

Fresno County Employees' Retirement Association

Investment Performance Review
Period Ending: December 31, 2020



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SEATTLE 206-622-3700

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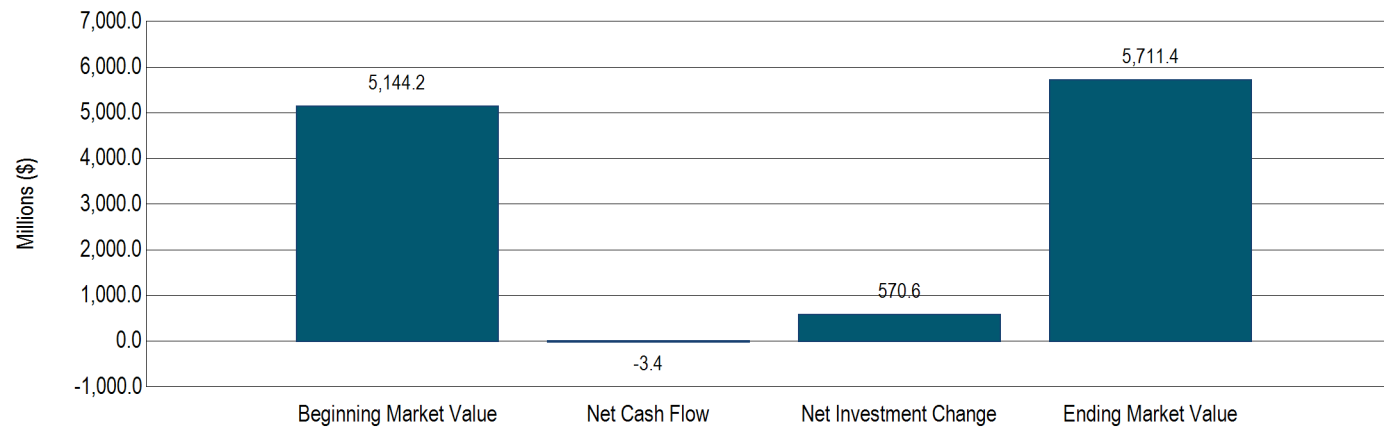
Total Fund
Portfolio Reconciliation

Period Ending: December 31, 2020

Portfolio Reconciliation

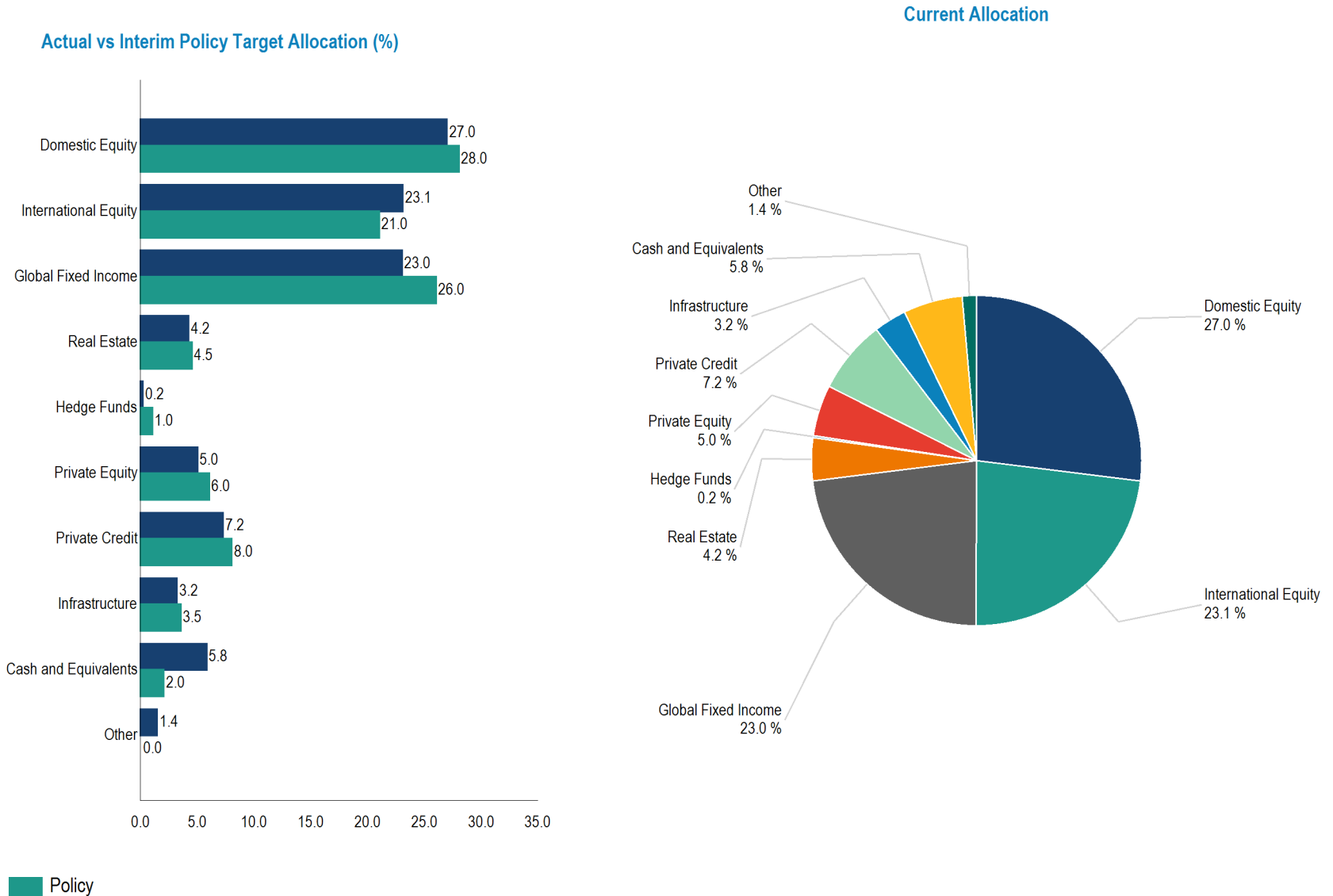
	Last Three Months	Year-To-Date
Beginning Market Value	\$5,144,157,317	\$5,184,261,364
Net Cash Flow	-\$3,351,684	-\$14,828,268
Net Investment Change	\$570,597,639	\$541,970,176
Ending Market Value	\$5,711,403,274	\$5,711,403,274

Change in Market Value
Last Three Months



Total Fund Asset Allocation

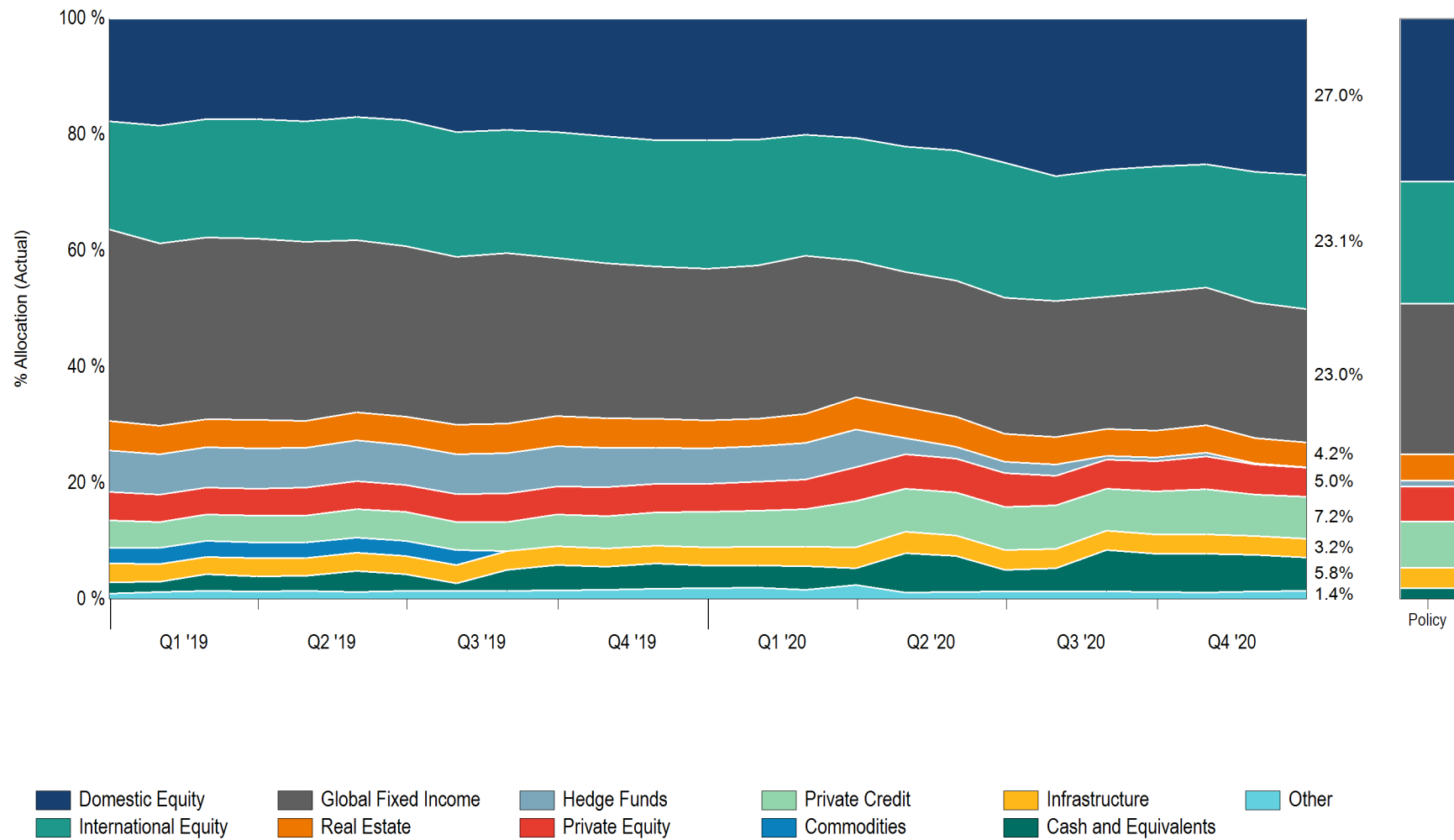
Period Ending: December 31, 2020



Other consists of cash held for the overlay program. The target allocation reflects the most recent asset allocation targets per Asset Allocation Glidepath in IPS.

Total Fund Asset Allocation History

Period Ending: December 31, 2020



Total Fund

Executive Summary (Net of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	2020	2019	2018	2017	2016
Total Fund	5,711,403,274	100.0	10.9	15.8	10.4	7.5	8.7	7.2	6.7	10.4	16.3	-3.3	14.6	6.7
Interim Policy Index			9.2	14.1	11.6	7.5	8.6	7.1	6.1	11.6	14.4	-2.6	14.0	6.5
InvMetrics Public DB > \$1B Net Rank			30	46	57	50	67	78	46	57	59	35	67	80
Total Equity	2,857,478,234	50.0	17.6	27.0	16.3	9.9	11.8	9.7	--	16.3	26.0	-9.5	24.2	6.1
MSCI ACWI IMI NR			15.7	25.1	16.3	9.7	12.1	9.1	7.3	16.3	26.4	-10.1	23.9	8.4
Total Domestic Equity	1,539,806,847	27.0	17.0	26.7	20.7	13.6	13.9	13.1	--	20.7	28.0	-5.1	20.2	8.9
MSCI USA			13.0	23.8	20.7	14.5	15.1	13.4	9.4	20.7	30.9	-5.0	21.2	10.9
Total International Equity	1,317,671,387	23.1	18.2	27.3	12.3	6.4	9.8	6.0	--	12.3	24.2	-13.6	28.5	3.0
MSCI ACWI ex USA Gross			17.1	24.5	11.1	5.4	9.4	5.4	5.4	11.1	22.1	-13.8	27.8	5.0
Total Fixed Income	1,312,966,482	23.0	5.0	8.7	7.4	5.0	5.9	4.4	--	7.4	11.0	-2.9	8.0	6.7
Fixed Income Custom Benchmark			3.3	5.9	9.1	4.8	4.8	3.0	3.9	9.1	6.8	-1.2	7.4	2.1
Total Real Estate	240,135,771	4.2	1.9	1.4	-1.2	4.6	5.8	8.5	--	-1.2	6.2	9.2	6.8	8.5
NCREIF ODCE Net			1.1	1.4	0.3	4.0	5.3	8.9	5.5	0.3	4.4	7.4	6.7	7.8
Total Infrastructure	181,457,555	3.2	4.0	5.9	2.9	12.3	12.3	--	--	2.9	14.6	20.1	19.0	6.1
NCREIF ODCE Net			1.1	1.4	0.3	4.0	5.3	8.9	5.5	0.3	4.4	7.4	6.7	7.8
Total Hedge Funds	10,270,697	0.2	8.2	9.9	6.8	4.4	4.2	3.4	3.4	6.8	7.3	-0.7	4.6	3.0
HFRI Fund of Funds Composite Index			8.1	12.7	10.9	4.9	4.6	3.3	3.0	10.9	8.4	-4.0	7.8	0.5
Total Private Equity 1 Qtr Lagged	284,572,975	5.0	10.4	1.7	10.3	11.4	11.7	11.2	11.0	10.3	4.7	19.6	13.9	10.7
Russell 2000 1 Qtr Lagged			4.9	31.6	0.4	1.8	7.8	8.5	7.1	0.4	-8.9	15.2	13.7	21.3
Total Private Credit 1 Qtr Lagged	413,295,404	7.2	3.6	7.6	2.8	5.2	6.2	6.0	10.0	2.8	5.3	7.6	8.1	7.4
BBgBarc US Corp. High Yield 1 Qtr Lagged			4.6	15.2	3.3	4.2	7.2	6.1	7.1	3.3	6.4	3.0	7.0	17.1
Total Custodied Cash	99,597,835	1.7	0.8	0.9	1.2	2.0	1.4	0.8	--	1.2	3.0	1.9	0.1	0.8
91 Day T-Bills			0.0	0.0	0.5	1.5	1.1	0.6	1.1	0.5	2.1	1.9	0.9	0.3
Total County Cash	15,288,027	0.3	1.1	1.2	2.3	2.3	--	--	--	2.3	2.2	2.4	--	--
91 Day T-Bills			0.0	0.0	0.5	1.5	1.1	0.6	1.1	0.5	2.1	1.9	0.9	0.3

Policy Index (Floating policy weights updated as of 12/31/2020). See Data Sources and Methodology for monthly policy breakout): 28% MSCI USA, 26% Fixed Income Custom Benchmark, 21% MSCI ACWI ex US, 0.87% Russell 2000, 0.47% BBgBarc US Corp. High Yield, 5.5% Private Equity Neutralized, 8.0% Private Credit Neutralized, 1% HFRI FoF Composite, 8% NCREIF ODCE Net and 2% 91 Day T-Bills. Composite total market values reflect manager exposures and any underlying cash balances. De-risking of the Plan commenced on April 30, 2014. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Fixed Income Custom Benchmark 9/1/2020: 38.5% BgBarc U.S. Aggregate Index, 3.8% BBgBarc US Securitized Index, 30.8% 50% BBgBarc High Yield/50% S&P LSTA U.S. Leveraged Loan Index, 15.4% FTSE WGBI TR, 11.5% JP Morgan GBI EM Global.

Total Fund

Executive Summary (Gross of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs	2020	2019	2018	2017	2016
Total Fund	5,711,403,274	100.0	10.9	15.9	10.6	7.7	9.0	7.6	7.0	6.8	10.6	16.6	-3.1	14.9	7.2
<i>Interim Policy Index</i>			9.2	14.1	11.6	7.5	8.6	7.1	6.1	5.9	11.6	14.4	-2.6	14.0	6.5
Total Equity	2,857,478,234	50.0	17.6	27.2	16.7	10.2	12.1	10.0	--	--	16.7	26.4	-9.3	24.5	6.4
<i>MSCI ACWI IMI NR</i>			15.7	25.1	16.3	9.7	12.1	9.1	7.3	6.5	16.3	26.4	-10.1	23.9	8.4
Total Domestic Equity	1,539,806,847	27.0	17.1	26.8	20.8	13.8	14.1	13.3	9.6	8.5	20.8	28.3	-4.9	20.3	9.1
<i>MSCI USA</i>			13.0	23.8	20.7	14.5	15.1	13.4	9.4	7.0	20.7	30.9	-5.0	21.2	10.9
Total International Equity	1,317,671,387	23.1	18.3	27.5	12.7	6.9	10.3	6.5	6.5	5.6	12.7	24.8	-13.2	29.1	3.5
<i>MSCI ACWI ex USA Gross</i>			17.1	24.5	11.1	5.4	9.4	5.4	5.4	5.7	11.1	22.1	-13.8	27.8	5.0
Total Fixed Income	1,312,966,482	23.0	5.1	8.9	7.8	5.4	6.3	4.7	5.6	5.5	7.8	11.4	-2.5	8.3	7.0
<i>Fixed Income Custom Benchmark</i>			3.3	5.9	9.1	4.8	4.8	3.0	3.9	4.4	9.1	6.8	-1.2	7.4	2.1
Total Real Estate	240,135,771	4.2	1.9	1.4	-1.2	4.6	6.1	9.0	7.2	8.8	-1.2	6.2	9.2	6.8	9.9
<i>NCREIF ODCE Net</i>			1.1	1.4	0.3	4.0	5.3	8.9	5.5	--	0.3	4.4	7.4	6.7	7.8
Total Infrastructure	181,457,555	3.2	4.0	5.9	2.9	12.3	12.5	--	--	--	2.9	14.6	20.1	19.0	7.2
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<i>HFRI Fund of Funds Composite Index</i>			8.1	12.7	10.9	4.9	4.6	3.3	3.0	3.7	10.9	8.4	-4.0	7.8	0.5
Total Private Equity 1 Qtr Lagged	284,572,975	5.0	10.4	1.7	10.3	11.4	12.0	11.4	11.1	--	10.3	4.7	19.6	13.9	11.8
<i>Russell 2000 1 Qtr Lagged</i>			4.9	31.6	0.4	1.8	7.8	8.5	7.1	7.4	0.4	-8.9	15.2	13.7	21.3
Total Private Credit 1 Qtr Lagged	413,295,404	7.2	3.6	7.6	2.8	5.2	6.5	6.3	10.2	--	2.8	5.3	7.6	8.1	8.7
<i>BBgBarc US Corp. High Yield 1 Qtr Lagged</i>			4.6	15.2	3.3	4.2	7.2	6.1	7.1	7.5	3.3	6.4	3.0	7.0	17.1
Total Custodied Cash	99,597,835	1.7	0.8	0.9	1.2	2.0	1.4	0.8	1.6	1.8	1.2	3.0	1.9	0.1	0.8
<i>91 Day T-Bills</i>			0.0	0.0	0.5	1.5	1.1	0.6	1.1	1.4	0.5	2.1	1.9	0.9	0.3
Total County Cash	15,288,027	0.3	1.1	1.2	2.3	2.3	--	--	--	--	2.3	2.2	2.4	--	--
<i>91 Day T-Bills</i>			0.0	0.0	0.5	1.5	1.1	0.6	1.1	1.4	0.5	2.1	1.9	0.9	0.3

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Fixed Income Custom Benchmark 9/1/2020: 38.5% BgBarc U.S. Aggregate Index, 3.8% BBgBarc US Securitized Index, 30.8% 50% BBgBarc High Yield/50% S&P LSTA U.S. Leveraged Loan Index, 15.4% FTSE WGBI TR, 11.5% JP Morgan GBI EM Global.

Total Fund

Performance Summary (Net of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Fund	5,711,403,274	100.0	10.9	10.4	7.5	8.7	7.2	6.7	10.4	16.3	-3.3	14.6	6.7	7.4	Jun-02
<i>Interim Policy Index</i>			9.2	11.6	7.5	8.6	7.1	6.1	11.6	14.4	-2.6	14.0	6.5	6.9	Jun-02
Total Fund Ex Parametric	5,630,171,215	98.6	10.7	11.0	7.5	--	--	--	11.0	15.3	-2.8	13.9	--	9.1	Dec-16
<i>Interim Policy Index</i>			9.2	11.6	7.5	8.6	7.1	6.1	11.6	14.4	-2.6	14.0	6.5	9.1	Dec-16
Total Equity	2,857,478,234	50.0	17.6	16.3	9.9	11.8	9.7	--	16.3	26.0	-9.5	24.2	6.1	--	--
<i>MSCI ACWI IMI NR</i>			15.7	16.3	9.7	12.1	9.1	7.3	16.3	26.4	-10.1	23.9	8.4	--	--
Total Domestic Equity	1,539,806,847	27.0	17.0	20.7	13.6	13.9	13.1	--	20.7	28.0	-5.1	20.2	8.9	--	Mar-97
<i>MSCI USA</i>			13.0	20.7	14.5	15.1	13.4	9.4	20.7	30.9	-5.0	21.2	10.9	8.5	Mar-97
NT MSCI US Index	991,019,538	17.4	13.1	--	--	--	--	--	--	--	--	--	--	25.8	Jun-20
<i>MSCI USA</i>			13.0	20.7	14.5	15.1	13.4	9.4	20.7	30.9	-5.0	21.2	10.9	26.5	Jun-20
T. Rowe Price Large Cap Growth	191,209,459	3.3	12.3	40.0	--	--	--	--	40.0	29.5	--	--	--	30.6	Oct-18
<i>Russell 1000 Growth</i>			11.4	38.5	23.0	21.0	17.2	12.5	38.5	36.4	-1.5	30.2	7.1	32.6	Oct-18
Aronson Johnson Ortiz	127,294	0.0	0.0	-11.5	-1.5	4.1	8.3	5.9	-11.5	21.7	-11.4	16.7	9.5	9.2	Dec-95
<i>Russell 1000 Value</i>			16.3	2.8	6.1	9.7	10.5	7.3	2.8	26.5	-8.3	13.7	17.3	8.8	Dec-95
PIMCO StocksPLUS Small Fund	357,421,642	6.3	33.0	23.6	--	--	--	--	23.6	29.3	--	--	--	13.3	Feb-18
<i>Russell 2000</i>			31.4	20.0	10.2	13.3	11.2	8.9	20.0	25.5	-11.0	14.6	21.3	11.4	Feb-18
Total International Equity	1,317,671,387	23.1	18.2	12.3	6.4	9.8	6.0	--	12.3	24.2	-13.6	28.5	3.0	--	--
<i>MSCI ACWI ex USA Gross</i>			17.1	11.1	5.4	9.4	5.4	5.4	11.1	22.1	-13.8	27.8	5.0	--	--
NT MSCI World Ex-US Index	337,346,372	5.9	15.8	--	--	--	--	--	--	--	--	--	--	31.8	May-20
<i>MSCI World ex USA</i>			15.8	7.6	4.2	7.6	5.2	4.5	7.6	22.5	-14.1	24.2	2.7	31.1	May-20
Artisan International Growth	210,073,847	3.7	9.3	9.2	8.8	9.0	--	--	9.2	31.3	-10.2	31.5	-9.0	7.8	Apr-13
<i>MSCI EAFE</i>			16.0	7.8	4.3	7.4	5.5	4.5	7.8	22.0	-13.8	25.0	1.0	6.1	Apr-13
Research Affiliates International Equity	198,305,667	3.5	22.3	2.1	0.6	6.9	--	--	2.1	17.9	-15.5	25.7	9.3	4.3	Apr-11
<i>MSCI EAFE</i>			16.0	7.8	4.3	7.4	5.5	4.5	7.8	22.0	-13.8	25.0	1.0	4.7	Apr-11
Mondrian International Small Cap	186,058,234	3.3	19.2	10.3	5.6	9.4	7.4	--	10.3	25.1	-14.6	32.4	0.1	9.6	Nov-09
<i>S&P Developed Ex-U.S. SmallCap</i>			17.9	13.7	5.0	9.7	7.6	6.8	13.7	24.7	-18.4	32.4	3.8	9.0	Nov-09
Mondrian Emerging Markets	181,170,049	3.2	20.8	15.2	5.5	10.3	3.2	6.1	15.2	18.3	-13.8	27.2	9.0	6.3	Nov-05
<i>MSCI Emerging Markets</i>			19.7	18.3	6.2	12.8	3.6	6.6	18.3	18.4	-14.6	37.3	11.2	7.0	Nov-05
Baillie Gifford Emerging Markets	204,717,218	3.6	25.2	29.6	--	--	--	--	29.6	28.0	--	--	--	28.8	Dec-18
<i>MSCI Emerging Markets</i>			19.7	18.3	6.2	12.8	3.6	6.6	18.3	18.4	-14.6	37.3	11.2	18.4	Dec-18
Total Fixed Income	1,312,966,482	23.0	5.0	7.4	5.0	5.9	4.4	--	7.4	11.0	-2.9	8.0	6.7	--	--
<i>Fixed Income Custom Benchmark</i>			3.3	9.1	4.8	4.8	3.0	3.9	9.1	6.8	-1.2	7.4	2.1	--	--
Western Asset Management Investment Grade Credit	208,441,163	3.6	3.1	10.6	7.5	7.3	--	--	10.6	14.9	-2.3	6.8	7.0	6.0	Oct-14
<i>BBgBarc US Credit TR</i>			2.8	9.4	6.8	6.4	5.4	5.6	9.4	13.8	-2.1	6.2	5.6	5.3	Oct-14

Baillie Gifford Emerging Markets funded 12/10/2018. T. Rowe Price replaced Ivy on 10/18/2018. Systematic liquidated on 2/4/2019. Invesco Commodities liquidated 8/16/2019. SSgA S&P 500 Flagship Fund liquidated 12/2/2019. S&P 500 Index Fund transferred 6/1/2020 into NT MSCI US Index. MSCI EAFE liquidated into NT MSCI World Ex-US Index 5/28/2020. Aronson Johnson Ortiz was liquidated 8/16/2020 and a residual balance remains.

Total Fund

Performance Summary (Net of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
RBC Access Capital	59,019,602	1.0	0.4	4.3	--	--	--	--	4.3	6.4	--	--	--	6.2	Oct-18
<i>BBgBarc US Securitized Index</i>			0.3	4.2	3.8	3.2	3.1	4.1	4.2	6.4	1.0	2.5	1.8	6.1	Oct-18
Loomis Sayles High Yield	186,451,489	3.3	8.1	9.1	5.9	7.8	--	--	9.1	11.5	-2.3	7.1	14.4	5.3	Oct-14
<i>BBgBarc US High Yield TR</i>			6.5	7.1	6.2	8.6	6.8	7.5	7.1	14.3	-2.1	7.5	17.1	5.9	Oct-14
Eaton Vance Senior Loan Fund	170,003,211	3.0	3.2	1.1	3.1	4.6	--	--	1.1	7.5	0.7	4.0	9.9	3.5	Oct-14
<i>S&P/LSTA Leveraged Loan Index</i>			3.8	3.1	4.0	5.2	4.3	4.6	3.1	8.6	0.4	4.1	10.2	4.0	Oct-14
Eaton Vance Institutional Senior Loan Plus Fund	23,074,113	0.4	3.9	1.5	3.7	--	--	--	1.5	11.3	-1.3	3.6	--	3.7	Jan-17
<i>S&P/LSTA Leveraged Loan Index</i>			3.8	3.1	4.0	5.2	4.3	4.6	3.1	8.6	0.4	4.1	10.2	4.0	Jan-17
Western Asset Management Agency MBS	135,337,058	2.4	0.6	--	--	--	--	--	--	--	--	--	--	0.2	Sep-20
<i>BBgBarc US GNMA TR</i>			0.4	3.7	3.5	2.8	2.9	4.0	3.7	5.9	1.0	1.9	1.6	0.4	Sep-20
Western Asset Management Treasuries	39,612,062	0.7	-0.8	--	--	--	--	--	--	--	--	--	--	-1.0	Sep-20
<i>BBgBarc US Treasury Bills</i>			0.0	0.7	1.6	1.2	0.7	1.3	0.7	2.3	1.9	0.8	0.4	0.0	Sep-20
TCW TALF Opportunities Fund LP	4,000,645	0.1	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Jun-20
<i>BBgBarc US Aggregate TR</i>			0.7	7.5	5.3	4.4	3.8	4.5	7.5	8.7	0.0	3.5	2.6	1.9	Jun-20
Brandywine Global Sovereign	283,705,847	5.0	7.3	5.9	3.1	5.0	--	--	5.9	8.7	-4.7	11.9	3.8	2.3	Jan-15
<i>FTSE WGBI TR</i>			2.8	10.1	5.0	4.8	2.3	3.9	10.1	5.9	-0.8	7.5	1.6	3.4	Jan-15
PIMCO Emerging Local Bond Ins	203,321,292	3.6	7.5	4.9	4.3	7.7	--	--	4.9	17.3	-7.7	15.4	10.7	1.6	Jul-13
<i>JP Morgan GBI EM Global Diversified TR USD</i>			9.6	2.7	3.0	6.7	1.5	5.1	2.7	13.5	-6.2	15.2	9.9	1.2	Jul-13
Total Real Estate	240,135,771	4.2	1.9	-1.2	4.6	5.8	8.5	--	-1.2	6.2	9.2	6.8	8.5	--	
<i>NCREIF ODCE Net</i>			1.1	0.3	4.0	5.3	8.9	5.5	0.3	4.4	7.4	6.7	7.8	--	
Invesco Core Real Estate	174,174,026	3.0	1.4	-2.4	3.8	5.4	8.9	--	-2.4	5.7	8.5	7.5	8.3	4.3	Oct-07
<i>NCREIF ODCE Net</i>			1.1	0.3	4.0	5.3	8.9	5.5	0.3	4.4	7.4	6.7	7.8	4.1	Oct-07
FCERA Realty Group LLC	2,480,300	0.0													
Closed End Real Estate 1 Qtr Lagged	63,481,445	1.1	3.2	2.1	8.6	7.8	--	--	2.1	9.9	14.1	4.3	9.0	--	
<i>NCREIF ODCE Net 1 Qtr Lagged</i>			0.3	0.5	4.3	5.1	8.8	5.4	0.5	4.6	7.7	4.7	7.8	--	
Total Infrastructure	181,457,555	3.2	4.0	2.9	12.3	12.3	--	--	2.9	14.6	20.1	19.0	6.1	--	
<i>NCREIF ODCE Net</i>			1.1	0.3	4.0	5.3	8.9	5.5	0.3	4.4	7.4	6.7	7.8	--	
IFM Infrastructure	181,457,555	3.2	4.0	2.9	12.3	12.3	--	--	2.9	14.6	20.1	19.0	6.1	11.5	May-15
<i>NCREIF ODCE Net</i>			1.1	0.3	4.0	5.3	8.9	5.5	0.3	4.4	7.4	6.7	7.8	6.5	May-15
Total Hedge Funds	10,270,697	0.2	8.2	6.8	4.4	4.2	3.4	3.4	6.8	7.3	-0.7	4.6	3.0	--	
<i>HFRI Fund of Funds Composite Index</i>			8.1	10.9	4.9	4.6	3.3	3.0	10.9	8.4	-4.0	7.8	0.5	--	
GCM Better Futures Fund	10,270,696	0.2	8.2	2.7	3.6	--	--	--	2.7	8.3	-0.2	2.8	--	3.9	Sep-16
<i>HFRI Fund of Funds Composite Index</i>			8.1	10.9	4.9	4.6	3.3	3.0	10.9	8.4	-4.0	7.8	0.5	5.4	Sep-16

RBC Access Capital funded 10/10/2018. Invesco Commodities liquidated 8/16/2019. SSgA TIPS liquidated 12/16/2019. Northern Trust Collective TIPS Index Fund liquidated 3/25/2019. Grosvenor liquidated 4/1/2020. TCW TALF Opportunities Fund LP funded 6/12/2020.

