MEKETA

INVESTMENT GROUP

Austin Fire Fighters Relief and Retirement Fund

May 27, 2020

Meeting Material

Agenda

1. Executive Summary
2. 1Q20 Investment Report
3. Annual fee review
4. Operating Procedures Review
5. Memos Since Last Meeting
6. Roadmap
7. Appendices
    - Global Macroeconomic Outlook
    - Disclaimer, Glossary, and Notes

Executive Summary

1Q 20 Executive Summary

Category	Results	Notes
Total Fund Performance	Negative	-10.1% (~ -$100 mm unrealized loss)
Performance vs. Benchmarks	Mixed	-10.1% vs. -10.9% (static) and -9.4% (dynamic)
Performance vs. Peers[1]	Outperformed	-10.1% vs. -13.6% median (5th percentile)
Asset Allocation Attribution Effects	Positive	Underweight U.S. equity was additive, overweight PE was additive
Active Public Managers vs. Benchmarks	Underperformed	5 of 12 active managers beat respective benchmarks (after fees)
Active Public Managers vs. Peer Groups	Underperformed	5 of 11[2] active managers beat peer group median (after fees)
Compliance with Targets	In Compliance	All exposure within policy ranges

[1] InvMetrics Public DB $250mm-$1 billion net.

[2] Excludes Aberdeen EMD. No appropriate peer group for Aberdeen blended currency emerging market debt. Peer groups only exist for local currency or USD strategies.

Peer Rankings

- The Fund typically outperforms peers in negative or flat equity markets (because of the lower exposure to public equities).
- The Fund's 3 year and 5 year rankings have stayed very consistent (in the top quartile), despite significant volatility in short term quarterly rankings. We also note the consistent improvement in the 10 year ranking.

1Q20 - - (S&P 500 was -19.6%)

As of 3/31/20	1Q 20	1 YR	3 YR	5 YR	10 YR
Peer Ranking	5	8	8	8	25

4Q19 - - (S&P 500 was +9.1%)

As of 12/31/19	4Q 19	1 YR	3 YR	5 YR	10 YR
Peer Ranking[1]	71	73	19	19	45

3Q19 - - (S&P 500 was +1.7%)

As of 9/30/19	3Q 19	1 YR	3 YR	5 YR	10 YR
Peer Ranking	7	13	24	21	46

2Q19 - - (S&P 500 was +4.3%)

As of 6/30/19	2Q 19	1 YR	3 YR	5 YR	10 YR
Peer Ranking	84	51	30	25	62

1Q19 - - (S&P 500 was +13.6%)

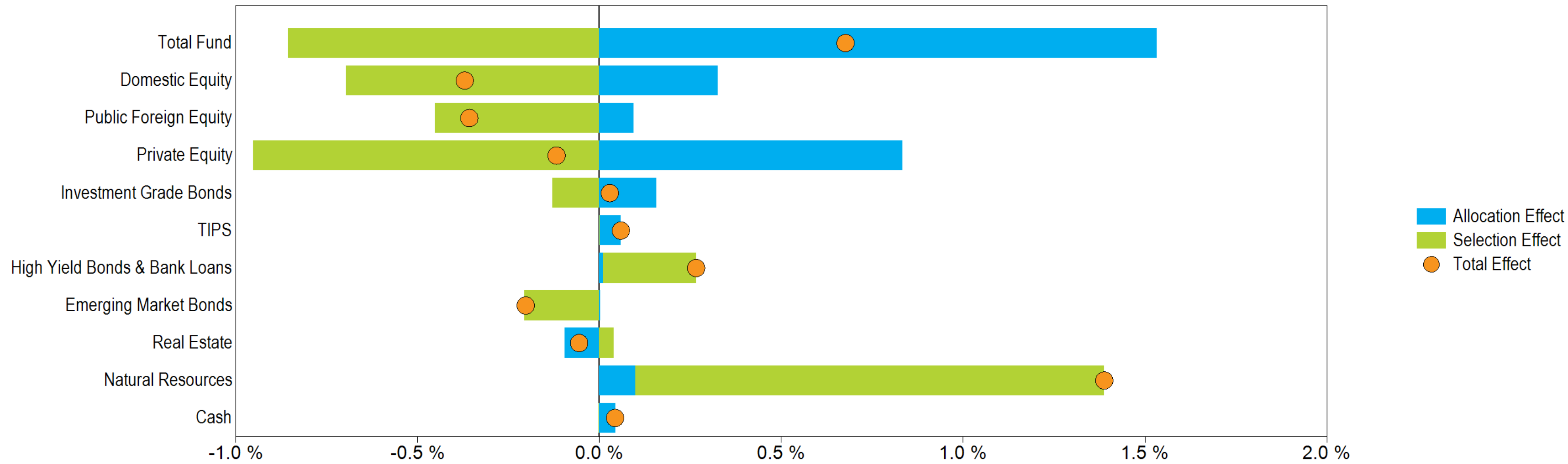
As of 3/31/19	1Q 19	1 YR	3 YR	5 YR	10 YR
Peer Ranking	98	79	19	21	65

[1] Rankings are based on the InvMetrics Public DB $250 mm - $1 bb net peer group. The 4Q19 data is based on the InvMetrics Public DB > $1 billion net peer group.

1Q20 Investment Report

Attribution Summary as of March 31, 2020

Attribution Effects

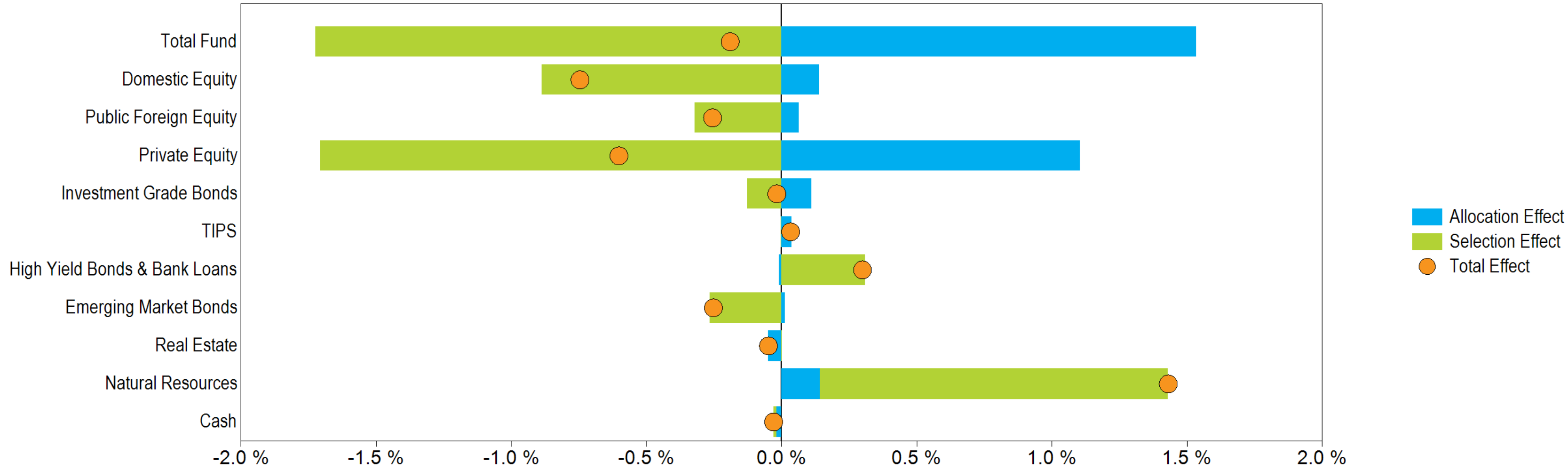


Attribution Summary
3 Months Ending March 31, 2020

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	20.0%	-24.8%	-20.9%	-3.9%	-0.7%	0.3%	-0.4%
Public Foreign Equity	22.0%	-25.2%	-23.4%	-1.9%	-0.5%	0.1%	-0.4%
Private Equity	15.0%	3.3%	9.0%	-5.6%	-1.0%	0.8%	-0.1%
Investment Grade Bonds	13.0%	2.2%	3.1%	-0.9%	-0.1%	0.2%	0.0%
TIPS	5.0%	1.7%	1.7%	0.0%	0.0%	0.1%	0.1%
High Yield Bonds & Bank Loans	5.0%	-6.2%	-12.6%	6.3%	0.3%	0.0%	0.3%
Emerging Market Bonds	7.0%	-15.8%	-12.5%	-3.3%	-0.2%	0.0%	-0.2%
Real Estate	10.0%	1.1%	0.7%	0.4%	0.0%	-0.1%	-0.1%
Natural Resources	3.0%	-1.4%	-43.9%	42.5%	1.3%	0.1%	1.4%
Cash	0.0%	0.0%	0.4%	-0.4%	0.0%	0.0%	0.0%
Total	**100.0%**	**-10.2%**	**-10.8%**	**0.7%**	**-0.9%**	**1.5%**	**0.7%**

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

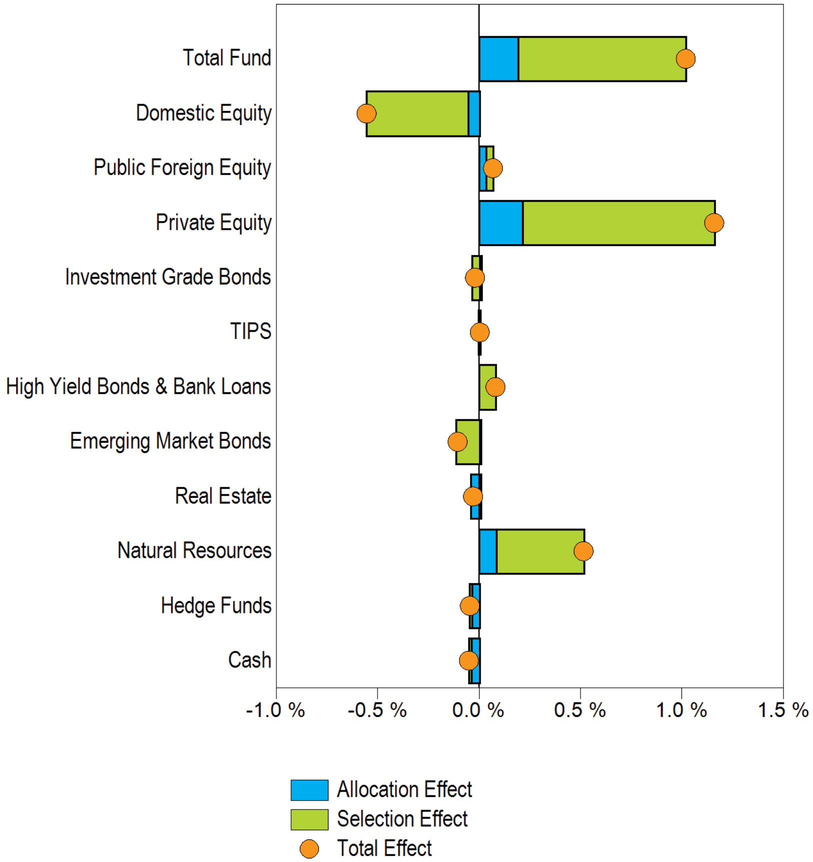
Performance Attribution



Attribution Summary 1 Year Ending March 31, 2020	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	20.0%	-14.4%	-9.1%	-5.3%	-0.9%	0.1%	-0.7%
Public Foreign Equity	22.0%	-17.1%	-15.6%	-1.6%	-0.3%	0.1%	-0.3%
Private Equity	15.0%	15.9%	26.6%	-10.7%	-1.7%	1.1%	-0.6%
Investment Grade Bonds	13.0%	8.0%	8.9%	-0.9%	-0.1%	0.1%	0.0%
TIPS	5.0%	6.8%	6.9%	-0.1%	0.0%	0.0%	0.0%
High Yield Bonds & Bank Loans	5.0%	-0.3%	-7.5%	7.2%	0.3%	0.0%	0.3%
Emerging Market Bonds	7.0%	-9.6%	-5.3%	-4.3%	-0.3%	0.0%	-0.3%
Real Estate	10.0%	5.3%	5.3%	0.0%	0.0%	-0.1%	0.0%
Natural Resources	3.0%	-1.2%	-43.2%	42.0%	1.3%	0.1%	1.4%
Cash	0.0%	0.0%	1.9%	-1.9%	0.0%	0.0%	0.0%
Total	**100.0%**	**-2.0%**	**-1.8%**	**-0.2%**	**-1.7%**	**1.5%**	**-0.2%**

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

Attribution Effects
3 Years Ending March 31, 2020

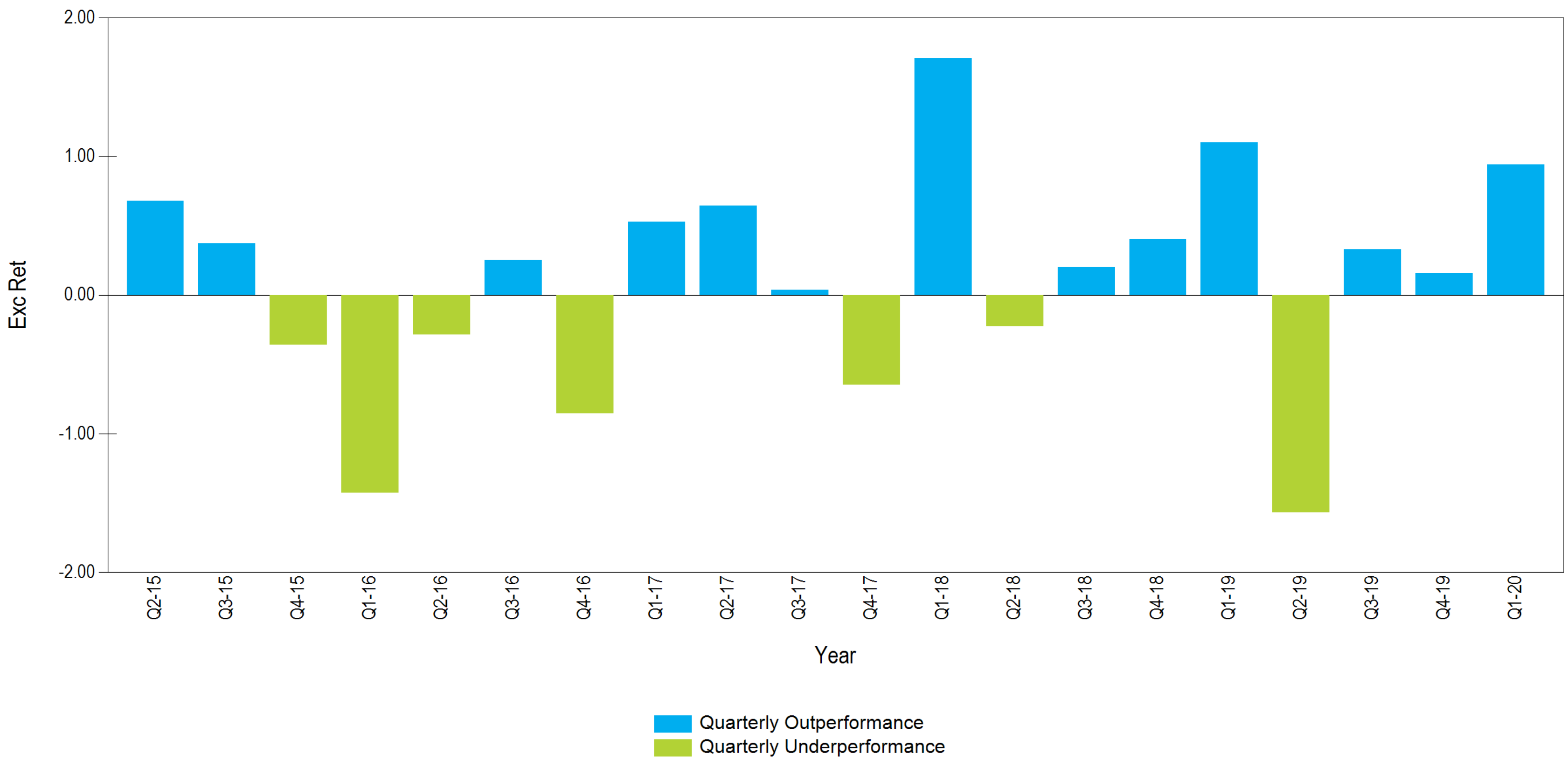


Attribution Summary
3 Years Ending March 31, 2020

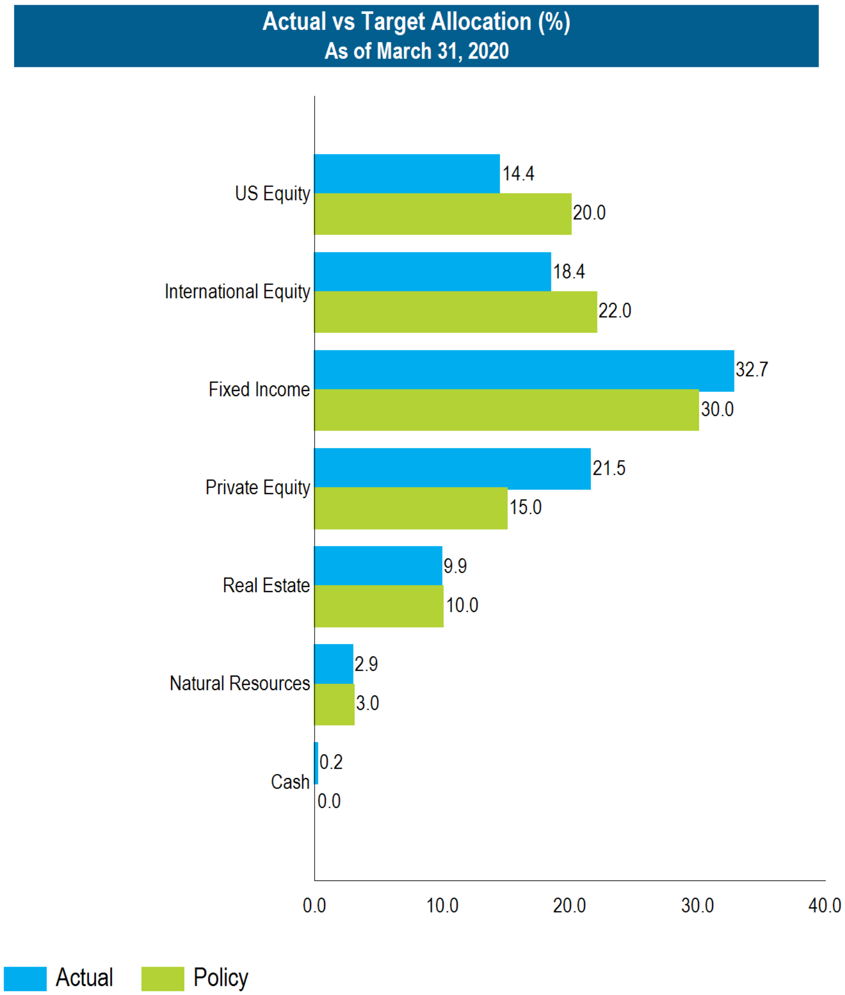
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	1.0%	4.0%	-3.0%	-0.5%	-0.1%	-0.6%
Public Foreign Equity	-2.2%	-2.0%	-0.3%	0.0%	0.0%	0.1%
Private Equity	15.9%	10.4%	5.5%	0.9%	0.2%	1.2%
Investment Grade Bonds	4.6%	4.8%	-0.2%	0.0%	0.0%	0.0%
TIPS	3.4%	3.5%	0.0%	0.0%	0.0%	0.0%
High Yield Bonds & Bank Loans	2.3%	0.3%	2.0%	0.1%	0.0%	0.1%
Emerging Market Bonds	-1.2%	0.7%	-1.9%	-0.1%	0.0%	-0.1%
Real Estate	6.5%	6.4%	0.1%	0.0%	0.0%	0.0%
Natural Resources	0.3%	-18.0%	18.3%	0.4%	0.1%	0.5%
Hedge Funds	--	2.0%	--	0.0%	0.0%	0.0%
Cash	0.0%	1.7%	-1.7%	0.0%	0.0%	-0.1%
Total	**4.3%**	**3.2%**	**1.0%**	**0.8%**	**0.2%**	**1.0%**

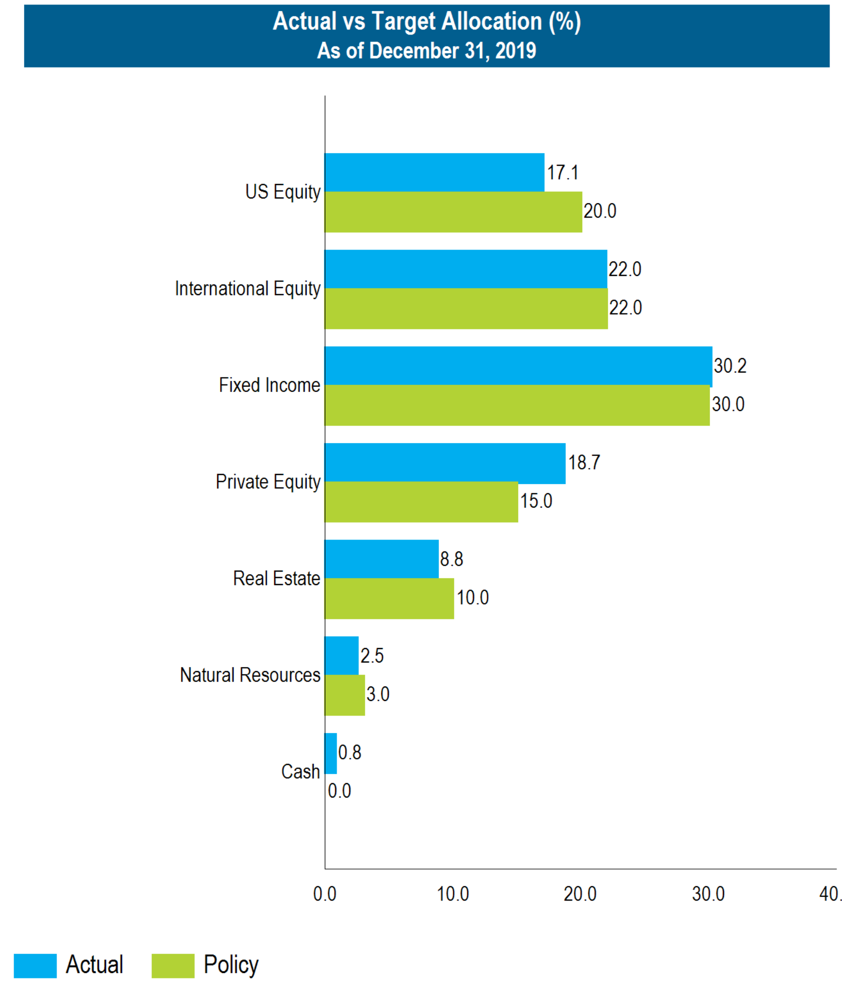
The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

Quarterly Excess Performance



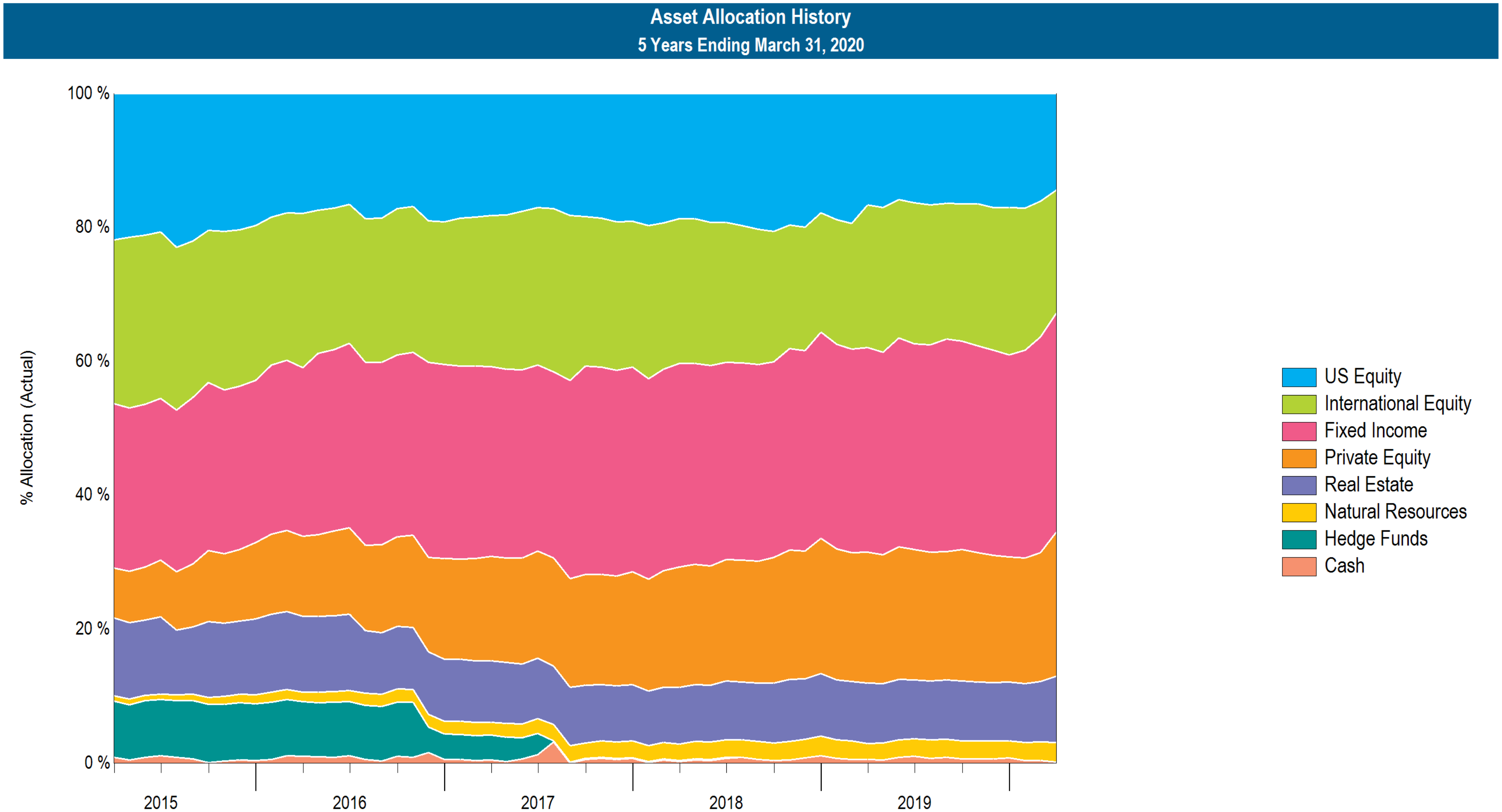
Fund Summary


Actual vs Target Allocation (%)
As of March 31, 2020
US Equity
14.4
20.0
International Equity
18.4
22.0
Fixed Income
32.7
30.0
Private Equity
21.5
15.0
Real Estate
9.9
10.0
Natural Resources
2.9
3.0
Cash
0.2
0.0
0.0
10.0
20.0
30.0
40.0
Actual
Policy


Actual vs Target Allocation (%)
As of December 31, 2019
US Equity
17.1
20.0
International Equity
22.0
22.0
Fixed Income
30.2
30.0
Private Equity
18.7
15.0
Real Estate
8.8
10.0
Natural Resources
2.5
3.0
Cash
0.8
0.0
0.0
10.0
20.0
30.0
40.0
Actual
Policy

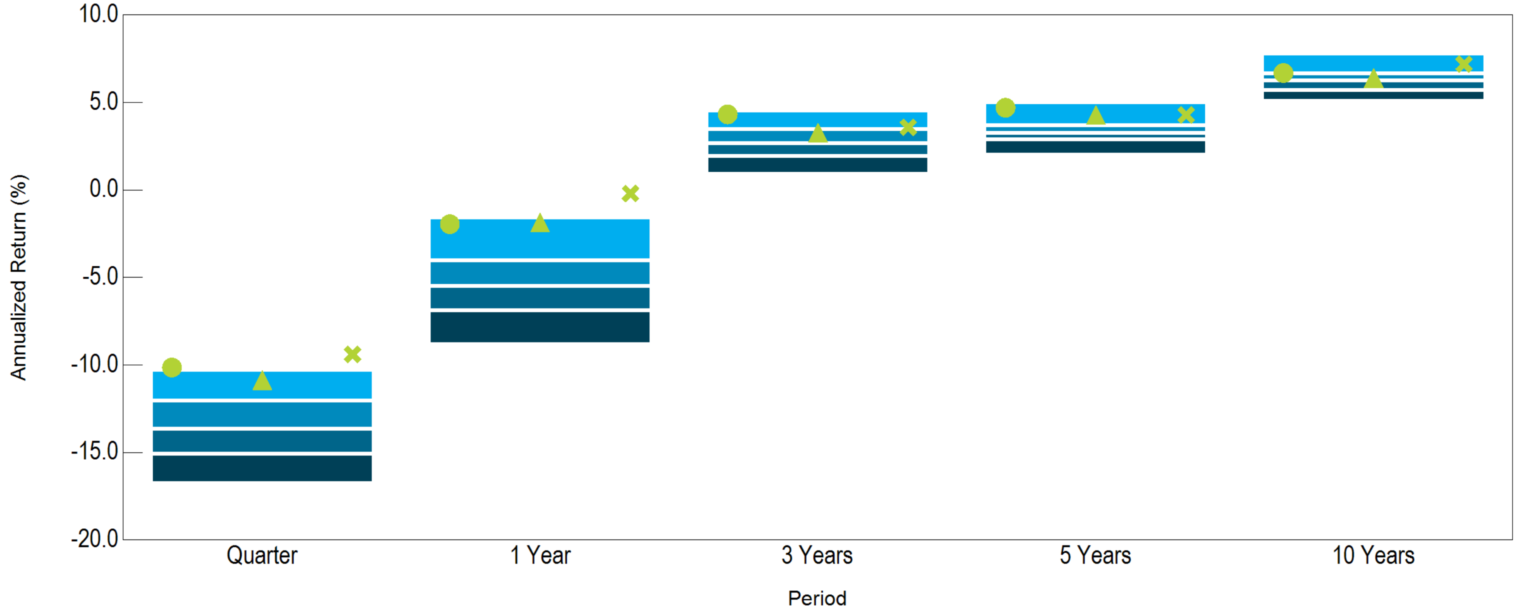
Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	$131,872,197	14%	20%	13% - 27%	Yes
International Equity	$168,440,365	18%	22%	15% - 29%	Yes
Fixed Income	$299,488,731	33%	30%	20% - 40%	Yes
Private Equity	$197,134,201	22%	15%	5% - 25%	Yes
Real Estate	$90,471,202	10%	10%	0% - 20%	Yes
Natural Resources	$26,729,730	3%	3%	0% - 5%	Yes
Cash	$1,377,508	0%	0%	0% - 5%	Yes
Total	**$915,513,934**	**100%**	**100%**		


Asset Allocation History
5 Years Ending March 31, 2020
100 %
80 %
60 %
40 %
20 %
0 %
% Allocation (Actual)
2015
2016
2017
2018
2019
US Equity
International Equity
Fixed Income
Private Equity
Real Estate
Natural Resources
Hedge Funds
Cash

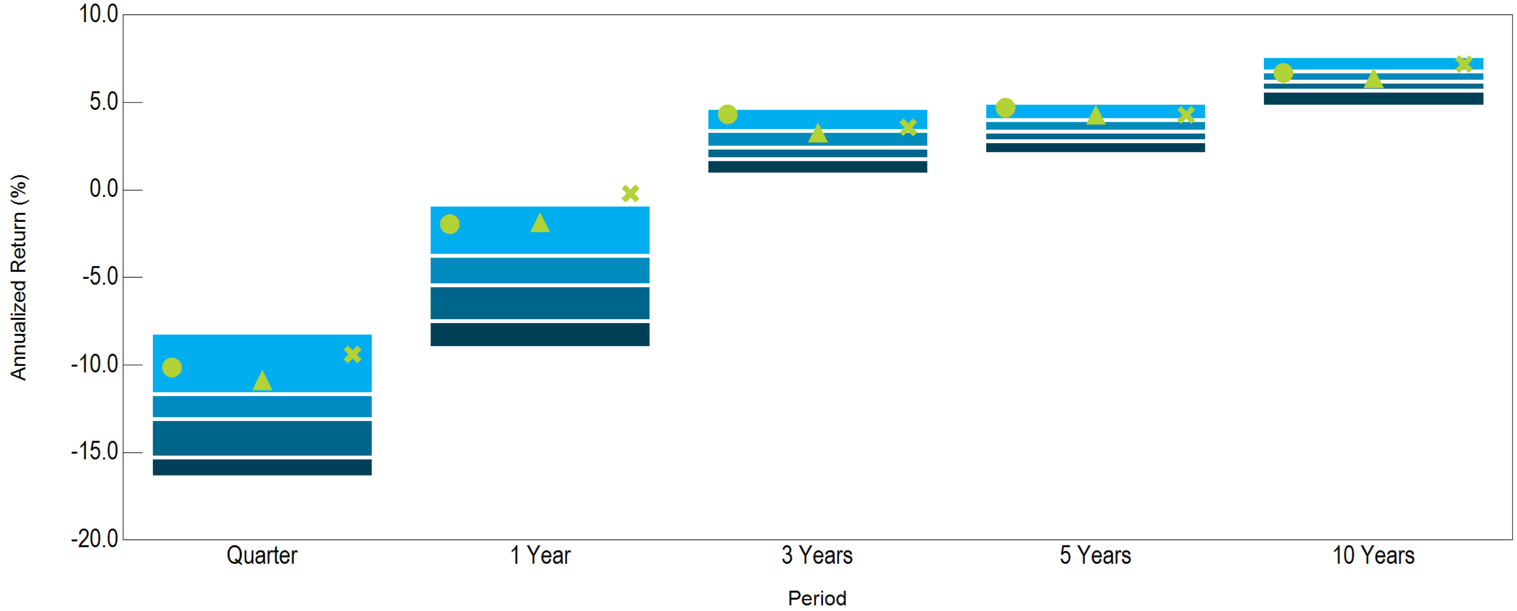

Return Summary
Ending March 31, 2020
15.0
9.0
3.0
-3.0
-9.0
-15.0
Rate of Return %
-10.1
-10.9
-9.4
-10.1
-10.9
-9.4
-2.0
-1.9
-0.2
4.3
3.3
3.6
4.7
4.3
4.3
6.7
6.4
7.2
Q1-20
YTD
1 Year
3 Years
5 Years
10 Years
Total Fund
Static Benchmark
Dynamic Benchmark

