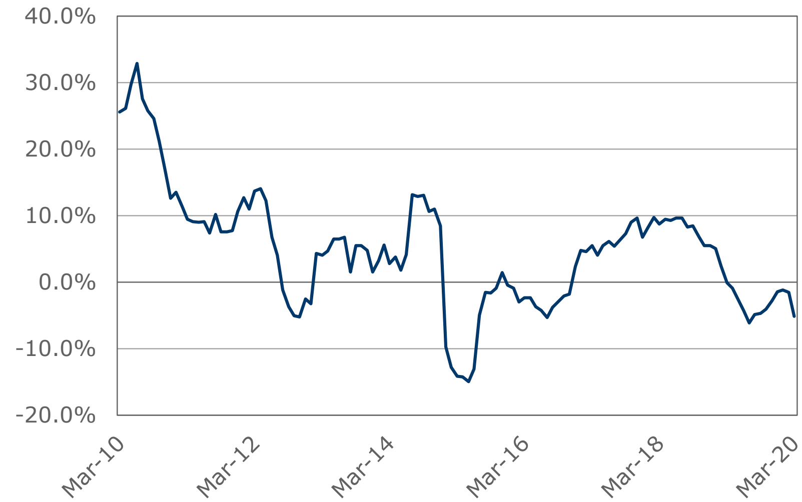
ISM REPORT ON BUSINESS



INDUSTRIAL PRODUCTION INDEX



DURABLE GOODS NEW ORDERS



Data source: Bloomberg

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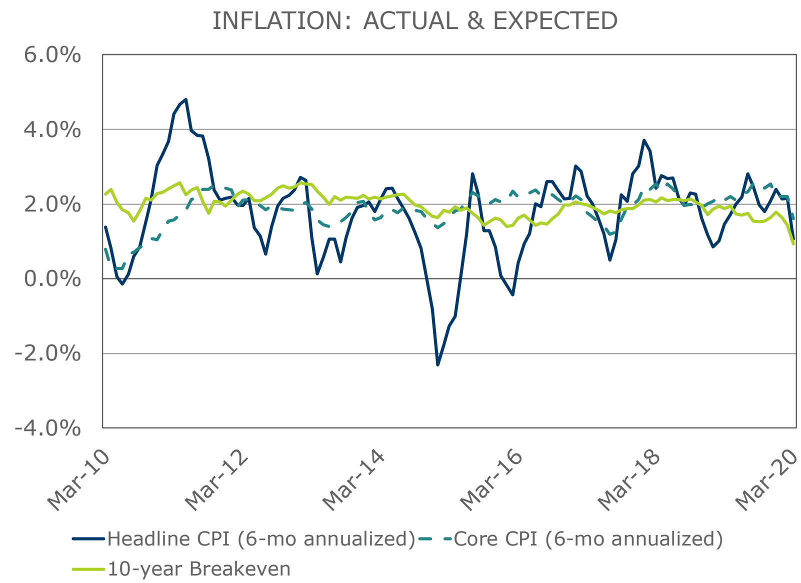
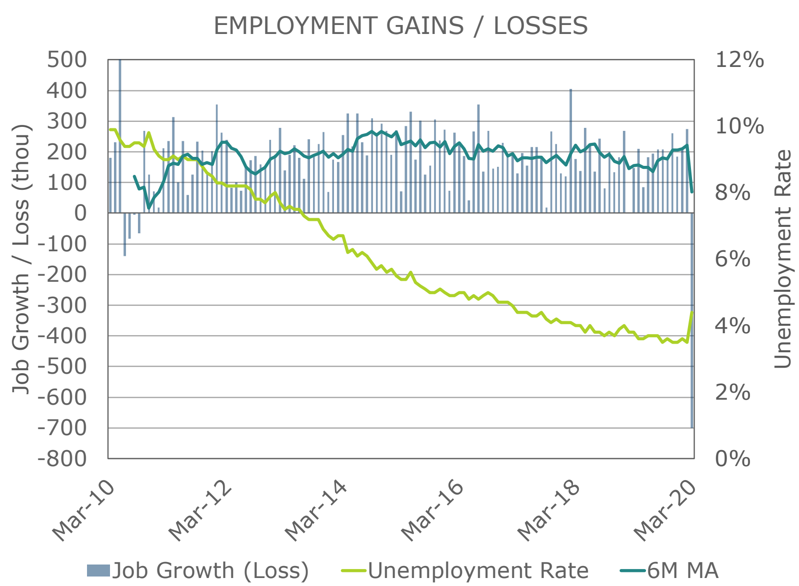
INFLATION AND EMPLOYMENT





Data source: Bloomberg

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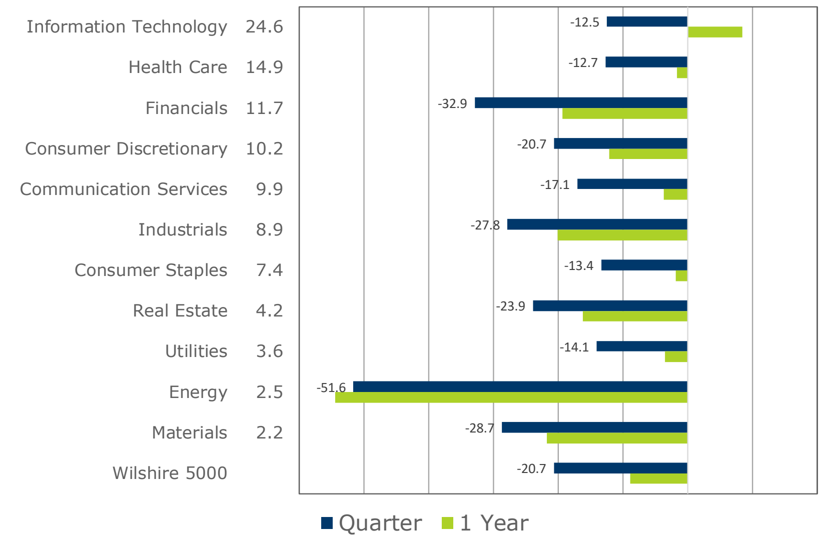
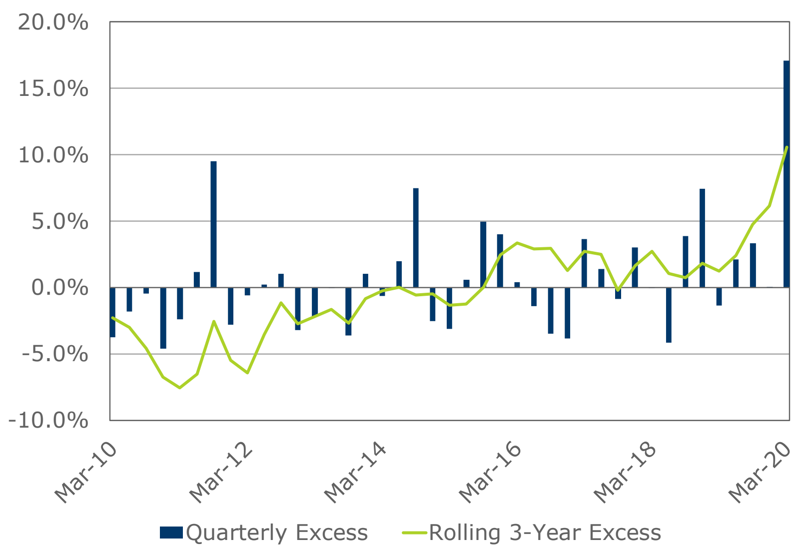
U.S. EQUITY MARKET

AS OF 3/31/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
WILSHIRE 5000 INDEX	-20.7	-20.7	-8.9	4.1	6.0	10.2
WILSHIRE U.S. LARGE CAP	-19.7	-19.7	-7.3	5.0	6.7	10.5
WILSHIRE U.S. SMALL CAP	-31.4	-31.4	-25.0	-5.0	-0.5	7.4
WILSHIRE U.S. LARGE GROWTH	-17.1	-17.1	-2.7	8.6	8.5	11.9
WILSHIRE U.S. LARGE VALUE	-22.1	-22.1	-11.5	1.5	4.7	9.1
WILSHIRE U.S. SMALL GROWTH	-28.2	-28.2	-20.0	-1.1	1.0	8.8
WILSHIRE U.S. SMALL VALUE	-34.5	-34.5	-29.6	-8.9	-2.1	6.0
WILSHIRE REIT INDEX	-25.6	-25.6	-19.4	-2.5	-0.2	7.7
MSCI USA MIN. VOL. INDEX	-17.1	-17.1	-5.9	6.6	7.9	11.8
FTSE RAFI U.S. 1000 INDEX	-26.4	-26.4	-16.1	-0.9	2.8	8.6

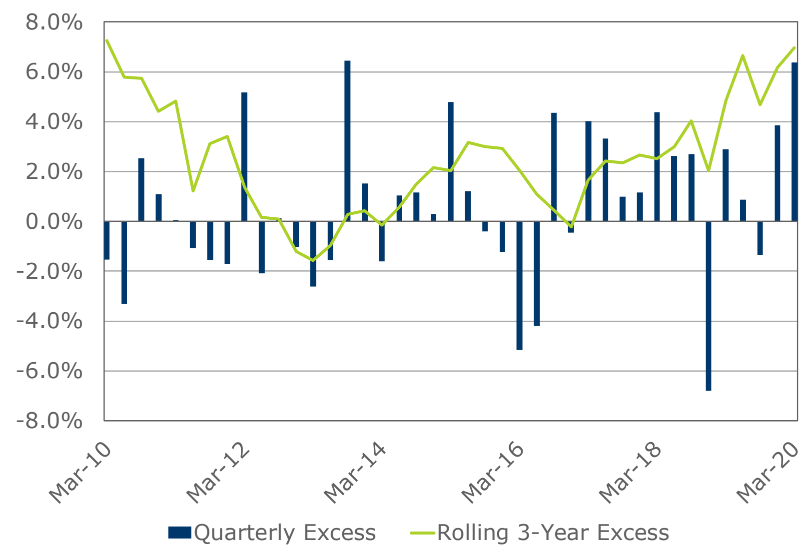
U.S. SECTOR WEIGHT AND RETURN (%)



LARGE CAP VS SMALL CAP



LARGE GROWTH VS LARGE VALUE



Data sources: Wilshire Compass, Wilshire Atlas

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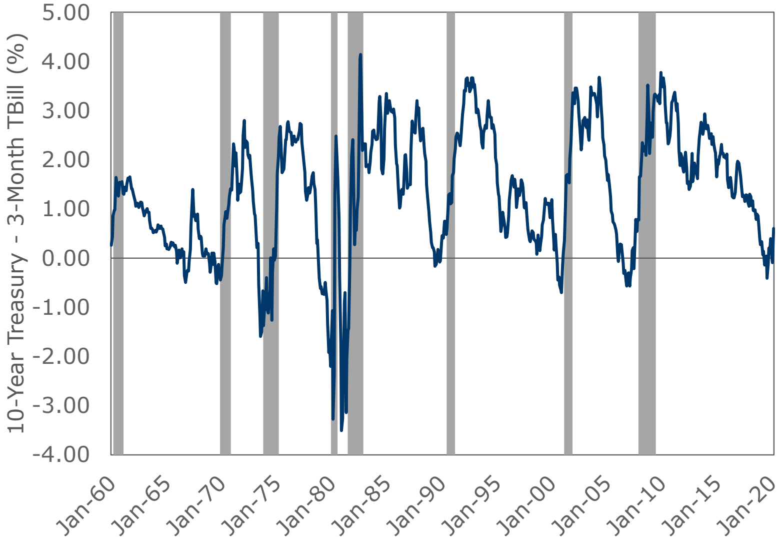
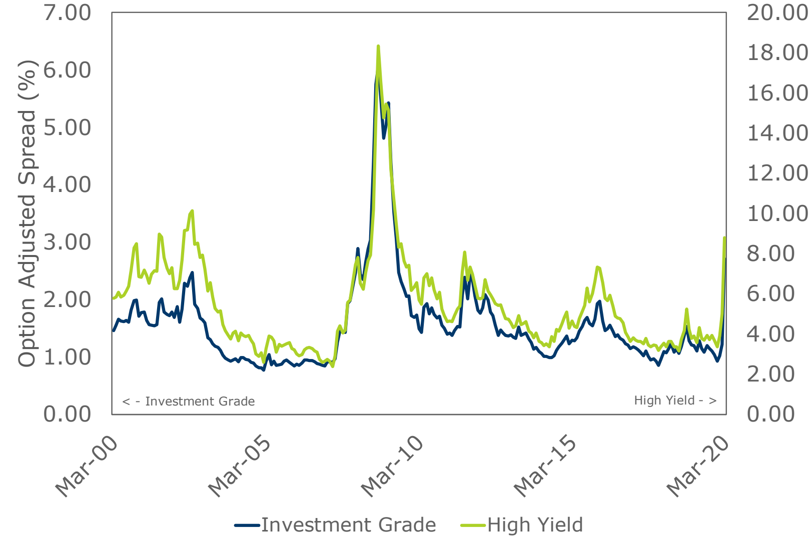
RISK MONITOR

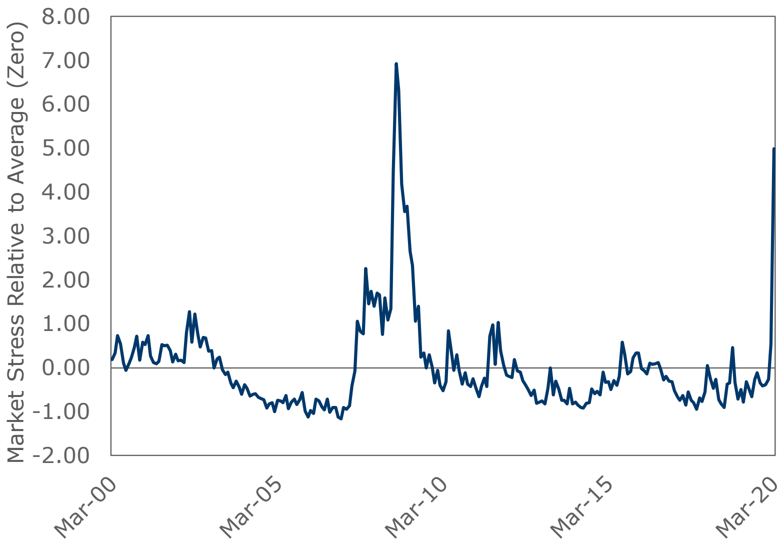
YIELD CURVE SLOPE VS RECESSIONS (IN GRAY)



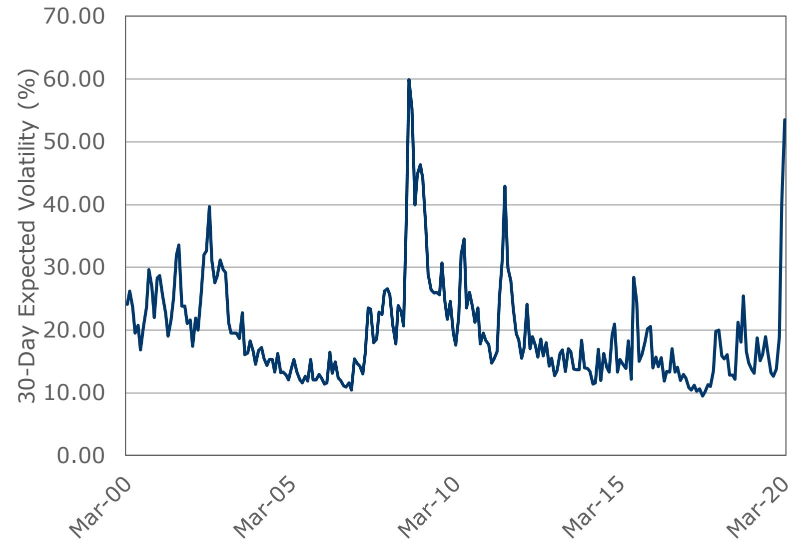
BLOOMBERG BARCLAYS CREDIT INDEXES



ST. LOUIS FED FINANCIAL STRESS INDEX



CBOE VOLATILITY INDEX



Data sources: Federal Reserve, Bloomberg Barclays

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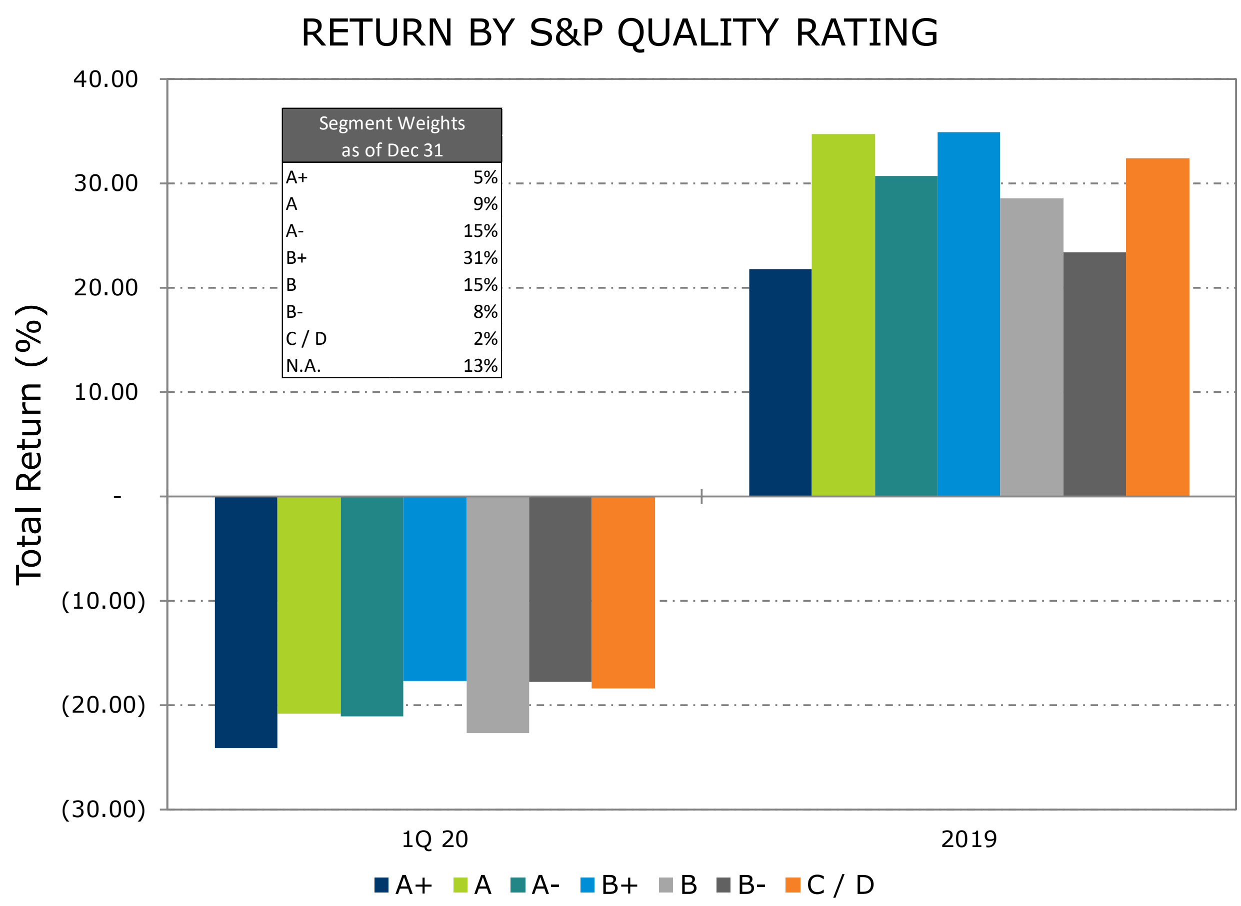
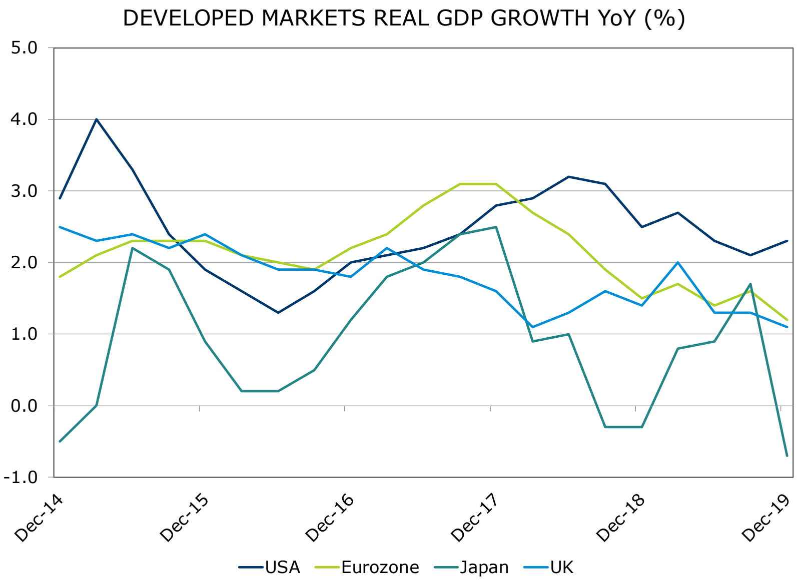
RETURNS BY QUALITY SEGMENT

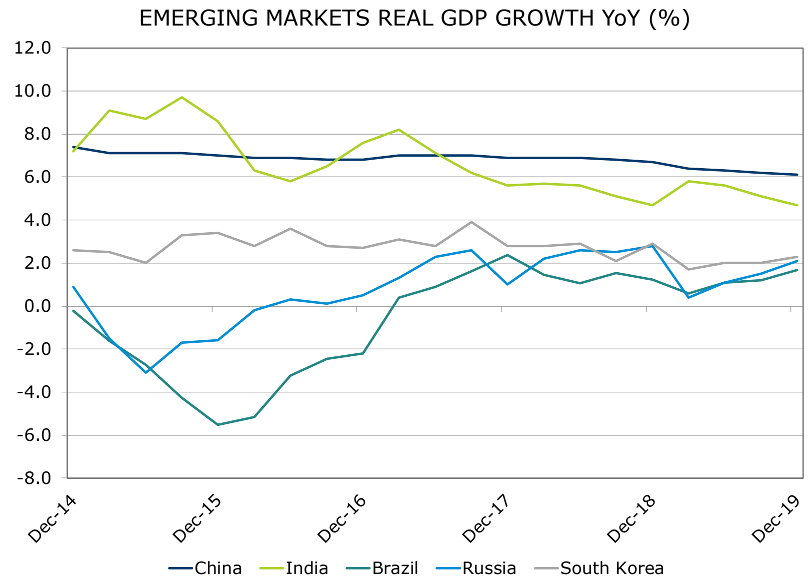
Higher quality names trailed, somewhat, although losses were generally broad based

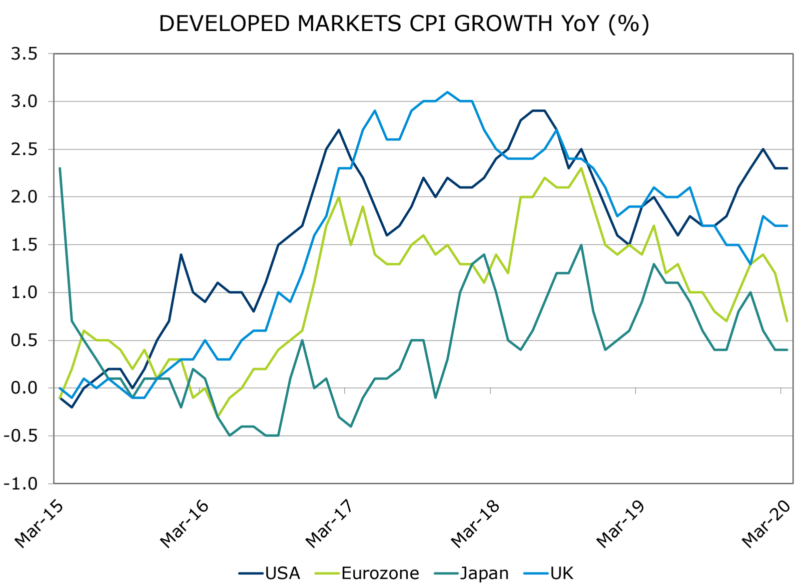


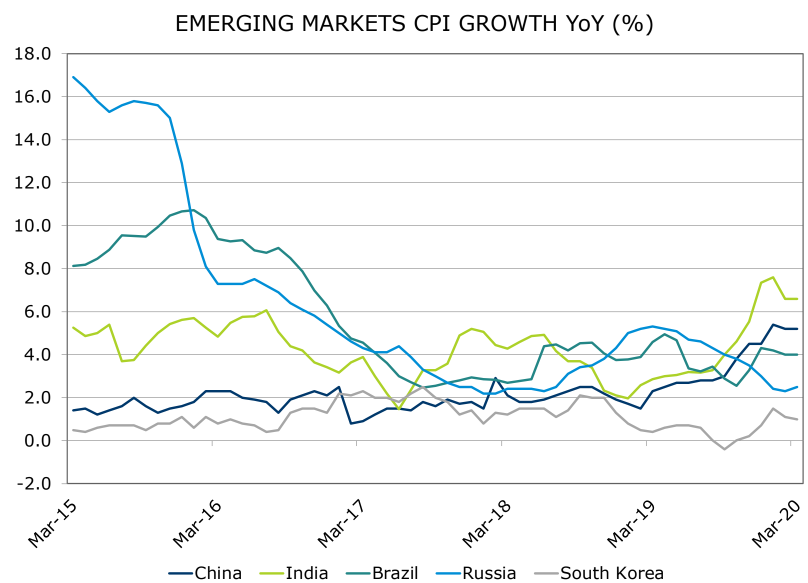
Data sources: Wilshire Atlas

NON-U.S. GROWTH AND INFLATION









Data sources: Bloomberg

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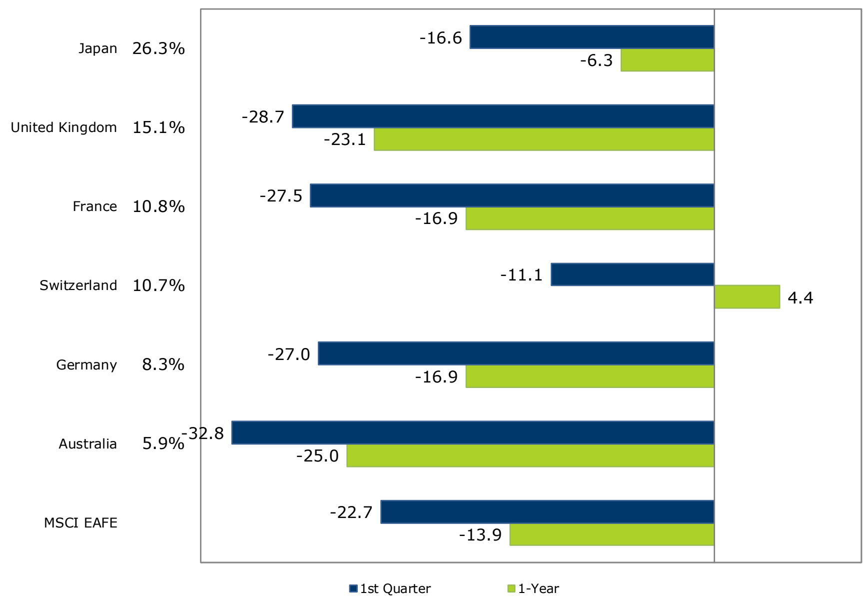
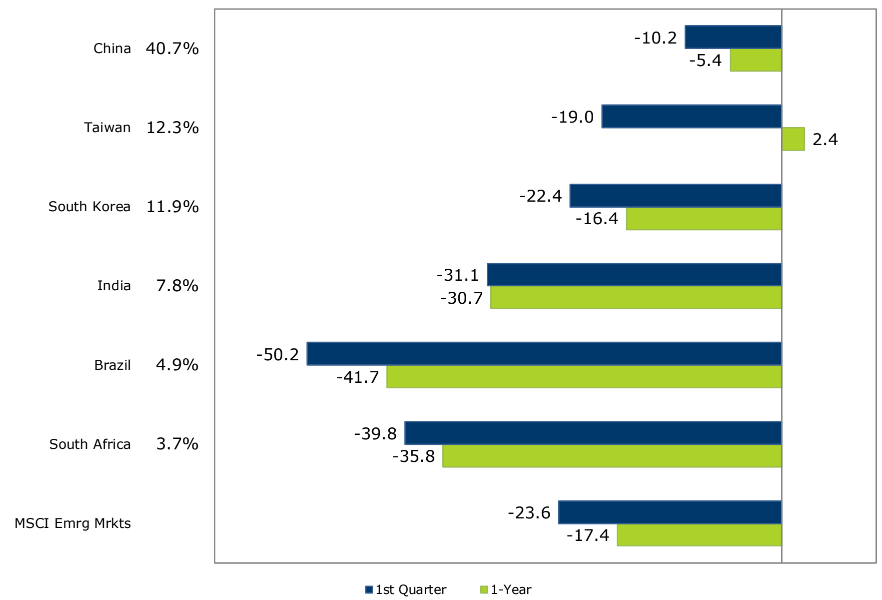
NON-U.S. EQUITY MARKET

AS OF 3/31/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI EX-US ($G)	-23.3	-23.3	-15.1	-1.5	-0.2	2.5
MSCI EAFE ($G)	-22.7	-22.7	-13.9	-1.3	-0.1	3.2
MSCI EMERGING MARKETS ($G)	-23.6	-23.6	-17.4	-1.3	0.0	1.0
MSCI FRONTIER MARKETS ($G)	-26.6	-26.6	-18.7	-4.0	-2.5	1.4
MSCI ACWI EX-US GROWTH ($G)	-18.2	-18.2	-6.9	2.9	2.5	4.3
MSCI ACWI EX-US VALUE ($G)	-28.5	-28.5	-23.2	-5.9	-2.9	0.7
MSCI ACWI EX-US SMALL ($G)	-28.9	-28.9	-20.8	-4.5	-0.3	3.2
MSCI ACWI MINIMUM VOLATILITY	-15.9	-15.9	-7.0	4.3	5.3	8.7
MSCI EAFE MINIMUM VOLATILITY	-16.3	-16.3	-9.0	2.1	2.7	6.1
FTSE RAFI DEVELOPED EX-US	-27.6	-27.6	-20.8	-4.7	-1.8	1.8
MSCI EAFE LC (G)	-20.4	-20.4	-12.1	-1.3	0.3	4.9

MSCI EAFE: LARGEST COUNTRIES & RETURN (USD)



MSCI EM: LARGEST COUNTRIES & RETURN (USD)



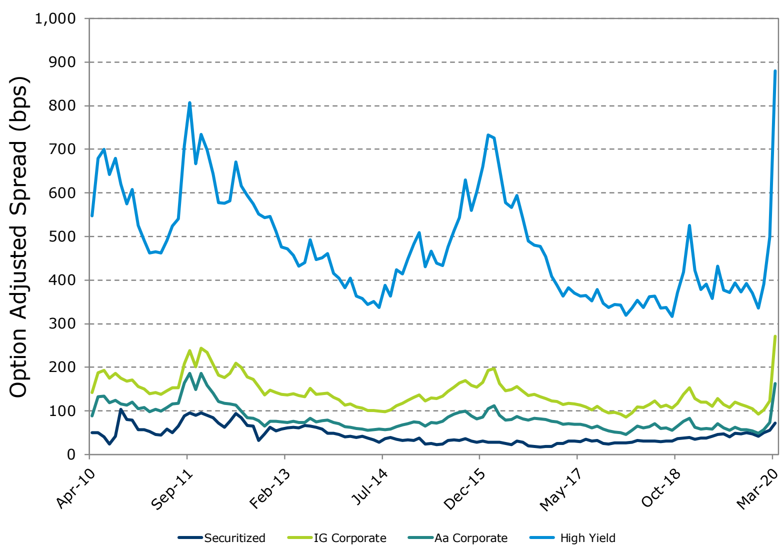
Data sources: Wilshire Compass

U.S. FIXED INCOME

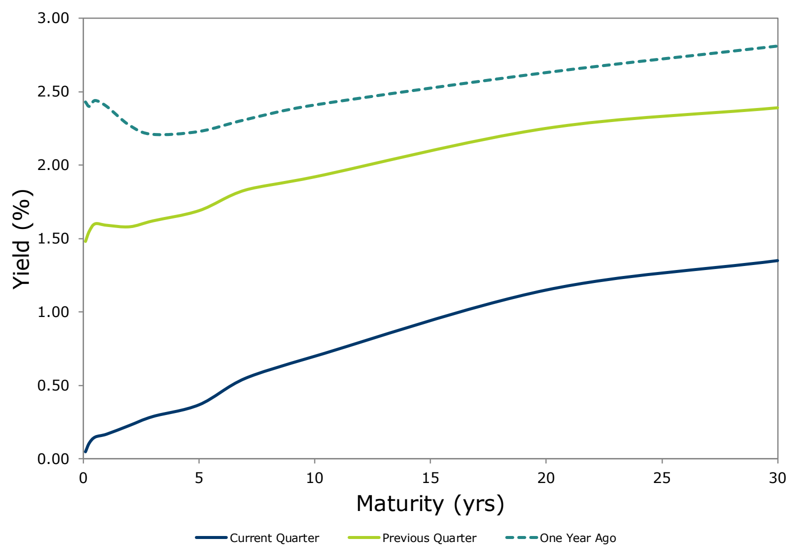
AS OF 3/31/2020	YTM	DURATION	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS AGGREGATE	1.6	5.7	3.2	3.2	8.9	4.8	3.4	3.9
BLOOMBERG BARCLAYS TREASURY	0.6	7.0	8.2	8.2	13.2	5.8	3.6	3.8
BLOOMBERG BARCLAYS GOV'T-REL.	2.0	5.6	0.5	0.5	6.2	4.1	2.9	3.4
BLOOMBERG BARCLAYS SECURITIZED	1.4	1.9	2.7	2.7	6.9	4.0	2.9	3.4
BLOOMBERG BARCLAYS CORPORATE	3.4	8.0	-3.6	-3.6	5.0	4.2	3.4	4.9
BLOOMBERG BARCLAYS LT G/C	2.7	16.4	6.2	6.2	19.3	9.7	6.0	8.1
BLOOMBERG BARCLAYS LT TREASURY	1.3	19.2	20.9	20.9	32.6	13.4	7.3	9.0
BLOOMBERG BARCLAYS LT GOV't-REL.	3.9	12.6	-3.6	-3.6	7.3	6.3	4.3	7.0
BLOOMBERG BARCLAYS LT CORP.	3.9	14.5	-4.5	-4.5	9.6	6.7	4.7	7.3
BLOOMBERG BARCLAYS U.S. TIPS *	0.7	7.8	1.7	1.7	6.8	3.5	2.7	3.5
BLOOMBERG BARCLAYS HIGH YIELD	9.5	4.1	-12.7	-12.7	-6.9	0.8	2.8	5.6
TREASURY BILLS	0.1	0.25	0.6	0.6	2.2	1.8	1.2	0.6

* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

BLOOMBERG BARCLAYS FIXED INCOME INDEXES



TREASURY YIELD CURVE



Data sources: Wilshire Compass, Bloomberg Barclays, U.S. Treasury

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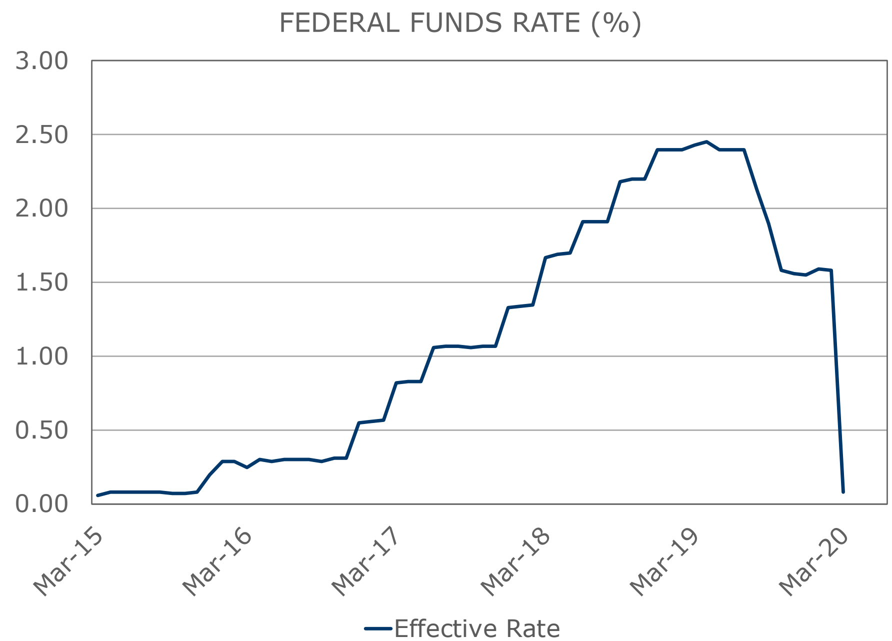
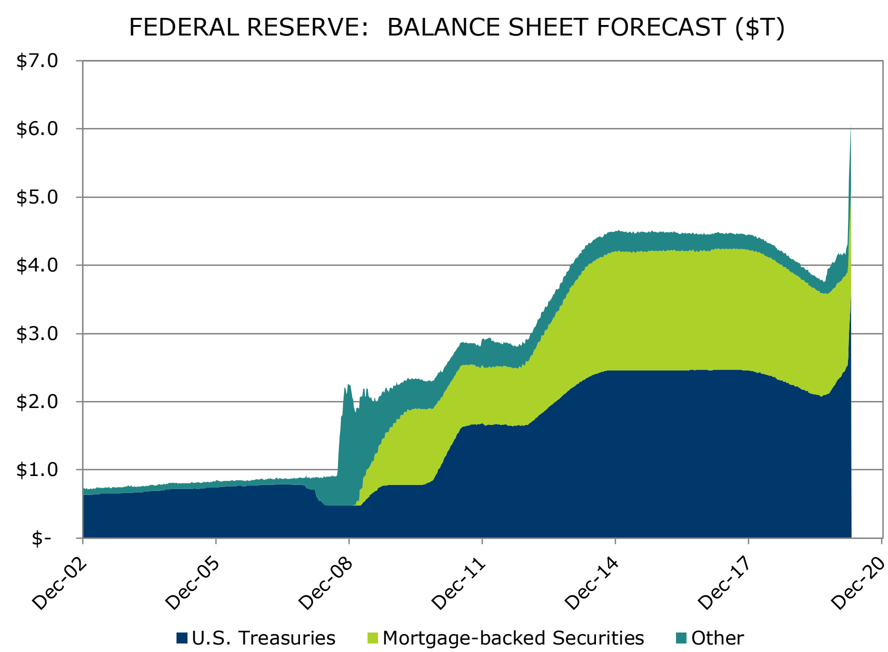
FEDERAL RESERVE

- Restarted unlimited asset purchase programs
- Reduced reserve requirements for the banking sector
- Restarted Term asset backed securities loan facility (TALF), expanding to include CMBS
- Launched a Primary (PMCCF) and Secondary Corporate Credit Facility (SMCCF)
- Allowed municipal debt to be eligible as collateral in Money Market Fund Liquidity Facility (MMLF) and Commercial Paper Funding Facility (CPFF)
- Total stimulus – FOMC plus U.S. government – in excess of $3.75 T as of first week of April





Data Source: Federal Reserve, Bloomberg, J.P. Morgan

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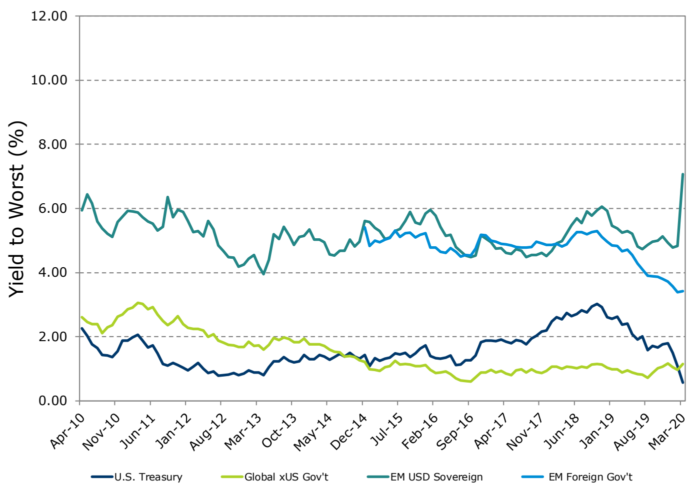
NON-U.S. FIXED INCOME

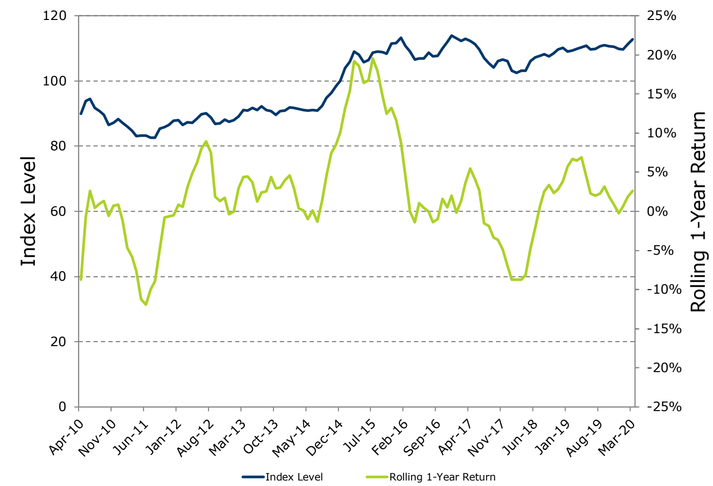
AS OF 3/31/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
DEVELOPED MARKETS						
BLMBRG BRCLYS GLBL AGGREGATE xUS	-2.7	-2.7	0.7	2.6	2.0	1.4
BLMBRG BRCLYS GLBL AGGREGATE xUS *	0.5	0.5	5.0	4.5	3.6	4.2
BLMBRG BRCLYS GLOBAL INF LNKD xUS	-5.9	-5.9	-2.8	2.0	1.3	2.9
BLMBRG BRCLYS GLOBAL INF LNKD xUS *	-0.7	-0.7	2.8	3.9	4.4	5.5
EMERGING MARKETS (HARD CURRENCY)						
BLMBRG BRCLYS EM USD AGGREGATE	-9.5	-9.5	-2.9	1.5	3.3	5.1
EMERGING MARKETS (FOREIGN CURRENCY)						
BLMBRG BRCLYS EM LOCAL CURR. GOV'T	-7.6	-7.6	-1.1	1.5	1.7	2.1
BLMBRG BRCLYS EM LOCAL CURR. GOV'T *	0.7	0.7	6.9	4.6	3.5	3.6
EURO vs. DOLLAR	-2.2	-2.2	-2.3	0.9	0.4	-2.1
YEN vs. DOLLAR	0.7	0.7	2.5	1.1	2.1	-1.4
POUND vs. DOLLAR	-6.4	-6.4	-4.8	-0.3	-3.5	-2.0

* Returns are reported in terms of local market investors, which removes currency effects.

BLOOMBERG BARCLAYS FIXED INCOME INDEXES



U.S. DOLLAR INDEX: ADVANCED ECONOMIES



Data sources: Wilshire Compass, Bloomberg Barclays, Federal Reserve Bank of St. Louis

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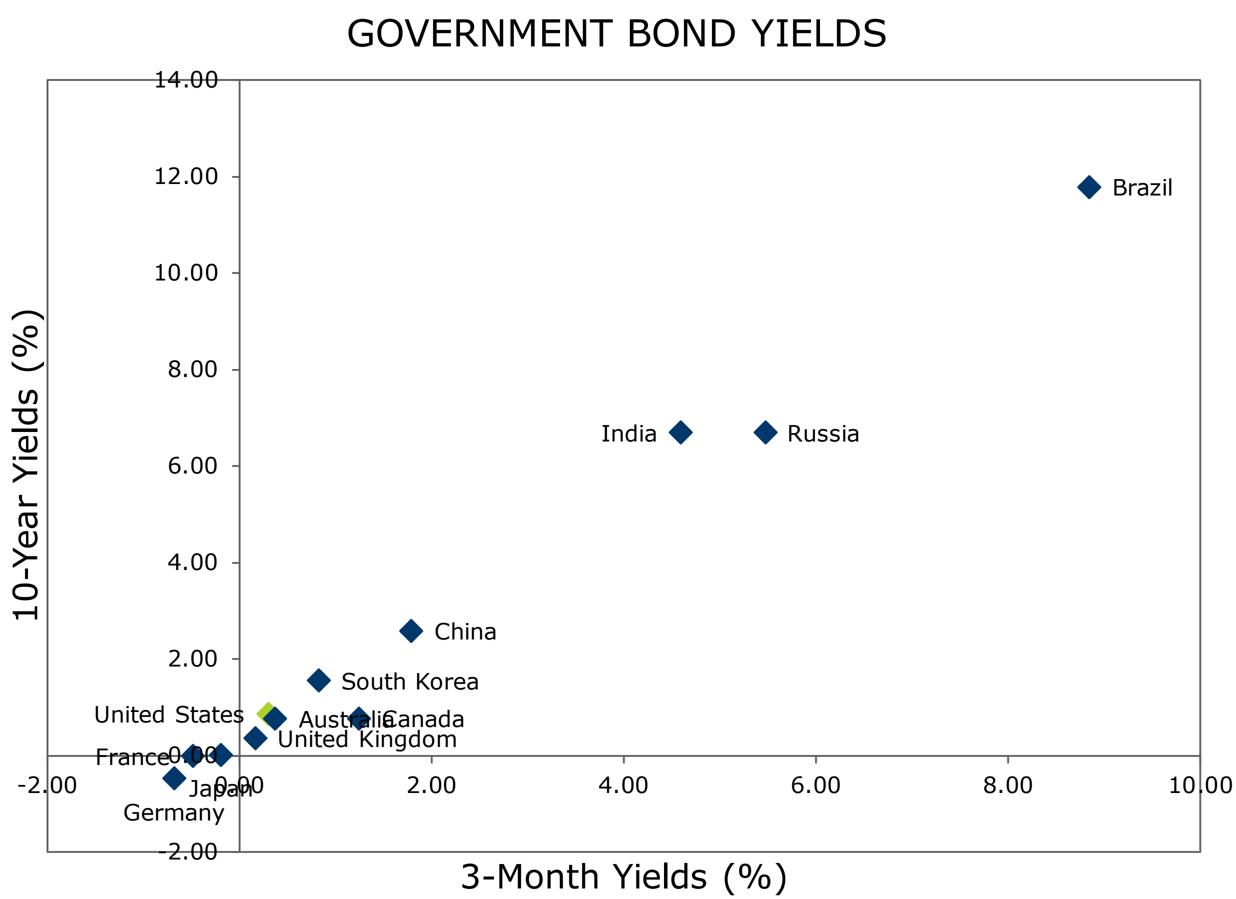
GLOBAL INTEREST RATES

Negative rates found in Germany and France; low but positive rates, and at similar levels, in the U.S., Australia and U.K.



Data sources: Bloomberg

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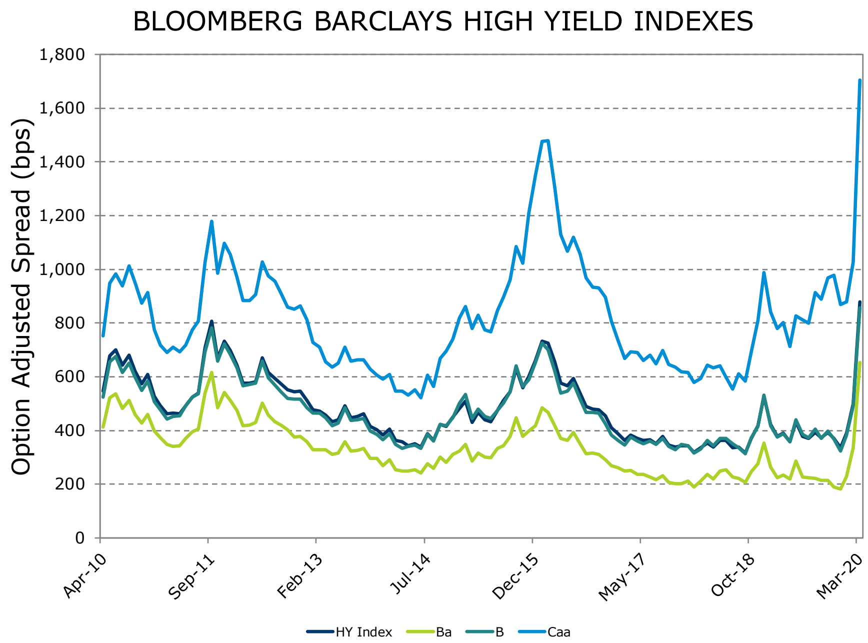
HIGH YIELD BOND MARKET

AS OF 3/31/2020		YTW	QTR	YTD	1 YR	3 YR	5 YR
BLOOMBERG BARCLAYS HIGH YIELD		9.4	-12.7	-12.7	-6.9	0.8	2.8
S&P LSTA LEVERAGE LOAN INDEX		7.3	-9.9	-9.9	-5.1	0.5	1.6
HIGH YIELD QUALITY DISTRIBUTION	WEIGHT						
Ba U.S. HIGH YIELD	52.3%	7.2	-10.2	-10.2	-3.2	2.1	3.4
B U.S. HIGH YIELD	34.8%	9.2	-13.0	-13.0	-6.8	0.8	2.5
Caa U.S. HIGH YIELD	11.9%	17.5	-20.6	-20.6	-18.8	-4.1	0.9
Ca to D U.S. HIGH YIELD	0.8%	44.2	-29.7	-29.7	-40.3	-10.2	-8.2
Non-Rated U.S. HIGH YIELD	0.3%	11.8	-11.9	-11.9	-9.6	-0.6	-1.8



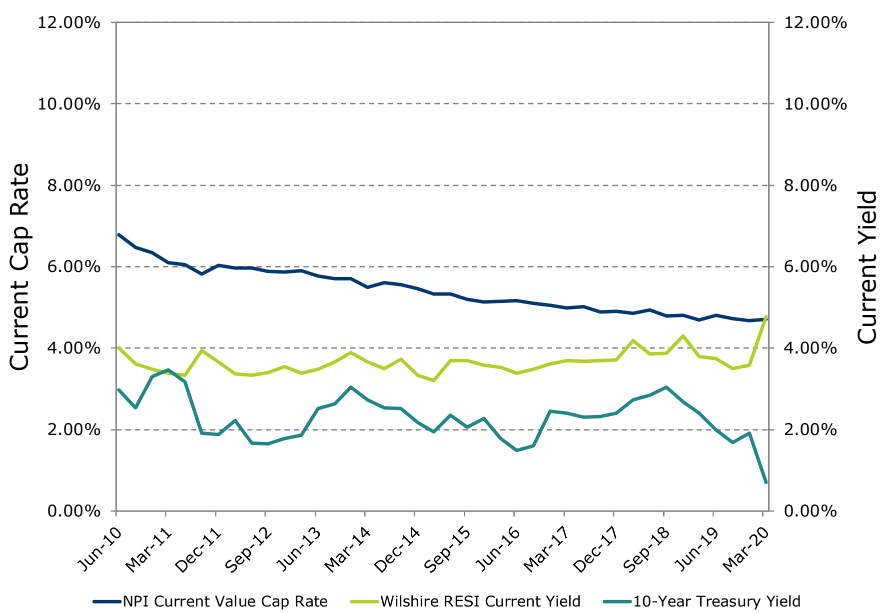
Data sources: Wilshire Compass, Bloomberg Barclays

Wilshire Consulting

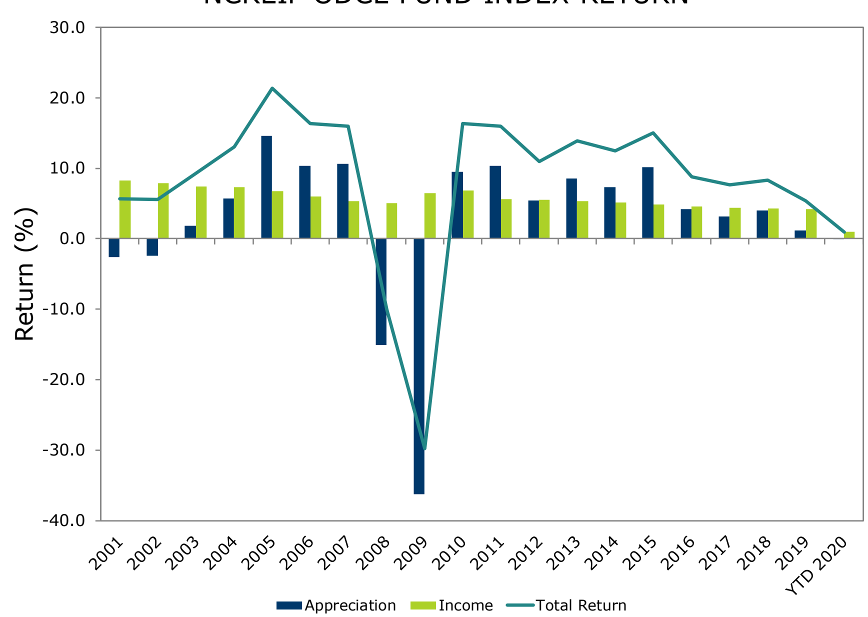
REAL ASSETS

AS OF 3/31/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS U.S. TIPS	1.7	1.7	6.8	3.5	2.7	3.5
BLOOMBERG COMMODITY INDEX	-23.3	-23.3	-22.3	-8.6	-7.8	-6.7
WILSHIRE GLOBAL RESI INDEX	-27.2	-27.2	-21.4	-2.7	-0.7	6.5
NCREIF ODCE FUND INDEX	1.0	1.0	4.9	6.8	8.5	11.4
NCREIF TIMBERLAND INDEX	0.1	0.1	1.3	2.5	2.8	4.5
ALERIAN MLP INDEX (OIL & GAS)	-57.2	-57.2	-61.0	-28.9	-20.7	-5.0

REAL ESTATE VALUATION



NCREIF ODCE FUND INDEX RETURN



Data sources: Wilshire Compass, National Council of Real Estate Investment Fiduciaries

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ASSET CLASS PERFORMANCE

ASSET CLASS RETURNS - BEST TO WORST						ANNUALIZED 5-YEAR
2015	2016	2017	2018	2019	2020 YTD	AS OF 3/2020
REITs 4.2%	MLPs 18.3%	Emrg Mrkts 37.7%	T-Bills 1.9%	U.S. Equity 31.0%	Core Bond 3.2%	U.S. Equity 6.0%
U.S. Equity 0.7%	High Yield 17.1%	Developed 25.6%	Core Bond 0.0%	REITs 25.8%	U.S. TIPS 1.7%	Core Bond 3.4%
Core Bond 0.6%	U.S. Equity 13.4%	U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	T-Bills 0.6%	High Yield 2.8%
T-Bills 0.1%	Commodities 11.8%	High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	High Yield -12.7%	U.S. TIPS 2.7%
Developed -0.4%	Emrg Mrkts 11.6%	REITs 4.2%	REITs -4.8%	High Yield 14.3%	U.S. Equity -20.7%	T-Bills 1.2%
U.S. TIPS -1.4%	REITs 7.2%	Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	Developed -22.7%	Emrg Mrkts 0.0%
High Yield -4.5%	U.S. TIPS 4.7%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	Commodities -23.3%	Developed -0.1%
Emrg Mrkts -14.6%	Core Bond 2.6%	Commodities 1.7%	MLPs -12.4%	Commodities 7.7%	Emrg Mrkts -23.6%	REITs -0.2%
Commodities -24.7%	Developed 1.5%	T-Bills 0.8%	Developed -13.4%	MLPs 6.6%	REITs -25.6%	Commodities -7.8%
MLPs -32.6%	T-Bills 0.3%	MLPs -6.5%	Emrg Mrkts -14.2%	T-Bills 2.3%	MLPs -57.2%	MLPs -20.7%

Data sources: Wilshire Compass

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

TOTAL FUND

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MONTHLY SUMMARY

Actual Allocation vs. Policy Allocation

As of March 31, 2020

Asset Class	Market Value ($000)	Actual Allocation	Policy Target	Variance	Allowable Range[4]	Dollar Variance ($000)
U.S. Equity	129,689	15.2%	16.5%	-1.3%	13.0 - 20.0%	(11,091)
Non-U.S. Equity	130,744	15.3%	16.5%	-1.2%	13.0 - 20.0%	(10,036)
Global Equity	983	0.1%	0.0%	0.1%		983
Total Public Equity[1]	**261,416**	**30.6%**	**33.0%**	**-2.4%**	**26.0 40.0%**	**(20,145)**
Private Equity Funds	181,452	21.3%	20.0%	1.3%	15.0 - 25.0%	10,809
Life Settlement Investments	28,508	3.3%	0.0%	3.3%		28,508
Total Private Equity	**209,960**	**24.6%**	**20.0%**	**4.6%**	**15.0 - 25.0%**	**39,317**
Core Fixed Income[2]	94,579	11.1%	12.5%	-1.4%	10.0 - 15.0%	(12,073)
High Yield	100,950	11.8%	12.0%	-0.2%	10.0 - 14.0%	(1,436)
Total Fixed Income	**195,529**	**22.9%**	**24.5%**	**-1.6%**	**20.0 - 29.0%**	**(13,508)**
Real Estate[3]	112,386	13.2%	12.5%	0.7%	10.0 - 15.0%	5,734
Total Private Real Assets	**112,386**	**13.2%**	**12.5%**	**0.7%**	**10.0 - 15.0%**	**5,734**
TIPS	42,021	4.9%	5.0%	-0.1%	4.0 - 6.0%	(640)
MLP's	21,689	2.5%	5.0%	-2.5%	4.0 - 6.0%	(20,972)
Total Public Real Assets	**63,710**	**7.5%**	**10.0%**	**-2.5%**	**8.0 - 12.0%**	**(21,611)**
Hedge Funds	**3,181**	**0.4%**	**0.0%**	**0.4%**		3,181
Cash	**7,032**	**0.8%**	**0.0%**	**0.8%**	**0.0 - 2.0%**	**7,032**
Total Assets	**853,214**	**100.0%**	**100.0%**			

[1]Uninvested private equity capital will remain invested in public equity and will not be considered to be outside of allowable range
[2]Core Fixed Income includes Israel Bond investments
[3]Real Estate includes ERECT Fund investment
[4]These ranges are preliminary pending the ratification of the updated IPS

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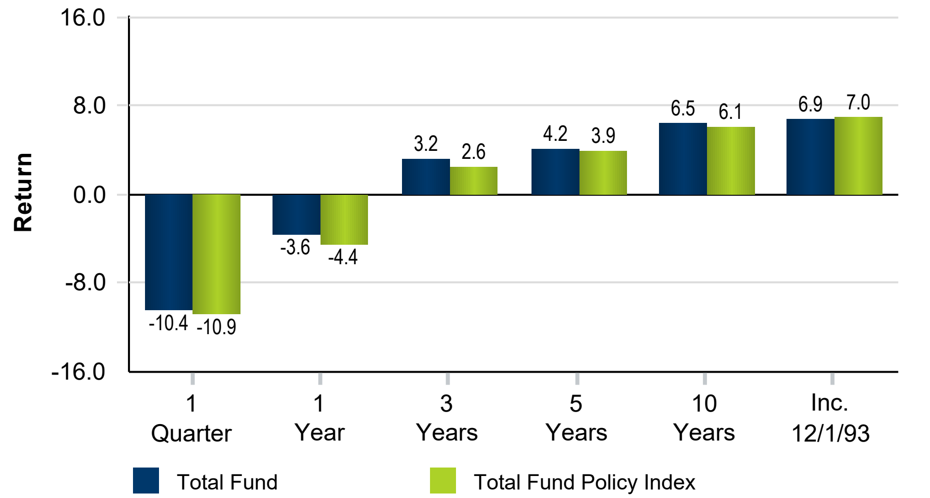
Total Fund Summary

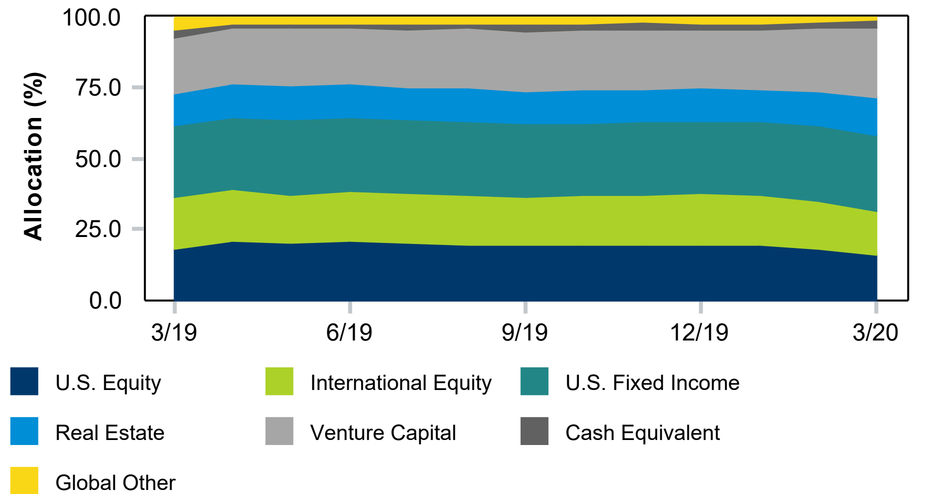
Total Fund

Periods Ended March 31, 2020

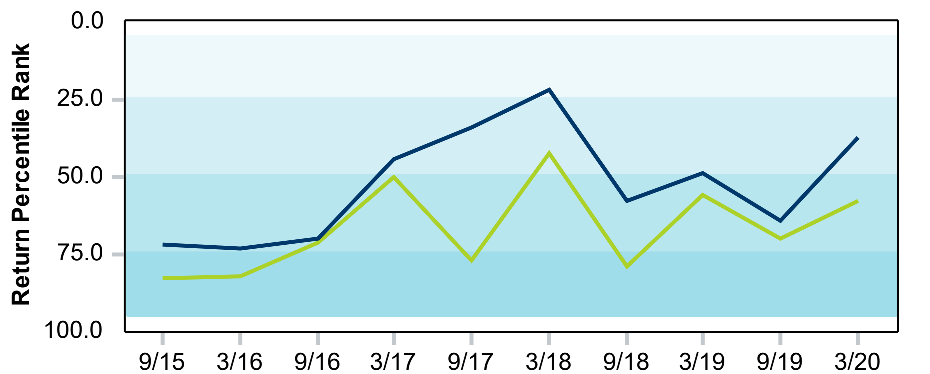
Comparative Performance



Historical Asset Allocation by Segment

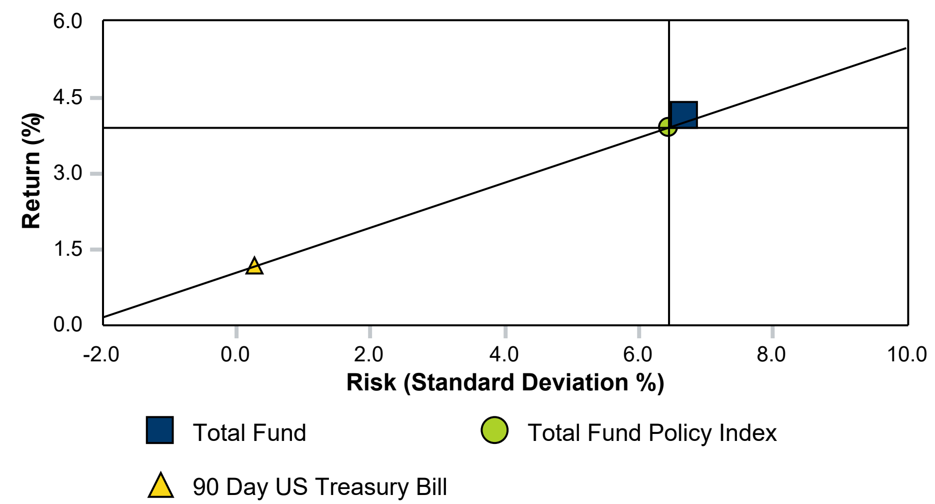


Rolling Percentile Rank: All Public Plans-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Total Fund	10	1 (10%)	4 (40%)	5 (50%)	0 (0%)
Benchmark	10	0 (0%)	2 (20%)	4 (40%)	4 (40%)

Risk and Return 04/1/15 - 03/31/20

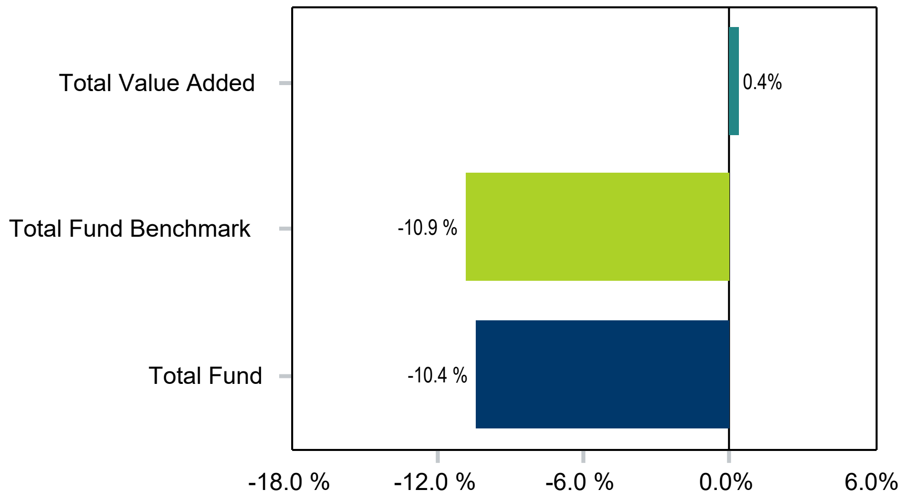


Total Fund Attribution

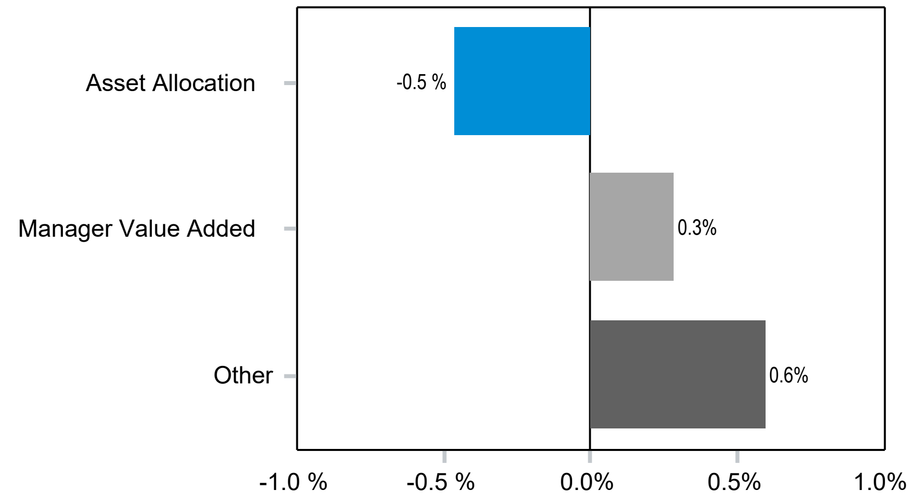
Total Fund

Periods Ended 1 Quarter Ending March 31, 2020

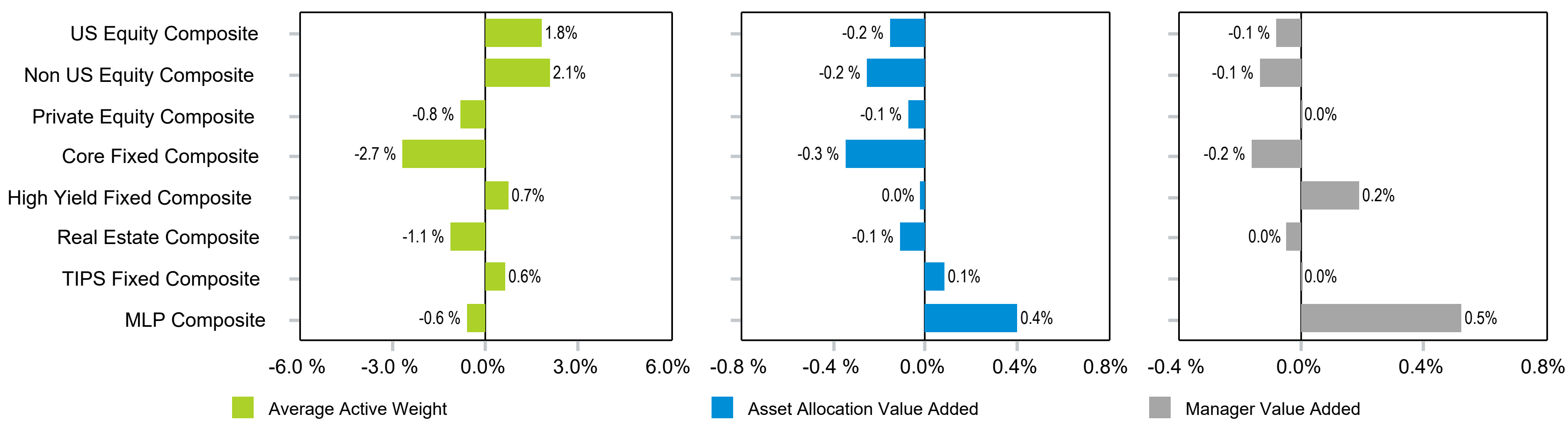
Total Fund Performance



Total Value Added:0.4%



Total Asset Allocation:-0.5 % | Asset Allocation Value Added:-0.5 % | Total Manager Value Added:0.3%



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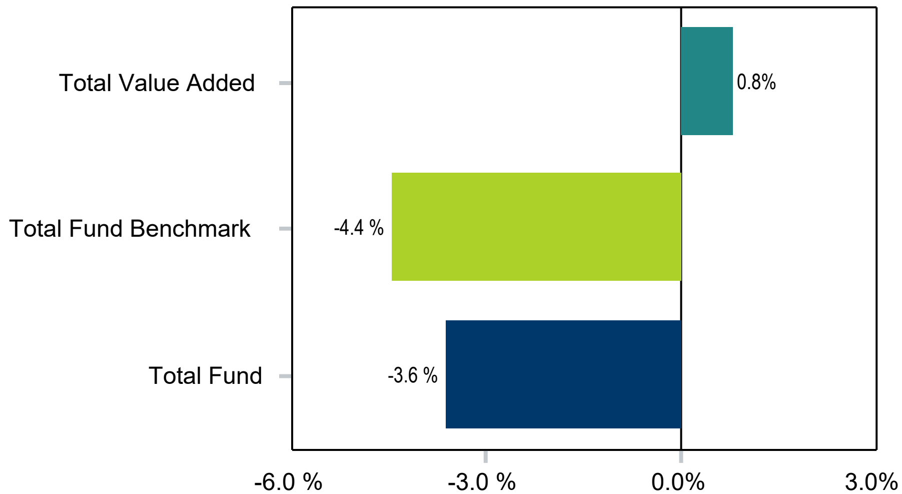
Total Fund Attribution

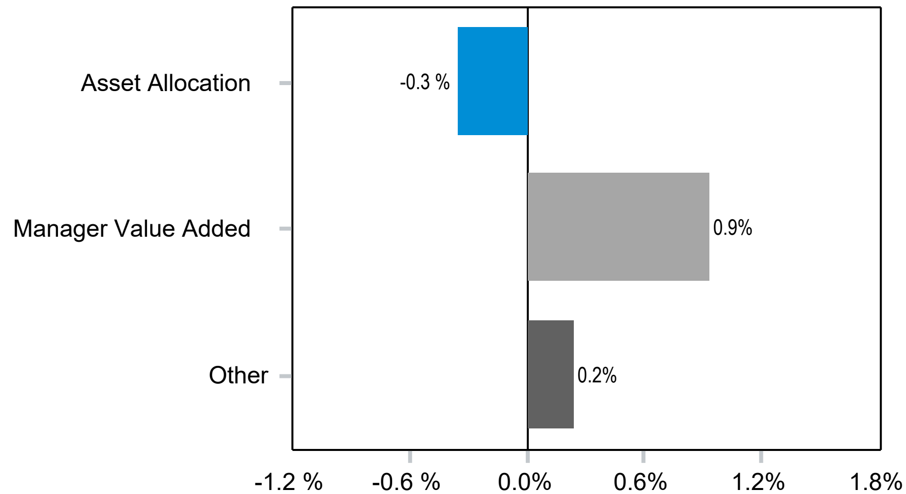
Total Fund

Periods Ended 1 Year Ending March 31, 2020

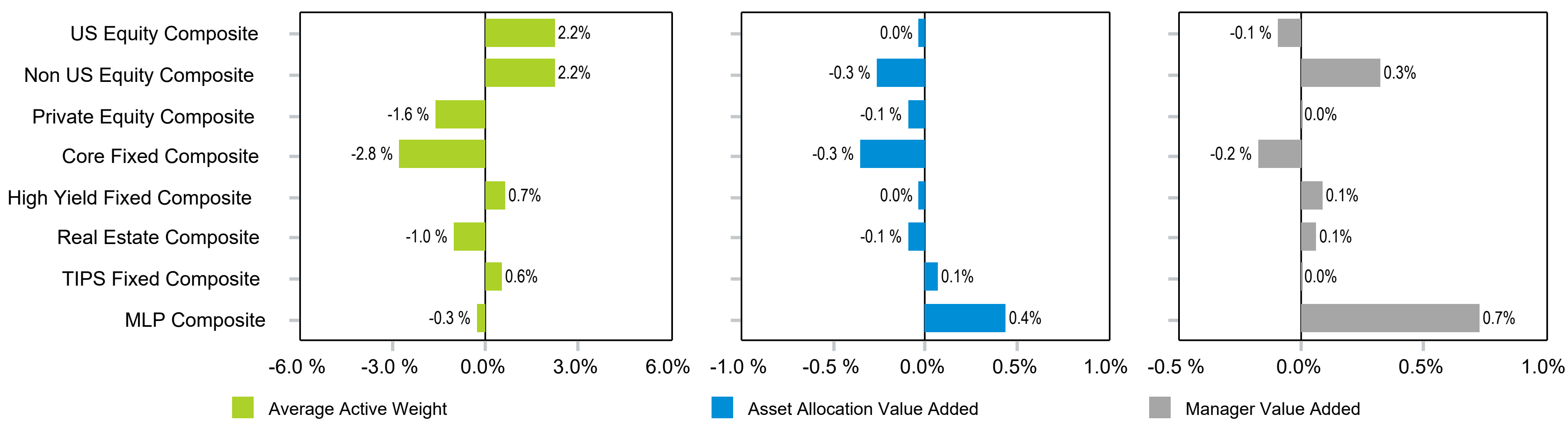
Total Fund Performance



Total Value Added:0.8%



Total Asset Allocation:-0.3 % **Asset Allocation Value Added:-0.3 %** **Total Manager Value Added:0.9%**



Wilshire Consulting

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
US Equity Composite	**-21.10**	**-9.44**	**3.54**	**5.23**	**9.71**	**7.98**	**11/1/1993**	**129,689,101**	**15.20**
Wilshire 5000 Total Market TR Index	-20.70	-8.94	4.09	5.99	10.18	8.68			
Value Added	-0.40	-0.50	-0.55	-0.76	-0.47	-0.70			
Non US Equity Composite	**-24.10**	**-14.17**	**-1.57**	**0.61**	**2.95**	**3.71**	**2/1/2001**	**130,744,345**	**15.32**
Non US Equity Policy Index	-24.11	-16.32	-2.34	-0.66	2.05	2.76			
Value Added	0.01	2.15	0.77	1.27	0.90	0.95			
Global Equity Composite	**-20.64**	**-14.57**	**-1.49**	**0.13**		**0.87**	**12/1/2014**	**983,468**	**0.12**
MSCI AC World Index (Net)	-21.37	-11.26	1.50	2.85		2.73			
Value Added	0.73	-3.31	-2.99	-2.72		-1.86			
Core Fixed Composite	**1.40**	**7.05**	**4.06**	**3.01**	**3.65**	**6.99**	**1/1/1983**	**87,330,406**	**10.24**
Blmbg. Barc. U.S. Aggregate	3.15	8.93	4.82	3.36	3.88	7.10			
Value Added	-1.75	-1.88	-0.76	-0.35	-0.23	-0.11			
High Yield Fixed Composite	**-11.82**	**-7.24**	**-0.03**	**1.41**	**4.65**	**5.75**	**4/1/2008**	**100,950,379**	**11.83**
FTSE High Yield Market Capped Index	-13.32	-7.92	0.33	2.33	5.28	6.11			
Value Added	1.50	0.68	-0.36	-0.92	-0.63	-0.36			
TIPS Fixed Composite	**1.70**	**6.86**	**3.49**	**2.63**	**3.38**	**3.28**	**4/1/2008**	**42,021,433**	**4.93**
Blmbg. Barc. U.S. TIPS	1.69	6.85	3.46	2.67	3.48	3.23			
Value Added	0.01	0.01	0.03	-0.04	-0.10	0.05			
ERECT Composite	**-1.14**	**1.74**	**7.61**	**7.62**		**7.00**	**9/1/2010**	**9,646,257**	**1.13**
Real Estate Composite	**0.31**	**4.57**	**8.43**	**9.03**	**11.51**	**8.76**	**4/1/2003**	**102,738,899**	**12.04**
NCREIF Fund Index-ODCE (VW) (Net)	0.75	3.93	5.85	7.48	10.42	7.07			
Value Added	-0.44	0.64	2.58	1.55	1.09	1.69			

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
Private Equity Composite	**5.28**	**12.31**	**10.05**	**11.09**	**11.87**	**6.90**	**4/1/2003**	**181,452,118**	**21.27**
Private Equity Policy Index	5.28	12.31	10.05	11.09	11.87	6.90			
Value Added	0.00	0.00	0.00	0.00	0.00	0.00			
Hedge Fund Composite	**-16.91**	**-10.21**	**-8.55**	**-4.05**		**-0.68**	**2/1/2011**	**3,181,250**	**0.37**
90 Day T-Bill Index + 3%	1.32	5.32	4.88	4.20		3.68			
Value Added	-18.23	-15.53	-13.43	-8.25		-4.36			
Life Settlement Composite	**0.78**	**-0.89**	**-0.95**	**-4.72**	**6.65**	**7.51**	**9/1/2009**	**28,507,639**	**3.34**
Israel Bonds and Cash							**3/1/1999**	**14,280,614**	**1.67**
MLP Composite	**-48.12**	**-50.69**				**-28.18**	**2/1/2018**	**21,688,538**	**2.54**
Alerian MLP Index	-57.19	-60.95				-36.19			
Value Added	9.07	10.26				8.01			
Total Fund	**-10.44**	**-3.63**	**3.15**	**4.15**	**6.47**	**6.92**	**12/1/1993**	**853,214,445**	**100.00**
Total Fund Policy Index	-10.86	-4.45	2.57	3.91	6.06	6.98			
Value Added	0.42	0.82	0.58	0.24	0.41	-0.06			

Wilshire Consulting

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
SSgA S&P 500 Index	**-19.59**	**-6.92**	**5.12**	**6.76**	**10.55**	**6.50**	**11/1/2007**	**72,787,707**	**8.53**
S&P 500	-19.60	-6.98	5.10	6.73	10.53	6.45			
Value Added	0.01	0.06	0.02	0.03	0.02	0.05			
Fragasso Large Core (EMWO)	**-19.81**	**-6.11**	**5.62**	**5.76**		**9.32**	**9/1/2012**	**5,122,069**	**0.60**
S&P 500	-19.60	-6.98	5.10	6.73		10.62			
Value Added	-0.21	0.87	0.52	-0.97		-1.30			
Twin Capital Enhanced Equity	**-19.92**	**-7.49**	**3.81**	**5.79**	**10.11**	**7.31**	**1/1/2006**	**24,009,638**	**2.81**
S&P 500	-19.60	-6.98	5.10	6.73	10.53	7.47			
Value Added	-0.32	-0.51	-1.29	-0.94	-0.42	-0.16			
Earnest Small Value	**-28.68**	**-18.30**	**-3.43**	**1.58**	**7.89**	**10.08**	**6/1/2009**	**9,781,593**	**1.15**
Russell 2000 Value Index	-35.66	-29.64	-9.51	-2.42	4.79	7.67			
Value Added	6.98	11.34	6.08	4.00	3.10	2.41			
Emerald Advisors Small Cap	**-24.39**	**-19.03**	**1.80**	**2.77**	**11.03**	**8.68**	**11/1/2004**	**10,053,168**	**1.18**
Russell 2000 Growth Index	-25.76	-18.58	0.10	1.70	8.89	7.29			
Value Added	1.37	-0.45	1.70	1.07	2.14	1.39			
Emerald Advisors All Cap (EMWO)	**-17.28**	**-4.77**	**9.32**			**8.83**	**10/1/2015**	**2,972,807**	**0.35**
Russell 3000 Growth Index	-14.85	-0.44	10.54			12.33			
Value Added	-2.43	-4.33	-1.22			-3.50			
Ethos (EMWO)	**-22.22**	**-10.15**	**4.70**			**6.69**	**8/1/2016**	**1,137,701**	**0.13**
S&P 500	-19.60	-6.98	5.10			6.98			
Value Added	-2.62	-3.17	-0.40			-0.29			
CIM Small Cap (EMWO)	**-31.33**	**-22.41**	**-6.15**	**-2.07**		**0.00**	**1/1/2014**	**3,328,036**	**0.39**
Russell 2000 Index	-30.61	-23.99	-4.64	-0.25		1.25			
Value Added	-0.72	1.58	-1.51	-1.82		-1.25			