Total Fund
Performance Summary (Net of Fees)

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	2020	2019	2018	2017	2016	Inception	Inception Date
Total Private Equity 1 Qtr Lagged	284,572,975	5.0	10.4	10.3	11.4	11.7	11.2	11.0	10.3	4.7	19.6	13.9	10.7	--	
<i>Russell 2000 1 Qtr Lagged</i>			4.9	0.4	1.8	7.8	8.5	7.1	0.4	-8.9	15.2	13.7	21.3	--	
Total Private Credit 1 Qtr Lagged	413,295,404	7.2	3.6	2.8	5.2	6.2	6.0	10.0	2.8	5.3	7.6	8.1	7.4	--	
<i>BBgBarc US Corp. High Yield 1 Qtr Lagged</i>			4.6	3.3	4.2	7.2	6.1	7.1	3.3	6.4	3.0	7.0	17.1	--	
Total Custodied Cash	99,597,835	1.7	0.8	1.2	2.0	1.4	0.8	--	1.2	3.0	1.9	0.1	0.8	--	
<i>91 Day T-Bills</i>			0.0	0.5	1.5	1.1	0.6	1.1	0.5	2.1	1.9	0.9	0.3	--	
Total County Cash	15,288,027	0.3	1.1	2.3	2.3	--	--	--	2.3	2.2	2.4	--	--	--	
<i>91 Day T-Bills</i>			0.0	0.5	1.5	1.1	0.6	1.1	0.5	2.1	1.9	0.9	0.3	--	
Total Parametric Overlay	81,232,059	1.4													

Real Estate Closed End Funds (Net of Fees)

Period Ending: December 31, 2020

Real Estate - Closed End Funds											
Fund	Inception Date	% of Portfolio	Total Commitment	Contributions	Distributions	Estimated Market Value	One Quarter Return	One Year Return	Three Years Return	Five Years Return	(IRR) Since Inception
Kennedy Wilson Real Estate Fund VI	2019	0.3%	\$30,000,000	\$19,134,259	\$2,505,708	\$18,896,695	-1.2%	6.4%	N/A	N/A	10.4%
Invesco Value-Add Fund V	2017	0.3%	\$30,000,000	\$16,645,460	\$1,893,498	\$16,671,772	-0.6%	2.1%	N/A	N/A	N/A
Kennedy Wilson Real Estate Fund V	2016	0.1%	\$30,000,000	\$28,113,444	\$31,857,511	\$6,801,104	0.2%	5.7%	12.5%	N/A	13.2%
Gerding Edlen Green Cities III	2016	0.4%	\$20,000,000	\$19,311,784	\$2,323,638	\$21,111,874	12.6%	-1.5%	4.6%	N/A	6.0%
<hr/>											
Total		1.1%	\$110,000,000	\$83,204,947	\$38,580,354	\$63,481,445					

Private Equity Non Marketable Securities Overview

Period Ending: December 31, 2020

Private Equity								
Fund	Vintage Year	Commitment	Unfunded Commitment	Paid-In Capital	Capital Distributed	NAV*	TVPI	Since Inception IRR
Legacy Portfolio								
Blackstone Capital Partners IV, L.P.	2003	\$20,000,000	\$597,726	\$22,648,846	\$52,986,528	\$458,434	2.40x	29.61%
Hamilton Lane Private Equity Fund IX L.P.	2016	\$100,000,000	\$19,566,059	\$80,433,941	\$24,375,039	\$83,493,231	1.30x	13.01%
Hamilton Lane Private Equity Fund VI, LP	2007	\$70,000,000	\$7,104,295	\$62,895,705	\$85,395,746	\$16,063,218	1.60x	9.02%
Horsley Bridge XI Growth Buyout L.P.	2016	\$30,000,000	\$9,142,347	\$20,857,653	\$525,613	\$27,374,607	1.30x	15.62%
Landmark Equity Partners XIV, L.P.	2009	\$30,000,000	\$854,341	\$29,147,820	\$33,687,120	\$4,813,419	1.30x	9.38%
New Mountain Partners III, L.P.	2007	\$15,000,000	\$973,978	\$15,417,906	\$24,281,767	\$9,725,094	2.20x	13.86%
Warburg Pincus Equity Partners, L.P.	1998	\$20,000,000	\$0	\$20,000,000	\$33,046,892	\$78,744	1.70x	10.26%
Warburg Pincus Private Equity VIII, L.P.	2001	\$25,000,000	\$0	\$26,100,000	\$58,286,084	\$0	2.20x	14.50%
Warburg Pincus Private Equity X, L.P.	2007	\$25,000,000	\$0	\$25,046,896	\$40,533,511	\$3,605,978	1.80x	9.36%
Warburg Pincus Private Equity XII, L.P.	2015	\$34,000,000	\$1,003,000	\$33,014,364	\$3,826,146	\$41,731,909	1.40x	13.54%
Total Legacy Portfolio		\$369,000,000	\$39,241,746	\$335,563,131	\$356,944,446	\$187,344,634	1.60x	12.87%
Hamilton Lane Portfolio								
Altaris Health Partners V, L.P.	2020	\$10,000,000	\$10,000,000	\$0	\$0	\$0	N/A	0
Aurora Equity Partners VI, L.P.	2019	\$10,000,000	\$10,000,000	\$0	\$0	-\$50,893	N/A	0.00%
Avista Capital Partners IV, L.P.	2018	\$10,000,000	\$1,168,090	\$11,049,069	\$5,026,564	\$9,901,595	1.40x	0.26x
Avista Capital Partners V, L.P.	2019	\$10,000,000	\$10,000,000	\$0	\$0	\$1,052,494	N/A	0.00x
Bridgepoint Development Capital IV, L.P.	2020	\$10,297,402	\$10,297,402	\$0	\$0	\$0	N/A	0.00x
Cinven Seventh Fund	2019	\$8,911,126	\$7,992,961	\$918,165	\$0	\$884,010	1.00x	(3.72%)
CVC Capital Partners VIII, L.P.	2020	\$10,704,655	\$10,704,655	\$0	\$0	\$0	N/A	0.00%
Gridiron Capital Fund IV, L.P.	2019	\$10,000,000	\$7,426,484	\$2,573,516	\$0	\$2,924,492	1.10x	13.64%
H.I.G. Growth Buyouts & Equity Fund III, L.P.	2019	\$10,000,000	\$9,495,215	\$504,785	\$0	\$317,845	0.60x	(36.21%)
Hamilton Lane Secondary Fund IV, L.P.	2017	\$75,000,000	\$22,109,981	\$64,388,323	\$18,920,662	\$61,062,512	1.20x	15.01%
HGGC Fund IV, L.P.	2019	\$10,000,000	\$8,710,846	\$1,289,154	\$1,234	\$1,261,186	1.00x	(1.77%)
Insight Partners XI, L.P.	2019	\$10,000,000	\$7,200,000	\$2,800,000	\$962	\$3,368,633	1.20x	33.82%
JFL Equity Investors V, L.P.	2019	\$10,000,000	\$8,045,814	\$1,954,186	\$0	\$1,800,261	0.90x	-0.08x
K4 Private Investors, L.P.	2018	\$5,000,000	\$1,279,779	\$3,720,221	\$507	\$3,992,196	1.10x	0.06x
K5 Private Investors, L.P.	2020	\$10,000,000	\$10,000,000	\$0	\$0	-\$104,961	N/A	0.00%
Kelso Investment Associates X, L.P.	2018	\$7,500,000	\$5,098,636	\$2,415,619	\$16,704	\$2,564,650	1.10x	9.40%
NewQuest Asia Fund IV, L.P.	2019	\$10,000,000	\$10,000,000	\$0	\$0	\$102,133	N/A	0.00%
Platinum Equity Capital Partners V, L.P.	2019	\$10,000,000	\$8,719,299	\$1,280,701	\$0	\$1,378,454	N/A	0.10x
Platinum Equity Small Cap Fund, L.P.	2018	\$7,500,000	\$4,759,153	\$2,788,412	\$47,565	\$1,812,214	0.70x	(42.92%)
SK Capital Partners Fund V, L.P.	2018	\$10,000,000	\$7,162,507	\$2,837,493	\$3,497	\$2,436,111	0.90x	(10.09%)
Sterling Group Partners V, L.P.	2020	\$10,000,000	\$10,000,000	\$0	\$0	\$0	N/A	0.00%
Thomas H. Lee Equity Fund VIII, L.P.	2019	\$7,500,000	\$4,253,202	\$3,714,204	\$570,835	\$4,656,990	1.40x	76.83%
TPG Partners VIII, L.P.	2019	\$10,000,000	\$8,674,203	\$1,325,797	\$0	\$990,792	0.70x	(44.52%)
Verdane Capital X AB	2019	\$7,365,722	\$5,896,520	\$1,469,202	\$0	\$2,427,719	1.70x	96.11%
ZMC III, L.P.	2019	\$6,764,374	\$5,545,584	\$1,218,790	\$0	\$1,120,322	0.90x	(12.30%)
Total Hamilton Lane Portfolio		\$296,543,279	\$204,540,331	\$106,247,637	\$24,588,530	\$103,898,755	1.20x	15.89%

*NAV provided by Hamilton Lane as of 9/30/2020 adjusted for cash flows that occurred during Q4 2020.

Private Credit Non Marketable Securities Overview

Period Ending: December 31, 2020

Private Credit								
Fund	Vintage Year	Commitment	Unfunded	Paid-In Capital	Capital Distributed	NAV	TVPI	Since Inception IRR
Legacy Portfolio								
EQT European Special Situations Debt	2017	\$40,000,000	\$14,247,737	\$34,755,655	\$4,312,759	\$32,869,197	1.07	4.00%
OHA Strategic Credit Fund II	2016	\$40,000,000	\$16,000,000	\$24,000,000	\$0	\$24,293,485	1.01	1.00%
TSSP Adjacent Opportunities Partners	2016	\$30,000,000	\$11,568,671	\$42,842,409	\$24,738,131	\$23,233,939	1.12	8.90%
GSO European Senior Debt	2015	\$30,000,000	\$7,879,384	\$30,964,231	\$28,828,831	\$15,801,367	1.44	4.40%
CVI Credit Value Fund III	2015	\$30,000,000	\$1,500,000	\$28,500,000	\$23,897,929	\$12,164,334	1.27	8.00%
Colony Distressed Credit III	2014	\$20,000,000	\$2,734,614	\$21,939,049	\$21,080,158	\$5,834,991	1.23	7.00%
Oaktree Opportunities IX	2012	\$15,000,000	\$0	\$15,000,000	\$7,602,625	\$9,522,861	1.14	2.60%
KKR Mezzanine Partners	2010	\$30,000,000	\$939,546	\$38,319,634	\$37,927,288	\$6,867,038	1.18	6.70%
Angelo Gordon VII	2010	\$30,000,000	\$0	\$30,000,000	\$36,463,492	\$290,538	1.23	4.90%
Colony Distressed Credit I	2009	\$40,000,000	\$0	\$42,267,927	\$64,307,755	\$0	1.52	13.00%
Lone Star Fund IV	2002	\$20,000,000	\$954,801	\$19,045,199	\$44,404,793	\$63,587	2.33	30.71%
Total Legacy Portfolio		\$325,000,000	\$55,824,753	\$327,634,103	\$293,563,761	\$130,941,337	1.32	
Carlyle Portfolio								
TCG BDC II	2017	\$150,000,000	\$28,088,900	\$121,911,100	\$19,051,717	\$113,538,908	1.13	5.60%
CPC V	2017	\$150,000,000	\$23,739,008	\$156,370,765	\$30,109,772	\$137,159,351	1.10	6.64%
AlpInvest FC Credit Fund	2017	\$100,000,000	\$59,128,677	\$41,122,866	\$13,524,202	\$31,655,808	1.10	7.76%
Total Carlyle Portfolio		\$400,000,000	\$110,956,585	\$319,404,731	\$62,685,691	\$282,354,067	1.08	
Total Private Credit		\$725,000,000	\$166,781,338	\$647,038,834	\$356,249,452	\$413,295,404		

Data provided by Carlyle.

Fresno County Employees' Retirement Association Manager Review (Net of Fees)

Period Ending: December 31, 2020

Name	Allocation Group	Verus Outlook	#1	#2	#3	#4	#5	#6	Verus Manager Research Views
T. Rowe Price Large Cap Growth	Domestic Equity Large Cap Growth	No Issues	✓	✓	✓	✓	✓	-	
Aronson Johnson Ortiz	Domestic Equity Large Cap Value	Terminate	✗	✗	✗	✗	✗	✗	Verus recommended termination based on ongoing underperformance and organizational concerns. See memo dated August 2020.
PIMCO StocksPLUS Small Fund	Domestic Equity Small Cap Core	No Issues	✓	✓	✓	✓	✓	-	
Artisan International Growth	International Equity	No Issues	✓	✓	✓	✓	✓	-	
Research Affiliates International Equity	International Equity	No Issues	✗	✗	✗	✗	✗	-	Verus remains comfortable with the product in spite of performance headwinds, which are driven by value factor underperformance. Please refer to October 2020 Underperforming Managers Memo.
Mondrian International Small Cap	International Equity Small Cap	No Issues	✗	✓	✓	✗	✓	-	Verus remains comfortable with the product in spite of performance headwinds, which are driven by value factor underperformance. Please refer to October 2020 Underperforming Managers Memo.
Mondrian Emerging Markets	Emerging Markets Equity	Watch	✗	✗	✗	✗	✗	-	Watch status for concerns around style drift coupled with underperformance. Refer to memo from March 2021 meeting.
Baillie Gifford Emerging Markets	Emerging Markets Equity	No Issues	✓	✓	✓	✓	✓	-	

Legend



Flag Indicates Manager/Fund has not met the described rule.



Checkmark indicates Manager/Fund has met the described rule.



Dash-mark indicates the rule is not applicable to the Manager/Fund.

Colored cell indicates a change from last quarter

Manager Review Rules

Rule 1 - Manager has underperformed the benchmark index more than half the time over the last 20 quarters.

Rule 2 - Equity manager has returned less than 110% of the benchmark index for the three year period.

Rule 3 - Manager has underperformed the 50th percentile in the appropriate style universe in more than two of the last five years of consecutive returns.

Rule 4 - Manager's Sharpe Ratio is worse than the 50th Percentile in an appropriate style universe for the five year period $\left(\frac{\text{five year return minus five year risk free rate}}{\text{standard deviation}}\right)$.

Rule 5 - Manager's Information Ratio is worse than the 50th Percentile in an appropriate style universe for the five year period $\left(\frac{\text{excess return over benchmark}}{\text{tracking error}}\right)$.

Rule 6 - Fund experiences non-performance related issues including personnel turnover, changes in investment philosophy or drift, excessive asset growth, change in ownership and any other reason that raises concern.

Fresno County Employees' Retirement Association Manager Review (Net of Fees)

Period Ending: December 31, 2020

Name	Allocation Group	Verus Outlook	#1	#2	#3	#4	#5	#6	Verus Manager Research Views
Western Asset Investment Grade Credit	Domestic Fixed Income	No Issues	✓	✓	✓	⚠	✓	⚠	Western Asset Core Plus: Franklin announced in February 2020 their intention to acquire 100% of Legg Mason for \$4.5 billion at \$50 per share of common stock in an all-cash deal. Given the complexity and large-scale nature of this change, we will continue to monitor for developments relating to Franklin Templeton and the affiliates. We will place a provisional flag on Franklin and each of the affiliates at the firm level to signify that a change has occurred, although we do not have serious concerns with the announcement at this time.
RBC Access Capital	Domestic Fixed Income Mortgage	No Issues	✓	✓	✓	✓	✓	-	
Loomis Sayles High Yield	Domestic Fixed Income High Yield	No Issues	⚠	⚠	✓	✓	✓	-	Verus remains comfortable with the product in spite of performance headwinds, which are driven by relatively higher quality positioning. Please refer to October 2020 Underperforming Managers Memo.
Eaton Vance Senior Loan Fund	Domestic Fixed Income Bank Loans	No Issues	✓	⚠	✓	✓	✓	⚠	On October 8th, 2020, Morgan Stanley announced its intention to acquire Eaton Vance. The deal is set to close in 2Q 2021
Eaton Vance Institutional Senior Loan Plus Fund	Domestic Fixed Income Bank Loans	No Issues	-	⚠	-	-	-	⚠	On October 8th, 2020, Morgan Stanley announced its intention to acquire Eaton Vance. The deal is set to close in 2Q 2021
Brandywine Global Sovereign	Global Fixed Income	Watch	✓	⚠	⚠	⚠	⚠	⚠	Watch status for concerns around relative performance. Refer to memo in December 2020 meeting.
PIMCO Emerging Local Bond Ins	Emerging Markets Fixed Income	No Issues	✓	✓	✓	✓	✓	⚠	Verus views PIMCO's EMD team as robust and well-resourced but we retain a provisional watch rating to monitor for further turnover following the departure of senior team members Mike Gomez and Francesc Balcells.

Legend

- ⚠ Flag Indicates Manager/Fund has not met the described rule.
- ✓ Checkmark indicates Manager/Fund has met the described rule.
- Dash-mark indicates the rule is not applicable to the Manager/Fund.
- Colored cell indicates a change from last quarter

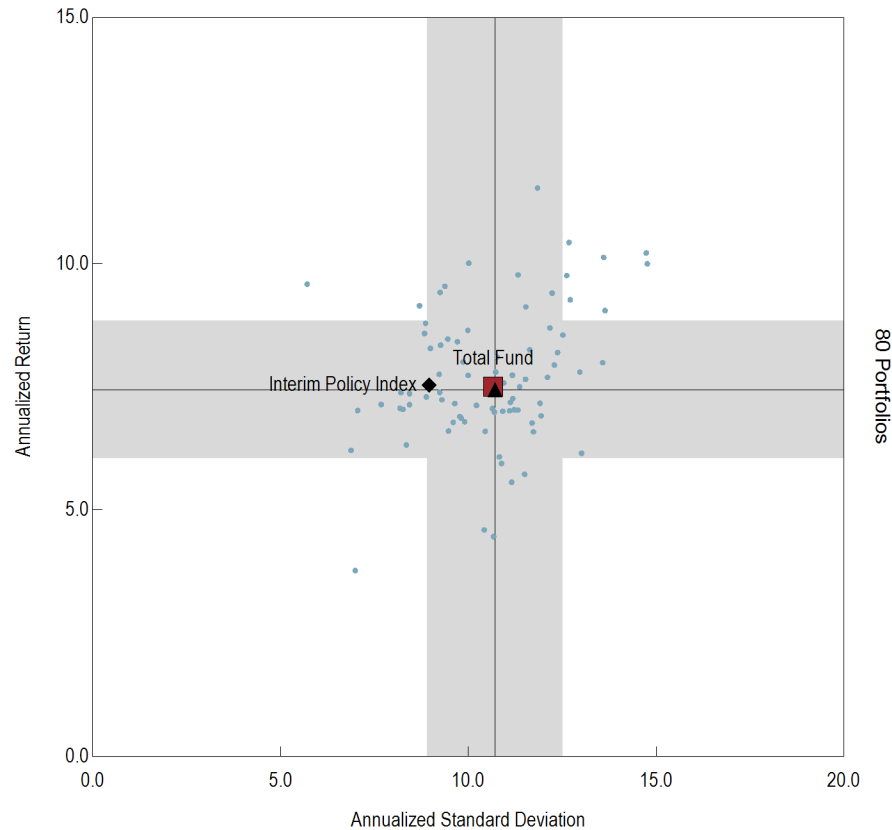
Manager Review Rules

- Rule 1 - Manager has underperformed the benchmark index more than half the time over the last 20 quarters.
- Rule 2 - Fixed Income manager has returned less than 105% of the benchmark index for the three year period.
- Rule 3 - Manager has underperformed the 50th percentile in the appropriate style universe in more than two of the last five years of consecutive returns.
- Rule 4 - Manager's Sharpe Ratio is worse than the 50th Percentile in an appropriate style universe for the five year period $(\text{five year return minus five year risk free rate})/(\text{standard deviation})$.
- Rule 5 - Manager's Information Ratio is worse than the 50th Percentile in an appropriate style universe for the five year period $(\text{excess return over benchmark})/(\text{tracking error})$.
- Rule 6 - Fund experiences non-performance related issues including personnel turnover, changes in investment philosophy or drift, excessive asset growth, change in ownership and any other reason that raises concern.

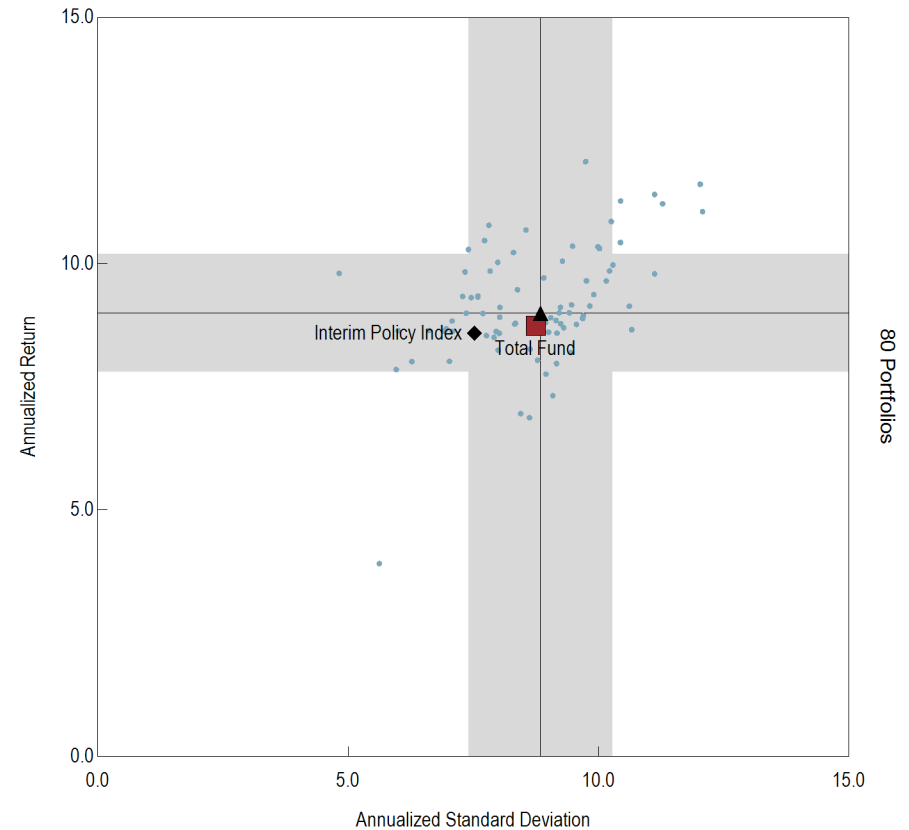
Total Fund Risk Analysis (Net of Fees)

Period Ending: December 31, 2020

3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Total Fund	7.5%	10.7%	0.6
Interim Policy Index	7.5%	9.0%	0.7
InvMetrics Public DB > \$1B Net Median	7.4%	10.7%	0.6

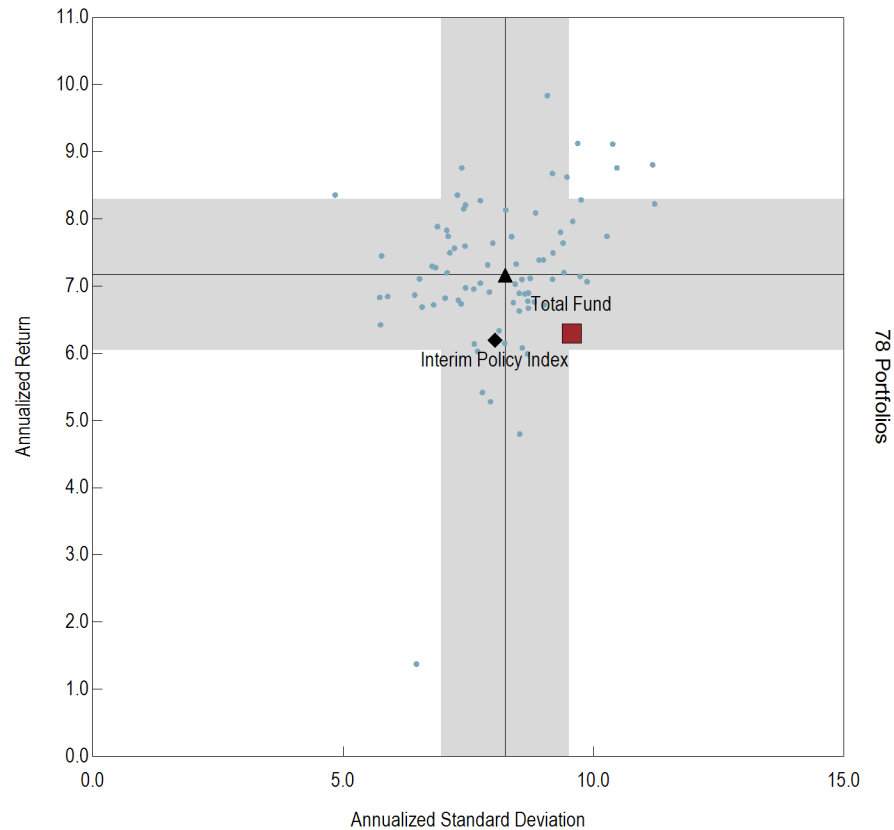
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Total Fund	8.7%	8.7%	0.9
Interim Policy Index	8.6%	7.5%	1.0
InvMetrics Public DB > \$1B Net Median	9.0%	8.8%	0.9

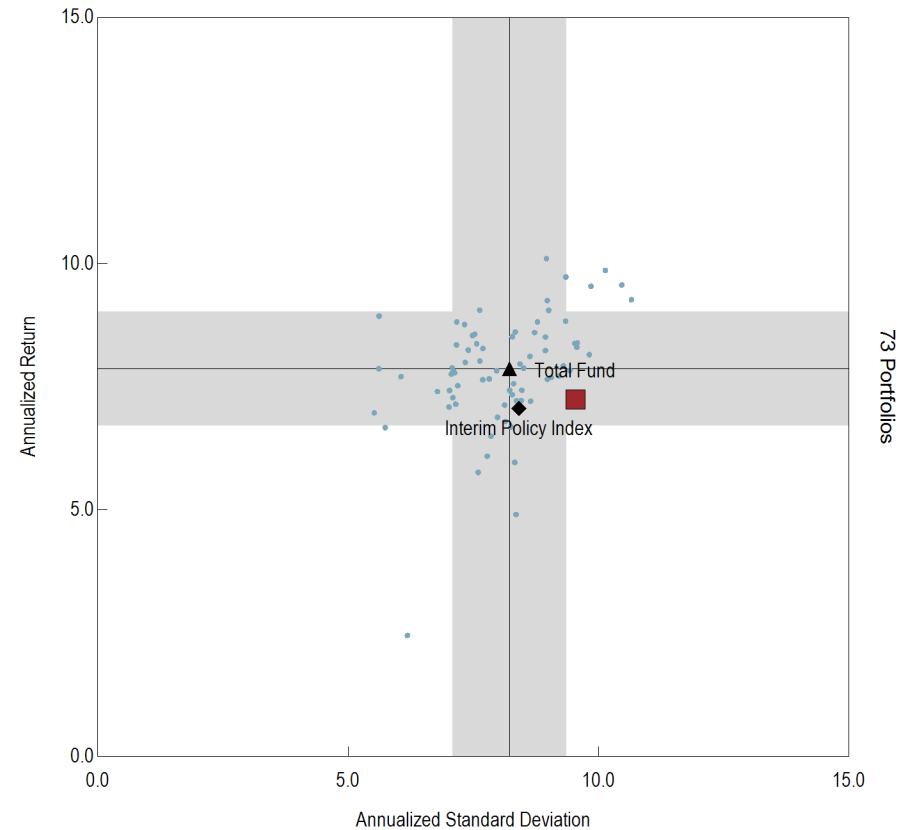
Total Fund Risk Analysis (Net of Fees)

Period Ending: December 31, 2020

7 Years



10 Years



7 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Total Fund	6.3%	9.6%	0.6
Interim Policy Index	6.2%	8.0%	0.7
InvMetrics Public DB > \$1B Net Median	7.2%	8.2%	0.8

10 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Total Fund	7.2%	9.5%	0.7
Interim Policy Index	7.1%	8.4%	0.8
InvMetrics Public DB > \$1B Net Median	7.9%	8.2%	0.9

Total Fund Risk Analysis (Net of Fees)

Period Ending: December 31, 2020

3 Years

	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Total Fund	10.66%	-1.39%	1.18	0.98	116.22%	121.13%	-0.01	2.19%	0.56	0.80
Total Equity	19.10%	0.06%	1.01	0.99	100.81%	100.08%	0.09	1.61%	0.44	0.68
Total Domestic Equity	20.24%	-1.53%	1.05	0.98	99.47%	102.31%	-0.30	2.83%	0.60	0.88
Total International Equity	18.61%	0.94%	1.02	0.99	105.04%	99.84%	0.52	1.98%	0.26	0.48
Total Domestic Fixed Income	6.25%	1.79%	0.71	0.15	104.84%	103.02%	0.05	5.84%	0.65	0.64
Total Real Estate	3.17%	0.50%	1.03	0.69	89.28%	195.84%	0.36	1.77%	0.97	0.94
Total Infrastructure	7.21%	5.67%	1.66	0.34	243.31%	-38.47%	1.36	6.09%	1.49	4.09
Total Hedge Funds	6.81%	0.14%	0.87	0.85	75.45%	71.67%	-0.17	2.76%	0.42	0.58
Total Alternative Illiquids	6.32%	9.45%	-0.08	0.06	5.85%	-30.80%	-0.42	22.06%	1.04	5.05

5 Years

	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Total Fund	8.75%	-1.11%	1.15	0.97	111.61%	114.34%	0.08	1.82%	0.87	1.04
Total Equity	15.68%	-0.47%	1.01	0.99	98.95%	100.76%	-0.26	1.36%	0.68	0.87
Total Domestic Equity	16.61%	-1.96%	1.06	0.98	99.64%	104.64%	-0.44	2.55%	0.77	0.97
Total International Equity	15.62%	0.30%	1.01	0.98	100.28%	98.86%	0.18	2.01%	0.55	0.81
Total Domestic Fixed Income	5.07%	2.79%	0.69	0.19	113.02%	72.64%	0.30	4.67%	0.93	0.78
Total Real Estate	3.24%	0.41%	1.03	0.74	95.69%	195.84%	0.33	1.64%	1.44	1.79
Total Infrastructure	7.13%	4.05%	1.57	0.36	218.30%	-38.47%	1.19	5.92%	1.57	4.36
Total Hedge Funds	5.64%	0.14%	0.88	0.84	79.96%	77.93%	-0.17	2.35%	0.53	0.64
Total Alternative Illiquids	5.71%	10.04%	-0.06	0.03	10.04%	-28.46%	-0.52	17.84%	1.37	5.19

Total Fund Risk Analysis (Net of Fees)

Period Ending: December 31, 2020

7 Years

	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Total Fund	9.57%	-1.00%	1.18	0.98	109.78%	114.01%	0.05	2.04%	0.57	0.63
Total Equity	16.79%	-0.55%	1.03	0.99	99.10%	101.90%	-0.24	1.30%	0.46	0.50
Total Domestic Equity	17.00%	-2.06%	1.08	0.98	96.05%	106.55%	-0.38	2.82%	0.63	0.64
Total International Equity	17.30%	-0.15%	1.03	0.98	103.10%	101.82%	0.01	2.24%	0.26	0.35
Total Domestic Fixed Income	5.30%	2.63%	0.54	0.10	104.41%	46.36%	0.14	5.23%	0.76	1.12
Total Real Estate	3.15%	-1.49%	1.26	0.77	113.99%	244.53%	0.27	1.62%	2.20	1.45
Total Hedge Funds	6.15%	0.23%	0.87	0.91	89.92%	91.48%	-0.13	2.06%	0.42	0.55
Total Alternative Illiquids	4.69%	7.77%	-0.02	0.01	16.62%	-18.06%	-0.47	17.31%	1.40	3.37

10 Years

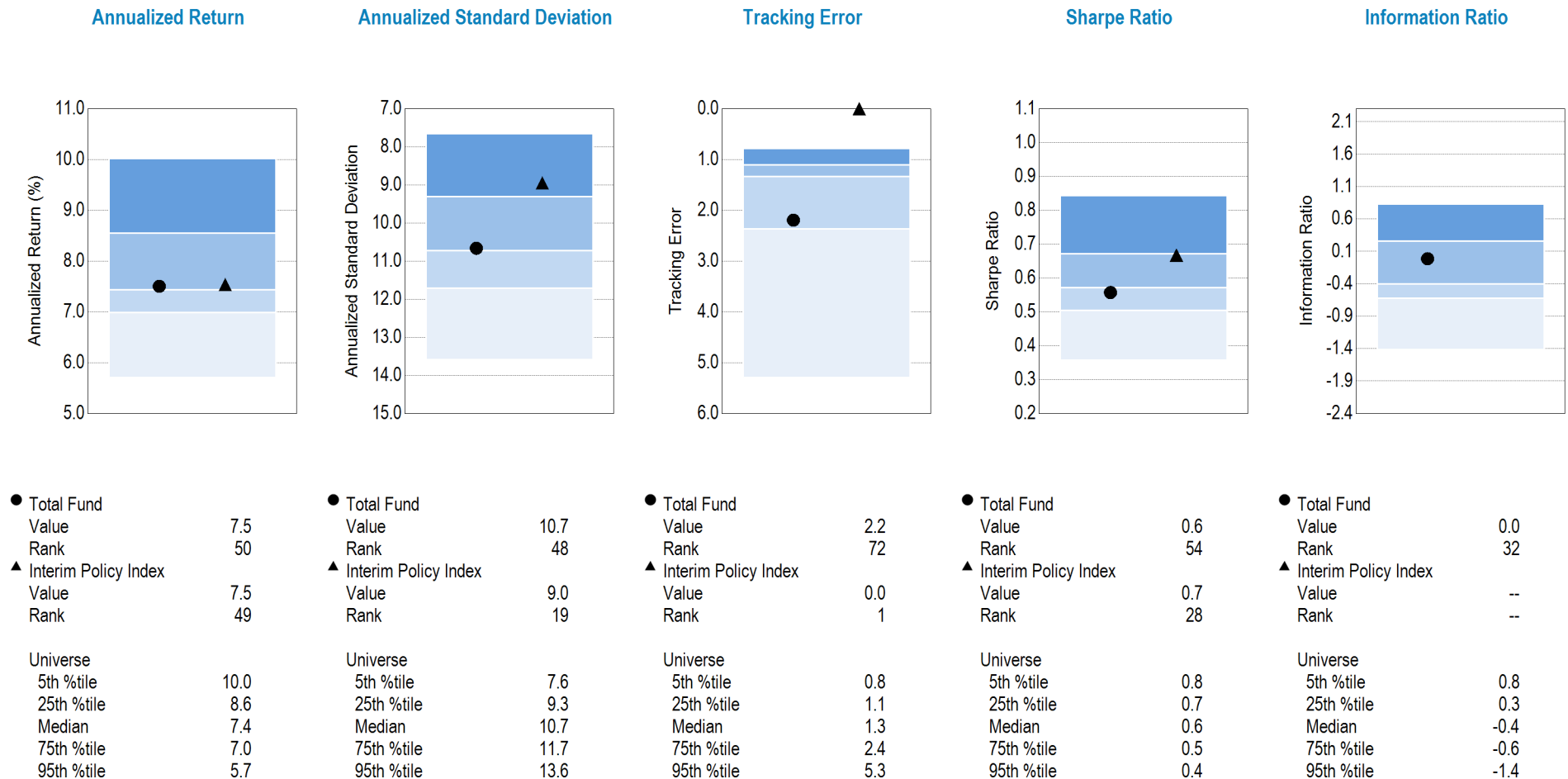
	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Total Fund	9.54%	-0.67%	1.12	0.98	109.83%	109.80%	0.10	1.77%	0.70	0.77
Total Equity	16.48%	0.41%	1.03	0.99	106.80%	99.61%	0.45	1.41%	0.55	0.59
Total Domestic Equity	16.92%	-1.62%	1.09	0.98	104.97%	107.98%	-0.13	2.86%	0.74	0.78
Total International Equity	16.82%	0.57%	1.01	0.98	105.17%	98.83%	0.30	2.08%	0.32	0.40
Total Domestic Fixed Income	4.71%	2.75%	0.56	0.13	115.00%	53.97%	0.23	4.60%	0.91	1.19
Total Real Estate	3.09%	-0.31%	0.99	0.53	98.41%	244.53%	-0.18	2.12%	2.55	2.02
Total Hedge Funds	5.33%	0.85%	0.78	0.84	82.24%	72.00%	0.04	2.58%	0.53	0.62
Total Alternative Illiquids	5.69%	7.69%	0.07	0.04	17.08%	-2.55%	-0.49	15.84%	1.46	2.46

Total Fund

Peer Universe Statistics - 3 Years (Net of Fees)

Period Ending: December 31, 2020

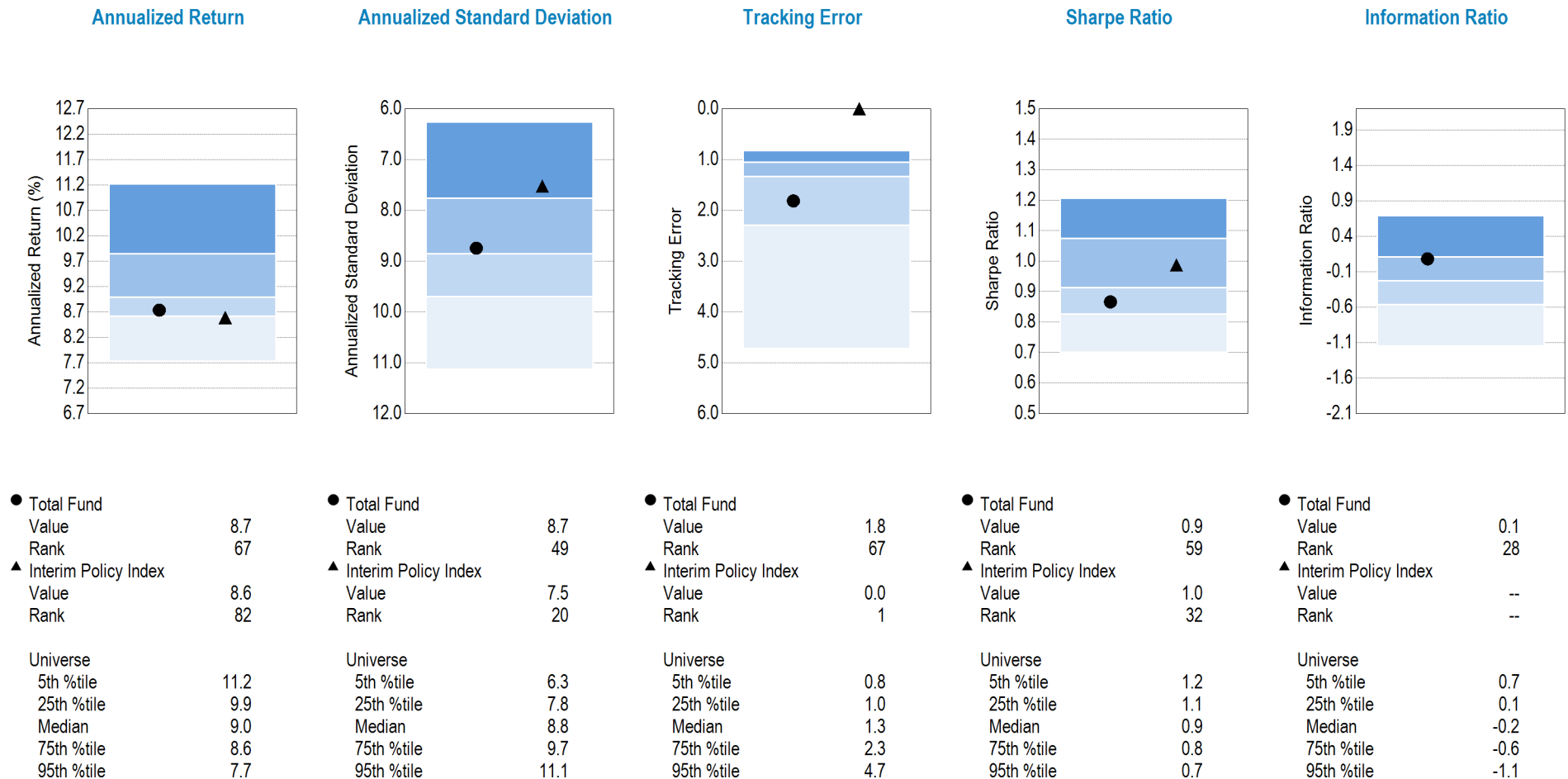
Total Fund vs. InvestorForce Public DB > \$1B Net Universe



