Investment Performance Review Period Ending June 30, 2021

Retirement Board of Allegheny County



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2nd Quarter 2021 Market Environment



The Economy

- The US economy continues to recover as widespread vaccine distribution has resulted in the reopening of many state and local economies.
- The recent rise in demand for goods and services has resulted in strong inflationary pressures. The annual rate of inflation increased to 5.0% in May, up from 4.2% in April.
- The US labor market continues to recover as evidenced by the decline in the unemployment rate. Recently, several states have moved to reduce or eliminate additional unemployment benefits to incentivize people to return to work. Overall, wage growth has shown signs of accelerating as employers struggle to fill job openings.
- Despite leaving interest rates unchanged at their most recent meeting, the Fed did change the language of its statement suggesting that interest rates may rise sooner rather than later.

Equity (Domestic and International)

- US equities rose to all-time highs during the second quarter, primarily due to the optimism related to increased control over the pandemic. Reversing performance from recent quarters, growth outpaced value and large companies resumed market leadership relative to smaller peers.
- International equities performed well during the 2nd quarter, albeit at a less frenetic pace than their domestic counterparts. Also similar to the US, growth outperformed value and emerging countries underperformed developed ones.

Fixed Income

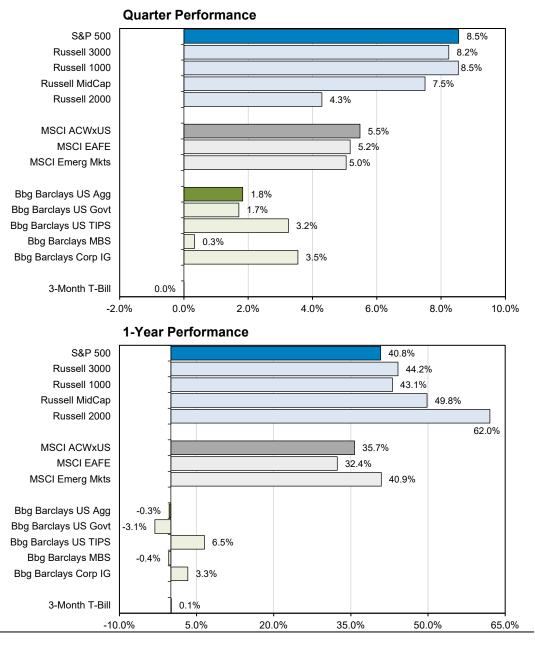
- Despite the continued global economic recovery and rising inflation concerns, US interest rates dipped during the quarter as the US 10-Year Treasury bond fell 27 basis points to close at 1.47%.
- Performance across all bond markets sectors was positive during the quarter, led by investment grade corporate bonds. The combination of lower gross issuance levels, in conjunction with a longer maturity profile relative to high yield bonds, were the primary catalysts of performance during the period.
- Within investment grade credit, Lower quality issues outperformed higher quality sectors during the quarter. Consistent with the economic recovery theme, as investors' expectations of future growth improves, those credits should perform well as earnings growth accelerates.

Market Themes

- Global central monetary policy remains largely intact and accommodative. Both the Fed and the European Central Bank remain committed to their repurchase programs. Given these conditions, barring a socioeconomic or geopolitical shock, it is reasonable to expect risk assets to continue experiencing solid returns.
- US interest rates are likely to remain low for the remainder of 2021. As a result, credit should continue to outperform both higher quality Treasury and government bonds.
- Finally, low interest rates have historically been a tailwind for growth equities. Given that the Fed has committed to keeping rates unchanged in the near-term, growthoriented companies could continue to lead the market.



- Broad US equity markets experienced strong returns during the 2nd quarter of 2021. The primary catalyst during the period was the continued reopening of state and local economies resulting from the ongoing distribution of vaccines. Importantly, US interest rates also fell during the period which resulted in large, growth-oriented companies resuming market leadership. For the period, large cap companies returned 8.5%, compared to 7.5% for mid-caps and 4.3% for small company stocks.
- Similar to domestic markets, broad international equity markets also posted positive returns for the 2nd quarter. The re-opening of global economies, particularly Europe, were key drivers of performance. During the period, the MSCI EAFE Index return of 5.2% modestly outperformed the MSCI Emerging Markets Index return of 5.0%
- For the quarter, bond market returns were generally positive as interest rates declined. The Bloomberg Barclays (BB) US Aggregate Index returned 1.8%, trailing both US TIPS and Investment Grade Corporate bonds which returned 3.2% and 3.5% respectively.
- The trailing 1-year chart details the market's dramatic reversal following the onset of the pandemic last year. All broad US equity market indexes have recovered and are trading at near-record levels. Most notably, domestic small cap stocks have led the market higher by returning 62.0% compared to US large caps which returned 43.1% over the trailing 1-year period.
- Over the trailing 1-year period the MSCI EAFE Index return of 32.4% fell short of the MSCI Emerging Markets Index return of 40.9%. Higher growth benefits areas like emerging markets which are more sensitive to changes in economic activity. As a result, as global markets continue to recover, economically sensitive emerging countries may recover at a faster rate.
- Bond market returns over the trailing 1-year period were relatively muted compared to equities. US TIPS led the way as investors remain concerned about the potential for rising inflation. The TIPS Index returned 6.5% for the period while investment grade corporate bonds returned 3.3%. Higher quality, lower coupon bonds generally struggled to perform during the period as US interest rates generally moved higher.

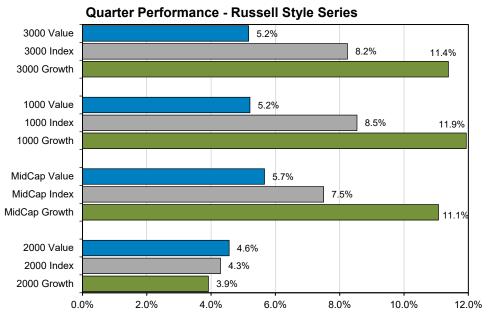


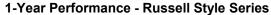
Source: Investment Metrics

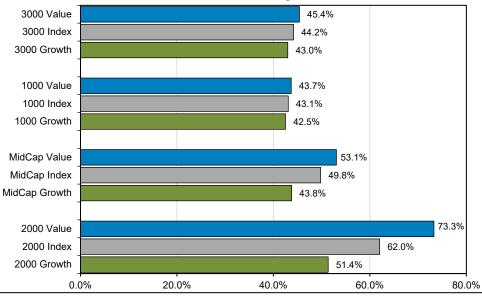
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- The market's strong momentum continued during the quarter as all broad US equity benchmarks posted their 5th straight quarter of positive returns across both the style and market capitalization spectrums. However, we did see a reversal during the period as large cap stocks resumed leadership followed by mid and small caps. The Russell 1000 Index returned a strong 8.5% compared to 7.5% for the Russell Mid Cap Index and 4.3% for the Russell 2000 Index.
- Growth stocks outpaced value stocks for the first time in two quarters. The Russell 1000 Growth Index was the best performing style index for the quarter, posting a return of 11.9%. Mid cap growth stock performance was not far behind, returning 11.1%. However, in small cap stocks, value outpaced growth for the quarter with the Russell 2000 Value Index returning 4.6% compared to 3.9% for the Russell 2000 Growth Index.

- Performance across all market capitalizations and styles was very strong over the trailing 1-year period.
- Despite the recent gains made by growth stocks, value stocks outpaced growth issues across all market capitalizations over the trailing 1-year period. Given the strong economic recovery, it is not surprising that small cap value stocks performed the best with the Russell 2000 Value Index returning 73.3%. While the dispersion between value and growth was widest in small cap stocks, it narrowed significantly moving up the market capitalization spectrum.



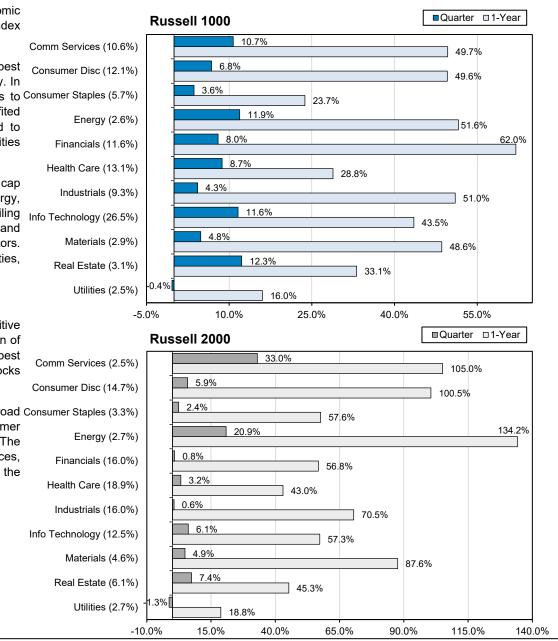




Source: Investment Metrics



- Sector performance was positive across ten of the eleven large cap economic • sectors for the 2nd guarter. Five sectors outpaced the return of the broad index during the period.
- Inflation-sensitive sectors like real estate and energy were the two best performing sectors for the guarter, returning 12.3% and 11.9% respectively. In general, companies in sectors with the ability to pass along rising costs to Consumer Staples (5.7%) consumers experienced the strongest returns. The technology sector benefited from falling interest rates during the period, which acted as a tailwind to earnings. While nearly all sectors experienced positive results, the utilities sector (-0.4%) lagged its peers and the broad index results.
- For the full year, seven sectors exceeded the return of the broad large cap benchmark: communication services, consumer discretionary, energy, financials, industrials, information technology, and materials. Over the trailing 1-year period, financials (62.0%), energy (51.6%), industrials (51.0%), and communication services (49.7%) were the best performing economic sectors. The weakest economic sector in the Russell 1000 for the trailing year, utilities, still managed to produce a strong return of 16.0%.
- Similar to large cap stocks, ten of the eleven small cap sectors posted positive performance for the quarter and six of them managed to outpace the return of the broad Russell 2000 Index. Communication services was the best performing sector during the guarter, returning a robust 33.0%. Energy stocks also performed well during the period with a return of 20.9%.
- For the full 1-year period, five of the eleven sectors outperformed the broad Consumer Staples (3.3%) benchmark: energy (134.2%), communication services (105.0%), consumer discretionary (100.5%), materials (87.6%), and industrials (70.5%). The combination of rapidly improving economic conditions, rising energy prices, and increased inflationary pressures were the primary catalysts for the exceptional performance.



Source: Morningstar Direct

As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.



The Market Environment Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000 As of June 30, 2021

Top 10 Weighted Stocks										
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector						
Apple Inc	5.22%	12.3%	51.2%	Information Technology						
Microsoft Corp	4.96%	15.2%	34.4%	Information Technology						
Amazon.com Inc	3.62%	11.2%	24.7%	Consumer Discretionary						
Facebook Inc A	2.02%	18.1%	53.1%	Communication Services						
Alphabet Inc A	1.78%	18.4%	72.2%	Communication Services						
Alphabet Inc Class C	1.73%	21.2%	77.3%	Communication Services						
Tesla Inc	1.28%	1.8%	214.7%	Consumer Discretionary						
Berkshire Hathaway Inc Class B	1.27%	8.8%	55.7%	Financials						
NVIDIA Corp	1.16%	49.9%	110.8%	Information Technology						
JPMorgan Chase & Co	1.14%	2.8%	70.7%	Financials						

Top 10 Weighted Stocks										
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector						
AMC Entmt Holdings Inc Class A	0.76%	455.1%	1221.2%	Communication Services						
Intellia Therapeutics Inc	0.34%	101.7%	670.3%	Health Care						
Arrowhead Pharmaceuticals Inc	0.28%	24.9%	91.8%	Health Care						
Ovintiv Inc	0.27%	32.7%	240.7%	Energy						
Lattice Semiconductor Corp	0.25%	24.8%	97.9%	Information Technology						
II-VI Inc	0.25%	6.2%	53.7%	Information Technology						
Crocs Inc	0.25%	44.8%	216.5%	Consumer Discretionary						
Scientific Games Corp Ordinary Shares	0.25%	101.0%	400.9%	Consumer Discretionary						
Staar Surgical Co	0.24%	44.7%	147.8%	Health Care						
Denali Therapeutics Inc	0.24%	37.4%	224.4%	Health Care						

Top 10 Performing Stocks (by Quarter)										
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector						
Moderna Inc	0.19%	79.4%	266.0%	Health Care						
NovoCure Ltd	0.06%	67.8%	274.1%	Health Care						
Hayward Holdings Inc	0.00%	54.1%	N/A	Consumer Discretionary						
Cloudflare Inc	0.06%	50.6%	194.4%	Information Technology						
Virgin Galactic Holdings Inc Shs A	0.02%	50.2%	181.5%	Industrials						
NVIDIA Corp	1.16%	49.9%	110.8%	Information Technology						
Continental Resources Inc	0.01%	47.5%	117.7%	Energy						
Nutanix Inc A	0.02%	43.9%	61.2%	Information Technology						
Roku Inc Class A	0.13%	41.0%	294.1%	Communication Services						
Targa Resources Corp	0.02%	40.4%	125.5%	Energy						

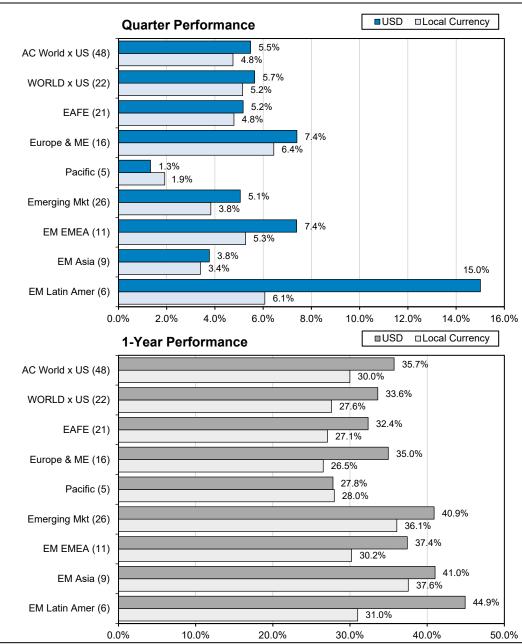
Top 10 Performing Stocks (by Quarter)									
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector					
AMC Entmt Holdings Inc Class A	0.76%	455.1%	1221.2%	Communication Services					
Brooklyn ImmunoTherap Inc Ord Shrs	0.01%	384.1%	N/A	Health Care					
Laredo Petroleum Inc	0.04%	208.7%	569.5%	Energy					
Atossa Therapeutics Inc	0.02%	199.5%	66.3%	Health Care					
Peabody Energy Corp	0.02%	159.2%	175.3%	Energy					
Apollo Medical Holdings Inc	0.08%	131.9%	280.7%	Health Care					
Asana Inc Ordinary Shares - Class A	0.15%	117.0%	N/A	Information Technology					
Agiliti Inc Ordinary Shares	0.02%	116.5%	1338.8%	Health Care					
HyreCar Inc	0.01%	113.5%	614.0%	Industrials					
Prothena Corp PLC	0.06%	104.7%	391.5%	Health Care					

Bottom 10 Performing Stocks (by Quarter)			Bottom 10 Performing Stocks (by Quarter)						
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector	Sector Russell 2000		1-Qtr Return	1-Year Return	Sector
QuantumScape Corp Ord Shares A	0.01%	-34.6%	N/A	Consumer Discretionary	ChemoCentryx Inc	0.02%	-73.9%	-76.7%	Health Care
Discovery Inc Class A	0.01%	-29.4%	45.4%	Communication Services	Atea Pharmaceuticals Inc Ord Shares	0.05%	-65.2%	N/A	Health Care
Penn National Gaming Inc	0.03%	-27.0%	150.5%	Consumer Discretionary	Adverum Biotechnologies Inc	0.01%	-64.5%	-83.2%	Health Care
TripAdvisor Inc	0.01%	-25.1%	112.0%	Communication Services	Vor Biopharma Inc Ordinary Shares	0.01%	-56.7%	N/A	Health Care
Sage Therapeutics Inc	0.01%	-24.1%	36.6%	Health Care	Aemetis Inc	0.01%	-54.4%	1282.9%	Energy
Discovery Inc C	0.02%	-21.4%	50.5%	Communication Services	Bolt Biotherapeutics Inc Ord Shares	0.01%	-53.0%	N/A	Health Care
The Scotts Miracle Gro Co A	0.02%	-21.4%	49.0%	Materials	Gemini Therapeutics Inc Ord Shares	0.00%	-52.3%	N/A	Health Care
CureVac NV Ordinary Shares	0.01%	-19.7%	N/A	Health Care	iRhythm Technologies Inc	0.06%	-52.2%	-42.7%	Health Care
Exelixis Inc	0.01%	-19.3%	-23.3%	Health Care	Sigilon Therapeutics Inc Ord Shares	0.00%	-52.0%	N/A	Health Care
Guardant Health Inc	0.03%	-18.6%	53.1%	Health Care	Aterian Inc	0.01%	-50.4%	166.5%	Consumer Discretionary

Source: Morningstar Direct



The Market Environment International and Regional Market Index Performance (Country Count) As of June 30, 2021



 All broad international equity indexes tracked in the chart posted positive returns in both US dollar (USD) and local currency terms for the 2nd quarter. For the period, developed markets outperformed emerging markets in both USD and local currency. The MSCI EAFE Index returned 5.2% in USD and 4.8% in local currency terms for the period while the MSCI Emerging Markets Index returned a slightly lower 5.1% in USD and 3.8% in local currency terms.

The trailing 1-year results for international developed and emerging markets were positive across all regions and currencies. The MSCI EAFE Index returned 32.4% in USD and 27.1% in local currency terms, while the MSCI Emerging Markets Index returned 40.9% in USD and 36.1% in local currency terms. Performance within the emerging markets regions was led by Latin America with the EM Latin America Index returning 44.9% in USD and 31.0% in local terms.



Source: MSCI Global Index Monitor (Returns are Net)

The Market Environment US Dollar International Index Attribution & Country Detail As of June 30, 2021

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.9%	0.3%	26.1%
Consumer Discretionary	13.0%	5.5%	49.8%
Consumer Staples	10.5%	8.5%	17.9%
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Energy	3.2%	2.7%	29.1%
Financials	17.0%	3.2%	40.2%
Health Care	12.4%	9.3%	12.3%
Industrials	15.5%	3.6%	39.6%
Information Technology	9.1%	8.3%	40.2%
Materials	7.9%	5.1%	47.2%
Real Estate	3.0%	5.3%	27.6%
Utilities	3.4%	-1.1%	12.7%
Total	100.0%	5.2%	32.4%
MSCI - ACWIXUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	6.7%	1.5%	24.9%
Consumer Discretionary	13.8%	4.8%	44.6%
Consumer Staples	8.5%	7.7%	19.1%
Energy	4.5%	8.2%	34.2%
Financials	18.6%	4.3%	40.7%
Health Care	9.3%	9.9%	15.2%
Industrials	11.8%	4.4%	40.3%
Information Technology	12.9%	7.0%	56.6%
Materials	8.3%	6.5%	49.5%
Real Estate	2.6%	2.5%	22.3%
Utilities	3.0%	-0.3%	14.9%
Total	100.0%	5.5%	35.7%
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	11.3%	1.9%	23.0%
Consumer Discretionary	17.6%	3.6%	36.8%
Consumer Staples	5.6%	4.5%	23.7%
Energy	5.0%	12.1%	31.8%
Financials	17.8%	4.2%	33.0%
Health Care	5.0%	14.1%	32.3%
Industrials	4.9%	13.2%	45.2%
Information Technology	20.4%	3.8%	75.8%
Materials	8.4%	8.4%	71.4%
Real Estate	2.0%	-6.0%	6.6%
Utilities	1.9%	2.0%	20.3%
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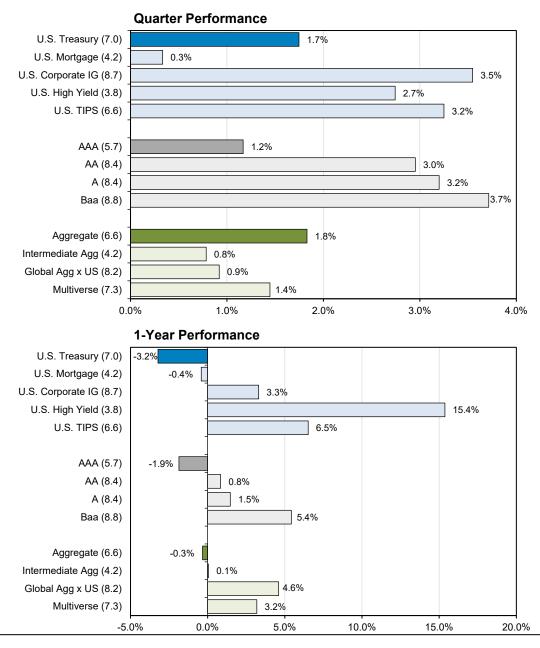
	MSCI-EAFE	MSCI-ACWIxUS	Quarter	1- Year
Country	Weight	Weight	Return	Return
Japan	23.2%	14.3%	-0.3%	24.8%
United Kingdom	14.4%	8.9%	6.0%	31.3%
France	11.5%	7.1%	9.1%	40.9%
Switzerland	9.8%	6.0%	11.5%	24.3%
Germany	9.4%	5.8%	4.7%	31.8%
Australia	7.2%	4.4%	6.9%	39.6%
Netherlands	4.4%	2.7%	7.3%	49.6%
Sweden	3.8%	2.3%	5.5%	53.9%
Hong Kong	3.3%	2.0%	2.5%	29.0%
Denmark	2.6%	1.6%	13.1%	44.2%
Italy	2.5%	1.5%	3.6%	36.6%
Spain	2.5%	1.5%	5.3%	30.7%
•				
Singapore	1.1%	0.7%	0.5%	28.7%
Finland	1.1%	0.7%	10.8%	34.7%
Belgium	1.0%	0.6%	9.2%	28.5%
Ireland	0.7%	0.4%	2.4%	39.6%
Norway	0.6%	0.4%	4.9%	49.6%
Israel	0.6%	0.4%	5.1%	22.5%
New Zealand	0.2%	0.2%	-5.1%	-5.0%
Austria	0.2%	0.1%	11.5%	70.9%
Portugal	0.2%	0.1%	-0.9%	11.4%
Total EAFE Countries	100.0%	61.7%	5.2%	32.4%
Canada		7.0%	10.0%	45.8%
Total Developed Countries		68.7%	5.7%	33.6%
China		11.7%	2.3%	27.4%
Taiwan		4.4%	7.1%	70.5%
Korea		4.1%	4.8%	66.2%
India		3.1%	6.9%	56.4%
Brazil		1.6%	22.9%	46.6%
South Africa		1.1%	-1.5%	39.9%
Russia		1.1%	14.0%	38.6%
Saudi Arabia		0.9%	10.0%	49.3%
Mexico		0.6%	9.1%	55.9%
Thailand		0.5%	-4.9%	7.0%
Malaysia		0.4%	-2.5%	3.8%
Indonesia		0.4%	-5.1%	7.6%
Poland		0.2%	18.7%	26.7%
United Arab Emirates		0.2%	11.2%	50.4%
Qatar		0.2%	2.2%	15.1%
Philippines		0.2%	7.6%	14.3%
Chile		0.1%	-14.2%	23.4%
Hungary		0.1%	14.8%	46.1%
Turkey		0.1%	-0.5%	-13.0%
Peru		0.1%	-8.8%	9.6%
Colombia		0.1%	-2.9%	18.0%
Argentina		0.0%	5.8%	28.6%
Greece		0.0%	8.2%	32.0%
Czech Republic		0.0%	14.6%	52.1%
Egypt		0.0%	-9.2%	-13.4%
Pakistan		0.0%	-6.7%	13.2%
Total Emerging Countries		31.2%	5.1%	40.9%
Total ACWIXUS Countries		100.0%	5.5%	35.7%
Total Aomxoo Sountines		100.078	0.070	00.1 /0

Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD) As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.



