

# Dallas Police & Fire Pension System March 31, 2023

## Fund Evaluation Report

MEKETA.COM



Agenda

## Agenda

- **1.** Executive Summary
- 2. Performance Update as of March 31, 2023
- 3. Disclaimer, Glossary, and Notes

Executive Summary As of March 31, 2023



#### **Executive Summary**

## DPFP Trailing One-Year Flash Summary

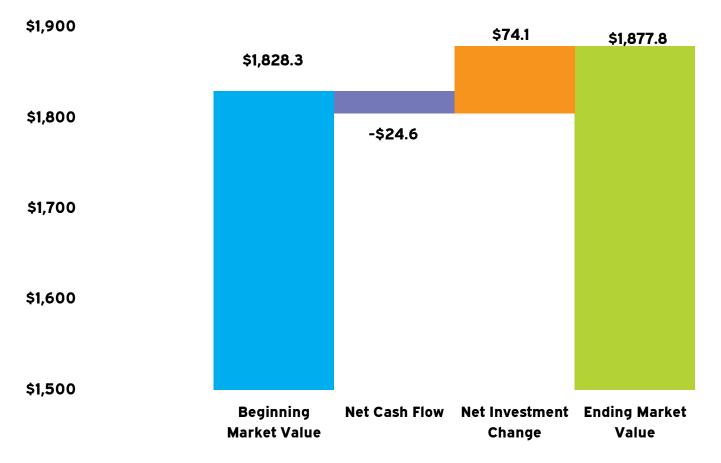
Category	Results	Notes
Total Fund Performance Return	Positive	5.9%
Performance vs. Policy Index	Outperformed	5.9% vs4.7%
Performance vs. Peers	Outperformed	5.9% vs. −4.5% median (1st percentile)
Asset Allocation vs. Targets	Positive	Overweight real estate and private equity helped
Public Active Management	Outperformed	7 of 9 <sup>2</sup> active public managers beat benchmarks
DPFP Public Markets vs. 60/40 <sup>3</sup>	Outperformed	-3.2% vs7.6%
DPFP Public Markets vs. Peers	Outperformed	-3.2% vs4.5%
Safety Reserve Exposure	Sufficient	\$125.3 million (approximately 7.0%)
Compliance with Targets	Yes	All asset classes in compliance

<sup>&</sup>lt;sup>1</sup> InvestorForce Public DB \$1-5 billion net.

 <sup>&</sup>lt;sup>2</sup> Metlife Emerging Market Debt, and Global Alpha Int'I Small Cap are excluded as they do not have a year track record yet.
<sup>3</sup> Performance of Total Fund excluding private market investments relative to a 60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index.



#### **Executive Summary**

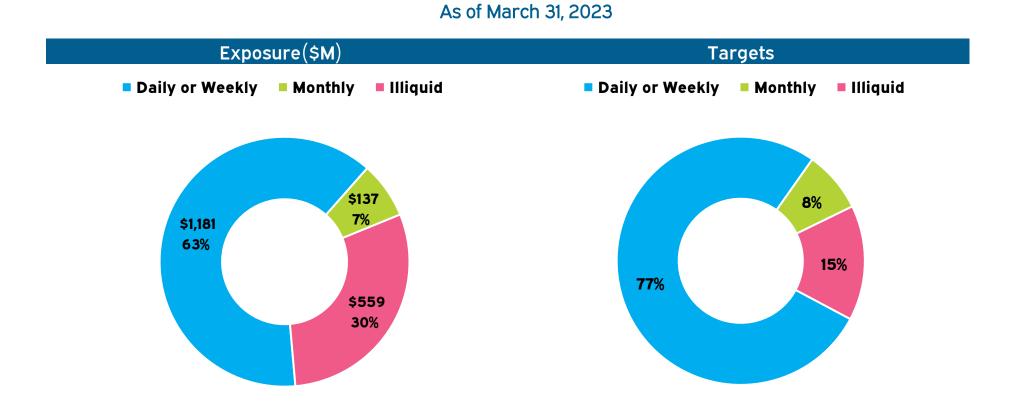


### Quarterly Change in Market Value

 $\rightarrow$  Total market value increased due to positive net investment change.