Total Fund
Peer Universe Statistics - 5 Years (Net of Fees)

Period Ending: December 31, 2020

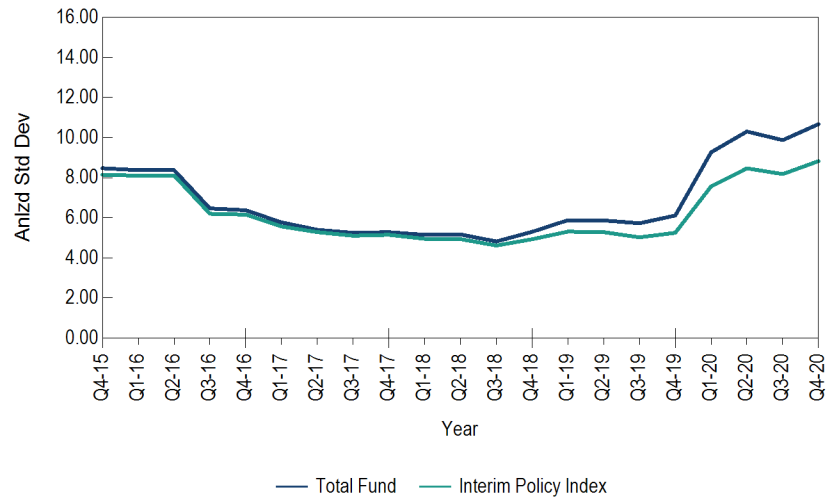
Total Fund vs. InvestorForce Public DB > \$1B Net Universe



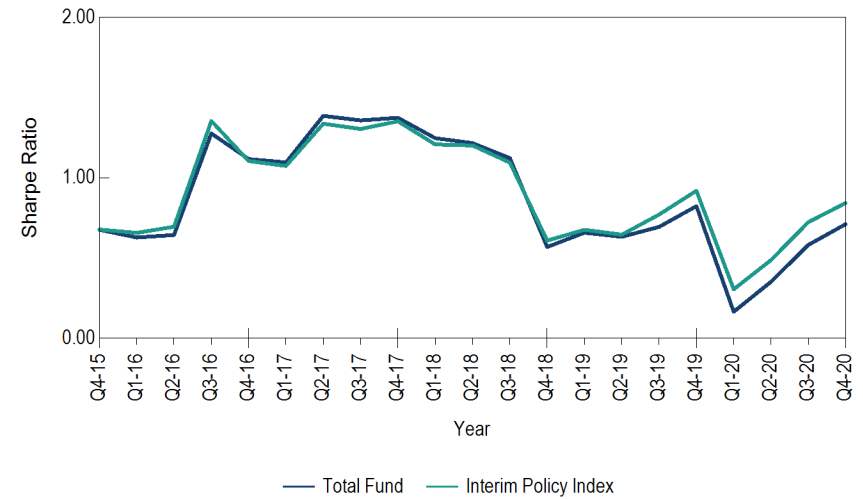
Total Fund Risk Analysis - 5 Years (Net of Fees)

Period Ending: December 31, 2020

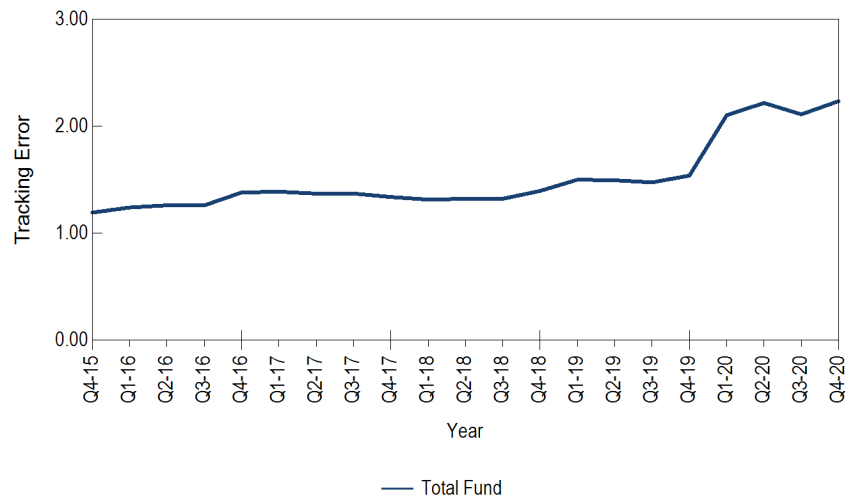
Rolling 5 Year Annualized Standard Deviation



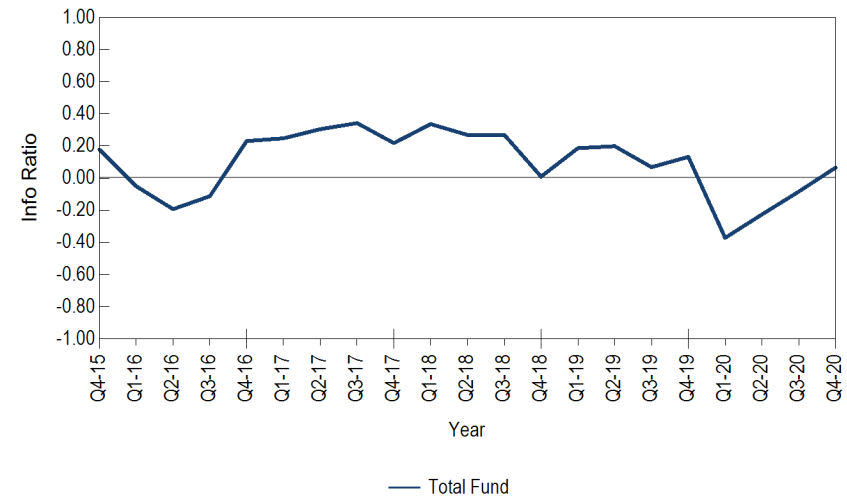
Rolling 5 Year Sharpe Ratio



Rolling 5 Year Tracking Error

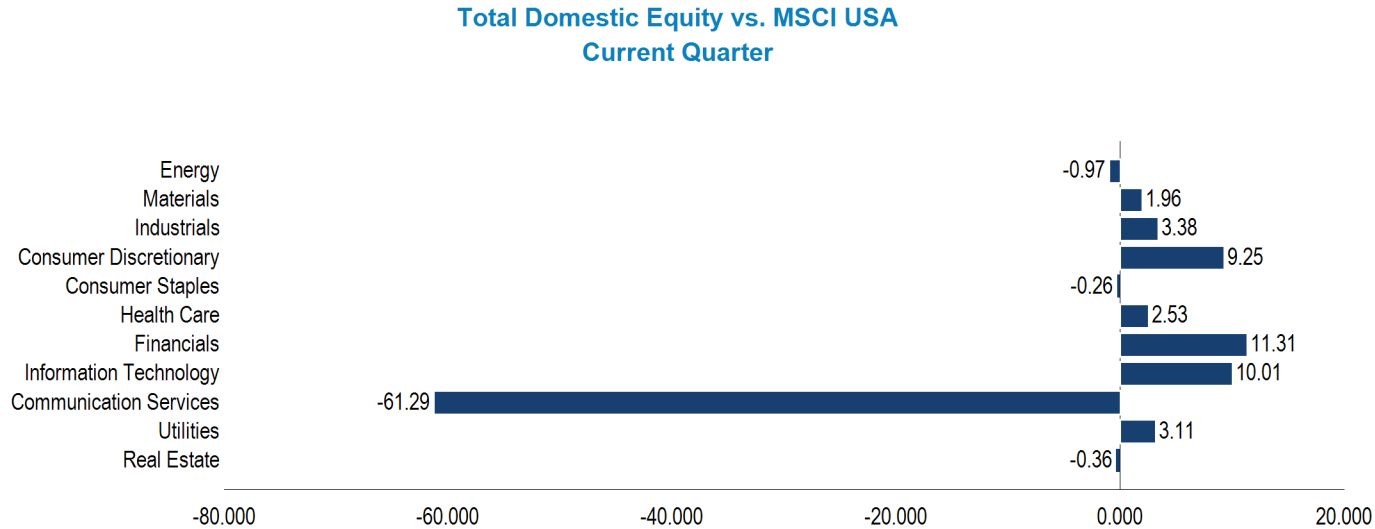


Rolling 5 Year Information Ratio



Total Domestic Equity Performance Attribution by Sector (Net of Fees)

Period Ending: December 31, 2020



GICS Sector	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Energy	1.59%	1.74%	-0.16%	-4.21%	29.63%	-33.83%	0.07%	-0.77%	-0.70%	0.26%	-0.43%
Materials	2.12%	2.76%	-0.64%	-0.36%	17.69%	-18.05%	-0.71%	-0.67%	-1.38%	0.09%	-1.29%
Industrials	7.02%	9.01%	-1.98%	-1.78%	17.39%	-19.17%	-0.84%	-1.84%	-2.68%	0.26%	-2.42%
Consumer Discretionary	13.79%	12.35%	1.43%	-3.63%	14.15%	-17.78%	-0.60%	-3.36%	-3.96%	-0.04%	-4.00%
Consumer Staples	5.58%	6.30%	-0.71%	-2.76%	7.02%	-9.78%	0.15%	-0.39%	-0.24%	-0.47%	-0.71%
Health Care	13.99%	14.62%	-0.64%	-3.74%	10.43%	-14.17%	0.18%	-5.93%	-5.74%	-0.59%	-6.33%
Financials	7.94%	9.92%	-1.98%	-0.97%	23.68%	-24.65%	-2.42%	-5.57%	-7.99%	0.92%	-7.07%
Information Technology	29.61%	27.27%	2.34%	-4.97%	13.85%	-18.81%	-2.40%	-7.00%	-9.41%	-0.17%	-9.57%
Communication Services	12.20%	9.84%	2.37%	3.32%	15.05%	-11.73%	3.16%	13.43%	16.59%	0.06%	16.65%
Utilities	2.67%	2.85%	-0.19%	4.86%	7.58%	-2.72%	-0.58%	0.15%	-0.43%	-0.20%	-0.63%
Real Estate	2.32%	3.33%	-1.01%	-3.00%	9.34%	-12.34%	0.42%	0.07%	0.49%	-0.17%	0.31%
Unclassified	1.16%	0.00%	1.16%	-5.07%	--	0.00%	-1.52%	0.00%	-1.52%	0.00%	-1.52%
Total				-2.52%	14.46%	-16.97%	-5.10%	-11.87%	-16.97%	0.00%	-16.97%

Please note that attribution portfolio return is calculated based on portfolio holding returns and beginning of period portfolio weights, the effects of transactions during the period are not reflected in the return. The attribution portfolio return will vary from the composite return.

Total Domestic Equity
Performance Attribution Summary (Net of Fees)

Period Ending: December 31, 2020

Portfolio: Total Domestic Equity
Benchmark: MSCI USA

Portfolio Total Return 17.03%

Equity Only

Portfolio -2.52%

Benchmark 12.88%

Return From Active Mgmt -15.39%

Local Returns

Portfolio -2.52%

Benchmark 12.66%

Active Equity Return -15.17%

Country Selection 0.06%

Stock Selection 0.02%

Currency Contributions

Portfolio 0.00%

Benchmark 0.22%

Active Currency Contributions -0.22%

Chart uses return-based methodology.

Total International Equity
Performance Attribution by Country (Net of Fees)

Period Ending: December 31, 2020

Total International Equity vs. MSCI ACWI ex USA

Current Quarter

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Active Return	Allocation Effect (Local)	Selection Effect (Local)	Currency Effect
ARGENTINA	0.00%	0.04%	-0.04%	7.85%	16.64%	-8.79%	0.00%	0.01%	0.00%	0.00%
AUSTRALIA	4.35%	4.20%	0.15%	28.41%	23.49%	4.92%	0.03%	0.03%	0.12%	-0.12%
AUSTRIA	0.08%	0.10%	-0.02%	43.59%	43.22%	0.36%	0.00%	0.00%	0.00%	0.00%
BELGIUM	1.00%	0.62%	0.38%	2.59%	19.11%	-16.52%	-0.17%	0.03%	-0.24%	0.04%
BRAZIL	0.51%	1.36%	-0.85%	7.25%	36.72%	-29.48%	-0.38%	-0.21%	0.01%	-0.18%
CANADA	6.72%	6.49%	0.23%	19.18%	13.17%	6.01%	0.17%	0.01%	0.22%	-0.06%
CHILE	0.00%	0.15%	-0.15%	--	28.36%	-28.36%	-0.03%	-0.01%	0.00%	-0.02%
CHINA	6.08%	12.48%	-6.40%	4.01%	10.60%	-6.59%	0.40%	0.69%	-0.19%	-0.09%
COLOMBIA	0.00%	0.05%	-0.05%	--	48.70%	-48.70%	-0.02%	-0.01%	0.00%	-0.01%
CZECH REPUBLIC	0.00%	0.03%	-0.03%	--	33.67%	-33.67%	-0.01%	0.00%	0.00%	0.00%
DENMARK	1.82%	1.62%	0.20%	14.11%	12.02%	2.09%	0.06%	-0.08%	0.06%	0.08%
EGYPT	0.00%	0.03%	-0.03%	--	-4.96%	4.96%	0.01%	0.01%	0.00%	0.00%
FINLAND	0.40%	0.67%	-0.27%	8.80%	14.04%	-5.23%	-0.01%	0.01%	0.00%	-0.02%
FRANCE	7.15%	6.82%	0.33%	17.17%	20.51%	-3.34%	0.26%	0.37%	-0.29%	0.18%
GERMANY	5.96%	6.14%	-0.17%	9.20%	9.96%	-0.76%	0.05%	0.02%	-0.06%	0.09%
GREECE	0.00%	0.04%	-0.04%	--	17.10%	-17.10%	0.00%	0.00%	0.00%	0.00%
HONG KONG	5.57%	2.12%	3.45%	18.44%	15.32%	3.12%	0.25%	0.09%	0.17%	0.00%
HUNGARY	0.00%	0.06%	-0.06%	--	38.93%	-38.93%	-0.02%	-0.01%	0.00%	0.00%
INDIA	2.13%	2.46%	-0.32%	-0.86%	21.37%	-22.23%	-0.27%	-0.09%	-0.12%	-0.05%
INDONESIA	0.22%	0.37%	-0.15%	11.21%	33.87%	-22.66%	-0.05%	-0.03%	0.01%	-0.03%
IRELAND	1.61%	0.45%	1.16%	16.44%	15.19%	1.25%	0.16%	-0.04%	0.19%	0.02%
ISRAEL	0.90%	0.38%	0.52%	20.57%	19.35%	1.23%	0.18%	0.06%	0.11%	0.00%
ITALY	1.54%	1.43%	0.11%	23.38%	18.37%	5.01%	0.13%	0.03%	0.09%	0.01%
JAPAN	16.28%	16.51%	-0.23%	13.34%	13.77%	-0.43%	-0.05%	0.01%	-0.07%	0.02%
KOREA	1.75%	3.60%	-1.85%	25.42%	37.98%	-12.56%	-0.86%	-0.65%	0.06%	-0.27%
LUXEMBOURG	0.79%	0.00%	0.79%	61.75%	15.76%	45.99%	0.66%	0.00%	0.57%	0.09%

Total International Equity
Performance Attribution by Country (Net of Fees)

Period Ending: December 31, 2020

	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Active Return	Allocation Effect (Local)	Selection Effect (Local)	Currency Effect
MALAYSIA	0.00%	0.51%	-0.51%	--	10.40%	-10.40%	0.01%	0.03%	0.00%	-0.02%
MEXICO	0.45%	0.49%	-0.04%	15.95%	32.94%	-17.00%	-0.15%	0.03%	-0.12%	-0.06%
NETHERLANDS	3.74%	2.79%	0.96%	15.35%	20.60%	-5.25%	0.00%	0.12%	-0.24%	0.12%
NEW ZEALAND	0.14%	0.20%	-0.05%	38.70%	13.18%	25.52%	0.04%	0.00%	0.04%	-0.01%
NORWAY	0.69%	0.36%	0.33%	28.51%	20.64%	7.87%	0.05%	-0.01%	0.04%	0.02%
Other Countries	0.00%	0.00%	0.00%	125.24%	71.97%	53.28%	0.00%	0.00%	0.00%	0.00%
PAKISTAN	0.00%	0.01%	-0.01%	--	7.73%	-7.73%	0.00%	0.00%	0.00%	0.00%
PERU	0.00%	0.07%	-0.07%	--	13.69%	-13.69%	0.00%	0.00%	0.00%	0.00%
PHILIPPINES	0.00%	0.22%	-0.22%	--	22.87%	-22.87%	-0.02%	-0.02%	0.00%	0.00%
POLAND	0.00%	0.19%	-0.19%	--	16.74%	-16.74%	-0.02%	-0.01%	0.00%	-0.01%
PORTUGAL	0.31%	0.10%	0.21%	27.36%	21.40%	5.96%	0.11%	0.03%	0.04%	0.04%
QATAR	0.00%	0.24%	-0.24%	--	2.52%	-2.52%	0.03%	0.03%	0.00%	0.00%
ROMANIA	0.03%	0.00%	0.03%	-13.87%	-8.15%	-5.72%	0.00%	0.00%	0.00%	0.00%
RUSSIA	0.52%	0.73%	-0.21%	2.79%	25.38%	-22.59%	-0.16%	-0.09%	-0.02%	-0.05%
SAUDI ARABIA	0.00%	0.83%	-0.83%	--	6.62%	-6.62%	0.04%	0.04%	0.00%	0.00%
SINGAPORE	1.81%	0.67%	1.14%	20.38%	14.17%	6.21%	0.00%	0.01%	0.00%	-0.01%
SOUTH AFRICA	0.00%	1.05%	-1.05%	42.55%	22.87%	19.68%	-0.12%	0.05%	0.00%	-0.17%
SPAIN	1.06%	1.44%	-0.38%	35.18%	24.99%	10.19%	0.15%	0.03%	0.11%	0.00%
SWEDEN	2.18%	2.14%	0.04%	8.79%	14.86%	-6.07%	-0.10%	0.02%	-0.09%	-0.03%
SWITZERLAND	7.38%	6.65%	0.72%	6.18%	6.44%	-0.26%	-0.17%	-0.30%	-0.04%	0.18%
TAIWAN	2.46%	3.81%	-1.35%	27.73%	23.30%	4.44%	-0.25%	-0.20%	0.04%	-0.09%
THAILAND	0.00%	0.53%	-0.53%	--	22.83%	-22.83%	-0.08%	-0.04%	0.00%	-0.04%
TURKEY	0.00%	0.10%	-0.10%	--	31.80%	-31.80%	-0.03%	-0.02%	0.00%	-0.01%
UNITED ARAB EMIRATES	0.00%	0.17%	-0.17%	--	10.64%	-10.64%	0.00%	0.00%	0.00%	0.00%
UNITED KINGDOM	10.00%	8.51%	1.50%	16.68%	13.46%	3.21%	0.40%	-0.04%	0.38%	0.06%
UNITED STATES	4.34%	0.00%	4.34%	10.92%	13.01%	-2.10%	0.00%	0.09%	-0.27%	0.17%
	99.99%	100.00%	-0.01%	16.01%	15.76%	0.25%	0.25%	-0.02%	0.50%	-0.23%

Total International Equity
Performance Attribution by Currency (Net of Fees)

Period Ending: December 31, 2020

Total International Equity vs. MSCI ACWI ex USA

Current Quarter

Currency Name	Portfolio Weight	Index Weight	Excess Weight	Currency Return	Portfolio Contrib.	Index Contrib.	Active Contrib.	Currency Effect
	0.00%	0.00%	0.00%	--	0.00%	4.05%	-4.05%	0.00%
Argentinian Nuevo Peso	0.00%	0.04%	-0.04%	-9.39%	0.00%	0.42%	-0.42%	0.00%
Australian Dollar	4.35%	4.20%	0.15%	7.66%	9.03%	8.24%	0.78%	-0.12%
Baht	0.00%	0.53%	-0.53%	5.77%	0.00%	6.06%	-6.06%	-0.04%
Canadian Dollar	6.72%	6.49%	0.23%	4.85%	4.96%	3.56%	1.40%	-0.06%
Chilean Peso	0.00%	0.15%	-0.15%	10.88%	0.00%	12.44%	-12.44%	-0.02%
Colombian Peso	0.00%	0.05%	-0.05%	12.68%	0.00%	16.65%	-16.65%	-0.01%
Cruzeiro Real	0.51%	1.36%	-0.85%	8.51%	1.75%	10.34%	-8.59%	-0.18%
Czech Koruna	0.00%	0.03%	-0.03%	7.62%	0.00%	9.05%	-9.05%	0.00%
Danish Krone	1.82%	1.62%	0.20%	4.34%	4.58%	4.49%	0.08%	0.08%
Egyptian Pound	0.00%	0.03%	-0.03%	0.19%	0.00%	0.14%	-0.14%	0.00%
Emirati dirham	0.00%	0.17%	-0.17%	0.00%	0.00%	0.00%	0.00%	0.00%
Euro	23.65%	20.60%	3.05%	4.34%	4.23%	4.37%	-0.14%	0.57%
Forint	0.00%	0.06%	-0.06%	4.48%	0.00%	5.71%	-5.71%	0.00%
Hong Kong Dollar	5.57%	2.12%	3.45%	-0.05%	-0.05%	-0.05%	0.00%	0.00%
Indian Rupee	2.13%	2.46%	-0.32%	0.98%	-1.01%	0.83%	-1.84%	-0.05%
Mexican New Peso	0.45%	0.49%	-0.04%	10.79%	1.72%	13.11%	-11.39%	-0.06%
New Sol	0.00%	0.07%	-0.07%	-0.56%	0.00%	0.00%	0.00%	0.00%
New Taiwan Dollar	2.46%	3.81%	-1.35%	3.07%	3.80%	3.67%	0.13%	-0.09%
New Zealand Dollar	0.14%	0.20%	-0.05%	8.93%	11.27%	9.19%	2.07%	-0.01%
New Zloty	0.00%	0.19%	-0.19%	3.77%	0.00%	3.76%	-3.76%	-0.01%
Norwegian Krone	0.69%	0.36%	0.33%	9.28%	10.89%	10.23%	0.67%	0.02%
Pakistani Rupee	0.00%	0.01%	-0.01%	3.72%	0.00%	3.71%	-3.71%	0.00%
Philippines Peso	0.00%	0.22%	-0.22%	0.95%	0.00%	1.19%	-1.19%	0.00%
Pound Sterling	10.00%	8.51%	1.50%	5.74%	4.51%	4.97%	-0.46%	0.06%
Qatari rial	0.00%	0.24%	-0.24%	0.00%	0.00%	0.01%	-0.01%	0.00%
Rand	0.00%	1.05%	-1.05%	13.56%	7.53%	14.91%	-7.38%	-0.17%

Total International Equity

Performance Attribution by Currency (Net of Fees)

Period Ending: December 31, 2020

Currency Name	Portfolio Weight	Index Weight	Excess Weight	Currency Return	Portfolio Contrib.	Index Contrib.	Active Contrib.	Currency Effect
Ringgit (Malaysian Dollar)	0.00%	0.51%	-0.51%	3.31%	0.00%	3.64%	-3.64%	-0.02%
Romanian New Leu	0.03%	0.00%	0.03%	4.48%	0.00%	4.05%	-4.05%	0.00%
Rupiah	0.22%	0.37%	-0.15%	5.91%	0.68%	8.48%	-7.80%	-0.03%
Russian Federation Rouble	0.52%	0.73%	-0.21%	4.92%	0.42%	5.02%	-4.61%	-0.05%
Saudi Arabian Riyal	0.00%	0.83%	-0.83%	-0.02%	0.00%	-0.02%	0.02%	0.00%
Shekel	0.90%	0.38%	0.52%	6.52%	0.75%	3.74%	-2.98%	0.00%
Singapore Dollar	1.81%	0.67%	1.14%	3.29%	3.78%	3.58%	0.19%	-0.01%
South Korean Won	1.75%	3.60%	-1.85%	7.66%	5.23%	9.00%	-3.77%	-0.27%
Swedish Krona	2.18%	2.14%	0.04%	8.98%	8.92%	9.55%	-0.62%	-0.03%
Swiss Franc	7.38%	6.65%	0.72%	3.94%	3.78%	3.69%	0.09%	0.18%
Turkish Lira	0.00%	0.10%	-0.10%	3.65%	0.00%	4.95%	-4.95%	-0.01%
US Dollar	4.34%	0.00%	4.34%	0.00%	2.55%	4.05%	-1.50%	0.17%
Yen	16.28%	16.51%	-0.23%	2.21%	2.43%	2.41%	0.02%	0.02%
Yuan Renminbi	6.08%	12.48%	-6.40%	4.14%	1.45%	1.04%	0.41%	-0.09%
	99.99%	100.00%	-0.01%		3.68%	4.05%	-0.38%	-0.23%

Total International Equity
Performance Attribution by Region (Net of Fees)

Period Ending: December 31, 2020

Total International Equity vs. MSCI ACWI ex USA
Current Quarter

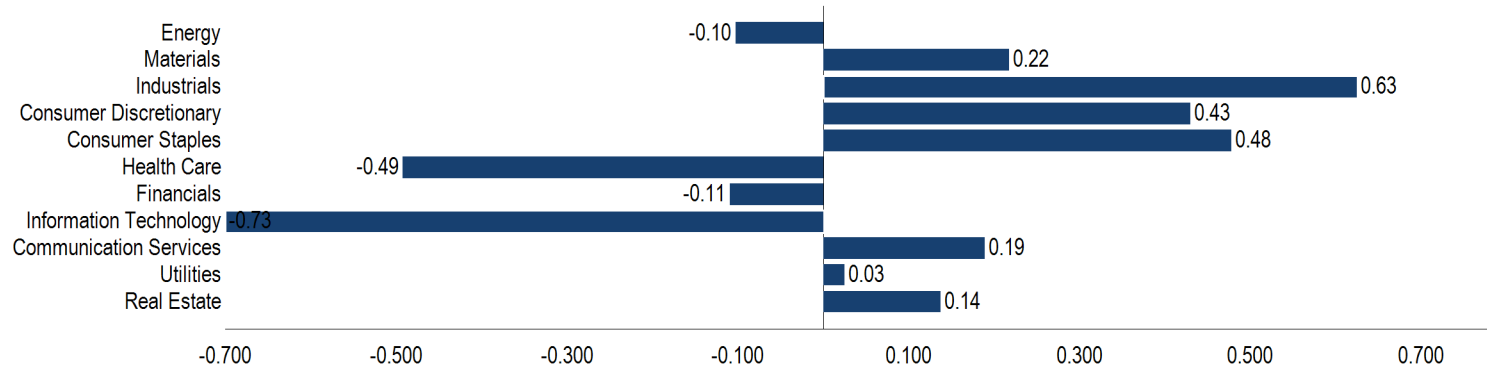
Region	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Americas	12.02%	8.64%	3.38%	14.14%	18.53%	-4.39%	0.01%	-0.41%	-0.40%	0.21%	-0.19%
Europe	46.27%	40.89%	5.38%	14.71%	14.78%	-0.07%	0.32%	1.06%	1.37%	-0.54%	0.84%
Asia/Pacific	40.79%	47.67%	-6.88%	15.81%	16.83%	-1.02%	0.08%	-0.92%	-0.84%	0.35%	-0.49%
Other	0.92%	2.80%	-1.88%	20.64%	15.11%	5.53%	0.03%	0.09%	0.12%	-0.03%	0.09%
Total				16.01%	15.76%	0.25%	0.43%	-0.18%	0.25%	0.00%	0.25%

Region	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess USD Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Americas	12.02%	8.64%	3.38%	14.14%	18.53%	-4.39%	0.01%	-0.41%	-0.40%	0.21%	-0.19%
Europe	46.27%	40.89%	5.38%	14.71%	14.78%	-0.07%	0.32%	1.06%	1.37%	-0.54%	0.84%
Asia/Pacific	40.79%	47.67%	-6.88%	15.81%	16.83%	-1.02%	0.08%	-0.92%	-0.84%	0.35%	-0.49%
Other	0.92%	2.80%	-1.88%	20.64%	15.11%	5.53%	0.03%	0.09%	0.12%	-0.03%	0.09%
Total				16.01%	15.76%	0.25%	0.43%	-0.18%	0.25%	0.00%	0.25%

Total International Equity Performance Attribution by Sector (Net of Fees)

Period Ending: December 31, 2020

Total International Equity vs. MSCI ACWI ex USA
Current Quarter



GICS Sector	Portfolio Weight	Index Weight	Excess Weight	Portfolio USD Return	Index USD Return	Excess Return	Allocation Effect (Local)	Selection Effect (Local)	Active Contrib.	Passive Contrib.	Total Contrib.
Energy	3.34%	4.12%	-0.78%	20.99%	19.63%	1.37%	-0.14%	-0.08%	-0.22%	0.16%	-0.06%
Materials	9.13%	7.93%	1.20%	18.92%	18.85%	0.07%	0.20%	0.40%	0.60%	0.24%	0.84%
Industrials	12.30%	11.70%	0.61%	23.76%	15.83%	7.93%	-0.05%	0.65%	0.60%	0.01%	0.61%
Consumer Discretionary	12.09%	13.83%	-1.74%	16.10%	13.80%	2.30%	0.10%	0.20%	0.31%	-0.27%	0.03%
Consumer Staples	9.33%	9.72%	-0.38%	11.77%	6.49%	5.28%	0.06%	0.36%	0.43%	-0.90%	-0.47%
Health Care	10.49%	10.51%	-0.02%	2.96%	5.66%	-2.70%	-0.31%	-0.15%	-0.46%	-1.06%	-1.52%
Financials	15.29%	16.99%	-1.70%	20.52%	22.32%	-1.80%	0.04%	-0.24%	-0.20%	1.11%	0.92%
Information Technology	12.53%	11.76%	0.77%	16.80%	24.31%	-7.51%	-0.12%	-0.86%	-0.98%	1.01%	0.03%
Communication Services	5.83%	7.38%	-1.55%	16.09%	12.64%	3.46%	0.04%	0.19%	0.22%	-0.23%	-0.01%
Utilities	4.41%	3.37%	1.04%	15.30%	13.93%	1.37%	-0.01%	0.07%	0.06%	-0.06%	0.00%
Real Estate	3.56%	2.70%	0.86%	18.52%	11.62%	6.90%	0.03%	0.04%	0.06%	-0.11%	-0.05%
Unclassified	1.69%	0.00%	1.69%	4.31%	--	-9.01%	-0.04%	-0.01%	-0.05%	0.00%	-0.05%
Total				16.14%	15.76%	0.38%	-0.19%	0.57%	0.38%	0.00%	0.38%

Total International Equity
Performance Attribution Summary (Net of Fees)

Period Ending: December 31, 2020

Portfolio: Total International Equity
Benchmark: MSCI ACWI ex USA

Portfolio Total Return 18.17%

	Equity Only
Portfolio	16.01%
Benchmark	<u>15.76%</u>
Return From Active Mgmt	0.25%

Local Returns	
Portfolio	12.20%
Benchmark	<u>11.72%</u>
Active Equity Return	0.48%

Country Selection	-0.02%
Stock Selection	0.50%

Currency Contributions	
Portfolio	3.68%
Benchmark	<u>4.05%</u>
Active Currency Contributions	-0.38%

Chart uses return-based methodology.