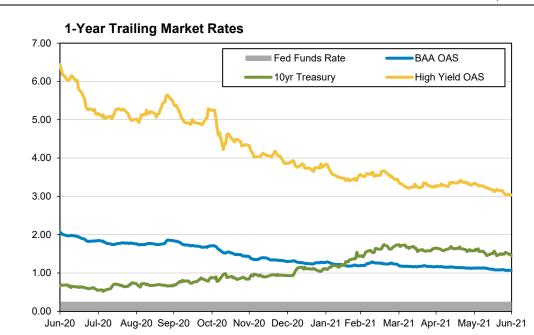
The Market Environment Domestic Bond Sector & Broad/Global Bond Market Performance (Duration) As of June 30, 2021

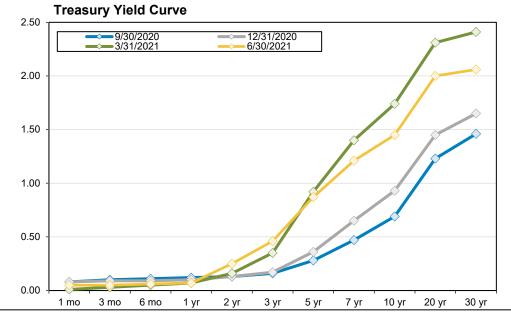
- Fixed income markets performed well during the 2nd quarter primarily due to falling US interest rates which acted as general tailwind for bond benchmark performance. The Bloomberg Barclays (BB) US Aggregate Bond Index returned a solid 1.8% for the period.
- Digging deeper into the investment grade index's segments, while each component exhibited positive performance, the US Corporate Investment Grade (3.5%) and US TIPS (3.2%) benchmark segments drove results. Although yields on issues of less than 2-years remained stable during the quarter, yields on longer-dated issues declined substantially over concerns of future economic growth.
- Outside of domestic markets, the BB Global Aggregate ex US Index posted a 0.9% return for the quarter. Like international stocks, global bonds were negatively impacted by the strengthening USD.
- Over the trailing 1-year period, domestic bond performance was slightly negative while global bonds posted solid, positive results. The BB Global Aggregate ex US Index return of 4.6% easily outpaced the domestic BB US Aggregate Index's return of -0.3%. A steepening yield curve, combined with a falling USD, were the primary contributors to the relative outperformance of global bonds for the year.
- The dispersion of returns for the year within bond market segments was significant and was led by the US High Yield Index's return of 15.4%. The combination of a lower average duration and a greater sensitivity to equity market movements were the primary performance catalysts. US TIPS also performed well for the year with the index returning 6.5%. Persistent concerns about rising inflation acted like a tailwind for TIPS issues.





- The gray band across the graph illustrates the range of the Fed Funds Rate. Over the past year, the Fed's target rate range has remained unchanged at 0.00% to 0.25%. During its June meeting, the Federal Open Market Committee (FOMC) reiterated its commitment to keeping interest rates near zero while also maintaining its asset purchase program aimed at supplying the market with ample liquidity.
- The yield on the US 10-year Treasury (green line) began increasing rapidly as the economy slowly began to open earlier this year. After reaching a high of 1.74% during the 1st quarter of 2021, interest rates in the US began to fall as concerns about future economic growth increased.
- The blue line illustrates changes in the BAA OAS (Option Adjusted Spread). This measure quantifies the additional yield premium that investors require to purchase and hold non-Treasury investment grade issues. The narrowing spread the line illustrates indicates investors remain comfortable owning credit as the probability of corporate defaults remains low. While nearly triple the BAA OAS, the High Yield OAS shows a similar willingness by investors to hold non-Treasury debt.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. Beginning in the 3rd quarter of 2020, longer-term interest rates began to move higher as investors' optimism improved. This trend continued through the 1st quarter as economic growth surprised to the upside. Since then, longer-term US interest rates have fallen.

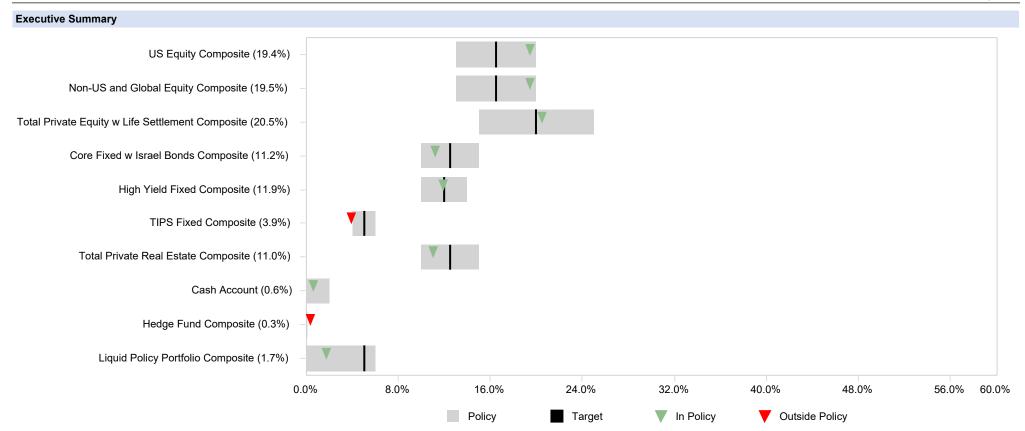






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Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
Total Fund	1,065,344,459	100.0	N/A	N/A	100.0
US Equity Composite	206,964,304	19.4	13.0	20.0	16.5
Non-US and Global Equity Composite	207,611,569	19.5	13.0	20.0	16.5
Total Private Equity w Life Settlement Composite	218,060,917	20.5	15.0	25.0	20.0
Core Fixed w Israel Bonds Composite	119,209,697	11.2	10.0	15.0	12.5
ligh Yield Fixed Composite	126,344,170	11.9	10.0	14.0	12.0
TPS Fixed Composite	41,239,579	3.9	4.0	6.0	5.0
otal Private Real Estate Composite	117,624,002	11.0	10.0	15.0	12.5
Cash Account	6,411,455	0.6	0.0	2.0	0.0
ledge Fund Composite	3,394,452	0.3	0.0	0.0	0.0
iquid Policy Portfolio Composite	18,484,307	1.7	0.0	6.0	5.0

Asset Allocation includes assets of the Emerging, Minority, and Women owned Investment Manager Program. The Investment Policy Statement for the Retirement Board of Allegheny County allows for the Pension's asset allocation to temporarily fall outside of the stated policy ranges due to market fluctuations and the Pension's hort-term cash flow needs. Recommendations are provided by the Pension's investment consultant regarding rebalancing of the Pension's asset allocation.



Historical Asset Allocation Total Fund As of June 30, 2021

Asset Allocation Attributes								
	Jun-20 (\$)	un-2021 Mar-2021 % (\$) %		%	Dec-20 (\$))20 %	Sep-2 (\$)	020 %
Total Fund	(ع) 1,065,344,459	100.00	(\$) 1,026,559,068	100.00	(ə) 1,001,478,345	100.00	رە) 941,004,689	
	1,003,344,433	100.00	1,020,339,000	100.00	1,001,470,040	100.00	341,004,003	100.00
US Equity Composite	206,964,304	19.43	193,392,476	18.84	181,142,494	18.09	160,476,974	17.05
SSgA S&P 500 Index	113,473,325	10.65	104,550,326	10.18	98,460,158	9.83	89,758,272	9.54
Fragasso Large Core (EMWO)	6,761,732	0.63	6,304,002	0.61	5,996,108	0.60	5,374,197	0.57
Twin Capital Enhanced Equity	38,751,933	3.64	35,891,029	3.50	33,584,600	3.35	31,142,461	3.31
Earnest Small Value	16,313,304	1.53	16,519,815	1.61	14,500,459	1.45	11,188,602	1.19
Emerald Advisors Small Cap	16,117,598	1.51	15,541,396	1.51	15,151,956	1.51	11,976,361	1.27
Emerald Advisors All Cap (EMWO)	6,487,868	0.61	5,790,127	0.56	5,444,391	0.54	4,631,369	0.49
Ethos (EMWO)	2,075,980	0.19	1,975,837	0.19	1,823,352	0.18	1,523,095	0.16
CIM Small Cap (EMWO)	6,217,573	0.58	6,084,398	0.59	5,447,095	0.54	4,230,724	0.45
Cookson Peirce (EMWO)	764,991	0.07	735,546	0.07	734,375	0.07	651,892	0.07
Non US Equity Composite	206,133,519	19.35	196,273,748	19.12	189,635,847	18.94	170,406,775	18.11
SSgA ACWI ex US	39,954,917	3.75	37,847,078	3.69	36,545,346	3.65	33,176,262	3.53
Baillie Gifford Intl Equity	85,183,044	8.00	81,978,998	7.99	80,665,762	8.05	75,061,570	7.98
FIAM Select International Equity	44,294,565	4.16	41.842.836	4.08	40,473,954	4.04	34,508,081	3.67
Segall, Bryant & Hamill	36,700,993	3.44	34,604,835	3.37	31,950,784	3.19	27,660,862	2.94
	50,700,555	0.44	54,004,000	0.07	51,550,704	0.10	21,000,002	2.04
Global Equity Composite	1,478,051	0.14	1,408,144	0.14	1,363,614	0.14	1,202,415	0.13
Columbus Macro (EMWO)	1,478,051	0.14	1,408,144	0.14	1,363,614	0.14	1,202,415	0.13
Core Fixed w Israel Bonds Composite	119,209,697	11.19	117,106,627	11.41	99,499,112	9.94	99,133,118	10.53
C S McKee	39,241,240	3.68	38,446,030	3.75	34,682,571	3.46	34,471,981	3.66
Federated Core Broad	35,257,659	3.31	34,528,279	3.36	30,268,451	3.02	29,768,091	3.16
CIM Investment Mgmt	23,881,595	2.24	23,636,469	2.30	13,950,130	1.39	13,899,925	1.48
StoneRidge Partners (EMWO)	5,508,900	0.52	5,458,158	0.53	5,557,249	0.55	6,189,972	0.66
Gridiron Capital Fixed Income (EMWO)	4,949,184	0.46	4,809,185	0.47	4,746,562	0.47	4,457,249	0.47
FNB (EMWO)	2,832,517	0.27	2,803,123	0.27	2,844,296	0.28	2,824,114	0.30
Israel Bonds	7,538,603	0.71	7,425,382	0.72	7,449,854	0.74	7,521,788	0.80
High Yield Fixed Composite	126,344,170	11.86	123,315,767	12.01	122,026,649	12.18	115,189,754	12.24
Oaktree High Yield	68,226,091	6.40	66.645.039	6.49	66,100,725	6.60	62,205,149	6.61
Federated High Yield	54,540,895	5.12	53,158,302	5.18	52,490,844	5.24	49,725,242	5.28
Sound Point	3,577,185	0.34	3,512,425	0.34	3,435,080	0.34	3,259,363	0.35
TIPS Fixed Composite	41,239,579	3.87	39,942,901	3.89	40,538,874	4.05	39,894,926	4.24
	41,200,010	5.07	39,942,901	3.89	40,538,874	4.05	39,894,926	4.24



Historical Asset Allocation Total Fund As of June 30, 2021

	Jun-20	21	Mar-20	Mar-2021 D		20	Sep-20	020
	(\$)	%	(\$)	%	(\$)	%	(\$)	%
Real Estate Composite	107,253,514	10.07	104,803,678	10.21	103,565,303	10.34	102,119,746	10.85
Morgan Stanley Prime Property Fund	76,563,491	7.19	74,490,799	7.26	73,097,605	7.30	72,035,433	7.66
Oaktree Real Estate	6,982,276	0.66	6,948,844	0.68	6,955,225	0.69	7,002,697	0.74
Washington Alliance (EMWO)	13,174,110	1.24	12,824,195	1.25	12,824,195	1.28	12,672,926	1.35
Washington Alliance II (EMWO)	1,181,352	0.11	1,236,379	0.12	1,236,379	0.12	836,723	0.09
Siguler Guff Distressed RE	9,352,285	0.88	9,303,460	0.91	9,451,899	0.94	9,571,966	1.02
ERECT Composite	10,370,488	0.97	10,215,645	1.00	9,912,474	0.99	9,851,930	1.05
ERECT Fund II	10,370,488	0.97	10,215,645	1.00	9,912,474	0.99	9,851,930	1.05
Private Equity Composite	203,107,237	19.06	193,691,775	18.87	185,755,110	18.55	183,395,139	19.49
Life Settlement Composite	14,953,680	1.40	14,978,933	1.46	24,077,840	2.40	27,514,291	2.92
Hedge Fund Composite	3,394,452	0.32	3,212,734	0.31	3,061,813	0.31	2,762,835	0.29
Gridiron Capital Multi-Asset (EMWO)	3,394,284	0.32	3,212,566	0.31	3,061,645	0.31	2,762,667	0.29
Liquid Policy Portfolio Composite	18,484,307	1.74	24,814,935	2.42	-	0.00	-	0.00
BlackRock Liquidity iShares Public Pension Fund	18,484,307	1.74	24,814,935	2.42	-	0.00	-	0.00
Cash Account	6,411,455	0.60	3,402,921	0.33	15,036,468	1.50	3,746,580	0.40



Financial Reconciliation				
	Market Value	Net Flows	Return On	Market Value
	04/01/2021		Investment	06/30/2021
Total Fund	1,026,559,068	-11,325,744	52,340,733	1,065,344,459
SSgA S&P 500 Index	104,550,326	-	8,923,000	113,473,325
Fragasso Large Core (EMWO)	6,304,002	8,903	457,558	6,761,732
Twin Capital Enhanced Equity	35,891,029	70	2,860,834	38,751,933
Earnest Small Value	16,519,815	37,311	-206,511	16,313,304
Emerald Advisors Small Cap	15,541,396	30,092	575,287	16,117,598
Emerald Advisors All Cap (EMWO)	5,790,127	9,418	697,741	6,487,868
Ethos (EMWO)	1,975,837	-	100,143	2,075,980
CIM Small Cap (EMWO)	6,084,398	10,910	132,561	6,217,573
Cookson Peirce (EMWO)	735,546	964	29,445	764,991
JS Equity Composite	193,392,476	97,669	13,570,056	206,964,304
SSgA ACWI ex US	37,847,078	-	2,107,838	39,954,917
Baillie Gifford Intl Equity	81,978,998	-	3,204,046	85,183,044
FIAM Select International Equity	41,842,836	-	2,451,729	44,294,565
Segall, Bryant & Hamill	34,604,835	57,683	2,096,157	36,700,993
Ion US Equity Composite	196,273,748	57,683	9,859,771	206,133,519
Columbus Macro (EMWO)	1,408,144	2,546	69,906	1,478,051
Global Equity Composite	1,408,144	2,546	69,906	1,478,051
C S McKee	38,446,030	19,942	795,210	39,241,240
Federated Core Broad	34,528,279	20,717	729,379	35,257,659
CIM Investment Mgmt	23,636,469	14,773	245,126	23,881,595
StoneRidge Partners (EMWO)	5,458,158	2,748	50,742	5,508,900
Gridiron Capital Fixed Income (EMWO)	4,809,185	7,969	139,999	4,949,184
FNB (EMWO)	2,803,123	2,472	29,393	2,832,517
Israel Bonds	7,425,382	3,725	113,220	7,538,603
Core Fixed w Israel Bonds Composite	117,106,627	72,346	2,103,070	119,209,697
Oaktree High Yield	66.645.039	_	1,683,226	68,226,091
Federated High Yield	53,158,302	<u>.</u>	1,382,593	54,540,895
Sound Point	3,512,425	-	64,760	3,577,185
ligh Yield Fixed Composite	123,315,767	-	3,130,578	126,344,170
MCM TIPS	39,942,901	3,091	1,296,678	41,239,579
TIPS Fixed Composite	39,942,901	3,091	1,296,678	41,239,579



Financial Reconciliation Total Fund 1 Quarter Ending June 30, 2021

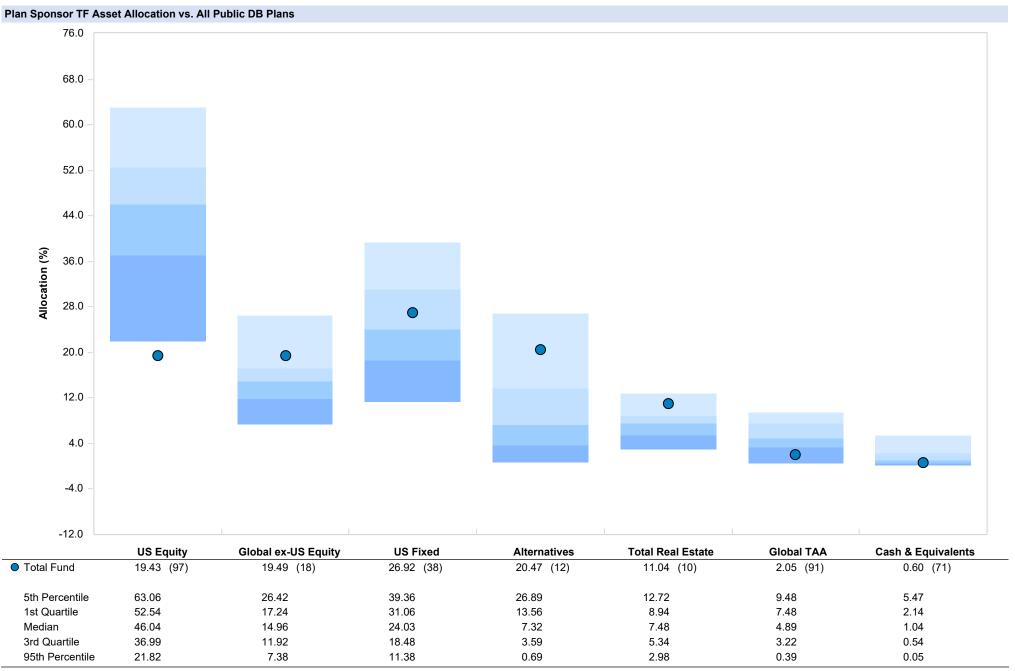
				i Quarter Enulity Julie 30, 202
	Market Value 04/01/2021	Net Flows	Return On Investment	Market Value 06/30/2021
Morgan Stanley Prime Property Fund	74,490,799	-	2,072,692	76,563,491
Oaktree Real Estate	6,948,844	-	-60,554	6,982,276
Washington Alliance (EMWO)	12,824,195	-329,268	679,184	13,174,110
Washington Alliance II (EMWO)	1,236,379	-55,028	-	1,181,352
Siguler Guff Distressed RE	9,303,460	-195,556	299,064	9,352,285
Real Estate Composite	104,803,678	-579,852	2,990,386	107,253,514
ERECT Composite	10,215,645	-	154,842	10,370,488
Private Equity Composite	193,691,775	-6,503,256	17,787,901	203,107,237
Life Settlement Composite	14,978,933	-	15,481	14,953,680
Gridiron Capital Multi-Asset (EMWO)	3,212,566	23,826	181,718	3,394,284
Maplewood (EMWO)	168	-	-	168
Hedge Fund Composite	3,212,734	23,826	181,718	3,394,452
BlackRock Liquidity iShares Public Pension Fund	24,814,935	-7,500,000	1,169,372	18,484,307
Liquid Policy Portfolio Composite	24,814,935	-7,500,000	1,169,372	18,484,307
MLP Composite	-1,215	1,220	3	8
Cash Account	3,402,921	2,998,983	10,970	6,411,455



Financial Reconciliation					
	Market Value 01/01/2021	Net Flows	Income	Return On Investment	Market Value 06/30/2021
Total Fund	1,001,478,345	-20,526,606	411.262	90,308,036	1,065,344,459
	1,001,110,010		,=0=	00,000,000	1,000,011,100
SSgA S&P 500 Index	98,460,158	5,627	-	15,013,167	113,473,325
Fragasso Large Core (EMWO)	5,996,108	17,277	-1,593	765,452	6,761,732
Twin Capital Enhanced Equity	33,584,600	30,255	-2,547	5,167,263	38,751,933
Earnest Small Value	14,500,459	68,402	-477	1,812,846	16,313,304
Emerald Advisors Small Cap	15,151,956	58,404	-49,629	964,726	16,117,598
Emerald Advisors All Cap (EMWO)	5,444,391	18,018	4,207	1,043,477	6,487,868
Ethos (EMWO)	1,823,352	-	-	252,628	2,075,980
CIM Small Cap (EMWO)	5,447,095	20,214	-850	769,864	6,217,573
Cookson Peirce (EMWO)	734,375	1,889	143	30,616	764,991
US Equity Composite	181,142,494	220,086	-50,745	25,820,038	206,964,304
SSgA ACWI ex US	36,545,346	6,738	-	3,409,570	39,954,917
Baillie Gifford Intl Equity	80,665,762	-	-	4,517,283	85,183,044
FIAM Select International Equity	40,473,954	-	-	3,820,611	44,294,565
Segall, Bryant & Hamill	31,950,784	110,806	518,797	4,750,208	36,700,993
Non US Equity Composite	189,635,847	117,544	518,797	16,497,672	206,133,519
Columbus Macro (EMWO)	1,363,614	5,092	53	114,437	1,478,051
Global Equity Composite	1,363,614	5,092	53	114,437	1,478,051
0.0.11/2	04 000 574	5 0 4 0 0 4 0	50.000	444.004	00.044.040
C S McKee	34,682,571	5,042,049	-56,862	-441,331	39,241,240
Federated Core Broad	30,268,451	5,041,111	2,385	-10,792	35,257,659
CIM Investment Mgmt	13,950,130	10,023,492	16,325	-68,535	23,881,595
StoneRidge Partners (EMWO)	5,557,249	5,520	-1,349	-48,349	5,508,900
Gridiron Capital Fixed Income (EMWO)	4,746,562	15,758	476	202,622	4,949,184
FNB (EMWO)	2,844,296	4,948	-	-11,779	2,832,517
Israel Bonds	7,449,854	7,432	-	88,748	7,538,603
Core Fixed w Israel Bonds Composite	99,499,112	20,140,309	-39,025	-289,415	119,209,697
Oaktree High Yield	66,100,725	-	-	2,318,274	68,226,091
Federated High Yield	52,490,844	-	-	2,050,051	54,540,895
Sound Point	3,435,080	-	-	142,105	3,577,185
High Yield Fixed Composite	122,026,649	-	-	4,510,430	126,344,170
MCM TIPS	40,538,874	6,773		700.705	41,239,579
	40,538,874 40,538,874	6,773	-	700,705 700,705	
TIPS Fixed Composite	40,000,074	0,//3	-	100,105	41,239,579



