

### City of Miami Fire Fighters' and Police Officers' Retirement Trust

February 18, 2022

**Investment Meeting** 





Agenda

### Agenda

- 1. Performance Report as of December 31, 2021
- 2. The Fed and Rates
- 3. Asset Study/Asset Allocation Review
- 4. International Equity
- 5. Follow Ups From Last Investment Meeting
- 6. 2021 Markets Review
- 7. Disclaimer

MEKETA INVESTMENT GROUP 2 of 102

# Performance Report as of December 31, 2021



# City of Miami Firefighters' and Police Officers' Retirement Trust Executive Summary

#### Q4 2021 Executive Summary

Category	Results	Notes
Total Fund Performance	Positive	5.6% net of fees (~\$101 mm)
Performance vs. Benchmark	Outperformed	5.6% net of fees vs. 4.8% policy benchmark
Performance vs. Peers	Outperformed	1st percentile (5.6% vs. 4.0% peer median)
Asset Allocation Attribution Effects	Additive	Overweight Private and U.S. Equity, Underweight Investment Grade Bonds vs. targets
Active Public¹ Managers vs. Benchmarks	Outperformed	7 out of 11 active managers beat/matched their respective benchmarks after fees
Compliance with Targets	In Compliance	All exposure within policy ranges

MEKETA INVESTMENT GROUP 4 of 102

<sup>&</sup>lt;sup>1</sup> All strategies that have liquidity, i.e. Includes open-end real estate, but not closed-end real estate, private equity, infrastructure.

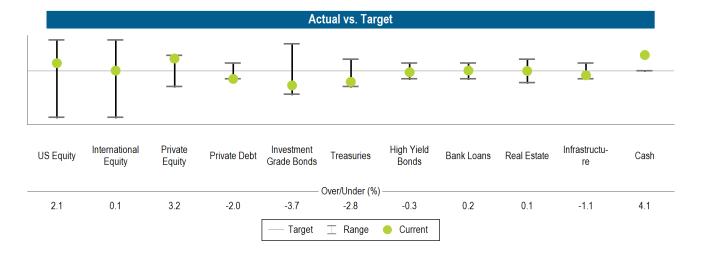


#### Total Plan | As of December 31, 2021



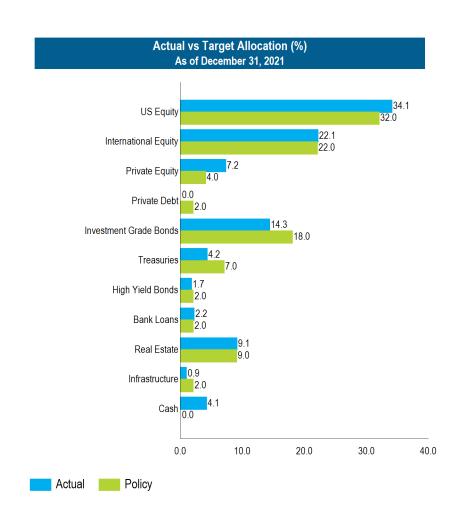
	Allocation vs. Targ	ets and Polic	у		
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	\$650,236,926	34%	32%	20% - 40%	Yes
International Equity	\$422,617,625	22%	22%	10% - 30%	Yes
Private Equity	\$138,173,470	7%	4%	0% - 8%	Yes
Private Debt	\$0	0%	2%	0% - 4%	Yes
Investment Grade Bonds	\$273,475,191	14%	18%	12% - 25%	Yes
Treasuries	\$81,014,908	4%	7%	3% - 10%	Yes
High Yield	\$32,829,591	2%	2%	0% - 4%	Yes
Bank Loans	\$41,204,314	2%	2%	0% - 4%	Yes
Real Estate	\$172,902,945	9%	9%	6% - 12%	Yes
Infrastructure	\$17,566,080	1%	2%	0% - 4%	Yes
Cash & Cash Alternatives	\$79,233,013	4%	0%	0% - 5%	Yes
Total	\$1,909,254,064	100%	100%		

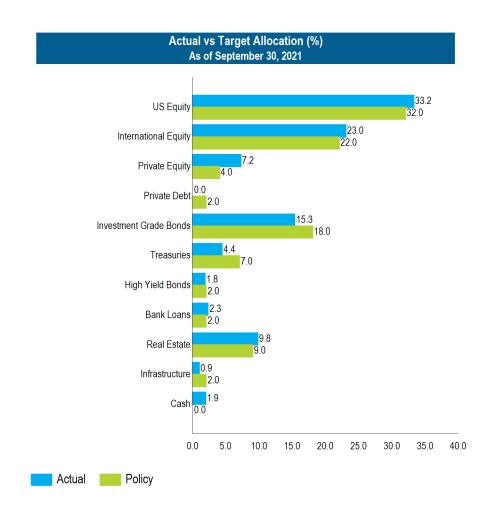
Throughout the entire report, cash includes investment in the BlackRock Liquid Policy portfolio.





#### Total Plan | As of December 31, 2021

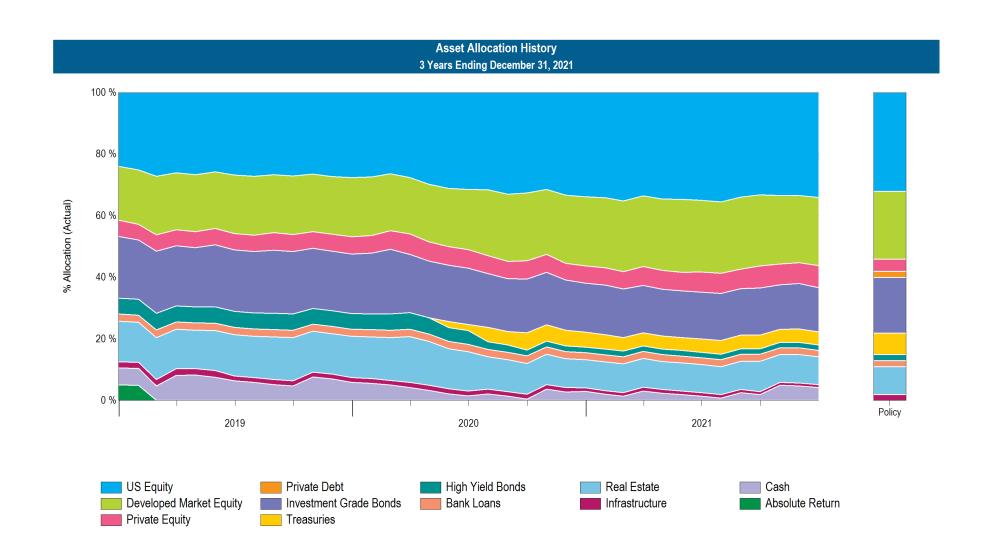




MEKETA INVESTMENT GROUP 6 of 102







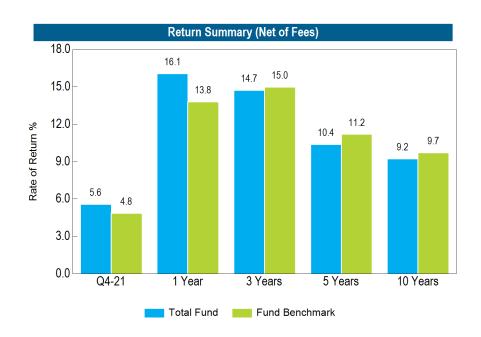


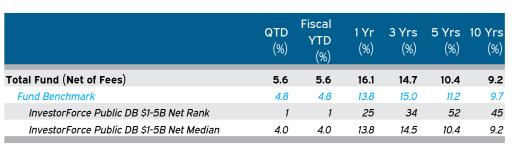
#### Total Plan | As of December 31, 2021

5 Yrs

10 Yrs

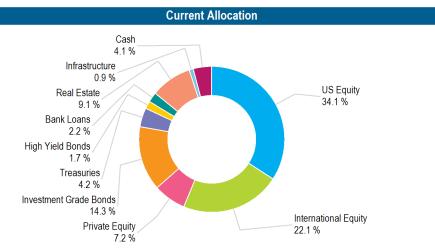
3 Yrs





As of 1/1/2020, the total fund benchmark consists of 32% Russell 3000, 22% MSCI ACWI ex US, 9% NCREIF ODCE, 4% Private Equity Benchmark, 2% Barclays US High Yield 1Q Lagged + 2%, 18% Barclays US Aggregate, 2% Credit Suisse Leveraged Loans, 2% ICE BofA Merrill Lynch US High Yield, 7% Barclays US Long Treasury, and 2% Consumer Price Index + 5%

Benchmark returns prior to 9/30/2019 provided by prior consultant.

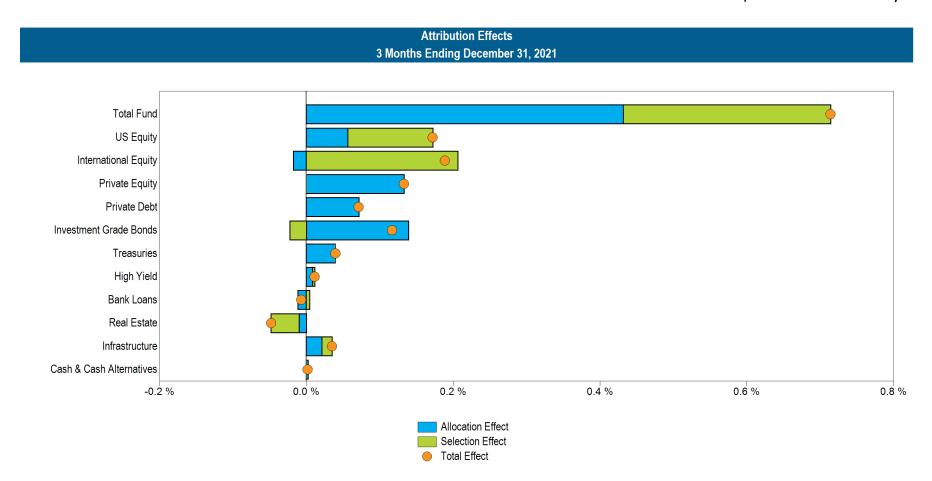


Annual	ized Stand	ard Deviati	on		Sharpe R	atio	
	Total Fu	ınd			Total Fu	nd	
11.0				1.6			
10.0				1.4			
9.0							
8.0				1.2			
7.0			-	1.0			_
6.0				0.8			
5.0				0.0			
4.0				0.6			-
3.0				0.4			
2.0				0.2			

1.0



#### Total Plan | As of December 31, 2021



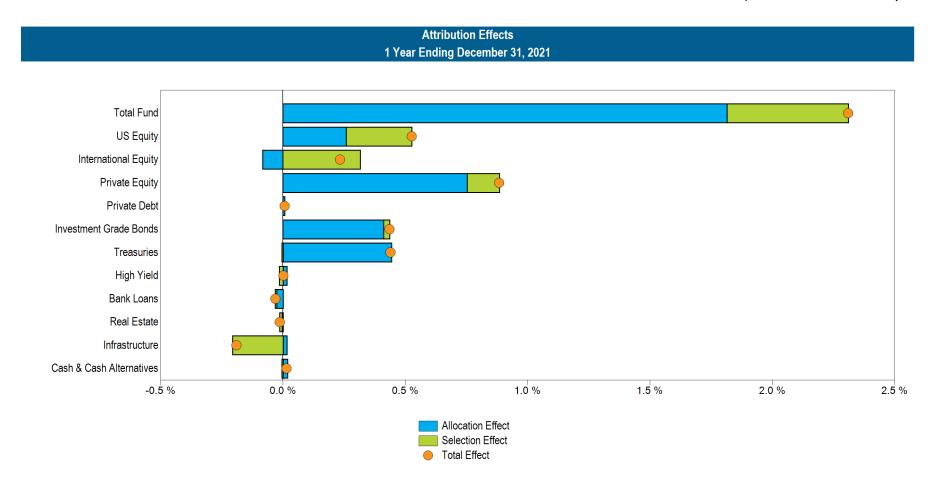
	Wtd. Actual	Wtd. Index	Excess	Selection	Allocation	Total
	Return	Return	Return	Effect	Effect	Effects
Total	5.6%	4.4%	1.2%	1.0%	0.1%	1.2%

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.

MEKETA INVESTMENT GROUP 9 of 102



#### Total Plan | As of December 31, 2021



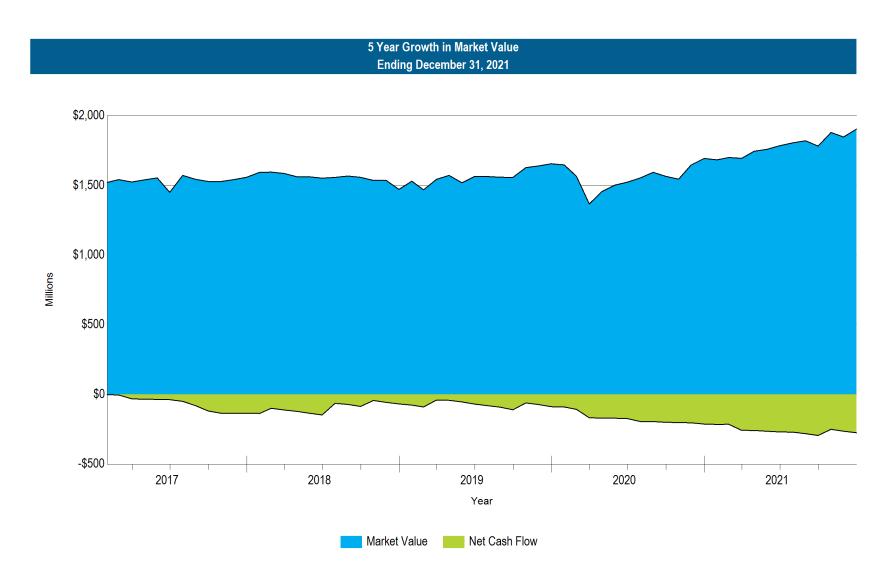
	Wtd. Actual	Wtd. Index	Excess	Selection	Allocation	Total
	Return	Return	Return	Effect	Effect	Effects
Total	16.2%	13.3%	2.8%	1.3%	1.5%	2.8%

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.

