MEETING MATERIALS

Merced County Employees' Retirement Association



November 8, 2018

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Executive Summary

Market & Portfolio Summary

- In September, the U.S. average monthly jobless claims fell to levels last seen nearly 49 years ago, while consumer confidence was at its highest since 2000. Against this backdrop, U.S. equities continued their positive run, while Emerging Markets equities extended their decline. Emerging Markets equities were still weighed down by global trade tensions and the continuing strength of the U.S. Dollar, along with concerns from the potential effects of a tighter U.S. monetary policy. Small Cap equities slowed down in September as the broad Small Cap benchmarks posted negative returns. Subsequent to quarter-end, the markets returned to volatility in October, with significant drawdowns seen in most major asset classes.
- The Fund returned +2.3% for the quarter, exceeding the policy benchmark by 20 basis points net of fees.
- U.S. equities within the Fund returned +7.0% for the quarter. Large cap equities were the key driver from an absolute contribution standpoint. The small cap managers were in positive territory as well, but failed to keep pace with the large cap managers. International equities were down for the quarter at -0.5%, trailing the asset class benchmark by 1.2%. Both developed non-U.S. and emerging markets managers within the fund have struggled throughout 2018 to date, and combined, have been the main detractors from a contribution perspective.
- Despite the recent rate hike in September, the fixed income sleeve was up 0.1% for the period, with a positive excess return of 0.1% vs the segment benchmark, which was flat.



Market & Portfolio Summary (continued)

- Mellon Dynamic U.S. Equity was a positive standout from both an absolute and relative basis. This domestic large cap manager had a quarterly return of 8.5%, beating its benchmark by 80 basis points. This quantitative driven manager has been able to exceed the benchmark over longer periods as well, posting +300 basis points of excess return for the five years ended September 2018. Through classic and well tested academic research, external and internal, the fund captures the benefits of diversification to achieve a higher long term outcome. A hallmark of the strategy is the goal of a beta of 1 with the S&P 500, which is key to the long term outlook, while still providing downside qualities of the U.S. Treasury market. Please note, in mid-October, the target allocation for this strategy was changed from 120% stocks and 10% bonds to approximately 130% stocks and 20% bonds. The key drivers of this shift were attractive valuations, solid but contained macro conditions, and the normalizing of the yield curve.
- Wells Capital reported a return of -3.4%, trailing the benchmark by 2.3%. Over the quarter, holdings in China/Hong Kong, Russia, and Korea were among the larger detractors. Among sectors, Information Technology and Health Care were notable positive contributors, while Consumer Discretionary, Industrials, and Financials were the largest detractors. Positions in Vipshop Holdings Ltd, Best, Inc., and New Oriental Education & Technology Group Inc. were among the largest individual detractors. It should be noted that relative to peers, Wells actually held up quite well, ranking in the 40th percentile year to date in spite of benchmark underperformance.



Watch List

• Copper Rock: Manager has struggled relative to the MSCI EAFE Small Cap Index over the past several years. For the trailing one-, three-, and now five-year periods ending September 30, 2018, the portfolio underperformed the MSCI World ex-U.S. Small Cap Index by -3.9%, -5.9%, and -0.7%, respectively, net of fees. In light of this underperformance, and an increase in assets managed in the strategy over the past few years, the research team is currently reassessing their conviction on the manager.



Executive Summary

Active Manager Expectations

			Tracking	
Manager	Strategy Description	Beta (High/Low/Neutral)	Error Range (bps)	Environments Manager Underperforms
Domestic Equity				
DFA U.S. Small Cap Trust	Very diversified small cap portfolio that tilts toward value	Neutral	2.0% to 2.7%	In growth-oriented markets
PanAgora U.S. Small Cap Core Stock Selector	Diversified, quantitatively managed small cap portfolio	Neutral	2.5% to 4.0%	In low quality rallies or at market inflection points
Mellon Capital MCM Dynamic U.S. Equity	Very diversified, quantitative, large cap core portfolio	Neutral (higher in more recent periods)	2.5% to 5.0%	When investors misprice forward looking return/risk characteristics; when returns are concentrated in one sector
Developed Markets Equity (Non-U.S.)				
Copper Rock International Small Cap Strategy	Diversified, growth-at-a-reasonable price manager; combination of quantitative tools and fundamental research	Low	4.0% to 5.0%	At market inflection points, with abrupt leadership change. Deep value, low quality market environments (e.g. 2009, 2016)
Emerging Markets Equity				
Wells Capital Berkeley St Emerging Markets	Diversified, quality-at-a-reasonable price manager	Low	3.5% to 4.0%	Deep value, low quality market environments
Investment Grade Bonds				
Barrow Hanley Core Fixed Income	Conservative, low tracking-error core strategy focused on bottom-up security selection	Neutral	0.2% to 0.7%	At market Inflection points, but should track the index very closely



Executive Summary

Manager Monitor

Manager	Significant Events (Yes/No)	Last Meeting with Board of Retirement	Last Meeting with MIG	Comments
Domestic Equity Assets				
Mellon Capital BNY Mellon MCM Dynamic US Equity Fund	No	-	Mar 2017	Merger of smaller boutiques – Met Mellon in March 2017 to go over HY Beta Strategy & conference call for Carbon Efficiency strategy.
Mellon Capital EB DV Large Cap Stock Index Fund	No	-	Mar 2017	Merger of smaller boutiques – Met Mellon in March 2017 to go over HY Beta Strategy & conference call for Carbon Efficiency strategy.
DFA US Small Cap Trust	No	-	Aug 2018	Co-CEO resignation (8/17) – Our view is that the departure is immaterial to the investment thesis for DFA's products. Met with DFA to discuss non-U.S. equities in August of this year.
PanAgora US Small Cap Core Stock Selector	No	-	Aug 2018	CEO Eric Sorensen, who is credited with turning the firm around has not announced a plan to retire and no formal succession plan is in place. We do not recommend any changes at this time.
Developed Markets Equity (Non-U.S.) Assets				
Copper Rock International Small Cap Strategy	Yes	-	October 2018	Met onsite to discuss underperformance and asset growth. Watch List
Mellon Capital EB DV International Stock Index Fund	No	-	Mar 2017	Merger of smaller boutiques – Met Mellon in March 2017 to go over HY Beta Strategy & conference call for Carbon Efficiency strategy.
Emerging Markets Equity Assets				
Wells Capital Berkeley Street Emerging Markets Fund	No	-	June 2018	Met with Bob Hrabchak (product specialist) with overview of EM strategy – very quality oriented and valuation sensitive with a long-term view. Jerry Zhang is the lead portfolio manager who has been running the product for 12 years.
US Fixed Income Assets				
Barrow Hanley Core Fixed Income Fund	No	-	Aug 2018	John Williams, founder of fixed income group retired in Feb 2018. Retirement was announced well in advance.
Vanguard Short Term Treasury Index Fund	No	-	July 2017	Review of Target Date Retirement Funds.
Private Equity Program	N/A	N/A	N/A	Oversight by Cliffwater.
Real Assets Program	N/A	N/A	N/A	Oversight by Cliffwater.
Hedge Fund Program	N/A	N/A	N/A	Oversight by Cliffwater.



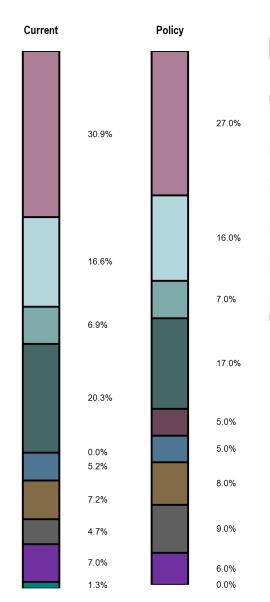
Active Manager Peer Rankings (Gross Returns)

Investment Managers	Product	Peer Group	Market Value (\$ mm)	YTD September	1 YR	3 YR	5 YR	10 YR	Client Inception	Years in portfolio
DFA	US Small Cap Equity Strategy	US Small Cap Core	22.1	61	59	57	60	41	Jun-14	4.3
PanAgora	US Small Cap Core Stock Selector	US Small Cap Core	22.6	8	14	27	21	10	Sep-13	5.1
Mellon Capital	Dynamic US Equity Strategy	US Large Cap Core	82.8	28	18	2	1	1	Dec-12	5.8
Copper Rock	International Small Cap	EAFE Small Cap	22.3	68	71	97	75	79	Sep-13	5.1
Wells Capital	Berkeley Street Emerging Markets	Emerging Mkts	58.0	40	63	23	51	35	Mar-12	6.6
Barrow Hanley	Core Fixed Income	US Core Fixed Income	133.0	68	75	68	75	67	Mar-10	8.6

Source: eVestment universe data

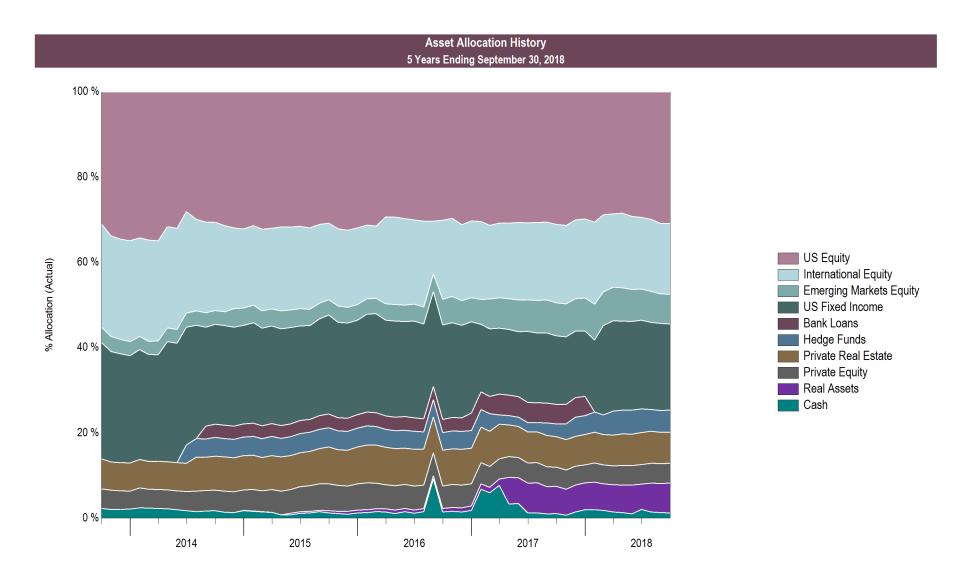
Ranks are based on gross of fee returns.
Shaded values are rankings prior to Client inception in the strategy.