	Market Value 01/01/2021	Net Flows	Income	Return On Investment	Market Value 06/30/2021
Morgan Stanley Prime Property Fund	73,097,605	-	-	3,465,886	76,563,491
Oaktree Real Estate	6,955,225	-	-	145,804	6,982,276
Washington Alliance (EMWO)	12,824,195	-329,268	-	679,184	13,174,110
Washington Alliance II (EMWO)	1,236,379	-55,028	-	-	1,181,352
Siguler Guff Distressed RE	9,451,899	-343,995	-	299,064	9,352,285
Real Estate Composite	103,565,303	-728,291	-	4,589,938	107,253,514
ERECT Composite	9,912,474	-	-	458,013	10,370,488
Private Equity Composite	185,755,110	-10,869,613	-	33,195,468	203,107,237
Life Settlement Composite	24,077,840	-9,398,680	-	315,254	14,953,680
Gridiron Capital Multi-Asset (EMWO)	3,061,645	44,231	-670	332,639	3,394,284
Maplewood (EMWO)	168	-	-	_	168
Hedge Fund Composite	3,061,813	44,231	-670	332,639	3,394,452
BlackRock Liquidity iShares Public Pension Fund	-	16,796,155	-	1,688,152	18,484,307
Liquid Policy Portfolio Composite	-	16,796,151	-	1,688,156	18,484,307
MLP Composite	25,862,747	-28,219,932	-17,149	2,357,192	8
Cash Account	15,036,468	-8,640,277	-	17,508	6,411,455





	Allocatio	n	Performance(%)									
	Market Value \$	%	мтн	QTR	YTD	1 YR	3 YR	5 YR	Inception	Inceptio Date		
Fotal Fund	1,065,344,459	100.0	1.53	4.91	8.51	21.87	9.34	9.70	7.67	12/1993		
Total Fund Policy Index			1.88	5.44	9.28	22.76	10.31	9.55	7.81			
JS Equity Composite	206,964,304	19.4	1.83	6.97	14.13	42.41	17.30	17.37	9.76	11/1993		
Wilshire 5000 Total Market TR Index			2.51	8.42	15.45	44.24	18.89	17.96	10.51			
Ion US Equity Composite	206,133,519	19.3	-0.49	5.02	8.67	37.08	10.82	12.76	6.05	01/2001		
Non US Equity Policy Index			-0.65	5.48	9.34	36.88	9.35	11.15	4.96			
Global Equity Composite	1,478,051	0.1	1.21	4.78	8.01	31.11	9.21	9.71	7.05	12/2014		
MSCI AC World Index (Net)			1.32	7.39	12.30	39.26	14.57	14.61	10.39			
Core Fixed w Israel Bonds Composite*	119,209,697	11.2	0.57	1.73	-0.66	1.65	5.72	3.45	6.91	01/1983		
Blmbg. Barc. U.S. Aggregate Index	-,,		0.70	1.83	-1.61	-0.34	5.34	3.03	6.94			
ligh Yield Fixed Composite	126,344,170	11.9	1.17	2.46	3.54	14.70	6.51	6.62	6.99	04/2008		
FTSE High Yield Market Capped Index			1.23	2.59	3.55	15.49	6.73	6.98	7.39			
IPS Fixed Composite	41,239,579	3.9	0.60	3.25	1.72	6.49	6.54	4.59	3.78	04/2008		
Bloomberg Barclays U.S. TIPS Index			0.61	3.25	1.73	6.51	6.53	4.17	3.74			
eal Estate Composite	107,253,514	10.1	2.86	2.89	4.27	7.52	5.41	7.55	8.48	04/200		
NCREIF Fund Index-ODCE (VW) (Net)			3.72	3.72	5.68	7.13	4.61	5.63	6.87			
RECT Composite	10,370,488	1.0	1.52	1.52	4.62	6.71	8.28	6.48	6.88	09/2010		
CPI - All Urban Consumers (SA)			0.90	2.34	3.60	5.32	2.56	2.44	2.03			
otal Private Equity w Life Settlement Composite*	218,060,917	20.5	3.59	7.72	14.67	24.50	13.84	12.47	7.56	04/2003		
Total Private Equity Policy Index			4.02	8.68	16.27	26.23	14.37	12.78	7.64			
ledge Fund Composite	3,394,452	0.3	0.81	4.91	9.39	26.00	6.17	3.82	2.67	04/2003		
90 Day T-Bill Index + 3%			0.24	0.74	1.51	3.10	4.38	4.20	4.29			
iquid Policy Portfolio Composite	18,484,307	1.7	0.69	5.22	N/A	N/A	N/A	N/A	7.24	03/202 [,]		
Liquid Policy Benchmark			0.84	5.36	N/A	N/A	N/A	N/A	7.45			
Cash Account	6,411,455	0.6	0.07	0.23	0.34	0.44	1.46	1.25	0.75	01/2012		
90 Day U.S. Treasury Bill			0.00	0.00	0.02	0.09	1.34	1.16	0.64			

* All returns prior to March 2021 are from the original Core Fixed Composite and the Private Equity Composite, respectively. All returns from March 2021 and forward are from the composites inclusive of the Israel Bonds and Life Settlement funds, respectively.



Asset Allocation & Performance Total Fund As of June 30, 2021

Asset Allocation & Performance	.					- <i>í</i>	(0/)		
	Allocatio	n				Performa	nce(%)		
	Market Value \$	%	QTR	YTD	1 YR	3 YR	5 YR	Inception	Inception Date
Fotal Fund	1,065,344,459	100.0	4.91	8.51	21.87	9.34	9.70	7.67	12/1993
Total Fund Policy Index			5.44	9.28	22.76	10.31	9.55	7.81	
JS Equity Composite	206,964,304	19.4	6.97	14.13	42.41	17.30	17.37	9.76	11/1993
Wilshire 5000 Total Market TR Index			8.42	15.45	44.24	18.89	17.96	10.51	
SSgA S&P 500 Index	113,473,325	10.7	8.53	15.24	40.89	18.73	17.69	10.07	11/2007
S&P 500 Index			8.55	15.25	40.79	18.67	17.65	10.02	
Fragasso Large Core (EMWO)	6,761,732	0.6	7.12	12.46	37.38	17.51	16.11	13.80	09/2012
S&P 500 Index			8.55	15.25	40.79	18.67	17.65	15.78	
Twin Capital Enhanced Equity	38,751,933	3.6	7.97	15.29	39.10	16.84	16.34	10.26	01/2006
S&P 500 Index			8.55	15.25	40.79	18.67	17.65	10.56	
Earnest Small Value	16,313,304	1.5	-1.48	12.02	51.18	11.52	14.91	14.50	06/2009
Russell 2000 Value Index			4.56	26.69	73.28	10.27	13.62	13.44	
Emerald Advisors Small Cap	16,117,598	1.5	3.51	5.98	46.68	16.03	19.61	12.39	11/2004
Russell 2000 Growth Index			3.92	8.98	51.36	15.94	18.76	11.18	
Emerald Advisors All Cap (EMWO)	6,487,868	0.6	11.89	18.82	60.19	27.90	27.97	22.28	10/2015
Russell 3000 Growth Index			11.38	12.71	42.99	24.47	23.31	21.66	
Ethos (EMWO)	2,075,980	0.2	5.07	13.86	46.52	19.99	N/A	18.60	08/2016
S&P 500 Index			8.55	15.25	40.79	18.67	17.65	17.10	
CIM Small Cap (EMWO)	6,217,573	0.6	2.01	13.77	52.43	9.53	13.55	8.74	01/2014
Russell 2000 Index			4.29	17.54	62.03	13.52	16.47	11.06	
Cookson Peirce (EMWO)	764,991	0.1	3.87	3.91	21.31	N/A	N/A	18.29	12/2018
Russell 3000 Index			8.24	15.11	44.16	18.73	17.89	21.49	
Ion US Equity Composite	206,133,519	19.3	5.02	8.67	37.08	10.82	12.76	6.05	01/2001
Non US Equity Policy Index			5.48	9.34	36.88	9.35	11.15	4.96	
SSgA ACWI ex US	39,954,917	3.8	5.57	9.31	36.27	9.85	11.27	6.62	05/2015
MSCI AC World ex USA (Net)			5.48	9.16	35.72	9.38	11.08	6.24	
Baillie Gifford Intl Equity	85,183,044	8.0	3.91	5.60	34.32	14.98	16.16	10.91	08/2009
MSCI AC World ex USA (Net)			5.48	9.16	35.72	9.38	11.08	6.91	



	Allocation	ı				Performa	nce(%)		
	Market Value \$	%	QTR	YTD	1 YR	3 YR	5 YR	Inception	Inception Date
FIAM Select International Equity	44,294,565	4.2	5.86	9.44	37.29	11.43	11.54	5.46	01/2001
FIAM Policy Index			5.48	9.16	35.72	9.38	11.08	4.88	
Segall, Bryant & Hamill	36,700,993	3.4	5.89	14.51	43.13	1.89	7.75	5.33	05/2015
MSCI EAFE Small Cap (net) Index			4.34	9.04	40.98	8.40	12.03	8.94	
Global Equity Composite	1,478,051	0.1	4.78	8.01	31.11	9.21	9.71	7.05	12/2014
MSCI AC World Index (Net)			7.39	12.30	39.26	14.57	14.61	10.39	
Columbus Macro (EMWO)	1,478,051	0.1	4.78	8.01	31.11	9.21	9.71	7.05	12/2014
MSCI AC World Index (Net)			7.39	12.30	39.26	14.57	14.61	10.39	
Core Fixed w Israel Bonds Composite*	119,209,697	11.2	1.73	-0.66	1.65	5.72	3.45	6.91	01/1983
Blmbg. Barc. U.S. Aggregate Index			1.83	-1.61	-0.34	5.34	3.03	6.94	
С Ѕ МсКее	39,241,240	3.7	2.02	-1.19	0.42	5.71	3.35	7.30	01/1983
Blmbg. Barc. U.S. Aggregate Index			1.83	-1.61	-0.34	5.34	3.03	6.94	
Federated Core Broad	35,257,659	3.3	2.05	-0.35	2.70	6.98	4.49	5.11	09/2006
Blmbg. Barc. U.S. Aggregate Index			1.83	-1.61	-0.34	5.34	3.03	4.28	
CIM Investment Mgmt	23,881,595	2.2	0.97	-0.95	0.01	4.35	2.38	3.36	11/2005
Bloomberg Barclays Intermediate US Govt/Credit Idx			0.98	-0.90	0.19	4.70	2.63	3.75	
StoneRidge Partners (EMWO)	5,508,900	0.5	0.88	-0.97	-1.08	3.39	2.28	2.51	08/2015
StoneRidge Policy Index			1.18	-0.77	0.88	5.07	2.97	3.22	
Gridiron Capital Fixed Income (EMWO)	4,949,184	0.5	2.75	3.93	14.76	6.98	N/A	4.77	02/2017
Blmbg. Barc. U.S. Aggregate Index			1.83	-1.61	-0.34	5.34	3.03	3.99	
FNB (EMWO)	2,832,517	0.3	0.96	-0.59	0.91	4.50	N/A	3.08	07/2017
Bloomberg Barclays Intermed Aggregate Index			0.78	-0.84	0.05	4.41	2.53	3.21	
Israel Bonds	7,538,603	0.7	1.47	1.09	2.34	3.12	2.05	2.87	01/2012
High Yield Fixed Composite	126,344,170	11.9	2.46	3.54	14.70	6.51	6.62	6.99	04/2008
FTSE High Yield Market Capped Index			2.59	3.55	15.49	6.73	6.98	7.39	
Daktree High Yield	68,226,091	6.4	2.37	3.22	14.75	5.55	5.72	6.61	04/2008
FTSE High Yield Market Capped Index			2.59	3.55	15.49	6.73	6.98	7.39	
Federated High Yield	54,540,895	5.1	2.60	3.91	14.63	7.94	N/A	6.39	07/2017
Blmbg. Barc. U.S. High Yield - 2% Issuer Cap			2.74	3.61	15.34	7.42	7.47	6.20	

* All returns prior to March 2021 are from the original Core Fixed Composite. All returns March 2021 and forward are from the composite inclusive of the Israel Bonds.

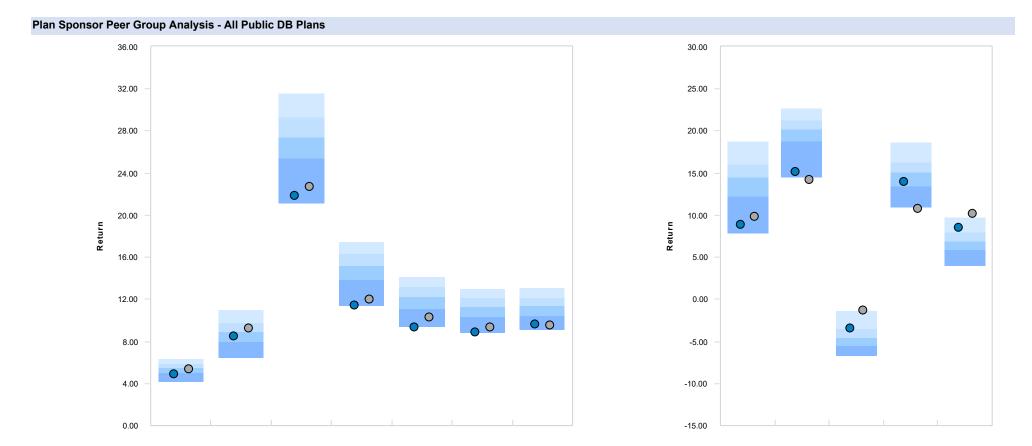


Asset Allocation & Performance Total Fund

As of June 30, 2021

	Allocation	า				Performa	ince(%)		
	Market Value \$	%	QTR	YTD	1 YR	3 YR	5 YR	Inception	Inceptior Date
Sound Point	3,577,185	0.3	1.84	4.14	14.85	3.99	4.98	4.63	08/2013
Credit Suisse Leveraged Loan Index			1.45	3.49	11.67	4.36	5.04	4.21	
TIPS Fixed Composite	41,239,579	3.9	3.25	1.72	6.49	6.54	4.59	3.78	04/2008
Bloomberg Barclays U.S. TIPS Index			3.25	1.73	6.51	6.53	4.17	3.74	
MCM TIPS	41,239,579	3.9	3.24	1.71	6.48	6.54	N/A	5.09	12/2016
Bloomberg Barclays U.S. TIPS Index			3.25	1.73	6.51	6.53	4.17	4.88	
Real Estate Composite	107,253,514	10.1	2.89	4.27	7.52	5.41	7.55	8.48	04/2003
NCREIF Fund Index-ODCE (VW) (Net)			3.72	5.68	7.13	4.61	5.63	6.87	
Morgan Stanley Prime Property Fund	76,563,491	7.2	2.78	4.74	7.42	5.39	6.72	8.38	04/2003
NCREIF Fund Index-ODCE (VW) (Net)			3.72	5.68	7.13	4.61	5.63	6.87	
Oaktree Real Estate	6,982,276	0.7	0.48	0.39	0.03	1.19	2.87	4.52	08/2013
Washington Alliance (EMWO)	13,174,110	1.2	5.31	5.31	17.84	8.40	16.00	13.13	08/2013
Washington Alliance II (EMWO)	1,181,352	0.1	0.00	0.00	0.00	N/A	N/A	0.00	03/2020
Siguler Guff Distressed RE	9,352,285	0.9	2.65	2.65	2.03	4.73	9.79	6.69	03/2014
ERECT Composite	10,370,488	1.0	1.52	4.62	6.71	8.28	6.48	6.88	09/2010
CPI - All Urban Consumers (SA)			2.34	3.60	5.32	2.56	2.44	2.03	
Private Equity Composite	203,107,237	19.1	8.33	15.63	25.54	14.16	12.66	7.61	04/2003
Private Equity Policy Index			8.33	15.63	25.54	14.16	12.66	7.61	
Life Settlement Composite	14,953,680	1.4	-0.17	1.80	-9.58	-4.32	-4.95	5.64	09/2009
Hedge Fund Composite	3,394,452	0.3	4.91	9.39	26.00	6.17	3.82	2.67	04/2003
90 Day T-Bill Index + 3%			0.74	1.51	3.10	4.38	4.20	4.29	
Gridiron Capital Multi-Asset (EMWO)	3,394,284	0.3	4.91	9.39	26.13	N/A	N/A	11.60	02/2019
HFRI FoF Composite Lagged			2.80	4.87	18.20	6.29	6.11	8.90	
Liquid Policy Portfolio Composite	18,484,307	1.7	5.22	N/A	N/A	N/A	N/A	7.24	03/2021
Liquid Policy Benchmark			5.36	N/A	N/A	N/A	N/A	7.45	
BlackRock Liquidity iShares Public Pension Fund	18,484,307	1.7	5.33	N/A	N/A	N/A	N/A	5.33	04/2021
Liquid Policy Benchmark			5.36	N/A	N/A	N/A	N/A	5.36	
Cash Account	6,411,455	0.6	0.23	0.34	0.44	1.46	1.25	0.75	01/2012

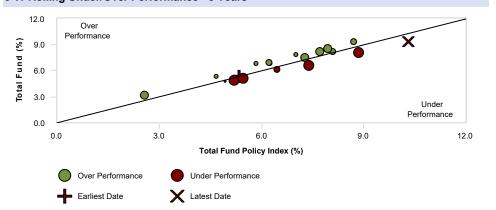




	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR		2020	2019	2018	2017	2016
Total Fund	4.91 (81)	8.51 (61)	21.87 (93)	11.45 (95)	9.34 (95)	8.91 (95)	9.70 (91)	Total Fund	8.93 (93) 15.16 (94)	-3.36 (24)	13.97 (69)	8.60 (16)
Total Fund Policy Index	5.44 (53)	9.28 (39)	22.76 (91)	12.04 (92)	10.31 (89)	9.34 (91)	9.55 (93)	Total Fund Policy Index	9.82 (90) 14.24 (96)	-1.27 (5)	10.82 (96)	10.27 (3)
Median	5.47	8.89	27.36	15.15	12.20	11.26	11.41	Median	14.45	20.12	-4.52	15.10	6.88
Comparative Performan	се												
		1 Qtr Ending		1 Qtr Ending			Qtr ding	1 Qtr Ending		1 Qtr Ending			Qtr ding
		/ar-2021		Dec-2020			-2020	Jun-2020		Mar-2020			-2019
Total Fund	3	.44		7.76		4.22		8.29		-10.44		4.38	
Total Fund Policy Index	3.	.65		8.87		3.18		9.67	-	10.86		3.83	
Total Fund Policy Index	3.	.65		8.87		3.18		9.67	-	10.86		3.83	
Total Fund Policy Index	3.	.65		8.87		3.18		9.67	-	10.86		3.83	

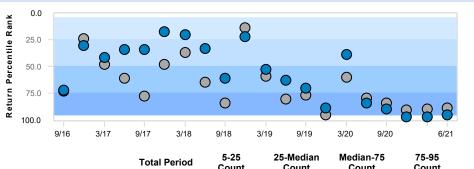


Performance Review Total Fund As of June 30, 2021



3 Yr Rolling Under/Over Performance - 5 Years

3 Yr Rolling Percentile Ranking - 5 Years

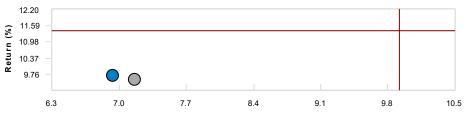


	Total Period	Count	Count	Count	Count	
Total Fund	20	3 (15%)	6 (30%)	5 (25%)	6 (30%)	
Total Fund Policy Index	20	2 (10%)	3 (15%)	5 (25%)	10 (50%)	

Peer Group Scattergram - 3 Years



Peer Group Scattergram - 5 Years



Risk (Standard Deviation %)

	Return	Standard Deviation		Return	Standard Deviation
Total Fund	9.34	8.57	Total Fund	9.70	6.93
Total Fund Policy Index	10.31	8.97	Total Fund Policy Index	9.55	7.16
Median	12.20	12.28	Median	11.42	9.92