MEKETA INVESTMENT GROUP 10 of 102

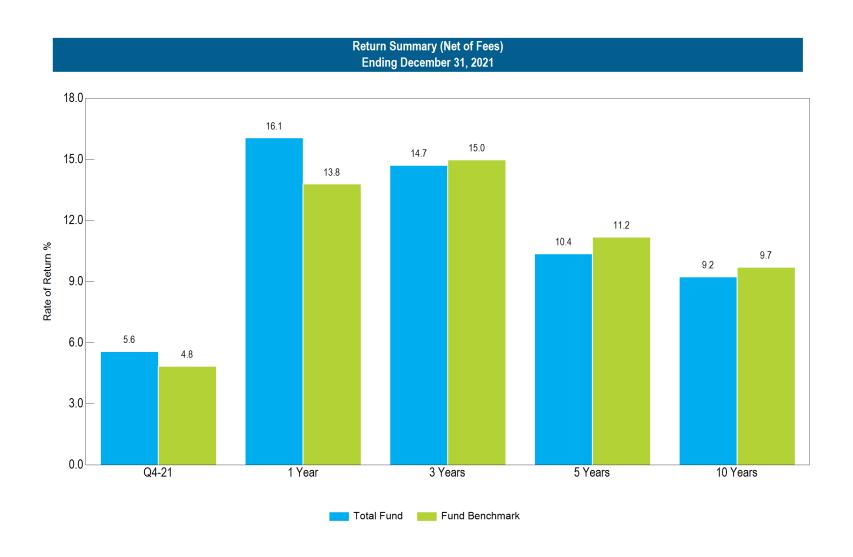




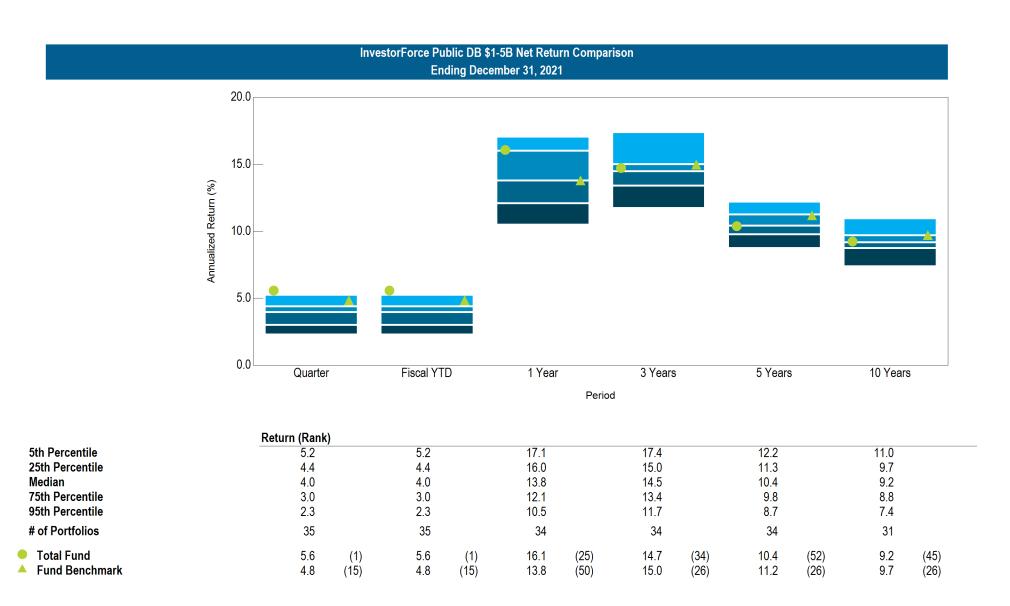














Total Plan | As of December 31, 2021

	Asset Class Performance	Summary	(Net of I	Fees)					
	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
Total Fund	1,909,254,064	100.0	5.6	16.1	14.7	10.4	9.2	Jan-94	8.4
Fund Benchmark	- 1		4.8	13.8	15.0	11.2	9.7	Jan-94	8.1
US Equity	650,236,926	34.1	9.6	26.5	23.8	16.4	15.4	Jan-94	
Russell 3000			9.3	25.7	25.8	18.0	16.3	Jan-94	10.7
International Equity	422,617,625	22.1	2.7	9.2	15.5	11.4	8.9	Jan-94	
MSCI ACWI ex USA	- 1		1.8	7.8	13.2	9.6	7.3	Jan-94	
Private Equity	138,173,470	7.2	10.1	56.8	24.6	19.2	14.4	Jan-94	
Private Equity Benchmark	- 1		10.1	54.1	25.7	22.1	17.4	Jan-94	
Investment Grade Bonds	273,475,191	14.3	-0.1	-1.4	4.9	3.7	3.1	Jan-94	5.1
Bloomberg US Aggregate TR			0.0	<i>-1.5</i>	4.8	<i>3.6</i>	2.9	Jan-94	<i>5.1</i>
Treasuries	81,014,908	4.2	3.1	-4.6				Jun-20	-4.5
Bloomberg US Govt Long TR	- 1		3.0	-4.6	8.8	6.5	4.5	Jun-20	-4.6
High Yield	32,829,591	1.7	0.8	4.7	8.7	6.4	6.8	Jan-94	
ICE BofA US High Yield TR			0.7	5.4	8.6	6.1	6.7	Jan-94	7.1
Bank Loans	41,204,314	2.2	0.9	5.2	5.5	4.3		Jan-94	
Credit Suisse Leveraged Loans			0.7	5.4	5.4	4.3	4.8	Jan-94	<i>5.3</i>
Real Estate	172,902,945	9.1	7.7	22.5	9.2	7.9	9.7	Jan-94	
NCREIF ODCE	- 1		8.0	22.2	9.2	8.7	10.4	Jan-94	9.1
Infrastructure	17,566,080	0.9	4.3	-5.9	1.7			Jan-94	
CPI + 500 bps	- 1		2.9	12.4	8.7	8.1		Jan-94	
Cash & Cash Alternatives	79,233,013	4.1	5.3	15.1	15.9	11.0		Jan-94	
BlackRock Custom Benchmark			<i>5.3</i>	<i>15.2</i>	16.0	11.2		Jan-94	

Fiscal year end is September 30.

MEKETA INVESTMENT GROUP 14 of 102



Total Plan | As of December 31, 2021

	Performance Summ	ary (Net	of Fees)						
	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
Total Fund	1,909,254,064		5.6	16.1	14.7	10.4	9.2	Jan-94	8.4
Fund Benchmark			4.8	13.8	15.0	11.2	9.7	Jan-94	8.1
InvestorForce Public DB \$1-5B Net Median			4.0	13.8	14.5	10.4	9.2	Jan-94	7.8
InvestorForce Public DB \$1-5B Net Rank			1	25	34	52	45	Jan-94	1
US Equity	650,236,926	34.1	9.6	26.5	23.8	16.4	15.4	Jan-94	
Russell 3000			9.3	25.7	25.8	18.0	16.3	Jan-94	10.7
Northern Trust S&P500 Index Fund	458,945,198	70.6	11.0	28.7				Aug-20	32.4
S&P 500			11.0	28.7	26.1	18.5	16.6	Aug-20	32.4
Boston Partners Mid Cap Value	57,803,837	8.9	7.8	27.3	20.7	11.7	14.7	Jun-98	10.2
Russell MidCap Value			<i>8.5</i>	28.3	19.6	11.2	13.4	Jun-98	9.7
eV US Mid Cap Value Equity Net Median			8.1	<i>28.3</i>	19.5	11.0	13.0	Jun-98	10.2
eV US Mid Cap Value Equity Net Rank			58	59	36	37	11	Jun-98	52
Champlain Mid Cap	60,002,362	9.2	6.6	25.7	27.9	21.1	18.3	Jul-09	18.1
Russell MidCap			6.4	22.6	23.3	<i>15.1</i>	14.9	<i>Jul</i> -09	15.9
eV US Mid Cap Core Equity Net Median			8.4	26.2	22.1	14.4	14.5	Jul-09	<i>15.2</i>
eV US Mid Cap Core Equity Net Rank			81	58	13	3	1	Jul-09	4
Champlain Small Cap	73,485,529	11.3	5.2	13.3	21.3	14.2	14.9	Jan-04	12.6
Russell 2000			2.1	14.8	20.0	12.0	13.2	Jan-04	9.5
eV US Small Cap Core Equity Net Median			6.0	23.9	21.7	13.3	13.8	Jan-04	10.4
eV US Small Cap Core Equity Net Rank			62	96	56	31	24	Jan-04	2

MEKETA INVESTMENT GROUP 15 of 102



#### Total Plan | As of December 31, 2021

	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
International Equity	422,617,625	22.1	2.7	9.2	15.5	11.4	8.9	Jan-94	
MSCI ACWI ex USA			1.8	7.8	13.2	9.6	7.3	Jan-94	
Northern Trust EAFE Index Fund	147,137,092	34.8	3.2	11.5				Aug-20	22.1
MSCI EAFE			<i>2</i> .7	11.3	13.5	9.5	8.0	Aug-20	21.8
Wellington International Quality Growth (IQG)	140,273,502	33.2	2.7	10.2	20.6	16.4		Nov-14	11.8
MSCI ACWI ex USA Growth			2.4	<i>5.1</i>	17.8	13.1	9.1	Nov-14	8.5
eV ACWI ex-US Growth Equity Net Median			1.3	9.1	21.6	15.3	11.0	Nov-14	10.6
eV ACWI ex-US Growth Equity Net Rank			35	42	60	34		Nov-14	29
First Eagle International Value	135,152,755	32.0	2.3	5.6	9.6	6.4	6.6	Apr-11	5.4
MSCI EAFE Value			1.2	10.9	7.8	<i>5.3</i>	<i>5.8</i>	Apr-11	<i>3.7</i>
MSCI EAFE			2.7	11.3	13.5	9.5	8.0	Apr-11	5.8
eV EAFE Value Equity Net Median			1.3	11.7	10.7	7.0	7.2	Apr-11	5.4
eV EAFE Value Equity Net Rank			35	95	81	<i>75</i>	76	Apr-11	51
Private Equity	138,173,470	7.2	10.1	56.8	24.6	19.2	14.4	Jan-94	
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	Jan-94	
Adams Street 2012 Global Fund	16,791,305	12.2	8.7	64.7	30.6	24.4		Jul-12	10.4
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Jul-12	17.4
Adams Street Venture Innovation Fund	13,092,119	9.5	19.5	171.2	64.8			Dec-17	31.7
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Dec-17	23.8
Catalyst III	4,638,447	3.4	20.0	40.0	15.6	12.7		Oct-12	16.0
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Oct-12	17.8

MEKETA INVESTMENT GROUP 16 of 102



Total Plan | As of December 31, 2021

	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
Catalyst IV	12,050,717	8.7	4.6	52.1	40.6	30.3		Nov-15	22.7
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Nov-15	19.3
Coller Fund V	488,243	0.4	2.8	0.8	-19.6	-12.1	-3.4	Sep-07	0.5
Private Equity Benchmark			10.1	<i>54.1</i>	25.7	22.1	17.4	Sep-07	12.7
Coller Fund VI	3,359,489	2.4	10.4	58.1	20.3	18.9		Oct-12	22.2
Private Equity Benchmark			10.1	<i>54.1</i>	25.7	22.1	17.4	Oct-12	17.8
Coller Fund VII	7,543,468	5.5	11.4	54.1	18.2	33.7		Oct-16	32.9
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	Oct-16	21.8
Coller Fund VIII	7,212,231	5.2	13.6	88.3				Jun-20	56.9
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	Jun-20	41.1
JP Morgan Global Fund V	11,842,259	8.6	10.8	65.4	27.5	22.5		May-14	21.9
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	May-14	18.1
JP Morgan Global Fund VI	15,396,209	11.1	9.7	36.4	16.4			Dec-17	24.4
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	Dec-17	23.8
JP Morgan Global Fund VIII	11,257,824	8.1	6.4	23.2				Mar-19	11.6
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	Mar-19	27.4
JPMorgan US Corporate Finance III	964,292	0.7	21.8	99.7	42.6	27.6	22.4	Oct-06	
Private Equity Benchmark			10.1	54.1	<i>25.</i> 7	22.1	17.4	Oct-06	13.8

MEKETA INVESTMENT GROUP 17 of 102



Total Plan | As of December 31, 2021

	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
JPMorgan European Corporate Finance III	272,927	0.2	27.9	85.6	25.6	20.1	14.3	Oct-06	
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Oct-06	13.8
JPMorgan Venture Capital Fund III	2,110,053	1.5	9.7	58.7	19.0	14.7	12.4	Oct-06	
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Oct-06	13.8
Lexington Capital Partners VI-B	682,807	0.5	4.1	32.5	9.2	9.4	8.3	Oct-06	10.5
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Oct-06	13.8
Lexington Capital Partners VIII	10,254,819	7.4	8.6	48.5	18.4	22.4		Aug-15	18.9
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Aug-15	19.4
Lexington Capital Partners IX	12,494,531	9.0	11.7	60.9				Mar-19	
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Mar-19	27.4
Pantheon USA Fund VII	2,227,499	1.6	4.3	44.0	18.8	15.5	14.1	Sep-07	10.1
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Sep-07	12.7
Pantheon Europe Fund V-B	471,005	0.3	-0.4	16.8	22.5	19.1	14.1	Jan-07	
Private Equity Benchmark			10.1	54.1	<i>25.7</i>	22.1	17.4	Jan-07	13.7
Standard Life Europe Smaller Funds I	5,023,227	3.6	1.4	13.4	9.9	7.4		Oct-12	-21.1
Private Equity Benchmark			10.1	54.1	25.7	22.1	17.4	Oct-12	17.8

MEKETA INVESTMENT GROUP 18 of 102



#### Total Plan | As of December 31, 2021

	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
Investment Grade Bonds	273,475,191	14.3	-0.1	-1.4	4.9	3.7	3.1	Jan-94	5.1
Bloomberg US Aggregate TR			0.0	-1. <b>5</b>	4.8	3.6	2.9	Jan-94	5.1
NT US Aggregate Bond	202,386,611	74.0	0.0	-1.6				Aug-20	-1.3
Bloomberg US Aggregate TR			0.0	-1.5	4.8	3.6	2.9	Aug-20	-1.2
Dodge & Cox Core Fixed Income	71,088,580	26.0	-0.4	-0.7	5.8	4.1	3.9	Jan-02	4.9
Bloomberg US Aggregate TR			0.0	-1. <b>5</b>	4.8	<i>3.6</i>	2.9	Jan-02	4.3
eV US Core Fixed Inc Net Median			-0.1	-1.5	5.2	3.8	3.3	Jan-02	4.6
eV US Core Fixed Inc Net Rank			92	16	18	25	10	Jan-02	20
Treasuries	81,014,908	4.2	3.1	-4.6			-	Jun-20	-4.5
Bloomberg US Govt Long TR			3.0	-4.6	8.8	6.5	4.5	Jun-20	-4.6
NT Long-Term Gov. Bond Index Fund	81,014,908	100.0	3.1	-4.6				Jun-20	-4.5
Bloomberg US Govt Long TR			3.0	-4.6	8.8	6.5	4.5	Jun-20	-4.6
High Yield	32,829,591	1.7	0.8	4.7	8.7	6.4	6.8	Jan-94	
ICE BofA US High Yield TR			0.7	5.4	8.6	6.1	6.7	Jan-94	7.1
AXA High Yield	32,829,591	100.0	0.8	4.7	8.6	6.4		Mar-14	5.1
ICE BofA US High Yield TR			0.7	5.4	8.6	6.1	6.7	Mar-14	<i>5.3</i>
eV US High Yield Fixed Inc Net Median			0.6	5.0	8.3	5.8	6.5	Mar-14	5.0
eV US High Yield Fixed Inc Net Rank			23	57	39	21	-	Mar-14	42

MEKETA INVESTMENT GROUP 19 of 102



Total Plan | As of December 31, 2021

	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
Bank Loans	41,204,314	2.2	0.9	5.2	5.5	4.3		Jan-94	
Credit Suisse Leveraged Loans			0.7	5.4	5.4	4.3	4.8	Jan-94	5.3
Pacific Asset Management	41,204,314	100.0	0.9	5.2	5.5	4.3		May-14	4.2
Credit Suisse Leveraged Loans			0.7	5.4	5.4	4.3	4.8	May-14	4.1
eV US Float-Rate Bank Loan Fixed Inc Net Median			0.6	4.6	4.7	<i>3.6</i>	4.2	May-14	<i>3.5</i>
eV US Float-Rate Bank Loan Fixed Inc Net Rank			12	31	25	13	-	May-14	9
Real Estate	172,902,945	9.1	7.7	22.5	9.2	7.9	9.7	Jan-94	
NCREIF ODCE			8.0	22.2	9.2	8.7	10.4	Jan-94	9.1
Centersquare Value Fund III	162,493	0.1	118.2	195.3	56.4	34.0		Apr-15	26.2
NCREIF Property +300bps 1QLAG			6.0	15.5	9.9	10.0		<i>Apr-15</i>	11.2
Centersquare Value Fund IV	18,125,878	10.5	5.3	28.0	1.9			Oct-18	-2.0
NCREIF Property +300bps IQLAG			6.0	15.5	9.9	10.0		Oct-18	9.9
JP Morgan SPF	121,300,502	70.2	7.9	19.9	7.6	7.2	9.3	Jan-10	
NCREIF ODCE			8.0	22.2	9.2	8.7	10.4	Jan-10	11.4
JP Morgan SSPF	29,964,072	17.3	7.2	22.6	9.5	9.2	11.5	Jan-10	
NCREIF ODCE + 100bps			8.4	23.8	10.5	9.9	11.1	Jan-10	11.9
Retirement Office	3,350,000	1.9							

MEKETA INVESTMENT GROUP 20 of 102



#### Total Plan | As of December 31, 2021

	Market Value (\$)	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. Date	S.I. (%)
Infrastructure	17,566,080	0.9	4.3	-5.9	1.7			Jan-94	
CPI + 500 bps			2.9	12.4	8.7	8.1		Jan-94	
BlackRock NTR Renewable Power Fund	3,216,544	18.3	-3.7	-33.6	-9.2	-4.5		Apr-13	-2.7
CPI + 500 bps			<i>2</i> .9	12.4	8.7	8.1		Apr-13	7.2
BlackRock Global Renewable Power Fund II	14,349,536	81.7	6.3	3.9	3.3	2.6		Sep-16	2.5
CPI + 500 bps			<i>2</i> .9	12.4	8.7	8.1		Sep-16	7.9
Cash & Cash Alternatives	79,233,013	4.1	5.3	15.1	15.9	11.0	-	Jan-94	
BlackRock Custom Benchmark			5.3	<i>15.2</i>	16.0	11.2		Jan-94	
BlackRock Liquid Policy Portfolio	73,479,534	92.7	5.3	15.1	15.9	11.0		Jul-14	8.5
BlackRock Custom Benchmark			5.3	<i>15.2</i>	16.0	11.2		Jul-14	8.6
Main Account	5,753,479	7.3							

MEKETA INVESTMENT GROUP 21 of 102



Total Plan | As of December 31, 2021

Asset Class Performance Summary (Net of Fees)										
	Fiscal YTD (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)
Total Fund	5.6	19.7	6.3	4.8	6.7	9.0	8.6	1.9	8.3	11.9
Fund Benchmark	4.8	18.5	9.1	6.1	7.2	10.8	9.9	0.1	9.1	11.4
US Equity	9.6	32.8	8.7	1.1	18.7	16.9	13.9	2.1	14.0	24.8
Russell 3000	9.3	31.9	15.0	2.9	17.6	18.7	15.0	-0.5	17.8	21.6
Northern Trust S&P500 Index Fund	11.0	30.0								
S&P 500	11.0	30.0	15.1	4.3	17.9	18.6	15.4	-0.6	19.7	19.3
Boston Partners Mid Cap Value	7.8	44.0	-7.5	2.3	7.8	16.1	15.4	5.3	17.4	31.6
Russell MidCap Value	8.5	42.4	-7.3	1.6	8.8	13.4	17.3	-2.1	17.5	27.8
Champlain Mid Cap	6.6	39.2	17.7	6.0	24.7	17.6	21.0	1.2	13.2	27.8
Russell MidCap	6.4	38.1	4.6	3.2	14.0	15.3	14.2	-0.2	15.8	27.9
Champlain Small Cap	5.2	36.2	5.4	-4.6	23.5	19.4	24.7	4.0	2.6	28.8
Russell 2000	2.1	47.7	0.4	-8.9	15.2	20.7	15.5	1.2	3.9	30.1
International Equity	2.7	20.1	8.4	1.8	3.5	14.2	11.3	-2.4	4.7	16.3
MSCI ACWI ex USA	1.8	23.9	3.0	-1.2	1.8	19.6	9.3	-12.2	4.8	16.5
Northern Trust EAFE Index Fund	3.2	25.5								
MSCI EAFE	2.7	<i>25.7</i>	0.5	-1.3	<i>2.</i> 7	19.1	6.5	-8.7	4.3	23.8
Wellington International Quality Growth (IQG)	2.7	20.8	19.9	1.3	8.0	20.0	10.5			
MSCI ACWI ex USA Growth	2.4	17.0	17.5	2.0	3.1	17.7	11.5	-8.1	4.3	16.2
First Eagle International Value	2.3	13.7	0.9	4.2	-0.7	8.4	14.4	-4.5	5.0	14.0
MSCI EAFE Value	1.2	30.7	-11.9	-4.9	-0.4	22.5	<i>3.5</i>	-12.6	<i>5.7</i>	24.3