Quarterly Review as of September 30, 2018



	Allocation vs	. Targets an	d Policy			
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?
US Equity	\$258,549,756	30.9%	27.0%	3.9%	22.0% - 32.0%	Yes
International Equity	\$139,298,933	16.6%	16.0%	0.6%	14.0% - 18.0%	Yes
Emerging Markets Equity	\$58,049,721	6.9%	7.0%	-0.1%	5.0% - 9.0%	Yes
US Fixed Income	\$169,739,347	20.3%	17.0%	3.3%	15.0% - 19.0%	No
Bank Loans			5.0%	-5.0%	4.0% - 6.0%	No
Hedge Funds	\$43,302,548	5.2%	5.0%	0.2%	4.0% - 6.0%	Yes
Private Real Estate	\$60,627,794	7.2%	8.0%	-0.8%	6.5% - 9.5%	Yes
Private Equity	\$39,047,733	4.7%	9.0%	-4.3%	7.0% - 11.0%	No
Real Assets	\$58,461,010	7.0%	6.0%	1.0%	4.5% - 7.5%	Yes
Cash	\$10,502,237	1.3%	0.0%	1.3%	0.0% - 5.0%	Yes
Total	\$837,579,078	100.0%	100.0%			







	Asset Class Pe	rformance S	ummary							
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund (Net)*	837,579,078	100.0	2.3	3.2	7.3	9.9	7.6			Dec-94
Total Fund (Gross)*			2.4	3.3	7.6	10.2	8.0	7.7		
Policy Index			2.1	3.4	7.0	10.2	7.9			Dec-94
Total Fund w/o Alternatives (Net)	625,637,756	74.7	2.6	2.6	6.9	10.6	7.6	-		Dec-94
Total Fund w/o Alternatives (Gross)			2.7	2.8	7.2	10.9	8.0	-1		
Policy Index w/o Al			2.7	2.8	7.0	10.4	7.3			Dec-94
US Equity (Net)	258,549,756	30.9	7.0	11.0	18.1	18.5	14.4	14.4		Dec-94
US Equity (Gross)			7.0	11.2	18.3	18.7	14.7	12.6		
80% R1000 / 20% R2000			6.7	10.7	17.3	17.1	13.3	12.0	10.2	Dec-94
International Equity (Net)	197,348,654	23.6	-0.5	-3.8	0.5	9.4	4.0			Dec-98
International Equity (Gross)			-0.4	-3.5	0.9	9.9	4.6	6.2		
International Equity Custom			0.7	-2.9	2.2	10.8	4.8	5.4	4.5	Dec-98
US Fixed Income (Net)	169,739,347	20.3	0.1	-1.1	-0.5	2.4	2.6	-		Dec-94
US Fixed Income (Gross)			0.2	-0.9	-0.3	2.6	2.8	4.2		
US Fixed Custom			0.0	-0.8	-0.3	2.5	2.7	4.0	5.5	Dec-94
Hedge Fund (Net)	43,302,548	5.2	0.7	5.0	6.3	5.6			4.5	Jun-14
Hedge Fund (Gross)			0.7	5.2	6.5	5.7			4.5	
Hedge Fund Custom			0.2	1.3	3.4	4.1			3.1	Jun-14
Private Equity (Net)	39,047,733	4.7	3.5	16.4	21.4	10.0	11.7	7.3	8.1	Jun-05
Private Equity (Gross)			3.5	16.4	21.4	10.0	11.7	7.6	8.3	
Thomson Reuters Cambridge Private Equity Index			0.0	8.7	14.2	13.7	15.8	-		Jun-05
Real Assets (Net)	119,088,804	14.2	1.4	2.8	6.3	7.0	7.6			Mar-99
Real Assets (Gross)			1.4	2.8	6.3	7.6	8.4			
Real Asset Custom			1.0	3.4	6.8					<i>Mar-</i> 99
Private Real Estate (Net)	60,627,794	7.2	2.1	8.2	11.2	8.2	8.5	-		Mar-99
Private Real Estate (Gross)			2.1	8.2	11.2	8.9	9.3	6.4	8.8	
NCREIF ODCE (net)			1.9	5.8	7.7	7.8	9.7	4.6	7.5	Mar-99



	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Infrastructure (Net)	16,444,594	2.0	0.8	4.7	11.2	9.2		-	6.4	Dec-14
Private Infrastructure (Gross)			0.8	4.7	11.2	9.2			6.4	
S&P Global Infrastructure Net TR USD			-1.8	-5.3	-3.8	7.0	5.2		2.7	Dec-14
Private Natural Resources (Net)	9,571,488	1.1	5.3	10.2	13.2	19.6			19.6	Sep-15
Private Natural Resources (Gross)			5.3	10.2	13.2	19.6			19.6	
S&P Global Natural Resources Index TR USD			1.3	5.1	14.1	19.7	4.1	3.2	19.7	Sep-15
Cash (Net)	10,502,237	1.3	0.1							
Cash (Gross)			0.1							

^{*}One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.



		Trailing Net	: Performa	nce							
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund*	837,579,078	100.0		2.3	3.2	7.3	9.9	7.6			Dec-94
Policy Index				2.1	3.4	7.0	10.2	7.9			Dec-94
InvestorForce Public DB \$250mm-\$1B Net Median				2.5	3.2	6.9	9.4	7.1	7.5	7.7	Dec-94
InvestorForce Public DB \$250mm-\$1B Net Rank				64	57	34	28	22			Dec-94
Total Fund w/o Alternatives	625,637,756	74.7	74.7	2.6	2.6	6.9	10.6	7.6		-	Dec-94
Policy Index w/o Al				2.7	2.8	7.0	10.4	7.3			Dec-94
InvestorForce Public DB \$250mm-\$1B Net Median				2.5	3.2	6.9	9.4	7.1	7.5	7.7	Dec-94
InvestorForce Public DB \$250mm-\$1B Net Rank				42	80	49	8	21			Dec-94
US Equity	258,549,756	30.9	41.3	7.0	11.0	18.1	18.5	14.4	14.4	-	Dec-94
80% R1000 / 20% R2000				6.7	10.7	17.3	17.1	13.3	12.0	10.2	Dec-94
InvestorForce All DB US Eq Net Median				6.6	10.1	17.0	16.4	12.7	11.5	10.0	Dec-94
InvestorForce All DB US Eq Net Rank				26	23	18	3	3	2		Dec-94
Mellon Dynamic US Equity	82,817,579	9.9	32.0	8.5	10.7	19.5	20.6	16.9		18.9	Dec-12
S&P 500				7.7	10.6	17.9	17.3	13.9	12.0	15.6	Dec-12
eV US Large Cap Core Equity Net Median				6.9	8.8	15.7	15.1	12.6	11.1	14.4	Dec-12
eV US Large Cap Core Equity Net Rank				12	24	16	1	1		1	Dec-12
Mellon Large Cap	130,998,521	15.6	50.7	7.4	10.5	17.7				17.2	Mar-16
Russell 1000				7.4	10.5	17.8	17.1	13.7	12.1	17.3	Mar-16
eV US Large Cap Core Equity Net Median				6.9	8.8	15.7	15.1	12.6	11.1	15.5	Mar-16
eV US Large Cap Core Equity Net Rank				35	25	33				24	Mar-16
DFA Small Cap	22,142,470	2.6	8.6	3.3	9.2	13.2	16.1			10.3	Jun-14
Russell 2000				3.6	11.5	15.2	17.1	11.1	11.1	10.1	Jun-14
eV US Small Cap Core Equity Net Median				3.7	9.7	13.8	16.5	11.1	11.7	10.1	Jun-14
eV US Small Cap Core Equity Net Rank				55	56	55	55		-	48	Jun-14



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
PanAgora	22,591,186	2.7	8.7	2.9	16.6	19.6	17.1	12.4		12.4	Sep-13
Russell 2000				3.6	11.5	15.2	17.1	11.1	11.1	11.1	Sep-13
eV US Small Cap Core Equity Net Median				3.7	9.7	13.8	16.5	11.1	11.7	11.1	Sep-13
eV US Small Cap Core Equity Net Rank				67	14	22	38	27		27	Sep-13
International Equity	197,348,654	23.6	31.5	-0.5	-3.8	0.5	9.4	4.0		-	Dec-98
International Equity Custom				0.7	-2.9	2.2	10.8	4.8	5.4	4.5	Dec-98
InvestorForce All DB ex-US Eq Net Median				0.1	-3.7	0.7	9.7	4.4	5.3	5.3	Dec-98
InvestorForce All DB ex-US Eq Net Rank				73	51	54	59	69			Dec-98
Copper Rock	22,340,866	2.7	11.3	-2.3	-5.7	-0.5	6.3	6.4		6.4	Sep-13
MSCI World ex USA Small Cap				-0.9	-2.3	3.4	12.2	7.1	9.0	7.1	Sep-13
eV EAFE Small Cap Equity Net Median				-1.3	-3.6	1.4	12.3	8.2	10.6	8.2	Sep-13
eV EAFE Small Cap Equity Net Rank				76	70	71	99	89		89	Sep-13
Mellon International	116,958,067	14.0	59.3	1.4	-1.1	3.3				11.0	Mar-16
MSCI EAFE				1.4	-1.4	2.7	9.2	4.4	5.4	10.5	Mar-16
eV All EAFE Equity Net Median				0.8	-2.1	2.4	9.5	5.4	6.5	10.5	Mar-16
eV All EAFE Equity Net Rank				34	40	41				42	Mar-16
Wells Capital	58,049,721	6.9	29.4	-3.4	-8.1	-4.4	13.2	3.3		2.6	Mar-12
MSCI Emerging Markets				-1.1	-7.7	-0.8	12.4	3.6	5.4	2.6	Mar-12
eV Emg Mkts Equity Net Median				-3.0	-9.5	-3.2	11.2	3.7	6.0	3.2	Mar-12
eV Emg Mkts Equity Net Rank				58	32	60	22	60		67	Mar-12
US Fixed Income	169,739,347	20.3	27.1	0.1	-1.1	-0.5	2.4	2.6		-	Dec-94
US Fixed Custom				0.0	-0.8	-0.3	2.5	2.7	4.0	5.5	Dec-94
InvestorForce All DB US Fix Inc Net Median				0.3	-0.7	-0.7	2.4	2.6	4.9	5.8	Dec-94
InvestorForce All DB US Fix Inc Net Rank				71	63	45	49	50			Dec-94



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Barrow Hanley	133,042,890	15.9	78.4	0.1	-1.5	-1.2	1.4	2.1			Mar-10
BBgBarc US Aggregate TR				0.0	-1.6	-1.2	1.3	2.2	3.8	3.0	Mar-10
eV US Core Fixed Inc Net Median				0.1	-1.5	-1.1	1.6	2.3	4.3	3.2	Mar-10
eV US Core Fixed Inc Net Rank				67	55	66	67	71		-	Mar-10
Vanguard Short-Term Treasury Index Fund	36,696,457	4.4	21.6	0.2						0.6	Feb-18
BBgBarc US Govt 1-3 Yr TR				0.2	0.3	0.0	0.4	0.6	1.2	0.6	Feb-18
BBgBarc US Govt 1-5 Yr TR				0.1	-0.2	-0.6	0.3	0.7	1.7	0.5	Feb-18
eV US Short Duration Fixed Inc Net Median				0.4	0.6	0.4	1.1	1.1	2.2	0.9	Feb-18
eV US Short Duration Fixed Inc Net Rank				97						91	Feb-18
Hedge Fund	43,302,548	5.2	5.2	0.7	5.0	6.3	5.6			4.5	Jun-14
Hedge Fund Custom				0.2	1.3	3.4	4.1			3.1	Jun-14
InvestorForce All DB Hedge Funds Net Median				0.5	2.7	4.4	3.6	3.6	3.8	2.6	Jun-14
InvestorForce All DB Hedge Funds Net Rank				41	16	26	14			11	Jun-14
OZ Domestic II	9,812,689	1.2	22.7	-1.1	3.4	4.9	7.3			5.7	Jun-14
Graham Absolute Return	3,091,444	0.4	7.1	-1.5	3.8	2.4				2.5	Aug-17
Wellington-Archipelago	6,300,940	0.8	14.6	1.8	6.1	6.6				7.2	Aug-17
KLS Diversified	5,368,989	0.6	12.4	2.3	7.0					7.3	Oct-17
Winton	3,142,614	0.4	7.3	0.8	2.0					4.7	Oct-17
Marshall Wace Eureka	3,197,796	0.4	7.4	0.3	5.7					6.4	Nov-17
Silver Point Capital	7,343,313	0.9	17.0	1.4	5.2					5.8	Nov-17
HFRI Fund of Funds Composite Index				0.2	1.0	3.1	3.3	3.2	2.5	1.9	Nov-17
Laurion Capital	5,044,763	0.6	11.7						-	1.8	Aug-18