**Executive Summary** 



Liquidity Exposure

 $\rightarrow$ 

Approximately 30% of the DPFP's assets are illiquid versus 15% of the target allocation.



#### **Executive Summary**

	1 Yr Outperformance vs. Benchmark	3 Yr Outperformance vs. Benchmark	5 Yr Outperformance vs. Benchmark
Boston Partners Global Equity Fund	Yes	Yes	No
Manulife Global Equity Strategy	Yes	Yes	Yes
Walter Scott Global Equity Fund	Yes	No	Yes
Eastern Shore US Small Cap	No	NA	NA
Global Alpha Int'l Small Cap	NA	NA	NA
RBC Emerging Markets Equity	Yes	Yes	Yes
IR&M 1-3 Year Strategy	Yes	Yes	Yes
Longfellow Core Fixed Income	Yes	NA	NA
Aristotle Pacific Capital Bank Loan	Yes	No	Yes
Loomis High Yield Fund	No	NA	NA
Metlife Emerging Markets Debt	NA	NA	ΝΑ

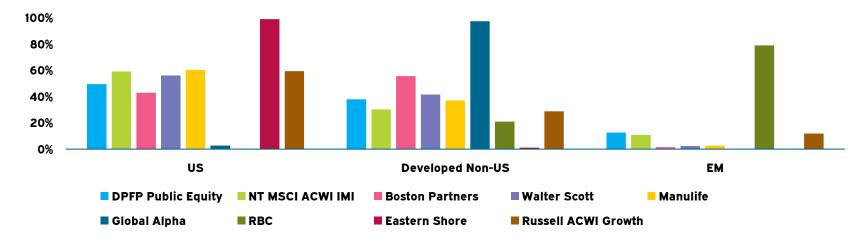
## **Quarterly Manager Scorecard**



#### **Executive Summary**

	Market Value (\$)	% of DPFP Public Equity	US (%)	Developed Non-US (%)	<b>EM</b> (%)
NT MSCI ACWI IMI	193,024,114	21	59	30	11
Walter Scott	138,857,582	15	56	42	2
Boston Partners	130,222,785	14	42	57	2
Russell MSCI ACWI Growth	131,208,674	14	59	29	12
Manulife	129,022,690	14	61	36	3
RBC	88,510,814	10	0	21	79
Global Alpha	56,513,598	6	3	97	0
Eastern Shore	49,835,388	5	99	1	0
DPFP Public Equity	917,538,994.00	100	50	38	13
MSCI ACWI IMI			59	30	11

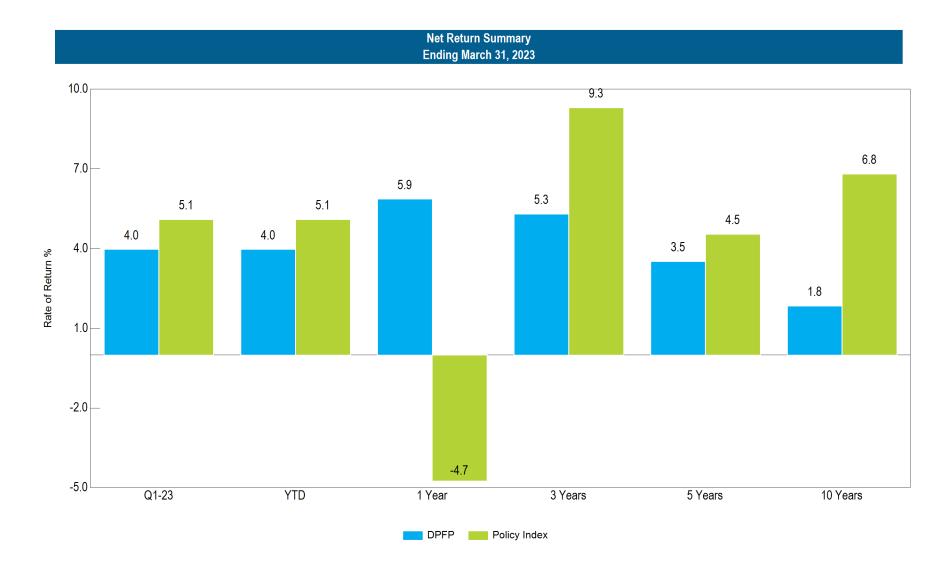
### Equity Regional Exposure<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Percentages may not always sum to 100% due to rounding. Given the multinational nature of many of the underlying holdings in these strategies, country allocation is not always clear and can vary between different data sources.