Historical Statistics - 3 Years

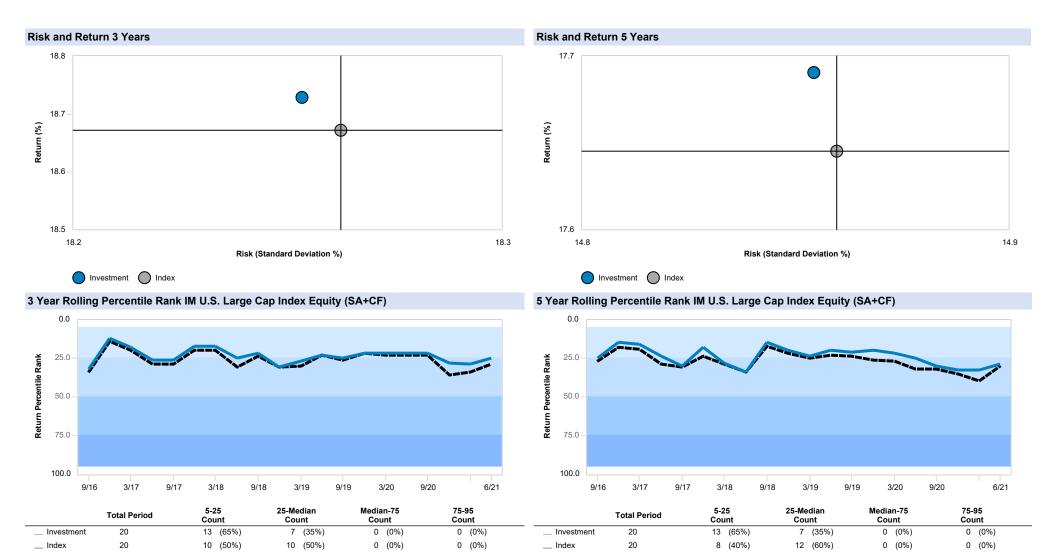
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.56	96.54	104.80	-0.33	-0.60	0.92	0.94	5.76
Total Fund Policy Index	0.00	100.00	100.00	0.00	N/A	0.98	1.00	5.73

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Fund	1.42	103.00	106.59	0.60	0.08	1.19	0.95	4.60
Total Fund Policy Index	0.00	100.00	100.00	0.00	N/A	1.13	1.00	4.54



Historical Statistics 3 Years							Historical Statistics 5 Years								
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	18.73	18.25	0.96	100.05	10	99.84	2	Investment	17.69	14.85	1.09	100.07	17	99.85	3
Index	18.67	18.26	0.96	100.00	10	100.00	2	Index	17.65	14.86	1.09	100.00	17	100.00	3



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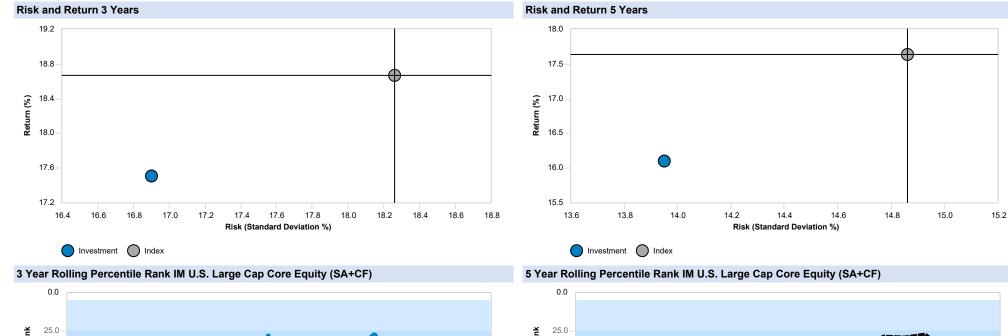
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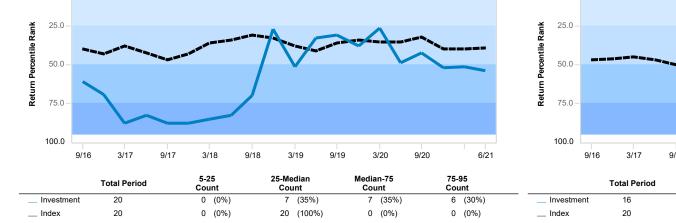
Strategy Review SSgA S&P 500 Index | S&P 500 Index As of June 30, 2021

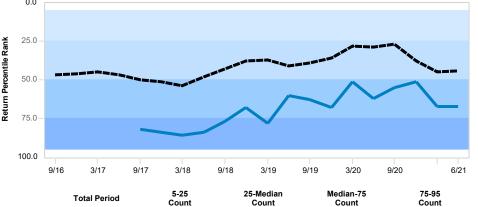




Historical Statistic	s 3 Years						Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters	
Investment	17.51	16.90	0.96	92.66	10	91.76	2	Investment	16.11	13.95	1.06	93.10	17	95.22	3	
Index	18.67	18.26	0.96	100.00	10	100.00	2	Index	17.65	14.86	1.09	100.00	17	100.00	3	







0 (0%)

18 (90%)

10 (63%)

2 (10%)

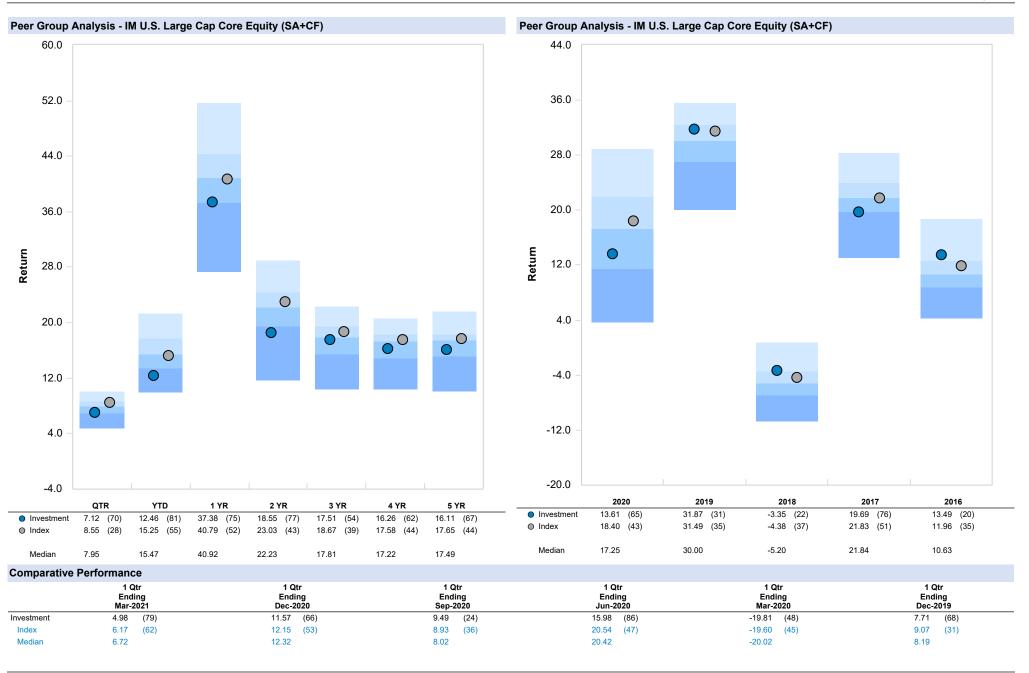
0 (0%)

0 (0%)



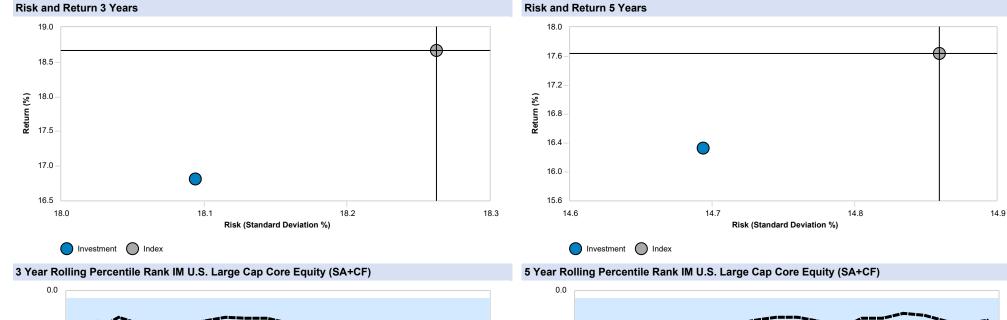
6 (38%)

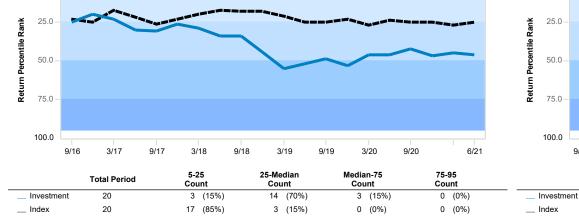
0 (0%)

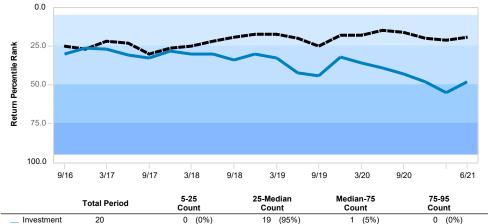




Historical Statistic	s 3 Years						Historical Statistics 5 Years										
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		
Investment	16.81	18.09	0.88	95.80	10	100.64	2	Investment	16.32	14.69	1.02	96.04	17	100.00	3		
Index	18.67	18.26	0.96	100.00	10	100.00	2	Index	17.65	14.86	1.09	100.00	17	100.00	3		







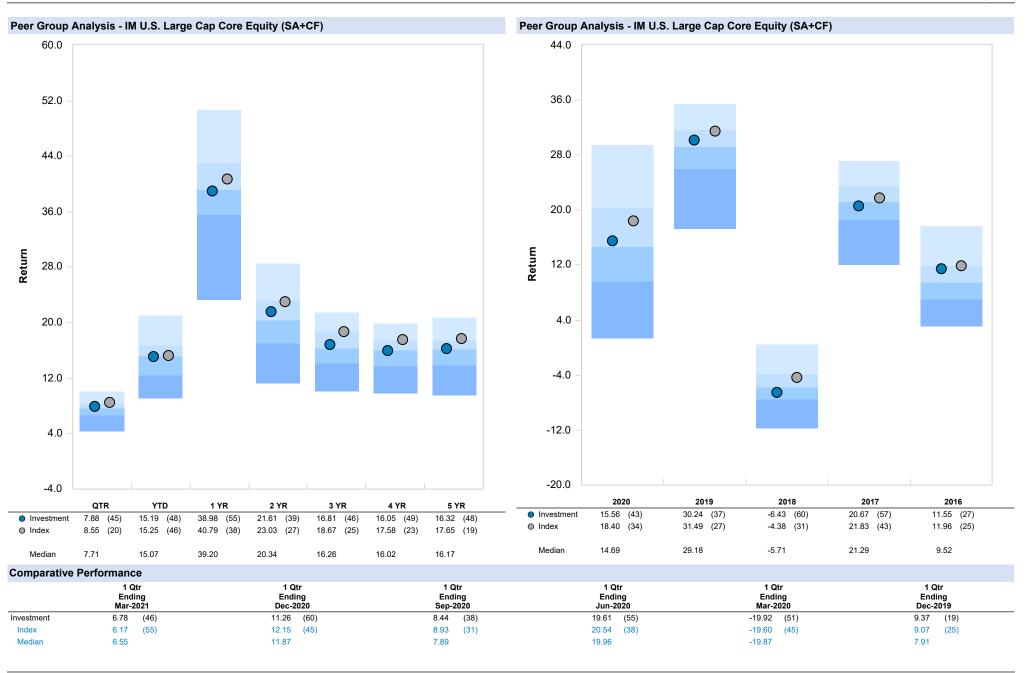
3 (15%)

0 (0%)

17 (85%)

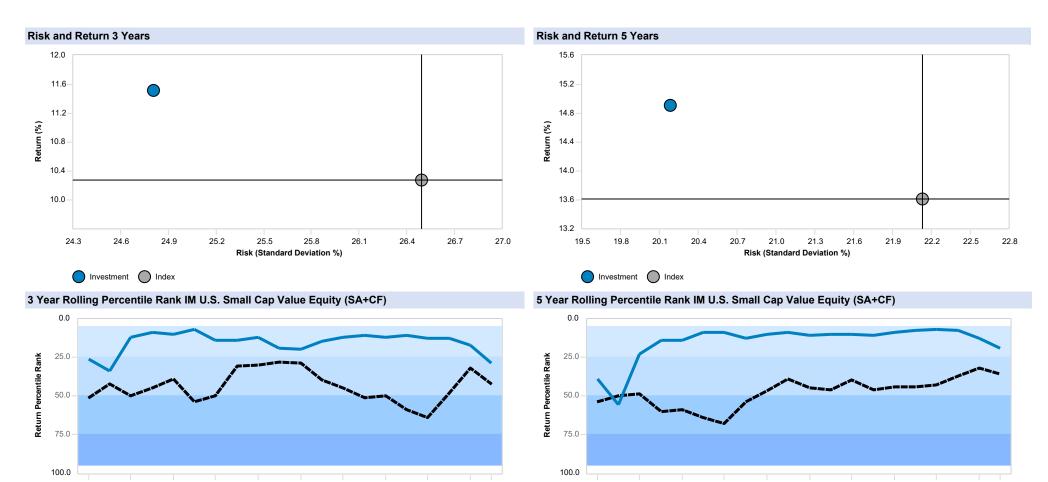
20

0 (0%)





Historical Statistic	s 3 Years							Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		
Investment	11.52	24.81	0.51	96.67	9	93.00	3	Investment	14.91	20.19	0.73	92.48	16	83.47	4		
Index	10.27	26.49	0.46	100.00	9	100.00	3	Index	13.62	22.13	0.64	100.00	15	100.00	5		



9/16	6 3/17	9/17	3/18	9/18	3/19	9/19	3/20	9/20	6/21		9/16	3/17	9/17	3/18	9/18	3/19	9/19	3/20	9/20	6/21	
	Total Period		5-25 Count		25-Median Count		Median-75 Count		75-95 Count		٦	Total Period		5-25 Count		25-Median Count		Median-75 Count		75-95 Count	
Investment	20		17 (85%)		3 (15%)		0 (0%)		0 (0%)	Investmer	ıt	20		18 (90%)		1 (5%)		1 (5%)		0 (0%)	
Index	20		0 (0%)		15 (75%)		5 (25%)		0 (0%)	Index		20		0 (0%)		14 (70%)	6 (30%)		0 (0%)	



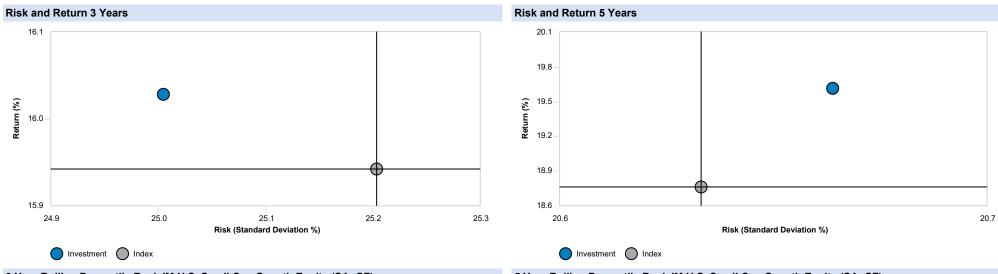


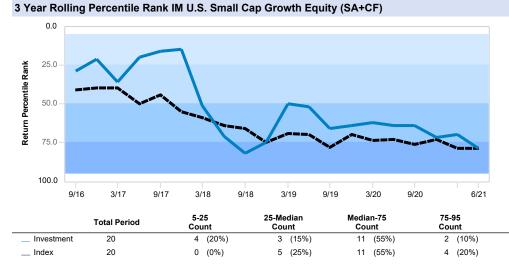


Strategy Review Emerald Advisors Small Cap | Russell 2000 Growth Index

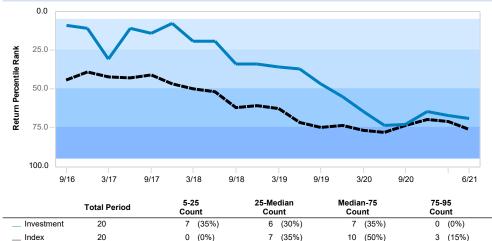
As of June 30, 2021

Historical Statistic	Historical Statistics 3 Years									Historical Statistics 5 Years									
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters				
Investment	16.03	25.01	0.67	99.07	9	98.32	3	Investment	19.61	20.66	0.92	99.76	16	95.27	4				
Index	15.94	25.20	0.66	100.00	9	100.00	3	Index	18.76	20.63	0.88	100.00	17	100.00	3				





5 Year Rolling Percentile Rank IM U.S. Small Cap Growth Equity (SA+CF)



Strategy Review Emerald Advisors Small Cap | Russell 2000 Growth Index As of June 30, 2021

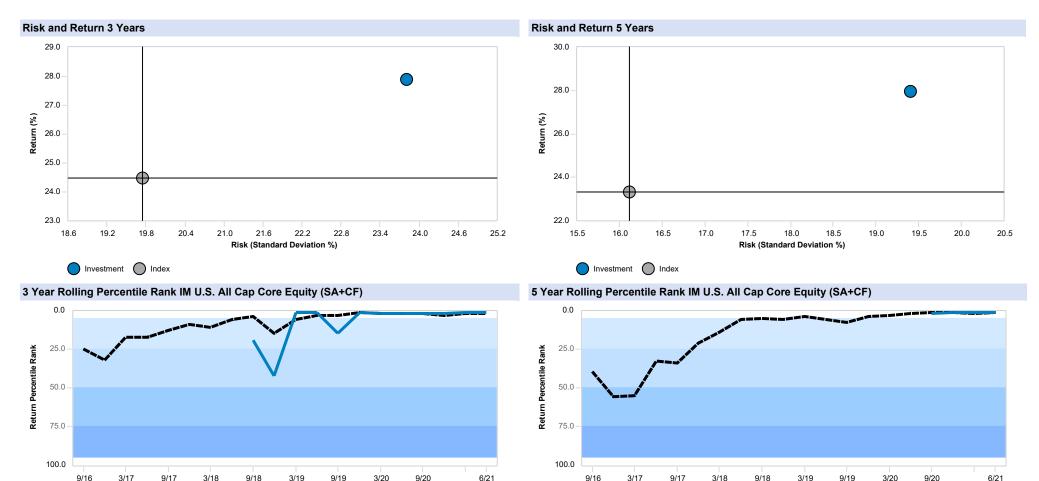




Strategy Review Emerald Advisors All Cap (EMWO) | Russell 3000 Growth Index

As of June 30, 2021

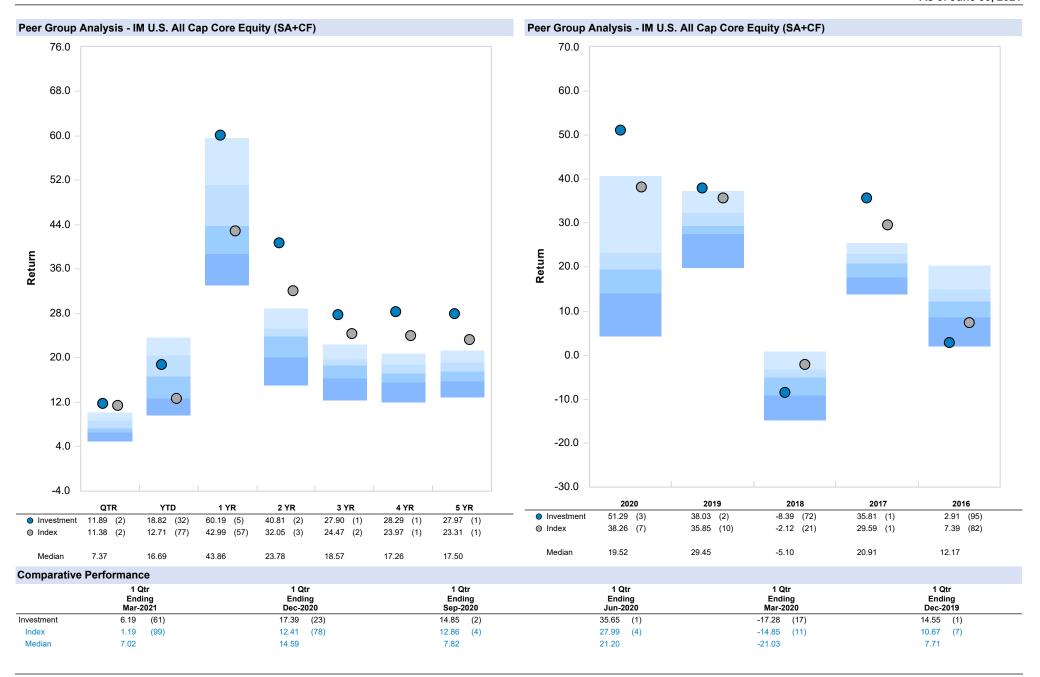
Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	27.90	23.81	1.10	113.07	9	110.14	3	Investment	27.97	19.40	1.31	116.03	17	109.70	3
Index	24.47	19.74	1.14	100.00	10	100.00	2	Index	23.31	16.11	1.31	100.00	18	100.00	2



	0/10	0/10 0/10 0	0,10	0/10	0/20	0/10	0/11	0/10 0/10	0,10	0/10 0/20 0	0/21
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investmen	t 12	11 (92%)	1 (8%)	0 (0%)	0 (0%)	Investment	4	4 (100%)	0 (0%)	0 (0%)	0 (0%)
Index	20	19 (95%)	1 (5%)	0 (0%)	0 (0%)	Index	20	15 (75%)	3 (15%)	2 (10%)	0 (0%)

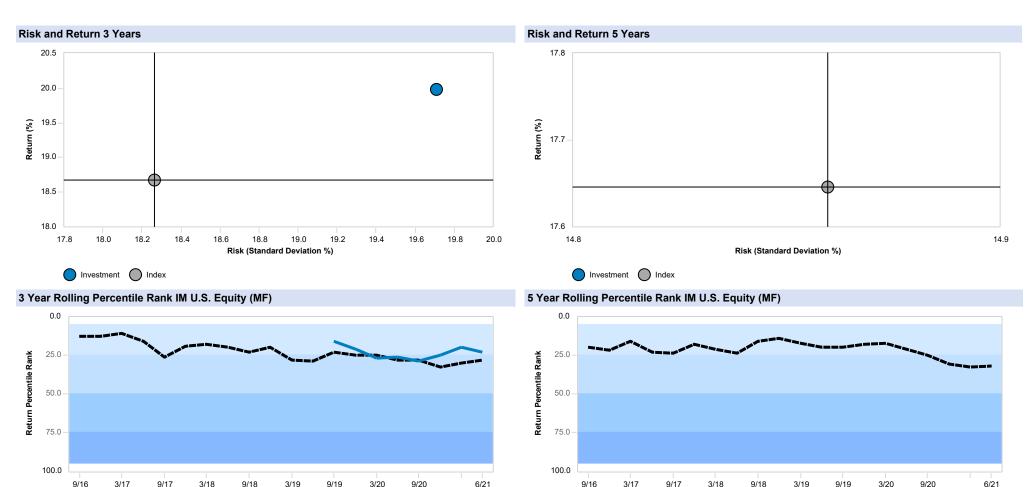


Strategy Review Emerald Advisors All Cap (EMWO) | Russell 3000 Growth Index As of June 30, 2021





Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	19.99	19.71	0.96	102.09	10	96.27	2	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	18.67	18.26	0.96	100.00	10	100.00	2	Index	17.65	14.86	1.09	100.00	17	100.00	3

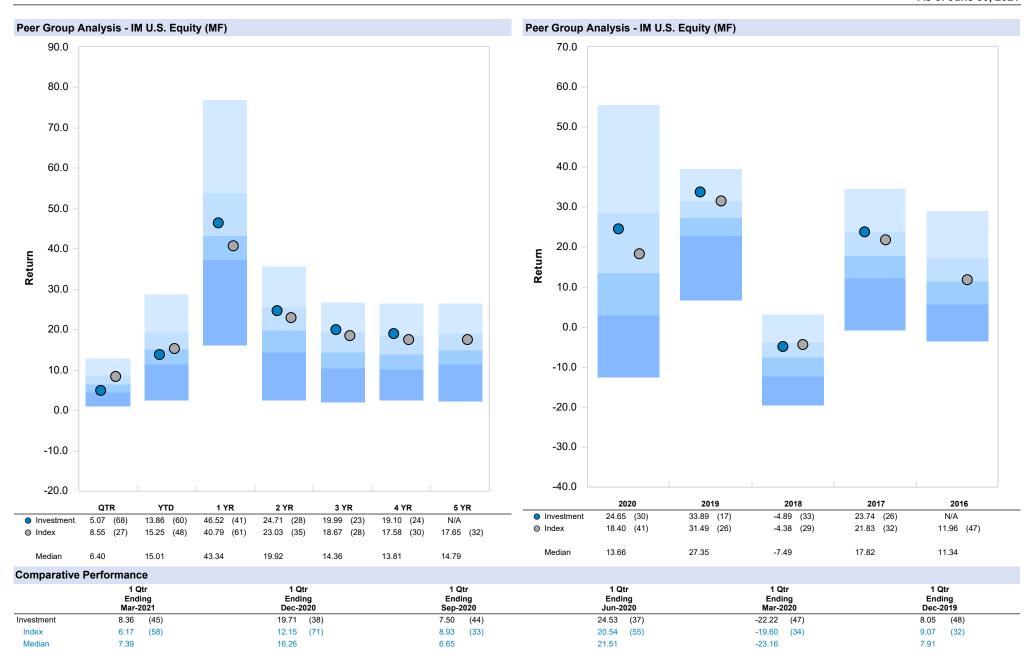


	3/10 3/17	9/17 3/10	5/10 5/19	5/15 5/20	9/20 0/21	5/10	5 5/17	5/17 5/10	3/10 3/13	5/15 5/20	9/20 0/21
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investme	ent 8	5 (63%)	3 (38%)	0 (0%)	0 (0%)	Investment	0	0	0	0	0
Index	20	12 (60%)	8 (40%)	0 (0%)	0 (0%)	Index	20	17 (85%)	3 (15%)	0 (0%)	0 (0%)



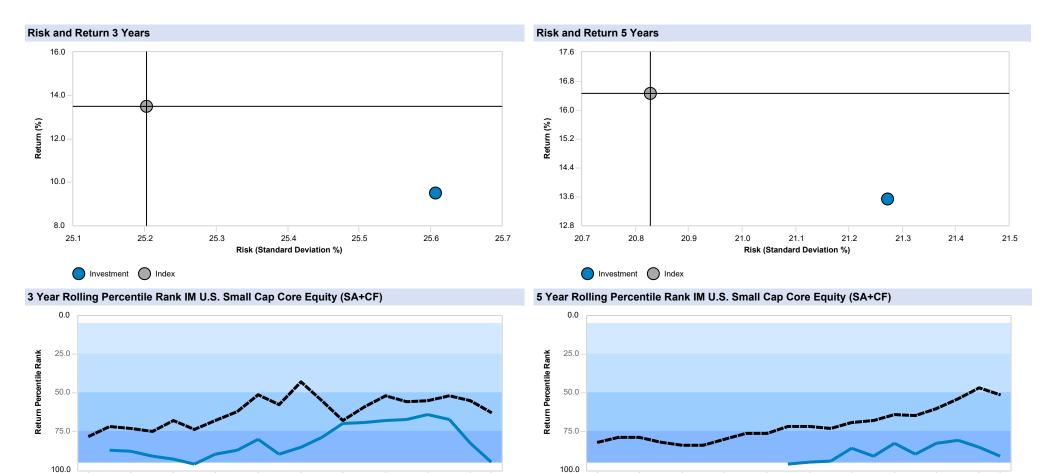


Strategy Review Ethos (EMWO) | S&P 500 Index As of June 30, 2021



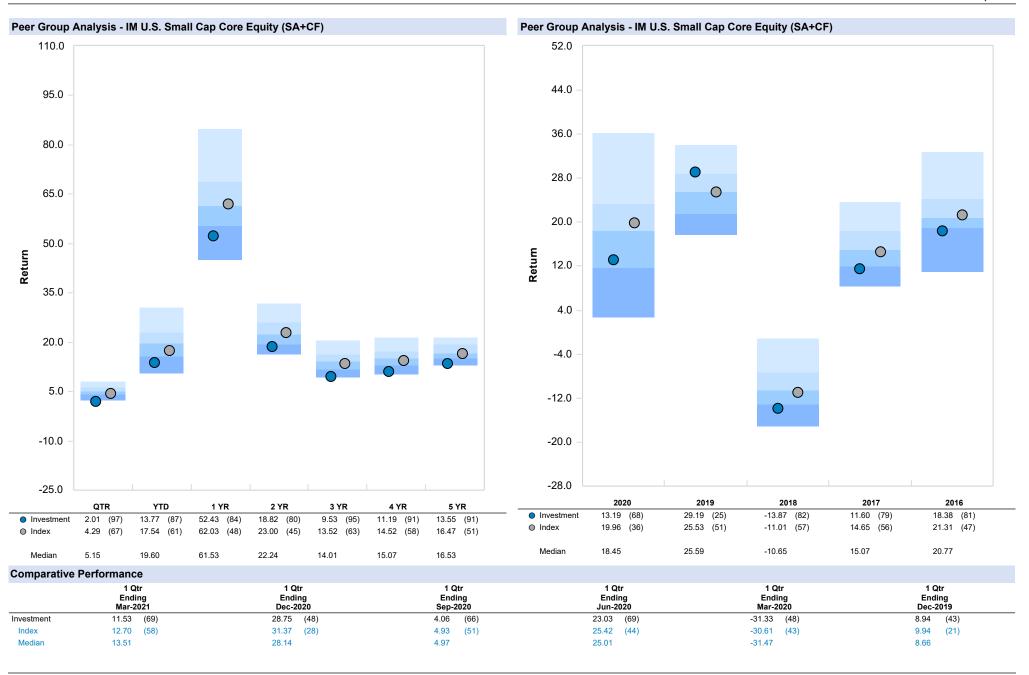


Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.53	25.61	0.43	95.10	10	105.68	2	Investment	13.55	21.27	0.65	96.54	18	106.95	2
Index	13.52	25.20	0.58	100.00	9	100.00	3	Index	16.47	20.83	0.78	100.00	16	100.00	4



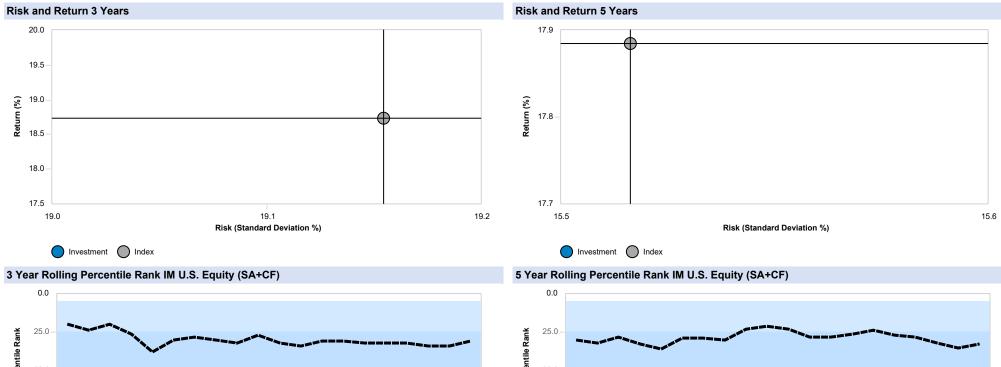
9/16 3/17 9/17 3/18 9/18 3/19 9/19 3/20 9/20 6/21 9/16 3/17 9/17 3/18 9/18 3/19 9/19 3/20 9/20 6/21 5-25 25-Median Median-75 75-95 5-25 25-Median Median-75 75-95 Total Period **Total Period** Count Count Count Count Count Count Count Count 11 (100%) 19 0 (0%) 0 (0%) 6 (32%) 13 (68%) 11 0 (0%) 0 (0%) 0 (0%) Investment Investment 20 20 9 (45%) 0 (0%) 1 (5%) 18 (90%) 1 (5%) 0 (0%) 1 (5%) 10 (50%) __ Index __ Index

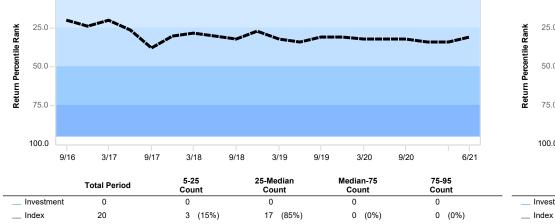


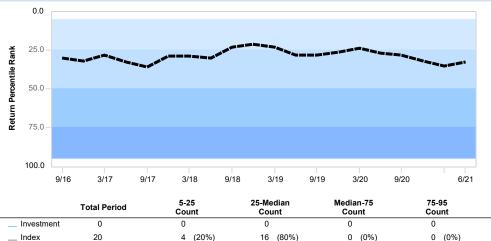




Historical Statistics	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	18.73	19.15	0.92	100.00	10	100.00	2	Index	17.89	15.52	1.06	100.00	17	100.00	3







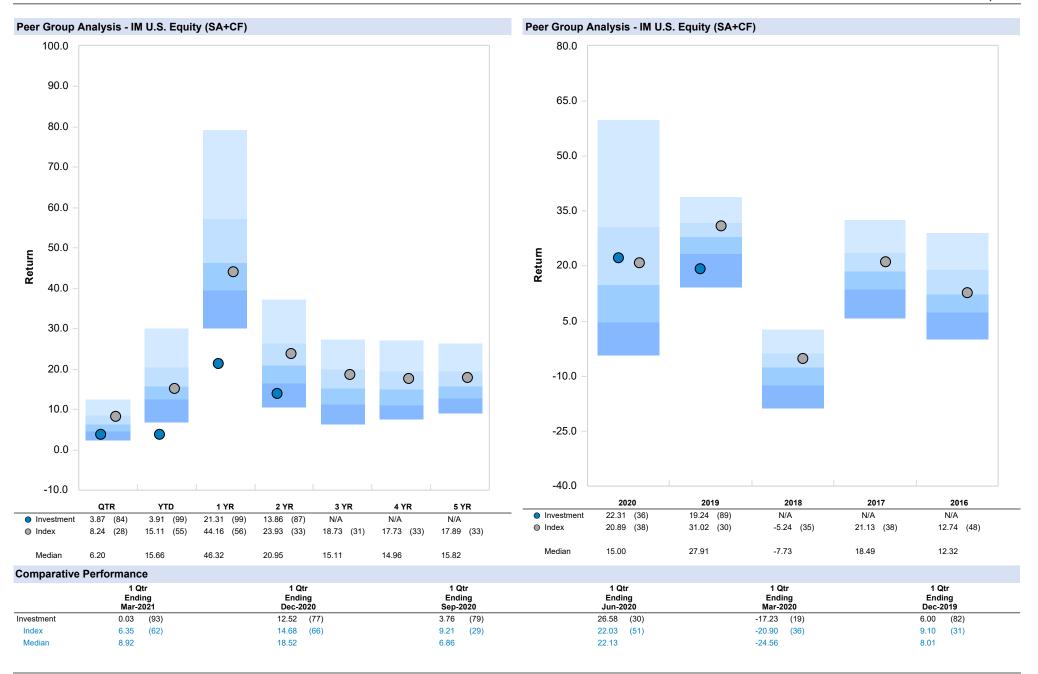
4 (20%)

16 (80%)

0 (0%)



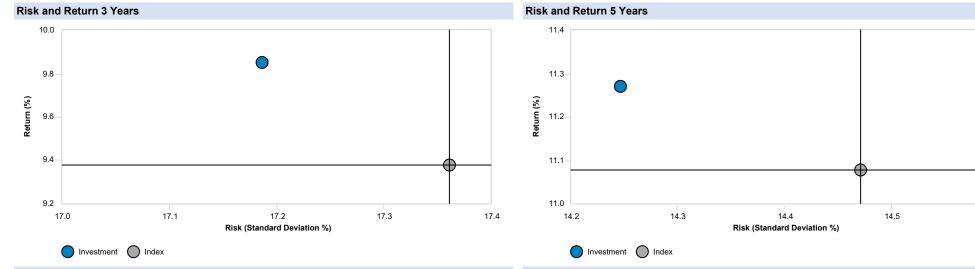
0 (0%)



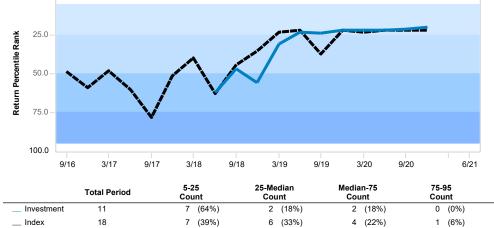


Strategy Review SSgA ACWI ex US | MSCI AC World ex USA (Net) As of June 30, 2021

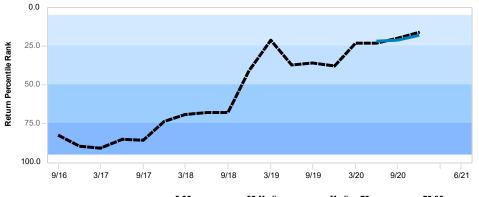
Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.85	17.19	0.55	99.66	9	97.25	3	Investment	11.27	14.25	0.74	98.18	14	95.62	6
Index	9.38	17.36	0.53	100.00	9	100.00	3	Index	11.08	14.47	0.72	100.00	14	100.00	6







5 Year Rolling Percentile Rank IM Enhanced and Indexed International Equity (SA+CF)

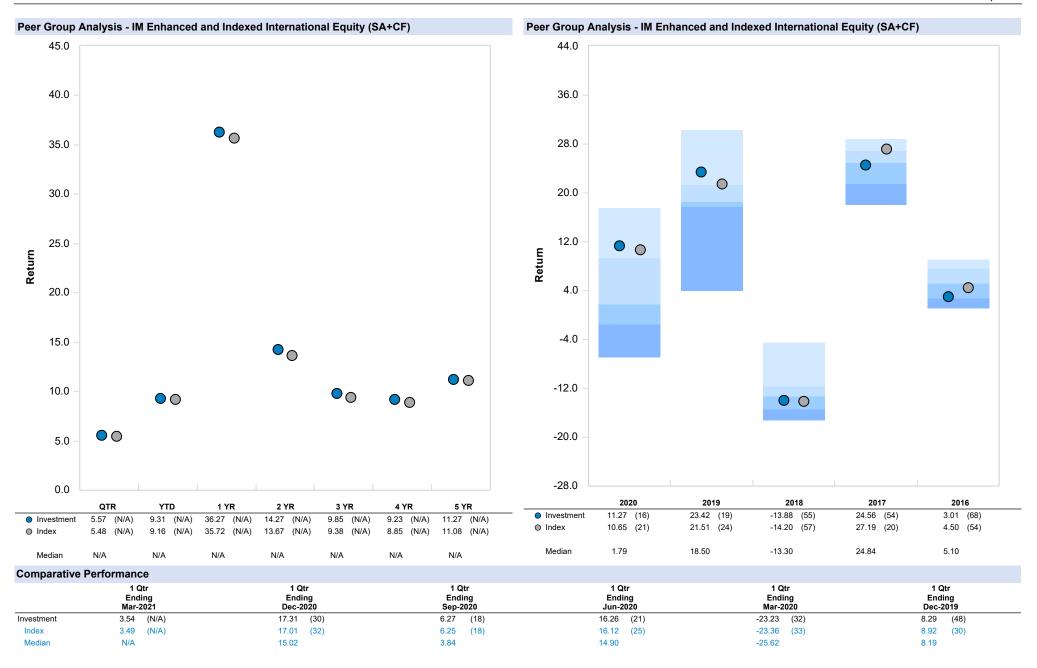


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
Investment	11	7 (64%)	2 (18%)	2 (18%)	0 (0%)	Investment	3	3 (100%)	0 (0%)	0 (0%)	0 (0%)	
Index	18	7 (39%)	6 (33%)	4 (22%)	1 (6%)	Index	18	5 (28%)	4 (22%)	4 (22%)	5 (28%)	



14.6

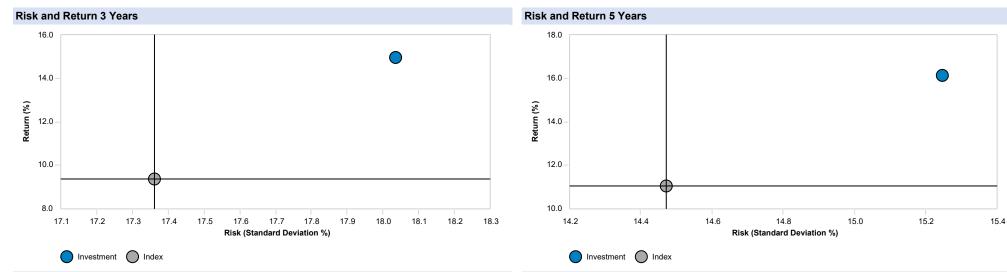
Strategy Review SSgA ACWI ex US | MSCI AC World ex USA (Net) As of June 30, 2021

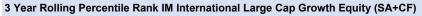


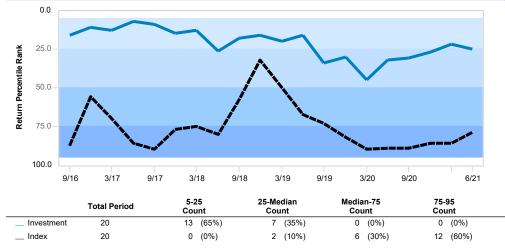


Strategy Review Baillie Gifford Intl Equity | MSCI AC World ex USA (Net) As of June 30, 2021

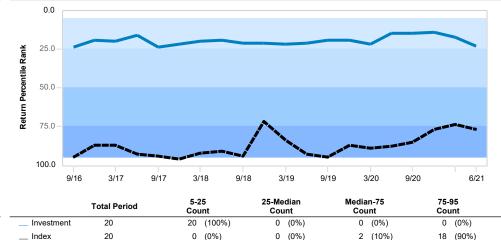
Historical Statistic	s 3 Years							Historical Statist	tics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	14.98	18.04	0.79	112.27	9	91.08	3	Investment	16.16	15.25	0.98	113.05	14	90.53	6
Index	9.38	17.36	0.53	100.00	9	100.00	3	Index	11.08	14.47	0.72	100.00	14	100.00	6







5 Year Rolling Percentile Rank IM International Large Cap Growth Equity (SA+CF)







Strategy Review Baillie Gifford Intl Equity | MSCI AC World ex USA (Net) As of June 30, 2021

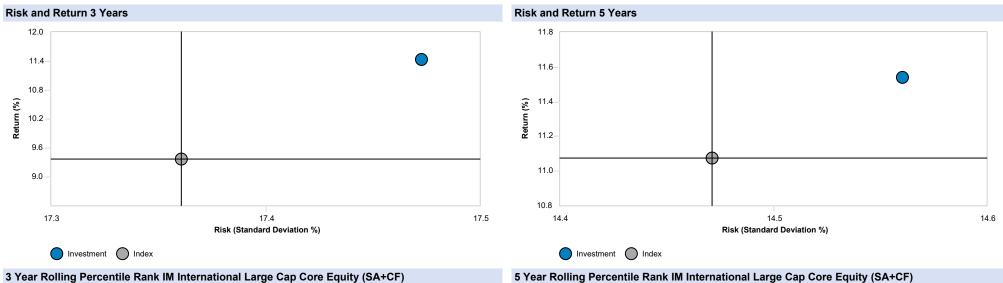


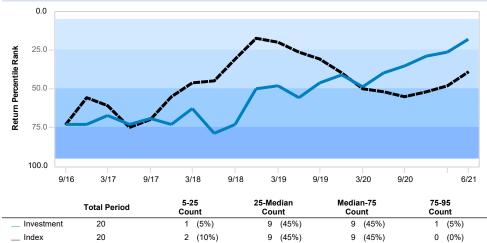


Strategy Review FIAM Select International Equity | FIAM Policy Index

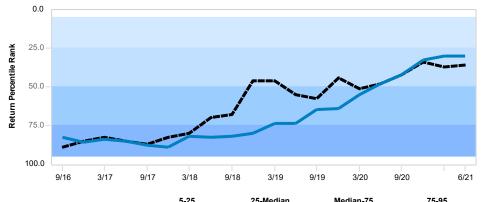
As of June 30, 2021

Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	11.43	17.47	0.63	104.31	9	96.41	3	Investment	11.54	14.56	0.74	100.55	14	97.87	6
Index	9.38	17.36	0.53	100.00	9	100.00	3	Index	11.08	14.47	0.72	100.00	14	100.00	6