As of September 30, 2018

Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
39,047,733	4.7	4.7	3.5	16.4	21.4	10.0	11.7	7.3	8.1	Jun-05
			0.0	8.7	14.2	13.7	15.8			Jun-05
			2.6	9.1	11.7	11.1	12.4	9.4	10.7	Jun-05
			42	12	7	59	55	77	75	Jun-05
8,021,732	1.0	20.5	4.4	13.1	18.4	11.4	14.2	9.1	7.0	Sep-05
1,957,691	0.2	5.0	-0.6	75.1	24.9	12.3	16.4			Jun-05
6,339,930	0.8	16.2	3.6	14.5	21.3	11.8	13.4		12.7	Jun-13
9,111,694	1.1	23.3	1.5	19.2	41.6	15.9			11.0	Jun-14
1,094,805	0.1	2.8	2.6	5.3	8.8	5.6	7.4			Dec-05
4,099,687	0.5	10.5	7.4	11.5	18.2	14.8	15.4		12.2	Dec-11
1,362,233	0.2	3.5	13.2	9.1	11.1	3.9	4.0			Jun-07
4,643,582	0.6	11.9	1.8	12.5	12.3	-1.8			-2.6	Aug-14
1,343,234	0.2	3.4	8.3		-				9.0	Apr-18
213,916	0.0	0.5	0.0						0.0	Jun-18
859,229	0.1	2.2							0.0	Aug-18
	(\$) 39,047,733 8,021,732 1,957,691 6,339,930 9,111,694 1,094,805 4,099,687 1,362,233 4,643,582 1,343,234 213,916	(\$) Portfolio 39,047,733 4.7 8,021,732 1.0 1,957,691 0.2 6,339,930 0.8 9,111,694 1.1 1,094,805 0.1 4,099,687 0.5 1,362,233 0.2 4,643,582 0.6 1,343,234 0.2 213,916 0.0	(\$) Portfolio Sector 39,047,733 4.7 4.7 8,021,732 1.0 20.5 1,957,691 0.2 5.0 6,339,930 0.8 16.2 9,111,694 1.1 23.3 1,094,805 0.1 2.8 4,099,687 0.5 10.5 1,362,233 0.2 3.5 4,643,582 0.6 11.9 1,343,234 0.2 3.4 213,916 0.0 0.5	(\$) Portfolio Sector (%) 39,047,733 4.7 4.7 3.5 0.0 2.6 42 8,021,732 1.0 20.5 4.4 1,957,691 0.2 5.0 -0.6 6,339,930 0.8 16.2 3.6 9,111,694 1.1 23.3 1.5 1,094,805 0.1 2.8 2.6 4,099,687 0.5 10.5 7.4 1,362,233 0.2 3.5 13.2 4,643,582 0.6 11.9 1.8 1,343,234 0.2 3.4 8.3 213,916 0.0 0.5 0.0	(\$) Portfolio Sector (%) (%) 39,047,733 4.7 4.7 3.5 16.4 0.0 8.7 2.6 9.1 42 12 8,021,732 1.0 20.5 4.4 13.1 1,957,691 0.2 5.0 -0.6 75.1 6,339,930 0.8 16.2 3.6 14.5 9,111,694 1.1 23.3 1.5 19.2 1,094,805 0.1 2.8 2.6 5.3 4,099,687 0.5 10.5 7.4 11.5 1,362,233 0.2 3.5 13.2 9.1 4,643,582 0.6 11.9 1.8 12.5 1,343,234 0.2 3.4 8.3 213,916 0.0 0.5 0.0	(\$) Portfolio Sector (%) (%) (%) 39,047,733 4.7 4.7 3.5 16.4 21.4 0.0 8.7 14.2 2.6 9.1 11.7 42 12 7 8,021,732 1.0 20.5 4.4 13.1 18.4 1,957,691 0.2 5.0 -0.6 75.1 24.9 6,339,930 0.8 16.2 3.6 14.5 21.3 9,111,694 1.1 23.3 1.5 19.2 41.6 1,094,805 0.1 2.8 2.6 5.3 8.8 4,099,687 0.5 10.5 7.4 11.5 18.2 1,362,233 0.2 3.5 13.2 9.1 11.1 4,643,582 0.6 11.9 1.8 12.5 12.3 1,343,234 0.2 3.4 8.3 213,916 0.0 0.5 0.0 </td <td>(\$) Portfolio Sector (%) (%) (%) (%) 39,047,733 4.7 4.7 3.5 16.4 21.4 10.0 0.0 8.7 14.2 13.7 2.6 9.1 11.7 11.1 42 12 7 59 8,021,732 1.0 20.5 4.4 13.1 18.4 11.4 1,957,691 0.2 5.0 -0.6 75.1 24.9 12.3 6,339,930 0.8 16.2 3.6 14.5 21.3 11.8 9,111,694 1.1 23.3 1.5 19.2 41.6 15.9 1,094,805 0.1 2.8 2.6 5.3 8.8 5.6 4,099,687 0.5 10.5 7.4 11.5 18.2 14.8 1,362,233 0.2 3.5 13.2 9.1 11.1 3.9 4,643,582 0.6 11.9 1.8 12.5 12.3 -1.</td> <td>(\$) Portfolio Sector (%) <t< td=""><td>(\$) Portfolio Sector (%) <t< td=""><td>(\$) Portfolio Sector (%) <t< td=""></t<></td></t<></td></t<></td>	(\$) Portfolio Sector (%) (%) (%) (%) 39,047,733 4.7 4.7 3.5 16.4 21.4 10.0 0.0 8.7 14.2 13.7 2.6 9.1 11.7 11.1 42 12 7 59 8,021,732 1.0 20.5 4.4 13.1 18.4 11.4 1,957,691 0.2 5.0 -0.6 75.1 24.9 12.3 6,339,930 0.8 16.2 3.6 14.5 21.3 11.8 9,111,694 1.1 23.3 1.5 19.2 41.6 15.9 1,094,805 0.1 2.8 2.6 5.3 8.8 5.6 4,099,687 0.5 10.5 7.4 11.5 18.2 14.8 1,362,233 0.2 3.5 13.2 9.1 11.1 3.9 4,643,582 0.6 11.9 1.8 12.5 12.3 -1.	(\$) Portfolio Sector (%) <t< td=""><td>(\$) Portfolio Sector (%) <t< td=""><td>(\$) Portfolio Sector (%) <t< td=""></t<></td></t<></td></t<>	(\$) Portfolio Sector (%) <t< td=""><td>(\$) Portfolio Sector (%) <t< td=""></t<></td></t<>	(\$) Portfolio Sector (%) <t< td=""></t<>

Adams Street includes Adams Street 2005, Adams Street 2007, and Adams Street 2011.

Pantheon I includes Pantheon US Fund VI and Pantheon Europe Fund IV.

Pantheon II Includes Pantheon US Fund IX, Pantheon Asia Fund VI, and Pantheon Europe Fund VII.

Pantheon Secondary includes Pantheon GLO SEC III B.



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	119,088,804	14.2	14.2	1.4	2.8	6.3	7.0	7.6			Mar-99
Real Asset Custom				1.0	3.4	6.8					<i>Mar-</i> 99
eV Liquid Real Assets Net Median				0.6	-0.7	3.1	5.9	1.9			<i>Mar-</i> 99
eV Liquid Real Assets Net Rank				28	18	5	24	1			<i>Mar-</i> 99
SSgA	32,444,928	3.9	27.2	-0.6	-0.2	3.6				5.1	Apr-17
Real Asset Custom				1.0	3.4	6.8				8.9	Apr-17
Private Real Estate	60,627,794	7.2	50.9	2.1	8.2	11.2	8.2	8.5		-	Mar-99
NCREIF ODCE (net)				1.9	5.8	7.7	7.8	9.7	4.6	7.5	Mar-99
InvestorForce All DB Real Estate Pub+Priv Net Median				1.7	5.5	7.5	8.0	9.8	4.7	7.1	Mar-99
InvestorForce All DB Real Estate Pub+Priv Net Rank				36	1	1	47	93			<i>Mar-</i> 99
Greenfield Gap VII	12,763,172	1.5	21.1	4.7	12.4	13.4	14.0			13.7	Dec-14
Patron Capital V	5,014,834	0.6	8.3	-3.0	22.0	46.6				15.4	Jan-16
UBS Trumbull Property	42,490,832	5.1	70.1	1.8	5.9	8.2	6.4	8.2			Mar-99
Carlyle Realty VIII	358,956	0.0	0.6	0.0	-27.1					-27.1	Dec-17
NCREIF-ODCE				2.1	6.5	8.7	8.8	10.7	5.6	6.5	Dec-17
Private Infrastructure	16,444,594	2.0	13.8	0.8	4.7	11.2	9.2			6.4	Dec-14
S&P Global Infrastructure Net TR USD				-1.8	-5.3	-3.8	7.0	5.2		2.7	Dec-14
KKR Global II	9,121,082	1.1	55.5	1.1	5.1	5.1	7.6			9.9	Dec-14
North Haven Infrastructure II	7,040,201	0.8	42.8	2.8	6.5	24.9	12.1			6.4	May-15
ISQ Global Infrastructure Fund II	283,311	0.0	1.7	-33.7						-33.7	Jul-18
DJ Brookfield Global Infrastructure Net TR USD				-0.8	-2.1	-1.6	7.4	6.1	9.1	-0.8	Jul-18



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Natural Resources	9,571,488	1.1	8.0	5.3	10.2	13.2	19.6			19.6	Sep-15
S&P Global Natural Resources Index TR USD				1.3	5.1	14.1	19.7	4.1	3.2	19.7	Sep-15
EnCap XI	379,832	0.0	4.0	-5.3	-22.1	-46.3				-41.3	Jul-17
EnCap IV	1,045,540	0.1	10.9	-8.6						-16.0	Feb-18
GSO Energy Opportunities	4,289,175	0.5	44.8	3.4	10.0	16.3				20.1	Nov-15
Taurus Mining	2,305,826	0.3	24.1	7.7	12.8	12.8	18.8			18.8	Sep-15
Taurus Mining Annex	1,551,115	0.2	16.2	12.8	19.0	19.0				35.0	Jan-17
Cash	10,502,237	1.3	1.3	0.1							
Cash	6,601,218	0.8	62.9	0.2	0.6	0.9	0.8	0.8			Sep-03
Treasury Cash	3,901,019	0.5	37.1								

^{*}One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.



		Benchmark History As of September 30, 2018
Total Fund		
1/1/2017	Present	27% US Equity Custom / 23% International Equity Custom / 22% US Fixed Custom / 5% Hedge Fund Custom / 9% Thomson Reuters Cambridge Private Equity Index / 14% Real Asset Custom
7/1/2014	12/31/2016	22.7% Russell 1000 / 5.7% Russell 2000 / 23.6% International Equity Custom / 28.5% US Fixed Custom / 4.5% Hedge Fund Custom / 8% NCREIF ODCE (net) / 7% Cambridge Assoc. U.S. Private Equity Index
US Equity		
12/31/1994	Present	80% Russell 1000 / 20% Russell 2000
International Equity		
1/1/2017	Present	69.56% MSCI EAFE Gross / 30.44% MSCI Emerging Markets Gross
7/1/2013	12/31/2016	MSCI ACWI ex USA Gross
US Fixed Income		
3/1/2018	Present	77.27% BBgBarc US Aggregate TR / 22.73% BBgBarc US Govt 1-5 Yr TR
1/1/2017	2/28/2018	77.27% BBgBarc US Aggregate TR / 22.73% Credit Suisse Leveraged Loans
8/1/2014	12/31/2016	71.93% BBgBarc US Aggregate TR / 17.54% ICE BofAML US High Yield TR / 10.53% Credit Suisse Leveraged Loans
Hedge Fund		
7/1/2017	Present	100% HFRI Fund of Funds Composite Index
1/1/2015	6/30/2017	50% HFRI Fund of Funds Composite Index / 50% HFRI RV: Multi-Strategy Index
Real Assets		
1/1/2017	Present	57.14% NCREIF ODCE (net) / 21.43% S&P Global Natural Resources Index TR USD / 21.43% S&P Global Infrastructure TR USD



Statistics Summary						
	5 Years Ending September 30, 2018					
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Fund	7.61%	5.76%	-0.30	1.05	1.23	0.96%
Policy Index	7.91%	5.42%		1.00	1.36	0.00%
InvestorForce Public DB \$250mm-\$1B Net Median	7.07%	5.67%	-0.07	0.99	1.16	1.06%

