

## Fourth Quarter 2019 Performance Report

Pueblo County Employees' Retirement Plan **February 24, 2020** 

Dale A. Connors, CFA Senior Consultant



#### **CONTENTS**

- 1 Capital Markets Exhibits
- 15 Pension Plan Analysis
- 39 Benchmark History
- 40 Manager Roster
- 41 Fee Schedule
- 42 Endnotes

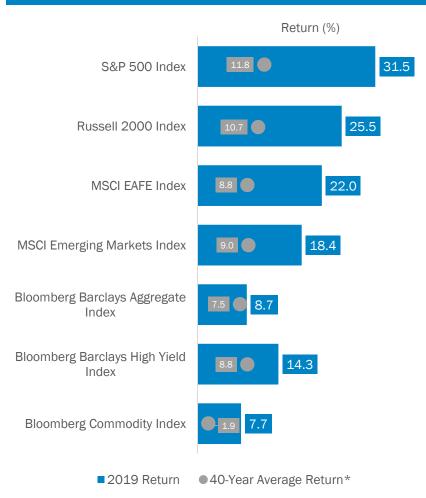


# 4<sup>th</sup> Quarter 2019 Capital Markets Exhibits



## All Asset Classes Rally in 2019

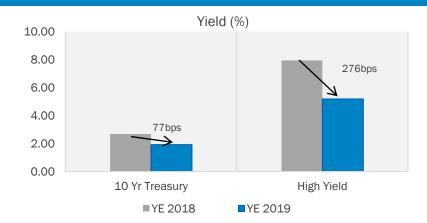




\*Note: If an index does not have 40 years of historical data the since inception return of the index is shown. This includes the MSCI Emerging Markets Index (inception July 1989), Bloomberg Barclays High Yield (inception July 1983), and Bloomberg Commodity Index (inception January 1991).

Source: Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global, FTSE Russell, MSCI, Bloomberg Finance, LP

#### **Yields Compress**



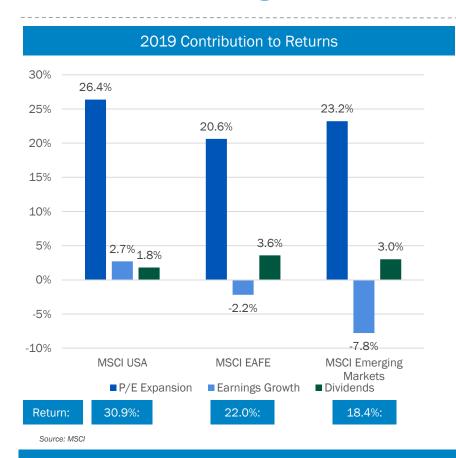
Source: Bloomberg Finance, LP

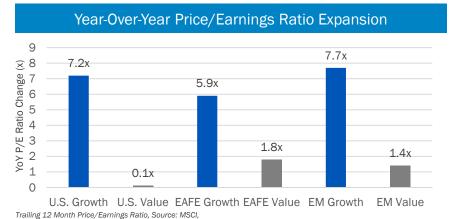
#### Synchronized Capital Market Gains

- All major asset classes generated returns above their longterm average returns.
- 2019 marks the first time in the last 50 years the S&P 500, bonds, and gold posted positive returns of at least 30%, 5%, and 10%, respectively.
- The S&P 500 had the best return since 2013. Non-US equities had strong positive performance but lagged domestic equities.
- Both interest rates and credit spreads compressed within the fixed income market. The Bloomberg Barclays Aggregate Bond Index posted its best return since 2002.
- Volatility declined during the year. The VIX Index fell by 45%, the largest single year decrease since 2009.



## Improving Sentiment Drives Equity Returns





Year-End P/E Ratios 2018 P/E 2019 P/E 20 Year Average MSCI U.S. Growth 25.3 32.5 28.0 MSCI U.S. Value 17.9 18.0 18.8 MSCI EAFE Growth 18.1 24.0 23.0 MSCI EAFE Value 10.8 12.6 16.0

17.0

9.3

24.7

10.7

17.4

12.1

Trailing 12 Month Price/Earnings Ratio, Source: MSCI,

MSCI EM Growth

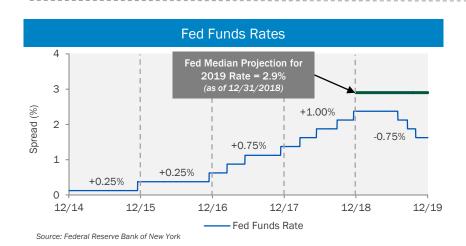
MSCI EM Value

#### **Observations**

- Supported by accommodative global central banks, easing monetary policy in the U.S. and moderating concerns about a global trade war, global risk assets posted some of the strongest returns in recent history.
- Investor risk appetite increased throughout 2019 as the bulk of equity returns were generated from price/earnings ratio expansion as opposed to actual earnings growth and dividend payouts.
- Growth stocks continued their 10+ year rally over value stocks as multiple expansion in growth sectors like technology, which returned over 50% in the U.S., in 2019, expanded at a much faster pace than their value counterparts.



## Fed Activity also Supports Defensive Assets

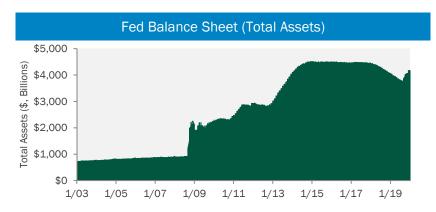


 Similarly, after initiating quantitative tightening to reduce balance sheet assets in 2018, the Fed again switched strategy in October with additional Treasury bill purchases. This increased liquidity helped boost financial markets.



Source: Bloomberg Finance, LP, Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global.

- After undertaking a significant interest rate hiking path in 2018, the Federal Open Market Committee reversed course and cut the fed funds rate three times throughout the year.
- These actions pushed yields lower, which results in higher bond prices, leading to the best calendar year return (+8.7%) for U.S. Fixed Income since 2002.



Source: Federal Reserve; As of 12/31/2019.

- However, it was not just central bank activity that drove returns as traditionally safer assets, such as gold (+18.0%), also rose.
   Fears of a global manufacturing slowdown, aggravated by trade conflicts, helped push up these defensive assets.
- Within equities, defensive sectors including consumer staples (+27.6%), healthcare (+20.8%), and utilities (+26.3%) all posted banner years.



### 2010 to 2019 Decade in Review

#### 10-Year Returns Ending December 31, 2019



 $Source: \ Morningstar\ Direct,\ S\&P\ Dow\ Jones\ Indices\ LLC,\ a\ division\ of\ S\&P\ Global,\ FTSE\ Russell,\ MSCI,\ Bloomberg\ Finance,\ LP$ 

#### Comparison of Key Market Indicators

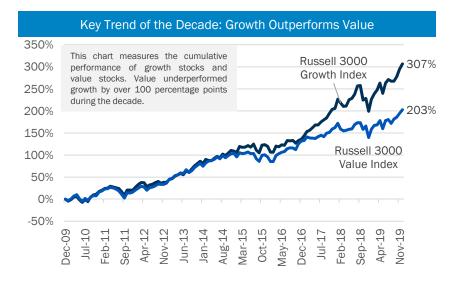
Indicator	December 31, 2009	December 31, 2019
S&P 500 Price Level	1,115.10	3,230.78
S&P 500 P/E Ratio	16.8x	22.9x
Russell 3000 Index Market Capitalization	\$12.0 trillion	\$31.7 trillion
10-Year Treasury Yield	3.84%	1.92%
Bloomberg Barclays High Yield Bond Index Average OAS	617 bps	336 bps

Source: Bloomberg Finance, LP, Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global, FTSE Russell..

#### Stock and Bond Risk vs. Return Through the Decades 1980s to 2010s



Source: Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global, MSCI, Bloomberg Finance, LP.



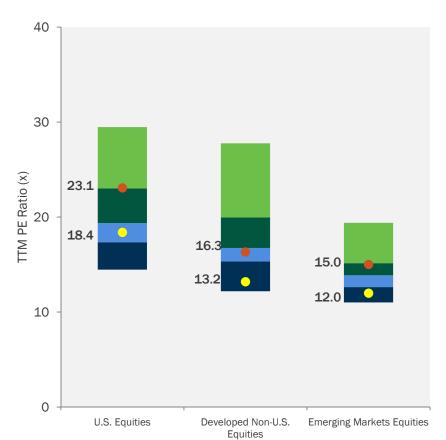
Source: Morningstar Direct, FTSE Russell



## **Equity Valuations**

#### Trailing Price to Earnings Ratio (Last 20 Years)



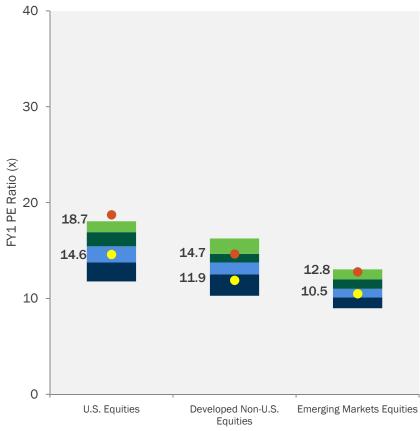


Source: MSCI, As of 12/31/2019

#### Forward Price to Earnings Ratio (Last 16.5 Years)

■5th - 25th ■25th - 50th ■50th - 75th ■75th - 95th • Current • 12/31/2018



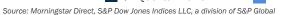


Source: MSCI, As of 12/31/2019

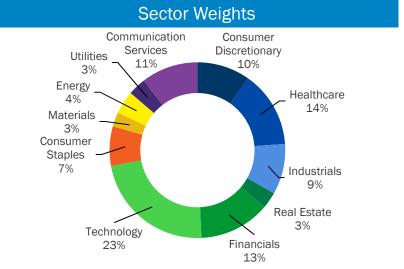


## S&P 500 Scorecard

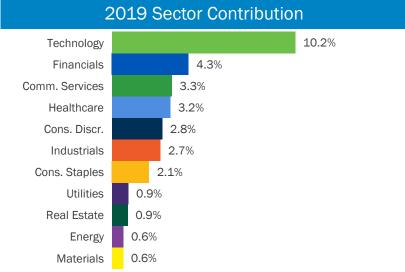
	5	ector_	Returns	
	<u>Div.</u> <u>Yield<sup>(1)</sup></u>	<u>P/E</u> <u>Ratio<sup>(2)</sup></u>	<u>15-Yr</u> <u>Avg</u> . <sup>(3)</sup>	
Technology	1.2%	27.9x	20.2x	14.4%
Communication Services	1.3%	23.4x	19.8x	9.0%
Financials	2.0%	14.7x	14.6x	10.5% 32.1%
6&P 500	1.8%	22.9x	17.5x	9.1%
ndustrials	1.8%	22.2x	17.9x	5.5%
Real Estate	3.1%	34.9x	39.5x	29.0%
Consumer Discretionary	1.3%	27.1x	19.4x	4.5%
Consumer Staples	2.7%	26.4x	19.4x	3.5% 27.6%
Jtilities	3.1%	23.6x	17.3x	0.8%
Materials	2.0%	20.6x	18.2x	6.4%
Healthcare	1.6%	25.7x	20.8x	14.4% 20.8%
Energy	3.8%	16.6x	15.5x	5.5% 11.8%



<sup>&</sup>lt;sup>(1)</sup>Trailing 12 month Dividend Yield as of 12/31/2019.