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
Cookson Peirce (EMWO)	**-17.23**	**-13.71**				**-1.05**	**1/1/2019**	**496,383**	**0.06**
Russell 3000 Index	-20.90	-9.13				2.90			
Value Added	3.67	-4.58				-3.95			
US Equity Composite	**-21.10**	**-9.44**	**3.54**	**5.23**	**9.71**	**7.98**	**11/1/1993**	**129,689,101**	**15.20**
Wilshire 5000 Total Market TR Index	-20.70	-8.94	4.09	5.99	10.18	8.68			
Value Added	-0.40	-0.50	-0.55	-0.76	-0.47	-0.70			
SSgA ACWI ex US	**-23.23**	**-14.32**	**-1.67**			**-1.31**	**5/1/2015**	**26,853,299**	**3.15**
MSCI AC World ex USA (Net)	-23.36	-15.57	-1.96			-1.65			
Value Added	0.13	1.25	0.29			0.34			
Baillie Gifford Intl Equity	**-20.73**	**-7.97**	**2.45**	**3.54**	**5.70**	**6.90**	**8/1/2009**	**54,742,816**	**6.42**
MSCI AC World ex USA (Net)	-23.36	-15.57	-1.96	-0.64	2.05	3.26			
Value Added	2.63	7.60	4.41	4.18	3.65	3.64			
FIAM Select International Equity	**-22.47**	**-13.17**	**-1.91**	**-0.90**	**2.10**	**3.15**	**2/1/2001**	**27,071,171**	**3.17**
FIAM Policy Index	-23.36	-15.57	-1.96	-0.64	2.05	2.76			
Value Added	0.89	2.40	0.05	-0.26	0.05	0.39			
Segal, Bryant & Hamill	**-33.77**	**-27.72**	**-9.81**			**-3.66**	**5/1/2015**	**22,077,059**	**2.59**
MSCI EAFE Small Cap (Net)	-27.52	-18.15	-2.88			0.07			
Value Added	-6.25	-9.57	-6.93			-3.73			
Non US Equity Composite	**-24.10**	**-14.17**	**-1.57**	**0.61**	**2.95**	**3.71**	**2/1/2001**	**130,744,345**	**15.32**
Non US Equity Policy Index	-24.11	-16.32	-2.34	-0.66	2.05	2.76			
Value Added	0.01	2.15	0.77	1.27	0.90	0.95			

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
Columbus Macro (EMWO)	**-20.64**	**-14.57**	**-1.49**	**0.13**		**0.87**	**12/1/2014**	**983,468**	**0.12**
MSCI AC World Index (Net)	-21.37	-11.26	1.50	2.85		2.73			
Value Added	0.73	-3.31	-2.99	-2.72		-1.86			
Global Equity Composite	**-20.64**	**-14.57**	**-1.49**	**0.13**		**0.87**	**12/1/2014**	**983,468**	**0.12**
MSCI AC World Index (Net)	-21.37	-11.26	1.50	2.85		2.73			
Value Added	0.73	-3.31	-2.99	-2.72		-1.86			
C S McKee	**1.51**	**7.61**	**4.50**	**3.32**	**4.00**	**7.41**	**1/1/1983**	**32,615,933**	**3.82**
Blmbg. Barc. U.S. Aggregate	3.15	8.93	4.82	3.36	3.88	7.10			
Value Added	-1.64	-1.32	-0.32	-0.04	0.12	0.31			
Federated	**2.20**	**8.60**	**4.80**	**3.61**	**4.14**	**4.99**	**9/1/2006**	**27,855,261**	**3.26**
Blmbg. Barc. U.S. Aggregate	3.15	8.93	4.82	3.36	3.88	4.48			
Value Added	-0.95	-0.33	-0.02	0.25	0.26	0.51			
CIM Investment Mgmt	**3.30**	**7.43**	**3.59**	**2.33**	**2.71**	**3.50**	**11/1/2005**	**13,529,209**	**1.59**
Blmbg. Barc. Intermed. U.S. Government/Credit	2.40	6.88	3.79	2.76	3.14	3.87			
Value Added	0.90	0.55	-0.20	-0.43	-0.43	-0.37			
StoneRidge Partners (EMWO)	**2.77**	**6.12**	**3.49**			**2.97**	**8/1/2015**	**6,516,965**	**0.76**
StoneRidge Policy Index	0.65	5.56	3.54			3.00			
Value Added	2.12	0.56	-0.05			-0.03			
Gridiron Capital Fixed Income (EMWO)	**-9.26**	**-2.76**	**0.78**			**0.75**	**2/1/2017**	**4,106,755**	**0.48**
Blmbg. Barc. U.S. Aggregate	3.15	8.93	4.82			4.77			
Value Added	-12.41	-11.69	-4.04			-4.02			

Wilshire Consulting

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
FNB (EMWO)	**0.98**	**5.32**				**2.86**	**7/1/2017**	**2,706,283**	**0.32**
Blmbg. Barc. U.S. Intermediate Aggregate	2.49	6.88				3.88			
Value Added	-1.51	-1.56				-1.02			
Core Fixed Composite	**1.40**	**7.05**	**4.06**	**3.01**	**3.65**	**6.99**	**1/1/1983**	**87,330,406**	**10.24**
Blmbg. Barc. U.S. Aggregate	3.15	8.93	4.82	3.36	3.88	7.10			
Value Added	-1.75	-1.88	-0.76	-0.35	-0.23	-0.11			
Oaktree High Yield	**-11.83**	**-8.69**	**-0.85**	**1.04**	**4.43**	**5.37**	**4/1/2008**	**54,713,257**	**6.41**
FTSE High Yield Market Capped Index	-13.32	-7.92	0.33	2.33	5.28	6.11			
Value Added	1.49	-0.77	-1.18	-1.29	-0.85	-0.74			
Federated High Yield	**-11.74**	**-4.96**				**0.69**	**7/1/2017**	**43,384,803**	**5.08**
Blmbg. Barc. U.S. High Yield - 2% Issuer Cap	-12.68	-6.94				0.05			
Value Added	0.94	1.98				0.64			
Sound Point	**-12.83**	**-12.71**	**-1.33**	**0.87**		**2.00**	**8/1/2013**	**2,852,319**	**0.33**
CSFB Leveraged Loan	-13.19	-9.51	-0.73	1.21		1.85			
Value Added	0.36	-3.20	-0.60	-0.34		0.15			
High Yield Fixed Composite	**-11.82**	**-7.24**	**-0.03**	**1.41**	**4.65**	**5.75**	**4/1/2008**	**100,950,379**	**11.83**
FTSE High Yield Market Capped Index	-13.32	-7.92	0.33	2.33	5.28	6.11			
Value Added	1.50	0.68	-0.36	-0.92	-0.63	-0.36			
MCM TIPS	**1.70**	**6.86**	**3.49**			**3.76**	**12/1/2016**	**42,021,433**	**4.93**
Blmbg. Barc. U.S. TIPS	1.69	6.85	3.46			3.47			
Value Added	0.01	0.01	0.03			0.29			

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
TIPS Fixed Composite	**1.70**	**6.86**	**3.49**	**2.63**	**3.38**	**3.28**	**4/1/2008**	**42,021,433**	**4.93**
Blmbg. Barc. U.S. TIPS	1.69	6.85	3.46	2.67	3.48	3.23			
Value Added	0.01	0.01	0.03	-0.04	-0.10	0.05			
ERECT Fund II	**-1.14**	**1.74**	**7.61**	**7.62**	**8.68**	**6.98**	**6/1/2005**	**9,646,257**	**1.13**
CPI - All Urban Consumers (SA)	-0.19	1.52	1.91	1.80	1.73	1.95			
Value Added	-0.95	0.22	5.70	5.82	6.95	5.03			
ERECT Composite	**-1.14**	**1.74**	**7.61**	**7.62**		**7.00**	**9/1/2010**	**9,646,257**	**1.13**
Morgan Stanley	**0.61**	**5.47**	**7.15**	**8.80**	**11.98**	**8.69**	**4/1/2003**	**72,624,120**	**8.51**
NCREIF Fund Index-ODCE (VW) (Net)	0.75	3.93	5.85	7.48	10.42	7.07			
Value Added	-0.14	1.54	1.30	1.32	1.56	1.62			
Oaktree Real Estate	**-1.71**	**-0.20**	**5.11**	**5.21**		**5.69**	**8/1/2013**	**7,179,497**	**0.84**
Washington Alliance (EMWO)	**0.00**	**3.96**	**16.49**	**16.45**		**12.96**	**8/1/2013**	**12,070,967**	**1.41**
Washington Alliance II (EMWO)						**0.00**	**3/1/2020**	**983,333**	**0.12**
Siguler Guff Distressed RE	**0.00**	**2.69**	**12.22**	**8.68**		**7.76**	**3/1/2014**	**9,880,982**	**1.16**
Real Estate Composite	**0.31**	**4.57**	**8.43**	**9.03**	**11.51**	**8.76**	**4/1/2003**	**102,738,899**	**12.04**
NCREIF Fund Index-ODCE (VW) (Net)	0.75	3.93	5.85	7.48	10.42	7.07			
Value Added	-0.44	0.64	2.58	1.55	1.09	1.69			
Private Equity Composite	**5.28**	**12.31**	**10.05**	**11.09**	**11.87**	**6.90**	**4/1/2003**	**181,452,118**	**21.27**
Private Equity Policy Index	5.28	12.31	10.05	11.09	11.87	6.90			
Value Added	0.00	0.00	0.00	0.00	0.00	0.00			

Wilshire Consulting

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
Gridiron Capital (EMWO)	**-16.81**	**-8.68**	**-4.58**	**-1.25**		**-0.60**	**8/1/2013**	**2,323,160**	**0.27**
HFRI FoF Composite Lagged	0.36	3.26	2.80	1.74		2.89			
Value Added	-17.17	-11.94	-7.38	-2.99		-3.49			
Maplewood (EMWO)	**-17.19**	**-14.19**				**-13.17**	**3/1/2019**	**858,090**	**0.10**
HFRX Macro Index	-1.18	4.51				4.44			
Value Added	-16.01	-18.70				-17.61			
Hedge Fund Composite	**-16.91**	**-10.21**	**-8.55**	**-4.05**		**-0.68**	**2/1/2011**	**3,181,250**	**0.37**
90 Day T-Bill Index + 3%	1.32	5.32	4.88	4.20		3.68			
Value Added	-18.23	-15.53	-13.43	-8.25		-4.36			
Salient MLP Fund	**-46.93**	**-48.69**				**-24.50**	**1/1/2018**	**9,559,713**	**1.12**
Alerian MLP Index	-57.19	-60.95				-33.49			
Value Added	10.26	12.26				8.99			
Harvest MLP Fund	**-49.01**	**-52.17**				**-29.26**	**2/1/2018**	**12,128,825**	**1.42**
Alerian MLP Index	-57.19	-60.95				-36.19			
Value Added	8.18	8.78				6.93			
MLP Composite	**-48.12**	**-50.69**				**-28.18**	**2/1/2018**	**21,688,538**	**2.54**
Alerian MLP Index	-57.19	-60.95				-36.19			
Value Added	9.07	10.26				8.01			

Wilshire Consulting

PERFORMANCE SUMMARY

Investment Performance and Market Values

Periods Ended March 31, 2020

	Performance (%) net of fees							Allocation	
	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value $	%
CCA Green	**-1.11**	**-8.38**	**-4.70**	**-9.15**	**4.25**	**5.18**	**10/1/2009**	**12,080,890**	**1.42**
CCA Blue	**-2.94**	**-9.94**	**-6.07**	**-6.53**		**-5.01**	**1/1/2013**	**2,617,378**	**0.31**
CCA Black	**2.22**	**6.78**	**5.06**	**6.31**		**6.61**	**1/1/2015**	**8,404,359**	**0.99**
CCA Longevity Fund VI LP	**4.71**	**11.63**				**9.20**	**1/1/2019**	**5,405,011**	**0.63**
Life Settlement Composite	**0.78**	**-0.89**	**-0.95**	**-4.72**	**6.65**	**7.49**	**10/1/2009**	**28,507,639**	**3.34**
Israel Bonds	**-0.21**	**2.30**	**1.81**	**2.07**		**2.83**	**1/1/2012**	**7,248,454**	**0.85**
Cash Account	**0.58**	**2.25**	**1.84**	**1.20**		**0.80**	**1/1/2012**	**7,032,160**	**0.82**
Total Fund	**-10.44**	**-3.63**	**3.15**	**4.15**	**6.47**	**6.92**	**12/1/1993**	**853,214,445**	**100.00**
Total Fund Policy Index	-10.86	-4.45	2.57	3.91	6.06	6.98			
Value Added	0.42	0.82	0.58	0.24	0.41	-0.06			

Historical Hybrid Composition

Retirement Board of Allegheny County

Periods Ended March 31, 2020

Policy Index	Weight (%)
Jan-1979	
Russell 3000 Index	65.00
Blmbg. Barc. U.S. Aggregate	35.00
Mar-2007	
Wilshire 5000 Total Market TR Index	45.00
Blmbg. Barc. U.S. Aggregate	25.00
Private Equity Composite	5.00
MSCI EAFE Index (Net)	10.00
Bloomberg Commodity Index Total Return	5.00
90 Day US Treasury Bill	5.00
NCREIF Fund Index-ODCE (VW) (Net)	5.00
Sep-2008	
Wilshire 5000 Total Market TR Index	45.00
Blmbg. Barc. U.S. Aggregate	25.00
Private Equity Composite	5.00
MSCI AC World ex USA (Net)	10.00
Bloomberg Commodity Index Total Return	5.00
90 Day US Treasury Bill	5.00
NCREIF Fund Index-ODCE (VW) (Net)	5.00

Policy Index	Weight (%)
Dec-2008	
Wilshire 5000 Total Market TR Index	35.00
Blmbg. Barc. U.S. Aggregate	20.00
Private Equity Composite	5.00
MSCI AC World ex USA (Net)	15.00
Bloomberg Commodity Index Total Return	5.00
90 Day US Treasury Bill	2.50
NCREIF Fund Index-ODCE (VW) (Net)	7.50
Blmbg. Barc. U.S. TIPS	5.00
FTSE High Yield Market Capped Index	5.00
Sep-2009	
Wilshire 5000 Total Market TR Index	30.00
Blmbg. Barc. U.S. Aggregate	15.00
Private Equity Composite	5.00
MSCI AC World ex USA (Net)	20.00
Bloomberg Commodity Index Total Return	2.50
NCREIF Fund Index-ODCE (VW) (Net)	10.00
Blmbg. Barc. U.S. TIPS	7.50
FTSE High Yield Market Capped Index	10.00
Jun-2010	
Wilshire 5000 Total Market TR Index	20.00
Blmbg. Barc. U.S. Aggregate	14.00
Private Equity Composite	10.00
MSCI AC World ex USA (Net)	25.00
Bloomberg Commodity Index Total Return	5.00
NCREIF Fund Index-ODCE (VW) (Net)	10.00
Blmbg. Barc. U.S. TIPS	6.00
FTSE High Yield Market Capped Index	10.00

Historical Hybrid Composition

Retirement Board of Allegheny County

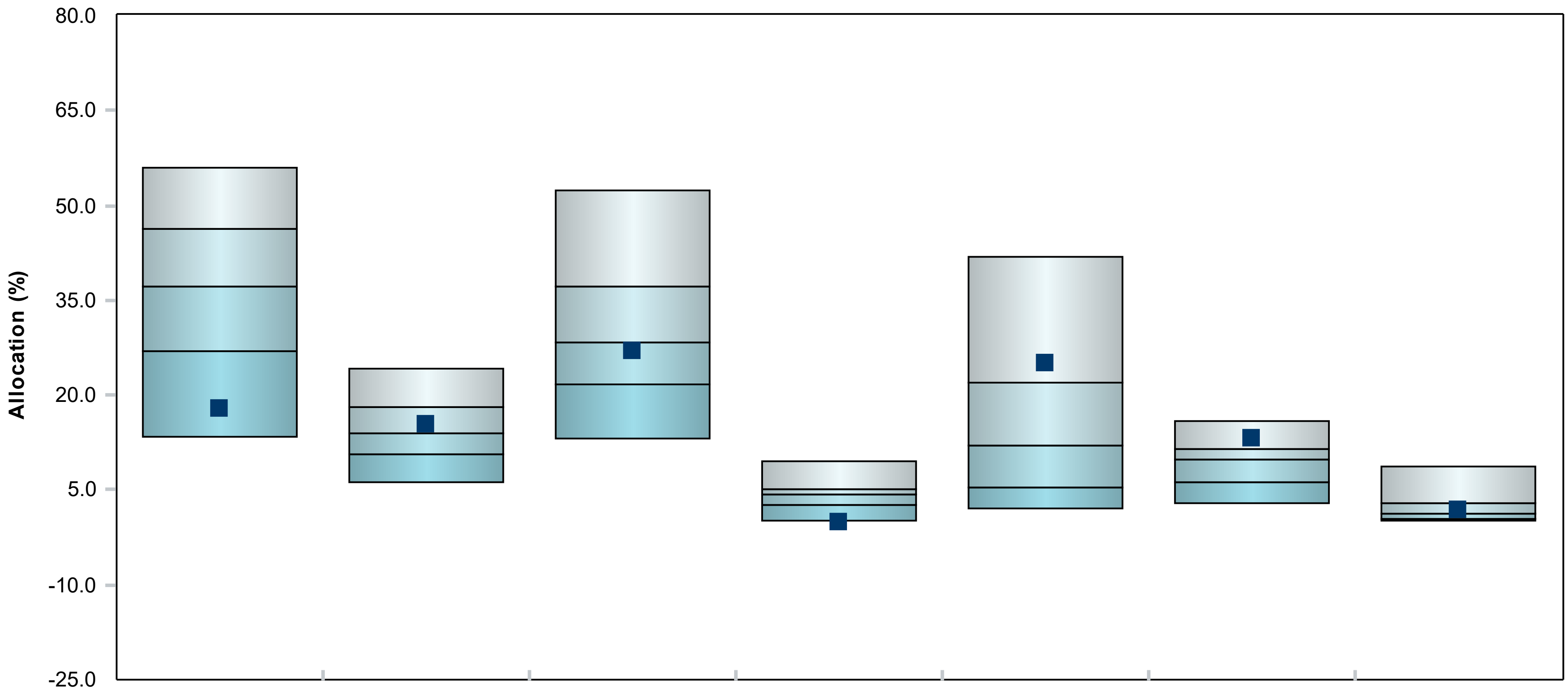
Periods Ended March 31, 2020

Policy Index	Weight (%)
Mar-2013	
Wilshire 5000 Total Market TR Index	16.10
Blmbg. Barc. U.S. Aggregate	10.00
Private Equity Composite	20.00
MSCI AC World ex USA (Net)	18.90
Bloomberg Commodity Index Total Return	8.00
NCREIF Fund Index-ODCE (VW) (Net)	10.00
Blmbg. Barc. U.S. TIPS	5.00
FTSE High Yield Market Capped Index	12.00
Apr-2016	
Wilshire 5000 Total Market TR Index	15.00
Blmbg. Barc. U.S. Aggregate	10.00
Private Equity Composite	22.50
MSCI AC World ex USA (Net)	15.00
Bloomberg Commodity Index Total Return	2.50
NCREIF Fund Index-ODCE (VW) (Net)	10.00
Blmbg. Barc. U.S. TIPS	8.00
FTSE High Yield Market Capped Index	12.00
Alerian MLP Index	5.00
Jan-2019	
Wilshire 5000 Total Market TR Index	16.50
Blmbg. Barc. U.S. Aggregate	12.50
Private Equity Composite	20.00
MSCI AC World ex USA (Net)	16.50
NCREIF Fund Index-ODCE (VW) (Net)	12.50
Blmbg. Barc. U.S. TIPS	5.00
FTSE High Yield Market Capped Index	12.00
Alerian MLP Index	5.00

Plan Sponsor TF Asset Allocation

Total Fund vs All Public Plans-Total Fund

Periods Ended March 31, 2020

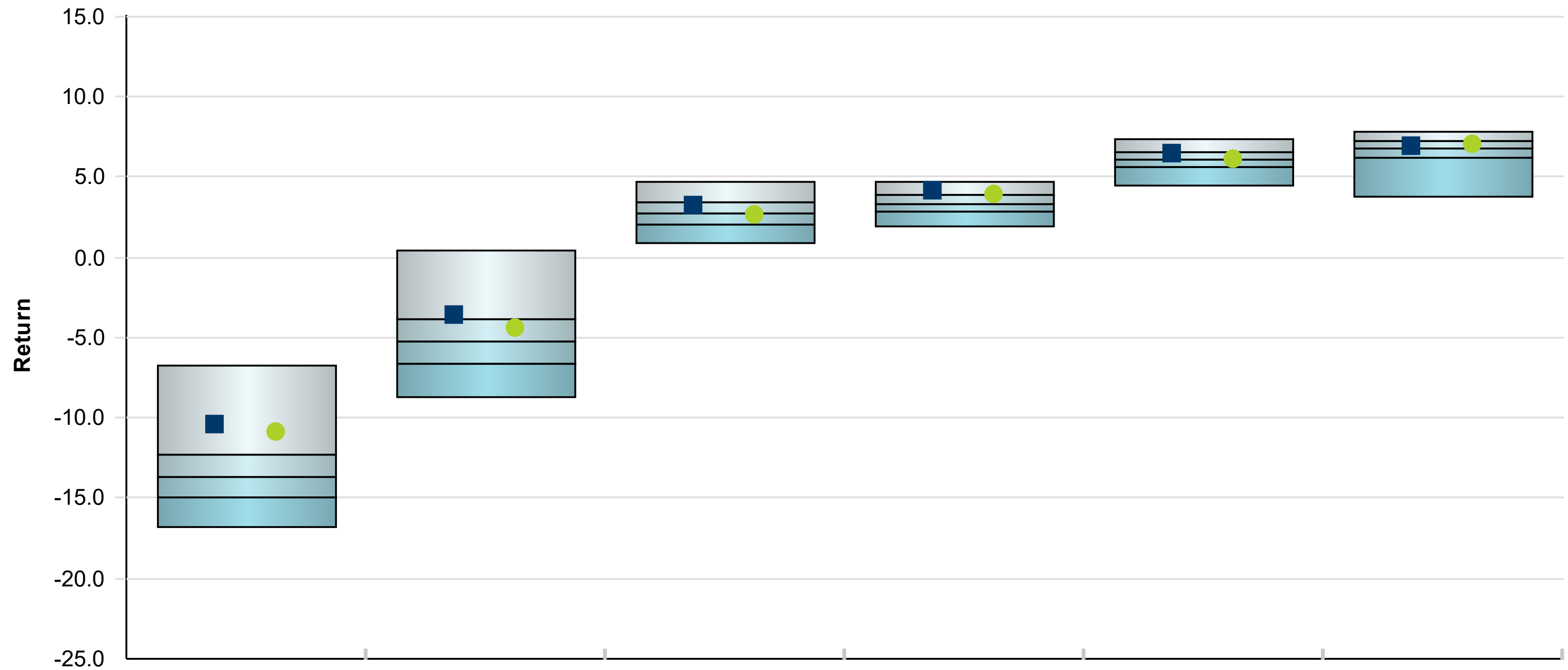


	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ Total Fund	17.74	15.44	26.99	0.00	24.96	13.17	1.69
5th Percentile	55.91	24.21	52.45	9.49	41.91	15.80	8.76
1st Quartile	46.36	17.97	37.21	5.24	21.89	11.60	2.85
Median	37.12	13.85	28.46	4.34	12.05	9.87	1.30
3rd Quartile	27.04	10.62	21.71	2.68	5.35	6.13	0.51
95th Percentile	13.29	6.33	13.03	0.09	1.97	2.78	0.06
Population	655	603	605	201	198	352	434

Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans-Total Fund

Periods Ended March 31, 2020



	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Total Fund	-10.44 (12)	-3.63 (22)	3.15 (37)	4.15 (16)	6.47 (32)	6.92 (38)
● Total Fund Policy Index	-10.86 (13)	-4.45 (36)	2.57 (58)	3.91 (24)	6.06 (54)	6.98 (35)
5th Percentile	-6.71	0.42	4.70	4.66	7.34	7.89
1st Quartile	-12.26	-3.88	3.43	3.87	6.61	7.21
Median	-13.70	-5.18	2.76	3.31	6.12	6.79
3rd Quartile	-15.00	-6.65	2.02	2.85	5.65	6.27
95th Percentile	-16.74	-8.72	0.88	1.94	4.47	3.82
Population	685	683	646	597	500	100

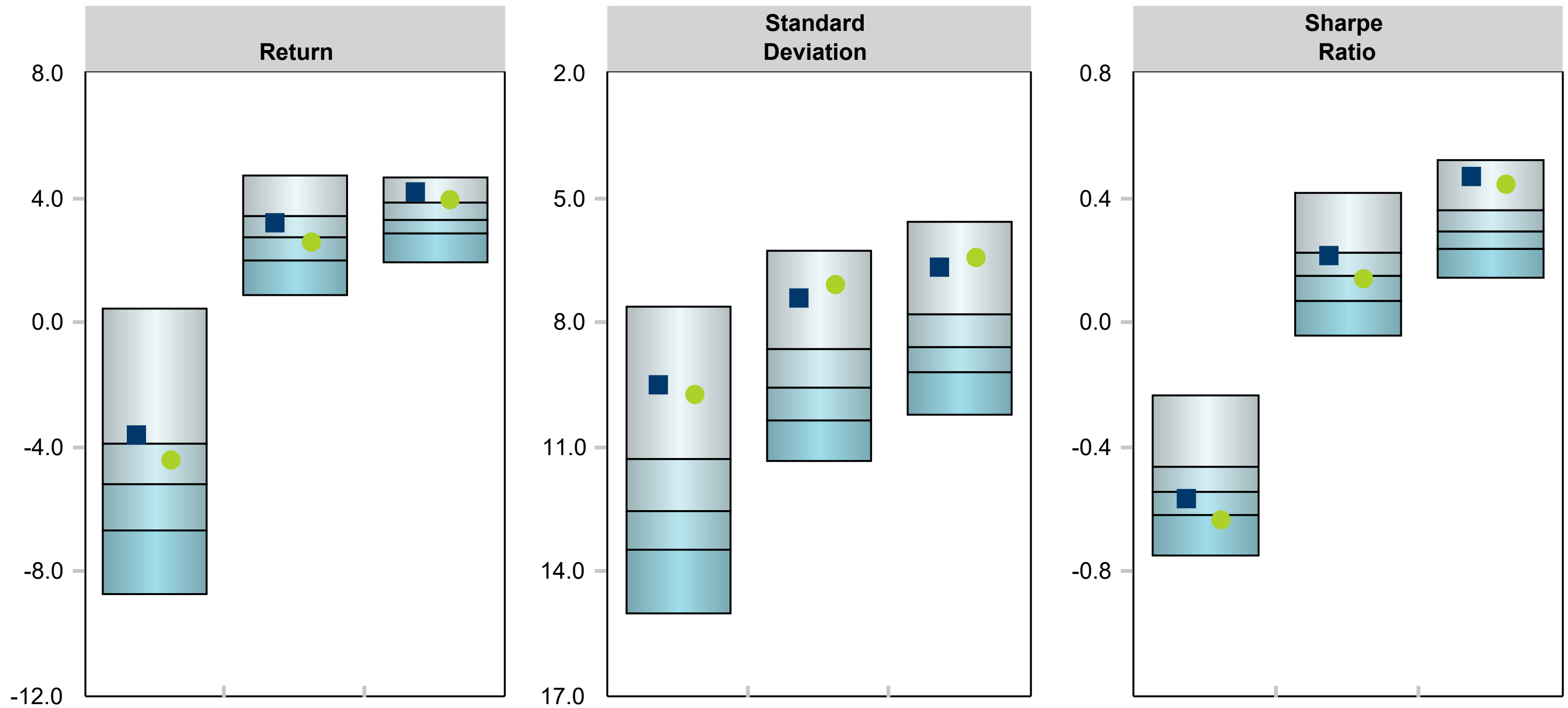
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Wilshire Consulting

Plan Sponsor Peer Group Analysis-Multi Statistics

Total Fund

Periods Ended March 31, 2020



	Return 1 Year	Return 3 Years	Return 5 Years	Standard Deviation 1 Year	Standard Deviation 3 Years	Standard Deviation 5 Years	Sharpe Ratio 1 Year	Sharpe Ratio 3 Years	Sharpe Ratio 5 Years
■ Total Fund	-3.63 (22)	3.15 (37)	4.15 (16)	9.52 (9)	7.44 (9)	6.68 (9)	-0.57 (61)	0.21 (29)	0.47 (9)
● Total Fund Policy Index	-4.45 (36)	2.57 (58)	3.91 (24)	9.77 (10)	7.12 (7)	6.46 (8)	-0.64 (80)	0.14 (54)	0.44 (11)
5th Percentile	0.42	4.70	4.66	7.63	6.25	5.58	-0.24	0.42	0.52
1st Quartile	-3.88	3.43	3.87	11.28	8.62	7.79	-0.46	0.23	0.36
Median	-5.18	2.76	3.31	12.52	9.57	8.60	-0.54	0.15	0.29
3rd Quartile	-6.65	2.02	2.85	13.46	10.35	9.21	-0.62	0.07	0.24
95th Percentile	-8.72	0.88	1.94	14.99	11.36	10.22	-0.75	-0.04	0.14
Population	683	646	597	683	646	597	683	646	597

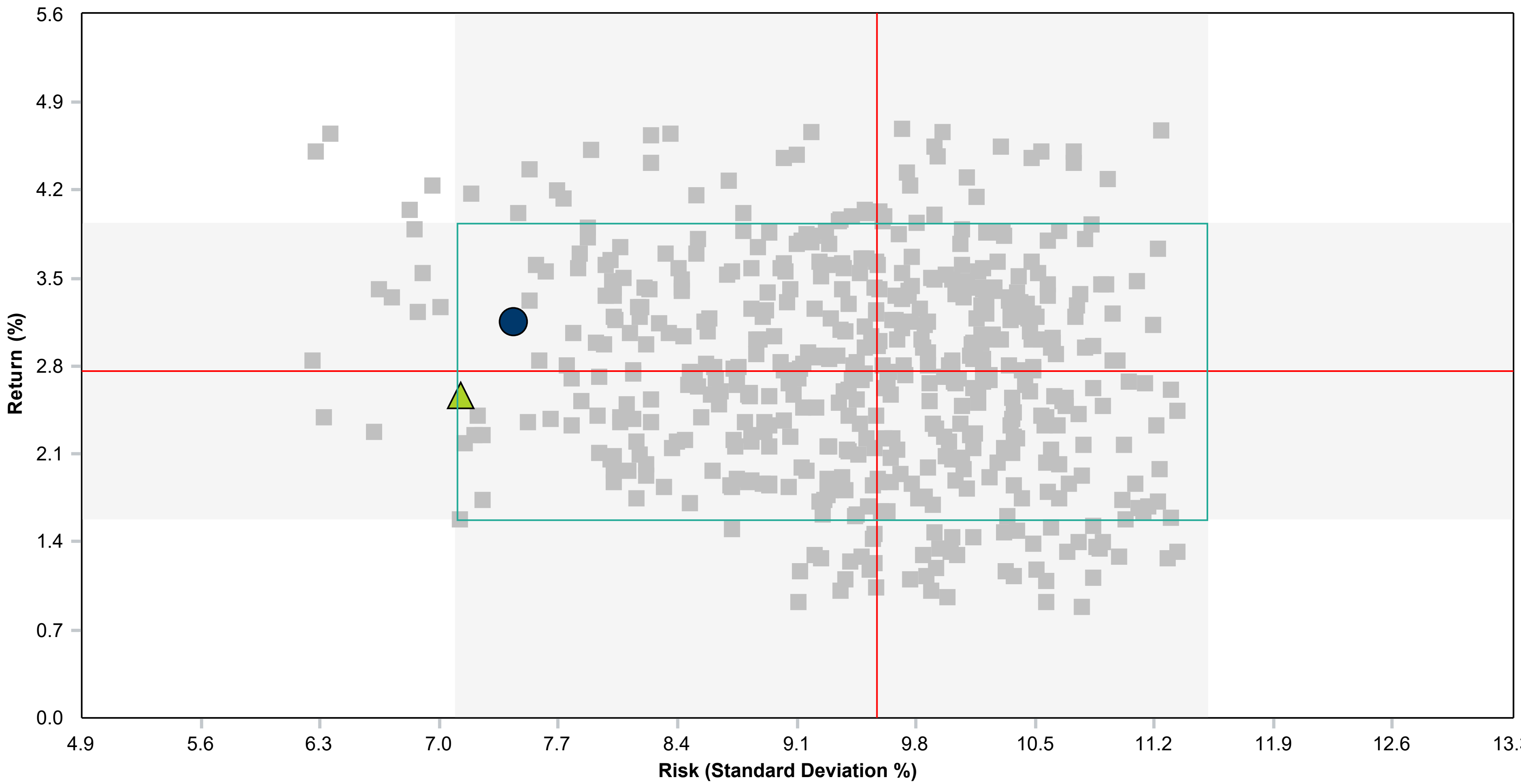
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Wilshire Consulting

Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund

Periods Ended April 1, 2017 To March 31, 2020



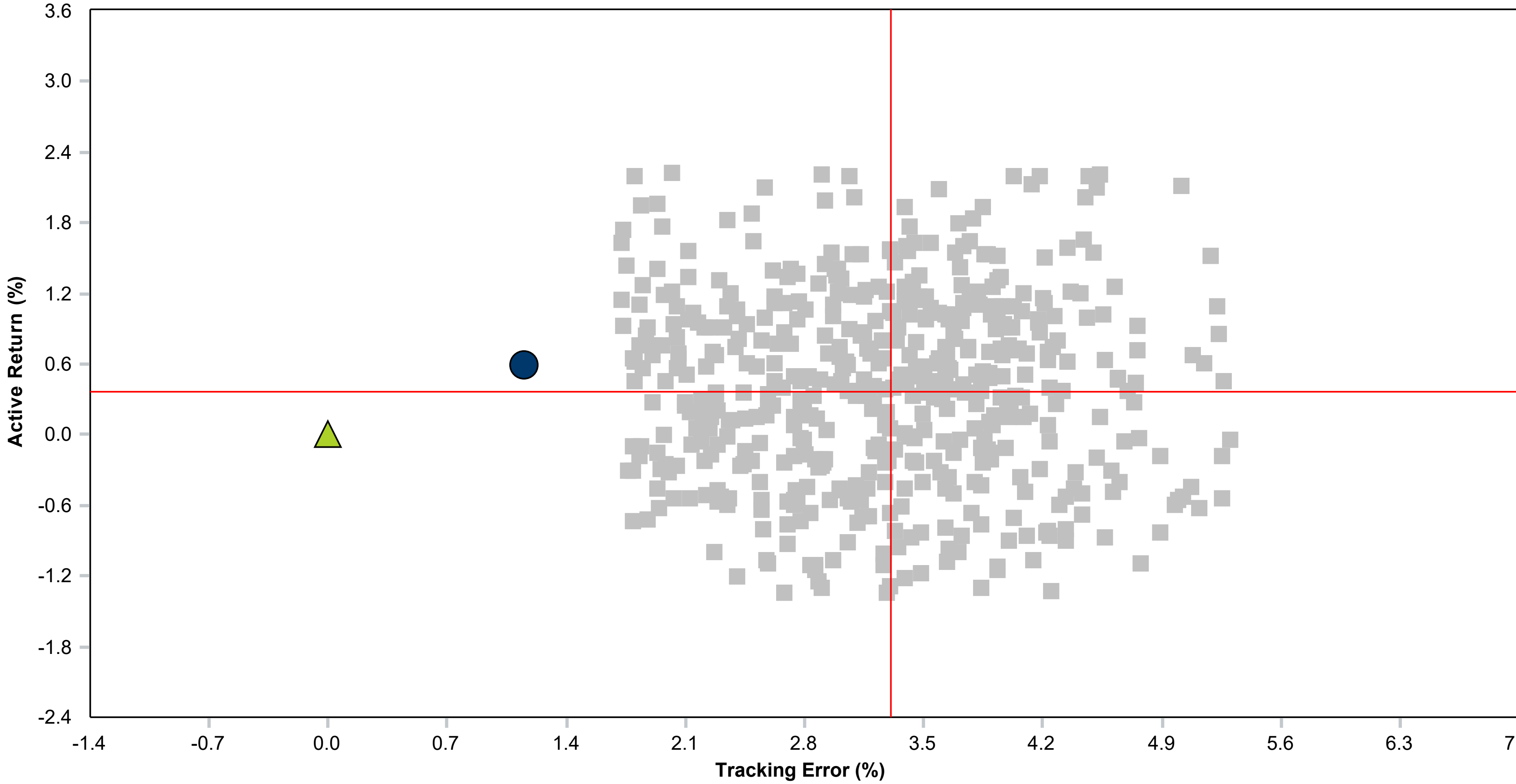
	Return	Standard Deviation
Total Fund	3.15	7.44
Total Fund Policy Index	2.57	7.12
Median	2.76	9.57

Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund

Periods Ended April 1, 2017 To March 31, 2020



	Active Return	Tracking Error
Total Fund	0.59	1.16
Total Fund Policy Index	0.00	0.00
Median	0.37	3.31

Calculation based on monthly periodicity.

Cash Flow Summary

Total Fund

1 Quarter Ending March 31, 2020

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Total Fund	**964,707,696**		**-11,300,000**		**-2,902,759**	**-272,653**	**-97,017,839**	**853,214,445**
Total Fund x Private Equity								
US Equity Composite	**170,712,554**			**-6,000,000**	**-105,229**	**-6**	**-34,918,218**	**129,689,101**
SSgA S&P 500 Index	94,638,600			-4,000,000	-4,977		-17,845,916	72,787,707
Twin Capital Enhanced Equity	31,050,612			-1,000,000	-27,463		-6,013,512	24,009,638
Earnest Small Value	14,293,343			-500,000	-32,267		-3,979,483	9,781,593
Emerald Advisors Small Cap	13,839,351			-500,000	-25,759		-3,260,425	10,053,168
Fragasso Large Core (EMWO)	6,387,565				-8,860		-1,256,636	5,122,069
CIM Small Cap (EMWO)	4,846,748					-6	-1,518,705	3,328,036
Emerald Advisors All Cap (EMWO)	3,593,804				-5,172		-615,825	2,972,807
Ethos (EMWO)	1,462,800						-325,099	1,137,701
Cookson Peirce (EMWO)	599,730				-731		-102,616	496,383
Non US Equity Composite	**173,392,727**			**-1,000,500**	**-86,302**		**-41,561,580**	**130,744,345**
Baillie Gifford Intl Equity	70,166,337			-1,000,000			-14,423,521	54,742,816
FIAM Select International Equity	34,917,214			-500	-27,222		-7,818,321	27,071,171
Segal, Bryant & Hamill	33,332,405				-51,582		-11,203,765	22,077,059
SSgA ACWI ex US	34,976,771				-7,498		-8,115,973	26,853,299
Global Equity Composite	**1,239,192**				**-2,110**		**-253,614**	**983,468**
Columbus Macro (EMWO)	1,239,192				-2,110		-253,614	983,468
Fixed Income Composite								
Core Fixed Composite	**86,384,559**			**-267,893**	**-67,895**		**1,281,634**	**87,330,406**
C S McKee	32,132,349				-18,476		502,060	32,615,933
CIM Investment Mgmt	13,096,581				-20,659		453,287	13,529,209
Federated	27,322,110				-19,130		552,282	27,855,261
StoneRidge Partners (EMWO)	6,628,893			-268,976			157,048	6,516,965
Gridiron Capital Fixed Income (EMWO)	4,524,657			1,083	-7,291		-411,694	4,106,755
FNB (EMWO)	2,679,970				-2,338		28,651	2,706,283
High Yield Fixed Composite	**114,479,483**				**-34,465**		**-13,494,639**	**100,950,379**
Federated High Yield	49,156,380				-34,465		-5,737,112	43,384,803

Wilshire Consulting

Cash Flow Summary

Total Fund

1 Quarter Ending March 31, 2020

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Oaktree High Yield	62,050,974						-7,337,717	54,713,257
Sound Point	3,272,129						-419,810	2,852,319
TIPS Fixed Composite	**49,265,121**			**-8,000,000**	**-6,155**		**762,467**	**42,021,433**
MCM TIPS	49,265,121			-8,000,000	-6,155		762,467	42,021,433
ERECT Composite	**9,757,314**						**-111,057**	**9,646,257**
ERECT Fund II	9,757,314						-111,057	9,646,257
Real Estate Composite	**101,781,586**			**657,905**	**-28,272**	**-12,706**	**340,386**	**102,738,899**
Morgan Stanley	72,187,088						437,032	72,624,120
Oaktree Real Estate	7,317,123				-28,272	-12,706	-96,648	7,179,497
Siguler Guff Distressed RE	10,206,408			-325,429			2	9,880,982
Washington Alliance (EMWO)	12,070,967							12,070,967
Washington Alliance II (EMWO)				983,333				983,333
MLP Composite	**41,801,478**				**-75,956**		**-20,036,984**	**21,688,538**
Harvest MLP Fund	23,787,539				-43,275		-11,615,440	12,128,825
Salient MLP Fund	18,013,938				-32,681		-8,421,544	9,559,713
Life Settlement Composite	**28,681,151**			**-395,723**	**-31,250**		**253,461**	**28,507,639**
CCA Black	8,437,606			-219,209			185,963	8,404,359
CCA Blue	2,696,665						-79,287	2,617,378
CCA Green	12,216,471						-135,581	12,080,890
CCA Longevity Fund VI LP	5,330,409			-176,514	-31,250		282,366	5,405,011
Israel Bonds and Cash	**15,408,022**		**-11,300,000**	**10,153,336**		**-913**	**20,169**	**14,280,614**
Cash Account	8,036,825		-11,300,000	10,259,966		-913	36,281	7,032,160
Israel Bonds	7,371,197			-106,631			-16,112	7,248,454
Hedge Fund Composite	**3,827,594**			**1,217**	**-28,035**		**-619,527**	**3,181,250**
Gridiron Capital (EMWO)	**2,791,430**			**1,217**	**-28,035**		**-441,452**	**2,323,160**
Gridiron Capital Multi-Asset (EMWO)	2,791,430			1,217	-28,035		-441,452	2,323,160
Maplewood (EMWO)	1,036,165						-178,075	858,090
Private Equity Composite	**167,976,915**			**4,851,659**	**-2,437,089**	**-259,028**	**11,319,661**	**181,452,118**
Accolade V	3,777,907			-118,575				3,659,332

Wilshire

Cash Flow Summary

Total Fund

1 Quarter Ending March 31, 2020

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Accolade Partners VI	1,080,096							1,080,096
Adams Street 2003	1,588,798						78,196	1,666,994
Adams Street 2008 Global	5,906,903				-13,092		379,126	6,272,937
Adams Street 2009 Global	3,613,152			-156,703	-7,949		218,110	3,666,610
Auldbrass Spec Opps II	587,388							587,388
Birchmere Ventures	229,871							229,871
BlackRock Multi-Alternative Opps	864,371			182,701	-4,397	-1,100	9,894	1,051,469
Blackstone	798,011			1,107	-2,069	-748	40,431	836,733
Blackstone Tac Op II	1,781,982			7,005			64,849	1,853,836
Blackstone Tac Op III	787,219			494,536		-79,265	84,325	1,286,815
Commonfund Venture Partners XII	970,645			90,000				1,060,645
Constitution	1,398,433			-1,185,326				213,107
Crestline Opportunity Fund III	3,523,184				-15,123	-7,506	126,332	3,626,886
Crestline Recovery II	587,684			-95,280		-4,012	-79,350	409,042
DCM Fund IV	2,445,871			214,948	-14,228	-6,713	31,553	2,671,431
Draper Triangle	358,311						4,355	362,666
Draper Triangle III	10,105,500			334,534	-51,136	-18,395	284,819	10,655,322
Emerald Advisors Fin Srv I	861,626						-12,515	849,111
Entrust	1,744,485			-195,271			42,085	1,591,299
Entrust Special Opps IV	2,347,176			573,245	-7,378		174,038	3,087,081
Farol Fund II				3,081,081				3,081,081
Five Points III	1,894,453			120,258				2,014,711
Goldman Sachs	844,876				-544	-1,808	11,638	854,162
Greenspring	2,529,327			-390,000			132,904	2,272,231
Greenspring Early Stage I LP	1,295,761			360,000			-12,834	1,642,927
Greenspring III	4,603,444						30,271	4,633,715
Greenspring IV	3,372,471						9,582	3,382,053
Greenspring Sec I	2,056,527			-61,000			343,218	2,338,745
Greenspring Sec II	2,604,945			-265,000			354,274	2,694,219

Wilshire Consulting

Cash Flow Summary

Total Fund

1 Quarter Ending March 31, 2020

	Begin Value	Contributions	Distributions	Net Transfers	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Greenspring V	2,681,914			180,000			145,019	3,006,933
iNetworks	11,693,005			603,810	-22,483	-51,754	547,023	12,769,601
iNetworks II	3,077,891			-694,580				2,383,311
INOF II	5,815,152			-125,589			58,866	5,748,429
Ironside III	5,807,806			147,653	-10,589	-7,838	598,384	6,535,415
Ironside IV	3,718,153			-789,980	-3,748	-4,727	160,279	3,079,978
Ironside Opportunities Fund	2,377,882			231,466		-26,281	73,867	2,656,934
JMI Equity Fund IX-A	618,876			294,000	-9,131		88,774	992,519
Mellon PAM Fund V	4,222,129			-198,677				4,023,452
Mesirow Partners Fund IV	6,605,498			-170,000				6,435,498
North Haven Capital Partners	2,645,039			-187,930				2,457,109
North Haven Senior Loan Fund	1,440,993			279,719	-6,458	-6,480	45,819	1,753,593
Permal Capital Mgmt	671,223							671,223
Pharos Capital	3,289,218			-60,541			169,836	3,398,513
PLSG Accelerator Fund	240,115							240,115
ValStone Partners IV	13,240							13,240
ValStone Partners V	22,782,806			-2,291,419	-2,088,115		6,684,760	25,088,032
ValStone Partners VI	11,758,656			4,641,466	-75,000	-42,401	253,998	16,536,719
Valstone Senior Living	13,956,902				-105,649		177,736	14,028,989

US EQUITY

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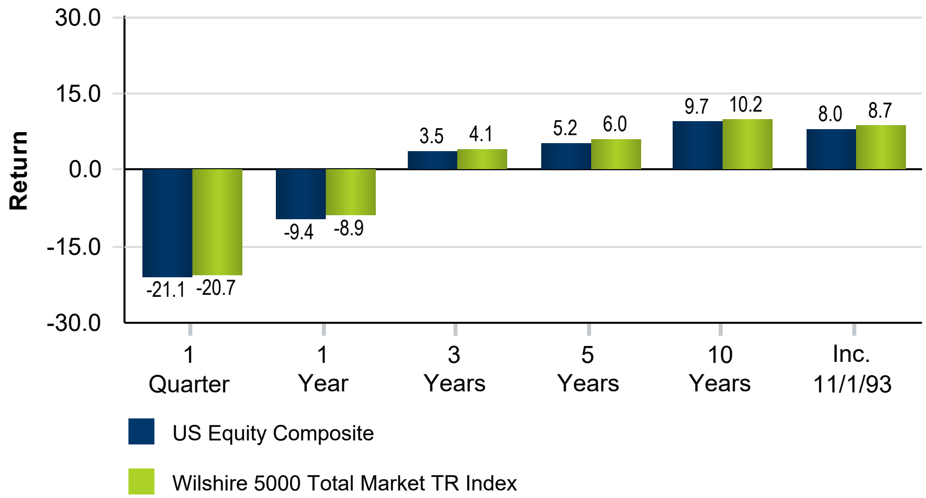
Composite Performance Summary

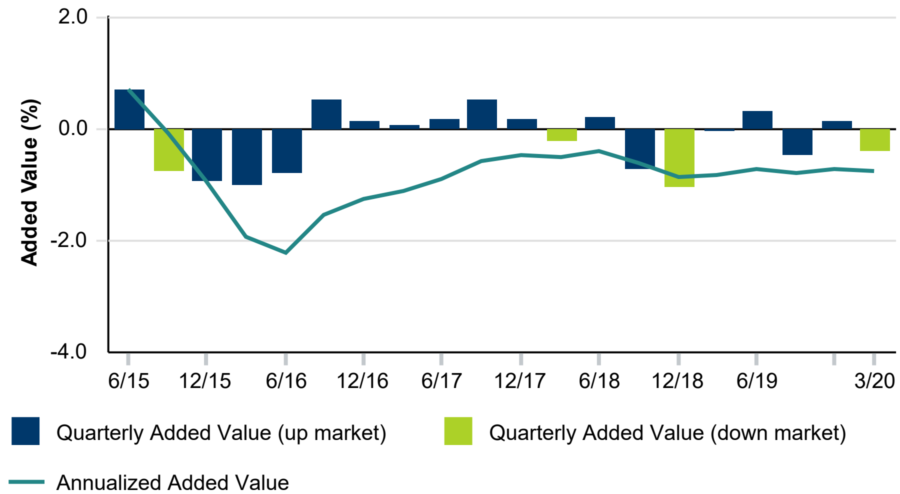
US Equity Composite

Periods Ended March 31, 2020

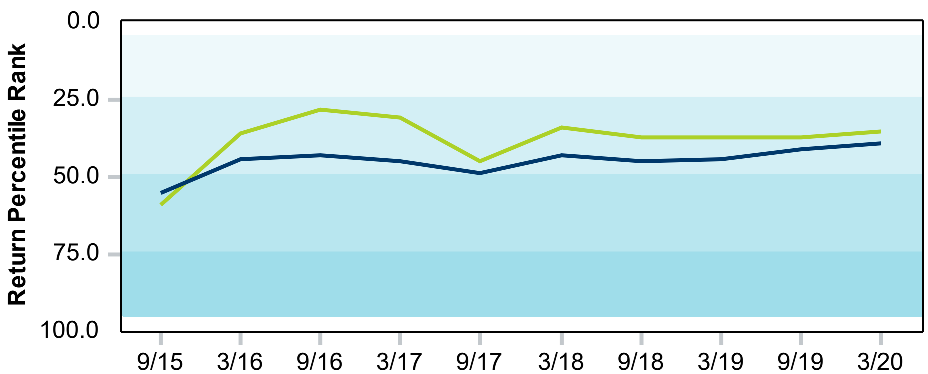
Comparative Performance



Added Value History

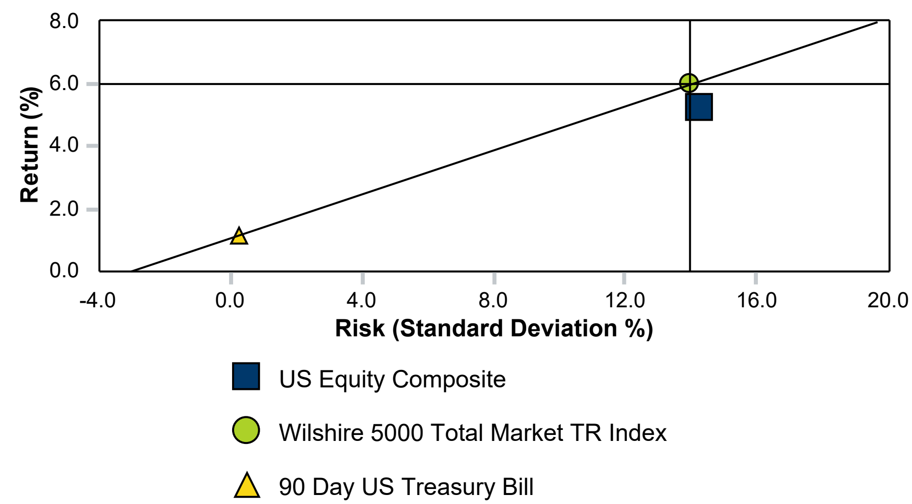


Rolling Percentile Rank: IM U.S. Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
US Equity Composite	10	0 (0%)	9 (90%)	1 (10%)	0 (0%)
Benchmark	10	0 (0%)	9 (90%)	1 (10%)	0 (0%)

Risk and Return 04/1/15 - 03/31/20

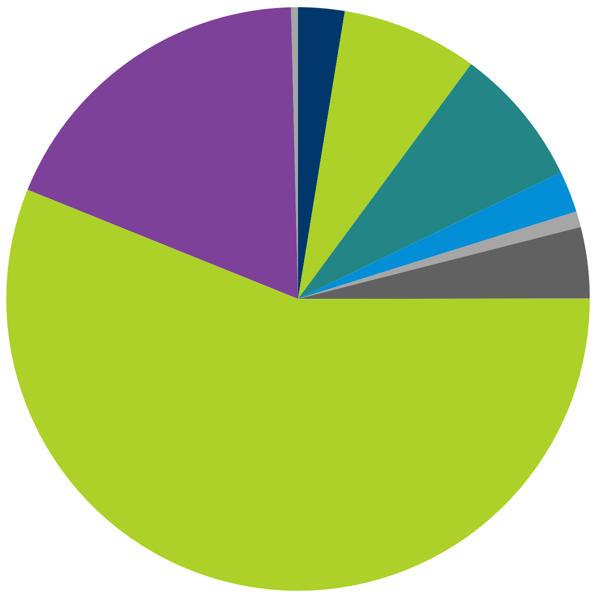


Asset Allocation By Manager

US Equity Composite

Periods Ended March 31, 2020

Mar-2020 : 129,689,101



	Market Value $	Allocation (%)
CIM Small Cap (EMWO)	3,328,036	2.6
Earnest Small Value	9,781,593	7.5
Emerald Advisors Small Cap	10,053,168	7.8
Emerald Advisors All Cap (EMWO)	2,972,807	2.3
Ethos (EMWO)	1,137,701	0.9
Fragasso Large Core (EMWO)	5,122,069	3.9
SSgA S&P 500 Index	72,787,707	56.1
Twin Capital Enhanced Equity	24,009,638	18.5
Cookson Peirce (EMWO)	496,383	0.4

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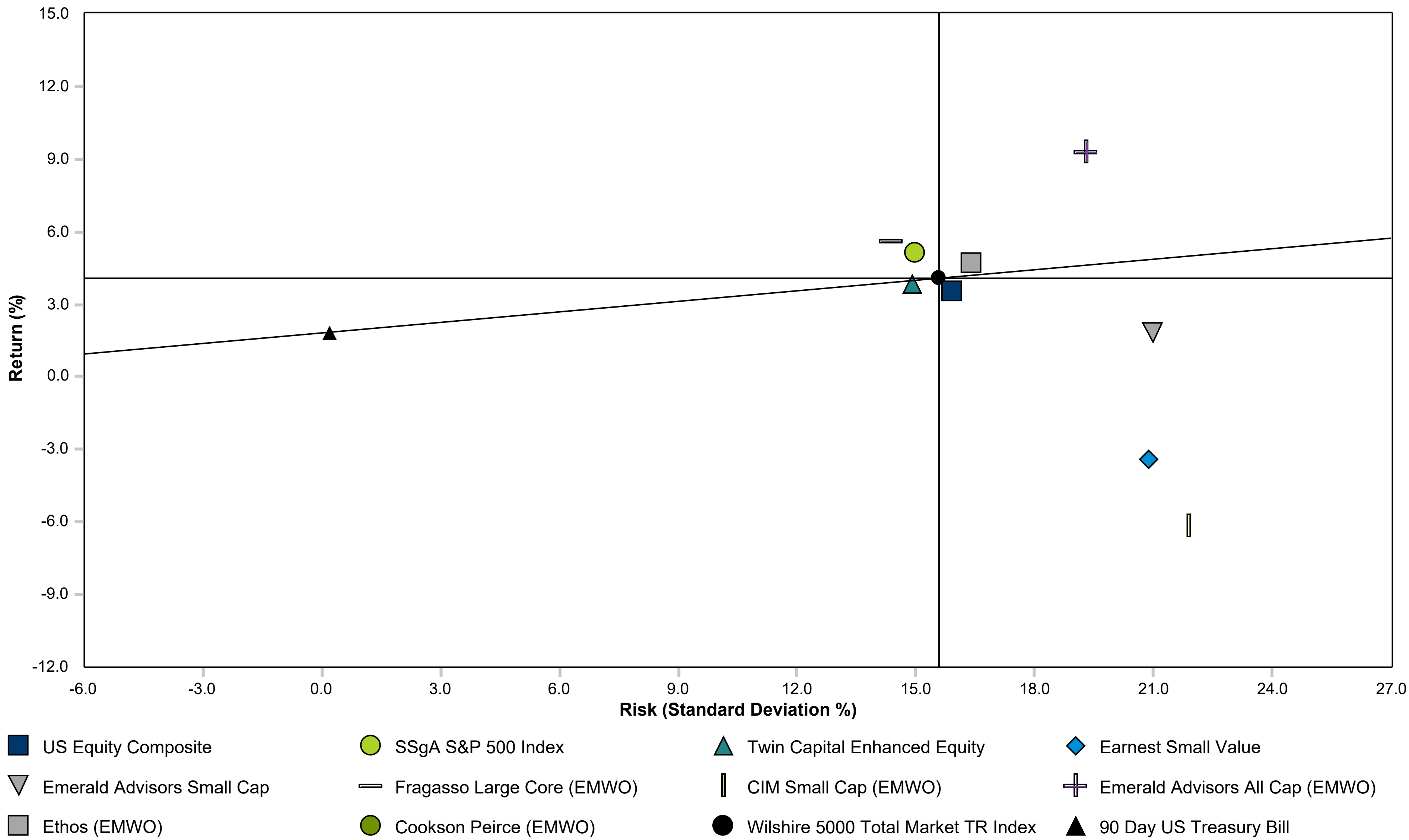
Risk vs. Return

US Equity Composite

Periods Ended 3 Years Ending March 31, 2020



Calculation based on monthly periodicity.

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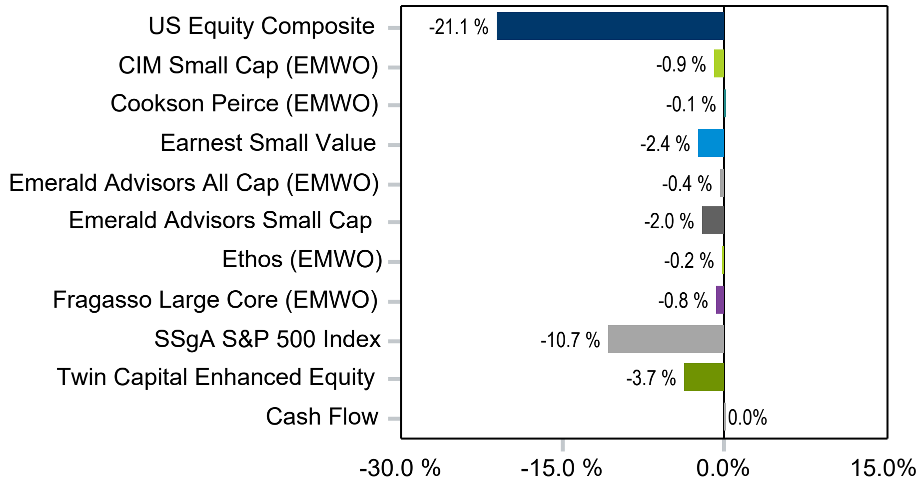
Return and Risk Contribution

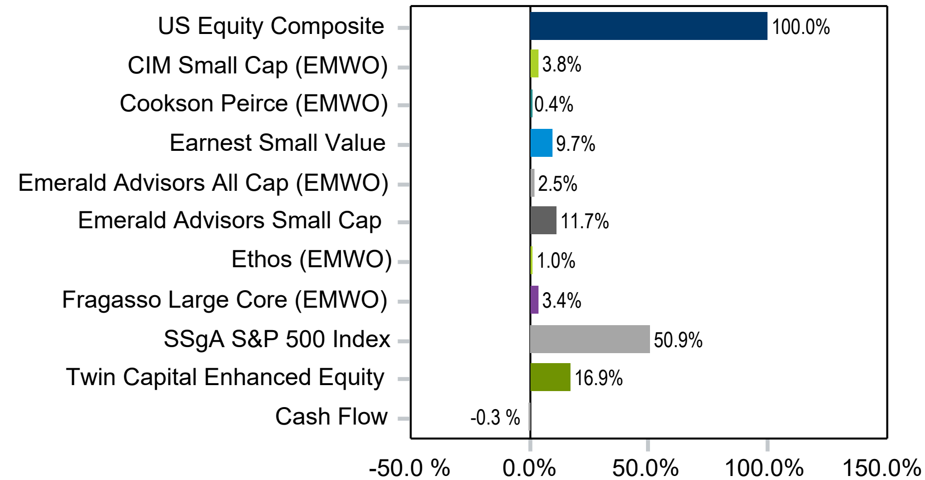
US Equity Composite

Periods Ended 1 Quarter March 31, 2020

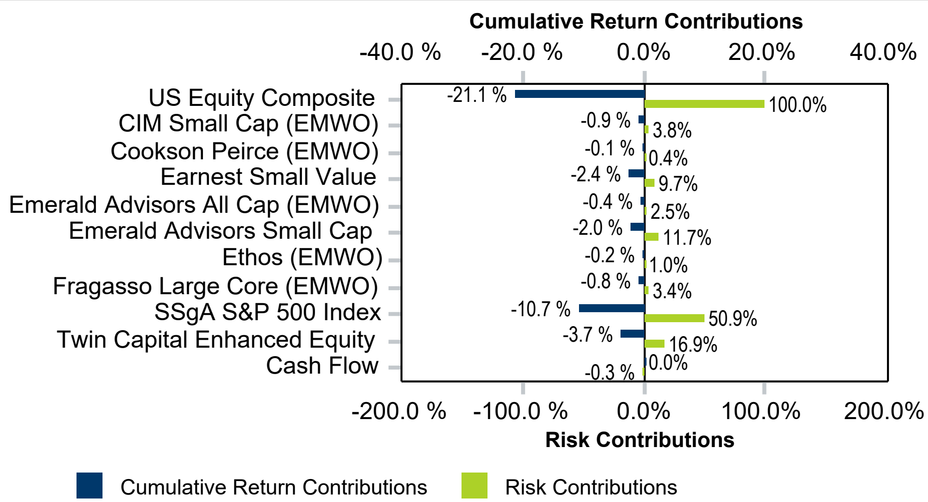
Cumulative Return Contributions



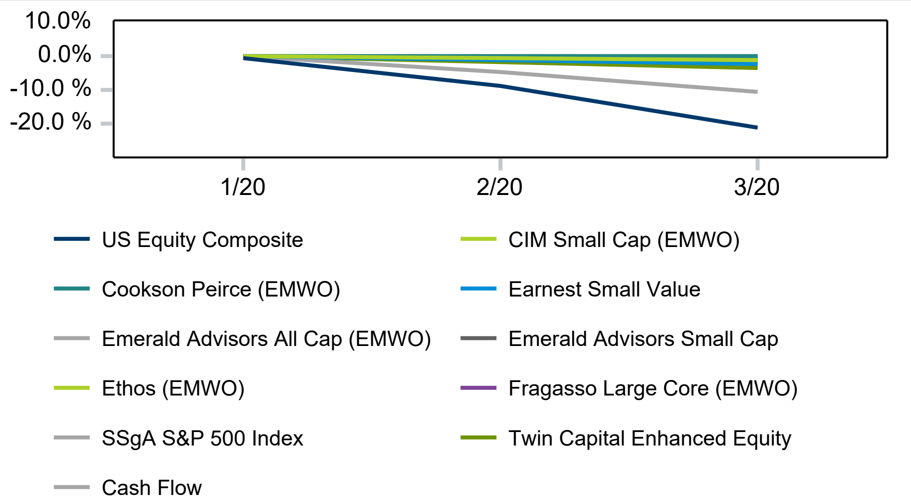
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



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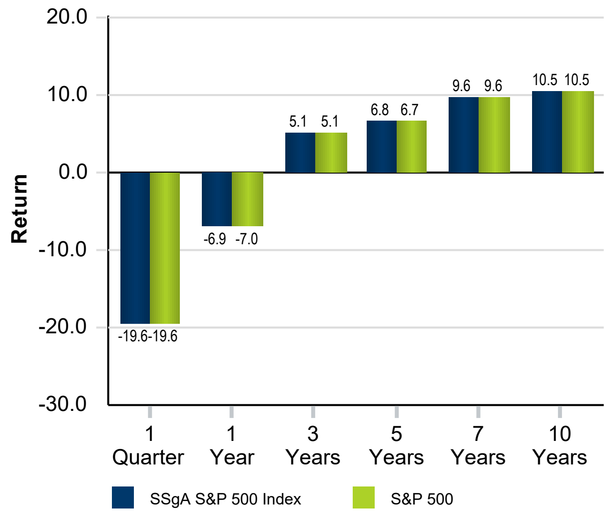
Performance Summary

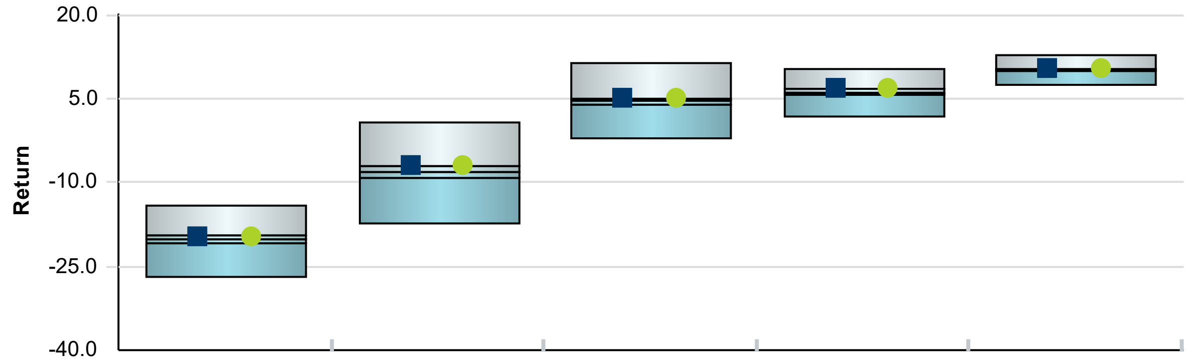
SSgA S&P 500 Index

Periods Ended March 31, 2020

Comparative Performance

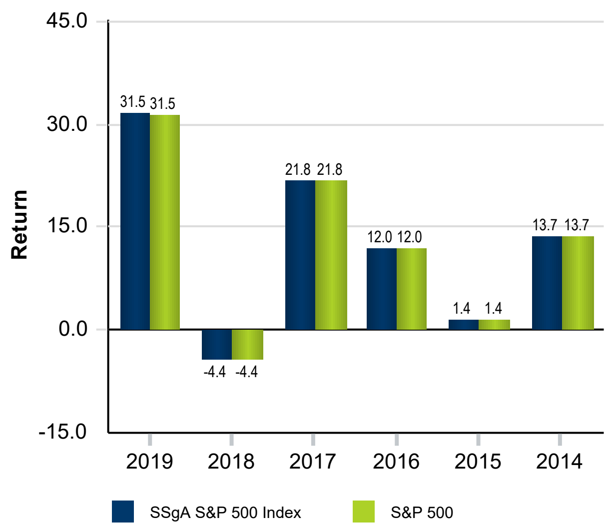


Peer Group Analysis: IM U.S. Large Cap Index Equity (SA+CF)

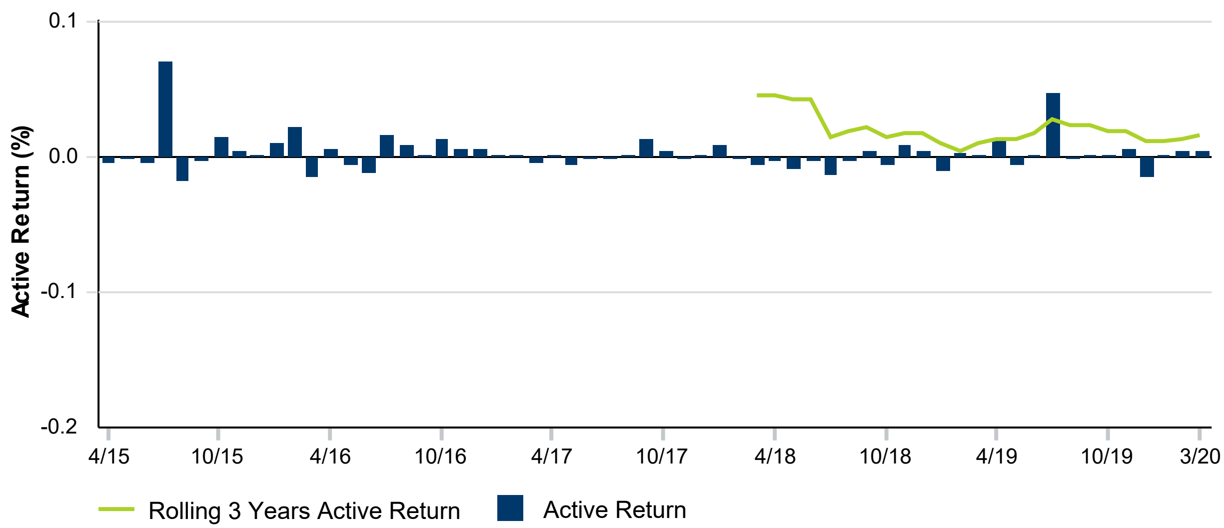


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-19.59 (29)	-6.92 (21)	5.12 (28)	6.76 (25)	10.55 (30)
Benchmark	-19.60 (34)	-6.98 (38)	5.10 (34)	6.73 (36)	10.53 (33)
Median	-20.19	-8.01	4.67	6.25	10.41

Comparative Performance



Rolling 3 Years Performance



Wilshire Consulting

Summary Statistics

SSgA S&P 500 Index

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	SSgA S&P 500 Index	S&P 500
Maximum Return	7.05	7.05
Minimum Return	-12.35	-12.35
Return	-6.92	-6.98
Cumulative Return	-6.92	-6.98
Active Return	0.06	0.00
Excess Return	-7.52	-7.57

Risk Summary Statistics

	SSgA S&P 500 Index	S&P 500
Upside Risk	2.87	2.87
Downside Risk	16.22	16.22
Beta	1.00	1.00

Risk/Return Summary Statistics

	SSgA S&P 500 Index	S&P 500
Standard Deviation	18.96	18.96
Alpha	0.06	0.00
Active Return/Risk	0.00	0.00
Tracking Error	0.05	0.00
Information Ratio	1.19	
Sharpe Ratio	-0.39	-0.40

Correlation Statistics

	SSgA S&P 500 Index	S&P 500
R-Squared	1.00	1.00
Actual Correlation	1.00	1.00

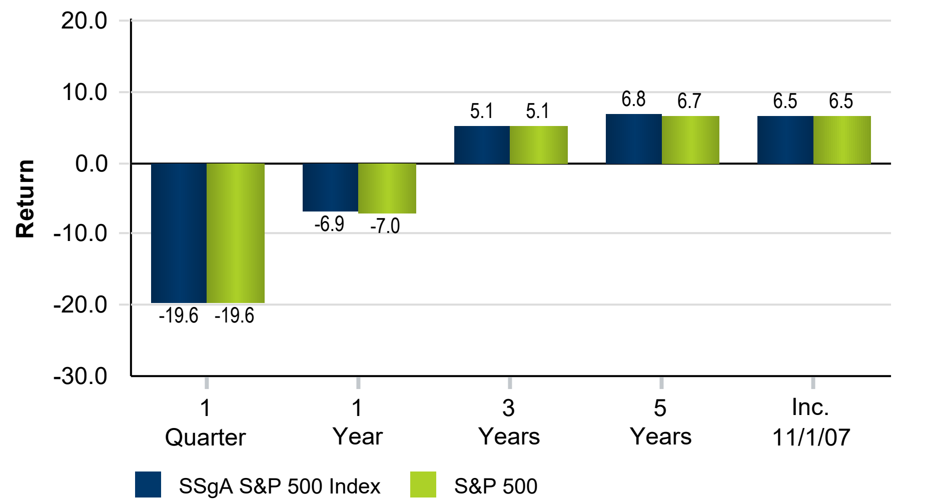
Wilshire Consulting

Manager Summary

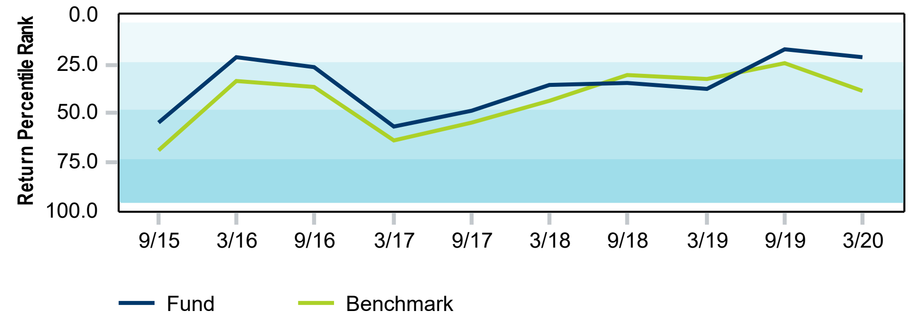
SSgA S&P 500 Index vs IM U.S. Large Cap Index Equity (SA+CF)

Periods Ended March 31, 2020

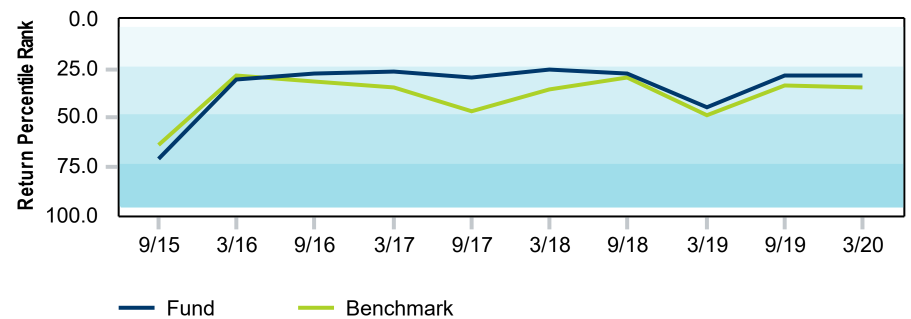
Comparative Performance



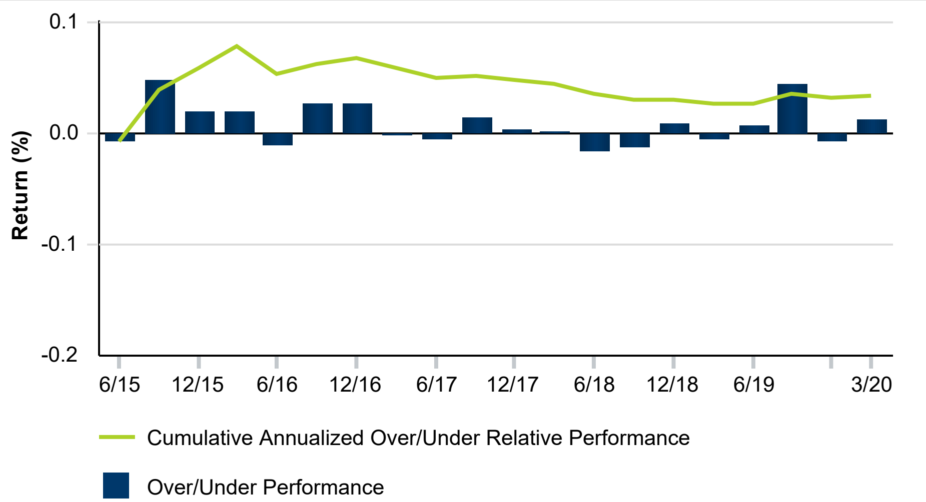
1 Year Rolling Percentile Ranking



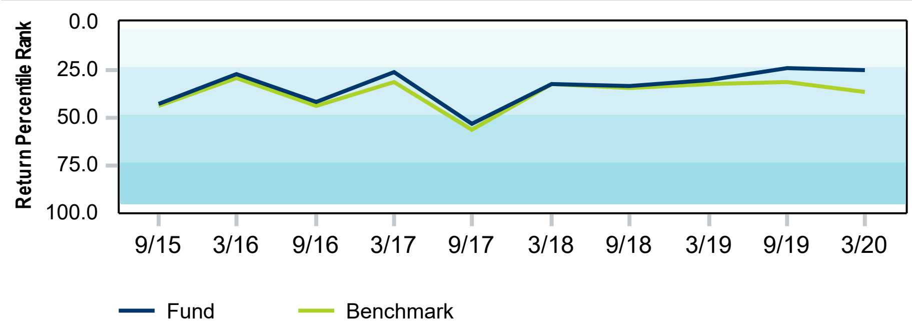
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking



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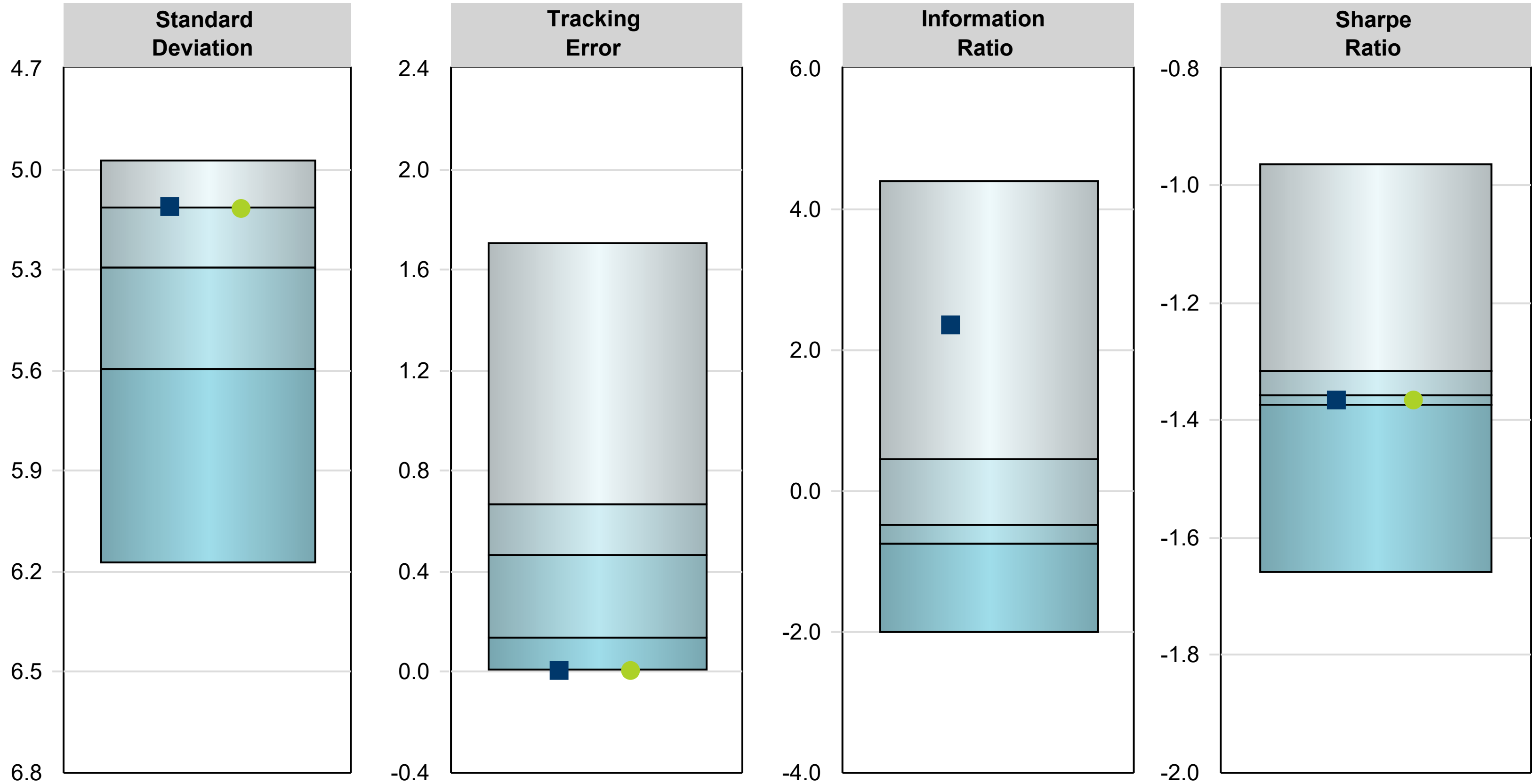
Peer Group Analysis - Multi Statistics

SSgA S&P 500 Index

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ SSgA S&P 500 Index	5.12 (26)	0.00 (100)	2.35 (13)	-1.36 (60)
● S&P 500	5.12 (27)	0.00 (100)		-1.37 (62)
5th Percentile	4.97	1.71	4.41	-0.96
1st Quartile	5.11	0.67	0.45	-1.32
Median	5.29	0.47	-0.48	-1.36
3rd Quartile	5.60	0.14	-0.74	-1.37
95th Percentile	6.17	0.01	-2.00	-1.66

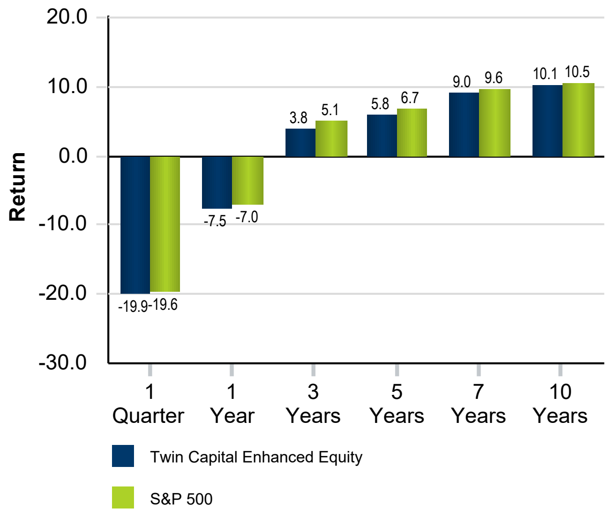
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Performance Summary

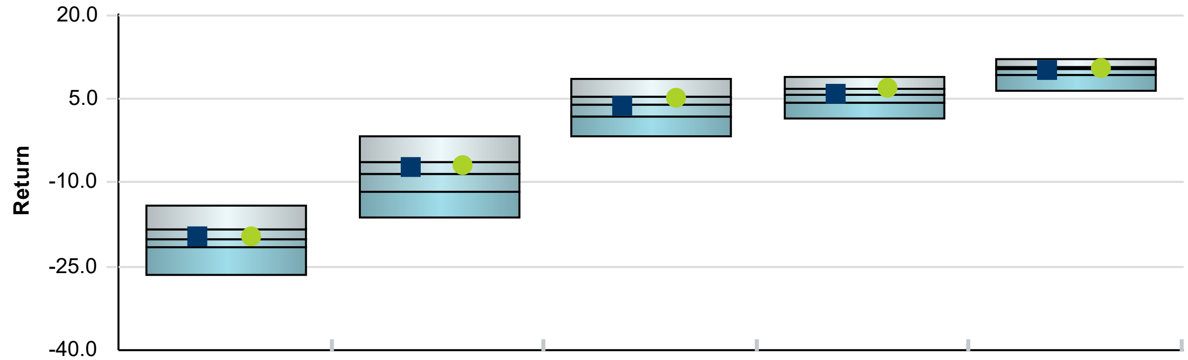
Twin Capital Enhanced Equity

Periods Ended March 31, 2020

Comparative Performance

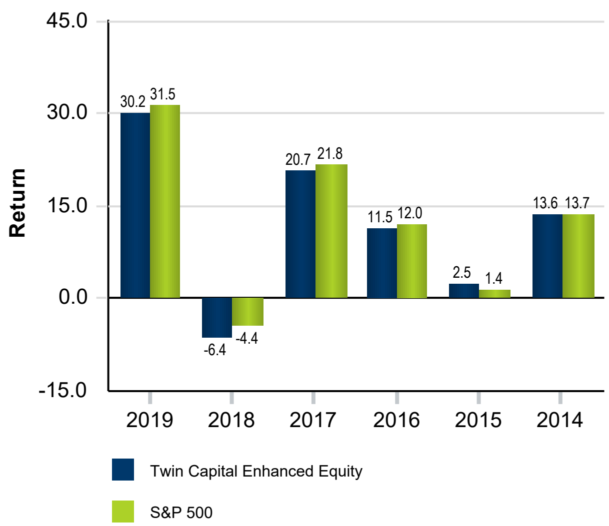


Peer Group Analysis: IM U.S. Large Cap Core Equity (SA+CF)