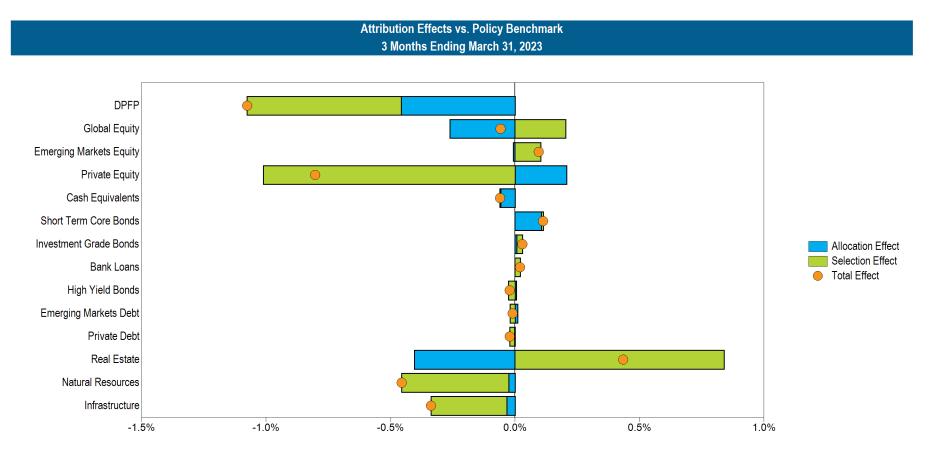
Performance Update As of March 31, 2023







DPFP | As of March 31, 2023

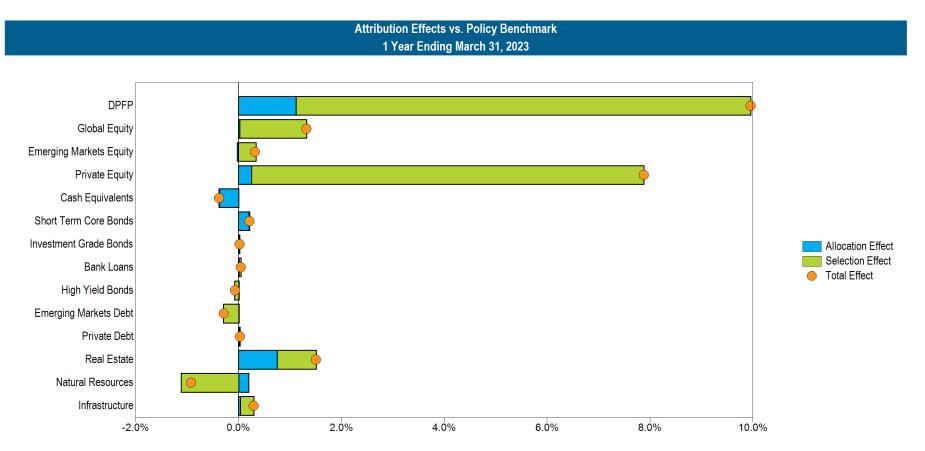


	3	Attribution Sum Months Ending Marc				
w	td. Actual	Wtd. Index	Excess	Selection	Allocation	Total
	Return	Return	Return	Effect	Effect	Effects
Total	4.0%	5.1%	-1.1%	-0.6%	-0.5%	-1.1%

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.