Source: Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global



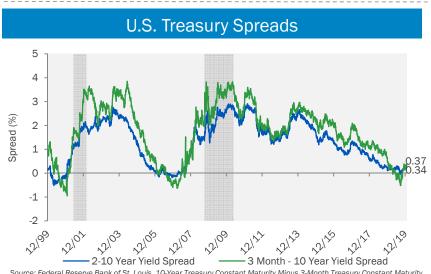
Source: Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global, GICS

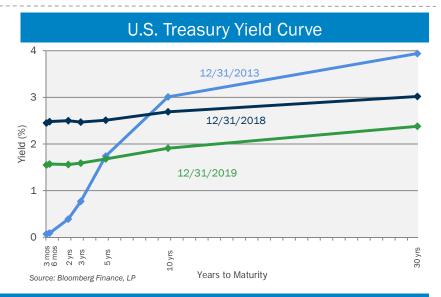


<sup>(2)</sup>Trailing 12 month P/E as of 12/31/2019.

<sup>(3)15-</sup>year average trailing 12 month P/E as of 12/31/2019.

## Rates and Spreads





Source: Federal Reserve Bank of St. Louis, 10-Year Treasury Constant Maturity Minus 3-Month Treasury Constant Maturity & 10-Year Treasury Constant Maturity, Grey bars represent U.S. recessions.

#### Fixed Income Credit Spreads Relative to Treasuries 20 18.3 15 0AS (%) 5 0.9 0 12/99 12/01 12/03 12/05 12/07 12/11 12/13 12/15 12/09 12/17 12/19 Bloomberg Barclays U.S. Credit Investment Grade Bloomberg Barclays U.S. Credit High Yield Source: Bloomberg Finance, LP, Grey bars represent U.S. recessions; As of 12/31/2019



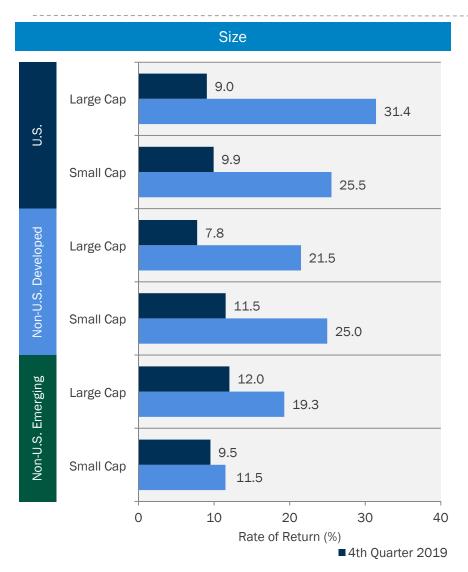
## **Market Overview**



Source: Morningstar Direct, S&P Dow Jones Indices LLC, a division of S&P Global, Russell, MSCI, Hedge Fund Research, Inc., Bloomberg Finance, LP



## **Global Equity Factor Performance**





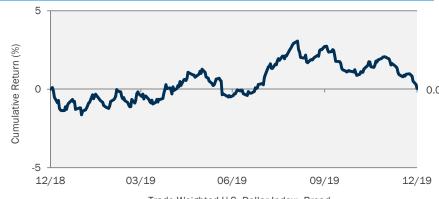
Note: Indices above are the respective size and style sub-indices of Russell and MSCI. Source: Morningstar Direct, Russell, and MSCI.



## Non-U.S. / Global Equity Markets

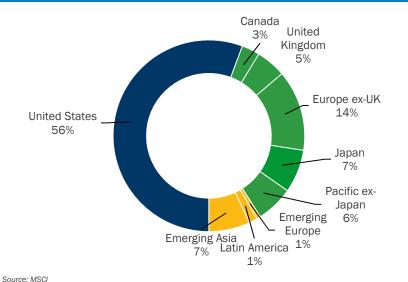
#### Market Returns 4th Quarter 2019 7.7 9.0 MSCI ACWI 26.2 26.6 2019 4th Quarter 2019 6.2 8.9 20.8 21.5 2019 5.2 4th Quarter 2019 8.2 21.7 22.0 2019 $\mathbb{R}$ 9.5 11.8 4th Quarter 2019 MSCI 2019 18.1 18.4 10 15 20 25 30 Rate of Return (%) Local Return USD Return Source: Morningstar Direct, MSCI

#### U.S. Dollar vs. Foreign Currencies



Trade Weighted U.S. Dollar Index: Broad Source: Board of Governors of the Federal Reserve System (US), Trade Weighted U.S. Broad Dollar Index - Goods Only retrieved from FRED, Federal Reserve Bank of St. Louis. As of 12/31/2019.

#### MSCI ACWI Equity Weights



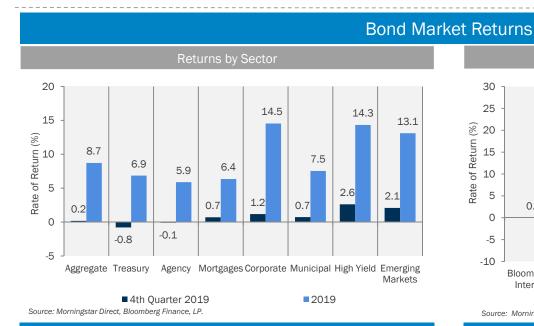
#### 2019 Regional Market Returns (USD)



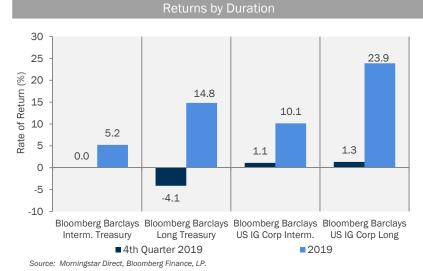
Source: Morningstar Direct, MSCI.



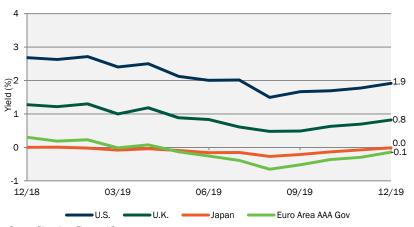
## **Fixed Income Markets**







#### Global Ten Year Government Spot Yields







### **Real Assets**



### WTI Crude Oil Prices 120 100 80 20 12/14 12/15 12/16 12/17 12/18

Source: U.S. Energy Information Administration, Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma, retrieved from FRED, Federal Reserve Bank of St. Louis; As of 12/31/2019.

#### **United States Breakeven Inflation**



Source: Federal Reserve Bank of St. Louis, 5-Year & 10-Year Breakeven Inflation Rate; As of 12/31/2019.



# World Markets Heat Map

Calendar Year Returns										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
U.S. Equity										
S&P 100 Index	12.5%	3.2%	16.1%	30.4%	12.7%	2.6%	11.4%	22.0%	-3.9%	32.2%
S&P 500 Index	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%
Russell 1000 Value Index	15.5%	0.4%	17.5%	32.5%	13.5%	-3.8%	17.3%	13.7%	-8.3%	26.5%
Russell 1000 Growth Index	16.7%	2.6%	15.3%	33.5%	13.0%	5.7%	7.1%	30.2%	-1.5%	36.4%
Russell 2000 Index	26.8%	-4.2%	16.4%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%
Russell 2000 Value Index	24.5%	-5.5%	18.1%	34.5%	4.2%	-7.5%	31.7%	7.8%	-12.9%	22.4%
Russell 2000 Growth Index	29.1%	-2.9%	14.6%	43.3%	5.6%	-1.4%	11.3%	22.2%	-9.3%	28.5%
Russell Micro Cap Index	28.9%	-9.3%	19.7%	45.6%	3.6%	-5.2%	20.4%	13.2%	-13.1%	22.4%
Non U.S. Equity										
MSCI ACWI ex U.S. Index	11.2%	-13.7%	16.8%	15.3%	-3.9%	-5.7%	4.5%	27.2%	-14.2%	21.5%
MSCI EAFE Index	7.7%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%
MSCI EAFE Small Cap Index	22.0%	-15.9%	20.0%	29.3%	-4.9%	9.6%	2.2%	33.0%	-17.9%	25.0%
MSCI Emerging Markets Index	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%
MSCI Emerging Mkts. Small Cap Index	27.2%	-27.2%	22.2%	1.0%	1.0%	-6.8%	2.3%	33.8%	-18.6%	11.5%
MSCI Frontier Markets Index	23.8%	-18.7%	8.9%	25.9%	6.8%	-14.5%	2.7%	31.9%	-16.4%	18.0%
Global										
MSCI ACWI Index	12.7%	-7.4%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%
Fixed Income										
Barclays US Aggregate Index	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%
Barclays US Inv. Grade. Corp. Index	9.0%	8.1%	9.8%	-1.5%	7.4%	-0.7%	6.1%	6.4%	-2.5%	14.5%
Barclays High Yield Index	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%
Barclays US Corp Long AA+ Index	10.1%	19.1%	9.9%	-7.8%	18.7%	-1.1%	6.9%	10.8%	-3.4%	18.2%
Barclays US Treasury Long Index	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%
Barclays U.S. Municipal Bond Index	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%
Barclays Global Agg. ex. U.S. Index	4.9%	4.4%	4.1%	-3.1%	-3.1%	-6.0%	1.5%	10.5%	-2.1%	5.1%
Barclays EM Debt (Local) Gov't Index	12.5%	0.3%	13.9%	-4.3%	-1.9%	-10.4%	5.9%	14.3%	-3.4%	9.5%
Alternatives										
Bloomberg Commodity Index	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%
Bloomberg Commodity - Gold	28.7%	9.6%	6.1%	-28.7%	-1.7%	-10.9%	7.7%	12.8%	-2.8%	18.0%
Bloomberg Commodity - WTI Crude Oil	3.8%	-3.6%	-11.8%	6.8%	-41.7%	-44.3%	7.1%	5.1%	-20.5%	34.4%