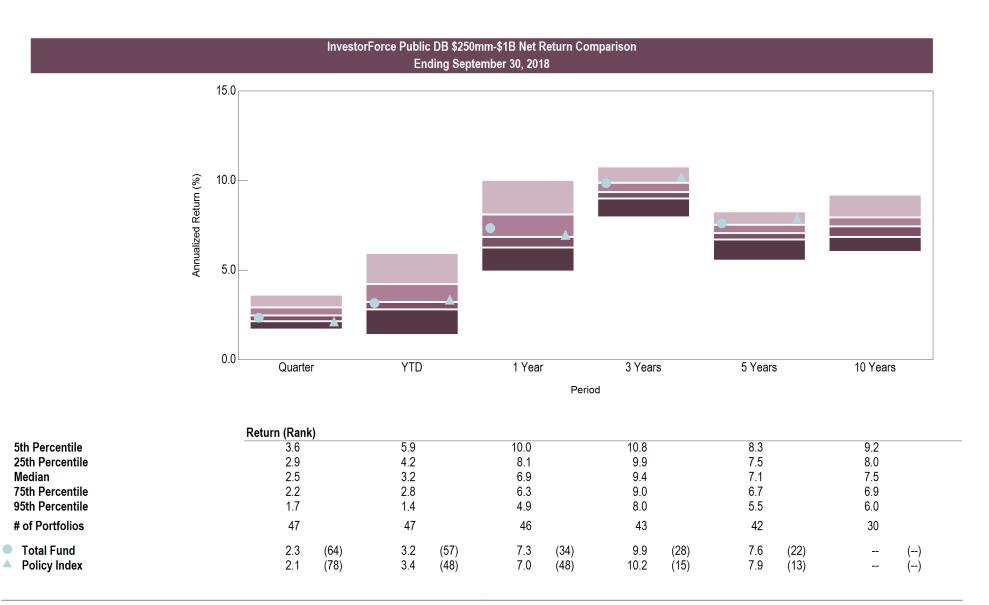


	Annual Investment Expense Ar	alysis		
	As Of September 30, 2018			
Name	Fee Schedule	Market Value	Estimated Fee	Estimated Fee Value
Total Fund w/o Alternatives		\$625,637,756		
US Equity		\$258,549,756		
Mellon Dynamic US Equity	0.30% of Assets	\$82,817,579	0.30%	\$248,453
Mellon Large Cap	0.04% of First 100.0 Mil, 0.02% Thereafter	\$130,998,521	0.04%	\$46,200
DFA Small Cap	0.35% of Assets	\$22,142,470	0.35%	\$77,499
PanAgora	0.80% of Assets	\$22,591,186	0.80%	\$180,729
International Equity		\$197,348,654		
Copper Rock	0.85% of Assets	\$22,340,866	0.85%	\$189,897
Mellon International	0.04% of Assets	\$116,958,067	0.04%	\$46,783
Wells Capital	0.90% of First 100.0 Mil, 0.85% Thereafter	\$58,049,721	0.90%	\$522,447
US Fixed Income		\$169,739,347		
Barrow Hanley	0.30% of First 50.0 Mil, 0.20% of Next 100.0 Mil, 0.15% Thereafter	\$133,042,890	0.24%	\$316,086
Vanguard Short-Term Treasury Index Fund	0.05% of Assets	\$36,696,457	0.05%	\$18,348
Hedge Fund		\$43,302,548		
OZ Domestic II	Performance-based 1.50 and 20.00	\$9,812,689	1.50%	\$147,190
Graham Absolute Return	Performance-based 1.75 and 20.00	\$3,091,444	1.82%	\$56,255
Wellington-Archipelago	Performance-based 1.00 and 20.00	\$6,300,940	1.27%	\$80,115
KLS Diversified	Performance-based 2.00 and 20.00	\$5,368,989	2.20%	\$118,246
Winton	Performance-based 0.90 and 20.00	\$3,142,614	1.16%	\$36,316
Marshall Wace Eureka	Performance-based 2.00 and 20.00	\$3,197,796	2.12%	\$67,642
Silver Point Capital	Performance-based 2.00 and 20.00	\$7,343,313	2.15%	\$157,677
Laurion Capital		\$5,044,763		
Invesco IV		\$1,957,691		
Invesco VI		\$6,339,930		
Ocean Avenue II		\$9,111,694		

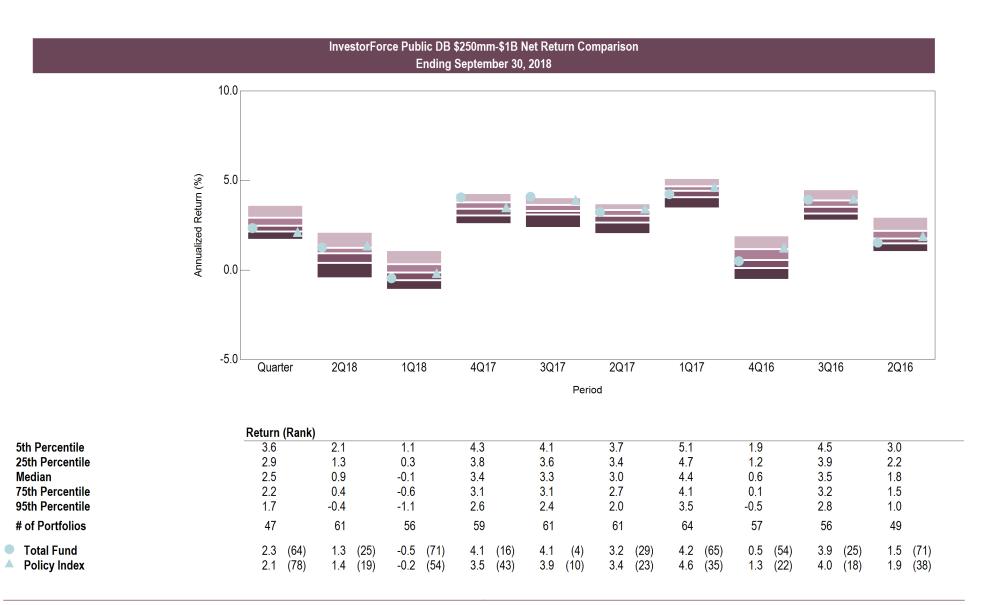


Name	Fee Schedule	Market Value	Estimated Fee	Estimated Fee Value
Pantheon I		\$1,094,805		
Pantheon II		\$4,099,687		
Pantheon Secondary		\$1,362,233		
Raven Asset Fund II		\$4,643,582		
Davidson Kempner Long-Term Distressed Opportunities I	Fund IV	\$1,343,234		
GTCR Fund XII		\$213,916		
Carrick Capital Partners III		\$859,229		
Real Assets		\$119,088,804		
SSgA	0.30% of First 50.0 Mil, 0.27% of Next 50.0 Mil, 0.25% Thereafter	\$32,444,928	0.30%	\$97,335
Private Real Estate		\$60,627,794		
Greenfield Gap VII		\$12,763,172		
Patron Capital V		\$5,014,834		
UBS Trumbull Property		\$42,490,832		
Carlyle Realty VIII		\$358,956		
Private Infrastructure		\$16,444,594		
KKR Global II		\$9,121,082		
North Haven Infrastructure II		\$7,040,201		
ISQ Global Infrastructure Fund II		\$283,311		
Private Natural Resources		\$9,571,488		
EnCap XI		\$379,832		
EnCap IV		\$1,045,540		
GSO Energy Opportunities		\$4,289,175		
Taurus Mining		\$2,305,826		
Taurus Mining Annex		\$1,551,115		
Cash		\$10,502,237		
Cash		\$6,601,218		
Treasury Cash		\$3,901,019		





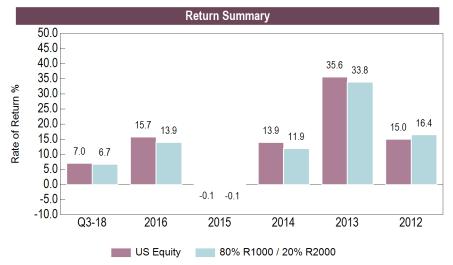






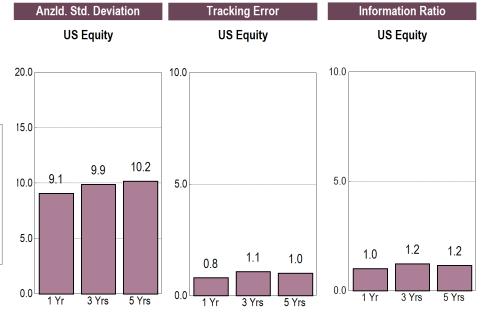
US Equity

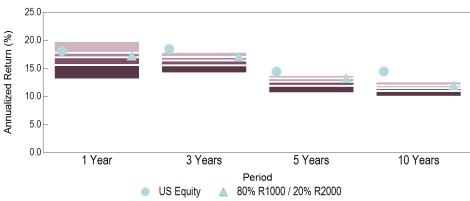
As of September 30, 2018



Current Allocation			
PanAgora 8.7 %	DFA Small Cap 8.6 %		
Mellon Large Cap 50.7 %	Mellon Dynamic US Equity 32.0 %		

	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
US Equity	18.1	18.5	14.4	14.4
80% R1000 / 20% R2000	17.3	17.1	13.3	12.0
InvestorForce All DB US Eq Net Median	17.0	16.4	12.7	11.5
InvestorForce All DB US Eq Net Rank	18	3	3	2





US Equity

	US Equity Characteristics vs Russell 3000	
	Portfolio	Index
	Q3-18	Q3-18
Characteristics		
Weighted Avg. Market Cap. (\$B)	174.3	191.0
Median Market Cap (\$B)	2.5	1.8
P/E Ratio	30.2	24.1
Yield	1.7	1.8
EPS Growth - 5 Yrs.	14.5	9.2
Price to Book	6.1	4.9
Beta (holdings; domestic)	1.1	1.1

	US Equity Sector Distribution vs Russell 3000	
	Portfolio	Index
	Q3-18	Q3-18
Sector Distribution		
Energy	5.4	5.7
Materials	2.8	2.9
Industrials	10.7	10.4
Consumer Discretionary	10.1	10.5
Consumer Staples	5.6	6.0
Health Care	13.5	14.6
Financials	13.3	13.7
Information Technology	18.3	20.7
Communication Services	7.8	9.0
Utilities	2.6	2.8
Real Estate	2.9	3.6

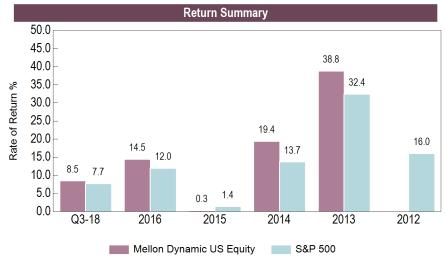
Top Holdings	Best Performers		Worst Performers	
CASH - USD 6.3	%	Return %		Return %
APPLE 3.	% KALVISTA PHARMACEUTICALS	172.3%	TONIX PHARMS.HOLDING	-86.7%
MICROSOFT 2.	% AFFIMED	163.6%	CYTORI THERAPEUTICS	-72.0%
AMAZON.COM 2.	% ADVANCED MICRO DEVICES	106.1%	LANNETT	-65.1%
BERKSHIRE HATHAWAY 'B' 1.	% RIGNET	97.6%	MAIDEN HOLDINGS	-62.6%
FACEBOOK CLASS A 1.	% APPLIED GENETIC TECHS.	97.3%	DIEBOLD NIXDORF	-62.3%
JP MORGAN CHASE & CO. 1.	% HEALTH IN.INNVNS.CL.A	90.6%	ROADRUNNER TRSP.SYSTEMS	-60.0%
JOHNSON & JOHNSON 1.	% LSB INDUSTRIES	84.5%	BABCOCK & WILCOX ENTS.	-56.7%
ALPHABET 'C' 1.	[%] RA PHARMACEUTICALS	81.8%	CORE MOLDING TECHS.	-53.3%
ALPHABET A 1.	% INTELSAT	80.1%	VALHI	-51.8%
	COMMAND SECURITY	80.0%	DETERMINE	-51.8%



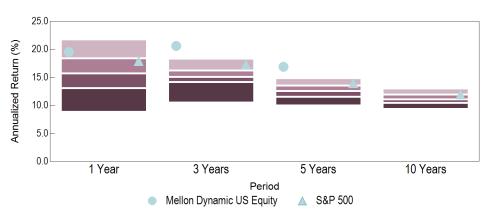
Mellon Dynamic US Equity

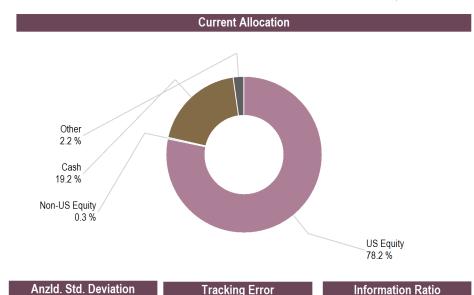
Information Ratio

As of September 30, 2018



Mellon Dynamic US Equity S&P 500				
	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Mellon Dynamic US Equity	19.5	20.6	16.9	
S&P 500	17.9	17.3	13.9	12.0
eV US Large Cap Core Equity Net Median	15.7	15.1	12.6	11.1
eV US Large Cap Core Equity Net Rank	16	1	1	