MEKETA INVESTMENT GROUP 22 of 102



#### Total Plan | As of December 31, 2021

	Fiscal YTD (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)
Private Equity	10.1	56.5	4.1	11.6	14.1	6.9	6.4	11.4	16.9	8.2
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Adams Street 2012 Global Fund	8.7	74.9	7.1	15.1	16.6	11.0	7.2	5.6	10.4	-17.5
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Adams Street Venture Innovation Fund	19.5	147.5	22.6	20.3						
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Catalyst III	20.0	24.3	-4.7	11.8	8.2	7.0	13.2	14.6	21.6	35.6
Private Equity Benchmark	10.1	<i>54.6</i>	8.4	11.3	16.6	17.6	5.4	11.8	<i>21.5</i>	12.6
Catalyst IV	4.6	59.7	47.5	16.7	14.6	17.3				
Private Equity Benchmark	10.1	<i>54.6</i>	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Coller Fund V	2.8	-12.7	-42.9	3.0	-9.7	2.8	-4.3	21.8	20.9	2.1
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	<i>21.5</i>	12.6
Coller Fund VI	10.4	57.5	-12.2	13.9	23.0	7.6	15.3	7.9	30.2	71.4
Private Equity Benchmark	10.1	<i>54.6</i>	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Coller Fund VII	11.4	47.5	-3.2	6.0	63.0	62.0				
Private Equity Benchmark	10.1	<i>54.6</i>	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Coller Fund VIII	13.6	87.1								
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
JP Morgan Global Fund V	10.8	59.8	-7.3	36.9	13.5	9.1	27.2	30.1		
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
JP Morgan Global Fund VI	9.7	34.8	3.9	0.7						
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6
JP Morgan Global Fund VIII	6.4	20.2	7.0							
Private Equity Benchmark	10.1	54.6	8.4	11.3	16.6	17.6	5.4	11.8	21.5	12.6

MEKETA INVESTMENT GROUP 23 of 102



#### Total Plan | As of December 31, 2021

	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal	Fiscal
	YTD	2021	2020	2019	2018	2017	2016	2015	2014	2013
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
JPMorgan US Corporate Finance III  Private Equity Benchmark	21.8	107.9	14.8	-1.6	-0.3	23.5	4.6	26.8	20.6	13.6
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	11.3	<i>16.6</i>	17.6	<i>5.4</i>	<i>11.8</i>	<i>21.5</i>	<i>12.6</i>
JPMorgan European Corporate Finance III  Private Equity Benchmark	27.9	42.3	8.2	4.2	10.3	12.9	10.0	-6.7	26.6	12.4
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	11.3	<i>16.6</i>	<i>17.6</i>	<i>5.4</i>	<i>11.8</i>	<i>21.5</i>	<i>12.6</i>
JPMorgan Venture Capital Fund III  Private Equity Benchmark	9.7	57.7	0.5	0.5	10.7	5.1	-6.2	19.2	24.6	8.4
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	<i>11.3</i>	<i>16.6</i>	17.6	<i>5.4</i>	<i>11.8</i>	<i>21.5</i>	12.6
Lexington Capital Partners VI-B  Private Equity Benchmark	4.1	30.4	-6.6	2.6	12.7	3.5	-2.3	6.1	20.0	12.4
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	11.3	<i>16.6</i>	17.6	<i>5.4</i>	<i>11.8</i>	<i>21.5</i>	<i>12.6</i>
Lexington Capital Partners VIII  Private Equity Benchmark	8.6	51.9	-1.0	3.1	42.4	15.1	10.0		<u></u>	<u></u>
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	<i>11.3</i>	<i>16.6</i>	<i>17.6</i>	<i>5.4</i>	11.8	21.5	12.6
Lexington Capital Partners IX  Private Equity Benchmark	11.7	63.9	-15.5	<u></u>	<u></u>	<u></u>	<u></u>		<u></u>	<u></u>
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	11.3	16.6	17.6	5.4	11.8	21.5	12.6
Pantheon USA Fund VII Private Equity Benchmark	4.3	55.2	9.8	-9.3	13.8	14.5	7.2	9.2	20.7	16.7
	10.1	<i>54.6</i>	<i>8.4</i>	<i>11.3</i>	<i>16.6</i>	<i>17.6</i>	5.4	<i>11.8</i>	<i>21.5</i>	<i>12.6</i>
Pantheon Europe Fund V-B  Private Equity Benchmark	-0.4	63.5	18.1	-10.1	26.5	11.2	5.0	-0.9	34.2	12.7
	<i>10.1</i>	<i>54.6</i>	<i>8.4</i>	<i>11.3</i>	<i>16.6</i>	17.6	<i>5.4</i>	<i>11.8</i>	<i>21.5</i>	<i>12.6</i>
Standard Life Europe Smaller Funds I  Private Equity Benchmark	1.4	21.3	3.5	5.4	10.6	-5.6	9.3	-20.1	-10.2	-89.8
	10.1	<i>54.6</i>	<i>8.4</i>	11.3	<i>16.6</i>	17.6	<i>5.4</i>	<i>11.8</i>	<i>21.5</i>	<i>12.6</i>

MEKETA INVESTMENT GROUP 24 of 102



#### Total Plan | As of December 31, 2021

	Fiscal YTD (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)
Investment Grade Bonds	-0.1	-0.1	7.0	9.4	-0.8	1.2	5.6	1.3	4.0	-1.0
Bloomberg US Aggregate TR	0.0	-0.9	7.0	10.3	-1.2	0.1	5.2	2.9	4.0	-1.7
NT US Aggregate Bond	0.0	-0.9								
Bloomberg US Aggregate TR	0.0	-0.9	7.0	10.3	-1.2	0.1	5.2	2.9	4.0	-1.7
Dodge & Cox Core Fixed Income	-0.4	2.4	7.5	8.8	-0.2	1.3	5.5	2.0	5.7	0.5
Bloomberg US Aggregate TR	0.0	-0.9	7.0	10.3	-1.2	0.1	5.2	2.9	4.0	-1.7
Treasuries	3.1	-10.2								
Bloomberg US Govt Long TR	3.0	-10.1	16.2	24.6	<i>-3.5</i>	-6.1	13.0	8.6	11.6	-10.4
NT Long-Term Gov. Bond Index Fund	3.1	-10.2								
Bloomberg US Govt Long TR	3.0	-10.1	16.2	24.6	-3.5	-6.1	13.0	8.6	11.6	-10.4
High Yield	0.8	9.4	5.6	5.9	3.5	9.7	8.7	-3.6	6.8	9.8
ICE BofA US High Yield TR	0.7	11.5	2.3	6.4	2.9	9.1	12.8	-3.6	7.2	7.1
AXA High Yield	0.8	9.4	5.6	5.9	3.5	9.7	8.7	-3.6		
ICE BofA US High Yield TR	0.7	11.5	2.3	6.4	2.9	9.1	12.8	-3.6	7.2	7.1
Bank Loans	0.9	7.3	1.2	3.6	5.5	5.9	5.5	1.9		
Credit Suisse Leveraged Loans	0.7	8.5	0.8	3.1	5.6	5.4	5.3	1.2	4.3	5.8
Pacific Asset Management	0.9	7.3	1.2	3.6	5.5	5.9	5.5	1.9		
Credit Suisse Leveraged Loans	0.7	8.5	0.8	3.1	5.6	5.4	5.3	1.2	4.3	5.8

MEKETA INVESTMENT GROUP 25 of 102



Total Plan | As of December 31, 2021

	Fiscal YTD (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	Fiscal 2015 (%)	Fiscal 2014 (%)	Fiscal 2013 (%)
Real Estate	7.7	16.1	-3.5	7.4	7.0	5.1	10.9	11.3	10.0	11.8
NCREIF ODCE	8.0	14.6	1.4	5.6	<i>8.7</i>	7.7	10.1	14.9	12.4	13.0
Centersquare Value Fund III	118.2	38.1	10.2	16.0	7.7	3.4	14.8			
NCREIF Property +300bps 1QLAG	6.0	10.6	5.8	9.7	10.4	10.2	13.9			
Centersquare Value Fund IV	5.3	27.5	-0.9	-29.6						
NCREIF Property +300bps 1QLAG	6.0	10.6	5.8	9.7	10.4	10.2	13.9			
JP Morgan SPF	7.9	13.0	8.0	2.9	6.9	6.5	8.6	13.4	11.0	13.8
NCREIF ODCE	8.0	14.6	1.4	5.6	<i>8.7</i>	7.7	10.1	14.9	12.4	13.0
JP Morgan SSPF	7.2	16.6	1.2	5.9	9.1	8.2	10.3	19.0	14.5	15.9
NCREIF ODCE + 100bps	8.4	16.0	2.4	6.8	9.8	8.3	10.2	<i>15.1</i>	12.5	13.2
Retirement Office										
Infrastructure	4.3	-7.7	2.4	7.2						
CPI + 500 bps	2.9	10.6	6.4	6.8	7.4	7.3	6.5	5.0	6.7	
BlackRock NTR Renewable Power Fund	-3.7	-27.6	-5.7	14.2	7.4	6.5	1.2	6.1	1.3	
CPI + 500 bps	2.9	10.6	6.4	6.8	7.4	7.3	6.5	5.0	6.7	
BlackRock Global Renewable Power Fund II	6.3	-0.7	8.3	-2.6	4.3	-2.1				
CPI + 500 bps	2.9	10.6	6.4	6.8	7.4	7.3	6.5	5.0	6.7	
Cash & Cash Alternatives	5.3	21.9	6.3	3.9	7.2	12.2	31.1	-1.3		
BlackRock Custom Benchmark	5.3	22.3	6.2	3.9	7.5	12.5	11.6	-1.1		
BlackRock Liquid Policy Portfolio	5.3	21.9	6.3	3.9	7.2	12.2	11.4	-1.3		
BlackRock Custom Benchmark	5.3	22.3	6.2	3.9	7.5	12.5	11.6	-1.1		
Main Account										

MEKETA INVESTMENT GROUP 26 of 102



#### Total Plan | As of December 31, 2021

Statistics Summary (Net of Fees)						
	5	Years Ending Decer	mber 31, 2021			
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Fund	10.4%	8.3%	-0.6	1.1	1.1	1.3%
Fund Benchmark	11.2%	7.8%		1.0	1.3	0.0%
US Equity	16.4%	16.6%	-0.7	1.0	0.9	2.1%
Russell 3000	18.0%	16.0%		1.0	1.1	0.0%
International Equity	11.4%	12.7%	0.5	0.8	0.8	3.6%
MSCI ACWI ex USA	9.6%	14.8%		1.0	0.6	0.0%
Private Equity	19.2%	11.4%	-0.5	0.8	1.6	5.8%
Private Equity Benchmark	22.1%	12.5%		1.0	1.7	0.0%
Private Debt						
BBarc HY 1Q Lagged + 2%						
Investment Grade Bonds	3.7%	3.3%	0.1	0.9	0.8	1.6%
Bloomberg US Aggregate TR	3.6%	3.1%		1.0	0.8	0.0%
Treasuries						
Bloomberg US Govt Long TR	6.5%	11.0%		1.0	0.5	0.0%
High Yield	6.4%	6.2%	0.2	0.8	0.9	1.6%
ICE BofA US High Yield TR	6.1%	7.5%		1.0	0.7	0.0%
Bank Loans	4.3%	5.1%	0.0	0.7	0.6	2.0%
Credit Suisse Leveraged Loans	4.3%	6.8%		1.0	0.5	0.0%
Real Estate	7.9%	4.5%	-0.2	0.4	1.5	5.2%
NCREIF ODCE	8.7%	5.3%		1.0	1.4	0.0%

MEKETA INVESTMENT GROUP 27 of 102

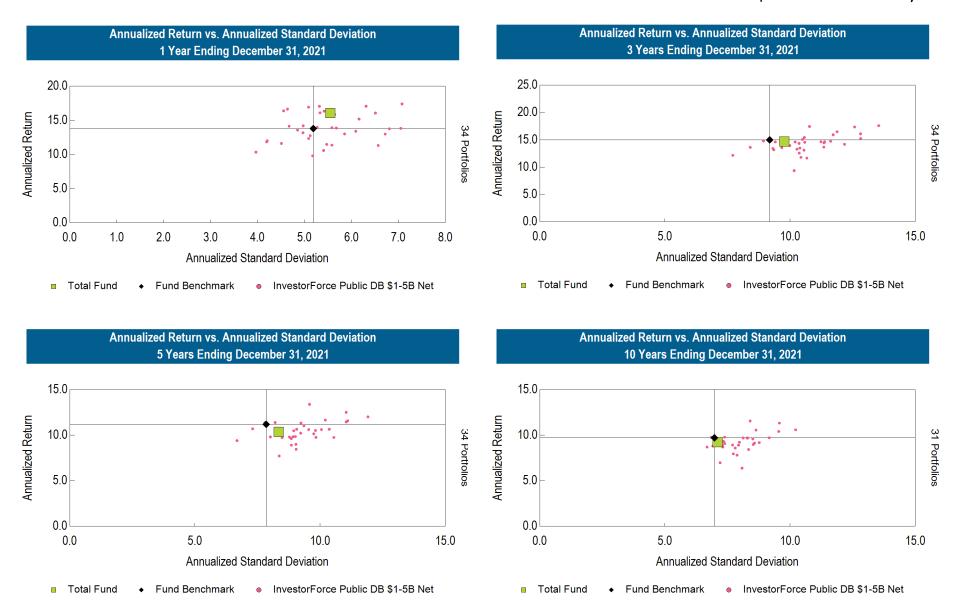


#### Total Plan | As of December 31, 2021

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Infrastructure						
CPI + 500 bps	8.1%	1.1%		1.0	6.6	0.0%
Cash & Cash Alternatives	11.0%	10.7%	-0.2	1.0	0.9	0.4%
BlackRock Custom Benchmark	11.2%	10.8%		1.0	0.9	0.0%

MEKETA INVESTMENT GROUP 28 of 102





### **US Equity**



#### US Equity | As of December 31, 2021

Asset Allocation on December 31, 2021						
	Actual	Actual				
Northern Trust S&P500 Index Fund	\$458,945,198	70.6%				
Boston Partners Mid Cap Value	\$57,803,837	8.9%				
Champlain Mid Cap	\$60,002,362	9.2%				
Champlain Small Cap	\$73,485,529	11.3%				
Total	\$650,236,926	100.0%				



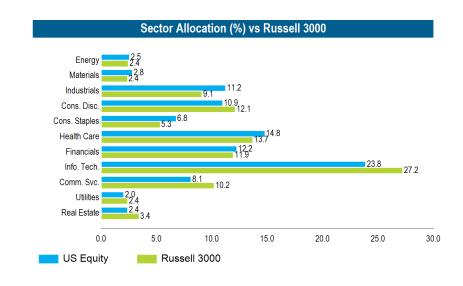


MEKETA INVESTMENT GROUP 31 of 102



## Miami Fire and Police Retirement Trust US Equity | As of December 31, 2021

US Equity Characteristics vs Russell 3000						
	Portfolio Q4-21	Index Q4-21				
Market Value						
Market Value (\$M)	650.2					
Number Of Holdings	664	3065				
Characteristics						
Weighted Avg. Market Cap. (\$B)	481.3	568.6				
Median Market Cap (\$B)	25.4	2.8				
P/E Ratio	26.0	24.9				
Yield	1.2	1.3				
EPS Growth - 5 Yrs.	18.2	20.4				
Price to Book	4.4	4.5				
Beta (returns-based)	1.0	1.0				
Company Size Distribution						
Weighted Avg. Market Cap. (\$B)	481.3	568.6				
Median Market Cap. (\$B)	25.4	2.8				
Large Cap. (%)	62.5	71.2				
Medium Cap. (%)	31.2	23.1				
Small Cap. (%)	6.3	5.6				



Top Holdings	
APPLE INC	4.9%
MICROSOFT CORP	4.4%
AMAZON.COM INC	2.6%
ALPHABET INC	1.5%
TESLA INC	1.5%
ALPHABET INC	1.4%
META PLATFORMS INC	1.4%
NVIDIA CORPORATION	1.3%
BERKSHIRE HATHAWAY INC	1.0%
UNITEDHEALTH GROUP INC	0.8%
Total	20.8%

MEKETA INVESTMENT GROUP 32 of 102



#### Northern Trust S&P500 Index Fund | As of December 31, 2021

Account Information						
Account Name	Northern Trust S&P500 Index Fund					
Account Structure	Commingled Fund					
Investment Style	Passive					
Inception Date	8/01/20					
Account Type	US Equity					
Benchmark	S&P 500					
Universe						



Characteristics					
	Portfolio	S&P 500			
Number of Holdings	510	504			
Weighted Avg. Market Cap. (\$B)	665.3	670.5			
Median Market Cap. (\$B)	34.4	34.6			
Price To Earnings	26.2	26.2			
Price To Book	4.9	4.9			
Price To Sales	3.8	3.7			
Return on Equity (%)	30.6	30.4			
Yield (%)	1.3	1.3			