27.6% 7.3% 20.1% 3.2% 27.1% 2.3% 9.3% 9.3% -4.1% 28.1%

Source: Morningstar Direct	Rinomherd Finance   F	Russell S&P Dow lones Ind	lices LLC, a division of S&P, MSCI	FTSF: As of 12/31/2019

	YTD	1-Yr	3-Yr	5-Yr	10-Yr	TTM P/E	Div. Yield
U.S. Equity							
S&P 100 Index	32.2%	32.2%	15.7%	12.1%	13.4%	22.6x	1.9%
S&P 500 Index	31.5%	31.5%	15.3%	11.7%	13.6%	22.6x	1.9%
Russell 1000 Value Index	26.5%	26.5%	9.7%	8.3%	11.8%	18.2x	2.5%
Russell 1000 Growth Index	36.4%	36.4%	20.5%	14.6%	15.2%	28.6x	1.2%
Russell 2000 Index	25.5%	25.5%	8.6%	8.2%	11.8%	18.4x	1.5%
Russell 2000 Value Index	22.4%	22.4%	4.8%	7.0%	10.6%	14.9x	2.3%
Russell 2000 Growth Index	28.5%	28.5%	12.5%	9.3%	13.0%	25.0x	0.8%
Russell Micro Cap Index	22.4%	22.4%	6.4%	6.6%	11.3%	14.6x	1.4%
Non U.S. Equity							
MSCI ACWI ex U.S. Index	21.5%	21.5%	9.9%	5.5%	5.0%	16.2x	3.3%
MSCI EAFE Index	22.0%	22.0%	9.6%	5.7%	5.5%	17.4x	3.4%
MSCI EAFE Small Cap Index	25.0%	25.0%	10.9%	8.9%	8.7%	16.4x	2.9%
MSCI Emerging Markets Index	18.4%	18.4%	11.6%	5.6%	3.7%	14.4x	3.1%
MSCI Emerging Mkts. Small Cap Index	11.5%	11.5%	6.7%	3.0%	2.9%	15.1x	3.2%
MSCI Frontier Markets Index	18.0%	18.0%	9.2%	2.7%	5.3%	13.4x	3.7%
Global							
MSCI ACWI Index	26.6%	26.6%	12.4%	8.4%	8.8%	19.3x	2.5%
Fixed Income						Duration	YTW
Barclays US Aggregate Index	8.7%	8.7%	4.0%	3.0%	3.7%	5.9	2.3%
Barclays US Inv. Grade. Corp. Index	14.5%	14.5%	5.9%	4.6%	5.5%	7.9	2.8%
Barclays High Yield Index	14.3%	14.3%	6.4%	6.1%	7.6%	3.0	5.2%
Barclays US Corp Long AA+ Index	18.2%	18.2%	8.1%	6.0%	7.7%	16.0	3.1%
Barclays US Treasury Long Index	14.8%	14.8%	6.9%	4.1%	7.0%	18.1	2.3%
Barclays U.S. Municipal Bond Index	7.5%	7.5%	4.7%	3.5%	4.3%	5.3	1.8%
Barclays Global Agg. ex. U.S. Index	5.1%	5.1%	4.4%	1.6%	1.5%	8.2	0.7%
Barclays EM Debt (Local) Gov't Index	9.5%	9.5%	6.5%	2.8%	3.3%	6.8	3.7%
Alternatives							
Bloomberg Commodity Index	7.7%	7.7%	-0.9%	-3.9%	-4.7%		-
Bloomberg Commodity – Gold	18.0%	18.0%	9.0%	4.4%	2.7%		-
Bloomberg Commodity - WTI Crude Oil	34.4%	34.4%	4.0%	-7.7%	-9.5%		-
Bloomberg Commodity – Agriculture	1.7%	1.7%	-6.9%	-7.0%	-4.0%		-
FTSE REIT Index	28.1%	28.1%	10.3%	8.4%	12.5%	-	-
0 , 0	28.1%	28.1%	10.3%	8.4%	12.5%	-	



FTSE REIT Index

Bloomberg Commodity - Agriculture

#### **Total Fund**

**Total Fund Allocation** 

		Asset Allocation	vs. Target				
	Policy Range	Policy	%	Current	%	Difference*	%
Public Equity	35.0% - 45.0%	\$65,786,535	45.0%	\$69,827,758	47.8%	\$4,041,223	2.8%
Vanguard Total Stock Market Index		\$21,928,845	15.0%	\$25,407,157	17.4%	\$3,478,312	2.4%
Vanguard Total International Stock Index		\$14,619,230	10.0%	\$12,481,601	8.5%	-\$2,137,629	-1.5%
American New Perspective Fd R6		\$14,619,230	10.0%	\$16,328,872	11.2%	\$1,709,642	1.2%
Dodge & Cox Global Stock Fd		\$14,619,230	10.0%	\$15,610,128	10.7%	\$990,898	0.7%
Private Equity	0.0% - 10.0%	\$7,309,615	5.0%	\$5,140,903	3.5%	-\$2,168,712	-1.5%
Aberdeen U.S. Private Equity VI, L.P.				\$2,832,374	1.9%		
Weathergage Venture Capital IV				\$1,212,853	0.8%		
Greenspring Global Partners XI-B				\$1,095,676	0.7%		
Fixed Rate Debt	5.0% - 20.0%	\$14,619,230	10.0%	\$14,342,246	9.8%	-\$276,984	-0.2%
JP Morgan Core Bond Fund		\$14,619,230	10.0%	\$14,342,246	9.8%	-\$276,984	-0.2%
Floating Rate Debt	5.0% - 20.0%	\$21,928,845	15.0%	\$15,854,017	10.8%	-\$6,074,827	-4.2%
Barings Global Floating Rate Fund		\$7,309,615	5.0%	\$8,821,292	6.0%	\$1,511,678	1.0%
Golub Capital Partners 11, L.P.				\$2,684,983	1.8%		
Principal Real Estate Debt Fund				\$168,889	0.1%		
Principal Real Estate Debt Fund II				\$4,178,853	2.9%		
Low Volatility	5.0% - 15.0%	\$14,619,230	10.0%	\$14,832,633	10.1%	\$213,403	0.1%
Grosvenor Institutional Partners		\$7,309,615	5.0%	\$7,114,452	4.9%	-\$195,163	-0.1%
Parametric Defensive Equity		\$7,309,615	5.0%	\$7,718,181	5.3%	\$408,566	0.3%
Liquid Real Assets				\$8	0.0%	\$8	0.0%
Tortoise MLP Account		\$0	0.0%	\$8	0.0%	\$8	0.0%
Real Estate	10.0% - 20.0%	\$21,928,845	15.0%	\$22,629,461	15.5%	\$700,616	0.5%
Principal US Property Account		\$14,619,230	10.0%	\$13,311,848	9.1%	-\$1,307,382	-0.9%
Harbert US Real Estate Fund V				\$2,324,929	1.6%		
Harbert US Real Estate Fund VI				\$5,305,659	3.6%		
Harbert US Real Estate Fund VII				\$1,687,025	1.2%		
Cash	-	-	-	\$3,565,273	2.4%	\$3,565,273	2.4%
Operating Account		\$0	0.0%	\$3,565,273	2.4%	\$3,565,273	2.4%
Total		\$146,192,300	100.0%	\$146,192,300	100.0%		

<sup>\*</sup>Difference between Policy and Current Allocation



#### **Total Fund**

Total Fund Cash Flow Summary

	Cash Flow Summary								
	Quarter Ending December 31, 2019								
	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value					
Vanguard Total Stock Market Index	\$24,703,403	-\$1,500,000	\$2,203,753	\$25,407,157					
Vanguard Total International Stock Index	\$5,699,144	\$5,983,667	\$798,790	\$12,481,601					
American New Perspective Fd R6	\$15,298,513	-\$500,000	\$1,530,358	\$16,328,872					
Dodge & Cox Global Stock Fd	\$14,090,024	\$0	\$1,520,104	\$15,610,128					
Aberdeen U.S. Private Equity VI, L.P.	\$3,060,849	-\$220,974	-\$7,501	\$2,832,374					
Weathergage Venture Capital IV	\$1,148,853	\$64,000	\$0	\$1,212,853					
Greenspring Global Partners XI-B	\$735,676	\$360,000	\$0	\$1,095,676					
JP Morgan Core Bond Fund	\$15,362,483	-\$1,000,000	-\$20,238	\$14,342,246					
Barings Global Floating Rate Fund	\$9,672,560	-\$1,000,000	\$148,733	\$8,821,292					
Golub Capital Partners 11, L.P.	\$2,069,937	\$555,063	\$59,983	\$2,684,983					
Principal Real Estate Debt Fund	\$401,076	-\$234,793	\$2,606	\$168,889					
Principal Real Estate Debt Fund II	\$3,921,324	\$186,157	\$71,372	\$4,178,853					
Grosvenor Institutional Partners	\$6,908,824	\$0	\$205,628	\$7,114,452					
Parametric Defensive Equity	\$7,370,803	\$0	\$347,378	\$7,718,181					
Tortoise MLP Account	\$6,556,131	-\$5,984,595	-\$571,528	\$8					
Principal US Property Account	\$14,142,652	-\$1,000,000	\$169,197	\$13,311,848					
Harbert US Real Estate Fund V	\$3,142,923	-\$817,994	\$0	\$2,324,929					
Harbert US Real Estate Fund VI	\$5,139,557	\$166,102	\$0	\$5,305,659					
Harbert US Real Estate Fund VII	\$0	\$1,687,025	\$0	\$1,687,025					
Operating Account	\$1,867,965	\$1,683,131	\$14,177	\$3,565,273					
Total	\$141,292,697	-\$1,573,211	\$6,472,814	\$146,192,300					