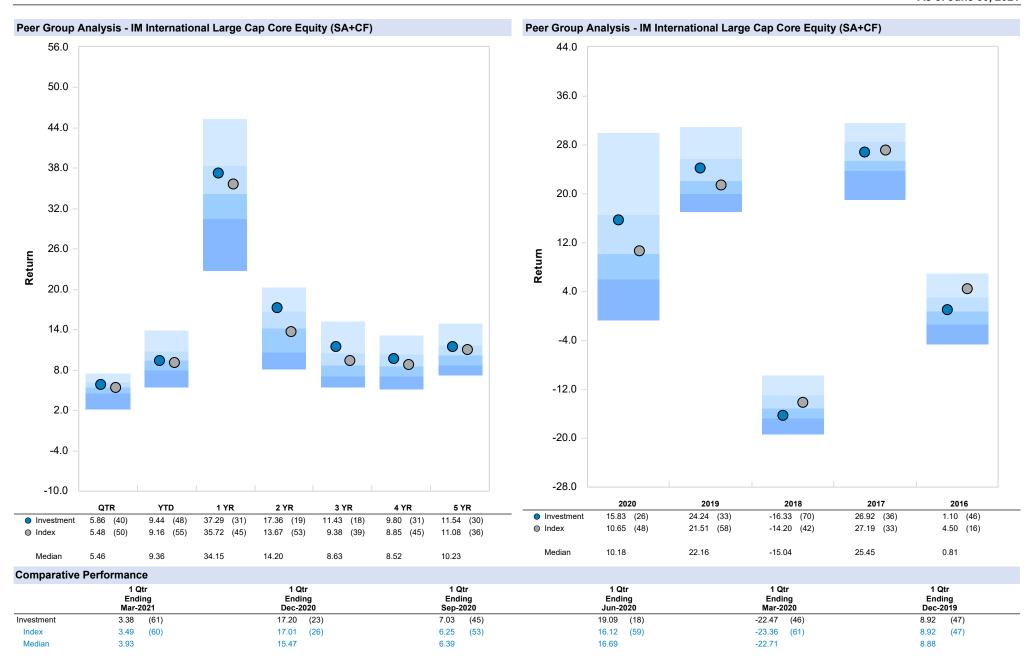
5 Year Rolling Percentile Rank IM International Large Cap Core Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Count	75-95 Count		Total Period	5-25 Count	25-Median Count	Count	75-95 Count	
Investment	20	1 (5%)	9 (45%)	9 (45%)	1 (5%)	Investment	20	0 (0%)	5 (25%)	5 (25%)	10 (50%)	
Index	20	2 (10%)	9 (45%)	9 (45%)	0 (0%)	Index	20	0 (0%)	8 (40%)	5 (25%)	7 (35%)	



Strategy Review FIAM Select International Equity | FIAM Policy Index As of June 30, 2021





Strategy Review Segall, Bryant & Hamill | MSCI EAFE Small Cap (net) Index

3/19

9/19

3/20

0 (0%)

10 (50%)

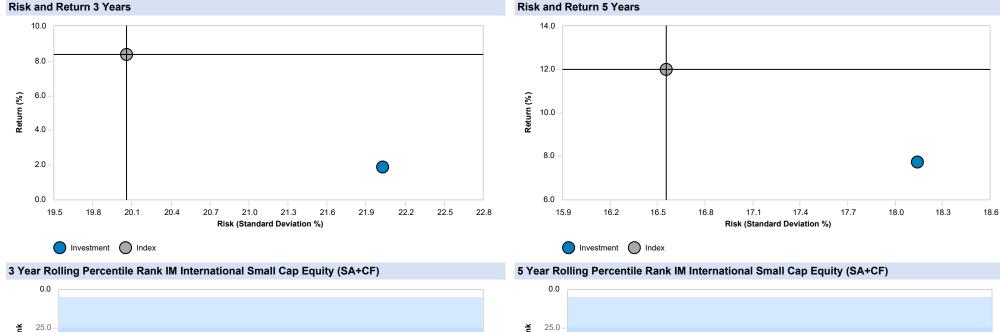
Median-75

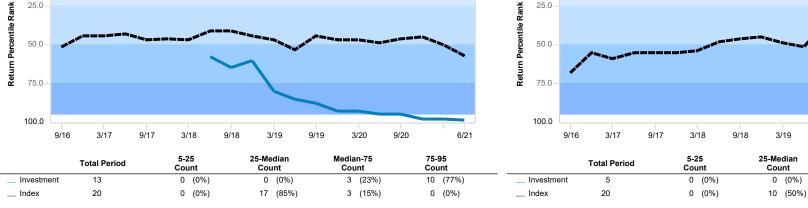
Count

9/20

As of June 30, 2021

Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	1.89	22.03	0.14	97.08	7	122.95	5	Investment	7.75	18.14	0.44	97.21	13	118.31	7
Index	8.40	20.06	0.44	100.00	8	100.00	4	Index	12.03	16.55	0.70	100.00	14	100.00	6







6/21

75-95

Count

5 (100%)

0 (0%)

Strategy Review Segall, Bryant & Hamill | MSCI EAFE Small Cap (net) Index As of June 30, 2021

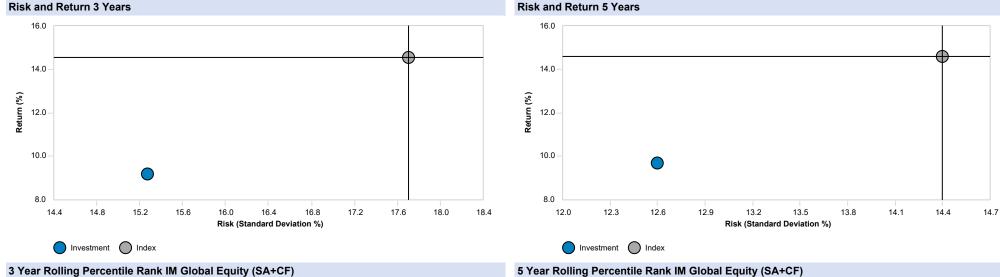


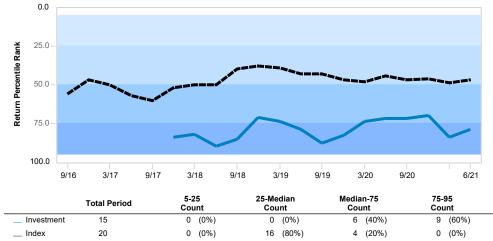


Strategy Review Columbus Macro (EMWO) | MSCI AC World Index (Net)

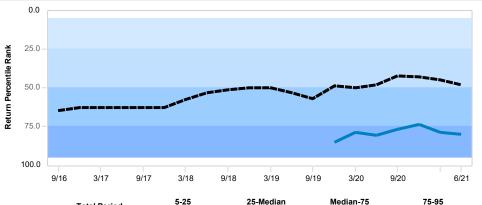
As of June 30, 2021

Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	9.21	15.27	0.56	77.66	9	88.23	3	Investment	9.71	12.60	0.70	78.58	15	90.98	5
Index	14.57	17.70	0.78	100.00	9	100.00	3	Index	14.61	14.40	0.94	100.00	16	100.00	4









	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count	
stment	15	0 (0%)	0 (0%)	6 (40%)	9 (60%)	Investment	7	0 (0%)	0 (0%)	1 (14%)	6 (86%)	_
ĸ	20	0 (0%)	16 (80%)	4 (20%)	0 (0%)	Index	20	0 (0%)	9 (45%)	11 (55%)	0 (0%)	



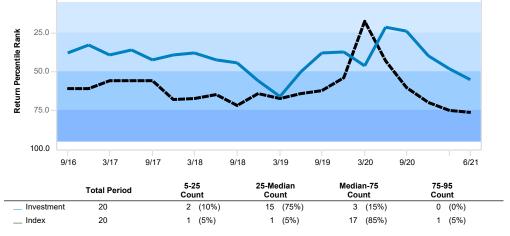
Strategy Review Columbus Macro (EMWO) | MSCI AC World Index (Net) As of June 30, 2021

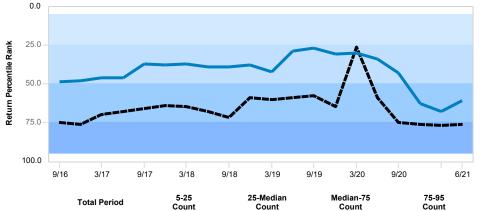




Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.71	3.69	1.17	107.19	11	108.05	1	Investment	3.35	3.34	0.66	104.83	16	98.81	4
Index	5.34	3.44	1.17	100.00	11	100.00	1	Index	3.03	3.23	0.59	100.00	16	100.00	4







17 (85%)

1 (5%)

0 (0%)

0 (0%)

20

20

Investment

__ Index



0 (0%)

4 (20%)

3 (15%)

15 (75%)

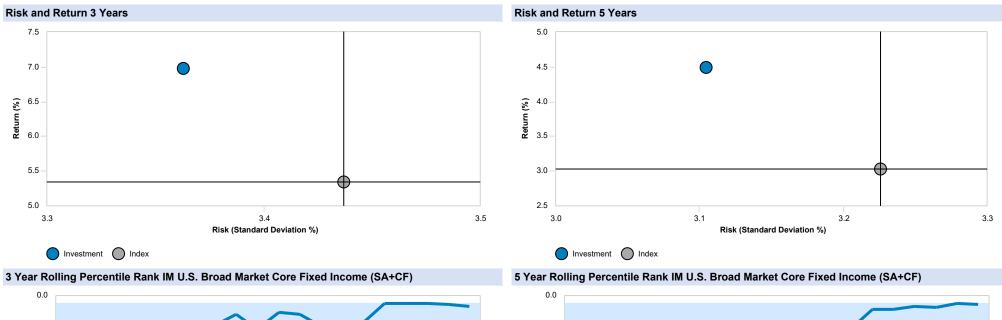


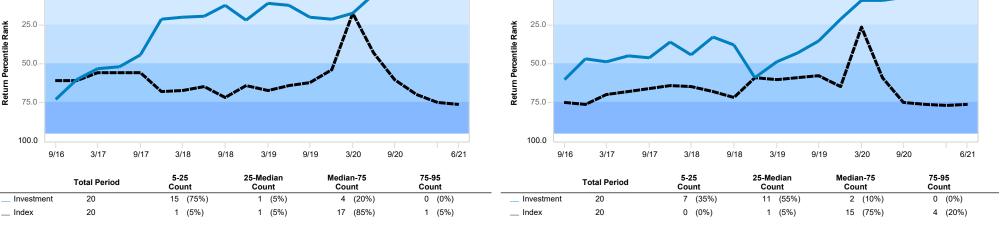


Strategy Review Federated Core Broad | Blmbg. Barc. U.S. Aggregate Index

As of June 30, 2021

Historical Statistic	cs 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.98	3.36	1.63	112.20	11	75.99	1	Investment	4.49	3.10	1.07	111.17	16	74.04	4
Index	5.34	3.44	1.17	100.00	11	100.00	1	Index	3.03	3.23	0.59	100.00	16	100.00	4

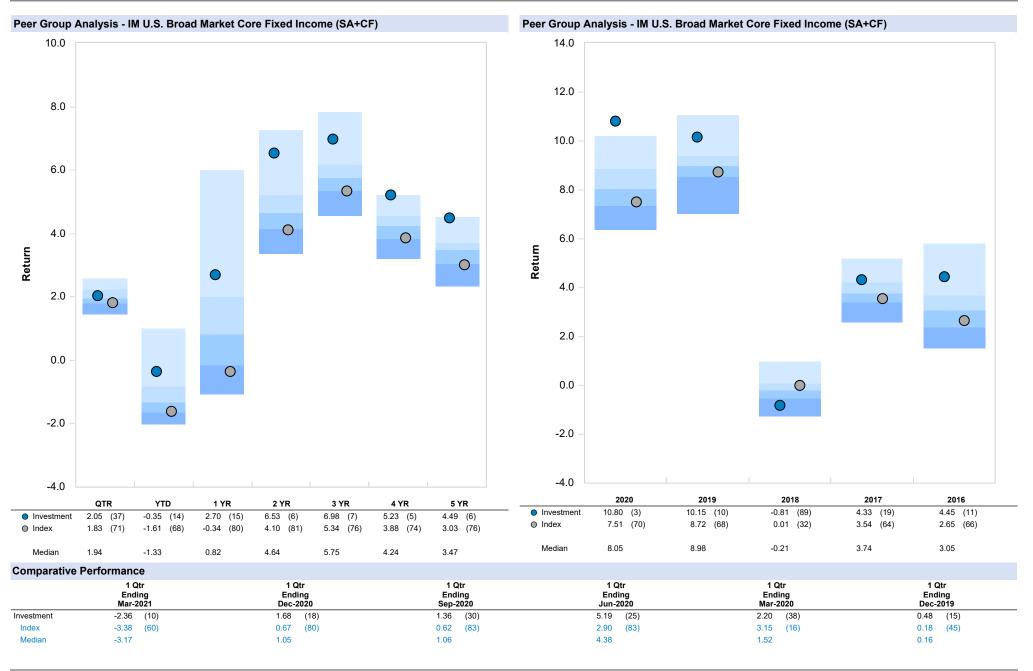






Return Percentile Rank

Strategy Review Federated Core Broad | Blmbg. Barc. U.S. Aggregate Index As of June 30, 2021

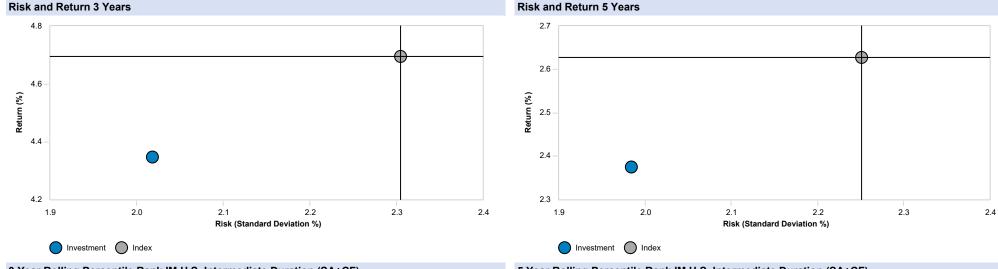


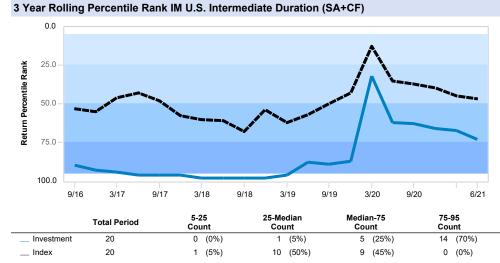


Strategy Review CIM Investment Mgmt | Bloomberg Barclays Intermediate US Govt/Credit Idx

As of June 30, 2021

Historical Statistic	cs 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.35	2.02	1.53	87.98	11	70.78	1	Investment	2.38	1.98	0.64	86.84	16	81.71	4
Index	4.70	2.30	1.47	100.00	11	100.00	1	Index	2.63	2.25	0.67	100.00	16	100.00	4





5 Year Rolling Percentile Rank IM U.S. Intermediate Duration (SA+CF)

0 (0%)

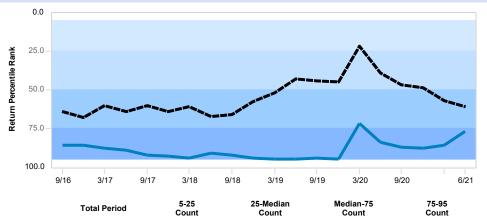
1 (5%)

20

20

Investment

__ Index



0 (0%)

6 (30%)

19 (95%)

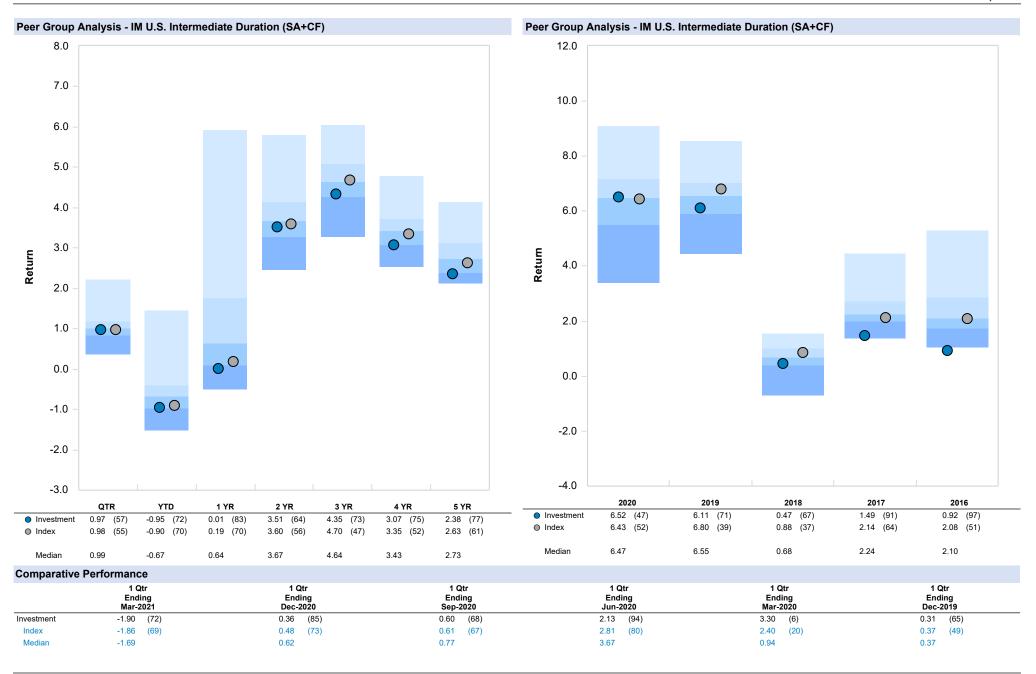
0 (0%)

1 (5%)

13 (65%)

Page 58

Strategy Review CIM Investment Mgmt | Bloomberg Barclays Intermediate US Govt/Credit Idx As of June 30, 2021

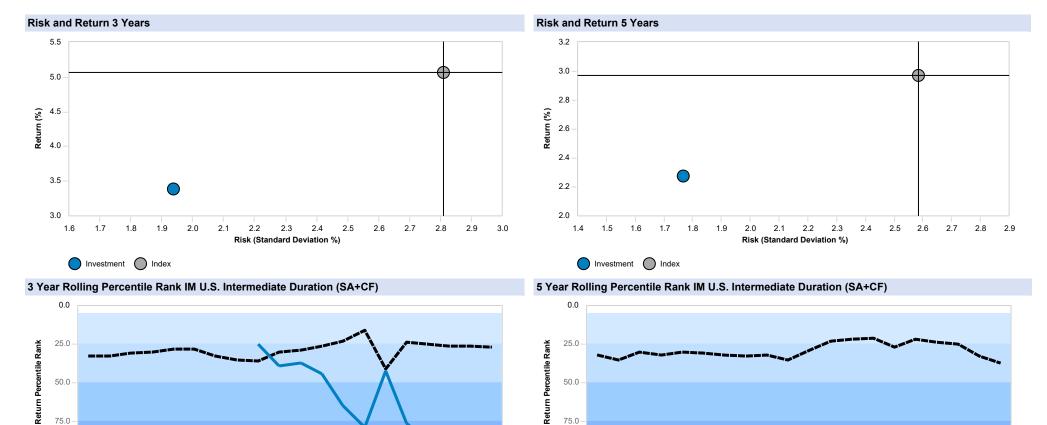




Strategy Review StoneRidge Partners (EMWO) | StoneRidge Policy Index

As of June 30, 2021

Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.39	1.94	1.09	67.05	10	66.83	2	Investment	2.28	1.77	0.66	70.88	16	62.71	4
Index	5.07	2.81	1.30	100.00	11	100.00	1	Index	2.97	2.59	0.70	100.00	15	100.00	5

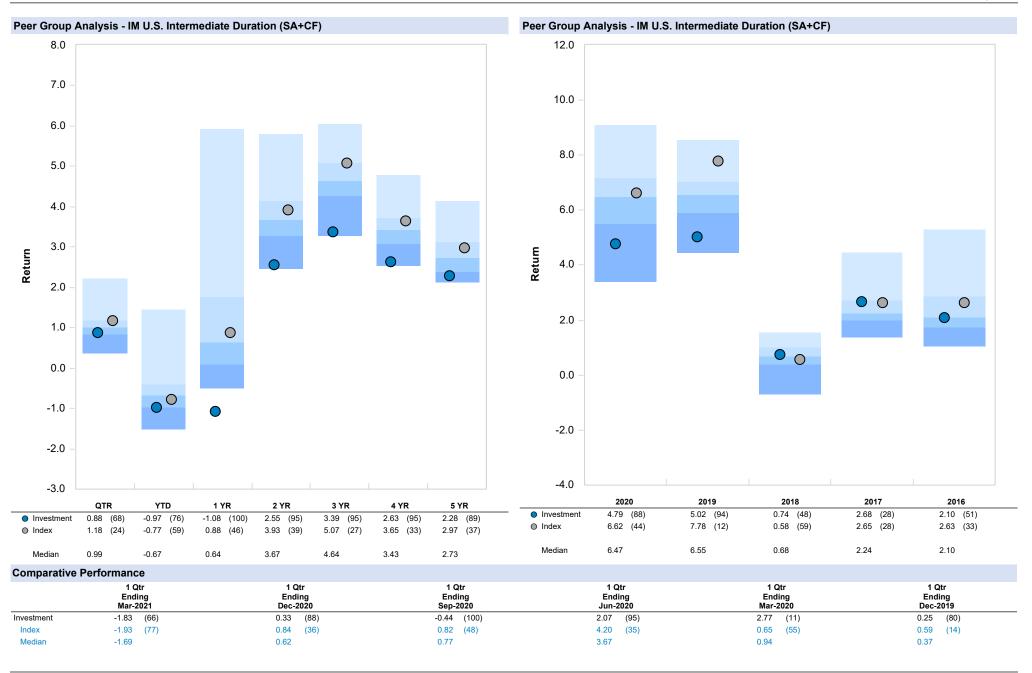


75.0-												2 75.0 –										
												_ 10.0										
100.0	9/16	3/17	9/17	3/18	9/18	3/19	9/19	3/20	9/20	I	6/21	100.0	9/16	3/17	9/17	3/18	9/18	3/19	9/19	3/20	9/20	6/2
	I	Total Period		5-25 Count		25-Median Count		Median-75 Count		75-95 Coun				Total Period		5-25 Count		25-Median Count		Median-75 Count		75-95 Count
Investme	ent	12		1 (8%)		4 (33%)		1 (8%)		6 ((50%)	Investme	ent	4		0 (0%)		0 (0%)		0 (0%)		4 (100%
_ Index		20		4 (20%)		16 (80%)		0 (0%)		0 (0%)	Index		20		6 (30%)		14 (70%))	0 (0%)		0 (0%)





Strategy Review StoneRidge Partners (EMWO) | StoneRidge Policy Index As of June 30, 2021