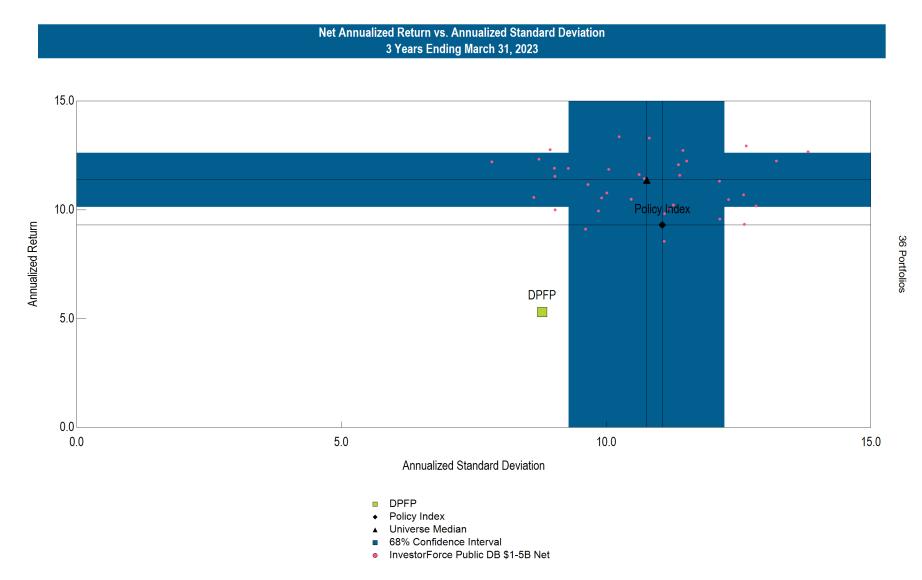
DPFP | As of March 31, 2023



		Attribution Summ				
		1 Year Ending March	31, 2023			
	Wtd. Actual	Wtd. Index	Excess	Selection	Allocation	Total
	Return	Return	Return	Effect	Effect	Effects
Total	5.6%	-4.3%	9.9%	8.8%	1.1%	9.9%

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.







Asset Class Performance Summary (Net)												
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date		
DPFP	1,877,785,250	100.0	4.0	4.0	5.9	5.3	3.5	1.8	5.5	Jun-96		
Policy Index			5.1	5.1	-4.7	9.3	4.5	6.8		Jun-96		
Allocation Index			3.5	3.5	-5.3	7.5	4.9	7.1	7.0	Jun-96		
Total Fund Ex Private Markets			5.9	5.9	-3.2	9.1	4.7	5.1	5.4	Jun-96		
60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index			5.4	5.4	-7.6	7.8	3.6	4.9	5.7	Jun-96		
Global Equity	829,028,180	44.1	7.4	7.4	-4.7	16.2	7.6	8.9	6.8	Jul-06		
MSCI ACWI IMI Net USD			6.9	6.9	-7.7	15.6	6.6	7.9	6.3	Jul-06		
Emerging Markets Equity	88,510,814	4.7	6.1	6.1	-3.8	9.8	1.7		1.4	Jan-18		
MSCI Emerging Markets IMI Net			3.9	3.9	-10.7	9.2	-0.6	2.2	-0.3	Jan-18		
Private Equity	238,843,515	12.7	-0.1	-0.1	115.4	0.2	4.4	-3.6	0.7	Oct-05		
Russell 3000 +2% Lagged			7.7	7.7	-6.7	21.4	13.4	14.9	12.3	Oct-05		
Cash Equivalents	70,170,112	3.7	1.0	1.0	2.5	1.0	1.4		1.3	Apr-15		
91 Day T-Bills			1.1	1.1	2.5	0.9	1.3	0.8	1.0	Apr-15		
Short Term Core Bonds	55,103,072	2.9	1.7	1.7	0.6	0.7	1.7		1.5	Jun-17		
Bloomberg US Aggregate 1-3 Yr TR			1.5	1.5	0.2	-0.5	1.2	1.0	1.0	Jun-17		
Investment Grade Bonds	68,460,508	3.6	3.6	3.6	-4.6	-2.2			-1.0	Oct-19		
Bloomberg US Aggregate TR			3.0	3.0	-4.8	-2.8	0.9	1.4	-1.5	Oct-19		
Bank Loans	74,107,616	3.9	3.6	3.6	2.9	7.0	3.8		4.1	Jan-14		
Credit Suisse Leveraged Loan			3.1	3.1	2.1	8.4	3.5		3.8	Jan-14		
High Yield Bonds	70,059,493	3.7	2.9	2.9	-5.3	5.9	1.2	2.9	4.6	Dec-10		
Bloomberg US Corporate High Yield TR			3.6	3.6	-3.3	5.9	3.2	4.1	5.2	Dec-10		
Emerging Markets Debt	63,128,497	3.4	2.9	2.9	-12.0	-2.3	-5.5	-1.6	0.2	Dec-10		
50% JPM EMBI/50% JPM GBI-EM			3.5	3.5	-3.8	0.5	-1.4	0.1	1.6	Dec-10		
Private Debt	4,282,470	0.2	-2.9	-2.9	2.8	22.5	15.1		11.5	Jan-16		
Barclays Global High Yield +2%			3.7	3.7	-2.6	6.7	3.1		6.0	Jan-16		