#### **Total Fund**

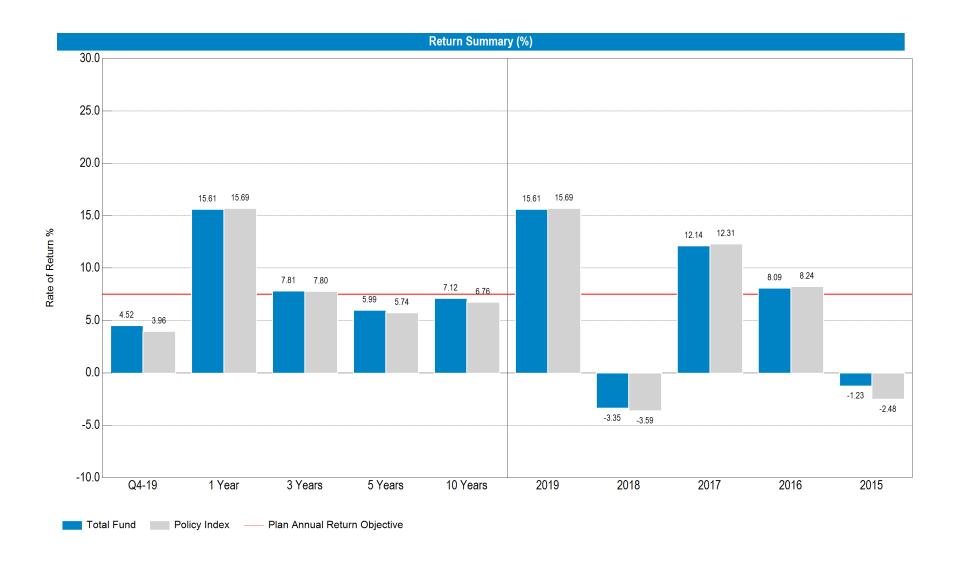
Total Fund Cash Flow Summary

	Cash Flow Summary			
		YTD Ending Dec	ember 31, 2019	
	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Vanguard Total Stock Market Index	\$15,254,948	\$4,650,000	\$5,502,208	\$25,407,157
Vanguard Total International Stock Index	\$11,680,436	-\$1,166,333	\$1,967,498	\$12,481,601
American New Perspective Fd R6	\$12,915,087	-\$500,000	\$3,913,785	\$16,328,872
Dodge & Cox Global Stock Fd	\$12,604,458	\$0	\$3,005,670	\$15,610,128
Aberdeen U.S. Private Equity VI, L.P.	\$2,670,598	-\$171,037	\$332,813	\$2,832,374
Weathergage Venture Capital IV	\$749,121	\$320,000	\$143,732	\$1,212,853
Greenspring Global Partners XI-B		\$1,080,000	\$15,676	\$1,095,676
JP Morgan Core Bond Fund	\$9,308,215	\$3,867,015	\$1,167,015	\$14,342,246
zWestern Asset Core Plus Bond	\$6,796,201	-\$6,985,147	\$188,946	
Barings Global Floating Rate Fund	\$10,039,014	-\$2,000,000	\$782,279	\$8,821,292
Golub Capital Partners 11, L.P.	\$1,054,475	\$1,439,279	\$191,229	\$2,684,983
Principal Real Estate Debt Fund	\$843,269	-\$716,024	\$41,644	\$168,889
Principal Real Estate Debt Fund II	\$3,231,310	\$624,844	\$322,699	\$4,178,853
Grosvenor Institutional Partners	\$6,712,797	\$0	\$401,655	\$7,114,452
Parametric Defensive Equity	\$6,639,636	\$0	\$1,078,545	\$7,718,181
Tortoise MLP Account	\$5,972,784	-\$5,984,595	\$11,818	\$8
Principal US Property Account	\$13,518,673	-\$1,000,000	\$793,175	\$13,311,848
Harbert US Real Estate Fund V	\$4,149,585	-\$1,906,627	\$81,971	\$2,324,929
Harbert US Real Estate Fund VI	\$4,671,573	\$260,077	\$374,009	\$5,305,659
Harbert US Real Estate Fund VII		\$1,687,025	\$0	\$1,687,025
Operating Account	\$2,365,152	\$1,145,315	\$54,806	\$3,565,273
Total	\$131,177,332	-\$5,356,208	\$20,371,176	\$146,192,300



#### **Total Fund**

**Total Fund Performance** As of December 31, 2019



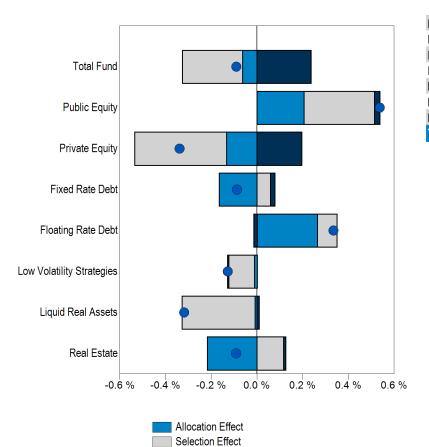


#### **Total Fund**

Total Fund Attribution Analysis

As of December 31, 2019

#### Attribution Effects 1 Year Ending December 31, 2019



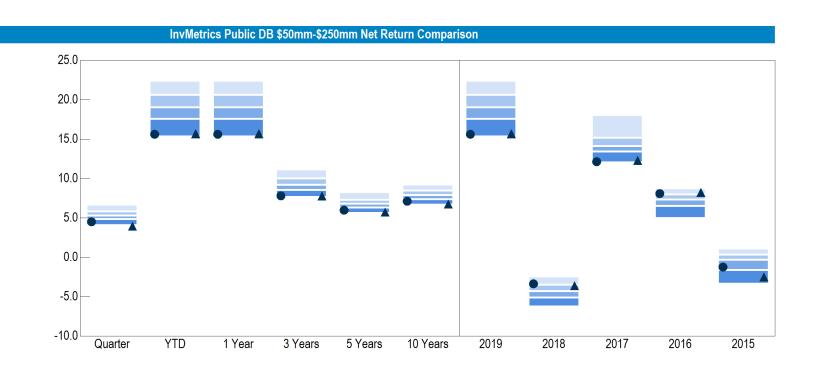
Interaction Effects Total Effect

Attribution Summary 1 Year Ending December 31, 2019										
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects			
Public Equity	27.4%	26.6%	0.8%	0.3%	0.2%	0.0%	0.6%			
Private Equity	12.2%	20.1%	-7.9%	-0.4%	-0.1%	0.2%	-0.3%			
Fixed Rate Debt	9.3%	8.7%	0.6%	0.1%	-0.2%	0.0%	-0.1%			
Floating Rate Debt	8.7%	8.2%	0.5%	0.1%	0.2%	0.0%	0.3%			
Low Volatility Strategies	11.1%	12.2%	-1.1%	-0.1%	0.0%	0.0%	-0.1%			
Liquid Real Assets	0.2%	6.6%	-6.4%	-0.4%	0.0%	0.1%	-0.3%			
Real Estate	5.8%	5.1%	0.7%	0.1%	-0.2%	0.0%	-0.1%			
Total	15.9%	16.0%	-0.1%	-0.3%	-0.1%	0.3%	-0.1%			



#### **Total Fund**

Total Fund Universe Performance



	Return (Ra	nk)									
5th Percentile	6.67	22.41	22.41	11.15	8.24	9.22	22.41	-2.41	18.05	8.75	1.11
25th Percentile	5.85	20.64	20.64	10.06	7.34	8.51	20.64	-3.45	15.19	8.03	0.39
Median	5.32	19.08	19.08	9.23	6.83	7.94	19.08	-4.25	14.16	7.36	-0.29
75th Percentile	4.87	17.60	17.60	8.59	6.36	7.42	17.60	-5.07	13.46	6.54	-1.57
95th Percentile	4.10	15.35	15.35	7.69	5.66	6.70	15.35	-6.20	12.07	5.00	-3.32
# of Portfolios	157	157	157	149	137	113	157	146	74	74	75
Total Fund	4.52 (86)	15.61 (9	94) 15.61 (94)	7.81 (93)	5.99 (89)	7.12 (86)	15.61 (94)	-3.35 (23)	12.14 (95)	8.09 (24)	-1.23 (71)
▲ Policy Index	3.96 (97)	15.69 (9	15.69 (94)	7.80 (93)	5.74 (93)	6.76 (94)	15.69 (94)	-3.59 (28)	12.31 (93)	8.24 (23)	-2.48 (90)