InvMetrics Public DB $250mm-$1B Net Accounts



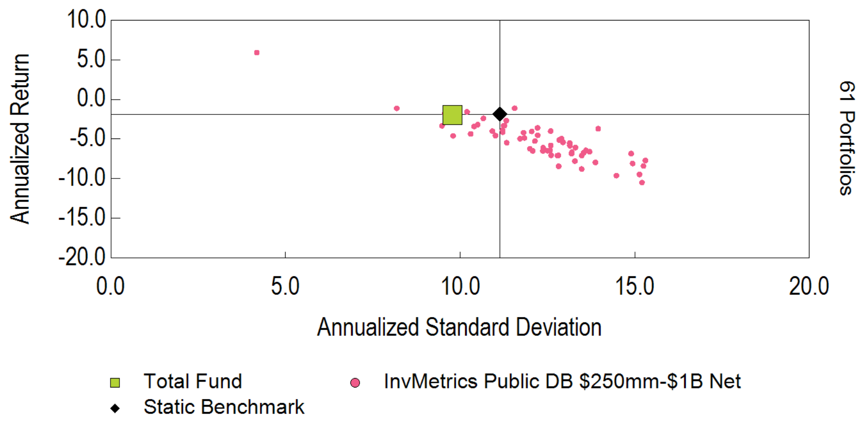
	Return (Rank)									
5th Percentile	-10.3		-1.6		4.5		5.0		7.8	
25th Percentile	-12.0		-4.0		3.5		3.7		6.7	
Median	-13.6		-5.5		2.7		3.3		6.3	
75th Percentile	-15.0		-6.8		2.0		2.9		5.7	
95th Percentile	-16.7		-8.8		0.9		2.0		5.1	
# of Portfolios	61		61		59		56		43	
Total Fund	-10.1	(5)	-2.0	(8)	4.3	(8)	4.7	(8)	6.7	(25)
Static Benchmark	-10.9	(10)	-1.9	(7)	3.3	(32)	4.3	(13)	6.4	(38)
Dynamic Benchmark	-9.4	(3)	-0.2	(2)	3.6	(24)	4.3	(13)	7.2	(18)

InvMetrics Public DB > $1B Net Accounts

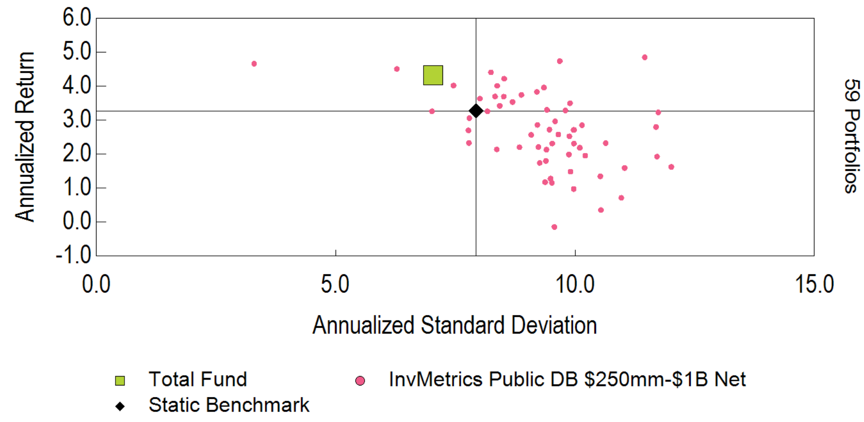


	Return (Rank)									
5th Percentile	-8.2		-0.9		4.7		4.9		7.6	
25th Percentile	-11.6		-3.8		3.4		4.0		6.8	
Median	-13.1		-5.4		2.4		3.4		6.2	
75th Percentile	-15.3		-7.5		1.8		2.8		5.7	
95th Percentile	-16.4		-9.0		0.9		2.1		4.8	
# of Portfolios	50		50		50		49		45	
Total Fund	-10.1	(13)	-2.0	(12)	4.3	(8)	4.7	(6)	6.7	(27)
Static Benchmark	-10.9	(15)	-1.9	(11)	3.3	(29)	4.3	(20)	6.4	(42)
Dynamic Benchmark	-9.4	(10)	-0.2	(3)	3.6	(22)	4.3	(20)	7.2	(12)

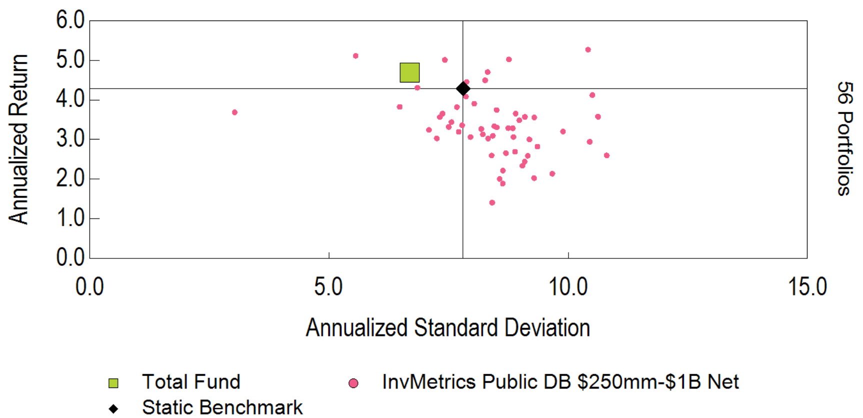
Annualized Return vs. Annualized Standard Deviation
1 Year Ending March 31, 2020



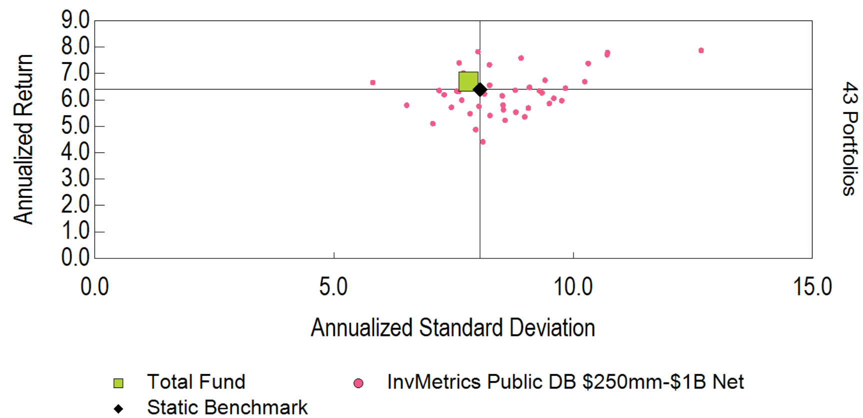
Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2020



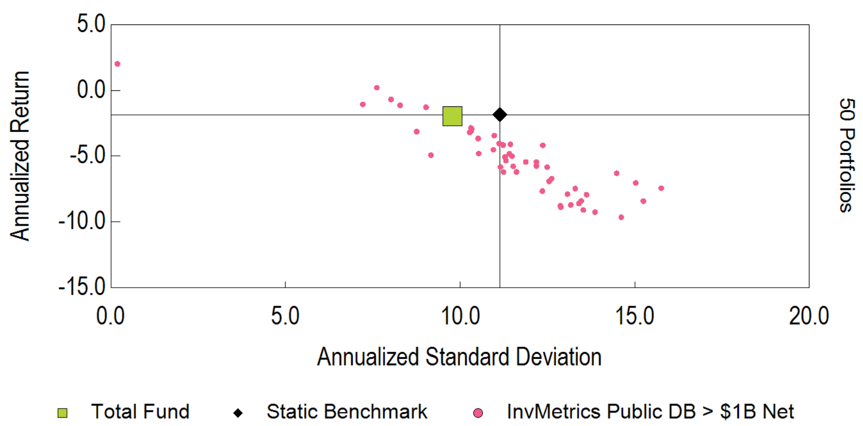
Annualized Return vs. Annualized Standard Deviation
5 Years Ending March 31, 2020



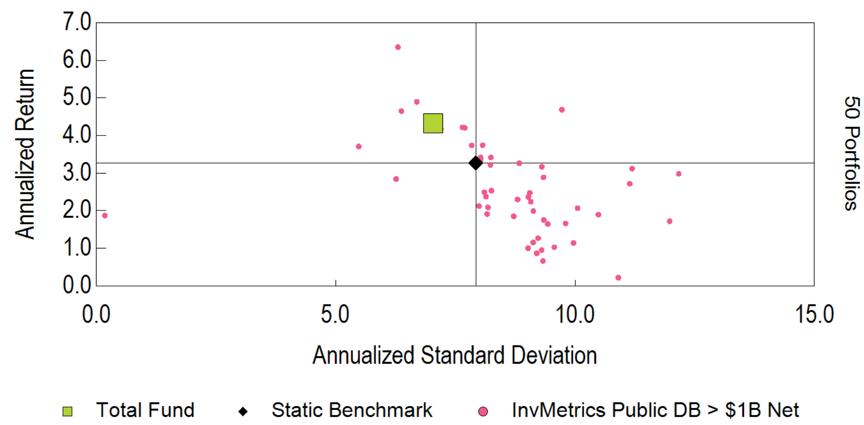
Annualized Return vs. Annualized Standard Deviation
10 Years Ending March 31, 2020



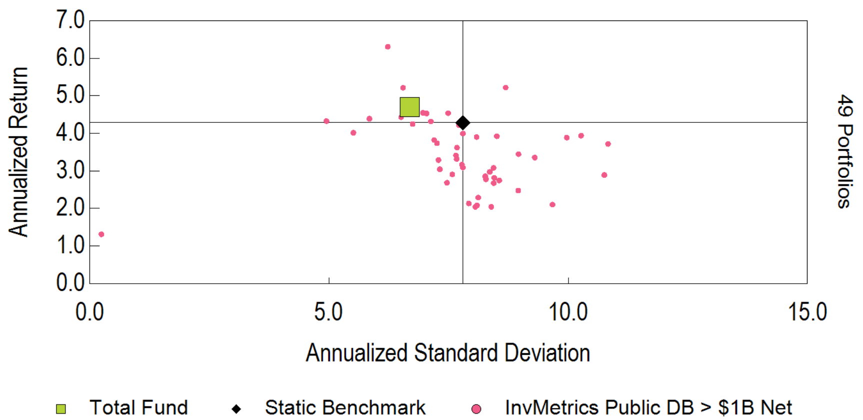
Annualized Return vs. Annualized Standard Deviation
1 Year Ending March 31, 2020



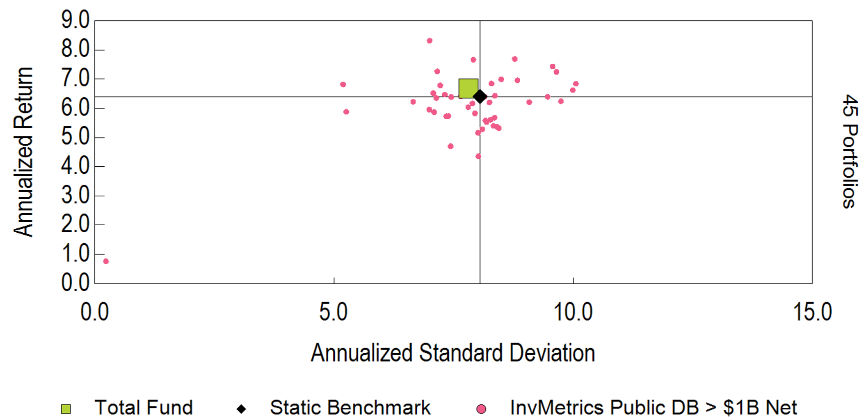
Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2020



Annualized Return vs. Annualized Standard Deviation
5 Years Ending March 31, 2020



Annualized Return vs. Annualized Standard Deviation
10 Years Ending March 31, 2020



Asset Class Performance Summary (Net of Fees)

	Market Value ($)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Fund	915,513,934	100.0	-10.1	-2.0	4.3	4.7	6.7	6.4	Mar-97
Static Benchmark			-10.9	-1.9	3.3	4.3	6.4	--	Mar-97
Dynamic Benchmark			-9.4	-0.2	3.6	4.3	7.2	--	Mar-97
Domestic Equity	131,872,197	14.4	-24.8	-14.4	1.0	3.1	8.4	6.9	Mar-97
Russell 3000			-20.9	-9.1	4.0	5.8	10.1	7.6	Mar-97
International Equity	168,440,365	18.4	-25.2	-17.1	-2.2	-0.1	2.8	4.7	Mar-97
Spliced International Equity Benchmark			-23.4	-15.6	-2.0	-0.6	2.1	4.3	Mar-97
Private Equity	197,134,201	21.5	3.3	15.9	15.9	15.0	15.1	15.6	May-10
Private Equity Benchmark			9.0	26.6	10.4	11.2	14.5	15.5	May-10
Fixed Income	299,488,731	32.7	-3.3	2.5	2.8	2.7	3.3	4.8	Mar-97
BBgBarc US Aggregate TR			3.1	8.9	4.8	3.4	3.9	5.3	Mar-97
Real Estate	90,471,202	9.9	1.2	5.3	6.5	8.0	10.6	3.3	Dec-07
NCREIF Property Index			0.7	5.3	6.4	7.6	10.2	6.1	Dec-07
Natural Resources	26,729,730	2.9	-1.4	-1.2	0.3	0.5	--	1.3	Feb-13
S&P North American Natural Resources TR			-43.9	-43.2	-18.0	-11.9	-4.3	-8.7	Feb-13
Cash	1,377,508	0.2							

Spliced international equity benchmark is MSCI ACWI-ex U.S. for all periods except 1/1/1997-1/1/1999. MSCI ACWI-ex U.S. is not available during this time period so the MSCI EAFE Index was used.

Private Equity Benchmark consists of the S&P 500 Index +3% prior to 3/31/2018, and the MSCI ACWI Index + 2% (Quarter Lagged) thereafter.

Trailing Net Performance

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Fund	**915,513,934**	**100.0**	**--**	**-10.1**	**-2.0**	**4.3**	**4.7**	**6.7**	**6.4**	**Mar-97**
Static Benchmark				*-10.9*	*-1.9*	*3.3*	*4.3*	*6.4*	*--*	*Mar-97*
Dynamic Benchmark				*-9.4*	*-0.2*	*3.6*	*4.3*	*7.2*	*--*	*Mar-97*
InvMetrics Public DB $250mm-$1B Net Median				*-13.6*	*-5.5*	*2.7*	*3.3*	*6.3*	*6.2*	*Mar-97*
InvMetrics Public DB $250mm-$1B Net Rank				*5*	*8*	*8*	*8*	*25*	*40*	*Mar-97*
Domestic Equity	**131,872,197**	**14.4**	**14.4**	**-24.8**	**-14.4**	**1.0**	**3.1**	**8.4**	**6.9**	**Mar-97**
Russell 3000				*-20.9*	*-9.1*	*4.0*	*5.8*	*10.1*	*7.6*	*Mar-97*
Westwood Capital Large Cap Value	37,742,784	4.1	28.6	-23.1	-11.2	2.2	4.0	8.1	7.3	Oct-01
Russell 1000 Value				*-26.7*	*-17.2*	*-2.2*	*1.9*	*7.7*	*6.2*	*Oct-01*
eV US Large Cap Value Equity Net Median				*-26.4*	*-16.9*	*-1.7*	*1.9*	*7.4*	*6.5*	*Oct-01*
eV US Large Cap Value Equity Net Rank				*21*	*16*	*12*	*17*	*31*	*22*	*Oct-01*
Westfield Small/Mid Cap Growth	36,593,420	4.0	27.7	-25.3	-13.2	3.5	2.7	9.8	11.0	Nov-02
Russell 2500 Growth				*-23.2*	*-14.4*	*3.4*	*3.6*	*10.1*	*10.2*	*Nov-02*
eV US Small-Mid Cap Growth Equity Net Median				*-20.6*	*-11.1*	*5.8*	*4.7*	*10.2*	*9.8*	*Nov-02*
eV US Small-Mid Cap Growth Equity Net Rank				*79*	*61*	*63*	*74*	*55*	*20*	*Nov-02*
Vaughan Nelson Small Cap Value	32,607,132	3.6	24.7	-29.5	-23.4	-7.0	--	--	-0.6	Jan-16
Russell 2000 Value				*-35.7*	*-29.6*	*-9.5*	*-2.4*	*4.8*	*-0.6*	*Jan-16*
eV US Small Cap Value Equity Net Median				*-35.1*	*-29.1*	*-9.7*	*-2.9*	*5.3*	*-1.5*	*Jan-16*
eV US Small Cap Value Equity Net Rank				*13*	*16*	*28*	*--*	*--*	*37*	*Jan-16*

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA S&P 500	24,928,861	2.7	18.9	-19.6	-7.0	5.1	6.7	10.5	7.4	Feb-04
S&P 500				*-19.6*	*-7.0*	*5.1*	*6.7*	*10.5*	*7.4*	*Feb-04*
eV US Large Cap Equity Net Median				*-20.8*	*-9.5*	*3.0*	*4.7*	*9.3*	*7.4*	*Feb-04*
eV US Large Cap Equity Net Rank				*42*	*39*	*36*	*28*	*31*	*49*	*Feb-04*
International Equity	**168,440,365**	**18.4**	**18.4**	**-25.2**	**-17.1**	**-2.2**	**-0.1**	**2.8**	**4.7**	**Mar-97**
Spliced International Equity Benchmark				*-23.4*	*-15.6*	*-2.0*	*-0.6*	*2.1*	*4.3*	*Mar-97*
Baillie Gifford International Growth Fund	33,717,152	3.7	20.0	-14.0	-1.2	7.9	5.7	7.1	10.1	May-09
MSCI ACWI ex USA				*-23.4*	*-15.6*	*-2.0*	*-0.6*	*2.1*	*5.2*	*May-09*
MSCI EAFE				*-22.8*	*-14.4*	*-1.8*	*-0.6*	*2.7*	*5.5*	*May-09*
eV ACWI ex-US All Cap Core Eq Net Median				*-21.9*	*-13.1*	*-0.7*	*0.1*	*3.6*	*6.4*	*May-09*
eV ACWI ex-US All Cap Core Eq Net Rank				*1*	*1*	*1*	*1*	*4*	*4*	*May-09*
Sanderson International Value	34,883,016	3.8	20.7	-28.4	-20.4	-5.8	-3.8	--	0.6	Feb-13
MSCI EAFE				*-22.8*	*-14.4*	*-1.8*	*-0.6*	*2.7*	*1.7*	*Feb-13*
eV EAFE All Cap Value Net Median				*-27.1*	*-19.3*	*-6.4*	*-3.3*	*2.3*	*0.5*	*Feb-13*
eV EAFE All Cap Value Net Rank				*67*	*59*	*40*	*70*	*--*	*49*	*Feb-13*
Highclere International Small Cap	33,668,397	3.7	20.0	-27.0	-16.2	-4.4	1.6	5.3	5.5	Dec-09
MSCI EAFE Small Cap				*-27.5*	*-18.1*	*-2.9*	*1.0*	*4.8*	*5.2*	*Dec-09*
eV EAFE Small Cap Equity Net Median				*-28.5*	*-19.0*	*-3.6*	*0.5*	*5.6*	*6.0*	*Dec-09*
eV EAFE Small Cap Equity Net Rank				*34*	*25*	*57*	*37*	*56*	*53*	*Dec-09*
SSgA MSCI EAFE Fund	21,187,167	2.3	12.6	-22.7	-14.0	-1.5	-0.3	--	2.0	Feb-13
MSCI EAFE				*-22.8*	*-14.4*	*-1.8*	*-0.6*	*2.7*	*1.7*	*Feb-13*
eV EAFE Core Equity Net Median				*-24.0*	*-15.9*	*-2.2*	*-0.5*	*3.8*	*2.4*	*Feb-13*
eV EAFE Core Equity Net Rank				*37*	*33*	*41*	*48*	*--*	*60*	*Feb-13*

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
DFA Emerging Markets Value	21,263,547	2.3	12.6	-31.9	-30.3	-8.3	-3.0	-2.1	-1.3	Dec-09
MSCI Emerging Markets Value NR USD				*-28.0*	*-25.3*	*-5.8*	*-3.0*	*-1.3*	*-0.7*	*Dec-09*
MSCI Emerging Markets				*-23.6*	*-17.7*	*-1.6*	*-0.4*	*0.7*	*1.3*	*Dec-09*
eV Emg Mkts All Cap Value Equity Net Median				*-27.1*	*-23.1*	*-4.5*	*-1.7*	*0.0*	*0.8*	*Dec-09*
eV Emg Mkts All Cap Value Equity Net Rank				*87*	*99*	*84*	*89*	*99*	*99*	*Dec-09*
TT Emerging Markets Equity	23,721,086	2.6	14.1	-27.3	-20.9	--	--	--	-20.9	Apr-19
MSCI Emerging Markets				*-23.6*	*-17.7*	*-1.6*	*-0.4*	*0.7*	*-17.7*	*Apr-19*
eV Emg Mkts Equity Net Median				*-25.0*	*-19.0*	*-2.7*	*-0.9*	*1.3*	*-19.0*	*Apr-19*
eV Emg Mkts Equity Net Rank				*69*	*68*	*--*	*--*	*--*	*68*	*Apr-19*
Private Equity	**197,134,201**	**21.5**	**21.5**	**3.3**	**15.9**	**15.9**	**15.0**	**15.1**	**15.6**	**May-10**
Private Equity Benchmark				*9.0*	*26.6*	*10.4*	*11.2*	*14.5*	*15.5*	*May-10*
LGT Crown Global Opportunities VI	27,614,089	3.0	14.0							
Cross Creek Capital Partners II - B	14,158,795	1.5	7.2							
Blue Bay Direct Lending	7,868,603	0.9	4.0							
Aberdeen Flag Private Equity VI	14,288,287	1.6	7.2							
HarbourVest 2013 Direct	7,666,754	0.8	3.9							
LGT Crown Asia II	10,544,367	1.2	5.3							
57 Stars Global Opportunity 3	10,206,265	1.1	5.2							
Constitution Capital Partners	15,272,643	1.7	7.7							

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Private Advisors Co-Investment Fund III	6,065,024	0.7	3.1							
Aberdeen Flag Private Equity V	8,833,530	1.0	4.5							
Partners Group Emerging Markets 2015	10,885,879	1.2	5.5							
Greenspring Global Partners V	10,062,762	1.1	5.1							
Greenspring Global Partners VI	13,190,088	1.4	6.7							
HarbourVest Co-Investment Fund IV	9,497,143	1.0	4.8							
Deutsche Bank SOF III	7,156,570	0.8	3.6							
Cross Creek Capital Partners III	8,984,979	1.0	4.6							
LGT Crown Europe Small Buyouts III	5,044,365	0.6	2.6							
LGT Crown Global Secondaries III	4,298,273	0.5	2.2							
Partners Group U.S. Distressed Private Equity 2009	903,669	0.1	0.5							
Private Equity Investors V	1,332,049	0.1	0.7							
LGT Crown Global Secondaries II	240,005	0.0	0.1							
SVB Strategic Investors Fund IX, L.P.	3,020,063	0.3	1.5							

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Fixed Income	**299,488,731**	**32.7**	**32.7**	**-3.3**	**2.5**	**2.8**	**2.7**	**3.3**	**4.8**	**Mar-97**
BBgBarc US Aggregate TR				*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*5.3*	*Mar-97*
SSgA Bond Fund	78,629,628	8.6	26.3	3.0	8.8	4.7	3.3	3.8	4.2	Jan-04
BBgBarc US Aggregate TR				*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*4.3*	*Jan-04*
eV US Core Fixed Inc Net Median				*1.7*	*7.3*	*4.4*	*3.2*	*3.9*	*4.4*	*Jan-04*
eV US Core Fixed Inc Net Rank				*16*	*16*	*18*	*36*	*65*	*65*	*Jan-04*
Loomis Sayles Core Plus Fixed Income	60,099,427	6.6	20.1	1.1	6.9	4.5	--	--	4.0	Jul-15
BBgBarc US Aggregate TR				*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*3.9*	*Jul-15*
eV US Core Plus Fixed Inc Net Median				*-0.6*	*5.5*	*3.9*	*3.1*	*4.3*	*3.7*	*Jul-15*
eV US Core Plus Fixed Inc Net Rank				*25*	*28*	*19*	*--*	*--*	*18*	*Jul-15*
Aberdeen Emerging Markets Bond Fund	53,169,871	5.8	17.8	-15.8	-9.6	-1.2	2.0	--	1.4	Dec-14
JP Morgan EMBI Global Diversified				*-13.4*	*-6.8*	*0.4*	*2.8*	*4.9*	*2.6*	*Dec-14*
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad				*-12.5*	*-5.3*	*0.7*	*2.9*	*4.0*	*2.2*	*Dec-14*
SSGA TIPS	53,649,100	5.9	17.9	1.7	6.8	3.4	2.6	--	2.1	Aug-14
BBgBarc US TIPS TR				*1.7*	*6.9*	*3.5*	*2.7*	*3.5*	*2.2*	*Aug-14*
eV US TIPS / Inflation Fixed Inc Net Median				*0.6*	*5.5*	*3.0*	*2.3*	*3.1*	*1.8*	*Aug-14*
eV US TIPS / Inflation Fixed Inc Net Rank				*25*	*23*	*30*	*31*	*--*	*36*	*Aug-14*
Pyramis Tactical Bond Fund	37,027,893	4.0	12.4	-6.2	0.9	3.0	3.4	--	3.9	Aug-13
BBgBarc US Aggregate TR				*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*3.7*	*Aug-13*
eV US Core Plus Fixed Inc Net Median				*-0.6*	*5.5*	*3.9*	*3.1*	*4.3*	*3.6*	*Aug-13*
eV US Core Plus Fixed Inc Net Rank				*99*	*94*	*84*	*25*	*--*	*27*	*Aug-13*

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pacific Asset Management Bank Loans	16,912,813	1.8	5.6	-9.5	--	--	--	--	-8.6	Dec-19
Credit Suisse Leveraged Loans				*-13.2*	*-9.5*	*-0.7*	*1.2*	*3.3*	*-11.8*	*Dec-19*
Bank Loan MStar MF Median				*-13.1*	*-9.5*	*-1.3*	*0.8*	*2.8*	*-11.5*	*Dec-19*
Bank Loan MStar MF Rank				*3*	*--*	*--*	*--*	*--*	*4*	*Dec-19*
Real Estate	**90,471,202**	**9.9**	**9.9**	**1.2**	**5.3**	**6.5**	**8.0**	**10.6**	**3.3**	**Dec-07**
NCREIF Property Index				*0.7*	*5.3*	*6.4*	*7.6*	*10.2*	*6.1*	*Dec-07*
Clarion Partners Lion Properties Fund	67,371,283	7.4	74.5	1.2	5.7	7.4	9.2	11.7	6.0	Apr-05
NCREIF ODCE Equal Weighted (Net)				*0.7*	*4.4*	*6.1*	*7.8*	*10.5*	*6.4*	*Apr-05*
Portfolio Advisors Real Estate Fund V	9,611,512	1.0	10.6							
Partners Group Global RE 2011	2,068,475	0.2	2.3							
Metropolitan Real Estate Distressed II	1,528,089	0.2	1.7							
Partners Group Distressed RE 2009	1,600,147	0.2	1.8							
Partners Group Real Estate Secondary 2017	8,291,696	0.9	9.2							
Natural Resources	**26,729,730**	**2.9**	**2.9**	**-1.4**	**-1.2**	**0.3**	**0.5**	**--**	**1.3**	**Feb-13**
S&P North American Natural Resources TR				*-43.9*	*-43.2*	*-18.0*	*-11.9*	*-4.3*	*-8.7*	*Feb-13*
Aether Real Assets III	12,183,830	1.3	45.6							
Aether Real Assets II	4,501,845	0.5	16.8							
Aether Real Assets IV	8,138,772	0.9	30.4							
Aether Real Assets V	1,905,283	0.2	7.1							

	Market Value ($)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Cash	**1,377,508**	**0.2**	**0.2**							
Cash	1,377,508	0.2	100.0							

Calendar Year Performance

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Total Fund	**15.7**	**-2.0**	**17.0**	**7.1**	**1.3**	**4.8**	**16.1**	**13.3**	**-2.6**	**13.8**
Static Benchmark	*15.5*	*-3.9*	*16.4*	*9.6*	*-0.1*	*5.7*	*15.1*	*12.6*	*-1.0*	*12.2*
Dynamic Benchmark	*14.2*	*-3.4*	*16.1*	*8.4*	*0.4*	*5.4*	*21.2*	*14.2*	*-2.1*	*14.9*
Domestic Equity	**29.4**	**-7.9**	**21.8**	**9.9**	**0.2**	**10.0**	**31.3**	**16.9**	**-0.5**	**18.2**
Russell 3000	*31.0*	*-5.2*	*21.1*	*12.7*	*0.5*	*12.6*	*33.6*	*16.4*	*1.0*	*16.9*
Westwood Capital Large Cap Value	27.3	-5.7	20.4	10.9	-0.1	11.9	29.6	16.0	-0.7	13.2
Russell 1000 Value	*26.5*	*-8.3*	*13.7*	*17.3*	*-3.8*	*13.5*	*32.5*	*17.5*	*0.4*	*15.5*
Westfield Small/Mid Cap Growth	35.2	-7.6	31.0	3.4	-4.1	7.8	37.2	19.5	-0.1	30.4
Russell 2500 Growth	*32.7*	*-7.5*	*24.5*	*9.7*	*-0.2*	*7.1*	*40.6*	*16.1*	*-1.6*	*28.9*
Vaughan Nelson Small Cap Value	25.0	-14.1	6.8	20.7	--	--	--	--	--	--
Russell 2000 Value	*22.4*	*-12.9*	*7.8*	*31.7*	*-7.5*	*4.2*	*34.5*	*18.0*	*-5.5*	*24.5*
SSgA S&P 500	31.5	-4.4	21.8	12.0	1.4	13.7	32.3	15.9	2.2	15.0
S&P 500	*31.5*	*-4.4*	*21.8*	*12.0*	*1.4*	*13.7*	*32.4*	*16.0*	*2.1*	*15.1*
International Equity	**22.4**	**-15.9**	**34.0**	**5.0**	**-4.4**	**-4.4**	**19.7**	**18.1**	**-16.2**	**14.2**
Spliced International Equity Benchmark	*21.5*	*-14.2*	*27.2*	*4.5*	*-5.7*	*-3.9*	*15.3*	*16.8*	*-13.7*	*11.2*
Baillie Gifford International Growth Fund	37.3	-17.3	45.5	1.4	-2.9	-6.4	29.9	17.6	-11.6	16.6
MSCI ACWI ex USA	*21.5*	*-14.2*	*27.2*	*4.5*	*-5.7*	*-3.9*	*15.3*	*16.8*	*-13.7*	*11.2*
MSCI EAFE	*22.0*	*-13.8*	*25.0*	*1.0*	*-0.8*	*-4.9*	*22.8*	*17.3*	*-12.1*	*7.8*
Sanderson International Value	20.5	-18.2	26.1	2.5	-5.5	-2.3	--	--	--	--
MSCI EAFE	*22.0*	*-13.8*	*25.0*	*1.0*	*-0.8*	*-4.9*	*22.8*	*17.3*	*-12.1*	*7.8*

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Highclere International Small Cap	23.5	-18.8	30.9	10.3	6.5	-4.4	24.6	20.2	-9.5	19.5
MSCI EAFE Small Cap	*25.0*	*-17.9*	*33.0*	*2.2*	*9.6*	*-4.9*	*29.3*	*20.0*	*-15.9*	*22.0*
SSgA MSCI EAFE Fund	22.4	-13.5	25.3	1.3	-0.6	-4.7	--	--	--	--
MSCI EAFE	*22.0*	*-13.8*	*25.0*	*1.0*	*-0.8*	*-4.9*	*22.8*	*17.3*	*-12.1*	*7.8*
DFA Emerging Markets Value	9.6	-11.9	33.8	19.8	-18.8	-4.4	-4.4	18.7	-26.1	21.6
MSCI Emerging Markets Value NR USD	*12.0*	*-10.7*	*28.1*	*14.9*	*-18.6*	*-4.1*	*-5.1*	*15.9*	*-17.9*	*19.8*
MSCI Emerging Markets	*18.4*	*-14.6*	*37.3*	*11.2*	*-14.9*	*-2.2*	*-2.6*	*18.2*	*-18.4*	*18.9*
TT Emerging Markets Equity	--	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets	*18.4*	*-14.6*	*37.3*	*11.2*	*-14.9*	*-2.2*	*-2.6*	*18.2*	*-18.4*	*18.9*
Private Equity	**16.1**	**15.8**	**17.7**	**9.4**	**12.7**	**23.3**	**7.7**	**6.2**	**21.7**	**--**
Private Equity Benchmark	*1.4*	*3.8*	*25.4*	*15.3*	*4.4*	*17.1*	*36.3*	*19.4*	*5.2*	*--*
LGT Crown Global Opportunities VI										
Cross Creek Capital Partners II - B										
Blue Bay Direct Lending										
Aberdeen Flag Private Equity VI										
HarbourVest 2013 Direct										
LGT Crown Asia II										
57 Stars Global Opportunity 3										
Constitution Capital Partners										

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Private Advisors Co-Investment Fund III										
Aberdeen Flag Private Equity V										
Partners Group Emerging Markets 2015										
Greenspring Global Partners V										
Greenspring Global Partners VI										
HarbourVest Co-Investment Fund IV										
Deutsche Bank SOF III										
Cross Creek Capital Partners III										
LGT Crown Europe Small Buyouts III										
LGT Crown Global Secondaries III										
Partners Group U.S. Distressed Private Equity 2009										
Private Equity Investors V										
LGT Crown Global Secondaries II										
SVB Strategic Investors Fund IX, L.P.										