Tracking Error

Mellon Dynamic US Equity	Mellon Dynamic US Equity	Mellon Dynamic US Equity
20.0	10.0	10.0
10.6 10.4 11.0		
10.6 10.4 11.0	5.0	5.0
5.0-	1.8	0.9
0.0 1 Yr 3 Yrs 5 Yrs	0.0 1 Yr 3 Yrs 5 Yrs	0.0 1 Yr 3 Yrs 5 Yrs



Mellon Dynamic US Equity

Account Information				
Account Name	Mellon Dynamic US Equity			
Account Structure	Commingled Fund			
Investment Style	Active			
Inception Date	12/31/12			
Account Type	US Equity			
Benchmark	S&P 500			
Universe	eV US Large Cap Core Equity Net			

Account	Characteristics				
Portfolio Index					
	Q3-18	Q3-18			
Characteristics					
Weighted Avg. Market Cap. (\$B)	227.9	228.1			
Median Market Cap (\$B)	21.5	21.5			
P/E Ratio	32.5	24.5			
Yield	1.9	1.9			
EPS Growth - 5 Yrs.	15.9	8.4			
Price to Book	6.8	5.3			
Beta (holdings; domestic)	1.0	1.0			

5	Sector Distribution	
	Portfolio	Index
	Q3-18	Q3-18
Sector Distribution		
Energy	4.7	6.0
Materials	1.9	2.4
Industrials	7.6	9.7
Consumer Discretionary	8.1	10.3
Consumer Staples	5.3	6.7
Health Care	11.8	15.0
Financials	10.5	13.3
Information Technology	16.5	21.0
Communication Services	7.9	10.0
Utilities	2.2	2.8
Real Estate	2.1	2.7

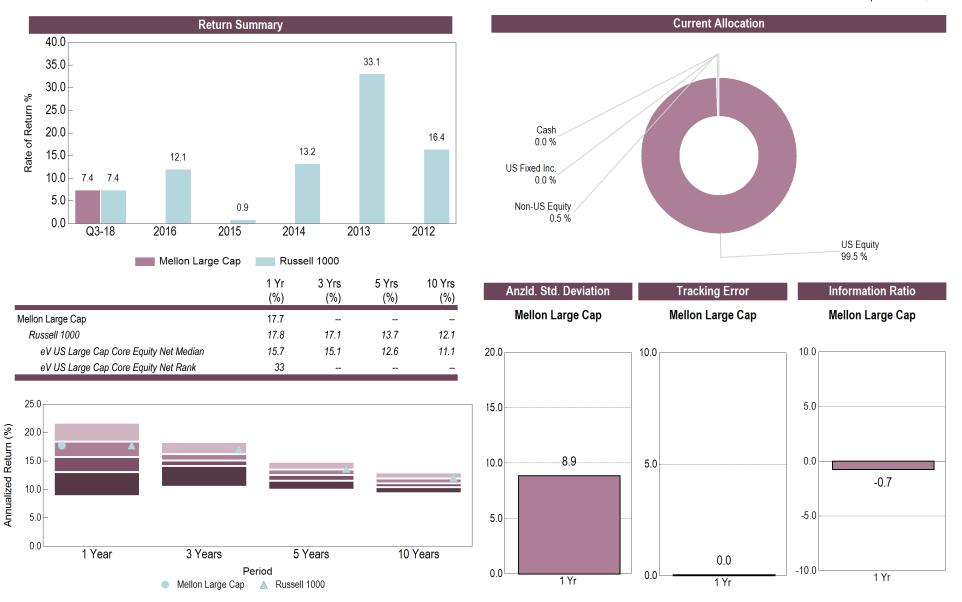
Top Holdings		
CASH - USD	19.2%	
APPLE	3.3%	
MICROSOFT	2.8%	
AMAZON.COM	2.6%	
MISCELLANEOUS SECURITIES	2.2%	
BERKSHIRE HATHAWAY 'B'	1.3%	
FACEBOOK CLASS A	1.3%	
JP MORGAN CHASE & CO.	1.2%	
JOHNSON & JOHNSON	1.2%	
ALPHABET 'C'	1.2%	

Best Performers		
	Return %	
ADVANCED MICRO DEVICES	106.1%	TWI
HCA HEALTHCARE	35.9%	IPG
FLOWSERVE	35.8%	WES
PERKINELMER	32.9%	WYN
ILLUMINA	31.4%	NEW
WELLCARE HEALTH PLANS	30.2%	EQT
IQVIA HOLDINGS	30.0%	NEW
ARCONIC	29.8%	FRE
QUALCOMM	29.5%	MAR
CORNING	29.0%	MOH

	Worst Perform	ners
%		Return %
%	TWITTER	-34.8%
1%	IPG PHOTONICS	-29.3%
8%	WESTERN DIGITAL	-23.7%
1%	WYNN RESORTS	-23.7%
1%	NEWELL BRANDS	-20.5%
2%	EQT	-19.8%
)%	NEWMONT MINING	-19.5%
8%	FREEPORT-MCMORAN	-19.1%
%	MARTIN MRTA.MATS.	-18.3%
)%	MOHAWK INDUSTRIES	-18.2%



Mellon Large Cap





Mellon Large Cap

Account Information			
Account Name	Mellon Large Cap		
Account Structure	Commingled Fund		
Investment Style	Passive		
Inception Date	3/31/16		
Account Type	US Stock Large		
Benchmark	Russell 1000		
Universe	eV US Large Cap Core Equity Net		

Account	Characteristics	
	Portfolio	Index
	Q3-18	Q3-18
Characteristics		200 5
Weighted Avg. Market Cap. (\$B)	206.3	206.5
Median Market Cap (\$B)	10.6	10.6
P/E Ratio	31.4	24.6
Yield	1.8	1.8
EPS Growth - 5 Yrs.	15.4	9.2
Price to Book	6.7	5.2
Beta (holdings; domestic)	1.0	1.0
•		

l		Sector Distribution	
		Portfolio	Index
		Q3-18	Q3-18
	Sector Distribution		
	Energy	5.8	5.8
	Materials	2.8	2.8
	Industrials	10.0	10.1
	Consumer Discretionary	10.3	10.4
	Consumer Staples	6.3	6.3
	Health Care	14.5	14.5
	Financials	13.4	13.4
	Information Technology	21.3	21.3
	Communication Services	9.4	9.4
	Utilities	2.8	2.8
	Real Estate	3.3	3.3

Top Holdings		
APPLE	4.0%	
MICROSOFT	3.2%	
AMAZON.COM	3.0%	
BERKSHIRE HATHAWAY 'B'	1.5%	
FACEBOOK CLASS A	1.4%	
JP MORGAN CHASE & CO.	1.4%	
JOHNSON & JOHNSON	1.3%	
ALPHABET 'C'	1.3%	
ALPHABET A	1.3%	
EXXON MOBIL	1.3%	

Best Performers		
	Return %	
ADVANCED MICRO DEVICES	106.1%	
SQUARE CL.A	60.6%	
PAYCOM SOFTWARE	57.2%	
TWILIO 'A'	54.0%	
ATLASSIAN 'A'	53.8%	
MOLINA HEALTHCARE	51.8%	
DEXCOM	50.6%	
MATCH GROUP	49.5%	
FORTINET	47.8%	
IAC/INTERACTIVECORP	42.1%	

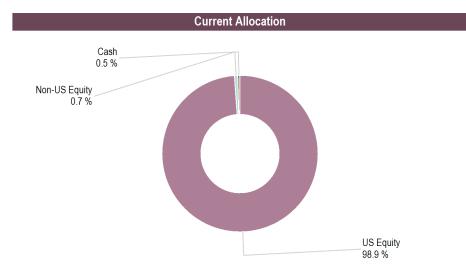
	Worst Performers	
%		Return %
%	FLOOR & DECOR HOLDINGS 'A'	-38.8%
%	TWITTER	-34.8%
2%	IPG PHOTONICS	-29.3%
)%	VISTEON	-28.1%
8%	ZILLOW GROUP CLASS A	-26.0%
8%	ZILLOW GROUP CLASS C	-25.1%
8%	WESTERN DIGITAL	-23.7%
%	WYNN RESORTS	-23.7%
8%	EXTRACTION OIL &.GAS	-23.1%
%	TESLA	-22.8%



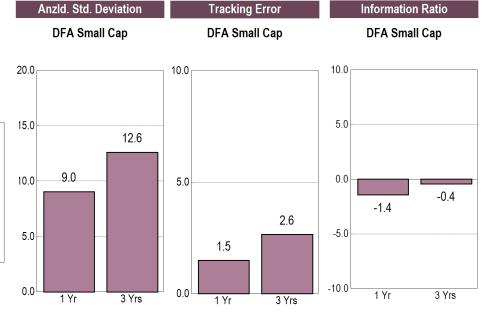
DFA Small Cap

As of September 30, 2018





	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
DFA Small Cap	13.2	16.1		
Russell 2000	15.2	17.1	11.1	11.1
eV US Small Cap Core Equity Net Median	13.8	16.5	11.1	11.7
eV US Small Cap Core Equity Net Rank	55	55		





DFA Small Cap

Account Information			
Account Name	DFA Small Cap		
Account Structure	Commingled Fund		
Investment Style	Active		
Inception Date	6/30/14		
Account Type	US Stock Small		
Benchmark	Russell 2000		
Universe	eV US Small Cap Core Equity Net		

Account Characteristics				
	Portfolio Q3-18	Index Q3-18		
Characteristics		2.4		
Weighted Avg. Market Cap. (\$B)	2.2	2.4		
Median Market Cap (\$B)	0.8	0.9		
P/E Ratio	23.7	15.8		
Yield	1.2	1.0		
EPS Growth - 5 Yrs.	9.7	8.5		
Price to Book	3.4	3.2		
Beta (holdings; domestic)	1.1	1.2		

Secto	or Distribution	
	Portfolio	Index
	Q3-18	Q3-18
Sector Distribution		
Energy	5.8	4.7
Materials	5.5	4.2
Industrials	21.3	15.1
Consumer Discretionary	14.8	12.3
Consumer Staples	4.6	2.7
Health Care	8.6	16.5
Financials	19.2	17.5
Information Technology	12.1	14.0
Communication Services	3.4	3.3
Utilities	3.5	3.1
Real Estate	0.8	6.9

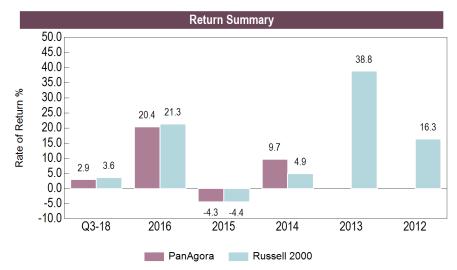
Top Holdings	
CASH - USD	0.5%
INSPERITY	0.3%
MARRIOTT VACATIONS WWD.	0.3%
TREX	0.3%
JOHN BEAN TECHNOLOGIES	0.2%
FIVE BELOW	0.2%
TETRA TECH	0.2%
BARNES GROUP	0.2%
MEDIFAST	0.2%
FIRSTCASH	0.2%

	Best Performers		Worst Performers	
5%		Return %		Return %
	KALVISTA PHARMACEUTICALS	172.3%	TONIX PHARMS.HOLDING	-86.7%
	AFFIMED	163.6%	CYTORI THERAPEUTICS	-72.0%
	RIGNET	97.6%	LANNETT	-65.1%
	APPLIED GENETIC TECHS.	97.3%	MAIDEN HOLDINGS	-62.6%
	HEALTH IN.INNVNS.CL.A	90.6%	DIEBOLD NIXDORF	-62.3%
2%	LSB INDUSTRIES	84.5%	ROADRUNNER TRSP.SYSTEMS	-60.0%
	RA PHARMACEUTICALS	81.8%	BABCOCK & WILCOX ENTS.	-56.7%
	INTELSAT	80.1%	CORE MOLDING TECHS.	-53.3%
2%	COMMAND SECURITY	80.0%	DETERMINE	-51.8%
	ENDO INTERNATIONAL	78.5%	TRIPLE-S MANAGEMENT 'B'	-51.6%