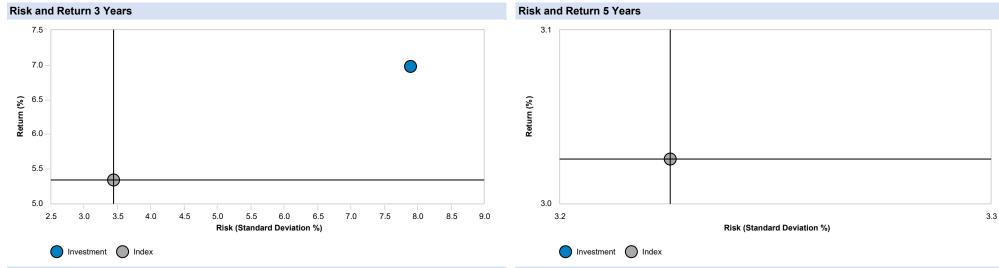




Strategy Review Gridiron Capital Fixed Income (EMWO) | Blmbg. Barc. U.S. Aggregate Index

As of June 30, 2021

Historical Statisti	ics 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.98	7.89	0.72	126.63	10	110.34	2	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	5.34	3.44	1.17	100.00	11	100.00	1	Index	3.03	3.23	0.59	100.00	16	100.00	4



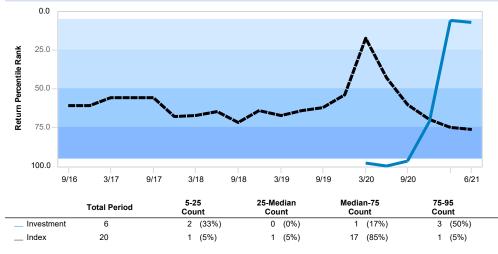
Investment

__ Index

0

20

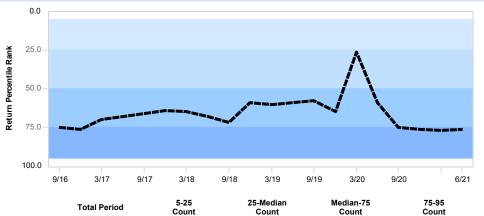




5 Year Rolling Percentile Rank IM U.S. Broad Market Core Fixed Income (SA+CF)

0

0 (0%)



0

1 (5%)

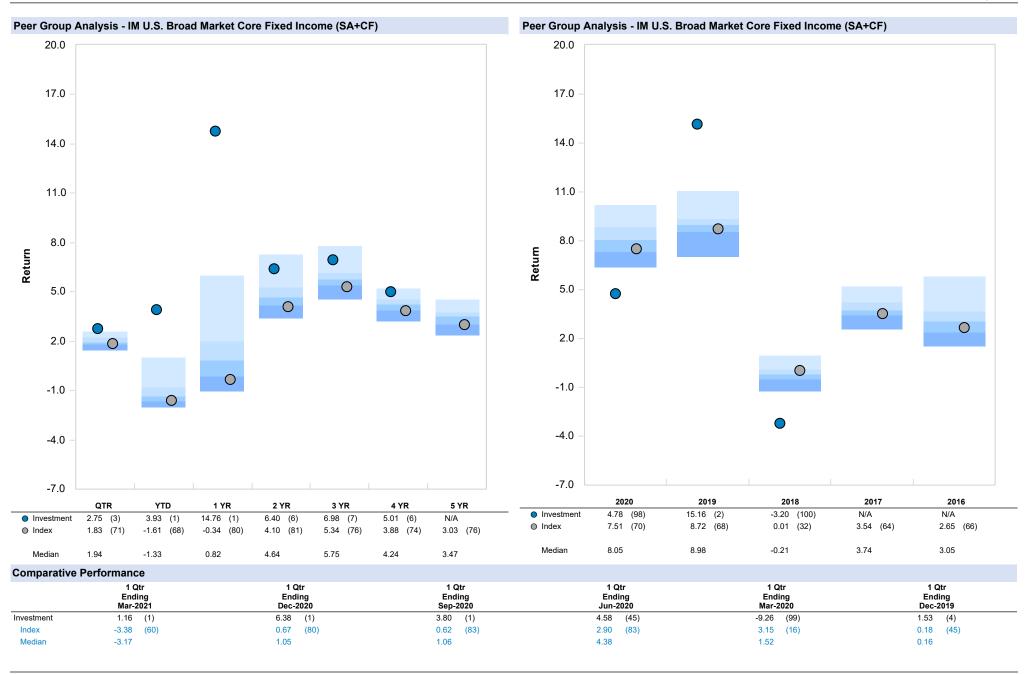


0

4 (20%)

0

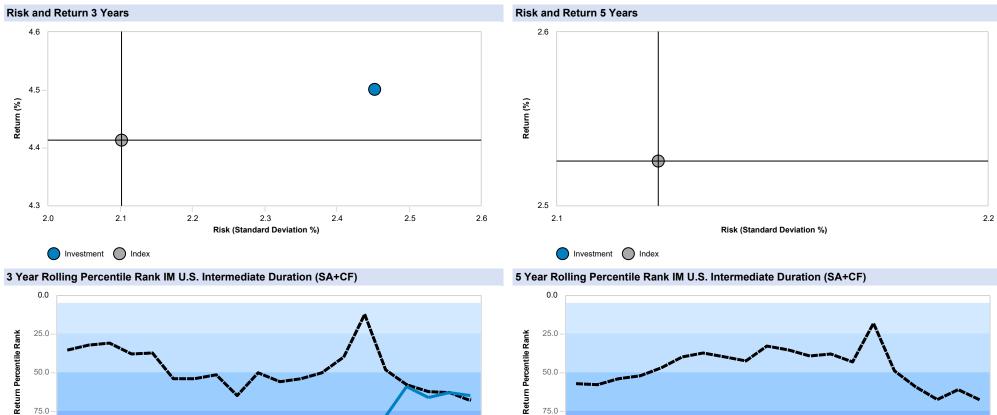
15 (75%)

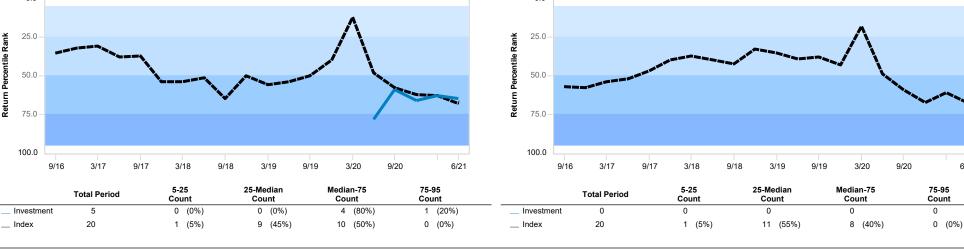




Strategy Review FNB (EMWO) | Bloomberg Barclays Intermed Aggregate Index As of June 30, 2021

Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	4.50	2.45	1.27	106.93	11	127.69	1	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	4.41	2.10	1.50	100.00	11	100.00	1	Index	2.53	2.12	0.66	100.00	16	100.00	4

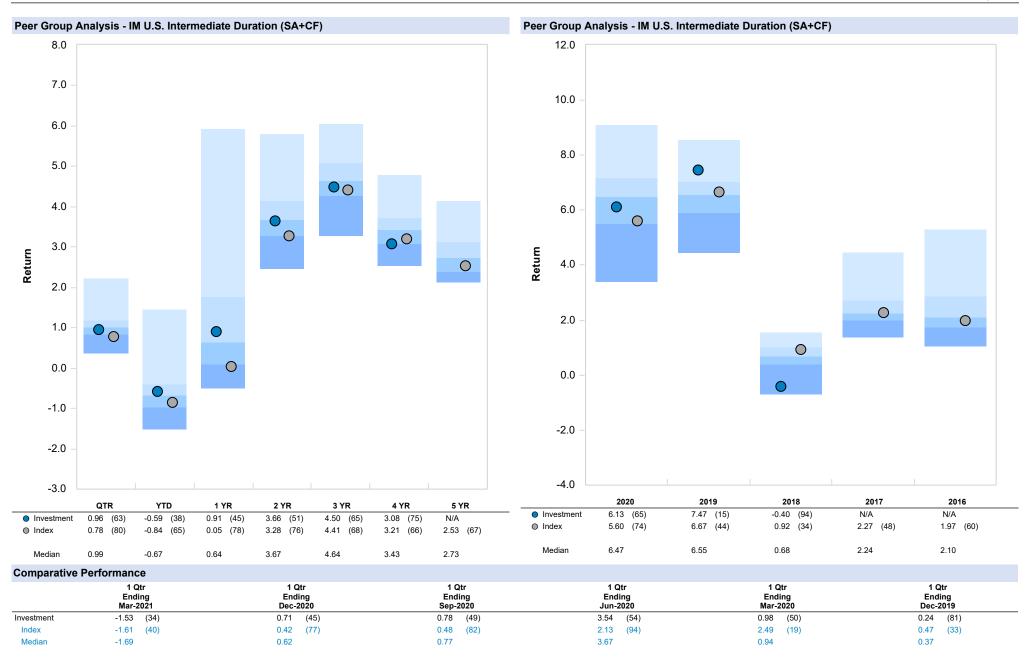




88

6/21

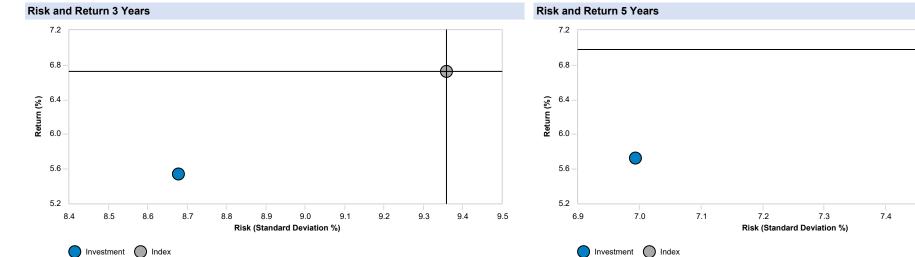
Strategy Review FNB (EMWO) | Bloomberg Barclays Intermed Aggregate Index As of June 30, 2021



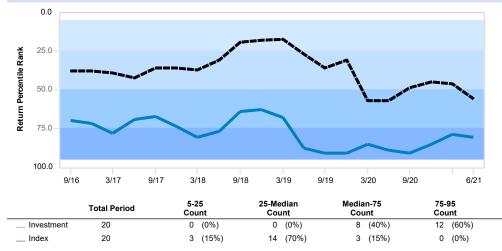


Strategy Review Oaktree High Yield | FTSE High Yield Market Capped Index As of June 30, 2021

Historical Statistic	s 3 Years							Historical Statis	tics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.55	8.68	0.51	89.28	10	95.63	2	Investment	5.72	6.99	0.66	89.93	17	101.07	3
Index	6.73	9.36	0.59	100.00	10	100.00	2	Index	6.98	7.48	0.78	100.00	17	100.00	3









20

20

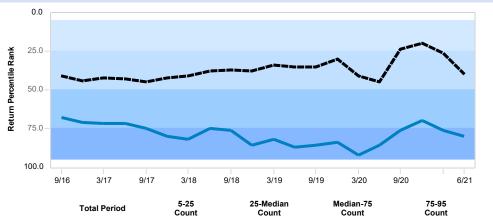
Investment

__ Index

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

0 (0%)

2 (10%)



0 (0%)

18 (90%)



13 (65%)

0 (0%)

7 (35%)

0 (0%)

7.5

7.6

Strategy Review Oaktree High Yield | FTSE High Yield Market Capped Index As of June 30, 2021

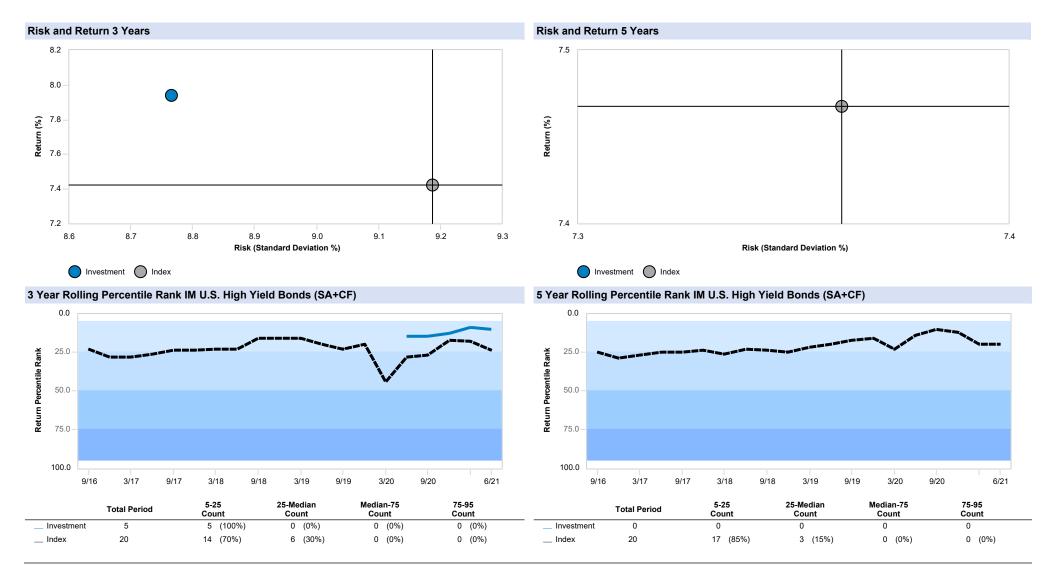




Strategy Review Federated High Yield | Blmbg. Barc. U.S. High Yield - 2% Issuer Cap

As of June 30, 2021

Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	7.94	8.77	0.76	100.85	10	95.12	2	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	7.42	9.19	0.67	100.00	10	100.00	2	Index	7.47	7.36	0.85	100.00	17	100.00	3



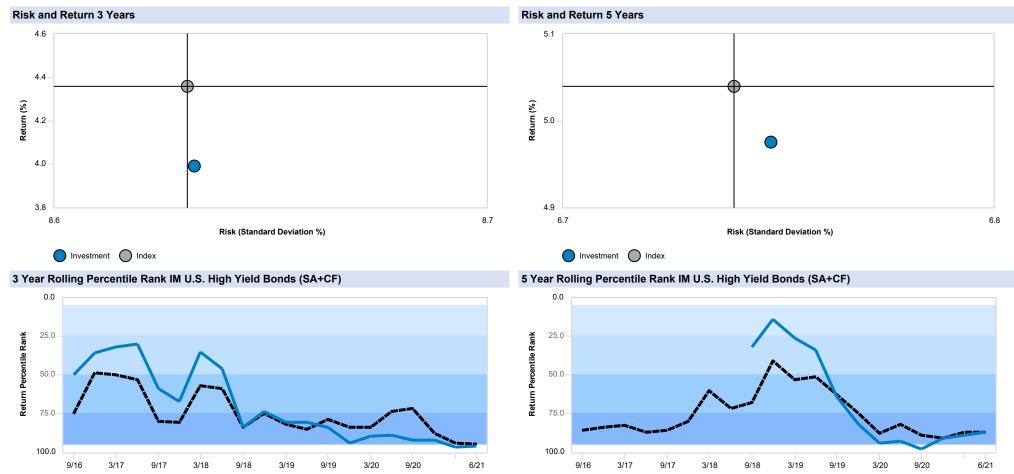


Strategy Review Federated High Yield | Blmbg. Barc. U.S. High Yield - 2% Issuer Cap As of June 30, 2021





Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	3.99	8.63	0.34	94.95	9	96.91	3	Investment	4.98	6.75	0.57	96.03	17	92.09	3
Index	4.36	8.63	0.38	100.00	10	100.00	2	Index	5.04	6.74	0.58	100.00	18	100.00	2



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count		Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Investment	20	0 (0%)	6 (30%)	3 (15%)	11 (55%)	Investment	12	1 (8%)	3 (25%)	1 (8%)	7 (58%)
Index	20	0 (0%)	2 (10%)	7 (35%)	11 (55%)	Index	20	0 (0%)	1 (5%)	7 (35%)	12 (60%)

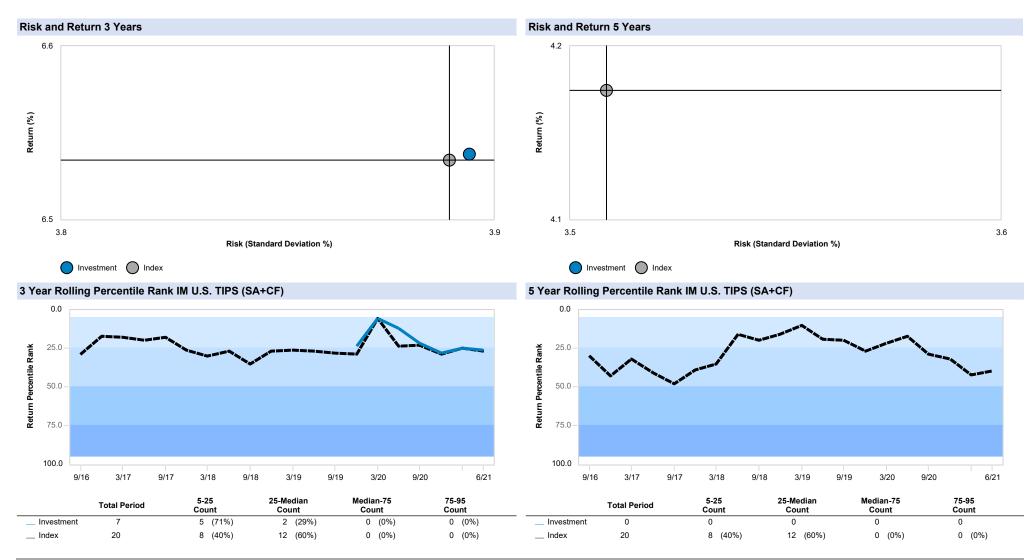


Strategy Review Sound Point | Credit Suisse Leveraged Loan Index As of June 30, 2021



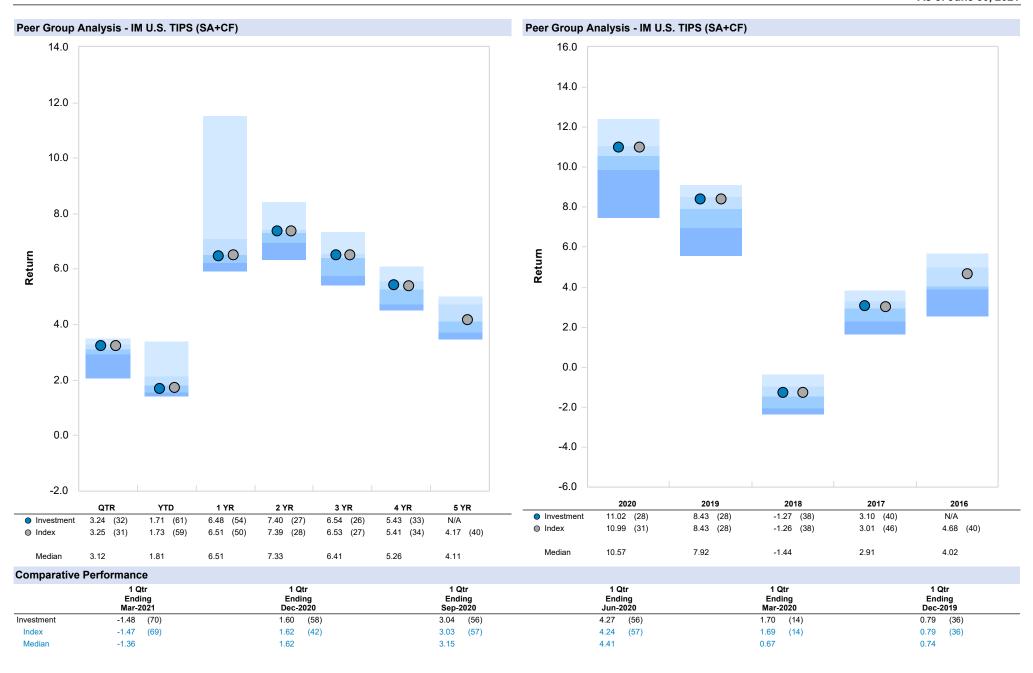


Historical Statistic	s 3 Years							Historical Stati	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	6.54	3.89	1.29	100.00	9	99.86	3	Investment	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Index	6.53	3.89	1.29	100.00	9	100.00	3	Index	4.17	3.51	0.85	100.00	14	100.00	6





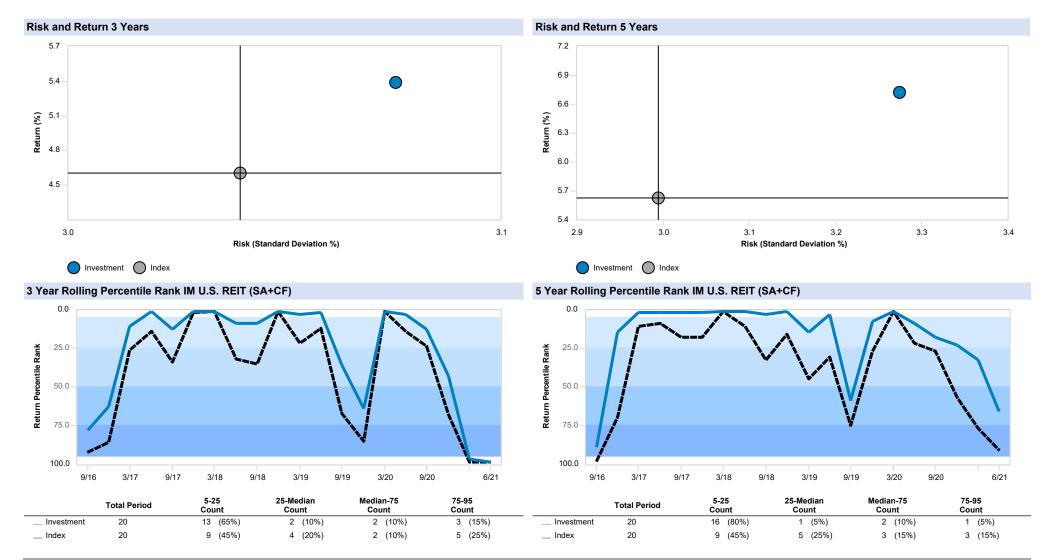
Strategy Review MCM TIPS | Bloomberg Barclays U.S. TIPS Index As of June 30, 2021





Strategy Review Morgan Stanley Prime Property Fund | NCREIF Fund Index-ODCE (VW) (Net) As of June 30, 2021