Asset Class Performance Summary (Net)											
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date	
Real Estate	170,189,475	9.1	5.2	5.2	14.4	3.8	3.7	-1.8	3.7	Mar-85	
NCREIF Property (1 Qtr Lag)			-3.5	-3.5	5.5	8.1	7.5	8.8	8.0	Mar-85	
Natural Resources	108,253,308	5.8	-3.8	-3.8	-7.8	-1.3	-0.7	1.6	2.7	Dec-10	
NCREIF Farmland Total Return Index (1 Qtr Lag)			3.3	3.3	9.6	6.8	6.4	8.8	10.4	Dec-10	
Infrastructure	37,648,191	2.0	-5.8	-5.8	1.4	11.7	3.5	7.3	7.3	Jul-12	
S&P Global Infrastructure TR USD			3.9	3.9	-3.5	15.6	5.9	6.4	7.1	Jul-12	

<sup>1</sup> Please see the Appendix for composition of the Custom Benchmarks. <sup>2</sup>As of 3/31/2023, the Safety Reserve exposure was approximately \$125.3 million (6.7%).

<sup>3</sup> All private market data is one quarter lagged, unless otherwise noted.



DPFP	As of	March	31, 2023
------	-------	-------	----------

Trailing Net Performance												
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date	
DPFP	1,877,785,250	100.0		4.0	4.0	5.9	5.3	3.5	1.8	5.5	Jun-96	
Policy Index				5.1	5.1	-4.7	9.3	4.5	6.8		Jun-96	
Allocation Index				3.5	3.5	-5.3	7.5	4.9	7.1	7.0	Jun-96	
Total Fund Ex Private Markets				5.9	5.9	-3.2	9.1	4.7	5.1	5.4	Jun-96	
60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index				5.4	5.4	-7.6	7.8	3.6	4.9	5.7	Jun-96	
InvestorForce Public DB \$1-5B Net Rank				40	40	1	99	99	99	99	Jun-96	
Total Equity	1,156,382,509	61.6	61.6	5.7	5.7	9.3	9.1	5.9	4.4	5.0	Dec-10	
MSCI ACWI IMI Net USD				6.9	6.9	-7.7	15.6	6.6	7.9	7.6	Dec-10	
Public Equity	917,538,994	48.9	79.3	7.3	7.3	-4.7	15.6	7.2	8.7	6.7	Jul-06	
MSCI ACWI IMI Net USD				6.9	6.9	-7.7	15.6	6.6	7.9	6.3	Jul-06	
60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index				5.4	5.4	-7.6	7.8	3.6	4.9	5.0	Jul-06	
eV All Global Equity Net Rank				41	41	34	47	45	39	40	Jul-06	
Global Equity	829,028,180	44.1	90.4	7.4	7.4	-4.7	16.2	7.6	8.9	6.8	Jul-06	
MSCI ACWI IMI Net USD				6.9	6.9	-7.7	15.6	6.6	7.9	6.3	Jul-06	
eV All Global Equity Net Rank				39	39	34	42	38	36	39	Jul-06	
NT ACWI Index IMI	193,024,114	10.3	23.3	7.3	7.3	-6.6				-0.4	Apr-21	
MSCI ACWI IMI Net USD				6.9	6.9	-7.7	15.6	6.6	7.9	-0.9	Apr-21	
eV Global All Cap Equity Net Rank				46	46	55				51	Apr-21	