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Northern Trust S&P500 Index Fund S&P 500	11.0 <i>11.0</i>	28.7 28.7	 26.1	 18.5	 16.6	32.4 <i>32.4</i>	Aug-20 <i>Aug-20</i>

Characteristics		
	Portfolio	S&P 500
COMPANY SIZE DISTRIBUTION		
Weighted Avg. Market Cap. (\$B)	665.3	670.5
Median Market Cap. (\$B)	34.4	34.6
Large Cap. (%)	83.3	83.6
Medium Cap. (%)	16.7	16.4
Small Cap. (%)	0.0	0.0

Top Holdings		
APPLE INC	6.8%	
MICROSOFT CORP	6.2%	
AMAZON.COM INC	3.6%	
ALPHABET INC	2.1%	
TESLA INC	2.1%	
ALPHABET INC	2.0%	
META PLATFORMS INC	2.0%	
NVIDIA CORPORATION	1.8%	
BERKSHIRE HATHAWAY INC	1.3%	
UNITEDHEALTH GROUP INC	1.2%	

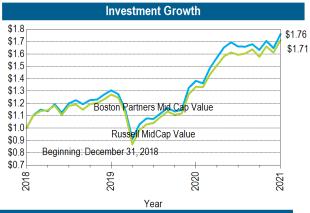
Sector Allocation			
	Portfolio	S&P 500	
INDUSTRY SECTOR DISTRIBUTION (% E	(quity		
Energy	2.6	2.6	
Materials	2.5	2.5	
Industrials	7.7	7.7	
Consumer Discretionary	12.4	13.1	
Consumer Staples	5.8	6.3	
Health Care	13.1	13.0	
Financials	10.6	11.0	
Information Technology	28.9	28.6	
Communication Services	10.0	10.2	
Utilities	2.5	2.4	
Real Estate	2.8	2.7	

MEKETA INVESTMENT GROUP 33 of 102



#### Boston Partners Mid Cap Value | As of December 31, 2021

	Account Information
Account Name	Boston Partners Mid Cap Value
Account Structure	Separate Account
Investment Style	Active
Inception Date	6/01/98
Account Type	US Stock Mid Cap Value
Benchmark	Russell MidCap Value
Universe	eV US Mid Cap Value Equity Net



Characteristics			
	Portfolio	Russell MidCap Value	
Number of Holdings	140	703	
Weighted Avg. Market Cap. (\$B)	27.8	23.2	
Median Market Cap. (\$B)	19.6	11.8	
Price To Earnings	19.1	18.6	
Price To Book	2.6	2.7	
Price To Sales	1.9	2.2	
Return on Equity (%)	16.2	14.2	
Yield (%)	1.5	1.7	

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Boston Partners Mid Cap Value	7.8	27.3	20.7	11.7	14.7	10.2	Jun-98
Russell MidCap Value	8.5	28.3	19.6	11.2	13.4	9.7	Jun-98

Sector Allocation			
	Portfolio	Russell MidCap Value	
INDUSTRY SECTOR DISTRIBUTION	N (% Equity)		
Energy	7.4	4.5	
Materials	5.4	7.6	
Industrials	20.0	15.6	
Consumer Discretionary	13.1	10.4	
Consumer Staples	1.8	4.2	
Health Care	9.3	8.0	
Financials	18.0	16.5	
Information Technology	9.9	10.4	
Communication Services	1.8	3.5	
Utilities	4.0	7.3	
Real Estate	6.9	11.8	

Characteristics		
	Portfolio	Russell MidCap Value
COMPANY SIZE DISTRIBUTION		
Weighted Avg. Market Cap. (\$B)	27.8	23.2
Median Market Cap. (\$B)	19.6	11.8
Large Cap. (%)	18.5	7.6
Medium Cap. (%)	77.7	89.5
Small Cap. (%)	3.8	2.9

Top Holdings		
AMERIPRISE FINANCIAL INC	2.3%	
FIFTH THIRD BANCORP	2.0%	
CASH - USD	1.9%	
AUTOZONE INC	1.9%	
DOVER CORP	1.7%	
HUNTINGTON BANCSHARES INC	1.7%	
KEYCORP	1.6%	
EATON CORP PLC	1.5%	
TE CONNECTIVITY LTD	1.5%	
AMETEK INC	1.4%	

MEKETA INVESTMENT GROUP 34 of 102



#### Champlain Mid Cap | As of December 31, 2021





Characteristics					
	Portfolio	Russell MidCap			
Number of Holdings	61	831			
Weighted Avg. Market Cap. (\$B)	25.4	25.4			
Median Market Cap. (\$B)	21.1	12.3			
Price To Earnings	31.1	21.9			
Price To Book	5.0	3.7			
Price To Sales	5.5	2.8			
Return on Equity (%)	11.7	15.4			
Yield (%)	0.6	1.3			

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Champlain Mid Cap	6.6	25.7	27.9	21.1	18.3	18.1	Jul-09
Russell MidCap	6.4	22.6	23.3	15.1	14.9	15.9	Jul-09

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Champlain Mid Cap	6.6	25.7	27.9	21.1	18.3	18.1	Jul-09
Russell MidCap	6.4	22.6	23.3	15.1	14.9	15.9	Jul-09

Characteristics		
	Portfolio	Russell MidCap
COMPANY SIZE DISTRIBUTION		
Weighted Avg. Market Cap. (\$B)	25.4	25.4
Median Market Cap. (\$B)	21.1	12.3
Large Cap. (%)	14.9	13.9
Medium Cap. (%)	83.7	82.5
Small Cap. (%)	1.4	3.6

Top Holdings	
FORTIVE CORP	3.1%
AMETEK INC	3.0%
EDWARDS LIFESCIENCES CORP	2.8%
ADVANCE AUTO PARTS INC.	2.8%
WORKDAY INC	2.6%
WATERS CORP	2.6%
PALO ALTO NETWORKS INC	2.5%
ARTHUR J. GALLAGHER & CO.	2.5%
ALIGN TECHNOLOGY INC	2.4%
GENERAC HOLDINGS INC	2.4%

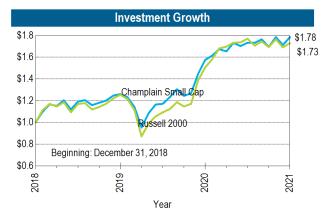
Sector Allocation					
Section Amount	Portfolio	Russell MidCap			
INDUSTRY SECTOR DISTRIBUTION	(% Equity)				
Energy	0.0	3.3			
Materials	1.6	5.5			
Industrials	19.8	15.4			
Consumer Discretionary	8.8	12.4			
Consumer Staples	11.8	3.4			
Health Care	24.4	11.3			
Financials	11.6	12.4			
Information Technology	17.2	19.6			
Communication Services	0.0	3.6			
Utilities	0.0	4.7			
Real Estate	0.0	8.4			

35 of 102 MEKETA INVESTMENT GROUP



#### Champlain Small Cap | As of December 31, 2021

Account Information					
Account Name	Champlain Small Cap				
Account Structure	Separate Account				
Investment Style	Active				
Inception Date	1/01/04				
Account Type	US Stock Small Cap Core				
Benchmark	Russell 2000				
Universe	eV US Small Cap Core Equity Net				



	Portfolio	Russell 2000
Number of Holdings	82	2,036
Veighted Avg. Market Cap. (\$B)	4.6	3.5
Median Market Cap. (\$B)	3.0	1.2
Price To Earnings	30.5	17.7
Price To Book	3.5	2.7
Price To Sales	3.8	1.9
Return on Equity (%)	-0.2	3.6
field (%)	0.6	1.1

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Champlain Small Cap	5.2	13.3	21.3	14.2	14.9	12.6	Jan-04
Russell 2000	2.1	14.8	20.0	12.0	13.2	9.5	Jan-04

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Champlain Small Cap	5.2	13.3	21.3	14.2	14.9	12.6	Jan-04
Russell 2000	2.1	14.8	20.0	12.0	13.2	9.5	Jan-04

Characteristics		
	Portfolio	Russell 2000
COMPANY SIZE DISTRIBUTION		
Weighted Avg. Market Cap. (\$B)	4.6	3.5
Median Market Cap. (\$B)	3.0	1.2
Large Cap. (%)	0.0	0.0
Medium Cap. (%)	46.9	28.7
Small Cap. (%)	53.1	71.3

Top Holdings	
NEW RELIC INC	3.9%
JOHN BEAN TECHNOLOGIES CORP	3.2%
PURE STORAGE INC	3.1%
EVOQUA WATER TECHNOLOGIES CORP	2.7%
SIMPLY GOOD FOODS CO (THE)	2.7%
CONMED CORP	2.5%
MSA SAFETY INC	2.5%
HOSTESS BRANDS INC	2.4%
INTEGRA LIFESCIENCES HOLDINGS CORP	2.4%
LANCASTER COLONY CORP	2.1%

Sector Allocation					
	Portfolio	Russell 2000			
INDUSTRY SECTOR DISTRIBUTION	N (% Equity)				
Energy	0.0	4.4			
Materials	4.1	3.8			
Industrials	18.9	15.2			
Consumer Discretionary	4.5	11.4			
Consumer Staples	13.1	3.5			
Health Care	20.8	18.1			
Financials	13.8	16.0			
Information Technology	20.9	14.5			
Communication Services	1.7	3.1			
Utilities	0.0	2.7			
Real Estate	0.0	7.5			

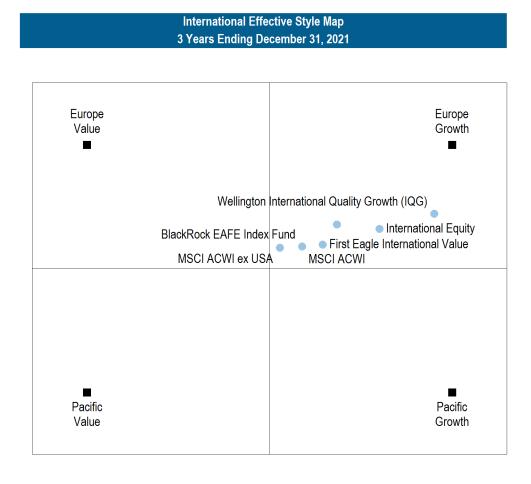
36 of 102 MEKETA INVESTMENT GROUP

# **International Equity**



#### International Equity | As of December 31, 2021

Asset Allocation on December 31, 2021					
Actual A					
First Eagle International Value	\$135,152,755	32.0%			
Northern Trust EAFE Index Fund	\$147,137,092	34.8%			
Wellington International Quality Growth (IQG)	\$140,273,502	33.2%			
Total	\$422,563,349	100.0%			

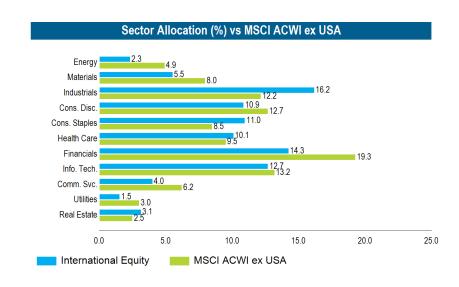


MEKETA INVESTMENT GROUP 38 of 102



#### **International Equity Characteristics** vs MSCI ACWI ex USA Portfolio Index Q4-21 Q4-21 Market Value Market Value (\$M) 422.6 **Number Of Holdings** 951 2330 Characteristics Weighted Avg. Market 104.8 98.9 Cap. (\$B) Median Market Cap (\$B) 14.5 10.3 P/E Ratio 19.8 15.3 Yield 2.2 2.6 EPS Growth - 5 Yrs. 12.8 13.3 Price to Book 3.2 2.7 Beta (returns-based) 0.8 1.0 Weighted Avg. Market 104.8 98.9 Cap. (\$B) Median Market Cap. (\$B) 14.5 10.3 Large Cap. (%) 63.9 62.0 Medium Cap. (%) 19.8 24.6 Small Cap. (%) 16.3 13.4

# Miami Fire and Police Retirement Trust International Equity | As of December 31, 2021



Top Holdings	
NESTLE SA, CHAM UND VEVEY	3.1%
SPDR GOLD TRUST	3.0%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	2.2%
ROCHE HOLDING AG	1.9%
NOVO NORDISK 'B'	1.7%
TENCENT HOLDINGS LTD	1.5%
SONY GROUP CORPORATION	1.5%
ASML HOLDING NV	1.2%
HOYA CORP	1.1%
CIE FINANCIERE RICHEMONT AG, ZUG	1.1%
Total	18.3%

MEKETA INVESTMENT GROUP 39 of 102



#### International Equity | As of December 31, 2021

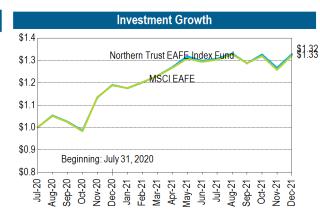
International Equity Region Allocation					
vs MSCI ACWI ex USA					
Region	% of Total	% of Bench	% Diff		
North America ex U.S.	3.1%	7.6%	-4.4%		
United States	3.8%	0.0%	3.8%		
Europe Ex U.K.	44.4%	32.5%	12.0%		
United Kingdom	9.2%	9.4%	-0.2%		
Pacific Basin Ex Japan	7.3%	7.1%	0.2%		
Japan	17.6%	14.5%	3.1%		
Emerging Markets	13.1%	28.4%	-15.3%		
Other	1.4%	0.6%	0.8%		
Total	100.0%	100.0%	0.0%		

MEKETA INVESTMENT GROUP 40 of 102



#### Northern Trust EAFE Index Fund | As of December 31, 2021

	Account Information
Account Name	Northern Trust EAFE Index Fund
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	8/01/20
Account Type	International
Benchmark	MSCI EAFE
Universe	



Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	880	828
Weighted Avg. Market Cap. (\$B)	86.2	85.5
Median Market Cap. (\$B)	13.4	14.7
Price To Earnings	17.5	17.1
Price To Book	2.9	2.8
Price To Sales	1.7	1.6
Return on Equity (%)	14.3	14.6
Yield (%)	2.6	2.7

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Northern Trust EAFE Index Fund	3.2	11.5				22.1	Aug-20
MSCI EAFE	2.7	11.3	13.5	9.5	8.0	21.8	Aug-20

Characteristics	s	
	Portfolio	MSCI EAFE
COMPANY SIZE DISTRIBUTION		
Weighted Avg. Market Cap. (\$B)	86.2	85.5
Median Market Cap. (\$B)	13.4	14.7
Large Cap. (%)	66.6	67.0
Medium Cap. (%)	25.6	25.3
Small Cap. (%)	7.8	7.8

Top Holdings	
NESTLE SA, CHAM UND VEVEY	2.5%
ASML HOLDING NV	2.0%
ROCHE HOLDING AG	1.8%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.4%
NOVARTIS AG	1.2%
TOYOTA MOTOR CORP	1.2%
NOVO NORDISK 'B'	1.2%
SONY GROUP CORPORATION	1.0%
SAP SE	0.9%
UNILEVER PLC	0.8%

Sector Allocation				
	Portfolio	MSCI EAFE		
INDUSTRY SECTOR DISTRIBUTION	N (% Equity)			
Energy	3.0	3.4		
Materials	7.5	7.2		
Industrials	16.7	16.2		
Consumer Discretionary	13.0	12.6		
Consumer Staples	9.5	10.4		
Health Care	11.7	12.9		
Financials	16.2	17.0		
Information Technology	10.1	9.7		
Communication Services	4.6	4.4		
Utilities	3.4	3.4		
Real Estate	2.9	2.8		

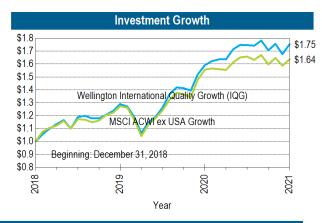
Sector allocation total is less than 100% due to cash holdings.