Total Fund Manager Rankings Page

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	2020	2019	2018	2017	2016
Total Fund	5,711,403,274	100.0	10.9	15.8	10.4	7.5	8.7	7.2	6.7	10.4	16.3	-3.3	14.6	6.7
Interim Policy Index			9.2	14.1	11.6	7.5	8.6	7.1	6.1	11.6	14.4	-2.6	14.0	6.5
InvMetrics Public DB > \$1B Net Rank			30	46	57	50	67	78	46	57	59	35	67	80
NT MSCI US Index	991,019,538	17.4	13.1	23.0	--	--	--	--	--	--	--	--	--	--
MSCI USA			13.0	23.8	20.7	14.5	15.1	13.4	9.4	20.7	30.9	-5.0	21.2	10.9
eV US Large Cap Core Equity Net Rank			27	26	--	--	--	--	--	--	--	--	--	--
T. Rowe Price Large Cap Growth	191,209,459	3.3	12.3	24.9	40.0	--	--	--	--	40.0	29.5	--	--	--
Russell 1000 Growth			11.4	26.1	38.5	23.0	21.0	17.2	12.5	38.5	36.4	-1.5	30.2	7.1
eV US Large Cap Growth Equity Net Rank			33	36	27	--	--	--	--	27	82	--	--	--
Aronson Johnson Ortiz	127,294	0.0	0.0	7.4	-11.5	-1.5	4.1	8.3	5.9	-11.5	21.7	-11.4	16.7	9.5
Russell 1000 Value			16.3	22.8	2.8	6.1	9.7	10.5	7.3	2.8	26.5	-8.3	13.7	17.3
eV US Large Cap Value Equity Net Rank			99	99	99	99	99	92	94	99	89	72	50	83
PIMCO StocksPLUS Small Fund	357,421,642	6.3	33.0	41.8	23.6	--	--	--	--	23.6	29.3	--	--	--
Russell 2000			31.4	37.9	20.0	10.2	13.3	11.2	8.9	20.0	25.5	-11.0	14.6	21.3
eV US Small Cap Core Equity Net Rank			10	10	23	--	--	--	--	23	15	--	--	--
NT MSCI World Ex-US Index	337,346,372	5.9	15.8	21.6	--	--	--	--	--	--	--	--	--	--
MSCI World ex USA			15.8	21.5	7.6	4.2	7.6	5.2	4.5	7.6	22.5	-14.1	24.2	2.7
eV Global All Cap Core Eq Net Rank			27	60	--	--	--	--	--	--	--	--	--	--
Artisan International Growth	210,073,847	3.7	9.3	17.4	9.2	8.8	9.0	--	--	9.2	31.3	-10.2	31.5	-9.0
MSCI EAFE			16.0	21.6	7.8	4.3	7.4	5.5	4.5	7.8	22.0	-13.8	25.0	1.0
eV EAFE All Cap Growth Net Rank			99	99	92	61	70	--	--	92	32	7	45	97
Research Affiliates International Equity	198,305,667	3.5	22.3	26.4	2.1	0.6	6.9	--	--	2.1	17.9	-15.5	25.7	9.3
MSCI EAFE			16.0	21.6	7.8	4.3	7.4	5.5	4.5	7.8	22.0	-13.8	25.0	1.0
eV EAFE All Cap Value Net Rank			19	21	63	57	25	--	--	63	56	50	28	1
Mondrian International Small Cap	186,058,234	3.3	19.2	29.7	10.3	5.6	9.4	7.4	--	10.3	25.1	-14.6	32.4	0.1
S&P Developed Ex-U.S. SmallCap			17.9	29.9	13.7	5.0	9.7	7.6	6.8	13.7	24.7	-18.4	32.4	3.8
eV EAFE Small Cap Value Net Rank			79	77	11	8	45	36	--	11	32	22	66	88
Mondrian Emerging Markets	181,170,049	3.2	20.8	35.3	15.2	5.5	10.3	3.2	6.1	15.2	18.3	-13.8	27.2	9.0
MSCI Emerging Markets			19.7	31.1	18.3	6.2	12.8	3.6	6.6	18.3	18.4	-14.6	37.3	11.2
eV Emg Mkts All Cap Value Equity Net Rank			72	17	40	30	68	38	57	40	42	48	93	81
Baillie Gifford Emerging Markets	204,717,218	3.6	25.2	41.7	29.6	--	--	--	--	29.6	28.0	--	--	--
MSCI Emerging Markets			19.7	31.1	18.3	6.2	12.8	3.6	6.6	18.3	18.4	-14.6	37.3	11.2
Diversified Emerging Mkts MStar MF Rank			10	6	18	--	--	--	--	18	14	--	--	--

Total Fund
Manager Rankings Page

Period Ending: December 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	2020	2019	2018	2017	2016
Western Asset Management Investment Grade Credit	208,441,163	3.6	3.1	5.0	10.6	7.5	7.3	--	--	10.6	14.9	-2.3	6.8	7.0
BBgBarc US Credit TR			2.8	4.3	9.4	6.8	6.4	5.4	5.6	9.4	13.8	-2.1	6.2	5.6
eV US Corporate Fixed Inc Net Rank			52	48	44	30	29	--	--	44	31	34	39	40
RBC Access Capital	59,019,602	1.0	0.4	0.8	4.3	--	--	--	--	4.3	6.4	--	--	--
BBgBarc US Securitized Index			0.3	0.5	4.2	3.8	3.2	3.1	4.1	4.2	6.4	1.0	2.5	1.8
eV US Securitized Fixed Inc Net Rank			72	80	36	--	--	--	--	36	54	--	--	--
Loomis Sayles High Yield	186,451,489	3.3	8.1	12.9	9.1	5.9	7.8	--	--	9.1	11.5	-2.3	7.1	14.4
BBgBarc US High Yield TR			6.5	11.3	7.1	6.2	8.6	6.8	7.5	7.1	14.3	-2.1	7.5	17.1
eV US High Yield Fixed Inc Net Rank			5	14	8	30	36	--	--	8	72	52	47	42
Eaton Vance Senior Loan Fund	170,003,211	3.0	3.2	6.5	1.1	3.1	4.6	--	--	1.1	7.5	0.7	4.0	9.9
S&P/LSTA Leveraged Loan Index			3.8	8.1	3.1	4.0	5.2	4.3	4.6	3.1	8.6	0.4	4.1	10.2
eV US Float-Rate Bank Loan Fixed Inc Net Rank			64	75	75	67	42	--	--	75	80	16	40	33
Eaton Vance Institutional Senior Loan Plus Fund	23,074,113	0.4	3.9	8.0	1.5	3.7	--	--	--	1.5	11.3	-1.3	3.6	--
S&P/LSTA Leveraged Loan Index			3.8	8.1	3.1	4.0	5.2	4.3	4.6	3.1	8.6	0.4	4.1	10.2
eV US Float-Rate Bank Loan Fixed Inc Net Rank			22	20	62	31	--	--	--	62	2	97	64	--
Western Asset Management Agency MBS	135,337,058	2.4	0.6	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US GNMA TR			0.4	0.0	3.7	3.5	2.8	2.9	4.0	3.7	5.9	1.0	1.9	1.6
eV US Corporate Fixed Inc Net Rank			99	--	--	--	--	--	--	--	--	--	--	--
Western Asset Management Treasuries	39,612,062	0.7	-0.8	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Treasury Bills			0.0	0.1	0.7	1.6	1.2	0.7	1.3	0.7	2.3	1.9	0.8	0.4
eV US Government Fixed Inc Net Rank			92	--	--	--	--	--	--	--	--	--	--	--
TCW TALF Opportunities Fund LP	4,000,645	0.1	0.0	0.0	--	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR			0.7	1.3	7.5	5.3	4.4	3.8	4.5	7.5	8.7	0.0	3.5	2.6
eV US High Yield Fixed Inc Net Rank			99	99	--	--	--	--	--	--	--	--	--	--

Total Fund Investment Fund Fee Analysis

Period Ending: December 31, 2020

Account	Fee Schedule	Market Value As of 12/31/2020	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
NT MSCI US Index	0.01% of Assets	\$991,019,538	\$99,102	0.01%
T. Rowe Price Large Cap Growth	0.35% of Assets	\$191,209,459	\$669,233	0.35%
Aronson Johnson Ortiz	0.30% of First 250.0 Mil, 0.20% of Next 250.0 Mil, 0.15% of Next 500.0 Mil, 0.13% Thereafter	\$127,294	\$382	0.30%
PIMCO StocksPLUS Small Fund	0.50% of First 150.0 Mil, 0.45% Thereafter	\$357,421,642	\$1,683,397	0.47%
NT MSCI World Ex-US Index	0.25% of Assets	\$337,346,372	\$843,366	0.25%
Artisan International Growth	0.30% of Assets	\$210,073,847	\$630,222	0.30%
Research Affiliates International Equity	0.12% of Assets	\$198,305,667	\$237,967	0.12%
Mondrian International Small Cap	0.85% of First 25.0 Mil, 0.65% of Next 50.0 Mil, 0.63% of Next 50.0 Mil, 0.60% Thereafter	\$186,058,234	\$1,216,349	0.65%
Mondrian Emerging Markets	1.00% of First 25.0 Mil, 0.75% of Next 50.0 Mil, 0.60% Thereafter	\$181,170,049	\$1,262,020	0.70%
Baillie Gifford Emerging Markets	0.85% of Assets	\$204,717,218	\$1,740,096	0.85%
Western Asset Management Investment Grade Credit	0.30% of First 100.0 Mil, 0.15% Thereafter	\$208,441,163	\$462,662	0.22%
RBC Access Capital	0.30% of First 100.0 Mil, 0.20% Thereafter	\$59,019,602	\$177,059	0.30%
Loomis Sayles High Yield	0.50% of Assets	\$186,451,489	\$932,257	0.50%

This fee analysis only reflects base fees for investment management, does not incorporate performance-based fees, and excludes fees paid to closed end real estate managers, private equity managers and GCM Better Futures Fund. Closed end real estate and private equity fees have other components which cannot be easily captured in this simplified format.

** Managers with incentive fee include: Ivy, Research Affiliates, Western Asset, Artisan, Brandywine, and Invesco Commodities. Performance based fees are not included in the fee analysis. AJO has performance based fees.*

Total Fund Investment Fund Fee Analysis

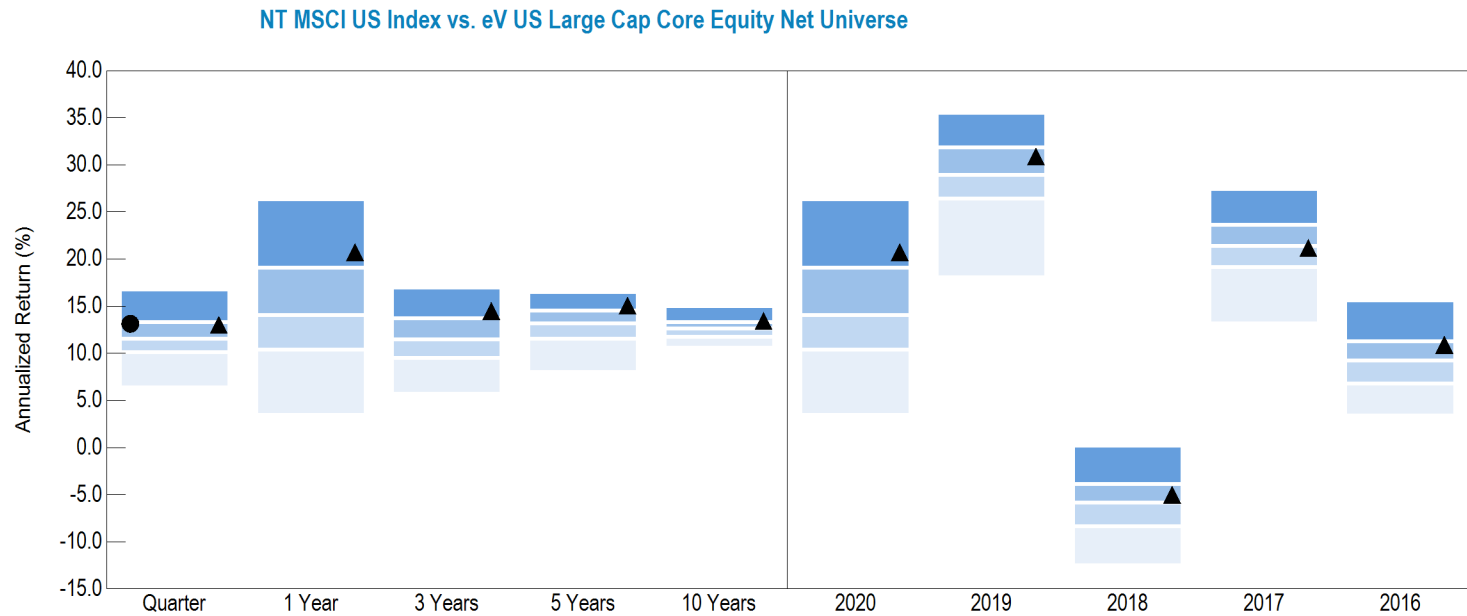
Period Ending: December 31, 2020

Account	Fee Schedule	Market Value As of 12/31/2020	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Eaton Vance Senior Loan Fund	0.55% of First 50.0 Mil, 0.50% of Next 50.0 Mil, 0.40% Thereafter	\$170,003,211	\$805,013	0.47%
Eaton Vance Institutional Senior Loan Plus Fund	0.40% of Assets	\$23,074,113	\$92,296	0.40%
Western Asset Management Agency MBS	0.30% of First 100.0 Mil, 0.15% Thereafter	\$135,337,058	\$353,006	0.26%
Western Asset Management Treasuries	0.30% of First 100.0 Mil, 0.15% Thereafter	\$39,612,062	\$118,836	0.30%
TCW TALF Opportunities Fund LP	0.50% of Assets	\$4,000,645	\$20,003	0.50%
Brandywine Global Sovereign	0.36% of Assets	\$283,705,847	\$1,021,341	0.36%
PIMCO Emerging Local Bond Ins	0.50% of First 100.0 Mil, 0.45% Thereafter	\$203,321,292	\$964,946	0.47%
Invesco Core Real Estate	0.90% of First 75.0 Mil, 0.80% Thereafter	\$174,174,026	\$1,468,392	0.84%
IFM Infrastructure	0.97% of Assets	\$181,457,555	\$1,760,138	0.97%
Parametric Overlay	0.15% of First 25.0 Mil, 0.10% of Next 75.0 Mil, 0.04% Thereafter	\$81,232,059	\$93,732	0.12%
Investment Management Fee		\$4,607,279,442	\$16,651,816	0.36%

This fee analysis only reflects base fees for investment management, does not incorporate performance-based fees, and excludes fees paid to closed end real estate managers, private equity managers and GCM Better Futures Fund. Closed end real estate and private equity fees have other components which cannot be easily captured in this simplified format.

** Managers with incentive fee include: Ivy, Research Affiliates, Western Asset, Artisan, Brandywine, and Invesco Commodities TCW TALF Opportunities Fund LP. Performance based fees are not included in the fee analysis. AJO has performance based fees.*

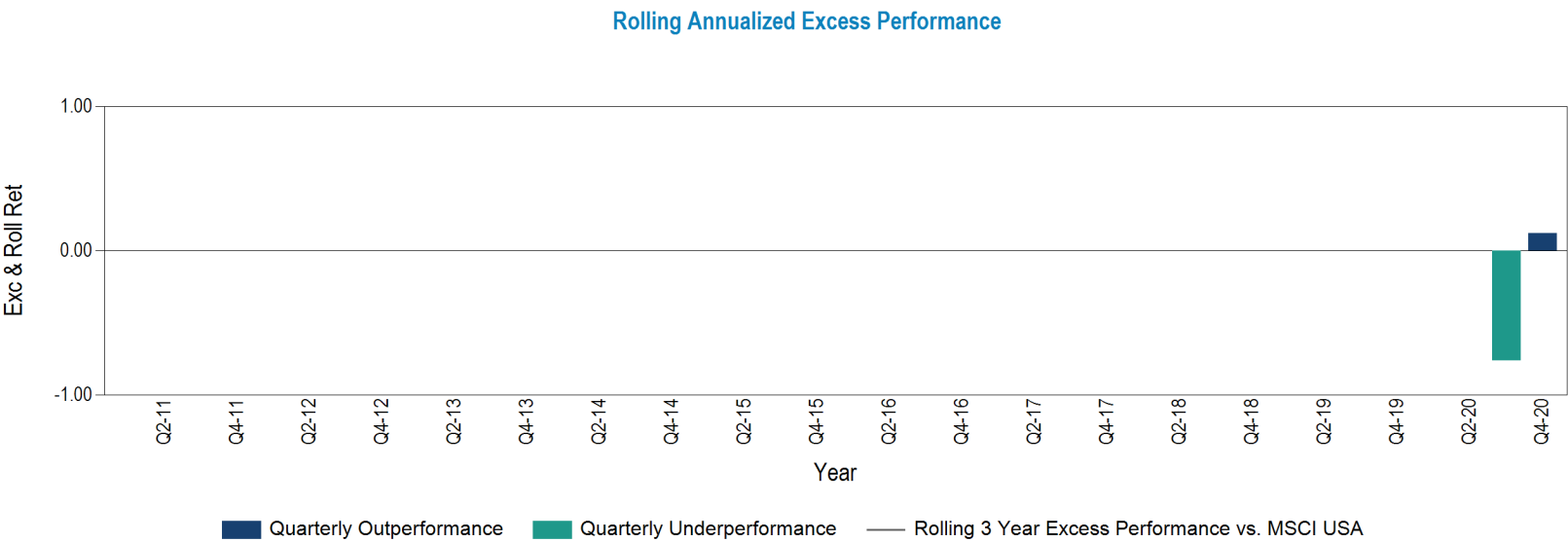
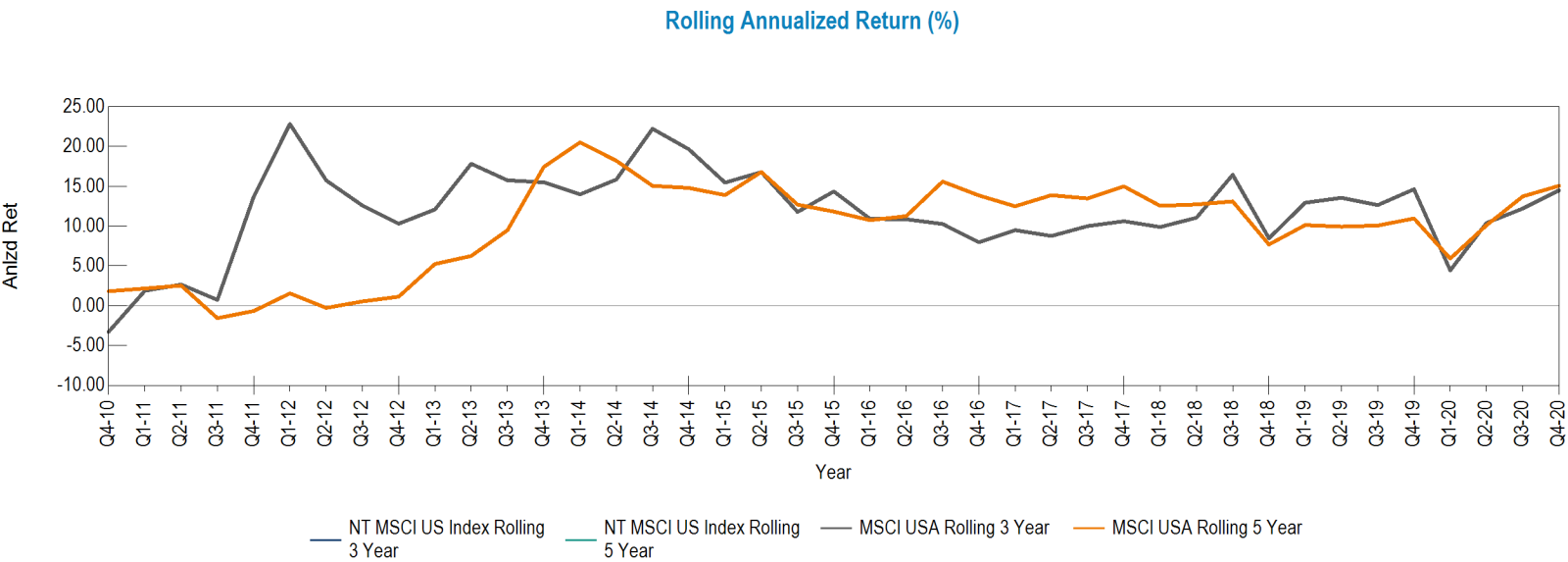
Domestic Equity Managers



	Return (Rank)																			
5th Percentile	16.7	26.4	17.0	16.5	15.0	26.4	35.5	0.1	27.4	15.6										
25th Percentile	13.3	19.1	13.8	14.6	13.4	19.1	31.9	-3.8	23.7	11.3										
Median	11.6	14.1	11.5	13.2	12.7	14.1	28.9	-5.8	21.4	9.3										
75th Percentile	10.2	10.4	9.5	11.6	11.8	10.4	26.5	-8.3	19.2	6.9										
95th Percentile	6.4	3.5	5.8	8.0	10.6	3.5	18.1	-12.5	13.2	3.4										
# of Portfolios	216	216	207	191	139	216	203	189	188	177										
● NT MSCI US Index	13.1 (27)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)										
▲ MSCI USA	13.0 (28)	20.7 (20)	14.5 (17)	15.1 (15)	13.4 (22)	20.7 (20)	30.9 (33)	-5.0 (40)	21.2 (54)	10.9 (27)										

NT MSCI US Index
 Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020

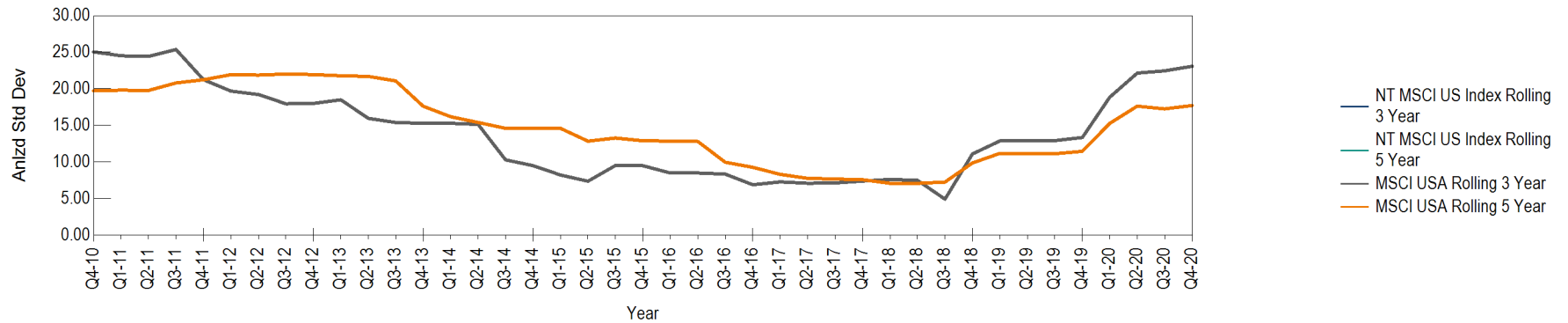


NT MSCI US Index

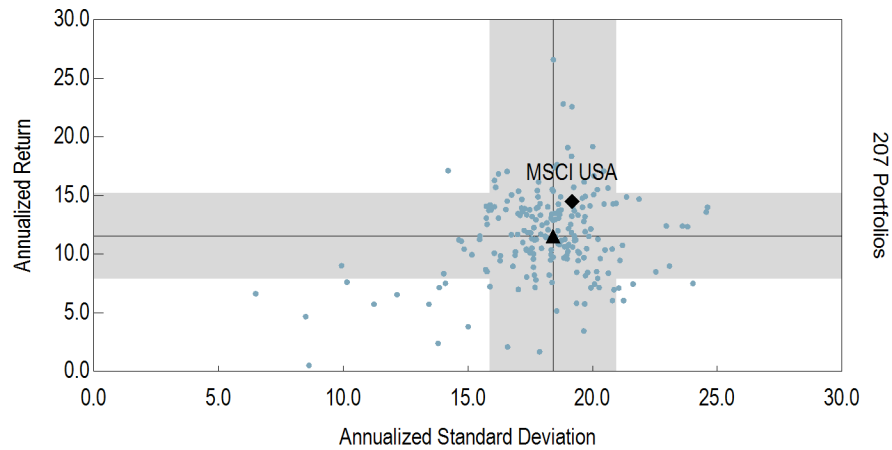
Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

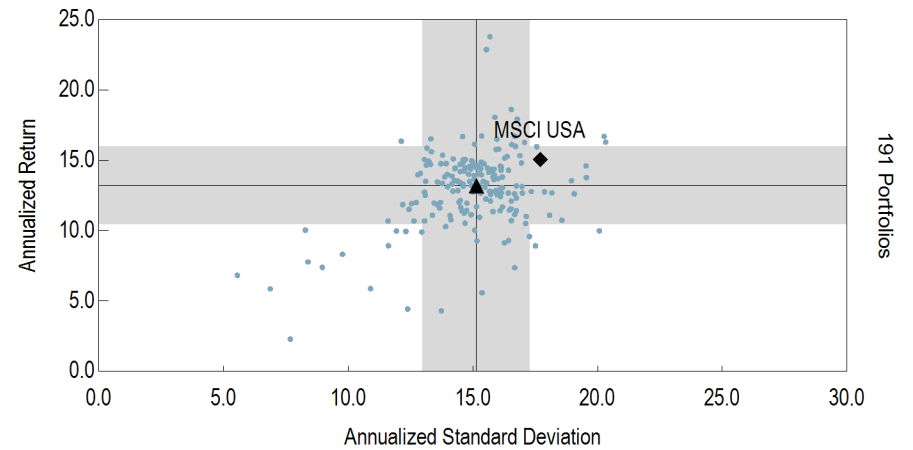
Rolling Annualized Standard Deviation



3 Years



5 Years



3 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
NT MSCI US Index	--	--	--
MSCI USA	14.5%	19.2%	0.7
eV US Large Cap Core Equity Net Median	11.5%	18.4%	0.6

5 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
NT MSCI US Index	--	--	--
MSCI USA	15.1%	17.7%	0.8
eV US Large Cap Core Equity Net Median	13.2%	15.1%	0.8

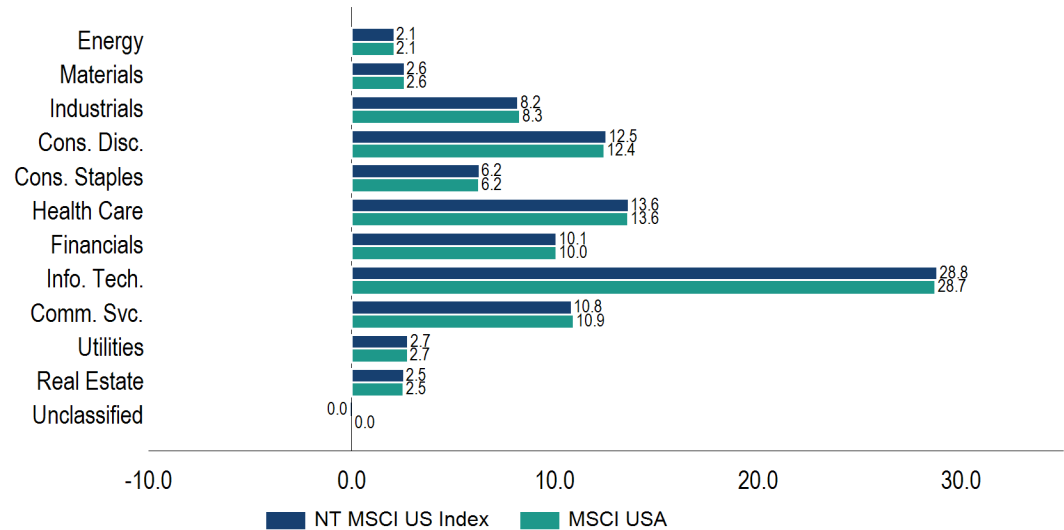
NT MSCI US Index Manager Portfolio Overview (Net of Fees)

Period Ending: December 31, 2020

Characteristics

	Portfolio	MSCI USA
Number of Holdings	621	621
Weighted Avg. Market Cap. (\$B)	459.14	457.51
Median Market Cap. (\$B)	22.75	24.06
Price To Earnings	30.31	30.34
Price To Book	4.81	4.78
Price To Sales	3.13	3.13
Return on Equity (%)	25.11	25.38
Yield (%)	1.46	1.46
Beta		1.00

Sector Allocation (%) vs MSCI USA



Largest Holdings

	End Weight	Return
APPLE INC	6.69	14.77
MICROSOFT CORP	4.71	6.03
AMAZON.COM INC	4.09	3.44
FACEBOOK INC	1.93	4.30
ALPHABET INC	1.55	19.59
TESLA INC	1.55	64.49
ALPHABET INC	1.55	19.21
JOHNSON & JOHNSON	1.22	6.45
JPMORGAN CHASE & CO	1.14	33.19
VISA INC	1.09	9.55

Top Contributors

	End Weight	Return	Contribution
TESLA INC	1.55	64.49	1.00
APPLE INC	6.69	14.77	0.99
WALT DISNEY CO (THE)	0.96	46.02	0.44
JPMORGAN CHASE & CO	1.14	33.19	0.38
ALPHABET INC	1.55	19.59	0.30
ALPHABET INC	1.55	19.21	0.30
MICROSOFT CORP	4.71	6.03	0.28
GENERAL ELECTRIC CO	0.28	73.52	0.20
BANK OF AMERICA CORP	0.70	26.60	0.19
CITIGROUP INC	0.38	44.79	0.17

Bottom Contributors

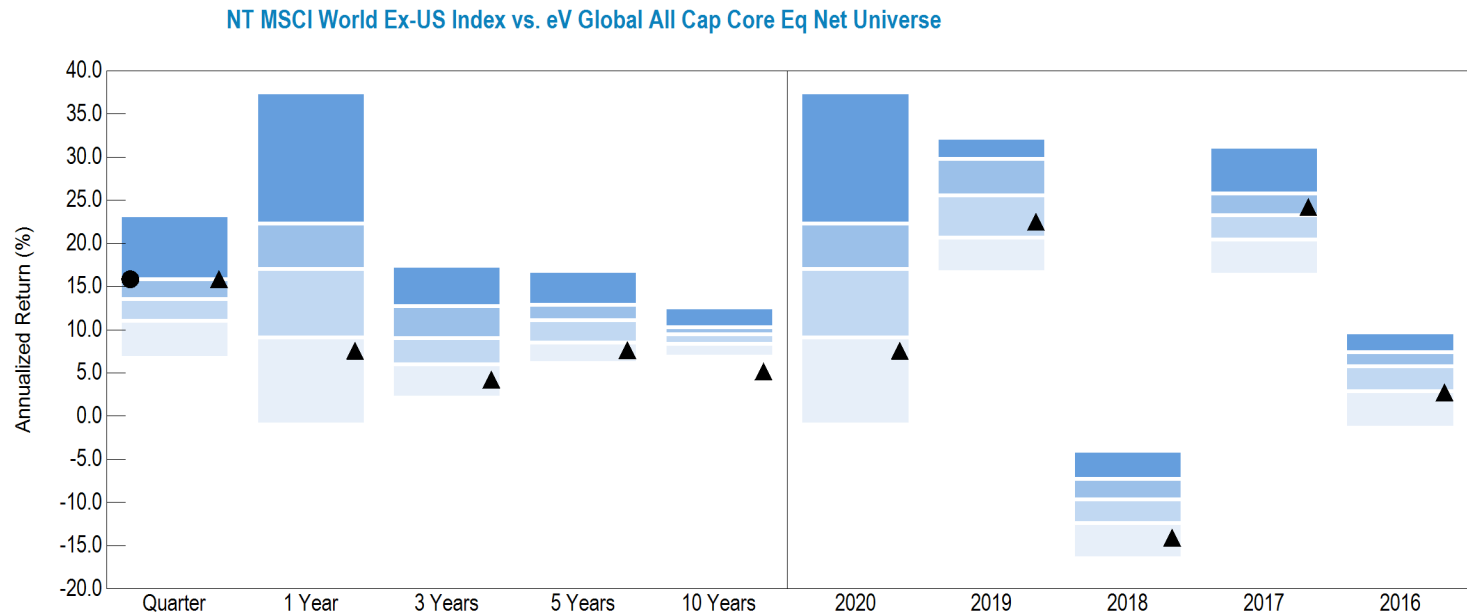
	End Weight	Return	Contribution
SALESFORCE.COM INC	0.60	-11.46	-0.07
ZOOM VIDEO COMMUNICATIONS INC	0.17	-28.25	-0.05
AMGEN INC	0.40	-8.93	-0.04
NVIDIA CORPORATION	0.95	-3.49	-0.03
HOME DEPOT INC. (THE)	0.84	-3.82	-0.03
VERTEX PHARMACEUTICALS INC	0.18	-13.15	-0.02
REGENERON PHARMACEUTICALS INC	0.15	-13.70	-0.02
S&P GLOBAL INC	0.23	-8.65	-0.02
AMERICAN TOWER CORP	0.29	-6.63	-0.02
INTEL CORP	0.62	-3.09	-0.02

Unclassified sector allocation includes cash allocations.

International Equity Managers

NT MSCI World Ex-US Index Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

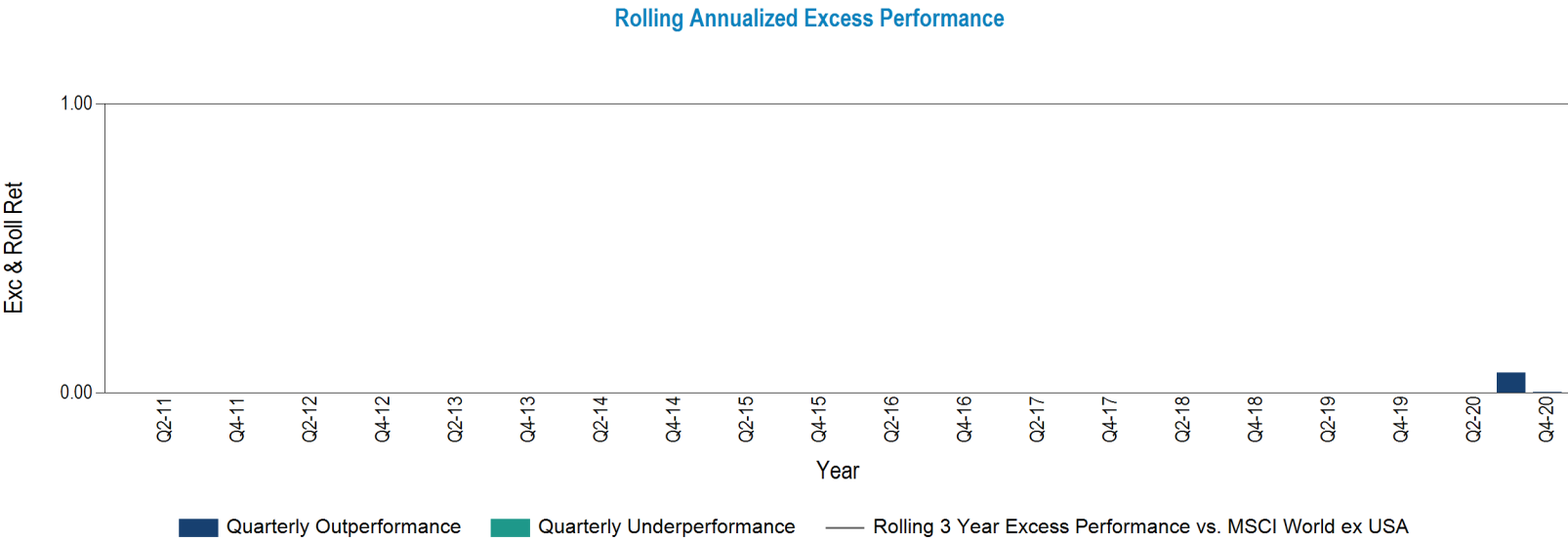
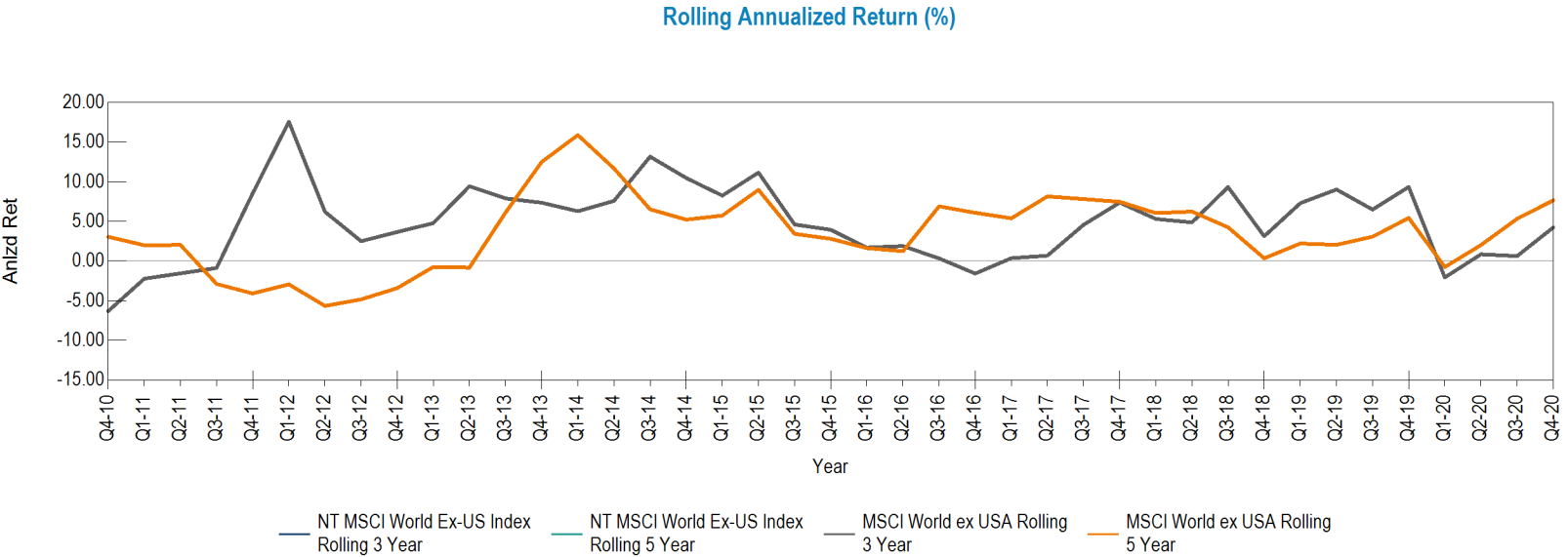


	Return (Rank)									
5th Percentile	23.2	37.4	17.4	16.8	12.5	37.4	32.2	-4.0	31.2	9.6
25th Percentile	15.9	22.4	12.8	12.9	10.3	22.4	29.8	-7.2	25.8	7.4
Median	13.6	17.1	9.1	11.1	9.5	17.1	25.6	-9.6	23.3	5.8
75th Percentile	11.0	9.2	6.0	8.6	8.4	9.2	20.7	-12.3	20.5	3.0
95th Percentile	6.8	-0.9	2.2	6.2	6.9	-0.9	16.7	-16.4	16.4	-1.3
# of Portfolios	94	93	82	75	43	93	83	73	66	59
● NT MSCI World Ex-US Index	15.8 (27)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)
▲ MSCI World ex USA	15.8 (27)	7.6 (80)	4.2 (84)	7.6 (85)	5.2 (99)	7.6 (80)	22.5 (65)	-14.1 (91)	24.2 (46)	2.7 (78)

Returns prior to inception date are composite returns.

NT MSCI World Ex-US Index
Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020



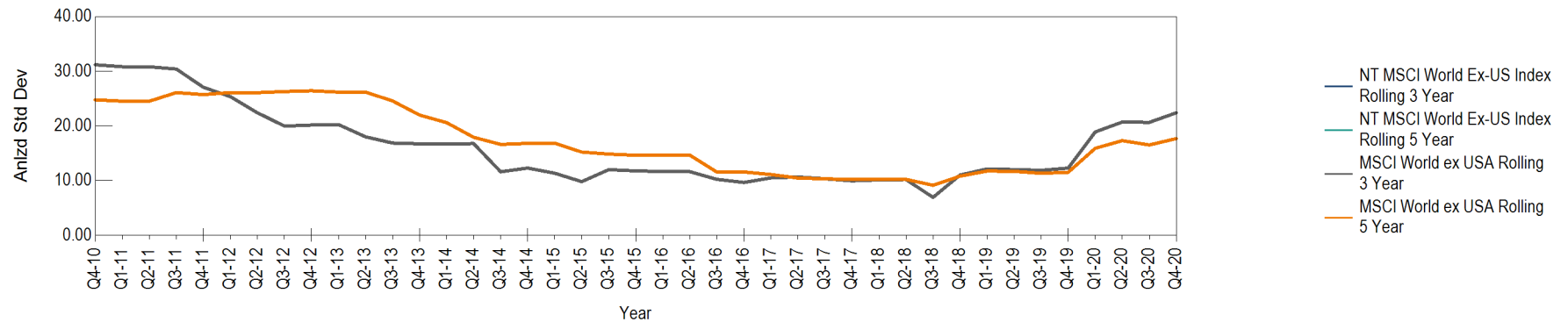
Returns prior to inception date are composite returns.