<sup>1</sup> All Private Equity market values are one quarter lagged unless otherwise noted.

<sup>2</sup> 60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index composed of 60% MSCI ACWI (Net)/ 40% Bloomberg Global Aggregate in periods before 2/1/1997.



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Walter Scott Global Equity Fund	138,857,582	7.4	16.7	10.6	10.6	-2.0	14.7	10.0	9.8	9.7	Dec-09
MSCI ACWI Net				7.3	7.3	-7.4	15.4	6.9	8.1	8.2	Dec-09
MSCI ACWI Growth				13.8	13.8	-10.0	14.7	9.0	9.9	9.9	Dec-09
eV Global Large Cap Growth Eq Net Rank				39	39	б	30	24	50	55	Dec-09
Boston Partners Global Equity Fund	130,222,785	6.9	15.7	3.6	3.6	1.7	22.3	6.8		7.4	Jul-17
MSCI World Net				7.7	7.7	-7.0	16.4	8.0	8.9	8.6	Jul-17
MSCI World Value				0.9	0.9	-5.0	15.9	5.0	6.5	5.3	Jul-17
eV Global All Cap Value Eq Net Rank				84	84	18	22	24		21	Jul-17
Manulife Global Equity Strategy	129,022,690	6.9	15.6	5.3	5.3	-3.3	15.6	7.7		7.2	Jul-17
MSCI ACWI Net				7.3	7.3	-7.4	15.4	6.9	8.1	7.8	Jul-17
MSCI ACWI Value NR USD				1.2	1.2	-5.5	15.2	4.3	5.9	4.9	Jul-17
eV Global Large Cap Value Eq Net Rank				39	39	59	60	18		27	Jul-17
Eastern Shore US Small Cap	49,835,388	2.7	6.0	3.2	3.2	-15.0				-13.1	Oct-21
Russell 2000				<i>2</i> .7	2.7	-11.6	17.5	4.7	8.0	-11.3	Oct-21
eV US Small Cap Equity Net Rank				58	58	89				79	Oct-21
Global Alpha International Small Cap	56,513,598	3.0	6.8	8.9	8.9				-	-0.8	May-22
MSCI EAFE Small Cap				4.9	4.9	-9.8	12.1	0.9	5.9	-3.2	May-22
eV Global Small Cap Equity Net Rank				10	10				-	59	May-22
Russell Investments ACWI Growth	131,208,674	7.0	15.8							5.1	Mar-23
MSCI ACWI Growth NR USD				13.8	13.8	-10.0	14.7	9.0	9.9	6.6	Mar-23