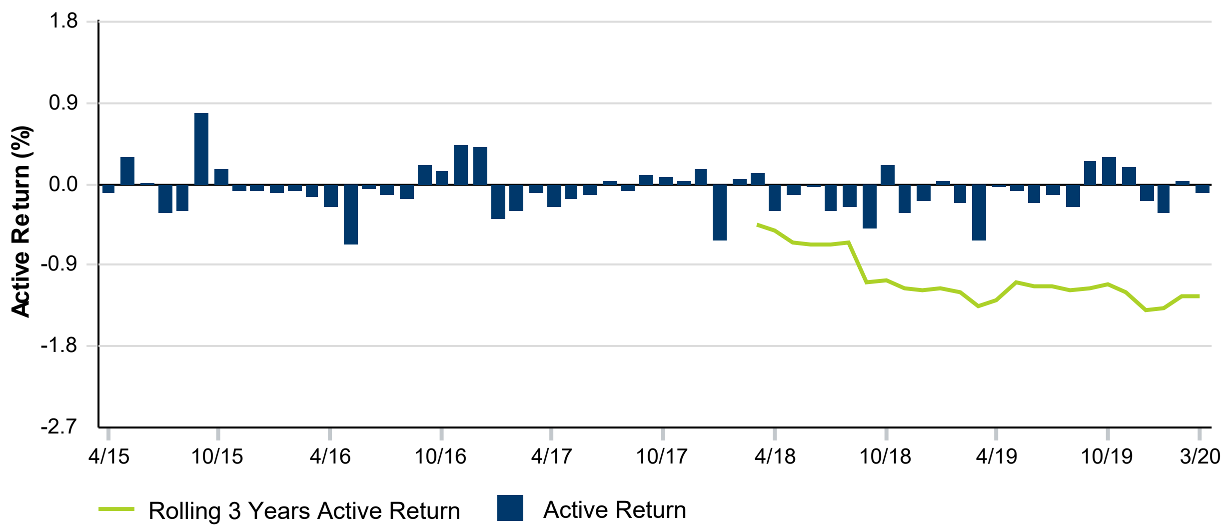


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-19.92 (49)	-7.49 (41)	3.81 (55)	5.79 (48)	10.11 (59)
Benchmark	-19.60 (43)	-6.98 (36)	5.10 (32)	6.73 (26)	10.53 (41)
Median	-20.02	-8.37	4.08	5.73	10.30

Comparative Performance



Rolling 3 Years Performance



Wilshire Consulting

Summary Statistics

Twin Capital Enhanced Equity

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Twin Capital Enhanced Equity	S&P 500
Maximum Return	6.84	7.05
Minimum Return	-12.45	-12.35
Return	-7.49	-6.98
Cumulative Return	-7.49	-6.98
Active Return	-0.54	0.00
Excess Return	-8.11	-7.57

Risk Summary Statistics	Twin Capital Enhanced Equity	S&P 500
Upside Risk	2.85	2.87
Downside Risk	16.34	16.22
Beta	1.00	1.00

Risk/Return Summary Statistics	Twin Capital Enhanced Equity	S&P 500
Standard Deviation	19.02	18.96
Alpha	-0.52	0.00
Active Return/Risk	-0.03	0.00
Tracking Error	0.67	0.00
Information Ratio	-0.81	
Sharpe Ratio	-0.42	-0.40

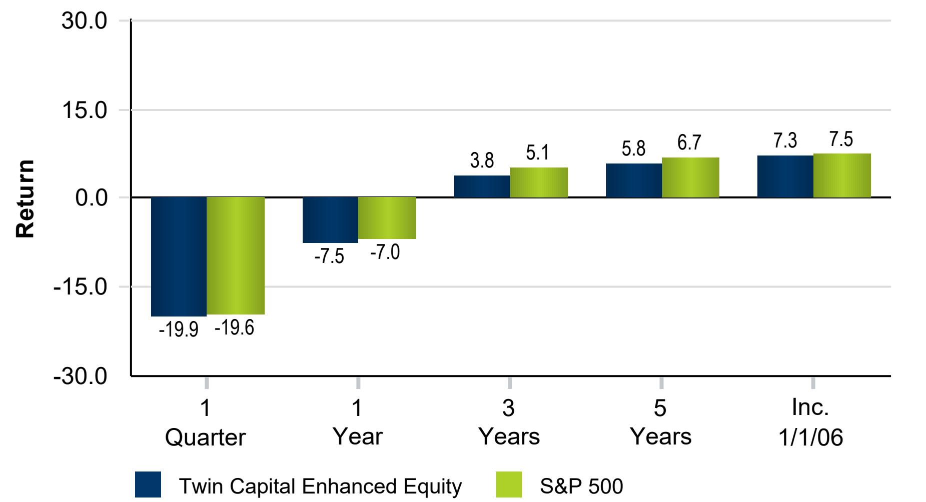
Correlation Statistics	Twin Capital Enhanced Equity	S&P 500
R-Squared	1.00	1.00
Actual Correlation	1.00	1.00

Manager Summary

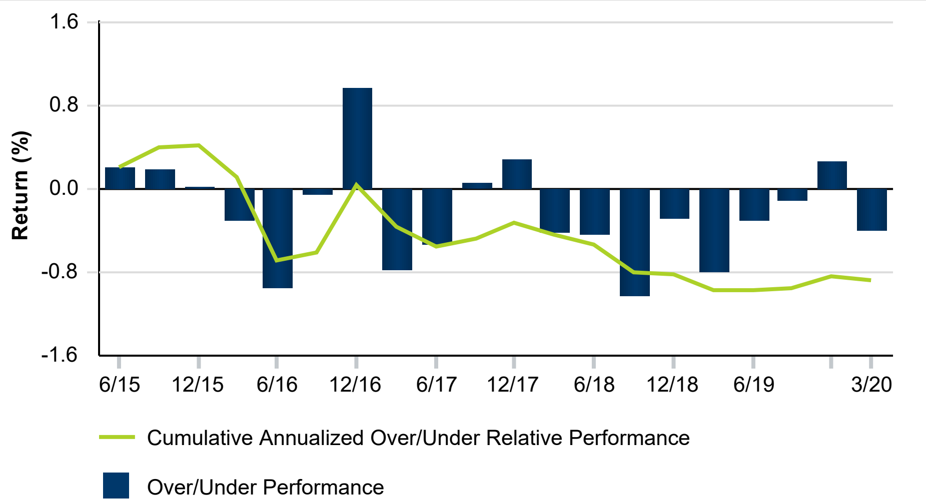
Twin Capital Enhanced Equity vs IM U.S. Large Cap Core Equity (SA+CF)

Periods Ended March 31, 2020

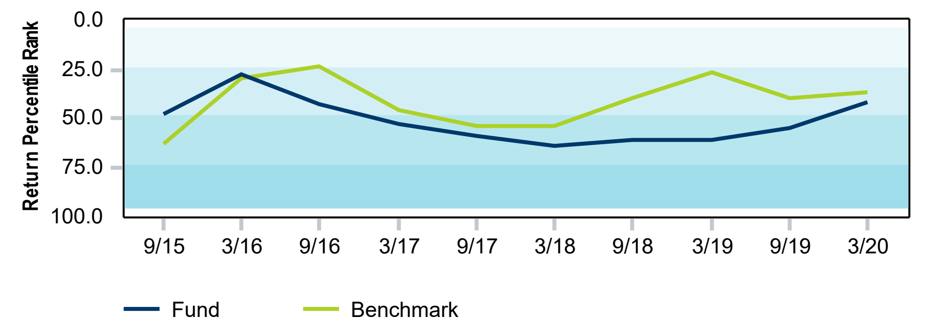
Comparative Performance



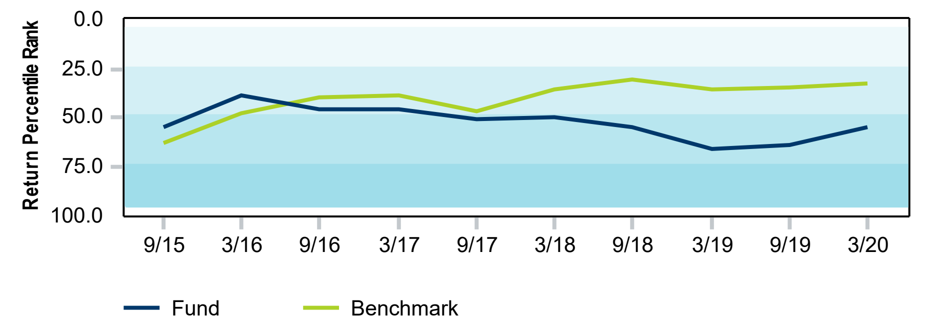
Relative Performance



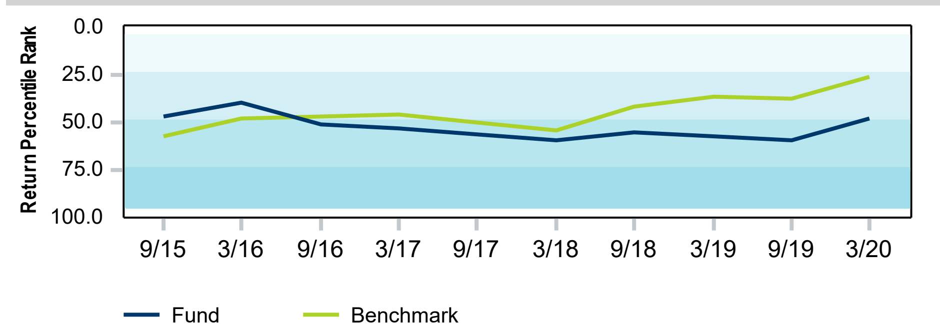
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

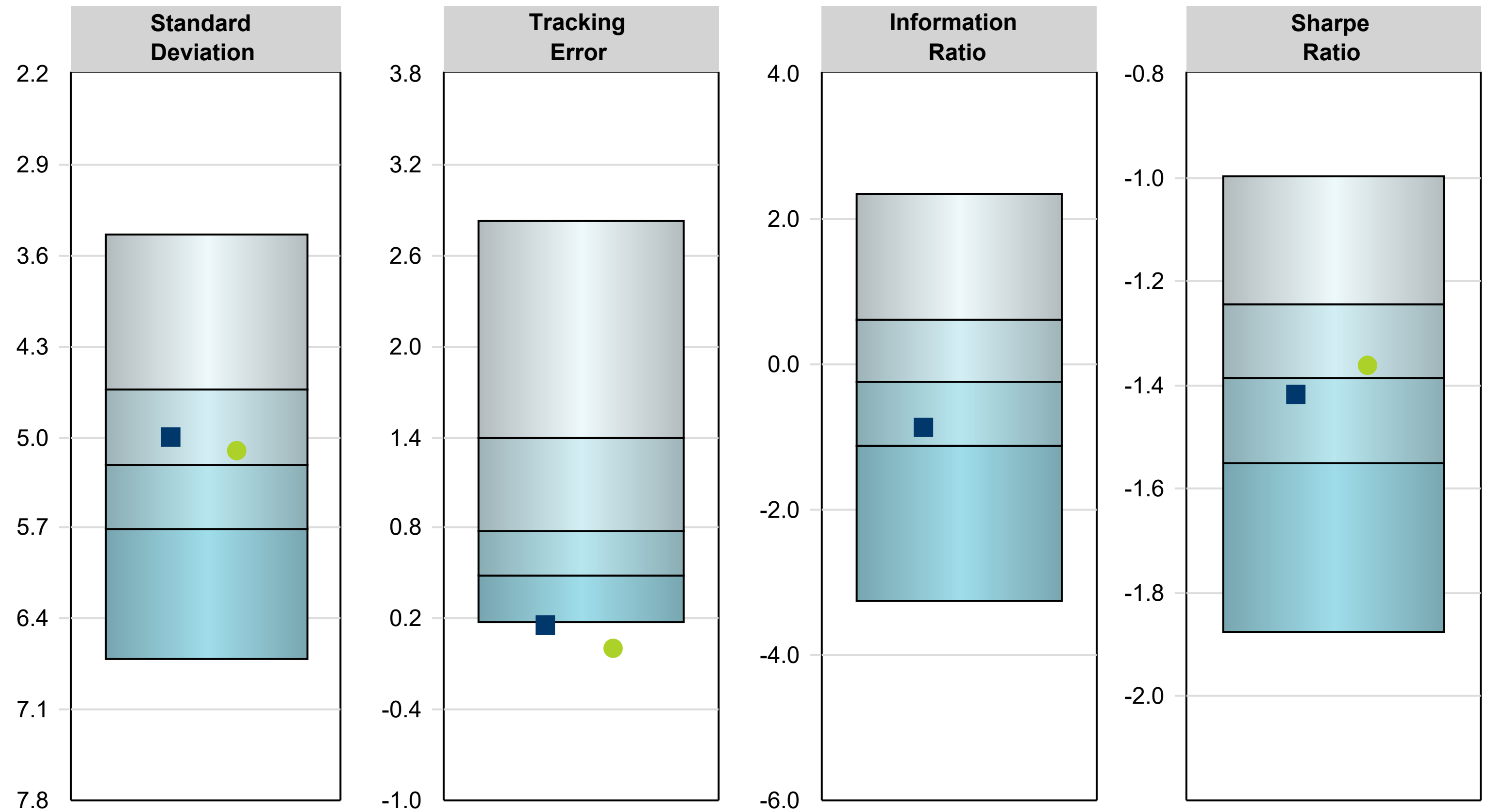


Wilshire Consulting

Peer Group Analysis - Multi Statistics

Twin Capital Enhanced Equity

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ Twin Capital Enhanced Equity	5.00 (38)	0.15 (96)	-0.87 (71)	-1.42 (57)
● S&P 500	5.12 (42)	0.00 (100)		-1.37 (46)
5th Percentile	3.43	2.83	2.35	-1.00
1st Quartile	4.64	1.39	0.61	-1.25
Median	5.22	0.77	-0.24	-1.39
3rd Quartile	5.71	0.48	-1.11	-1.55
95th Percentile	6.71	0.18	-3.26	-1.87

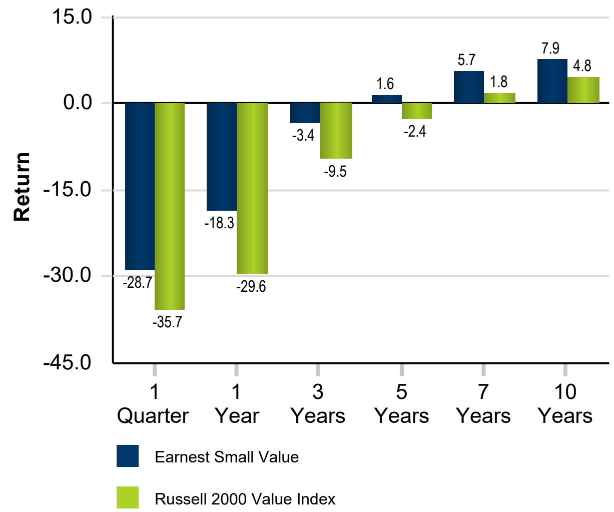
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Performance Summary

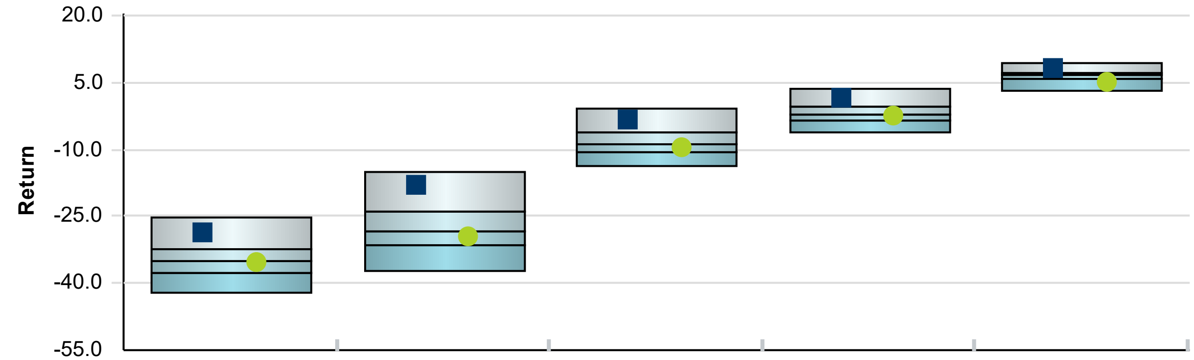
Earnest Small Value

Periods Ended March 31, 2020

Comparative Performance

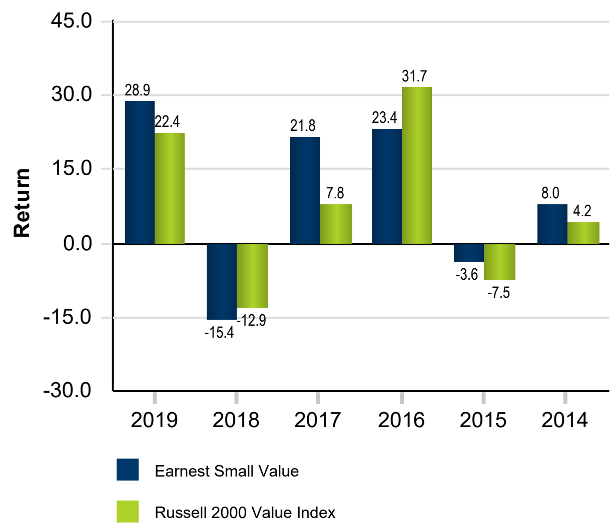


Peer Group Analysis: IM U.S. Small Cap Value Equity (SA+CF)

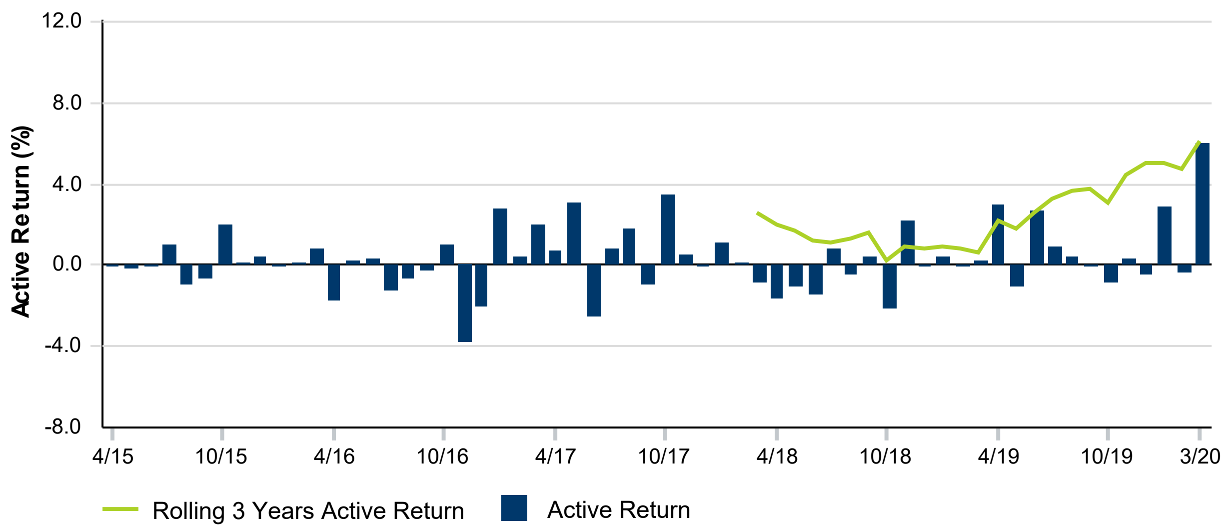


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-28.68 (14)	-18.30 (8)	-3.43 (15)	1.58 (13)	7.89 (13)
Benchmark	-35.66 (59)	-29.64 (63)	-9.51 (62)	-2.42 (61)	4.79 (87)
Median	-34.99	-28.18	-8.65	-2.01	6.50

Comparative Performance



Rolling 3 Years Performance



Wilshire Consulting

Summary Statistics

Earnest Small Value

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Earnest Small Value	Russell 2000 Value Index
Maximum Return	9.06	6.37
Minimum Return	-18.65	-24.67
Return	-18.30	-29.64
Cumulative Return	-18.30	-29.64
Active Return	13.60	0.00
Excess Return	-18.46	-32.05

Risk Summary Statistics	Earnest Small Value	Russell 2000 Value Index
Upside Risk	3.81	2.96
Downside Risk	23.79	28.81
Beta	0.89	1.00

Risk/Return Summary Statistics	Earnest Small Value	Russell 2000 Value Index
Standard Deviation	26.80	29.34
Alpha	10.79	0.00
Active Return/Risk	0.51	0.00
Tracking Error	6.96	0.00
Information Ratio	1.95	
Sharpe Ratio	-0.69	-1.09

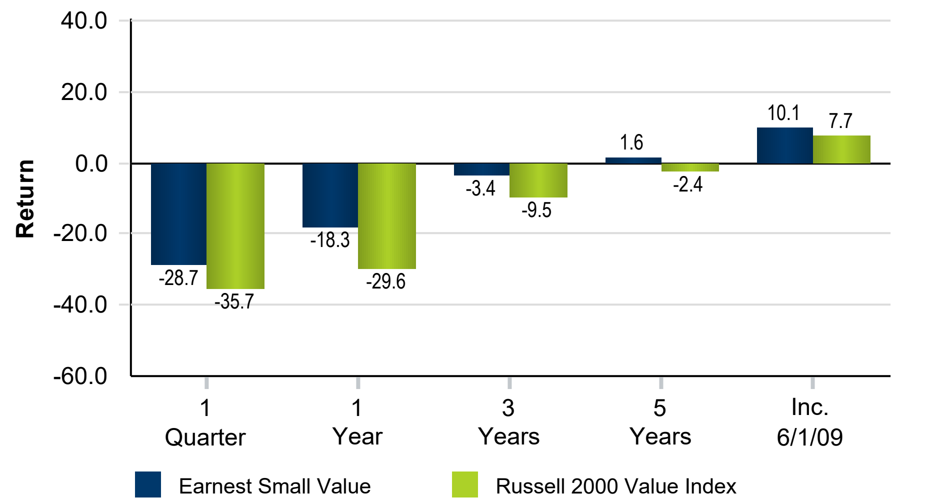
Correlation Statistics	Earnest Small Value	Russell 2000 Value Index
R-Squared	0.95	1.00
Actual Correlation	0.97	1.00

Manager Summary

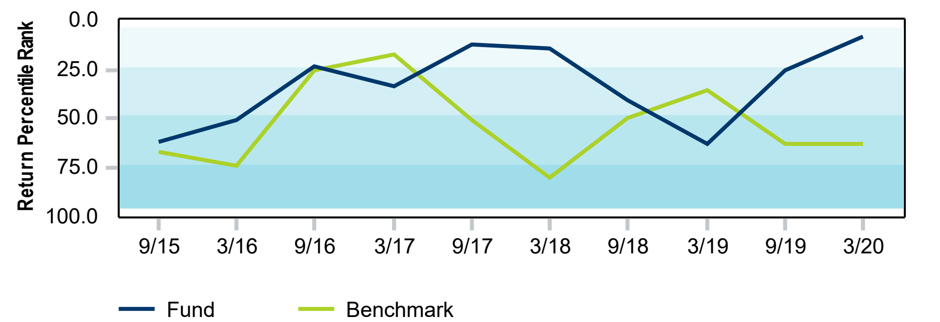
Earnest Small Value vs IM U.S. Small Cap Value Equity (SA+CF)

Periods Ended March 31, 2020

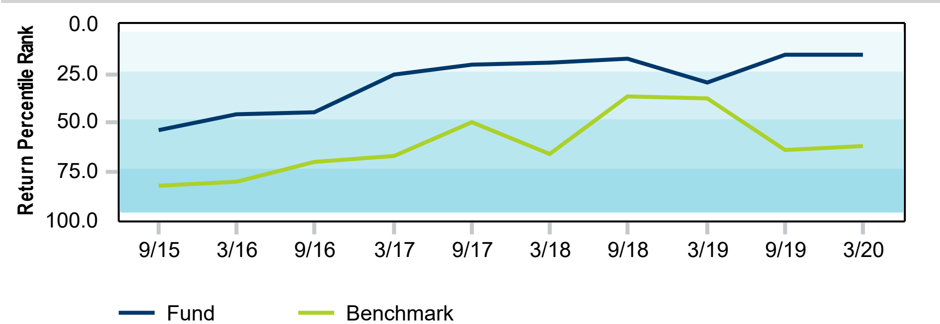
Comparative Performance



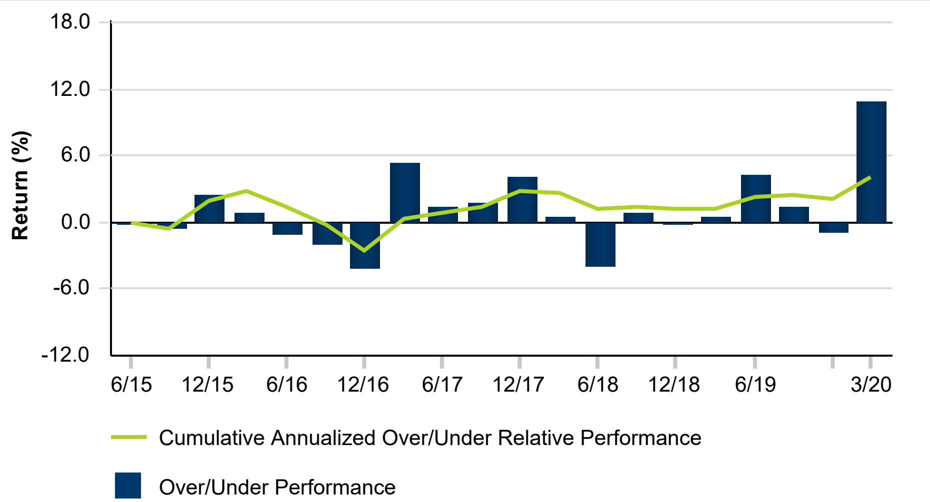
1 Year Rolling Percentile Ranking



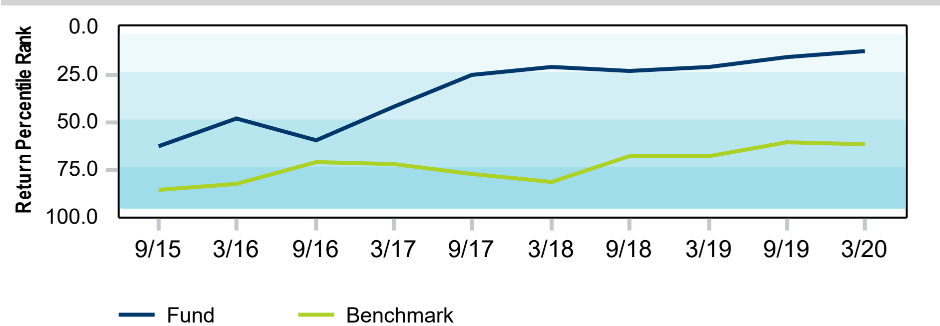
3 Year Rolling Percentile Ranking



Relative Performance



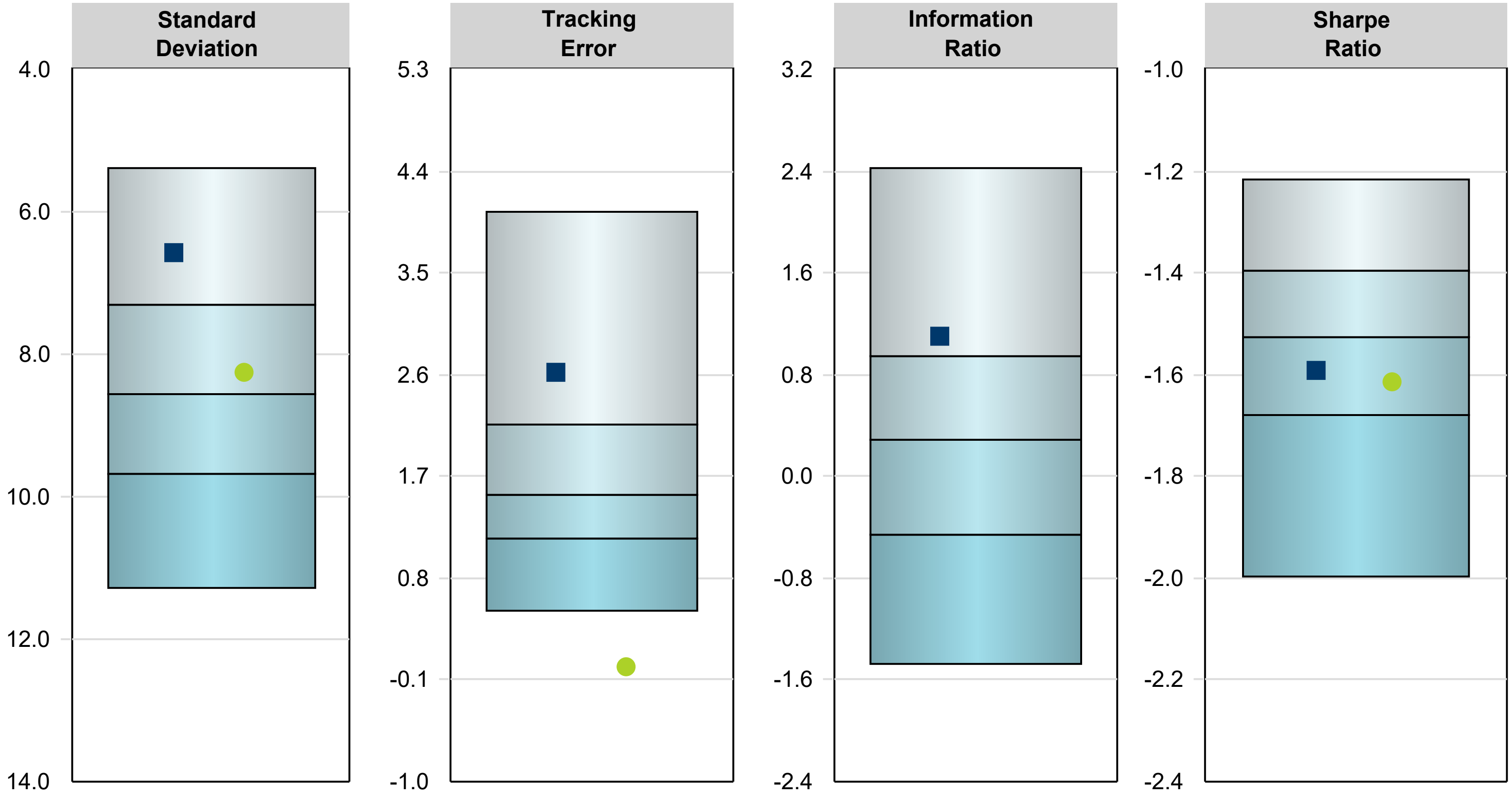
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Earnest Small Value

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ Earnest Small Value	6.59 (10)	2.61 (18)	1.09 (22)	-1.59 (63)
● Russell 2000 Value Index	8.26 (44)	0.00 (100)		-1.61 (67)
5th Percentile	5.39	4.04	2.42	-1.22
1st Quartile	7.30	2.17	0.95	-1.39
Median	8.56	1.54	0.29	-1.53
3rd Quartile	9.67	1.14	-0.46	-1.68
95th Percentile	11.28	0.52	-1.47	-2.00

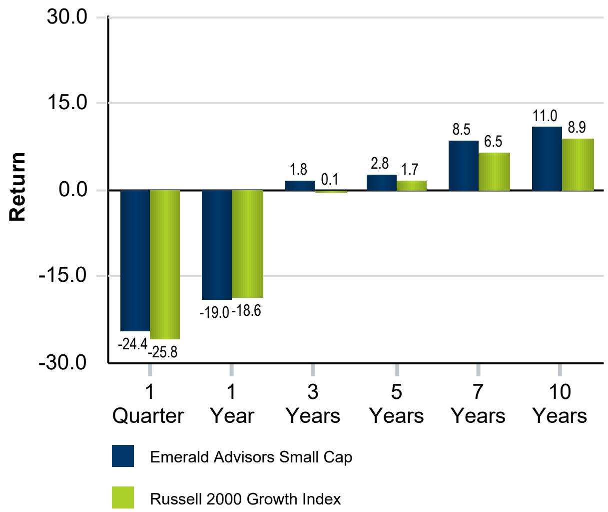
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Performance Summary

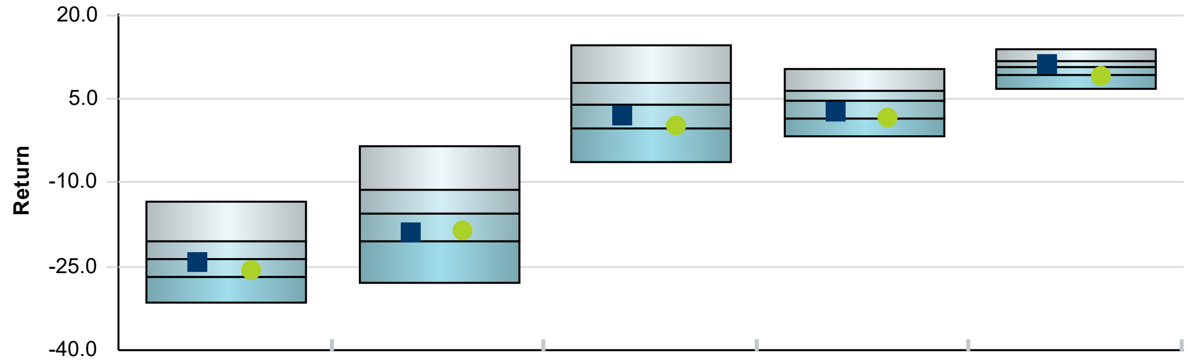
Emerald Advisors Small Cap

Periods Ended March 31, 2020

Comparative Performance

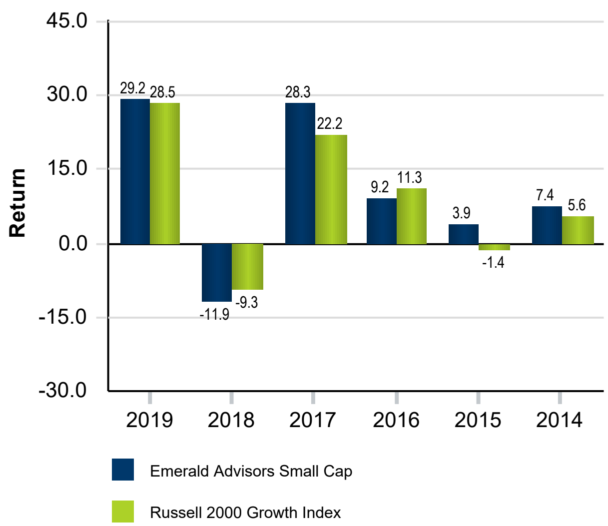


Peer Group Analysis: IM U.S. Small Cap Growth Equity (SA+CF)

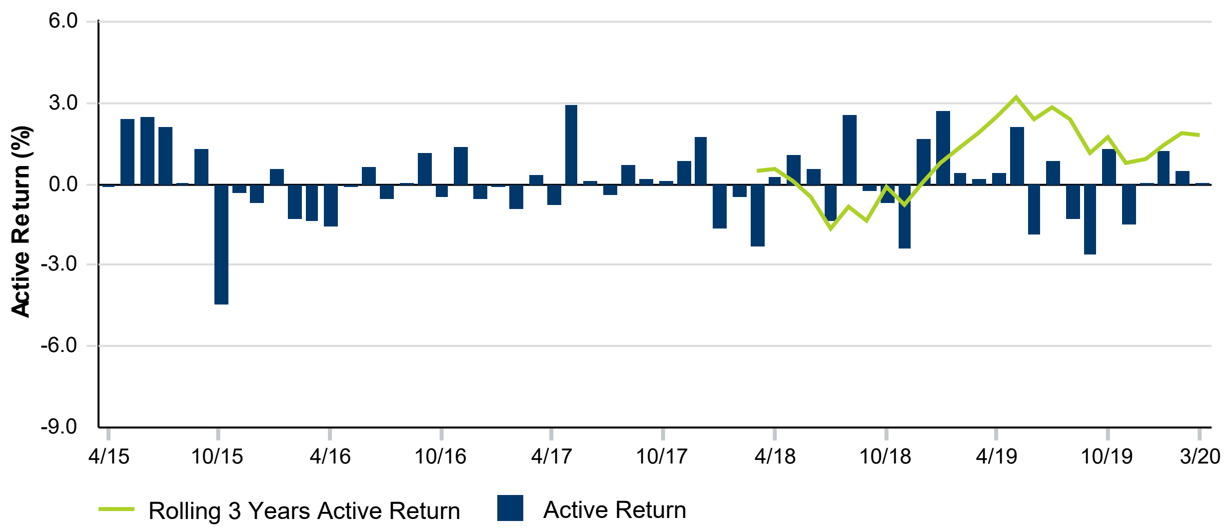


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-24.39 (58)	-19.03 (67)	1.80 (67)	2.77 (70)	11.03 (43)
Benchmark	-25.76 (67)	-18.58 (65)	0.10 (75)	1.70 (75)	8.89 (80)
Median	-23.51	-15.44	3.99	4.70	10.61

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Emerald Advisors Small Cap

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Emerald Advisors Small Cap	Russell 2000 Growth Index
Maximum Return	5.84	7.70
Minimum Return	-19.05	-19.10
Return	-19.03	-18.58
Cumulative Return	-19.03	-18.58
Active Return	-0.76	0.00
Excess Return	-20.22	-19.46

Risk Summary Statistics

	Emerald Advisors Small Cap	Russell 2000 Growth Index
Upside Risk	2.75	3.13
Downside Risk	21.89	22.19
Beta	0.94	1.00

Risk/Return Summary Statistics

	Emerald Advisors Small Cap	Russell 2000 Growth Index
Standard Deviation	23.30	24.19
Alpha	-1.70	0.00
Active Return/Risk	-0.03	0.00
Tracking Error	4.77	0.00
Information Ratio	-0.16	
Sharpe Ratio	-0.86	-0.80

Correlation Statistics

	Emerald Advisors Small Cap	Russell 2000 Growth Index
R-Squared	0.96	1.00
Actual Correlation	0.98	1.00

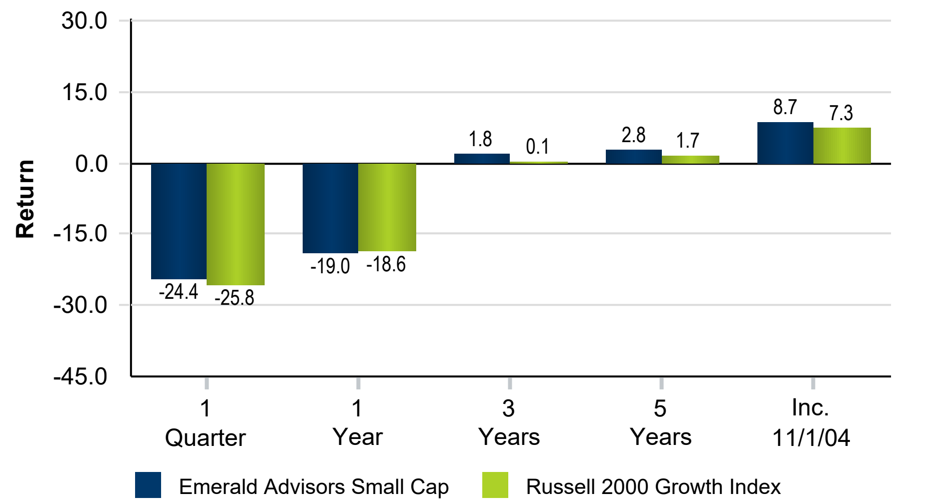
Wilshire Consulting

Manager Summary

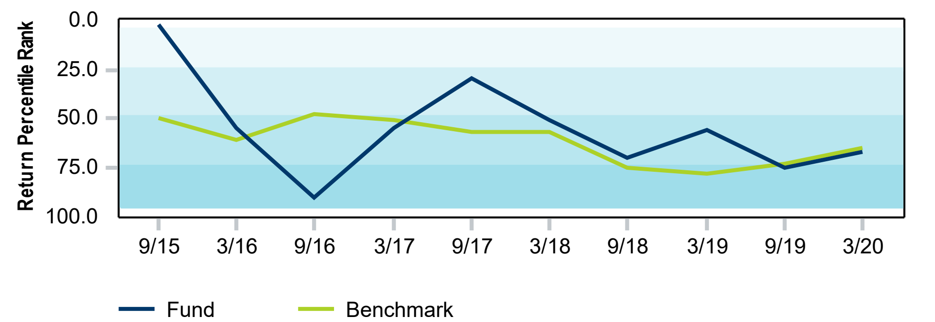
Emerald Advisors Small Cap vs IM U.S. Small Cap Growth Equity (SA+CF)

Periods Ended March 31, 2020

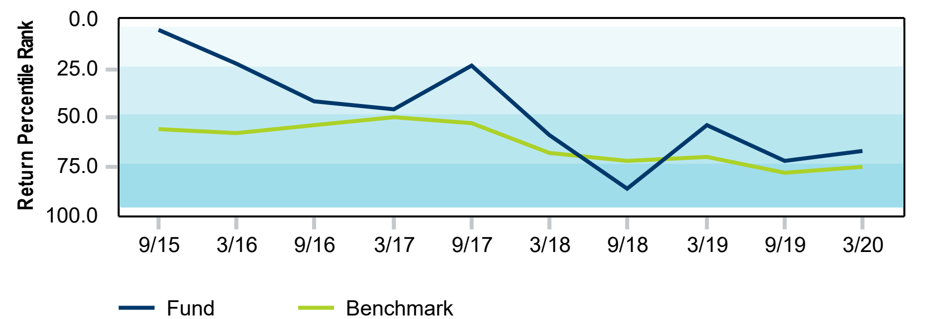
Comparative Performance



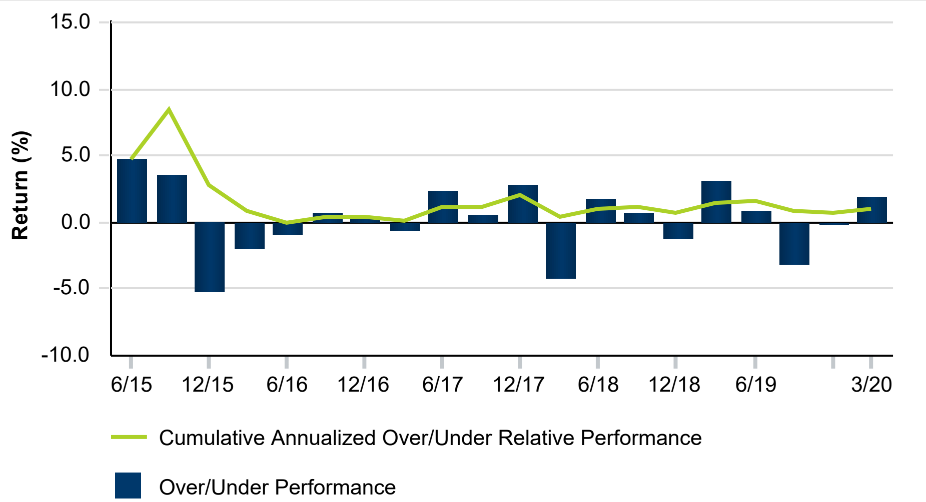
1 Year Rolling Percentile Ranking



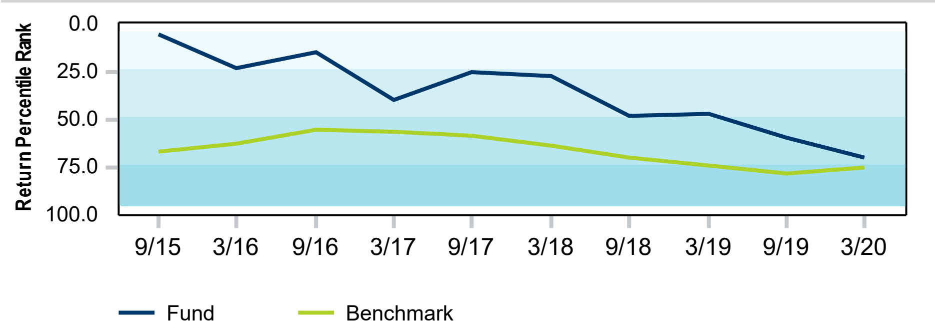
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking

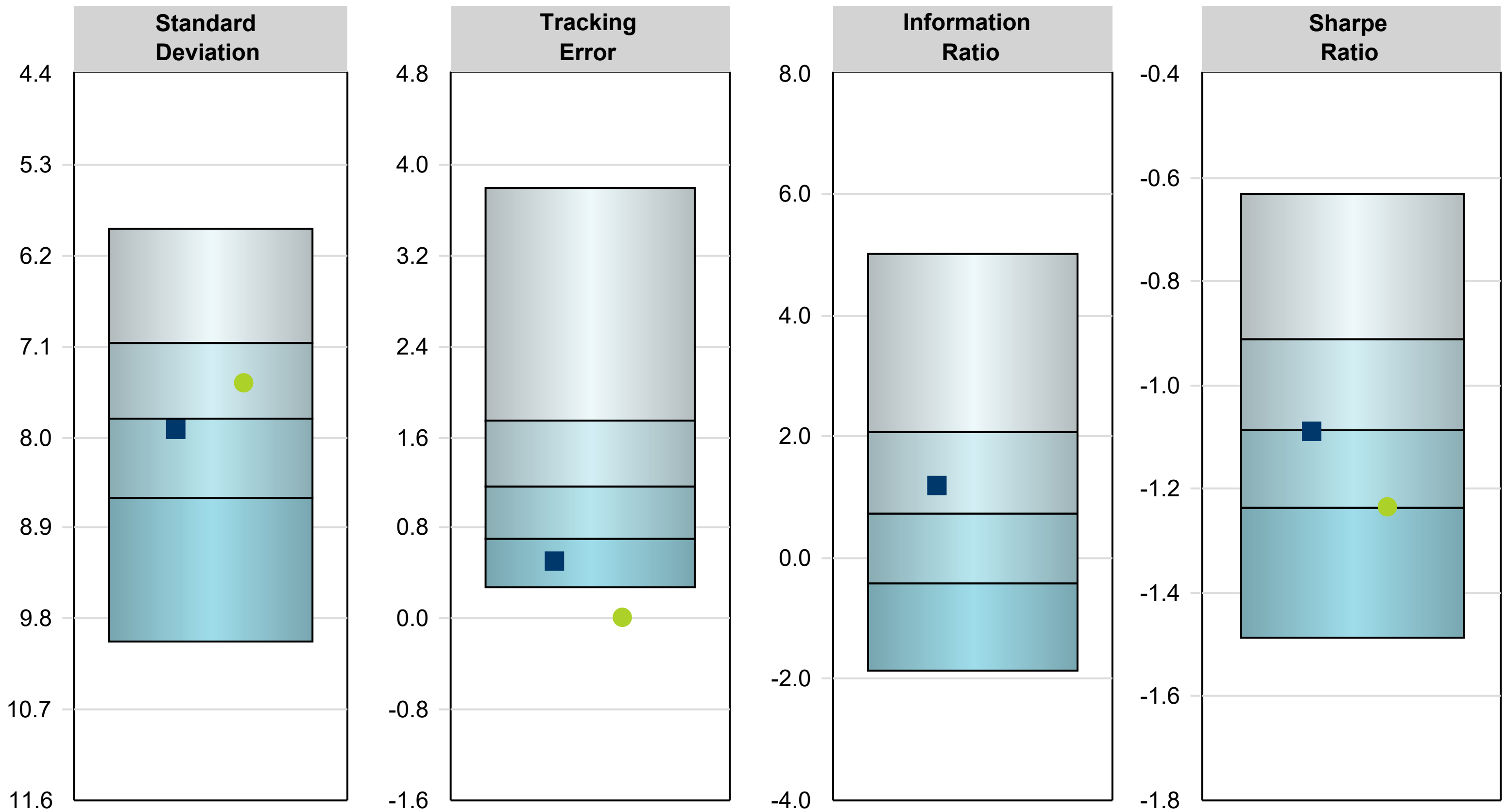


Wilshire Consulting

Peer Group Analysis - Multi Statistics

Emerald Advisors Small Cap

Periods Ended March 31, 2020



	QTD	QTD	QTD	QTD
■ Emerald Advisors Small Cap	7.94 (55)	0.50 (85)	1.20 (37)	-1.09 (51)
● Russell 2000 Growth Index	7.47 (35)	0.00 (100)		-1.24 (76)
5th Percentile	5.94	3.79	5.03	-0.63
1st Quartile	7.07	1.75	2.08	-0.91
Median	7.82	1.16	0.74	-1.09
3rd Quartile	8.61	0.70	-0.42	-1.24
95th Percentile	10.03	0.29	-1.85	-1.49

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

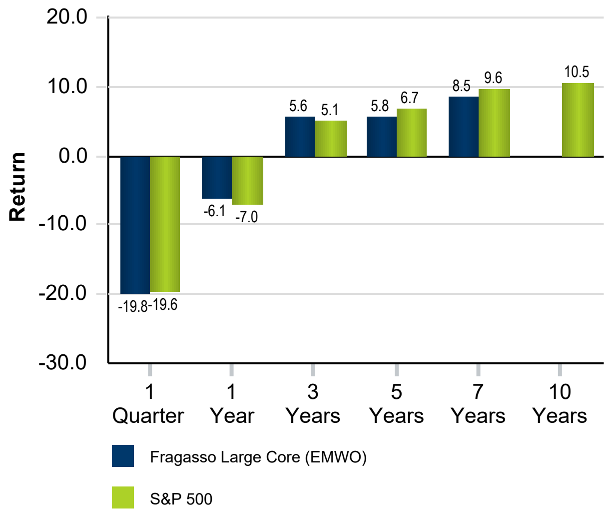
Wilshire Consulting

Performance Summary

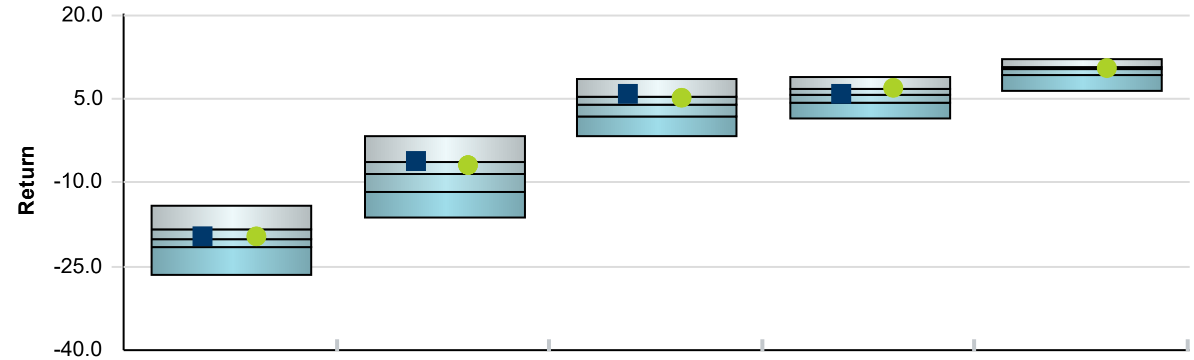
Fragasso Large Core (EMWO)

Periods Ended March 31, 2020

Comparative Performance

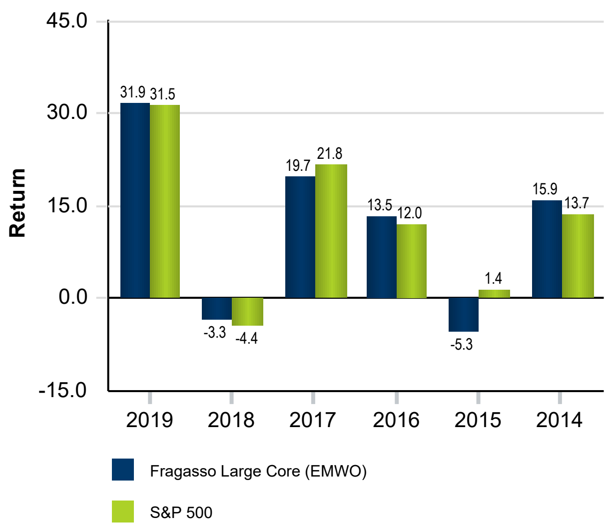


Peer Group Analysis: IM U.S. Large Cap Core Equity (SA+CF)

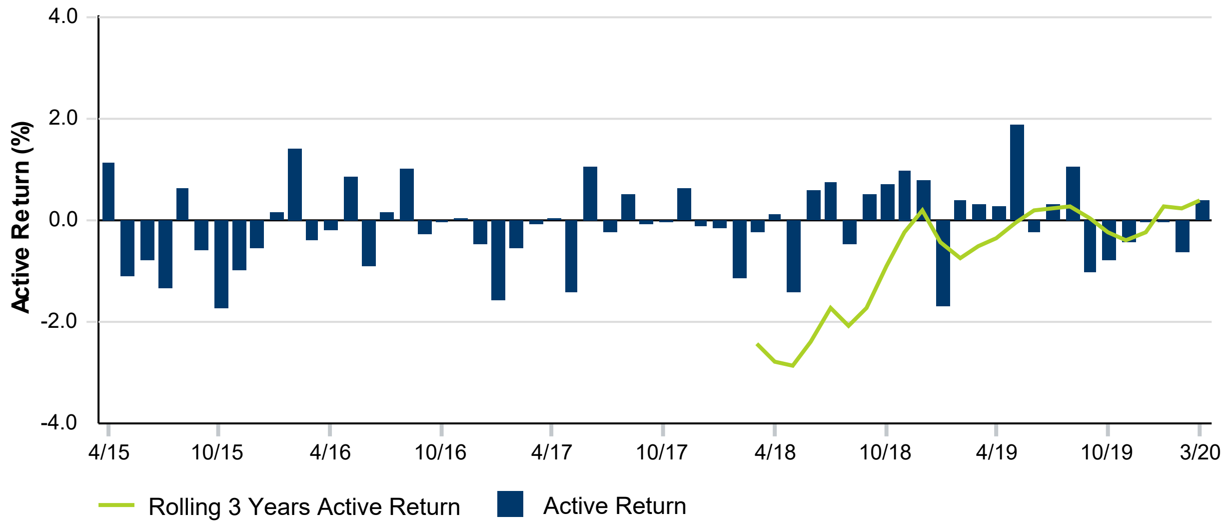


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-19.81 (48)	-6.11 (24)	5.62 (23)	5.76 (49)	
Benchmark	-19.60 (43)	-6.98 (36)	5.10 (32)	6.73 (26)	10.53 (41)
Median	-20.02	-8.37	4.08	5.73	10.30

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Fragasso Large Core (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Fragasso Large Core (EMWO)	S&P 500
Maximum Return	6.81	7.05
Minimum Return	-11.97	-12.35
Return	-6.11	-6.98
Cumulative Return	-6.11	-6.98
Active Return	0.77	0.00
Excess Return	-6.80	-7.57

Risk Summary Statistics

	Fragasso Large Core (EMWO)	S&P 500
Upside Risk	2.74	2.87
Downside Risk	15.55	16.22
Beta	0.95	1.00

Risk/Return Summary Statistics

	Fragasso Large Core (EMWO)	S&P 500
Standard Deviation	18.17	18.96
Alpha	0.50	0.00
Active Return/Risk	0.04	0.00
Tracking Error	2.69	0.00
Information Ratio	0.29	
Sharpe Ratio	-0.37	-0.40

Correlation Statistics

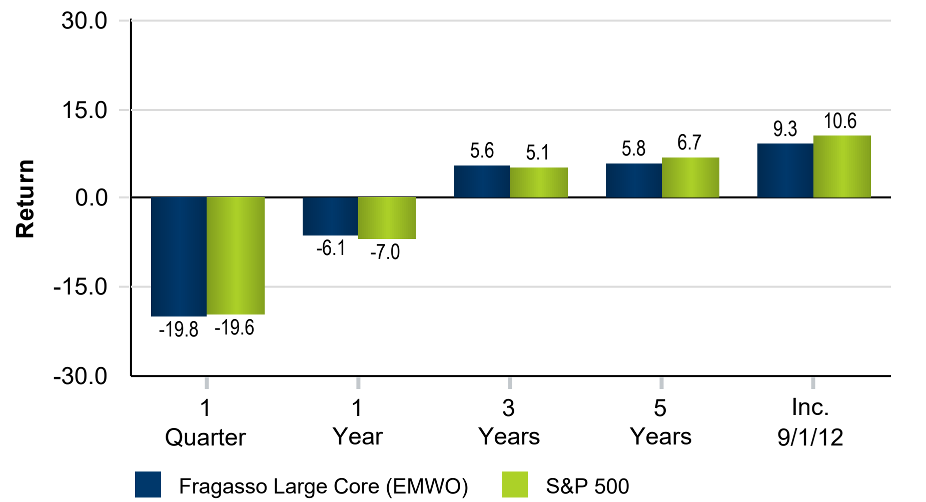
	Fragasso Large Core (EMWO)	S&P 500
R-Squared	0.98	1.00
Actual Correlation	0.99	1.00

Manager Summary

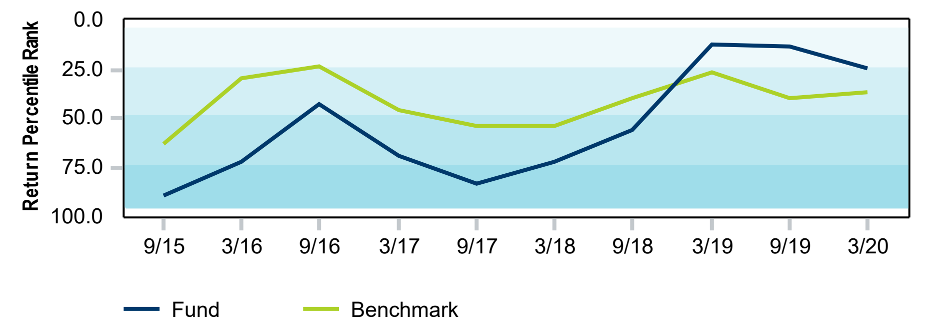
Fragasso Large Core (EMWO) vs IM U.S. Large Cap Core Equity (SA+CF)

Periods Ended March 31, 2020

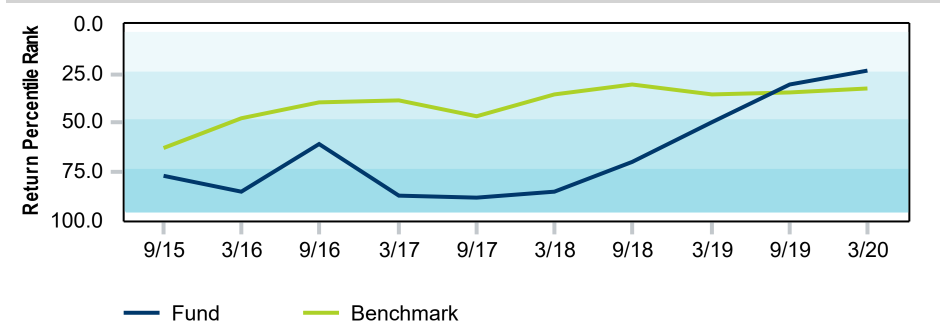
Comparative Performance



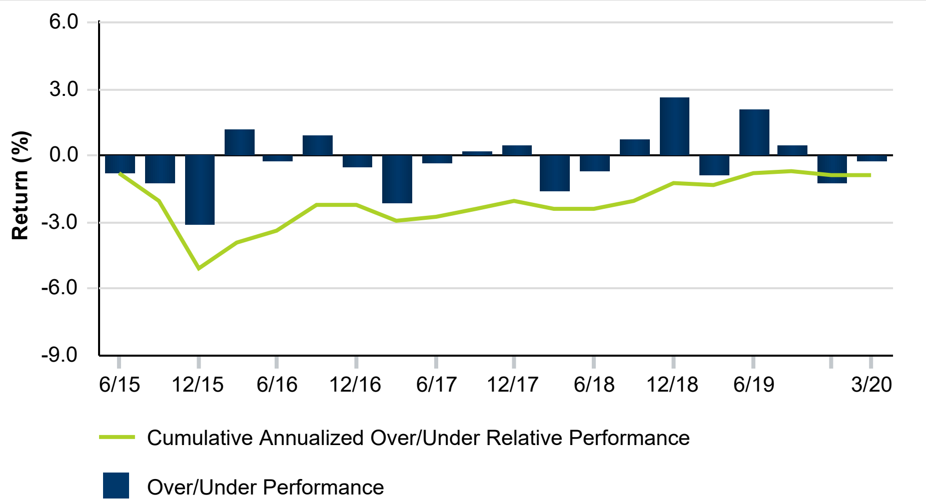
1 Year Rolling Percentile Ranking



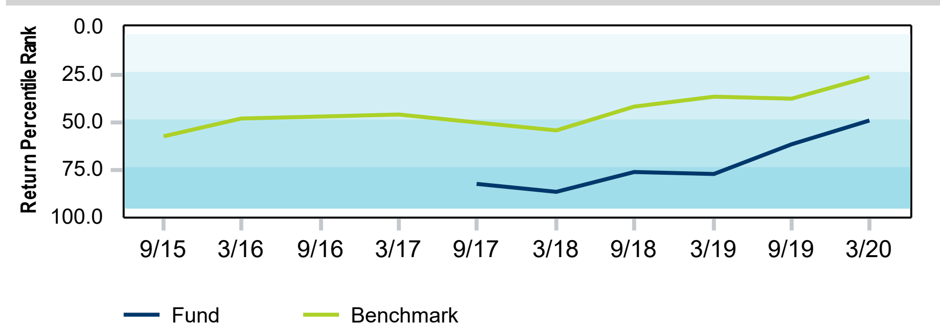
3 Year Rolling Percentile Ranking



Relative Performance



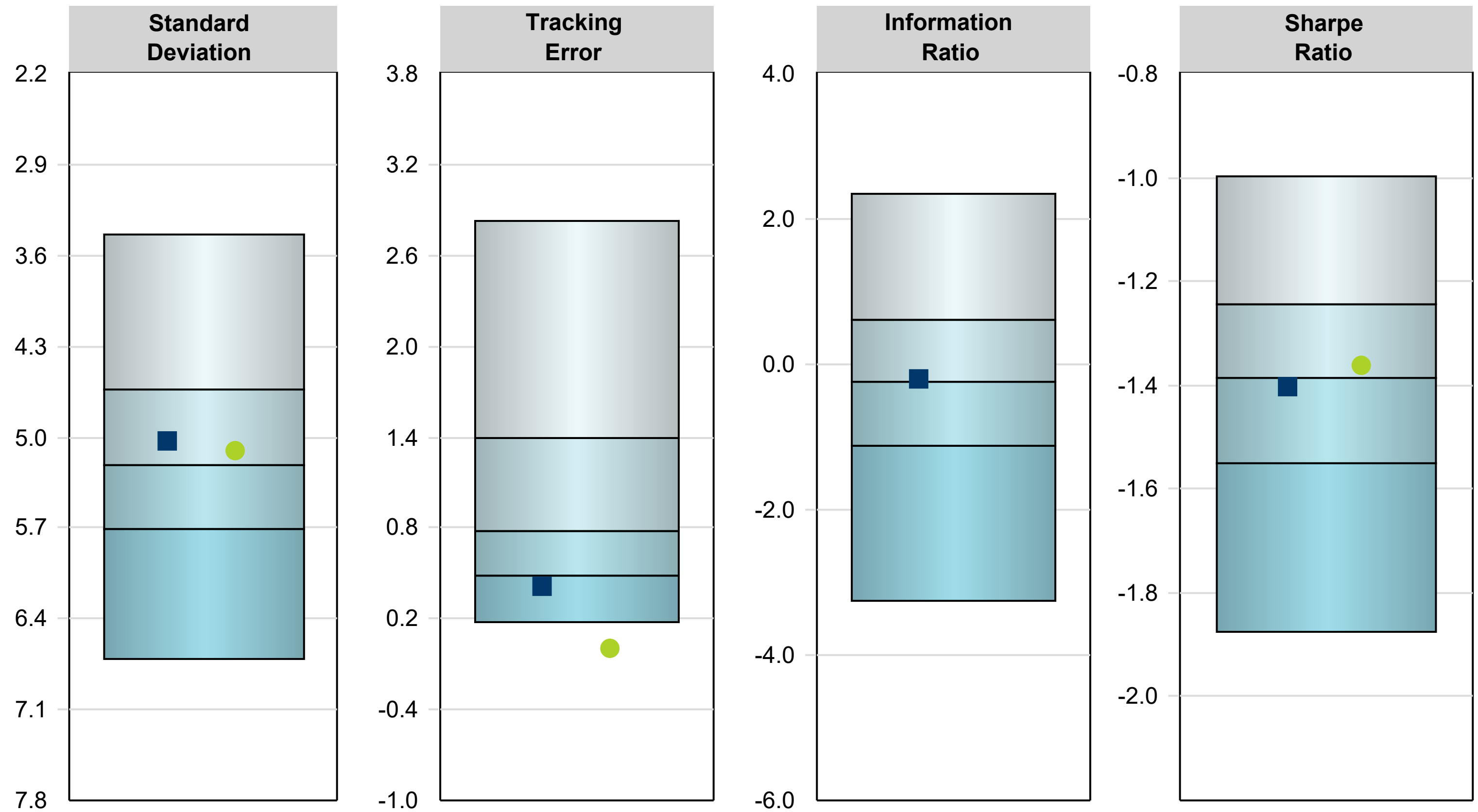
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Fragasso Large Core (EMWO)

Periods Ended March 31, 2020



	QTD	QTD	QTD	QTD
■ Fragasso Large Core (EMWO)	5.04 (39)	0.41 (80)	-0.21 (50)	-1.40 (53)
● S&P 500	5.12 (42)	0.00 (100)		-1.37 (46)
5th Percentile	3.43	2.83	2.35	-1.00
1st Quartile	4.64	1.39	0.61	-1.25
Median	5.22	0.77	-0.24	-1.39
3rd Quartile	5.71	0.48	-1.11	-1.55
95th Percentile	6.71	0.18	-3.26	-1.87

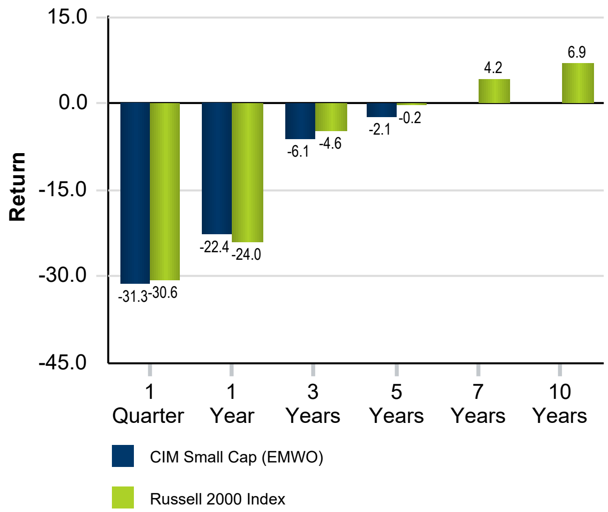
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Performance Summary

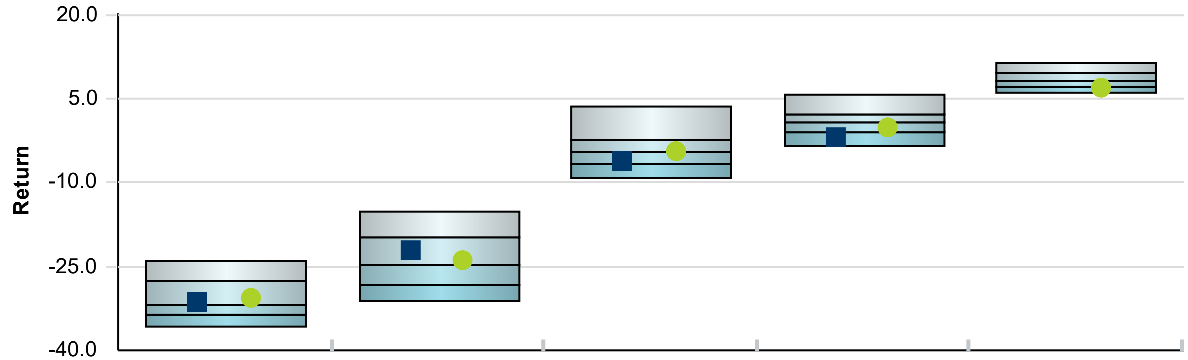
CIM Small Cap (EMWO)

Periods Ended March 31, 2020

Comparative Performance

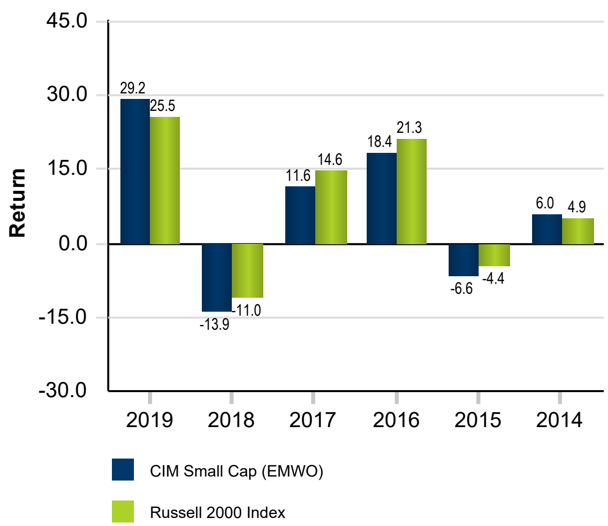


Peer Group Analysis: IM U.S. Small Cap Core Equity (SA+CF)

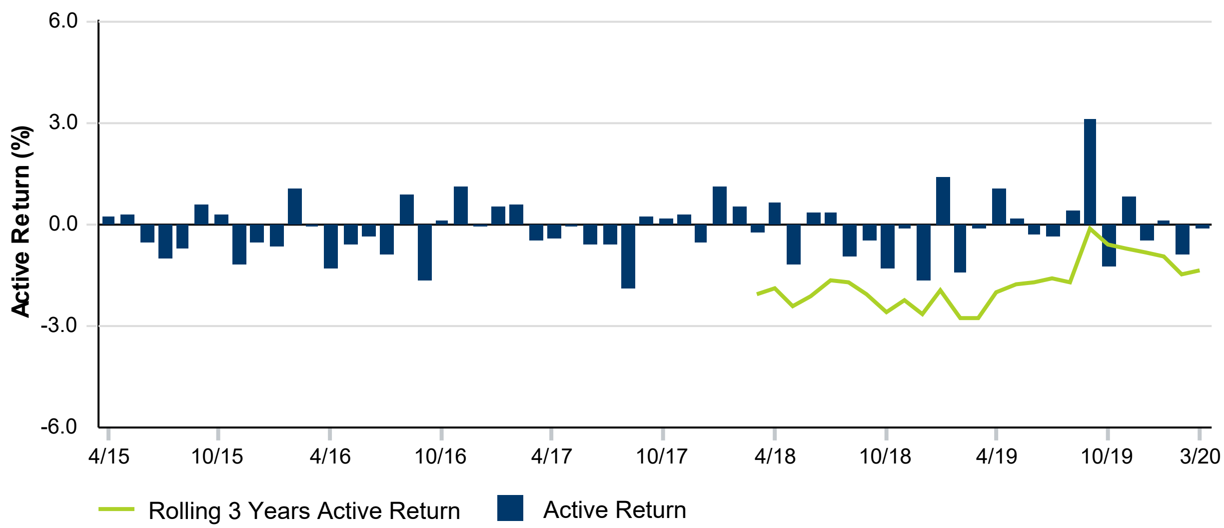


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-31.33 (45)	-22.41 (33)	-6.15 (67)	-2.07 (83)	
Benchmark	-30.61 (40)	-23.99 (42)	-4.64 (51)	-0.25 (65)	6.90 (82)
Median	-31.69	-24.60	-4.58	0.75	8.28

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

CIM Small Cap (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	CIM Small Cap (EMWO)	Russell 2000 Index
Maximum Return	6.78	7.07
Minimum Return	-21.85	-21.73
Return	-22.41	-23.99
Cumulative Return	-22.41	-23.99
Active Return	2.26	0.00
Excess Return	-23.28	-25.54

Risk Summary Statistics

	CIM Small Cap (EMWO)	Russell 2000 Index
Upside Risk	3.22	2.86
Downside Risk	25.54	25.26
Beta	1.03	1.00

Risk/Return Summary Statistics

	CIM Small Cap (EMWO)	Russell 2000 Index
Standard Deviation	27.20	26.29
Alpha	2.89	0.00
Active Return/Risk	0.08	0.00
Tracking Error	3.73	0.00
Information Ratio	0.61	
Sharpe Ratio	-0.85	-0.97

Correlation Statistics

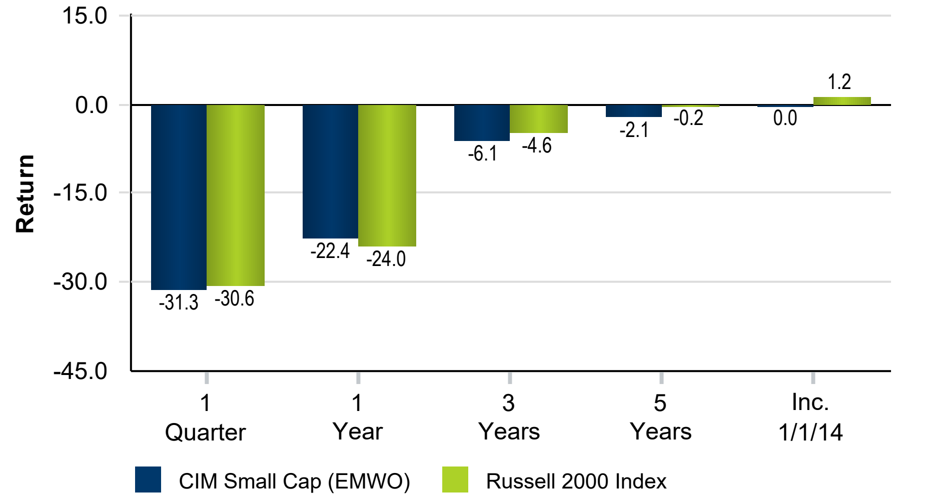
	CIM Small Cap (EMWO)	Russell 2000 Index
R-Squared	0.98	1.00
Actual Correlation	0.99	1.00

Manager Summary

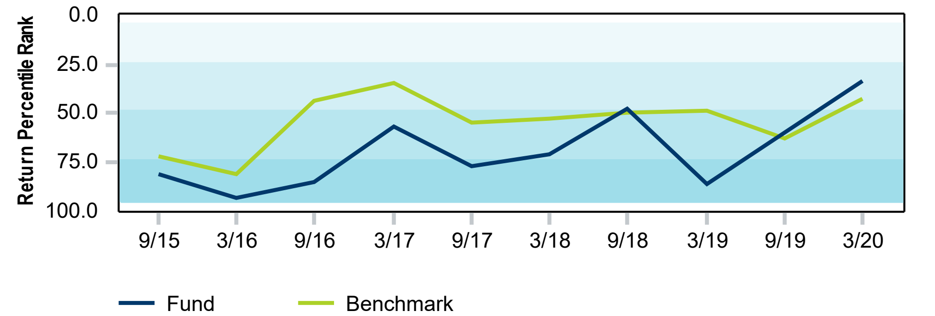
CIM Small Cap (EMWO) vs IM U.S. Small Cap Core Equity (SA+CF)

Periods Ended March 31, 2020

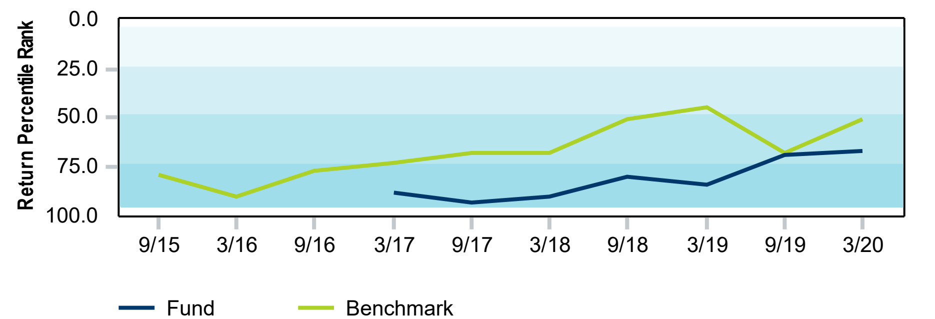
Comparative Performance



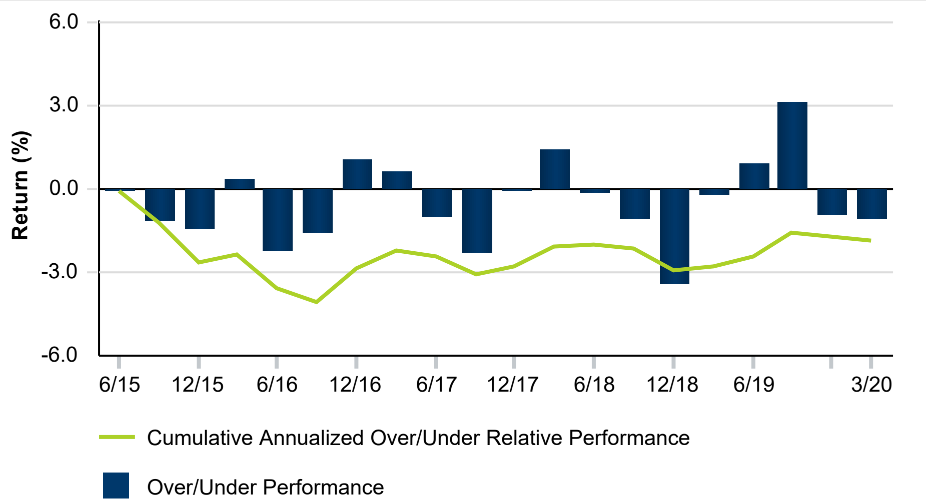
1 Year Rolling Percentile Ranking



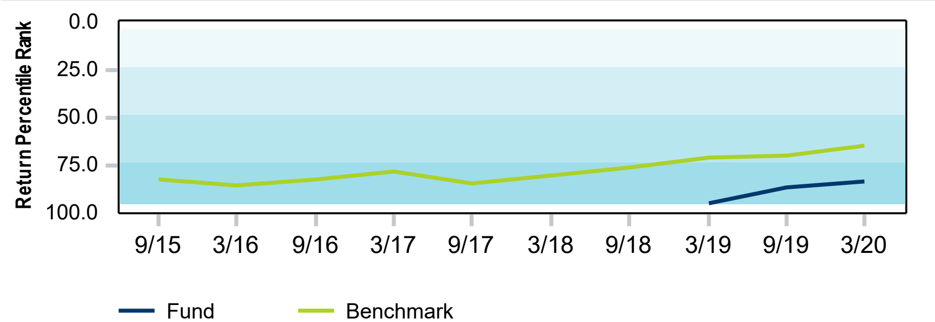
3 Year Rolling Percentile Ranking



Relative Performance



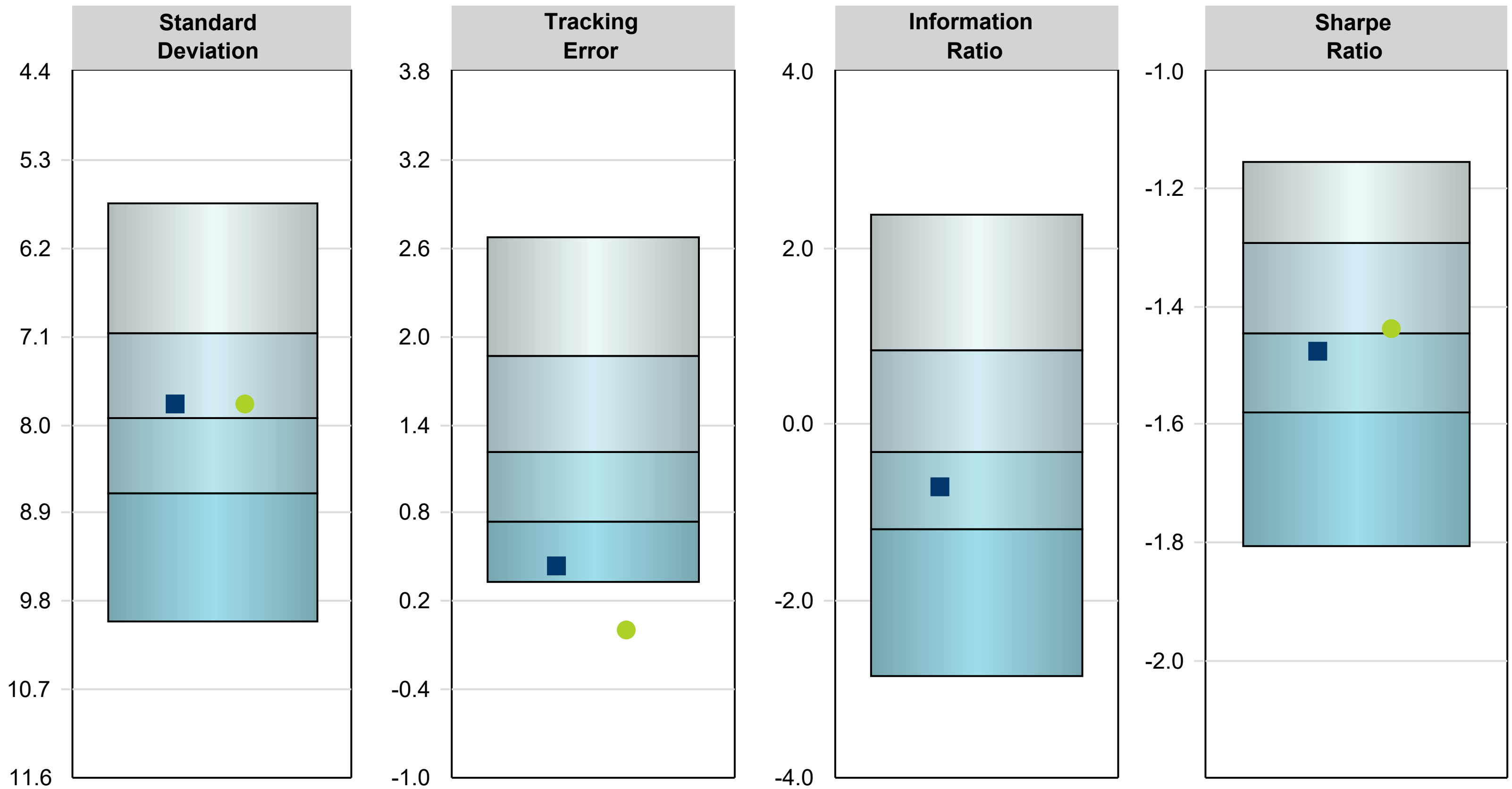
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