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Fixed Income	**10.5**	**-2.0**	**5.6**	**6.9**	**-2.1**	**3.1**	**-2.4**	**8.3**	**5.1**	**6.6**
BBgBarc US Aggregate TR	*8.7*	*0.0*	*3.5*	*2.6*	*0.5*	*6.0*	*-2.0*	*4.2*	*7.8*	*6.5*
SSgA Bond Fund	8.7	0.0	3.5	2.6	0.5	5.9	-2.2	4.2	7.5	6.4
BBgBarc US Aggregate TR	*8.7*	*0.0*	*3.5*	*2.6*	*0.5*	*6.0*	*-2.0*	*4.2*	*7.8*	*6.5*
Loomis Sayles Core Plus Fixed Income	9.4	-0.4	5.4	6.9	--	--	--	--	--	--
BBgBarc US Aggregate TR	*8.7*	*0.0*	*3.5*	*2.6*	*0.5*	*6.0*	*-2.0*	*4.2*	*7.8*	*6.5*
Aberdeen Emerging Markets Bond Fund	15.1	-7.5	13.0	13.3	-2.7	--	--	--	--	--
JP Morgan EMBI Global Diversified	*15.0*	*-4.3*	*10.3*	*10.2*	*1.2*	*7.4*	*-5.3*	*17.4*	*7.3*	*12.2*
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	*14.2*	*-3.9*	*10.9*	*10.4*	*-1.3*	*3.1*	*-5.2*	*16.8*	*4.0*	*13.1*
SSGA TIPS	8.3	-1.3	3.0	4.6	-1.5	--	--	--	--	--
BBgBarc US TIPS TR	*8.4*	*-1.3*	*3.0*	*4.7*	*-1.4*	*3.6*	*-8.6*	*7.0*	*13.6*	*6.3*
Pyramis Tactical Bond Fund	13.2	-0.9	5.9	10.4	-1.8	5.3	--	--	--	--
BBgBarc US Aggregate TR	*8.7*	*0.0*	*3.5*	*2.6*	*0.5*	*6.0*	*-2.0*	*4.2*	*7.8*	*6.5*
Pacific Asset Management Bank Loans	--	--	--	--	--	--	--	--	--	--
Credit Suisse Leveraged Loans	*8.2*	*1.1*	*4.2*	*9.9*	*-0.4*	*2.1*	*6.2*	*9.4*	*1.8*	*10.0*

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
Real Estate	**5.6**	**8.6**	**7.5**	**7.8**	**13.1**	**10.5**	**10.5**	**9.4**	**17.0**	**16.5**
NCREIF Property Index	*6.4*	*6.7*	*7.0*	*8.0*	*13.3*	*11.8*	*11.0*	*10.5*	*14.3*	*13.1*
Clarion Partners Lion Properties Fund	6.3	9.2	8.0	9.3	15.7	12.3	11.8	9.9	17.7	18.0
NCREIF ODCE Equal Weighted (Net)	*5.2*	*7.3*	*6.9*	*8.3*	*14.2*	*11.4*	*12.4*	*9.9*	*15.0*	*15.1*
Portfolio Advisors Real Estate Fund V										
Partners Group Global RE 2011										
Metropolitan Real Estate Distressed II										
Partners Group Distressed RE 2009										
Partners Group Real Estate Secondary 2017										
Natural Resources	**-13.4**	**2.1**	**15.7**	**8.6**	**-6.3**	**6.7**	**--**	**--**	**--**	**--**
S&P North American Natural Resources TR	*17.6*	*-21.1*	*1.2*	*30.9*	*-24.3*	*-9.8*	*16.5*	*2.2*	*-7.4*	*23.9*
Aether Real Assets III										
Aether Real Assets II										
Aether Real Assets IV										
Aether Real Assets V										
Cash										
Cash										

Statistics Summary

5 Years Ending March 31, 2020

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
Total Fund	4.7%	6.7%	0.2	0.5	2.1%
Static Benchmark	4.3%	7.8%	--	0.4	0.0%
Domestic Equity	3.1%	15.3%	-1.1	0.1	2.4%
Russell 3000	5.8%	14.2%	--	0.3	0.0%
Westwood Capital Large Cap Value	4.0%	13.4%	0.6	0.2	3.3%
Russell 1000 Value	1.9%	14.8%	--	0.1	0.0%
Westfield Small/Mid Cap Growth	2.7%	18.8%	-0.2	0.1	4.5%
Russell 2500 Growth	3.6%	17.9%	--	0.1	0.0%
SSgA S&P 500	6.7%	13.7%	0.2	0.4	0.0%
S&P 500	6.7%	13.7%	--	0.4	0.0%
International Equity	-0.1%	15.8%	0.2	-0.1	2.7%
Spliced International Equity Benchmark	-0.6%	14.5%	--	-0.1	0.0%
Baillie Gifford International Growth Fund	5.7%	17.8%	0.8	0.3	7.9%
MSCI ACWI ex USA	-0.6%	14.5%	--	-0.1	0.0%
Sanderson International Value	-3.8%	15.8%	-0.8	-0.3	3.8%
MSCI EAFE	-0.6%	14.1%	--	-0.1	0.0%
Highclere International Small Cap	1.6%	14.9%	0.2	0.0	3.3%
MSCI EAFE Small Cap	1.0%	15.5%	--	0.0	0.0%
SSgA MSCI EAFE Fund	-0.3%	14.1%	2.2	-0.1	0.1%

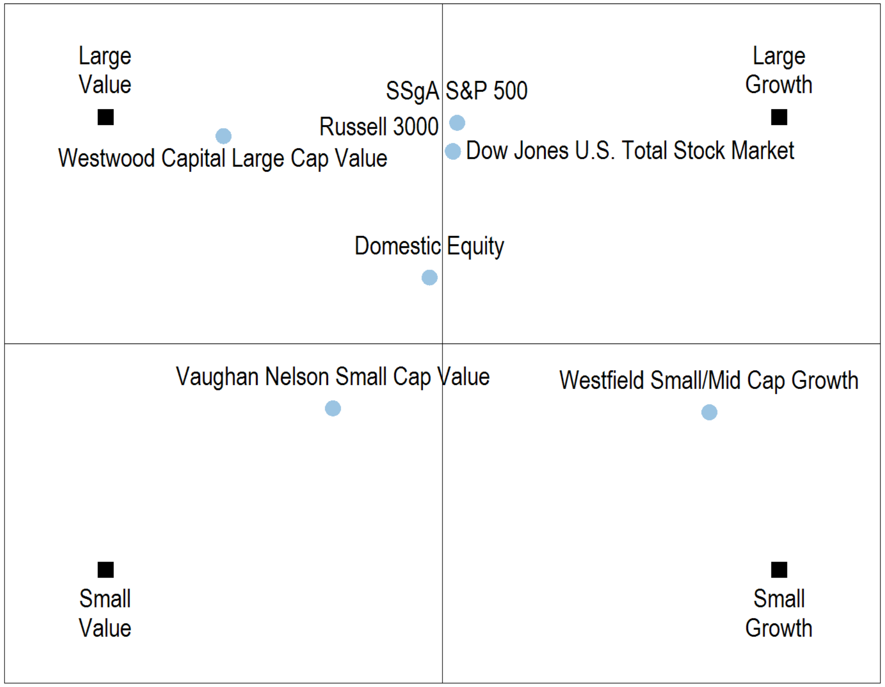
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
MSCI EAFE	-0.6%	14.1%	--	-0.1	0.0%
DFA Emerging Markets Value	-3.0%	19.7%	0.0	-0.2	3.0%
MSCI Emerging Markets Value NR USD	-3.0%	18.6%	--	-0.2	0.0%
Private Equity	15.0%	5.1%	0.3	2.7	13.4%
Private Equity Benchmark	11.2%	11.7%	--	0.9	0.0%
Fixed Income	2.7%	4.1%	-0.2	0.4	3.2%
BBgBarc US Aggregate TR	3.4%	3.1%	--	0.7	0.0%
SSgA Bond Fund	3.3%	3.1%	-1.1	0.7	0.1%
BBgBarc US Aggregate TR	3.4%	3.1%	--	0.7	0.0%
Aberdeen Emerging Markets Bond Fund	2.0%	10.1%	-0.3	0.1	2.6%
JP Morgan EMBI Global Diversified	2.8%	8.4%	--	0.2	0.0%
SSGA TIPS	2.6%	3.4%	-1.1	0.4	0.1%
BBgBarc US TIPS TR	2.7%	3.4%	--	0.5	0.0%
Pyramis Tactical Bond Fund	3.4%	5.0%	0.0	0.5	4.4%
BBgBarc US Aggregate TR	3.4%	3.1%	--	0.7	0.0%
Real Estate	8.0%	3.6%	0.2	1.9	1.9%
NCREIF Property Index	7.6%	3.3%	--	2.0	0.0%
Clarion Partners Lion Properties Fund	9.2%	4.2%	0.9	1.9	1.6%
NCREIF ODCE Equal Weighted (Net)	7.8%	3.5%	--	1.9	0.0%
Natural Resources	0.5%	11.2%	0.5	-0.1	27.0%
S&P North American Natural Resources TR	-11.9%	24.9%	--	-0.5	0.0%

Fund Detail

Domestic Equity

Asset Allocation on March 31, 2020	Actual	Actual
Westwood Capital Large Cap Value	$37,742,784	28.6%
Westfield Small/Mid Cap Growth	$36,593,420	27.7%
Vaughan Nelson Small Cap Value	$32,607,132	24.7%
SSgA S&P 500	$24,928,861	18.9%
Total	**$131,872,197**	**100.0%**

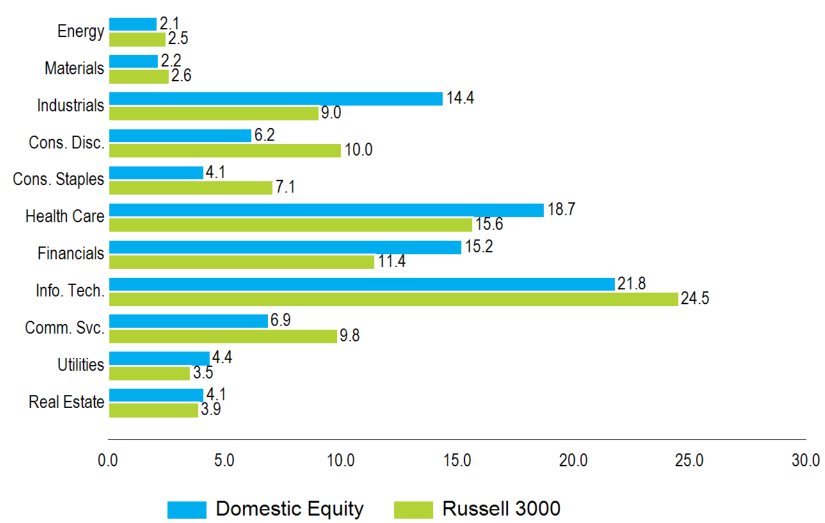
Domestic Equity Style Map
3 Years Ending March 31, 2020



Domestic Equity Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	131.9	--	175.1
Number Of Holdings	637	2976	627
Characteristics			
Weighted Avg. Market Cap. ($B)	93.0	227.2	107.1
Median Market Cap ($B)	14.0	1.1	19.3
P/E Ratio	16.3	16.8	21.9
Yield	1.9	2.3	1.6
EPS Growth - 5 Yrs.	12.8	12.9	14.2
Price to Book	3.1	3.6	3.2

Sector Allocation (%) vs Russell 3000



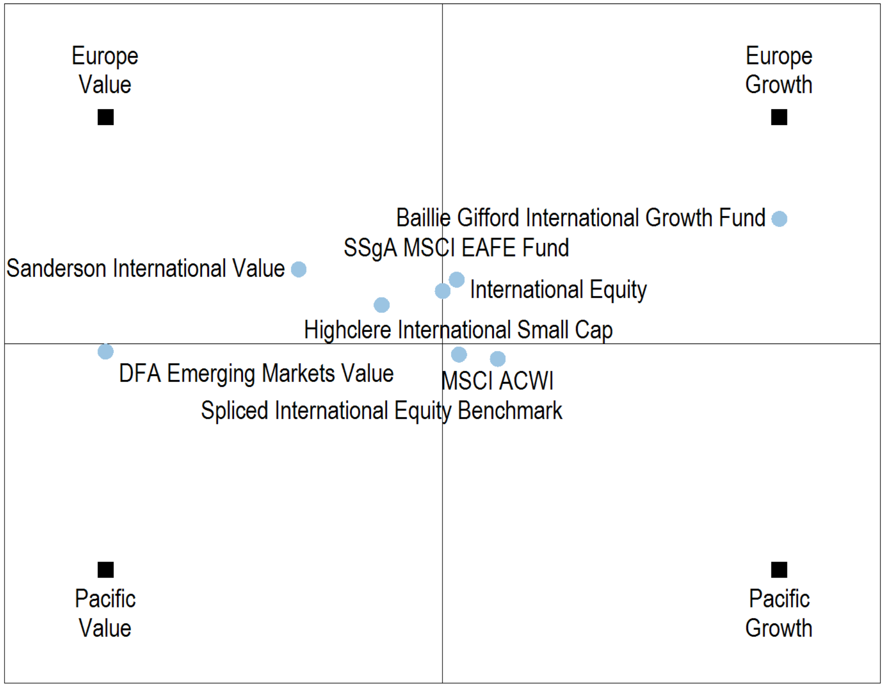
Top 10 Holdings

MICROSOFT	1.8%
JP MORGAN CHASE & CO.	1.3%
CACI INTERNATIONAL 'A'	1.3%
ALPHABET A	1.3%
APPLE	1.2%
JOHNSON & JOHNSON	1.2%
CVS HEALTH	1.1%
WELLS FARGO & CO	1.0%
CABOT MICROELS.	1.0%
HONEYWELL INTL.	1.0%
Total	**12.0%**

International Equity

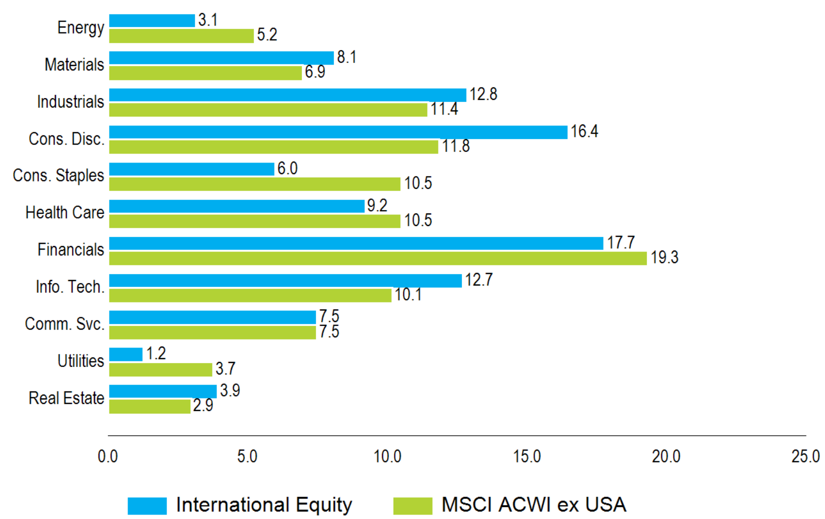
Asset Allocation on March 31, 2020	Actual	Actual
Baillie Gifford International Growth Fund	$33,717,152	20.0%
Sanderson International Value	$34,883,016	20.7%
Highclere International Small Cap	$33,668,397	20.0%
SSgA MSCI EAFE Fund	$21,187,167	12.6%
DFA Emerging Markets Value	$21,263,547	12.6%
TT Emerging Markets Equity	$23,721,086	14.1%
Total	**$168,440,365**	**100.0%**

International Equity Style Map
3 Years Ending March 31, 2020



Total International Equity Characteristics	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	168.4	--	225.3
Number Of Holdings	3605	2404	3555
Characteristics			
Weighted Avg. Market Cap. ($B)	52.4	69.2	52.2
Median Market Cap ($B)	0.8	5.9	1.2
P/E Ratio	11.7	13.1	15.5
Yield	3.4	3.8	2.7
EPS Growth - 5 Yrs.	9.3	8.2	9.3
Price to Book	2.5	2.5	2.3

Sector Allocation (%) vs MSCI ACWI ex USA



Top 10 Holdings	
ALIBABA GROUP HOLDING ADR 1:8	2.4%
TENCENT HOLDINGS	1.9%
PING AN INSURANCE (GROUP) OF CHINA 'H'	1.7%
ASML HOLDING	1.6%
SAMSUNG ELTN.PREF.	1.4%
FERRARI (MIL)	1.2%
M3	0.9%
NESTLE 'N'	0.9%
AIA GROUP	0.9%
KERING	0.8%
Total	**13.7%**

Total International Equity Region Allocation

vs MSCI ACWI ex USA

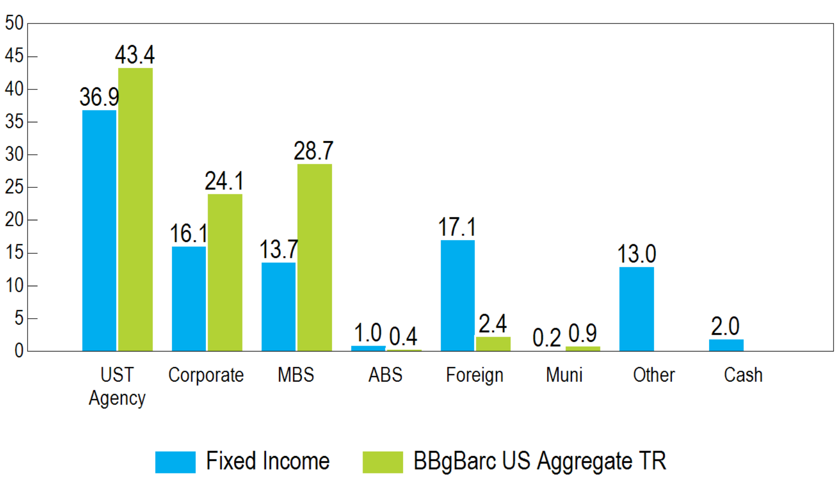
Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.0%	6.3%	-6.3%
United States	2.7%	0.0%	2.7%
Europe Ex U.K.	27.0%	31.1%	-4.1%
United Kingdom	11.6%	10.0%	1.5%
Pacific Basin Ex Japan	11.4%	7.4%	4.0%
Japan	19.2%	17.4%	1.7%
Emerging Markets	27.2%	26.4%	0.8%
Other	1.1%	1.4%	-0.4%
Total	**100.0%**	**100.0%**	**0.0%**

Fixed Income

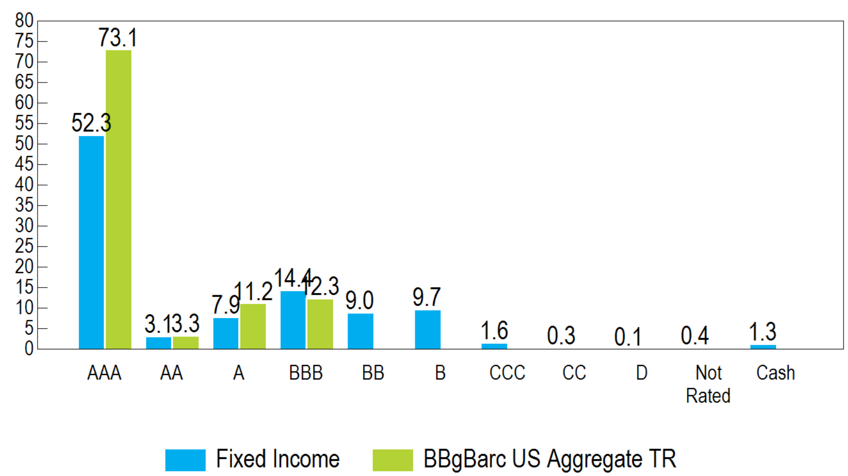
Asset Allocation on March 31, 2020	Actual	Actual
SSgA Bond Fund	$78,629,628	26.3%
Loomis Sayles Core Plus Fixed Income	$60,099,427	20.1%
Aberdeen Emerging Markets Bond Fund	$53,169,871	17.8%
SSGA TIPS	$53,649,100	17.9%
Pyramis Tactical Bond Fund	$37,027,893	12.4%
Pacific Asset Management Bank Loans	$16,912,813	5.6%
Total	**$299,488,731**	**100.0%**

Total Fixed Income Characteristics vs. BBgBarc US Aggregate TR	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Fixed Income Characteristics			
Yield to Maturity	3.7	1.7	3.3
Average Duration	5.9	6.4	5.5
Average Quality	A	AA	A
Weighted Average Maturity	8.5	13.3	8.5

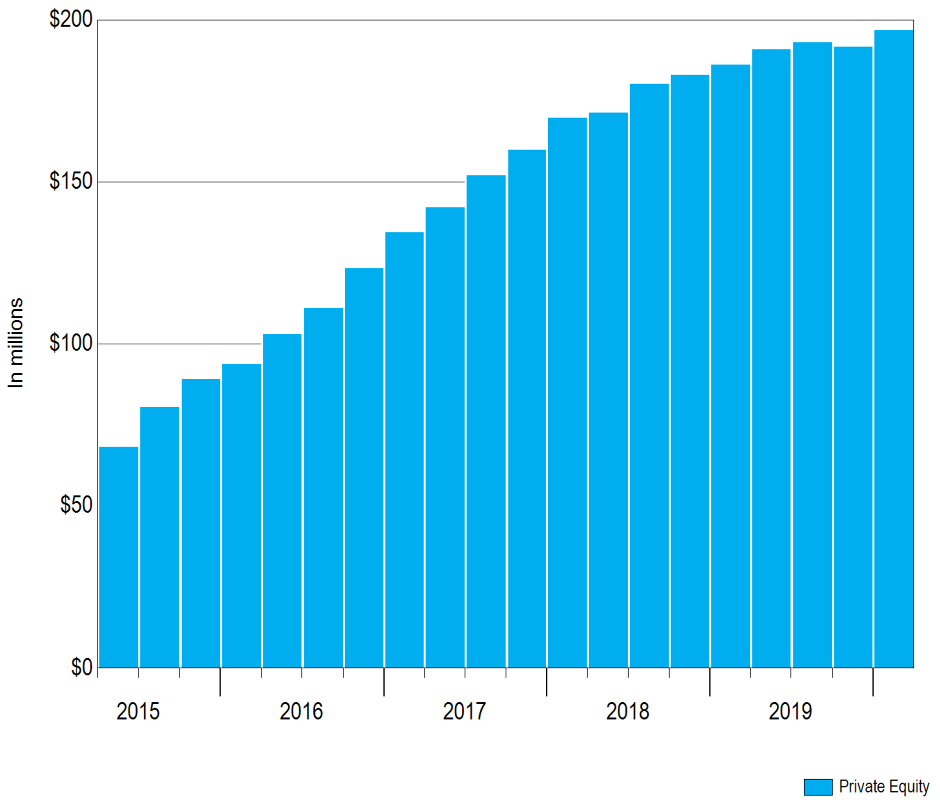
Sector Allocation



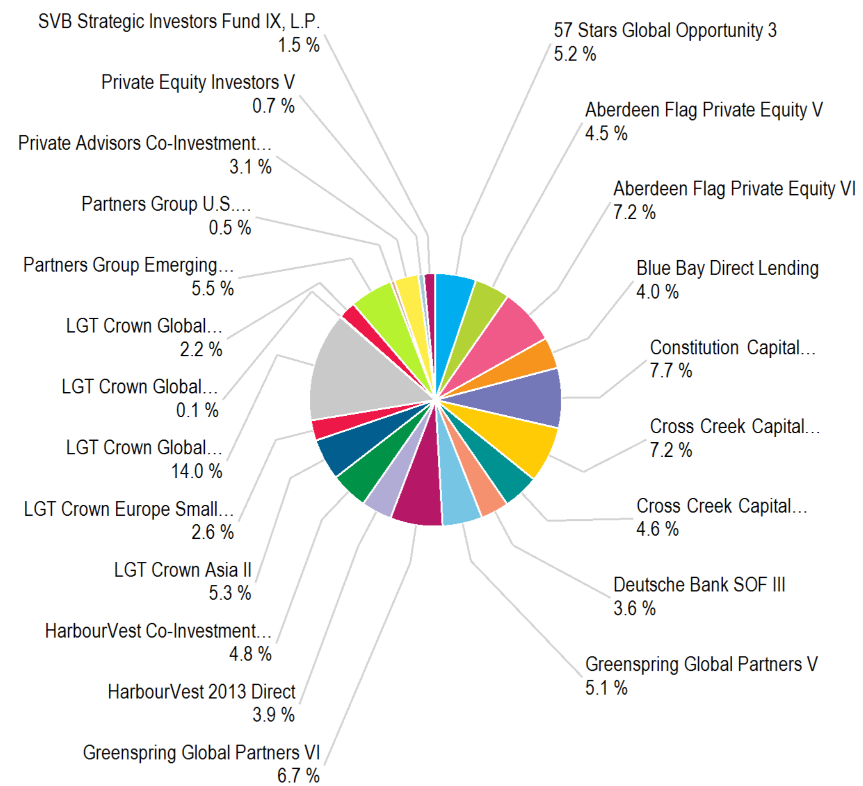
Credit Quality Allocation



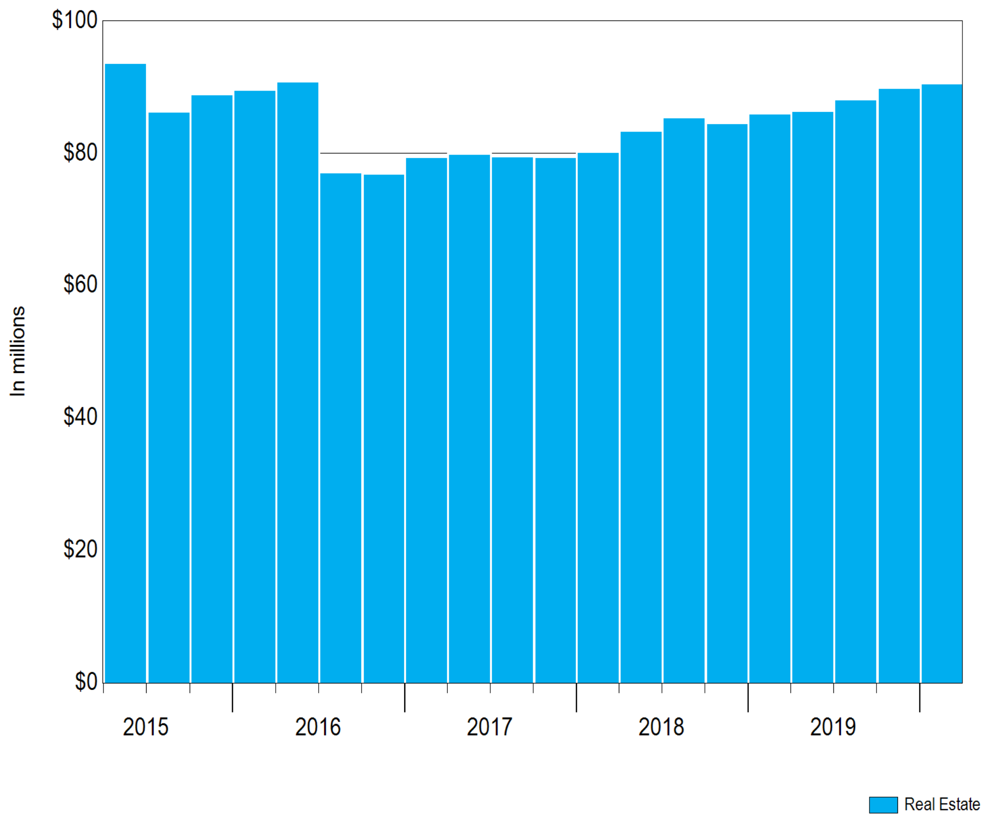
Market Value History



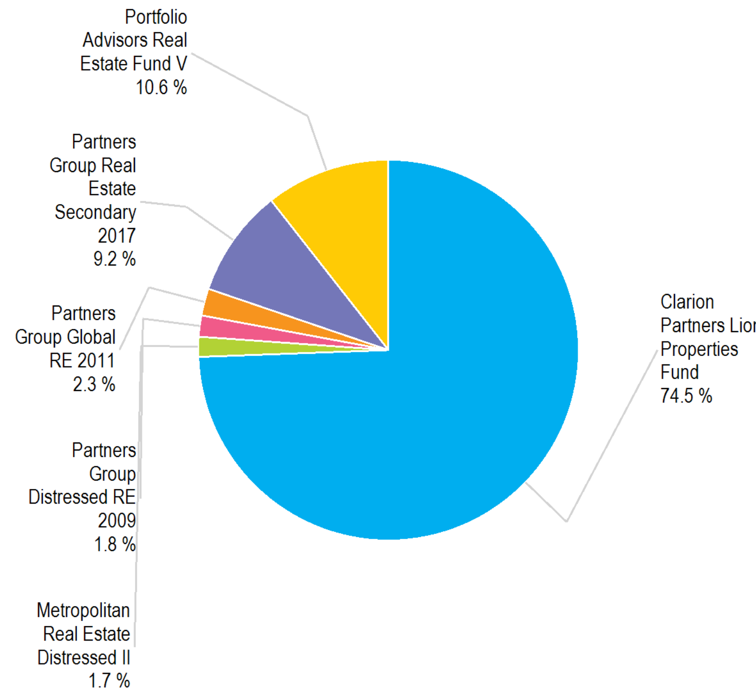
Current Allocation



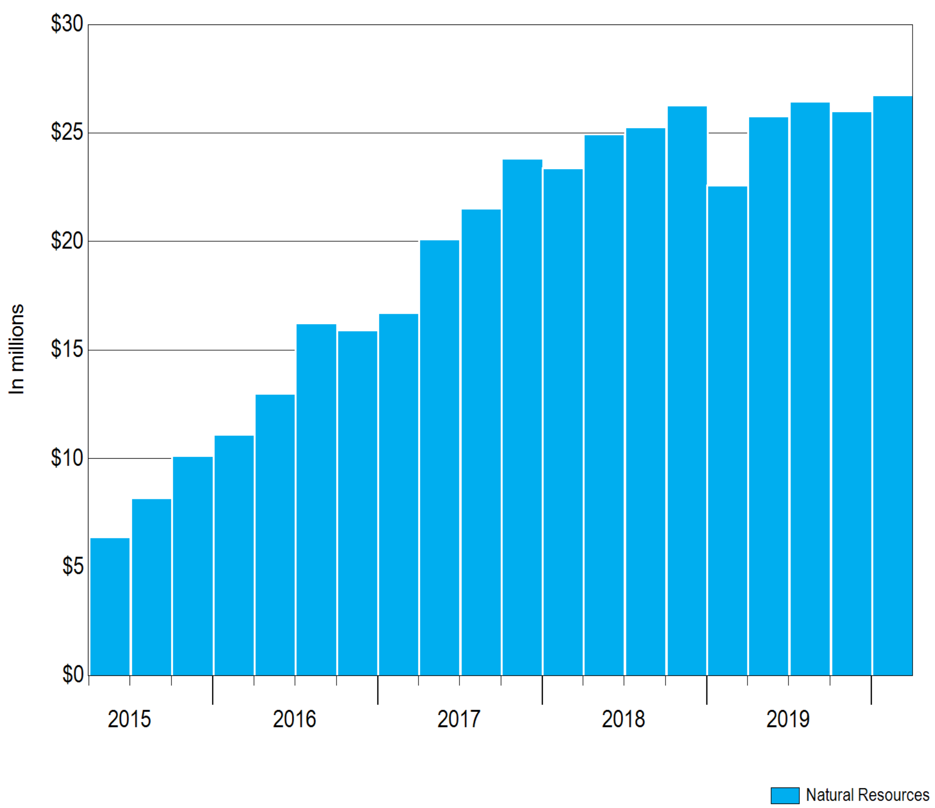
Market Value History



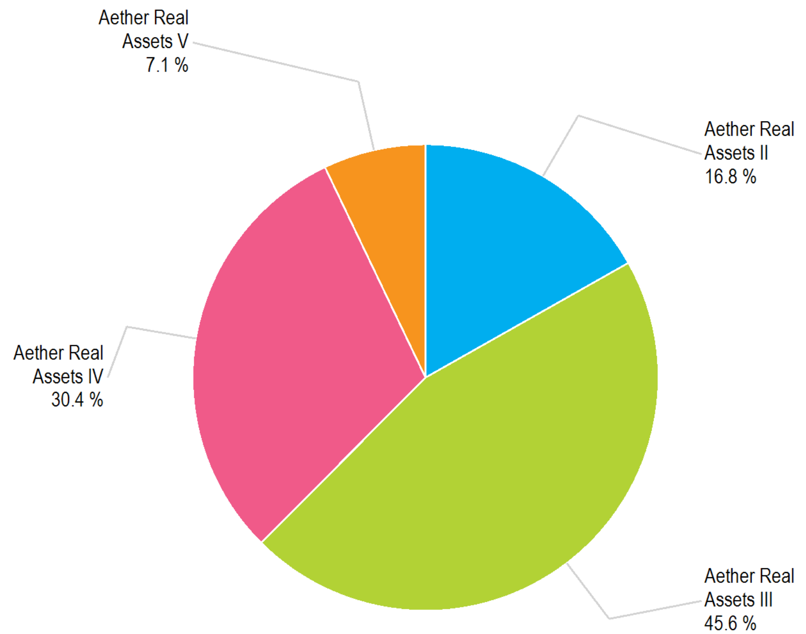
Current Allocation



Market Value History



Current Allocation



Private Equity Assets

Partnership	Focus	Type	Vintage Year
Partners Group Distressed Private Equity 2009	Special Situations	Fund of Funds	2009
LGT Crown Global Secondaries II	Secondary Market	Fund of Funds	2009
Private Equity Investors V	Secondary Market	Fund of Funds	2009
Cross Creek Capital Partners II - B	Venture	Fund of Funds	2010
LGT Crown Asia II	Buyout	Fund of Funds	2011
Greenspring Global Partners V	Venture	Fund of Funds	2011
57 Stars Global Opportunity 3	Diversified	Fund of Funds	2011
LGT Crown Europe Small Buyouts III	Buyout	Fund of Funds	2012
LGT Crown Global Secondaries III	Secondary Market	Fund of Funds	2012
Private Advisors Co-Investment Fund III	Co-investments	Fund of Funds	2013
HarbourVest 2013 Direct	Co-investments	Fund of Funds	2013
Cross Creek Capital Partners III	Venture	Fund of Funds	2013
Flag Private Equity V	Buyout	Fund of Funds	2012
Greenspring Global Partners VI	Venture	Fund of Funds	2013
Constitution Capital Partners Ironsides III	Buyout	Fund of Funds	2014
Deutsche Bank Secondary Opportunities Fund III	Secondary Market	Fund of Funds	2014
Flag Private Equity VI	Buyout	Fund of Funds	2015
Blue Bay Direct Lending Fund II	Private Debt	Direct Fund	2015
Partners Group Emerging Markets 2015	Special Situations	Fund of Funds	2015
LGT Crown Global Opportunities VI	Diversified	Fund of Funds	2016
HarbourVest Co-Investment Fund IV	Co-investments	Fund of Funds	2017
SVB Strategic Investors Fund IX	Venture	Fund of Funds	2018

Private Equity Assets

Partnership	Committed ($mm)	Called ($mm)	Distributed ($mm)	Fair Value ($mm)	nIRR[1] (%)	Vintage Year	TVPI Multiple
Partners Group Distressed Private Equity 2009	7.0	6.2	8.1	0.9	11.0	2009	1.5
LGT Crown Global Secondaries II[2]	3.0	2.5	4.1	0.2	17.8	2009	1.7
Private Equity Investors V	3.0	3.0	1.4	1.3	-1.7	2009	0.9
Cross Creek Capital Partners II – B	12.5	11.7	7.1	14.2	14.4[3]	2010	1.8
LGT Crown Asia II[2]	10.0	9.2	5.1	10.5	11.9	2011	1.7
Greenspring Global Partners V	7.5	7.1	5.1	10.1	22.4	2011	2.1
57 Stars Global Opportunity 3	10.0	9.8	1.3	10.2	4.8[3]	2011	1.2
LGT Crown Europe Small Buyouts III[2]	8.6	6.9	5.5	5.0	14.0	2012	1.5
LGT Crown Global Secondaries III[2]	10.0	7.2	6.2	4.3	12.8	2012	1.5
Private Advisors Co-Investment Fund III	10.0	10.3	9.4	6.1	12.4	2013	1.5
HarbourVest 2013 Direct	10.0	9.7	11.2	7.7	20.4	2013	1.9
Cross Creek Capital Partners III	7.5	6.3	1.2	9.0	17.0[3]	2013	1.6
Aberdeen Flag Private Equity V	10.0	10.0	6.6	8.8	17.9[3]	2012	1.5
Greenspring Global Partners VI	7.5	6.8	1.2	13.2	24.3	2013	2.1
Constitution Capital Partners Ironsides III	15.0	14.0	7.7	15.3	21.7[4] | 18.3[5]	2014	1.6
Deutsche Bank Secondary Opportunities Fund III	10.0	8.8	4.9	7.2	16.2	2014	1.4
Aberdeen Flag Private Equity VI	15.0	13.5	5.0	14.3	21.1[3]	2015	1.4
Blue Bay Direct Lending Fund II	20.0	18.1	13.3	7.9	7.8	2015	1.2
Partners Group Emerging Markets 2015	10.0	8.5	0.8	10.9	12.2	2015	1.4
LGT Crown Global Opportunities VI[2]	40.0	26.9	4.0	27.6	8.5	2016	1.2
HarbourVest Co-Investment Fund IV	10.0	8.1	1.7	9.5	16.6	2017	1.4
SVB Strategic Investors Fund IX	10.0	2.1	0.0	3.0	NM	2018	1.4
Total	**246.6**	**206.7**	**110.9**	**197.2**			**1.5x**

[1] All performance figures are reported directly from managers, net of fees, as of 12/31/19, unless otherwise noted.
[2] Performance and market value as of 3/31/2020.
[3] nIRR as of 9/30/2019.
[4] Constitution Capital Ironsides Partnership Fund III.
[5] Constitution Capital Ironsides Co-Investment Fund III.