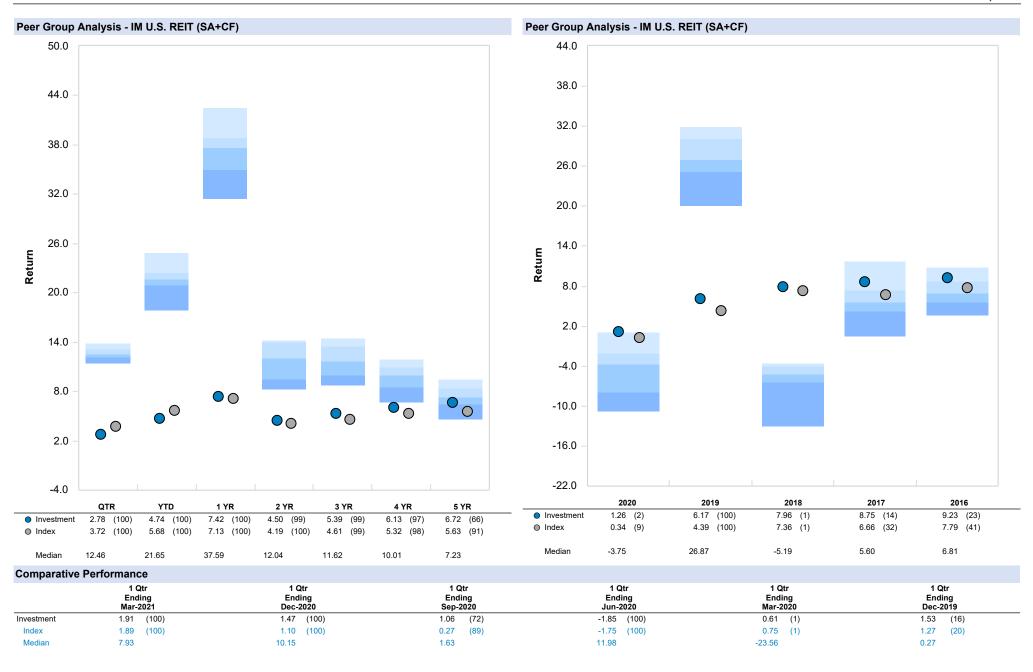
Historical Statistic	s 3 Years							Historical Statis	stics 5 Years						
	Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters		Return	Standard Deviation	Sharpe Ratio	Up Market Capture	Up Quarters	Down Market Capture	Down Quarters
Investment	5.39	3.08	1.30	115.21	11	105.82	1	Investment	6.72	3.27	1.66	118.04	19	105.82	1
Index	4.61	3.04	1.06	100.00	11	100.00	1	Index	5.63	3.00	1.46	100.00	19	100.00	1





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Strategy Review Morgan Stanley Prime Property Fund | NCREIF Fund Index-ODCE (VW) (Net) As of June 30, 2021





	Vintage	Capital	Market
artnerships	Year	Commitment \$	Value \$
otal Private Equity w Life Settlement Composite		324,900,410	218,060,917
Accolade Partners V	2015	3,000,000	6,415,845
Accolade Partners VI	2018	3,000,000	2,993,889
Adams Street 2003 U.S Fund	2003	13,733,000	1,141,719
Adams Street 2008 Global	2008	10,000,000	6,539,728
Adams Street 2009 Global	2009	5,000,000	3,919,436
Auldbrass Spec Opps II	2018	4,000,000	3,873,843
Birchmere Ventures IV	2012	525,000	349,597
BlackRock Multi-Alternative Opps	2016	3,000,000	1,626,085
Blackstone Tac Op I	2012	2,000,000	610,640
Blackstone Tac Op II	2015	3,000,000	1,667,438
Blackstone Tac Op III	2019	5,000,000	2,813,488
CCA Black	2015	7,500,000	8,095,699
CCA Blue	2013	3,800,000	2,087,980
CCA Green	2009	15,000,000	-
CCA Longevity Fund VI LP	2019	5,000,000	4,770,000
Commonfund Venture Partners XII	2018	3,000,000	2,910,340
Constitution Ironsides Direct Investment Fund IV	2016	3,000,000	2,618,477
Constitution Ironsides Opportunities Fund	2018	4,000,000	3,115,311
Constitution Ironsides Partnership Fund II	2011	6,000,000	25,422
Constitution Ironsides Partnership Fund III	2014	8,000,000	5,944,047
Crestline Opportunity Fund III	2016	4,000,000	3,239,846
Crestline Recovery II	2011	3,000,000	377,498
DCM Fund IV	2015	3,000,000	3,197,123
Draper Triangle II	2005	10,000,000	54,289
Draper Triangle III	2013	13,500,000	11,696,889
Emerald Advisors Fin Srv I	2018	2,000,000	1,330,973
Entrust Special Opportunities Fund III	2015	3,000,000	1,875,828
Entrust Special Opportunities Fund IV	2018	3,000,000	3,569,874
Farol Fund II	2020	4,000,000	3,351,790
Five Points III	2017	3,000,000	3,144,791
Glouston Private Equity Opportunities IV	2011	3,000,000	466,695
Goldman Sachs Private Equity Partners 2004	2005	10,000,000	439,675
Greenspring Early Stage I LP	2018	4,000,000	4,074,730
Greenspring Opportunities II-A	2013	3,000,000	1,944,544
Greenspring Opportunities III	2014	3,000,000	4,834,725
Greenspring Opportunities IV	2015	3,000,000	6,532,968
Greenspring Opportunities V	2018	3,000,000	4,227,230
Greenspring Secondaries I	2014	1,000,000	1,144,783
Greenspring Secondaries II	2016	2,000,000	1,476,432

Data Sources:

Market Values - BNY Mellon and Investment Managers Commitments - Asset Strategies



Private Equity Summary of Partnership Total Private Equity w Life Settlement Composite

As of June 30, 2021

Partnerships	Vintage Year	Capital Commitment \$	Market Value \$
iNetworks INOF II	2013	-	6,291,029
iNetworks Opportunity Fund	2013	11,000,000	14,513,004
iNetworks Opportunity Fund II	2020	12,500,000	6,441,264
JMI Equity Fund IX-A	2019	3,000,000	3,210,217
Mellon PAM Fund V	2005	10,000,000	287,327
Mesirow Partners Fund IV	2006	17,000,000	6,302,109
North Haven Capital Partners VI	2015	3,000,000	2,482,400
North Haven Senior Loan Fund	2018	4,000,000	1,548,727
Pharos Capital Partners III	2013	3,000,000	3,715,160
PLSG Accelerator Fund	2011	250,000	86,428
ValStone Partners IV	2008	20,000,000	1
ValStone Partners V	2013	20,000,000	22,855,936
ValStone Partners VI	2017	20,000,000	18,053,731
Valstone Senior Living	2018	13,092,410	13,773,918

Historical Hybrid Composition Total Fund Policy Index As of June 30, 2021

Historical Hyl	orid Composition
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Allocation Mandate	Weight (%)
Jan-1979	
Russell 3000 Index	65.00
Blmbg. Barc. U.S. Aggregate Index	35.00

Mar-2007

Wilshire 5000 Total Market TR Index	45.00
MSCI EAFE (Net) Index	10.00
Blmbg. Barc. U.S. Aggregate Index	25.00
Bloomberg Commodity Index Total Return	5.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	5.00
Private Equity Composite	5.00
90 Day U.S. Treasury Bill	5.00

Sep-2008

Wilshire 5000 Total Market TR Index	45.00
MSCI AC World ex USA (Net)	10.00
Blmbg. Barc. U.S. Aggregate Index	25.00
Bloomberg Commodity Index Total Return	5.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	5.00
Private Equity Composite	5.00
90 Day U.S. Treasury Bill	5.00

Dec-2008

Wilshire 5000 Total Market TR Index	35.00
MSCI AC World ex USA (Net)	15.00
Blmbg. Barc. U.S. Aggregate Index	20.00
FTSE High Yield Market Capped Index	5.00
Bloomberg Barclays U.S. TIPS Index	5.00
Bloomberg Commodity Index Total Return	5.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	7.50
Private Equity Composite	5.00
90 Day U.S. Treasury Bill	2.50

Sep-2009

Wilshire 5000 Total Market TR Index	30.00
MSCI AC World ex USA (Net)	20.00
Blmbg. Barc. U.S. Aggregate Index	15.00
FTSE High Yield Market Capped Index	10.00
Bloomberg Barclays U.S. TIPS Index	7.50
Bloomberg Commodity Index Total Return	2.50
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	10.00
Private Equity Composite	5.00

Allocation Mandate	Weight (%)
Jun-2010	
Wilshire 5000 Total Market TR Index	20.00
MSCI AC World ex USA (Net)	25.00
Blmbg. Barc. U.S. Aggregate Index	14.00
FTSE High Yield Market Capped Index	10.00
Bloomberg Barclays U.S. TIPS Index	6.00
Bloomberg Commodity Index Total Return	5.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	10.00
Private Equity Composite	10.00
Mar-2013	
Wilshire 5000 Total Market TR Index	16.10
MSCI AC World ex USA (Net)	18.90
Blmbg. Barc. U.S. Aggregate Index	10.00
FTSE High Yield Market Capped Index	12.00
Bloomberg Barclays U.S. TIPS Index	5.00
Bloomberg Commodity Index Total Return	8.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	10.00
Private Equity Composite	20.00
Apr-2016	
Wilshire 5000 Total Market TR Index	15.00
MSCI AC World ex USA (Net)	15.00
Blmbg. Barc. U.S. Aggregate Index	10.00
FTSE High Yield Market Capped Index	12.00
Bloomberg Barclays U.S. TIPS Index	8.00
Bloomberg Commodity Index Total Return	2.50
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	10.00
Private Equity Composite	22.50
Alerian MLP Index	5.00
Jan-2019	
Wilshire 5000 Total Market TR Index	16.50
MSCI AC World ex USA (Net)	16.50
Blmbg. Barc. U.S. Aggregate Index	12.50
FTSE High Yield Market Capped Index	12.00
Bloomberg Barclays U.S. TIPS Index	5.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	12.50
Private Equity Composite	20.00
Alerian MLP Index	5.00



Allocation Mandate	Weight (%)
Mar-2021	
Russell 3000 Index	16.50
MSCI AC World ex USA (Net)	16.50
Blmbg. Barc. U.S. Aggregate Index	12.50
FTSE High Yield Market Capped Index	12.00
Bloomberg Barclays U.S. TIPS Index	5.00
NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net) Monthly	12.50
Liquid Policy Benchmark	5.00
Total Private Equity w Life Settlement Composite	20.00



Historical Hybrid Composition	
Allocation Mandate	Weight (%)
Nov-1993 Wilshire 5000 Total Market TR Index	100.00
Mar-2021 Russell 3000 Index	100.00



Historical Hybrid Composition		
Allocation Mandate	Weight (%)	
Dec-2000 MSCI EAFE (Net) Index	100.00	
Sep-2008 MSCI AC World ex USA (Net)	100.00	
Mar-2015 MSCI AC World ex USA IMI (Net)	100.00	
Mar-2021 MSCI AC World ex USA (Net)	100.00	



Ilocation Mandate	Weight (%)	
lar-2021		
S&P 500 Index	30.00	
S&P MidCap 400 Index	2.00	
S&P SmallCap 600 Index	10.50	
/ISCI EAFE IMI (Net)	16.90	
/ISCI Emerging Markets IMI (Net)	6.10	
Bimbg. Barc. U.S. Aggregate Index	25.00	
CE BofAML 1-3 Year Treasury	4.50	
TSE NAREIT Equity REIT Index	5.00	



Allegheny County Fee Analysis

As of June 30, 2021

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Domestic Equity				
SSgA S&P 500 Index	0.02	113,473,325	22,695	0.02 % of Assets
Fragasso Large Core (EMWO)	0.61	6,761,732	40,934	1.00 % of First \$0 M 0.95 % of Next \$0 M 0.75 % of Next \$1 M 0.65 % of Next \$2 M 0.55 % of Next \$3 M 0.50 % of Next \$3 M 0.25 % of Next \$3 M 0.20 % Thereafter
Twin Capital Enhanced Equity	0.35	38,751,933	135,632	0.35 % of Assets
Earnest Small Value	0.90	16,313,304	147,350	1.00 % of First \$10 M 0.75 % of Next \$15 M 0.60 % of Next \$25 M 0.50 % Thereafter
Emerald Advisors Small Cap	0.72	16,117,598	116,706	1.00 % of First \$2 M 0.75 % of Next \$8 M 0.60 % Thereafter
Emerald Advisors All Cap (EMWO)	0.60	6,487,868	38,927	0.60 % of Assets
Ethos (EMWO)	0.47	2,075,980	9,757	0.47 % of Assets
CIM Small Cap (EMWO)	0.68	6,217,573	42,370	0.75 % of First \$5 M 0.40 % of Next \$10 M 0.25 % Thereafter
Cookson Peirce (EMWO)	0.50	764,991	3,825	0.50 % of Assets
nternational Equity				
SgA ACWI ex US	0.07	39,954,917	27,968	0.07 % of Assets
Baillie Gifford Intl Equity	0.61	85,183,044	519,617	0.61 % of Assets
FIAM Select International Equity	0.31	44,294,565	137,095	0.34 % of First \$25 M 0.27 % of Next \$25 M 0.24 % of Next \$150 M 0.20 % Thereafter
Segall, Bryant & Hamill	0.63	36,700,993	230,154	0.75 % of First \$15 M 0.55 % of Next \$20 M 0.45 % of Next \$30 M 0.35 % Thereafter
Global Equity				
Columbus Macro (EMWO)	0.70	1,478,051	10,346	0.70 % of Assets



Allegheny County Fee Analysis

As of June 30, 2021

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Over Fire day land Banda				
Core Fixed w Israel Bonds C S McKee	0.05	20.044.040	00.400	0.25 % of Assets
Federated Core Broad	0.25 0.29	39,241,240 35,257,659	98,103 100,644	0.25 % of Assets 0.30 % of First \$25 M 0.25 % of Next \$25 M 0.20 % Thereafter
CIM Investment Mgmt	0.25	23,881,595	59,704	0.25 % of Assets
StoneRidge Partners (EMWO)	0.30	5,508,900	16,527	0.30 % of Assets
Gridiron Capital Fixed Income (EMWO)	0.65	4,949,184	32,170	0.65 % of Assets
FNB (EMWO)	0.35	2,832,517	9,914	0.35 % of First \$5 M 0.30 % of Next \$5 M 0.25 % of Next \$10 M 0.20 % Thereafter
Israel Bonds	0.20	7,538,603	15,077	0.20 % of Assets
High Yield Fixed				
Oaktree High Yield	0.50	68,226,091	341,130	0.50 % of Assets
Federated High Yield	0.45	54,540,895	245,434	0.45 % of Assets
Sound Point	1.00	3,577,185	35,772	1.00 % of Assets
TIPS Fixed				
MCM TIPS	0.03	41,239,579	12,372	0.03 % of First \$50 M 0.02 % of Next \$50 M 0.01 % Thereafter
Real Estate				
Norgan Stanley Prime Property Fund	0.84	76,563,491	643,133	0.84 % of Assets
Oaktree Real Estate^	1.98	6,982,276	138,249	1.98 % of Assets
Washington Alliance (EMWO)	1.50	13,174,110	197,612	1.50 % of Assets
Washington Alliance II (EMWO)	1.50	1,181,352	17,720	1.50 % of Assets
Siguler Guff Distressed RE^	1.20	9,352,285	112,227	1.20 % of Assets
ERECT Fund II	1.35	10,370,488	140,002	1.35 % of Assets
Hedge Fund				
Gridiron Capital Multi-Asset (EMWO)	0.75	3,394,284	25,457	Performance Based 0.75 and 10.00
Liquid Policy Portfolio				
BlackRock Liquidity iShares Public Pension Fund*	0.08	18,484,307	14,787	0.08 % of Assets
Investments ex Private Equity		840,871,912	3,739,411	

[^] Due to limitations in reporting as a result of the variable and commitment based fee structure, AndCo calculated an approximation for this noted fee schedule. This figure demonstrates the "effective" basis point charge, computed based on the most recently available assessed quarterly fee + expenses, divided by the ending market value. The actual fee schedule can be found in Appendix A. * Estimated fee based on average of underlying funds

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**All fee Information provided by Asset Strategies

	Commitment Amount \$	2020 Mgmt Fees \$	
otal Private Equity w Life Settlement Composite	324,900,410.00	2,674,986.40	
Accolade Partners V	3,000,000.00	15,369.00	
Accolade Partners VI	3,000,000.00	-	
Adams Street 2003 U.S. Fund	13,733,000.00	-	
Adams Street 2008 Global	10,000,000.00	41,884.00	
Adams Street 2009 Global	5,000,000.00	26,463.00	
Auldbrass Spec Opps II	4,000,000.00	50,000.00	
Birchmere Ventures IV	525,000.00	3,800.00	
Blackrock Multi-Alternative Opps	3,000,000.00	14,252.70	
Blackstone Tac Op I	2,000,000.00	9,960.00	
Blackstone Tac Op II	3,000,000.00	21,306.00	
Blackstone Tac Op III	5,000,000.00	72,708.00	
CCA Black	7,500,000.00	166,543.00	
CCA Blue	3,800,000.00	51,149.00	
CCA Green	15,000,000.00	(186,372.00)	
CCA Longevity Fund VI LP	5,000,000.00	62,500.00	
Commonfund Venture Partners XII*	3,000,000.00	21,000.00	
Constitution Ironsides Direct Investment Fund IV	3,000,000.00	13,351.78	
Constitution Ironsides Opportunities Fund	4,000,000.00	-	
Constitution Ironsides Partnership Fund II	6,000,000.00	-	
Constitution Ironsides Partnership Fund III	8,000,000.00	32,794.03	
Crestline Opportunity Fund III	4,000,000.00	45,703.59	
Crestline Recovery II	3,000,000.00	2,455.00	
DCM Fund IV	3,000,000.00	19,853.00	
Draper Triangle II	10,000,000.00	-	
Draper Triangle III	13,500,000.00	209,629.00	
Emerald Advisors Fin Srv I	2,000,000.00	30,000.00	
Entrust Special Opportunities Fund III	3,000,000.00	16,835.00	
Entrust Special Opportunities Fund IV	3,000,000.00	30,670.00	
Farol Fund II	4,000,000.00	91,632.71	
Five Points III	3,000,000.00	30,000.00	
Glouston Private Equity Opportunities IV	3,000,000.00	16,410.59	
Goldman Sachs Private Equity Partners 2004	10,000,000.00	5,179.00	
Greenspring Early Stage I LP	4,000,000.00	9,868.00	
Greenspring Opportunities II-A	3,000,000.00	58,200.00	
Greenspring Opportunities III	3,000,000.00	54,106.00	
Greenspring Opportunities IV	3,000,000.00	54,723.00	
Greenspring Opportunities V	3,000,000.00	50,961.00	
Greenspring Secondaries I	1,000,000.00	7,500.00	
Greenspring Secondaries II	2,000,000.00	1,500.00	



**All fee Information provided by Asset Strategies

	Commitment Amount \$	2020 Mgmt Fees \$
iNetworks INOF II	-	89,932.00
iNetworks Opportunity Fund	11,000,000.00	178,200.00
iNetworks Opportunity Fund II	12,500,000.00	250,000.00
JMI Equity Fund IX-A	3,000,000.00	36,522.00
Mellon PAM Fund V	10,000,000.00	25,000.00
Mesirow Partners Fund IV	17,000,000.00	78,860.00
North Haven Capital Partners VI	3,000,000.00	48,574.00
North Haven Senior Loan Fund	4,000,000.00	30,551.00
Pharos Capital Partners III	3,000,000.00	37,136.00
PLSG Accelerator Fund	250,000.00	-
Valstone Partners IV	20,000,000.00	-
Valstone Partners V	20,000,000.00	300,000.00
Valstone Partners VI	20,000,000.00	300,000.00
Valstone Senior Living	13,092,410.00	148,277.00

*Commonfund Ven XII mangement fees for 2020 estimate based on Committed Amount and fee percent outlined in fund documents



Oaktree Real Estate Opportunities VI LP Fee Calculation

The annual Management Fee shall be an amount equal to the sum of the amounts determined with respect to each Limited Partner as follows: (*a*) prior to the end of the Investment Period, the product of the Management Fee Percentage attributable to such Limited Partner's Capital Commitment and the Capital Commitment of such Limited Partner and (*b*) from and after the day following the end of the Investment Period, the product of the Management Fee Percentage attributable to such Limited Partner's Capital Commitment and the lesser of (*i*) such Limited Partner's allocable portion of the Aggregate Contributed Capital and (*ii*) such Limited Partner's allocable portion of the cost basis of the Permitted Investments held by the Fund as of the end of the next-to-last month of the immediately preceding calendar quarter.

Siguler Guff Distressed Real Estate Opportunities Fund II, LP Fee Calculation

A management fee shall be payable with respect to each Limited Partner by the Partnership to the Investment Manager (the "Management Fee") quarterly in arrears on the last day of each fiscal guarter. Up to and including the end of the Direct Investment Commitment Period or, if earlier, the date on which pursuant to Section 7.03(b) the Partners and Parallel Company Partners have voted to require the General Partner to cease making both Direct Investments and additional commitments to Funds (the "Investment Termination Date"), the Management Fee, for each Limited Partner, shall be payable at that Limited Partner's Blended Rate multiplied by the aggregate amount of such Limited Partner's Capital Commitment. From and after the end of the Direct Investment Commitment Period or, if earlier, the Investment Termination Date, the Management Fee, for each Limited Partner, shall be payable at that Limited Partner's Applicable Percentage (as hereinafter defined) per annum multiplied by the aggregate amount of such Limited Partner's Capital Commitment. The "Blended Rate" shall be a percentage of a Limited Partner's Capital Commitment calculated by combining (x) one percent (1%) per annum on the first \$10,000,000 of such Limited Partner's Capital Commitment, (y) eighty-five one hundredths of one percent (0.85%) per annum on the next \$40,000,000 of such Limited Partner's Capital Commitment and (z) five tenths of one percent (0.50%) per annum on such Limited Partner's remaining Capital Commitment. The "Applicable Percentage" shall represent an amount equal to eighty percent (80%) of the Blended Rate used to calculate the Management Fee for the preceding year. For example, in the first year following the termination of the Direct Investment Commitment Period or the Investment Termination Date, as the case may be, the Applicable Percentage with respect to Limited Partners with Capital Commitments less than or equal to \$10,000,000 (and therefore with Blended Rates of 1%) shall be 0.80% (80% of 1%), and for the following year, the Applicable Percentage shall be 0.64% (80% of 0.80%).



Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.



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