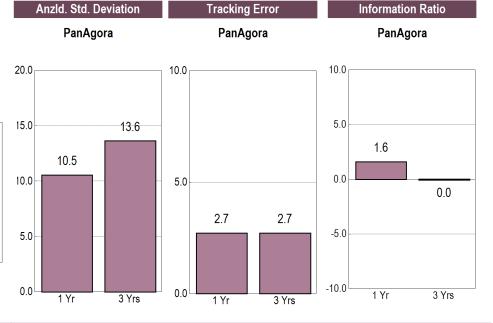
PanAgora

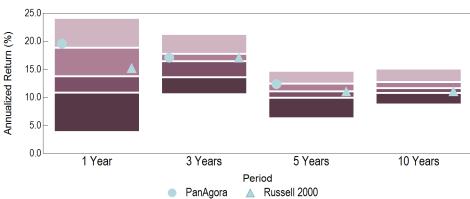
As of September 30, 2018



Current Allocation		
Cash 0.2 % Non-US Equity 1.1 %		
		US Equity 98.7 %

	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
PanAgora	19.6	17.1	12.4	
Russell 2000	15.2	17.1	11.1	11.1
eV US Small Cap Core Equity Net Median	13.8	16.5	11.1	11.7
eV US Small Cap Core Equity Net Rank	22	38	27	





PanAgora

Account Information			
Account Name	PanAgora		
Account Structure	Commingled Fund		
Investment Style	Active		
Inception Date	9/30/13		
Account Type	US Stock Small Cap Core		
Benchmark	Russell 2000		
Universe	eV US Small Cap Core Equity Net		

Portfolio			
Portfolio Index			
Q3-18	Q3-18		
	0.4		
2.4	2.4		
0.9	0.9		
22.1	15.8		
1.1	1.0		
8.5	8.5		
4.0	3.2		
1.2	1.2		
	Q3-18 2.4 0.9 22.1 1.1 8.5 4.0		

	S	Sector Distribution	
X		Portfolio	Index
3		Q3-18	Q3-18
	Sector Distribution		
1	Energy	5.6	4.7
*	Materials	3.3	4.2
9	Industrials	14.9	15.1
3	Consumer Discretionary	11.9	12.3
)	Consumer Staples	3.0	2.7
5	Health Care	19.0	16.5
2	Financials	17.7	17.5
2	Information Technology	14.1	14.0
	Communication Services	3.0	3.3
	Utilities	2.2	3.
	Real Estate	5.2	6.9

Top Holdings	
LIGAND PHARMS.'B'	1.5%
INSPERITY	1.4%
INGEVITY	1.3%
NEKTAR THERAPEUTICS	1.2%
CORECIVIC	1.2%
MALLINCKRODT	1.2%
DENBURY RES.	1.1%
FIRST CTZN.BCSH.A	1.1%
COMMVAULT SYSTEMS	1.1%
MOOG 'A'	1.1%

	Best Performers		Worst Performers	
%		Return %		Return %
%	ENDO INTERNATIONAL	78.5%	VALHI	-51.8%
	ARC DOCUMENT SOLUTIONS	60.5%	TRIPLE-S MANAGEMENT 'B'	-51.6%
	MALLINCKRODT	57.1%	PIONEER ENERGY SERVICES	-49.6%
	BRIDGEPOINT EDUCATION	55.6%	GENESIS HEALTHCARE 'A'	-41.0%
	VERSO 'A'	54.7%	TOWN SPORTS INTL.HDG.	-40.5%
	BOINGO WIRELESS	54.5%	SANDRIDGE ENERGY	-38.6%
	HMS HOLDINGS	51.8%	BEASLEY BROADCAST GP.'A'	-37.9%
	MATCH GROUP	49.5%	HUDSON TECHNOLOGIES	-36.3%
%	PYXUS INTERNATIONAL	45.1%	ION GEOPHYSICAL	-36.0%
	INOVIO PHARMACEUTICALS	41.8%	MIDSTATES PETROLEUM	-34.5%

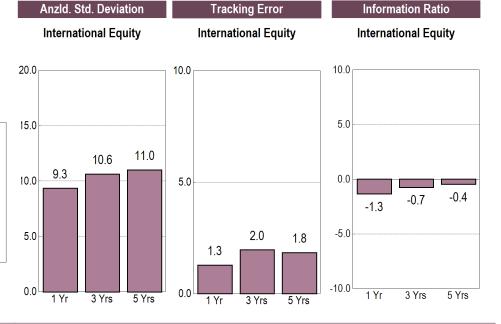


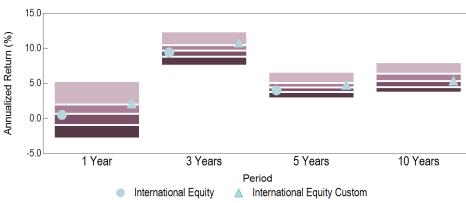
International Equity



Current	Current Allocation					
Wells Capital 29.4 %	Copper Rock 11.3 % EARNES Partners 0.0 %					
	Mellon International 59.2 %					

	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
International Equity	0.5	9.4	4.0	
International Equity Custom	2.2	10.8	4.8	5.4
InvestorForce All DB ex-US Eq Net Median	0.7	9.7	4.4	5.3
InvestorForce All DB ex-US Eq Net Rank	54	59	69	







International Equity

International Equity Characteristics vs MSCI ACWI ex USA						
	Portfolio	Index				
	Q3-18	Q3-18				
Characteristics						
Weighted Avg. Market Cap. (\$B)	57.2	62.2				
Median Market Cap (\$B)	9.8	7.7				
P/E Ratio	19.9	18.8				
Yield	2.8	3.0				
EPS Growth - 5 Yrs.	10.4	9.7				
Price to Book	3.3	2.6				
Beta (holdings; domestic)	1.0	1.1				

International Equity Sector Distribution vs MSCI ACWI ex USA					
	Portfolio	Index			
	Q3-18	Q3-18			
Sector Distribution					
Energy	6.6	7.6			
Materials	6.0	8.1			
Industrials	11.4	11.9			
Consumer Discretionary	11.7	10.4			
Consumer Staples	12.8	9.5			
Health Care	8.2	8.4			
Financials	18.3	22.1			
Information Technology	8.9	8.4			
Communication Services	9.3	7.4			
Utilities	2.1	3.0			
Real Estate	3.3	3.1			

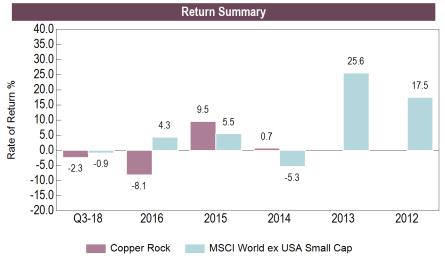
Top Holdings		Best Performers		Worst Performers	
SAMSUNG ELECTRONICS	1.5%		Return %		Return %
NESTLE 'R'	1.1%	TPG TELECOM	61.8%	BEST SPN.ADR 1:1 'A'	-51.6%
AIA GROUP	1.1%	ALMIRALL	50.0%	SURUGA BANK	-43.1%
CHINA MOBILE	1.0%	IDEMITSU KOSAN	49.6%	VIPSHOP HOLDINGS ADR 5:1	-42.5%
TAIWAN SEMICON.SPN.ADR 1:5	0.9%	SHOWA SHELL SEKIYU	42.0%	AVIVASA EMEKLILIK VE HAYAT	-40.5%
TENCENT HOLDINGS	0.9%	SOFTBANK GROUP	40.6%	LI & FUNG	-38.2%
NOVARTIS 'R'	0.8%	ORION B	40.5%	RENESAS ELECTRONICS	-36.2%
HSBC HOLDINGS	0.7%	SHDG.WEIGAO GP.MED. PLM. 'H'	39.6%	MELCO INTL.DEV.	-34.9%
HDFC BANK ADR 1:3	0.7%		39.1%	COCA-COLA BOTTLERS JAPAN HOLDINGS	-33.0%
ROCHE HOLDING	0.7%	PARKLAND FUEL	37.8%	CYBERDYNE	-32.6%
		YANGZIJIANG SHIPBUILDING (HOLDINGS)	36.7%	MGM CHINA HOLDINGS	-31.4%



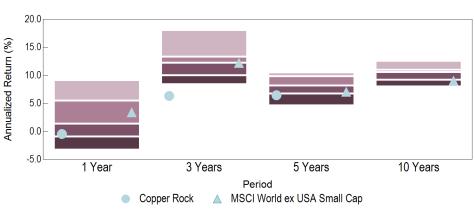
Copper Rock

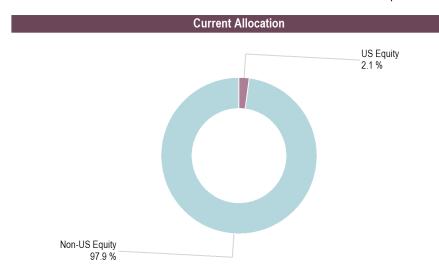
As of September 30, 2018

Information Ratio



Copper Rock	MSCI World ex	USA Small C	ар	
	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Copper Rock	-0.5	6.3	6.4	
MSCI World ex USA Small Cap	3.4	12.2	7.1	9.0
eV EAFE Small Cap Equity Net Median	1.4	12.3	8.2	10.6
eV EAFE Small Cap Equity Net Rank	71	99	89	





Copper Rock			Copper	Rock		Copper	Rock	
20.0			10.0			10.0		
15.0			_			5.0		
		11.3						
10.0	8.6		5.0		4.0	0.0		
5.0			-	2.7		-5.0	-1.4	-1.5
0.0	1 Yr	3 Yrs	0.0	1 Yr	3 Yrs	-10.0	1 Yr	3 Yrs

Tracking Error



Anzld. Std. Deviation

Copper Rock

Account Information						
Account Name	Copper Rock					
Account Structure	Commingled Fund					
Investment Style	Active					
Inception Date	9/30/13					
Account Type	International Small Stocks					
Benchmark	MSCI World ex USA Small Cap					
Universe	eV EAFE Small Cap Equity Net					

Accoun	t Characteristics		
	Portfolio	Index	
	Q3-18	Q3-18	
Characteristics		2.7	56
Weighted Avg. Market Cap. (\$B)	3.6	/ /	Er ∕I
Median Market Cap (\$B)	3.4	1.1 li	n C
P/E Ratio	19.8	19.1	
Yield	2.1	2.4	20
EPS Growth - 5 Yrs.	16.7	12.6	16
Price to Book	3.4		Ξį
Beta (holdings; domestic)	0.9		n Te

_			
	Sec	ctor Distribution	
X		Portfolio	Index
3		Q3-18	Q3-18
	Sector Distribution		
7	Energy	10.3	4.4
	Materials	7.6	9.7
1	Industrials	17.9	21.
1	Consumer Discretionary	8.9	12.6
1	Consumer Staples	8.1	6.4
3	Health Care	12.1	7.4
5	Financials	10.9	11.5
9	Information Technology	10.6	9.2
	Communication Services	4.5	4.5
	Utilities	1.7	2.5
	Real Estate	7.0	10.6

Top Holdings	
ASR NEDERLAND	1.8%
NIPPON SUISAN KAISHA	1.7%
MARUI GROUP	1.7%
BEACH ENERGY	1.7%
CHARTER HALL GROUP UNITS	1.6%
LION	1.6%
FINNING INTL.	1.6%
PREMIER OIL	1.5%
GRAND CITY PROPERTIES	1.5%
AMER SPORTS	1.5%

	Best Performers		Worst Performers	
%		Return %		Return %
%	ALMIRALL	50.0%	MELCO INTL.DEV.	-34.9%
%	PARKLAND FUEL	37.8%	CHINA MED.SY.HDG.(DI)	-29.5%
	NIPPON SUISAN KAISHA	32.9%	ORION	-28.9%
%	TAKARA BIO	32.7%	ST BARBARA	-27.8%
	AMER SPORTS	29.6%	IG GROUP HOLDINGS	-23.5%
%	DOOSAN BOBCAT	26.8%	INTERFOR	-22.9%
	GETINGE B	26.4%	DECHRA PHARMACEUTICALS	-22.7%
	HIKMA PHARMACEUTICALS	22.3%	WIZZ AIR HOLDINGS	-21.1%
%	LION	21.2%	CHINA TRADITIONAL CHI MEDICINE	-20.6%
	LEROY SEAFOOD GROUP	21.1%	SOPRA STERIA GROUP	-20.2%