#### DPFP | As of March 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Emerging Merlicks Equity		4.7	9.6	6.1	6.1	-3.8	9.8	1.7			lan 10
Emerging Markets Equity MSCI Emerging Markets IMI Net	88,510,814	4.7	9.0	<b>0.1</b> 3.9	<b>0.1</b> 3.9	- <b>3.8</b> -10.7	9.8 9.2	1.7 -0.6	 2.2	<b>1.4</b> -0.3	<b>Jan-18</b> Jan-18
eV Emg Mkts Equity Net Rank				27	3.9 27	-10.7 13	9.2 52	-0.0	2.2	-0.3	Jan-18 Jan-18
ev Enig Mikis Equity Net Rank				21	21	15	52	22		30	Jaii-io
RBC Emerging Markets Equity	88,510,814	4.7	100.0	6.1	6.1	-3.8	9.8	1.7		1.4	Jan-18
MSCI Emerging Markets IMI Net				3.9	3.9	-10.7	9.2	-0.б	2.2	-0.3	Jan-18
eV Emg Mkts Equity Net Rank				27	27	13	52	22		30	Jan-18
Private Equity	238,843,515	12.7	20.7	-0.1	-0.1	115.4	0.2	4.4	-3.6	0.7	Oct-05
Russell 3000 +2% Lagged				7.7	7.7	-6.7	21.4	13.4	14.9	12.3	Oct-05
Total Fixed Income and Cash	405,311,768	21.6	21.6	2.5	2.5	-2.5	1.3	0.8	1.8	4.2	Jul-06
Bloomberg Multiverse TR				3.0	3.0	-7.9	-3.1	-1.2	0.2	2.5	Jul-06
eV All Global Fixed Inc Net Rank				68	68	24	50	55	49	30	Jul-06
Cash Equivalents	70,170,112	3.7	17.3	1.0	1.0	2.5	1.0	1.4		1.3	Apr-15
91 Day T-Bills				1.1	1.1	2.5	0.9	1.3	0.8	1.0	Apr-15
Public Fixed Income	330,859,186	17.6	81.6	3.0	3.0	-2.8	1.2	0.6	2.1	3.7	Dec-10
Bloomberg Multiverse TR				3.0	3.0	-7.9	-3.1	-1.2	0.2	0.8	Dec-10
eV All Global Fixed Inc Net Rank				51	51	26	51	58	44	24	Dec-10
Short Term Core Bonds	55,103,072	2.9	16.7	1.7	1.7	0.6	0.7	1.7		1.5	Jun-17
Bloomberg US Aggregate 1-3 Yr TR				1.5	1.5	0.2	-0.5	1.2	1.0	1.0	Jun-17
IR&M 1-3 Year Strategy	55,103,072	2.9	100.0	1.7	1.7	0.6	0.7	1.7		1.5	Jul-17
Bloomberg US Aggregate 1-3 Yr TR				1.5	1.5	0.2	-0.5	1.2	1.0	1.0	Jul-17
eV US Short Duration Fixed Inc Net Rank				28	28	19	34	16	-	22	Jul-17

<sup>1</sup> All Private Equity market values are one quarter lagged unless otherwise noted.



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Investment Grade Bonds	68,460,508	3.6	20.7	3.6	3.6	-4.6	-2.2			-1.0	Oct-19
Bloomberg US Aggregate TR				3.0	3.0	-4.8	-2.8	0.9	1.4	-1.5	Oct-19
eV US Core Fixed Inc Net Rank				5	5	35	66			34	Oct-19
Longfellow Core Fixed Income	68,460,508	3.6	100.0	3.6	3.6	-4.6				-3.5	Jul-20
Bloomberg US Aggregate TR				3.0	3.0	-4.8	-2.8	0.9	1.4	-4.0	Jul-20
eV US Core Fixed Inc Net Rank				5	5	35				37	Jul-20
Bank Loans	74,107,616	3.9	22.4	3.6	3.6	2.9	7.0	3.8		4.1	Jan-14
Credit Suisse Leveraged Loan				3.1	3.1	2.1	8.4	3.5		3.8	Jan-14
eV US Float-Rate Bank Loan Fixed Inc Net Rank				10	10	16	61	7	-	7	Jan-14
Aristotle Pacific Capital Bank Loan	74,107,616	3.9	100.0	3.6	3.6	2.9	7.1	3.8		3.9	Aug-17
Credit Suisse Leveraged Loan				3.1	3.1	2.1	8.4	3.5		3.7	Aug-17
eV US Float-Rate Bank Loan Fixed Inc Net Rank				10	10	16	55	8	-	11	Aug-17
High Yield Bonds	70,059,493	3.7	21.2	2.9	2.9	-5.3	5.9	1.2	2.9	4.6	Dec-10
Bloomberg US Corporate High Yield TR				3.6	3.6	-3.3	5.9	3.2	4.1	5.2	Dec-10
eV US High Yield Fixed Inc Net Rank				75	75	92	42	99	92	69	Dec-10
Loomis US High Yield Fund	70,059,493	3.7	100.0	2.9	2.9	-5.3				-2.9	Jan-21
Bloomberg US High Yield 2% Issuer Cap TR				3.6	3.6	-3.4	5.9	3.2	4.1	-1.4	Jan-21
eV US High Yield Fixed Inc Net Rank				75	75	92			-	97	Jan-21