CIM Small Cap (EMWO)

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ CIM Small Cap (EMWO)	7.80 (46)	0.43 (93)	-0.71 (60)	-1.48 (59)
● Russell 2000 Index	7.80 (46)	0.00 (100)		-1.44 (50)
5th Percentile	5.74	2.67	2.37	-1.15
1st Quartile	7.07	1.87	0.85	-1.29
Median	7.94	1.22	-0.31	-1.44
3rd Quartile	8.71	0.74	-1.19	-1.58
95th Percentile	10.00	0.34	-2.84	-1.81

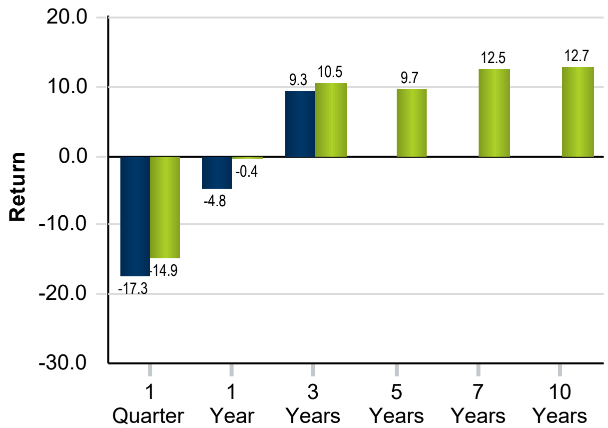
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Performance Summary

Emerald Advisors All Cap (EMWO)

Periods Ended March 31, 2020

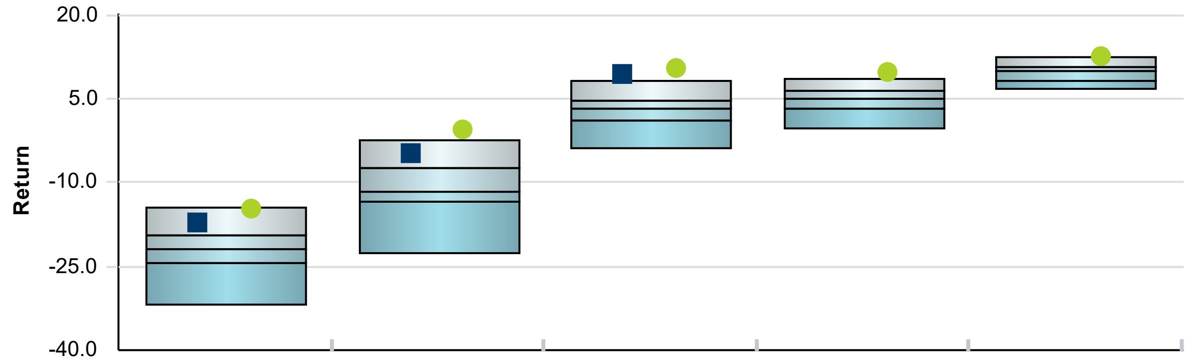
Comparative Performance



Emerald Advisors All Cap (EMWO)

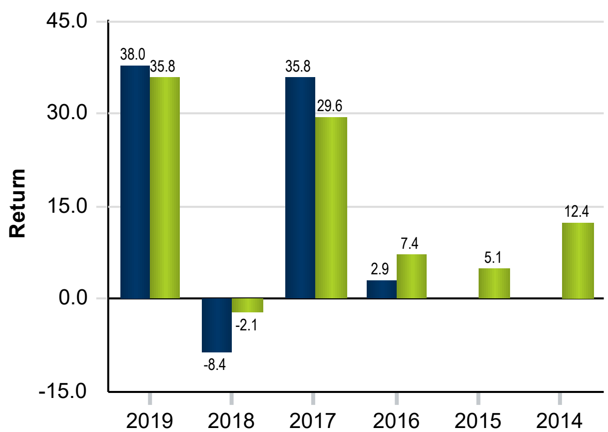
Russell 3000 Growth Index

Peer Group Analysis: IM U.S. All Cap Core Equity (SA+CF)



	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-17.28 (13)	-4.77 (14)	9.32 (1)		
Benchmark	-14.85 (6)	-0.44 (2)	10.54 (1)	9.74 (1)	12.68 (5)
Median	-21.75	-11.69	3.41	5.12	9.95

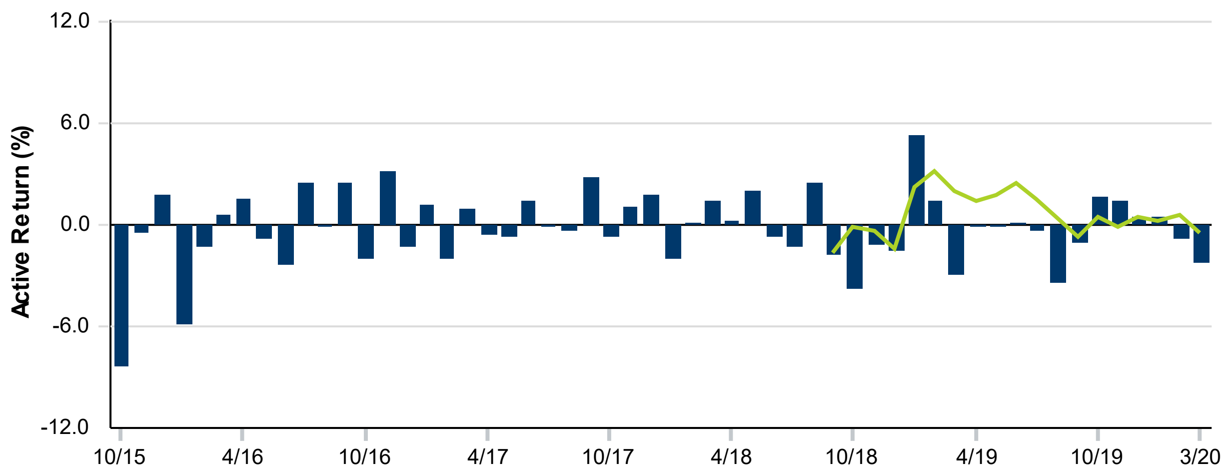
Comparative Performance



Emerald Advisors All Cap (EMWO)

Russell 3000 Growth Index

Rolling 3 Years Performance



Summary Statistics

Emerald Advisors All Cap (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Emerald Advisors All Cap (EMWO)	Russell 3000 Growth Index
Maximum Return	7.00	6.93
Minimum Return	-12.59	-10.41
Return	-4.77	-0.44
Cumulative Return	-4.77	-0.44
Active Return	-3.86	0.00
Excess Return	-4.93	-1.07

Risk Summary Statistics

	Emerald Advisors All Cap (EMWO)	Russell 3000 Growth Index
Upside Risk	3.47	3.08
Downside Risk	16.69	14.04
Beta	1.14	1.00

Risk/Return Summary Statistics

	Emerald Advisors All Cap (EMWO)	Russell 3000 Growth Index
Standard Deviation	20.55	17.62
Alpha	-3.95	0.00
Active Return/Risk	-0.19	0.00
Tracking Error	4.70	0.00
Information Ratio	-0.82	
Sharpe Ratio	-0.24	-0.06

Correlation Statistics

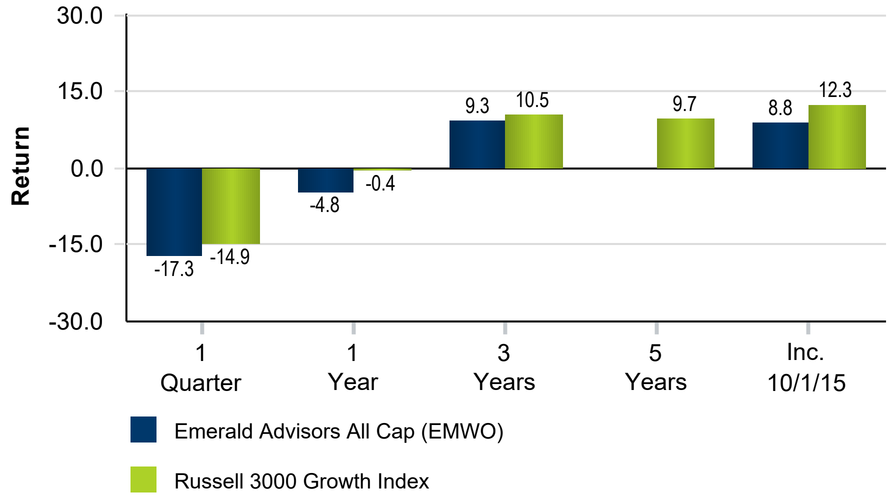
	Emerald Advisors All Cap (EMWO)	Russell 3000 Growth Index
R-Squared	0.96	1.00
Actual Correlation	0.98	1.00

Manager Summary

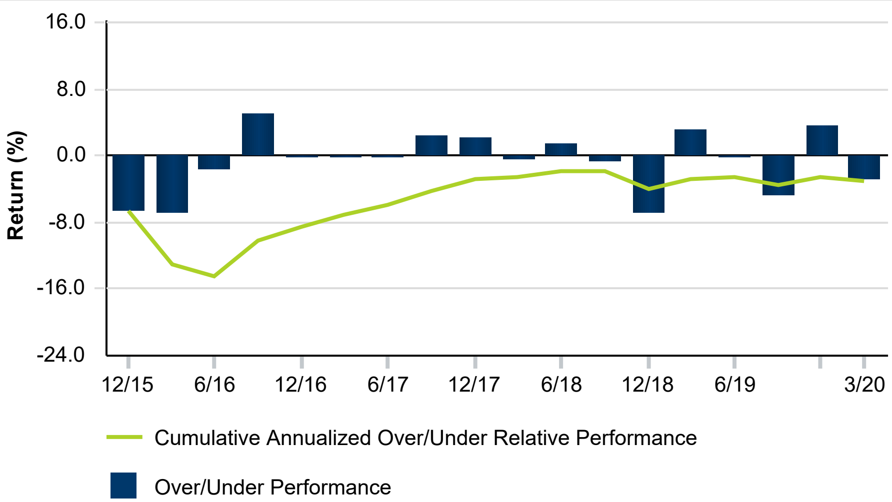
Emerald Advisors All Cap (EMWO) vs IM U.S. All Cap Core Equity (SA+CF)

Periods Ended March 31, 2020

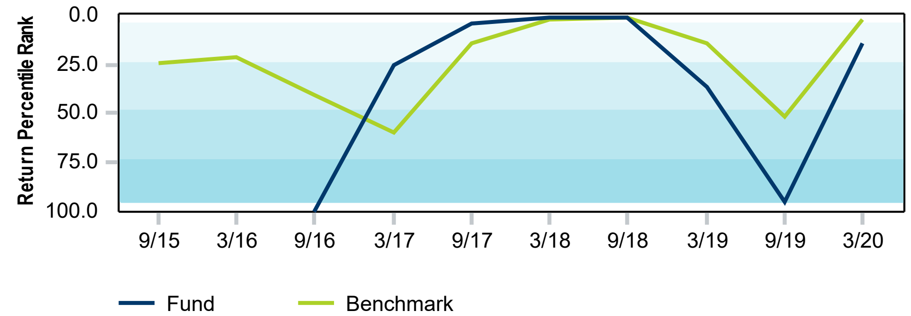
Comparative Performance



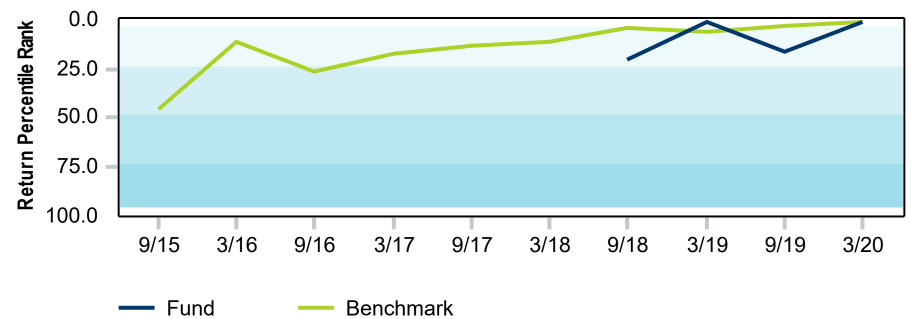
Relative Performance



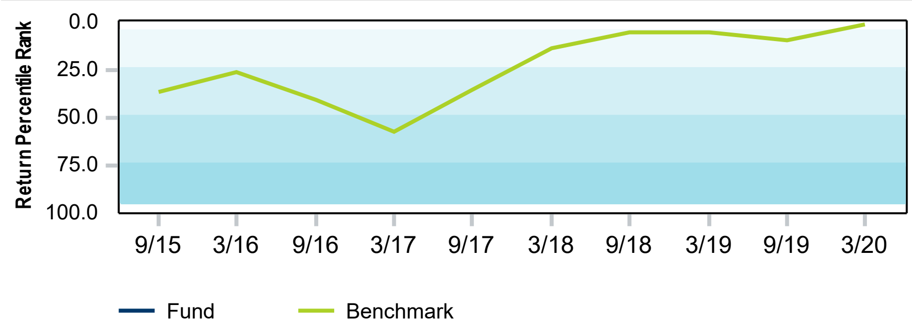
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



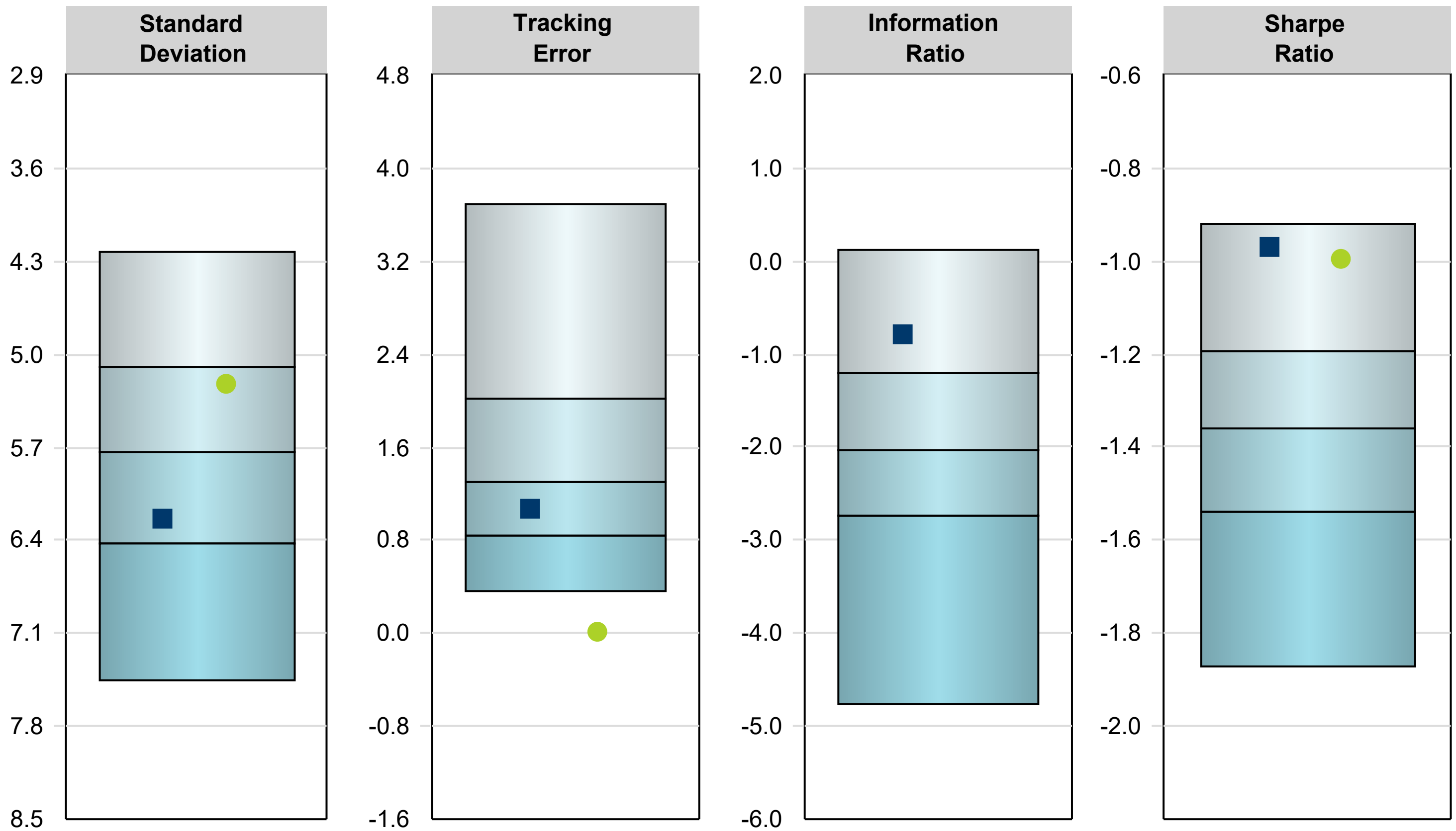
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Emerald Advisors All Cap (EMWO)

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ Emerald Advisors All Cap (EMWO)	6.25 (73)	1.06 (60)	-0.80 (13)	-0.97 (9)
● Russell 3000 Growth Index	5.23 (29)	0.00 (100)		-1.00 (11)
5th Percentile	4.23	3.68	0.12	-0.92
1st Quartile	5.09	2.02	-1.20	-1.19
Median	5.74	1.30	-2.02	-1.36
3rd Quartile	6.43	0.84	-2.74	-1.54
95th Percentile	7.46	0.36	-4.77	-1.87

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

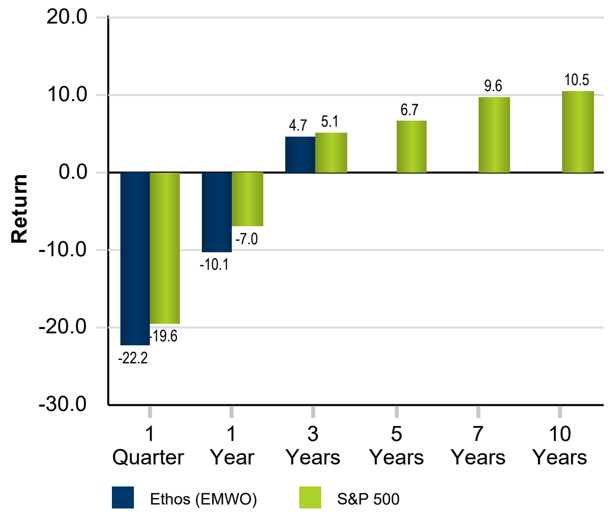
Wilshire Consulting

Performance Summary

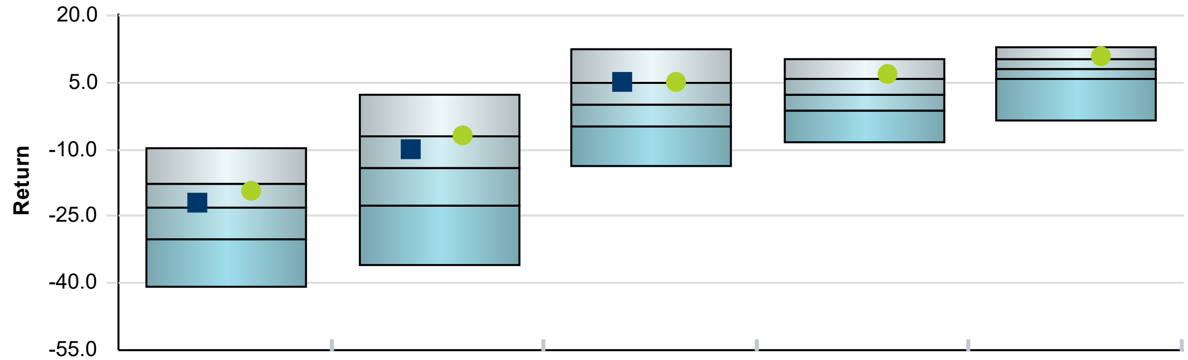
Ethos (EMWO)

Periods Ended March 31, 2020

Comparative Performance

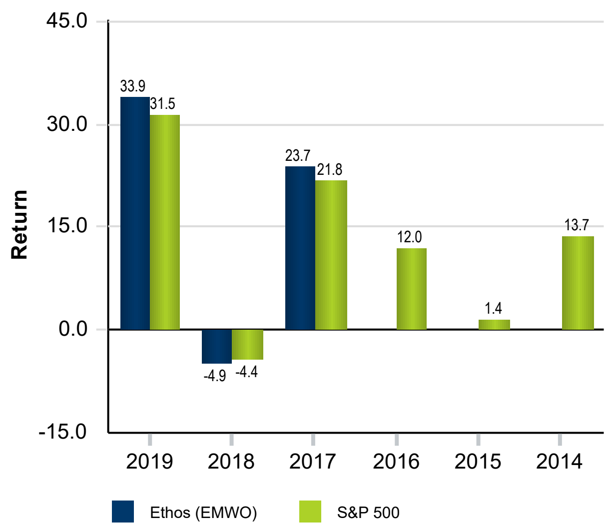


Peer Group Analysis: IM U.S. Equity (MF)

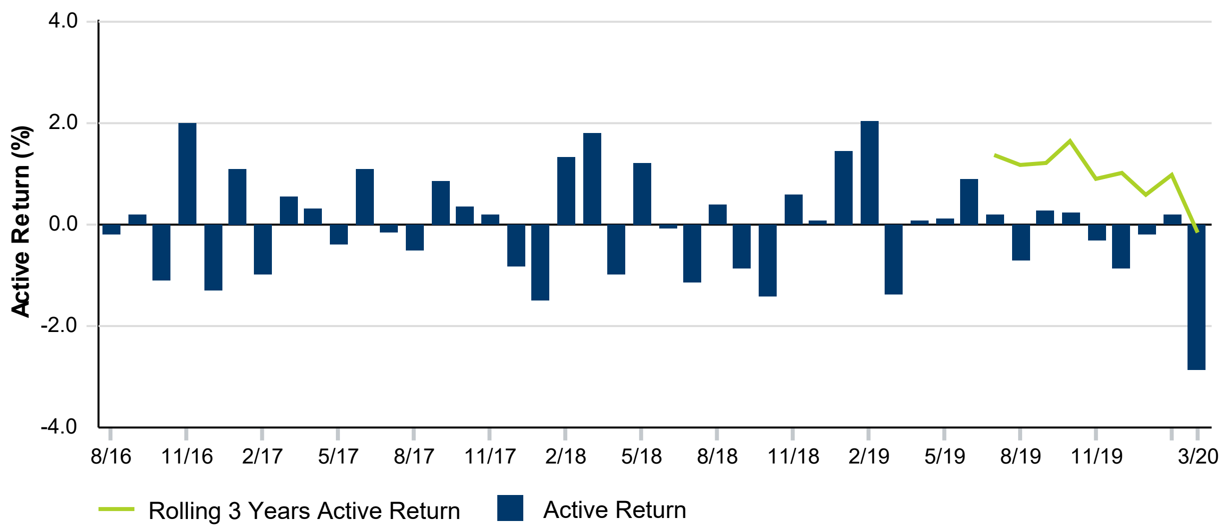


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-22.22 (47)	-10.15 (38)	4.70 (27)		
Benchmark	-19.60 (34)	-6.98 (26)	5.10 (25)	6.73 (17)	10.53 (20)
Median	-23.21	-14.20	-0.07	2.18	7.89

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Ethos (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Ethos (EMWO)	S&P 500
Maximum Return	7.95	7.05
Minimum Return	-15.23	-12.35
Return	-10.15	-6.98
Cumulative Return	-10.15	-6.98
Active Return	-2.97	0.00
Excess Return	-10.55	-7.57

Risk Summary Statistics

	Ethos (EMWO)	S&P 500
Upside Risk	3.01	2.87
Downside Risk	18.45	16.22
Beta	1.10	1.00

Risk/Return Summary Statistics

	Ethos (EMWO)	S&P 500
Standard Deviation	21.06	18.96
Alpha	-2.40	0.00
Active Return/Risk	-0.14	0.00
Tracking Error	3.16	0.00
Information Ratio	-0.94	
Sharpe Ratio	-0.50	-0.40

Correlation Statistics

	Ethos (EMWO)	S&P 500
R-Squared	0.99	1.00
Actual Correlation	0.99	1.00

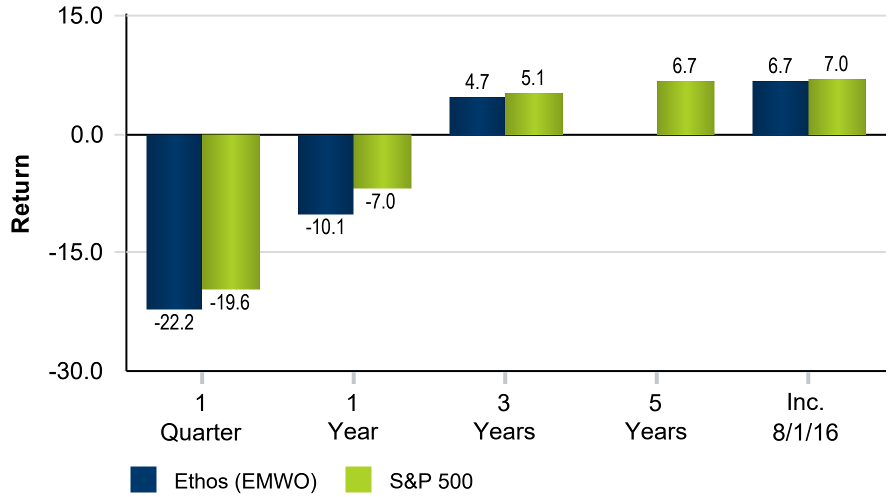
Wilshire Consulting

Manager Summary

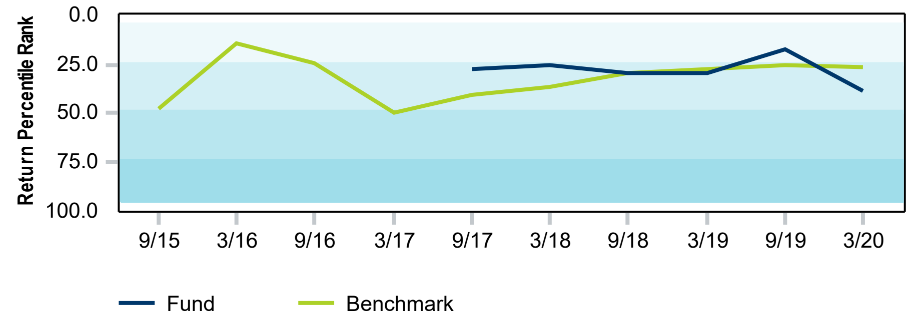
Ethos (EMWO) vs IM U.S. Equity (MF)

Periods Ended March 31, 2020

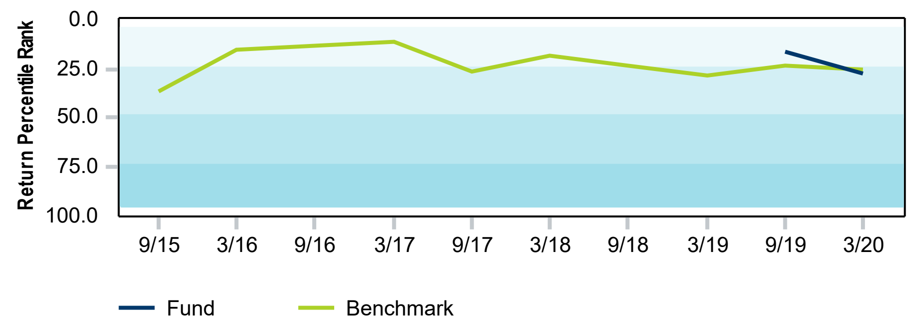
Comparative Performance



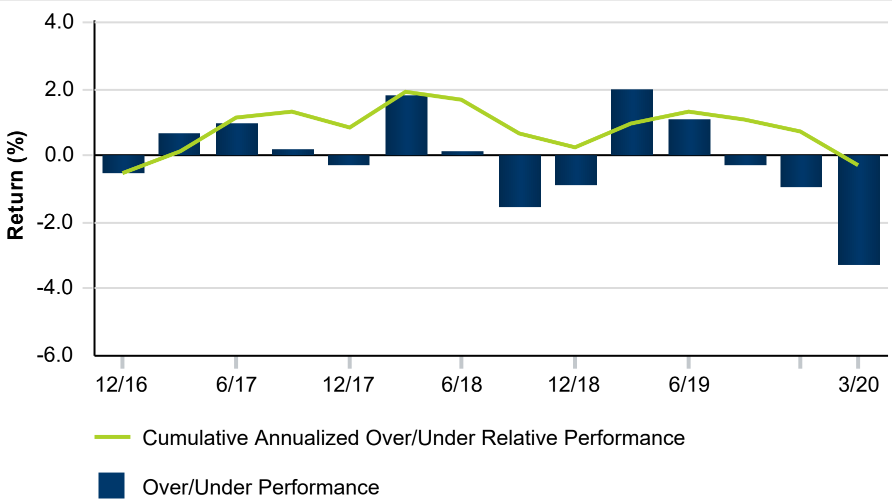
1 Year Rolling Percentile Ranking



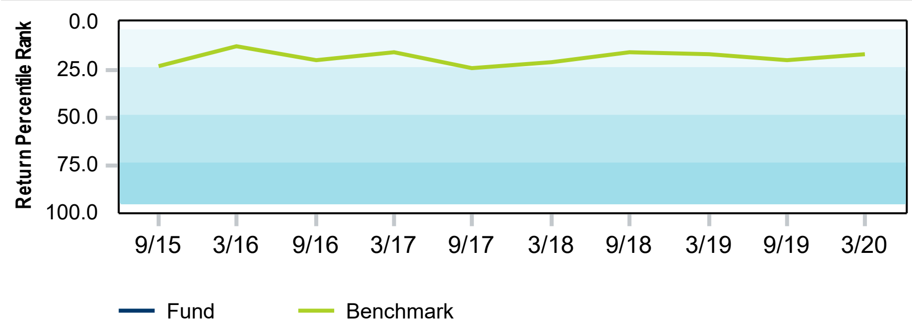
3 Year Rolling Percentile Ranking



Relative Performance



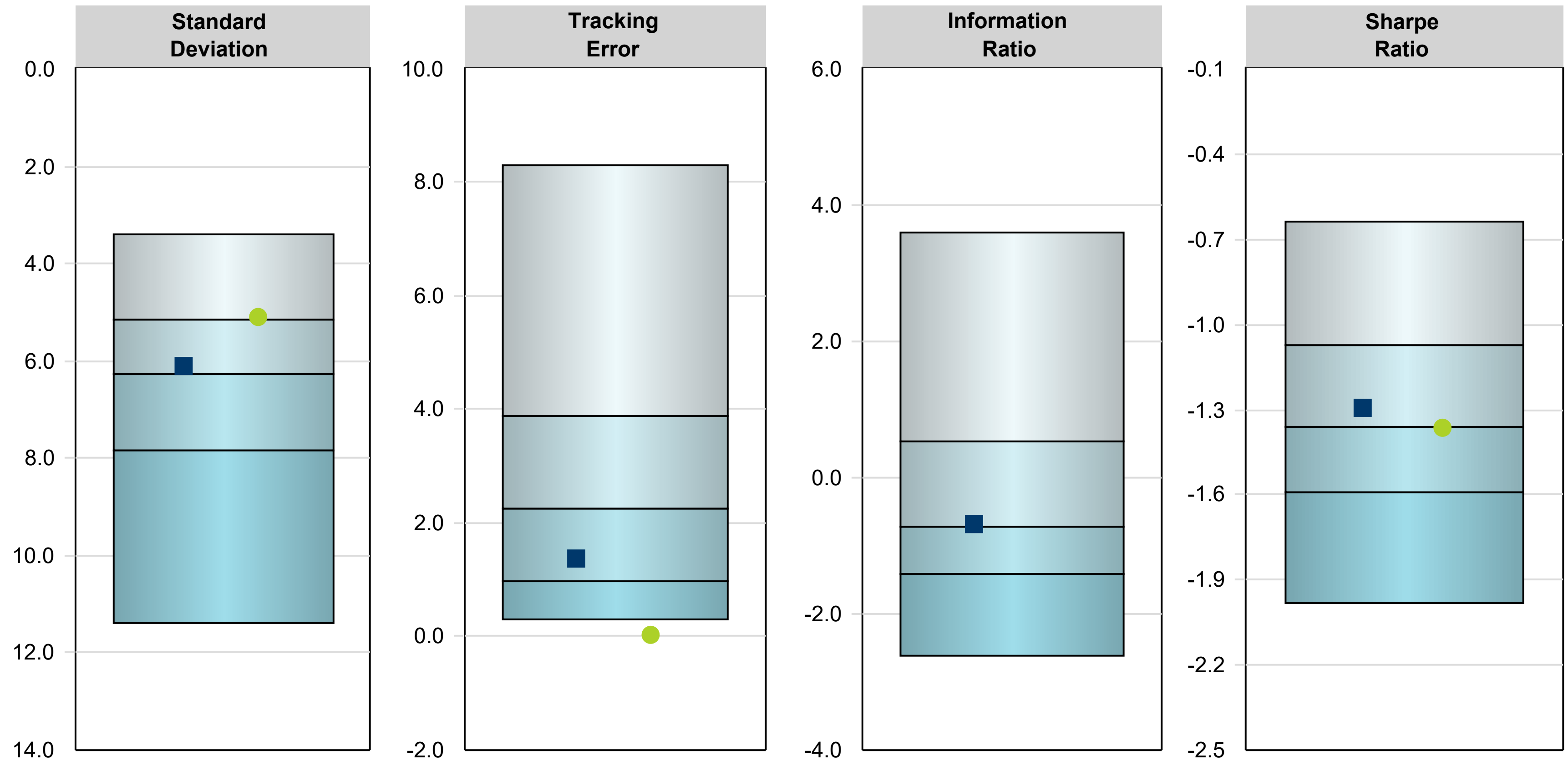
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Ethos (EMWO)

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ Ethos (EMWO)	6.12 (47)	1.37 (67)	-0.70 (50)	-1.30 (44)
● S&P 500	5.12 (24)	0.00 (100)		-1.37 (51)
5th Percentile	3.40	8.31	3.59	-0.64
1st Quartile	5.14	3.88	0.54	-1.07
Median	6.27	2.25	-0.71	-1.36
3rd Quartile	7.85	0.98	-1.41	-1.59
95th Percentile	11.38	0.29	-2.61	-1.98

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Summary Statistics

Cookson Peirce (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Cookson Peirce (EMWO)	Russell 3000 Index
Maximum Return	4.90	7.02
Minimum Return	-11.06	-13.75
Return	-13.71	-9.13
Cumulative Return	-13.71	-9.13
Active Return	-5.66	0.00
Excess Return	-15.35	-9.69

Risk Summary Statistics	Cookson Peirce (EMWO)	Russell 3000 Index
Upside Risk	2.27	2.86
Downside Risk	15.77	17.38
Beta	0.81	1.00

Risk/Return Summary Statistics	Cookson Peirce (EMWO)	Russell 3000 Index
Standard Deviation	17.21	19.89
Alpha	-6.84	0.00
Active Return/Risk	-0.33	0.00
Tracking Error	7.00	0.00
Information Ratio	-0.81	
Sharpe Ratio	-0.89	-0.49

Correlation Statistics	Cookson Peirce (EMWO)	Russell 3000 Index
R-Squared	0.88	1.00
Actual Correlation	0.94	1.00

NON US EQUITY

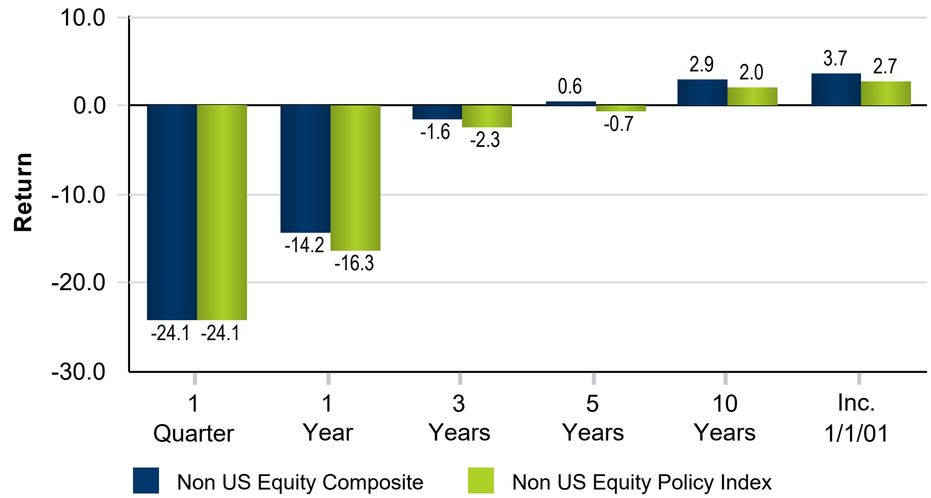
Wilshire Consulting

Composite Performance Summary

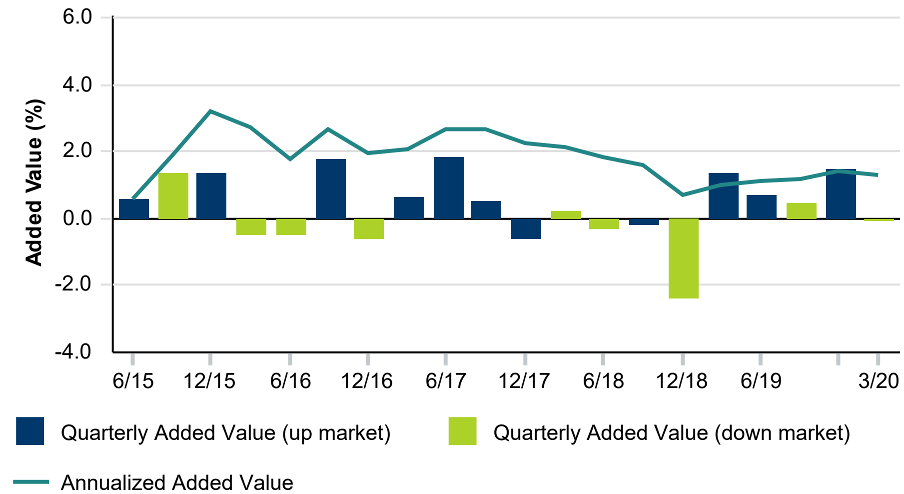
Non US Equity Composite

Periods Ended March 31, 2020

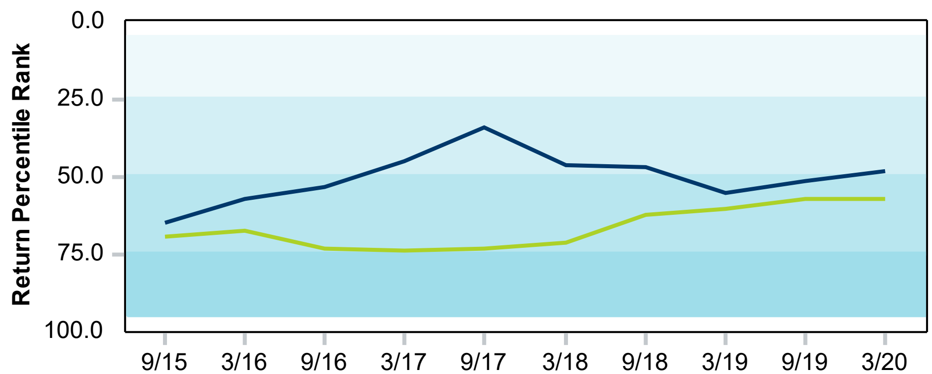
Comparative Performance



Added Value History

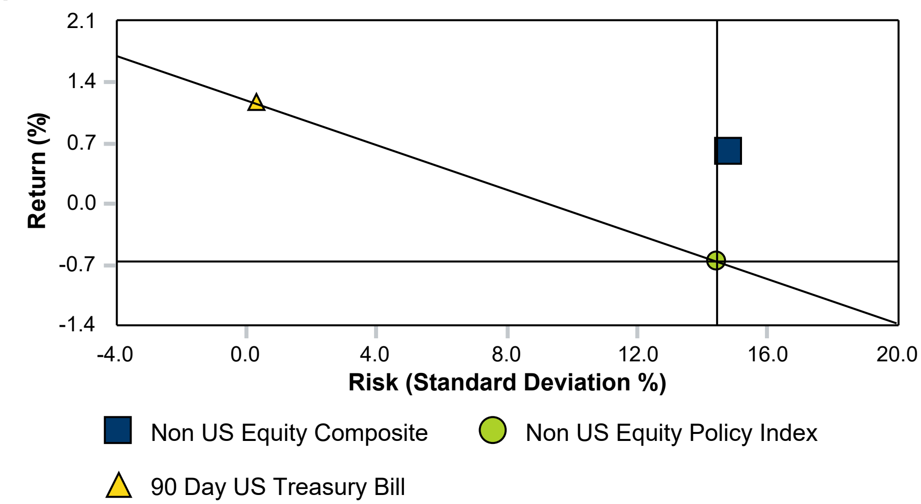


Rolling Percentile Rank: IM International Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Non US Equity Composite	10	0 (0%)	5 (50%)	5 (50%)	0 (0%)
Benchmark	10	0 (0%)	0 (0%)	10 (100%	0 (0%)

Risk and Return 04/1/15 - 03/31/20

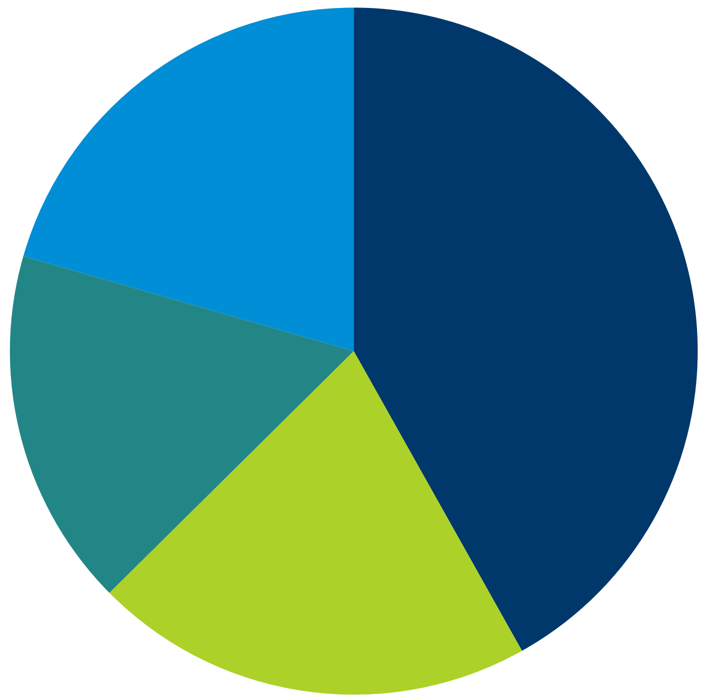


Asset Allocation By Manager

Non US Equity Composite

Periods Ended March 31, 2020

Mar-2020 : 130,744,345

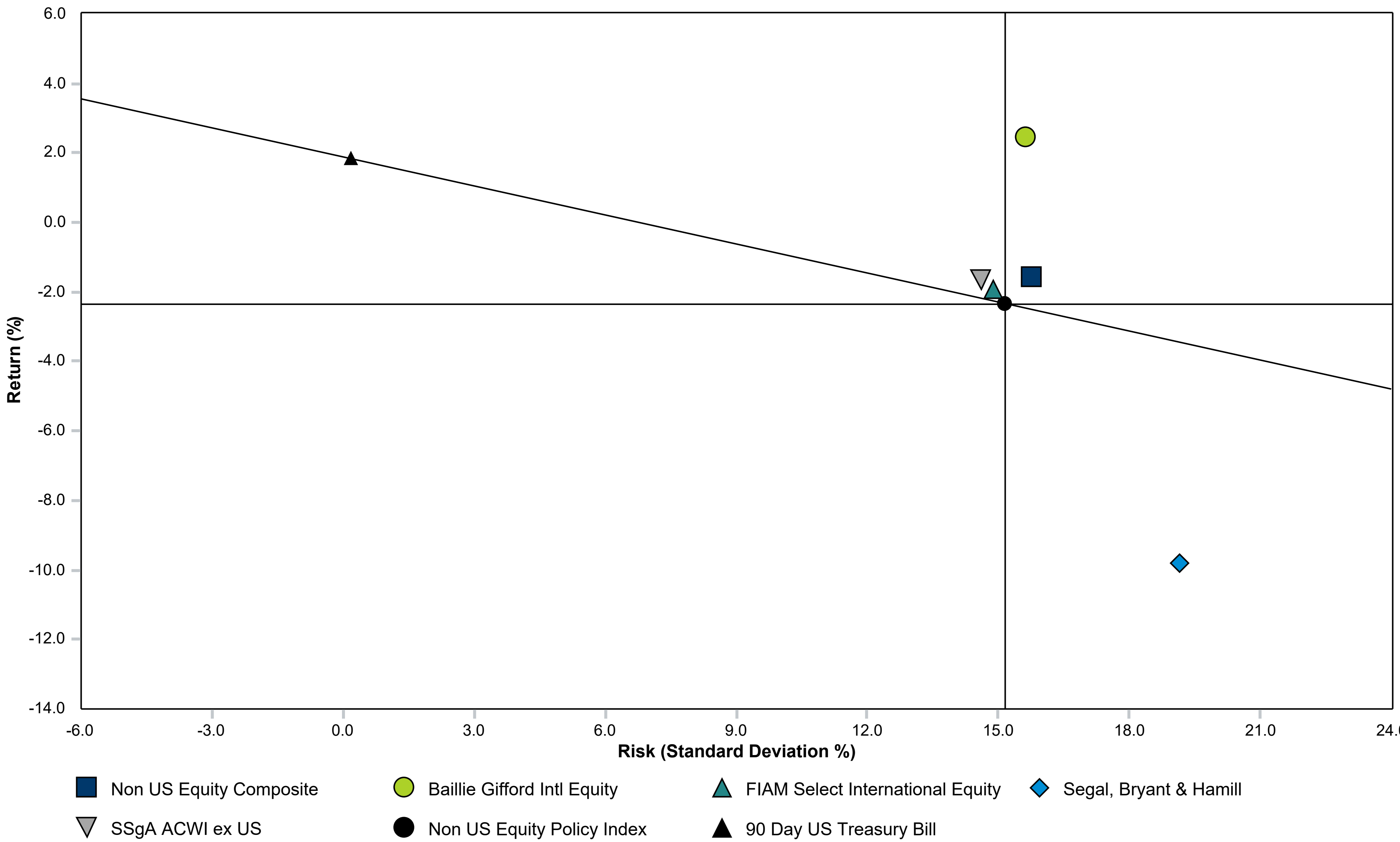


	Market Value $	Allocation (%)
Baillie Gifford Intl Equity	54,742,816	41.9
FIAM Select International Equity	27,071,171	20.7
Segal, Bryant & Hamill	22,077,059	16.9
SSgA ACWI ex US	26,853,299	20.5

Risk vs. Return

Non US Equity Composite

Periods Ended 3 Years Ending March 31, 2020



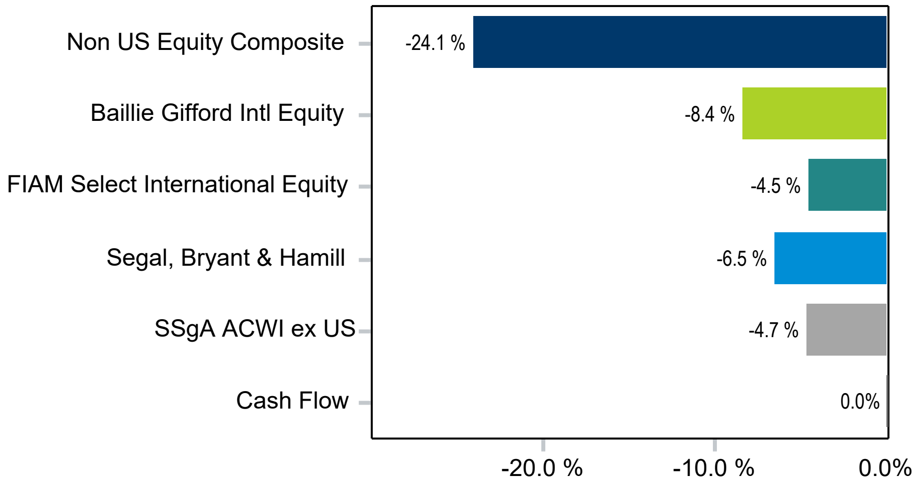
Calculation based on monthly periodicity.

Return and Risk Contribution

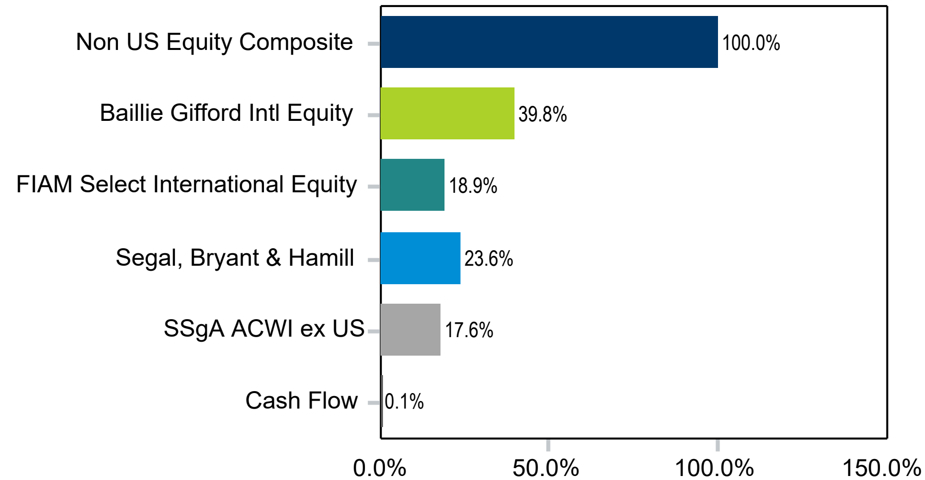
Non US Equity Composite

Periods Ended 1 Quarter March 31, 2020

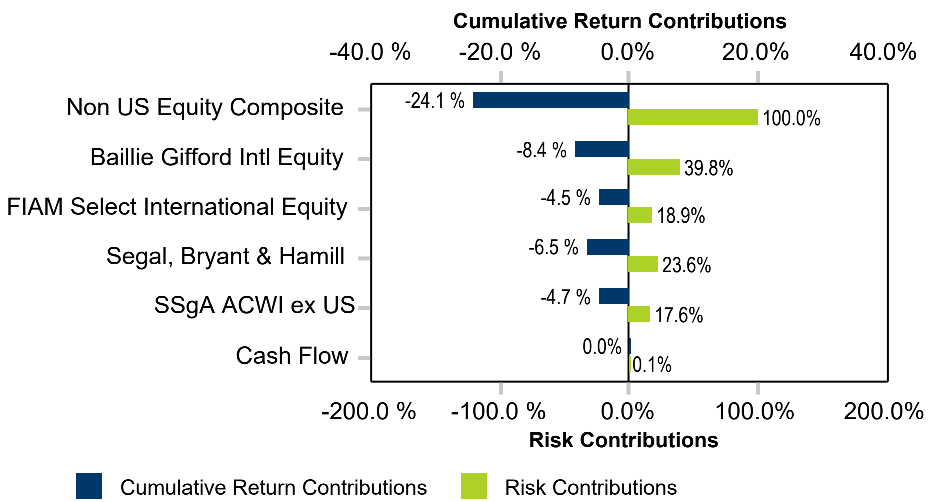
Cumulative Return Contributions



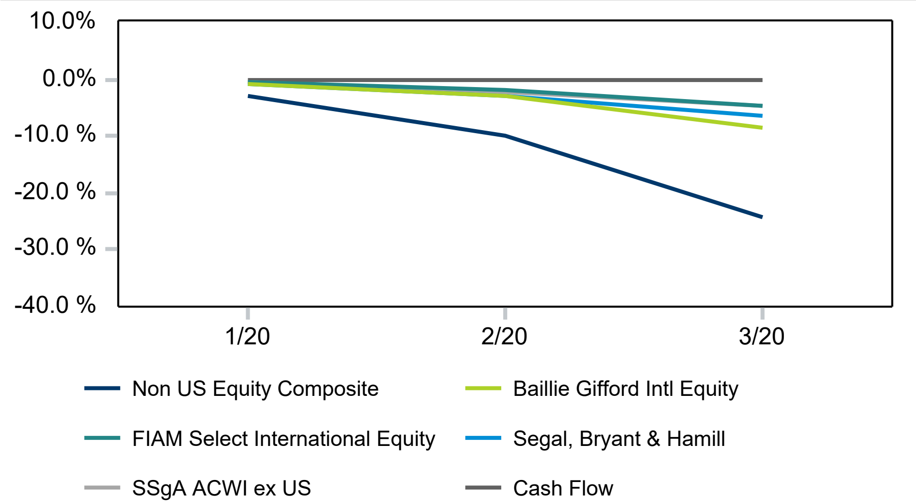
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



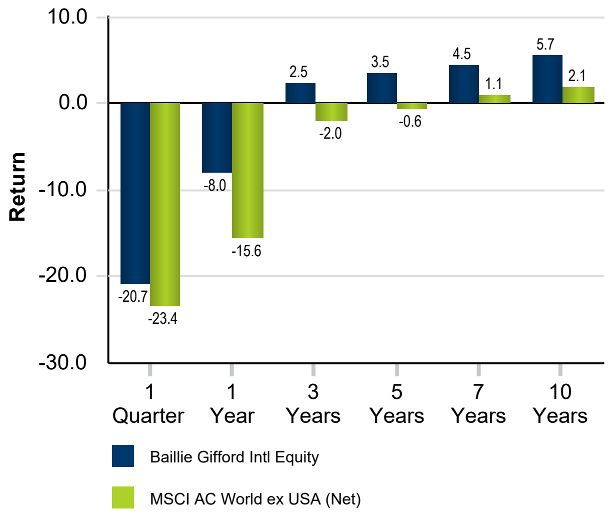
Wilshire Consulting

Performance Summary

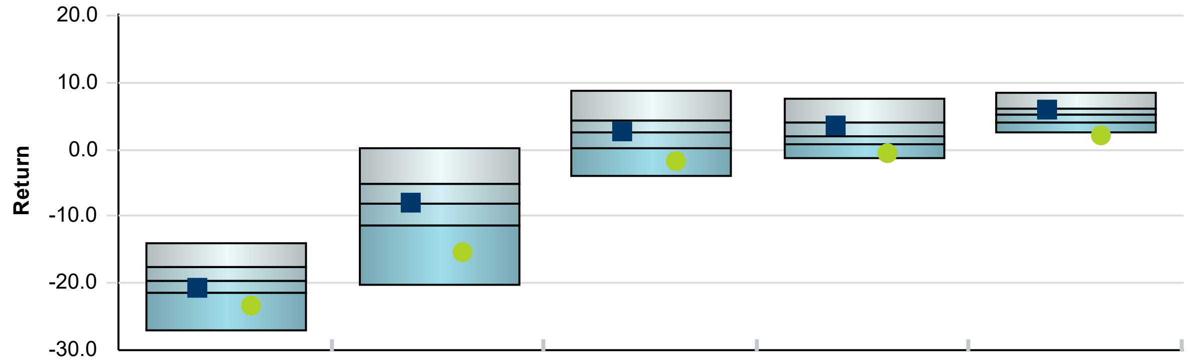
Baillie Gifford Intl Equity

Periods Ended March 31, 2020

Comparative Performance

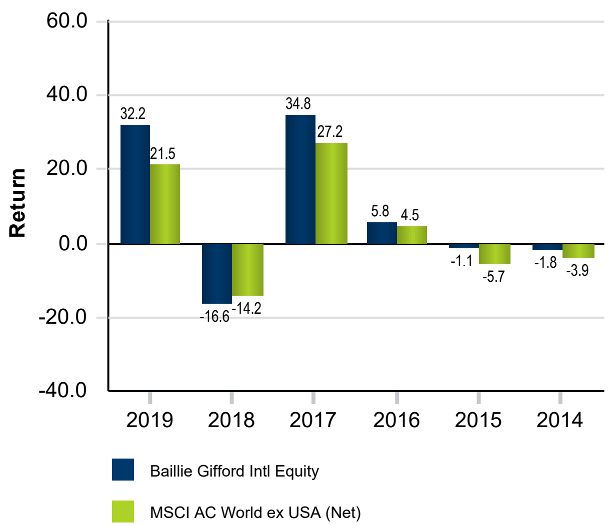


Peer Group Analysis: IM International Large Cap Growth Equity (SA+CF)

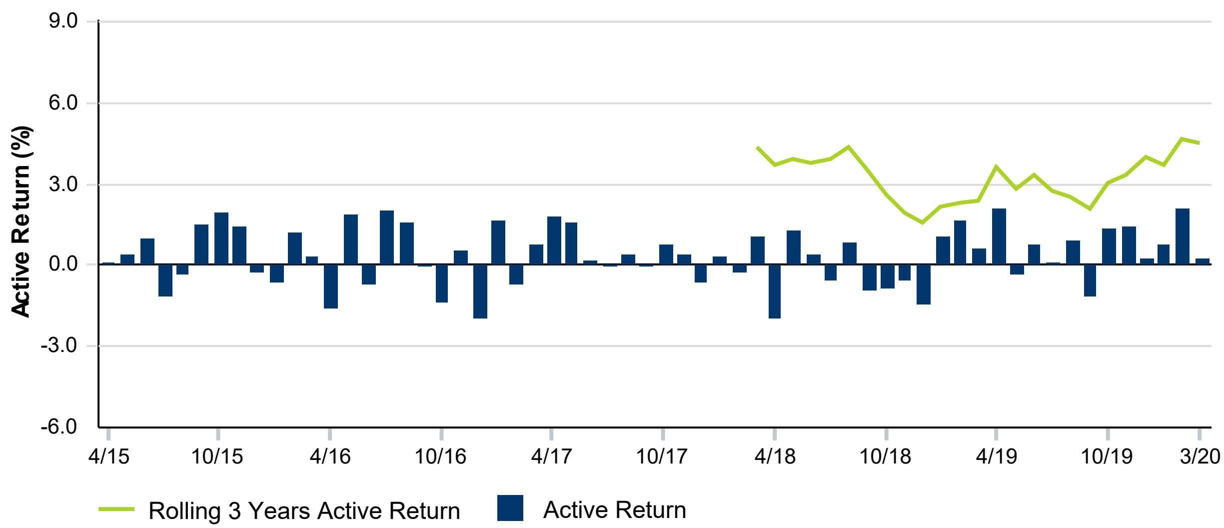


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-20.73 (69)	-7.97 (47)	2.45 (54)	3.54 (32)	5.70 (33)
Benchmark	-23.36 (90)	-15.57 (90)	-1.96 (90)	-0.64 (91)	2.05 (100)
Median	-19.54	-8.22	2.68	1.97	5.28

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Baillie Gifford Intl Equity

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Baillie Gifford Intl Equity	MSCI AC World ex USA (Net)
Maximum Return	6.81	6.02
Minimum Return	-14.19	-14.48
Return	-7.97	-15.57
Cumulative Return	-7.97	-15.57
Active Return	8.58	0.00
Excess Return	-8.45	-17.03

Risk Summary Statistics

	Baillie Gifford Intl Equity	MSCI AC World ex USA (Net)
Upside Risk	3.16	2.61
Downside Risk	16.66	17.86
Beta	1.00	1.00

Risk/Return Summary Statistics

	Baillie Gifford Intl Equity	MSCI AC World ex USA (Net)
Standard Deviation	19.86	19.56
Alpha	8.97	0.00
Active Return/Risk	0.43	0.00
Tracking Error	3.18	0.00
Information Ratio	2.70	
Sharpe Ratio	-0.42	-0.87

Correlation Statistics

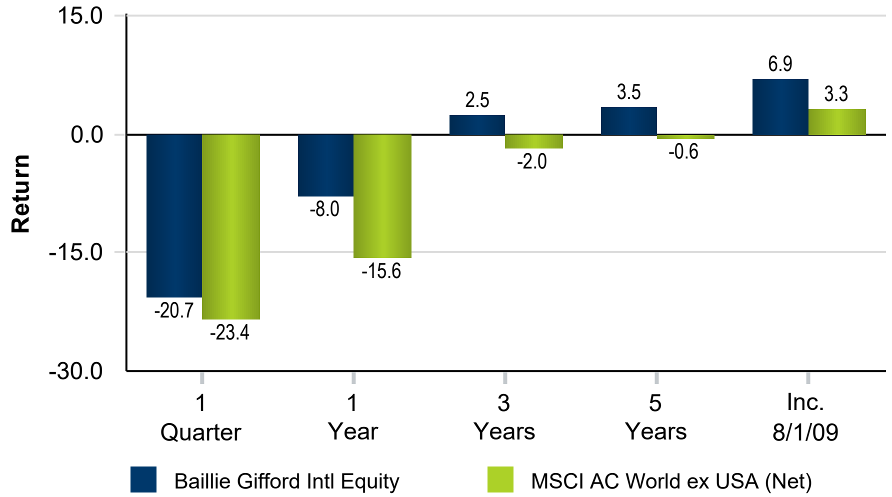
	Baillie Gifford Intl Equity	MSCI AC World ex USA (Net)
R-Squared	0.97	1.00
Actual Correlation	0.99	1.00

Manager Summary

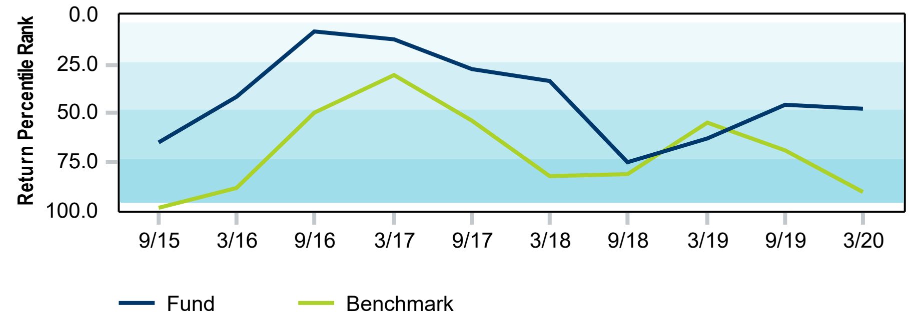
Baillie Gifford Intl Equity vs IM International Large Cap Growth Equity (SA+CF)

Periods Ended March 31, 2020

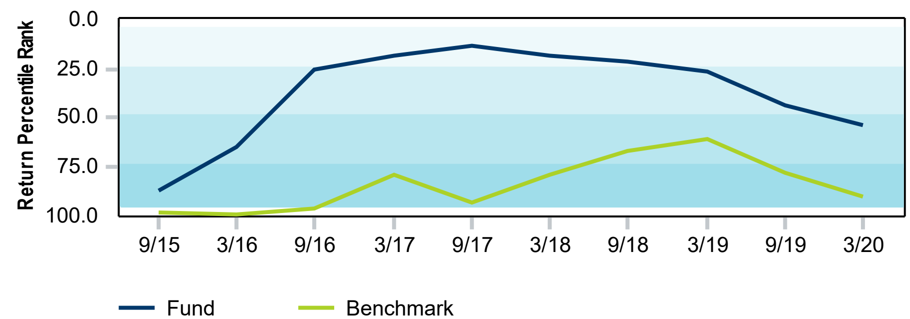
Comparative Performance



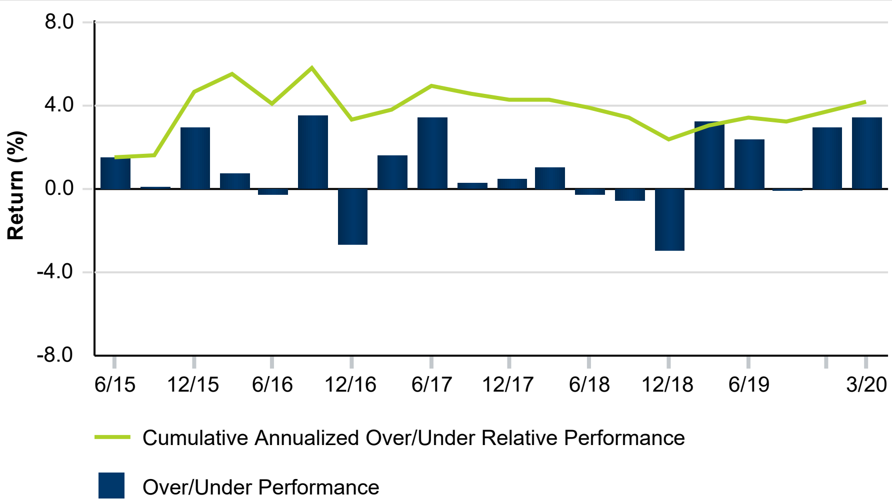
1 Year Rolling Percentile Ranking



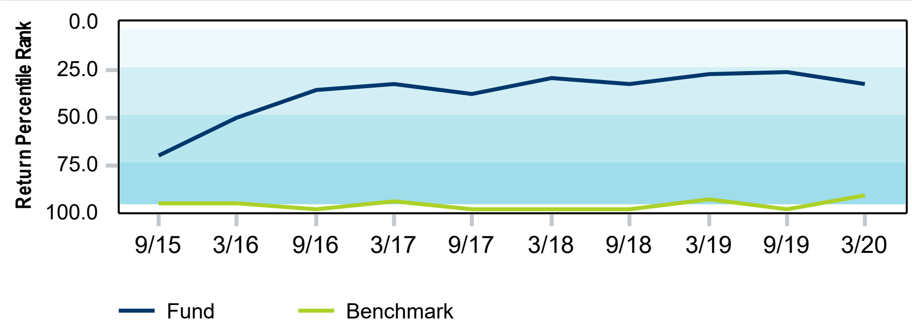
3 Year Rolling Percentile Ranking



Relative Performance



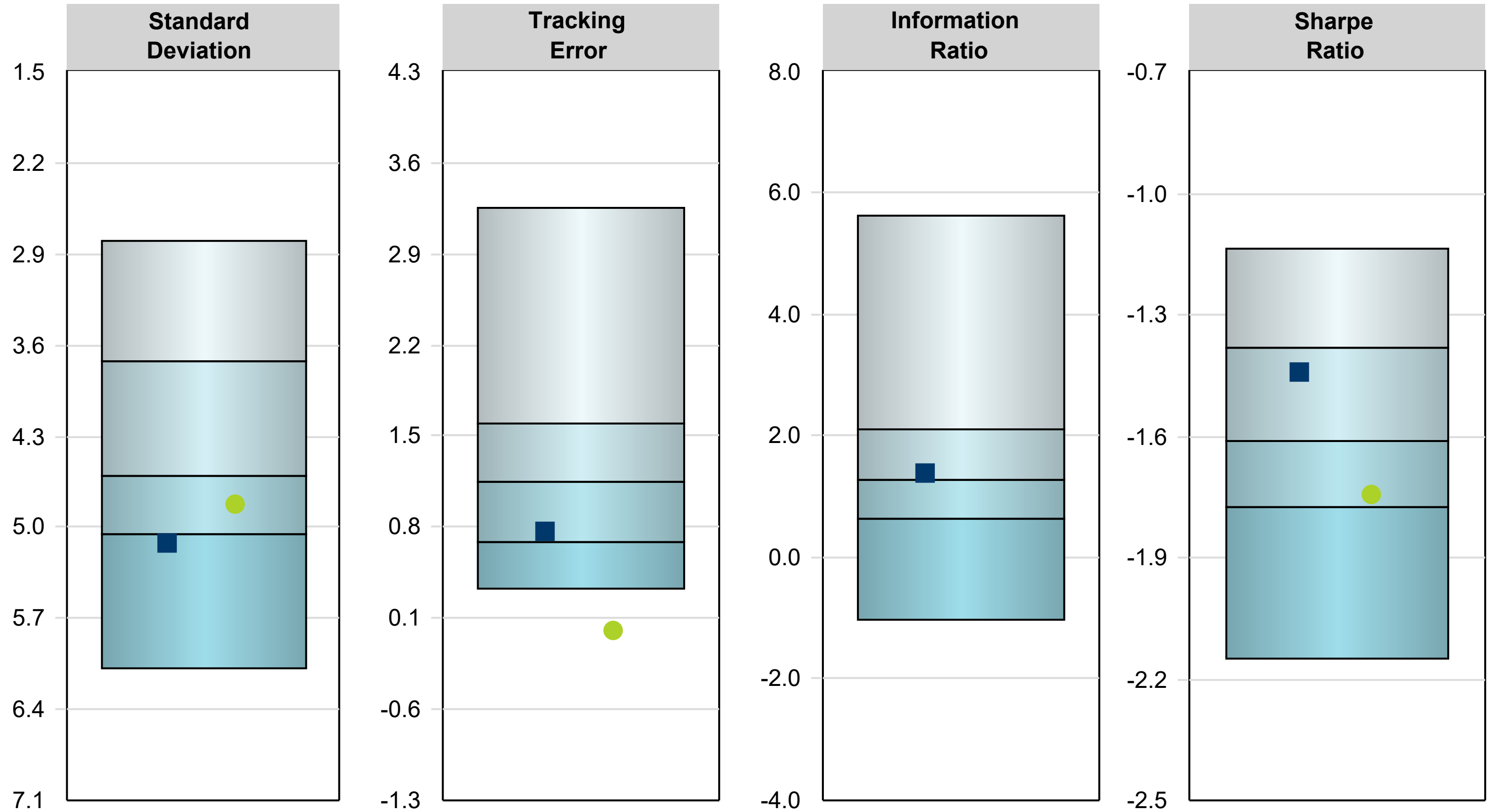
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Baillie Gifford Intl Equity

Periods Ended March 31, 2020



	QTD	QTD	QTD	QTD
Baillie Gifford Intl Equity	5.12 (75)	0.77 (66)	1.37 (45)	-1.44 (31)
MSCI AC World ex USA (Net)	4.83 (61)	0.00 (100)		-1.75 (71)
5th Percentile	2.79	3.25	5.65	-1.14
1st Quartile	3.72	1.60	2.11	-1.38
Median	4.60	1.14	1.28	-1.61
3rd Quartile	5.05	0.68	0.65	-1.78
95th Percentile	6.08	0.33	-1.04	-2.15

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

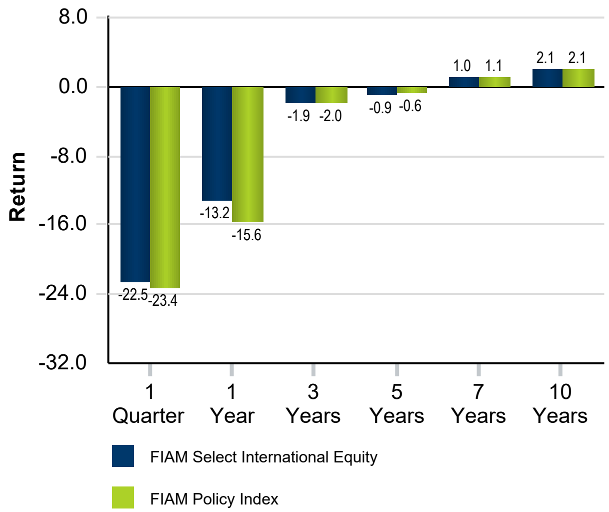
Wilshire Consulting

Performance Summary

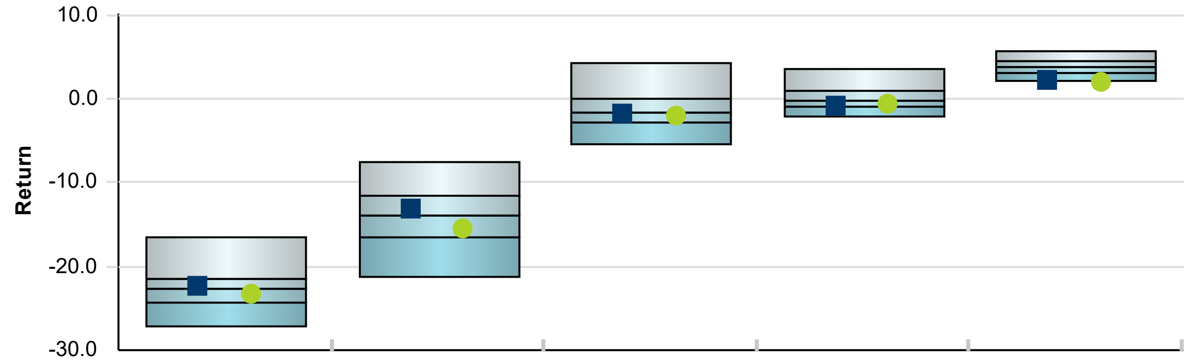
FIAM Select International Equity

Periods Ended March 31, 2020

Comparative Performance

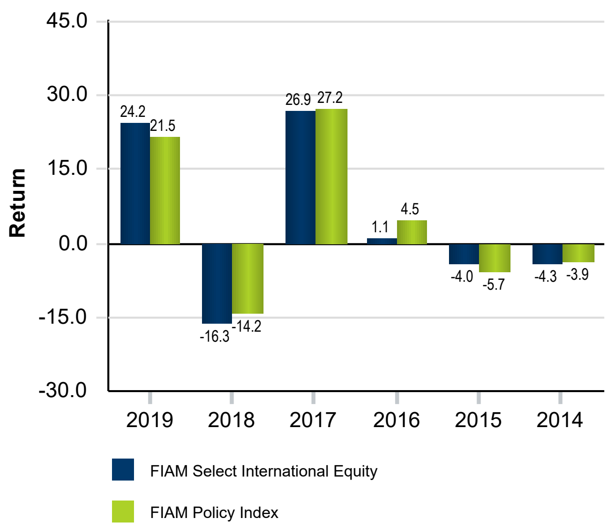


Peer Group Analysis: IM International Large Cap Core Equity (SA+CF)

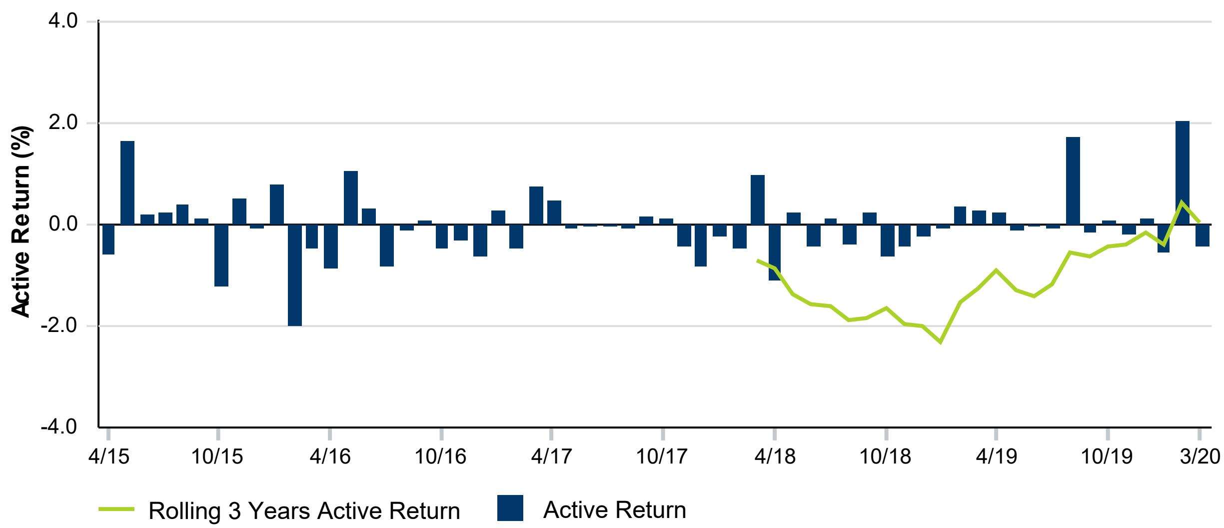


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-22.47 (45)	-13.17 (43)	-1.91 (65)	-0.90 (75)	2.10 (96)
Benchmark	-23.36 (60)	-15.57 (66)	-1.96 (65)	-0.64 (65)	2.05 (96)
Median	-22.61	-13.81	-1.50	-0.06	3.95

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

FIAM Select International Equity

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	FIAM Select International Equity	FIAM Policy Index
Maximum Return	6.00	6.02
Minimum Return	-14.90	-14.48
Return	-13.17	-15.57
Cumulative Return	-13.17	-15.57
Active Return	2.72	0.00
Excess Return	-14.31	-17.03

Risk Summary Statistics

	FIAM Select International Equity	FIAM Policy Index
Upside Risk	2.63	2.61
Downside Risk	17.33	17.86
Beta	0.98	1.00

Risk/Return Summary Statistics

	FIAM Select International Equity	FIAM Policy Index
Standard Deviation	19.27	19.56
Alpha	2.39	0.00
Active Return/Risk	0.14	0.00
Tracking Error	2.68	0.00
Information Ratio	1.01	
Sharpe Ratio	-0.74	-0.87

Correlation Statistics

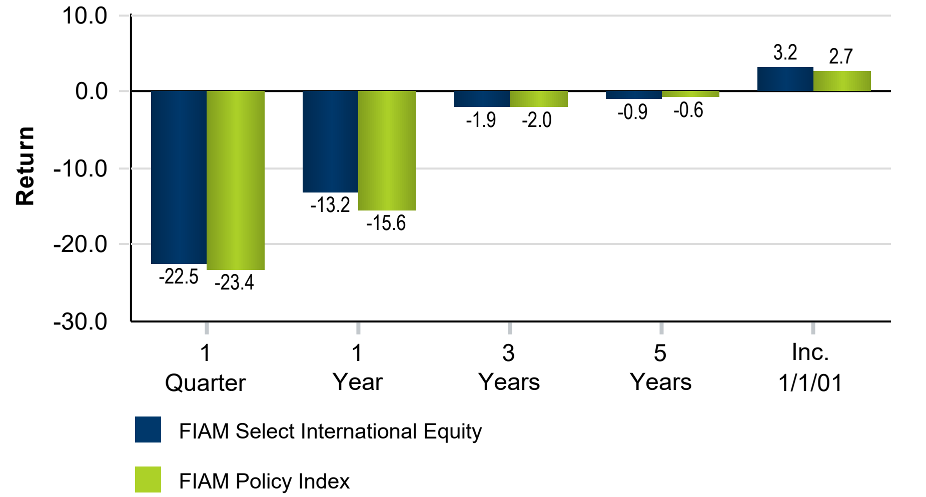
	FIAM Select International Equity	FIAM Policy Index
R-Squared	0.98	1.00
Actual Correlation	0.99	1.00

Manager Summary

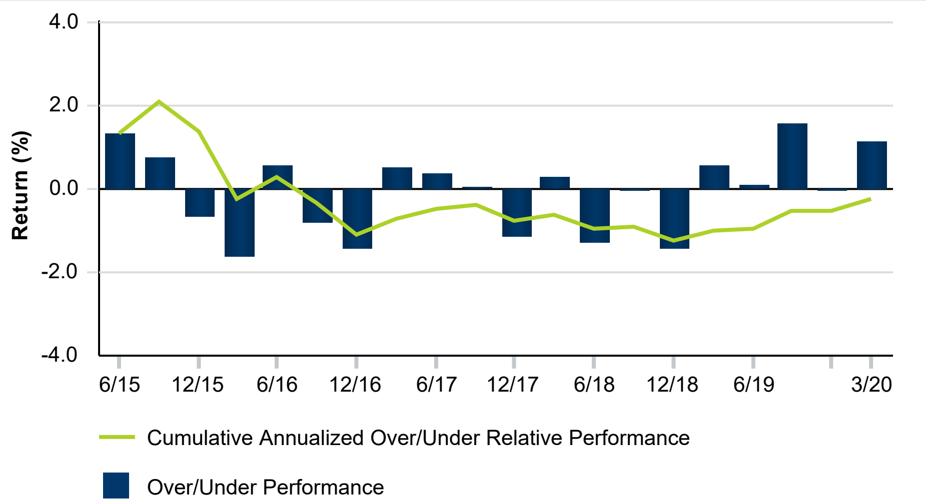
FIAM Select International Equity vs IM International Large Cap Core Equity (SA+CF

Periods Ended March 31, 2020

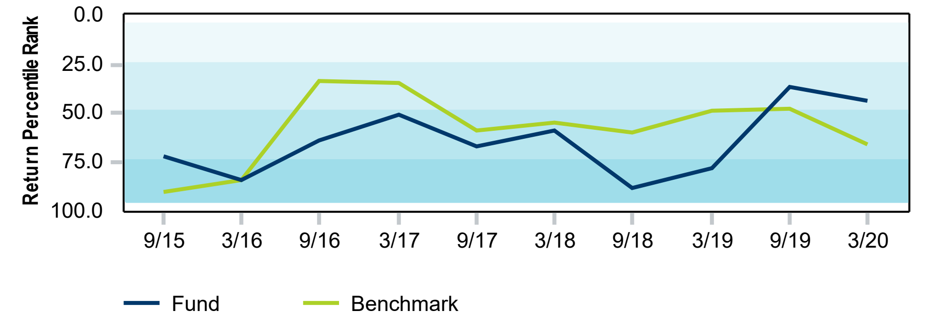
Comparative Performance



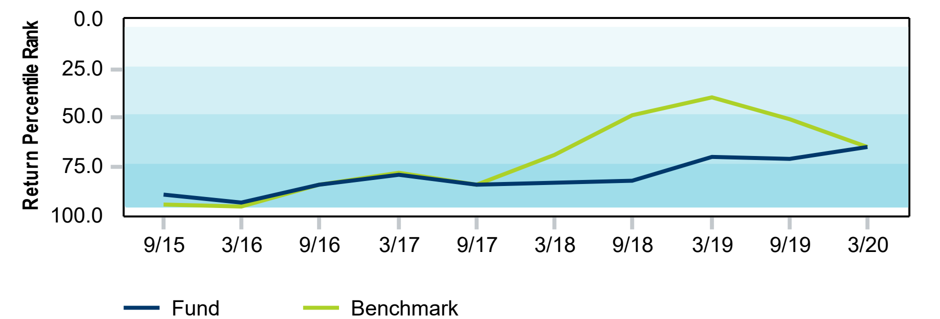
Relative Performance



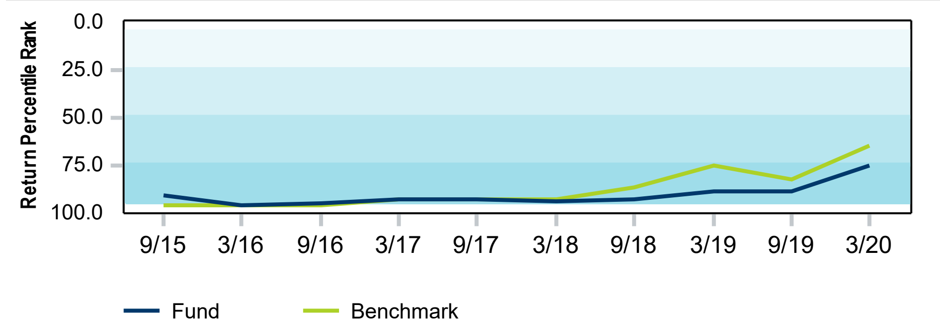
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