NT MSCI World Ex-US Index

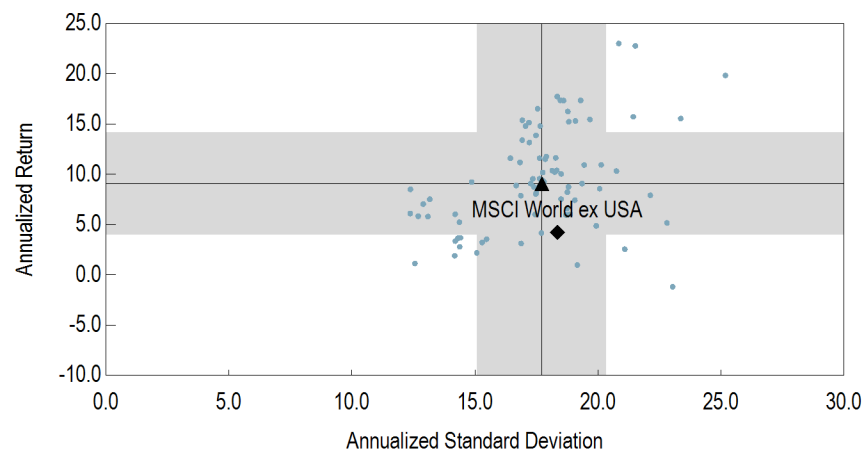
Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

Rolling Annualized Standard Deviation



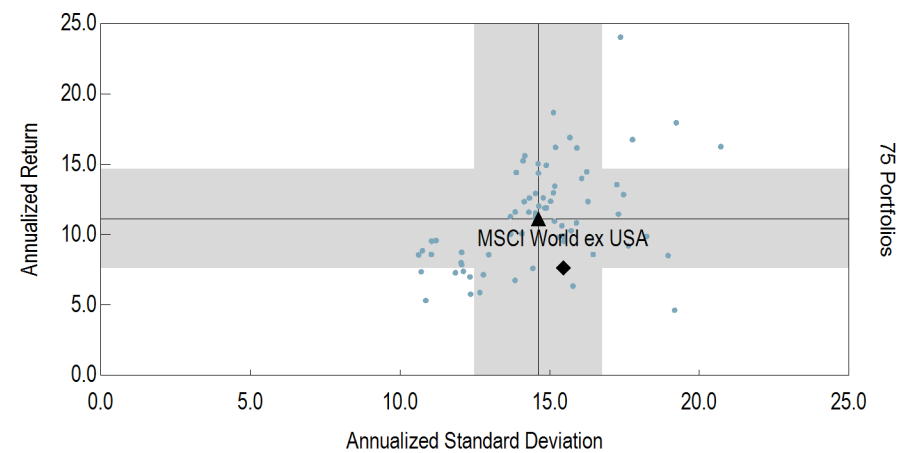
3 Years



3 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
NT MSCI World Ex-US Index	--	--	--
MSCI World ex USA	4.2%	18.4%	0.1
eV Global All Cap Core Eq Net Median	9.1%	17.7%	0.4

5 Years



5 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
NT MSCI World Ex-US Index	--	--	--
MSCI EAFE	7.4%	15.4%	0.4
eV EAFE All Cap Growth Net Median	12.1%	15.6%	0.7

Returns prior to inception date are composite returns.

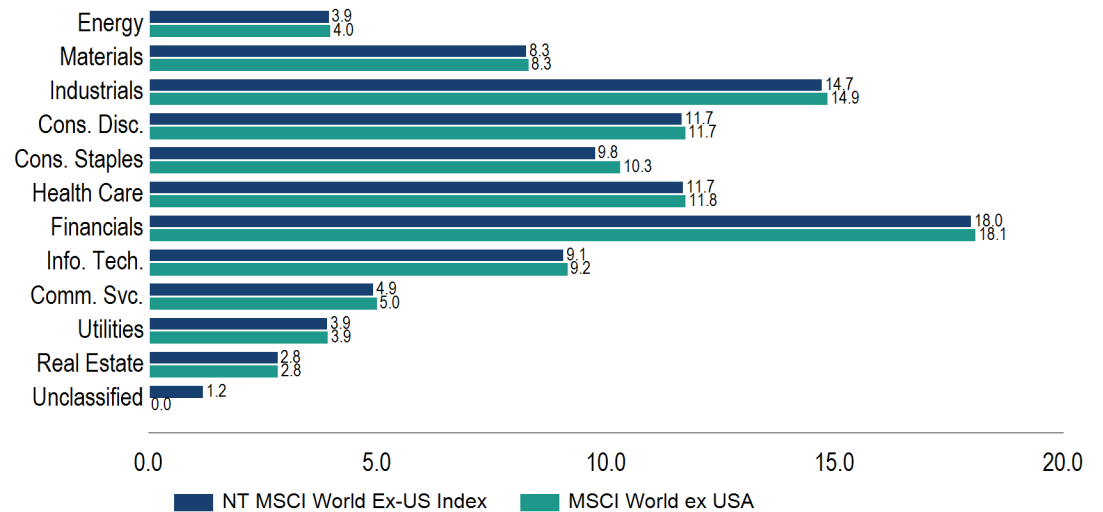
NT MSCI World Ex-US Index Manager Portfolio Overview (Net of Fees)

Period Ending: December 31, 2020

Characteristics

	Portfolio	MSCI World ex USA
Number of Holdings	1,027	964
Weighted Avg. Market Cap. (\$B)	69.31	69.48
Median Market Cap. (\$B)	11.56	12.29
Price To Earnings	21.90	21.86
Price To Book	2.66	2.61
Price To Sales	1.30	1.30
Return on Equity (%)	10.28	10.14
Yield (%)	2.40	2.43
Beta		1.00

Sector Allocation (%) vs MSCI World ex USA



Largest Holdings

	End Weight	Return
NESTLE SA, CHAM UND VEVEY	1.95	-1.14
ROCHE HOLDING AG	1.41	1.66
NOVARTIS AG	1.21	8.53
ASML HOLDING NV	1.17	32.10
LVMH MOET HENNESSY LOUIS VUITTON SE	0.98	33.79
TOYOTA MOTOR CORP	0.92	17.30
AIA GROUP LTD	0.84	25.11
SAP SE	0.79	-15.87
ASTRAZENECA PLC	0.74	-8.57
SONY CORP	0.72	30.86

Top Contributors

	End Weight	Return	Contribution
ASML HOLDING NV	1.17	32.10	0.37
LVMH MOET HENNESSY LOUIS VUITTON SE	0.98	33.79	0.33
COMMONWEALTH BANK OF AUSTRALIA	0.63	38.92	0.25
BANCO SANTANDER SA	0.31	72.48	0.22
SONY CORP	0.72	30.86	0.22
HSBC HOLDINGS PLC	0.60	36.68	0.22
AIA GROUP LTD	0.84	25.11	0.21
SOFTBANK GROUP CORP	0.70	27.29	0.19
AIRBUS SE	0.37	50.68	0.19
ROYAL DUTCH SHELL PLC	0.42	43.68	0.18

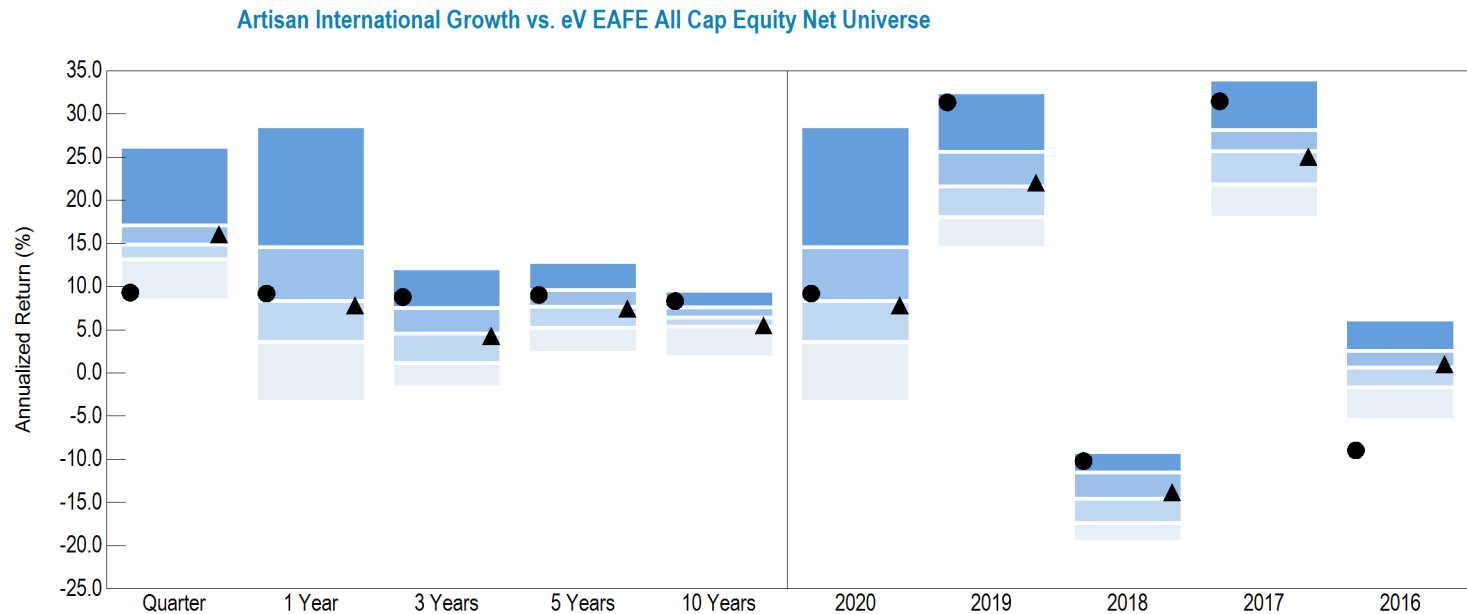
Bottom Contributors

	End Weight	Return	Contribution
SAP SE	0.79	-15.87	-0.13
ASTRAZENECA PLC	0.74	-8.57	-0.06
BARRICK GOLD CORP	0.23	-18.60	-0.04
RECKITT BENCKISER GROUP PLC	0.36	-8.64	-0.03
SANOFI	0.62	-3.92	-0.02
NESTLE SA, CHAM UND VEVEY	1.95	-1.14	-0.02
EISAI CO LTD	0.10	-21.39	-0.02
WHEATON PRECIOUS METALS CORP	0.11	-14.65	-0.02
KINGSPAN GROUP PLC	0.06	-23.04	-0.01
FRANCO-NEVADA CORP	0.14	-10.14	-0.01

Unclassified sector allocation includes cash allocations.

Artisan International Growth Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020



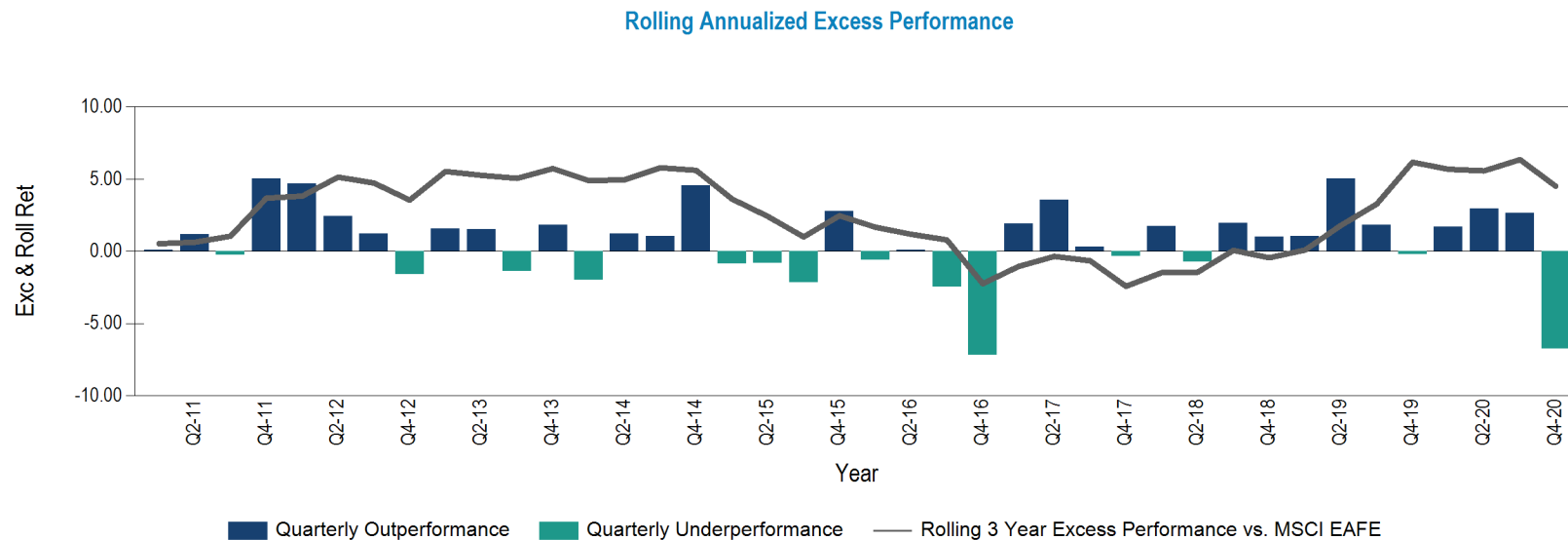
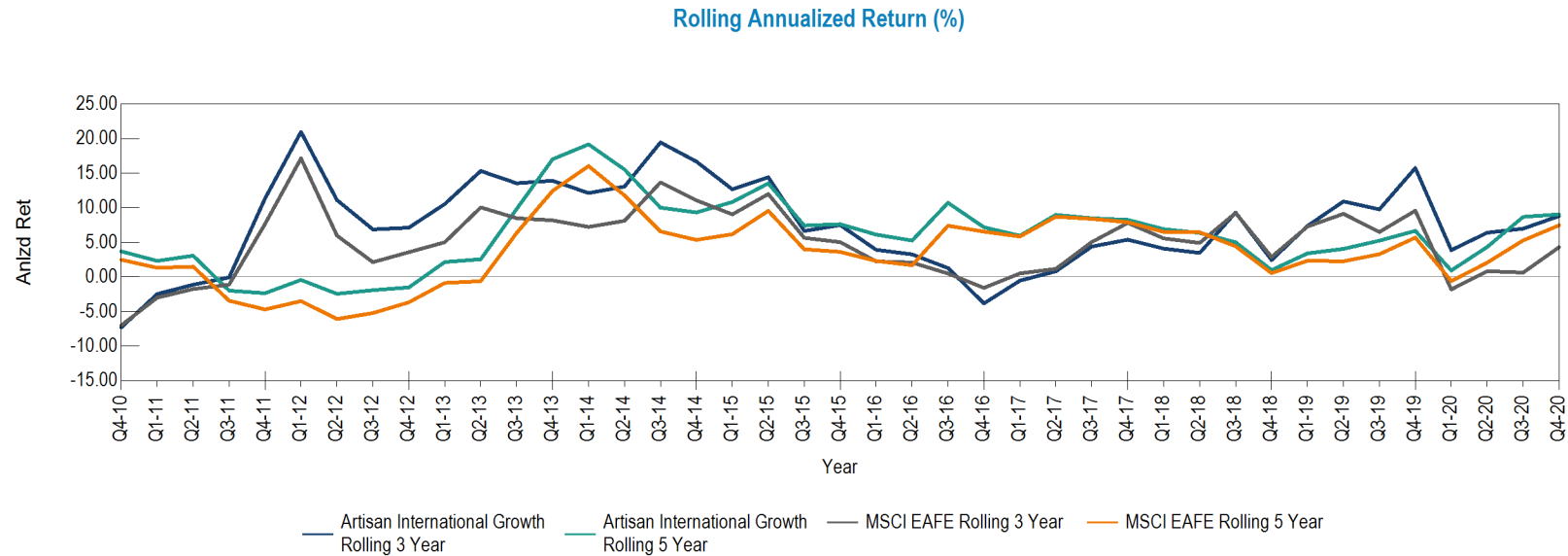
	Return (Rank)									
5th Percentile	26.2	28.5	12.1	12.9	9.5	28.5	32.5	-9.2	33.9	6.2
25th Percentile	17.1	14.6	7.6	9.6	7.6	14.6	25.6	-11.5	28.1	2.6
Median	14.9	8.4	4.6	7.7	6.4	8.4	21.6	-14.6	25.7	0.6
75th Percentile	13.2	3.6	1.2	5.3	5.4	3.6	18.1	-17.4	21.8	-1.7
95th Percentile	8.5	-3.3	-1.7	2.4	1.8	-3.3	14.5	-19.6	18.0	-5.4
# of Portfolios	77	77	73	68	48	77	77	72	70	64
● Artisan International Growth	9.3 (93)	9.2 (46)	8.8 (16)	9.0 (31)	8.3 (15)	9.2 (46)	31.3 (9)	-10.2 (13)	31.5 (13)	-9.0 (99)
▲ MSCI EAFE	16.0 (34)	7.8 (56)	4.3 (57)	7.4 (56)	5.5 (72)	7.8 (56)	22.0 (48)	-13.8 (47)	25.0 (59)	1.0 (46)

Returns prior to inception date are composite returns.

Artisan International Growth

Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020



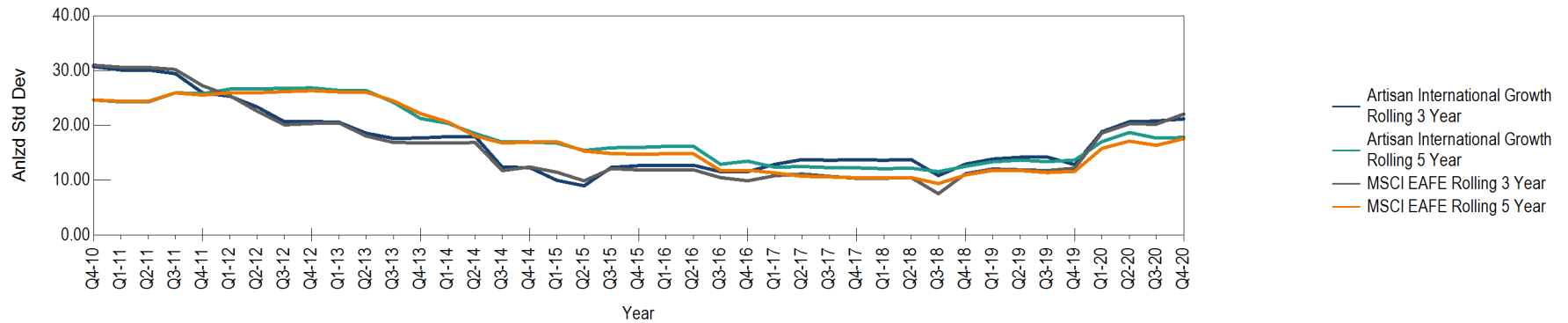
Returns prior to inception date are composite returns.

Artisan International Growth

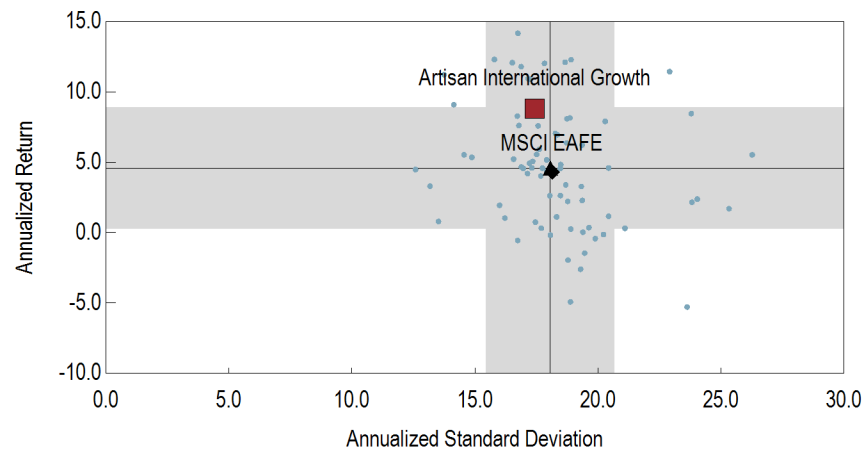
Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

Rolling Annualized Standard Deviation



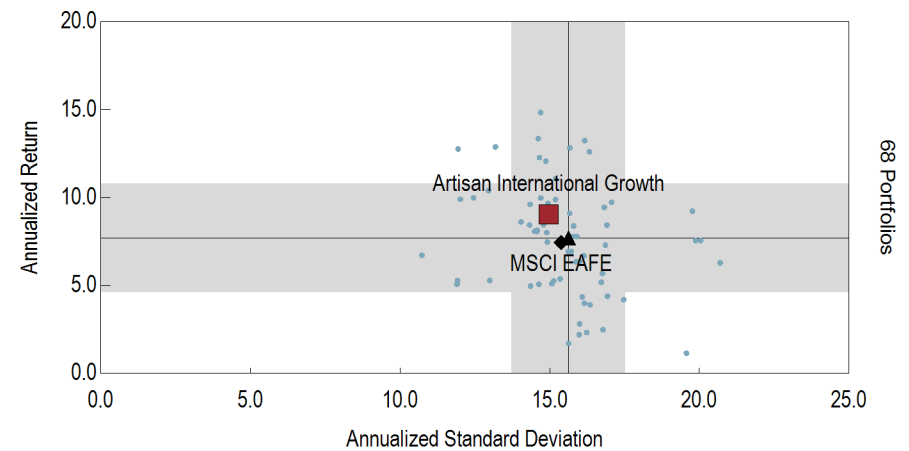
3 Years



3 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
Artisan International Growth	8.8%	17.4%	0.4
MSCI EAFE	4.3%	18.1%	0.1
eV EAFE All Cap Growth Net Median	10.9%	17.5%	0.5

5 Years



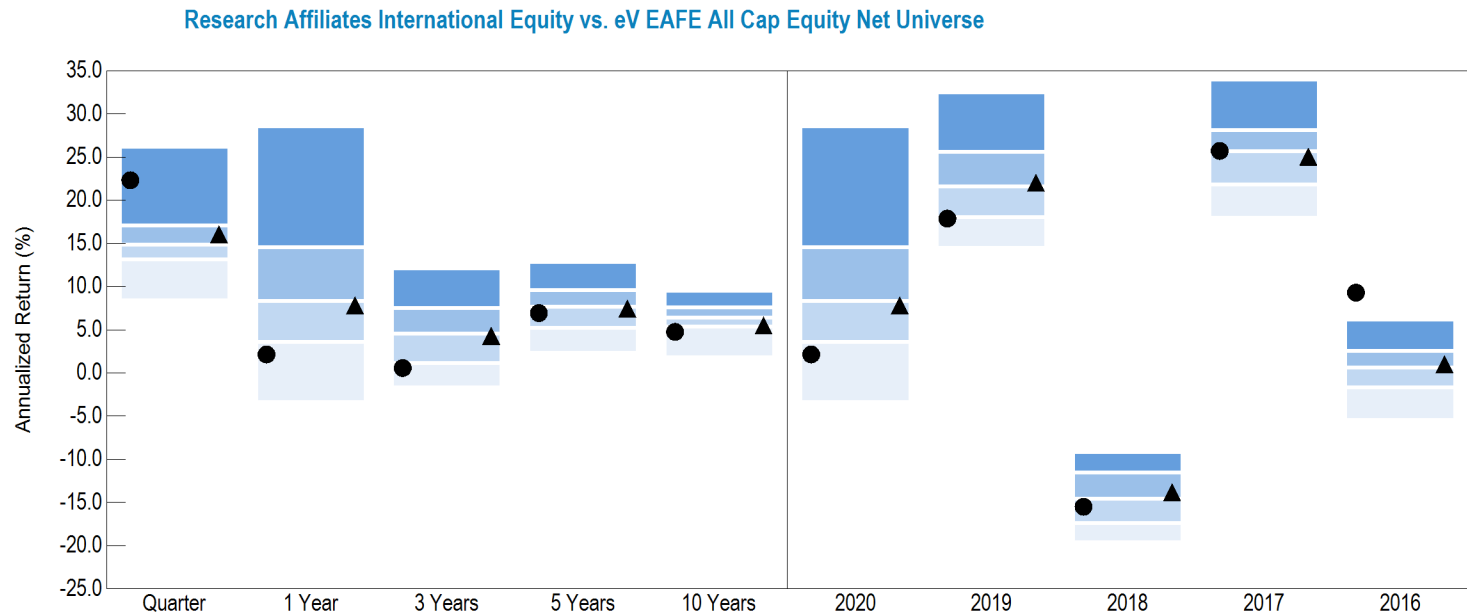
5 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
Artisan International Growth	9.0%	15.0%	0.5
MSCI EAFE	7.4%	15.4%	0.4
eV EAFE All Cap Growth Net Median	12.1%	15.6%	0.7

Returns prior to inception date are composite returns.

Research Affiliates International Equity Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

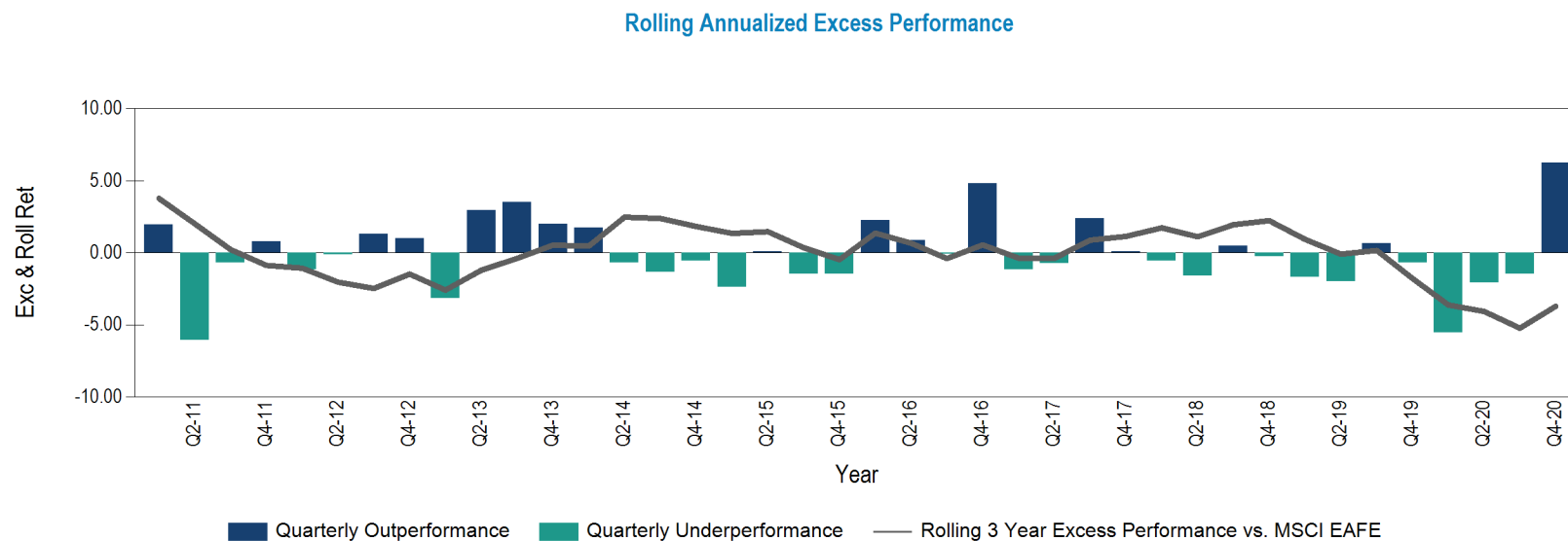
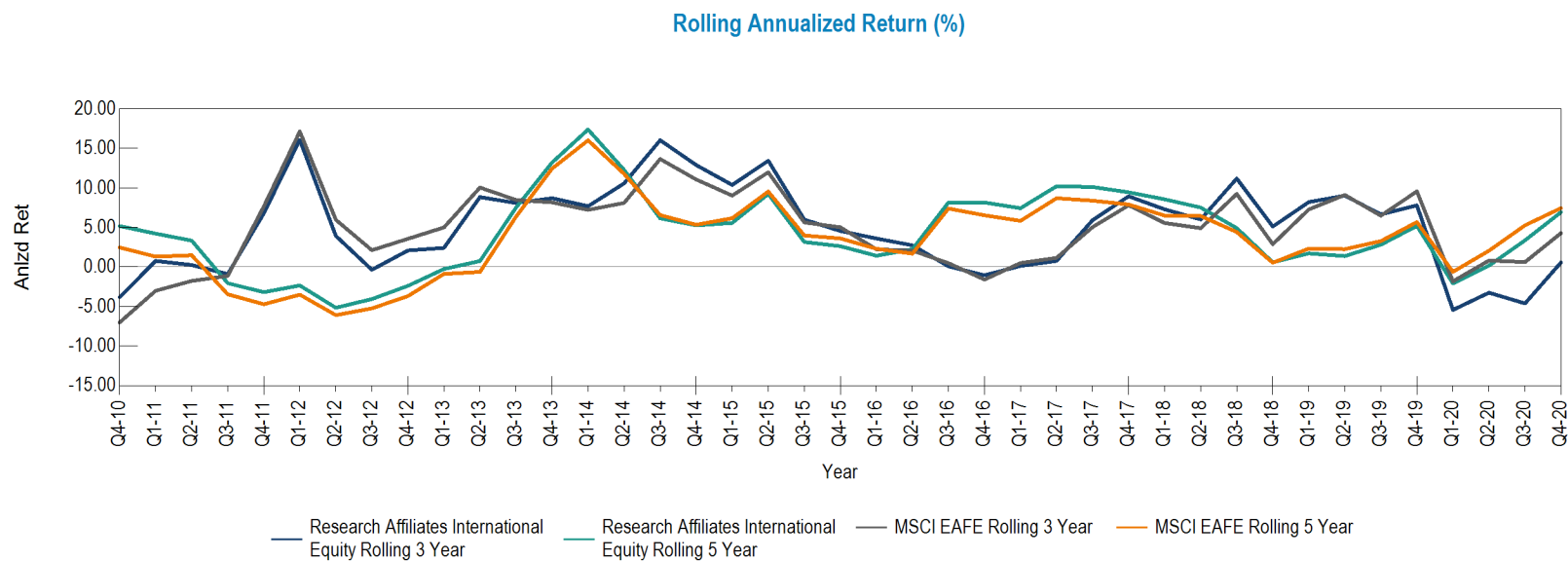


	Return (Rank)									
5th Percentile	26.2	28.5	12.1	12.9	9.5	28.5	32.5	-9.2	33.9	6.2
25th Percentile	17.1	14.6	7.6	9.6	7.6	14.6	25.6	-11.5	28.1	2.6
Median	14.9	8.4	4.6	7.7	6.4	8.4	21.6	-14.6	25.7	0.6
75th Percentile	13.2	3.6	1.2	5.3	5.4	3.6	18.1	-17.4	21.8	-1.7
95th Percentile	8.5	-3.3	-1.7	2.4	1.8	-3.3	14.5	-19.6	18.0	-5.4
# of Portfolios	77	77	73	68	48	77	77	72	70	64
● Research Affiliates International Equity	22.3 (8)	2.1 (80)	0.6 (82)	6.9 (61)	4.8 (83)	2.1 (80)	17.9 (79)	-15.5 (57)	25.7 (51)	9.3 (1)
▲ MSCI EAFE	16.0 (34)	7.8 (56)	4.3 (57)	7.4 (56)	5.5 (72)	7.8 (56)	22.0 (48)	-13.8 (47)	25.0 (59)	1.0 (46)

Returns prior to inception date are composite returns.

Research Affiliates International Equity Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020

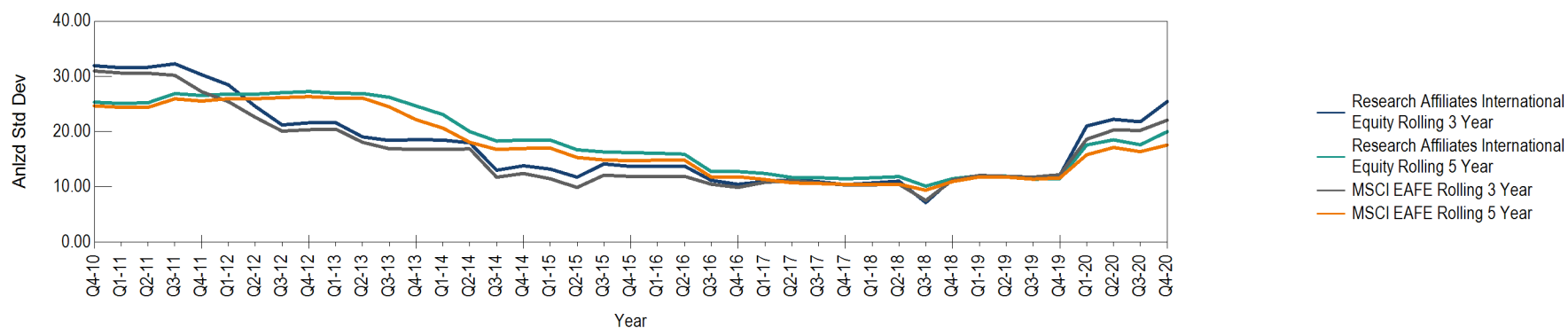


Returns prior to inception date are composite returns.