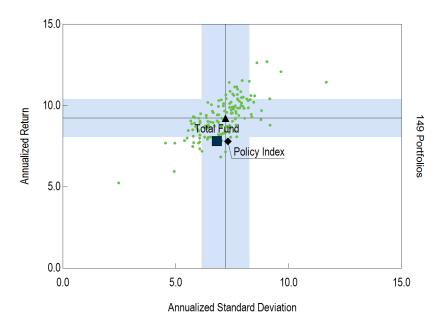


#### **Total Fund**

Quarterly Total Managed Investment Funds Risk/Return

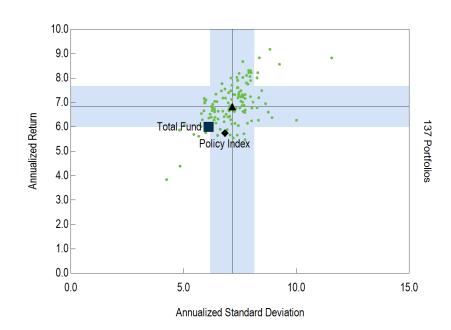
As of December 31, 2019

#### Annualized Return vs. Annualized Standard Deviation 3 Years Ending December 31, 2019



- Total Fund
- Policy Index
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB \$50mm-\$250mm Net

#### Annualized Return vs. Annualized Standard Deviation 5 Years Ending December 31, 2019



- Total Fund
- Policy Index
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB \$50mm-\$250mm Net

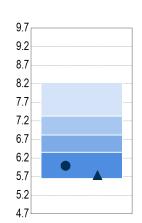


#### **Total Fund**

5 Year Risk Statistics vs IF Public DB \$50mm-\$250mm Net

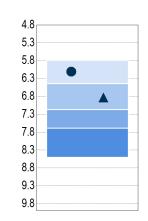
As of December 31, 2019

#### Return



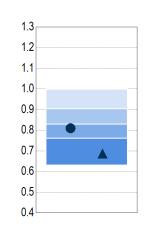
● Total Fund Value Rank ▲ Policy Index Value Rank	6.0 89 5.7 93
Universe 5th %tile 25th %tile Median 75th %tile 95th %tile	8.2 7.3 6.8 6.4 5.7

#### Standard Deviation



Total Fund	
Value	6.1
Rank	14
▲ Policy Index	•
Value	6.8
Rank	35
Marin	55
Universe	
5th %tile	5.8
25th %tile	6.4
Median	7.2
75th %tile	7.7
95th %tile	8.5

#### **Sharpe Ratio**



● Total Fund Value Rank ▲ Policy Index Value Rank	0.8 59 0.7 89
Universe 5th %tile 25th %tile Median 75th %tile 95th %tile	1.0 0.9 0.8 0.8 0.6



#### **Total Fund**

Total Fund Performance

		Perform	ance Sur	nmary									
	Ending December 31, 2019												
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)
Total Fund	146,192,300	100.0	4.5	15.6	15.6	7.8	6.0	7.1	15.6	-3.4	12.1	8.1	-1.2
Policy Index			4.0	15.7	15.7	7.8	5.7	6.8	15.7	-3.6	12.3	8.2	-2.5
InvMetrics Public DB \$50mm-\$250mm Net Median			5.3	19.1	19.1	9.2	6.8	7.9	19.1	-4.3	14.2	7.4	-0.3
Equity													
Public Equity	69,827,758	47.8	9.8	27.4	27.4	12.0	8.2		27.4	-10.1	22.7	7.2	-1.6
MSCI ACWI			9.0	26.6	26.6	12.4	8.4	8.8	26.6	-9.4	24.0	7.9	-2.4
InvMetrics Public DB Total Eq Net Median			8.7	26.9	26.9	12.3	8.8	9.9	26.9	-8.4	22.6	9.2	-1.4
Private Equity	5,140,903	3.5	-0.1	12.2	12.2	14.4	21.5		12.2	14.9	16.1	26.0	40.5
Russell 3000 Less Current Qtr			0.0	20.1	20.1	11.3	9.3	12.4	20.1	-5.2	21.1	12.7	0.5
Russell 3000			9.1	31.0	31.0	14.6	11.2	13.4	31.0	-5.2	21.1	12.7	0.5
Debt													
Fixed Rate Debt	14,342,246	9.8	-0.1	9.3	9.3	4.7	3.5		9.3	-0.4	5.5	2.7	0.8
BBgBarc US Aggregate TR			0.2	8.7	8.7	4.0	3.0	3.7	8.7	0.0	3.5	2.6	0.6
Intermediate Core Bond MStar MF Median			0.1	8.5	8.5	3.9	3.0	3.8	8.5	-0.3	3.9	3.2	0.2
Floating Rate Debt	15,854,017	10.8	1.8	8.7	8.7	6.1	6.0		8.7	3.7	6.1	8.5	3.0
Credit Suisse Leveraged Loans			1.7	8.2	8.2	4.5	4.5	5.2	8.2	1.1	4.2	9.9	-0.4
Alternatives		-						_					
Low Volatility Strategies	14,832,633	10.1	3.9	11.1	11.1	4.9	3.3	4.5	11.1	-2.2	6.3	2.3	-0.3
Low Volatility Custom Index			3.8	12.2	12.2	5.9	3.5	3.4	12.2	-2.5	8.5	0.5	-0.3
Liquid Real Assets	8	0.0											
Real Estate	22,629,461	15.5	0.8	5.8	5.8	8.4	9.6		5.8	9.2	10.4	9.8	13.0
Real Estate Custom Index			1.4	5.1	5.1	6.3	8.1		5.1	7.1	6.8	7.8	13.7



### Public Equity

As of December 31, 2019

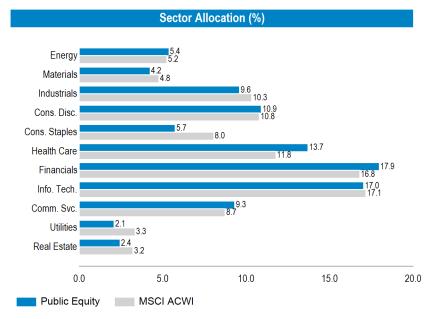
#### Ending December 31, 2019

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Public Equity	69,827,758	100.0	9.8	27.4	27.4	12.0	8.2		7.6	Jul-14
MSCI ACWI			9.0	26.6	26.6	12.4	8.4	8.8	7.2	Jul-14
InvMetrics Public DB Total Eq Net Rank			9	37	37	72	77		62	Jul-14
InvMetrics Public DB Total Eq Net Median			8.7	26.9	26.9	12.3	8.8	9.9	8.0	Jul-14
Vanguard Total Stock Market Index	25,407,157	36.4	9.0	30.8	30.8	14.6	-		11.9	Jul-15
CRSP Index			9.0	30.8	30.8	14.6	11.2	13.2	11.9	Jul-15
All Cap Blend MStar MF Rank			32	28	28	22			57	Jul-15
All Cap Blend MStar MF Median			8.2	27.9	27.9	11.0	9.0	12.2	12.3	Jul-15
Vanguard Total International Stock Index	12,481,601	17.9	9.0	21.6	21.6		-		5.7	Aug-18
FTSE Global All Cap ex US			9.3	22.2	22.2	10.2	6.2	5.7	6.1	Aug-18
Foreign Large Blend MStar MF Rank			38	58	58				33	Aug-18
Foreign Large Blend MStar MF Median			8.9	21.8	21.8	9.3	5.6	5.4	5.0	Aug-18
American New Perspective Fd R6	16,328,872	23.4	10.1	30.5	30.5		-		12.1	Jul-17
MSCI ACWI			9.0	26.6	26.6	12.4	8.4	8.8	9.3	Jul-17
MSCI ACWI Growth NR USD			10.2	32.7	32.7	16.6	10.7	10.4	12.7	Jul-17
World Large Stock Mstar MF Rank			21	28	28				21	Jul-17
World Large Stock Mstar MF Median			8.5	26.8	26.8	11.9	8.3	9.5	8.5	Jul-17
Dodge & Cox Global Stock Fd	15,610,128	22.4	10.8	23.8	23.8		-		5.8	Jul-17
MSCI ACWI			9.0	26.6	26.6	12.4	8.4	8.8	9.3	Jul-17
MSCI ACWI Value NR USD			7.6	20.6	20.6	8.4	6.1	7.2	5.9	Jul-17
World Large Stock Mstar MF Rank			15	72	72				83	Jul-17
World Large Stock Mstar MF Median			8.5	26.8	26.8	11.9	8.3	9.5	8.5	Jul-17



#### **Public Equity**

	Public Equity Performance Attribution vs.	MSCI ACWI	
		Attribution Effects	
	Total	Selection	Allocation
	Effects	Effect	Effect
Energy	-0.03%	-0.02%	-0.01%
Materials	-0.15%	-0.07%	-0.08%
Industrials	-0.20%	-0.15%	-0.06%
Consumer Discretionary	0.14%	0.14%	0.00%
Consumer Staples	-0.12%	-0.09%	-0.03%
Health Care	0.46%	0.14%	0.32%
Financials	0.57%	0.51%	0.06%
Information Technology	-0.06%	-0.24%	0.18%
Communication Services	0.17%	0.12%	0.05%
Utilities	-0.03%	-0.02%	-0.02%
Real Estate	-0.05%	-0.03%	-0.02%
Cash	0.01%	0.00%	0.01%
Portfolio	0.70% =	0.29% +	0.41%







### **Public Equity**

As of December 31, 2019

Country A	llocation	
,	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Europe		
Austria	0.0%	0.1%
Belgium	0.3%	0.3%
Croatia**	0.0%	0.0%
Czech Republic*	0.0%	0.0%
Denmark	0.8%	0.5%
Estonia**	0.0%	0.0%
Finland	0.1%	0.3%
France	4.5%	3.3%
Germany	1.8%	2.5%
Greece*	0.0%	0.0%
Hungary*	0.0%	0.0%
Ireland	0.3%	0.2%
Italy	1.0%	0.7%
Lithuania**	0.0%	0.0%
Luxembourg	0.1%	0.0%
Netherlands	1.7%	1.2%
Norway	0.2%	0.2%
Poland*	0.0%	0.1%
Portugal	0.0%	0.0%
Romania**	0.0%	0.0%
Russia*	0.4%	0.5%
Serbia**	0.0%	0.0%
Slovenia**	0.0%	0.0%
Spain	0.9%	0.8%
Sweden	0.5%	0.8%
Switzerland	3.5%	2.7%
United Kingdom	4.6%	4.8%
Total-Europe	20.9%	19.1%