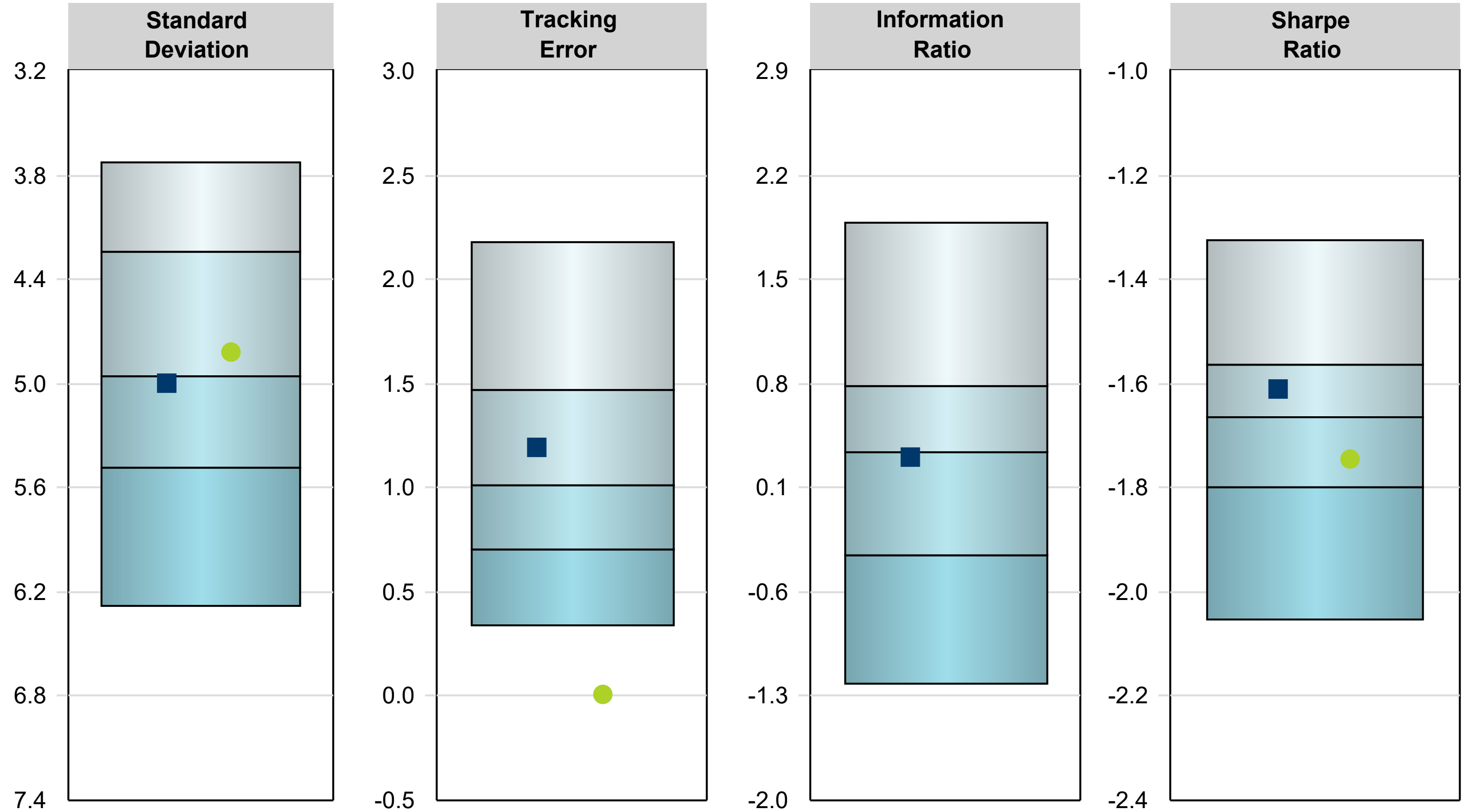
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

FIAM Select International Equity

Periods Ended March 31, 2020



	QTD	QTD	QTD	QTD
■ FIAM Select International Equity	5.00 (50)	1.19 (38)	0.31 (51)	-1.61 (35)
● FIAM Policy Index	4.83 (44)	0.00 (100)		-1.75 (71)
5th Percentile	3.73	2.17	1.89	-1.32
1st Quartile	4.24	1.47	0.78	-1.56
Median	4.96	1.01	0.34	-1.66
3rd Quartile	5.48	0.70	-0.35	-1.80
95th Percentile	6.28	0.34	-1.22	-2.05

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

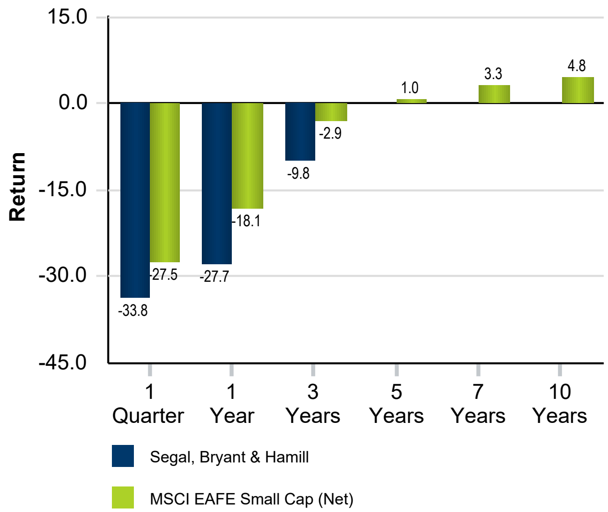
Wilshire Consulting

Performance Summary

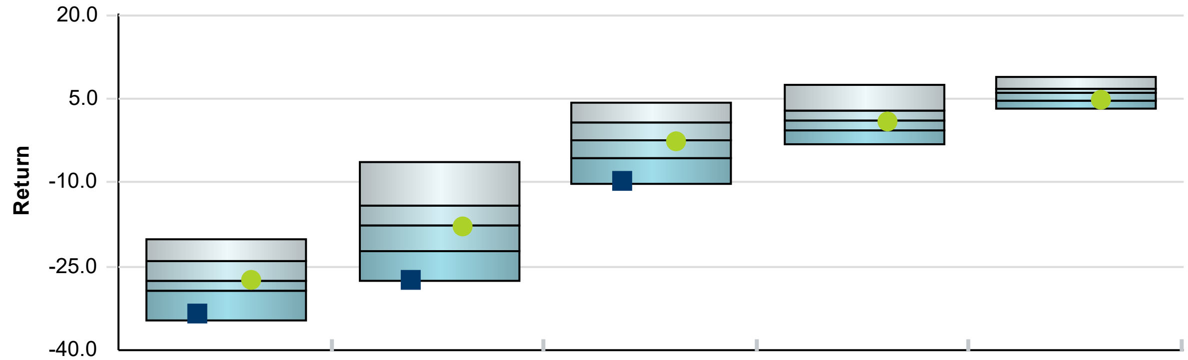
Segal, Bryant & Hamill

Periods Ended March 31, 2020

Comparative Performance

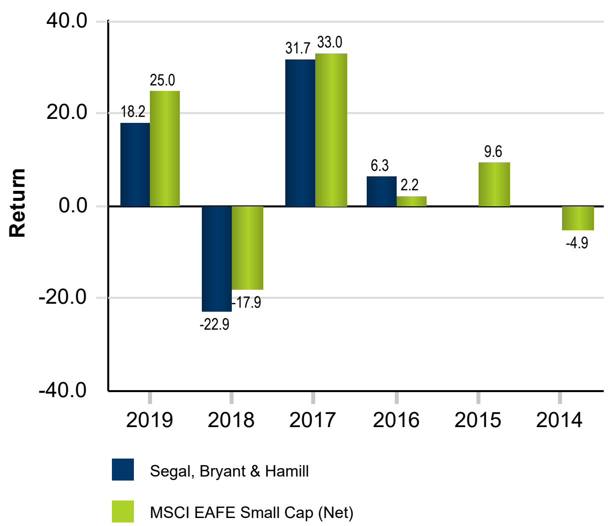


Peer Group Analysis: IM International Small Cap Equity (SA+CF)

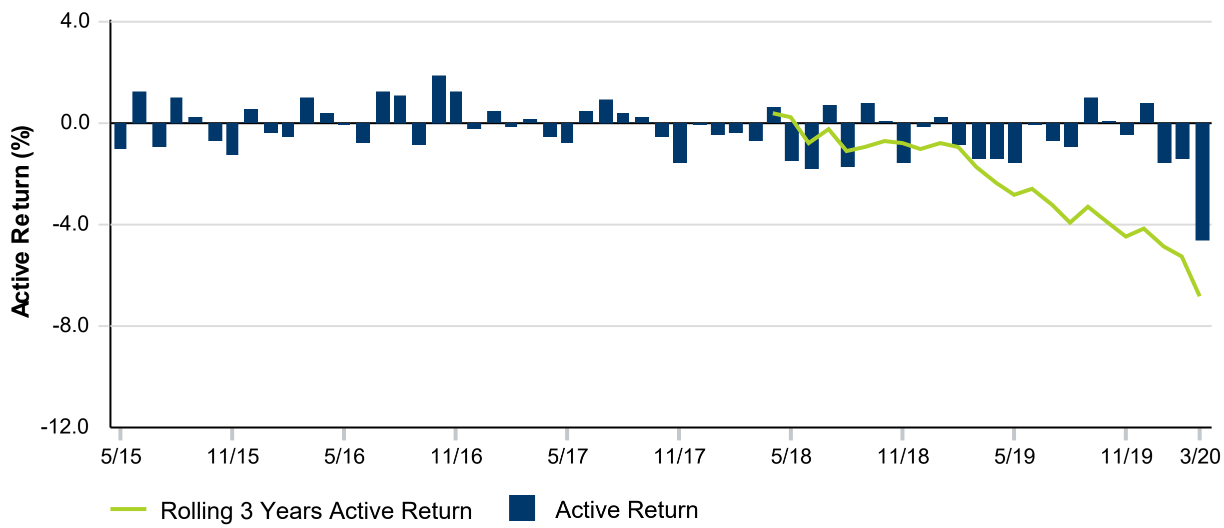


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-33.77 (94)	-27.72 (96)	-9.81 (95)		
Benchmark	-27.52 (51)	-18.15 (55)	-2.88 (54)	0.97 (54)	4.81 (77)
Median	-27.51	-17.51	-2.53	1.16	6.13

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Segal, Bryant & Hamill

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Segal, Bryant & Hamill	MSCI EAFE Small Cap (Net)
Maximum Return	5.18	4.54
Minimum Return	-21.87	-17.24
Return	-27.72	-18.15
Cumulative Return	-27.72	-18.15
Active Return	-10.91	0.00
Excess Return	-30.36	-19.45

Risk Summary Statistics

	Segal, Bryant & Hamill	MSCI EAFE Small Cap (Net)
Upside Risk	2.69	2.58
Downside Risk	26.18	20.89
Beta	1.19	1.00

Risk/Return Summary Statistics

	Segal, Bryant & Hamill	MSCI EAFE Small Cap (Net)
Standard Deviation	26.57	22.17
Alpha	-7.31	0.00
Active Return/Risk	-0.41	0.00
Tracking Error	4.89	0.00
Information Ratio	-2.23	
Sharpe Ratio	-1.14	-0.87

Correlation Statistics

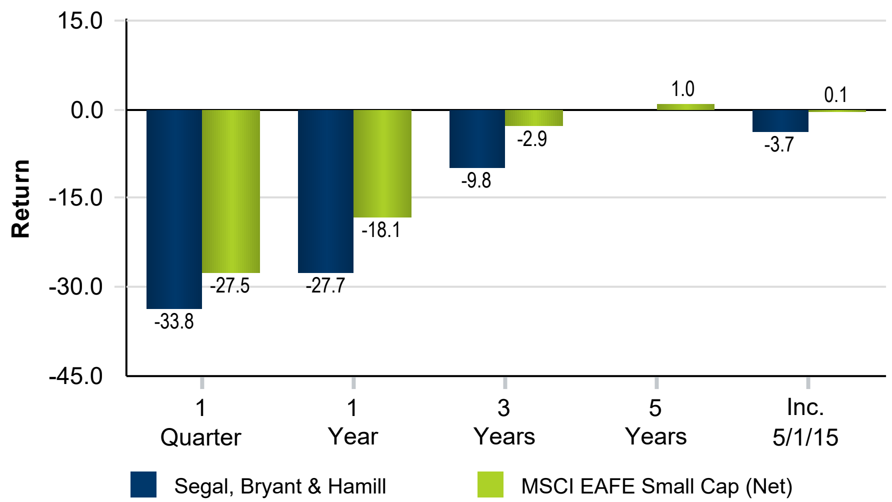
	Segal, Bryant & Hamill	MSCI EAFE Small Cap (Net)
R-Squared	0.99	1.00
Actual Correlation	1.00	1.00

Manager Summary

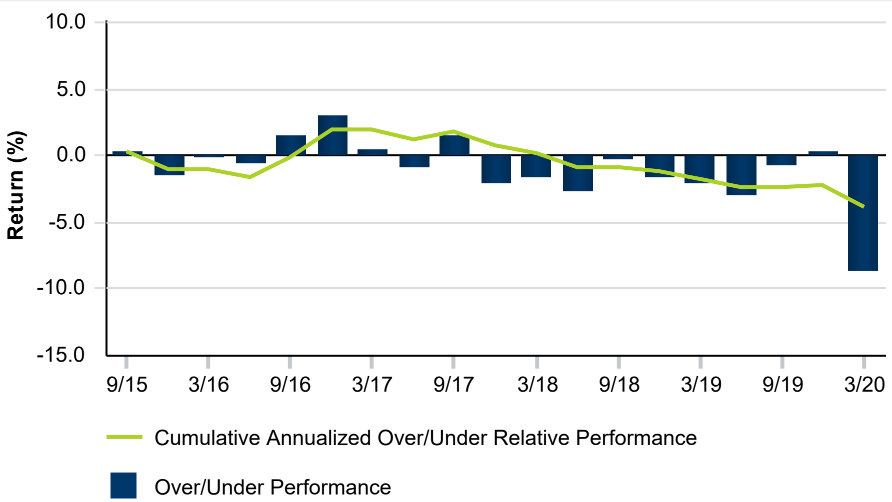
Segal, Bryant & Hamill vs IM International Small Cap Equity (SA+CF)

Periods Ended March 31, 2020

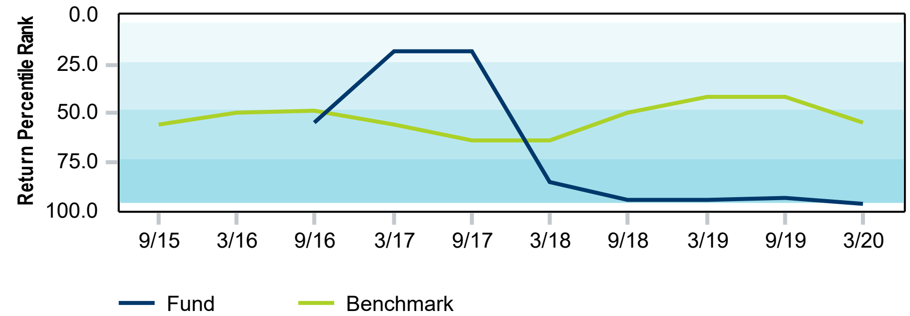
Comparative Performance



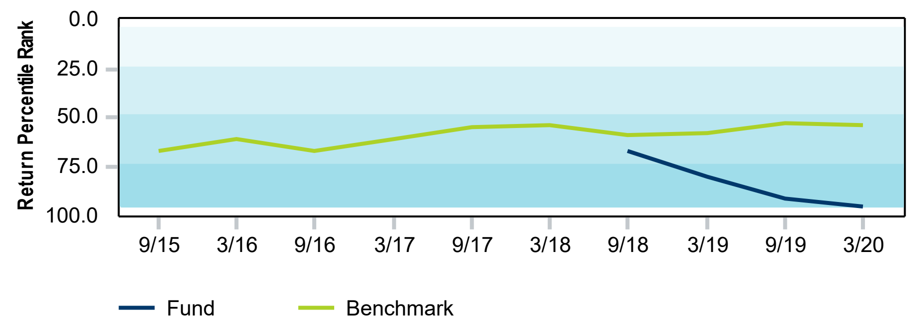
Relative Performance



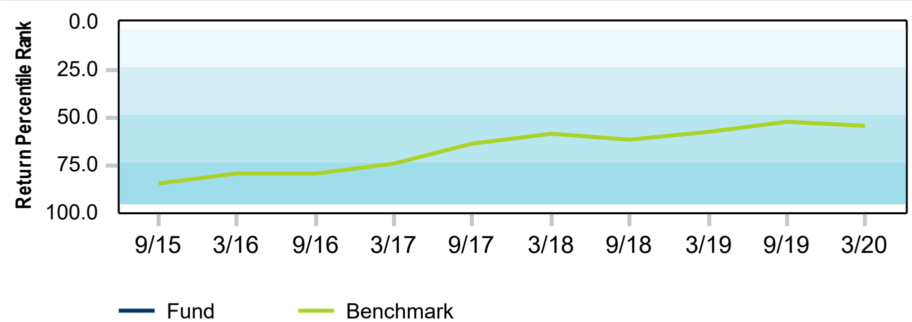
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



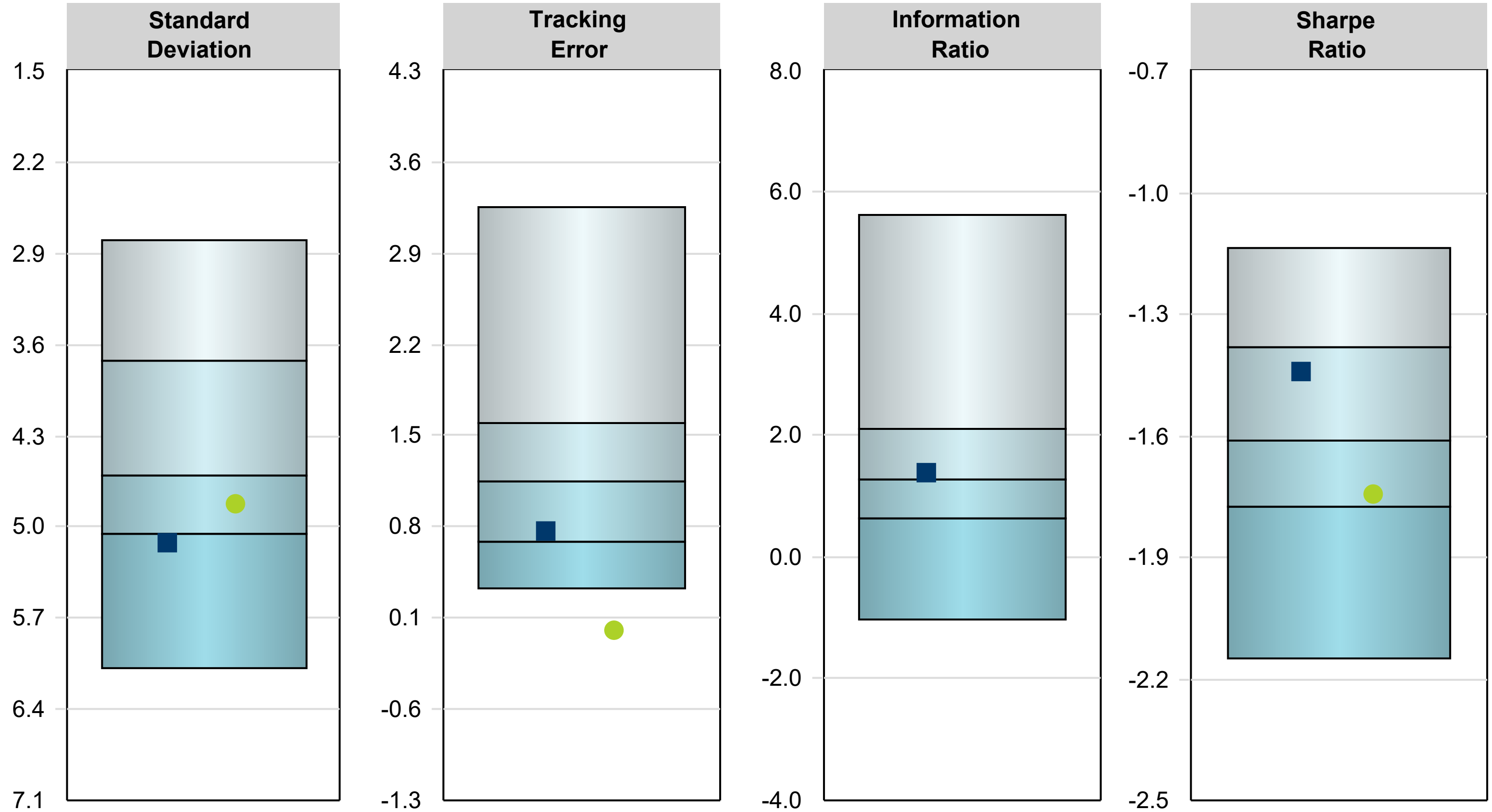
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Baillie Gifford Intl Equity

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
Baillie Gifford Intl Equity	5.12 (75)	0.77 (66)	1.37 (45)	-1.44 (31)
MSCI AC World ex USA (Net)	4.83 (61)	0.00 (100)		-1.75 (71)
5th Percentile	2.79	3.25	5.65	-1.14
1st Quartile	3.72	1.60	2.11	-1.38
Median	4.60	1.14	1.28	-1.61
3rd Quartile	5.05	0.68	0.65	-1.78
95th Percentile	6.08	0.33	-1.04	-2.15

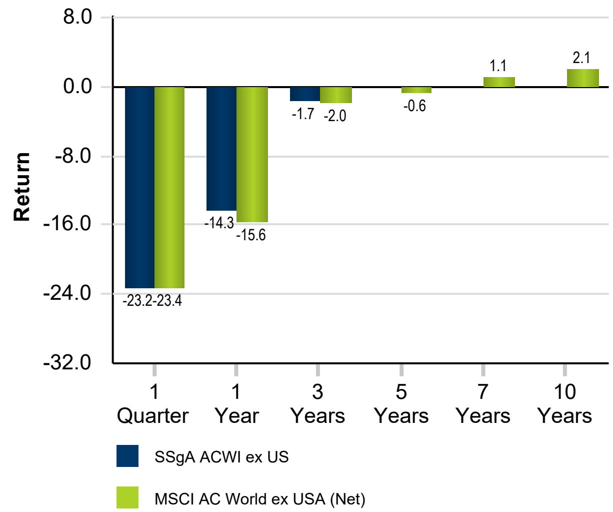
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Performance Summary

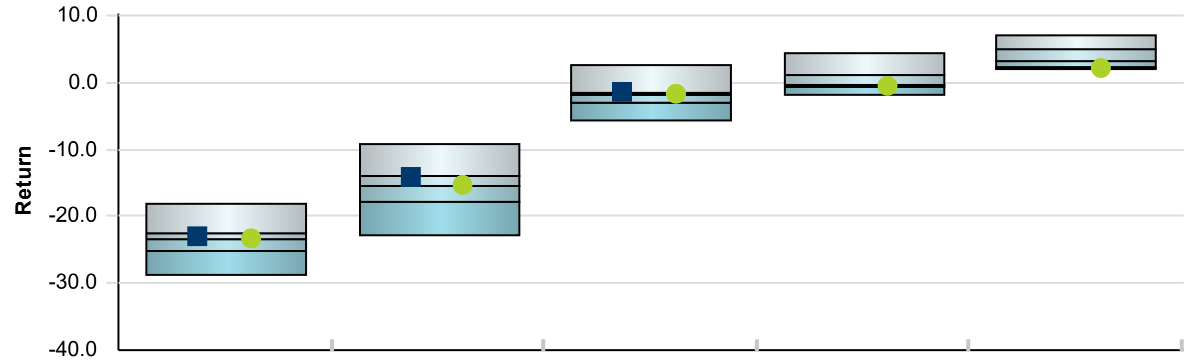
SSgA ACWI ex US

Periods Ended March 31, 2020

Comparative Performance

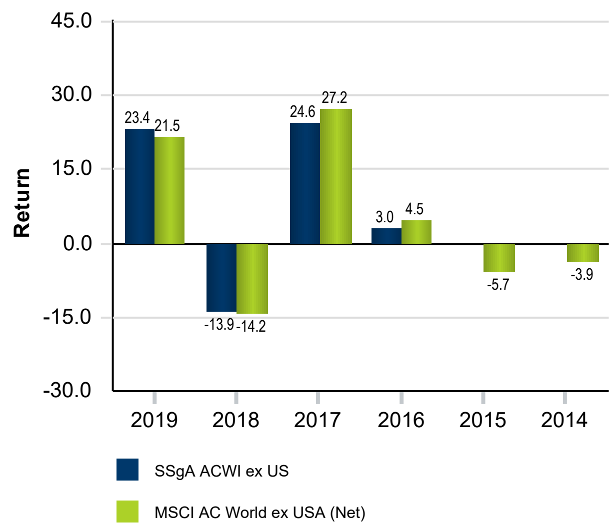


Peer Group Analysis: IM Enhanced and Indexed International Equity (SA+CF)

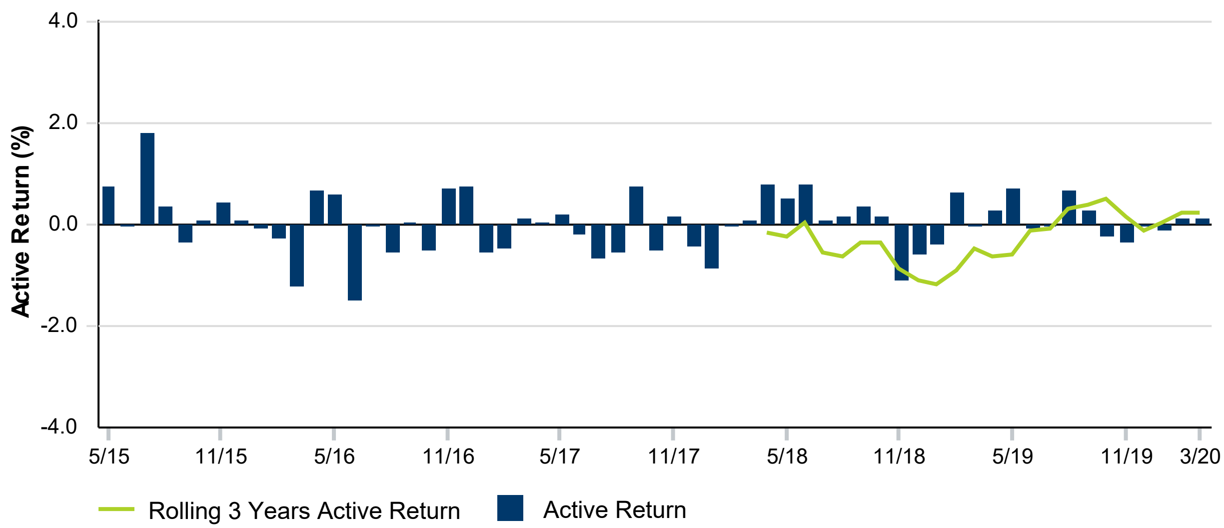


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-23.23 (44)	-14.32 (32)	-1.67 (38)		
Benchmark	-23.36 (54)	-15.57 (52)	-1.96 (59)	-0.64 (78)	2.05 (96)
Median	-23.32	-15.36	-1.83	-0.34	3.08

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

SSgA ACWI ex US

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	SSgA ACWI ex US	MSCI AC World ex USA (Net)
Maximum Return	5.94	6.02
Minimum Return	-14.36	-14.48
Return	-14.32	-15.57
Cumulative Return	-14.32	-15.57
Active Return	1.39	0.00
Excess Return	-15.64	-17.03

Risk Summary Statistics

	SSgA ACWI ex US	MSCI AC World ex USA (Net)
Upside Risk	2.61	2.61
Downside Risk	17.42	17.86
Beta	0.98	1.00

Risk/Return Summary Statistics

	SSgA ACWI ex US	MSCI AC World ex USA (Net)
Standard Deviation	19.24	19.56
Alpha	1.13	0.00
Active Return/Risk	0.07	0.00
Tracking Error	1.07	0.00
Information Ratio	1.29	
Sharpe Ratio	-0.81	-0.87

Correlation Statistics

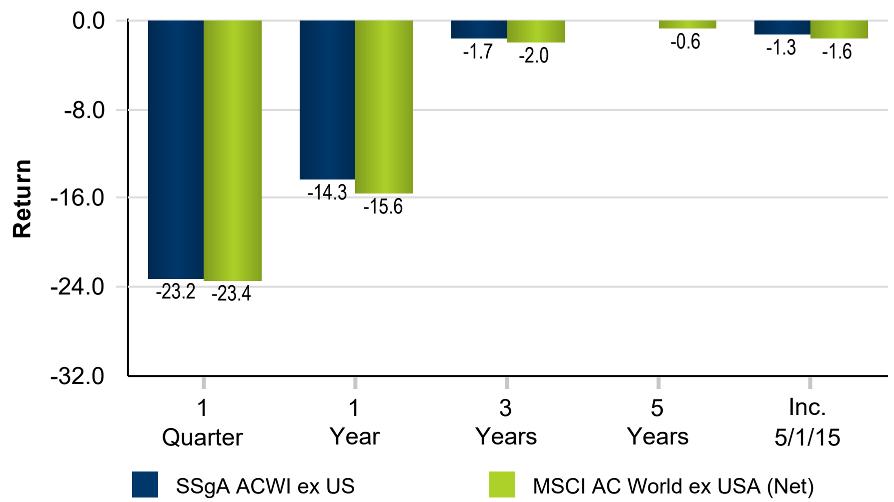
	SSgA ACWI ex US	MSCI AC World ex USA (Net)
R-Squared	1.00	1.00
Actual Correlation	1.00	1.00

Manager Summary

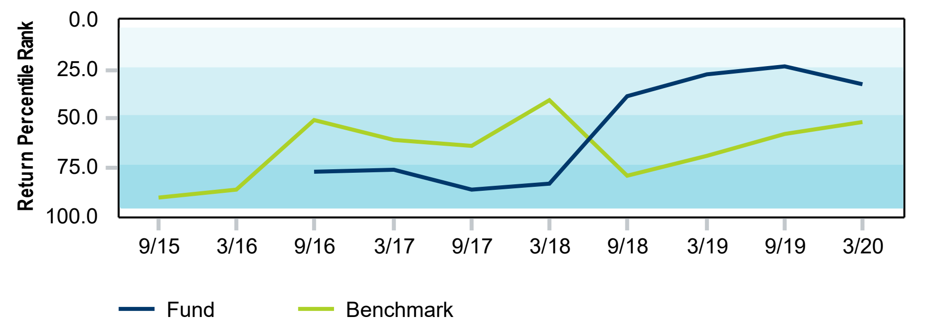
SSgA ACWI ex US vs IM Enhanced and Indexed International Equity (SA+CF)

Periods Ended March 31, 2020

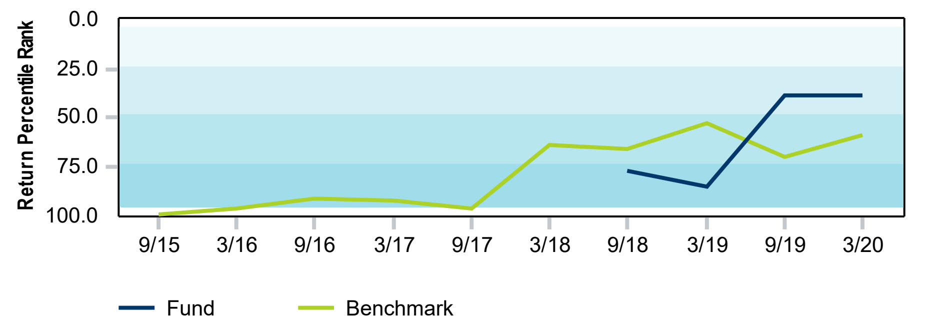
Comparative Performance



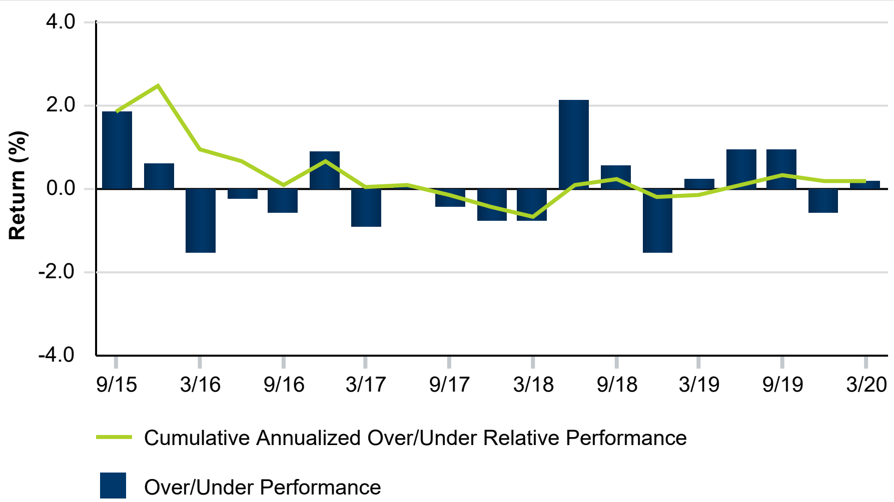
1 Year Rolling Percentile Ranking



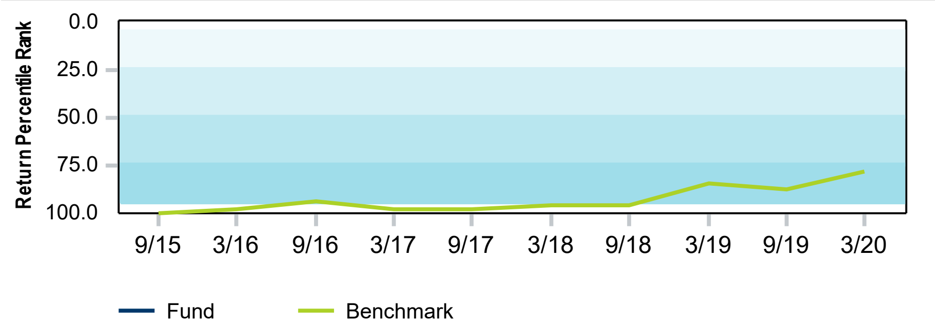
3 Year Rolling Percentile Ranking



Relative Performance



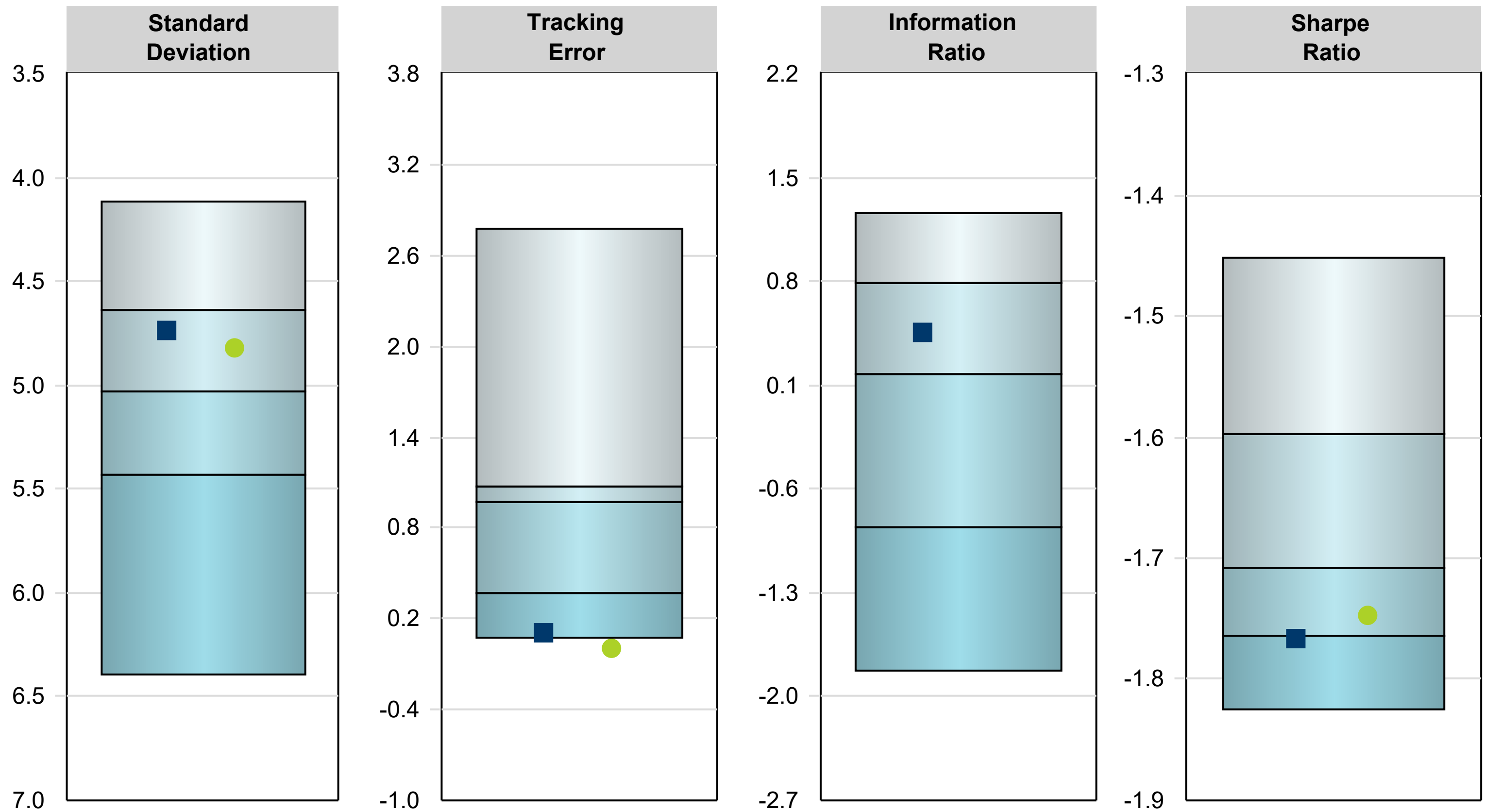
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

SSgA ACWI ex US

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ SSgA ACWI ex US	4.74 (28)	0.10 (91)	0.46 (34)	-1.77 (80)
● MSCI AC World ex USA (Net)	4.83 (39)	0.00 (100)		-1.75 (59)
5th Percentile	4.12	2.78	1.27	-1.45
1st Quartile	4.64	1.08	0.79	-1.60
Median	5.03	0.97	0.17	-1.71
3rd Quartile	5.43	0.36	-0.85	-1.76
95th Percentile	6.39	0.08	-1.83	-1.82

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

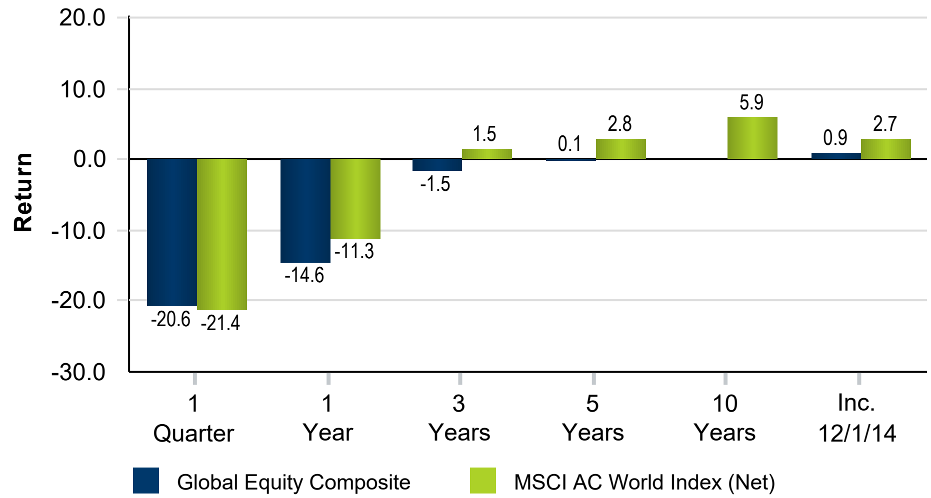
GLOBAL EQUITY

Composite Performance Summary

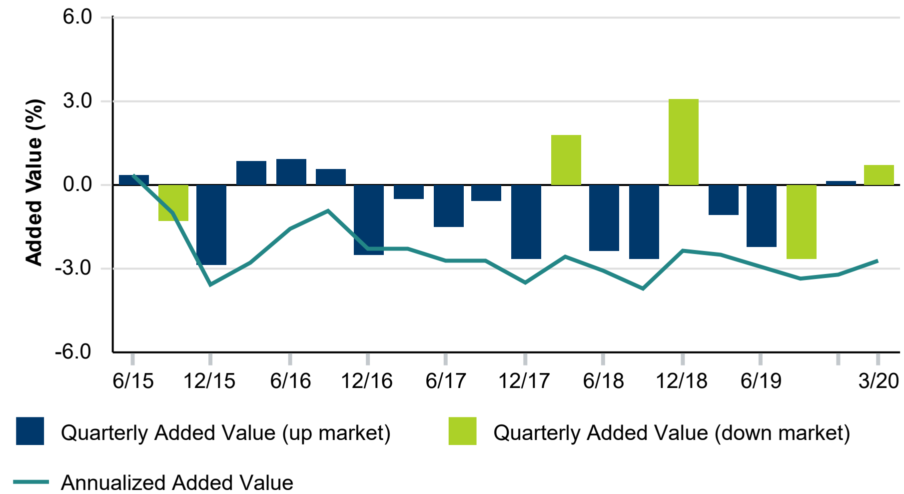
Global Equity Composite

Periods Ended March 31, 2020

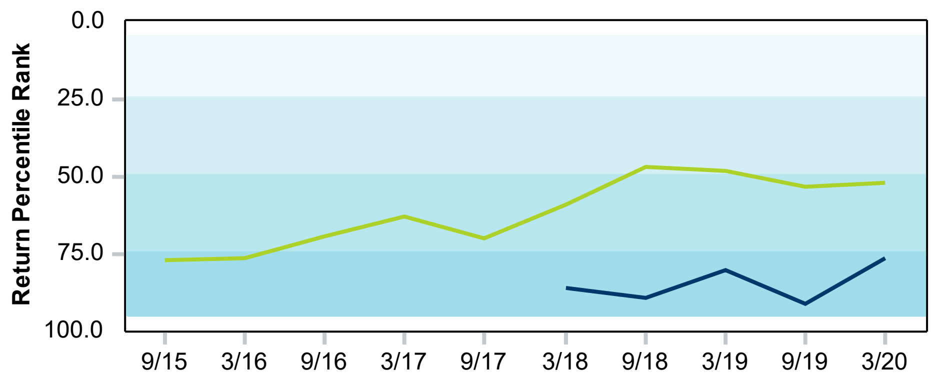
Comparative Performance



Added Value History

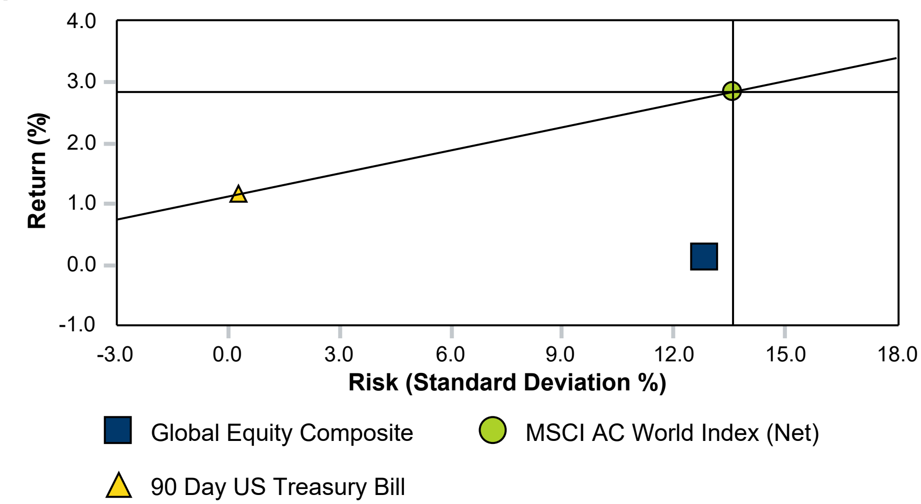


Rolling Percentile Rank: IM Global Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Global Equity Composite	5	0 (0%)	0 (0%)	0 (0%)	5 (100%
Benchmark	10	0 (0%)	2 (20%)	6 (60%)	2 (20%)

Risk and Return 04/1/15 - 03/31/20

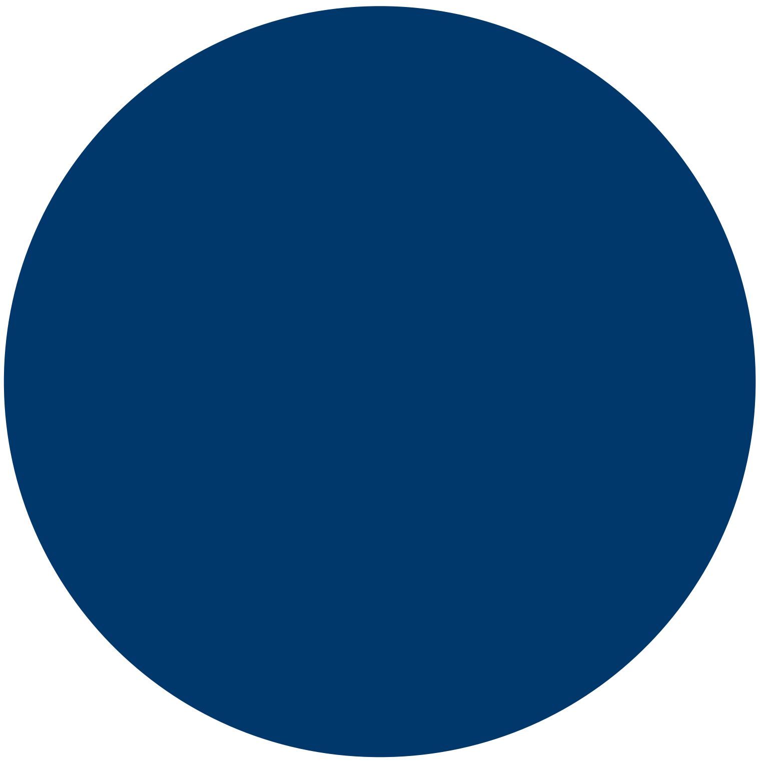


Asset Allocation By Manager

Global Equity Composite

Periods Ended March 31, 2020

Mar-2020 : 983,468

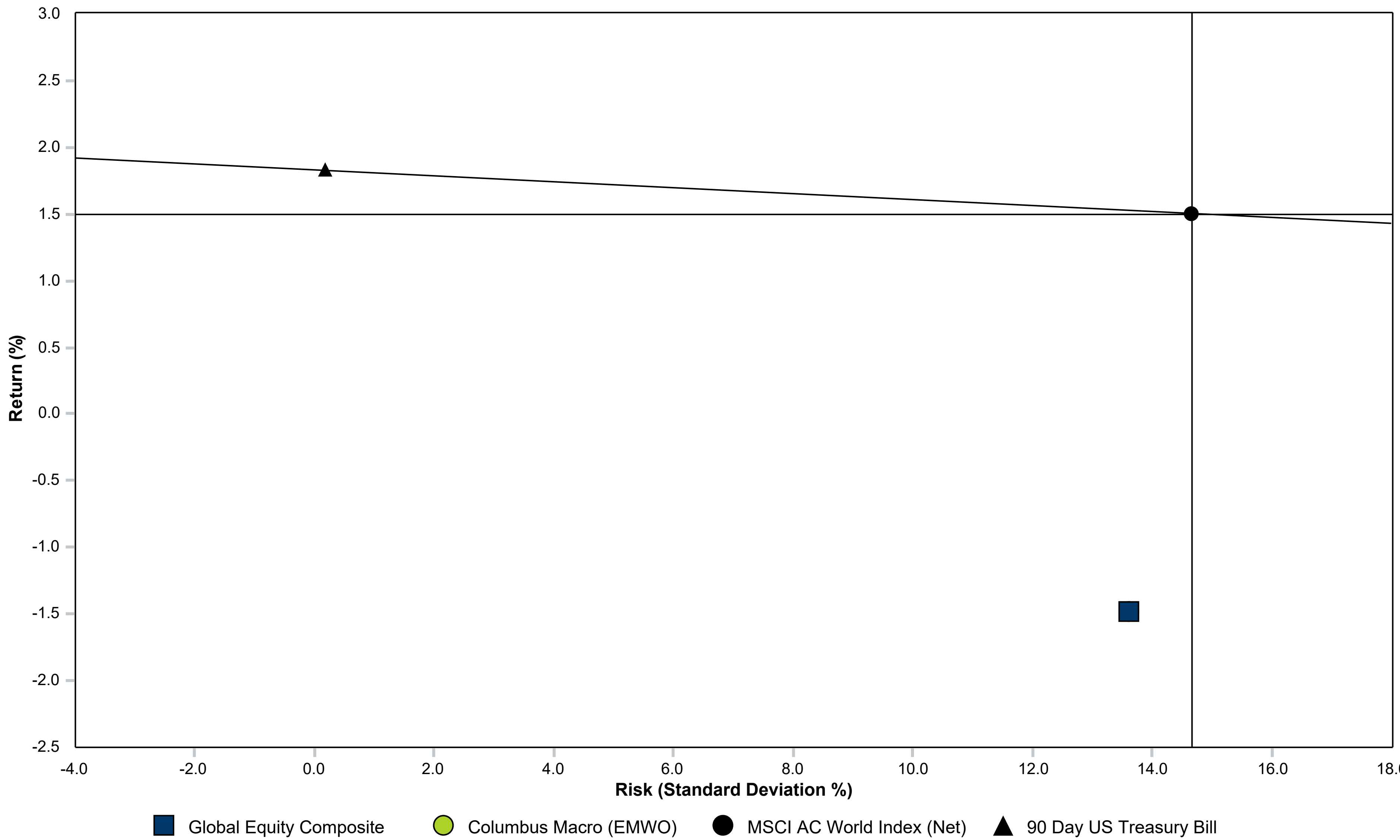


	Market Value $	Allocation (%)
Columbus Macro (EMWO)	983,468	100.0

Risk vs. Return

Global Equity Composite

Periods Ended 3 Years Ending March 31, 2020



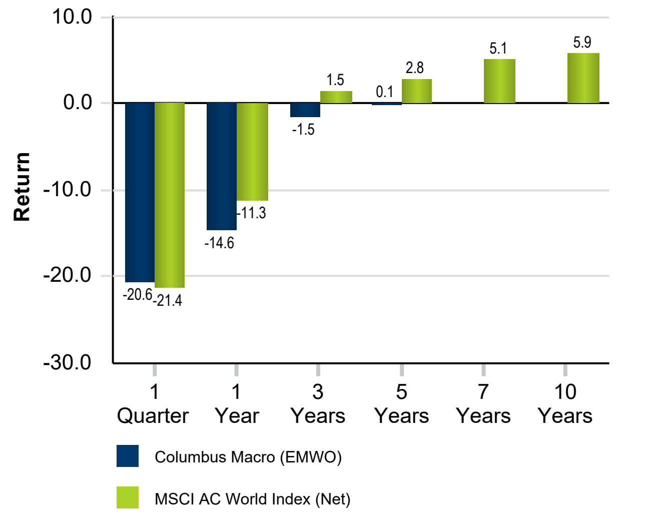
Calculation based on monthly periodicity.

Performance Summary

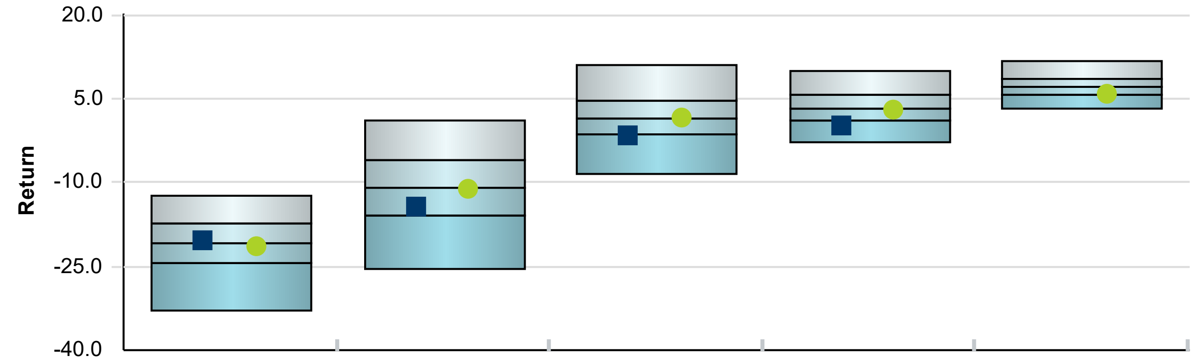
Columbus Macro (EMWO)

Periods Ended March 31, 2020

Comparative Performance

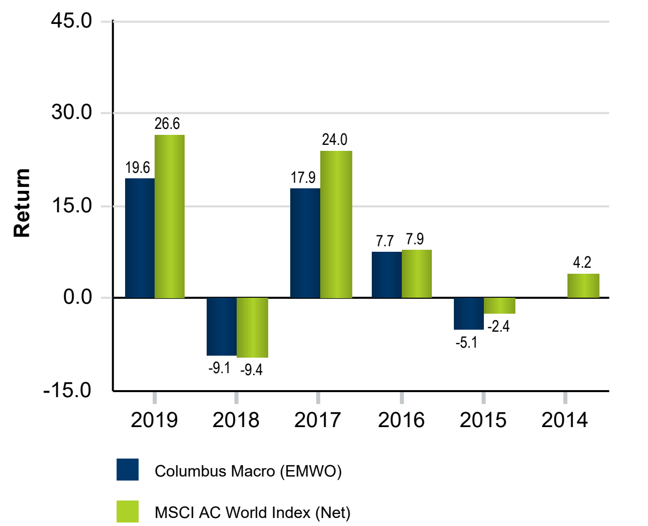


Peer Group Analysis: IM Global Equity (SA+CF)

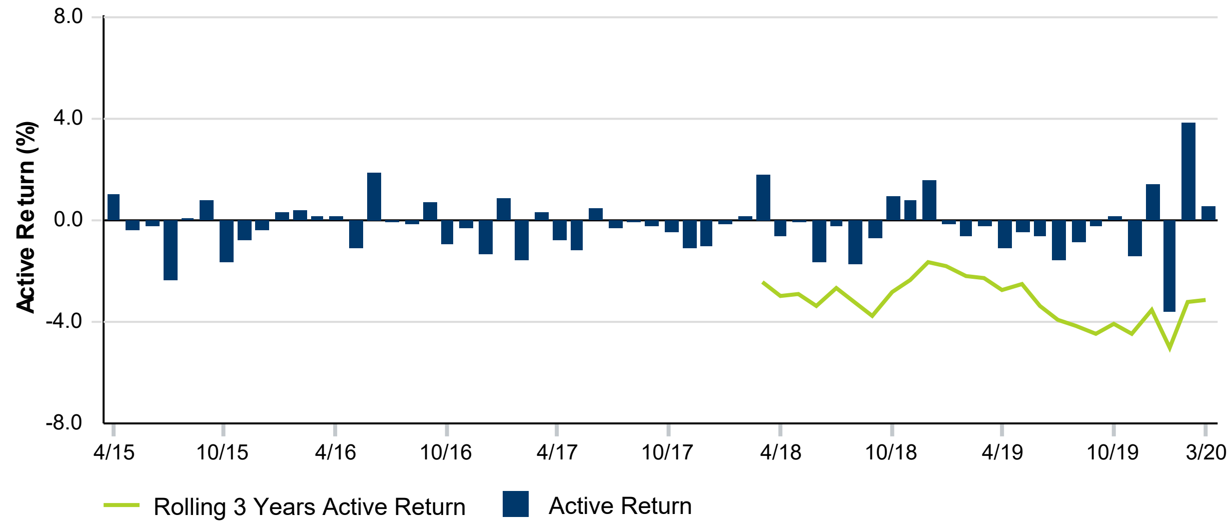


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-20.64 (47)	-14.57 (71)	-1.49 (76)	0.13 (83)	
Benchmark	-21.37 (55)	-11.26 (52)	1.50 (52)	2.85 (56)	5.88 (76)
Median	-20.95	-11.05	1.62	3.23	7.25

Comparative Performance



Rolling 3 Years Performance



Wilshire Consulting

Summary Statistics

Columbus Macro (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Columbus Macro (EMWO)	MSCI AC World Index (Net)
Maximum Return	5.88	6.55
Minimum Return	-12.98	-13.50
Return	-14.57	-11.26
Cumulative Return	-14.57	-11.26
Active Return	-4.00	0.00
Excess Return	-16.19	-12.20

Risk Summary Statistics

	Columbus Macro (EMWO)	MSCI AC World Index (Net)
Upside Risk	2.54	2.66
Downside Risk	16.18	17.02
Beta	0.89	1.00

Risk/Return Summary Statistics

	Columbus Macro (EMWO)	MSCI AC World Index (Net)
Standard Deviation	17.97	19.13
Alpha	-4.96	0.00
Active Return/Risk	-0.22	0.00
Tracking Error	5.99	0.00
Information Ratio	-0.67	
Sharpe Ratio	-0.90	-0.64

Correlation Statistics

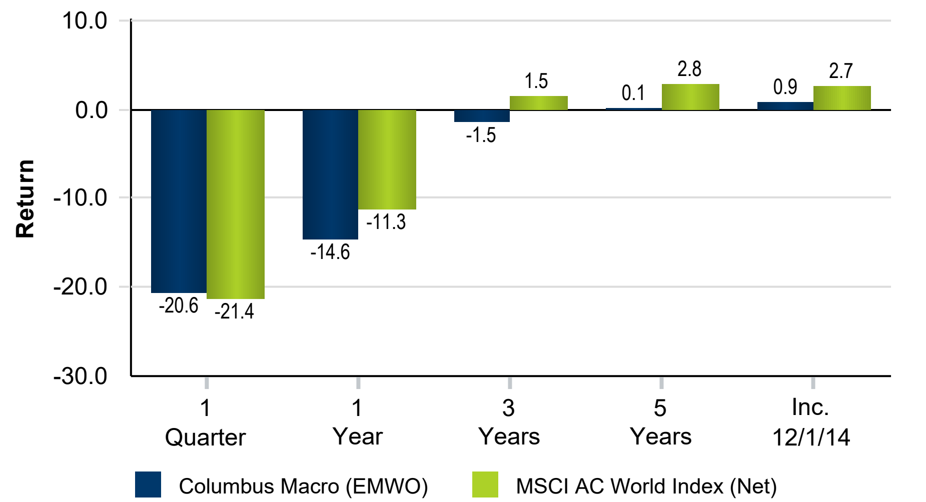
	Columbus Macro (EMWO)	MSCI AC World Index (Net)
R-Squared	0.90	1.00
Actual Correlation	0.95	1.00

Manager Summary

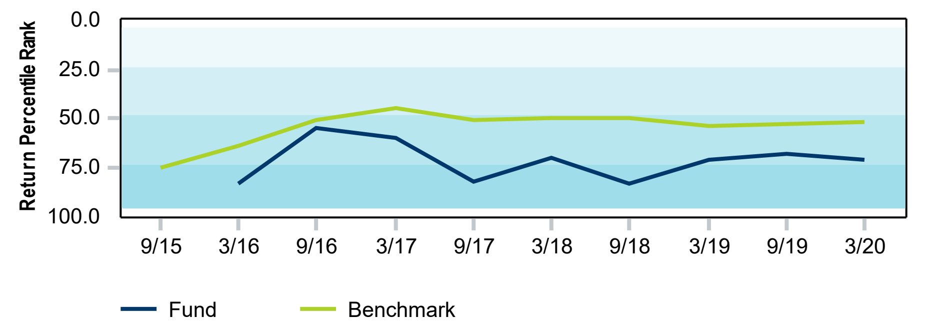
Columbus Macro (EMWO) vs IM Global Equity (SA+CF)

Periods Ended March 31, 2020

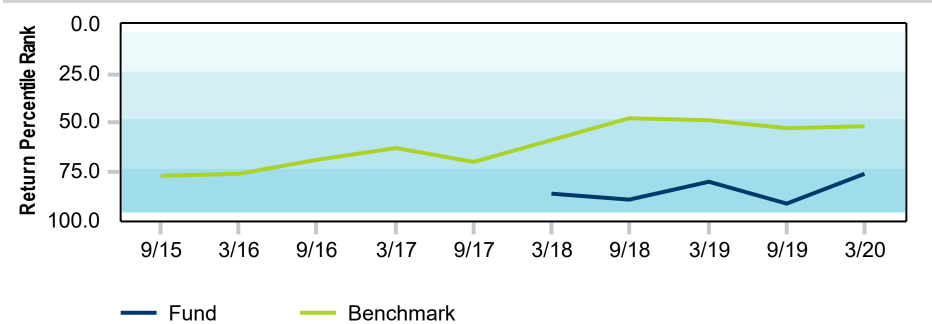
Comparative Performance



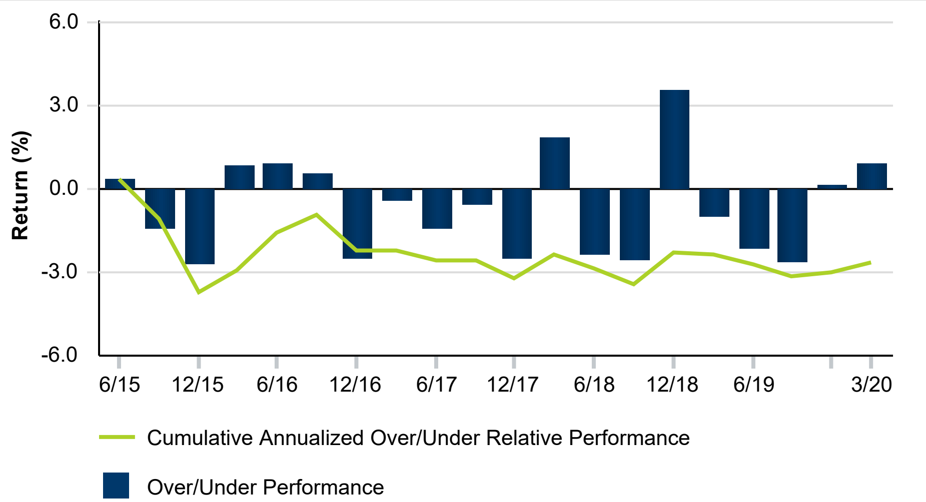
1 Year Rolling Percentile Ranking



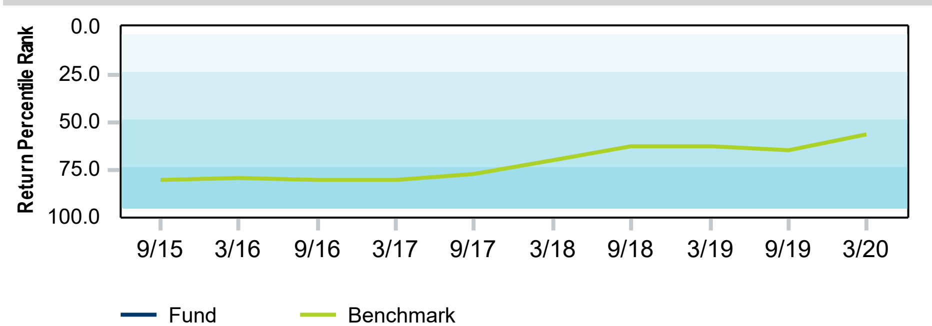
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking

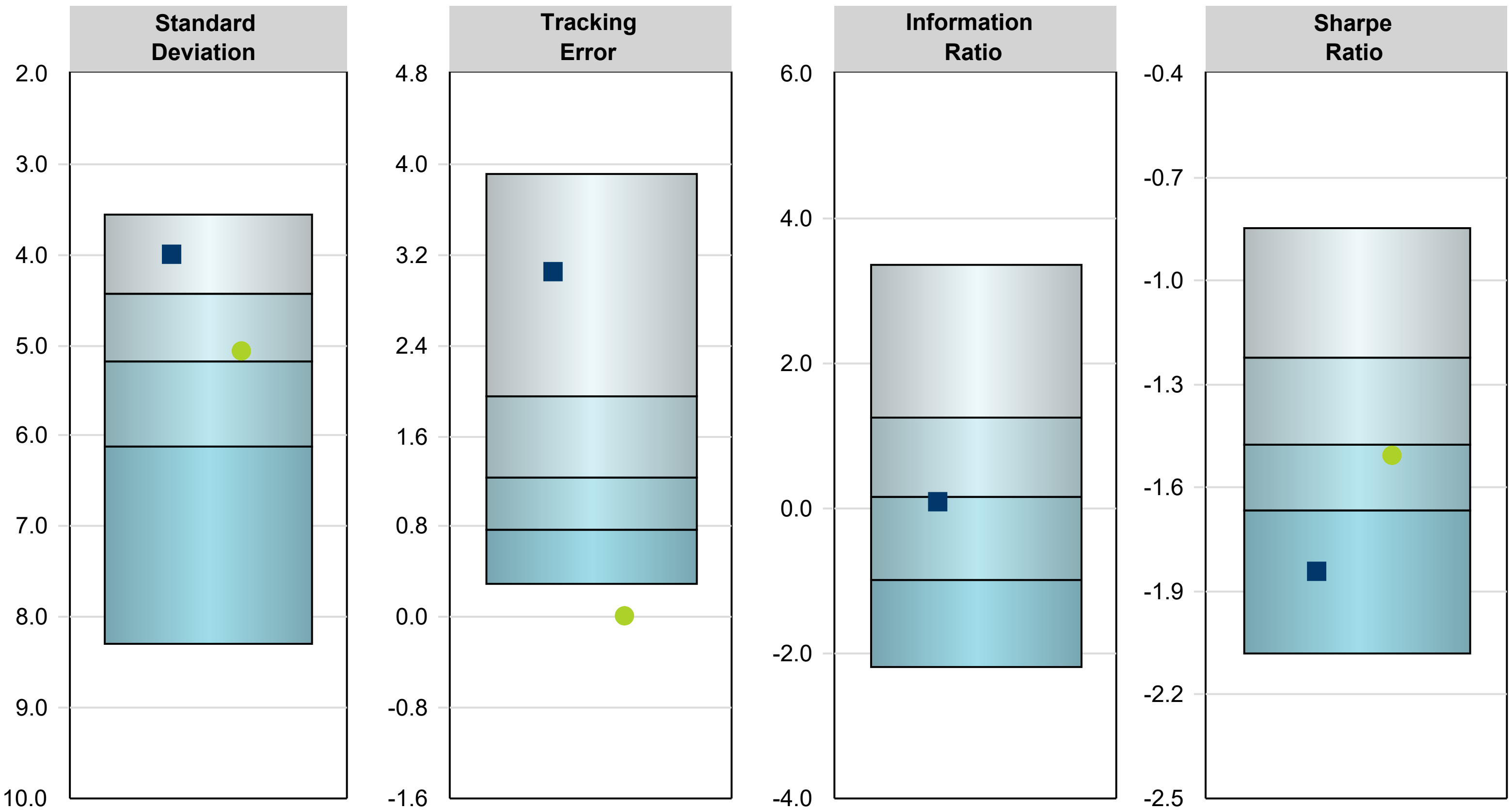


Wilshire Consulting

Peer Group Analysis - Multi Statistics

Columbus Macro (EMWO)

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ Columbus Macro (EMWO)	4.00 (14)	3.05 (10)	0.08 (53)	-1.85 (89)
● MSCI AC World Index (Net)	5.07 (47)	0.00 (100)		-1.51 (55)
5th Percentile	3.56	3.92	3.37	-0.85
1st Quartile	4.43	1.96	1.26	-1.22
Median	5.17	1.23	0.17	-1.48
3rd Quartile	6.12	0.78	-0.99	-1.66
95th Percentile	8.29	0.30	-2.20	-2.08

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

CORE FIXED INCOME

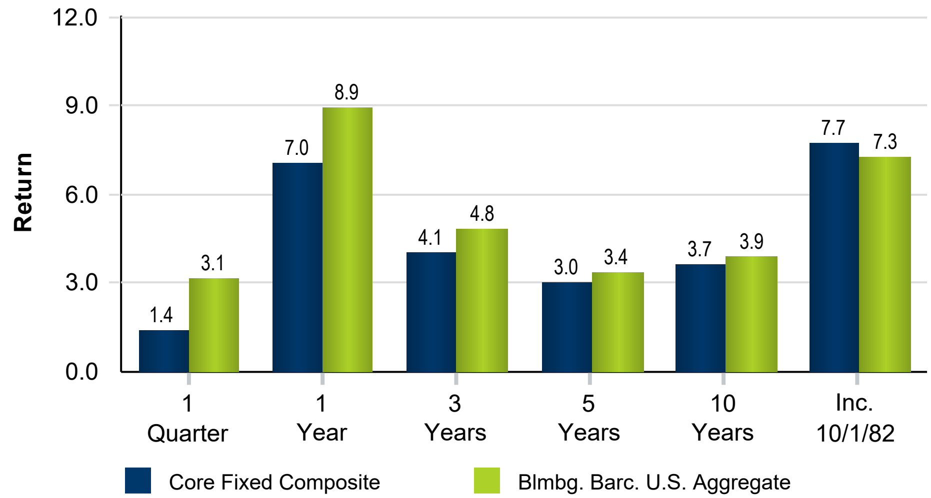
Wilshire

Composite Performance Summary

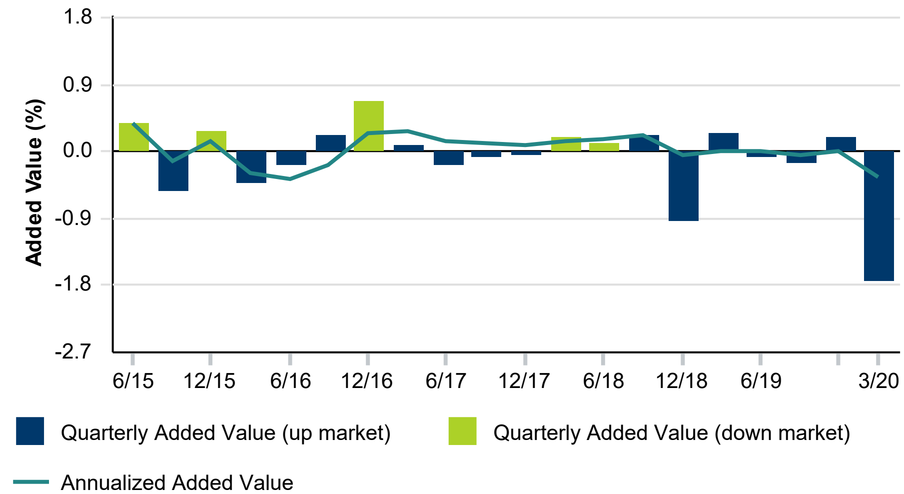
Core Fixed Composite

Periods Ended March 31, 2020

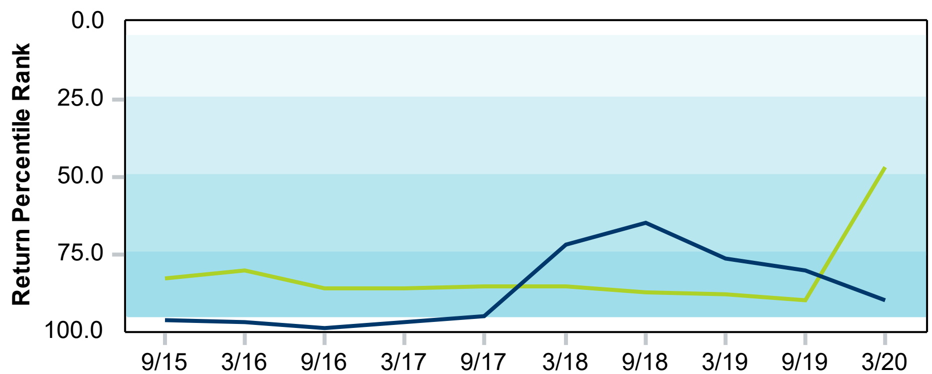
Comparative Performance



Added Value History

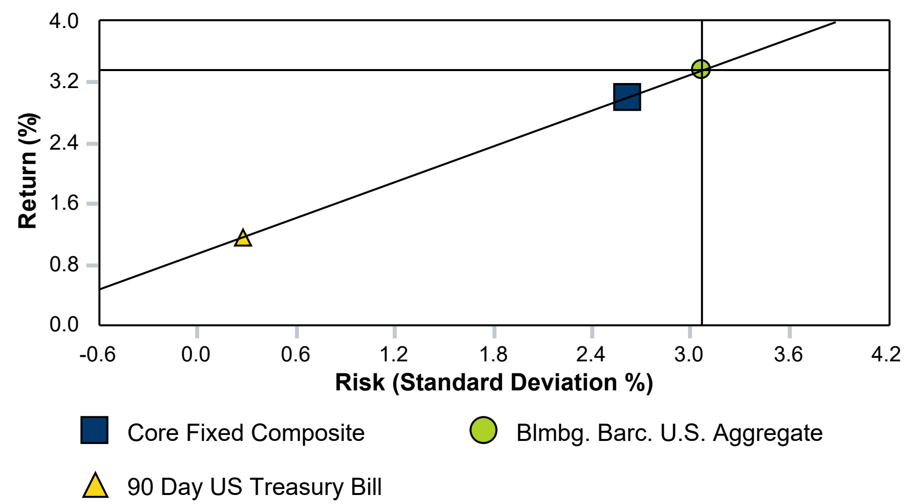


Rolling Percentile Rank: IM U.S. Broad Market Core Fixed Income (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Core Fixed Composite	10	0 (0%)	0 (0%)	2 (20%)	8 (80%)
Benchmark	10	0 (0%)	1 (10%)	0 (0%)	9 (90%)

Risk and Return 04/1/15 - 03/31/20

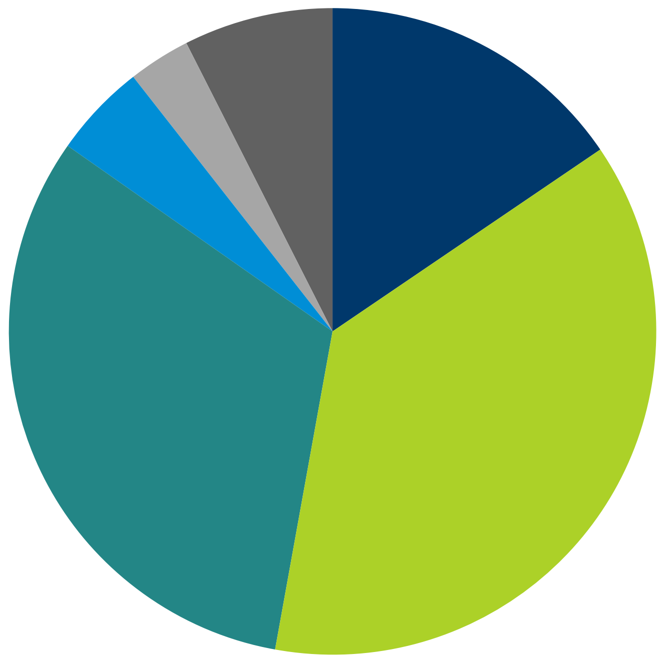


Asset Allocation By Manager

Core Fixed Composite

Periods Ended March 31, 2020

Mar-2020 : 87,330,406

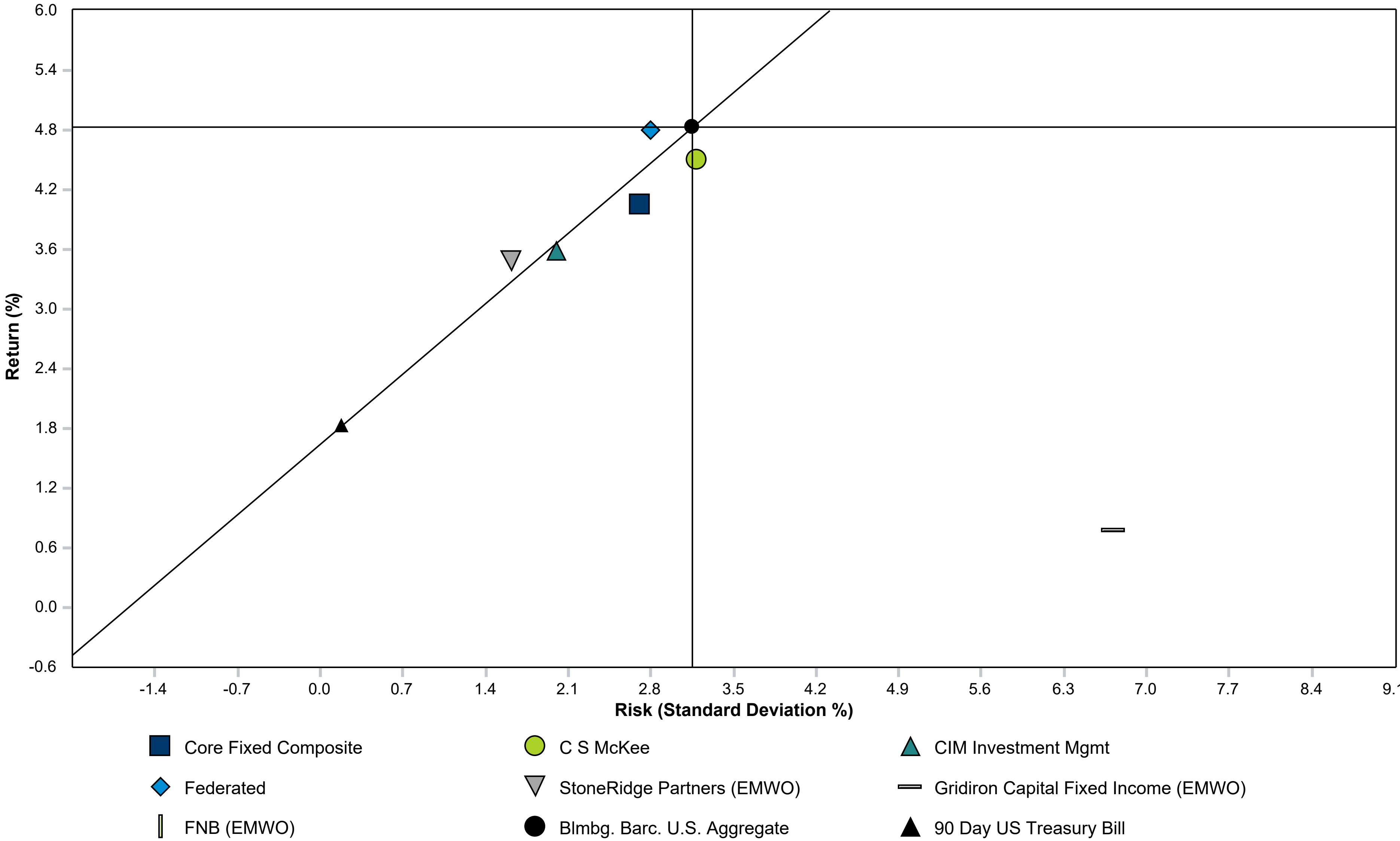


	Market Value $	Allocation (%)
CIM Investment Mgmt	13,529,209	15.5
C S McKee	32,615,933	37.3
Federated	27,855,261	31.9
Gridiron Capital Fixed Income (EMWO)	4,106,755	4.7
FNB (EMWO)	2,706,283	3.1
StoneRidge Partners (EMWO)	6,516,965	7.5

Risk vs. Return

Core Fixed Composite

Periods Ended 3 Years Ending March 31, 2020



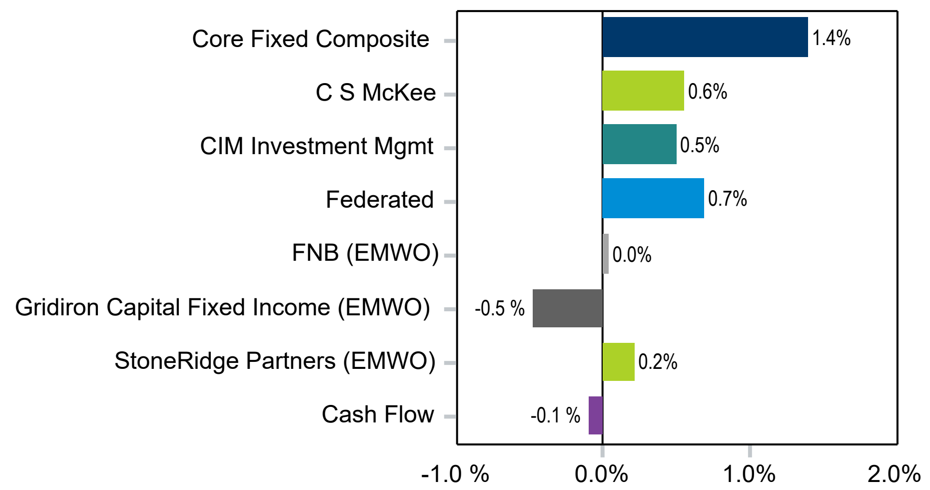
Calculation based on monthly periodicity.