MEKETA INVESTMENT GROUP 41 of 102



#### Wellington International Quality Growth (IQG) | As of December 31, 2021

Account Information				
Account Name	Wellington International Quality Growth (IQG)			
Account Structure	Commingled Fund			
Investment Style	Active			
Inception Date	11/01/14			
Account Type	International			
Benchmark	MSCI ACWI ex USA Growth			
Universe	eV ACWI ex-US Growth Equity Net			



Characteristics		
		MSCI
	Portfolio	ACWI ex
	Fortiono	USA
		Growth
Number of Holdings	55	1,199
Weighted Avg. Market Cap. (\$B)	153.5	129.5
Median Market Cap. (\$B)	53.9	11.1
Price To Earnings	27.7	24.4
Price To Book	5.5	4.1
Price To Sales	3.7	3.4
Return on Equity (%)	23.4	18.4
Yield (%)	1.6	1.4

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Wellington International Quality Growth (IQG)	2.7	10.2	20.6	16.4		11.8	Nov-14
MSCI ACWI ex USA Growth	2.4	5.1	17.8	13.1	9.1	8.5	Nov-14

Price To Sales	3.7	3.
Return on Equity (%)	23.4	18
Yield (%)	1.6	1.
Sector All	location	
	Portfolio	MSC ACWI e US Growt
INDUSTRY SECTOR DISTRIBUT	TION (0/ Fauity)	

Characteristics					
		MSCI			
	Portfolio	ACWI ex			
		USA			
		Growth			
COMPANY SIZE DISTRIBUTION					
Weighted Avg. Market Cap. (\$B)	153.5	129.5			
Median Market Cap. (\$B)	53.9	11.1			
Large Cap. (%)	79.1	66.8			
Medium Cap. (%)	16.5	21.5			
Small Cap. (%)	4.4	11.6			

Top Holdings			
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.1%		
TENCENT HOLDINGS LTD	4.2%		
NESTLE SA, CHAM UND VEVEY	4.2%		
NOVO NORDISK 'B'	3.6%		
ROCHE HOLDING AG	3.4%		
SONY GROUP CORPORATION	3.1%		
GOODMAN GROUP	2.5%		
HOYA CORP	2.4%		
ASTRAZENECA PLC	2.4%		
PARTNERS GROUP AG	2.3%		

		USA
		Growth
INDUSTRY SECTOR DISTRIBUTION (%	Equity)	
Energy	0.0	1.8
Materials	1.2	6.5
Industrials	21.6	15.9
Consumer Discretionary	15.0	14.9
Consumer Staples	4.2	10.4
Health Care	17.8	12.3
Financials	13.1	10.1
Information Technology	16.1	20.2
Communication Services	6.4	6.4
Utilities	1.4	0.7
Real Estate	2.5	0.9

MEKETA INVESTMENT GROUP 42 of 102



Weighted Avg. Market Cap. (\$B)

Median Market Cap. (\$B)

Large Cap. (%)

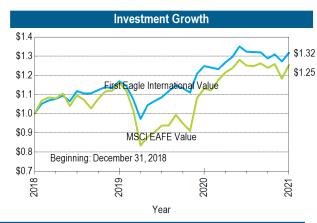
Small Cap. (%)

Medium Cap. (%)

#### Miami Fire and Police Retirement Trust

#### First Eagle International Value | As of December 31, 2021

Account Information				
Account Name	First Eagle International Value			
Account Structure	Separate Account			
Investment Style	Active			
Inception Date	4/01/11			
Account Type	Non-US Stock Developed			
Benchmark	MSCI EAFE Value			
Universe	eV EAFE Value Equity Net			



Characteristics				
		MSCI		
	Portfolio	EAFE Value		
Number of Holdings	110	501		
Weighted Avg. Market Cap. (\$B)	67.1	66.2		
Median Market Cap. (\$B)	15.4	13.4		
Price To Earnings	16.2	12.4		
Price To Book	2.1	1.8		
Price To Sales	1.3	1.1		
Return on Equity (%)	10.0	10.9		
Yield (%)	2.4	4.1		

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
First Eagle International Value	2.3	5.6	9.6	6.4	6.6	5.4	Apr-11
MSCI EAFE Value	1.2	10.9	7.8	5.3	5.8	3.7	Apr-11

66.2

13.4

62.4

28.1

9.6

First Eagle International Value		2.3	5.	6 9.6
MSCI EAFE Value		1.2	10.	9 7.8
Characteristics				
		MS	CI	CASH - USD
	Portfolio	EAF		SPDR GOLD TRU
		Valu	е	GROUPE BRUXE
COMPANY SIZE DISTRIBUTION				CIE FINANCIERE

67.1

15.4

53.5

29.5

17.0

Top Holdings	
CASH - USD	14.1%
SPDR GOLD TRUST	8.7%
GROUPE BRUXELLES LAMBERT SA	2.7%
CIE FINANCIERE RICHEMONT AG, ZUG	2.6%
IMPERIAL OIL LTD	2.4%
DANONE	2.2%
BRITISH AMERICAN TOBACCO PLC	2.1%
NESTLE SA, CHAM UND VEVEY	2.0%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.9%
UNILEVER PLC COMMON STOCK GBP.0311	1.8%

Sector Allocation			
	Portfolio	MSCI EAFE Value	
NDUSTRY SECTOR DISTRIBUTION (9	% Equity)		
Energy	3.6	6.3	
Materials	7.4	9.4	
ndustrials	10.5	11.8	
Consumer Discretionary	8.0	9.3	
Consumer Staples	16.8	8.1	
Health Care	4.5	9.0	
inancials	15.0	26.6	
nformation Technology	4.5	2.4	
Communication Services	0.9	5.8	
Jtilities	0.0	6.4	
Real Estate	4.2	4.9	
·			

Sector allocation total is less than 100% due to gold holdings.

MEKETA INVESTMENT GROUP 43 of 102

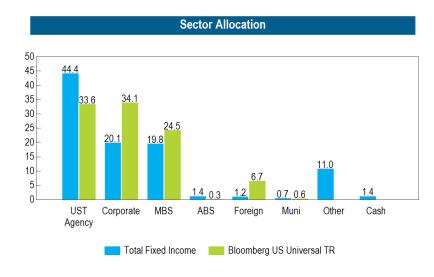
## **Fixed Income**

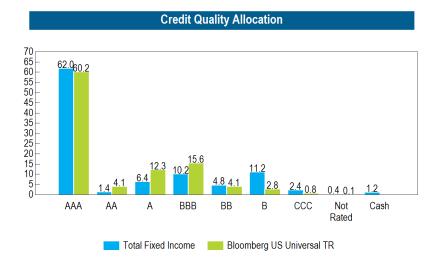


#### Total Fixed Income | As of December 31, 2021

Asset Allocation on December 31, 2021					
	Actual	Actual			
NT US Aggregate Bond	\$202,386,611	47.2%			
Dodge & Cox Core Fixed Income	\$71,088,580	16.6%			
NT Long-Term Gov. Bond Index Fund	\$81,014,908	18.9%			
AXA High Yield	\$32,829,591	7.7%			
Pacific Asset Management	\$41,204,314	9.6%			
Total	\$428,524,004	100.0%			

Total Fixed Income Characteristics vs. Bloomberg US Universal TR					
Portfolio Inde					
	Q4-21	Q4-21			
Fixed Income Characteristics					
Yield to Maturity	2.5	2.1			
Average Duration	7.7	6.7			
Average Quality	Α	AA			
Weighted Average Maturity	10.9	12.8			





Weighted Average Maturity of BBgBarc US Universal TR is 8.6 as reported by Barclays Live.

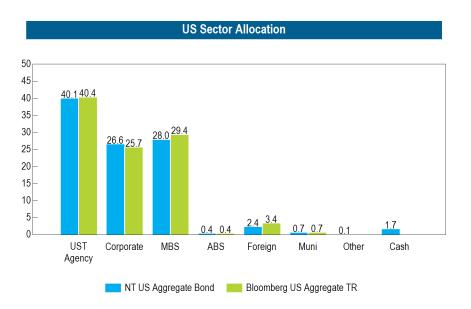
MEKETA INVESTMENT GROUP 45 of 102

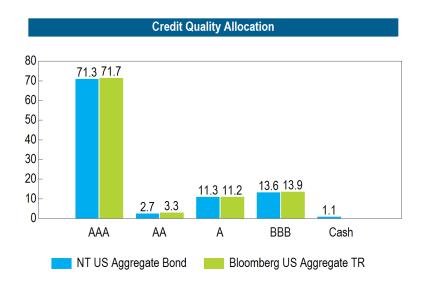


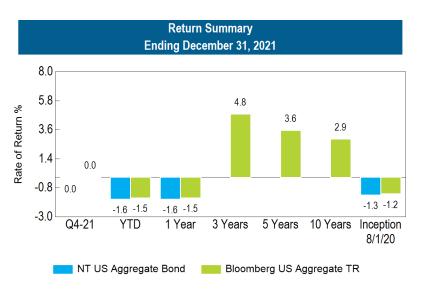
# Miami Fire and Police Retirement Trust NT US Aggregate Bond | As of December 31, 2021

NT US Aggregate Bond Characteristics vs. Bloomberg US Aggregate TR							
Portfolio Index Portfo							
	Q4-21	Q4-21	Q3-21				
Fixed Income Characteristics							
Yield to Maturity	1.7	1.7	1.5				
Average Duration	6.6	6.8	6.6				
Average Quality	AA	AA	AA				
Weighted Average Maturity	8.6	13.8	8.4				

Weighted Average Maturity of BBgBarc US Aggregate TR is 8.7 as reported by Barclays Live.







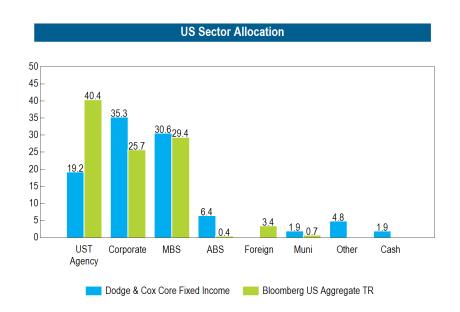
MEKETA INVESTMENT GROUP 46 of 102

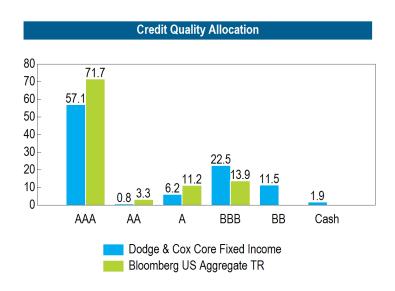


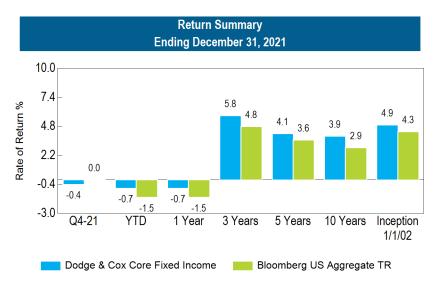
#### Dodge & Cox Core Fixed Income | As of December 31, 2021

Dodge & Cox Characteristics vs. Bloomberg US Aggregate TR							
Portfolio Index Portfol							
	Q4-21	Q4-21	Q3-21				
Fixed Income Characteristics							
Yield to Maturity	2.2	1.7	2.0				
Average Duration	5.2	6.8	5.2				
Average Quality	AA	AA	Α				
Weighted Average Maturity	8.7	13.8	8.7				

Weighted Average Maturity of BBgBarc US Aggregate TR is 8.7 as reported by Barclays Live.





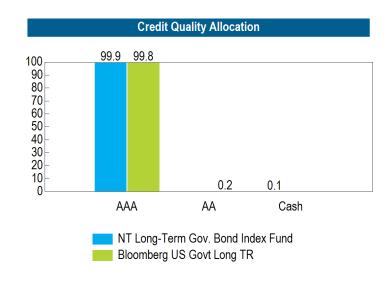


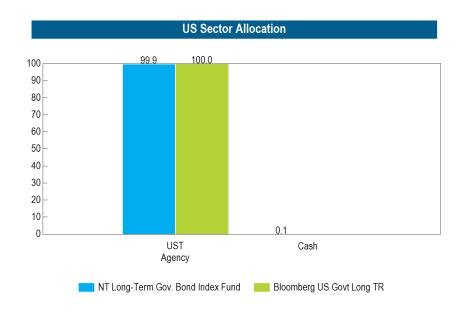
MEKETA INVESTMENT GROUP 47 of 102

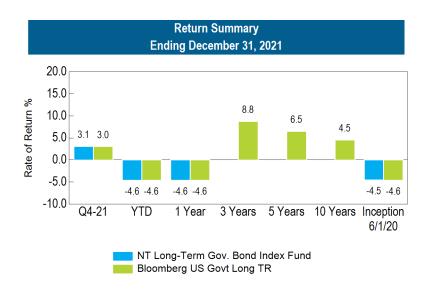


#### NT Long-Term Gov. Bond Index Fund | As of December 31, 2021

NT Long-Term Gov. Bond Index Fund Characteristics vs. Bloomberg US Govt Long TR							
Portfolio Index Portfo							
	Q4-21	Q4-21	Q3-21				
Fixed Income Characteristics							
Yield to Maturity	1.9	1.9	2.0				
Average Duration	18.1	18.1	18.0				
Average Quality	AAA	AAA	AAA				
Weighted Average Maturity	23.9	23.9	24.0				





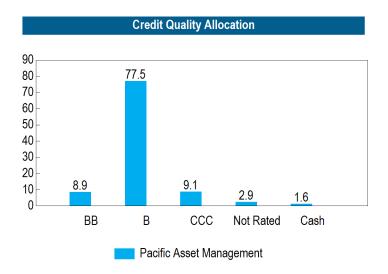


MEKETA INVESTMENT GROUP 48 of 102

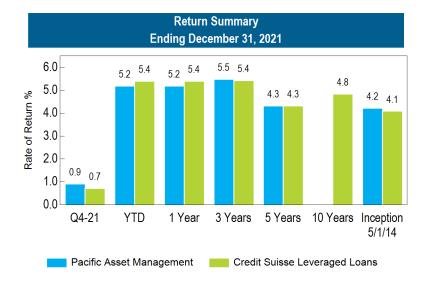


#### Pacific Asset Management | As of December 31, 2021

Pacific Asset Management Characteristics						
Portfolio Po						
	Q4-21	Q3-21				
Fixed Income Characteristics						
Yield to Maturity	5.4	5.3				
Average Duration	0.3	0.3				
Average Quality	В	В				
Weighted Average Maturity	4.8	4.8				







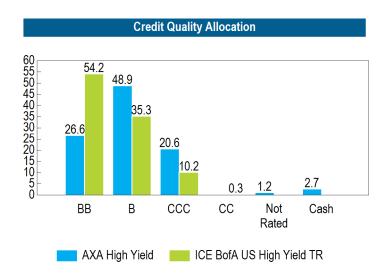
Characteristics unavailable for the Credit Suisse Leveraged Loans index. "Other" refers to bank loans.

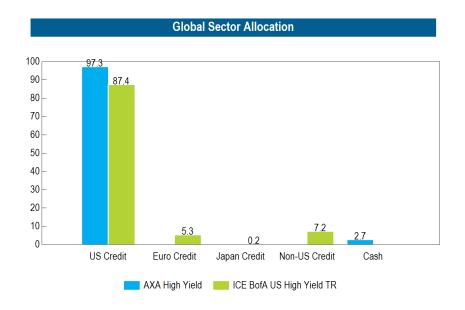
MEKETA INVESTMENT GROUP 49 of 102



#### AXA High Yield | As of December 31, 2021

AXA High Yield Characteristics vs. ICE BofA US High Yield TR						
Portfolio Portf						
	Q4-21	Q3-21				
Fixed Income Characteristics						
Yield to Maturity	5.2	5.3				
Average Duration	2.9	2.6				
Average Quality	В	В				
Weighted Average Maturity	5.9	5.9				







MEKETA INVESTMENT GROUP 50 of 102

# **Private Markets Analysis**



#### Private Markets Analysis | As of December 31, 2021

Private Market Investments Overview										
Investments		Commit	ments	Contributions &	Distributions	Valuat	ions	Perfo	orman	ce
Investment Name	Vintage Year	Commitment (\$)	Unfunded Commitment (\$)	Cumulative Contributions (\$)	Cumulative Distributions (\$)	Valuation (\$)	Total Value (\$)	DPI	TVPI	IRR (%)
CenterSquare Value-Added Fund III, L.P.	2015	20,000,000	1,242,484	22,737,967	29,784,932	162,493	29,947,425	1.3	1.3	9.5
CenterSquare Value-Added Fund IV, L.P.	2018	25,000,000	4,032,257	20,967,743	8,588,710	18,125,878	26,714,588	0.4	1.3	11.3
Total		45,000,000	5,274,741	43,705,710	38,373,642	18,288,371	56,662,013	0.9	1.3	10.1

MEKETA INVESTMENT GROUP 52 of 102



#### Private Markets Analysis | As of December 31, 2021

Private Market Investments Overview										
Investments		Commit	ments	Contributions &	Distributions	Valuat	tions	Perf	orman	ce
Investment Name	Vintage Year	Commitment (\$)	Unfunded Commitment (\$)	Cumulative Contributions (\$)	Cumulative Distributions (\$)	Valuation (\$)	Total Value (\$)	DPI	TVPI	IRR (%)
Adams Street 2012 Global Fund, L.P.	2012	14,000,000	1,905,400	12,094,600	11,352,732	16,791,305	28,144,037	0.9	2.3	16.8
Adams Street Venture Innovation Fund, L.P.	2017	5,000,000	597,500	4,402,500	1,817,886	13,092,119	14,910,005	0.4	3.4	57.1
Catalyst Fund Limited Partnership III	2012	5,000,000	128,080	5,871,920	5,073,868	4,638,447	9,712,315	0.9	1.7	10.4
Catalyst Fund Limited Partnership IV	2015	7,000,000	752,155	7,113,343	7,987,292	12,050,717	20,038,009	1.1	2.8	29.4
Coller International Partners V, L.P.	2007	14,000,000	3,052,000	10,948,000	15,108,839	488,243	15,597,082	1.4	1.4	7.6
Coller International Partners VI, L.P.	2012	14,000,000	4,161,257	9,838,743	14,537,579	3,359,489	17,897,068	1.5	1.8	15.7
Coller International Partners VII, L.P.	2015	10,000,000	3,056,975	7,670,766	4,952,650	7,543,468	12,496,118	0.6	1.6	16.3
Coller International Partners VIII, L.P.	2020	15,000,000	10,452,854	4,942,672	414,450	7,212,231	7,626,681	0.1	1.5	NM
JP Morgan Global Fund V, L.P.	2013	10,000,000	395,956	9,604,044	9,111,924	11,842,259	20,954,183	0.9	2.2	19.0
JP Morgan Global Fund VI, L.P.	2017	15,000,000	2,508,011	12,612,978	2,475,092	15,396,209	17,871,301	0.2	1.4	14.7
JP Morgan Global Fund VIII, L.P.	2019	15,000,000	5,222,712	9,777,288	326,008	11,257,824	11,583,832	0.0	1.2	NM
JP Morgan Corp Fin Pool III LLC	2006	7,000,000	81,028	6,918,972	13,522,251	964,292	14,486,543	2.0	2.1	13.4
JP Morgan European Corporate Finance Fund III, L.P.	2006	3,281,250	131,823	3,306,187	4,993,632	272,927	5,266,559	1.5	1.6	6.2
JP Morgan Venture Capital Fund III, L.P.	2006	3,458,000	9,589	3,448,411	4,952,166	2,110,053	7,062,219	1.4	2.0	10.5
Lexington Capital Partners VI-B, L.P.	2006	14,000,000	0	14,858,579	19,944,555	682,807	20,627,362	1.3	1.4	6.7
Lexington Capital Partners VIII, L.P.	2014	14,000,000	1,590,443	12,746,031	10,814,020	10,254,819	21,068,839	8.0	1.7	19.0
Lexington Capital Partners IX Offshore, L.P.	2018	15,000,000	6,106,770	9,420,594	1,778,982	12,494,531	14,273,513	0.2	1.5	NM
Pantheon USA Fund VII, L.P.	2006	10,500,000	714,000	9,786,000	16,154,259	2,227,499	18,381,758	1.7	1.9	10.2
Pantheon Europe Fund V B, L.P.	2006	3,705,412	174,492	3,530,920	4,886,386	471,005	5,357,391	1.4	1.5	6.8
SL Capital European Smaller Funds I, L.P.	2012	9,814,798	1,168,151	8,646,646	6,861,783	5,023,227	11,885,010	0.8	1.4	7.2
Total		204,759,460	41,193,857	167,539,195	157,066,354	138,173,470	295,239,825	0.9	1.8	14.9