Country Allocation							
Versus MSCI ACWI - Quarter Ending December 31, 2019							
		Manager	Index				
		Ending Allocation (USD) Ending A	Allocation (USD)				
Totals							
Developed		89.3%	87.9%				
Emerging*		8.9%	12.1%				
Frontier**		0.0%	0.0%				
Other		0.0%					
Cash		1.7%					

Country Allocation						
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)				
Americas						
Argentina*	0.0%	0.0%				
Brazil*	1.1%	0.9%				
Canada	2.0%	3.0%				
Chile*	0.0%	0.1%				
Colombia*	0.0%	0.0%				
Mexico*	0.6%	0.3%				
Peru*	0.0%	0.0%				
United States	59.3%	55.7%				
Total-Americas	63.1%	60.0%				

	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
AsiaPacific		
Australia	0.8%	2.0%
Bangladesh**	0.0%	0.0%
China*	1.8%	4.1%
Hong Kong	1.5%	1.0%
India*	1.3%	1.1%
Indonesia*	0.1%	0.2%
Japan	4.9%	7.2%
Korea*	1.0%	1.4%
Malaysia*	0.1%	0.2%
New Zealand	0.1%	0.1%
Pakistan*	0.0%	0.0%
Philippines*	0.0%	0.1%
Singapore	0.2%	0.4%
Sri Lanka**	0.0%	0.0%
Taiwan*	1.2%	1.4%
Thailand*	0.2%	0.3%
Vietnam**	0.0%	0.0%
Total-AsiaPacific	13.4%	19.6%

**Country Allocation** 

Country A	Allocation	
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Other		
Bahrain**	0.0%	0.0%
Egypt*	0.0%	0.0%
Israel	0.1%	0.2%
Jordan**	0.0%	0.0%
Kazakhstan**	0.0%	0.0%
Kenya**	0.0%	0.0%
Kuwait**	0.0%	0.0%
Lebanon**	0.0%	0.0%
Mauritius**	0.0%	0.0%
Morocco**	0.0%	0.0%
Nigeria**	0.0%	0.0%
Oman**	0.0%	0.0%
Other Countries	0.0%	0.0%
Qatar*	0.0%	0.1%
Saudi Arabia*	0.1%	0.3%
South Africa*	0.6%	0.6%
Tunisia**	0.0%	0.0%
Turkey*	0.0%	0.1%
United Arab Emirates*	0.0%	0.1%
Total-Other	1.0%	1.3%



### Private Equity

				N	lon-Marketab As of De	le Securities ecember 31, 20							
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	DPI (dist / takedowns)	RVPI (RV / takedowns)	TVPI (TV / takedown)	Takedown (takedowns / commit)	IRR
Private Equity Buyouts	Aberdeen U.S. Private Equity VI, L.P.	2015	\$3,000,000	\$2,652,551	\$954,509	\$2,832,374	\$3,786,883	\$347,449	35.98%	106.78%	142.76%	88.42%	17.91
	Total Private Equity Buyouts		\$3,000,000	\$2,652,551	\$954,509	\$2,832,374	\$3,786,883	\$347,449	35.98%	106.78%	142.76%	88.42%	17.91
Private Equity Venture	Weathergage Venture Capital IV	2016	\$1,600,000	\$1,024,000	\$0	\$1,212,853	\$1,212,853	\$576,000	0.00%	118.44%	118.44%	64.00%	11.31
	Greenspring Global Partners XI-B	2019	\$3,000,000	\$1,080,000	\$0	\$1,095,676	\$1,095,676	\$1,920,000	0.00%	101.45%	101.45%	36.00%	2.77
	Total Private Equity Venture		\$4,600,000	\$2,104,000	\$0	\$2,308,529	\$2,308,529	\$2,496,000	0.00%	109.72%	109.72%	45.74%	9.44
	Total Account		\$7,600,000	\$4,756,551	\$954,509	\$5,140,903	\$6,095,412	\$2,843,449	20.07%	108.08%	128.15%	62.59%	15.91



### Fixed Rate Debt

As of December 31, 2019

#### Ending December 31, 2019

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Fixed Rate Debt	14,342,246	100.0	-0.1	9.3	9.3	4.7	3.5		3.4	Jul-14
BBgBarc US Aggregate TR			0.2	8.7	8.7	4.0	3.0	3.7	3.1	Jul-14
Intermediate Core Bond MStar MF Rank			84	24	24	2	6		12	Jul-14
Intermediate Core Bond MStar MF Median			0.1	8.5	8.5	3.9	3.0	3.8	3.0	Jul-14
JP Morgan Core Bond Fund	14,342,246	100.0	-0.1	8.5	8.5	4.2	3.3		3.5	Sep-10
BBgBarc US Aggregate TR			0.2	8.7	8.7	4.0	3.0	3.7	3.2	Sep-10
Intermediate Core Bond MStar MF Rank			84	54	54	25	24		27	Sep-10
Intermediate Core Bond MStar MF Median			0.1	8.5	8.5	3.9	3.0	3.8	3.2	Sep-10

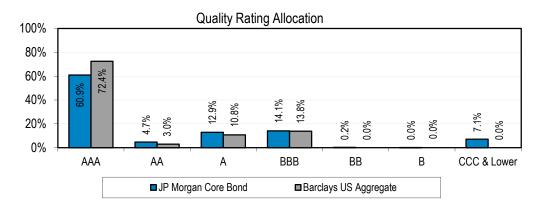


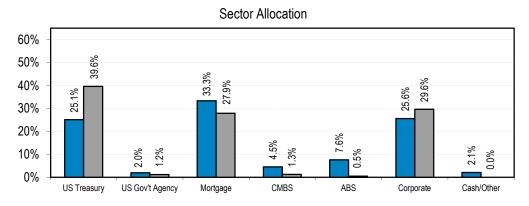
#### JP Morgan Core Bond Fund

As of December 31, 2019

#### **Bond Portfolio Characteristics**

	JP Morgan	Barclays US
	Core Bond	Aggregate
Effective Duration (years)	5.8	5.8
Average Quality	AA-	AA
Average Yield	2.6%	2.3%
Effective Maturity (years)	7.7	7.9







### Floating Rate Debt

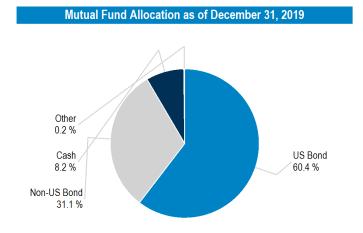
As of December 31, 2019

#### Ending December 31, 2019

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Floating Rate Debt	15,854,017	100.0	1.8	8.7	8.7	6.1	6.0		5.5	Jul-14
Credit Suisse Leveraged Loans			1.7	8.2	8.2	4.5	4.5	5.2	4.0	Jul-14
Barings Global Floating Rate Fund	8,821,292	55.6	1.8	8.3	8.3				3.7	Sep-18
Credit Suisse Leveraged Loans			1.7	8.2	8.2	4.5	4.5	5.2	3.9	Sep-18
Bank Loan MStar MF Rank			22	45	45				38	Sep-18
Bank Loan MStar MF Median			1.6	8.0	8.0	3.9	4.0	4.8	3.4	Sep-18
Golub Capital Partners 11, L.P.	2,684,983	16.9	2.3	10.1	10.1				9.9	Jul-17
Credit Suisse Leveraged Loans			1.7	8.2	8.2	4.5	4.5	5.2	4.6	Jul-17
Principal Real Estate Debt Fund	168,889	1.1	1.5	7.7	7.7	8.1	8.2		8.6	May-14
Credit Suisse Leveraged Loans			1.7	8.2	8.2	4.5	4.5	5.2	4.1	May-14
Principal Real Estate Debt Fund II	4,178,853	26.4	1.8	8.5	8.5				10.9	Aug-17
Credit Suisse Leveraged Loans			1.7	8.2	8.2	4.5	4.5	5.2	4.4	Aug-17



### Barings Global Floating Rate Fund



Fund Information as	of December 31, 2019	Top Holdings as of December 31, 2019					
Fund Name	BARINGS GLOBAL	VERISURE EUR TLB1-E (MAY-17)	1.12%				
T dila raino	FLOATING RATE I	HERTZ CORPORATION TL B	1.10%				
Ticker	BXFIX	MGM HOLDINGS, INC. 2ND LIEN	1.10%				
Morningstar Category  Bank Loan  Credit Suisse Leveraged	MAUSER PACKAGING SOLUTIONS (FKA BWAY) TL B	1.09%					
	Credit Suisse Leveraged	DUE 2024	1.0570				
Benchmark	Loans	SPRINT CORPORATION TL B	1.08%				
Expense Ratio	0.75%	KRONOS TL B	1.05%				
Fund Assets (\$mm)	41.79	FINASTRA (FKA MISYS) USD TLB (APR'17)	1.00%				
Share Class Inception Date	9/16/2013	FLINT GROUP USD TL-B	0.97%				
	6	INSPIRE BRANDS (FKA ARBY'S) FIRST LIEN TL	0.96%				
Manager Tenure 6		SEAWORLD ENTERTAINMENT (FKA BUSCH ENTERTAINMENT) TL B5	0.94%				

Fund Characteristics as of December 31, 2019	
Sharpe Ratio (3 Year)	
Average Duration	0.29
Average Coupon	5.26%
Average Effective Maturity	4.41
R-Squared (3 Year)	
Alpha (3 Year)	
Beta (3 Year)	