Return and Risk Contribution

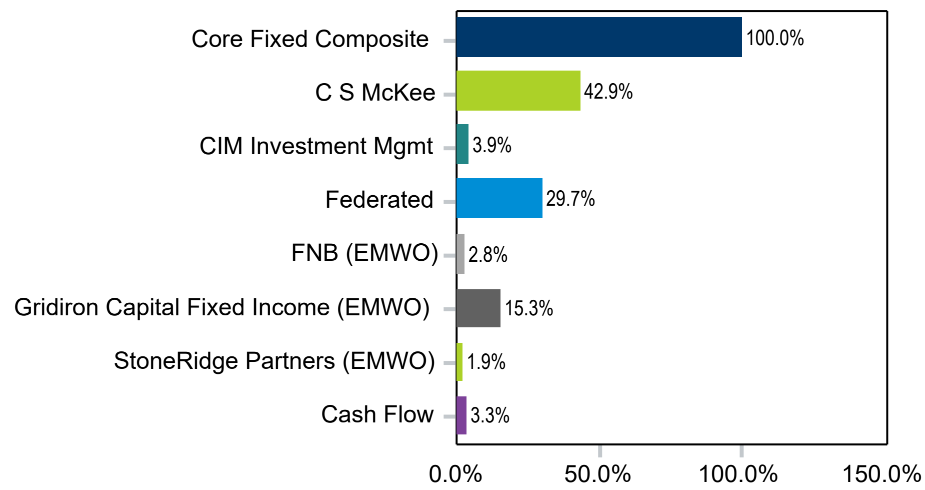
Core Fixed Composite

Periods Ended 1 Quarter March 31, 2020

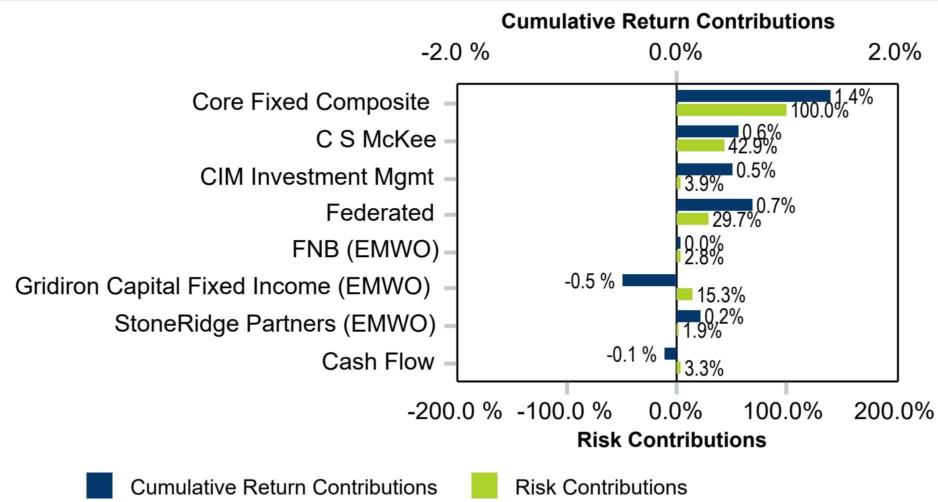
Cumulative Return Contributions



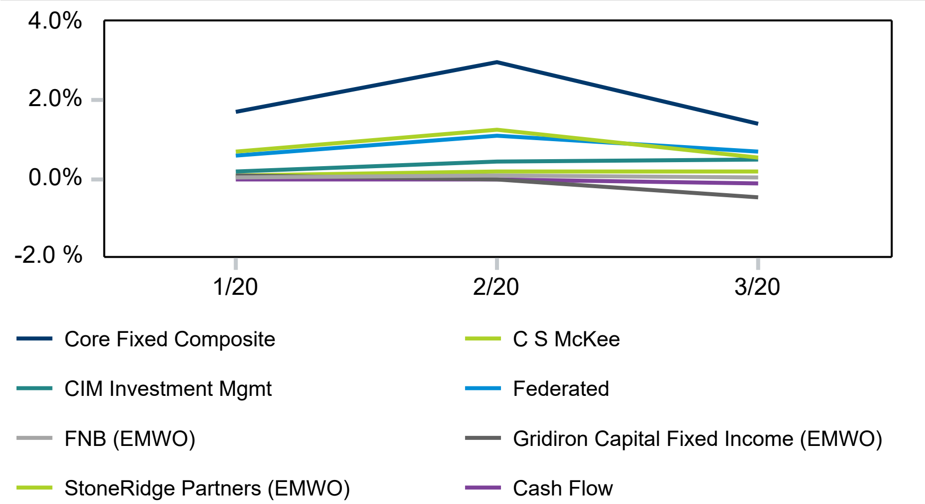
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History

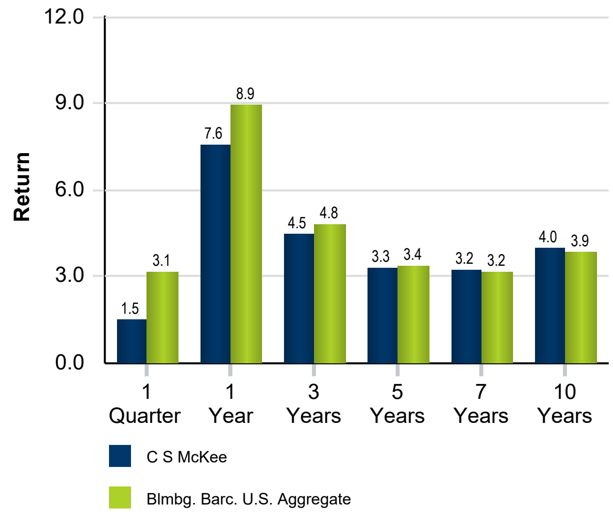


Performance Summary

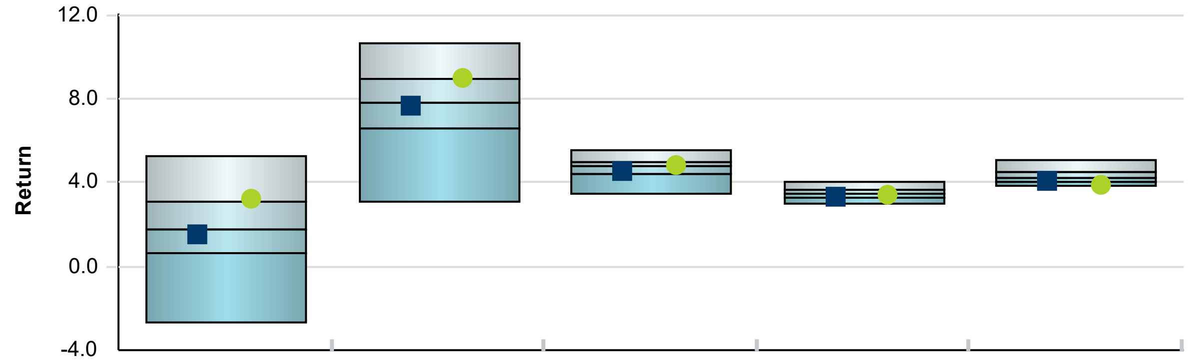
C S McKee

Periods Ended March 31, 2020

Comparative Performance

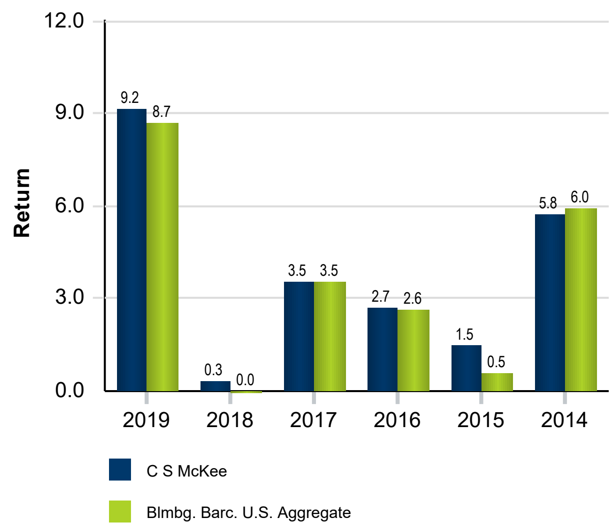


Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)

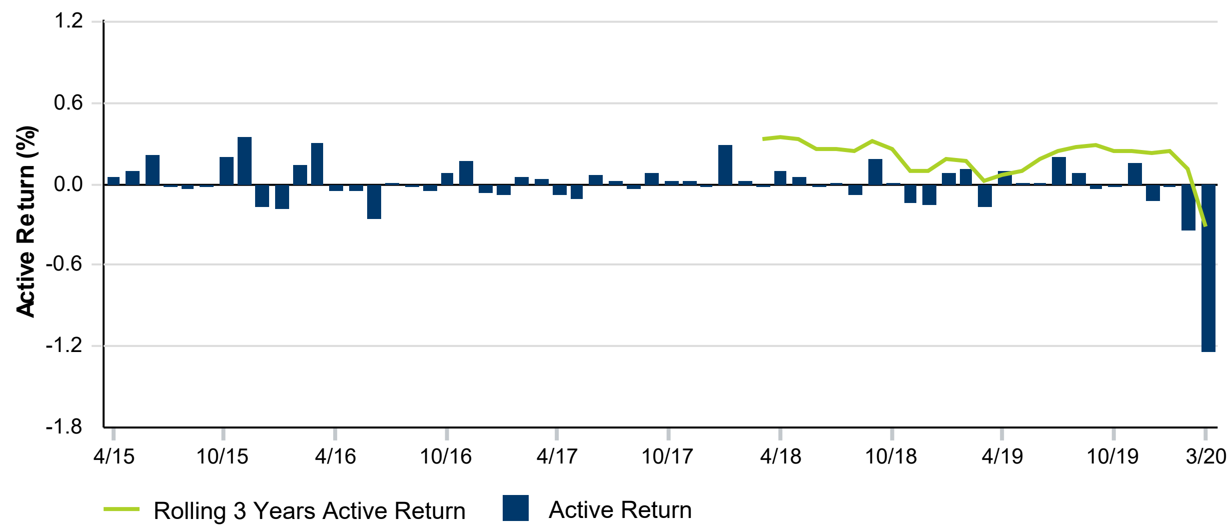


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	1.51 (59)	7.61 (57)	4.50 (72)	3.32 (78)	4.00 (78)
Benchmark	3.15 (25)	8.93 (27)	4.82 (47)	3.36 (72)	3.88 (91)
Median	1.73	7.83	4.77	3.47	4.26

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

C S McKee

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	C S McKee	Blmbg. Barc. U.S. Aggregate
Maximum Return	2.67	2.59
Minimum Return	-1.82	-0.59
Return	7.61	8.93
Cumulative Return	7.61	8.93
Active Return	-1.21	0.00
Excess Return	5.21	6.42

Risk Summary Statistics

	C S McKee	Blmbg. Barc. U.S. Aggregate
Upside Risk	1.22	1.24
Downside Risk	1.92	0.80
Beta	1.10	1.00

Risk/Return Summary Statistics

	C S McKee	Blmbg. Barc. U.S. Aggregate
Standard Deviation	4.13	3.60
Alpha	-2.03	0.00
Active Return/Risk	-0.29	0.00
Tracking Error	1.28	0.00
Information Ratio	-0.95	
Sharpe Ratio	1.25	1.78

Correlation Statistics

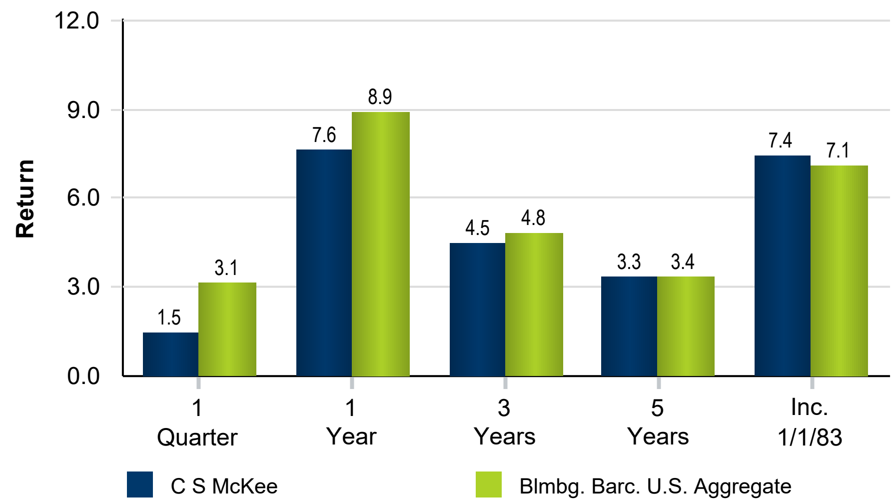
	C S McKee	Blmbg. Barc. U.S. Aggregate
R-Squared	0.91	1.00
Actual Correlation	0.95	1.00

Manager Summary

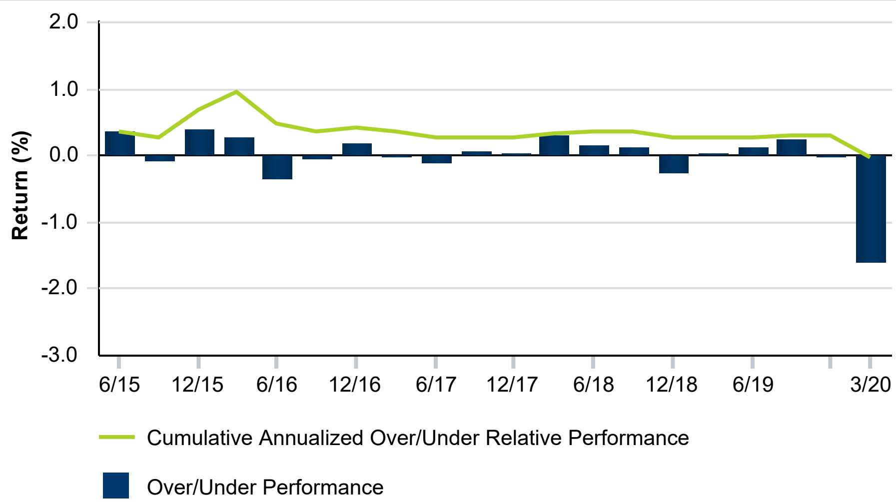
C S McKee vs IM U.S. Broad Market Core Fixed Income (SA+CF)

Periods Ended March 31, 2020

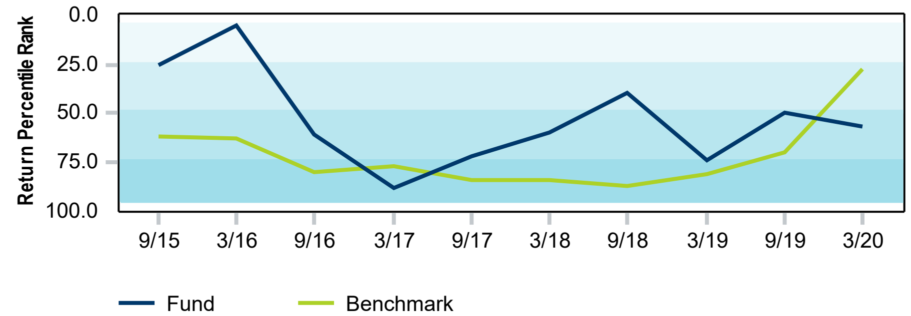
Comparative Performance



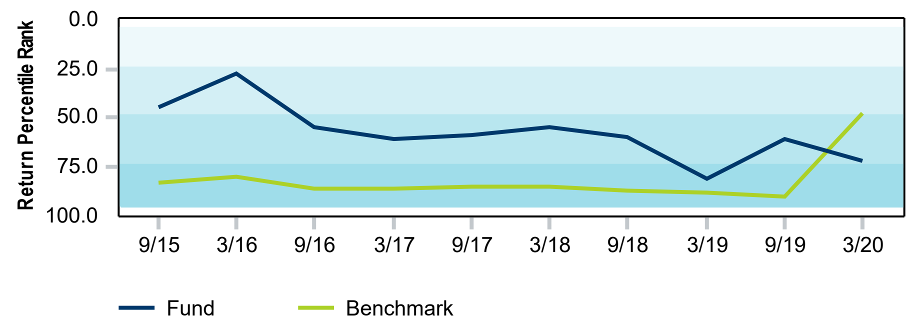
Relative Performance



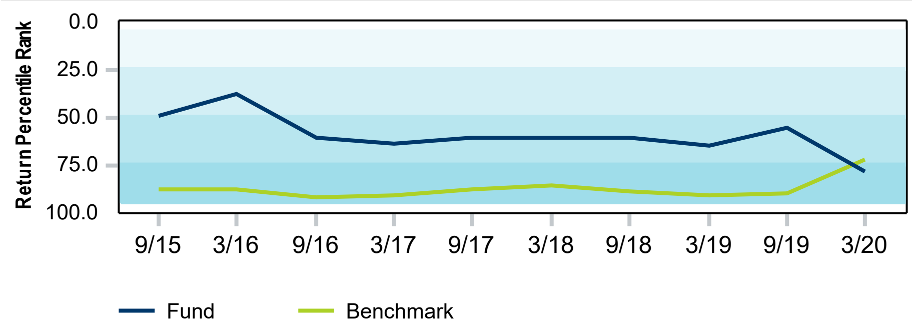
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

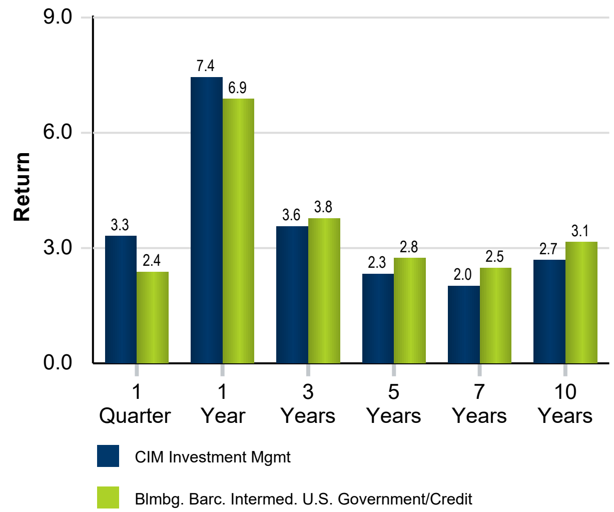


Performance Summary

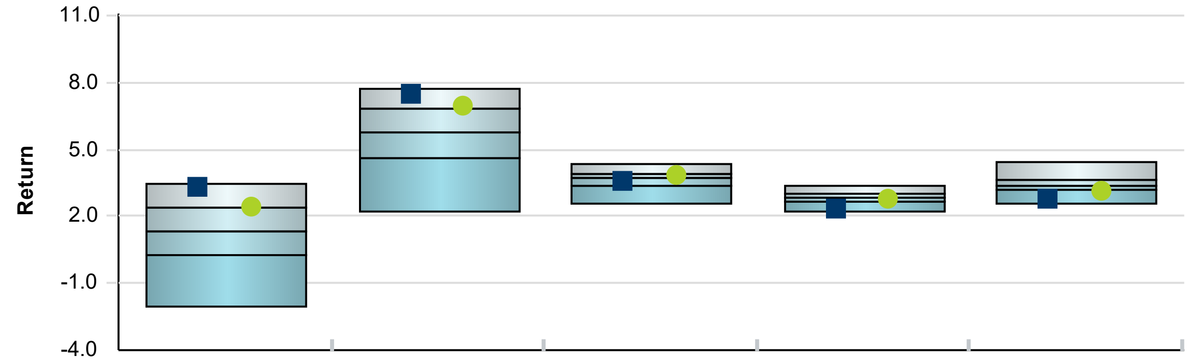
CIM Investment Mgmt

Periods Ended March 31, 2020

Comparative Performance

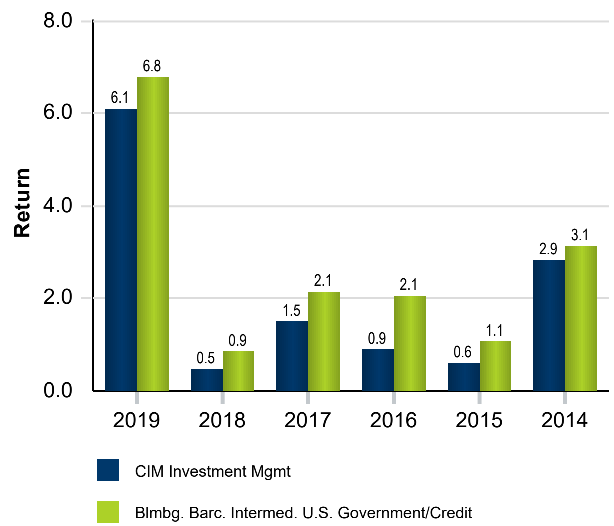


Peer Group Analysis: IM U.S. Intermediate Duration (SA+CF)

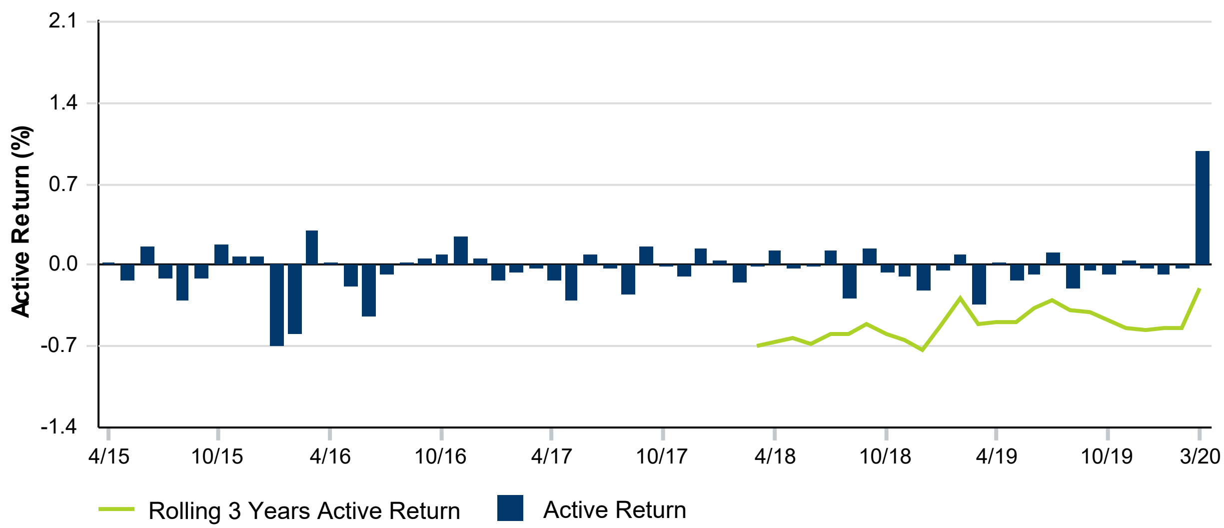


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	3.30 (9)	7.43 (8)	3.59 (59)	2.33 (91)	2.71 (94)
Benchmark	2.40 (24)	6.88 (21)	3.79 (44)	2.76 (64)	3.14 (82)
Median	1.30	5.76	3.72	2.83	3.38

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

CIM Investment Mgmt

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	CIM Investment Mgmt	Blmbg. Barc. Intermed. U.S. Government/Credit
Maximum Return	1.57	1.77
Minimum Return	-0.40	-0.44
Return	7.43	6.88
Cumulative Return	7.43	6.88
Active Return	0.50	0.00
Excess Return	4.98	4.48

Risk Summary Statistics

	CIM Investment Mgmt	Blmbg. Barc. Intermed. U.S. Government/Credit
Upside Risk	0.87	0.92
Downside Risk	0.41	0.59
Beta	0.78	1.00

Risk/Return Summary Statistics

	CIM Investment Mgmt	Blmbg. Barc. Intermed. U.S. Government/Credit
Standard Deviation	2.20	2.61
Alpha	2.02	0.00
Active Return/Risk	0.23	0.00
Tracking Error	1.02	0.00
Information Ratio	0.49	
Sharpe Ratio	2.29	1.70

Correlation Statistics

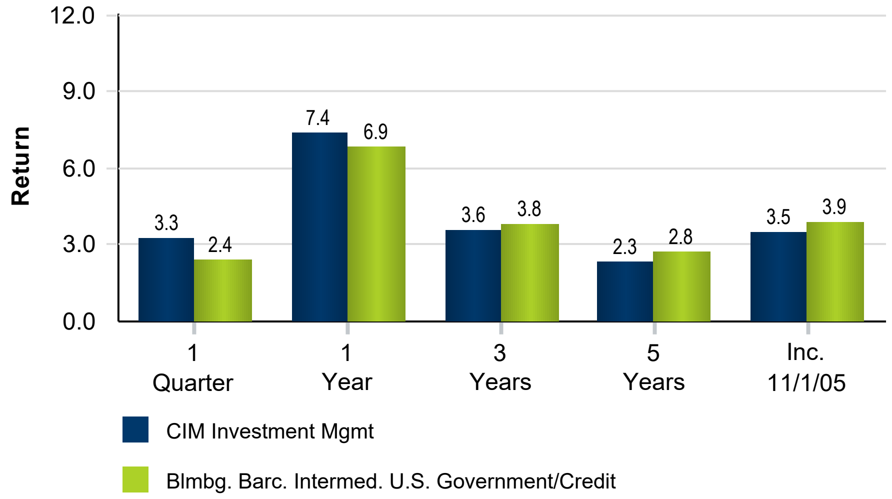
	CIM Investment Mgmt	Blmbg. Barc. Intermed. U.S. Government/Credit
R-Squared	0.85	1.00
Actual Correlation	0.92	1.00

Manager Summary

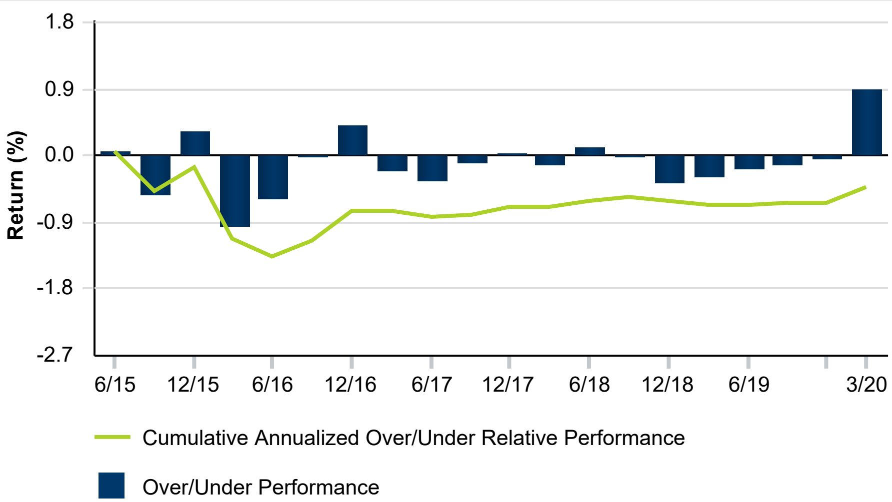
CIM Investment Mgmt vs IM U.S. Intermediate Duration (SA+CF)

Periods Ended March 31, 2020

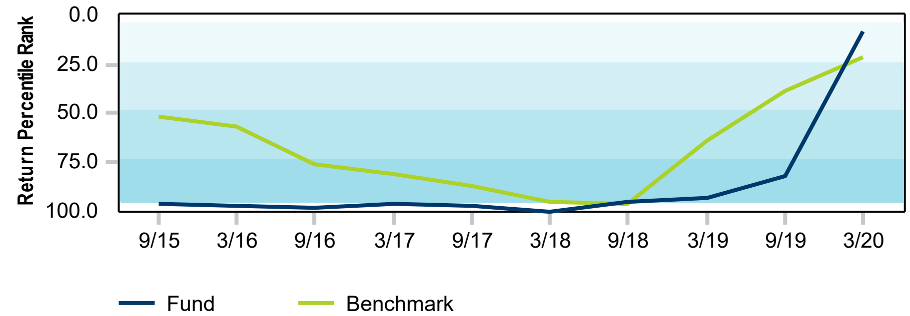
Comparative Performance



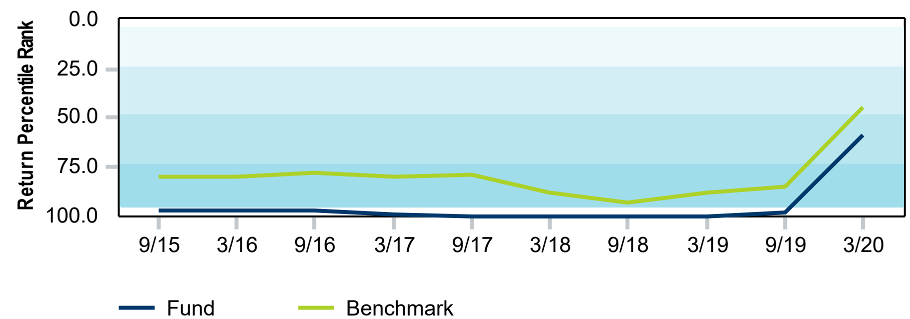
Relative Performance



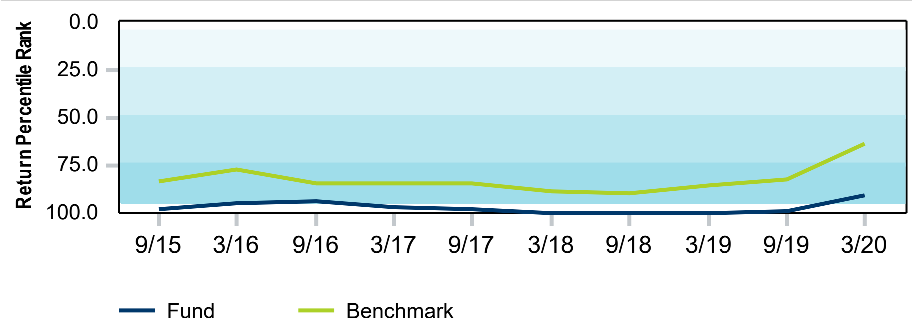
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

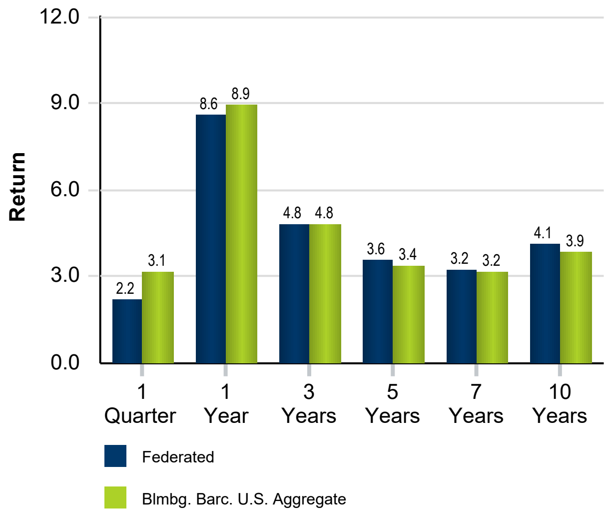


Performance Summary

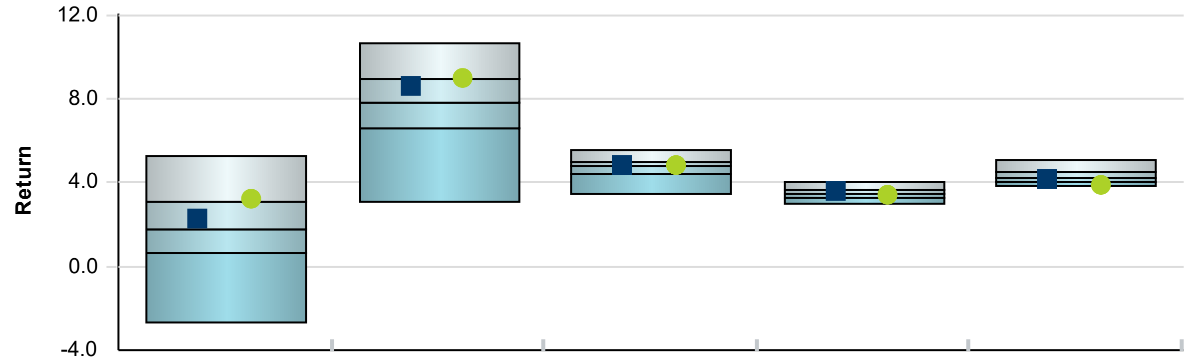
Federated

Periods Ended March 31, 2020

Comparative Performance

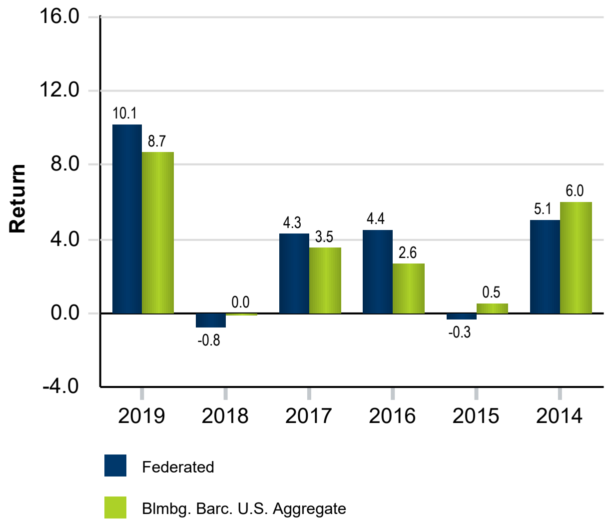


Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)

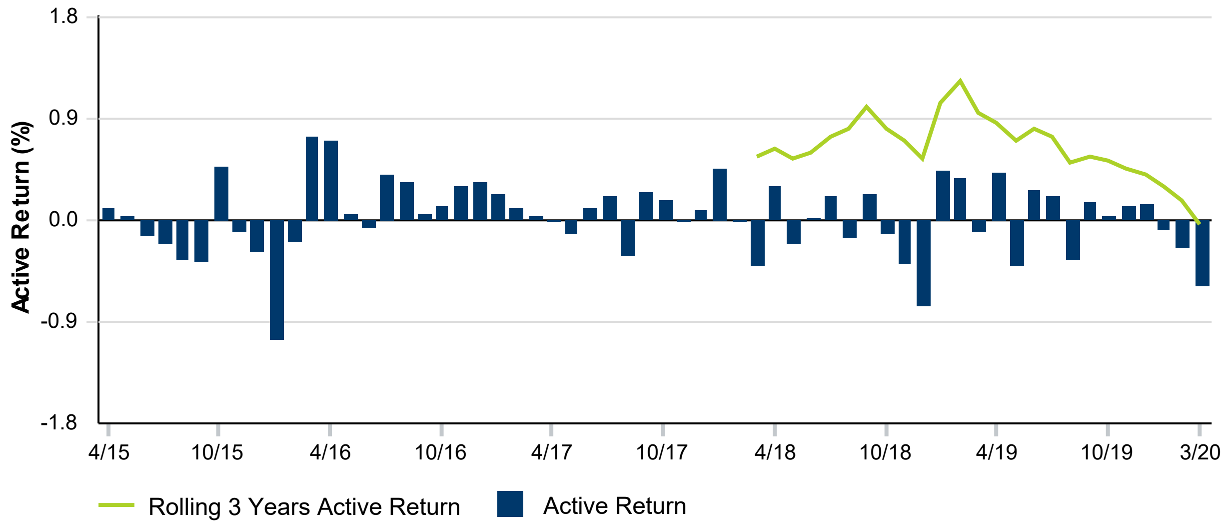


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	2.20 (43)	8.60 (34)	4.80 (49)	3.61 (32)	4.14 (60)
Benchmark	3.15 (25)	8.93 (27)	4.82 (47)	3.36 (72)	3.88 (91)
Median	1.73	7.83	4.77	3.47	4.26

Comparative Performance



Rolling 3 Years Performance



Wilshire Consulting

Summary Statistics

Federated

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Federated	Blmbg. Barc. U.S. Aggregate
Maximum Return	2.24	2.59
Minimum Return	-1.17	-0.59
Return	8.60	8.93
Cumulative Return	8.60	8.93
Active Return	-0.32	0.00
Excess Return	6.10	6.42

Risk Summary Statistics	Federated	Blmbg. Barc. U.S. Aggregate
Upside Risk	1.13	1.24
Downside Risk	1.23	0.80
Beta	0.89	1.00

Risk/Return Summary Statistics	Federated	Blmbg. Barc. U.S. Aggregate
Standard Deviation	3.34	3.60
Alpha	0.62	0.00
Active Return/Risk	-0.10	0.00
Tracking Error	1.03	0.00
Information Ratio	-0.31	
Sharpe Ratio	1.80	1.78

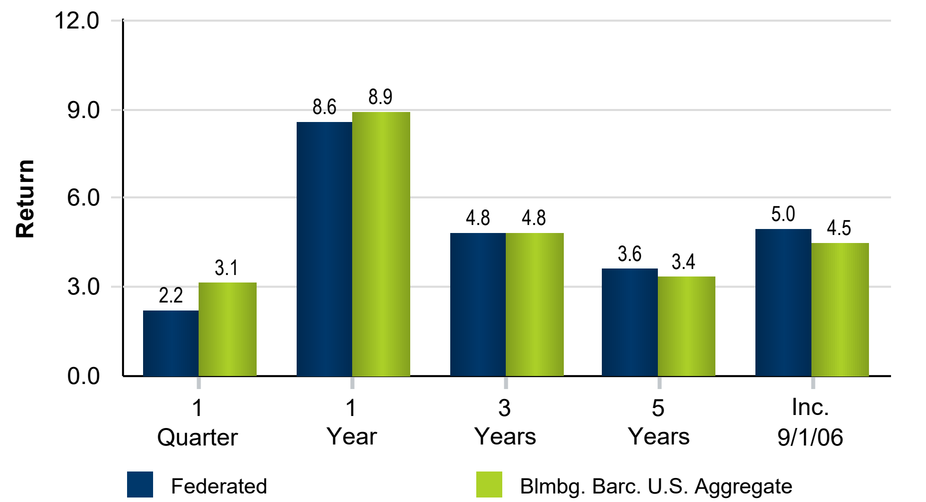
Correlation Statistics	Federated	Blmbg. Barc. U.S. Aggregate
R-Squared	0.92	1.00
Actual Correlation	0.96	1.00

Manager Summary

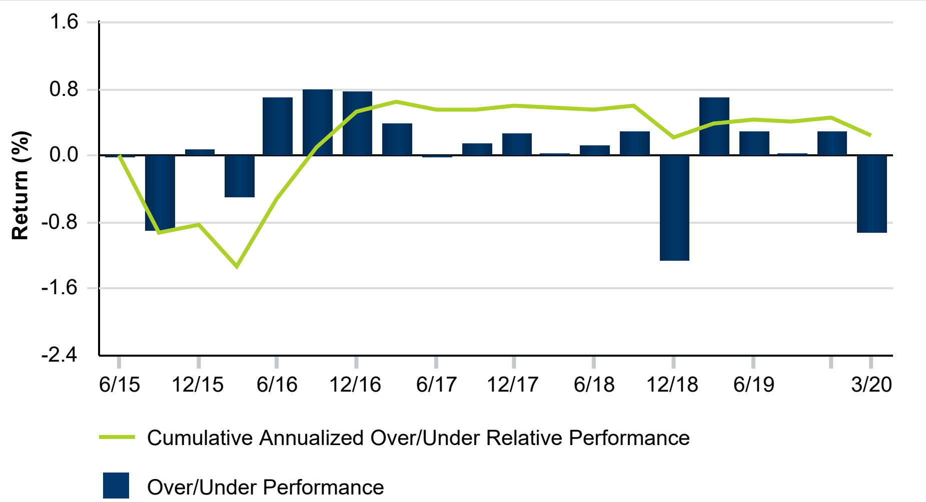
Federated vs IM U.S. Broad Market Core Fixed Income (SA+CF)

Periods Ended March 31, 2020

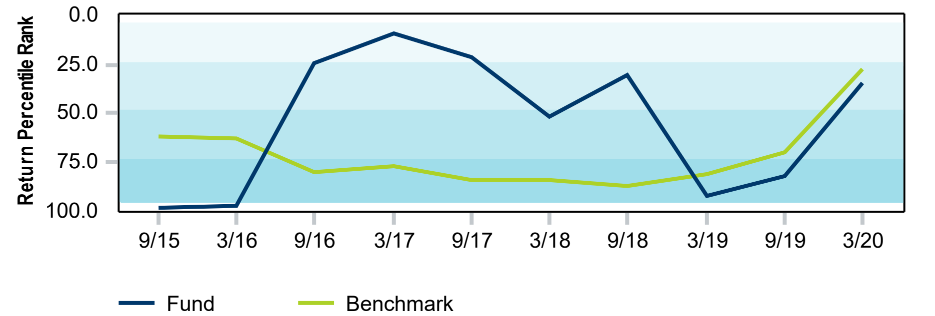
Comparative Performance



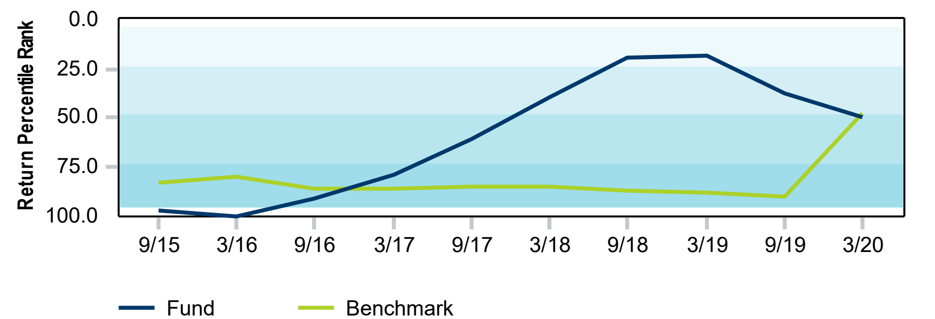
Relative Performance



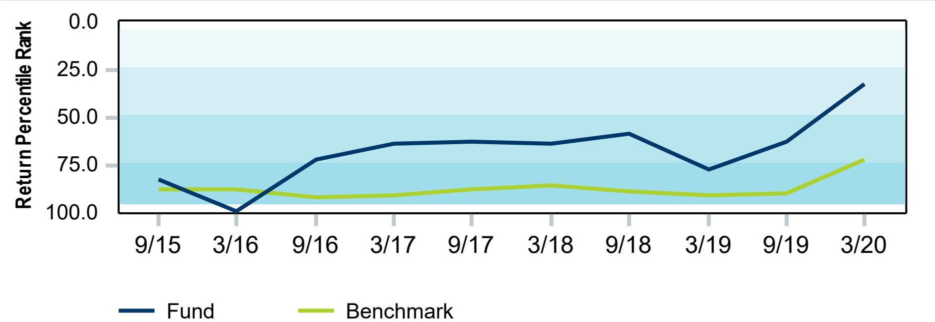
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

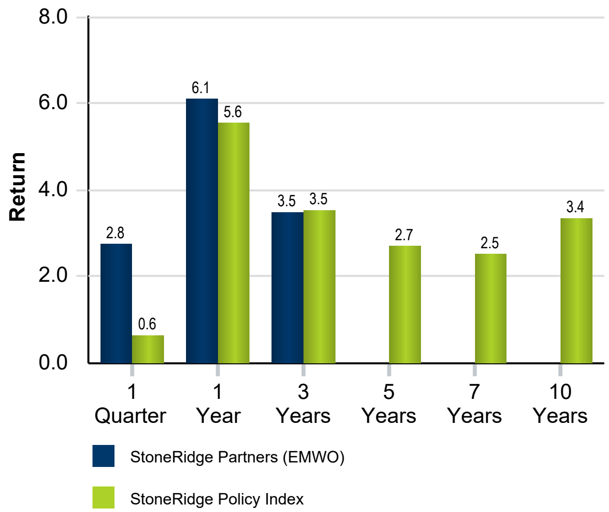


Performance Summary

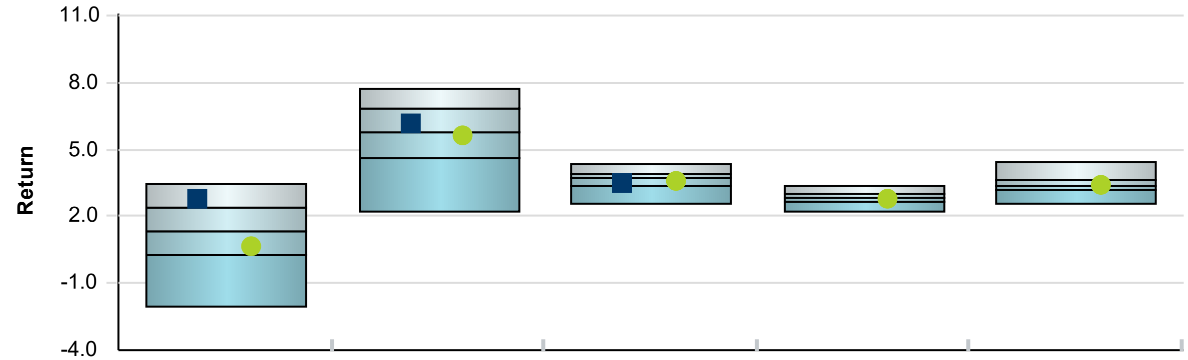
StoneRidge Partners (EMWO)

Periods Ended March 31, 2020

Comparative Performance

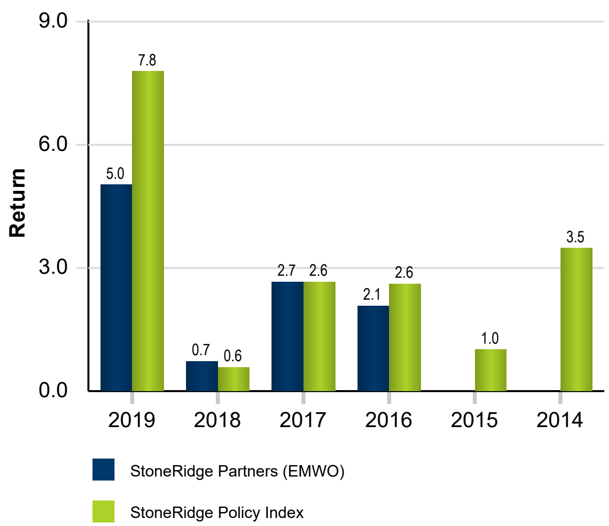


Peer Group Analysis: IM U.S. Intermediate Duration (SA+CF)

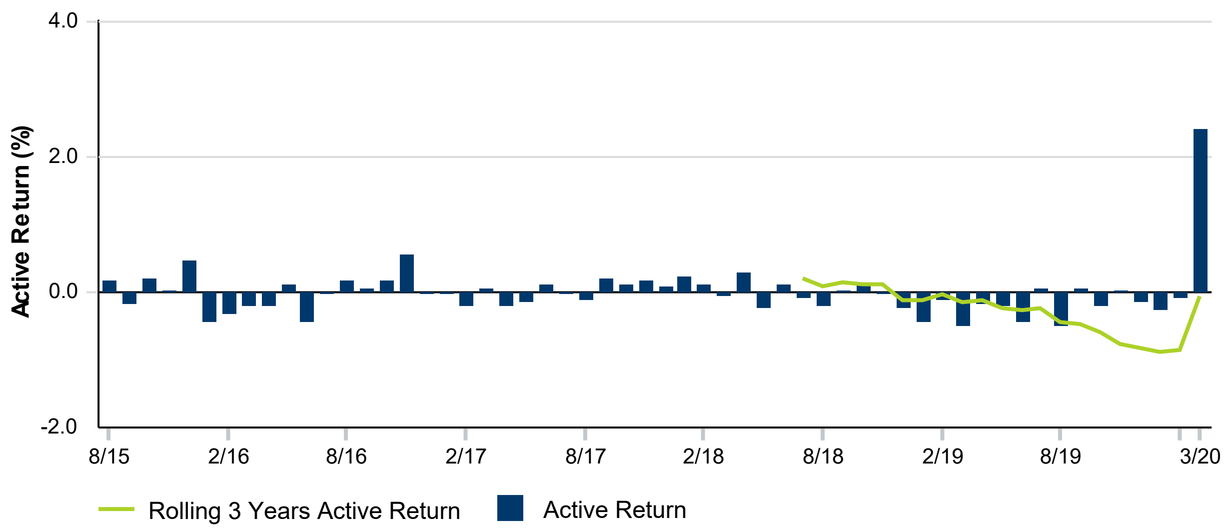


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	2.77 (14)	6.12 (44)	3.49 (67)		
Benchmark	0.65 (63)	5.56 (57)	3.54 (63)	2.71 (69)	3.38 (51)
Median	1.30	5.76	3.72	2.83	3.38

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

StoneRidge Partners (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	StoneRidge Partners (EMWO)	StoneRidge Policy Index
Maximum Return	1.26	1.76
Minimum Return	-0.26	-2.01
Return	6.12	5.56
Cumulative Return	6.12	5.56
Active Return	0.49	0.00
Excess Return	3.74	3.25

Risk Summary Statistics

	StoneRidge Partners (EMWO)	StoneRidge Policy Index
Upside Risk	0.72	0.91
Downside Risk	0.27	2.03
Beta	0.36	1.00

Risk/Return Summary Statistics

	StoneRidge Partners (EMWO)	StoneRidge Policy Index
Standard Deviation	1.81	3.41
Alpha	4.04	0.00
Active Return/Risk	0.27	0.00
Tracking Error	2.54	0.00
Information Ratio	0.19	
Sharpe Ratio	2.08	0.94

Correlation Statistics

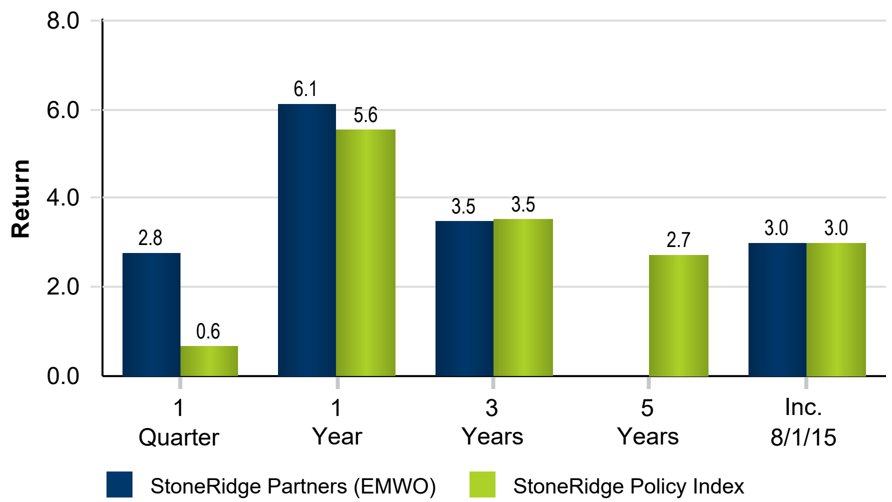
	StoneRidge Partners (EMWO)	StoneRidge Policy Index
R-Squared	0.47	1.00
Actual Correlation	0.69	1.00

Manager Summary

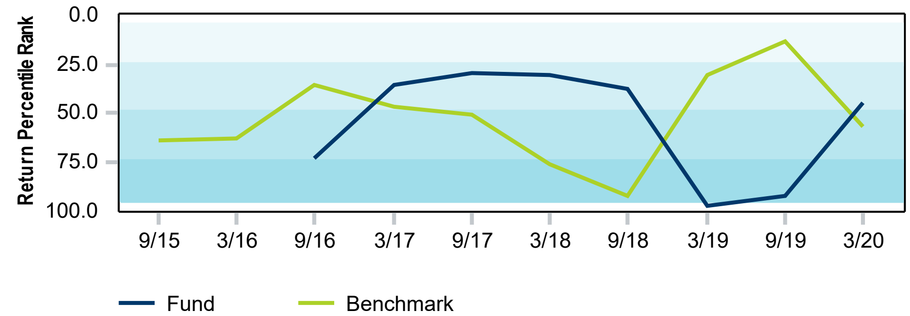
StoneRidge Partners (EMWO) vs IM U.S. Intermediate Duration (SA+CF)

Periods Ended March 31, 2020

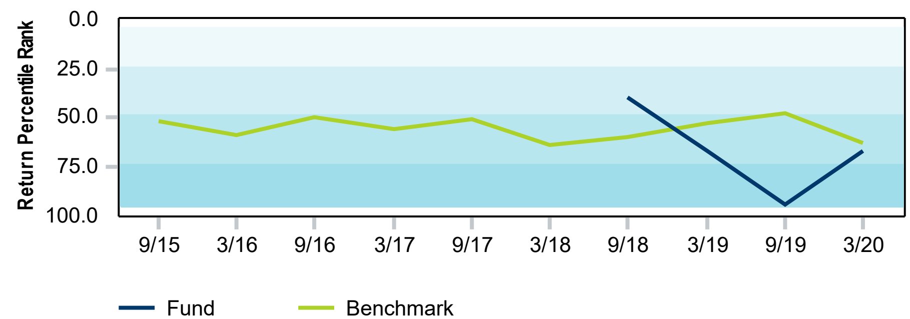
Comparative Performance



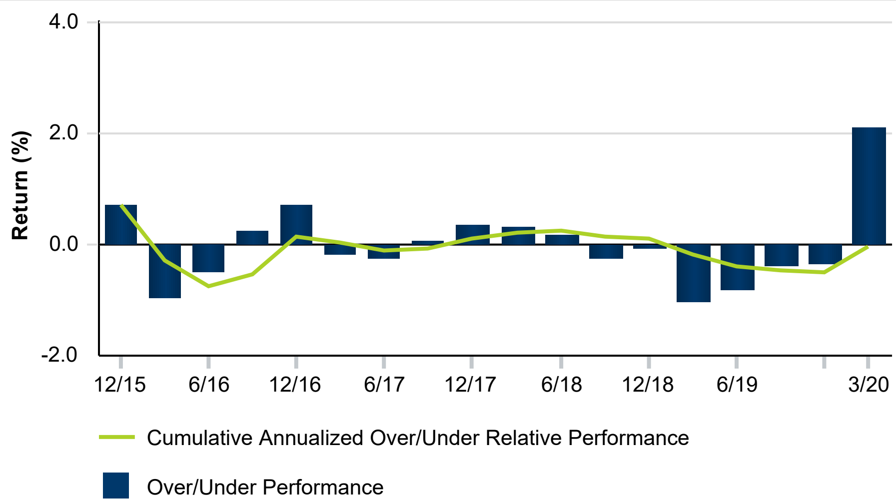
1 Year Rolling Percentile Ranking



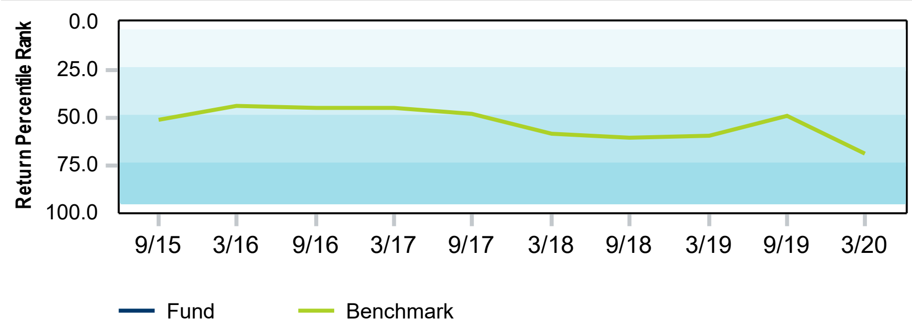
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking

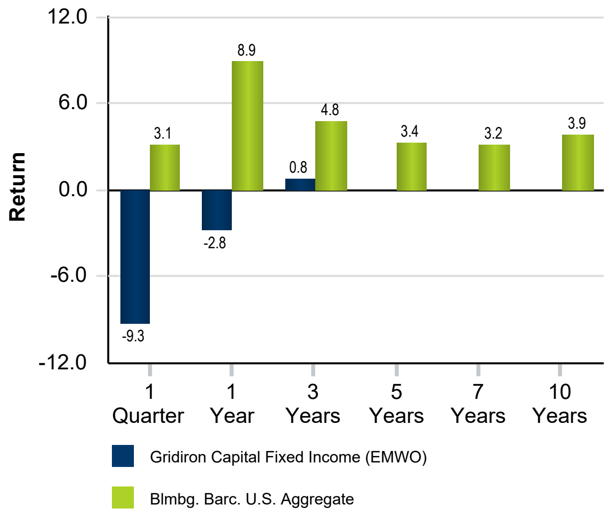


Performance Summary

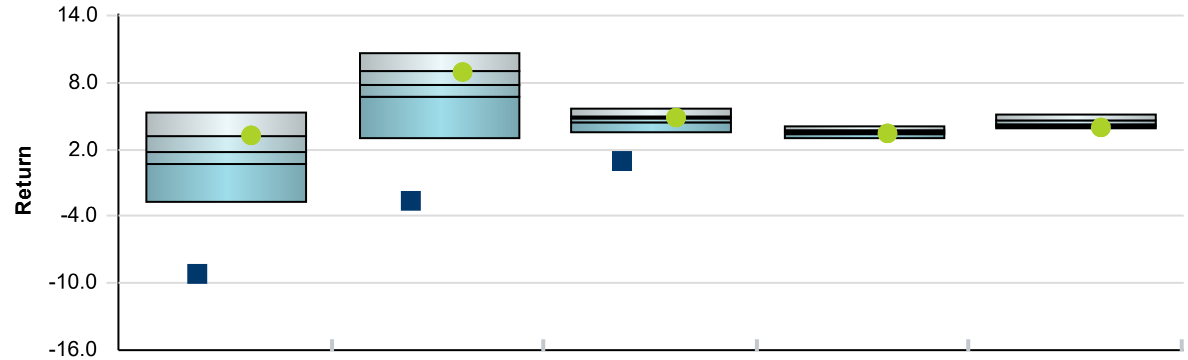
Gridiron Capital Fixed Income (EMWO)

Periods Ended March 31, 2020

Comparative Performance

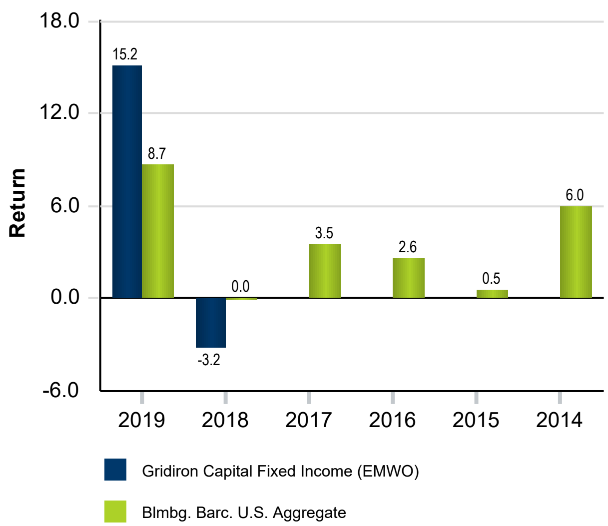


Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)

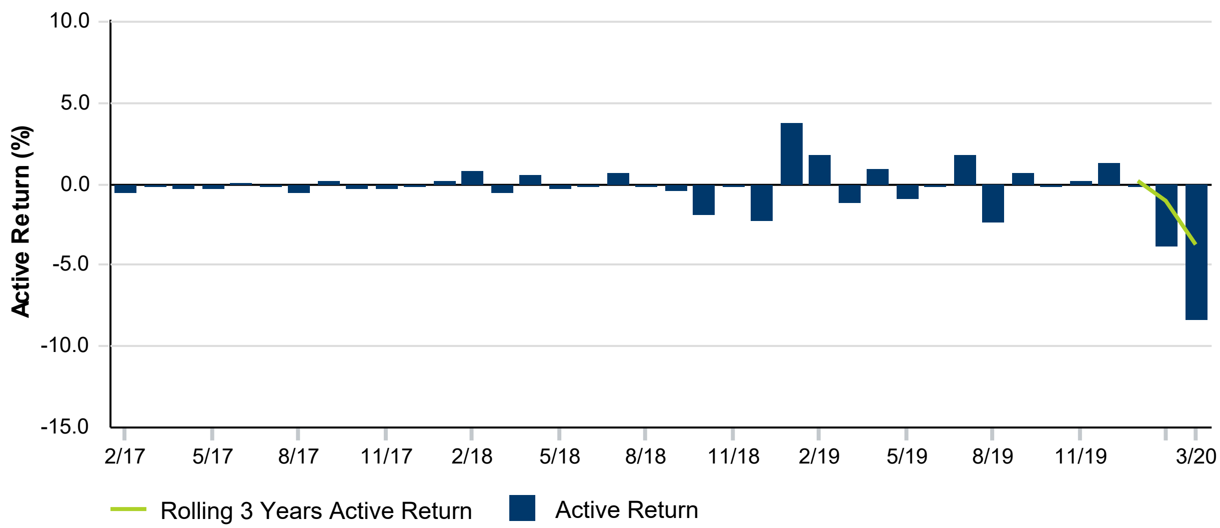


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-9.26 (100)	-2.76 (98)	0.78 (99)		
Benchmark	3.15 (25)	8.93 (27)	4.82 (47)	3.36 (72)	3.88 (91)
Median	1.73	7.83	4.77	3.47	4.26

Comparative Performance



Rolling 3 Years Performance



Wilshire Consulting

Summary Statistics

Gridiron Capital Fixed Income (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Gridiron Capital Fixed Income (EMWO)	Blmbg. Barc. U.S. Aggregate
Maximum Return	1.99	2.59
Minimum Return	-8.99	-0.59
Return	-2.76	8.93
Cumulative Return	-2.76	8.93
Active Return	-10.94	0.00
Excess Return	-4.52	6.42

Risk Summary Statistics	Gridiron Capital Fixed Income (EMWO)	Blmbg. Barc. U.S. Aggregate
Upside Risk	1.01	1.24
Downside Risk	9.24	0.80
Beta	0.82	1.00

Risk/Return Summary Statistics	Gridiron Capital Fixed Income (EMWO)	Blmbg. Barc. U.S. Aggregate
Standard Deviation	9.85	3.60
Alpha	-9.03	0.00
Active Return/Risk	-1.11	0.00
Tracking Error	9.41	0.00
Information Ratio	-1.16	
Sharpe Ratio	-0.45	1.78

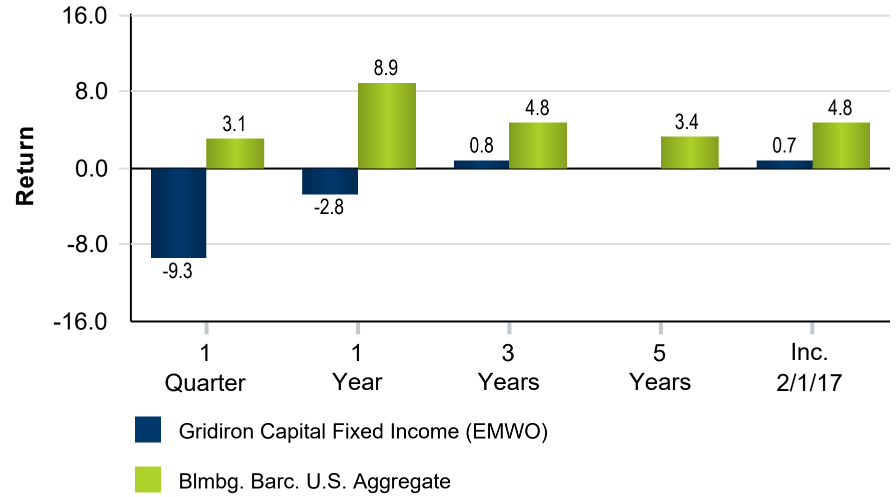
Correlation Statistics	Gridiron Capital Fixed Income (EMWO)	Blmbg. Barc. U.S. Aggregate
R-Squared	0.09	1.00
Actual Correlation	0.30	1.00

Manager Summary

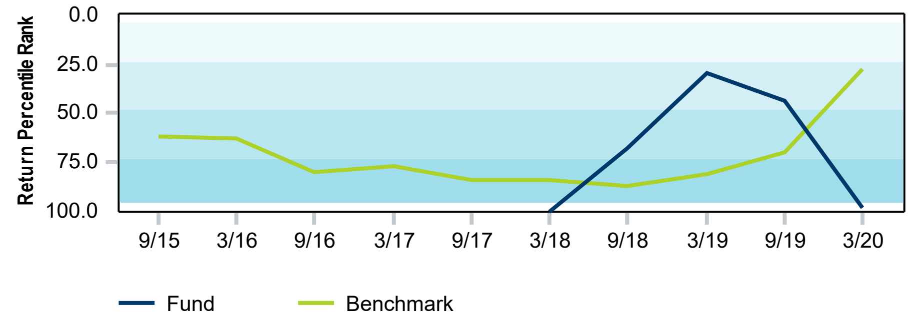
Gridiron Capital Fixed Income (EMWO) vs IM U.S. Broad Market Core Fixed Income

Periods Ended March 31, 2020

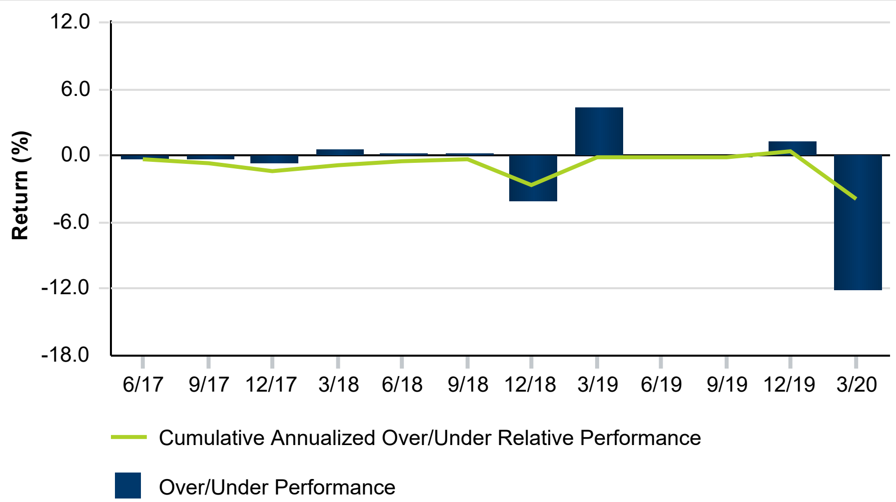
Comparative Performance



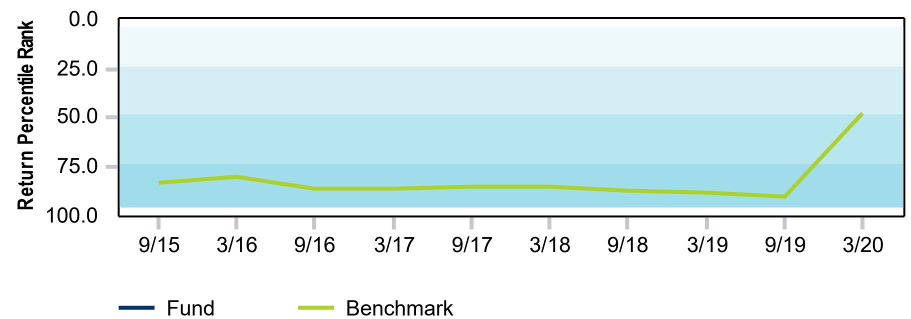
1 Year Rolling Percentile Ranking



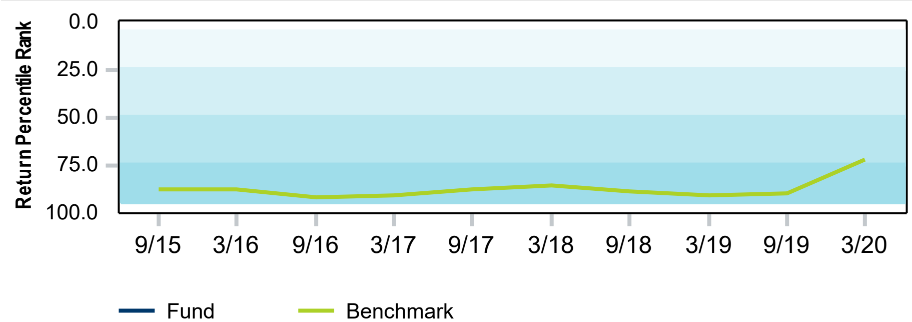
Relative Performance



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking



Summary Statistics

FNB (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	FNB (EMWO)	Blmbg. Barc. U.S. Intermediate Aggregate
Maximum Return	1.58	1.49
Minimum Return	-1.51	-0.23
Return	5.32	6.88
Cumulative Return	5.32	6.88
Active Return	-1.46	0.00
Excess Return	3.01	4.46

Risk Summary Statistics

	FNB (EMWO)	Blmbg. Barc. U.S. Intermediate Aggregate
Upside Risk	0.83	0.83
Downside Risk	1.51	0.24
Beta	1.17	1.00

Risk/Return Summary Statistics

	FNB (EMWO)	Blmbg. Barc. U.S. Intermediate Aggregate
Standard Deviation	2.87	2.13
Alpha	-2.57	0.00
Active Return/Risk	-0.51	0.00
Tracking Error	1.47	0.00
Information Ratio	-0.99	
Sharpe Ratio	1.03	2.09

Correlation Statistics

	FNB (EMWO)	Blmbg. Barc. U.S. Intermediate Aggregate
R-Squared	0.76	1.00
Actual Correlation	0.87	1.00

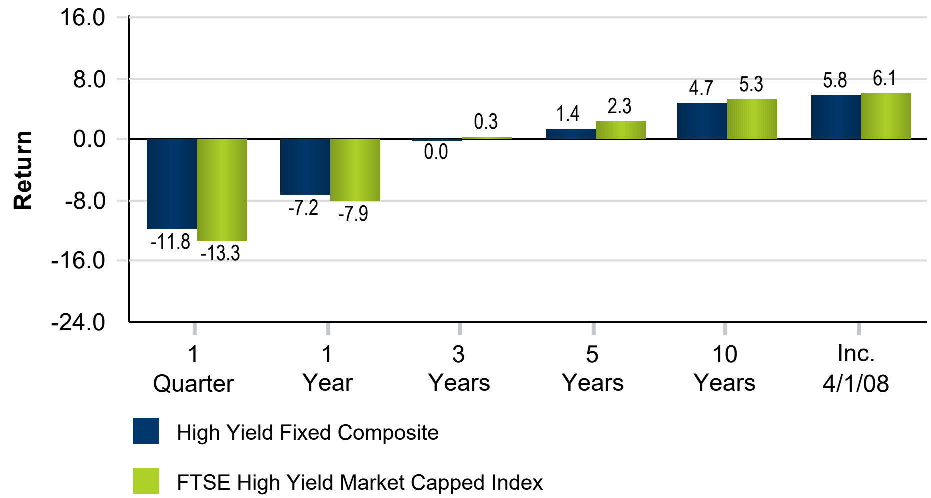
HIGH YIELD

Composite Performance Summary

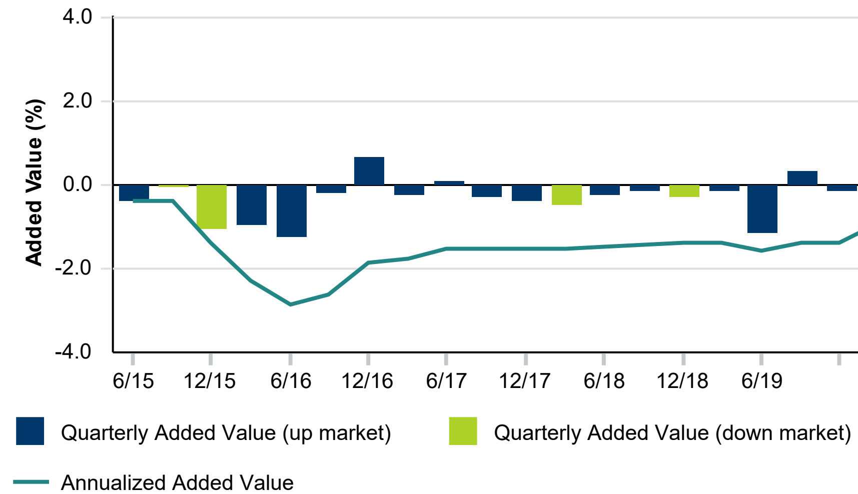
High Yield Fixed Composite

Periods Ended March 31, 2020

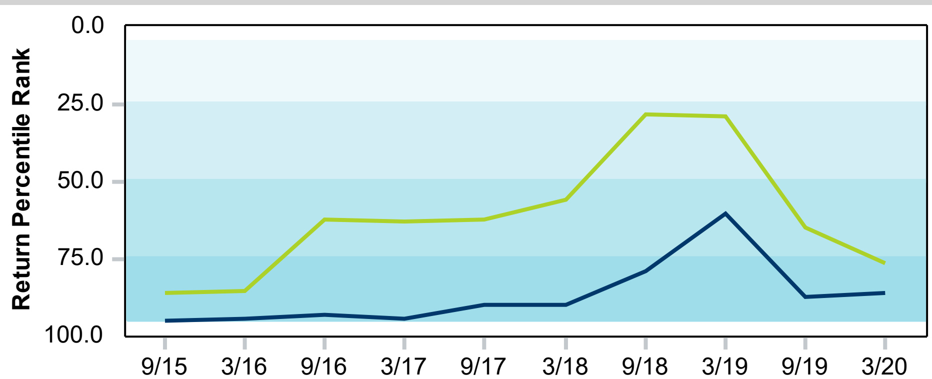
Comparative Performance



Added Value History

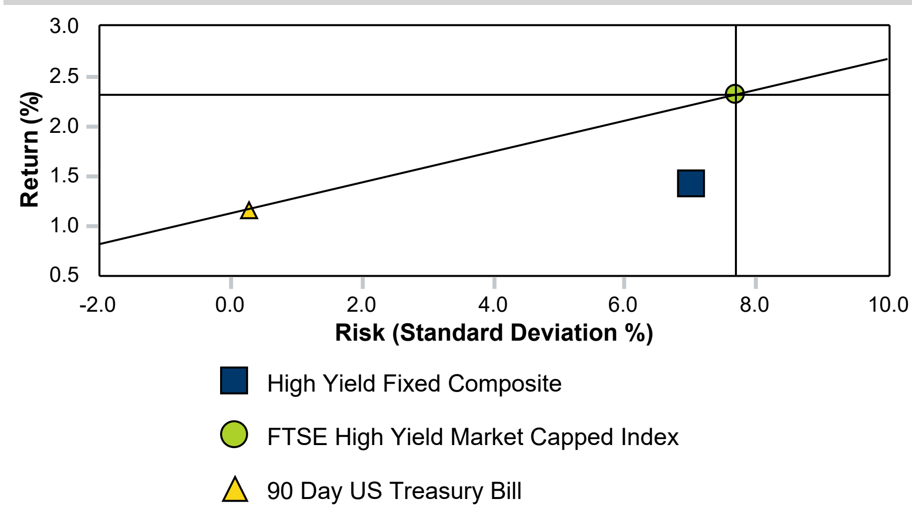


Rolling Percentile Rank: IM U.S. High Yield Bonds (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
High Yield Fixed Composite	10	0 (0%)	0 (0%)	1 (10%)	9 (90%)
Benchmark	10	0 (0%)	2 (20%)	5 (50%)	3 (30%)

Risk and Return 04/1/15 - 03/31/20

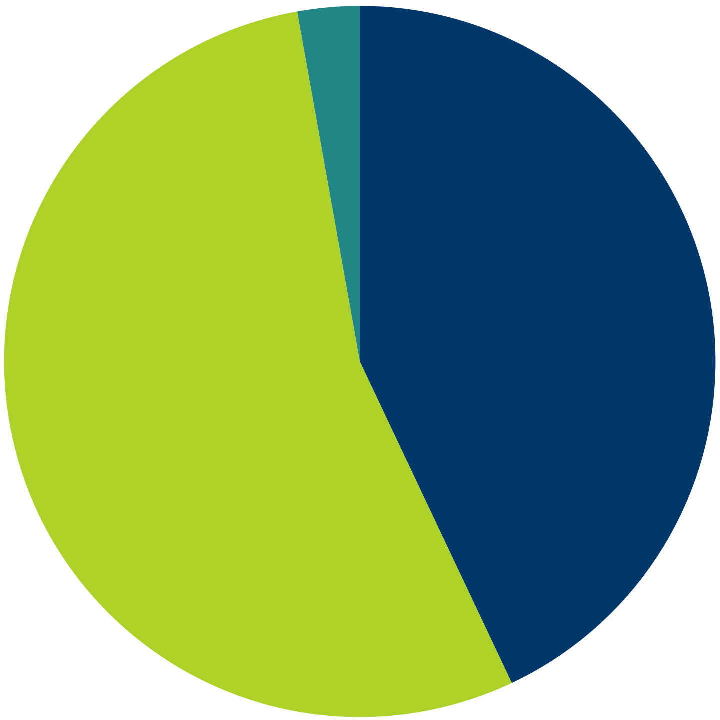


Asset Allocation By Manager

High Yield Fixed Composite

Periods Ended March 31, 2020

Mar-2020 : 100,950,379



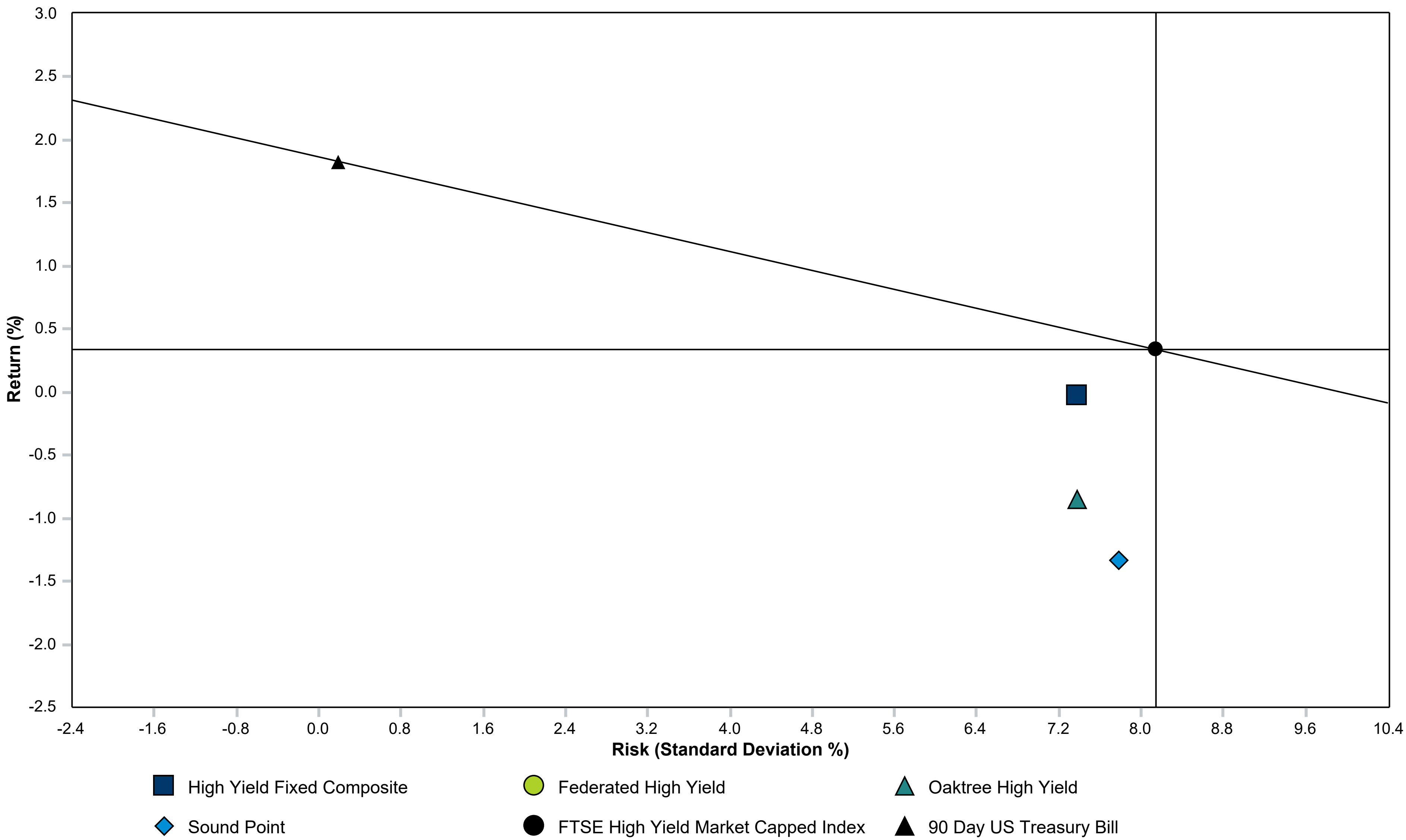
	Market Value $	Allocation (%)
Federated High Yield	43,384,803	43.0
Oaktree High Yield	54,713,257	54.2
Sound Point	2,852,319	2.8

Wilshire Consulting

Risk vs. Return

High Yield Fixed Composite

Periods Ended 3 Years Ending March 31, 2020



Calculation based on monthly periodicity.