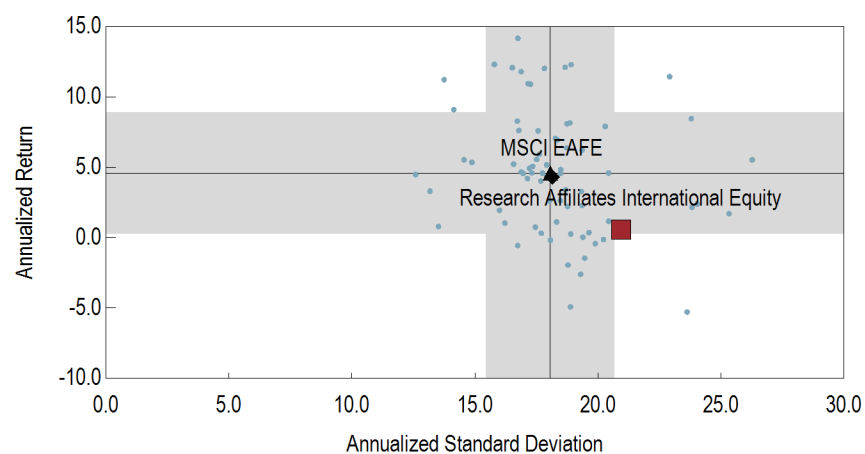
Research Affiliates International Equity Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

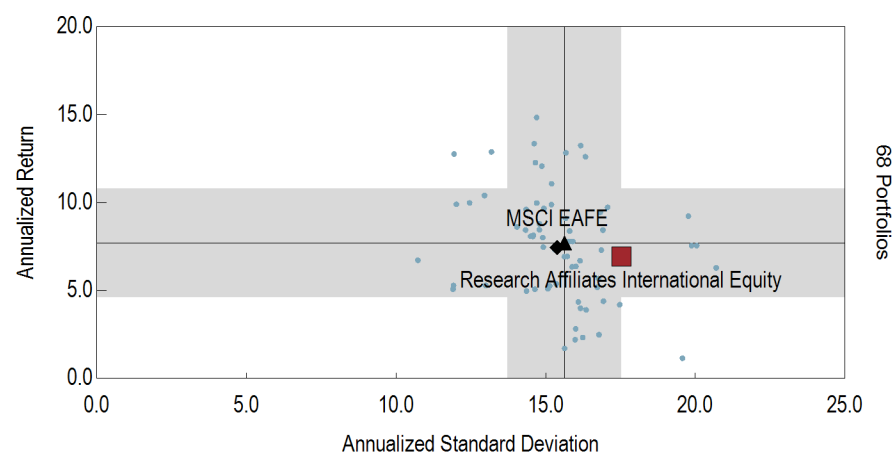
Rolling Annualized Standard Deviation



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Research Affiliates International Equity	0.6%	20.9%	0.0
MSCI EAFE	4.3%	18.1%	0.2
eV EAFE All Cap Equity Net Median	4.6%	18.1%	0.2

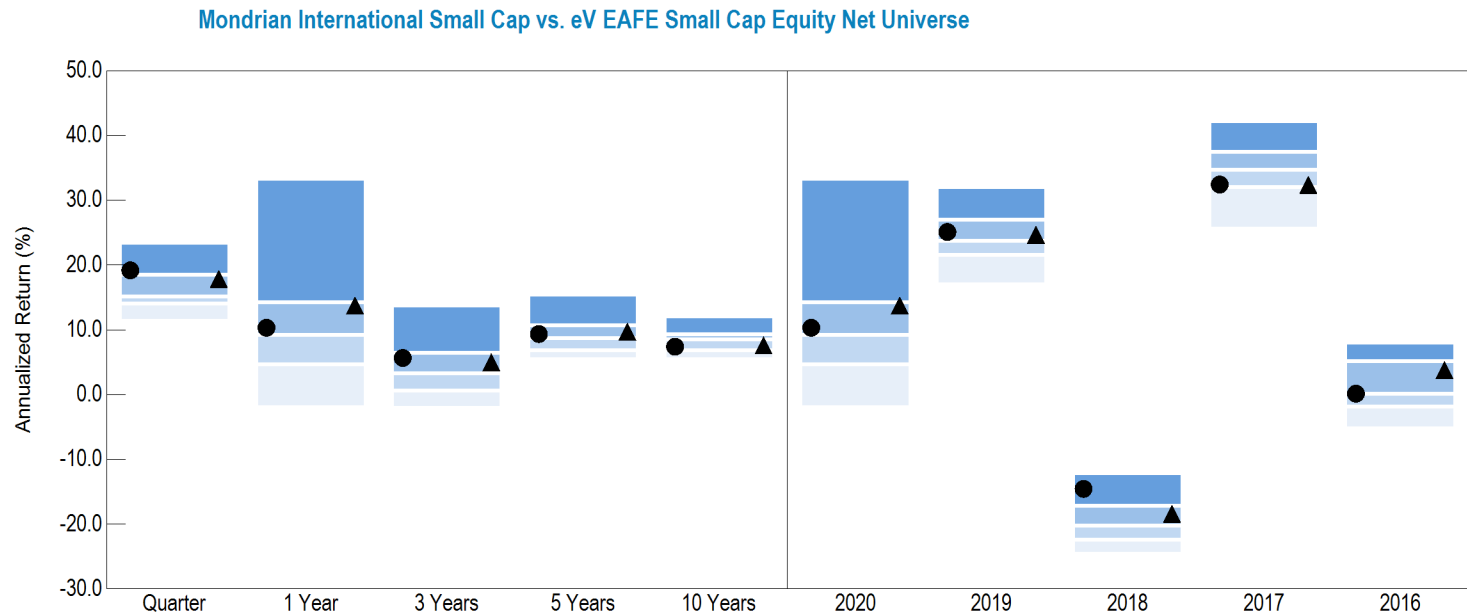
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Research Affiliates International Equity	6.9%	17.5%	0.3
MSCI EAFE	7.4%	15.4%	0.4
eV EAFE All Cap Equity Net Median	7.7%	15.6%	0.4

Returns prior to inception date are composite returns.

Mondrian International Small Cap Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

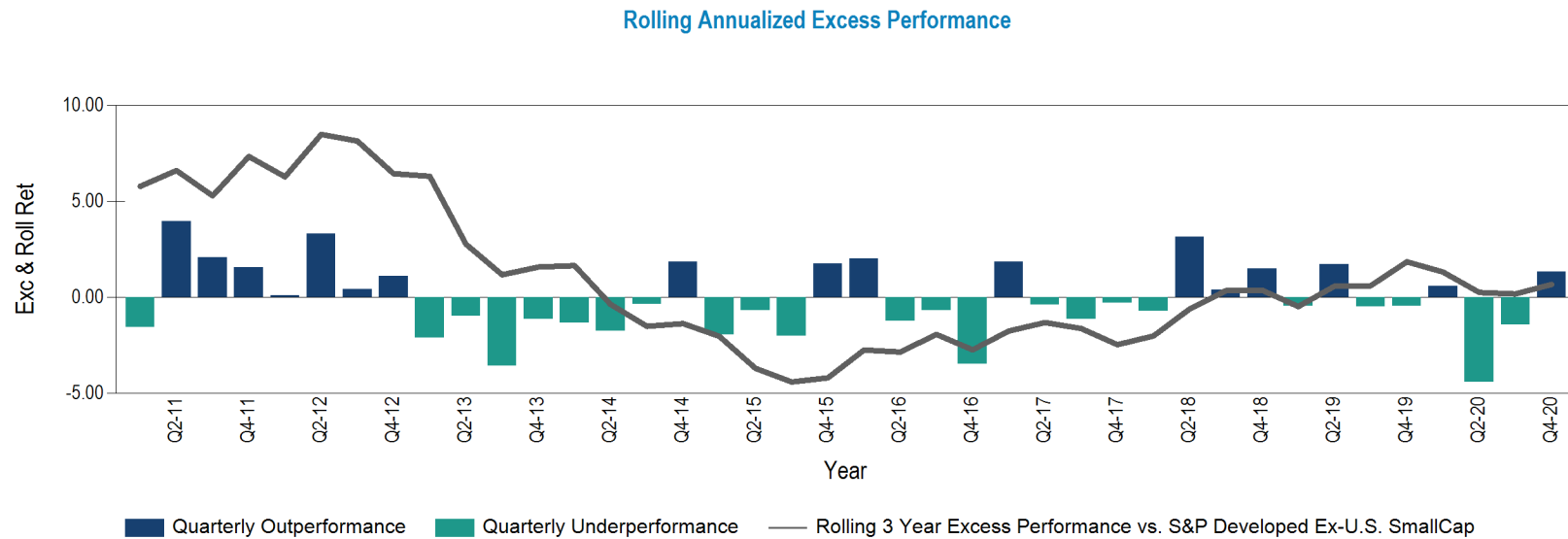
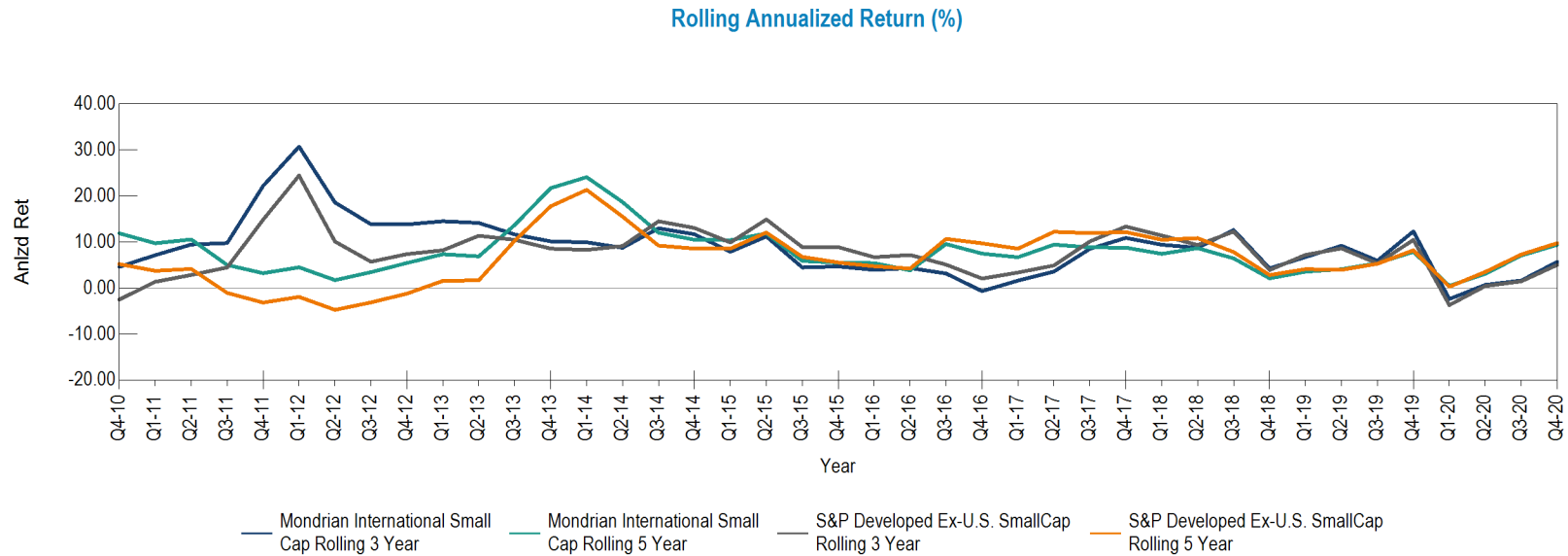


	Return (Rank)									
5th Percentile	23.4	33.3	13.7	15.4	12.0	33.3	32.0	-12.1	42.2	7.9
25th Percentile	18.5	14.3	6.5	10.7	9.4	14.3	27.1	-17.1	37.6	5.2
Median	15.2	9.3	3.3	8.7	8.5	9.3	23.8	-20.2	34.8	0.1
75th Percentile	14.1	4.7	0.7	6.9	6.8	4.7	21.7	-22.3	32.1	-1.8
95th Percentile	11.4	-1.9	-2.0	5.5	5.5	-1.9	17.1	-24.6	25.7	-5.2
# of Portfolios	63	63	59	50	29	63	58	57	52	41
● Mondrian International Small Cap	19.2 (22)	10.3 (47)	5.6 (33)	9.4 (44)	7.4 (68)	10.3 (47)	25.1 (40)	-14.6 (11)	32.4 (74)	0.1 (50)
▲ S&P Developed Ex-U.S. SmallCap	17.9 (30)	13.7 (33)	5.0 (39)	9.7 (39)	7.6 (61)	13.7 (33)	24.7 (43)	-18.4 (29)	32.4 (74)	3.8 (29)

Returns prior to inception date are composite returns.

Mondrian International Small Cap Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020

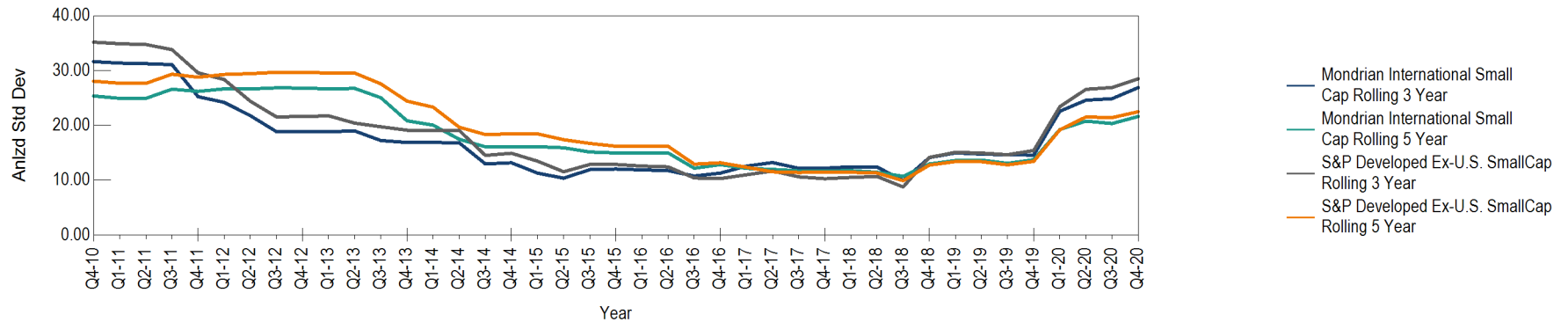


Returns prior to inception date are composite returns.

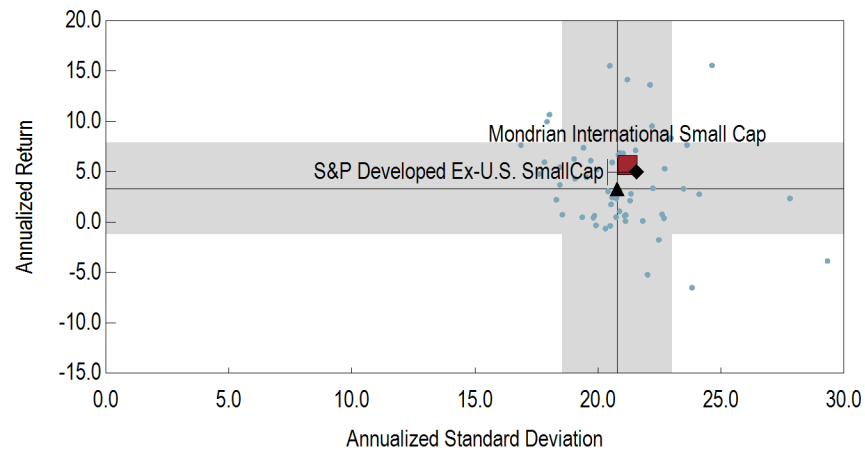
Mondrian International Small Cap Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

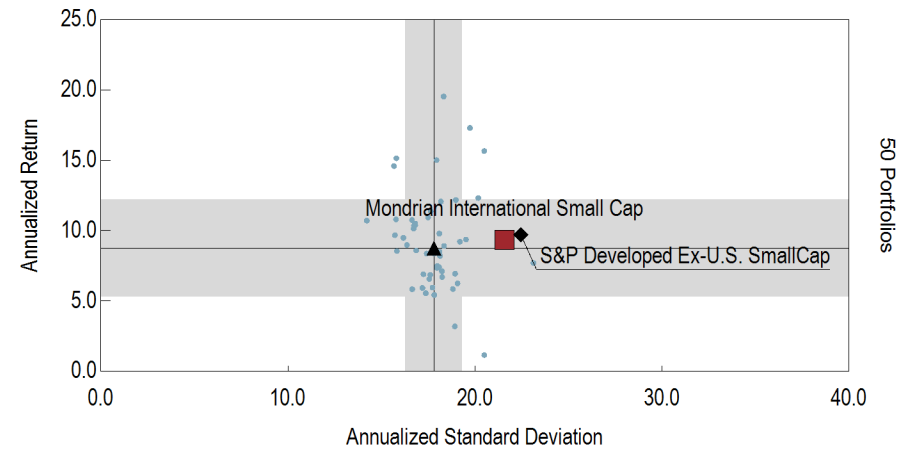
Rolling Annualized Standard Deviation



3 Years



5 Years



3 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
Mondrian International Small Cap	5.6%	21.2%	0.2
S&P Developed Ex-U.S. SmallCap	5.0%	21.6%	0.2
eV EAFE Small Cap Equity Net Median	3.3%	20.8%	0.1

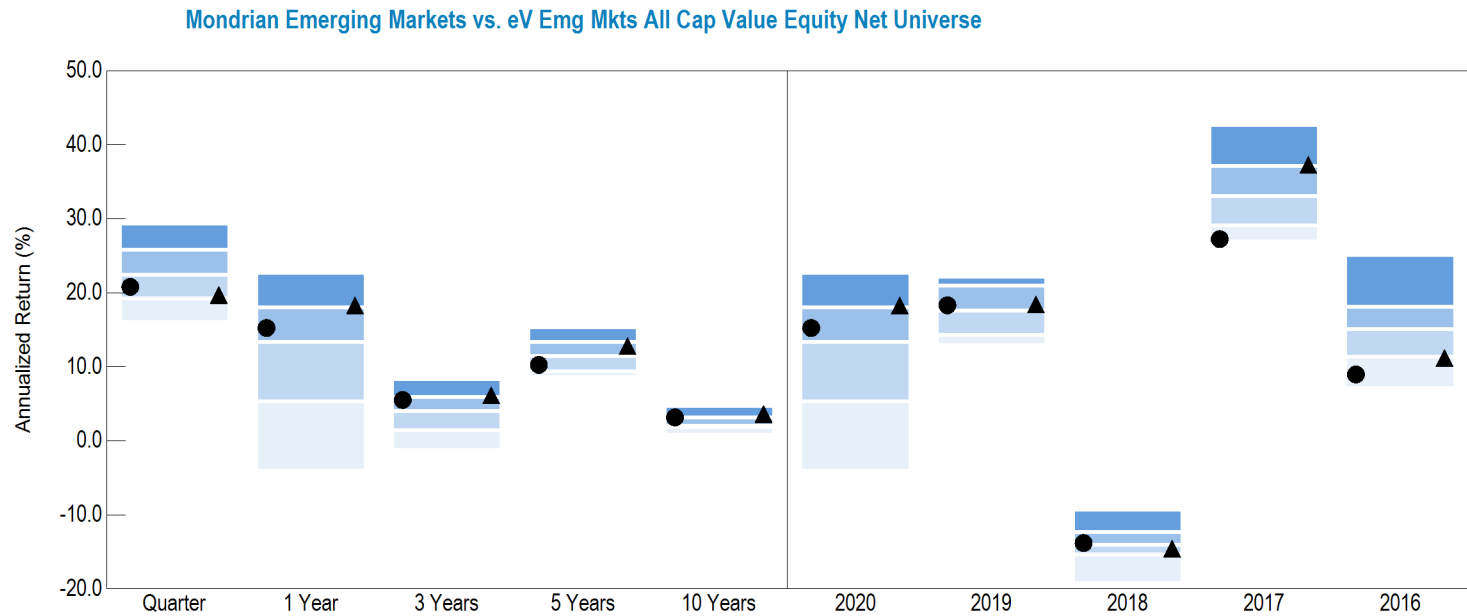
5 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
Mondrian International Small Cap	9.4%	21.6%	0.4
S&P Developed Ex-U.S. SmallCap	9.7%	22.5%	0.4
eV EAFE Small Cap Equity Net Median	8.7%	17.8%	0.4

Returns prior to inception date are composite returns.

Mondrian Emerging Markets Manager Performance Comparisons (Net of Fees)

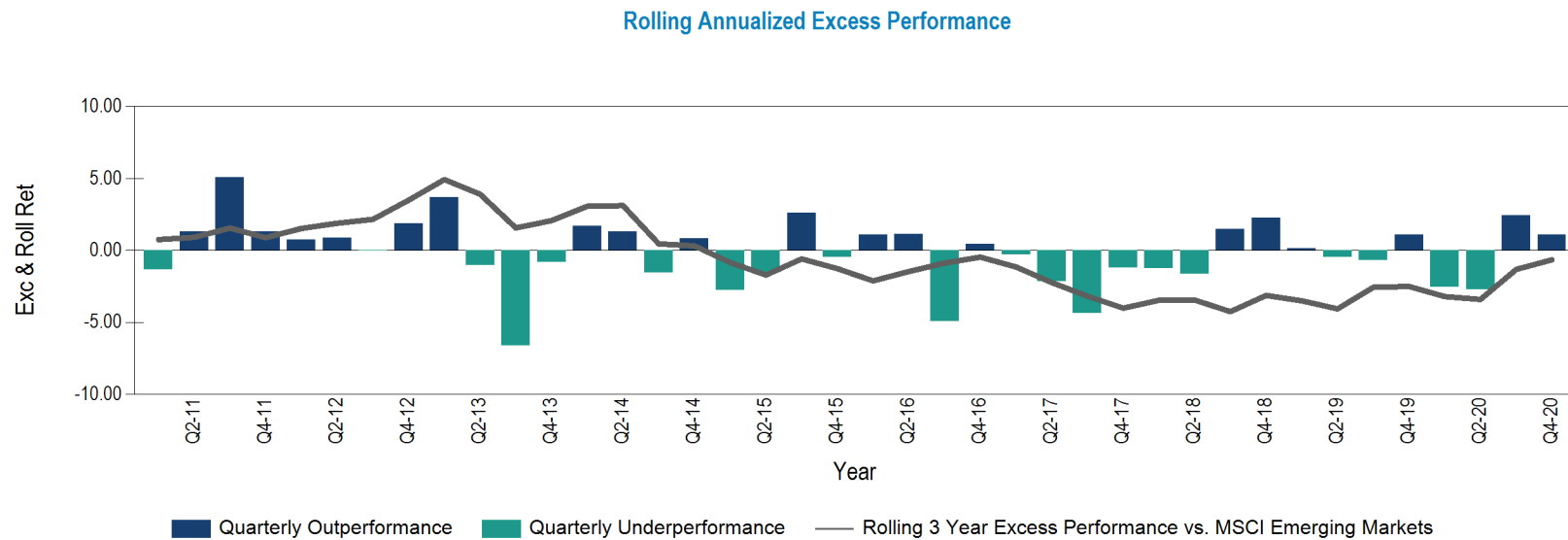
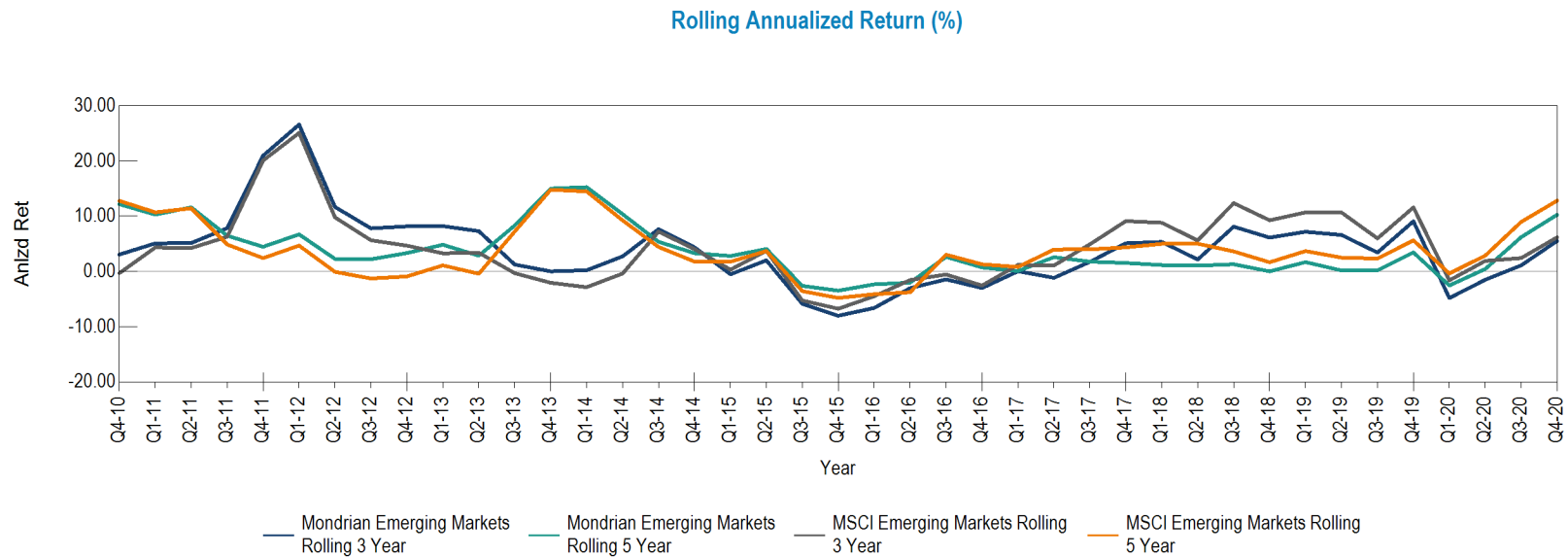
Period Ending: December 31, 2020



	Return (Rank)									
5th Percentile	29.3	22.6	8.3	15.3	4.7	22.6	22.2	-9.4	42.6	25.1
25th Percentile	25.9	18.1	6.0	13.4	3.2	18.1	21.0	-12.3	37.2	18.2
Median	22.5	13.4	4.0	11.5	2.1	13.4	17.7	-14.0	33.1	15.1
75th Percentile	19.3	5.4	1.5	9.4	1.9	5.4	14.4	-15.3	29.1	11.4
95th Percentile	16.1	-4.0	-1.2	8.6	0.8	-4.0	12.9	-19.2	26.9	7.2
# of Portfolios	24	24	20	19	9	24	22	25	22	22
● Mondrian Emerging Markets	20.8 (72)	15.2 (40)	5.5 (30)	10.3 (68)	3.2 (38)	15.2 (40)	18.3 (42)	-13.8 (48)	27.2 (93)	9.0 (81)
▲ MSCI Emerging Markets	19.7 (75)	18.3 (21)	6.2 (23)	12.8 (37)	3.6 (20)	18.3 (21)	18.4 (42)	-14.6 (59)	37.3 (20)	11.2 (76)

Mondrian Emerging Markets Rolling Manager Performance (Net of Fees)

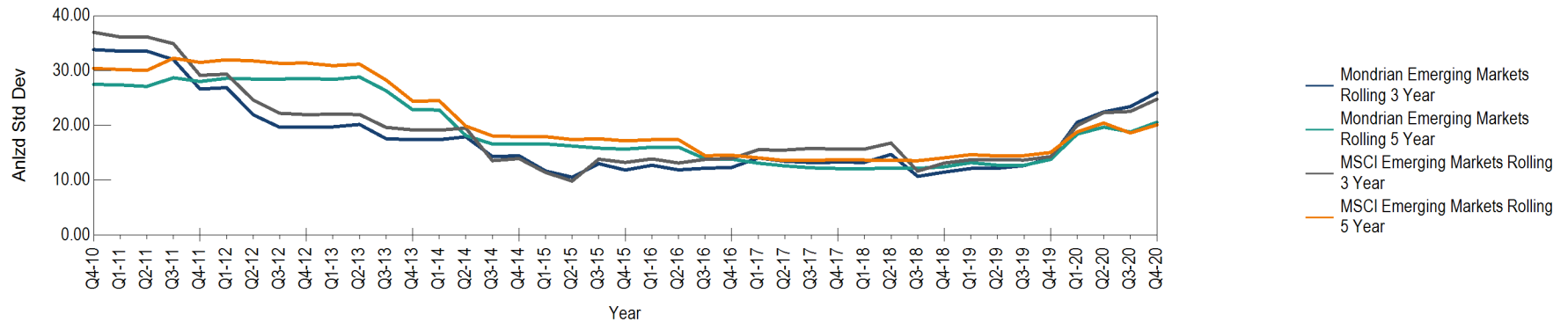
Period Ending: December 31, 2020



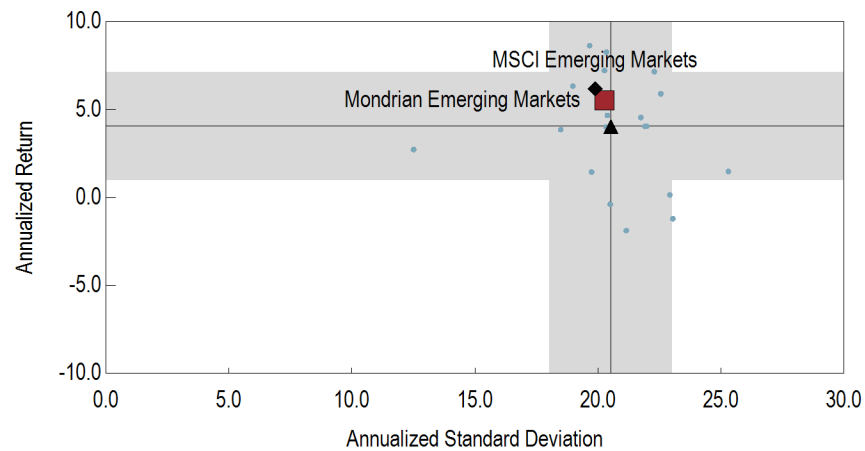
Mondrian Emerging Markets Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

Rolling Annualized Standard Deviation



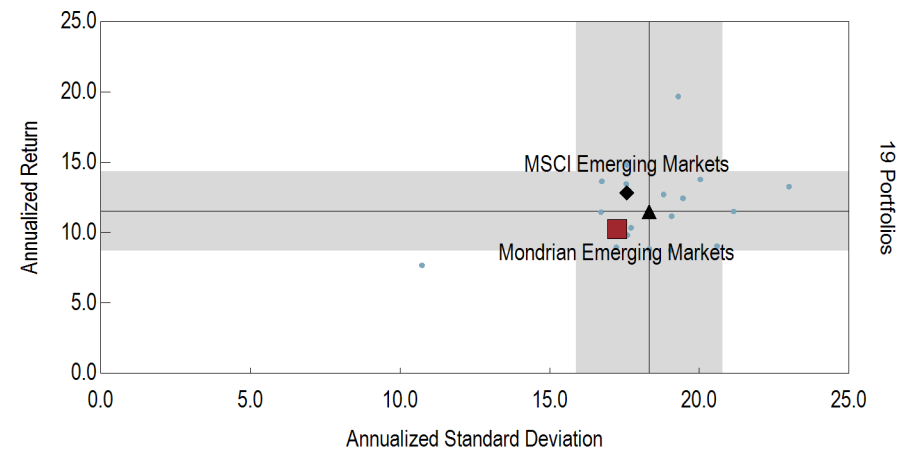
3 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Mondrian Emerging Markets	5.5%	20.3%	0.2
MSCI Emerging Markets	6.2%	19.9%	0.2
eV Emg Mkts All Cap Value Equity Net Median	4.0%	20.5%	0.1

5 Years



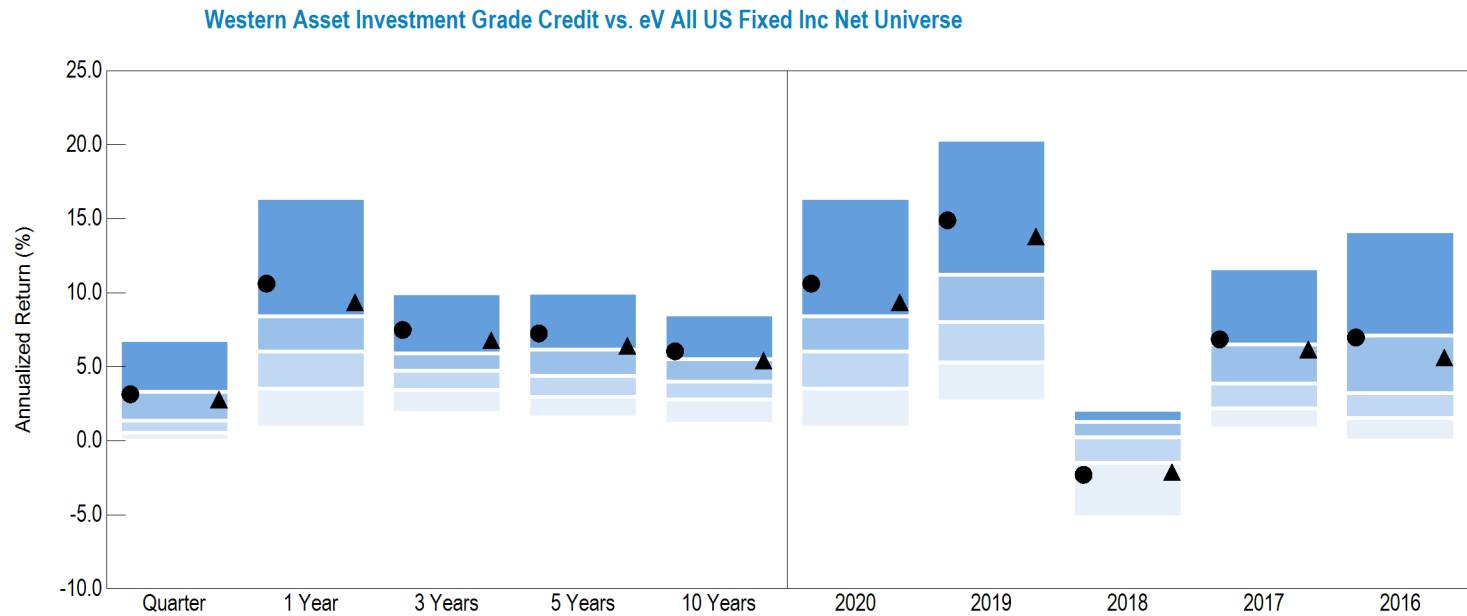
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Mondrian Emerging Markets	10.3%	17.3%	0.5
MSCI Emerging Markets	12.8%	17.6%	0.7
eV Emg Mkts All Cap Value Equity Net Median	11.5%	18.3%	0.6

Fixed Income Managers

Western Asset Investment Grade Credit
Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

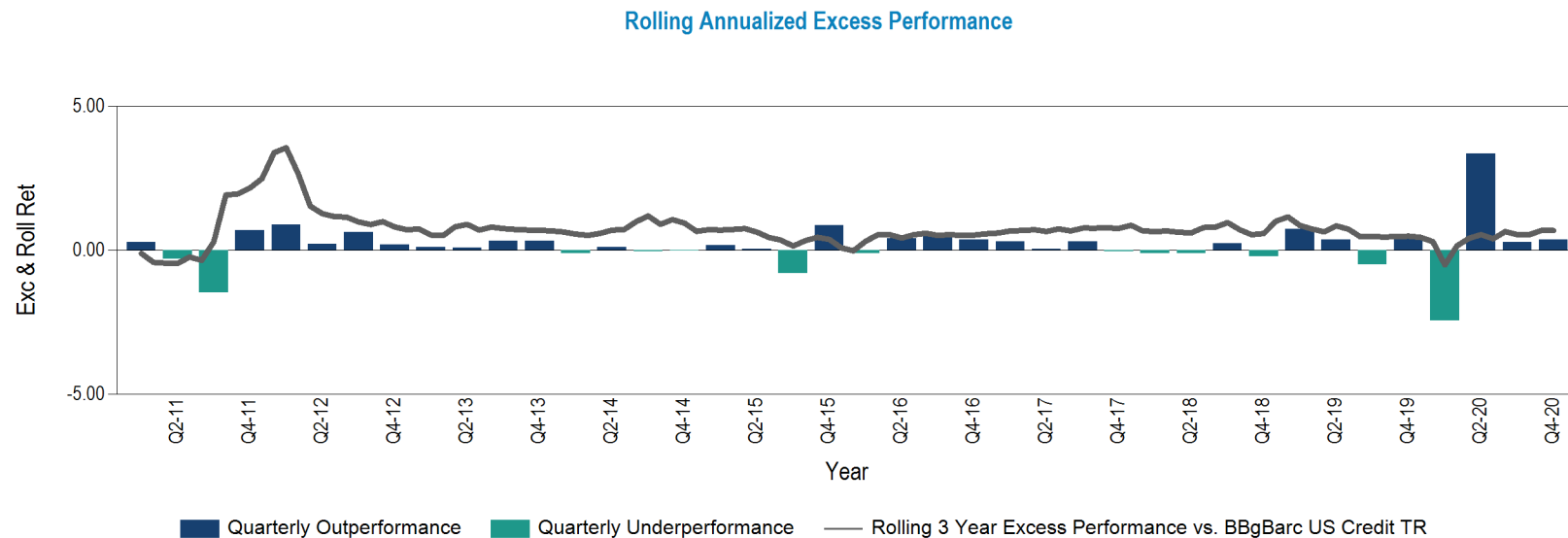
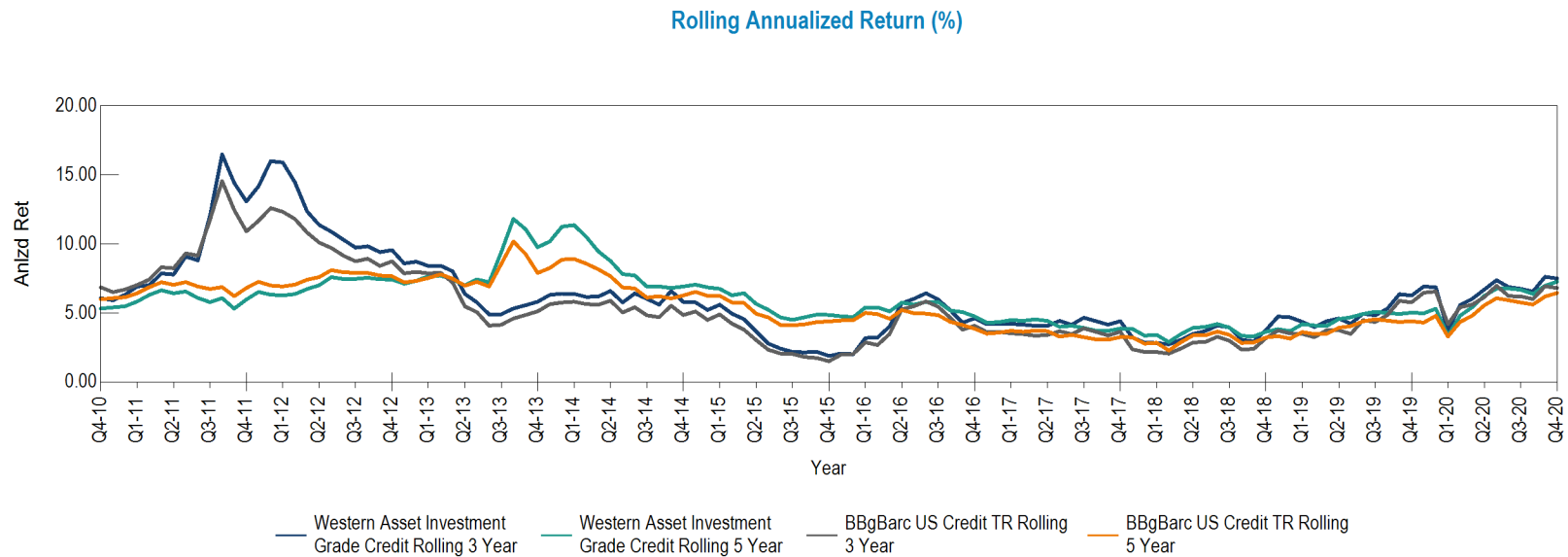


	Return (Rank)									
5th Percentile	6.8	16.4	9.9	10.0	8.5	16.4	20.3	2.1	11.6	14.1
25th Percentile	3.3	8.4	5.9	6.2	5.5	8.4	11.2	1.3	6.5	7.1
Median	1.4	6.0	4.8	4.4	4.0	6.0	8.1	0.3	3.9	3.3
75th Percentile	0.6	3.6	3.5	3.0	2.8	3.6	5.3	-1.5	2.2	1.6
95th Percentile	0.0	0.9	1.9	1.6	1.2	0.9	2.7	-5.2	0.9	0.0
# of Portfolios	1,298	1,295	1,243	1,173	939	1,295	1,248	1,173	1,135	1,033
● Western Asset Investment Grade Credit	3.1 (28)	10.6 (14)	7.5 (12)	7.3 (18)	6.0 (20)	10.6 (14)	14.9 (14)	-2.3 (81)	6.8 (23)	7.0 (26)
▲ BBgBarc US Credit TR	2.8 (31)	9.4 (19)	6.8 (15)	6.4 (24)	5.4 (27)	9.4 (19)	13.8 (19)	-2.1 (79)	6.2 (28)	5.6 (33)

Returns prior to inception date are composite returns.