Real Estate Assets

Partnership	Focus	Type	Vintage Year	TVPI Multiple
Partners Group U.S. Distressed 2009	U.S. Distressed	Fund of Funds	2009	1.4
Metropolitan Real Estate Distressed II	Real Estate Debt	Fund of Funds	2009	1.3
Partners Group Global RE 2011	Global	Fund of Funds	2011	1.4
Portfolio Advisors Global Real Estate V	Global	Fund of Funds	2015	1.2
Partners Group RE Secondary 2017	Global	Fund of Funds	2017	1.3
				1.3x

Partnership	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	nIRR[1] (%)
Partners Group U.S. Distressed 2009	$12.0	$11.2	$13.8	$1.6	7.7
Metropolitan Real Estate Distressed II	$12.0	$11.3	$13.6	$1.5	9.1
Partners Group Global RE 2011	$6.7	$5.5	$5.7	$2.1	8.3
Portfolio Advisors Global Real Estate V	$15.0	$12.6	$6.1	$9.6	11.1
Partners Group RE Secondary 2017	$15.0	$6.9	$0.0	$8.3	17.0
Total	**$60.7**	**$47.5**	**$39.2**	**$23.1**	

[1] Performance figures are reported directly from manager, net of fees, as of 12/31/2019.

Natural Resources Assets

Partnership	Vintage Year	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	Net IRR[1] %	TVPI Multiple
Aether Real Assets II	2012	$7.5	$7.4	$2.7	$4.5	-0.1	1.0
Aether Real Assets III	2013	$15.0	$14.2	$2.3	$12.2	1.5	1.0
Aether Real Assets IV	2016	$10.0	$7.8	$0.5	$8.1	7.2	1.1
Aether Real Assets V	2018	$10.0	$1.8	$0.0	$1.9	N/A	1.1
Total		**$42.5**	**$31.2**	**$5.5**	**$26.7**		**1.0x**

[1] Performance figures are reported directly from manager, net of fees, as of 9/30/2019.

Portfolio Reviews

Account Information

Account Name	**Westwood Capital Large Cap Value**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**10/01/01**
Account Type	**US Equity**
Benchmark	**Russell 1000 Value**
Universe	**eV US Large Cap Value Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Westwood Capital Large Cap Value	-23.1	-23.1	-11.2	2.2	4.0	8.1	7.3	Oct-01
Russell 1000 Value	*-26.7*	*-26.7*	*-17.2*	*-2.2*	*1.9*	*7.7*	*6.2*	*Oct-01*
eV US Large Cap Value Equity Net Median	*-26.4*	*-26.4*	*-16.9*	*-1.7*	*1.9*	*7.4*	*6.5*	*Oct-01*
eV US Large Cap Value Equity Net Rank	*21*	*21*	*16*	*12*	*17*	*31*	*22*	*Oct-01*

Top 10 Holdings

JP MORGAN CHASE & CO.	3.6%
CVS HEALTH	3.4%
ALPHABET A	3.3%
JOHNSON & JOHNSON	3.2%
WELLS FARGO & CO	3.2%
BECTON DICKINSON	3.0%
HONEYWELL INTL.	3.0%
MICROSOFT	2.6%
MEDTRONIC	2.6%
CHURCH & DWIGHT CO.	2.4%
Total	**30.5%**

Westwood Capital Large Cap Value Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	37.7	--	49.0
Number Of Holdings	46	765	45
Characteristics			
Weighted Avg. Market Cap. ($B)	143.7	98.9	196.8
Median Market Cap ($B)	50.6	6.3	71.4
P/E Ratio	16.3	12.6	21.5
Yield	2.8	3.5	2.2
EPS Growth - 5 Yrs.	7.4	8.6	9.1
Price to Book	2.8	2.2	2.9
Sector Distribution			
Energy	4.8	5.4	7.3
Materials	1.0	4.2	0.0
Industrials	12.0	9.5	13.3
Consumer Discretionary	4.3	5.2	4.1
Consumer Staples	8.5	10.6	8.0
Health Care	16.9	15.5	15.8
Financials	20.3	21.3	20.2
Information Technology	8.7	6.8	8.8
Communication Services	11.9	8.6	9.6
Utilities	8.2	7.8	7.8
Real Estate	3.3	5.1	5.0

Account Information

Account Name	**Westfield Small/Mid Cap Growth**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**11/01/02**
Account Type	**US Equity**
Benchmark	**Russell 2500 Growth**
Universe	**eV US Small-Mid Cap Growth Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Westfield Small/Mid Cap Growth	-25.3	-25.3	-13.2	3.5	2.7	9.8	11.0	Nov-02
Russell 2500 Growth	*-23.2*	*-23.2*	*-14.4*	*3.4*	*3.6*	*10.1*	*10.2*	*Nov-02*
eV US Small-Mid Cap Growth Equity Net Median	*-20.6*	*-20.6*	*-11.1*	*5.8*	*4.7*	*10.2*	*9.8*	*Nov-02*
eV US Small-Mid Cap Growth Equity Net Rank	*79*	*79*	*61*	*63*	*74*	*55*	*20*	*Nov-02*

Top 10 Holdings

BIO-RAD LABORATORIES 'A'	3.4%
DEXCOM	3.1%
TELEDYNE TECHS.	2.8%
FORTINET	2.5%
ARTHUR J GALLAGHER	2.4%
HUBSPOT	2.3%
NEUROCRINE BIOSCIENCES	2.2%
TREX	2.2%
REALPAGE	2.1%
QUEST DIAGNOSTICS	2.0%
Total	**25.2%**

Westfield Small/Mid Cap Growth Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	36.6	--	48.9
Number Of Holdings	73	1407	69
Characteristics			
Weighted Avg. Market Cap. ($B)	8.6	5.4	9.2
Median Market Cap ($B)	5.8	0.9	7.1
P/E Ratio	20.1	20.6	26.3
Yield	0.7	0.9	0.7
EPS Growth - 5 Yrs.	24.0	14.5	20.7
Price to Book	4.3	4.2	4.6
Sector Distribution			
Energy	0.0	0.2	3.5
Materials	2.1	3.3	3.4
Industrials	16.5	16.0	15.3
Consumer Discretionary	8.7	10.8	11.9
Consumer Staples	0.0	2.2	1.5
Health Care	31.0	27.2	22.2
Financials	6.3	6.1	8.3
Information Technology	29.0	26.8	24.4
Communication Services	2.4	2.6	3.2
Utilities	0.0	0.9	0.0
Real Estate	3.8	4.0	2.8

MEKETA

Austin Fire Fighters Relief and Retirement Fund

Vaughan Nelson Small Cap Value | As of March 31, 2020

Account Information

Account Name	**Vaughan Nelson Small Cap Value**
Account Structure	**Separate Account**
Investment Style	**Active**
Inception Date	**1/01/16**
Account Type	**US Equity**
Benchmark	**Russell 2000 Value**
Universe	**eV US Small Cap Value Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Vaughan Nelson Small Cap Value	-29.5	-29.5	-23.4	-7.0	--	--	-0.6	Jan-16
Russell 2000 Value	*-35.7*	*-35.7*	*-29.6*	*-9.5*	*-2.4*	*4.8*	*-0.6*	*Jan-16*
eV US Small Cap Value Equity Net Median	*-35.1*	*-35.1*	*-29.1*	*-9.7*	*-2.9*	*5.3*	*-1.5*	*Jan-16*
eV US Small Cap Value Equity Net Rank	*13*	*13*	*16*	*28*	--	--	*37*	*Jan-16*

Top 10 Holdings

CABOT MICROELS.	3.9%
ENTEGRIS	3.1%
SOUTHWEST GAS HOLDINGS	2.9%
LANDSTAR SYSTEM	2.7%
PRA HEALTH SCIENCES	2.7%
ELEMENT SOLUTIONS	2.6%
CACI INTERNATIONAL 'A'	2.6%
SPIRE	2.6%
INSIGHT ENTS.	2.6%
HANOVER INSURANCE GROUP	2.5%
Total	**28.1%**

Vaughan Nelson Small Cap Value Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	32.6	--	46.1
Number Of Holdings	74	1391	66
Characteristics			
Weighted Avg. Market Cap. ($B)	2.8	1.6	4.0
Median Market Cap ($B)	2.2	0.4	2.9
P/E Ratio	14.0	10.5	19.0
Yield	1.9	3.2	1.6
EPS Growth - 5 Yrs.	12.5	8.6	16.3
Price to Book	2.2	1.6	2.3
Sector Distribution			
Energy	0.9	3.4	4.1
Materials	3.4	4.3	3.3
Industrials	19.4	12.4	13.7
Consumer Discretionary	2.7	7.8	5.2
Consumer Staples	0.9	3.4	6.0
Health Care	9.5	6.0	6.7
Financials	22.4	29.9	27.1
Information Technology	26.1	11.4	17.4
Communication Services	3.2	2.2	6.1
Utilities	5.4	7.6	3.9
Real Estate	6.2	11.5	6.5

MEKETA

Austin Fire Fighters Relief and Retirement Fund

SSgA S&P 500 | As of March 31, 2020

Account Information

Account Name	**SSgA S&P 500**
Account Structure	**Commingled Fund**
Investment Style	**Passive**
Inception Date	**2/01/04**
Account Type	**US Equity**
Benchmark	**S&P 500**
Universe	**eV US Large Cap Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA S&P 500	-19.6	-19.6	-7.0	5.1	6.7	10.5	7.4	Feb-04
S&P 500	*-19.6*	*-19.6*	*-7.0*	*5.1*	*6.7*	*10.5*	*7.4*	*Feb-04*
eV US Large Cap Equity Net Median	*-20.8*	*-20.8*	*-9.5*	*3.0*	*4.7*	*9.3*	*7.4*	*Feb-04*
eV US Large Cap Equity Net Rank	*42*	*42*	*39*	*36*	*28*	*31*	*49*	*Feb-04*

Top 10 Holdings

MICROSOFT	5.6%
APPLE	4.9%
AMAZON.COM	3.8%
FACEBOOK CLASS A	1.9%
BERKSHIRE HATHAWAY 'B'	1.7%
ALPHABET A	1.6%
ALPHABET 'C'	1.6%
JOHNSON & JOHNSON	1.6%
JP MORGAN CHASE & CO.	1.3%
VISA 'A'	1.3%
Total	**25.3%**

SSgA S&P 500 Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	24.9	--	31.0
Number Of Holdings	507	505	505
Characteristics			
Weighted Avg. Market Cap. ($B)	264.4	267.1	269.8
Median Market Cap ($B)	17.6	17.6	23.6
P/E Ratio	17.1	17.0	23.0
Yield	2.3	2.3	1.9
EPS Growth - 5 Yrs.	12.8	12.8	12.9
Price to Book	3.7	3.7	3.9
Sector Distribution			
Energy	2.6	2.5	4.3
Materials	2.4	2.4	2.6
Industrials	8.2	8.2	9.1
Consumer Discretionary	9.8	10.2	9.7
Consumer Staples	7.8	8.5	7.2
Health Care	15.4	14.9	14.2
Financials	10.9	11.3	13.0
Information Technology	25.5	25.0	23.2
Communication Services	10.7	10.8	10.4
Utilities	3.6	3.4	3.3
Real Estate	3.0	2.9	2.9

Account Information

Account Name	**Baillie Gifford International Growth Fund**
Account Structure	**Mutual Fund**
Investment Style	**Active**
Inception Date	**5/01/09**
Account Type	**Non-US Stock Developed**
Benchmark	**MSCI ACWI ex USA**
Universe	**eV ACWI ex-US All Cap Core Eq Net**

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Baillie Gifford International Growth Fund	-14.0	-1.2	7.9	5.7	7.1	10.1	May-09
MSCI ACWI ex USA	*-23.4*	*-15.6*	*-2.0*	*-0.6*	*2.1*	*5.2*	*May-09*
MSCI EAFE	*-22.8*	*-14.4*	*-1.8*	*-0.6*	*2.7*	*5.5*	*May-09*
eV ACWI ex-US All Cap Core Eq Net Median	*-21.9*	*-13.1*	*-0.7*	*0.1*	*3.6*	*6.4*	*May-09*
eV ACWI ex-US All Cap Core Eq Net Rank	*1*	*1*	*1*	*1*	*4*	*4*	*May-09*

Top 10 Holdings

TENCENT HOLDINGS	7.1%
ASML HOLDING	7.1%
ALIBABA GROUP HOLDING ADR 1:8	6.6%
FERRARI (MIL)	5.8%
M3	4.5%
KERING	4.0%
AIA GROUP	3.8%
MERCADOLIBRE	3.5%
INDITEX	2.9%
TAL EDUCATION GROUP CL.A ADR 3:1	2.9%
Total	**48.2%**

Baillie Gifford EAFE Fund Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	33.7	--	39.2
Number Of Holdings	57	918	56
Characteristics			
Weighted Avg. Market Cap. ($B)	103.2	55.6	94.5
Median Market Cap ($B)	12.0	8.2	14.7
P/E Ratio	23.1	13.9	25.9
Yield	1.0	3.9	1.0
EPS Growth - 5 Yrs.	19.4	6.7	17.8
Price to Book	5.8	2.5	4.6
Sector Distribution			
Energy	0.0	4.0	0.0
Materials	4.1	6.7	4.6
Industrials	6.6	14.2	7.6
Consumer Discretionary	39.6	11.1	38.1
Consumer Staples	3.0	12.7	3.4
Health Care	11.4	14.3	10.9
Financials	9.6	16.5	10.6
Information Technology	12.5	7.6	12.2
Communication Services	13.2	5.5	12.6
Utilities	0.0	4.2	0.0
Real Estate	0.0	3.2	0.0

Account Information

Account Name	**Sanderson International Value**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**2/01/13**
Account Type	**Non-US Stock Developed**
Benchmark	**MSCI EAFE**
Universe	**eV EAFE All Cap Value Net**

Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Sanderson International Value	-28.4	-20.4	-5.8	-3.8	--	0.6	Feb-13
MSCI EAFE	*-22.8*	*-14.4*	*-1.8*	*-0.6*	*2.7*	*1.7*	*Feb-13*
eV EAFE All Cap Value Net Median	*-27.1*	*-19.3*	*-6.4*	*-3.3*	*2.3*	*0.5*	*Feb-13*
eV EAFE All Cap Value Net Rank	*67*	*59*	*40*	*70*	*--*	*49*	*Feb-13*

Top 10 Holdings

PING AN INSURANCE (GROUP) OF CHINA 'H'	5.9%
CASH - USD	3.2%
GLAXOSMITHKLINE	3.0%
SANOFI	2.9%
CRH	2.7%
NESTLE 'N'	2.6%
NOVARTIS 'R'	2.4%
OVERSEA-CHINESE BKG.	2.3%
BRAMBLES	2.2%
HOYA	2.2%
Total	**29.4%**

Sanderson International Value Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	34.9	--	48.7
Number Of Holdings	79	918	77
Characteristics			
Weighted Avg. Market Cap. ($B)	41.3	55.6	48.4
Median Market Cap ($B)	17.6	8.2	13.7
P/E Ratio	11.9	13.9	15.3
Yield	4.7	3.9	3.6
EPS Growth - 5 Yrs.	4.1	6.7	4.2
Price to Book	2.0	2.5	1.9
Sector Distribution			
Energy	1.9	4.0	2.5
Materials	10.3	6.7	10.2
Industrials	15.8	14.2	17.9
Consumer Discretionary	5.6	11.1	6.4
Consumer Staples	7.2	12.7	6.1
Health Care	13.4	14.3	11.0
Financials	30.8	16.5	31.6
Information Technology	6.6	7.6	6.0
Communication Services	3.5	5.5	3.4
Utilities	0.4	4.2	0.7
Real Estate	0.0	3.2	0.0

MEKETA

Austin Fire Fighters Relief and Retirement Fund

Highclere International Small Cap | As of March 31, 2020

Account Information

Account Name	**Highclere International Small Cap**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**12/01/09**
Account Type	**Non-US Stock Developed**
Benchmark	**MSCI EAFE Small Cap**
Universe	**eV EAFE Small Cap Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Highclere International Small Cap	-27.0	-27.0	-16.2	-4.4	1.6	5.3	5.5	Dec-09
MSCI EAFE Small Cap	*-27.5*	*-27.5*	*-18.1*	*-2.9*	*1.0*	*4.8*	*5.2*	*Dec-09*
eV EAFE Small Cap Equity Net Median	*-28.5*	*-28.5*	*-19.0*	*-3.6*	*0.5*	*5.6*	*6.0*	*Dec-09*
eV EAFE Small Cap Equity Net Rank	*34*	*34*	*25*	*57*	*37*	*56*	*53*	*Dec-09*

Top 10 Holdings

GRAINGER	1.3%
SAKATA INX	1.1%
SHIZUOKAGAS	1.0%
ADVANCED CERAMIC X	1.0%
GRAFTON GROUP UTS.	0.9%
TOWER SEMICON. (NAS)	0.9%
NITTO KOGYO	0.9%
CRESCO	0.9%
FUTURE ARCHITECT	0.9%
KAMEDA SEIKA	0.9%
Total	**9.7%**

Highclere International Small Cap Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	33.7	--	46.1
Number Of Holdings	196	2323	196
Characteristics			
Weighted Avg. Market Cap. ($B)	0.9	2.2	1.2
Median Market Cap ($B)	0.7	0.8	0.9
P/E Ratio	12.5	12.5	16.8
Yield	3.2	3.2	2.5
EPS Growth - 5 Yrs.	8.2	10.6	7.2
Price to Book	1.9	2.1	2.0
Sector Distribution			
Energy	2.0	1.8	2.2
Materials	5.6	8.2	7.3
Industrials	21.9	20.5	23.0
Consumer Discretionary	12.2	11.1	10.6
Consumer Staples	8.6	7.4	8.0
Health Care	7.9	8.7	9.3
Financials	7.1	10.4	7.8
Information Technology	19.3	10.6	17.9
Communication Services	5.0	4.7	4.5
Utilities	1.6	2.8	1.4
Real Estate	8.8	13.8	7.6

Account Information

Account Name	**SSgA MSCI EAFE Fund**
Account Structure	**Commingled Fund**
Investment Style	**Passive**
Inception Date	**2/01/13**
Account Type	**Non-US Stock Developed**
Benchmark	**MSCI EAFE**
Universe	**eV EAFE Core Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA MSCI EAFE Fund	-22.7	-22.7	-14.0	-1.5	-0.3	--	2.0	Feb-13
MSCI EAFE	*-22.8*	*-22.8*	*-14.4*	*-1.8*	*-0.6*	*2.7*	*1.7*	*Feb-13*
eV EAFE Core Equity Net Median	*-24.0*	*-24.0*	*-15.9*	*-2.2*	*-0.5*	*3.8*	*2.4*	*Feb-13*
eV EAFE Core Equity Net Rank	*37*	*37*	*33*	*41*	*48*	*--*	*60*	*Feb-13*

Top 10 Holdings

NESTLE 'N'	2.7%
ROCHE HOLDING	2.0%
NOVARTIS 'R'	1.5%
TOYOTA MOTOR	1.2%
ASTRAZENECA	1.0%
ASML HOLDING	1.0%
HSBC HOLDINGS	1.0%
AIA GROUP	1.0%
SAP	1.0%
NOVO NORDISK 'B'	0.9%
Total	**13.3%**

SSgA MSCI EAFE Fund Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	21.2	--	27.4
Number Of Holdings	946	918	957
Characteristics			
Weighted Avg. Market Cap. ($B)	55.4	55.6	63.5
Median Market Cap ($B)	8.1	8.2	10.6
P/E Ratio	13.9	13.9	17.1
Yield	3.9	3.9	3.2
EPS Growth - 5 Yrs.	6.7	6.7	6.8
Price to Book	2.5	2.5	2.4
Sector Distribution			
Energy	3.9	4.0	4.9
Materials	6.6	6.7	7.0
Industrials	14.1	14.2	15.0
Consumer Discretionary	11.0	11.1	11.7
Consumer Staples	12.5	12.7	11.5
Health Care	14.1	14.3	11.6
Financials	16.3	16.5	18.5
Information Technology	7.6	7.6	6.7
Communication Services	5.5	5.5	5.3
Utilities	4.2	4.2	3.7
Real Estate	3.3	3.2	3.6

Account Information

Account Name	**DFA Emerging Markets Value**
Account Structure	**Mutual Fund**
Investment Style	**Active**
Inception Date	**12/01/09**
Account Type	**Non-US Stock Emerging**
Benchmark	**MSCI Emerging Markets Value NR USD**
Universe	**eV Emg Mkts All Cap Value Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
DFA Emerging Markets Value	-31.9	-31.9	-30.3	-8.3	-3.0	-2.1	-1.3	Dec-09
MSCI Emerging Markets Value NR USD	*-28.0*	*-28.0*	*-25.3*	*-5.8*	*-3.0*	*-1.3*	*-0.7*	*Dec-09*
MSCI Emerging Markets	*-23.6*	*-23.6*	*-17.7*	*-1.6*	*-0.4*	*0.7*	*1.3*	*Dec-09*
eV Emg Mkts All Cap Value Equity Net Median	*-27.1*	*-27.1*	*-23.1*	*-4.5*	*-1.7*	*0.0*	*0.8*	*Dec-09*
eV Emg Mkts All Cap Value Equity Net Rank	*87*	*87*	*99*	*84*	*89*	*99*	*99*	*Dec-09*

Top 10 Holdings

CHINA CON.BANK 'H'	4.7%
RELIANCE INDUSTRIES	3.5%
CHINA MOBILE	2.9%
INDL&COML.BOC.'H'	2.2%
VALE ON	1.9%
HON HAI PRECN.IND.	1.6%
BANK OF CHINA 'H'	1.4%
CNOOC (SZS)	1.2%
BHARTI AIRTEL	1.1%
LUKOIL OAO SPN.ADR 1:1	1.0%
Total	**21.4%**

DFA Emerging Markets Value Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	21.3	--	31.2
Number Of Holdings	2395	925	2335
Characteristics			
Weighted Avg. Market Cap. ($B)	28.3	35.5	30.3
Median Market Cap ($B)	0.3	4.0	0.4
P/E Ratio	7.2	8.5	10.4
Yield	5.0	5.2	3.6
EPS Growth - 5 Yrs.	3.7	5.0	5.9
Price to Book	1.4	1.7	1.5
Sector Distribution			
Energy	13.4	10.5	16.0
Materials	13.5	10.0	14.9
Industrials	8.4	5.9	8.7
Consumer Discretionary	6.4	5.9	6.9
Consumer Staples	2.4	3.3	2.6
Health Care	1.8	1.6	1.3
Financials	31.2	34.6	29.1
Information Technology	9.0	11.9	8.4
Communication Services	6.2	8.0	4.9
Utilities	1.4	3.3	1.5
Real Estate	6.1	4.9	4.8

Account Information

Account Name	**TT Emerging Markets Equity**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**4/01/19**
Account Type	**Non-US Stock Emerging**
Benchmark	**MSCI Emerging Markets**
Universe	**eV Emg Mkts Equity Net**

Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
TT Emerging Markets Equity	-27.3	-27.3	-20.9	--	--	--	-20.9	Apr-19
MSCI Emerging Markets	*-23.6*	*-23.6*	*-17.7*	*-1.6*	*-0.4*	*0.7*	*-17.7*	*Apr-19*
eV Emg Mkts Equity Net Median	*-25.0*	*-25.0*	*-19.0*	*-2.7*	*-0.9*	*1.3*	*-19.0*	*Apr-19*
eV Emg Mkts Equity Net Rank	*69*	*69*	*68*	*--*	*--*	*--*	*68*	*Apr-19*

Top 10 Holdings

ALIBABA GROUP HOLDING ADR 1:8	7.9%
SAMSUNG ELTN.PREF.	7.1%
NASPERS	5.7%
TAIWAN SEMICON.MNFG.	4.9%
TENCENT HOLDINGS	3.7%
PUBLIC JOINT STOCK POLYUS GDR	3.0%
ICICI BANK	2.9%
VEON ADR 1:1	2.6%
VALE ON ADR 1:1	2.3%
LG	2.3%
Total	**42.4%**

TT Emerging Markets Equity Characteristics

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Market Value			
Market Value ($M)	23.7	--	32.6
Number Of Holdings	69	1397	65
Characteristics			
Weighted Avg. Market Cap. ($B)	90.9	109.8	91.3
Median Market Cap ($B)	6.0	4.4	9.6
P/E Ratio	9.6	12.2	14.2
Yield	3.2	3.4	2.2
EPS Growth - 5 Yrs.	14.0	11.2	16.4
Price to Book	2.7	2.6	2.6
Sector Distribution			
Energy	0.9	6.0	2.3
Materials	10.5	6.6	9.5
Industrials	7.0	4.9	5.2
Consumer Discretionary	20.2	15.5	25.2
Consumer Staples	1.8	6.5	2.0
Health Care	3.8	3.4	1.3
Financials	14.2	21.9	23.0
Information Technology	20.4	16.8	15.5
Communication Services	11.8	13.0	5.3
Utilities	1.0	2.5	1.3
Real Estate	6.7	2.9	4.7

Account Information

Account Name	**SSgA Bond Fund**
Account Structure	**Commingled Fund**
Investment Style	**Passive**
Inception Date	**1/01/04**
Account Type	**US Fixed Income Investment Grade**
Benchmark	**BBgBarc US Aggregate TR**
Universe	**eV US Core Fixed Inc Net**

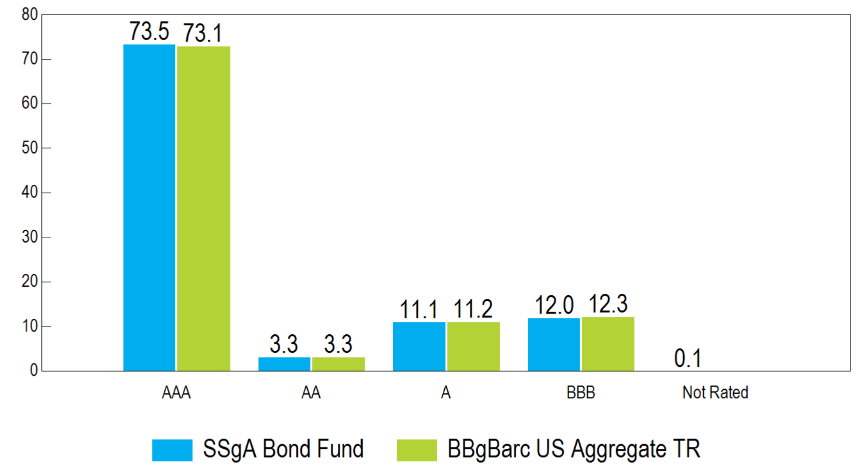
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA Bond Fund	3.0	8.8	4.7	3.3	3.8	4.2	Jan-04
BBgBarc US Aggregate TR	*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*4.3*	*Jan-04*
eV US Core Fixed Inc Net Median	*1.7*	*7.3*	*4.4*	*3.2*	*3.9*	*4.4*	*Jan-04*
eV US Core Fixed Inc Net Rank	*16*	*16*	*18*	*36*	*65*	*65*	*Jan-04*

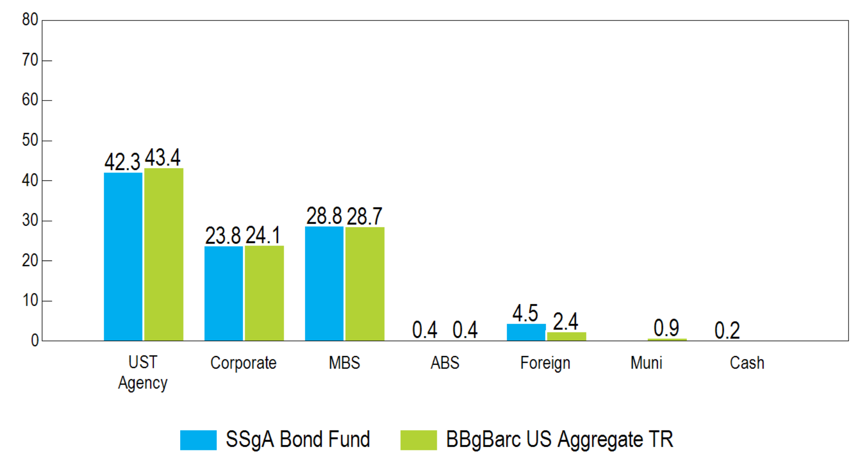
SSgA Bond Fund Characteristics vs. BBgBarc US Aggregate TR

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Fixed Income Characteristics			
Yield to Maturity	1.6	1.7	2.3
Average Duration	5.7	6.4	5.9
Average Quality	AA	AA	AA
Weighted Average Maturity	7.7	13.3	7.9

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	**Loomis Sayles Core Plus Fixed Income**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**7/01/15**
Account Type	**US Fixed Income Investment Grade**
Benchmark	**BBgBarc US Aggregate TR**
Universe	**eV US Core Plus Fixed Inc Net**

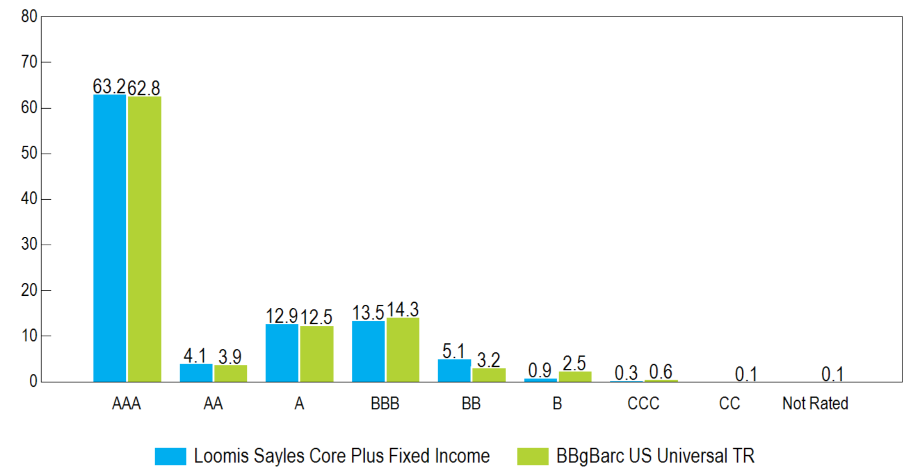
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Loomis Sayles Core Plus Fixed Income	1.1	6.9	4.5	--	--	4.0	Jul-15
BBgBarc US Aggregate TR	*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*3.9*	*Jul-15*
eV US Core Plus Fixed Inc Net Median	*-0.6*	*5.5*	*3.9*	*3.1*	*4.3*	*3.7*	*Jul-15*
eV US Core Plus Fixed Inc Net Rank	*25*	*28*	*19*	--	--	*18*	*Jul-15*

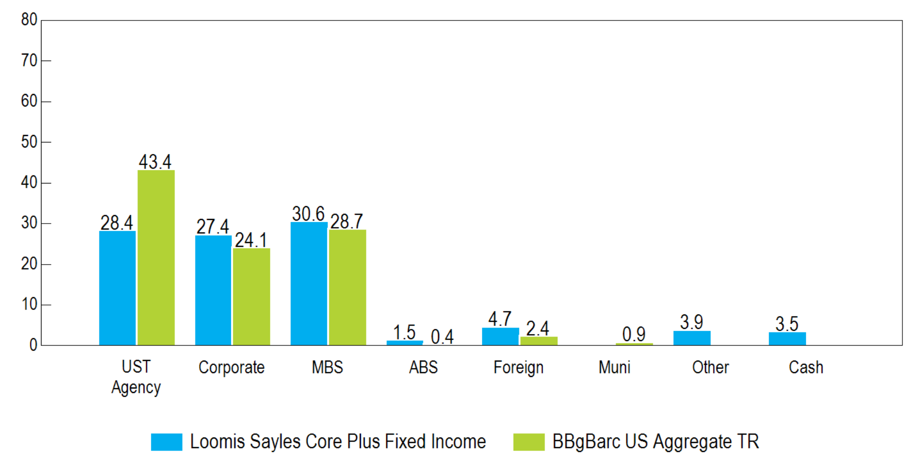
Loomis Sayles Core Plus Fixed Income Characteristics vs. BBgBarc US Aggregate TR

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Fixed Income Characteristics			
Yield to Maturity	2.6	1.7	2.9
Average Duration	6.3	6.4	6.2
Average Quality	A	AA	A
Weighted Average Maturity	8.8	13.3	8.4

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	**Aberdeen Emerging Markets Bond Fund**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**12/01/14**
Account Type	**International Emerging Market Debt**
Benchmark	**JP Morgan EMBI Global Diversified**
Universe	