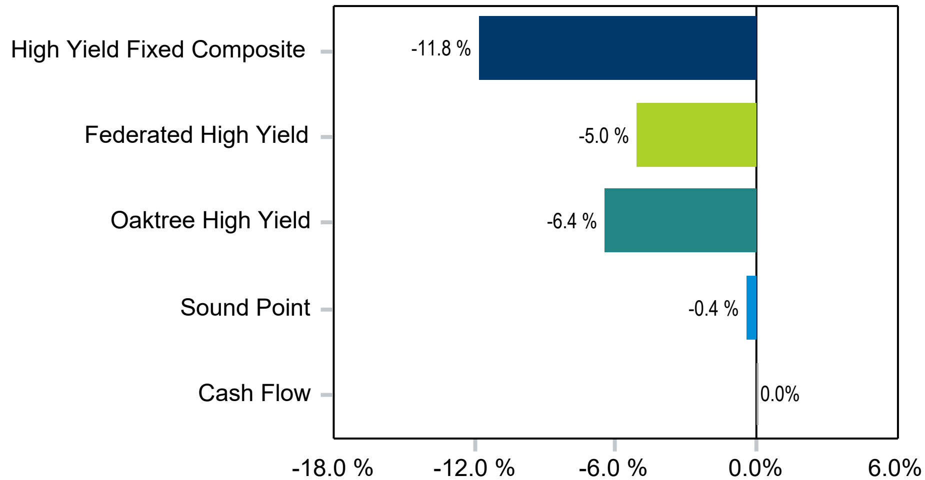
Wilshire Consulting

Return and Risk Contribution

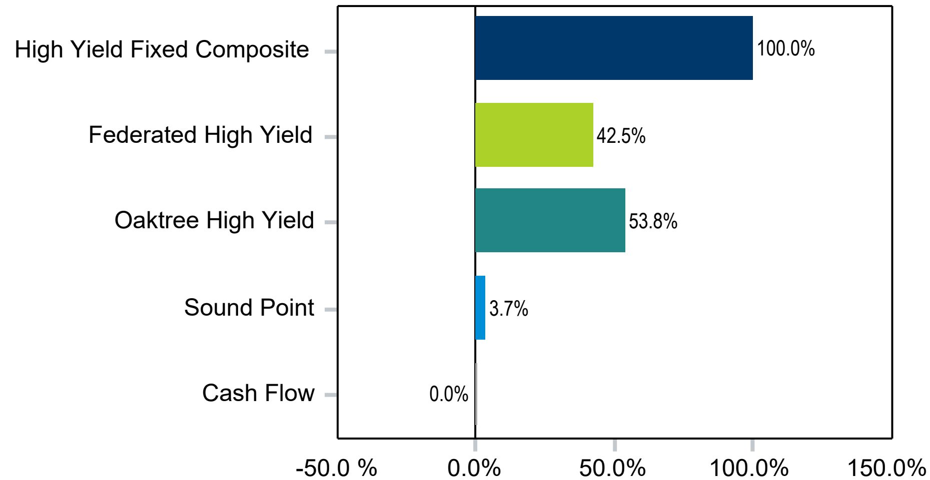
High Yield Fixed Composite

Periods Ended 1 Quarter March 31, 2020

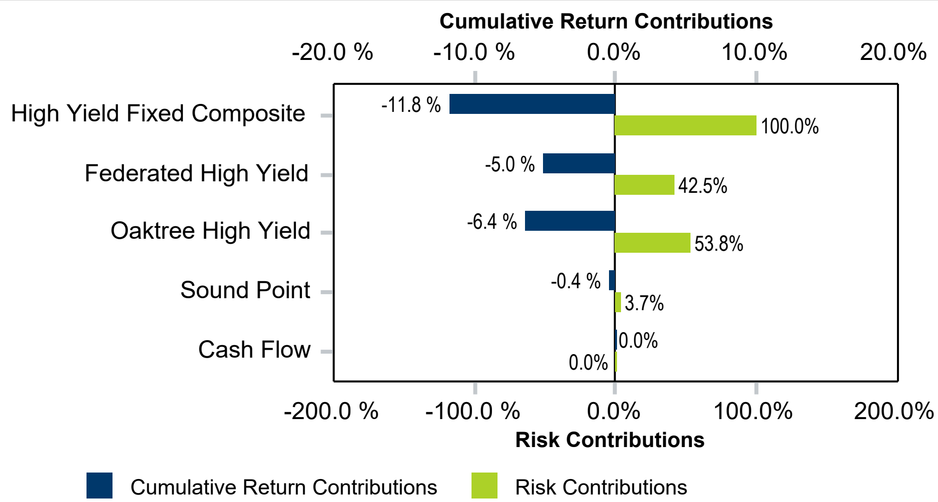
Cumulative Return Contributions



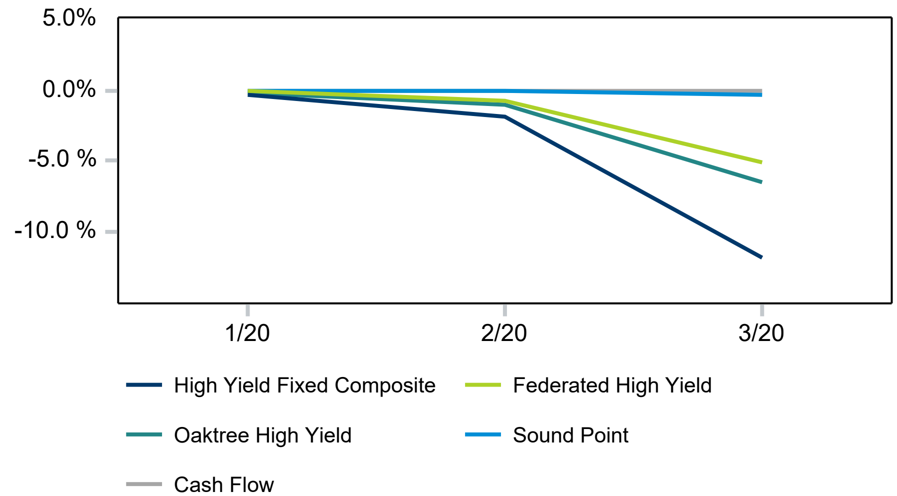
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



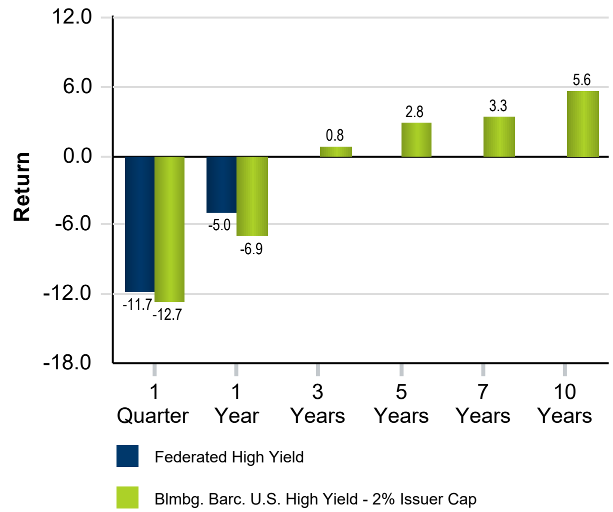
Wilshire Consulting

Performance Summary

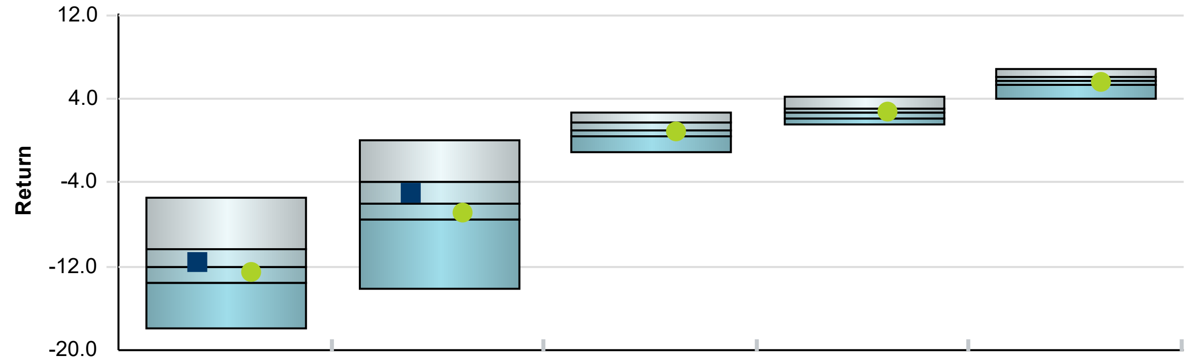
Federated High Yield

Periods Ended March 31, 2020

Comparative Performance

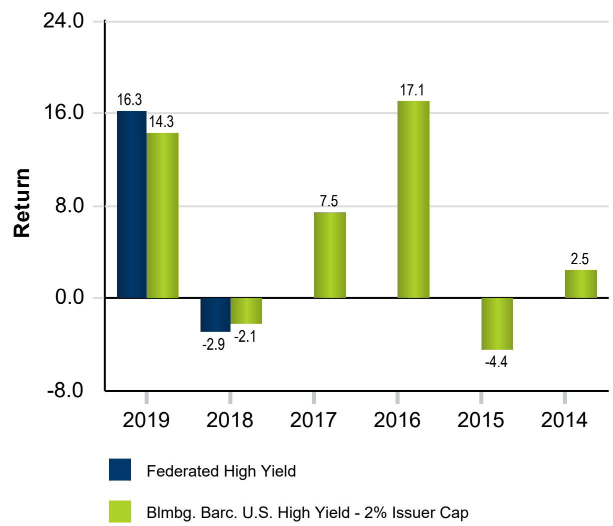


Peer Group Analysis: IM U.S. High Yield Bonds (SA+CF)

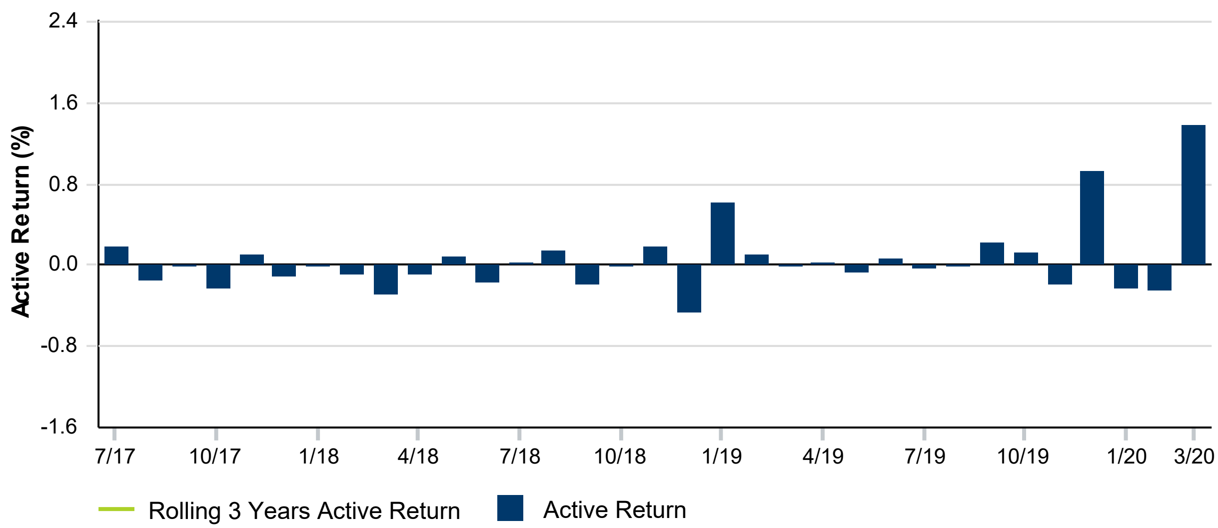


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-11.74 (46)	-4.96 (38)			
Benchmark	-12.68 (61)	-6.94 (67)	0.76 (63)	2.78 (50)	5.64 (57)
Median	-12.01	-6.01	1.10	2.78	5.74

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Federated High Yield

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Federated High Yield	Blmbg. Barc. U.S. High Yield - 2% Issuer Cap
Maximum Return	2.93	2.28
Minimum Return	-10.08	-11.46
Return	-4.96	-6.94
Cumulative Return	-4.96	-6.94
Active Return	1.97	0.00
Excess Return	-6.66	-8.63

Risk Summary Statistics

	Federated High Yield	Blmbg. Barc. U.S. High Yield - 2% Issuer Cap
Upside Risk	1.19	1.00
Downside Risk	10.29	11.61
Beta	0.91	1.00

Risk/Return Summary Statistics

	Federated High Yield	Blmbg. Barc. U.S. High Yield - 2% Issuer Cap
Standard Deviation	11.02	11.97
Alpha	1.43	0.00
Active Return/Risk	0.18	0.00
Tracking Error	1.63	0.00
Information Ratio	1.21	
Sharpe Ratio	-0.60	-0.71

Correlation Statistics

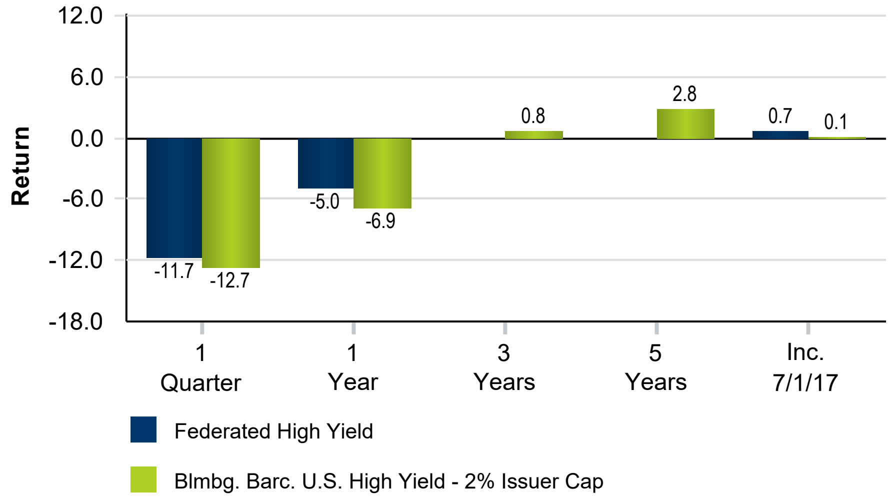
	Federated High Yield	Blmbg. Barc. U.S. High Yield - 2% Issuer Cap
R-Squared	0.99	1.00
Actual Correlation	0.99	1.00

Manager Summary

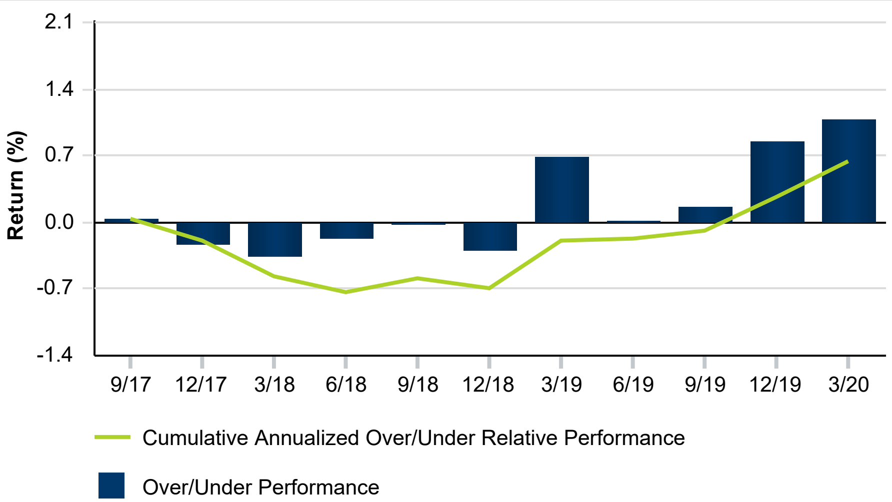
Federated High Yield vs IM U.S. High Yield Bonds (SA+CF)

Periods Ended March 31, 2020

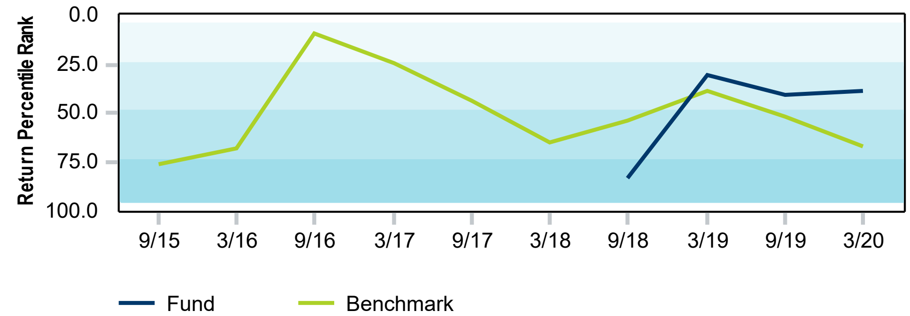
Comparative Performance



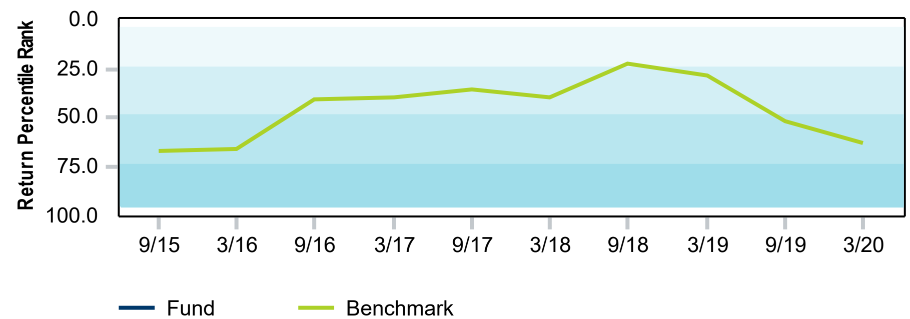
Relative Performance



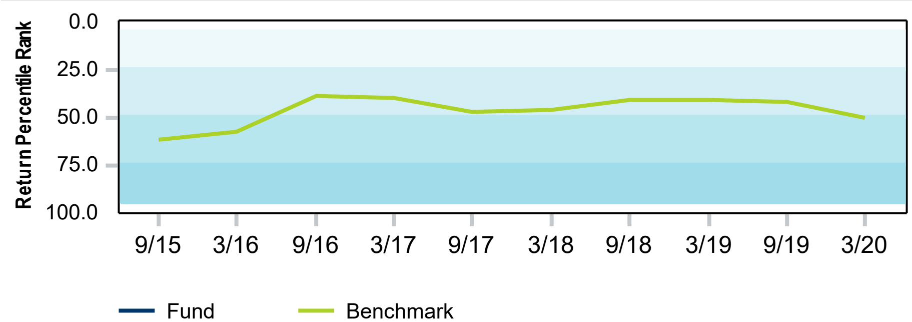
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

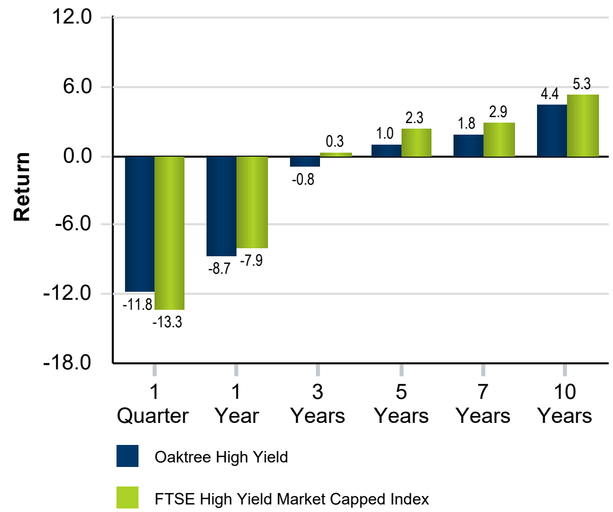


Performance Summary

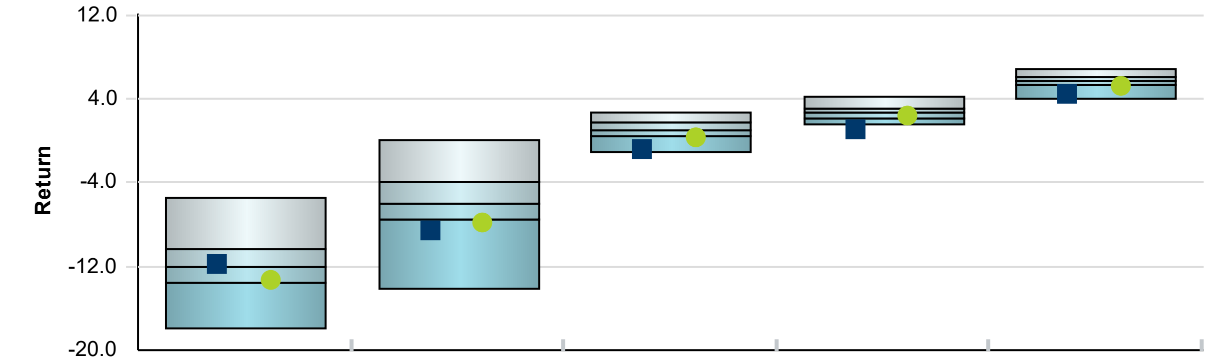
Oaktree High Yield

Periods Ended March 31, 2020

Comparative Performance

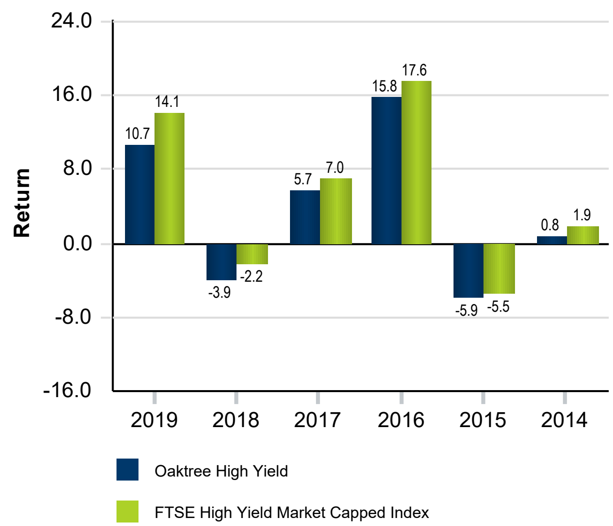


Peer Group Analysis: IM U.S. High Yield Bonds (SA+CF)

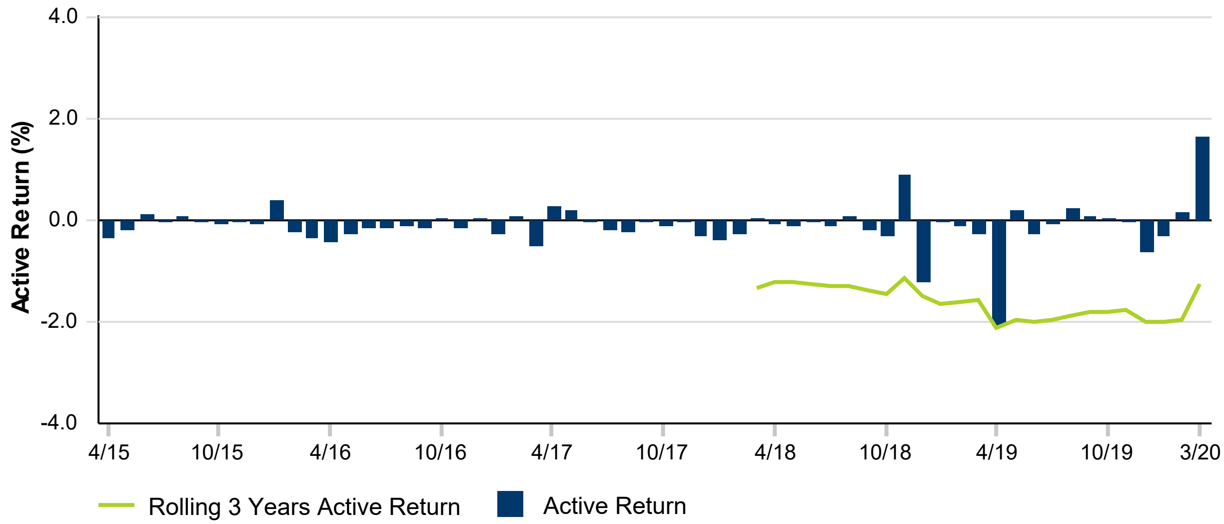


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-11.83 (48)	-8.69 (82)	-0.85 (92)	1.04 (98)	4.43 (93)
Benchmark	-13.32 (71)	-7.92 (79)	0.33 (76)	2.33 (73)	5.28 (77)
Median	-12.01	-6.01	1.10	2.78	5.74

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Oaktree High Yield

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Oaktree High Yield	FTSE High Yield Market Capped Index
Maximum Return	2.13	2.39
Minimum Return	-10.14	-11.78
Return	-8.69	-7.92
Cumulative Return	-8.69	-7.92
Active Return	-1.07	0.00
Excess Return	-10.71	-9.65

Risk Summary Statistics

	Oaktree High Yield	FTSE High Yield Market Capped Index
Upside Risk	0.79	1.02
Downside Risk	10.36	11.99
Beta	0.83	1.00

Risk/Return Summary Statistics

	Oaktree High Yield	FTSE High Yield Market Capped Index
Standard Deviation	10.43	12.31
Alpha	-2.28	0.00
Active Return/Risk	-0.10	0.00
Tracking Error	2.76	0.00
Information Ratio	-0.39	
Sharpe Ratio	-1.02	-0.78

Correlation Statistics

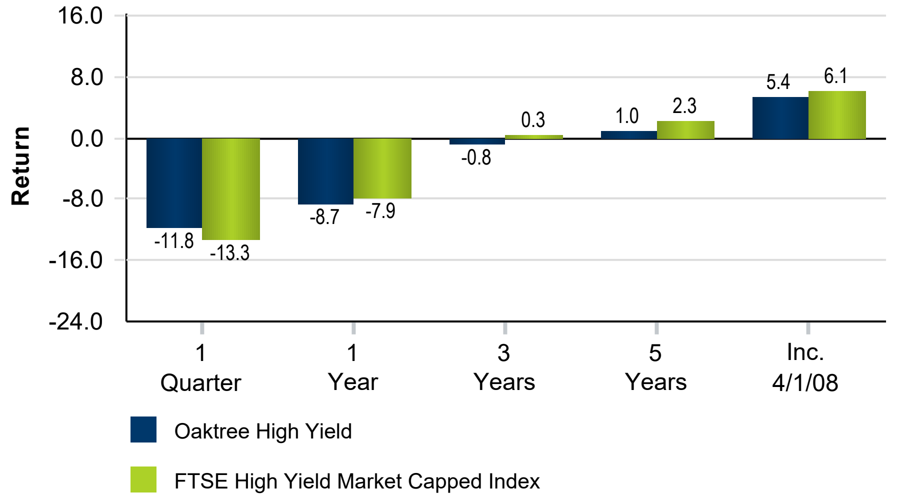
	Oaktree High Yield	FTSE High Yield Market Capped Index
R-Squared	0.97	1.00
Actual Correlation	0.98	1.00

Manager Summary

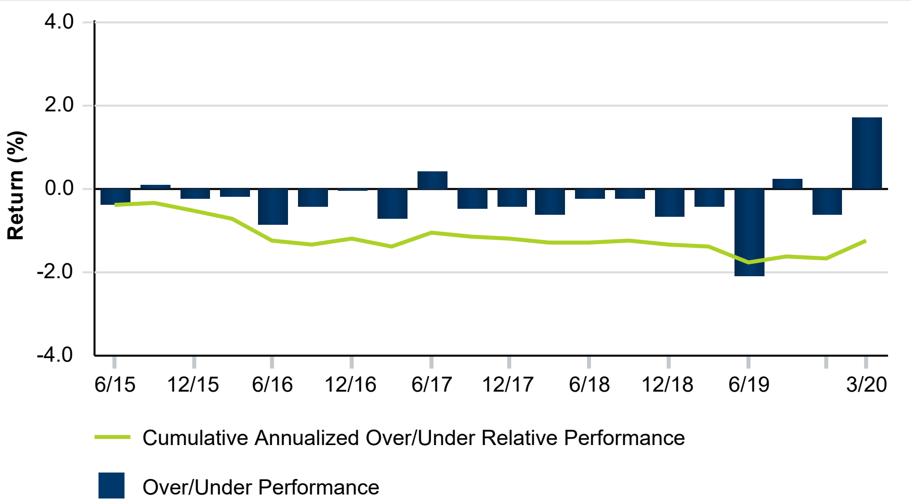
Oaktree High Yield vs IM U.S. High Yield Bonds (SA+CF)

Periods Ended March 31, 2020

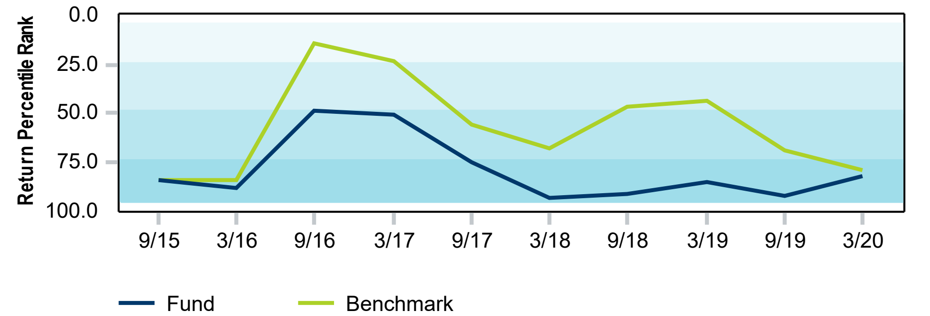
Comparative Performance



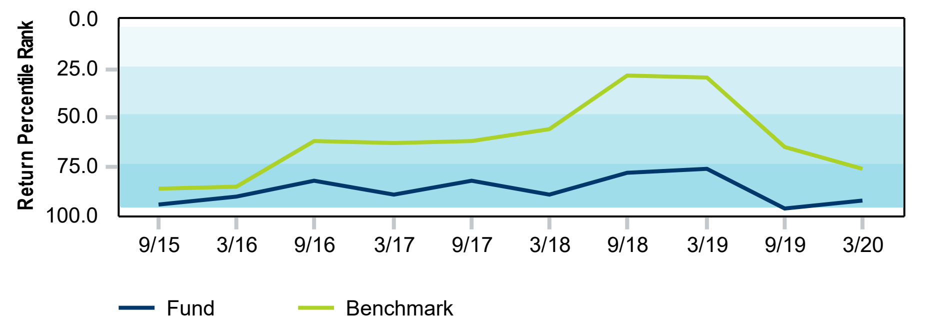
Relative Performance



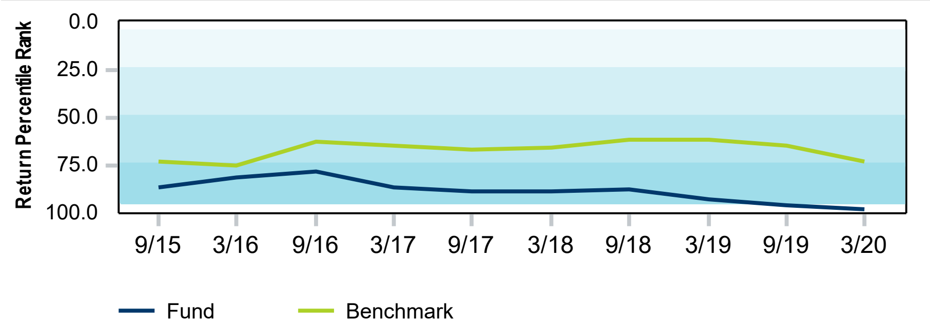
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

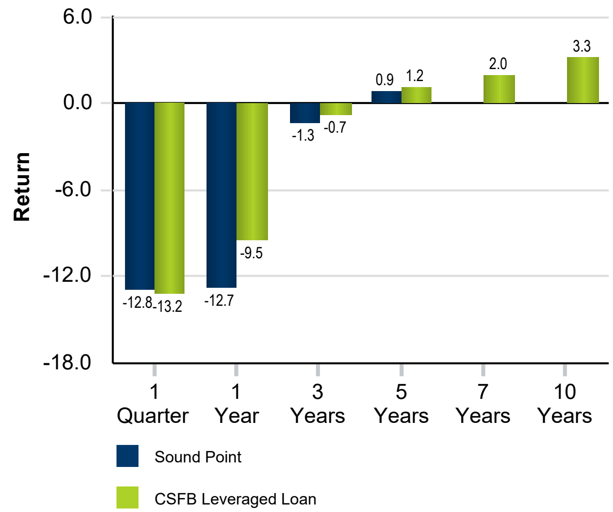


Performance Summary

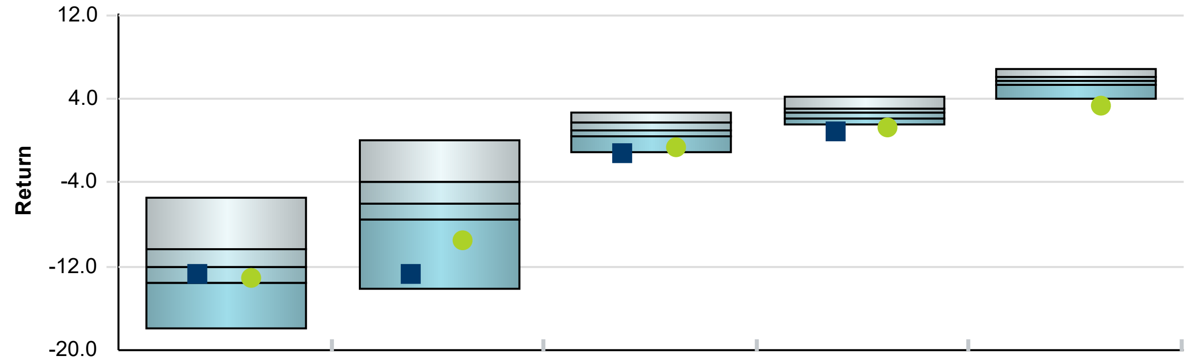
Sound Point

Periods Ended March 31, 2020

Comparative Performance

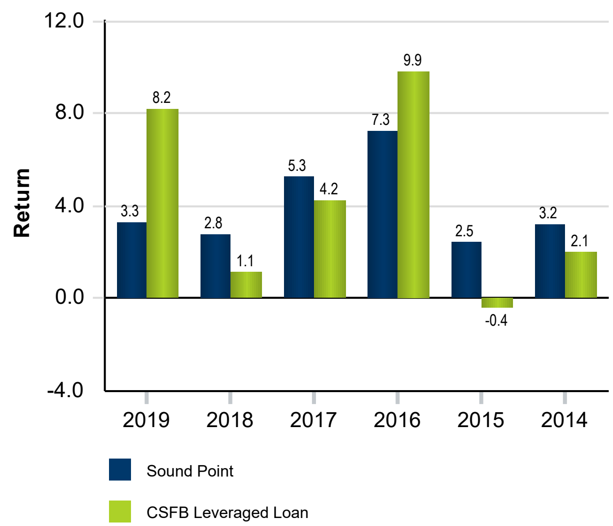


Peer Group Analysis: IM U.S. High Yield Bonds (SA+CF)

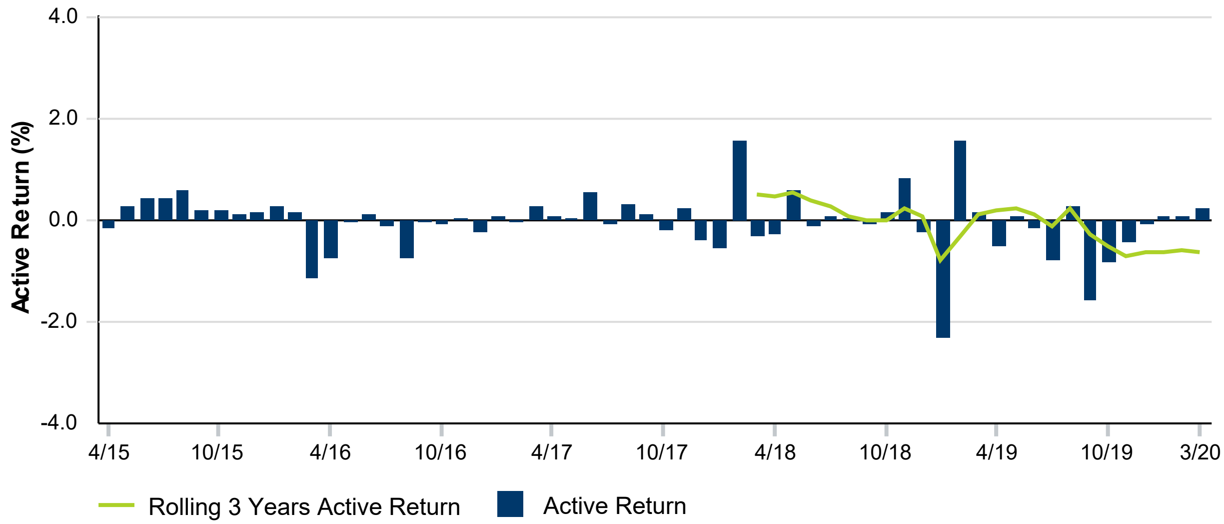


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-12.83 (64)	-12.71 (93)	-1.33 (96)	0.87 (98)	
Benchmark	-13.19 (70)	-9.51 (86)	-0.73 (92)	1.21 (96)	3.26 (98)
Median	-12.01	-6.01	1.10	2.78	5.74

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Sound Point

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Sound Point	CSFB Leveraged Loan
Maximum Return	1.54	1.61
Minimum Return	-12.24	-12.46
Return	-12.71	-9.51
Cumulative Return	-12.71	-9.51
Active Return	-3.63	0.00
Excess Return	-14.97	-11.33

Risk Summary Statistics	Sound Point	CSFB Leveraged Loan
Upside Risk	0.57	0.74
Downside Risk	12.43	12.55
Beta	0.95	1.00

Risk/Return Summary Statistics	Sound Point	CSFB Leveraged Loan
Standard Deviation	12.04	12.54
Alpha	-4.01	0.00
Active Return/Risk	-0.30	0.00
Tracking Error	1.82	0.00
Information Ratio	-2.00	
Sharpe Ratio	-1.23	-0.90

Correlation Statistics	Sound Point	CSFB Leveraged Loan
R-Squared	0.98	1.00
Actual Correlation	0.99	1.00

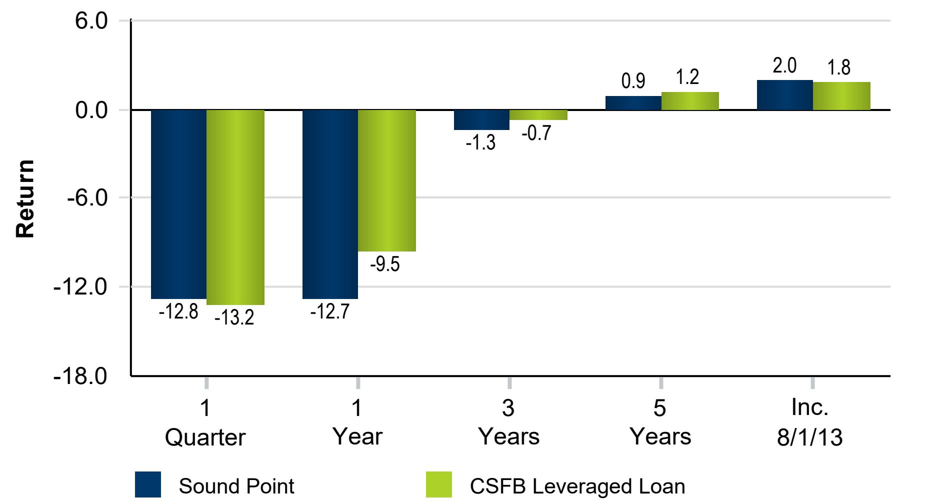
Wilshire Consulting

Manager Summary

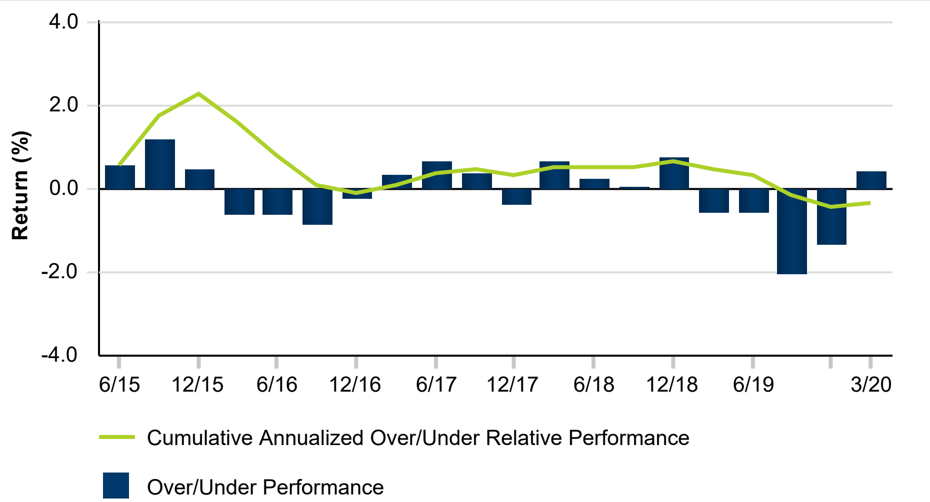
Sound Point vs IM U.S. High Yield Bonds (SA+CF)

Periods Ended March 31, 2020

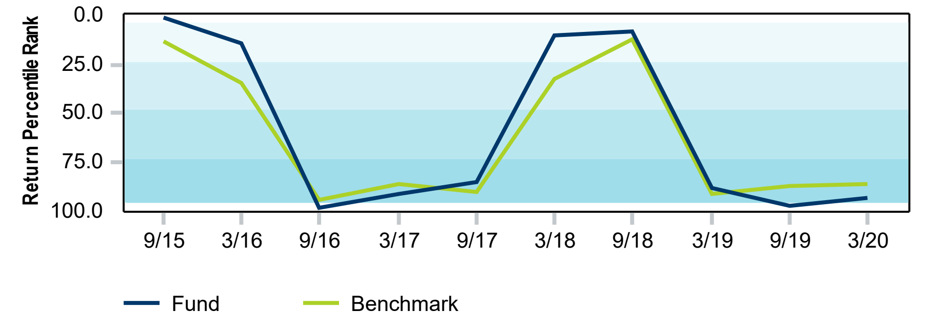
Comparative Performance



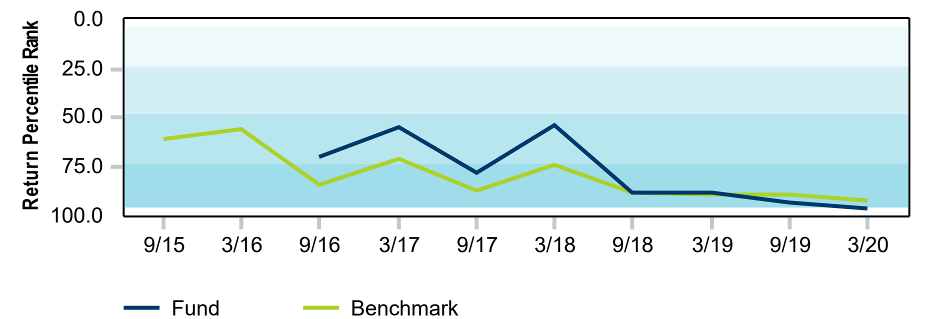
Relative Performance



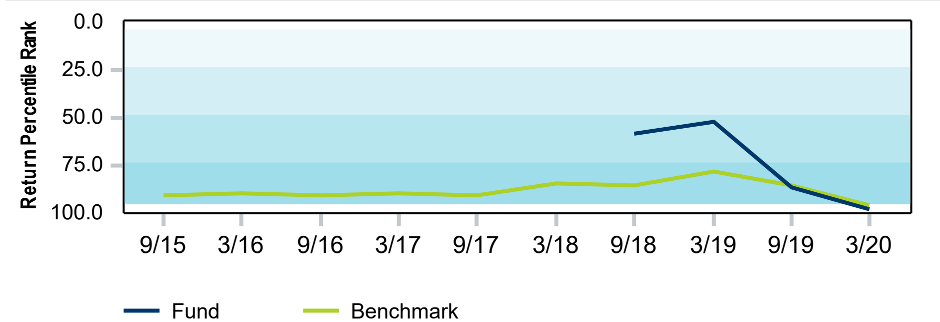
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking



TIPS

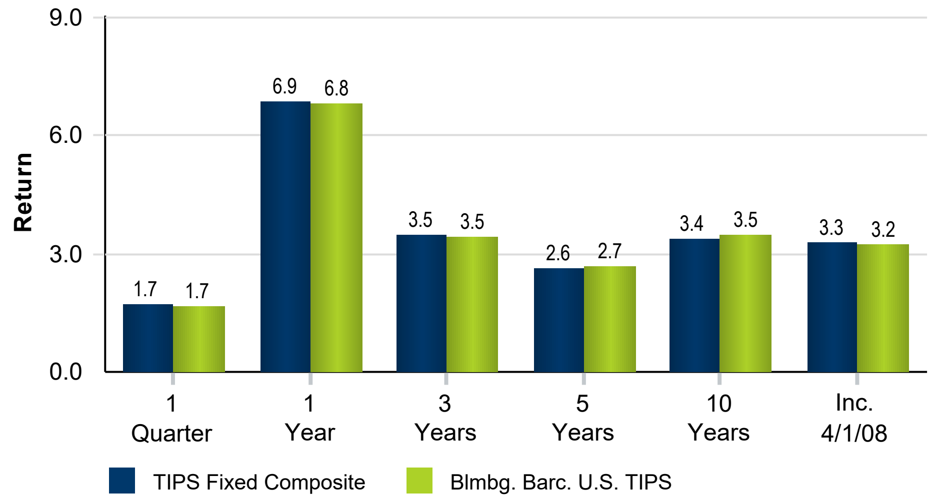
Wilshire Consulting

Composite Performance Summary

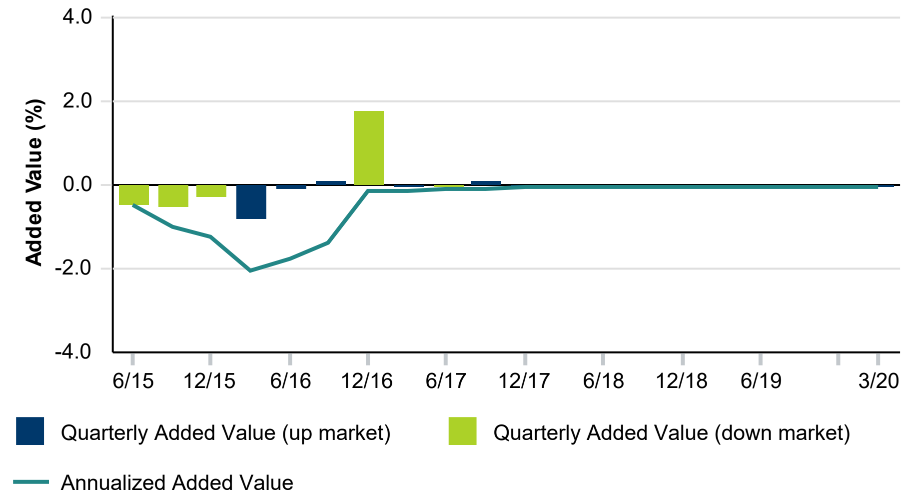
TIPS Fixed Composite

Periods Ended March 31, 2020

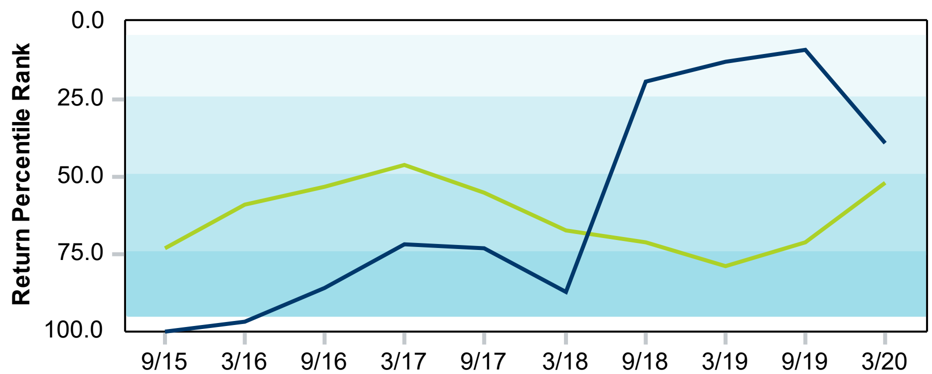
Comparative Performance



Added Value History

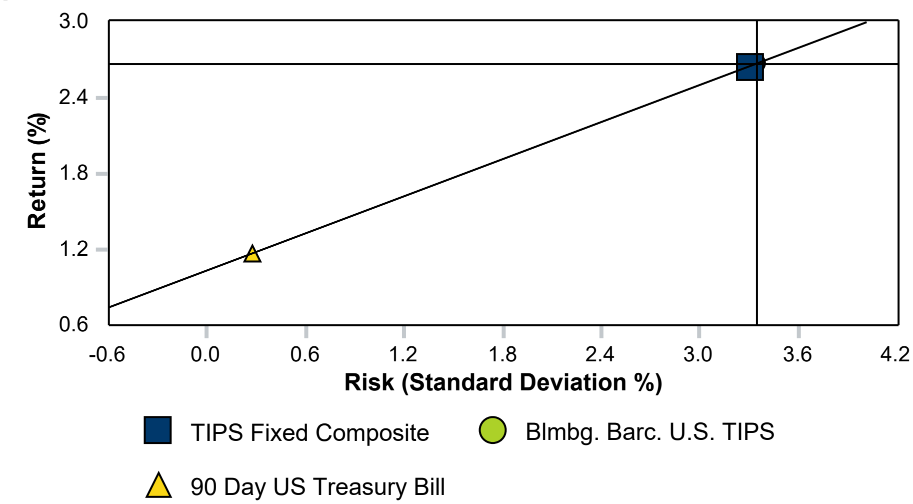


Rolling Percentile Rank: IM U.S. TIPS (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
TIPS Fixed Composite	10	3 (30%)	1 (10%)	2 (20%)	4 (40%)
Benchmark	10	0 (0%)	1 (10%)	8 (80%)	1 (10%)

Risk and Return 04/1/15 - 03/31/20

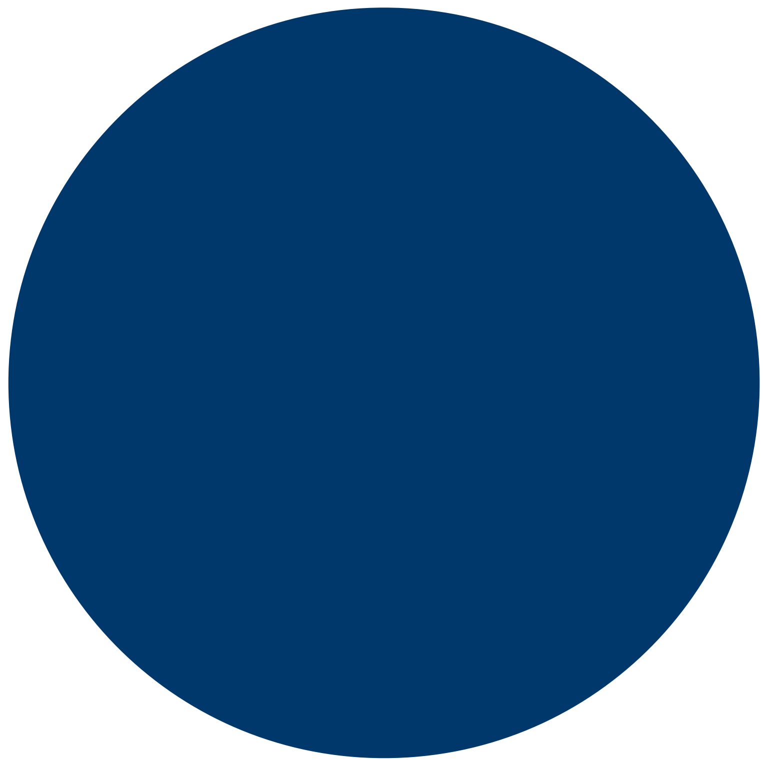


Asset Allocation By Manager

TIPS Fixed Composite

Periods Ended March 31, 2020

Mar-2020 : 42,021,433

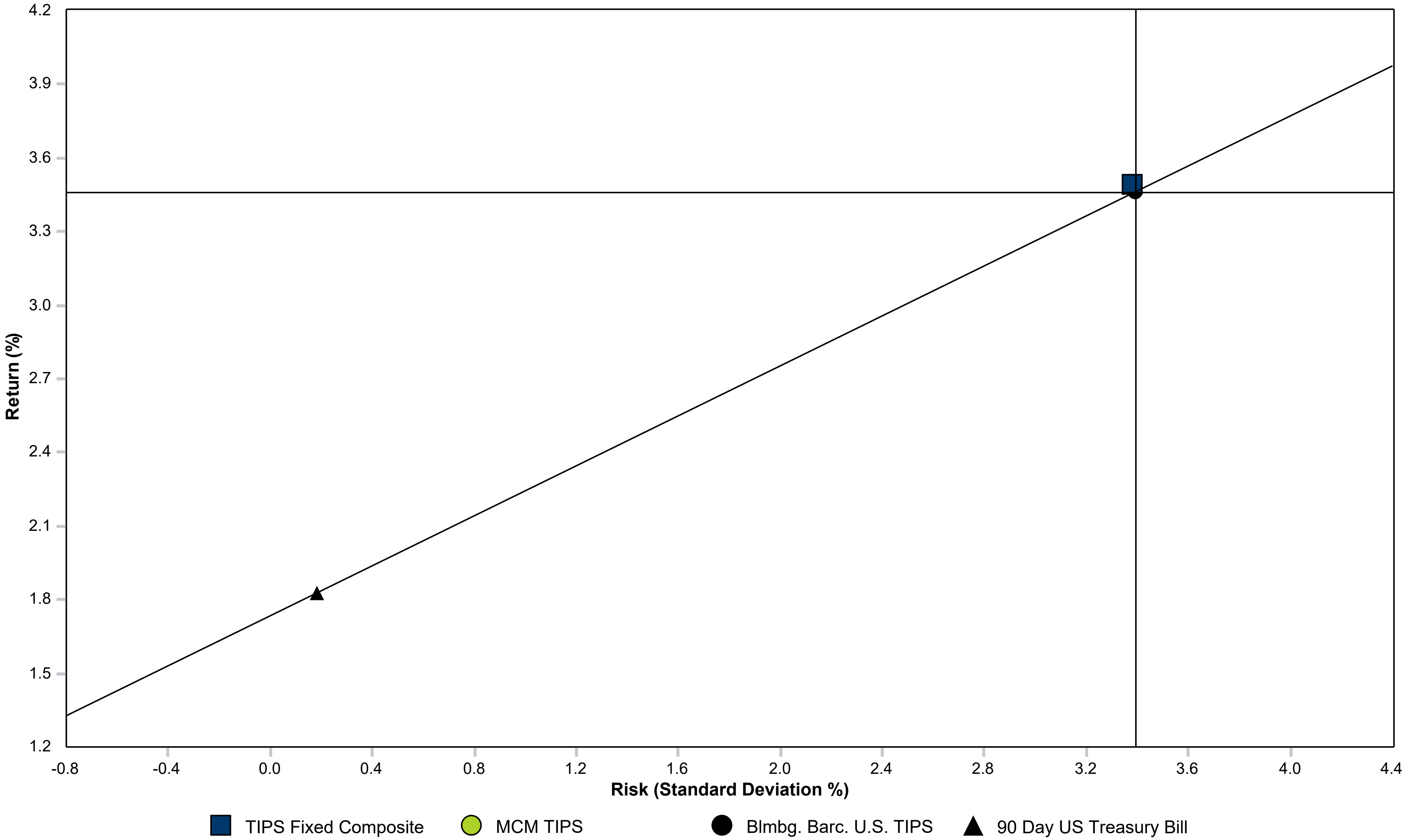


	Market Value $	Allocation (%)
MCM TIPS	42,021,433	100.0

Risk vs. Return

TIPS Fixed Composite

Periods Ended 3 Years Ending March 31, 2020



Calculation based on monthly periodicity.

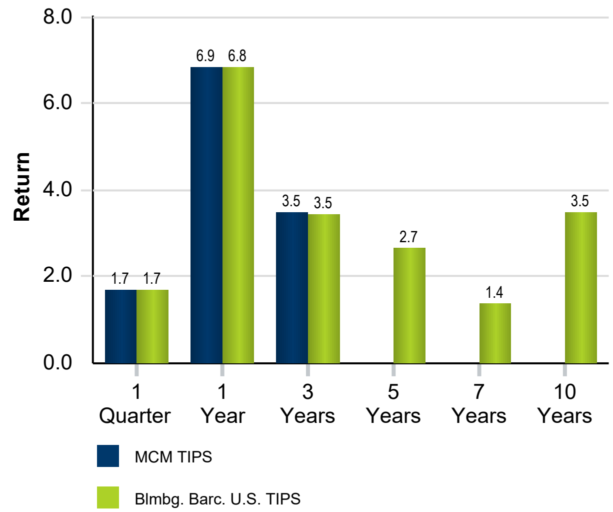
Wilshire Consulting

Performance Summary

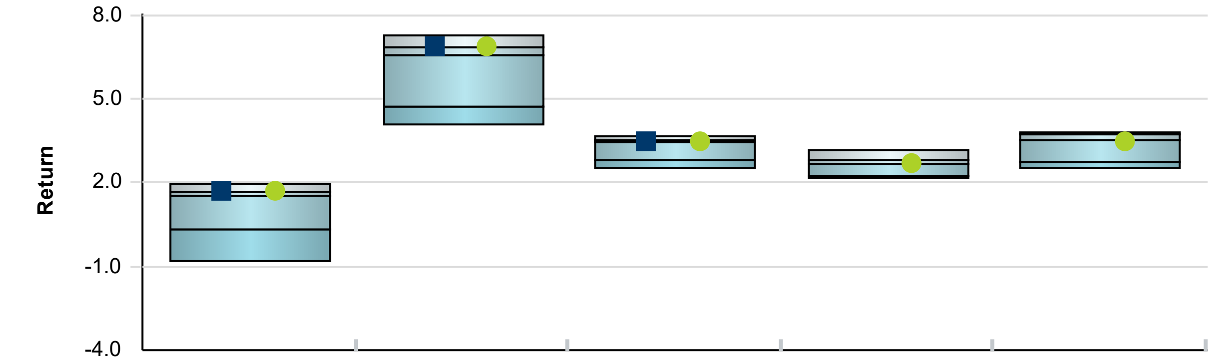
MCM TIPS

Periods Ended March 31, 2020

Comparative Performance

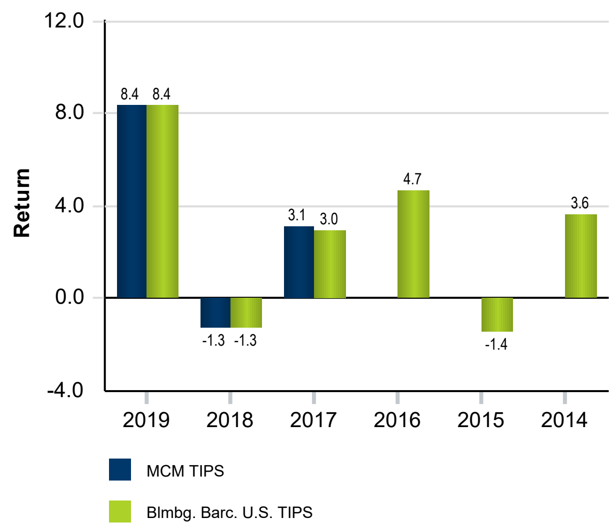


Peer Group Analysis: IM U.S. TIPS (SA+CF)

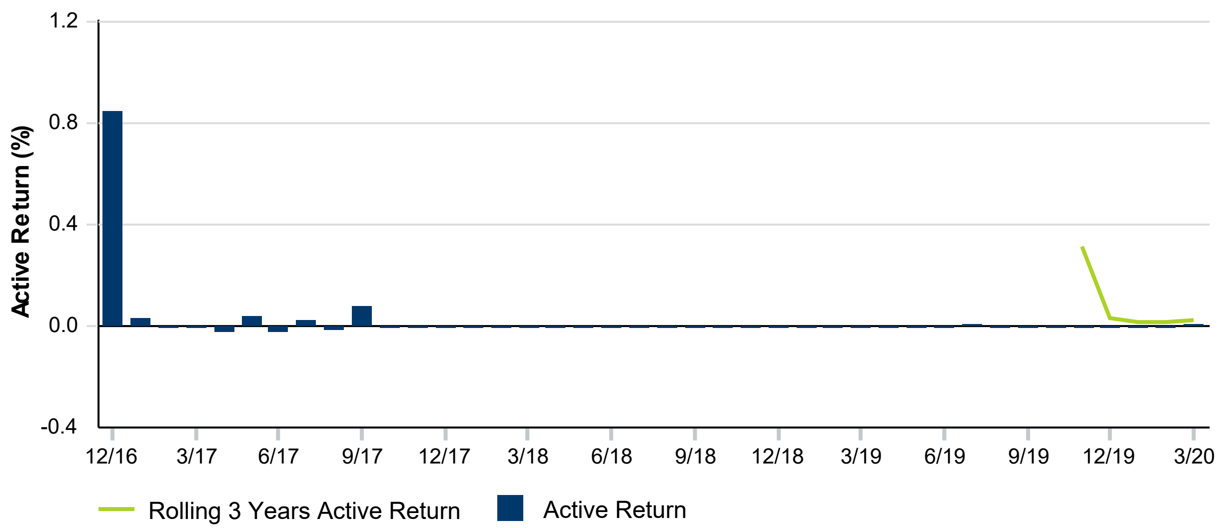


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	1.70 (27)	6.86 (31)	3.49 (39)		
Benchmark	1.69 (40)	6.85 (36)	3.46 (52)	2.67 (53)	3.48 (53)
Median	1.53	6.55	3.47	2.68	3.49

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

MCM TIPS

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	MCM TIPS	Blmbg. Barc. U.S. TIPS
Maximum Return	2.38	2.38
Minimum Return	-1.75	-1.76
Return	6.86	6.85
Cumulative Return	6.86	6.85
Active Return	0.01	0.00
Excess Return	4.51	4.50

Risk Summary Statistics	MCM TIPS	Blmbg. Barc. U.S. TIPS
Upside Risk	1.15	1.15
Downside Risk	2.22	2.22
Beta	1.00	1.00

Risk/Return Summary Statistics	MCM TIPS	Blmbg. Barc. U.S. TIPS
Standard Deviation	4.13	4.13
Alpha	0.02	0.00
Active Return/Risk	0.00	0.00
Tracking Error	0.01	0.00
Information Ratio	0.94	
Sharpe Ratio	1.08	1.07

Correlation Statistics	MCM TIPS	Blmbg. Barc. U.S. TIPS
R-Squared	1.00	1.00
Actual Correlation	1.00	1.00

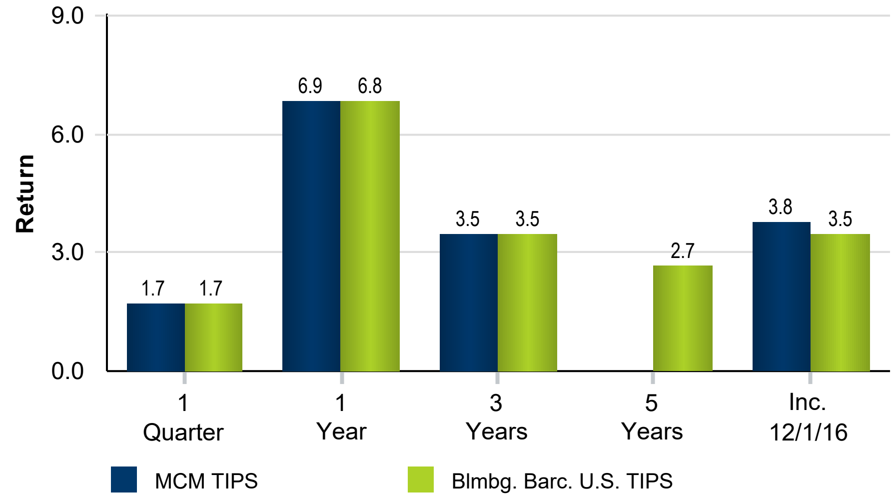
MLP

Manager Summary

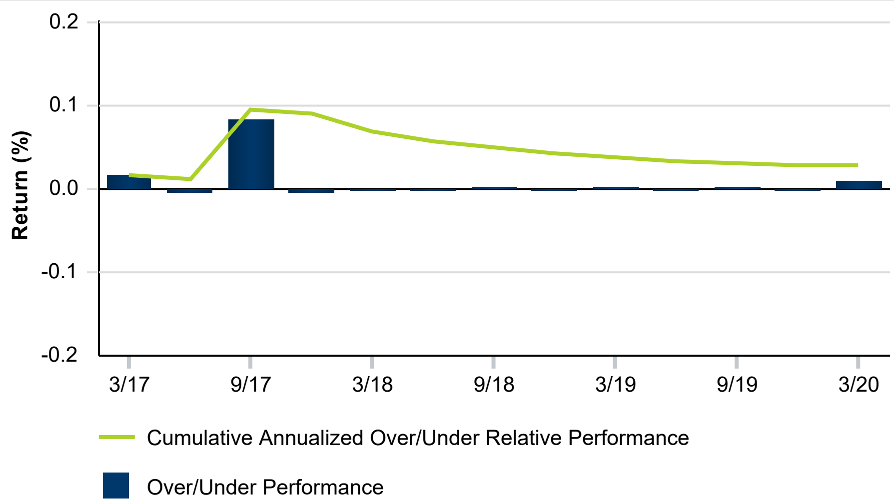
MCM TIPS vs IM U.S. TIPS (SA+CF)

Periods Ended March 31, 2020

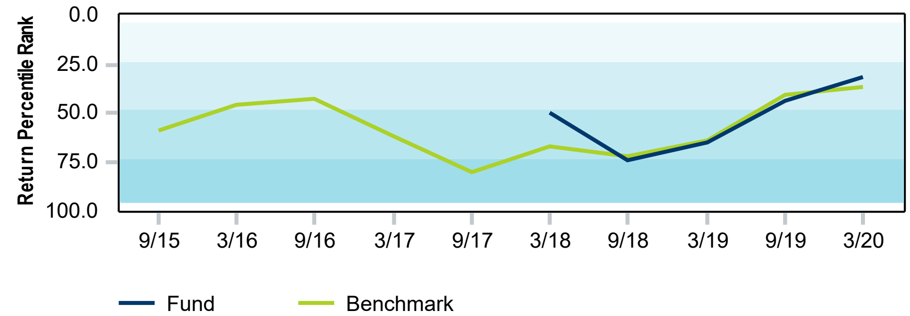
Comparative Performance



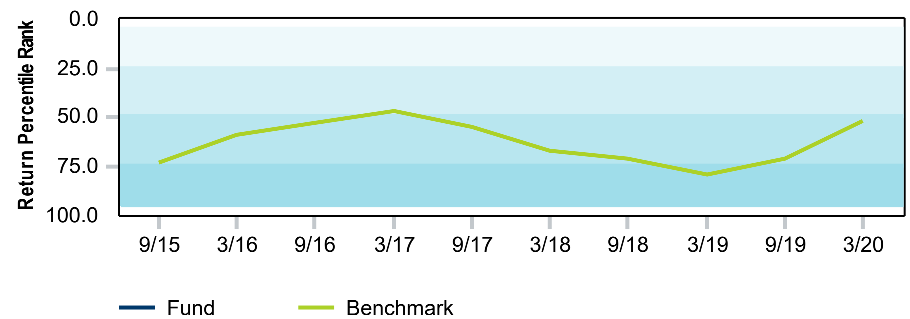
Relative Performance



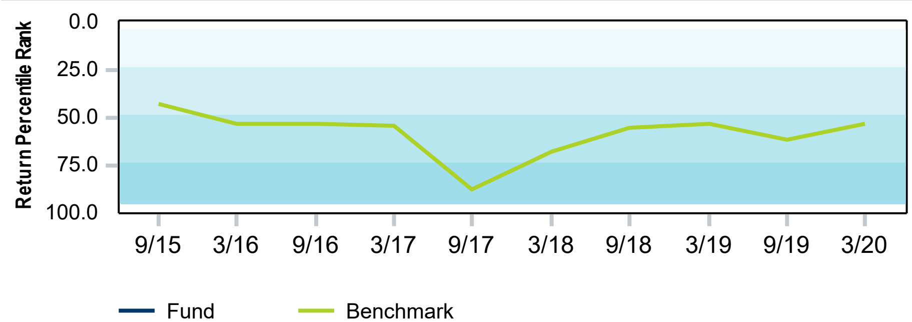
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking

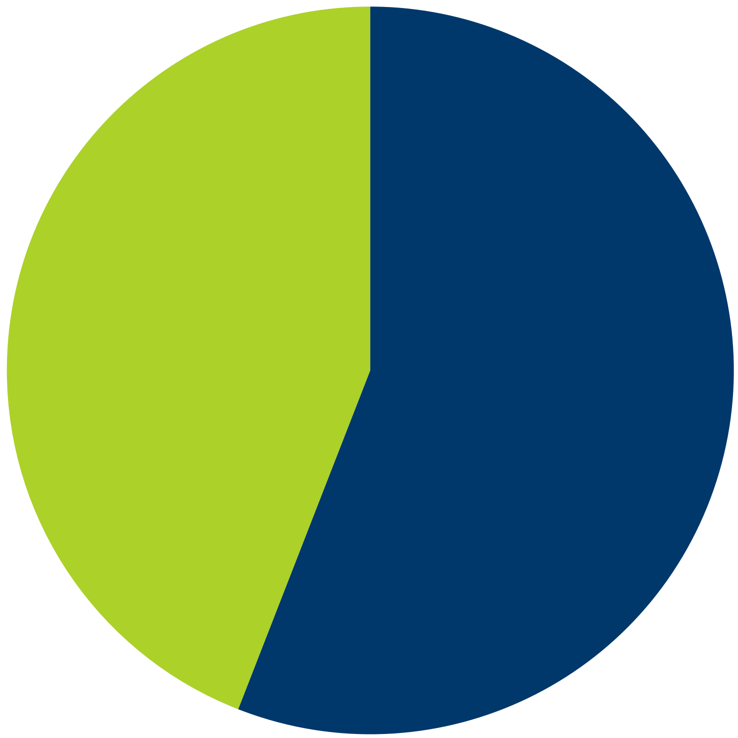


Asset Allocation By Manager

MLP Composite

Periods Ended March 31, 2020

Mar-2020 : 21,688,538

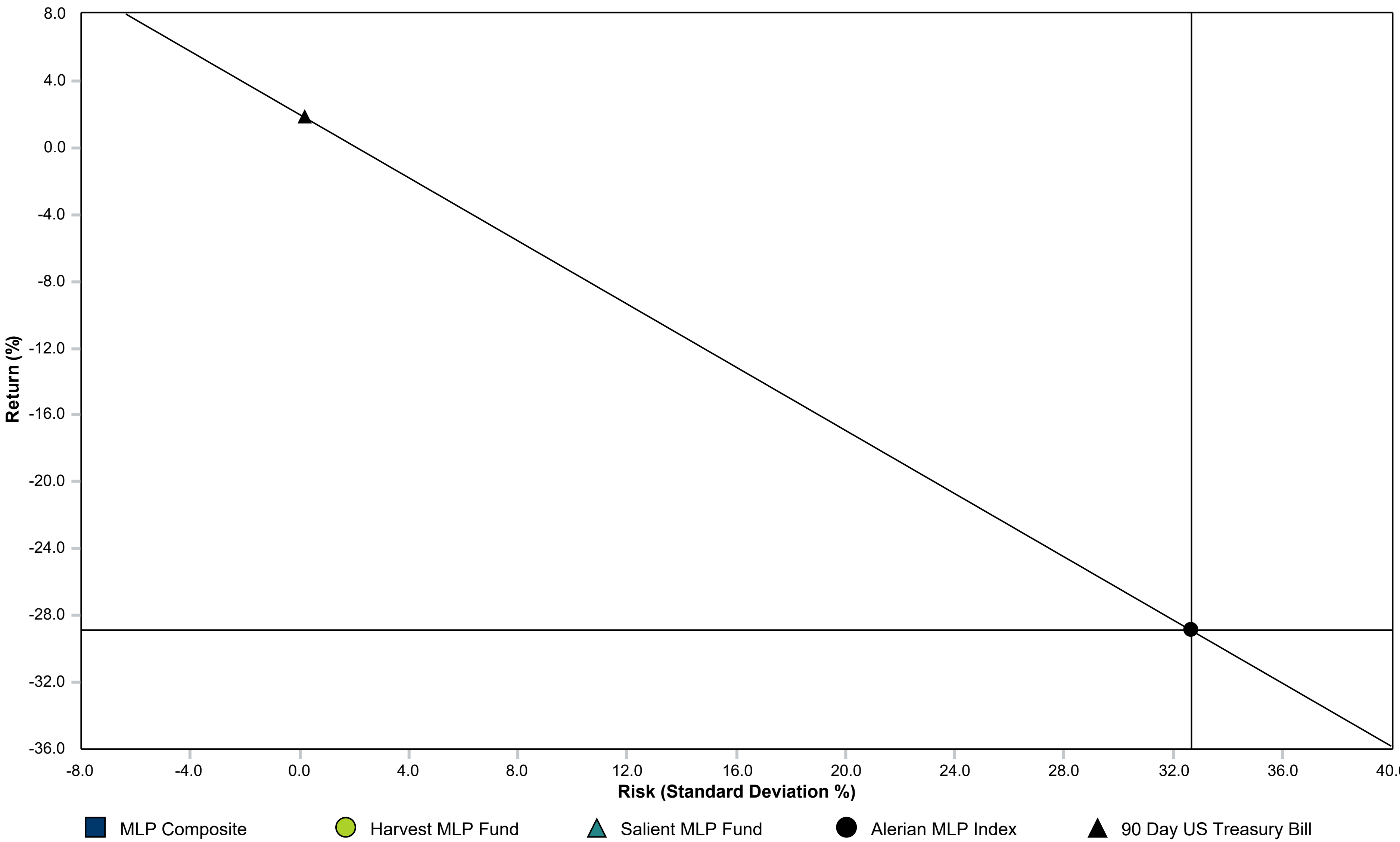


	Market Value $	Allocation (%)
Harvest MLP Fund	12,128,825	55.9
Salient MLP Fund	9,559,713	44.1

Risk vs. Return

MLP Composite

Periods Ended 3 Years Ending March 31, 2020



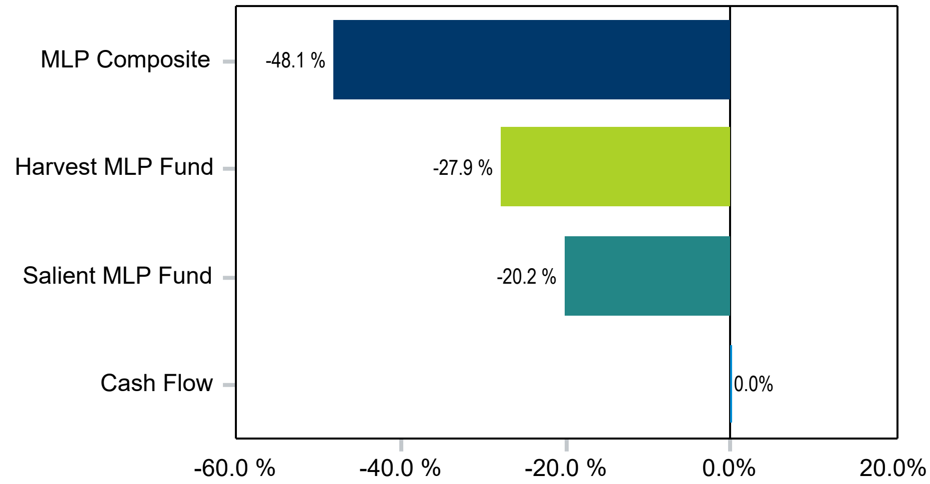
Calculation based on monthly periodicity.