MEKETA INVESTMENT GROUP 53 of 102



#### Private Markets Analysis | As of December 31, 2021

Private Market Investments Overview										
Investments		Commit	ments	Contributions &	Distributions	Valuat	ions	Perf	orman	се
Investment Name	Vintage Year	Commitment (\$)	Unfunded Commitment (\$)	Cumulative Contributions (\$)	Cumulative Distributions (\$)	Valuation (\$)	Total Value (\$)	DPI	TVPI	IRR (%)
BlackRock NTR Renewable Power Fund, L.P.	2012	20,000,000	0	22,303,751	22,542,355	3,216,544	25,758,899	1.0	1.2	3.4
BlackRock Renewable Power Fund II	2016	20,000,000	1,857,713	18,801,027	6,760,181	14,349,536	21,109,717	0.4	1.1	3.6
Total		40,000,000	1,857,713	41,104,777	29,302,536	17,566,080	46,868,616	0.7	1.1	3.5

MEKETA INVESTMENT GROUP 54 of 102



#### Public Manager Expense Analysis | As of December 31, 2021

	Public Manager Expense	Analysis		
	As Of December 31, 2	2021		
Name	Market Value	% of Portfolio	Estimated Fee	Estimated Fee Value
AXA High Yield	\$32,829,591	1.9%	0.33%	\$106,696
BlackRock Liquid Policy Portfolio	\$73,479,534	4.3%	0.09%	\$66,132
Boston Partners Mid Cap Value	\$57,803,837	3.3%	0.63%	\$364,019
Champlain Mid Cap	\$60,002,362	3.5%	0.55%	\$330,013
Champlain Small Cap	\$73,485,529	4.3%	0.55%	\$404,170
Dodge & Cox Core Fixed Income	\$71,088,580	4.1%	0.26%	\$181,633
First Eagle International Value	\$135,152,755	7.8%	0.75%	\$1,013,646
JP Morgan SPF	\$121,300,502	7.0%	0.86%	\$1,039,754
JP Morgan SSPF	\$29,964,072	1.7%	1.25%	\$374,551
Northern Trust EAFE Index Fund	\$147,137,092	8.5%	0.01%	\$18,392
Northern Trust S&P500 Index Fund	\$458,945,198	26.6%	0.00%	\$11,474
NT Long-Term Gov. Bond Index Fund	\$81,014,908	4.7%	0.03%	\$24,304
NT US Aggregate Bond	\$202,386,611	11.7%	0.02%	\$35,418
Pacific Asset Management	\$41,204,314	2.4%	0.37%	\$152,456
Wellington International Quality Growth (IQG)	\$140,273,502	8.1%	0.59%	\$821,504
Total	\$1,726,068,387	100.0%	0.29%	\$4,944,162

MEKETA INVESTMENT GROUP 55 of 102

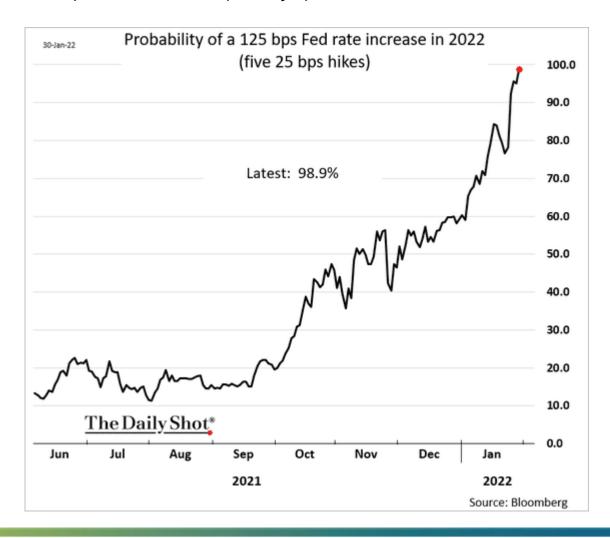
## The Fed and Rates



The Fed and Rates

#### **Expectations**

• As of the end of January, the market is expecting up to five rate hikes in 2022.



MEKETA INVESTMENT GROUP 57 of 102

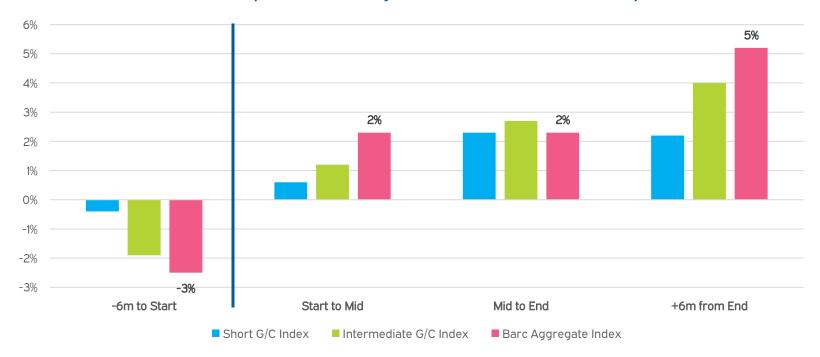


The Fed and Rates

#### What is already priced in?

- Historically, bond markets have priced in the expectation of higher Fed Funds rates <u>before</u> the tightening cycle begins.
- Below we look at the situation during the last rate increase cycle (2016 -2018).

#### Returns prior and during the 2016-2018 rate increase period



Most of the negative impact to returns occurs in the 6 months <u>before</u> to the start of the hiking cycle.

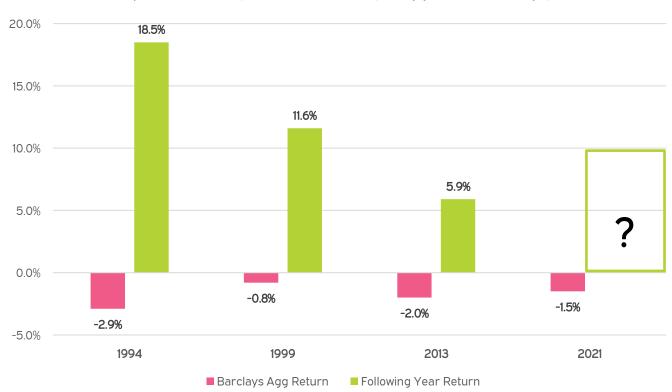
MEKETA INVESTMENT GROUP 58 of 102

The Fed and Rates

#### History is Informative

- 2021 was the third worst calendar year for the Barclays Aggregate Index in its 46 year history.
- Following year returns have historically been quite strong. Will 2022 repeat history?

#### Top four worst years for Barclays Agg vs. Following year return



MEKETA INVESTMENT GROUP 59 of 102



The Fed and Rates

#### Returns Have Been Positive in Past Rate Hike Environments

- Performance for investment grade bonds has been in the 1%-3% during past rate hike environments
- U.S. equities have also produced positive returns during those periods.

Rate Hike Period	# of Hikes	Total Increase (bps)	Bloomberg US Agg Perf.	S&P 500 Perf.
March 1988 - Feb 1989	11	325	3.7%	11.9%
Feb 1994 - Feb 1995	7	300	0.0%	4.1%
June 1999 - May 2000	6	175	2.1%	10.5%
June 2004 - June 2006	17	425	3.1%	8.2%
Dec 2016 - Dec 2018	8	200	1.8%	8.6%

MEKETA INVESTMENT GROUP 60 of 102





Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### **Asset Allocation Review Introduction**

- The purpose of this review is to ensure FIPO's asset allocation targets are still appropriate moving forward.
- The backbone of the analysis is based on a modeling technique called Mean Variance Optimization (MVO).
- MVO analysis seeks to predict what the long term expected return will be based on a selected asset mix.
- MVO is a very useful tool, but it is imperfect. Qualitative analysis must be applied when evaluating the forecasts.
- In the first quarter of each year, Meketa Investment Group typically prepares its capital market assumptions which serve as the backbone of the MVO analysis.
- The capital market assumptions seek to predict individual asset class returns and volatility over the next twenty year period.
- They do not predict returns or volatility in any given single year.

MEKETA INVESTMENT GROUP 62 of 102



Asset Study Comparison: 2022 Projections vs. 2021 Projections

## **Building our forecasts**

- Each return assumption is based on the most important factors that drive returns for that asset class.
- The common components are income, growth and valuation.

Asset Class Category	Major Factors
Equities	Dividend Yield, GDP Growth, Valuation
Bonds	Yield to Worst, Default Rate, Recovery Rate
Real Estate	Cap Rate, Income Yield, Growth

MEKETA INVESTMENT GROUP 63 of 102



Asset Study Comparison: 2022 Projections vs. 2021 Projections

## **Current Asset Allocation Policy**

	Target (%)	Ranges (%)
U.S. Equity	32	20% - 40%
International Developed Non-U.S. Equity	22	10% - 30%
Private Equity Fund of Funds	4	0% - 8%
Private Debt	2	0% - 4%
Investment Grade Bonds	18	12% - 25%
Treasuries	7	3% - 10%
High Yield Bonds	2	0% - 4%
Bank Loans	2	0% - 4%
Real Estate	9	6% - 12%
Non-Core Infrastructure	2	0% - 5%
Total	100	

MEKETA INVESTMENT GROUP 64 of 102



Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### **Annual Asset Study**

• The following table illustrates the changes in expected return for each sub asset class that FIPO is invested in.

#### Expected Return<sup>1</sup> Assumptions

	2021 Study Return Assumptions (%)	2022 Study Return Assumptions (%)	Return Difference (%)	Notes
U.S. Equity	6.8	6.8	-	Higher earnings growth, offset by higher prices
International Developed Non-U.S. Equity	7.1	7.5	+0.4	Lower earnings growth, offset by lower prices
Private Equity Fund of Funds	8.0	8.6	+0.6	Higher earnings growth forecasted
Private Debt	6.8	7.3	+0.5	Higher yields
Investment Grade Bonds	1.8	2.4	+0.6	Higher yields
Treasuries	2.5	2.8	+0.3	Higher yields offset by losses from future rate increases
High Yield Bonds	4.2	4.4	+0.2	Higher yields partly offset by tighter spreads
Bank Loans	4.0	4.0	-	Higher yields and tighter spreads
Real Estate	6.9	7.4	+0.5	Higher yields
Non-Core Infrastructure	9.0	9.3	+0.3	Slightly more expensive offset by higher future rates
FIPO's 20 Year Expected Return	6.3%	6.5%	+0.2%	

MEKETA INVESTMENT GROUP 65 of 102

 $<sup>^{\</sup>rm 1}$  Twenty-year annualized return assumptions.



Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### **Expected Risk Assumptions**

- There have been minimal changes in our expected standard deviation assumptions.
- Our expectations are based on historical 15 year averages, with subjective adjustments.

#### Expected Risk<sup>1</sup> Assumptions

	2021 Study Risk Assumptions (%)	2022 Study Risk Assumptions (%)	Risk Difference (%)
U.S. Equity	18.0	18.0	-
International Developed Non-U.S. Equity	19.0	19.0	-
Private Equity Fund of Funds	24.0	24.0	-
Private Debt	16.0	16.0	-
Investment Grade Bonds	4.0	4.0	-
Treasuries	12.0	12.0	-
High Yield Bonds	11.0	11.0	-
Bank Loans	9.0	10.0	+1.0
Real Estate	17.0	17.0	-
Non-Core Infrastructure	22.0	22.0	-
FIPO's 20 YR Expected Standard Deviation	12.1%	12.1%	0.0

MEKETA INVESTMENT GROUP 66 of 102

<sup>&</sup>lt;sup>1</sup> Twenty-year annualized assumptions.



Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### Summary

- Return expectations for nearly all assets increased, because:
  - Higher yields in fixed income result in higher forward looking return expectations.
  - Lower valuations for international public equities more than offset the lower earnings growth expectations and result in higher forward looking return expectations.
- Risk expectations remained the same for many classes.

#### 2021 vs. 2022 Asset Study Comparison

	Expectations based on 2021 Asset Study (%)	Expectations based on 2022 Asset Study (%)	Difference (%)
Expected Return	6.3	6.5	+0.2
Expected Standard Deviation	12.1	12.1	0.0

MEKETA INVESTMENT GROUP 67 of 102

<sup>&</sup>lt;sup>1</sup> Twenty year annualized assumptions.

## **Thoughts**



Asset Study Comparison: 2022 Projections vs. 2021 Projections

## "Traditional" Asset Mixes<sup>1</sup> (For Context)

	60/40 (%)	70/30 (%)	80/20 (%)	90/10 (%)
Global Equity	60	70	80	90
Investment Grade Bonds	40	30	20	10
20 YR Expected Return <sup>2</sup>	5.6%	6.0%	6.4%	6.8%
20 YR Standard Deviation	11.0%	12.7%	14.5%	16.2%

• Return expectations make it increasingly more difficult for Trustees to adopt an asset allocation policy that models to a long-term return above 7.0%.

MEKETA INVESTMENT GROUP 69 of 102

<sup>&</sup>lt;sup>1</sup> Twenty year annualized assumptions.

<sup>&</sup>lt;sup>2</sup> Based on 2022 Asset Study, global equity consists of 50% U.S. equity, 35% developed international equity, and 15% emerging market equity.

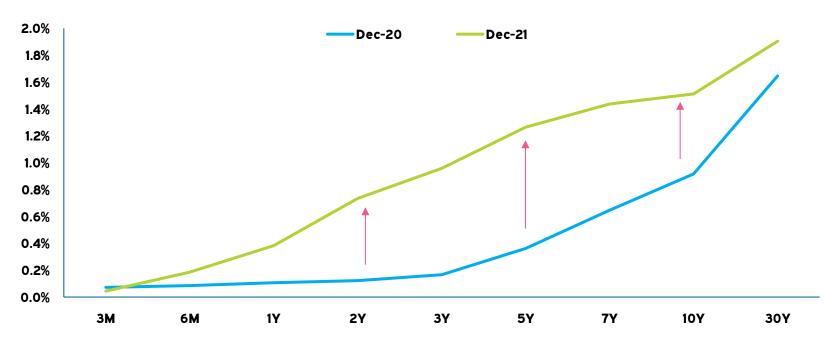


Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### **Rising Interest Rates**

- The US Treasury yield curve steepened during 2021, as concerns about inflation battled with the demand for safe-haven assets (e.g., Treasuries) and Federal Reserve polices designed to maintain low rates (e.g., the quantitative easing program).
- The increase in rates manifested itself at the middle and longer end of the curve.

#### US Yield Curve<sup>1</sup>



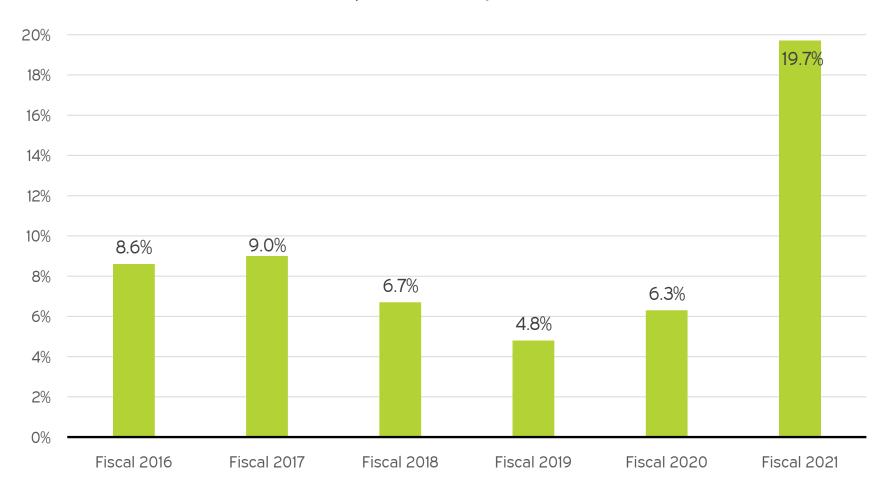
MEKETA INVESTMENT GROUP 70 of 102

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of December 31, 2021.



Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### **Keep Recent History in Mind**



• FIPO has exceeded its actuarial return in three of the last six fiscal years. The plan has not had a negative fiscal year in the last ten years.



Asset Study Comparison: 2022 Projections vs. 2021 Projections

#### What Can/Should You Do?

- Keep the long term in mind.
- Recognize the goal is a long-term return over your actuarial target (not every single year).
- Trust the long term asset allocation.
- Rebalance.
- Increase risk assets when expectations are higher.

MEKETA INVESTMENT GROUP 72 of 102



Asset Study Comparison: 2022 Projections vs. 2021 Projections

## Other Mixes (Conversation Starter)

	Target (%)	12/31 Exposure (%)	Aggressive (%)	Conservative (%)
U.S. Equity	32	36	40	32
International Developed Non-U.S. Equity	22	23	24	22
Private Equity Fund of Funds	4	7	7	4
Private Debt	2	0	0	0
Investment Grade Bonds	18	15	11	18
Treasuries	7	5	4	7
High Yield Bonds	2	2	2	2
Bank Loans	2	2	2	2
Real Estate	9	9	9	10
Infrastructure	2	1	1	3
Expected Return (20 years)	6.5%	6.7%	6.8%	6.5%
Expected Standard Deviation	12.2%	13.3%	14.1%	12.2%
Sharpe Ratio	0.39	0.37	0.36	0.39

• Repositioning the portfolio more aggressively (+5% equity) or more conservatively (-5% equity) does not meaningfully alter long-term expectations.

MEKETA INVESTMENT GROUP 73 of 102

**International Equity Manager Pairings** 



**International Equity Pairings** 

### **Background**

- In 2019 Meketa recommended a diversified three manager approach to international equity:
  - Core EAFE index
  - Active manager with value tilt
  - Active manager with growth tilt
- In late 2021 Meketa conducted an international equity structure review to evaluate how the two active managers complemented one another.
- It was determined that the value strategy (First Eagle) was not an ideal complement to the existing growth strategy (Wellington).
- Meketa evaluated other value oriented strategies, including a new First Eagle ex-gold and cash international value strategy to determine if there is a more optimal pairing with Wellington.

MEKETA INVESTMENT GROUP 75 of 102



**International Equity Pairings** 

## Investment Managers Overview (As of December 31, 2021)

	Aristotle Capital Management	Lazard <sup>ı</sup>	First Eagle Investment Management	Arrowstreet Capital
Firm Location	Los Angeles, CA	New York, NY	New York, NY	Boston, MA
Firm Inception	1959	1970	1864	1999
Ownership Structure	100% employee- owned	100% subsidiary of Lazard Ltd [NYSE: LAZ]	13% employee- owned/87% various investors	100% employee- owned
Strategy Name	International Equity	International Equity	International Equity (ex Gold & Cash)	International Equity - EAFE
Strategy Inception	Jan-08	Jun-95	Jan-03²	Jul-01
Assets Under Management (Firm)	\$60 billion	\$240 billion	\$111 billion	\$157 billion
Assets Under Management (Strategy)	\$4.4 billion	\$5.8 billion	\$52.5 million	\$12.2 billion

MEKETA INVESTMENT GROUP 76 of 102

<sup>&</sup>lt;sup>1</sup> AUM data as of 9/30/2021.

<sup>&</sup>lt;sup>2</sup> Inception of the International Value product. All return data for the ex-gold and cash strategy is hypothetical as the live strategy is currently in the process of launching through an LP vehicle. A CIT is expected to be offered after Q2 2022.



International Equity Pairings

## Portfolio Characteristics<sup>1</sup> (As of September 30, 2021)

	Aristotle	Lazard	First Eagle	Arrowstreet	MSCI EAFE
Price-Earnings Ratio	26.4	18.9	16.5	13.7	16.8
Price-Book Value Ratio	2.8	2.1	1.4	1.4	1.8
Dividend Yield	1.8%	2.1%	2.6%	2.8%	2.5%
Weighted Average Market (billions)	\$77.8	\$52.0	\$66.8	\$47.7	\$78.4B
Median Market Cap (billions)	\$38.7	\$28.8	\$16.7	\$2.2	\$14.3B
Market Cap > \$50bn	47%	41%	28%	26%	49%
Market Cap \$15bn - \$50bn	36%	40%	48%	22%	33%
Market Cap < \$15bn	18%	19%	24%	51%	18%
Number of Holdings	39	73	93	676	845
Top Sector Weightings	Industrials 21% Cons. Disc. 19% Financials 17%	Industrials 21% Financials 16% Cons. Disc. 14%	Cons. Stap. 23% Financials 21% Industrials 15%	Industrials 20% Info. Tech. 17% Financials 15%	Financials 17% Industrials 16% Cons. Disc. 13%
Top Country Weightings	Japan 21% UK 18% France 16%	Japan 19% UK 13% Germany 11%	Japan 24% UK 17% France 9%	Japan 35% Switzerland 13% Germany 11%	Japan 24% UK 14% France 11%
% of Portfolio in Top 10 Holdings:	36%	22%	26%	16%	13%

MEKETA INVESTMENT GROUP 77 of 102

<sup>&</sup>lt;sup>1</sup> Source: eVestment Alliance Database, MSCI, FactSet, manager data. Data adjusted for outliers where appropriate. Weighted Average and Median Market Cap statistics utilize MSCI definition (adjusted for foreign ownership and free float).



**International Equity Pairings** 

# Common Period Returns and Risk Statistics (net of fees)<sup>1</sup> (January 2008 – December 2021)

	Aristotle	Lazard	First Eagle	Arrowstreet	MSCI EAFE
Performance					
Common Period Performance (%)	6.4	3.7	5.8	5.2	3.1
% of Periods above Index (%)	58.3	54.2	53.6	58.3	
Best 3 Months (%)	36.9	30.1	23.3	39.7	34.1
Worst 3 Months (%)	-32.8	-29.4	-25.3	-35.6	-35.4
Risk Measures					
Standard Deviation (%)	17.4	16.8	15.0	18.2	17.9
Tracking Error (%)	4.4	3.2	5.5	3.2	
Beta	0.95	0.93	0.81	1.00	1.00
Loss Deviation (%)	12.1	12.0	10.4	12.6	12.9
Upside Capture (%)	100.2	94.2	82.7	104.8	100.0
Downside Capture (%)	88.6	93.7	76.7	96.1	100.0
Risk-Adjusted Performance					
Jensen's Alpha (%)	3.4	0.7	2.9	2.1	
Sharpe Ratio	0.33	0.18	0.35	0.26	0.14
Information Ratio	0.75	0.18	0.49	0.66	

MEKETA INVESTMENT GROUP 78 of 102

<sup>&</sup>lt;sup>1</sup> Net of fees returns based on data from eVestment. Arrowstreet returns are based on the hypothetical application of the mgmt. fee of 75 basis points per annum. Common period is based on inception of Aristotle. Relative measures are versus the MSCI EAFE.



International Equity Pairings

Historical Performance (net of fees)<sup>1</sup> (As of December 31, 2021)

	Aristotle	Lazard	First Eagle	Arrowstreet	MSCI EAFE
Trailing Year Returns (%):					
1 Year	16.5	6.3	8.7	12.0	11.3
3 Year	16.8	12.1	10.1	15.4	13.5
5 Year	12.0	8.6	6.8	11.0	9.5
7 Year	8.6	5.7	6.0	8.1	6.8
10 Year	9.2	7.8	8.1	10.0	8.0
Calendar Year Returns (%):					
2020	10.0	9.1	2.9	13.4	7.8
2019	24.5	21.6	19.4	21.2	22.0
2018	-10.2	-13.2	-13.4	-12.9	-13.8
2017	23.2	23.2	20.1	25.7	25.0
2016	0.6	-4.3	3.3	2.4	1.0
2015	0.5	1.9	4.7	0.3	-0.8
2014	-5.4	-3.1	-1.0	-3.2	-4.9
2013	20.8	23.2	24.8	31.0	22.8
2012	18.1	21.1	17.4	18.2	17.3
2011	-13.1	-7.6	-7.5	-13.6	-12.1
2010	21.2	7.2	20.7	11.8	7.8
2009	40.9	26.2	21.3	40.3	31.8
2008	-33.4	-37.6	-25.6	-42.0	-43.4

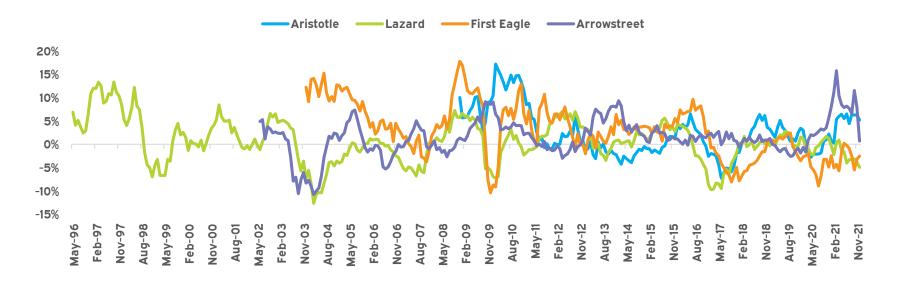
<sup>1</sup> Net of fees returns based on data from eVestment. Arrowstreet returns are based on the hypothetical application of the mgmt. fee of 75 basis points per annum.

MEKETA INVESTMENT GROUP 79 of 102



International Equity Pairings

## Rolling 1-Year Excess Returns vs MSCI EAFE<sup>1</sup> (As of December 31, 2021)



	Total Periods	Periods Outperformed	Percentage	Avg. Annual Excess	Median Annual Excess	Max	Min	Range
Aristotle	157	103	65.6%	2.5%	1.6%	17.2%	-7.3%	24.5%
Lazard	308	180	58.4%	0.6%	0.6%	13.3%	-12.7%	26.0%
First Eagle	217	154	71.0%	3.0%	3.1%	17.8%	-10.4%	28.2%
Arrowstreet	235	161	68.5%	1.5%	1.3%	15.8%	-10.8%	26.5%

MEKETA INVESTMENT GROUP 80 of 102

Net of fees returns based on data from eVestment. Arrowstreet returns are based on the hypothetical application of the mgmt. fee of 75 basis points per annum.



International Equity Pairings

Rolling 3-Year Excess Returns vs MSCI EAFE<sup>1</sup> (As of December 31, 2021)



	Total Periods	Periods Outperformed	Percentage	Avg. Annual Excess	Median Annual Excess	Max	Min	Range
Aristotle	133	99	74.4%	1.8%	0.9%	11.4%	-2.5%	13.9%
Lazard	284	173	60.9%	0.7%	1.0%	9.3%	-4.1%	13.3%
First Eagle	193	151	78.2%	3.4%	3.8%	10.1%	-3.4%	13.5%
Arrowstreet	211	166	78.7%	1.3%	1.3%	4.7%	-2.4%	7.1%

MEKETA INVESTMENT GROUP 81 of 102

Net of fees returns based on data from eVestment. Arrowstreet returns are based on the hypothetical application of the mgmt. fee of 75 basis points per annum.



International Equity Pairings

#### Fees & Terms<sup>1</sup>

	Aristotle	Lazard	First Eagle	Arrowstreet
Strategy Name	International Equity	International Equity	International Equity (ex Gold & Cash)	International Equity - EAFE
Vehicle Type	CIT	CIT	LP	CIT
Estimate All-In Fee <sup>2</sup>	0.49%	0.70%	0.64%	0.83%
Fee Detail	<b>Meketa clients</b> grandfathered into Class B with all-in fee of 0.49%.	Mandate size falls into Class 3 with mgmt fee at 0.65% and operating fees capped at 0.10%. Lazard agreed to offer Class 3a, which would lower mgmt fees by 5 basis points.	0.55% for founder's share class, with a 0.09% operational expense cap. Founder class applies until the LP reaches \$500M in commitments.	0.75% on the first \$250M and 0.60% thereafter. An estimated 0.08% operating expense included.

- The median fee for a \$100 million investment for commingled funds in the eVestment EAFE All Cap Equity category is 74 basis points.
- The all-in fees for Aristotle and First Eagle would be in the lowest-fee quartile. The Lazard all-in fee would be in second lowest-fee quartile, while Arrowstreet would be in the highest-fee quartile.

MEKETA INVESTMENT GROUP 82 of 102

<sup>&</sup>lt;sup>1</sup> For comparative purposes, only information for the commingled products is shown – First Eagle is the lone exception as a CIT won't be available until Q2 2022. Fees for separate accounts can be provided upon request.

<sup>&</sup>lt;sup>2</sup> Arrowstreet could charge an additional 0.15% for redemptions/subscriptions greater or equal to 10% of the NAV of the fund. For the First Eagle LP, capital for the founder's share class must be committed by 6/30/2023 and funding must occur by 12/31/2023.



**International Equity Pairings** 

### **Blended Portfolio Analysis**

- This section compares the combinations of Wellington with each of the candidate managers. The blends are combined on a 50/50 basis and assumes semi-annual rebalancing.
- While it is important to consider the merits of individual investment managers on a stand-alone basis, the assessment of a managers' portfolio fit is a necessity when building a multi-manager roster. This allows for ex-ante risks to be better understood and managed (both at the manager and aggregate level), and ideally results in an improvement in risk-adjusted returns.
- Any manager that is added to FIPO's roster should utilize an investment approach that differs from that of the FIPO's existing managers. Given the style differences (growth vs value in varying degrees) between Wellington and each of the candidate managers, the pairwise correlations are expected to be low. Nonetheless, factors such as correlation of historical returns and excess returns, should be considered.
- The following slides provide a historical look at how each manager combination has fared over the long term.

MEKETA INVESTMENT GROUP 83 of 102



**International Equity Pairings** 

### **Correlation Analysis**

Excess Return Correlation (vs MSCI EAFE) – August 2009 to December 2021							
	Aristotle	Lazard	First Eagle	Arrowstreet	MSCI EAFE Value	MSCI EAFE Growth	
Wellington	0.19	0.31	0.23	0.11	-0.69	0.70	

- In the table above, we provide correlation data on an excess return basis.
- Ideally, each manager within the portfolio will exhibit a low correlation of excess returns with other managers in the multi-manager program, which should result in a portfolio with lower risk and the potential for superior risk-adjusted returns at the aggregate level.

MEKETA INVESTMENT GROUP 84 of 102



**International Equity Pairings** 

# Common Period Returns and Risk Statistics (gross of fees)<sup>1</sup> (August 2009 – December 2021)

	Aristotle/ Wellington	Lazard/ Wellington	First Eagle/ Wellington	Arrowstreet/ Wellington	MSCI EAFE
Performance					
Common Period Performance (%)	11.8	11.0	11.6	11.8	6.9
% of Periods above Index (%)	65.8	63.1	65.1	64.4	
Best 3 Months (%)	18.4	18.4	17.5	20.8	19.6
Worst 3 Months (%)	-20.9	-20.4	-20.5	-20.8	-22.8
Risk Measures					
Standard Deviation (%)	14.4	14.3	13.4	14.6	15.3
Tracking Error (%)	4.0	3.8	4.3	3.6	
Beta	0.91	0.91	0.84	0.93	1.00
Loss Deviation (%)	9.2	9.1	8.4	9.1	10.1
Upside Capture (%)	102.2	100.2	94.2	104.3	100.0
Downside Capture (%)	80.3	82.1	72.9	82.3	100.0
Risk-Adjusted Performance					
Jensen's Alpha (%)	5.1	4.4	5.4	5.1	
Sharpe Ratio	0.78	0.73	0.83	0.78	0.42
Information Ratio	1.23	1.06	1.08	1.36	

MEKETA INVESTMENT GROUP 85 of 102

<sup>&</sup>lt;sup>1</sup> Returns are gross of fees based on eVestment's default composite/vehicle. Common period is based on inception of Wellington. Relative measures are versus the MSCI EAFE.