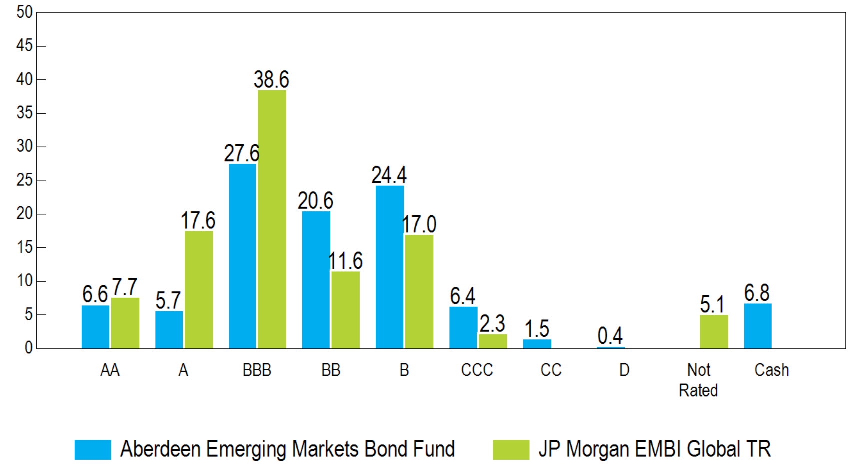
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Aberdeen Emerging Markets Bond Fund	-15.8	-9.6	-1.2	2.0	--	1.4	Dec-14
JP Morgan EMBI Global Diversified	*-13.4*	*-6.8*	*0.4*	*2.8*	*4.9*	*2.6*	*Dec-14*
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	*-12.5*	*-5.3*	*0.7*	*2.9*	*4.0*	*2.2*	*Dec-14*

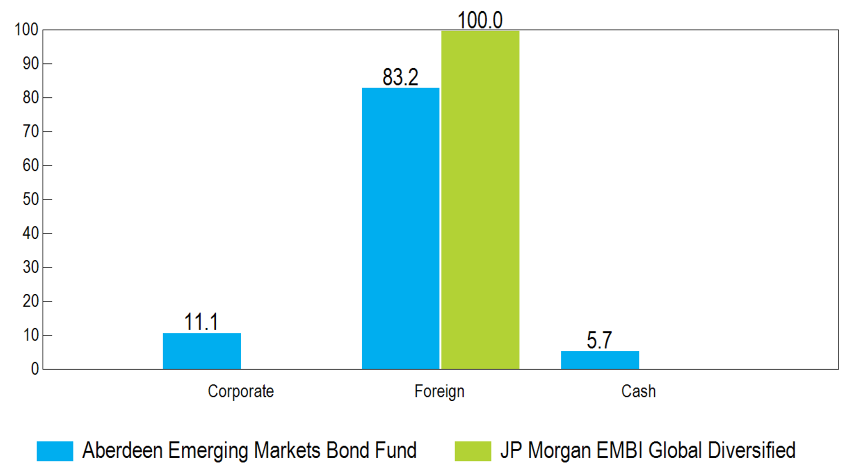
Aberdeen Emerging Markets Bond Fund Characteristics vs. JP Morgan EMBI Global TR

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Fixed Income Characteristics			
Yield to Maturity	7.9	6.9	5.1
Average Duration	6.3	7.3	6.9
Average Quality	BB	BBB	BB
Weighted Average Maturity	10.7	12.5	10.9

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	**SSGA TIPS**
Account Structure	**Commingled Fund**
Investment Style	**Passive**
Inception Date	**8/01/14**
Account Type	**US Inflation Protected Fixed**
Benchmark	**BBgBarc US TIPS TR**
Universe	**eV US TIPS / Inflation Fixed Inc Net**

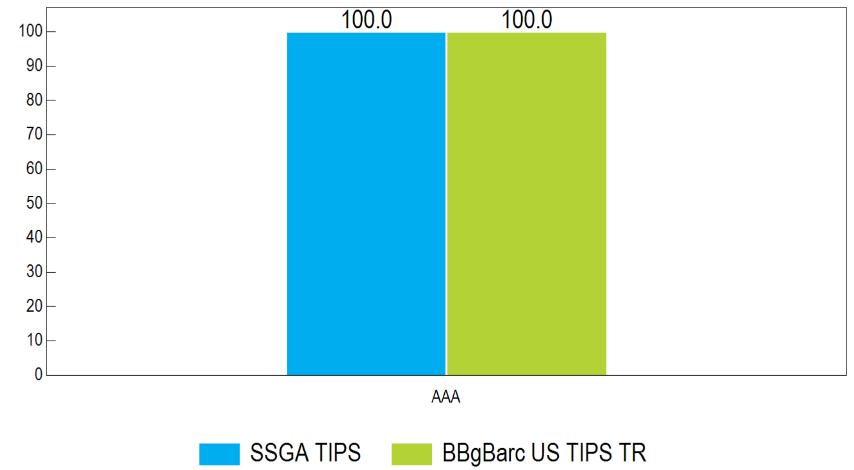
Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSGA TIPS	1.7	1.7	6.8	3.4	2.6	--	2.1	Aug-14
BBgBarc US TIPS TR	*1.7*	*1.7*	*6.9*	*3.5*	*2.7*	*3.5*	*2.2*	*Aug-14*
eV US TIPS / Inflation Fixed Inc Net Median	*0.6*	*0.6*	*5.5*	*3.0*	*2.3*	*3.1*	*1.8*	*Aug-14*
eV US TIPS / Inflation Fixed Inc Net Rank	*25*	*25*	*23*	*30*	*31*	--	*36*	*Aug-14*

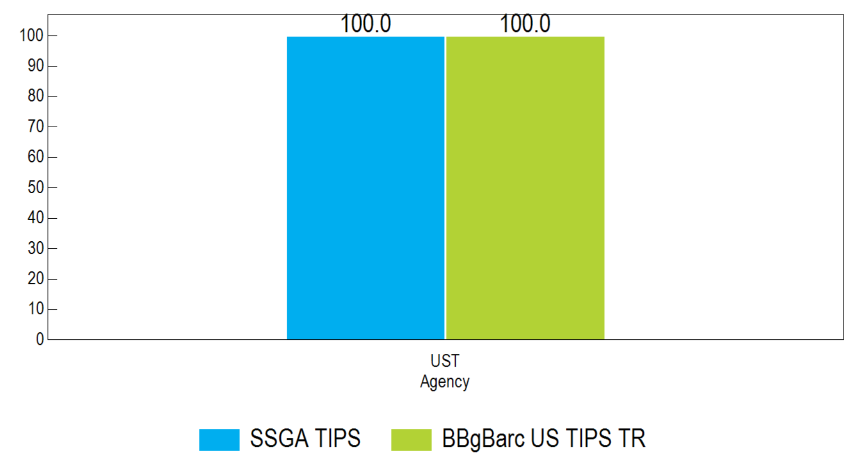
SSGA TIPS Characteristics vs. BBgBarc US TIPS TR

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Fixed Income Characteristics			
Yield to Maturity	0.9	0.2	2.0
Average Duration	6.7	7.8	4.7
Average Quality	AAA	AAA	AAA
Weighted Average Maturity	8.4	8.4	8.0

Credit Quality Allocation



Sector Allocation



Account Information

Account Name	**Pyramis Tactical Bond Fund**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**8/01/13**
Account Type	**US Fixed Income High Yield**
Benchmark	**BBgBarc US Aggregate TR**
Universe	**eV US Core Plus Fixed Inc Net**

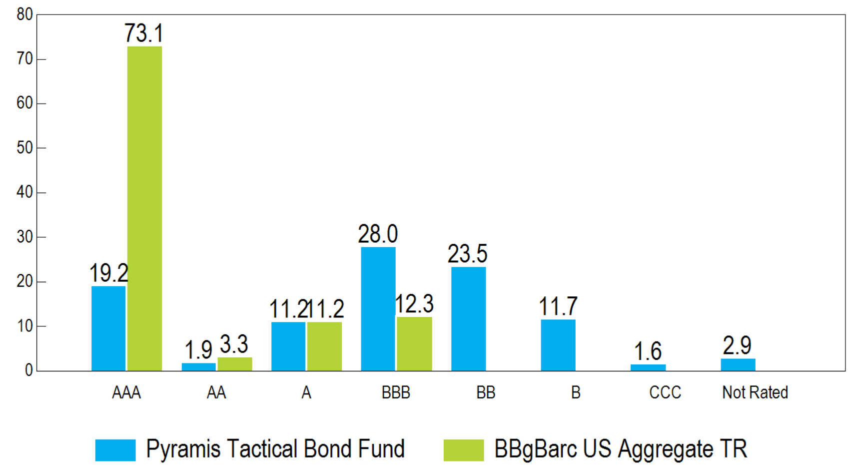
Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pyramis Tactical Bond Fund	-6.2	-6.2	0.9	3.0	3.4	--	3.9	Aug-13
BBgBarc US Aggregate TR	*3.1*	*3.1*	*8.9*	*4.8*	*3.4*	*3.9*	*3.7*	*Aug-13*
eV US Core Plus Fixed Inc Net Median	*-0.6*	*-0.6*	*5.5*	*3.9*	*3.1*	*4.3*	*3.6*	*Aug-13*
eV US Core Plus Fixed Inc Net Rank	*99*	*99*	*94*	*84*	*25*	*--*	*27*	*Aug-13*

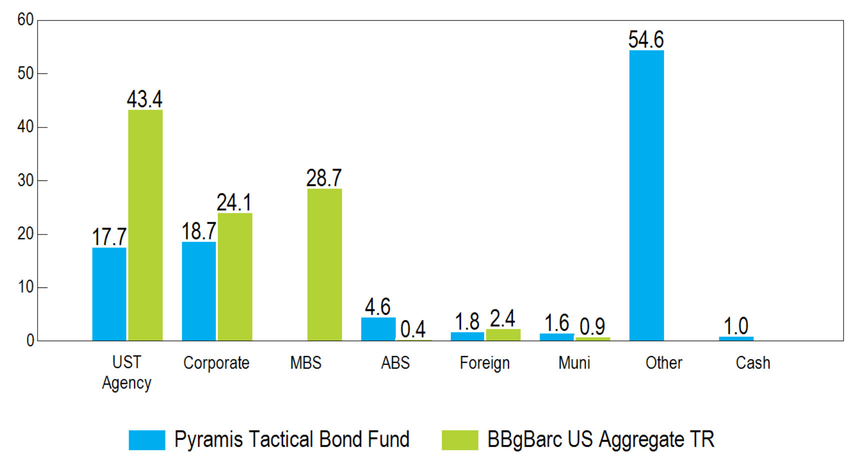
Pyramis Tactical Bond Fund Characteristics vs. BBgBarc US Aggregate TR

	Portfolio Q1-20	Index Q1-20	Portfolio Q4-19
Fixed Income Characteristics			
Yield to Maturity	6.3	1.7	4.1
Average Duration	6.4	6.4	4.9
Average Quality	BBB	AA	BBB
Weighted Average Maturity	--	13.3	--

Credit Quality Allocation



Sector Allocation



MEKETA

Account Information

Account Name	**Pacific Asset Management Bank Loans**
Account Structure	**Mutual Fund**
Investment Style	**Passive**
Inception Date	**12/01/19**
Account Type	**US Fixed Income**
Benchmark	**Credit Suisse Leveraged Loans**
Universe	**Bank Loan MStar MF**

Portfolio Performance Summary

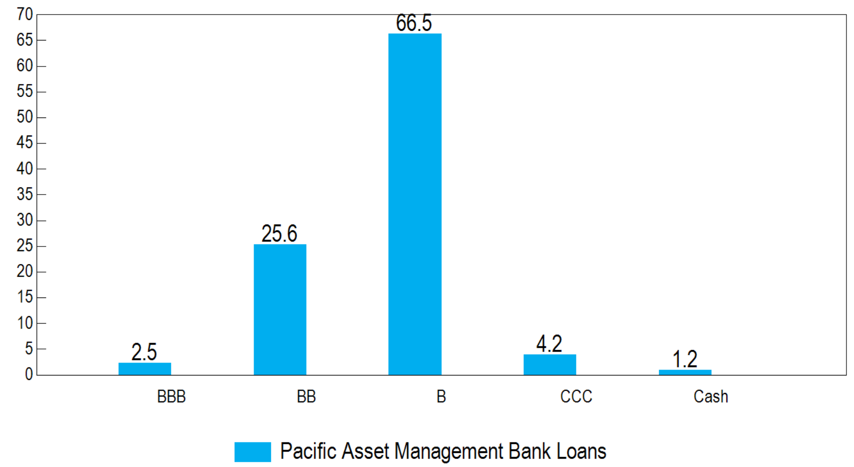
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pacific Asset Management Bank Loans	-9.5	-9.5	--	--	--	--	-8.6	Dec-19
Credit Suisse Leveraged Loans	*-13.2*	*-13.2*	*-9.5*	*-0.7*	*1.2*	*3.3*	*-11.8*	*Dec-19*
Bank Loan MStar MF Median	*-13.1*	*-13.1*	*-9.5*	*-1.3*	*0.8*	*2.8*	*-11.5*	*Dec-19*
Bank Loan MStar MF Rank	*3*	*3*	--	--	--	--	*4*	*Dec-19*

Pacific Asset Management Bank Loans Characteristics

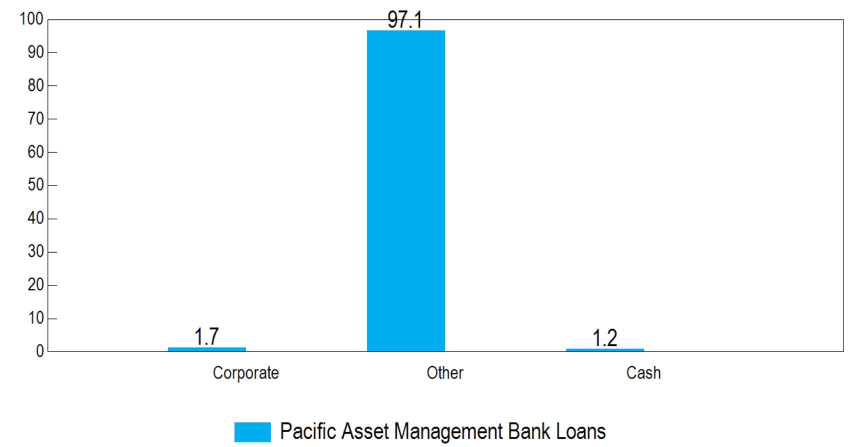
	Portfolio Q1-20	Portfolio Q4-19
Fixed Income Characteristics		
Yield to Maturity	7.3	5.1
Average Duration	0.3	0.3
Average Quality	B	B
Weighted Average Maturity	4.6	4.7

Characteristics not available for the Credit Suisse Leveraged Loan Index.

Credit Quality Allocation



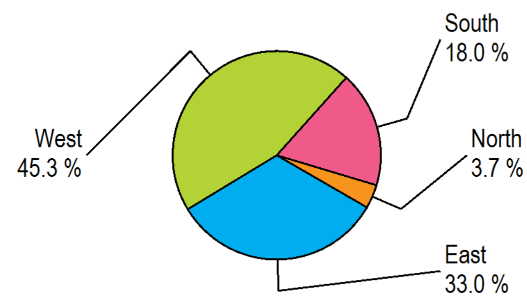
Sector Allocation



Account Information

Account Name	**Clarion Partners Lion Properties Fund**
Account Structure	**Commingled Fund**
Investment Style	**Active**
Inception Date	**4/01/05**
Account Type	**Real Estate**
Benchmark	**NCREIF ODCE Equal Weighted (Net)**
Universe	

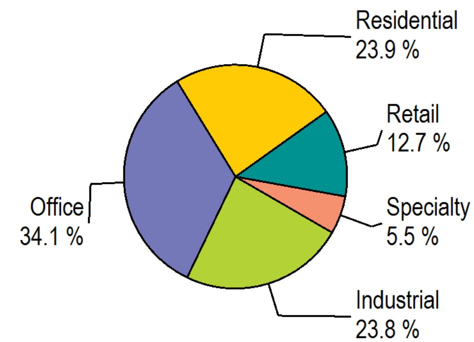
Geographic Diversification
Allocation as of March 31, 2020



Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Clarion Partners Lion Properties Fund	1.2	1.2	5.7	7.4	9.2	11.7	6.0	Apr-05
NCREIF ODCE Equal Weighted (Net)	*0.7*	*0.7*	*4.4*	*6.1*	*7.8*	*10.5*	*6.4*	*Apr-05*

Property Type Allocation
Allocation as of March 31, 2020



Investment Expense Analysis
As Of March 31, 2020

Name	Market Value	% of Portfolio	Estimated Fee	Estimated Fee Value
Westwood Capital Large Cap Value	$37,742,784	6.3%	0.50%	$188,714
Westfield Small/Mid Cap Growth	$36,593,420	6.1%	0.22%	$80,506
Vaughan Nelson Small Cap Value	$32,607,132	5.4%	0.97%	$314,661
SSgA S&P 500	$24,928,861	4.2%	0.02%	$3,739
Baillie Gifford International Growth Fund	$33,717,152	5.6%	0.61%	$205,675
Sanderson International Value	$34,883,016	5.8%	0.86%	$299,240
Highclere International Small Cap	$33,668,397	5.6%	1.21%	$407,852
SSgA MSCI EAFE Fund	$21,187,167	3.5%	0.06%	$12,712
DFA Emerging Markets Value	$21,263,547	3.5%	0.57%	$121,202
TT Emerging Markets Equity	$23,721,086	4.0%	0.80%	$189,769
SSgA Bond Fund	$78,629,628	13.1%	0.03%	$23,589
Loomis Sayles Core Plus Fixed Income	$60,099,427	10.0%	0.28%	$170,249
Aberdeen Emerging Markets Bond Fund	$53,169,871	8.9%	0.45%	$239,264
SSGA TIPS	$53,649,100	8.9%	0.03%	$16,095
Pyramis Tactical Bond Fund	$37,027,893	6.2%	0.34%	$125,895
Pacific Asset Management Bank Loans	$16,912,813	2.8%	0.41%	$69,343
Total	**$599,801,293**	**100.0%**	**0.41%**	**$2,468,503**

Annual estimates based on manager fee schedule multiplied by market value as of December 31, 2019. Calculations were not reconciled with actual fees paid by the Retirement Fund and will not match. The table is for illustrative purposes only. Total effective fee and market value does not include cash. Estimate does not take into consideration potential performance based fees and fund expenses or charges.

Annual Fee Analysis

Background

- Annually, Meketa Investment Group provides clients with an estimate of the total fees paid to investment managers, both as a percentage as well as in hard dollars.
- For public markets managers the calculations are based on market values at the end of the fiscal year, multiplied by the basis points fee schedule.
- For private markets managers the calculation is based on the commitment amount multiplied by the base fund management fee for the investment period. The calculation adjusts for funds that charge on invested (rather than committed) capital, as is common for funds later in their lifecycle.
  - The calculation is for illustrative purposes only and does not take into consideration performance fees. Numbers may not add up perfectly due to rounding.
  - The calculation does not consider the underlying fee each fund of funds pays to the underlying managers. It does not also account for other expenses embedded in private equity funds (direct and fund of funds).

Annual Fees	(%)	($)
Estimated Annual Management Fees	0.64	6,497,862
Meketa Investment Group Fees	0.02	190,030
Total Investment Related Fees	**0.65**	**6,687,892**

Estimated Annual Public Markets Manager Fees[1]

Investment Expense Analysis
As Of December 31, 2019

Name	Market Value	% of Portfolio	Estimated Fee	Estimated Fee Value
U.S. EQUITY				
Westwood Capital Large Cap Value	$49,041,260	6.9%	0.55%	$269,727
Westfield Small/Mid Cap Growth	$48,947,486	6.9%	0.22%	$107,684
Vaughan Nelson Small Cap Value	$46,138,663	6.5%	0.93%	$429,679
SSgA S&P 500	$31,012,958	4.4%	0.02%	$4,652
Total U.S. Equity	**$175,140,367**		**0.46%**	**$811,742**
INTERNATIONAL EQUITY				
Baillie Gifford International Growth Fund	$39,219,146	5.5%	0.61%	$239,237
Sanderson International Value	$48,705,562	6.9%	0.80%	$389,086
Highclere International Small Cap	$46,139,666	6.5%	1.18%	$545,036
SSgA MSCI EAFE Fund	$27,404,409	3.9%	0.06%	$16,443
DFA Emerging Markets Value	$31,220,632	4.4%	0.57%	$177,958
TT Emerging Markets Equity	$32,627,309	4.6%	0.80%	$261,018
Total International Equity	**$225,316,724**		**0.72%**	**$1,628,778**
FIXED INCOME				
SSgA Bond Fund	$76,297,345	10.7%	0.03%	$22,889
Loomis Sayles Core Plus Fixed Income	$59,398,451	8.4%	0.28%	$168,496
Aberdeen Emerging Markets Bond Fund	$63,082,394	8.9%	0.45%	$283,871
SSGA TIPS	$52,759,620	7.4%	0.03%	$15,828
Pyramis Tactical Bond Fund	$39,447,648	5.6%	0.34%	$134,122
Pacific Asset Management Bank Loans	$18,682,271	2.6%	0.41%	$76,597
Total Fixed Income	**$309,667,729**		**0.23%**	**$701,803**

[1] Based on manager fee schedule multiplied by market value as of December 31, 2019. Calculations were not reconciled with actual fees paid by the Retirement Fund and will not match. The table is for illustrative purposes only. Total effective fee and market value does not include cash. Estimate does not take into consideration potential performance based fees and fund expenses or charges.

Estimated Annual Private Markets Manager Fees as of December 31, 2019[1]

Fund	Commitment or NAV ($ mm)	Fee to FOF Manager (%)	Fee to FOF Manager ($)
57 Stars Global Opportunity 3	10.0	0.90	90,000
Aberdeen Flag Private Equity V	10.0	0.75	75,000
Aberdeen Flag Private Equity VI	15.0	0.75	112,500
Aether Real Assets II	7.5	0.61	46,059
Aether Real Assets III	15.0	0.72	108,375
Aether Real Assets IV	10.0	0.85	85,000
Aether Real Assets V	10.0	0.85	85,000
Blue Bay Direct Lending Fund II	20.0	1.50	123,627
Clarion Partners Lion Properties Fund	62.6	0.94	628,243
Constitution Capital Partners Ironsides III	15.0	0.63	93,750
Cross Creek Capital Partners II - B	12.5	1.00	125,000
Cross Creek Capital Partners III	7.5	1.00	75,000
Deutsche Bank Secondary Opportunities Fund III	10.0	1.25	125,000
Greenspring Global Partners V	7.5	0.75	56,250
Greenspring Global Partners VI	7.5	1.00	75,000
HarbourVest 2013 Direct ("Co-Investment Fund III")	10.0	0.80	62,199
HarbourVest Co-Investment Fund IV	10.0	1.00	89,981

[1] Calculation is based on the commitment amount multiplied by the base fund of fund management fee for the investment period. For funds that charge on invested or NAV (rather than commitment) the calculation takes that into consideration. Estimate does not take into consideration potential performance based fees and fund expenses or charges. The calculation does not take into consideration fees paid to underlying managers.

Estimated Annual Private Markets Manager Fees as of December 31, 2019[1] (continued)

Fund	Commitment or NAV ($ mm)	Fee to FOF Manager (%)	Fee to FOF Manager ($)
LGT Crown Global Secondaries II	3.0	1.00	2,843
LGT Crown Global Secondaries III	10.0	1.00	41,024
LGT Crown Asia II	10.0	0.75	79,248
LGT Crown Europe Small Buyouts III	11.0	0.75	36,546
LGT Crown Global Opportunities Fund VI	40.0	0.60	240,000
Metropolitan Real Estate Distressed II	12.0	0.50	60,000
Partners Group Global RE 2011	7.5	0.90	67,500
Partners Group U.S. Distressed 2009 (RE)	12.0	0.90	108,000
Partners Group U.S. Distressed Private Equity	7.0	1.05	73,500
Partners Group Emerging Markets 2015	10.0	0.90	90,000
Partners Group RE Secondary 2017	15.0	1.25	187,500
Portfolio Advisors Global Real Estate V	15.0	0.63	94,500
Private Advisors Co-Investment Fund III	10.0	1.00	100,000
Private Equity Investors V	3.0	1.75	23,893
SVB Strategic Investors Fund IX	10.0	0.95	95,000
Total	**$415.6**	**0.81%**	**$3,335,539**

[1] Calculation is based on the commitment amount multiplied by the base fund of fund management fee for the investment period. For funds that charge on invested or NAV (rather than commitment) the calculation takes that into consideration. Estimate does not take into consideration potential performance based fees and fund expenses or charges. The calculation does not take into consideration fees paid to underlying managers.

Total Estimated Annual Manager Fees as of December 31, 2019[1]

	% of Fund	Market Value ($mm)	Fee ($)	Fee (%)
Domestic Equity	17	175.1	811,742	0.46
International Equity	22	225.3	1,628,778	0.72
Fixed Income	30	309.7	701,803	0.23
Private Equity	19	192.0	1,885,362	0.76[2]
Real Estate	9	89.8	1,145,743	0.92[2]
Natural Resources	3	26.0	324,434	0.76[2]
Totals	**100%**	**$1,018.0**[3]	**$6,497,862**	**0.64%**

- The estimated blended effective management fee for the Retirement Fund is 0.64%.
- While this fee has come down over the years (through the elimination of hedge funds and increased use of index funds) it still ranks above the peer average (0.60%), according to recent NCPERS study[4].
- Where possible, the Trustees should continue to find ways to reduce investment costs.

[1] Calculations were not reconciled with actual fees paid by the Retirement Fund and will not match. The table is for illustrative purposes only. Total effective fee and market value do not include cash. Public market fees were calculated by multiplying manager fee schedule by market value as of December 31, 2019 (unless otherwise noted). Private market fees were calculated by multiplying the commitment amount by the base fund of fund management fee for the investment period. For funds that charge on invested capital or NAV (rather than commitment) the calculation takes that into consideration. Estimate does not take into consideration potential performance based fees and fund expenses or charges. The calculation does not take into consideration fees paid to underlying managers

[2] Effective fee is divided by commitment amount, not current exposure.

[3] Approximately $8.2 mm (1%) was held in cash at the end of 2019.

[4] Based on most recent available data published by National Conference of Public Employee Retirement Systems ("NCPERS") survey of over 150 institutions.

Operating Procedures Review

Revised May ~~23, 2019~~27, 2020

Operating Procedures

for

Austin Fire Fighters Relief and Retirement Fund

Table of Contents

I. Available Asset Classes

In accordance with Section VI of the Statement of Investment Policies and Objectives (the "Policy") for the Austin Fire Fighters Relief and Retirement Fund (the "Fund"), the Board of Trustees of the Fund (the "Board"), with advice from the investment consultant, has determined the following asset classes will be available for investment by the Fund.

Asset Class
Public Domestic Equity
Public Foreign Equity
Emerging Market Equity
Frontier Market Equity
Private Equity
Private Debt
Real Estate
Investment Grade Bonds
TIPS
High Yield Bonds
Bank Loans
Developed Market Bonds
Emerging Market Bonds
Natural Resources
Infrastructure
Commodities
Hedge Funds
Cash

II. Market Assumptions

In accordance with Section VII of the Policy, the Board has adopted the following market assumptions for use in determining the asset allocation plan for the Fund, including the various asset class targets set forth in these Operating Procedures. These expected return and standard deviation assumptions are based on a twenty-year forecast for broad asset classes and sub-asset classes from Meketa Investment Group's ~~2019~~ 2020 Annual Asset Study. Expected returns are annualized compounded returns.

Asset Class	Annualized Average Return (%)	Annualized Standard Deviation (%)
Fixed Income		
Cash Equivalents	~~2.9~~2.4	1.0
Investment Grade Bonds	~~3.9~~3.0	4.0
Long-term Government Bonds	~~3.7~~3.2	12.0
TIPS	~~3.6~~2.9	7.0
High Yield Bonds	~~6.5~~5.2	11.0
Bank Loans	~~6.1~~5.0	9.0
Emerging Market Bonds (local; unhedged)	~~5.3~~4.8	14.0
Emerging Market Bonds (major)	~~5.2~~4.5	11.0
Mezzanine Debt	~~7.2~~7.0	15.0
Distressed Debt	~~7.3~~7.0	20.0
Equities		
Public U.S. Equity	~~8.1~~7.4	17.0
Public Developed Market Equity	~~8.5~~7.9	19.0
Public Emerging Market Equity	~~10.4~~9.1	24.0
Public Frontier Market Equity	~~10.3~~10.0	21.0
Private Equity	~~9.8~~9.4	~~23.0~~26.0
Private Equity Fund of Funds	~~8.9~~8.2	23.0
Long-Short Hedge Funds	~~5.0~~4.3	9.0
Real Assets		
Core Private Real Estate	~~5.8~~6.3	11.0
Value Added Real Estate	~~7.5~~8.4	18.0
Opportunistic Real Estate	~~9.1~~9.9	24.0
Natural Resources (Private)	~~9.5~~8.8	21.0
Commodities	~~5.0~~4.3	17.0
Infrastructure (Core)	~~6.5~~6.7	14.0
Infrastructure (Non-Core)	~~8.8~~9.1	22.0
Other		
Hedge Funds	~~5.4~~4.9	7.0
Hedge Fund of Funds	~~4.5~~4.0	7.0

III. Asset Allocation Targets

In accordance with Section VI of the Policy, the Board has established its strategic asset allocation mix so as to achieve its long-term investment goal of accumulating reserves necessary to provide the established benefits to the participants and their beneficiaries.

Market movements may cause a portfolio to differ from this strategic mix. The desire to maintain this constant strategic mix must be balanced with the real cost of portfolio rebalancing. Therefore, a range has been set for the actual asset allocation of the Fund's assets to allow for the fluctuations that are inherent in marketable securities.

The target allocations and rebalancing trigger percentages are:

Broad Asset Classes	Low Trigger	Target	High Trigger
Equities	30%	42%	55%
Fixed Income	20%	30%	40%
Alternatives*	10%	28%	40%

*(Including Private Equity, Real Estate, Natural Resources and Hedge Funds)

It is the responsibility of the custodian to calculate market values and report these to staff and consultant monthly.

IV. Asset Class Diversification: Sub-Asset Class Targets

Within the broad definition of equities and fixed income for allocation purposes, the Trustees, with advice from the consultant, believe it is prudent to diversify within asset classes. The sub-asset class categories, as well as the asset allocation among such sub-asset classes, are set forth below. The Policy Benchmarks set forth below are used to determine the composite Policy Index described in Section V of these Operating Procedures.

	Target (%)	Range (%)	Policy Benchmark
Public Domestic Equity	20	13-27	Russell 3000
Public Foreign Equity	22	15-29	MSCI ACWI (ex. U.S.)
Private Equity	15	5-25	MSCI ACWI +2% on a 3 Month Lag
Investment Grade Bonds	13	10-20	Bloomberg Barclays Aggregate
TIPS	5	0-10	Bloomberg Barclays U.S. TIPS
High Yield/Bank Loans	5	0-10	50% Merrill Lynch High Yield 50% Credit Suisse Leverage Loan Index
Emerging Market Debt	7	0-10	Custom EMD Benchmark[1]
Core Real Estate	5	0-10	NCREIF ODCE Equal Weighted (net)
Value Add Real Estate	5	0-10	NCREIF Property NPI
Private Natural Resources	3	0-5	S&P North American NR
Cash	0	0-5	

[1] Custom EMD Benchmark is 50% JPMorgan EMBI Global Diversified, 25% JPMorgan GBI-EM Global Diversified (unhedged), and 25% JPMorgan CEMBI Broad.

V. Performance Objectives

In accordance with Section II.C. of the Policy, the overall performance objective of the Fund is to achieve a high likelihood of outperforming the total return of an index composed of a mix of asset class benchmarks over a market cycle. This composite "Policy Index" will be calculated using the sub-asset class target percentages and the Policy Benchmarks set forth in Section IV of these Operating Procedures. The investment consultant will set forth the composition of the Policy Index in its quarterly reports to analyze the overall performance of the Fund.

With respect to investment manager performance, over a market cycle or five years, whichever is shorter, the performance objective for each manager is to add value after fees to a specified benchmark representing a particular investment style, net of fees. These specific style benchmarks for investment managers are set forth in Appendix A. Short-term examination of each manager's performance will also focus on style adherence and peer comparisons.

Passive investment products are expected to match the return of their respective benchmark, gross of fees.

VI. Asset Class Guidelines

In accordance with Section VI of the Policy, set forth below are the investment guidelines applicable to each broad asset class available for investment by the Fund. Additional investment guidelines are contained within each agreement between the Fund and individual investment managers (for separately managed accounts).

A. Public Equities

1. Eligible holdings:
   The portfolios will be invested in publicly traded marketable securities. Restricted or letter stock are not permitted.

2. Style Adherence:
   Managers are expected to not deviate from the particular style they were selected to manage. Quarterly, fundamental portfolio characteristics and style benchmarks comparisons will be monitored for adherence to a manager's identified style. The capitalization of each stock in an equity manager's portfolio shall be within the cap range of the above identified style benchmark when purchased. Managers are expected to stay within the cap range of their dedicated strategy and are instructed to provide notification of any material changes to strategy. Currency management is at the discretion of active international managers.

B. Public Fixed Income

1. Eligible holdings:
   The portfolios shall be invested in publically traded marketable securities. Private placement bonds are not permitted. 144(a) fixed income securities are allowable.

2. Portfolio Quality – Core:
   Dedicated core fixed income products should be predominantly invested in investment grade securities, as defined by market ratings agencies (e.g. Moody's, Standard & Poor's). Money market instruments shall have a minimum quality rating comparable to an A3 (Moody's) or A (standard & Poor's) bond rating and commercial paper shall be rated A1/P1 unless held in a diversified short term commingled fund.

C. Closed End Alternatives (Private Equity, Real Estate, Natural Resources)

1. Management:
   Investments in closed end vehicles shall be made only through professionally managed, institutional limited partnerships or limited liability corporate vehicles.

2. Diversification:
   The closed end alternatives portfolio will be prudently diversified. ~~by having broad exposure across venture capital, buyouts, restructuring, subordinated debt, special situations, distressed and natural resources.~~ Further, the private equity portfolio in aggregate shall be diversified by: industry groups, company, number of transactions, stage of company maturity, form of investment, geography and vintage year. Investment in non-U.S. limited partnerships is permitted. The long-term nature of private equity investments and vintage year diversification shall be emphasized so that the Fund, as a long-term investor, may properly take advantage of the private negotiation of transactions and the liquidity premium associated with private markets investments.

3. Over-commitment:
   The implementation of a private markets program by the Fund shall be made over time so as to increase vintage year diversification. The timing of new commitments shall be spread out so as to avoid undue concentration of commitments in any one-year. The Board recognizes that it will be necessary to make capital commitments in excess of the target allocation for private markets investments in order to achieve the target allocation and subsequently maintain it. The Investment Consultant shall monitor the amount of capital committed, drawn, invested and distributed and make recommendations ~~a recommendation~~ to the Board of Trustees as needed. ~~to the amount of new commitments to be made each year.~~

4. Monitoring:
   The Staff, Board and Consultant will collectively monitor and administer the underlying limited partnership investments in a prudent manner, in part, by:

   1. administering capital calls and distributions,
   2. employing financial monitoring and reporting systems,
   3. maintaining an understanding of the limited partnership's holdings and activities, including periodic discussions with the general partners and attending partnership investor meetings as appropriate,
   4. attending to partnership amendments or other matters related to the underlying partnerships in the best interest of the ~~investors~~Fund, and
   5. liquidating stock distributions.