Return and Risk Contribution

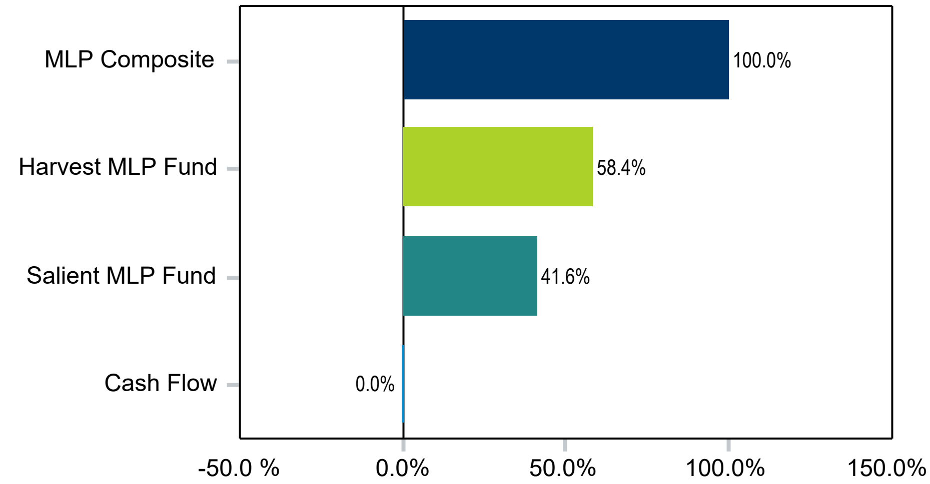
MLP Composite

Periods Ended 1 Quarter March 31, 2020

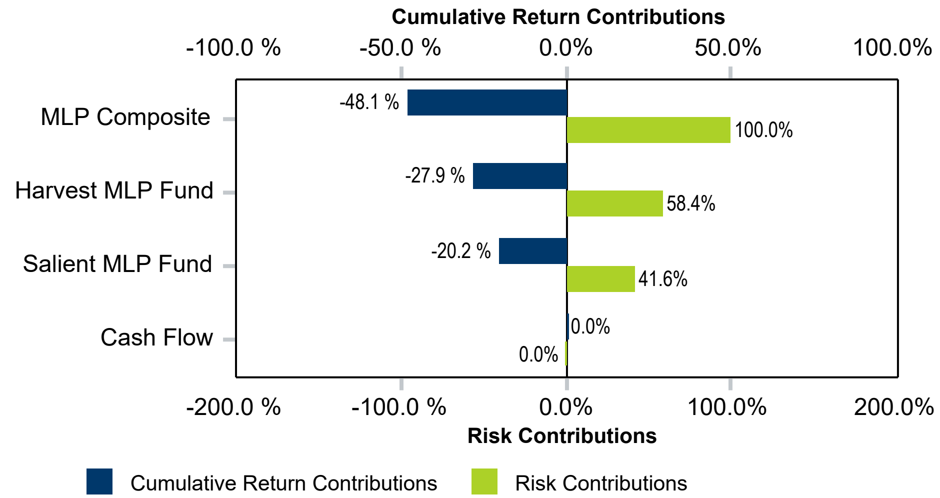
Cumulative Return Contributions



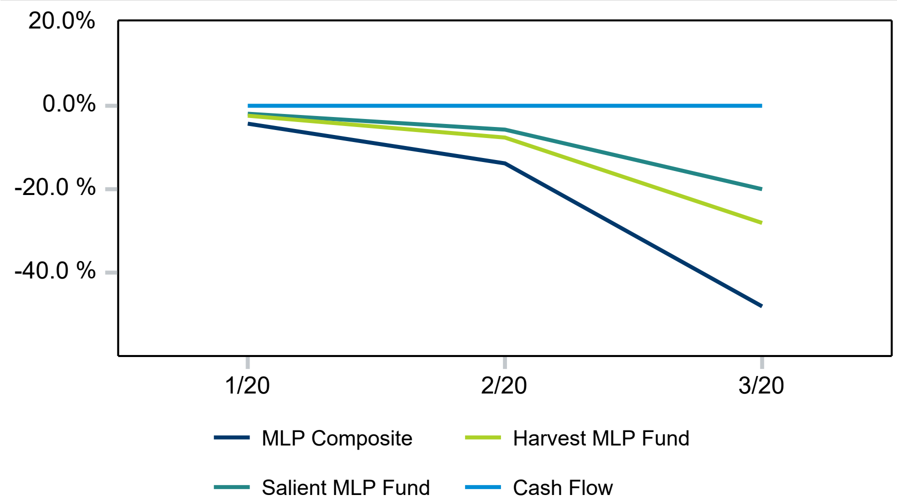
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



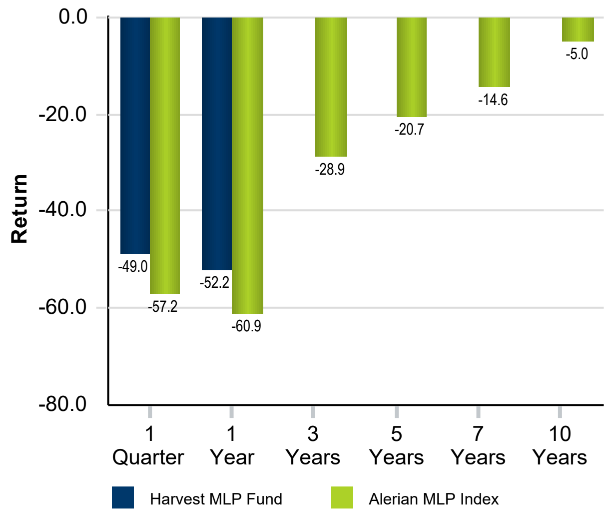
Wilshire Consulting

Performance Summary

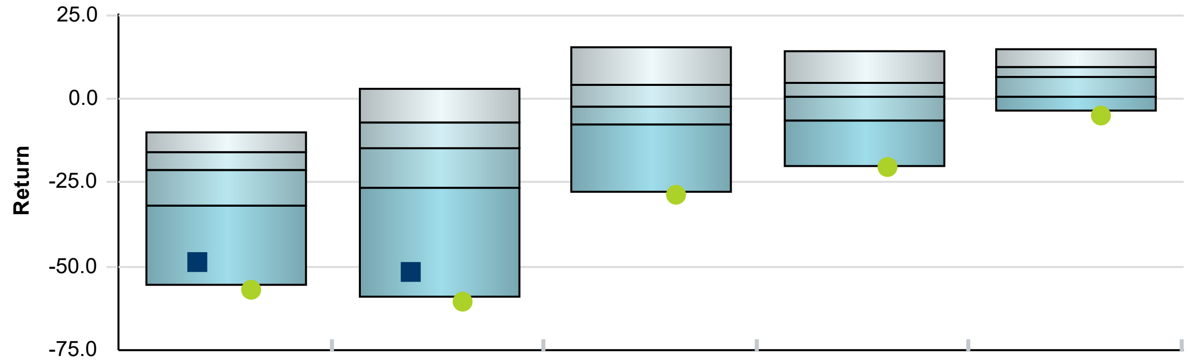
Harvest MLP Fund

Periods Ended March 31, 2020

Comparative Performance

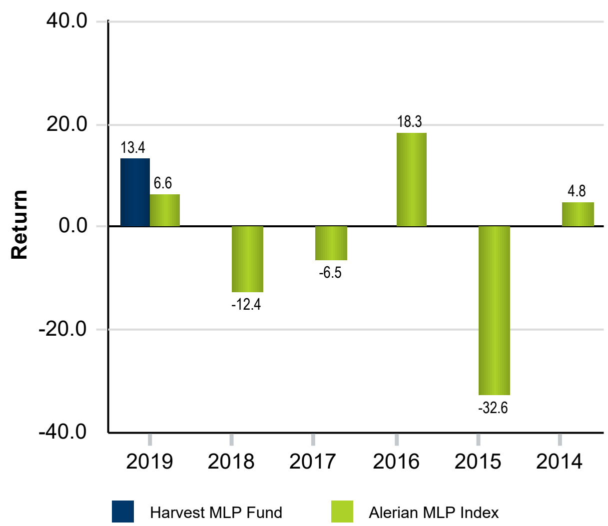


Peer Group Analysis: IM U.S. Other Equity (SA+CF)

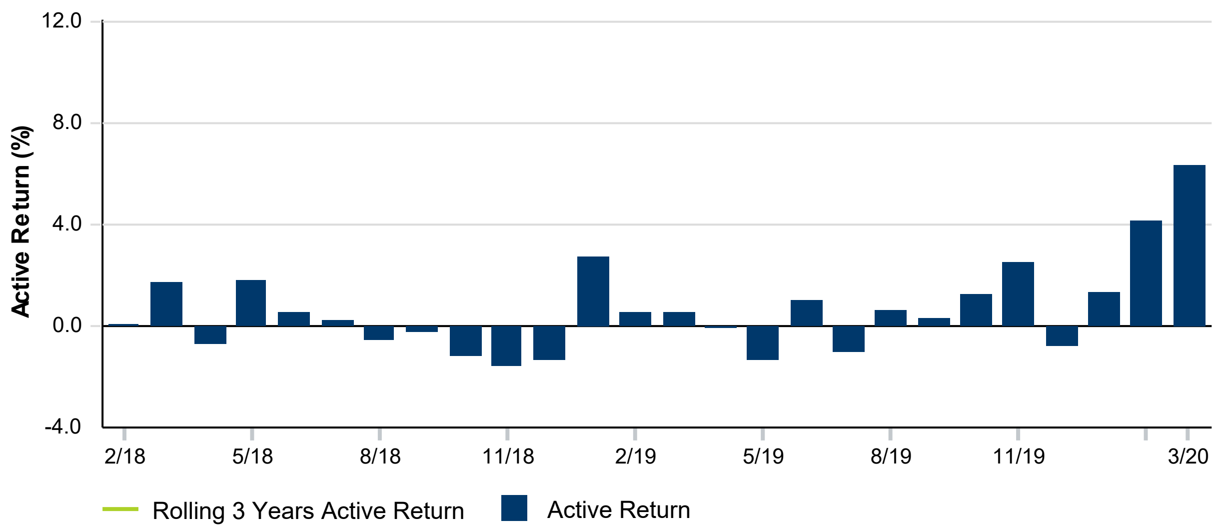


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-49.01 (86)	-52.17 (85)			
Benchmark	-57.19 (99)	-60.95 (99)	-28.91 (97)	-20.66 (96)	-5.04 (97)
Median	-21.07	-14.58	-2.03	0.88	6.86

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Harvest MLP Fund

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Harvest MLP Fund	Alerian MLP Index
Maximum Return	7.78	8.53
Minimum Return	-40.88	-47.23
Return	-52.17	-60.95
Cumulative Return	-52.17	-60.95
Active Return	14.42	0.00
Excess Return	-62.97	-77.39

Risk Summary Statistics	Harvest MLP Fund	Alerian MLP Index
Upside Risk	2.50	2.59
Downside Risk	43.09	50.64
Beta	0.86	1.00

Risk/Return Summary Statistics	Harvest MLP Fund	Alerian MLP Index
Standard Deviation	40.30	46.63
Alpha	4.04	0.00
Active Return/Risk	0.36	0.00
Tracking Error	7.38	0.00
Information Ratio	1.95	
Sharpe Ratio	-1.56	-1.66

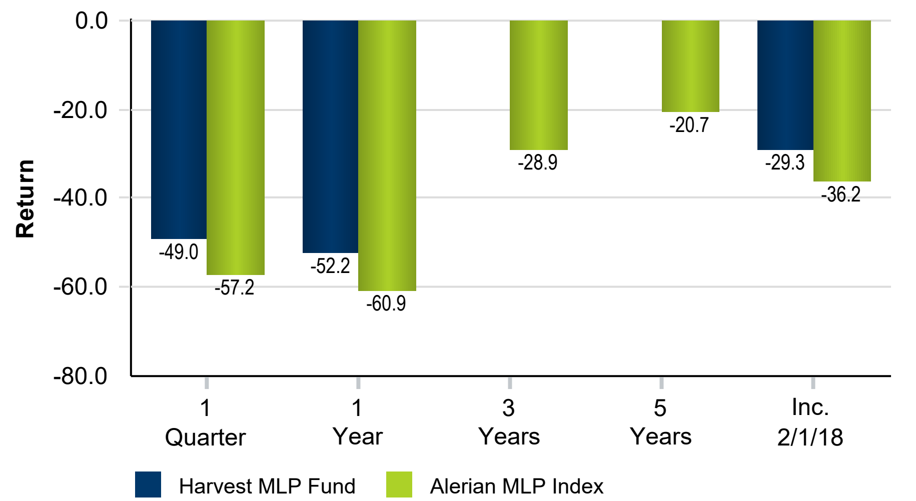
Correlation Statistics	Harvest MLP Fund	Alerian MLP Index
R-Squared	0.99	1.00
Actual Correlation	1.00	1.00

Manager Summary

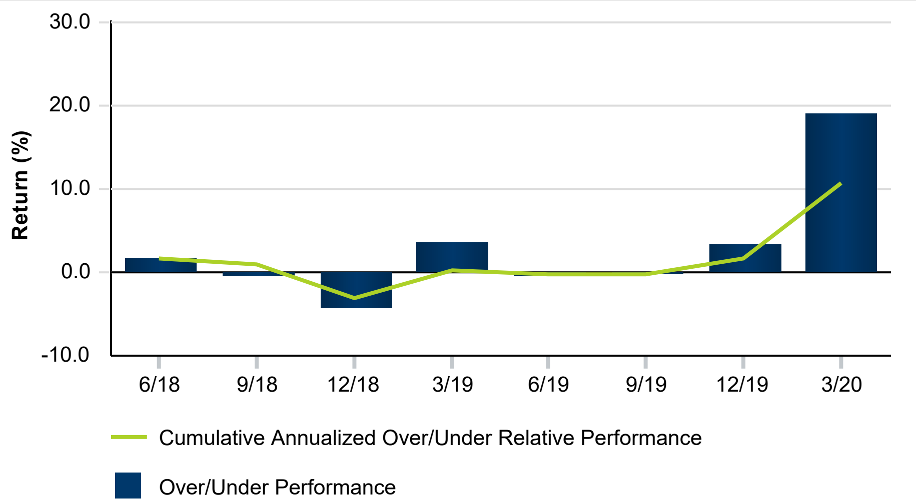
Harvest MLP Fund vs IM U.S. Other Equity (SA+CF)

Periods Ended March 31, 2020

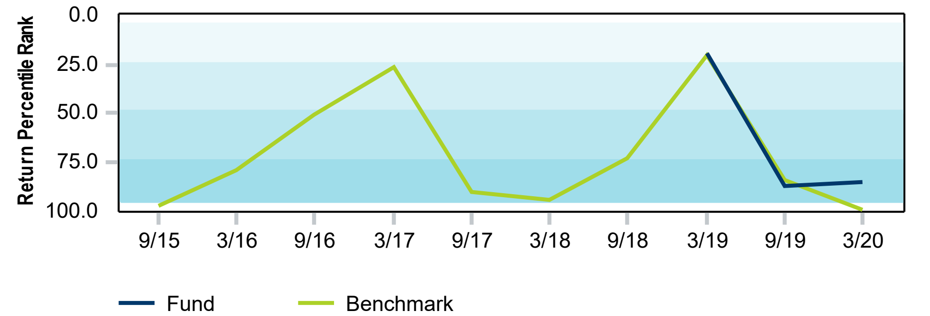
Comparative Performance



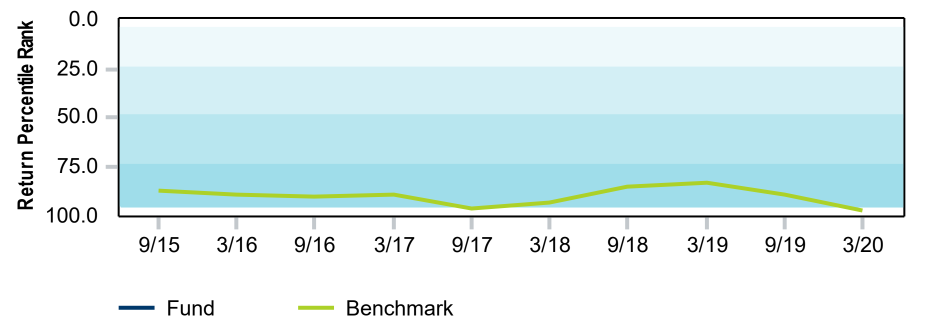
Relative Performance



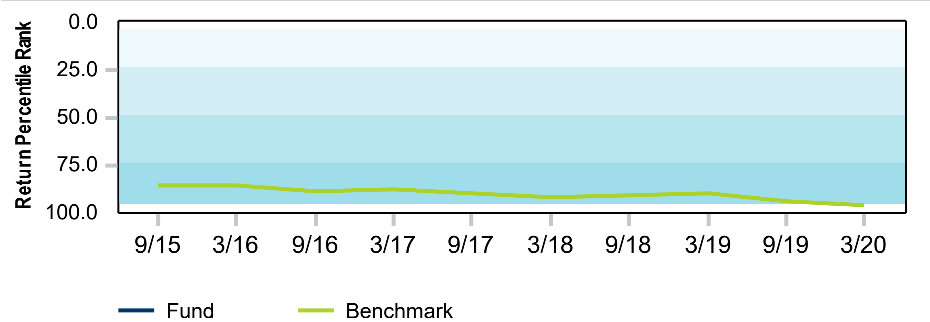
1 Year Rolling Percentile Ranking



3 Year Rolling Percentile Ranking



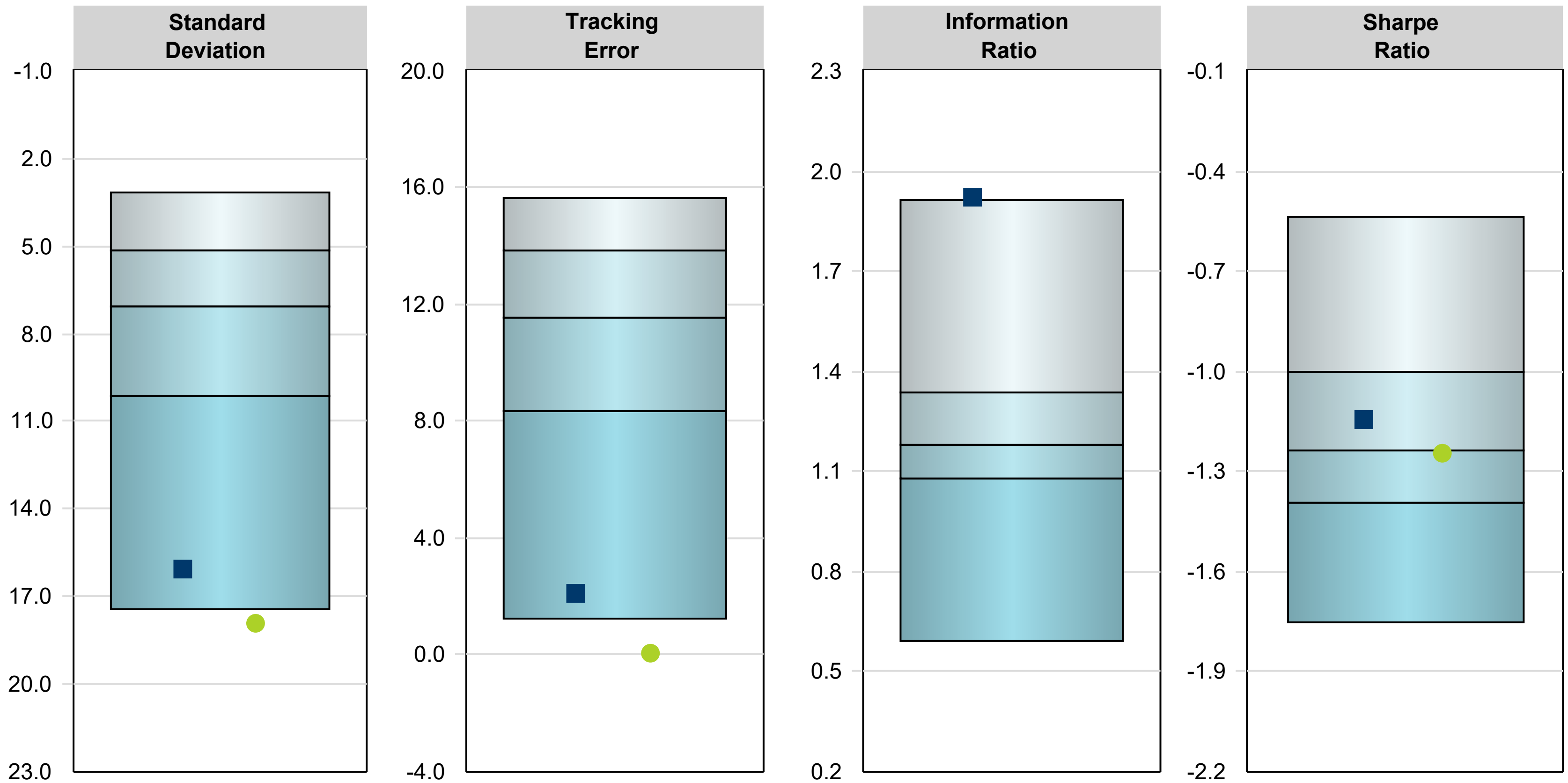
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Harvest MLP Fund

Periods Ended March 31, 2020



	QTD	QTD	QTD	QTD
■ Harvest MLP Fund	16.09 (87)	2.06 (91)	1.92 (5)	-1.15 (35)
● Alerian MLP Index	17.96 (97)	0.00 (100)		-1.25 (51)
5th Percentile	3.18	15.63	1.92	-0.54
1st Quartile	5.12	13.84	1.34	-1.00
Median	7.08	11.55	1.18	-1.24
3rd Quartile	10.15	8.36	1.08	-1.39
95th Percentile	17.42	1.27	0.59	-1.75

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

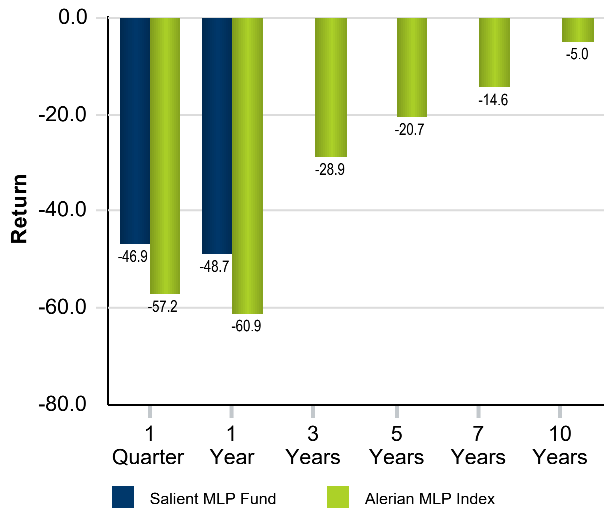
Wilshire Consulting

Performance Summary

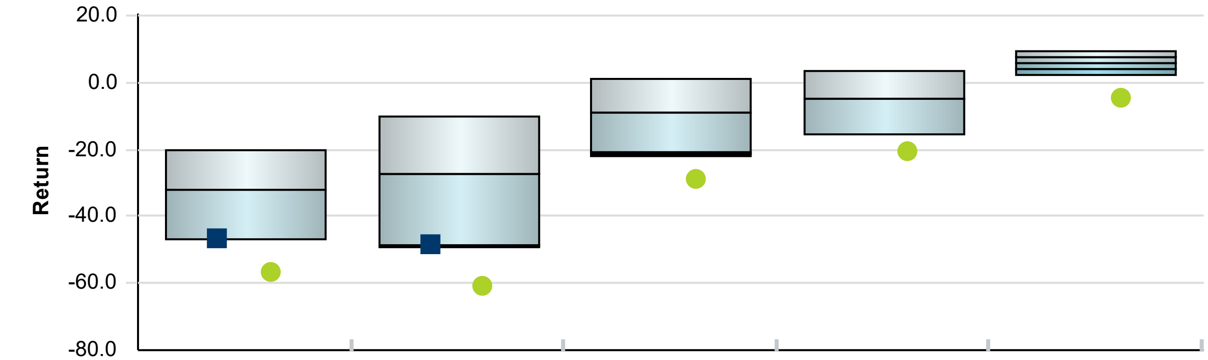
Salient MLP Fund

Periods Ended March 31, 2020

Comparative Performance

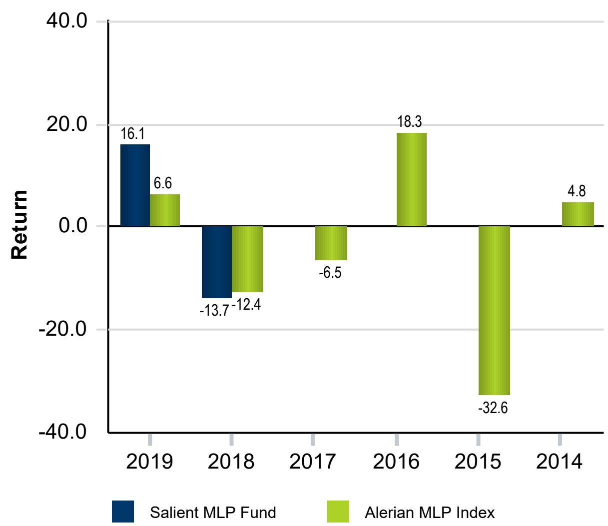


Peer Group Analysis: IM U.S. Other Equity (MA)

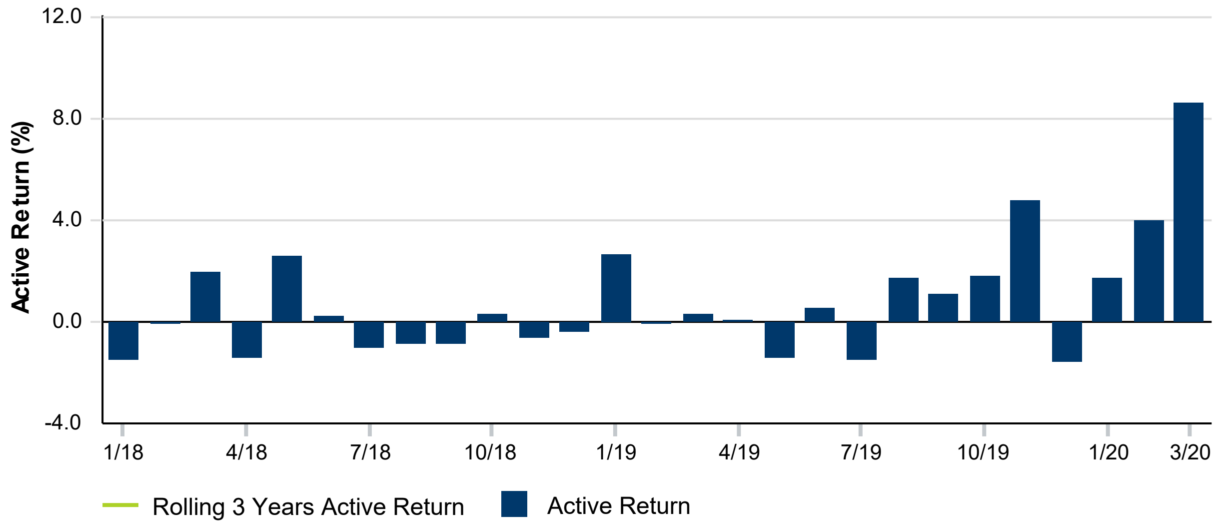


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	-46.93 (82)	-48.69 (67)			
Benchmark	-57.19 (100)	-60.95 (100)	-28.91 (100)	-20.66 (100)	-5.04 (100)
Median	-46.69	-48.35	-21.08	-15.22	5.84

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Salient MLP Fund

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics	Salient MLP Fund	Alerian MLP Index
Maximum Return	6.98	8.53
Minimum Return	-38.58	-47.23
Return	-48.69	-60.95
Cumulative Return	-48.69	-60.95
Active Return	19.76	0.00
Excess Return	-57.63	-77.39

Risk Summary Statistics	Salient MLP Fund	Alerian MLP Index
Upside Risk	2.27	2.59
Downside Risk	40.64	50.64
Beta	0.81	1.00

Risk/Return Summary Statistics	Salient MLP Fund	Alerian MLP Index
Standard Deviation	38.18	46.63
Alpha	5.84	0.00
Active Return/Risk	0.52	0.00
Tracking Error	9.89	0.00
Information Ratio	2.00	
Sharpe Ratio	-1.51	-1.66

Correlation Statistics	Salient MLP Fund	Alerian MLP Index
R-Squared	0.99	1.00
Actual Correlation	0.99	1.00

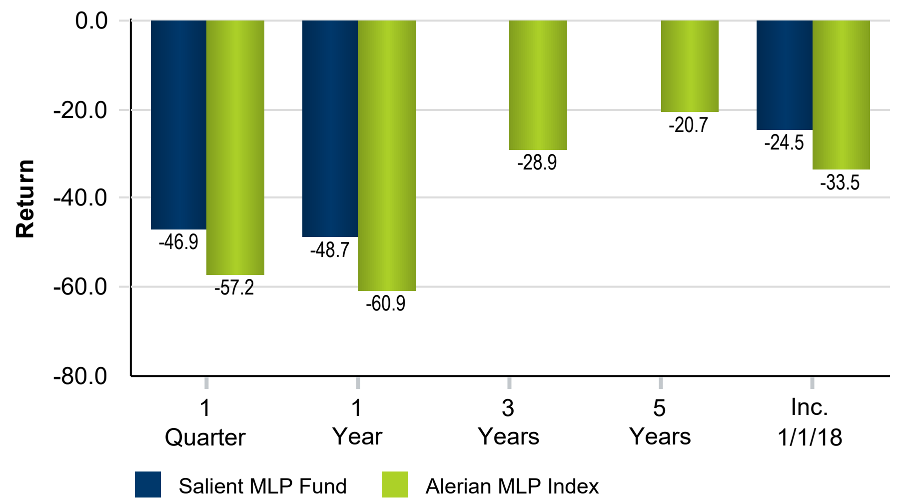
Wilshire Consulting

Manager Summary

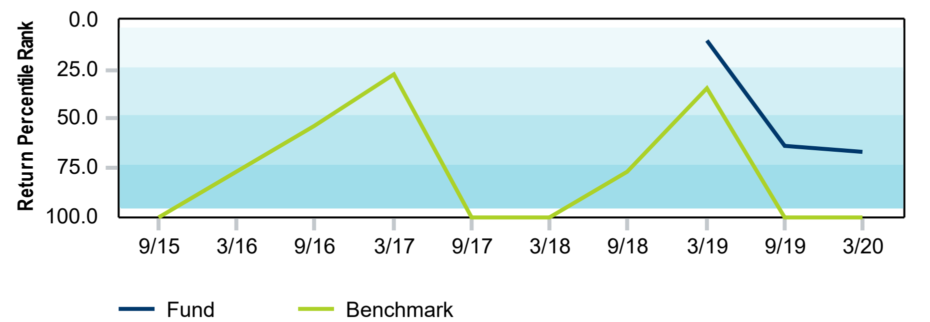
Salient MLP Fund vs IM U.S. Other Equity (MA)

Periods Ended March 31, 2020

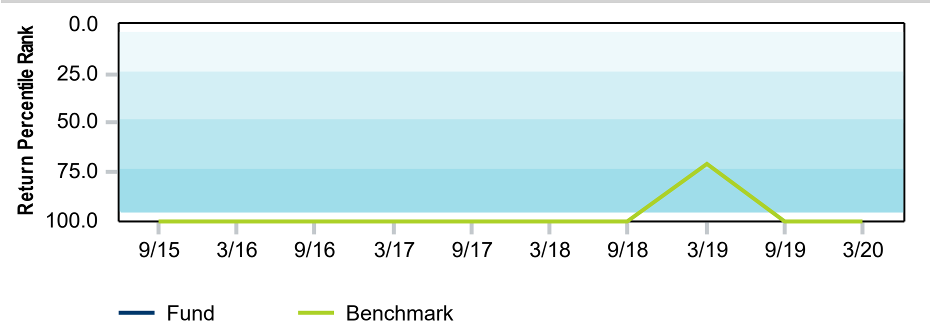
Comparative Performance



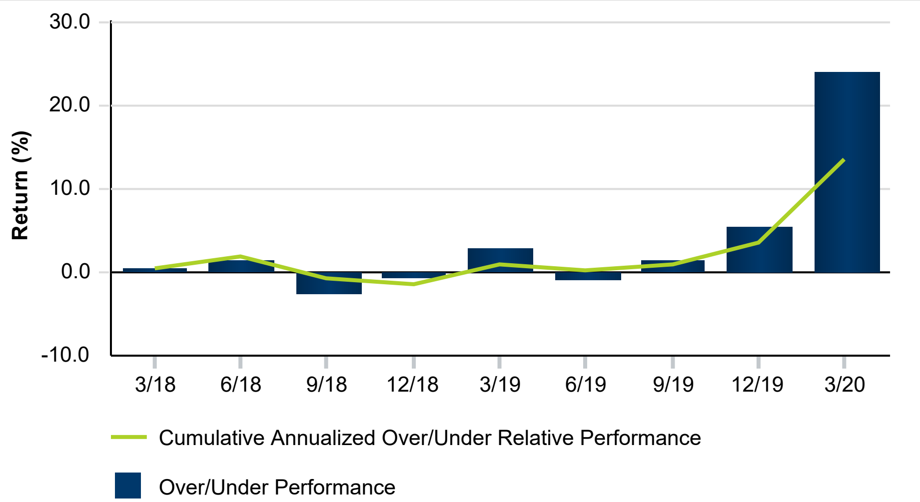
1 Year Rolling Percentile Ranking



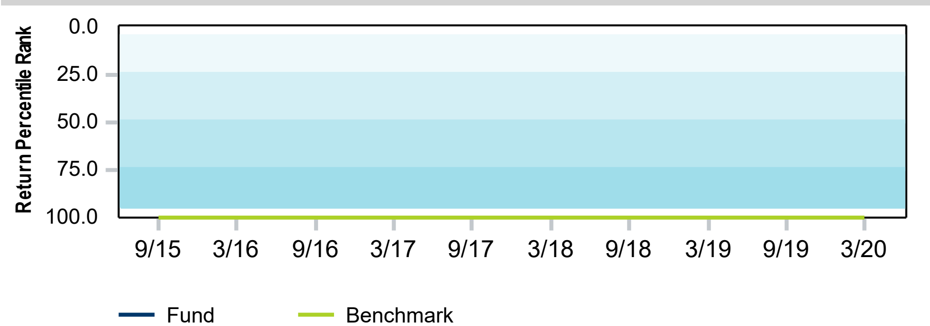
3 Year Rolling Percentile Ranking



Relative Performance



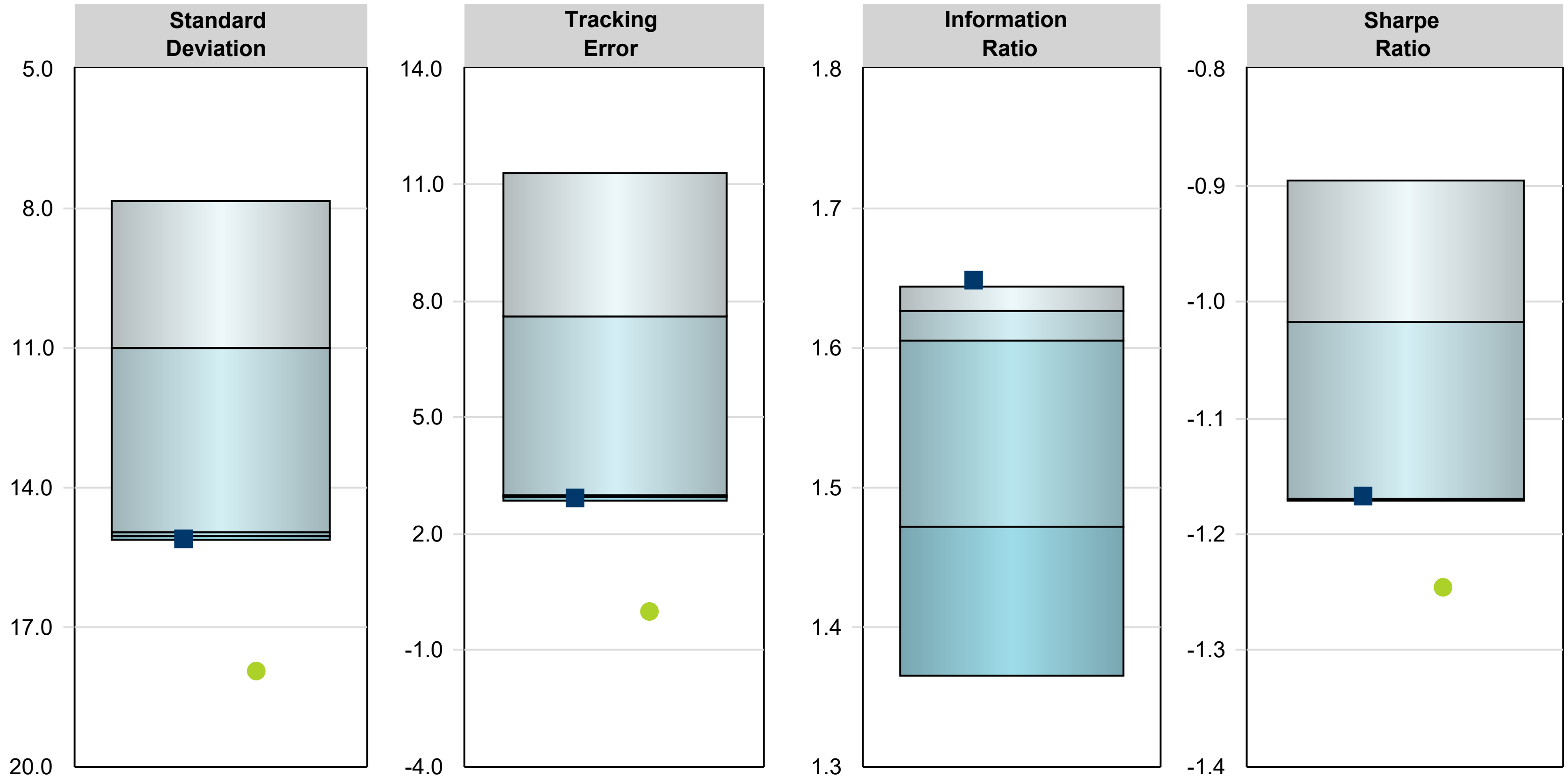
5 Year Rolling Percentile Ranking



Peer Group Analysis - Multi Statistics

Salient MLP Fund

Periods Ended March 31, 2020



	Standard Deviation QTD	Tracking Error QTD	Information Ratio QTD	Sharpe Ratio QTD
■ Salient MLP Fund	15.10 (89)	2.90 (89)	1.65 (1)	-1.17 (50)
● Alerian MLP Index	17.96 (100)	0.00 (100)		-1.25 (100)
5th Percentile	7.83	11.29	1.64	-0.90
1st Quartile	11.00	7.62	1.63	-1.02
Median	14.96	3.03	1.61	-1.17
3rd Quartile	15.05	2.94	1.47	-1.17
95th Percentile	15.12	2.87	1.37	-1.17

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

REAL ESTATE

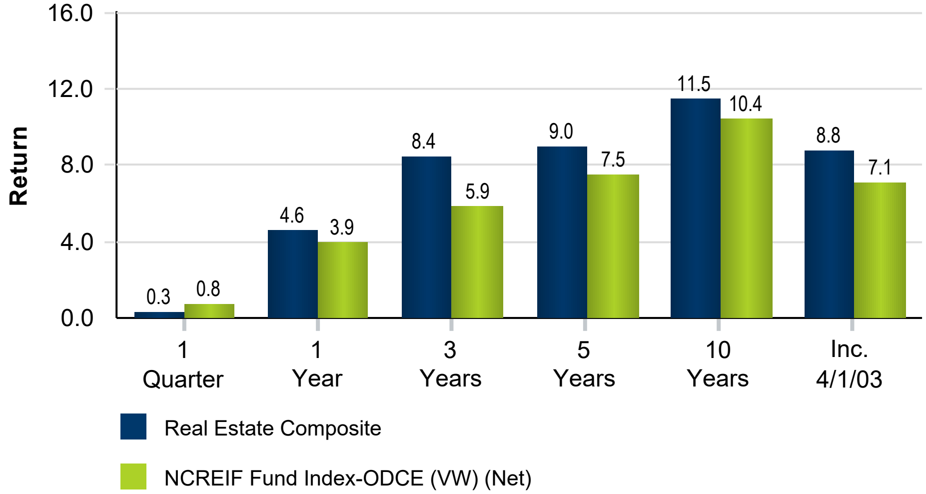
Wilshire Consulting

Composite Performance Summary

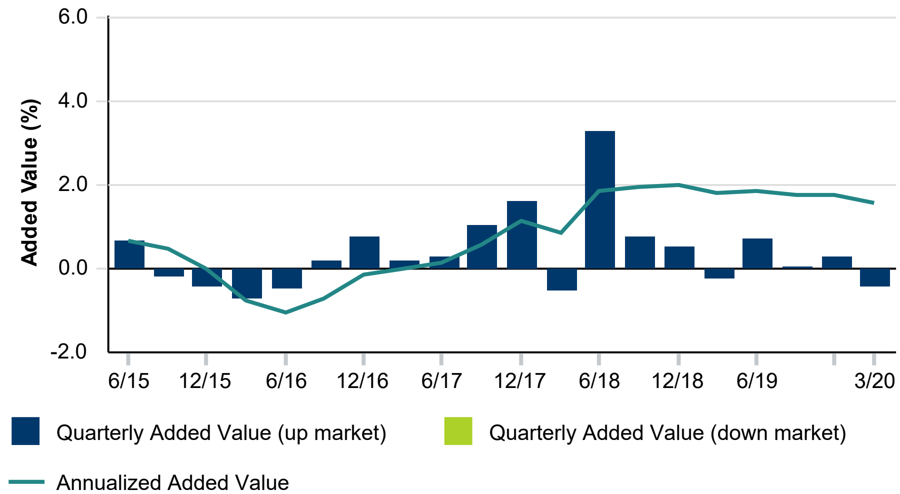
Real Estate Composite

Periods Ended March 31, 2020

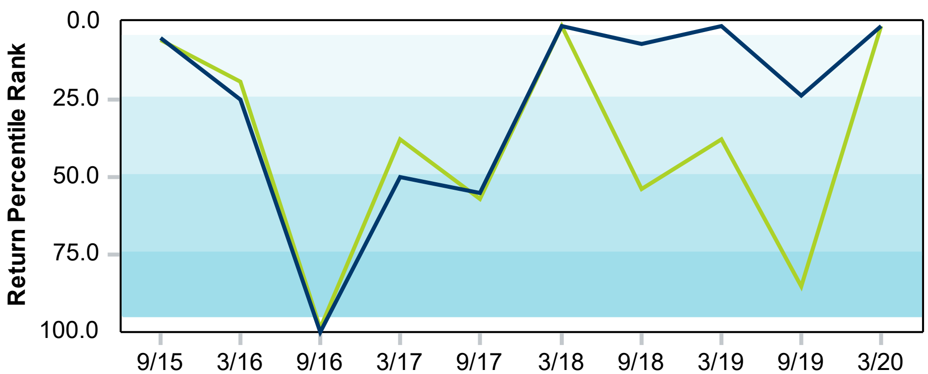
Comparative Performance



Added Value History

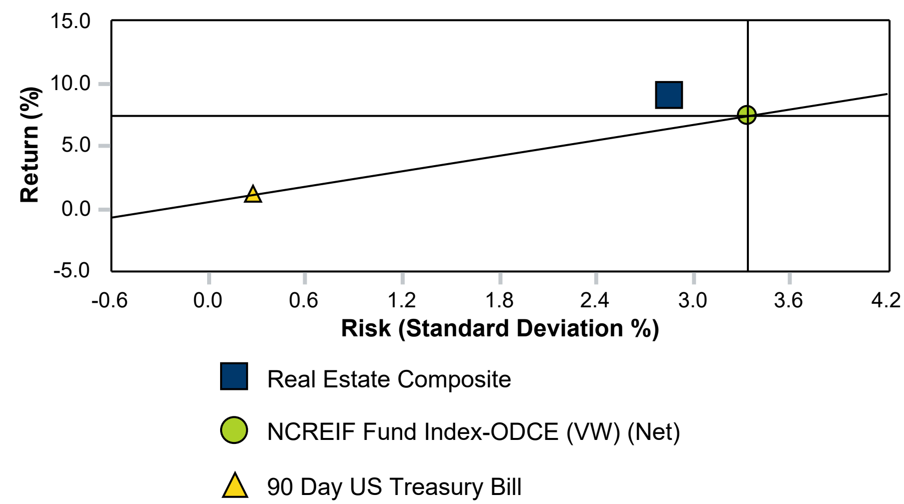


Rolling Percentile Rank: IM U.S. REIT (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Real Estate Composite	10	7 (70%)	1 (10%)	1 (10%)	1 (10%)
Benchmark	10	4 (40%)	2 (20%)	2 (20%)	2 (20%)

Risk and Return 04/1/15 - 03/31/20

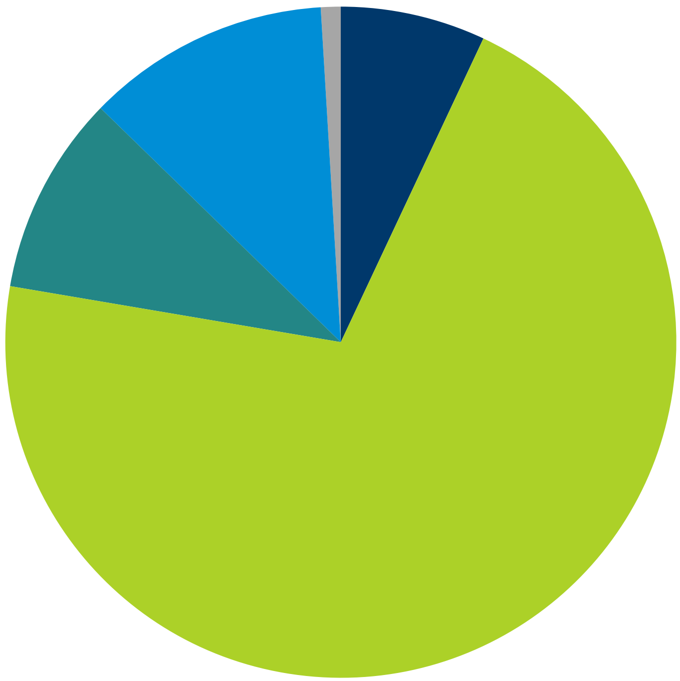


Asset Allocation By Manager

Real Estate Composite

Periods Ended March 31, 2020

Mar-2020 : 102,738,899

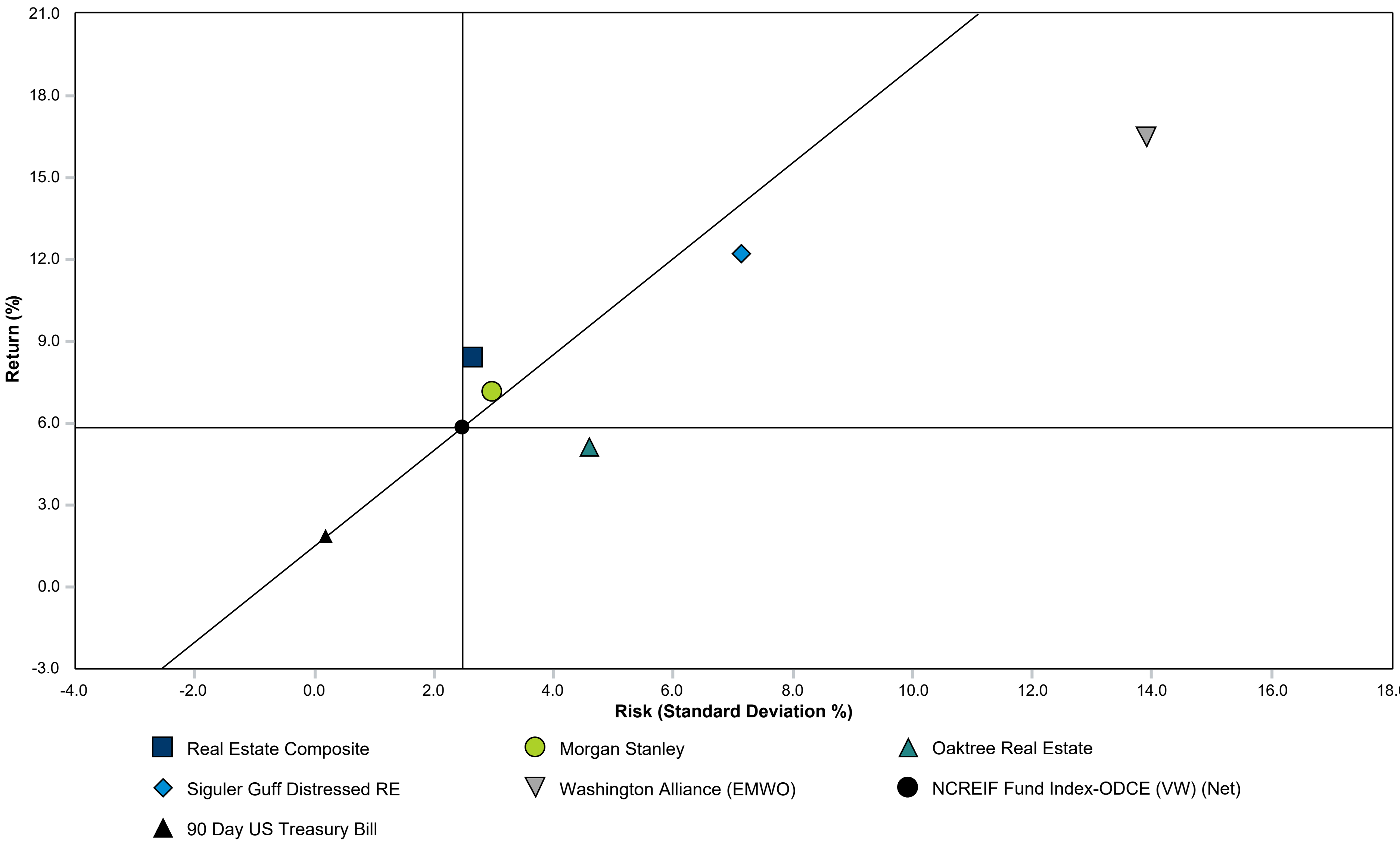


	Market Value $	Allocation (%)
Oaktree Real Estate	7,179,497	7.0
Morgan Stanley	72,624,120	70.7
Siguler Guff Distressed RE	9,880,982	9.6
Washington Alliance (EMWO)	12,070,967	11.7
Washington Alliance II (EMWO)	983,333	1.0

Risk vs. Return

Real Estate Composite

Periods Ended 3 Years Ending March 31, 2020



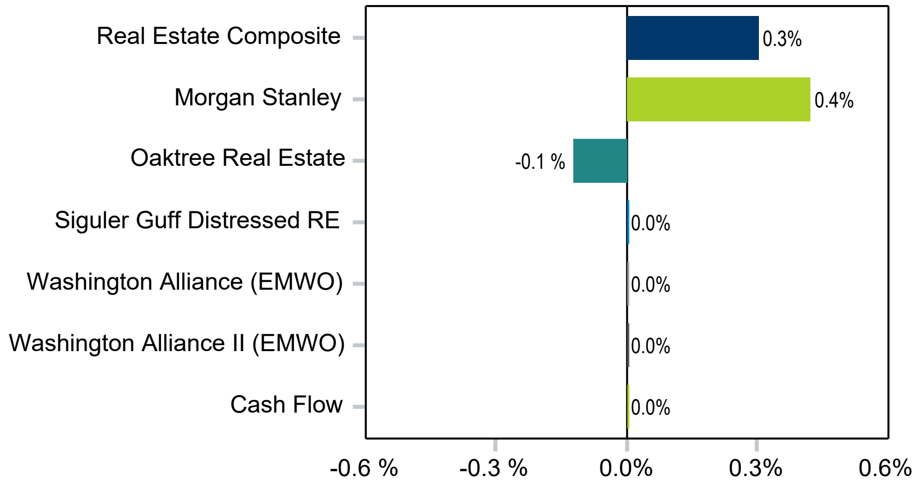
Calculation based on monthly periodicity.

Return and Risk Contribution

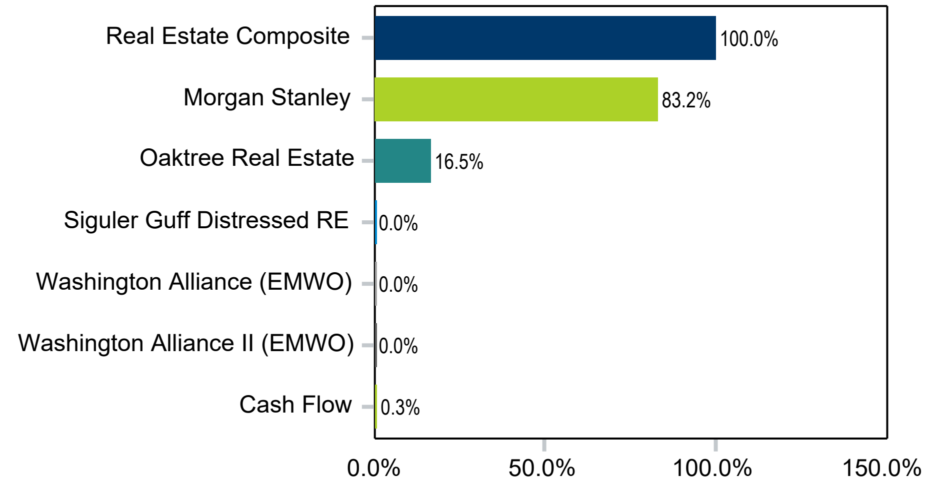
Real Estate Composite

Periods Ended 1 Quarter March 31, 2020

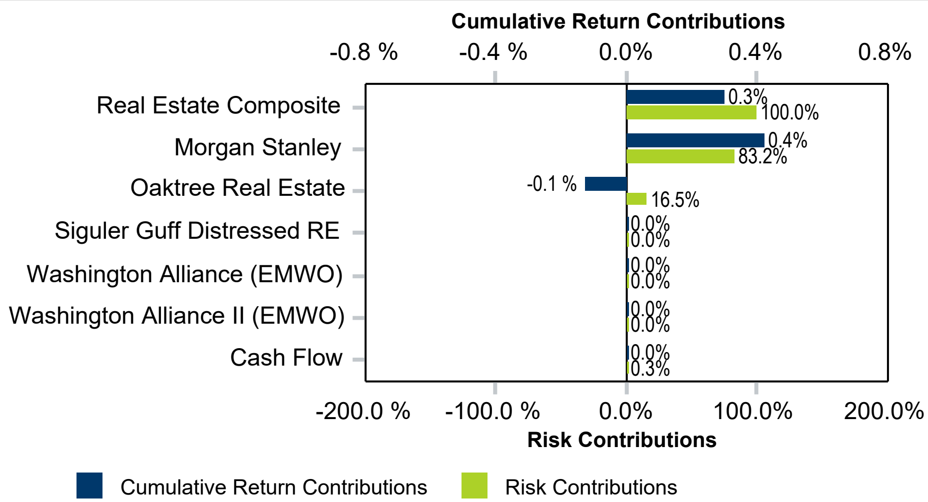
Cumulative Return Contributions



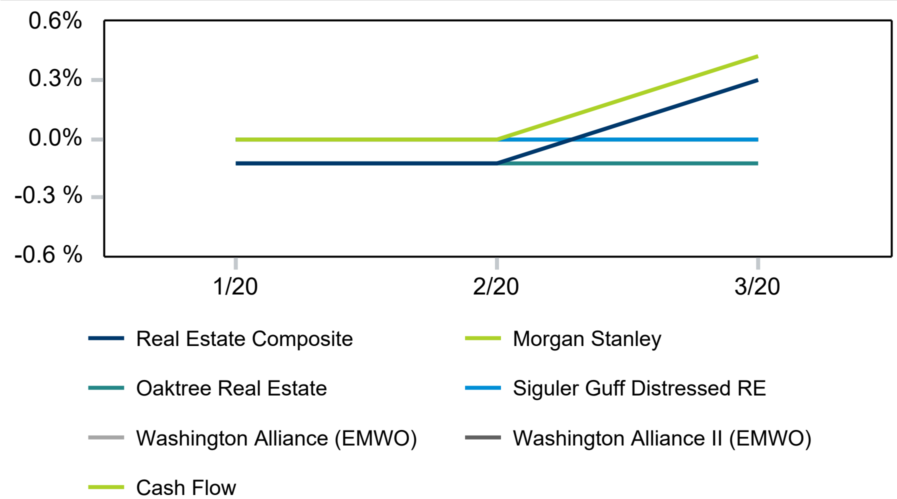
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



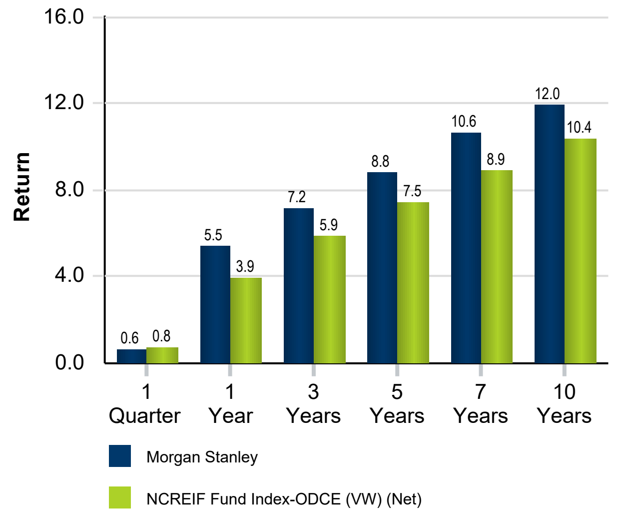
Wilshire Consulting

Performance Summary

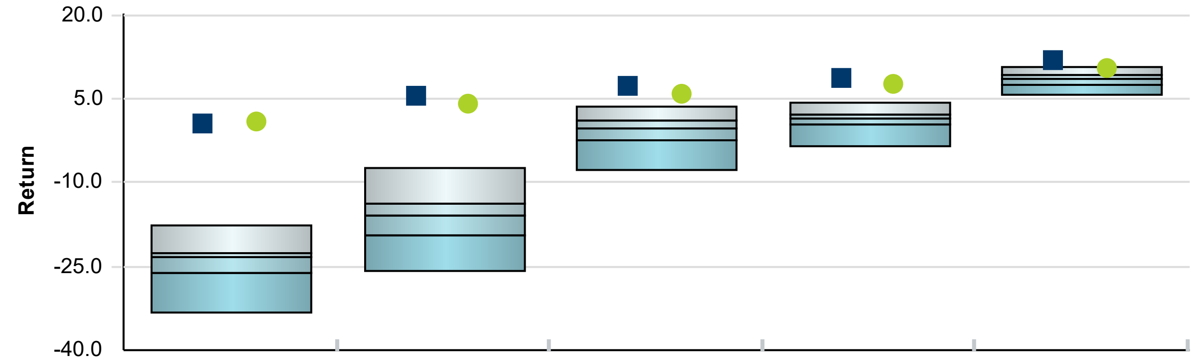
Morgan Stanley

Periods Ended March 31, 2020

Comparative Performance

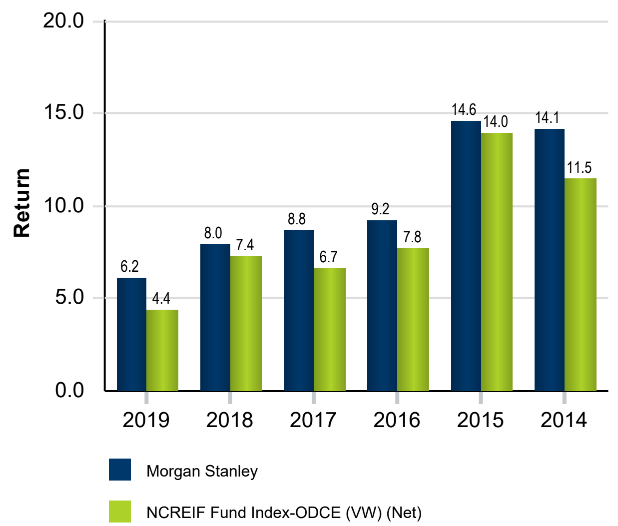


Peer Group Analysis: IM U.S. REIT (SA+CF)

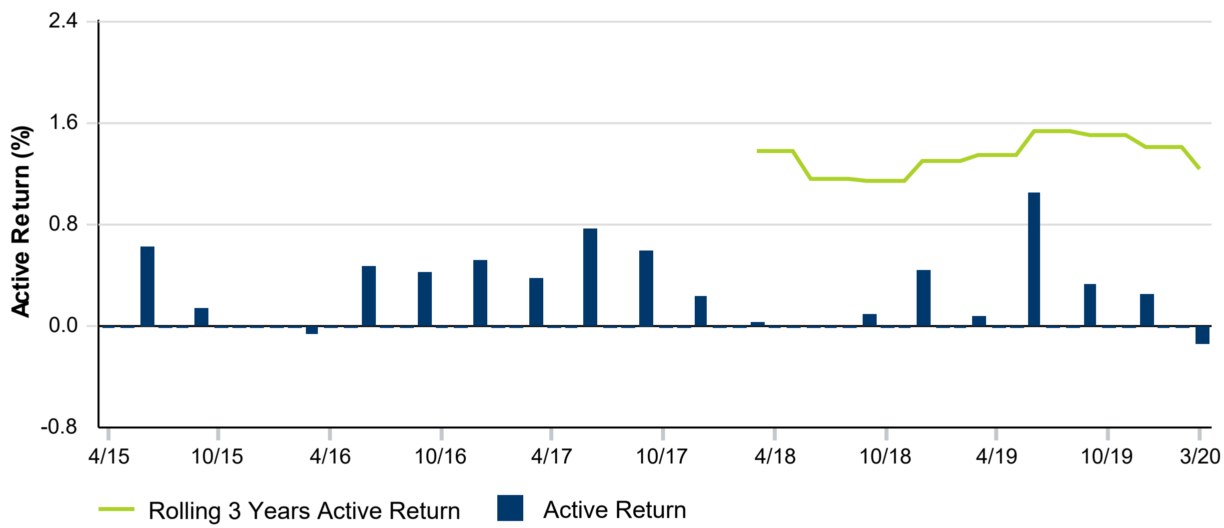


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	0.61 (1)	5.47 (1)	7.15 (1)	8.80 (1)	11.98 (1)
Benchmark	0.75 (1)	3.93 (1)	5.85 (1)	7.48 (1)	10.42 (7)
Median	-23.40	-15.87	-0.37	1.45	8.62

Comparative Performance



Rolling 3 Years Performance



Summary Statistics

Morgan Stanley

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Morgan Stanley	NCREIF Fund Index-ODCE (VW) (Net)
Maximum Return	1.82	1.27
Minimum Return	0.00	0.00
Return	5.47	3.93
Cumulative Return	5.47	3.93
Active Return	1.49	0.00
Excess Return	3.13	1.64

Risk Summary Statistics

	Morgan Stanley	NCREIF Fund Index-ODCE (VW) (Net)
Upside Risk	2.83	1.99
Downside Risk	0.00	0.00
Beta	1.33	1.00

Risk/Return Summary Statistics

	Morgan Stanley	NCREIF Fund Index-ODCE (VW) (Net)
Standard Deviation	2.37	1.64
Alpha	0.19	0.00
Active Return/Risk	0.63	0.00
Tracking Error	1.06	0.00
Information Ratio	1.41	
Sharpe Ratio	1.33	1.01

Correlation Statistics

	Morgan Stanley	NCREIF Fund Index-ODCE (VW) (Net)
R-Squared	0.86	1.00
Actual Correlation	0.92	1.00

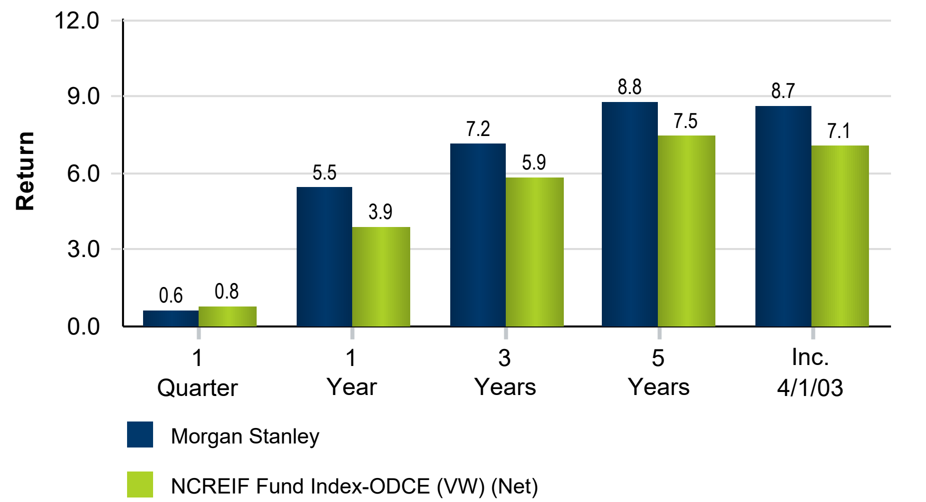
Wilshire Consulting

Manager Summary

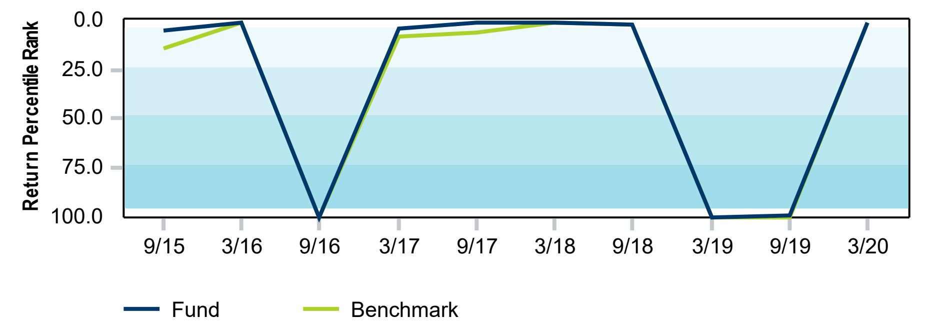
Morgan Stanley vs IM U.S. REIT (SA+CF)

Periods Ended March 31, 2020

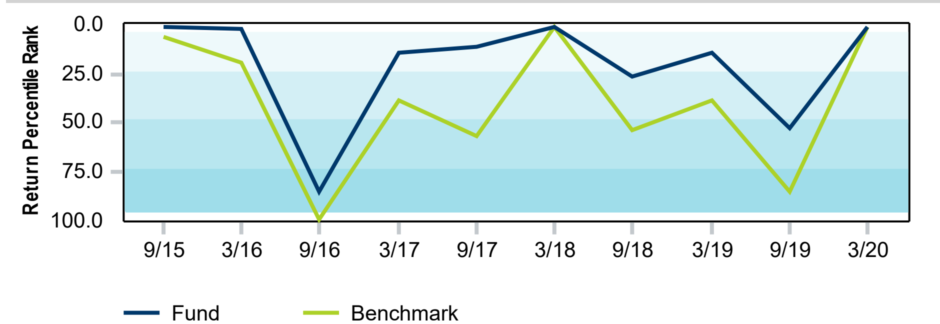
Comparative Performance



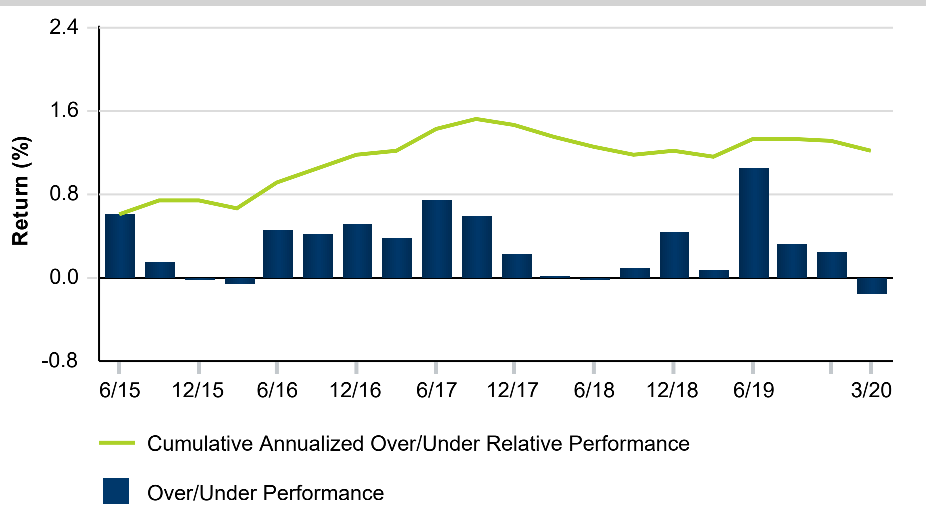
1 Year Rolling Percentile Ranking



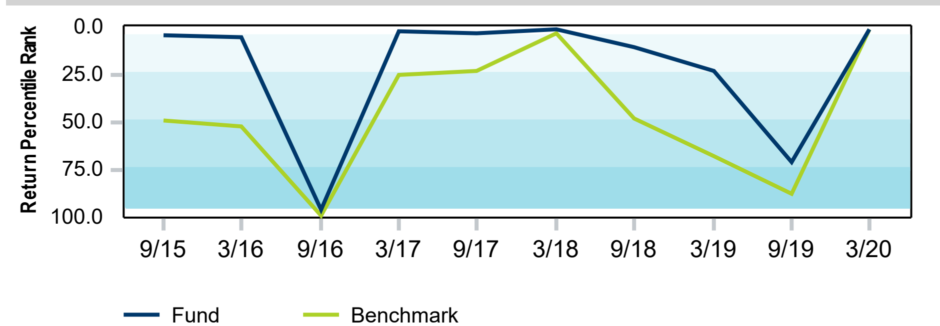
3 Year Rolling Percentile Ranking



Relative Performance



5 Year Rolling Percentile Ranking



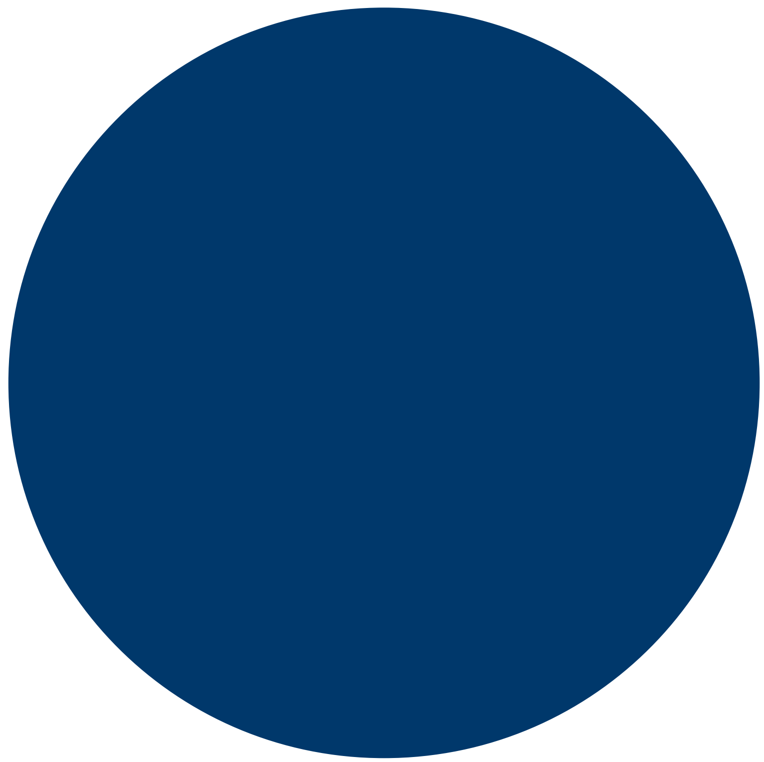
ERECT

Asset Allocation By Manager

ERECT Composite

Periods Ended March 31, 2020

Mar-2020 : 9,646,257



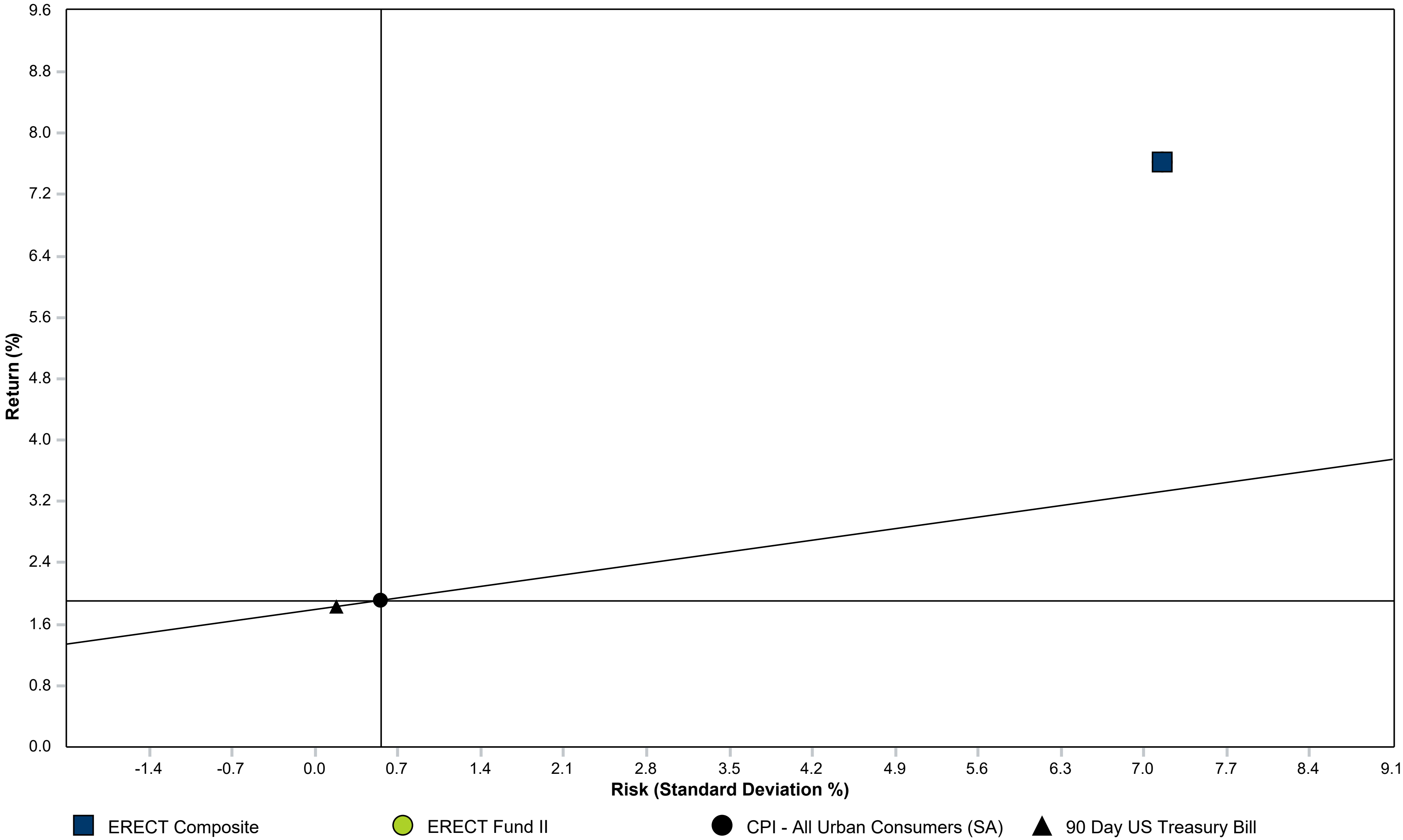
	Market Value $	Allocation (%)
ERECT Fund II	9,646,257	100.0

Wilshire Consulting

Risk vs. Return

ERECT Composite

Periods Ended 3 Years Ending March 31, 2020



Calculation based on monthly periodicity.

Wilshire Consulting

Summary Statistics

ERECT Fund II

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	ERECT Fund II	CPI - All Urban Consumers (SA)
Maximum Return	2.17	0.33
Minimum Return	-1.14	-0.42
Return	1.74	1.52
Cumulative Return	1.74	1.52
Active Return	0.25	0.00
Excess Return	-0.47	-0.72

Risk Summary Statistics

	ERECT Fund II	CPI - All Urban Consumers (SA)
Upside Risk	0.69	0.19
Downside Risk	1.16	0.42
Beta	1.76	1.00

Risk/Return Summary Statistics

	ERECT Fund II	CPI - All Urban Consumers (SA)
Standard Deviation	2.60	0.64
Alpha	-0.90	0.00
Active Return/Risk	0.10	0.00
Tracking Error	2.39	0.00
Information Ratio	0.11	
Sharpe Ratio	-0.18	-0.95

Correlation Statistics

	ERECT Fund II	CPI - All Urban Consumers (SA)
R-Squared	0.19	1.00
Actual Correlation	0.44	1.00

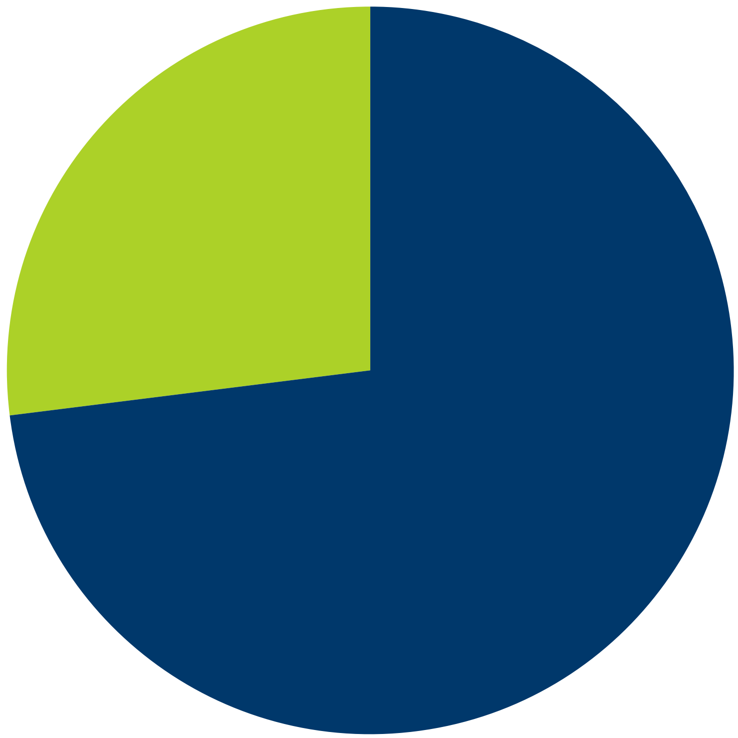
HEDGE FUND

Asset Allocation By Manager

Hedge Fund Composite

Periods Ended March 31, 2020

Mar-2020 : 3,181,250

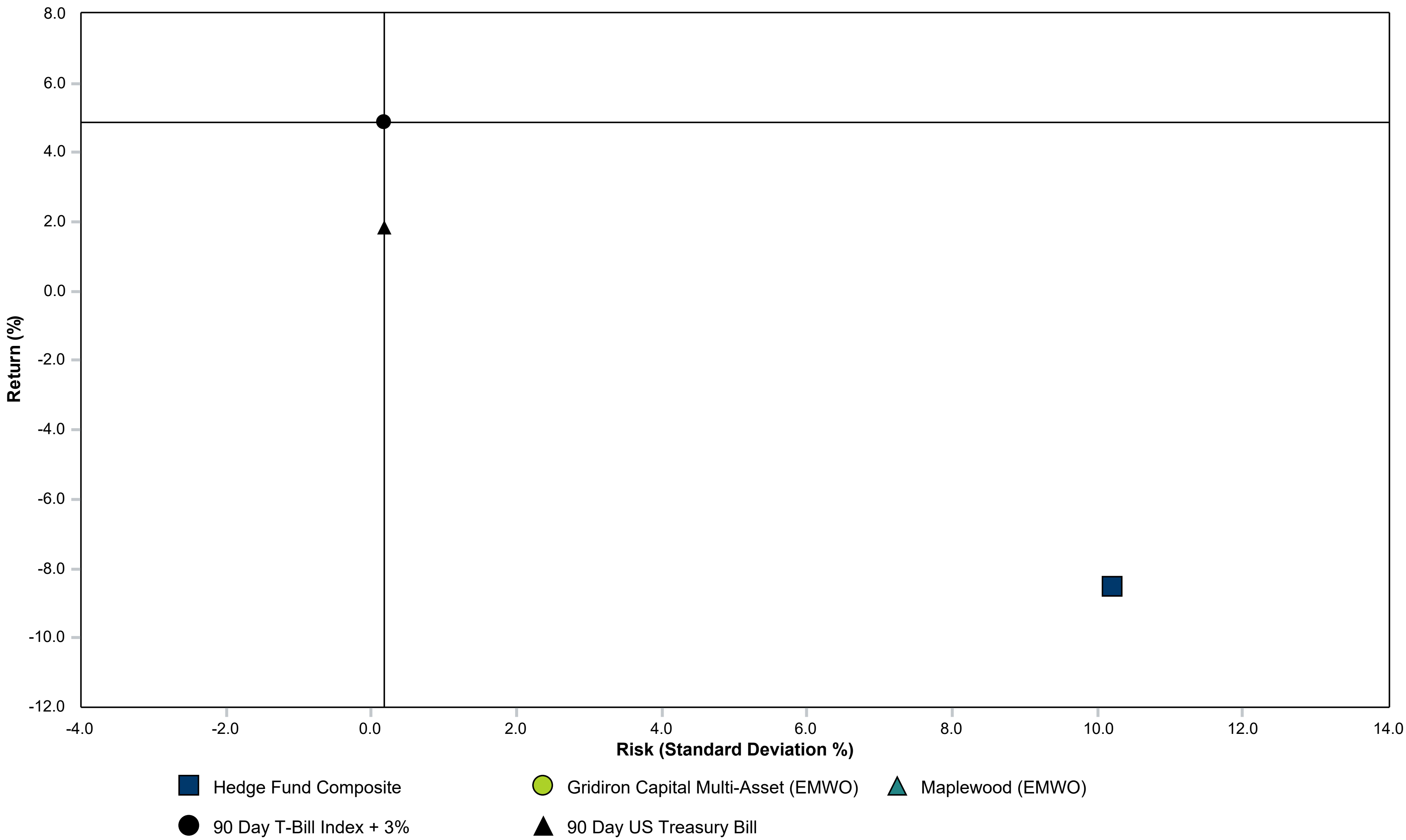


	Market Value $	Allocation (%)
Gridiron Capital Multi-Asset (EMWO)	2,323,160	73.0
Maplewood (EMWO)	858,090	27.0

Risk vs. Return

Hedge Fund Composite

Periods Ended 3 Years Ending March 31, 2020



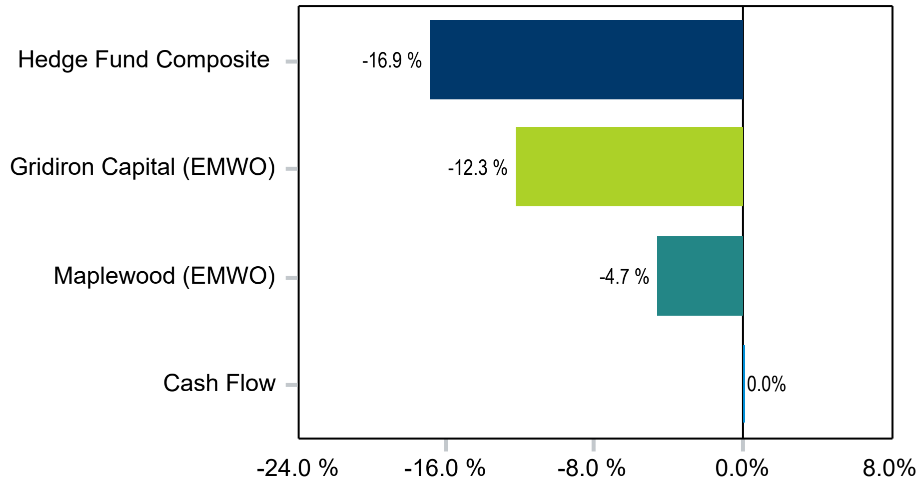
Calculation based on monthly periodicity.

Return and Risk Contribution

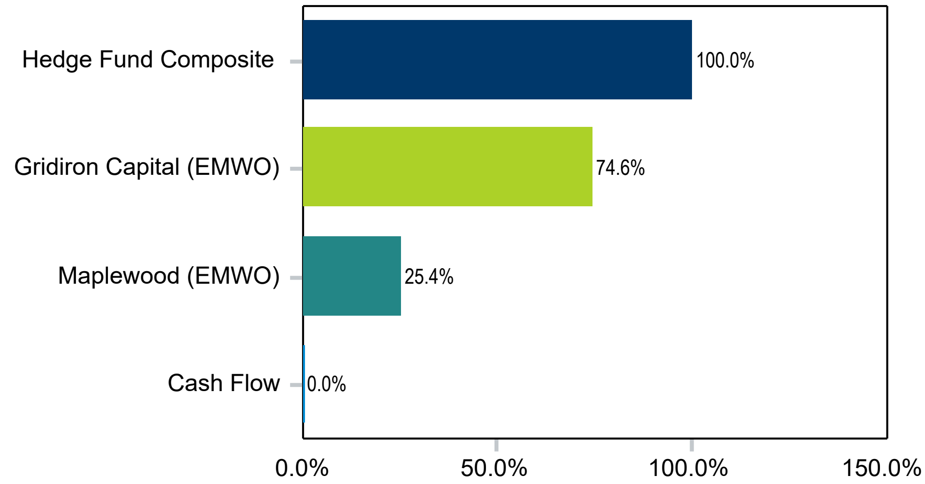
Hedge Fund Composite

Periods Ended 1 Quarter March 31, 2020

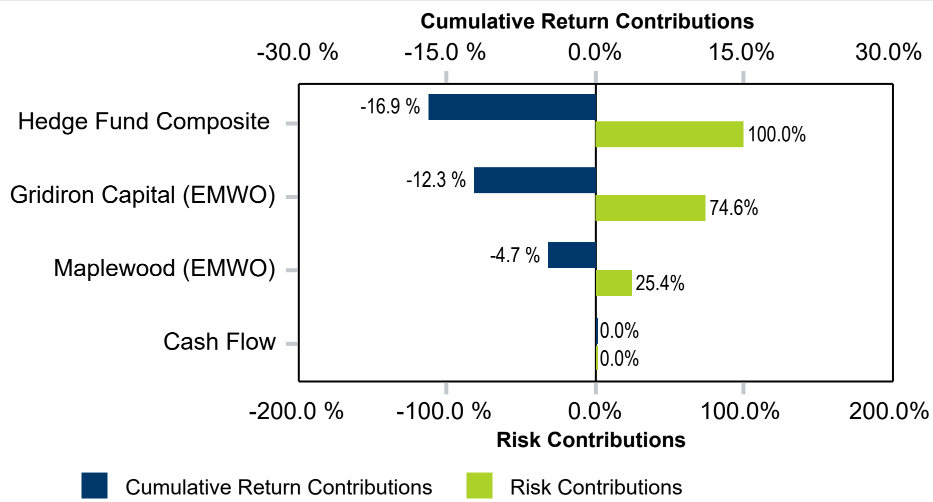
Cumulative Return Contributions



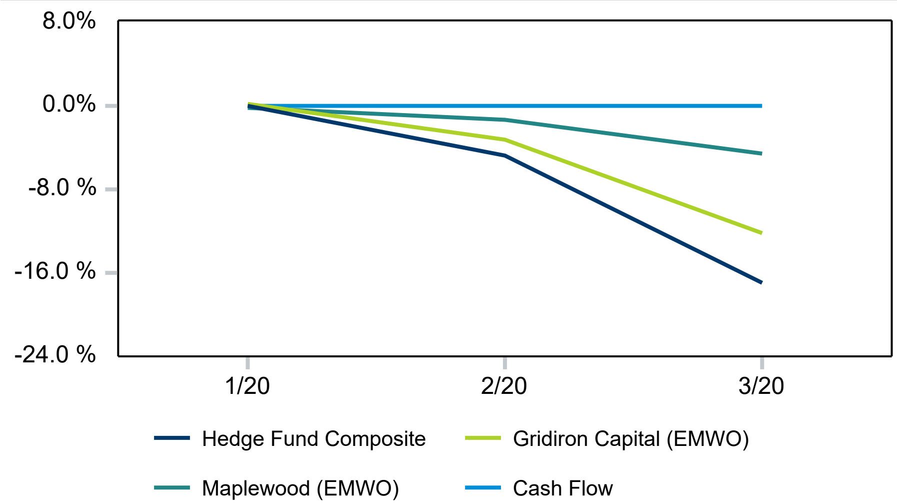
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History



Summary Statistics

Gridiron Capital (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Gridiron Capital (EMWO)	HFRI FoF Composite Lagged
Maximum Return	2.85	1.63
Minimum Return	-12.83	-1.53
Return	-8.68	3.26
Cumulative Return	-8.68	3.26
Active Return	-11.18	0.00
Excess Return	-10.14	1.03

Risk Summary Statistics

	Gridiron Capital (EMWO)	HFRI FoF Composite Lagged
Upside Risk	1.45	0.82
Downside Risk	13.89	2.02
Beta	1.86	1.00

Risk/Return Summary Statistics

	Gridiron Capital (EMWO)	HFRI FoF Composite Lagged
Standard Deviation	14.59	3.34
Alpha	-13.11	0.00
Active Return/Risk	-0.77	0.00
Tracking Error	13.52	0.00
Information Ratio	-0.83	
Sharpe Ratio	-0.69	0.30

Correlation Statistics

	Gridiron Capital (EMWO)	HFRI FoF Composite Lagged
R-Squared	0.18	1.00
Actual Correlation	0.42	1.00

Wilshire Consulting

Summary Statistics

Maplewood (EMWO)

Periods Ended 1 Year Ending March 31, 2020

Return Summary Statistics

	Maplewood (EMWO)	HFRX Macro Index
Maximum Return	1.42	2.58
Minimum Return	-12.81	-1.40
Return	-14.19	4.51
Cumulative Return	-14.19	4.51
Active Return	-18.81	0.00
Excess Return	-16.53	2.28

Risk Summary Statistics

	Maplewood (EMWO)	HFRX Macro Index
Upside Risk	0.60	1.14
Downside Risk	13.47	2.30
Beta	1.27	1.00

Risk/Return Summary Statistics

	Maplewood (EMWO)	HFRX Macro Index
Standard Deviation	12.99	4.39
Alpha	-18.30	0.00
Active Return/Risk	-1.45	0.00
Tracking Error	11.79	0.00
Information Ratio	-1.60	
Sharpe Ratio	-1.26	0.52

Correlation Statistics

	Maplewood (EMWO)	HFRX Macro Index
R-Squared	0.19	1.00
Actual Correlation	0.43	1.00