Fixed Income Sectors as of December 31, 2019	
GOVERNMENT	0.00%
MUNICIPAL	0.02%
CORPORATE	90.97%
SECURITIZED	0.74%
CASH & EQUIVALENTS	8.27%
DERIVATIVE	0.00%

Maturities as of December 31, 2019		Credit Quality as of December 31, 2019	
1 to 3 Years	14.53%	AAA	0.00%
3 to 5 Years	45.78%	AA	0.00%
5 to 7 Years	34.45%	A	0.00%
7 to 10 Years	3.28%	BBB	2.28%
10 to 15 Years	0.81%	BB	26.09%
15 to 20 Years	0.00%	В	53.43%
20 to 30 Years	0.00%	Below B	7.18%
Greater than 30 Years	0.00%	Not Rated	11.02%



### Floating Rate Debt

				N	on-Marketabl As of De	e Securities cember 31, 20							
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	DPI (dist / takedowns)	RVPI (RV / takedowns)	TVPI (TV / takedown)	Takedown (takedowns / commit)	IRR
Other	Golub Capital Partners 11, L.P.	2017	\$3,000,000	\$2,625,000	\$258,739	\$2,684,983	\$2,943,722	\$375,000	9.86%	102.29%	112.14%	87.50%	10.28
	Principal Real Estate Debt Fund		\$5,500,000	\$4,885,553	\$5,767,578	\$168,889	\$5,936,467	\$614,447	118.05%	3.46%	121.51%	88.83%	8.49
	Principal Real Estate Debt Fund II	2017	\$7,000,000	\$5,751,429	\$2,141,347	\$4,178,853	\$6,320,200	\$1,248,571	37.23%	72.66%	109.89%	82.16%	9.55
	Total Account		\$15,500,000	\$13,261,982	\$8,167,664	\$7,032,725	\$15,200,389	\$2,238,018	61.59%	53.03%	114.62%	85.56%	8.98



### Low Volatility Strategies

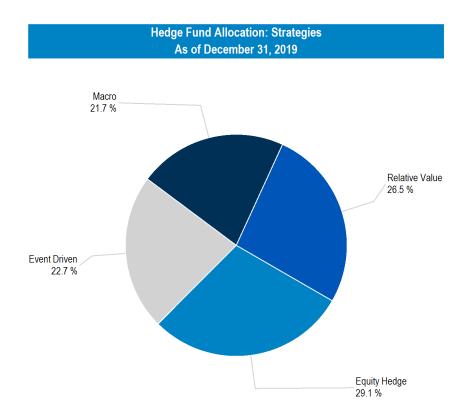
As of December 31, 2019

#### Ending December 31, 2019

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Low Volatility Strategies	14,832,633	100.0	3.9	11.1	11.1	4.9	3.3	4.5	2.9	May-07
Low Volatility Custom Index			3.8	12.2	12.2	5.9	3.5	3.4	1.9	May-07
Grosvenor Institutional Partners	7,114,452	48.0	3.0	6.0	6.0	3.4	2.4	4.0	2.6	May-07
HFRI Fund of Funds Composite Index			3.0	8.3	8.3	3.9	2.4	2.8	1.4	May-07
InvMetrics Public DB Hedge Funds Net Rank			38	70	70	66	62	48	51	May-07
InvMetrics Public DB Hedge Funds Net Median			2.6	7.7	7.7	4.7	3.1	3.8	2.6	May-07
Parametric Defensive Equity	7,718,181	52.0	4.7	16.2	16.2				6.7	Oct-17
50% S&P500/50%T-Bills			4.7	16.1	16.1	8.5	6.4		7.7	Oct-17



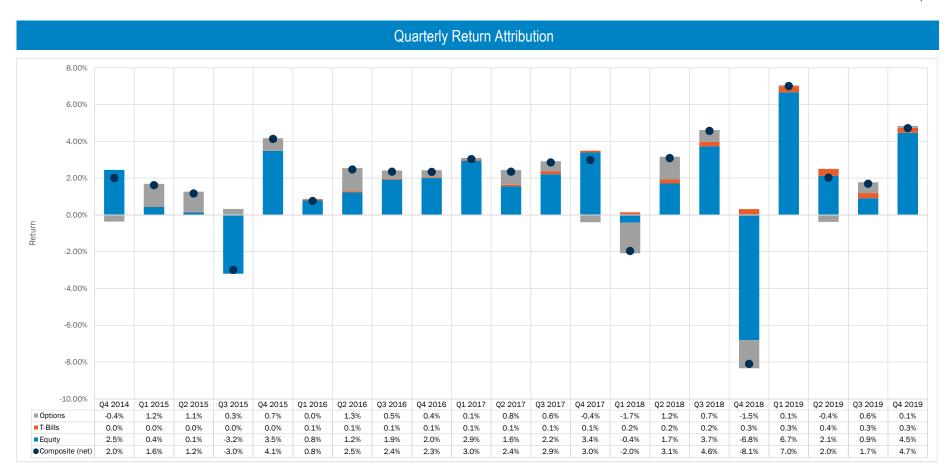
#### **Grosvenor Institutional Partners**



	dge Fund Strategy Allocation As of December 31, 2019	
Strategy	Market Value	Percent
Equity Hedge	\$2,073,151.31	29.14%
Event Driven	\$1,616,403.49	22.72%
Macro	\$1,540,990.30	21.66%
Relative Value	\$1,883,906.89	26.48%
TOTALS	\$7,114,452.00	100.00%



#### Parametric Defensive Equity





#### Real Estate

As of December 31, 2019

#### Ending December 31, 2019

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	22,629,461	100.0	0.8	5.8	5.8	8.4	9.6		10.3	Jul-14
Real Estate Custom Index			1.4	5.1	5.1	6.3	8.1		8.5	Jul-14
Principal US Property Account	13,311,848	58.8	1.3	6.0	6.0	7.3	8.9	11.3	7.1	Oct-04
NCREIF-ODCE Net			1.3	4.4	4.4	6.1	8.0	10.4	6.9	Oct-04
InvMetrics Public DB Real Estate Priv Net Rank			49	38	38	34	19	7	32	Oct-04
InvMetrics Public DB Real Estate Priv Net Median			1.3	5.8	5.8	7.2	8.5	10.2	6.3	Oct-04
Harbert US Real Estate Fund V	2,324,929	10.3	0.0	2.3	2.3	8.2	9.7		12.2	Jul-14
NCREIF Property Index			1.6	6.4	6.4	6.7	8.2	10.2	8.6	Jul-14
InvMetrics Public DB Real Estate Priv Net Rank			96	85	85	11	7		3	Jul-14
InvMetrics Public DB Real Estate Priv Net Median			1.3	5.8	5.8	7.2	8.5	10.2	8.9	Jul-14
Harbert US Real Estate Fund VI	5,305,659	23.4	0.0	7.9	7.9	12.3			8.4	Apr-16
NCREIF Property Index			1.6	6.4	6.4	6.7	8.2	10.2	6.9	Apr-16
InvMetrics Public DB Real Estate Priv Net Rank			96	9	9	1			7	Apr-16
InvMetrics Public DB Real Estate Priv Net Median			1.3	5.8	5.8	7.2	8.5	10.2	7.6	Apr-16
Harbert US Real Estate Fund VII	1,687,025	7.5	0.0		-				0.0	Oct-19
NCREIF Property Index			1.6	6.4	6.4	6.7	8.2	10.2	1.6	Oct-19



### Real Estate

				N	on-Marketabl As of De	le Securities ecember 31, 20							
Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	DPI (dist / takedowns)	RVPI (RV / takedowns)	TVPI (TV / takedown)	Takedown (takedowns / commit)	IRR
Real Estate	Harbert US Real Estate Fund V	2012	\$6,200,000	\$5,617,499	\$5,769,502	\$2,324,929	\$8,094,430	\$582,501	102.71%	41.39%	144.09%	90.60%	12.57
	Harbert US Real Estate Fund VI	2016	\$5,000,000	\$4,604,701	\$719,028	\$5,305,659	\$6,024,687	\$395,299	15.62%	115.22%	130.84%	92.09%	11.13
	Harbert US Real Estate Fund VII	2019	\$11,600,000	\$1,687,025	\$0	\$1,687,025	\$1,687,025	\$9,912,975	0.00%	100.00%	100.00%	14.54%	0.00
	Total Account		\$22,800,000	\$11,909,225	\$6,488,530	\$9,317,613	\$15,806,143	\$10,890,775	54.48%	78.24%	132.72%	52.23%	12.03

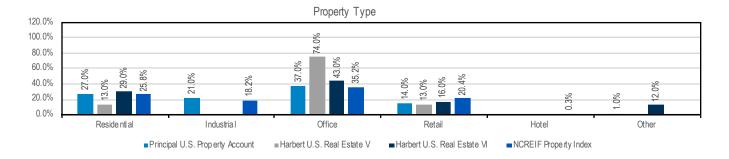


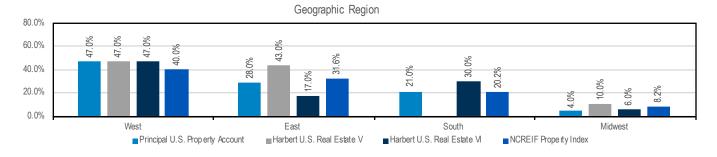
#### Private Equity Real Estate

As of December 31, 2019

#### Private Equity Real Estate Portfolio Characteristics As of December 31, 2019

	Principal U.S. Property	*Harbert U.S. Real	*Harbert U.S. Real Estate
	Account	Estate Fund V, LP	Fund VI, LP
Gross Asset Value	\$10.73 Billion	N/A	N/A
Net Asset Value	\$8.42 Billion	\$247.99 Million	\$487.30 Million
Leverage Ratio	18.8%	64.0%	63.0%
Number of Investments	133	15	30
Number of Markets	43	6	12
Portfolio Occupancy	93.4%	79.0%	87.0%