~~D. Hedge Funds and Fund of Funds~~

1. ~~Manager Qualifications:~~
   ~~Preference shall be given to investment managers who are registered investment advisors under the Investment Advisors Act of 1940. Preference shall be given to those managers that commit a significant amount of their own capital in the funds they manage.~~

2. ~~Eligible Underlying Funds:~~
   ~~The underlying managers contained within a Fund of Funds strategy shall employ a variety of skill-based and generally proprietary strategies. Diverse strategies are permitted and are generally defined as Relative Value strategies (equity market neutral, convertible arbitrage and fixed income arbitrage), Event-Driven strategies (merger arbitrage and debt securities), and Opportunistic strategies (long/short equity, short-biased and global macro). Leverage at the manager or strategy level shall be fully disclosed and regularly updated. Quarterly liquidity, or better, is preferred.~~

VII. Class Action Lawsuit Policy

From time to time the Trustees may determine, with the advice and assistance of the Fund's General Counsel (if requested), that it is in the best interest of the Fund's participants and beneficiaries to participate in securities class action lawsuits where the ~~fund~~ Fund has been harmed due to securities fraud or other violations. In doing so, the Fund generally will not seek lead plaintiff status, opting instead for filing notice of claim when appropriate, unless so advised by the fund's General Counsel and any law firm retained by the Fund to monitor and report securities litigation to the Fund, as described below.

In any event, it shall be the custodian's primary responsibility to monitor all securities class action litigation matters, manage the timely filing of proofs of claim in securities class action litigation matters that have already reached settlement in respect of investments held by the fund, and report to the Administrator as necessary. In addition, all investment managers shall be notified of any potential or pending legal action.

However, in those securities class action lawsuits or other securities litigation matters in which the Fund has retained a law firm to represent the Fund as lead plaintiff or class representative or to actively monitor the progress of the case, then the law firm shall be responsible for the timely and effective filing of proofs of claim in such lawsuits on behalf of the Fund and will notify, in writing, the Fund and the Fund's custodian and applicable investment manager, if any, of the proofs of claim that have been filed on behalf of the Fund.

In addition to the routine filing of proofs of claim as described above, the Fund at its sole discretion may consider and assess whether and under what circumstances it may choose to become more actively involved in securities class action litigation or other securities litigation matters from time to time.

To this end, the Fund may at its discretion retain one or more law firms experienced in securities litigation matters to review potential and filed securities class action lawsuits and/or other securities litigation lawsuits and to bring to the attention of the Fund meritorious cases that the firm concludes are worthy of further monitoring or involvement by the Fund and for which the Fund has suffered losses on its investment. The law firm shall make its recommendations to the Trustees, including a statement as to whether the Fund should actively monitor the case, seek lead plaintiff status or class representative status, or take some other course of action with respect to the particular securities class action lawsuit or other securities litigation lawsuit.

The Trustees shall have sole authority and discretion as to the decision as to whether the Fund should actively monitor the case, seek lead plaintiff status or class representative status, or take some other course of action and may seek the advice of its General Counsel on such matters.

Appendix A: Style Benchmarks

Asset Class and Style	Index Benchmark
Core Fixed Income	Bloomberg Barclays Aggregate Bond Index
Core Plus Fixed Income	Bloomberg Barclays Aggregate Bond Index
TIPS	Bloomberg Barclays U.S. Treasury TIPS Index
Emerging Market Debt	JPM EMBI Global Diversified or Custom Benchmark
High Yield	Merrill Lynch High Yield
Bank Loans	Credit Suisse Leveraged Loan Index
Large Cap Core	S&P 500 or Russell 1000
Large Cap Value	Russell 1000 Value
Large Cap Growth	Russell 1000 Growth
Mid Cap Core	Russell Mid Cap
Mid Cap Value	Russell Mid Cap Value
Mid Cap Growth	Russell Mid Cap Growth
Smid Cap Core	Russell 2500
Smid Cap Value	Russell 2500 Value
Smid Cap Growth	Russell 2500 Growth
Small Cap Core	Russell 2000
Small Cap Value	Russell 2000 Value
Small Cap Growth	Russell 2000 Growth
Micro Cap	Russell Micro Cap
International Developed	MSCI EAFE
International Developed w/ EM exposure	MSCI ACWI ex - US
International Developed Small Cap	MSCI EAFE Small Cap
Emerging Market Equity	MSCI Emerging Markets
Real Estate	NCREIF ODCE Equal Weighted (net) or NCREIF Property NPI
Private Equity	MSCI ACWI +2% on a Three Month Lag
Natural Resources	S&P North American NR

Memos Since Last Meeting

MEKETA
INVESTMENT GROUP

5200 Blue Lagoon Drive
Suite 120
Miami, FL 33126

305.341.2900
Meketa.com

MEMORANDUM

TO: Trustees, Austin Fire Fighters Relief and Retirement Fund
FROM: Leandro A. Festino, Aaron C. Lally, Meketa Investment Group
DATE: March 23, 2020
RE: Vaughan Nelson Due Diligence Call

Overview

Meketa conducted a conference call with Chris Wallis (lead portfolio manager at Vaughan Nelson) to get an update on performance and positioning given the recent market volatility surrounding the COVID 19 situation. Below are some highlights from the call.

Business continuity

The entire staff is fully up and running remotely. Being on the Gulf Coast (located in Houston), this "tends to be a regular occurrence" with hurricanes. All strategies at the firm have been actively trading. VN has "not missed a beat".

ETF effects on liquidity in equity markets

Mr. Wallis noted that he is surprised at the liquidity in the equity markets, which he attributes at least in part to ETFs/systematic trading. As these machines simply follow trends and buy and sell accordingly, Mr. Wallis has had more ease getting in and out of position in the last two weeks than he has in the past two years given the increased orderliness in trading.

ETFs are also presenting dislocations in the market. For example, two REIT ETNs that were double levered were liquidated yesterday. VN saw mortgage REITs going down 20-30% as a result of these forced liquidations. Some of these companies are fine fundamentally. As a knock-on effect from these liquidations, homebuilder, building products, and mortgage-related ETFs fell significantly.

YTD performance through 3/18/2020

Small Cap Value has returned -31.1% YTD through 3/18/2019, while the Russell 2000 Value returned -35.8%. Both sector allocation and stock selection have contributed to relative returns. An underweight to Consumer Discretionary (+143 bps) and overweight to Technology (+82 bps), as well as a 3.9% average cash position have been the most positive allocation decisions. Stock selection in Industrials (+158 bps) and Health Care (+121 bps) have been the main positive areas of stock selection. The noteworthy negative stock selection has come from Consumer Staples (-82 bps) and Energy (-70 bps).

Insights on Medical Situation

Mr. Wallis is in the somewhat unique position of sitting on the Board of Baylor College of Medicine. At Baylor, they believe that the health care system will come up with ways to care for people as they are infected. As a care system is established and gets on solid footing, resumption of normal activity should take place at least on some levels. When a real vaccine is produced, life "will go back to the way it used to be". If a treatment/vaccine does not come to fruition, Baylor believes we can manage through by getting enough health care equipment/capacity up and running to deal with patients as they come in. South Korea and Singapore have had success in that regard. The most pressing issue is protecting health care professionals and mitigating flare-ups among that community by providing them the equipment they needs (e.g. masks) and hopefully antibodies for these front line workers to take to fight the virus. The other most concerning issue is just the general shortage in health care equipment, which should be mitigated in the coming months.

Insights on Economic/Market Environment

VN's underlying macro thesis has been that we have been in a liquidity recession since 2018 when the Fed really started raising interest rates. Companies that were over-levered would be cut off and valuation expectations would have to change. Mr. Wallis also believes that there is a bubble in private equity and private credit that would burst over a number of years, unlike the rapid burst in 2007-2008.

In his opinion COVID-19 simply accelerates the liquidity recession even more, potentially even bringing it to a head this year. If the Federal Government effectively stimulates, it could stretch the liquidity recession over several quarters, potentially years. However, not only is COVID-19 accelerating the liquidity recession but it is now overlaying an economic recession on top of it.

When we do recover, Mr. Wallis does not expect a V-shaped recovery on a stock market or economic level. He does not believe that the ~1/3 of small cap companies that are not profitable will participate in a meaningful way in the eventual stock market rally. He believes these companies are permanently impaired at this point. From the perspective of an economic rebound, he does not anticipate that consumer spending will rebound with force at the outset given the jump in unemployment. Consequently, Mr. Wallis expects a slow resumption in economic activity. He also highlighted the possibility of new restrictions on movement in the months to come when/if regional flare-ups occur.

Insights on portfolio positioning given environment

Over the last 1-2 months, Mr. Wallis and the team have been operating under the assumption that a recession is now imminent, so the team has been applying recessionary-type assumptions to its company financial models. They have been ensuring that their "shopping list" of stocks is up to date. This list consists of names that have either been too expensive for them own in the first place or stocks the team has sold as stock prices rose that the team can now buy back. The team has been reassessing every stock in the portfolio, updating risk/reward profiles to determine whether to sell or buy more of each stock. The portfolio had been reduced down to 64 positions earlier in 2020 and could likely be reduced further as the team focuses capital on the best risk/reward opportunities in this environment.

In the last two weeks, VN started adding incremental positions. Some of these names are companies the investment team has been monitoring that did not meet valuation hurdles that are now down 40%+. These business are being sold as if part of a fire sale, but they are high quality companies with high return on capital profiles and defensible positions in healthy end markets with GDP plus growth.

In terms of investment "mistakes" made in the last couple of months, Mr. Wallis highlighted the Energy space. Mr. Wallis did not anticipate the Russia/Saudi controversy and the ramifications it would have on oil pricing.

Mr. Wallis's current thinking on Energy has evolved in light of the current situation. The demand reduction associated with shutting down major economies for a quarter is a "game changer". A lot of incremental energy demand comes from the developing world, where the virus could run relatively unchecked for a period. Consequently, COVID-19 significantly impairs much of the sector. Additionally, China's balance sheet is extremely levered, putting this country in a bad position in the wake of this crisis. Consequently, China will be forced to deleverage future, which will put pressure on commodities.

In addition to the now underweight in Energy, the portfolio has minimal exposure to the leisure/hospitality/food service industries.

The portfolio is overweight Industrials, but the exposure is mixed. The only aerospace exposure is through Albany, which makes Kevlar for airplane components.

In the Technology space, there is little visibility into supply chains. Consequently, Mr. Wallis believes that when results are released next quarter, there will be more "dumpster fire" buying opportunities.

Meketa Thoughts

While we recognize absolute performance is quite negative (as expected for all equity managers year to date), we are pleased to hear there have been no business disruptions at Vaughan Nelson and that the strategy is outperforming the index by approximately 5% year to date.

Please feel free to give us a call at 305-341-2900 with any questions.

LAF/ ACL/nd

MEKETA

INVESTMENT GROUP

EXTERNAL MEMORANDUM

TO: Trustees, Austin Fire Fighters Relief and Retirement Fund

FROM: Leandro A. Festino, Aaron C. Lally, Meketa Investment Group

DATE: April 13, 2020

RE: COVID-19 Update: Impact on Real Estate Investments

NOTE: The comments that follow relate to specifically to domestic, commercial private real estate. At the end of the Notes, there are some general, related comments about international private real estate and publicly traded real estate company shares.

Introduction

From the private real estate markets point of view, the current global economic crisis is unlike previously experienced ones for several key reasons:

- Increased globalization of finance and trade in recent years
- Amount and speed of data and information exchanged through traditional and social media
- A medical and scientific crisis compared to merely an economic one
- Inexperienced, polarized political landscapes and participants with only episodic alignment with the populations at large

Each of these has a direct impact on commercial and residential real estate usage in the near term, and more than likely, the medium and long term as well. Alas, it is too early to draw reliable inferences concerning prospective market conditions. Like other asset classes, so much of the sector's future hinges on the length of this shutdown. As the new month starts, we will begin to better understand cash flow implications and have a better sense for temporary versus permanent impairment. We expect limited impact to the first quarter's performance, but material impact on valuations in subsequent quarters. There continues to be open-ended questions surrounding the transaction market, which has halted, and how discounted valuations may be to the latest peak. Financing new acquisitions and refinancing existing investments will be challenging. There will likely be long-term effects, as users adapt their space needs and habits following COVID-19.

Below is our best estimation of what the next 30-60 days and beyond may look like in the real estate asset class, based on our discussions with real estate investment managers daily. However, we note that the range of potential outcomes remains quite wide.

First Quarter 2020 Performance

Core and core-plus risk investments, including ODCE funds and separate accounts, will likely post positive Q1 performance. Total return will be driven by income, which historically has held a steady quarterly rate of approximately 1% net of AUM fees. We expect asset values, or appreciation, will be slightly up to flat for the period and debt marked to market will also have marginal positive attribution. We also generally expect that non-core risk investments, primarily in closed end value added and opportunistic funds, will also show slight appreciation from the 12/31/19 ending values, for small positive total returns. These funds are typically levered 2:1 or 3:1, respectively, and have fewer positive cash flowing assets in the beginning and mid points of their life spans, relying on capital appreciation for the bulk of their returns.

While the flat to slightly positive performance of institutional real estate funds may surprise some, this likely outcome is based on valuation methodologies being used by managers (and supported by NCREIF) during this time. There is no doubt that there has been a real and negative impact on most real estate in March, and we expect that impact to flow through to valuations in subsequent quarters.

Transaction Activity and Price Discovery

We expect a much lower transaction volume in Q2 and Q3 than during any period since 2009, and little price discovery. Sales that were in escrow by March 15 appear to be closing in most cases. A small number of high profile withdrawals by lenders have caused broken deals. Most private equity real estate buyers have retreated to the sidelines for the time being, or have tried to re-trade purchases at prices that are at material discounts from previously offered contingent levels. Sellers have generally refused to accept these reduced terms, and some would-be buyers have walked away from hard money deposits as a result. We expect few transactions to close during April and May, and any meaningful price discovery will be a lumpy and prolonged process.

The debt markets for origination and financings have been severely constricted. In those instances where quotes are available, they are for the more secure positions of the capital stack, with lower advance rates, wider spreads by 100-250 basis points than 30 days ago, and with much more severe covenants.

The secondary debt markets have seen some activity created by the excruciating need of regulated lenders to shed riskier assets for which no reasonable bid was likely to be forthcoming prior to quarter end marks. One of the differences this time around, versus 11 years ago, has been the emergence of non-regulated real estate lenders, who use warehouse loans and revolving repurchase agreements, and whose counterparties (regulated lenders) are requiring repayment to improve capital ratios to mandated levels. Some investment managers of debt funds who have more sedate balance sheets, or more likely, unused dry powder from a recent fund raise, are nibbling at securities priced to yield low to mid-teens to maturity.

Forward Valuations

The primary metric used to value commercial properties is a 10 year discounted cash flow of future net operating incomes, adjusted for necessary capital improvements required of the owner. The discount rates arise primarily from current interest rates and risk-adjusted alternative uses for the capital.

We expect that there may be 5% to 10% diminution in value reported overall in core funds during Q2 and again in Q3. This will be partially offset by 0.5% to 1.0% income returns. For non-core funds, whose performance is more dependent on higher levels of leverage, the values may decline as much as 10% to 20% in each of the two quarters.

Core funds rely on (a small number of) third party appraisers to determine value. These firms generally overshoot in both directions: late on the way down and late on the way up. We expect no less during the next two quarters. Changes will be made to reduce rental growth rate assumptions, absorption rates, discount rates and cost of leverage to try and reflect the changes in the perceived risks attendant to owning illiquid, operationally intensive assets. These adjustments will be more art than science, since it is unlikely the market will produce nearly the same level of transaction volume as during the past several years. Nevertheless, these opinions of value will be primarily based on actual contracts, i.e., the signed leases, often from creditworthy lessees.

It is trickier, and more open to debate, to value "transitional assets" owned by non-core sponsors, since these assets trade on completion and not during "work-in-progress." In these funds, the General Partners determine the values quarterly, not third parties. While the funds' auditors review the valuations, they do not ordinarily express an opinion on them. Also, these values are much more predicated on events to occur in the future, such as leases to be signed, than those in hand.

While we do not have a clear sense for the level of devaluation or timing of the trough, we do have enough information to support that real estate portfolios are not worth what they were on March 31. **As such, in the case of clients with active positions in investment queues in open-end funds, it may be appropriate to defer these capital calls for at least one to two quarters, where permitted.** In agreement with this view and likely supported by some of the other aforementioned issues in the sector, some ODCE funds made a decision to not call capital on April 1, deferring as late as October 1. Our findings thus far with ODCE managers is that although investment queues are binding, managers are willing to work with new investors in delaying capital calls.

Rebalancing & Redemption

Following custodians' reports for Q1, clients will reassess pacing plans for additional private real estate commitments, incorporating revised estimates of total plan size, delayed capital calls from newer real estate funds, and reduced distributions from earlier vintage funds in 2020. This will affect commitments under consideration for 2020 and 2021 at least, as clients who were previously underweight their target allocation in real estate will likely meet or exceed target.

We expect that redemption queues at open-end funds will lengthen. Most sponsors have suspended or significantly reduced any redemption payouts for an indefinite period, with quarterly reassessment and priority to preserving the value of the portfolio's assets. Some ODCE managers are discussing suspension of income distributions; however, most are not, so far.

In 2017-2019, general partners had gathered a historically large amount of capital to acquire secondary sales of non-core, non-controlling limited partner interests. They have been slow to deploy this cache. We are likely to see purchase volumes increase in late Q2 and Q3 as a result of involuntary rebalancing.

Intervention, Legislation, Forbearance and Regulation

Another unprecedented unknown is the role of governments, large and small, in real estate during this crisis. Here are some places of intersection, many of which are defined differently in different jurisdictions:

a. imposition and duration of shelter-in-place
b. determination of essential activities
c. maximum number of people allowed at permitted gatherings
d. rent relief/rent strikes
e. moratoria on evictions
f. qualifications, amounts and timing of delivery of relief payments for individuals and businesses; and
g. the impact to every citizen as a result of an additional $4 trillion and counting of national debt and its ultimate repayment whether through taxes or other means, and low to zero interest loans for those able to access them.

While there is no right or a wrong for each of these factors, each requires the creation and adoption of regulations and enforcement. Government has not historically been a rapid responder. The pace at which the elements above are codified and enacted will have a shorter term, but increasingly negative, effect on collections and valuations in real estate during the next 6 to 12 months.

Disruptive Uses of Space

Space occupants are adapting to (expected) shorter term conditions that may have longer term implications, for example, office users. How many will find that working from home is a cost effective trade? Many retailers are unlikely to re-open; many hotels will only re-open with new owners and fresh equity. Health care facilities (senior housing, congregate care, skilled nursing, clinics, hospitals, medical office buildings) are likely to be re-designed in many locations based on lessons from the crisis. These changes in use will change the value of other existing assets, but how much and when are still opaque.

Sector Outlook: Near Term in Descending Order of Pain

In general, look to the balance sheets of the individual assets and operators to determine levels of distress. Those portfolios with no to little debt, no major maturities for the next 12 to 24 months, and sufficient credit leases in place are expected to weather the storm with smaller impacts to value. As the maturities are approaching, the occupancy discretionary, and the counterparties weaken, start preparing for losses in value.

I. Hotel/Hospitality/Restaurants will be very hard hit and not resilient quickly (unless, of course, government decides to make whole employers and employees, in which case, they may enjoy an early and V-shaped rebound). However, at this time, expect significant risk of lost rent and deterioration of furniture, fixtures, and equipment (FF&E).

II. Senior Housing will have a very steep branding hill to climb if the bulk of the casualties are centered in these facilities, which seems likely to be the case today. Releasing these properties which have single digit turnover will be challenging.

III. Discretionary retail will face a steeply uphill road to recovery. Landlords will suffer significant loss of rental income during Q2 and Q3, to some degree a function of the pace and amount of capital that is distributed to victims of the virus and the timing of re-openings. Grocery and drug store anchored centers will lose some rental income, but are likely to stay in the hands of the current owners at reduced valuations.

IV. Student Housing outcomes will vary and depend on whether the real estate was rented to the school or to individual private tenants. However, there will be loss of revenue as schools convert to online learning exclusively, and it is difficult to predict fall enrollment implications at this time. Generally, universities are likely money good tenants, but their endowment funds could be materially impacted.

V. A significant portion of institutional office buildings are leased to credit-worthy tenants who will likely ask for rental relief but will end up paying at close to par on their rental obligations. Smaller tenants will represent significant late or lost rental.

VI. Multifamily and single family residential occupancies will stay at current levels with lower or no rental increases in 2020. This is one of the property types where government intersects even more than most as a result of the role of agency lenders, rent limits/controls, and public policy. Voluntary renters (newer, more expensive rentals) will likely stay longer than the initial lease term until the single family sales market re-opens.

VII. The self-storage sector is generally defensive and while not likely to see rental growth, will experience strong occupancy and collections.

VIII. Industrial warehouses are near capacity and to the extent consumers have liquidity, will benefit from distribution opportunities. Short term demand has been exacerbated as old and new users rely on the ecommerce channel during stay-at-home measures.

REITs

The decline in REIT share prices was similar to the global financial crisis. Here, too, the crucial determinate will be strength of balance sheet and debt maturity schedule. The bifurcation between the "haves and have-nots" in the ability to access capital will be dispositive insofar as survival beyond the crisis. It is possible that there will be several public to private acquisitions as weaker companies are purchased by opportunistic non-core funds. Many dedicated REIT investors believe that the current prices are not indicative of liquidation value, an opinion supported by an acquirer's ability to borrow at nominal rates. The consensus is that the prices have overshot, and there is intrinsic value which will not become truly clear until operations are stabilized.

Global Private Real Estate

US institutional investors sought diversification and total return from international real estate, and undertook all the typical non-core risks as well as an additional group of uncertainties. In particular, most capital was invested in development and re-development, with a healthy allocation to emerging markets in Asia.

It is unclear when trading in these private real estate markets will re-open, and what the attendant financing terms will be. Investors should similarly expect declines in value during Q2 and Q3, with non-core risk assets performing more poorly than core assets.

Summary

While the real estate asset class, in general, will likely be negatively impacted by the current economic downturn, we note that, relative to past market dislocations, the impact within the asset class is likely to be much more idiosyncratic.

Not each property type and geographic market area will be impacted the same—for example, two identical office buildings at the same intersection, one of which has a single long term credit tenant with many years remaining on its lease, and the other with tenants leases expiring during the next 24 months, will have very different valuations in the near term. Tenant demand for space continues to evolve with technology and living patterns. Certain property types will be favored by these trends and others punished. The ability to collect contracted rent and the levels to which governments intervene by edict, policy and funding will all impact valuations in the next 6-9 months. It is common sense that necessity real estate will fare the best insofar as short term changes in value are concerned. Discretionary real estate, especially when leveraged, will suffer.

To the extent that distress becomes unbearable, and/or involuntary owners are tossed keys and control of properties leveraged at what used to be 70-80% of value, there is a record amount of dry powder available to private real estate general partners and fund managers to purchase these assets in 2020 at prices likely to be materially lower than what we saw at 2019 year end.

New third party financing is still an unknown, and temporary exemptions and permissions from regulators will influence the pace and volume of sales significantly.

As is often the case with private markets in the early stages of a downturn, we are at the Iceberg Stage: much more is yet to be revealed than can be seen on the surface.

We encourage you to reach out to any member of the real estate team if you have any general questions about the market, or your real estate portfolios in particular.

LAF/ACL/nd

Roadmap

MEKETA
INVESTMENT GROUP

5200 Blue Lagoon Drive
Suite 120
Miami, FL 33126

305.341.2900
Meketa.com

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

PRELIMINARY ROAD MAP[1]

May 2020 Investment Committee Meeting

1. 1Q20 markets and performance review
2. 1Q20 asset transfers review
3. Annual fee review
4. Operating procedures review
5. Private equity secondary fund interview with HarbourVest
6. Memos since last meeting
7. Roadmap

August 2020 Investment Committee Meeting

1. Annual private equity performance review

Future/Ongoing

1. Monitor opportunity set for next private equity FOF commitment

[1] Dates and actions subject to change based on client needs and capital market conditions

Appendices

Global Macroeconomic Outlook
April 2020

Global Economic Outlook

The lock-down of the global economy to slow the spread of the COVID-19 pandemic led the IMF to materially alter expectations for economic growth.

- The IMF now forecasts a decline in global GDP of 3.0% in 2020, followed by a sharp recovery of 5.8% in 2021.
- In advanced economies, GDP is projected to decline by 6.1% for 2020, and recover by 4.5% in 2021, as economies reopen and progress is potentially made on a vaccine for the virus. The US is expected to fare marginally better, declining 5.9% in 2020 and recovering by 4.7% in 2021. The Japanese economy is expected to decline by 5.2% in 2020, but only recover by 3.0% in 2021.
- The Euro-area is forecasted to take the greatest hit to growth, declining 7.5% in 2020 and recovering 4.7% in 2021. Expectations for economies like Spain and Italy, which implemented some of the most stringent and aggressive quarantine and containment measures, are heavily influencing weakness across the broader region; those economies are anticipated to decline by 8.0% and 9.1%, respectively.
- Growth projections are also weak for emerging economies, although China is expected to post positive growth of 1.2% for 2020, and a significant 9.2% in 2021. The positive growth expectations are due primarily to the Chinese government's ability to quickly impose aggressive distancing measures, largely isolate and contain the virus, and then quickly move to re-open their economy.
- Inflation is projected to decline, consistent with decreased economic activity, with inflation across most developed economies expected to be below 1.0%; in some countries, such as Japan, deflation is expected.

	Real GDP (%)[1]			Inflation (%)[1]		
	IMF 2020 Forecast	IMF 2021 Forecast	Actual 10 Year Average	IMF 2020 Forecast	IMF 2021 Forecast	Actual 10 Year Average
World	-3.0	5.8	3.7	2.5	3.4	3.5
Advanced Economies	-6.1	4.5	2.0	0.5	1.5	1.5
US	-5.9	4.7	2.3	0.6	2.2	1.8
Euro Area	-7.5	4.7	1.4	0.2	1.0	1.3
Japan	-5.2	3.0	1.4	-5.2	3.0	1.4
Emerging Economies	-1.0	6.6	5.1	4.6	4.5	5.2
China	1.2	9.2	7.6	1.0	3.0	2.5

[1] Source: IMF. World Economic Outlook. As of April 2020 Update. "Actual 10 Year Average" represents data from 2010 to 2019.

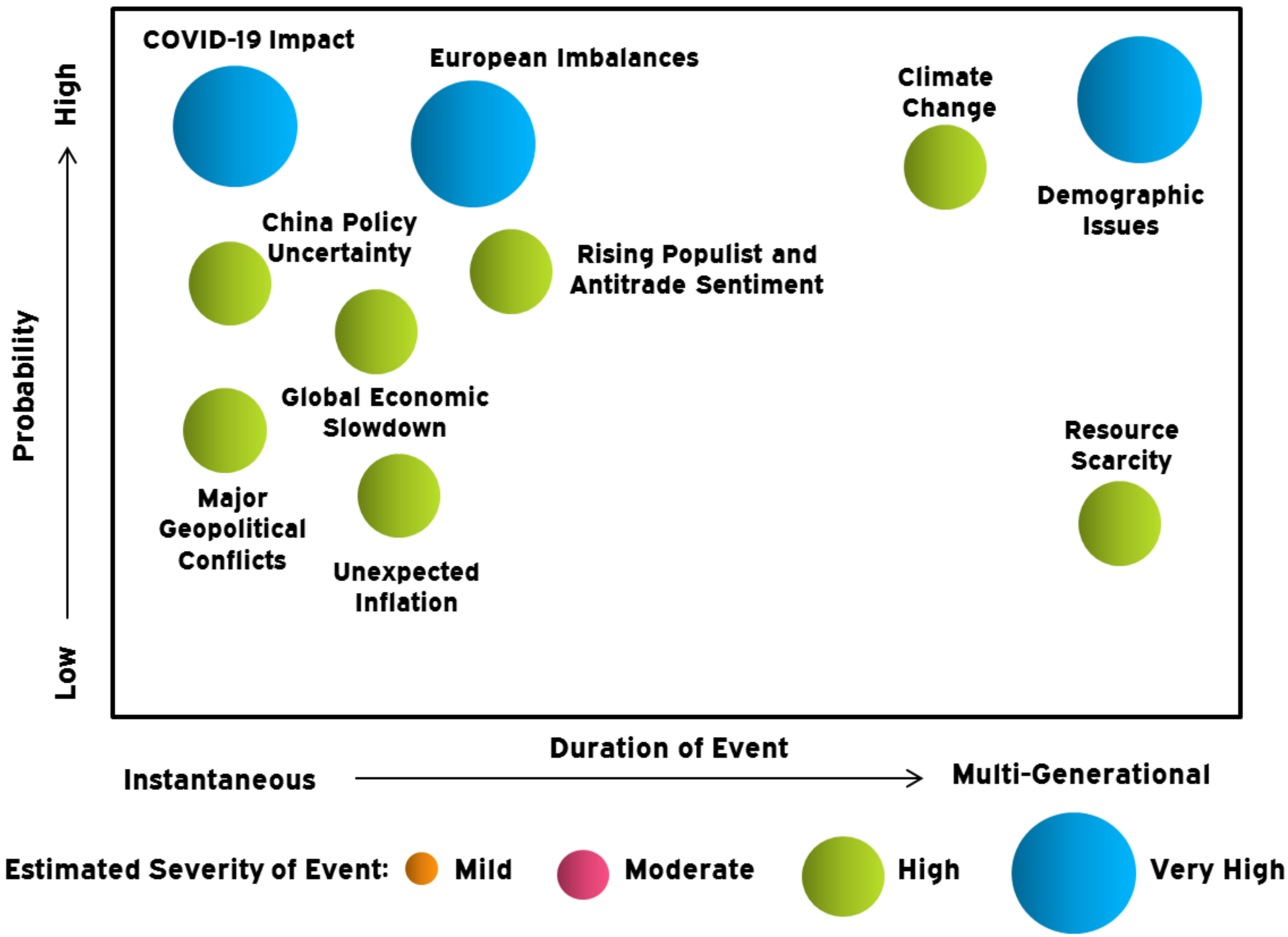
Global Economic Outlook (continued)

In an effort to stem the expected significant declines in economic activity, fiscal and monetary authorities across the globe responded with immediate and aggressive stimulus measures.

- US fiscal and monetary responses have been unprecedented. Fiscal authorities released over $2.4 trillion in directed stimulus, while monetary authorities cut policy rates back to effectively zero, deployed trillions in stimulus measures, backstop liquidity, and funding programs to mitigate the economic deterioration.
- Japanese authorities deployed measures similar to US policies, directing fiscal stimulus where needed most, including loans to small businesses and direct stimulus to consumers, while the central bank continued, and expanded, their quantitative easing purchase program. The Bank of Japan also expanded collateral and liquidity requirements, and initiated 0% loans to businesses directly hit by the virus.
- In the euro-area, countries have launched stimulus packages targeting areas of their economies hit hardest by virus-related restrictions. The European Central Bank also took directed measures, with targeted long-term refinancing operations for small and medium sized business and a 750 billion euro emergency purchase program, which was subsequently expanded to include lower-quality corporate debt.
- Fiscal and monetary policy in China was already quite accommodative prior to the onset of the COVID-19 crisis, but as the pandemic developed, policy makers took further steps to support the economy. Additional tax cuts, low-interest rate loans, and extra government payments to qualifying citizens represented the bulk of the fiscal response. On the monetary side, policy rates were cut, repo facilities were expanded, and reserve requirements were lowered further.

We acknowledge the wide breadth of new issues being presented by the pandemic, and among those we are considering are the following: 1) Economies opening too soon from virus-related restrictions, and ultimately needing to re-deploy distancing policies; 2) Consumers permanently, or for an extended period of time, changing economic behaviors; 3) Persistently high unemployment due to a significant number of companies not surviving the economic downturn; 4) Virus-related fears negatively impacting the future of globalization, and; 5) An increase in sovereign debt risk due to the record issuance by governments.