Mellon International

As of September 30, 2018

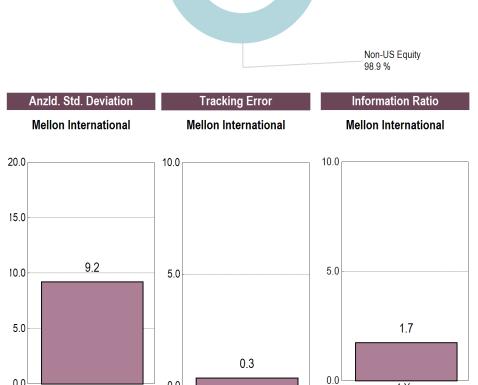
US Equity 0.4 %



5 Years

MSCI EAFE

Period



1 Yr

0.0



-5.0¹

1 Year

3 Years

Mellon International

1 Yr

0.0

1 Yr

10 Years

Mellon International

	Account Information
Account Name	Mellon International
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	3/31/16
Account Type	International
Benchmark	MSCI EAFE
Universe	eV All EAFE Equity Net

Accoun	t Characteristics	
	Portfolio	Index
	Q3-18	Q3-18
Characteristics		
Weighted Avg. Market Cap. (\$B)	57.9	2.7
Median Market Cap (\$B)	10.8	1.1
P/E Ratio	20.4	19.1
Yield	3.1	2.4
EPS Growth - 5 Yrs.	10.0	12.6
Price to Book	3.0	2.5
Beta (holdings; domestic)	1.1	0.9

	Se	ctor Distribution	
Χ		Portfolio	Index
8		Q3-18	Q3-18
	Sector Distribution		
7	Energy	6.1	4.4
′	Materials	8.0	9.7
1	Industrials	14.3	21.1
1	Consumer Discretionary	11.0	12.6
4	Consumer Staples	11.1	6.4
6	Health Care	11.0	7.4
5	Financials	19.5	11.5
9	Information Technology	6.1	9.2
	Communication Services	5.5	4.5
	Utilities	3.2	2.5
	Real Estate	3.3	10.6

Top Holdings				
NESTLE 'R'	1.8%			
NOVARTIS 'R'	1.3%			
HSBC HOLDINGS	1.2%			
ROCHE HOLDING	1.2%			
ROYAL DUTCH SHELL (LON)	1.1%			
TOTAL	1.1%			
BP	1.1%			
TOYOTA MOTOR	1.0%			
ROYAL DUTCH SHELL B	0.9%			
SAP	0.8%			

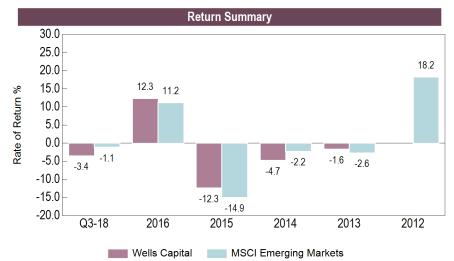
Best Performers		Worst Performers	
	Return %		Return %
TPG TELECOM	61.8%	SURUGA BANK	-43.1%
IDEMITSU KOSAN	49.6%	LI & FUNG	-38.2%
SHOWA SHELL SEKIYU	42.0%	RENESAS ELECTRONICS	-36.2%
SOFTBANK GROUP	40.6%	COCA-COLA BOTTLERS JAPAN HOLDINGS	-33.0%
ORION B	40.5%	CYBERDYNE	-32.6%
EISAI	39.1%	MGM CHINA HOLDINGS	-31.4%
YANGZIJIANG SHIPBUILDING (HOLDINGS)	36.7%	ZALANDO	-30.5%
WIRECARD	35.8%	ATLANTIA	-29.8%
ICL	34.5%	FRESNILLO	-28.5%
LONZA GROUP	29.2%	SUMCO	-28.2%



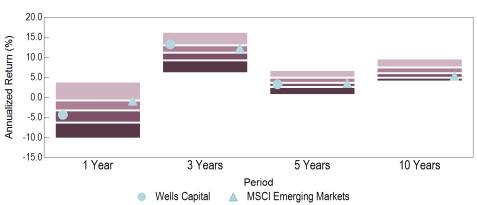
Wells Capital

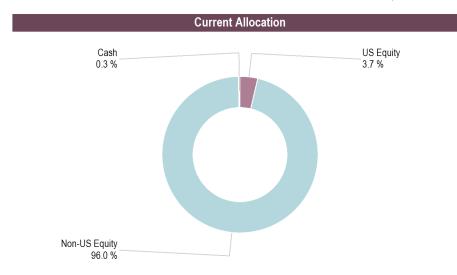
As of September 30, 2018

Information Ratio



	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Wells Capital	-4.4	13.2	3.3	
MSCI Emerging Markets	-0.8	12.4	3.6	5.4
eV Emg Mkts Equity Net Median	-3.2	11.2	3.7	6.0
eV Emg Mkts Equity Net Rank	60	22	60	





	Wells	s Capital	l		Well	s Capita	I		Well	s Capital	l
20.0				10.0				10.0			
15.0	44.5	13.7	14.2					5.0			
10.0	11.5			5.0	3.7	3.6	3.4	0.0	-1.0	0.2	-0.1
5.0								-5.0			
0.0	1 Yr	3 Yrs	5 Yrs	0.0	1 Yr	3 Yrs	5 Yrs	-10.0	1 Yr	3 Yrs	5 Yrs

Tracking Error



Anzld. Std. Deviation

Wells Capital

Account Information				
Account Name	Wells Capital			
Account Structure	Commingled Fund			
Investment Style	Active			
Inception Date	3/31/12			
Account Type	International Emerging Stocks			
Benchmark	MSCI Emerging Markets			
Universe	eV Emg Mkts Equity Net			

Accoun	t Characteristics	
	Portfolio Q3-18	Index Q3-18
Characteristics		0.7
Weighted Avg. Market Cap. (\$B)	78.1	2.7
Median Market Cap (\$B)	10.3	1.1
P/E Ratio	18.9	19.1
Yield	2.3	2.4
EPS Growth - 5 Yrs.	9.2	12.6
Price to Book	3.6	2.5
Beta (holdings; domestic)	1.0	0.9

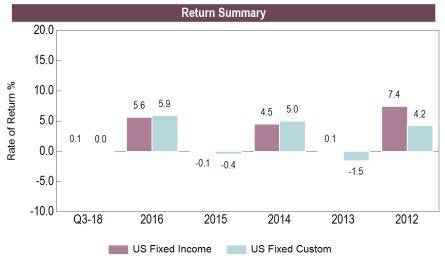
	S	ector Distribution	
Χ		Portfolio	Index
8		Q3-18	Q3-18
	Sector Distribution		
7	Energy	6.1	4.4
′	Materials	1.1	9.7
1	Industrials	2.7	21.1
1	Consumer Discretionary	14.4	12.6
4	Consumer Staples	18.4	6.4
6	Health Care	0.7	7.4
5	Financials	18.7	11.5
9	Information Technology	14.4	9.2
	Communication Services	19.7	4.5
	Utilities	0.0	2.5
	Real Estate	1.6	10.6

Top Holdings				
SAMSUNG ELECTRONICS	5.5%			
CHINA MOBILE	3.7%			
TAIWAN SEMICON.SPN.ADR 1:5	3.3%			
TENCENT HOLDINGS	3.2%			
HDFC BANK ADR 1:3	2.6%			
RELIANCE INDS.GDR 144A	2.4%			
UNI-PRESIDENT ENTS.	2.4%			
TAIWAN SEMICON.MNFG.	2.3%			
AIA GROUP	2.2%			
ALIBABA GROUP HLDG.SPN. ADR 1:1	2.2%			

Best Performers		Worst Performers	
	Return %		Return %
SHDG.WEIGAO GP.MED. PLM. 'H'	39.6%	BEST SPN.ADR 1:1 'A'	-51.6%
IRB BRASIL RESSEGUROS ON	32.4%	VIPSHOP HOLDINGS ADR 5:1	-42.5%
CHINA RAPID FINANCE ADR 'A'1:1	31.8%	AVIVASA EMEKLILIK VE HAYAT	-40.5%
SIAM COML. BANK FB	22.8%	GREENTREE HOSPLTY. GP. ADR 1:1	-29.8%
RELIANCE INDS.GDR 144A	22.2%	JIANPU TECHNOLOGY ADR 2:5	-26.0%
GPO FINANCE BANORTE	21.5%	ZHOU HEI YA ORD	-25.9%
TAIWAN SEMICON.MNFG.	21.1%	MATAHARI DEPARTMENT SOE.	-24.3%
TAIWAN SEMICON.SPN.ADR 1:5	20.8%	NETMARBLE	-24.2%
CNOOC	17.3%	HAPVIDA PARTP.E INVMS.ON	-22.6%
BRF SPONSORED ADR 1:1	17.1%	TIGER BRANDS	-22.5%

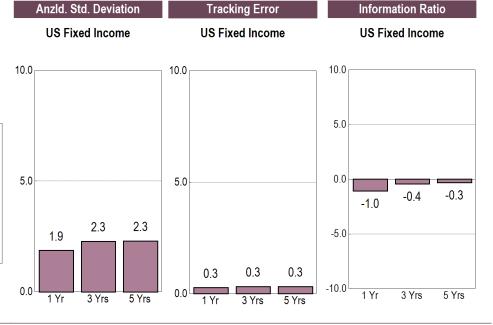


US Fixed Income



Current Allocation				
Vanguard Short-Term Treasury Index Fund 21.6 % Barrow Hanley 78.4 %				

	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
US Fixed Income	-0.5	2.4	2.6	
US Fixed Custom	-0.3	2.5	2.7	4.0
InvestorForce All DB US Fix Inc Net Median	-0.7	2.4	2.6	4.9
InvestorForce All DB US Fix Inc Net Rank	45	49	50	





US Fixed Income

	US Fixed Income Fixed Income Characteristics vs. BBgBarc US Aggregate TR				ncome Fixed Incom BgBarc US Aggregat				
	Portfolio	Index	Portfolio	Index		Portfolio	Index	Portfolio	Index
	Q3-18	Q3-18	Q2-18	Q2-18		Q3-18	Q3-18	Q2-18	Q2-18
Fixed Income Characteristics					Credit Quality Allocation				
Yield to Maturity	3.33	3.45	3.13	3.27	AAA	66.55	71.93	70.33	72.00
Average Duration	5.07	6.03	5.08	6.01	AA	3.92	3.73	6.17	3.75
Average Quality	AA	AA	AA	AA	A	13.72	10.84	13.92	11.06
Weighted Average Maturity	7.53	12.94	6.43	12.97	BBB	13.70	13.51	9.58	13.20
					Not Rated	2.12			

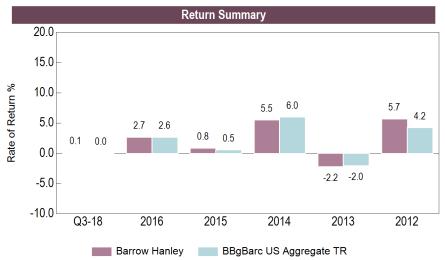
US Fixed Income Fixed Income Sector Allocation								
	vs. BBgBarc US Aggregate TR							
	Portfolio	Index	Portfolio	Index				
	Q3-18	Q3-18	Q2-18	Q2-18				
US Sector Allocation								
UST/Agency	40.82	40.95	46.00	40.97				
Corporate	31.02	25.13	29.52	24.99				
MBS	22.10	30.03	18.90	30.08				
ABS	4.11	0.51	3.75	0.54				
Foreign	0.23	2.47	0.19	2.48				
Muni	0.92	0.91	0.64	0.94				
Other			0.03					
Cash	0.81		0.98					