Western Asset Investment Grade Credit Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020

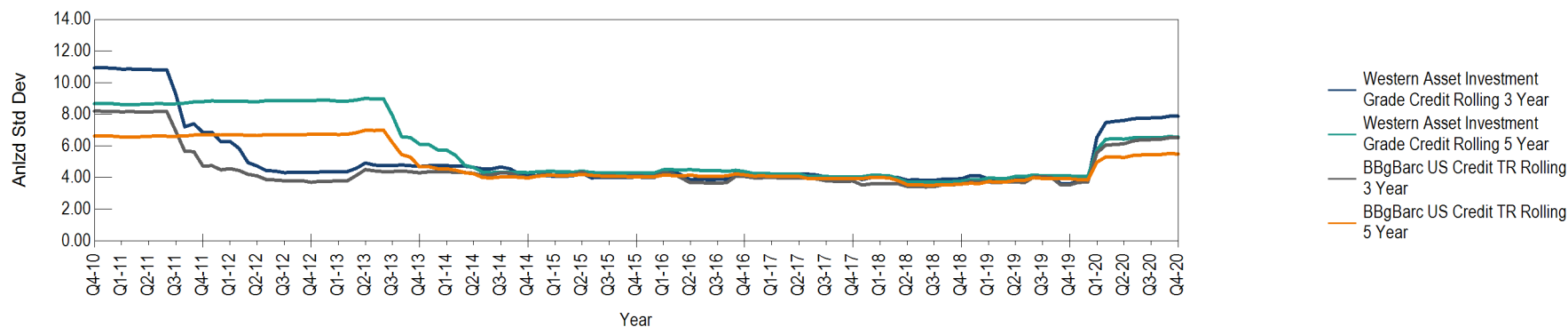


Returns prior to inception date are composite returns.

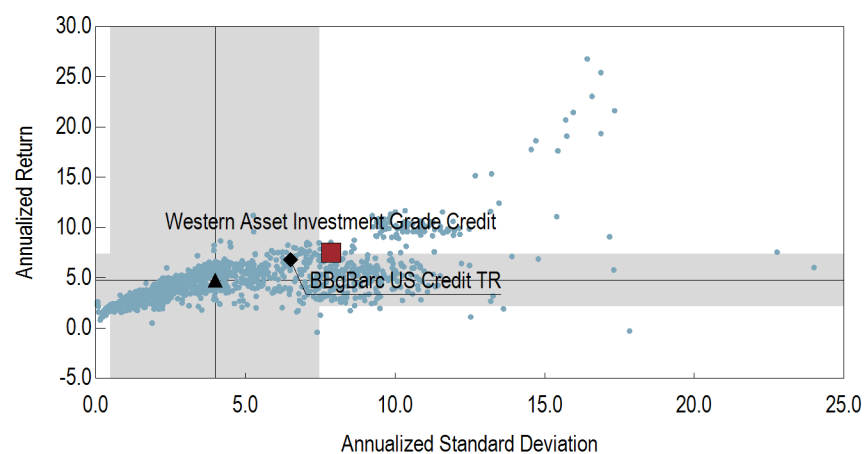
Western Asset Investment Grade Credit Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

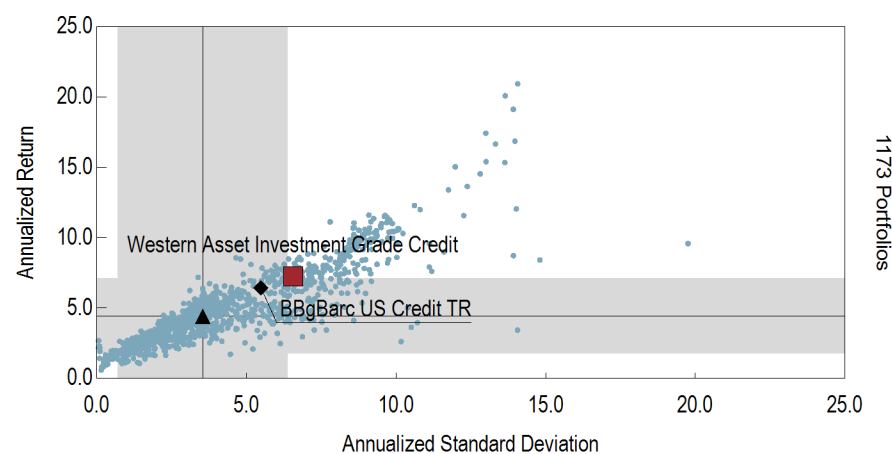
Rolling Annualized Standard Deviation



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Western Asset Investment Grade Credit	7.5%	7.9%	0.8
BBgBarc US Credit TR	6.8%	6.5%	0.8
eV All US Fixed Inc Net Median	4.8%	4.0%	0.8

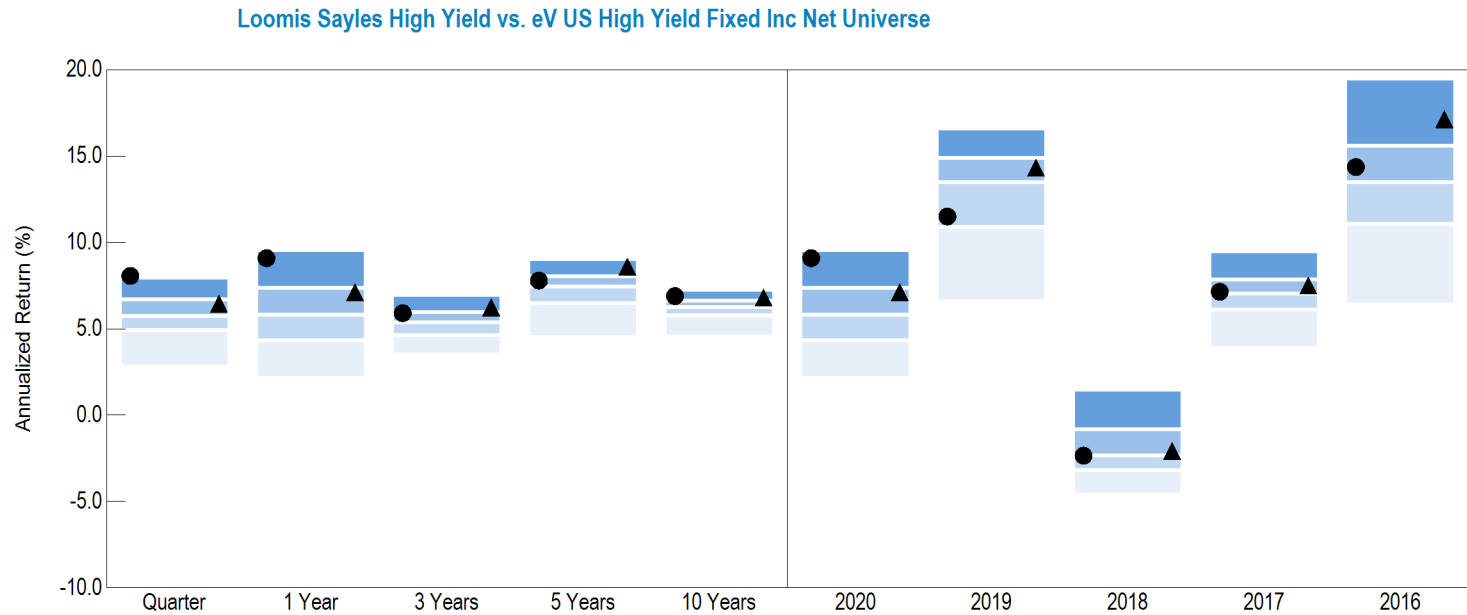
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Western Asset Investment Grade Credit	7.3%	6.6%	0.9
BBgBarc US Credit TR	6.4%	5.5%	1.0
eV All US Fixed Inc Net Median	4.4%	3.5%	0.9

Returns prior to inception date are composite returns.

Loomis Sayles High Yield Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

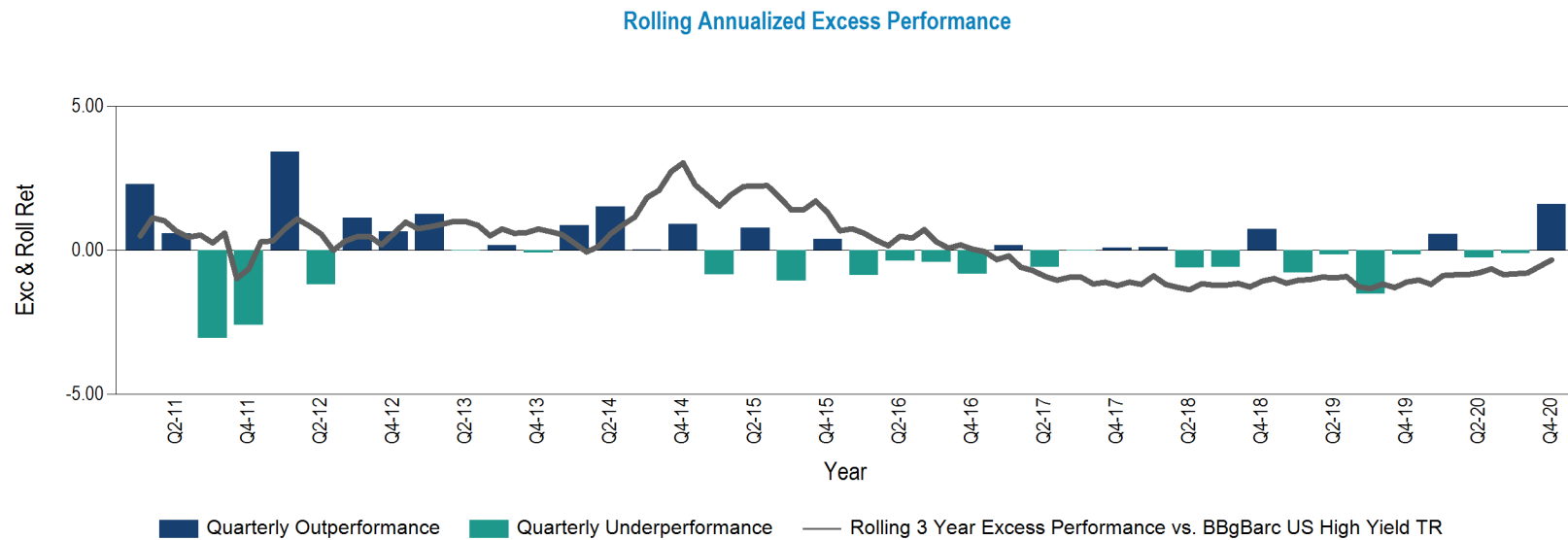
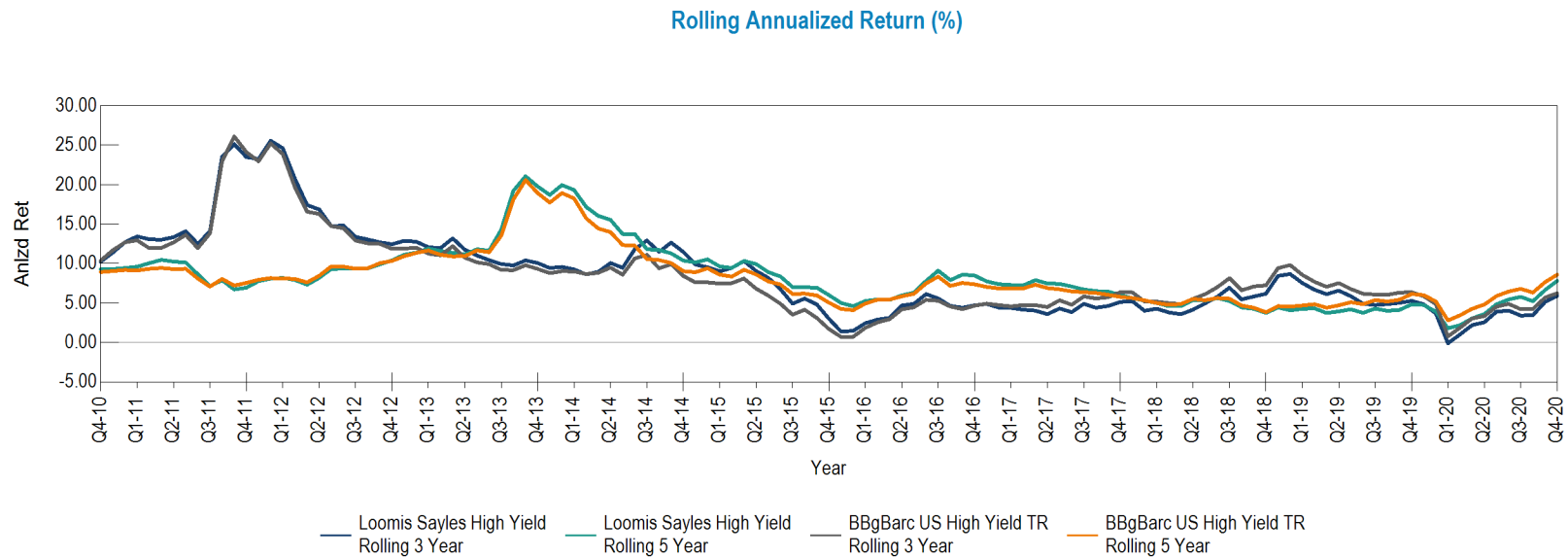


	Return (Rank)									
5th Percentile	7.9	9.5	7.0	9.0	7.2	9.5	16.6	1.4	9.5	19.5
25th Percentile	6.7	7.4	6.0	8.1	6.7	7.4	14.9	-0.8	7.9	15.6
Median	5.8	5.8	5.4	7.5	6.3	5.8	13.5	-2.3	7.1	13.5
75th Percentile	4.9	4.4	4.7	6.5	5.8	4.4	10.9	-3.2	6.1	11.1
95th Percentile	2.8	2.2	3.5	4.5	4.6	2.2	6.6	-4.6	3.9	6.4
# of Portfolios	147	147	143	134	91	147	144	136	129	114
● Loomis Sayles High Yield	8.1 (5)	9.1 (8)	5.9 (30)	7.8 (36)	6.9 (13)	9.1 (8)	11.5 (72)	-2.3 (52)	7.1 (47)	14.4 (42)
▲ BBgBarc US High Yield TR	6.5 (30)	7.1 (28)	6.2 (17)	8.6 (14)	6.8 (17)	7.1 (28)	14.3 (37)	-2.1 (46)	7.5 (39)	17.1 (12)

Returns prior to inception date are composite returns.

Loomis Sayles High Yield Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020

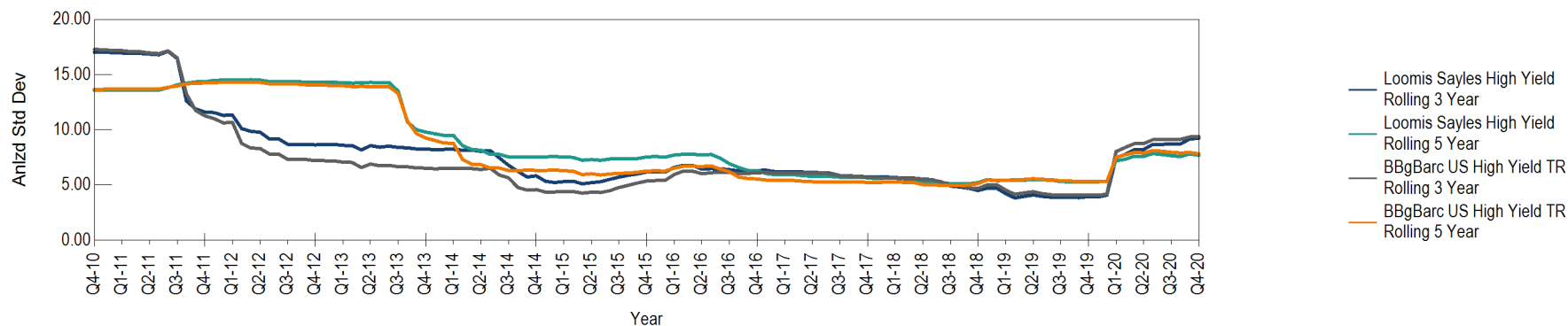


Returns prior to inception date are composite returns.

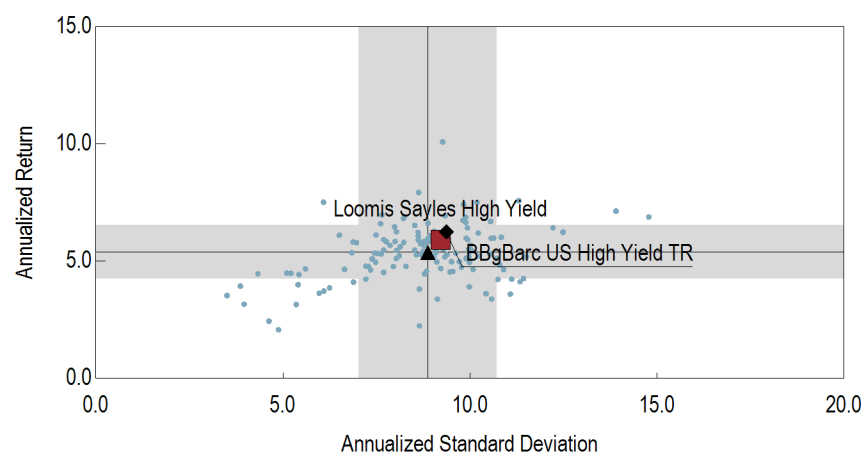
Loomis Sayles High Yield Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

Rolling Annualized Standard Deviation



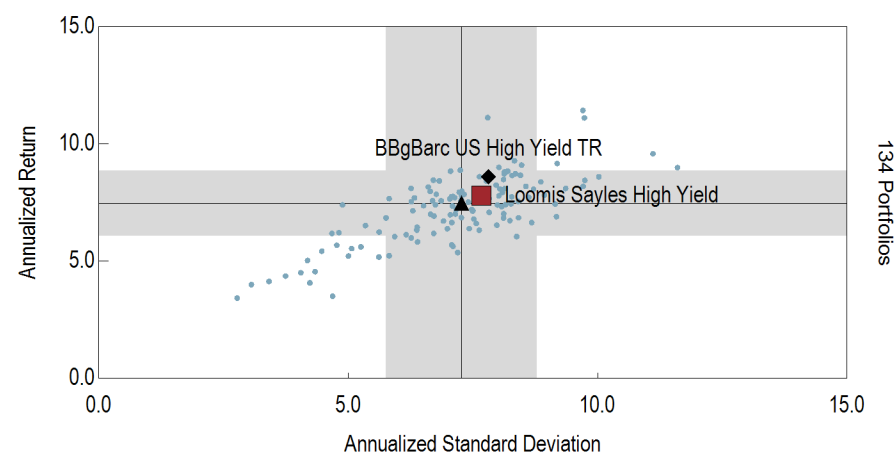
3 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Loomis Sayles High Yield	5.9%	9.2%	0.5
BBgBarc US High Yield TR	6.2%	9.4%	0.5
eV US High Yield Fixed Inc Net Median	5.4%	8.9%	0.5

5 Years



5 Years

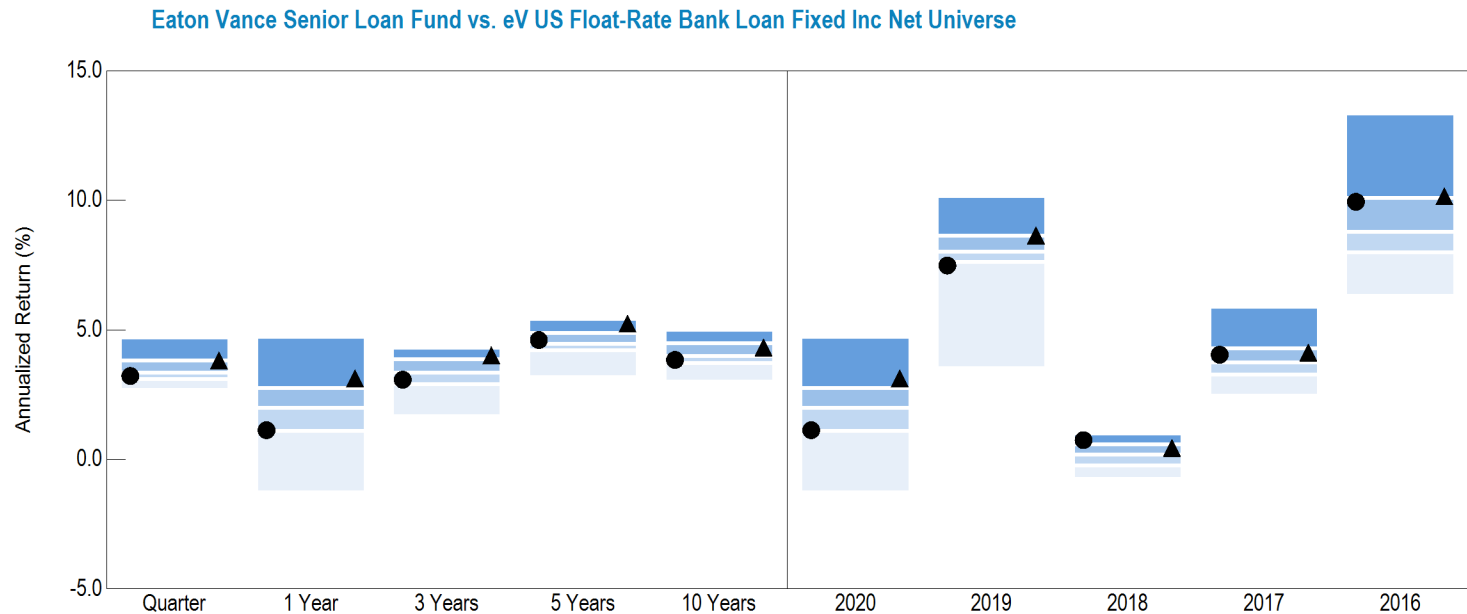
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Loomis Sayles High Yield	7.8%	7.7%	0.9
BBgBarc US High Yield TR	8.6%	7.8%	1.0
eV US High Yield Fixed Inc Net Median	7.5%	7.3%	0.9

Returns prior to inception date are composite returns.

Eaton Vance Senior Loan Fund

Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020



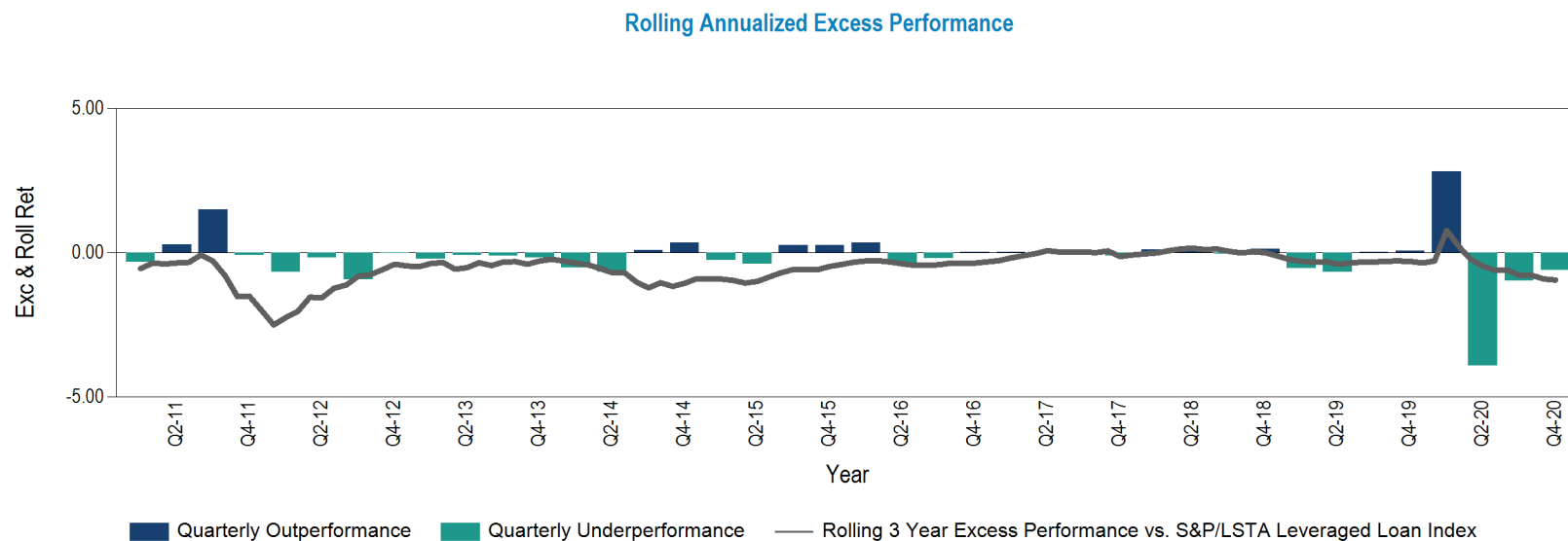
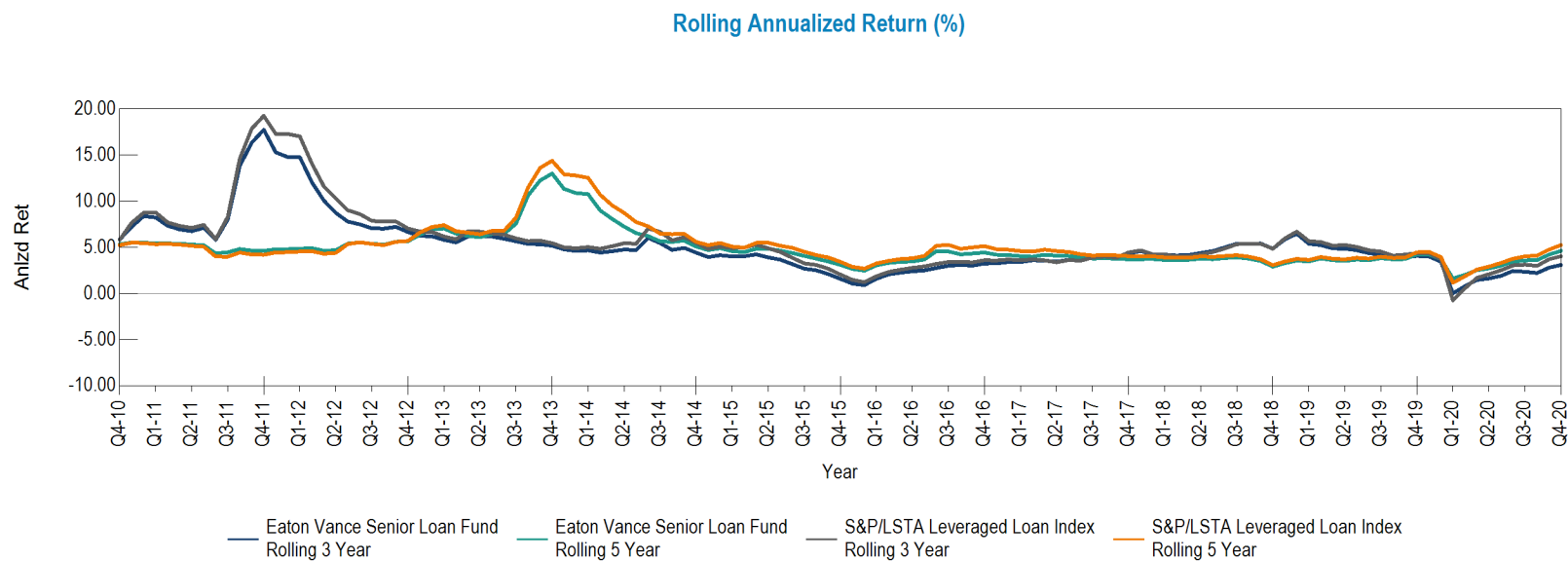
	Return (Rank)									
5th Percentile	4.7	4.7	4.3	5.4	5.0	4.7	10.1	1.0	5.9	13.3
25th Percentile	3.8	2.8	3.9	4.9	4.5	2.8	8.7	0.6	4.3	10.1
Median	3.4	2.0	3.4	4.5	4.0	2.0	8.0	0.2	3.8	8.8
75th Percentile	3.1	1.1	2.9	4.2	3.7	1.1	7.6	-0.2	3.3	8.0
95th Percentile	2.7	-1.3	1.7	3.2	3.0	-1.3	3.5	-0.8	2.5	6.3
# of Portfolios	54	54	53	49	36	54	50	47	48	45
● Eaton Vance Senior Loan Fund	3.2 (64)	1.1 (75)	3.1 (67)	4.6 (42)	3.8 (70)	1.1 (75)	7.5 (80)	0.7 (16)	4.0 (40)	9.9 (33)
▲ S&P/LSTA Leveraged Loan Index	3.8 (26)	3.1 (21)	4.0 (17)	5.2 (7)	4.3 (30)	3.1 (21)	8.6 (26)	0.4 (36)	4.1 (35)	10.2 (25)

Returns prior to inception date are composite returns.

Eaton Vance Senior Loan Fund

Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020



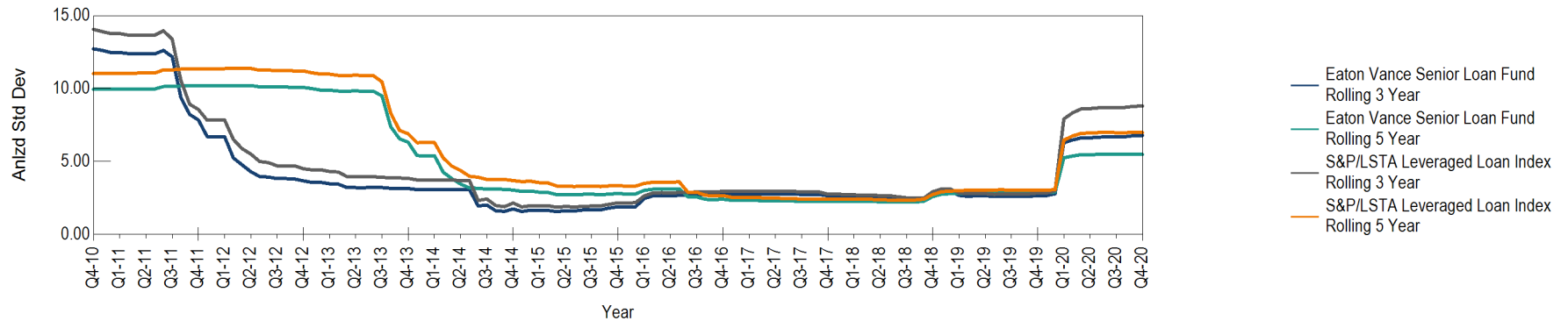
Returns prior to inception date are composite returns.