Macroeconomic Risk Matrix



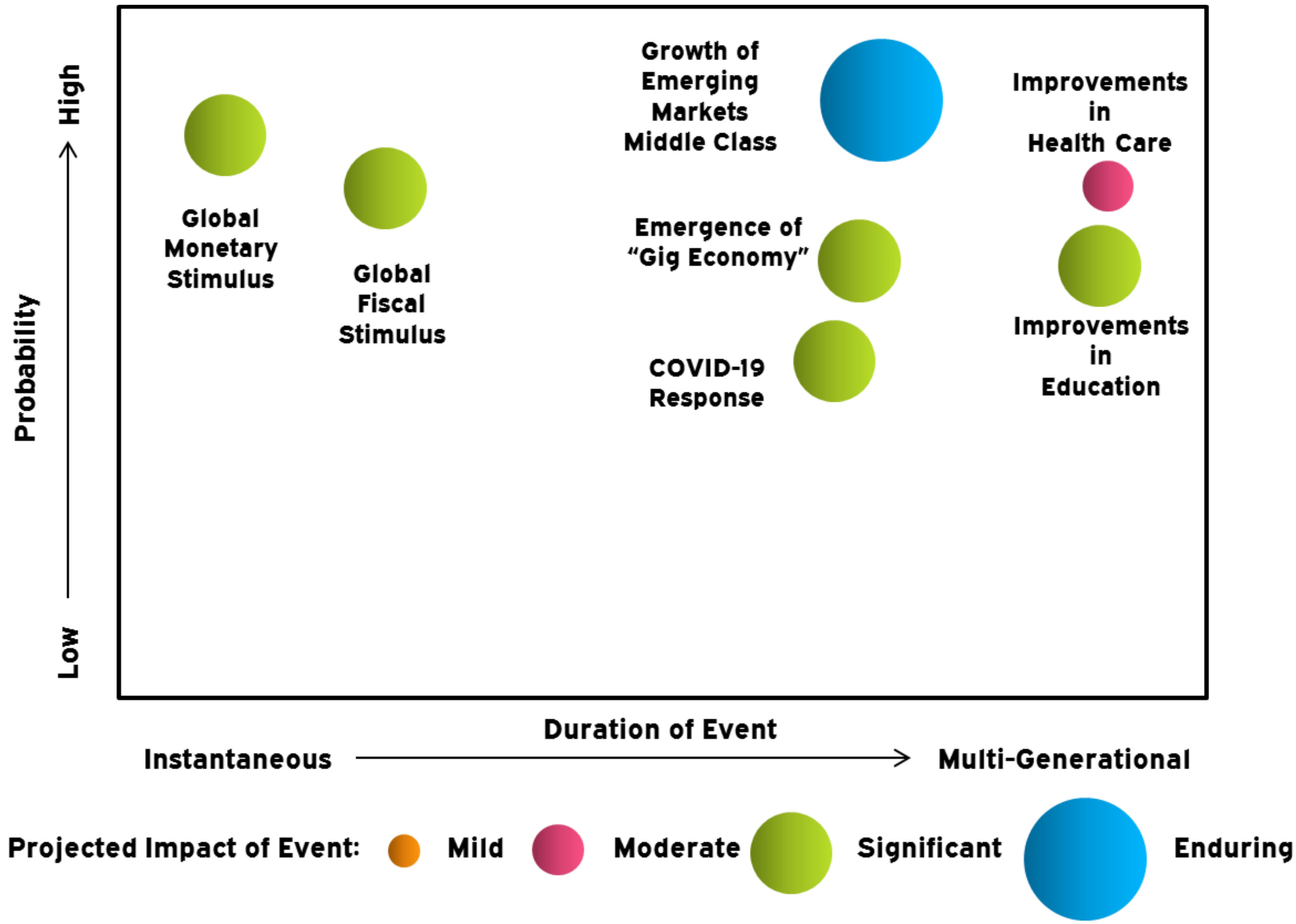
Macroeconomic Risk Overviews

China Fiscal and Monetary Policy Uncertainty	The process of transitioning from a growth model based on fixed asset investment by the government to a model of consumption-based growth will be difficult. Some progress has been made on trade tensions with the US with the passing of a phase-one trade deal, but many issues still need to be resolved. The management of capital outflows is another key issue in China with officials tightening regulations to stem outflows. As China tries to manage a smooth economic transition through fiscal and monetary policies, heightened financial risks exist. The recent outbreak of the coronavirus in China could further weigh on the economy, and others, going forward.
Climate Change	The earth's average temperature has been increasing since preindustrial times with the pace accelerating over the last 35 years. Increased levels of greenhouse gases like carbon dioxide have been the main cause of higher temperatures as they trap heat in the atmosphere. Warmer temperatures have led to the melting of glaciers and polar ice and increased precipitation in wet regions and reduced it in dry regions. The economic impacts of climate change are many, including declining crop yields, effects on livestock health, shifts in tourism, damage to infrastructure (rising sea levels and more extreme weather), and higher levels of disease and malnutrition.
COVID-19 Impact	Developments with the COVID-19 pandemic are of principal and immediate concern. Clarity on when a vaccine might be available for public distribution will be the greatest factor impacting when the global economy may re-open and begin to rebuild from the record job losses and the significant decline in global GDP. Relatedly, market participants have also been discussing the potential increase in risk across sovereign debt markets, particularly the US Treasury market, amidst the significant increase in debt issuance necessary to fund the stimulus measures. While current appetite for safe-haven assets remains robust, as markets begin to recover and demand for these assets wane, selling pressures on the back of the record issuance could push yields higher than otherwise might be expected. As yields rise, debt servicing by the government could become a greater concern.
Demographic Issues	In Japan and Europe, birth rates have declined for decades, resulting in populations becoming older and smaller relative to the rest of the world. In China, their so-called "one child" policy helped to reduce population growth, but has created other issues for the government. As life expectancy increases, the prior policy creates complications with a low working base left to support a relatively large and aging population. These demographic trends will have negative long-term impacts on GDP growth and fiscal budgets, amplifying debt problems.
European Imbalances	Structural issues persist in the Eurozone, related to the combination of a single currency and monetary authority with 17 separate fiscal authorities. Within the European Union, tensions exist, as highlighted by political changes in Italy and the prior UK referendum, related to policies on immigration, laws, and budgetary issues. The UK officially left the EU in January 2020, and has now entered an 11-month transition period where the two parties are attempting to negotiate a trade deal.

Macroeconomic Risk Overviews (continued)

Global Economic Slowdown	The shutdown of the global economy has largely guaranteed recessions for a significant number of countries over the near-term. The question now is the degree of economic deterioration and the duration of the recovery once it takes hold. As the number of cases and deaths from the virus continues to rise, restrictions remain in place for many countries, and expectations for a vaccine are measured in months if not years, it is likely too early to reasonably assess when this risk declines.
Major Geopolitical Conflicts	While a phase-one trade deal with China was agreed upon in 2019, the Trump administration continues to apply pressures on China to proceed with additional trade negotiations. However, with a recent increase in rhetoric from the US due to the administration's insistence that China be held more accountable for the spread of the COVID-19 virus, relationships are likely to remain strained (if not escalate) over the near-term. Additionally, tensions between India and the regional Muslim community have risen of late, due to Prime Minister Modi and his government revoking special status for Jammu and Kashmir in 2019, a plan to strip millions of people of their citizenship, and concerns regarding immigration laws that consider religious affiliation. Recent developments related to the virus have further soured relationships, as India's Muslim community faced backlash due to a particular Islamic sect holding a large gathering as restrictions on public gathering were being deployed, resulting in a significant increase in infections and a subsequent deterioration in diplomatic relationships..
Resource Scarcity	The growing world population, urbanization, and a growing middle class, particularly in emerging economies, could all lead to a scarcity of resources, including food, water, land, energy, and minerals. As natural resource demand continues to grow, rising commodity prices may hurt the living standards of many and increase the risk of geopolitical conflicts.
Rising Populist and Antitrade Sentiment	Tariffs started by the US against China and some of its allies, along with elections/votes in the US, Europe, UK, and Mexico highlight growing populist/antitrade sentiment. Stagnant wages, growing inequality, and the perception of jobs being lost abroad are key contributors to ongoing unrest. Reducing trade and imposing tariffs will likely lead to higher prices, reduced efficiencies, and heightened tensions between countries. As economies begin to recover from the COVID-19 crisis, the risk remains for certain areas to be blamed for the outbreak and the emergency measures taken disproportionally benefiting some, further increasing tensions.
Unexpected Inflation	Developed countries across the world are struggling to generate inflation despite record low (or negative) interest rates and monetary and fiscal stimulus. Most traditional measures of inflation remain near or below central bank targets, despite traditionally stimulative efforts, declining unemployment, and wage growth. With expectations for a significant increase in inflation low, an unexpected rise could be disruptive leading to higher rates and lower growth and valuations. Further, the inability for authorities to meaningfully impact the direction of inflation could prove problematic should deflationary-forces take hold.

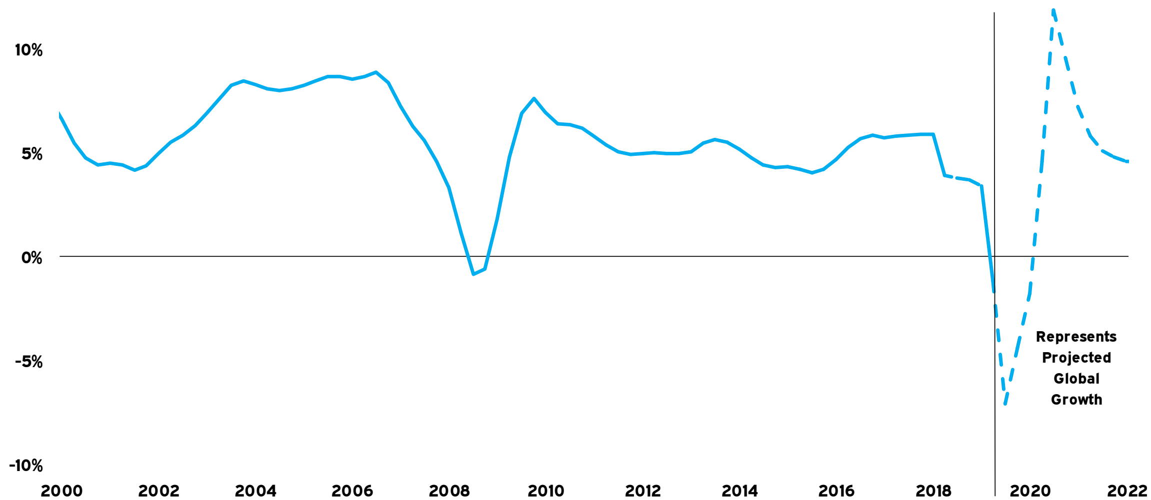
Positive Macroeconomic Trends Matrix



Positive Macroeconomic Trends Overviews

COVID-19 Response	A significant number of public and private companies are aggressively working towards a vaccine, rebuilding personal protective equipment supplies and capabilities, and changing business operating frameworks to better support the immediate societal changes due to the pandemic. The collective efforts of the global community, and the lessons learned from the various measures taken, will provide valuable guidance for addressing pandemic-related risks in the future.
Emergence of "Gig Economy"	The "gig economy" will take a material hit due to the virus related economic shut-down, but should ultimately continue to grow once the recovery is meaningfully underway. The new structure allows workers flexibility in the jobs they take, their schedules, and offers the ability to work outside of a traditional office. For companies, it has led to lower labor and overhead costs (more employees are working remotely), flexibility in hiring workers temporarily, and lower recruiting and training costs.
Global Monetary Stimulus	The record stimulus measures taken by global central banks have provided a meaningful support to financial markets. With policymakers openly stating their strategy is to keep policy extremely accommodative until the COVID-19 induced crisis has passed with a measured degree of confidence, easy financial conditions should provide support for riskier and higher-yielding assets, and support broad economic growth.
Global Fiscal Stimulus	Consistent with the emergency measures taken by monitory authorities, fiscal policy has turned notably accommodative amidst the COVID-19 crisis. A number of countries, including the world's largest, have unleased record levels of direct stimulus to support their respective economies. Measures have taken many forms, including direct cash disbursements to consumers, extension of unemployment benefits, and loans and grants to small- and mid-sized businesses.
Growth of Emerging Markets Middle Class	In emerging economies, the middle class is projected to grow significantly over the next twenty years. This growing middle class should increase consumption globally, which in turn will drive GDP growth and create jobs.
Improvements in Education/Health Care	Literacy rates and average life spans have increased globally, particularly in emerging economies. Higher literacy rates will drive future growth, helping people learn new skills and improve existing skills. Longer lives increase incentives for long-term investments in education and training, resulting in a more productive work force and ultimately more growth.

Global Nominal Gross Domestic Product (GDP) Growth[1]

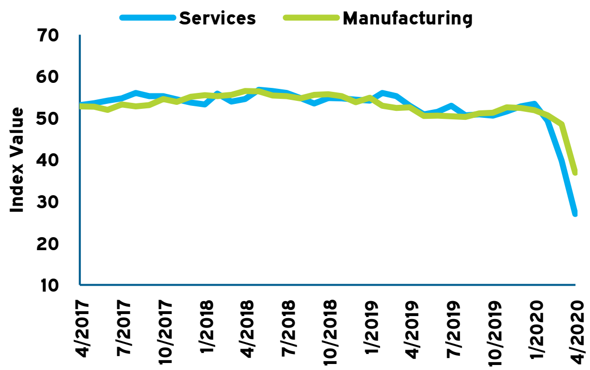


- Global GDP is expected to experience a significant decline in the second quarter of 2020 due to the COVID-19 pandemic and the severe economic restrictions to stem the spread.
- Estimating the depth and duration of the decline are challenging due to the uniqueness of this crisis. Forecasts by some market participants suggest global GDP could decline by as much as 9% in the second quarter, before rebounding modestly over the remainder of the year.
- Further, commentary around GDP estimates suggests the risks are generally skewed to the downside, as some countries have begun removing social distancing policies despite a lack of meaningful improvement in the capacity to test for the virus, the expectation for a vaccine, or advancement in the ability to treat infected persons.

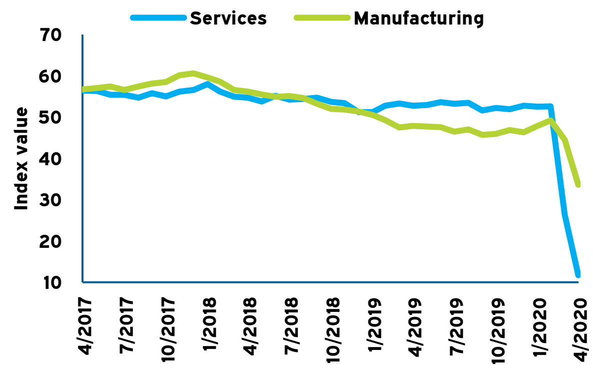
[1] Source: Oxford Economics. Updated April 2020. GDP data after Q1 2020 are estimates.

Global PMIs

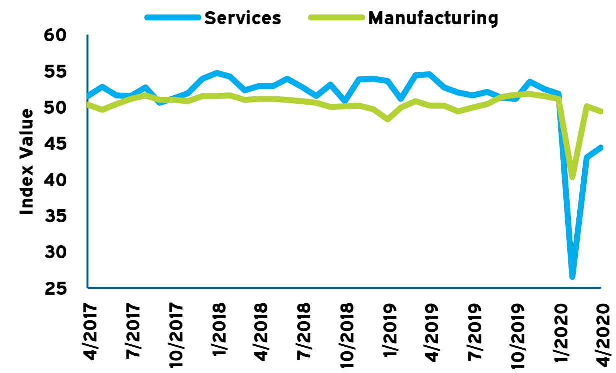
US PMI[1]



Eurozone PMI[2]



China PMI[3]



- Purchasing Managers Indices (PMI) based on surveys of private sector companies, collapsed across the world to record lows, as output, new orders, production, and employment have been materially impacted by closed economies.
- Readings below 50 represent contractions across underlying components and act as a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- The services sector has been particularly hard hit by the stay-at-home restrictions in many places.
- Recently, sentiment improved in China as the economy started to reopen, but risks remain to the downside including the potential for a spike in cases.

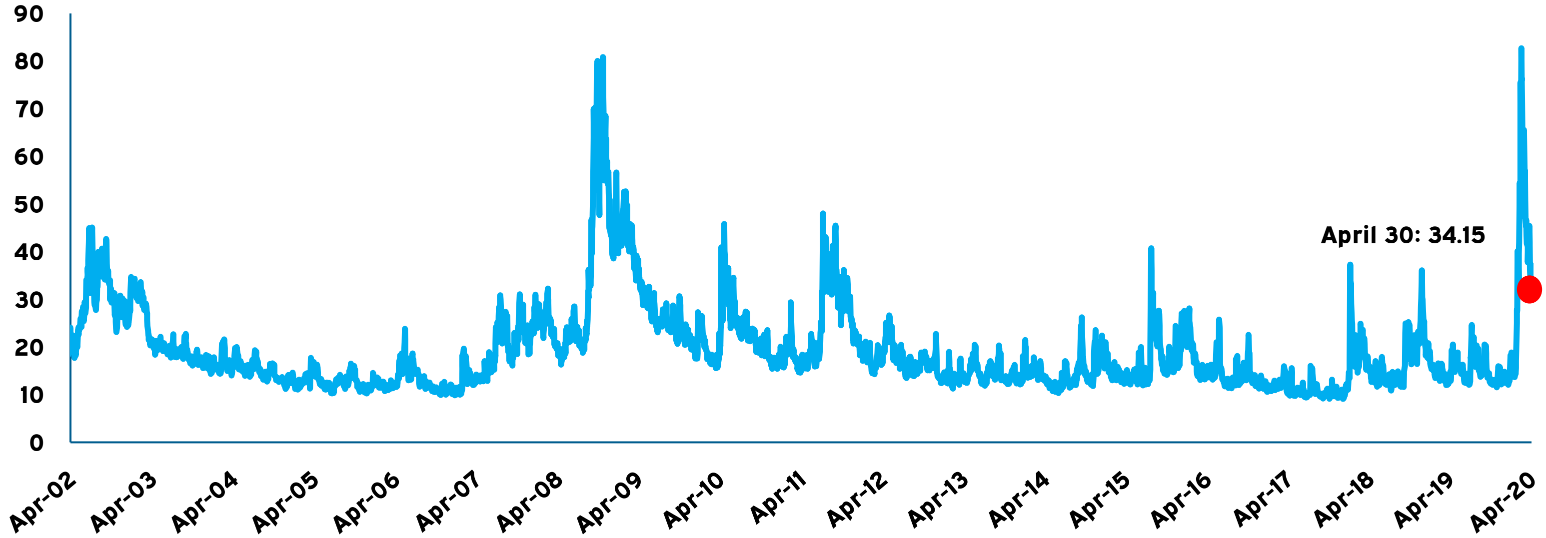
---

[1] Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of April 2020.

[2] Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of April 2020.

[3] Source: Bloomberg. Caixin Services and Manufacturing PMI. Data is as of April 2020.

Volatility[1]



- With the recent fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term volatility, as measured by the VIX index, continue to decline from record levels but remains elevated.
- At the recent height, the VIX index reached 82.7, surpassing the pinnacle of volatility during the GFC, showing the magnitude of the crisis, and of investor fear.
- Going forward, there remains the risk of additional spikes in volatility, as investors continue to process the impacts of COVID-19 and the effectiveness of the policy response.

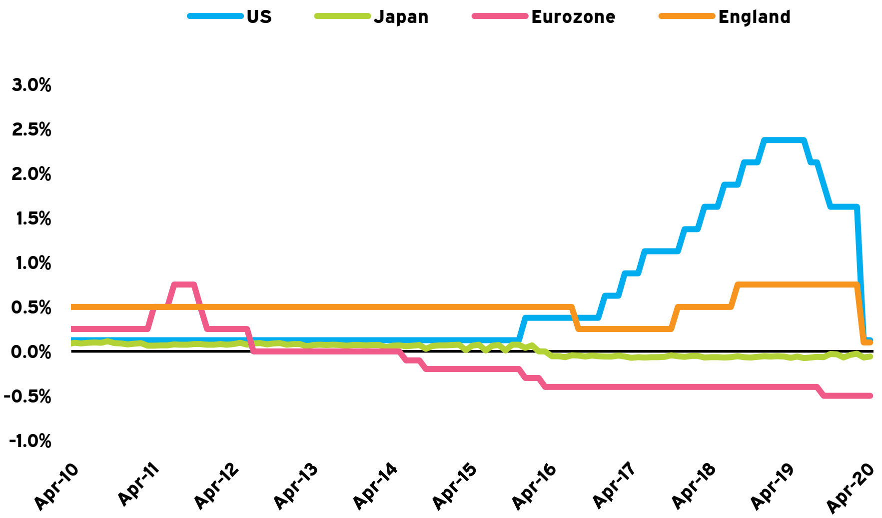
[1] Bloomberg. Represents daily VIX data and is as of April 30, 2020.

Policy Responses

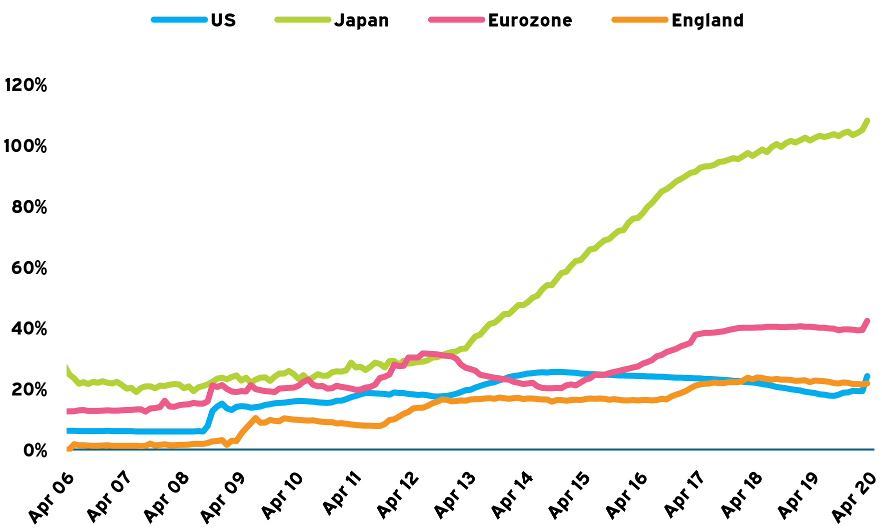
	Fiscal	Monetary
United States	$50 billion to states for virus related support, interest waived on student loans, flexibility on tax payments and filings, expanded COVID-19 testing, paid sick leave for hourly workers, $2 trillion package for individuals, businesses, and state/local governments. Additional $484 billion package to replenish small business loans, provide funding to hospitals, and increase testing.	Cut policy rates to zero, unlimited QE4, offering trillions in repo market funding, restarted CPFF, PDCF, MMMF programs to support lending and financing market, expanded US dollar swap lines with foreign central banks, announced IG corporate debt buying program with subsequent amendment for certain HY securities, Main Street Lending program, Muni liquidity facility, repo facility with foreign central banks, and easing of some financial regulations for lenders.
Euro Area	Germany: Launched 750 billion euro stimulus package. France: 45 billion euro for workers, guaranteed up to 300 billion euro in corporate borrowing. Italy: 25 billion euro emergency decree, suspending mortgage payments for impacted workers. Spain: 200 billion euro and 700 million euro loan and aid package, respectively.	Targeted longer-term refinancing operations aimed at small and medium sized businesses, under more favorable pricing, and announced the 750 billion euro Pandemic Emergency Purchase Program. and then expanded the purchases to include lower-quality corporate debt
Japan	$20 billion in small business loans, direct funding program to stop virus spread among nursing homes and those affected by school closures, discussion of additional relief in the coming months, and $240 billion supplementary spending (pending).	Initially increased QE purchases (ETFs, corporate bonds, and CP) and then expanded to unlimited purchases and doubling of corporate debt and commercial paper, expanded collateral and liquidity requirements, and 0% interest loans to businesses hurt by virus
China	Tax cuts, low-interest business loans, extra payments to gov't benefit recipients.	Expanded repo facility, policy rate cuts, lowered reserve requirements.
Canada	$7.1 billion in loans to businesses to help with virus damage.	Cut policy rates, expanded bond-buying and repos, lowered bank reserve requirements.
UK (BOE)	Tax cut for retailers, small business cash grants, benefits for those infected with virus, expanded access to gov't benefits for self and un-employed.	Lowered policy rates and capital requirements for UK banks, restarts QE program and subsequently increased the purchase amounts.
Australia	$11.4 billion, subsidies for impacted industries like tourism, one-time payment to gov't benefit recipients.	Policy rate cut, started QE.

Central Bank Response[1]

Policy Rates



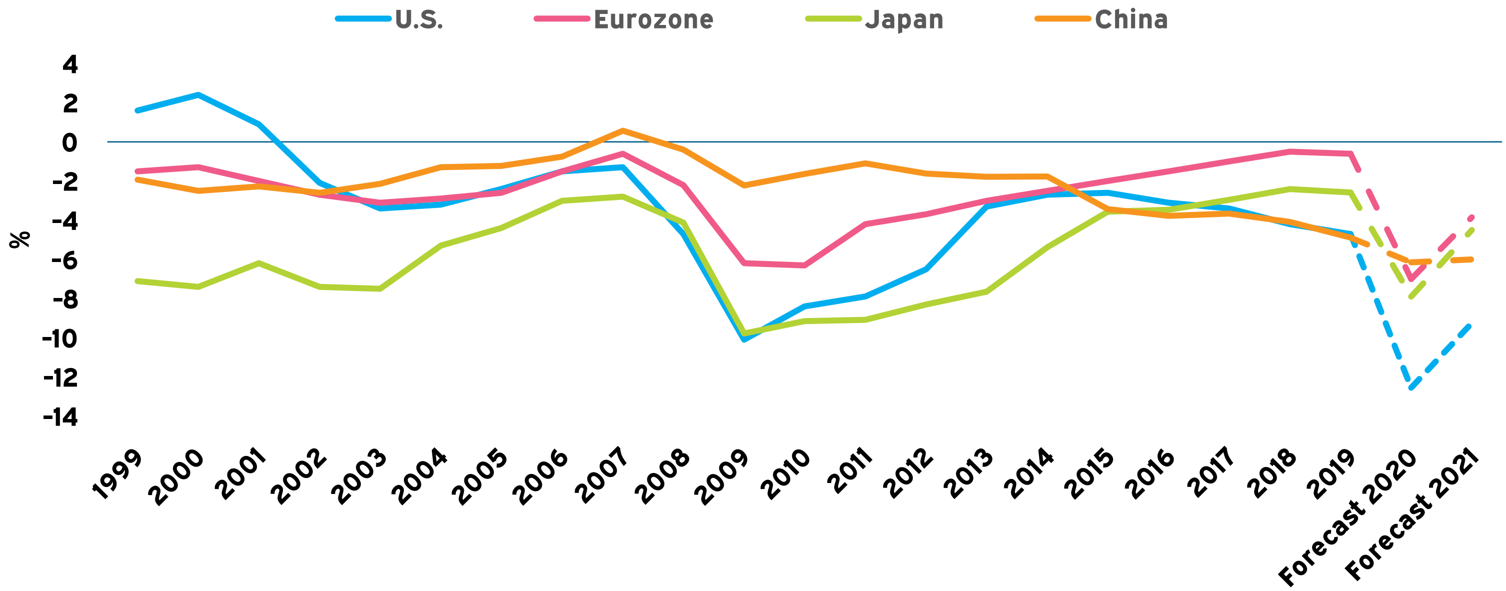
Balance Sheet as % of GDP



- Global central banks took aggressive policy actions as signs of economic deterioration emerged due to the restrictions put in place to stop the spread of COVID-19.
- Broad measures include the cutting of policy rates, deploying emergency stimulus through expanded quantitative easing, liquidity programs to support funding markets, targeted refinancing operations, and forward guidance commitments to keep monetary policy accommodative until the pandemic is thoroughly under control.
- Uncertainties remain regarding the effectiveness of monetary policy supporting the economy through COVID-19, as well as their potential inflationary impacts and the ballooning of balance sheets.

[1] Source: Bloomberg. Data is as of April 30, 2020.

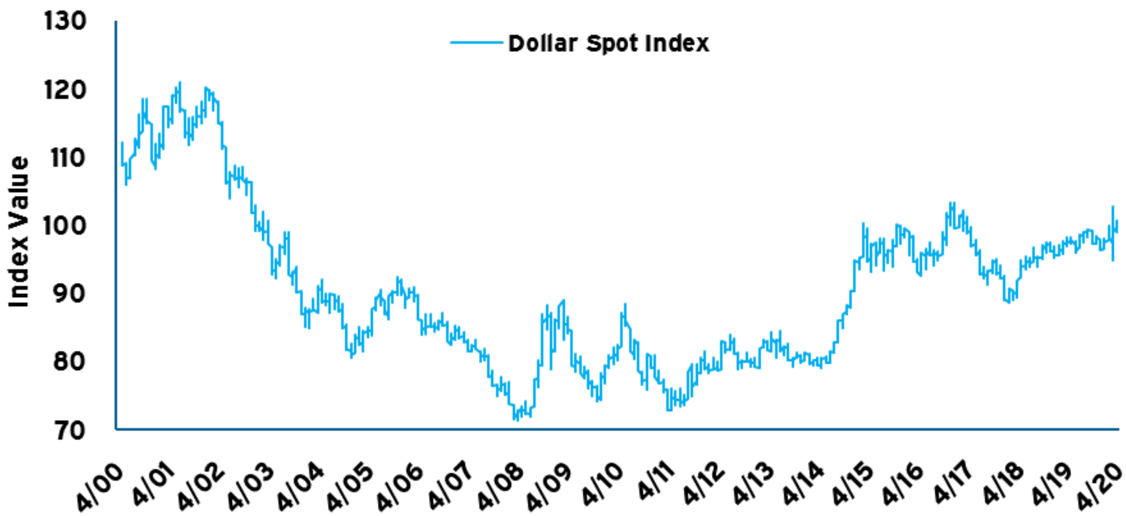
Budget Surplus / Deficit as a Percentage of GDP[1]



- Budget deficits are expected to deteriorate meaningfully for developed economies due to the massive fiscal support and the severe economic contraction's impact on tax revenue.
- If fiscal and monetary policy stimulus measures fail to meaningfully stimulate growth over the coming years, deficits could remain historically high and potentially require additional sovereign debt issuance to cover the shortfall, which increases default and interest rate risks.

[1] Source: Bloomberg. Data is as of December 31, 2019. Projections via IMF World Economic Outlook April 2020.

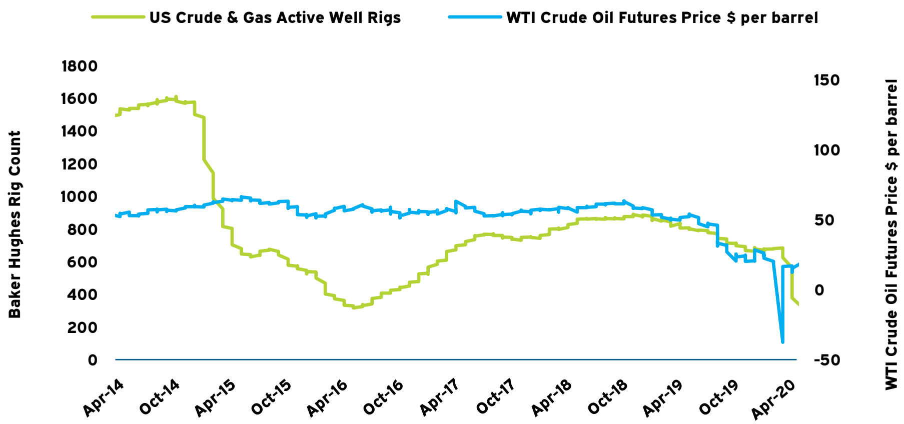
US Dollar versus Broad Currencies[1]

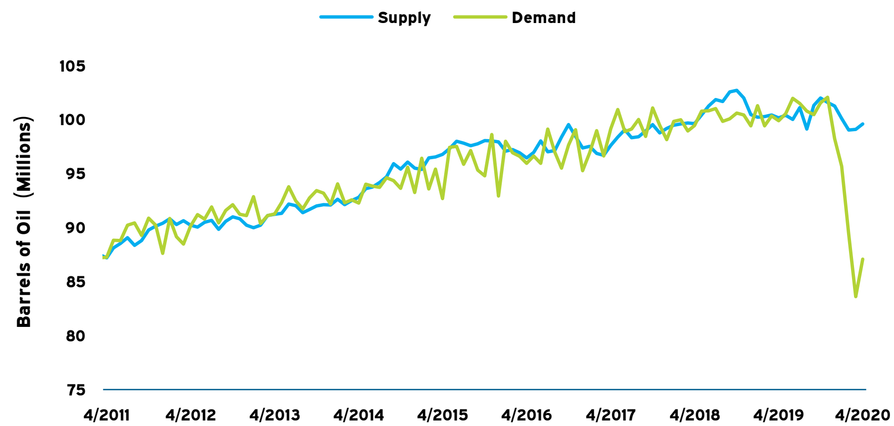


- When financial markets began aggressively reacting to the COVID-19 developments, the US dollar experienced notable selling pressure as investors sought safe-haven exposure in currencies like the Japanese yen.
- As the crisis grew into a pandemic, investors' preferences shifted to holding US dollars and highly liquid, short-term securities like US Treasury bills. This global demand for US dollars led to appreciation versus most major currencies.
- To help ease the heighted demand for US dollars, the Federal Reserve, working with a number of global central banks, re-established the US dollar swap program, providing relief to other currencies.
- A strong US dollar makes US goods more expensive for overseas consumers and causes commodity prices outside the US to rise, affecting foreign countries, and particularly emerging markets.

[1] Source: Bloomberg. Data is as of April 30, 2020.

Oil Price and Rig Activity[1]

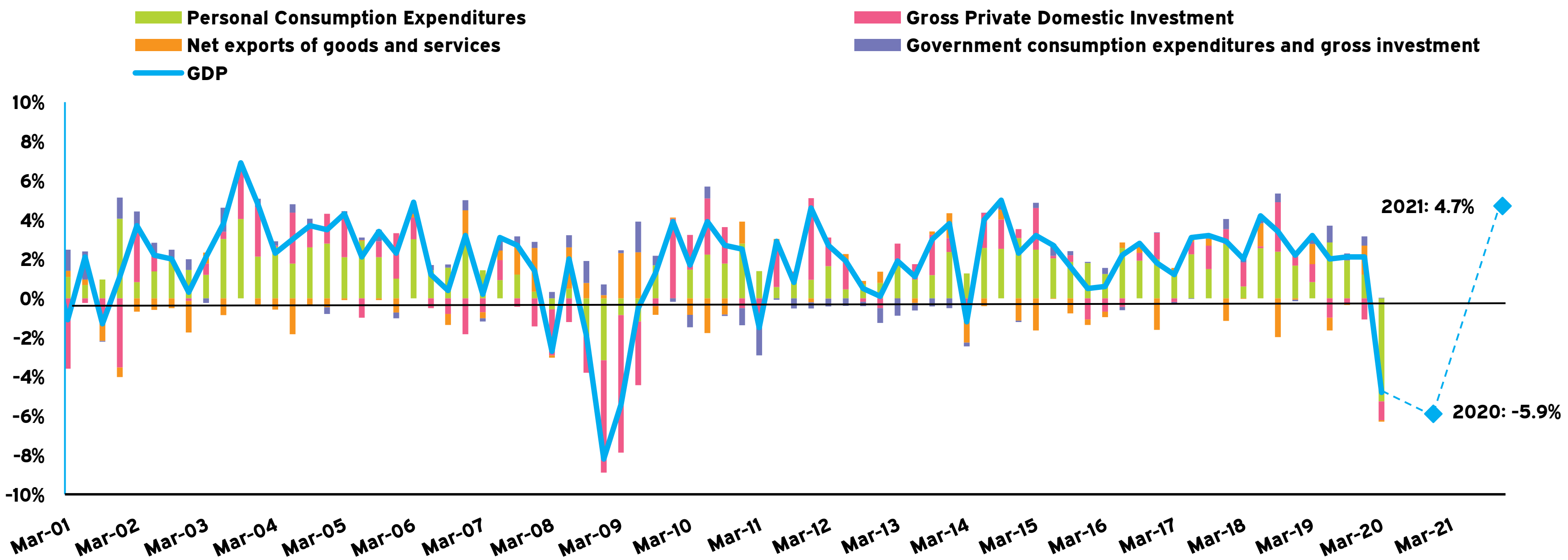




- Recently, in an unprecedented move, oil prices plunged to negative levels on concerns over storage capacity in the US due to declines in demand, leading producers to pay to offload their oil for May delivery. Consistent with demand disruptions, active well rigs declined to multi-year lows as companies shutter drilling operations.
- Negative prices were driven by the futures market stipulation of physical delivery of oil at contract expirations. As the May expiration date approached, traders sold the contracts given extremely low demand and storage constraints.
- Prior to this, oil markets were already under pressure as the virus lowered global growth expectations, and prices deteriorated further when Saudi Arabia initiated a price war after Russia's decision to not participate in the proposed OPEC+ supply cuts. Russia ultimately agreed to participate and this, along with optimism over economies starting to reopen, provided some support to oil recently.

[1] Source: Bloomberg. Data is as of April 30, 2020.