\*Information as of 09/30/2019



#### Benchmark History

As of December 31, 2019

Benchmark History
As of December 31, 2019

Total Fund		
12/1/2019	Present	MSCI ACWI 45% / Russell 3000 Less Current Qtr 5% / BBgBarc US Aggregate TR 10% / Credit Suisse Leveraged Loans 15% / HFRI Fund of Funds Composite Index 5% / 50% S&P500/50%T-Bills 5% / NCREIF-ODCE Net 10% / NCREIF Property Index 5%
11/1/2017	11/30/2019	MSCI ACWI 40% / Russell 3000 Less Current Qtr 5% / BBgBarc US Aggregate TR 10% / Credit Suisse Leveraged Loans 15% / Alerian MLP TR USD 5% / HFRI Fund of Funds Composite Index 5% / 50% S&P500/50%T-Bills 5% / NCREIF-ODCE Net 10% / NCREIF Property Index 5%
10/1/2017	10/31/2017	MSCI ACWI 40% / Russell 3000 5% / BBgBarc US Aggregate TR 15% / Credit Suisse Leveraged Loans 10% / Alerian MLP TR USD 5% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10% / NCREIF Property Index 5%
10/1/2014	9/30/2017	MSCI ACWI 40% / Russell 3000 5% / BBgBarc US Aggregate TR 10% / Credit Suisse Leveraged Loans 10% / Alerian MLP TR USD 10% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10% / NCREIF Property Index 5%
3/1/2014	9/30/2014	MSCI ACWI 50% / BBgBarc US Aggregate TR 20% / Credit Suisse Leveraged Loans 10% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
8/1/2013	2/28/2014	MSCI ACWI 50% / BBgBarc US Aggregate TR 25% / Credit Suisse Leveraged Loans 5% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
12/1/2011	7/31/2013	Russell 3000 30% / MSCI ACWI ex USA 20% / BBgBarc US Aggregate TR 30% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
9/1/2010	11/30/2011	Russell 3000 25% / MSCI ACWI ex USA 25% / BBgBarc US Aggregate TR 30% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
10/1/2009	8/31/2010	Russell 3000 30% / MSCI ACWI ex USA 30% / BBgBarc US Aggregate TR 20% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
10/1/2007	9/30/2009	Russell 3000 39% / MSCI EAFE 21% / BBgBarc US Aggregate TR 20% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
7/1/2007	9/30/2007	S&P 500 37% / Russell 2000 Growth 5% / MSCI EAFE 18% / BBgBarc US Aggregate TR 20% / HFRI Fund of Funds Composite Index 10% / NCREIF-ODCE Net 10%
4/1/2006	6/30/2007	S&P 500 37% / Russell 2000 Growth 5% / MSCI EAFE 18% / BBgBarc US Aggregate TR 30% / NCREIF-ODCE Net 10%
7/1/2005	3/31/2006	S&P 500 40% / Russell 2000 Growth 5% / MSCI EAFE 15% / BBgBarc US Aggregate TR 30% / NCREIF-ODCE Net 10%
10/1/2004	6/30/2005	S&P 500 35% / Russell 2000 Growth 10% / MSCI EAFE 15% / BBgBarc US Aggregate TR 30% / NCREIF-ODCE Net 10%
1/1/2004	9/30/2004	S&P 500 35% / Russell 2000 Growth 10% / MSCI EAFE 15% / BBgBarc US Aggregate TR 40%
10/1/1999	12/31/2003	S&P 500 35% / Russell 2000 Growth 10% / MSCI EAFE 15% / BBgBarc US Aggregate TR 20% / BBgBarc US Govt/Credit Int TR 20%
1/1/1998	9/30/1999	S&P 500 20% / Russell MidCap Growth 15% / Russell 2000 10% / MSCI EAFE 10% / BBgBarc US Aggregate TR 20% / BBgBarc US Govt/Credit Int TR 25%
1/1/1986	12/31/1997	S&P 500 40% / BBgBarc US Govt/Credit Int TR 60%

#### Low Volatility Strategies

HFRI Fund of Funds Composite Index 50% / 50% S&P500/50%T-Bills 50% 11/1/2017 Present

HFRI Fund of Funds Composite Index 100% 6/1/2007 10/31/2017

#### Real Estate

NCREIF-ODCE Net 67% / NCREIF Property Index 33% 10/1/2014 Present

7/1/2014 9/30/2014 NCREIF-ODCE Net 100%



### Manager Roster

Manager Roster											
As of December 31, 2019											
	Account Type	Benchmark	Universe	Market Value	Allocation	Inception					
Aberdeen U.S. Private Equity VI, L.P.	Private Equity			\$2,832,374	1.9%	12/1/2014					
American New Perspective Fd R6	Public Equity	MSCI ACWI	World Large Stock Mstar MF	\$16,328,872	11.2%	7/31/2017					
Barings Global Floating Rate Fund	Floating Rate Debt	Credit Suisse Leveraged Loans	Bank Loan MStar MF	\$8,821,292	6.0%	9/30/2018					
Dodge & Cox Global Stock Fd	Public Equity	MSCI ACWI	World Large Stock Mstar MF	\$15,610,128	10.7%	7/31/2017					
Golub Capital Partners 11, L.P.	Floating Rate Debt	Credit Suisse Leveraged Loans		\$2,684,983	1.8%	7/1/2017					
Greenspring Global Partners XI-B	Private Equity			\$1,095,676	0.7%	2/1/2019					
Grosvenor Institutional Partners	Low Volatility	HFRI Fund of Funds Composite Index	InvMetrics Public DB Hedge Funds Net	\$7,114,452	4.9%	5/31/2007					
Harbert US Real Estate Fund V	Real Estate	NCREIF Property Index	InvMetrics Public DB Real Estate Priv Net	\$2,324,929	1.6%	7/1/2014					
Harbert US Real Estate Fund VI	Real Estate	NCREIF Property Index	InvMetrics Public DB Real Estate Priv Net	\$5,305,659	3.6%	4/1/2016					
Harbert US Real Estate Fund VII	Real Estate	NCREIF Property Index		\$1,687,025	1.2%	10/1/2019					
JP Morgan Core Bond Fund	Fixed Rate Debt	BBgBarc US Aggregate TR	Intermediate Core Bond MStar MF	\$14,342,246	9.8%	9/1/2010					
Operating Account	Cash			\$3,565,273	2.4%	10/1/1998					
Parametric Defensive Equity	Low Volatility	50% S&P500/50%T-Bills		\$7,718,181	5.3%	10/31/2017					
Principal Real Estate Debt Fund	Floating Rate Debt	Credit Suisse Leveraged Loans		\$168,889	0.1%	5/1/2014					
Principal Real Estate Debt Fund II	Floating Rate Debt	Credit Suisse Leveraged Loans		\$4,178,853	2.9%	8/1/2017					
Principal US Property Account	Real Estate	NCREIF-ODCE Net	InvMetrics Public DB Real Estate Priv Net	\$13,311,848	9.1%	10/1/2004					
Tortoise MLP Account	Liquid Real Assets	Alerian MLP TR USD	Energy Limited Partnership Mstar MF	\$8	0.0%	9/1/2017					
Vanguard Total International Stock Index	Public Equity	FTSE Global All Cap ex US	Foreign Large Blend MStar MF	\$12,481,601	8.5%	8/31/2018					
Vanguard Total Stock Market Index	Public Equity	CRSP Index	All Cap Blend MStar MF	\$25,407,157	17.4%	7/31/2015					
Weathergage Venture Capital IV	Private Equity			\$1,212,853	0.8%	10/1/2016					
Total		Policy Index	InvMetrics Public DB \$50mm- \$250mm Net	\$146,192,300	100.0%	1/1/1986					



### Fee Schedule

	Fee Schedule				
Account	Fee Schedule	Market Value As of 12/31/2019	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Vanguard Total Stock Market Index	0.04% of Assets	\$25,407,157	17.4%	\$10,163	0.04%
Vanguard Total International Stock Index	0.09% of Assets	\$12,481,601	8.5%	\$11,233	0.09%
American New Perspective Fd R6	0.45% of Assets	\$16,328,872	11.2%	\$73,480	0.45%
Dodge & Cox Global Stock Fd	0.63% of Assets	\$15,610,128	10.7%	\$98,344	0.63%
Aberdeen U.S. Private Equity VI, L.P.	7,500 Quarterly	\$2,832,374	1.9%	\$30,000	
Weathergage Venture Capital IV	4,000 Quarterly	\$1,212,853	0.8%	\$16,000	
Greenspring Global Partners XI-B	7,500 Quarterly	\$1,095,676	0.7%	\$30,000	
JP Morgan Core Bond Fund	0.30% of Assets	\$14,342,246	9.8%	\$43,027	0.30%
Barings Global Floating Rate Fund	0.71% of Assets	\$8,821,292	6.0%	\$62,631	0.71%
Golub Capital Partners 11, L.P.	1.00% of Assets	\$2,684,983	1.8%	\$26,850	1.00%
Principal Real Estate Debt Fund	0.65% of Assets	\$168,889	0.1%	\$1,098	0.65%
Principal Real Estate Debt Fund II	0.85% of Assets	\$4,178,853	2.9%	\$35,520	0.85%
Grosvenor Institutional Partners	1.20% of Assets	\$7,114,452	4.9%	\$85,373	1.20%
Parametric Defensive Equity	0.35% of Assets	\$7,718,181	5.3%	\$27,014	0.35%
Principal US Property Account	1.00% of Assets	\$13,311,848	9.1%	\$133,118	1.00%
Harbert US Real Estate Fund V	Performance-based 1.50 and 20.00	\$2,324,929	1.6%	\$34,874	1.50%
Harbert US Real Estate Fund VI	15,625 Quarterly	\$5,305,659	3.6%	\$62,500	
Harbert US Real Estate Fund VII	39,150 Quarterly	\$1,687,025	1.2%	\$156,600	
Operating Account	0.18% of Assets	\$3,565,273	2.4%	\$6,417	0.18%
Investment Management Fee		\$146,192,292	100.0%	\$944,243	0.65%



**Endnotes** 

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