Eaton Vance Senior Loan Fund

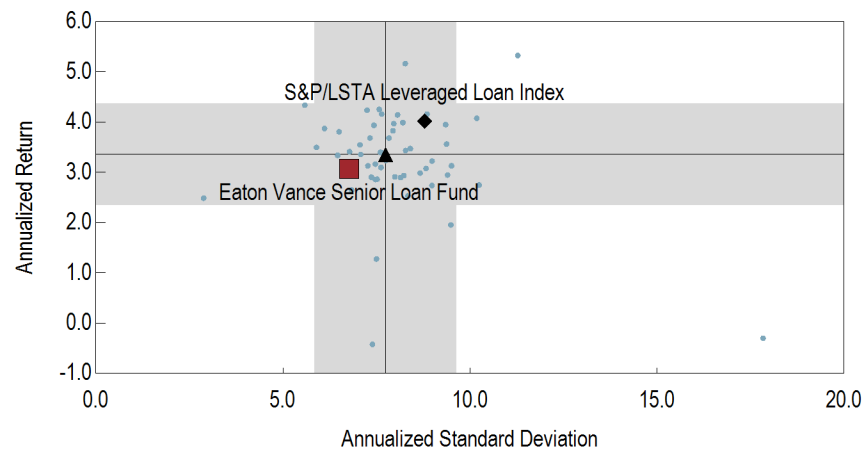
Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

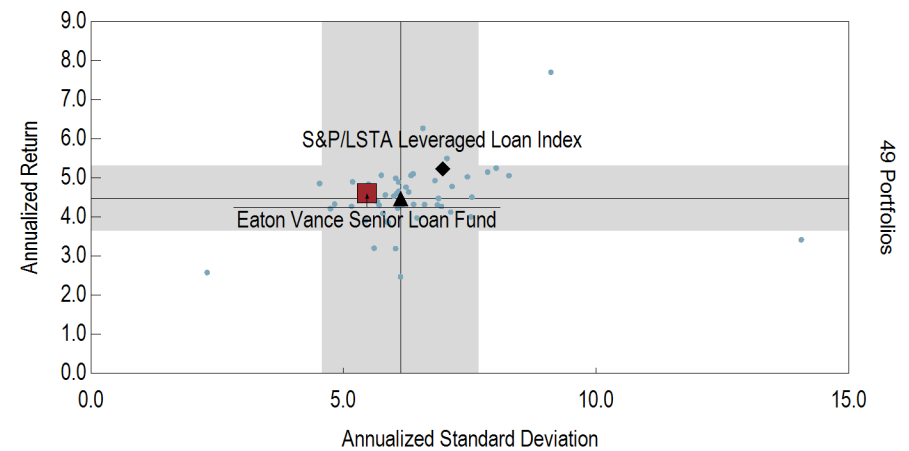
Rolling Annualized Standard Deviation



3 Years



5 Years



3 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
Eaton Vance Senior Loan Fund	3.1%	6.8%	0.2
S&P/LSTA Leveraged Loan Index	4.0%	8.8%	0.3
eV US Float-Rate Bank Loan Fixed Inc Net Median	3.4%	7.7%	0.2

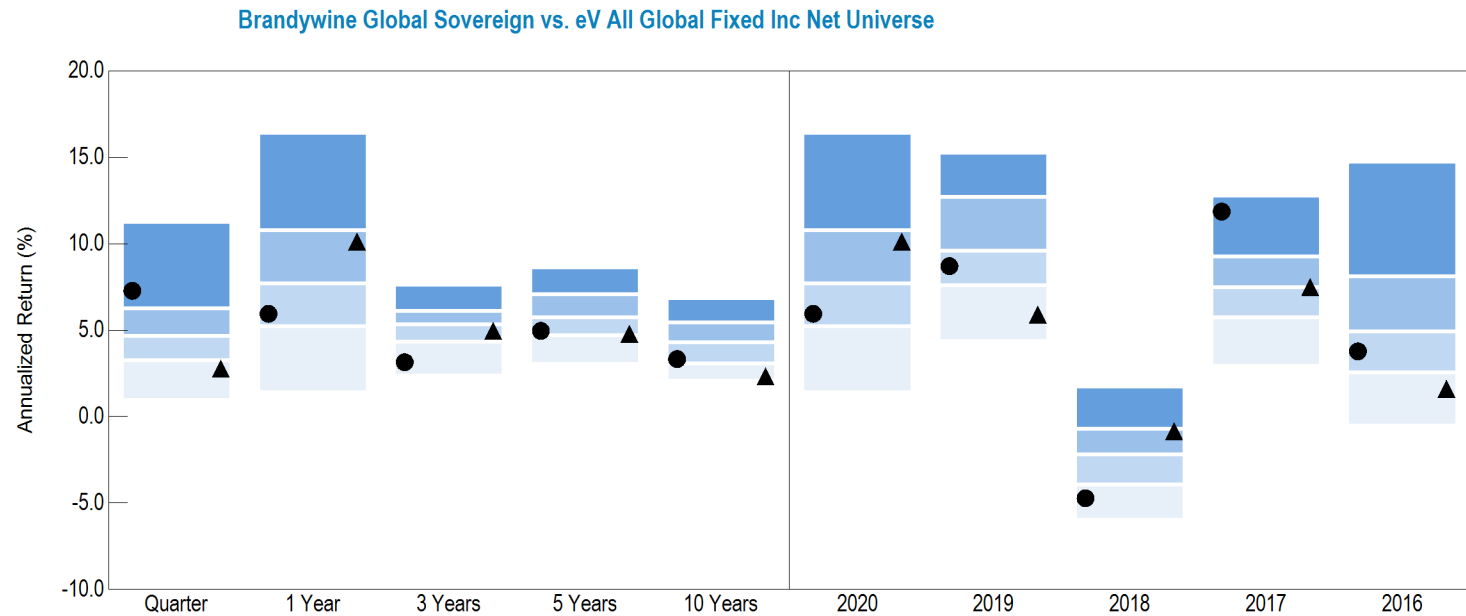
5 Years

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio
Eaton Vance Senior Loan Fund	4.6%	5.5%	0.6
S&P/LSTA Leveraged Loan Index	5.2%	7.0%	0.6
eV US Float-Rate Bank Loan Fixed Inc Net Median	4.5%	6.1%	0.5

Returns prior to inception date are composite returns.

Brandywine Global Sovereign Manager Performance Comparisons (Net of Fees)

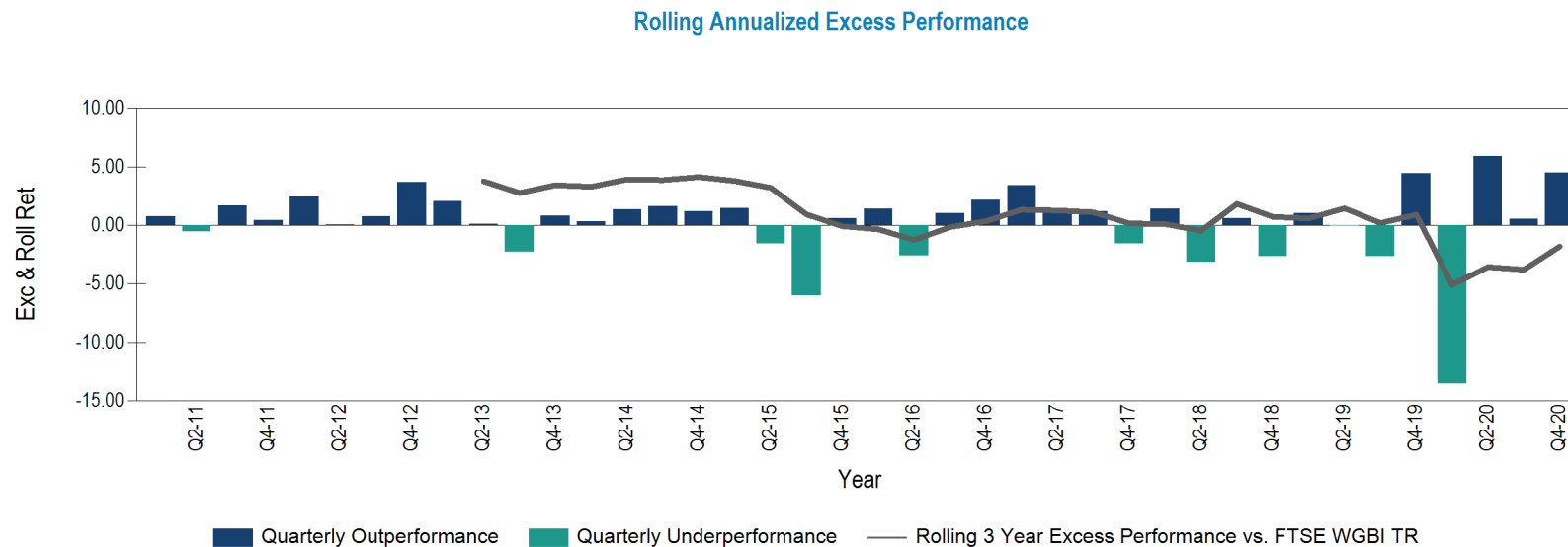
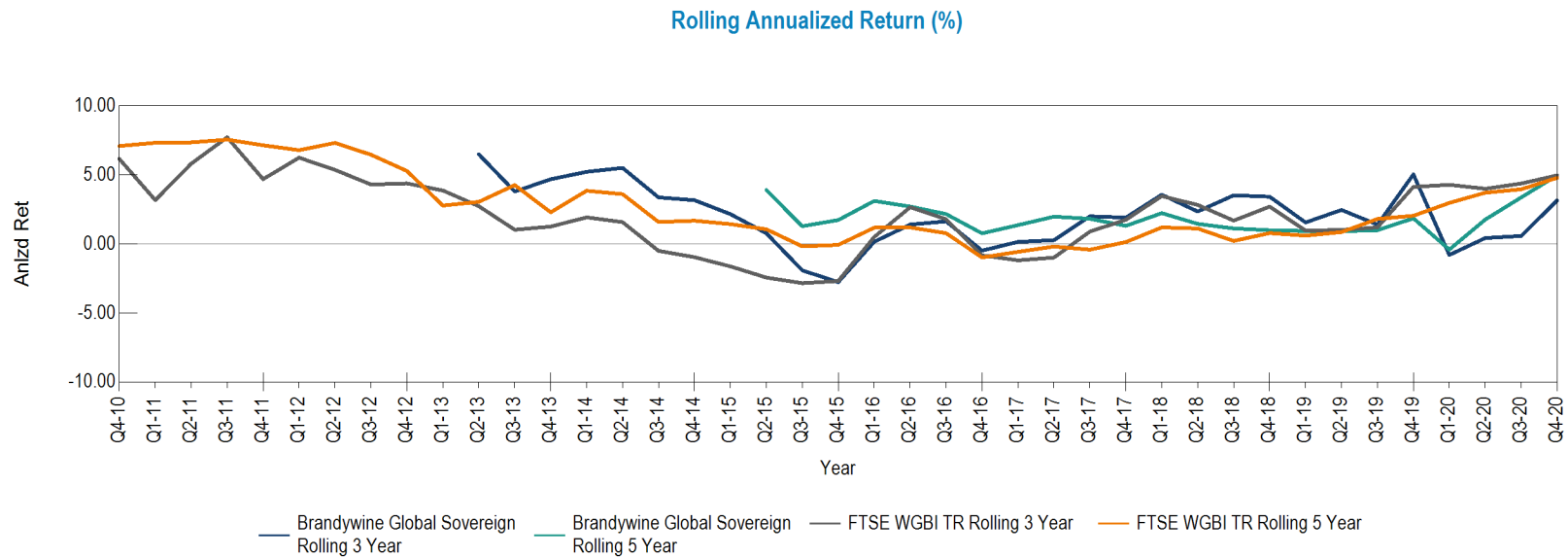
Period Ending: December 31, 2020



	Return (Rank)									
5th Percentile	11.2	16.4	7.6	8.6	6.8	16.4	15.2	1.7	12.8	14.7
25th Percentile	6.3	10.8	6.1	7.1	5.5	10.8	12.7	-0.7	9.3	8.1
Median	4.7	7.7	5.3	5.8	4.3	7.7	9.6	-2.2	7.5	5.0
75th Percentile	3.3	5.3	4.4	4.7	3.1	5.3	7.6	-3.9	5.8	2.6
95th Percentile	1.0	1.4	2.4	3.1	2.1	1.4	4.4	-6.0	2.9	-0.5
# of Portfolios	254	252	234	219	138	252	239	218	214	209
● Brandywine Global Sovereign	7.3 (17)	5.9 (70)	3.1 (89)	5.0 (69)	3.3 (69)	5.9 (70)	8.7 (60)	-4.7 (87)	11.9 (6)	3.8 (63)
▲ FTSE WGBI TR	2.8 (84)	10.1 (33)	5.0 (61)	4.8 (74)	2.3 (92)	10.1 (33)	5.9 (87)	-0.8 (27)	7.5 (51)	1.6 (81)

Brandywine Global Sovereign Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

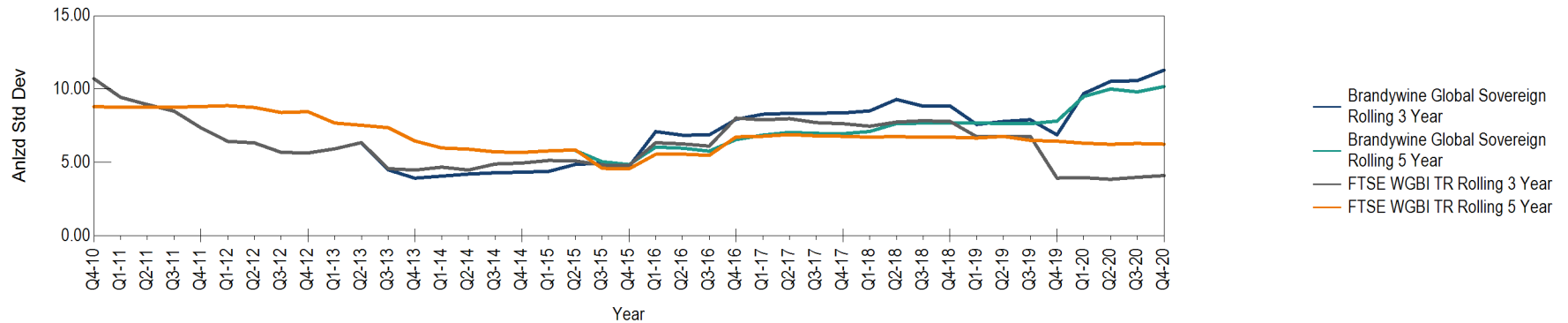


Brandywine Global Sovereign

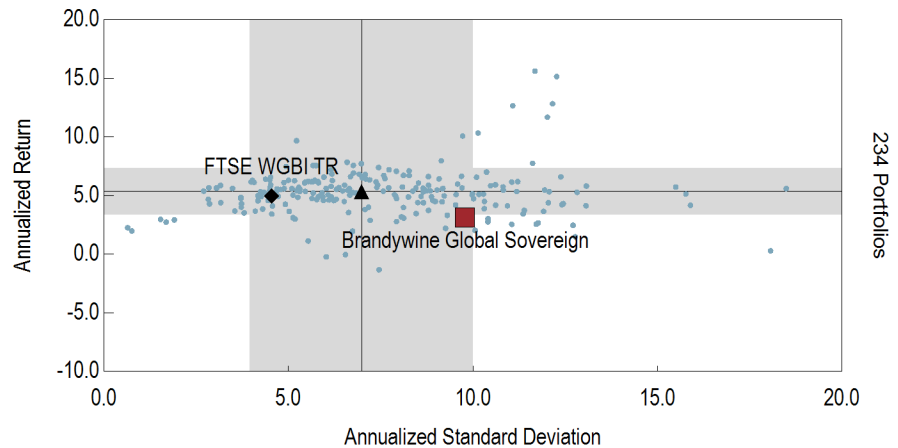
Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

Rolling Annualized Standard Deviation



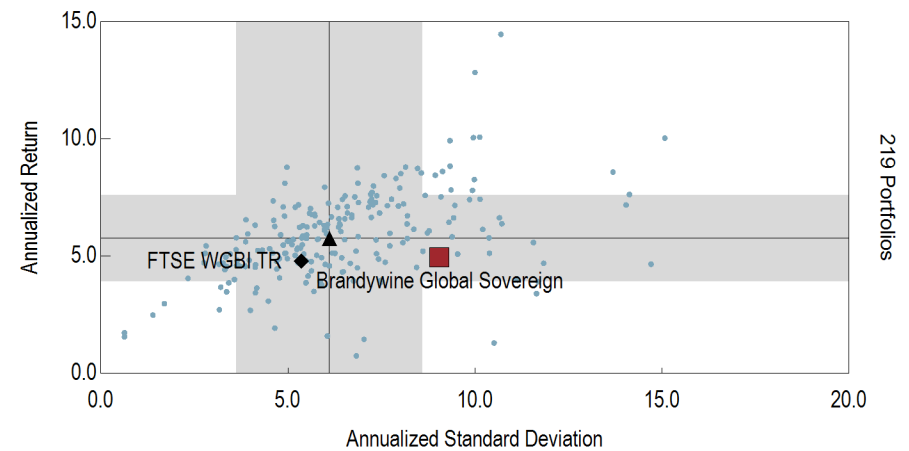
3 Years



	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
BBgBarc US TIPS TR	5.9%	3.9%	1.1
eV US TIPS / Inflation Fixed Inc Net Median	5.9%	4.0%	1.0

BBgBarc US TIPS TR
eV US TIPS / Inflation Fixed Inc Net Median

5 Years



5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
BBgBarc US TIPS TR	5.1%	3.6%	1.1
eV US TIPS / Inflation Fixed Inc Net Median	5.1%	3.8%	1.0

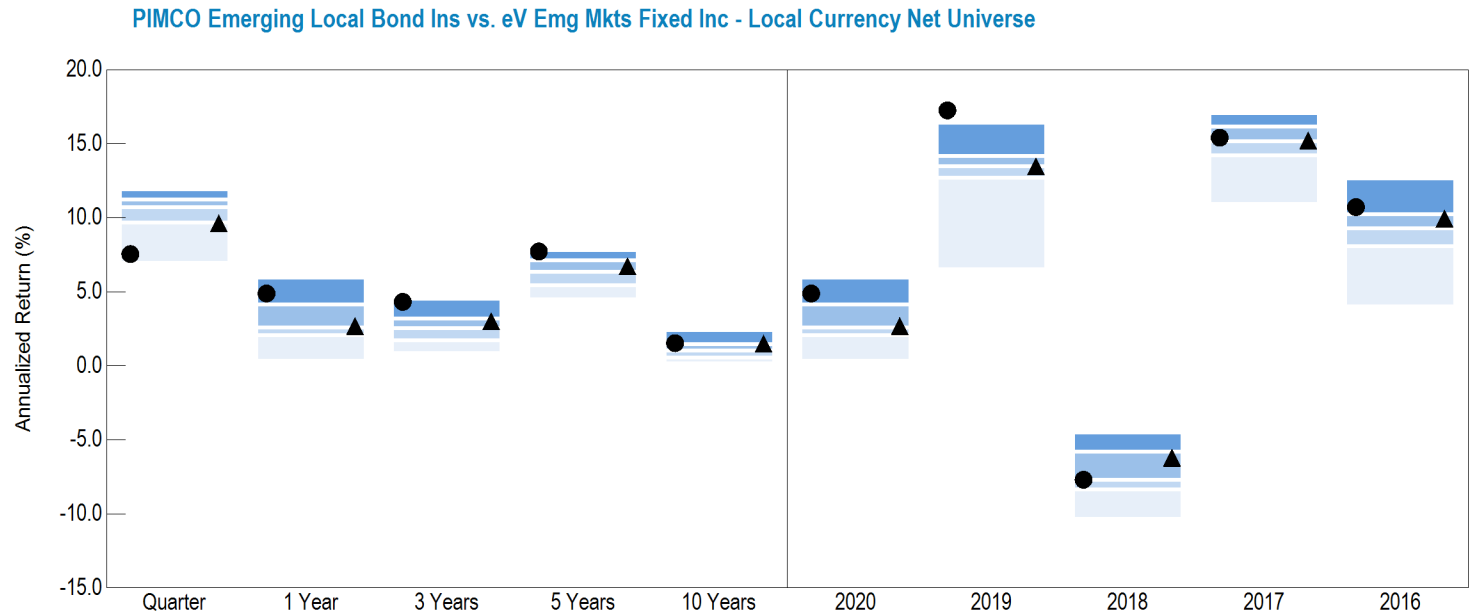
BBgBarc US TIPS TR
eV US TIPS / Inflation Fixed Inc Net Median

Returns prior to inception date are composite returns.

PIMCO Emerging Local Bond Ins

Manager Performance Comparisons (Net of Fees)

Period Ending: December 31, 2020

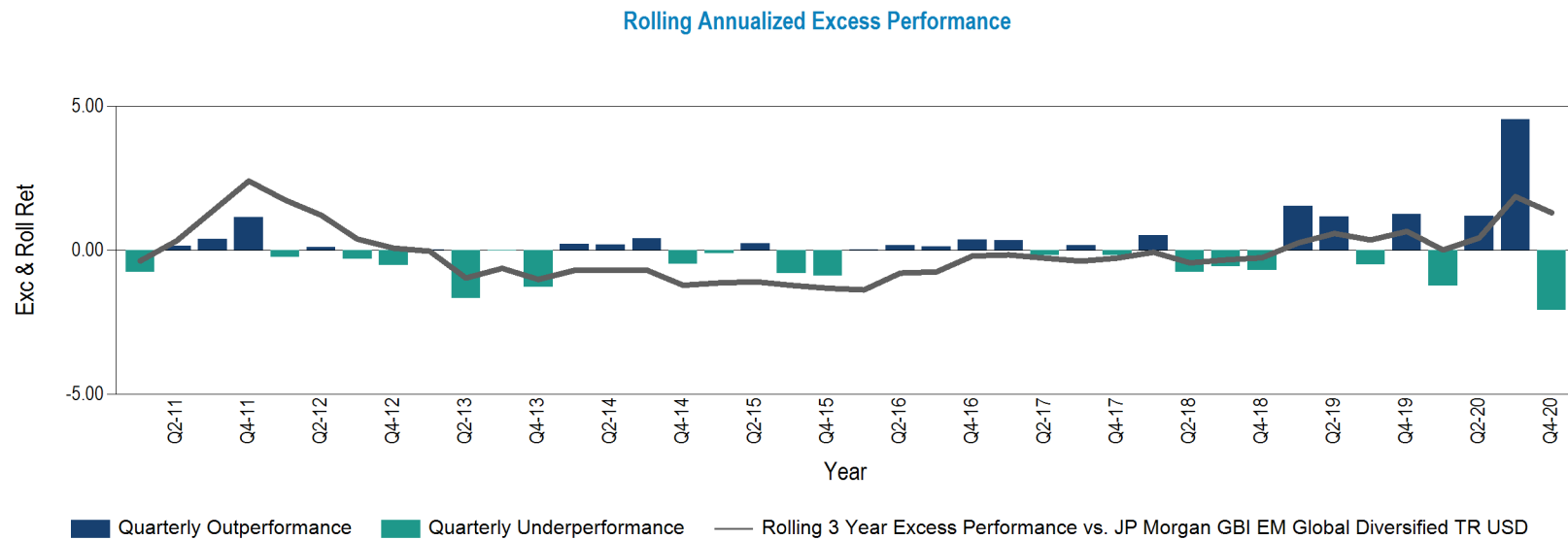
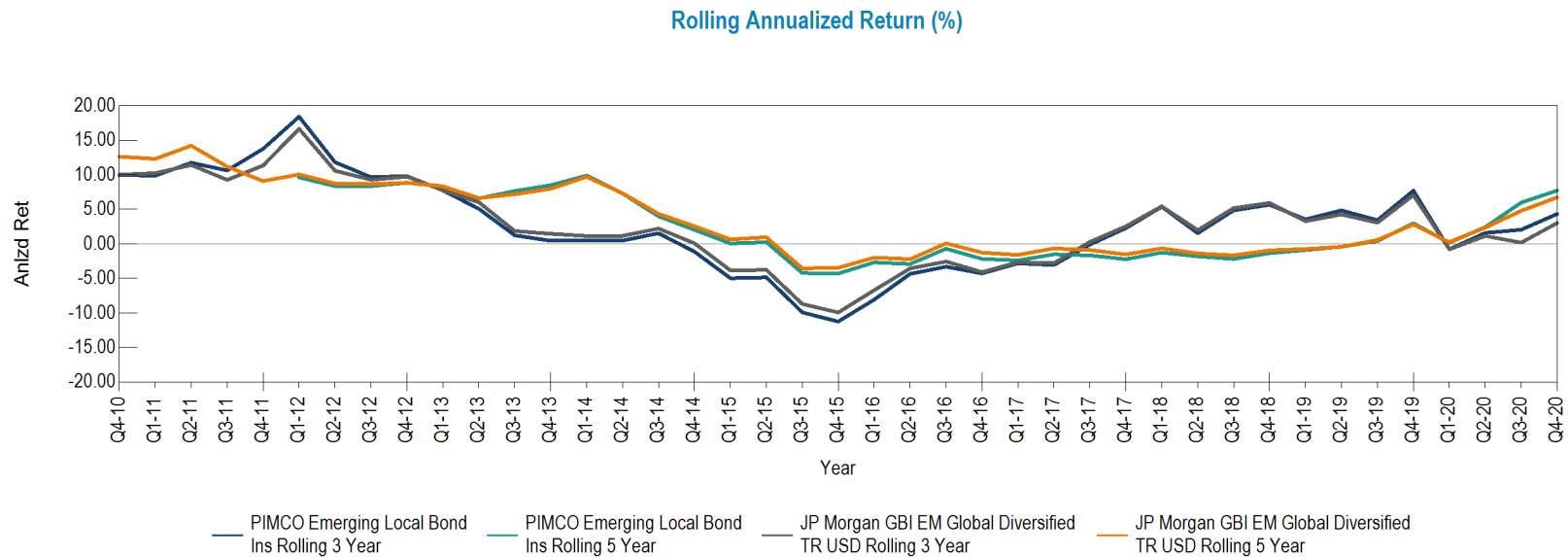


	Return (Rank)									
5th Percentile	11.9	6.0	4.5	7.8	2.4	6.0	16.4	-4.5	17.0	12.6
25th Percentile	11.3	4.2	3.2	7.1	1.5	4.2	14.2	-5.8	16.2	10.3
Median	10.7	2.6	2.6	6.4	1.1	2.6	13.5	-7.7	15.2	9.3
75th Percentile	9.7	2.1	1.7	5.5	0.6	2.1	12.7	-8.3	14.2	8.1
95th Percentile	7.0	0.3	0.9	4.5	0.2	0.3	6.5	-10.3	11.0	4.0
# of Portfolios	33	33	32	31	20	33	35	33	31	30
● PIMCO Emerging Local Bond Ins	7.5 (93)	4.9 (10)	4.3 (6)	7.7 (8)	1.5 (21)	4.9 (10)	17.3 (3)	-7.7 (54)	15.4 (39)	10.7 (18)
▲ JP Morgan GBI EM Global Diversified TR USD	9.6 (80)	2.7 (49)	3.0 (39)	6.7 (39)	1.5 (21)	2.7 (49)	13.5 (51)	-6.2 (33)	15.2 (47)	9.9 (33)

Returns prior to inception date are composite returns.

PIMCO Emerging Local Bond Ins Rolling Manager Performance (Net of Fees)

Period Ending: December 31, 2020

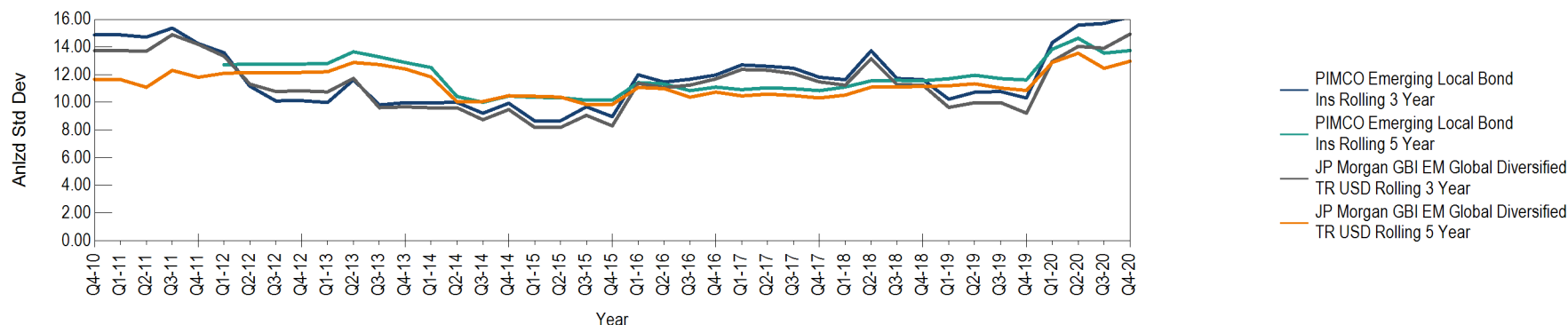


Returns prior to inception date are composite returns.

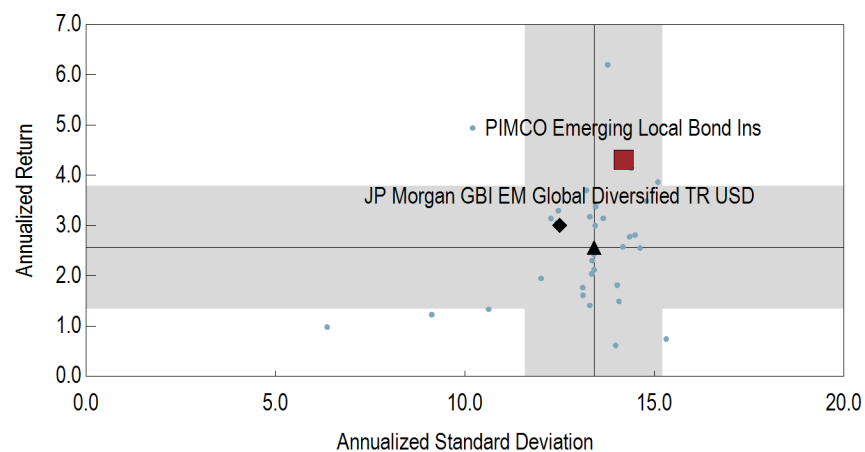
PIMCO Emerging Local Bond Ins Risk vs. Return 3 & 5 Year (Net of Fees)

Period Ending: December 31, 2020

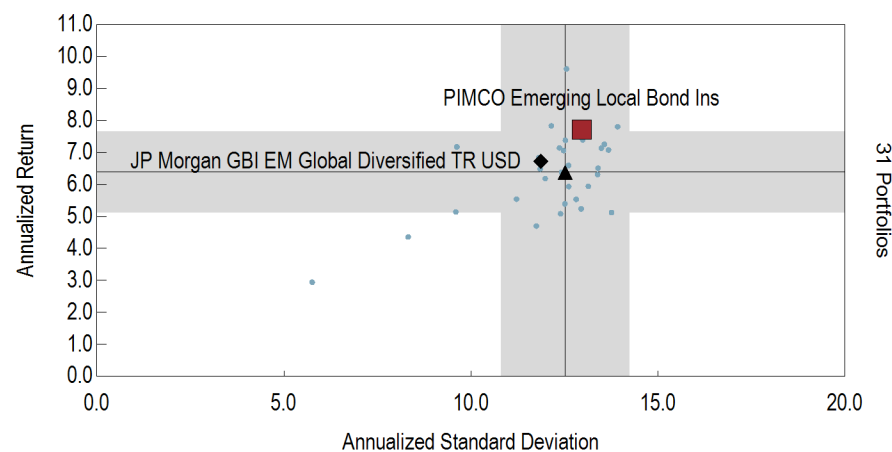
Rolling Annualized Standard Deviation



3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
PIMCO Emerging Local Bond Ins	4.3%	14.2%	0.2
JP Morgan GBI EM Global Diversified TR USD	3.0%	12.5%	0.1
eV Emg Mkts Fixed Inc - Local Currency Net Median	2.6%	13.4%	0.1

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
PIMCO Emerging Local Bond Ins	7.7%	13.0%	0.5
JP Morgan GBI EM Global Diversified TR USD	6.7%	11.9%	0.5
eV Emg Mkts Fixed Inc - Local Currency Net Median	6.4%	12.5%	0.4

Returns prior to inception date are composite returns.

Performance Return Calculations

Performance is calculated using Modified Dietz and for time periods with large cash flow (generally greater than 10% of portfolio value), Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

Manager	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
Benefits Payment Cash	N/A	Northern Trust	Warburg Pincus XII	2015	Hamilton Lane
Custodied	N/A	Northern Trust	Gerding Edlen Green Cities III	2016	Gerding Edlen
County Cash	N/A	FCERA	Hamilton Lane PE Fund IX	2016	Hamilton Lane
Aronson Johnson Ortiz	12/4/1995	Northern Trust	Kennedy Wilson Real Estate V	2016	Kennedy Wilson
Warburg Pincus	1998	Hamilton Lane	TSSP Adjacent Opportunities	2016	Carlyle
TCW Shop III	1998	Carlyle	OHA Strategic Credit Fund II, L.P.	2016	Carlyle
Warburg Pincus VIII	2001	Hamilton Lane	Horsley Bridge XI GBO	2016	Hamilton Lane
Blackstone IV	2002	Hamilton Lane	GCM Better Futures Fund	2016	Grosvenor
Lonestar IV	2002	Carlyle	Parametric Overlay	2016	Northern Trust
TCW Shop IV	2002	Carlyle	EQT European S. Situations Debt	2017	Carlyle
Mondrian Emerging Markets	11/17/2005	Mondrian	Eaton Vance Ins. Sr Loan Plus	2017	Eaton Vance
Invesco Core Real Estate	10/1/2007	Invesco	PIMCO StocksPLUS Small Fund	4/31/2018	PIMCO
New Mountain III	2007	Hamilton Lane	Hamilton Lane Secondary Fund IV	2017	Hamilton Lane
Hamilton Lane VI	2007	Hamilton Lane	TCG BDC II	2017	Carlyle
Warburg Pincus X	2007	Hamilton Lane	AlpInvest FC Credit Fund, L.P.	2017	Carlyle
Landmark Equity Partners XIV	2008	Hamilton Lane	CPC V, L.P.	2017	Carlyle
Mondrian Int'l Small Cap	11/2/2009	Mondrian	Kelso Investment Associates X, L.P	2018	Hamilton Lane
Colony Distressed Credit I	2009	Carlyle	Avista Capital Partners IV	2018	Hamilton Lane
TA Associates Realty 9	2009	TA Associates	Platinum Equity Small Cap Fund	2018	Hamilton Lane
Systematic Small/Mid Value	10/8/2010	Northern Trust	T. Rowe Price Large Cap Growth	10/23/2018	Northern Trust
KKR Mezzanine Partners I	2010	Carlyle	Baillie Gifford Emerging Markets	12/10/2018	Baillie Gifford
Angelo Gordon Cap. Recov. VII	2010	Carlyle	K4 Private Investors, L.P.	2018	Hamilton Lane
RAFI International Equity	4/30/2011	Northern Trust	SK Capital Partners Fund V, L.P.	2018	Hamilton Lane
Oaktree Opportunities Fund IX	2012	Carlyle	Thomas H. Lee Equity Fund VIII, L.P.	2019	Hamilton Lane
Artisan International Growth	4/1/2013	Northern Trust	H.I.G. Growth Buyouts & Equity Fund III	2019	Hamilton Lane
PIMCO Emerging Local Bond	7/31/2013	Northern Trust	RBC Access Capital	10/10/2018	Northern Trust
WAMCO Credit Index	10/1/2014	Northern Trust	Invesco US Value-Add Fund V	2/20/2019	Invesco
Loomis Sayles High Yield	10/1/2014	Northern Trust	NT MSCI US Index	6/2/2020	Northern Trust
Eaton Vance Senior Loan	10/1/2014	Eaton Vance	NT MSCI World Ex-US Index Fund	5/28/2020	Northern Trust
Colony Distressed Credit III	2014	Carlyle	JFL Equity Investors V, L.P.	2019	Hamilton Lane
Brandywine Global Sovereign	1/31/2015	Northern Trust	Insight Partners XI, L.P.	2019	Hamilton Lane
IFM Global Infrastructure	5/1/2015	IFM	HGGC Fund IV, L.P.	2019	Hamilton Lane
GSO European Senior Debt	2015	Carlyle	TCW TALF Opportunities Fund LP	6/12/2020	Northern Trust
CVI Credit Value Fund III	2015	Carlyle	Western Asset Management Treasuries	9/2/2020	Northern Trust
			Western Asset Management Agency MBS	9/2/2020	Northern Trust

Policy & Custom Index Composition	
Floating Policy Index (12/1/2020-12/31/2020)	28% MSCI USA, 26% Fixed Income Custom Benchmark, 21% MSCI ACWI ex US, 0.87% Russell 2000, 0.47% BBgBarc US Corp. High Yield, 5.53% Private Equity Neutralized, 8.0% Private Credit Neutralized, 1% HFRI FoF Composite, 8% NCREIF ODCE Net, & 2% 91 Day T-Bills.
(11/1/2020-11/30/2020)	28% MSCI USA, 26% Fixed Income Custom Benchmark, 21% MSCI ACWI ex US, 0.87% Russell 2000, 0.45% BBgBarc US Corp. High Yield, 5.55% Private Equity Neutralized, 7.71% Private Credit Neutralized, 1% HFRI FoF Composite, 8% NCREIF ODCE Net, & 2% 91 Day T-Bills.
(10/1/2020-10/31/2020)	28% MSCI USA, 26% Fixed Income Custom Benchmark, 21% MSCI ACWI ex US, 0.87% Russell 2000, 0.34% BBgBarc US Corp. High Yield, 5.66% Private Equity Neutralized, 7.71% Private Credit Neutralized, 1% HFRI FoF Composite, 8% NCREIF ODCE Net, & 2% 91 Day T-Bills.
Fixed Income Custom Benchmark (9/1/2020- Present)	38.5% BgBarc U.S. Aggregate Index, 3.8% BBgBarc US Securitized Index, 30.8% 50% BBgBarc High Yield/50% S&P LSTA U.S. Leveraged Loan Index, 15.4% FTSE WGBI TR, 11.5% JP Morgan GBI EM Global
(4/1/2014-9/1/2020)	100% BBgBarc Global Aggregate Index
Before 4/1/2014	100% BBgBarc U.S. Aggregate Index

**The term neutralized indicates that the benchmark performance was set equal to the asset class composite.

Other Disclosures	
A non-cash contribution was made matching the investment manager fee for Invesco Real Estate and non-cash contributions were made estimating the investment manager fee for Invesco Commodities.	
Fresno County Employees' Retirement Association fiscal year end is June 30.	

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$.

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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