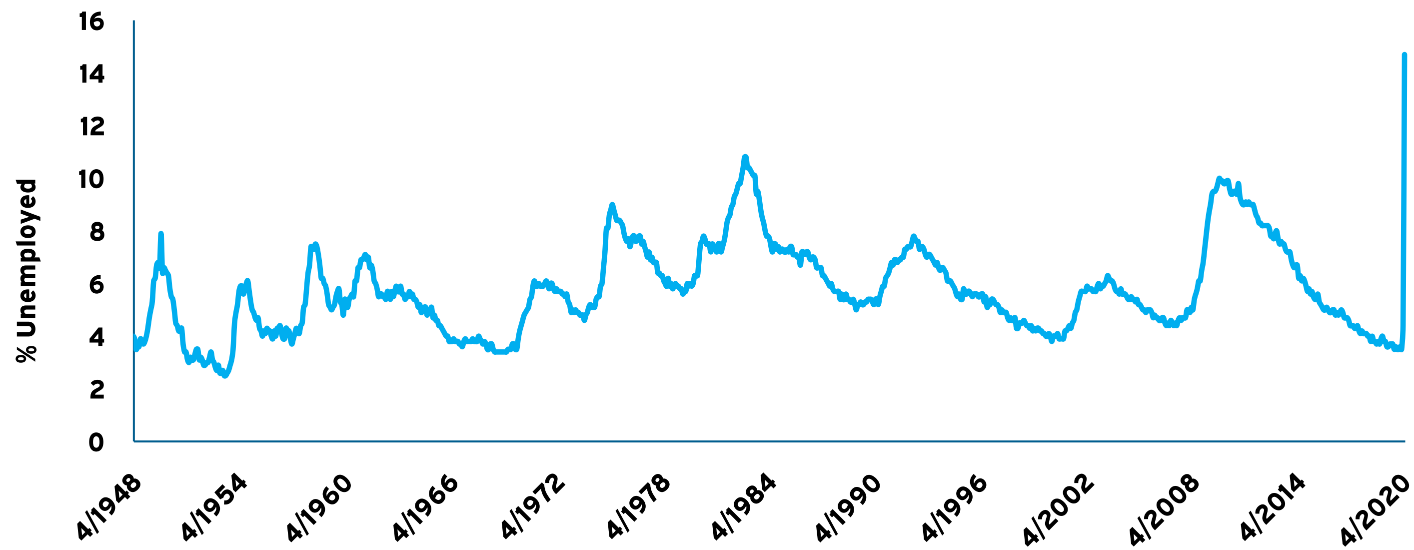
US Real Gross Domestic Product (GDP) Growth[1]



- Initial estimates of first quarter GDP showed a decline of 4.8%, compared to a prior quarter increase of 2.1%.
- The decline in first quarter GDP was primarily due to government "stay-at-home orders" as a response to the COVID-19 pandemic. Personal consumption expenditures was the biggest drag on GDP growth, falling the most since 1980.
- US growth is forecasted to rebound by 4.7% in 2021, as the economy normalizes. The risk remains though that the economy could reopen too soon with a spike in cases and consumers could be slow to return to their prior behaviors.

[1] Source: US Bureau of Economic Analysis. Data is as of the first quarter of 2020 and represents the first estimate. Annual projections via IMF World Economic Outlook April 2020 thereafter.

US Unemployment Rate[1]

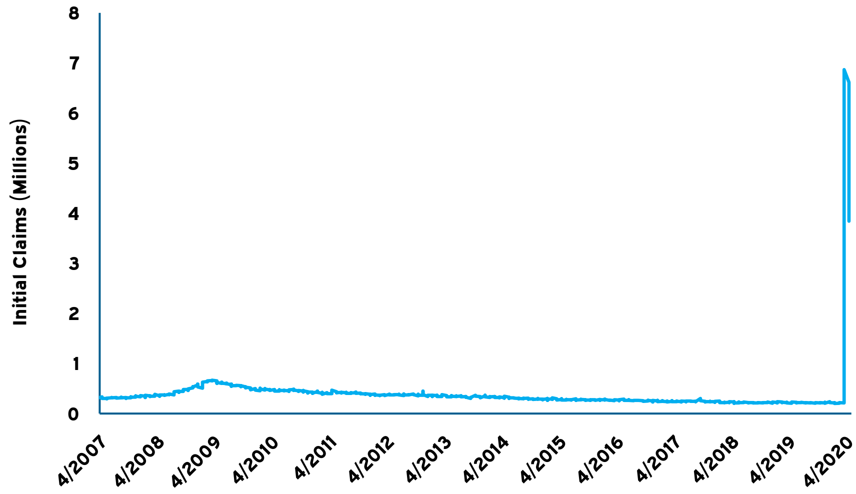


- April unemployment came in at 14.7%, slightly below estimates of 16%, but representing the highest level since the Great Depression.
- The Bureau of Labor Statistics commented in their release that a large number of workers were likely being misclassified as "employed but absent from work" versus "unemployed on temporary layoff" and that the unemployment rate could be 5% higher than reported.

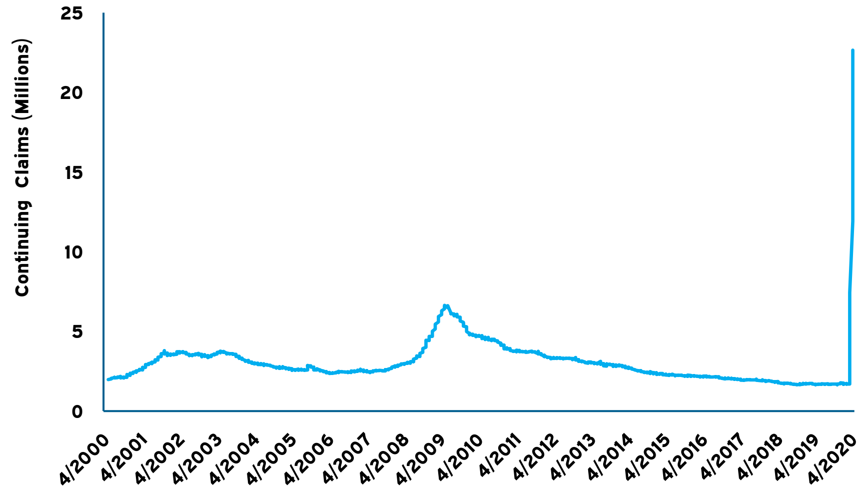
[1] Source: Bloomberg. Data is as of April 30, 2020.

US Jobless Claims

US Initial Jobless Claims[1]



Continuing Claims[2]

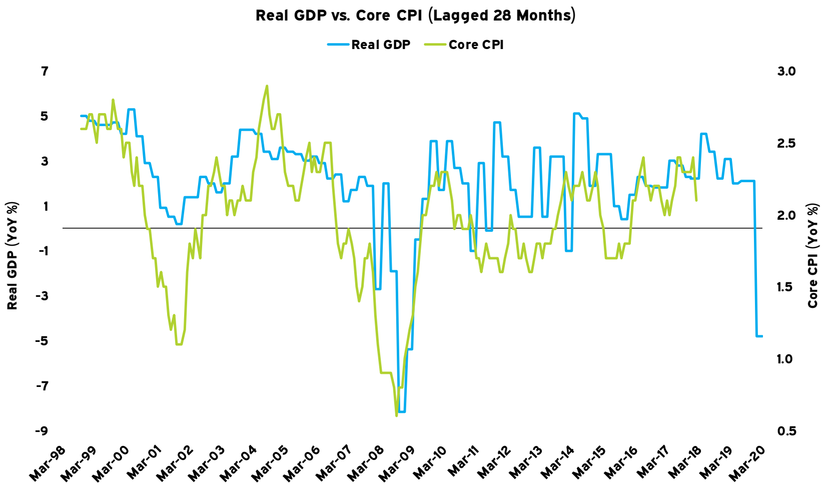


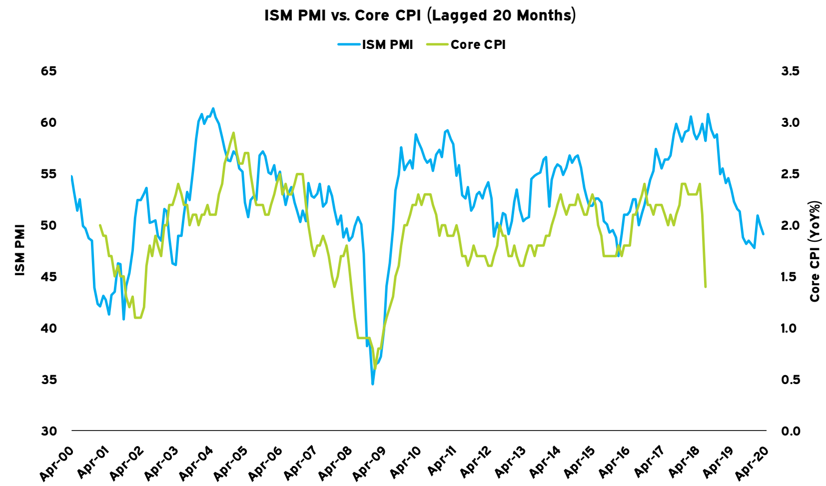
- Through April, over 33 million people filed for initial unemployment benefits. This level exceeds the 22 million jobs added since the GFC, highlighting that this situation is without precedent.
- Continuing jobless claims (i.e., those currently receiving benefits) also spiked to a record level of 22.6 million people.

[1] Source: Bloomberg. First reading of seasonally adjusted initial jobless claims. Data is as of April 25, 2020.

[2] Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of April 24, 2020.

US Inflation[1, 2]





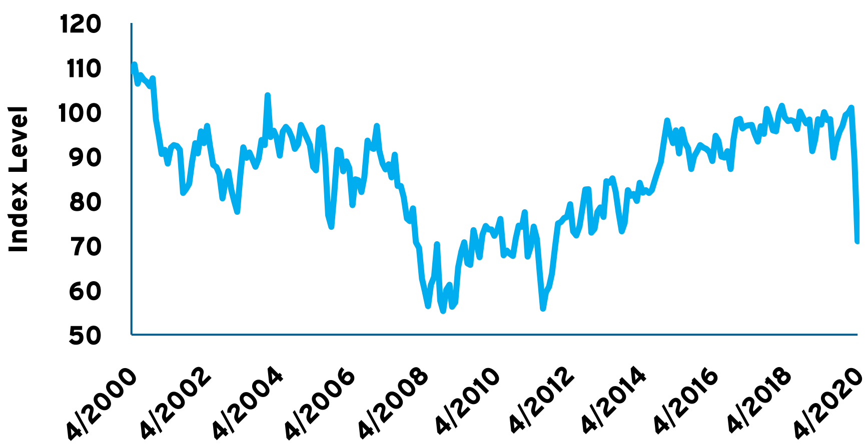
- Inflation is considered a lagging indicator, representing past economic conditions.
- This leads to economic conditions today being a means of forecasting future inflation levels.
- Real GDP and manufacturing indicators, like the ISM Purchasing Managers Index, have historically been useful indicators of future inflation.
- Recently, manufacturing data and GDP declined dramatically from their peaks, leading to aggressive fiscal and monetary responses in the US (and globally) to help mitigate the impact of the pandemic on the global economy.
- As fiscal and monetary policy measures stimulate the economy, we could ultimately see increases in growth and inflation but, in the short-term, deflationary risks are of a greater concern.

[1] Source: Bloomberg. Data is as of March 31, 2020 for Core CPI and as of the first quarter (first estimate) for US Real GDP.

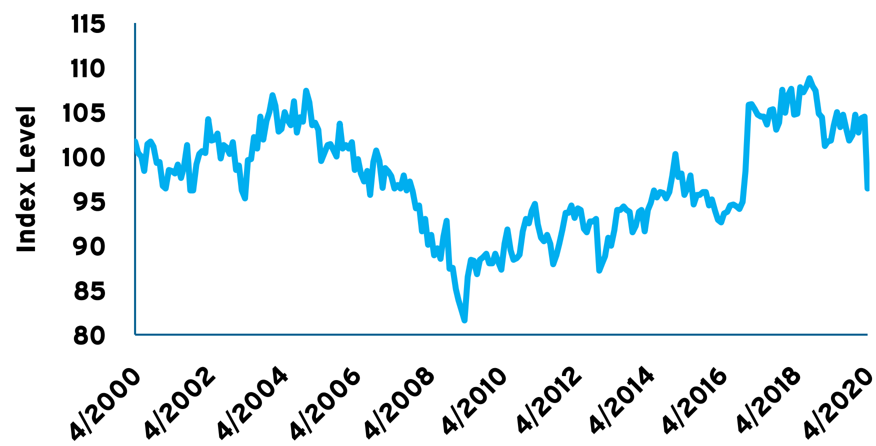
[2] The last data point for ISM PMI and Core CPI represents the April 30, 2020 value.

Sentiment Indicators

University of Michigan Consumer Sentiment[1]



Small Business Confidence[2]

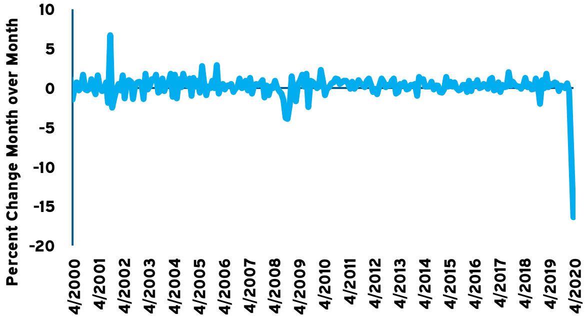


- The attitudes of businesses and consumers today are often a useful indicator of future economic activity.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of future economic growth. Additionally, small businesses comprise a majority of the economy, making sentiment in that segment important too.
- As restrictions caused many businesses to close and employees to be laid off, sentiment indicators saw corresponding declines, with potentially more to come as the impact of the virus evolves.

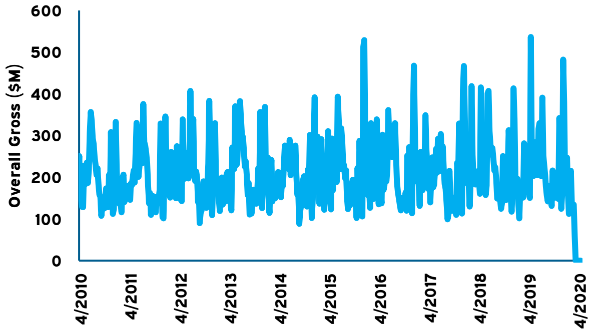
[1] Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of April 30, 2020.
[2] Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of April 30, 2020.

US High Frequency Data

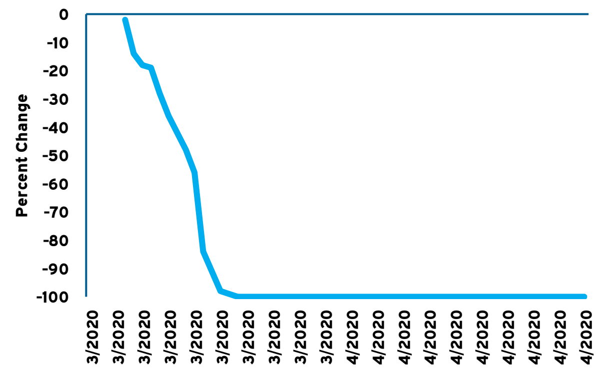
US Retail Sales[1]



Box Office Sales[2]



Restaurant Traffic[3]



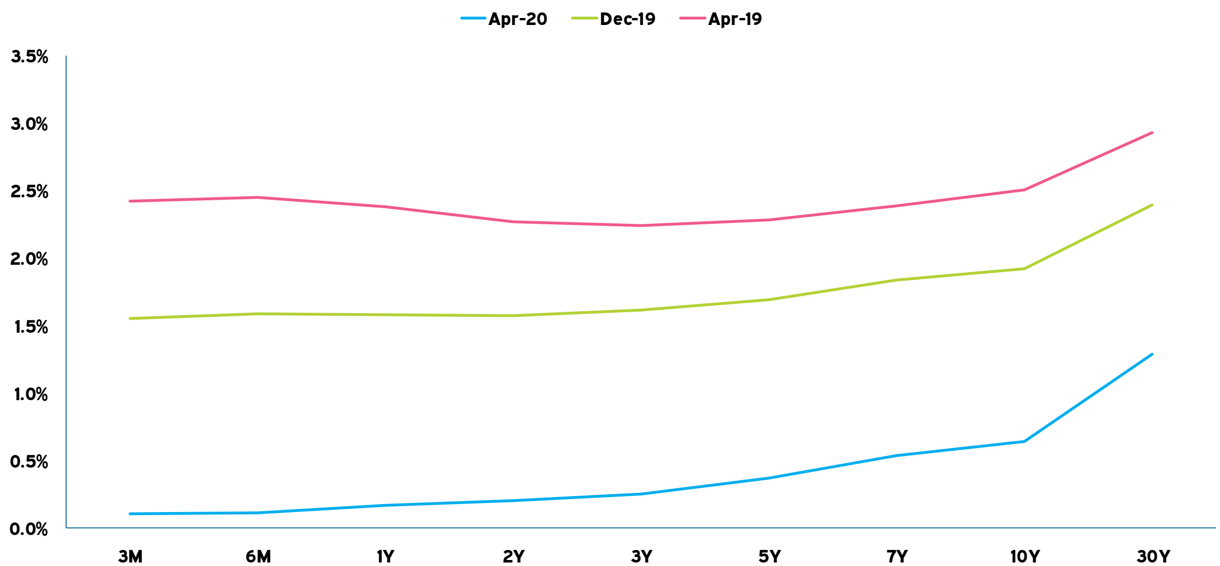
- Due to stay-at-home orders and forced business closures, many industries have seen revenues plummet, and in some cases, virtually vanish.
- Companies operating in the retail, restaurant, and movie theater industries have been impacted dramatically.
- Looking forward, improvements in these indicators could offer early signs of a decline in the virus' economic impact.

[1] Source: Bloomberg. Data is as of April 30, 2020 and represents the adjusted Retail Sales SA Monthly % Change.

[2] Source: Bloomberg. Represents overall domestic weekly overall box office gross. Data is as of April 30, 2020.

[3] Source: Bloomberg. This data shows year-over-year seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins. Only states or cities with 50+ restaurants in the sample are included. All such restaurants on the OpenTable network in either period are included. Data is as of April 30, 2020. Index start date 2/19/20.

US Yield Curve[1]

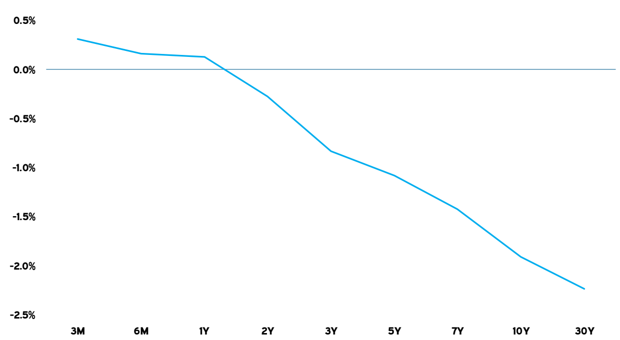


- The US Treasury yield curve has declined materially since last year.
- Cuts in monetary policy rates lowered yields in shorter maturities, while flight-to-quality flows, low inflation, and lower growth expectations, particularly given indications that economic growth could slow by record amounts, have driven the changes in longer maturities.
- The Federal Reserve's unlimited quantitative easing purchase program has provided further downward pressure on interest rates.

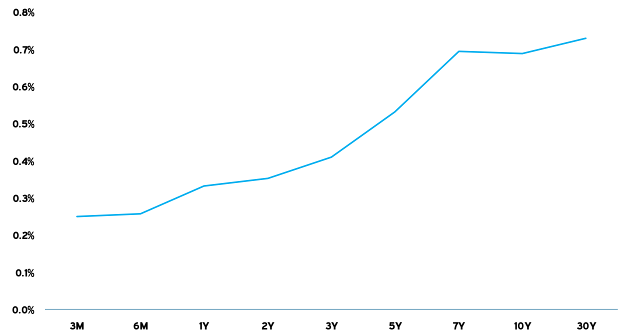
[1] Source: Bloomberg. Data is as of April 30 2020. Numbers represent month-end values.

Government Sovereign Debt Curves[1]

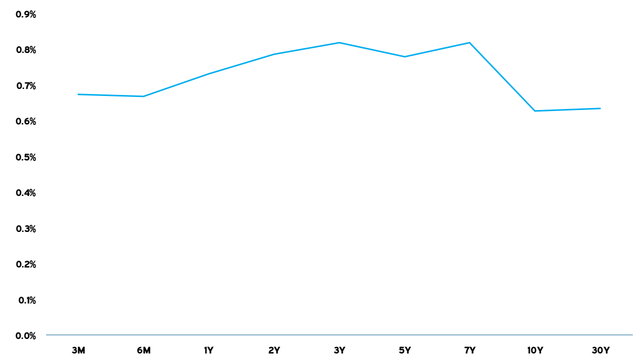
US/Italy Rate Differential



US/Japan Rate Differential



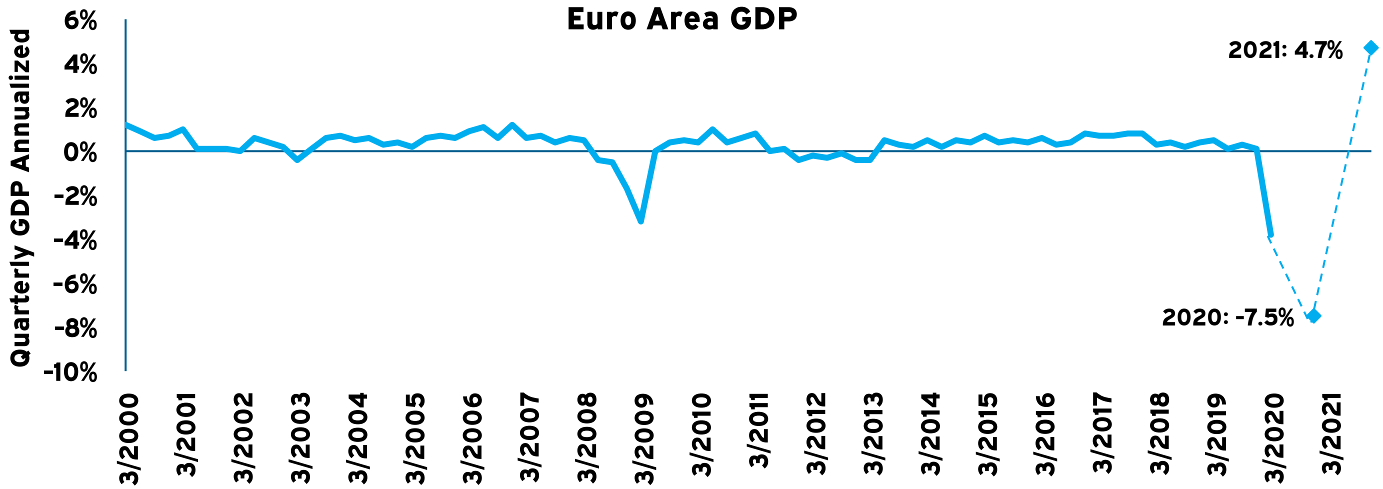
US/Germany Rate Differential



- The difference in interest rates between the US and other countries narrowed dramatically versus the last quarter, as the entire US yield curve shifted lower.
- This dynamic was driven by the Federal Reserve's policy response on short-term rates, a broad decline in US growth and inflation expectations, and the perceived safe-haven quality of US Treasuries during the height of investor fear.
- Compared to Japanese and German sovereign debt yields, rates remain higher in the US across the yield curve. However, the majority of the US yield curve is now lower than that of Italy, given greater risks to the Italian economy from the impact of COVID-19.

[1] Source: Bloomberg. Data is as of April 30, 2020. Rate differential data represents the differences in the yield for a US Treasury at each maturity versus the respective similar bond for each country.

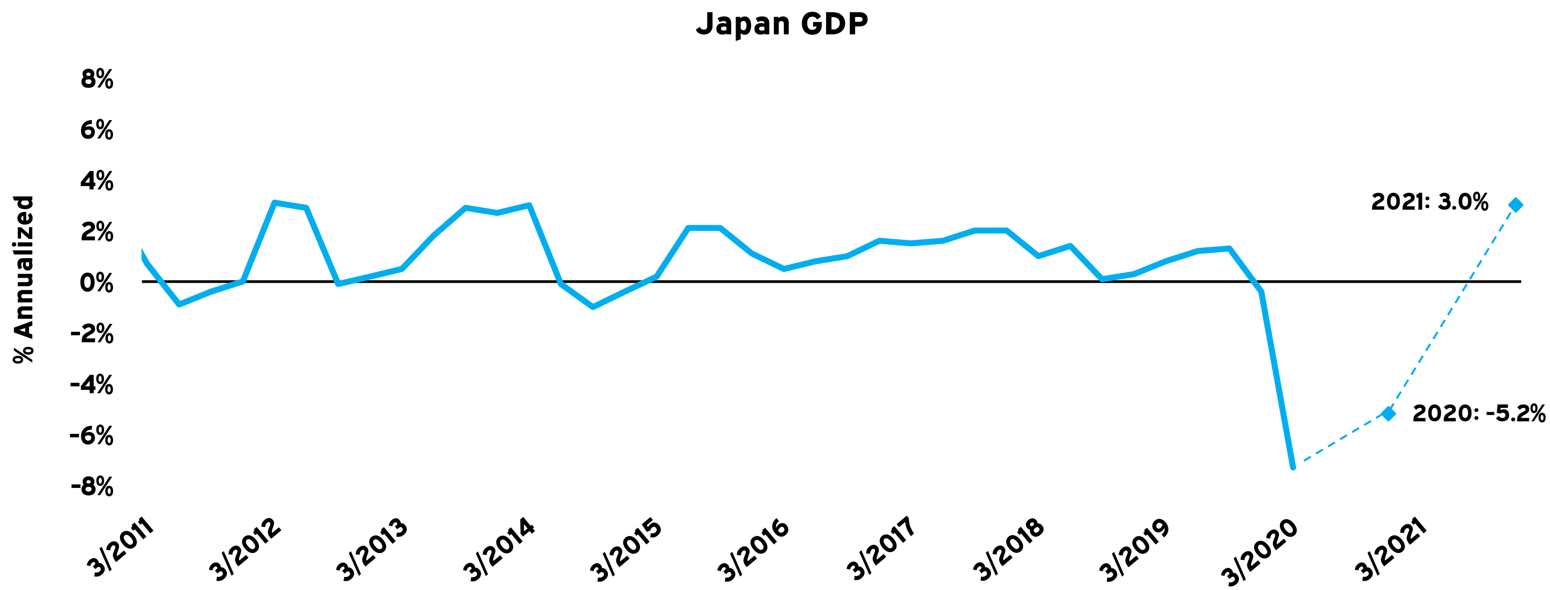
European Economic Conditions[1]



- Euro area GDP fell 3.8% in the first quarter, slightly more than the 3.5% estimate, but consistent with weakness experienced across other developed economies. Projections for the full year are approximately -7.5%.
- Economic growth is expected to be around 4.7% in 2021 for the broad euro-area, but with the same risks as the US of potentially reopening economies too soon.
- Major economies such as France, Spain, and Italy have been materially impacted by distancing measures, and are expected to decline by as much as 7.2% (France), 8.0% (Spain), and 9.1% (Italy); recovery estimates for 2021 are around 4.5% for all three economies.

[1] Source: Bloomberg. Data is as of the first quarter of 2020. Annual projections via IMF World Economic Outlook April 2020 thereafter.

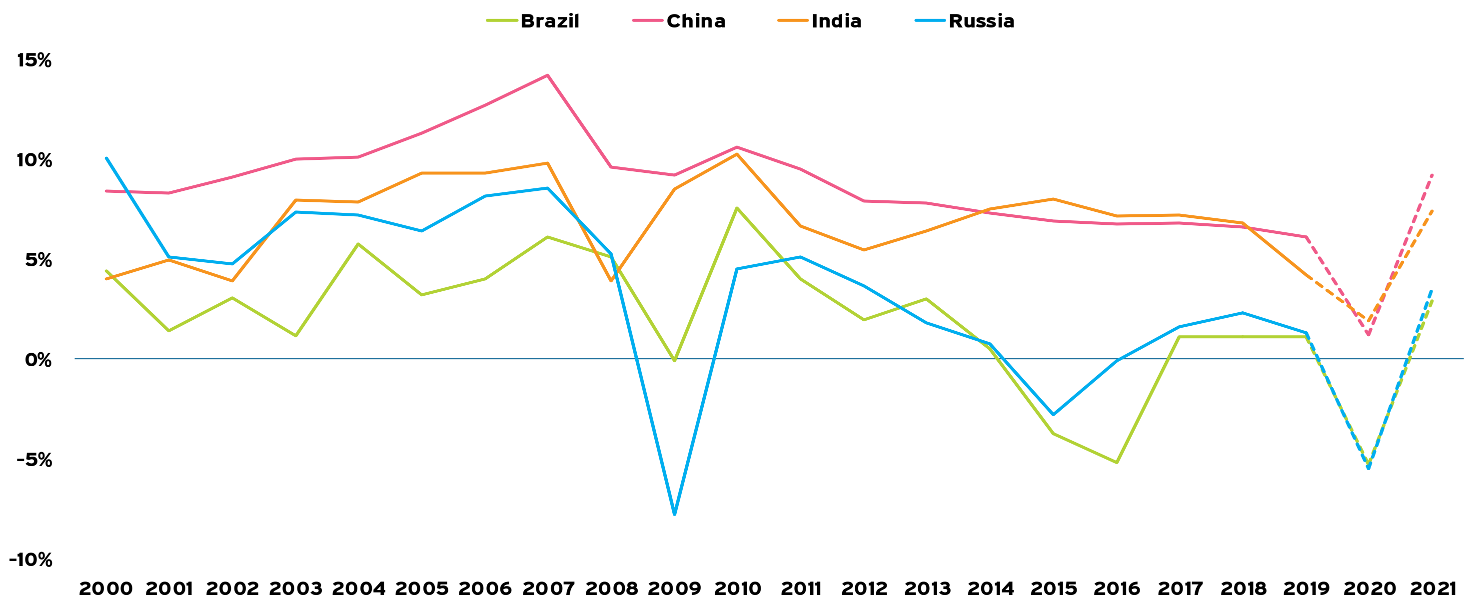
Japanese Economic Conditions[1]



- Before the spread of the COVID-19 virus, Japan's economy was already experiencing stress, with GDP declining 1.8% in the fourth quarter of 2019, as consumption declined due to the October sales tax hike.
- In the first quarter, GDP declined by an additional 0.9% driven by COVID-19 impacts and bringing Japan into a recession.
- Of all the major economies, Japan's central bank had the largest stimulus in place coming into the crisis that they, like others, expanded to offset the economic impact of restrictions.
- Similar to other major economies, the Japanese economy is expected to decline in 2020, but recover in 2021.

[1] Source: Bloomberg. Data is as of the first quarter of 2020. Annual projections via IMF World Economic Outlook April 2020 thereafter.

Emerging Market GDP[1]



- Emerging markets, broadly, are expected to see economic deterioration similar to developed economies.
- However, some economies such as China and India, are expected to experience less impact, largely due to the aggressive societal measures taken to mitigate the spread of the virus, which, in the case of China, has allowed authorities to re-open sooner than other economies.
- However, as some countries also experience increased infection rates after re-opening parts of their economies, it is far too early to express much confidence in recovery estimates.

[1] Source: IMF. World Economic Outlook. April 2020 update. Estimates start after 2019.

China Economic Conditions[1]

- Growth projections are also weak for emerging and developing economies, although China is expected to post positive growth of 1.2% for 2020, and a significant 9.2% in 2021.
- The positive growth expectations are largely due to the Chinese government's ability to quickly impose aggressive distancing measures, largely isolate and contain the virus, and then quickly move to re-open their economy.

[1] Source: Bloomberg. Data is as of the first quarter of 2020. Annual projections via IMF World Economic Outlook April 2020 thereafter.

Summary

Several issues are of primary concern in the mid- to long-term:

1) Economies opening too soon from virus-related restrictions, and ultimately needing to re-deploy distancing policies.

- A number of countries, including the US, are beginning to lift social distancing restrictions. These measures have helped slow the spread of the virus, but there is a significant risk in lifting them without proper testing and without following recommendations from experts. The result could be a meaningful increase in infections, and potentially another spike that again puts medical facilities at risk of being overwhelmed. This could move governments to re-impose distancing measures, which would likely depress employment and economic growth.

2) Consumers permanently, or for an extended period of time, changing economic behaviors.

- The COVID-19 pandemic resulted in an immediate change to societal norms that could last beyond the actual virus. Changing consumer spending and work-environment preferences could negatively impact large events including concerts and sports, dining out, travel, and leisure activities. As consumers make up a large portion of developed economy GDPs, this could have a significant impact and drive many companies to failure with lasting impacts on the economy.

Summary (continued)

3) Persistently high unemployment due to a significant number of companies not surviving the downturn.

- Persistently high unemployment due to the failure of companies (and potentially entire sectors) could adversely impact the growth of economies and, subsequently, government spending on mandatory and discretionary services going forward.

4) Virus-related fears negatively impacting the future of globalization.

- Appetite for globalization was already waning before the pandemic, as seen in the increase in populist and anti-trade sentiment over the last few years. This has been perhaps most evident in the trade wars initiated by the current US administration against a number of its trading partners, including China and Europe. With an increase in rhetoric regarding certain countries not doing enough to limit the spread of the virus outside their borders, as well as restrictions on transportation and sanitation concerns, many countries could elect to advance policies that limit globalization.

5) An increase in sovereign debt risk due to the record issuance by governments.

- Sovereign debt issuance needed to fund emergency fiscal stimulus measures for impacted countries has been record setting. Unfortunately, sovereign debt levels, particularly for the US, were already at record levels. With this increase in debt issuance comes an increase in risk of sovereign nations not being able to pay back their debt in the future should revenue fail to meet debt payment requirements. This is particularly critical for the worlds' largest economies, such as Japan with a debt to GDP ratio of over 200%, and the US at nearly 110%.

Disclaimer, Glossary, and Notes

WE HAVE PREPARED THIS REPORT FOR THE SOLE BENEFIT OF AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND.

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE “FORWARD - LOOKING STATEMENTS,” WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS “MAY,” “WILL,” “SHOULD,” “EXPECT,” “AIM”, “ANTICIPATE,” “TARGET,” “PROJECT,” “ESTIMATE,” “INTEND,” “CONTINUE” OR “BELIEVE,” OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays $5 a year interest on each $100 par value. To figure its current yield, divide $5 by $95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay $100 for the bond that can be bought now for $95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\%\ \text{(discount)}}{5\ \text{(yrs. to maturity)}} = \begin{array}{l}1\%\ \text{pro rata, plus} \\ 5.26\%\ \text{(current yield)}\end{array} = 6.26\%\ \text{(yield to maturity)}$$

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.