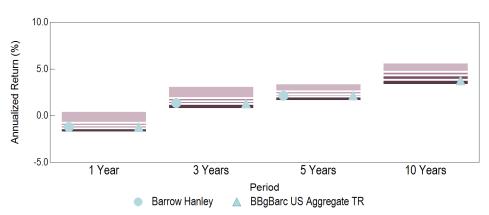
Barrow Hanley

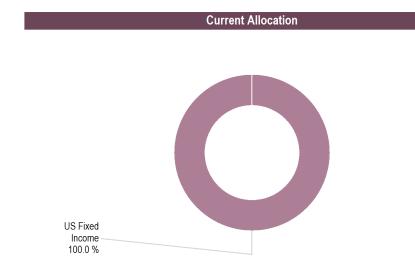
As of September 30, 2018

Information Ratio



	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Barrow Hanley	-1.2	1.4	2.1	
BBgBarc US Aggregate TR	-1.2	1.3	2.2	3.8
eV US Core Fixed Inc Net Median	-1.1	1.6	2.3	4.3
eV US Core Fixed Inc Net Rank	66	67	71	





Anzld. Std. Deviation

	Barrow Hanley	Barrow Hanley	Barrow Hanley
10.0		10.0	10.0
			5.0
5.0		5.0	0.0 0.2 -0.1
	2.2		-5.0
0.0	1 Yr 3 Yrs 5 Yrs	0.1 0.2 0.2 1 Yr 3 Yrs 5 Yrs	-10.0 1 Yr 3 Yrs 5 Yrs

Tracking Error



Barrow Hanley

	Account Information	Fixed Income Cha	racteristics		Fixed Income Char	acteristics	
Account Name	Barrow Hanley		Portfolio	Index		Portfolio	Index
Account Structure	Separate Account		Q3-18	Q3-18		Q3-18	Q3-18
Investment Style	Active						
Inception Date	3/31/10	Fixed Income Characteristics			Credit Quality Allocation		
Account Type	US Fixed Income Core	Yield to Maturity	3.47	3.45	AAA	57.50	71.93
Benchmark	BBgBarc US Aggregate TR		5.94	6.03	AA	5.00	3.73
Universe	eV US Core Fixed Inc Net	Average Quality	AA	AA	A	17.50	10.84
		Weighted Average Maturity	7.53	12.94	BBB	17.30	13.51
					Not Rated	2.70	



Vanguard Short-Term Treasury Index Fund

As of September 30, 2018

Description:

The investment seeks to track the performance of a market-weighted government bond index with a short-term dollar-weighted average maturity.

The fund employs an indexing investment approach designed to track the performance of the Bloomberg Barclays US Treasury 1-3 Year Bond Index. This index includes fixed income securities issued by the U.S. Treasury (not including inflation-protected securities), all with maturities between 1 and 3 years. At least 80% of the fund's assets will be invested in bonds included in the index.

Portfolio Fund Information	as of September 30, 2018	Top Holdings as of September 30, 2018	3	Fund Characteristics as of Septem	ber 30, 2018
Ticker	VSBIX	UNITED STATES TREASURY NOTES 2.62%	2.61%	Sharpe Ratio (3 Year)	
Morningstar Category	Short Government	UNITED STATES TREASURY NOTES 1.5%	2.50%	Average Duration	1.93
Average Market Cap (\$mm)		UNITED STATES TREASURY NOTES 1.5%	2.33%	Effective Duration	1.93
Net Assets (\$mm)	554.57	UNITED STATES TREASURY NOTES 2.25%	2.27%	Modified Duration	
% Assets in Top 10 Holdings	21.31	UNITED STATES TREASURY NOTES 2.12%	2.05%	Average Coupon	1.93%
Total Number of Holdings	93	UNITED STATES TREASURY NOTES 1.5%	2.04%	Average Effective Maturity	2.00
Manager Name	Joshua C. Barrickman	UNITED STATES TREASURY NOTES 2%	1.94%	R-Squared (3 Year)	
Manager Tenure	6	UNITED STATES TREASURY NOTES 1.25%	1.90%	Alpha (3 Year)	
Expense Ratio	0.05%	UNITED STATES TREASURY NOTES 1.38%	1.89%	Beta (3 Year)	
Closed to New Investors	No	UNITED STATES TREASURY NOTES 1.38%	1.78%		

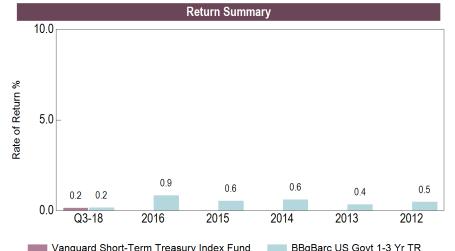
Maturities as of September 30, 201	8	Fixed Income Sectors as of	September 30, 2018	Credit Quality	as of September 30, 2018
1 to 3 Years	98.19%	GOVERNMENT	99.34%	AAA	100.00%
3 to 5 Years	1.81%	MUNICIPAL	0.00%	AA	0.00%
5 to 7 Years	0.00%	CORPORATE	0.00%	Α	0.00%
7 to 10 Years	0.00%	SECURITIZED	0.00%	BBB	0.00%
10 to 15 Years	0.00%	CASH & EQUIVALENTS	0.66%	BB	0.00%
15 to 20 Years	0.00%	DERIVATIVE	0.00%	В	0.00%
20 to 30 Years	0.00%			Below B	0.00%
Greater than 30 Years	0.00%			Not Rated	0.00%



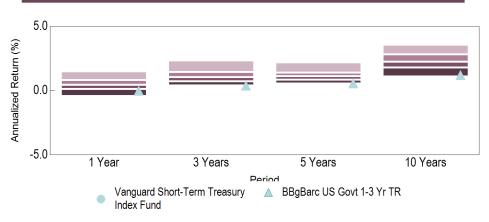
Vanguard Short-Term Treasury Index Fund

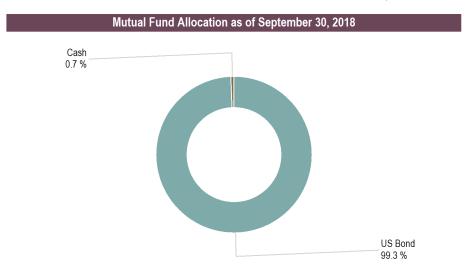
As of September 30, 2018

Information Ratio



valigatia offort Termi Treadary maex	BBgBaile de Covi i o ii iiv			
	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Vanguard Short-Term Treasury Index Fund				
BBgBarc US Govt 1-3 Yr TR	0.0	0.4	0.6	1.2
eV US Short Duration Fixed Inc Net Median	0.4	1.1	1.1	2.2
eV US Short Duration Fixed Inc Net Rank				





	Vanguard Short-Term Treasury Index Fund		/anguard Short-Term Treasury Index Fund		Vanguard Short-Term Treasury Index Fund
10.0		10.0		10.0	
				5.0	
5.0		5.0		0.0	-0.2
				-5.0	
0.0	0.8 Qtr.	0.0	0.1 Qtr.	-10.0	Qtr.

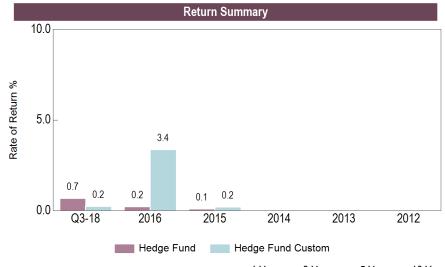
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Anzld. Std. Deviation

Hedge Fund

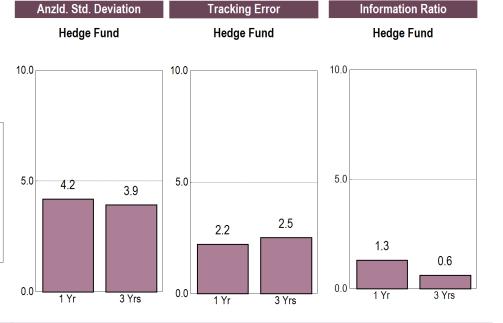
As of September 30, 2018



Winter	Graham Absolute
Winton	Return
7.3 %	KLS Diversified 12.4 %
Wellington-A- rchipelago 14.6 %	Laurion Capital 11.7 %
	Marshall Wace
	Eureka
Silver Point	7.4 %
Capital 17.0 %	OZ Domestic
17.5 70	II 22.7 %

Current Allocation

	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Hedge Fund	6.3	5.6		
Hedge Fund Custom	3.4	4.1		
InvestorForce All DB Hedge Funds Net Median	4.4	3.6	3.6	3.8
InvestorForce All DB Hedge Funds Net Rank	26	14		



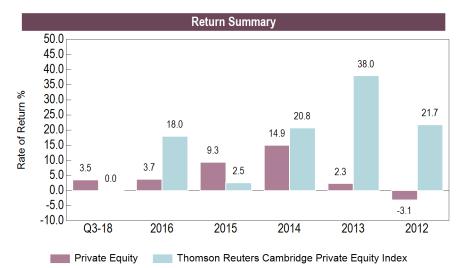




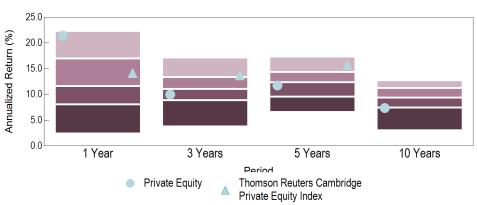
Private Equity

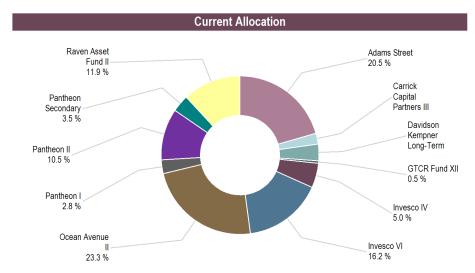
As of September 30, 2018

Information Ratio



	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Private Equity	21.4	10.0	11.7	7.3
Thomson Reuters Cambridge Private Equity Index	14.2	13.7	15.8	
InvestorForce All DB Private Eq Net Median	11.7	11.1	12.4	9.4
InvestorForce All DR Private Fo Net Rank	7	59	55	77





Priv	vate Equity	Private Equity	Private Equity
20.0		20.0	10.0
15.0		15.0 13.5 12.2 11.9	5.0
10.0 8.8	6.5 7.1	10.0	0.0
5.0		5.0-	-5.0
0.0 1 Yr	3 Yrs 5 Yrs	0.0 1 Yr 3 Yrs 5 Yrs	-10.0 1 Yr 3 Yrs 5 Yrs

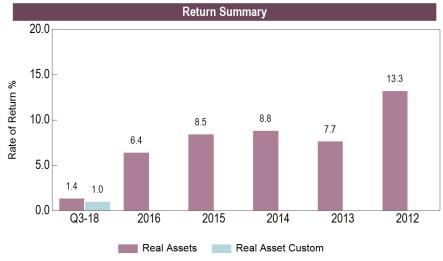
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Anzld. Std. Deviation

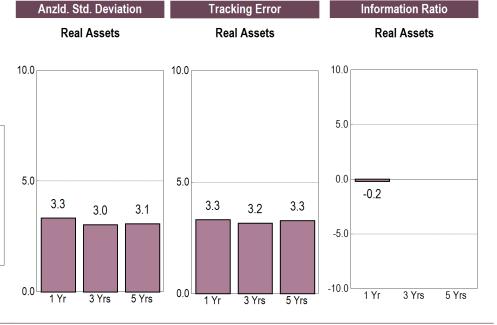
Real Assets

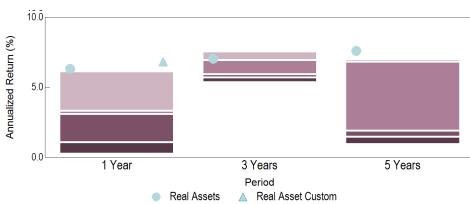
As of September 30, 2018



Current Allocation			
UBS Trumbull Property 35.7 %	Carlyle EnCap IV EnCap XI		
Taurus Mining Annex 1.3 %	Greenfield GSO Energy ISQ Global KKR Global II		
Taurus Mining 1.9 %	Patron SSgA		

	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Real Assets	6.3	7.0	7.6	
Real Asset Custom	6.8			
eV Liquid Real Assets Net Median	3.1	5.9	1.9	
eV Liquid Real Assets Net Rank	5	24	1	







Disclaimer, Glossary, and Notes

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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.



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.

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.

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.

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%.

Sources: <u>Investment Terminology</u>, International Foundation of Employee Benefit Plans, 1999. <u>The Handbook of Fixed Income Securities</u>, Fabozzi, Frank J., 1991. The Russell Indices®, TM, SM are trademarks/service marks of the Frank Russell Company.

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.