International Equity Pairings

# Historical Performance (gross of fees) (As of December 31, 2021)

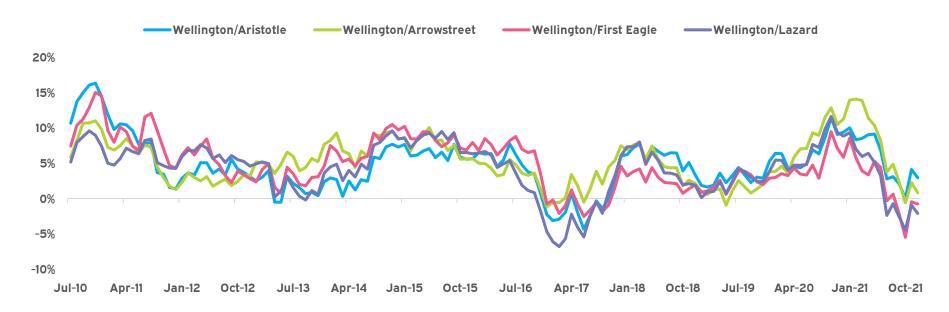
	Aristotle/ Wellington	Lazard/ Wellington	First Eagle/ Wellington	Arrowstreet/ Wellington	MSCI EAFE
Trailing Year Returns (%):					
1 Year	14.2	9.1	10.5	12.1	11.3
3 Year	19.4	17.0	16.2	18.8	13.5
5 Year	14.9	13.1	12.4	14.4	9.5
7 Year	10.9	9.4	9.8	10.8	6.8
10 Year	12.3	11.6	11.9	12.8	8.0
Calendar Year Returns (%):					
2020	17.2	16.6	13.6	19.1	7.8
2019	27.3	25.8	24.9	25.8	22.0
2018	-10.4	-11.9	-11.9	-11.7	-13.8
2017	31.0	31.1	29.6	32.5	25.0
2016	-1.3	-3.7	0.2	-0.2	1.0
2015	4.8	5.5	7.1	4.8	-0.8
2014	2.4	3.5	4.8	3.6	-4.9
2013	25.2	26.4	27.4	30.4	22.8
2012	20.4	21.9	20.1	20.5	17.3
2011	-10.8	-7.9	-7.8	-10.9	-12.1
2010	22.2	15.1	22.2	17.5	7.8

MEKETA INVESTMENT GROUP 86 of 102



International Equity Pairings

## Rolling 1-Year Excess Returns vs MSCI EAFE<sup>1</sup> (As of December 31, 2021)



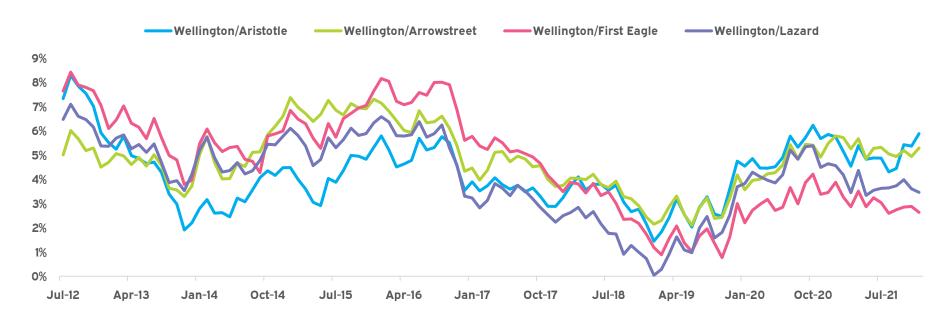
	Total Periods	Periods Outperformed	Percentage	Avg. Annual Excess	Median Annual Excess	Max	Min	Range
Wellington/Aristotle	138	126	91.3%	4.8%	4.5%	16.3%	-4.3%	20.7%
Wellington/Arrowstreet	138	132	95.7%	5.3%	5.0%	14.0%	-1.2%	15.2%
Wellington/First Eagle	138	123	89.1%	4.8%	4.5%	15.0%	-5.5%	20.5%
Wellington/Lazard	138	120	87.0%	4.2%	4.9%	11.6%	-6.8%	18.4%

Gross of fees returns based on data from eVestment.



International Equity Pairings

## Rolling 3-Year Excess Returns vs MSCI EAFE<sup>1</sup> (As of December 31, 2021)



	Total Periods	Periods Outperformed	Percentage	Avg. Annual Excess	Median Annual Excess	Max	Min	Range
Wellington/Aristotle	114	114	100.0%	4.2%	4.3%	8.3%	1.4%	6.8%
Wellington/Arrowstreet	114	114	100.0%	4.9%	4.9%	7.4%	2.1%	5.3%
Wellington/First Eagle	114	114	100.0%	4.7%	4.9%	8.4%	0.8%	7.7%
Wellington/Lazard	114	114	100.0%	4.1%	4.3%	7.1%	0.0%	7.1%

Gross of fees returns based on data from eVestment.

MEKETA INVESTMENT GROUP 88 of 102



**International Equity Pairings** 

## Manager Comparison

	Aristotle	Lazard	First Eagle	Arrowstreet
Organization	<ul><li>100% employee- owned</li><li>\$60.4 billion AUM</li></ul>	<ul><li>Publicly-listed</li><li>\$239.8 billion AUM* (Q3 2021)</li></ul>	<ul><li>13% employee- owned</li><li>\$110.5 billion AUM</li></ul>	<ul><li>100% employee- owned \$157.4 billion AUM</li></ul>
Investment Team	<ul> <li>All three PMs collaborate on all decisions (must be a consensus decision)</li> <li>PMs supported by over 10 research analysts who on average have over a decade of investment experience</li> </ul>	<ul> <li>Michael Fry – lead PM, over 40 years of experience</li> <li>5 co-PMs</li> <li>Over 30 analysts provide support (in addition to other broad international strategies)</li> </ul>	<ul> <li>Matt McLennan – lead PM, over 30 years of experience</li> <li>1 co-PM, Kimball Brooker</li> <li>Over 15 analysts provide support (PMs and analysts make up the Global Value Team)</li> </ul>	<ul> <li>Peter Rathjens maintains overall responsibility for the strategy</li> <li>Over 100 individuals, including over 20 senior investment professionals</li> <li>Investment engine driven by Research Team</li> </ul>
Investment Philosophy/Process	<ul> <li>Fundamental</li> <li>Core with value tilt</li> <li>Focus on companies with changing dynamics that may catalyze future value creation</li> <li>30-40 holdings</li> <li>3-5% tracking error</li> </ul>	<ul> <li>Relative-value</li> <li>Ranges across market cap</li> <li>Focus on companies with combination of valuation and profitability</li> <li>60-80 holdings</li> <li>2-4% tracking error</li> </ul>	<ul> <li>Value</li> <li>Dynamic positioning in either franchise value or deep value</li> <li>90-140 holdings</li> <li>3-5% tracking error</li> </ul>	<ul> <li>Quantitative-core</li> <li>Alpha, risk, and transaction-cost models</li> <li>Style neutral to factors, but will weight certain factors opportunistically</li> <li>500-700 holdings</li> <li>2-3% tracking error</li> </ul>

MEKETA INVESTMENT GROUP 89 of 102



**International Equity Pairings** 

#### **Final Thoughts**

- All four pairings would have outperformed historically.
- When evaluating what is the best pairing going forward it is important for the Trustees to evaluate the following:
  - Correlation of excess returns
    - Which strategies are least correlated with Wellington product?
  - Beta
    - How comfortable are you with wider dispersion of returns?
  - Upside/downside capture
    - Would you rather keep up/outperform in up markets or lose less in down markets?
  - Concentration and investment approach
    - Three strategies are fundamental stock pickers and quasi-concentrated. One option is a quant model that will hold very diversified portfolio.
  - Fees
    - The new First Eagle product is roughly 15 bps cheaper than current strategy. Aristotle would be the least expensive, Lazard is roughly inline with current fees, and Arrowstreet is slightly more expensive than the current strategy.

MEKETA INVESTMENT GROUP 90 of 102

Follow Ups From Last Meeting

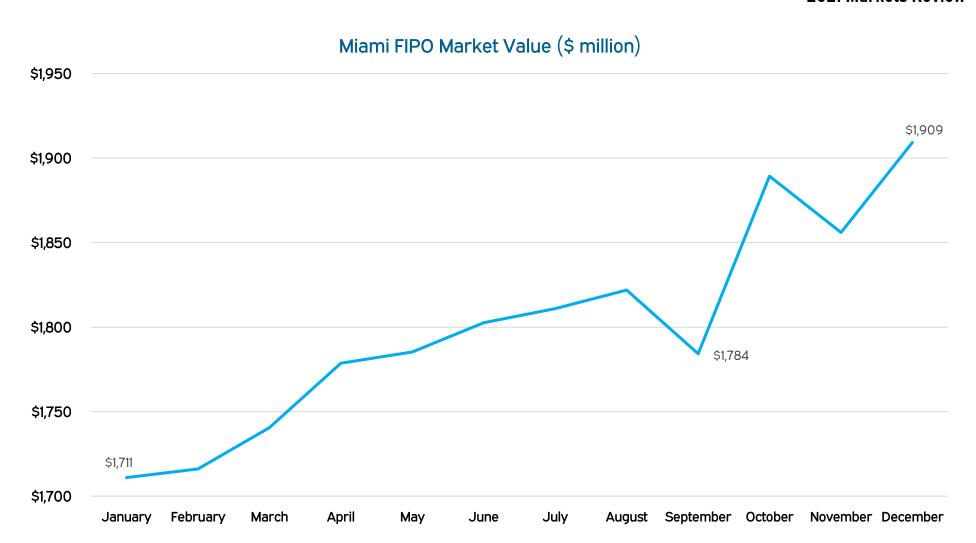


Follow Ups From Last Meeting

### Likely Discussion Items in Fiscal 2022

- Asset allocation today
- Investment Policy Statement Review after completion of asset allocation
- Infrastructure future
- International equity today
- Domestic equity- future





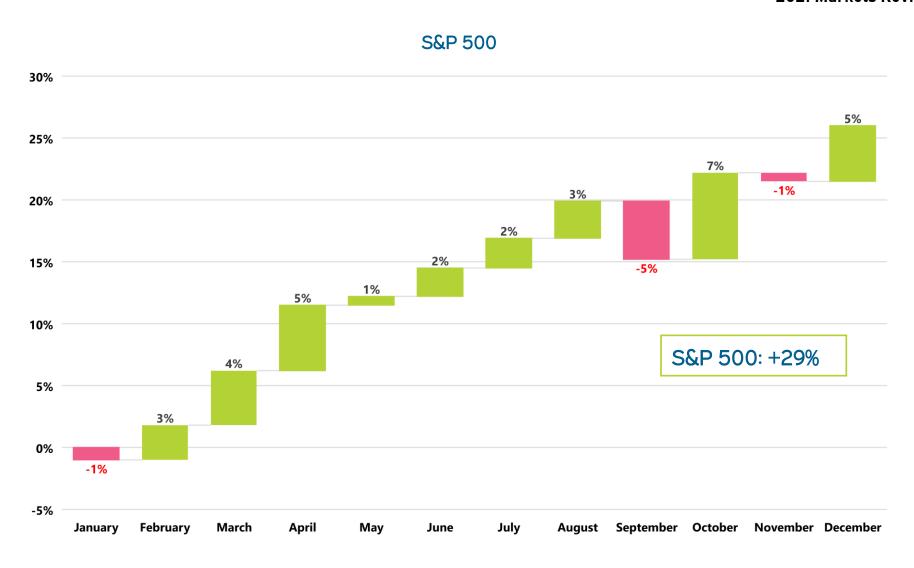


2021 Markets Review

#### 2021 Milestones

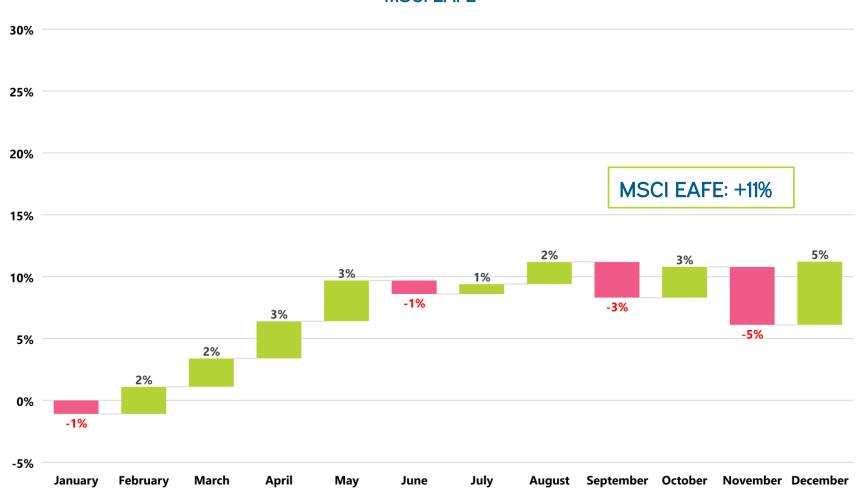
Month	Event
1-January	January 6 riot on the U.S. Capital, Joe Biden sworn in as U.S. President. GameStop "meme" stock frenzy
2 - February	OPEC+ supply restraints drive oil prices up
3-March	\$1.9 trillion virus relief spending bill signed, extending stimulus payments and unemployment benefits
4 -April	Most Americans over 18 years old become eligible for vaccines
5 - May	CPI starts breaking records (0.9% month-over-month, and 3.0% year over year). CDC lifts mask mandate
6 - June	Delta variant emerges in U.K.
7 - July	Chinese stocks tumble from govt. clampdown on select industries. U.S. bonds rise as Delta variant spreads
8 -August	Taliban takes over Afghanistan. U.S. withdraws troops. U.S. jobs reports shows strongest gain in nearly a year
9 -September	Chinese real estate debt crises (Evergrande) spooks global equity markets. Gridlock in Washington (upcoming debt ceiling and infrastructure bill disagreements)
10 - October	Fed Reserve minutes signal start of tapering of monthly bond purchases. Energy prices up on supply chain issues.
11 - November	Omicron variant emerges. U.S. House of Reps passes toned-down \$555 billion bipartisan infrastructure bill.
12 - December	Fed doubles the pace of tapering and new dot plot shows median projection of three rate hikes in 2022. U.S. CPI hits 6.8%.

MEKETA INVESTMENT GROUP 95 of 102

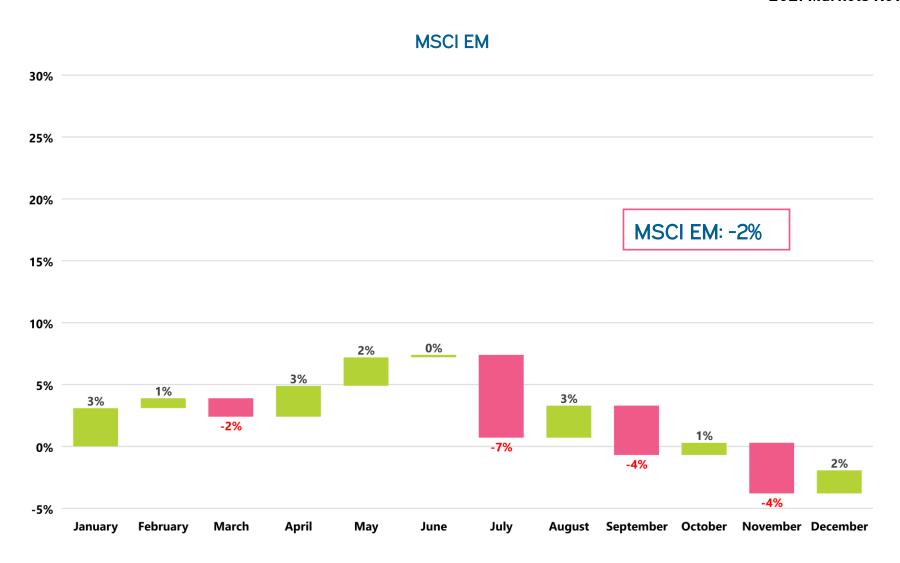






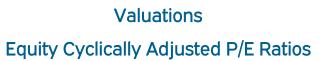


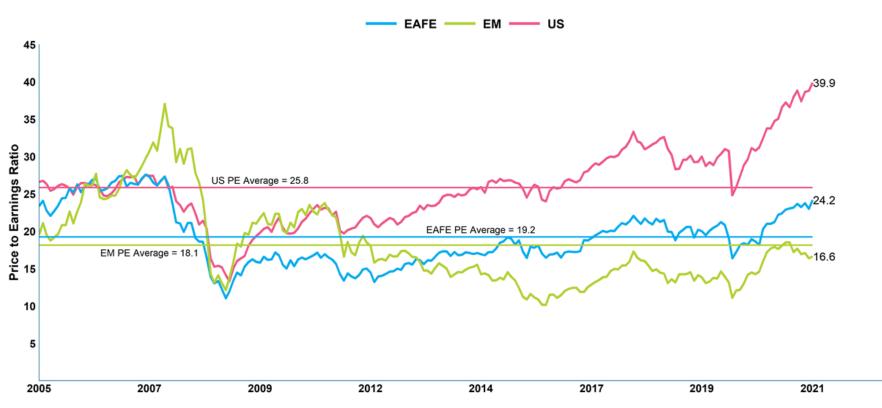






2021 Markets Review

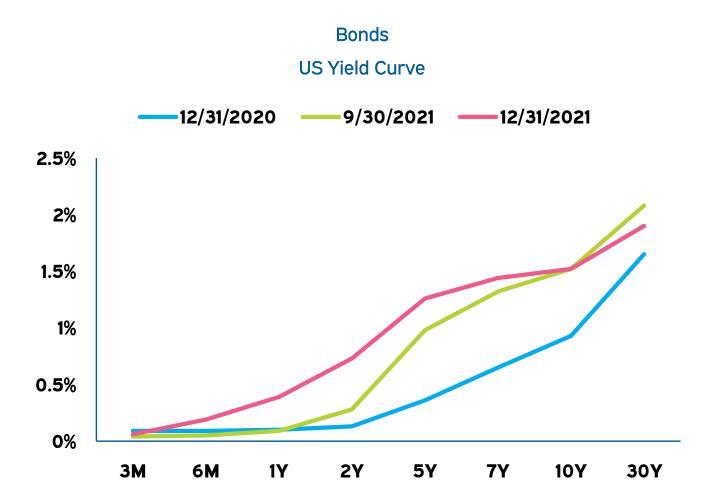




 Particularly in the US, valuations have seen a steep rise and remain well above long-term averages (near +2 standard deviations). Valuations in international markets have also been on an upward trend but are less extended compared to the US.



2021 Markets Review



• During the first half of 2021, the yield curve steepened on higher growth and inflation expectations but flattened in the third quarter with yields rising in the middle of the curve while the long-end fell.

MEKETA INVESTMENT GROUP 100 of 102

## **Disclaimer**



Disclaimer

WE HAVE PREPARED THIS REPORT FOR THE SOLE BENEFIT OF THE CITY OF MIAMI FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST.

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.

MEKETA INVESTMENT GROUP 102 of 102