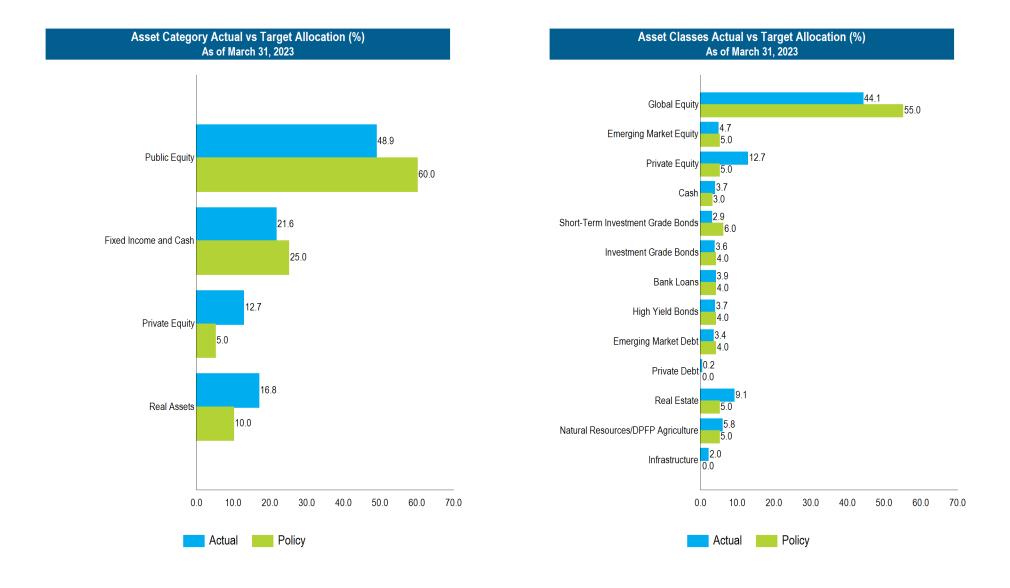
#### DPFP | As of March 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Emerging Markets Debt	63,128,497	3.4	19.1	2.9	2.9	-12.0	-2.3	-5.5	-1.6	0.2	Dec-10
50% JPM EMBI/50% JPM GBI-EM				3.5	3.5	-3.8	0.5	-1.4	0.1	1.6	Dec-10
eV All Emg Mkts Fixed Inc Net Rank				30	30	99	99	99	<i>92</i>	84	Dec-10
Metlife Emerging Markets Debt Blend	63,128,497	3.4	100.0	2.9	2.9				-	10.5	Oct-22
35% JPMEMBI Global Index/35% JPM CEMBI Broad Diversified Index/ 30% JPMGBI-EM Diversified Global Index				3.1	3.1				-	10.1	Oct-22
eV All Emg Mkts Fixed Inc Net Rank				30	30				-	55	Oct-22
Private Debt	4,282,470	0.2	1.1	-2.9	-2.9	2.8	22.5	15.1		7.6	Jan-16
Bloomberg US High Yield+2%				4.1	4.1	-1.4	8.0	5.3	6.2	7.5	Jan-16
Total Real Assets	316,090,974	16.8	16.8	0.4	0.4	4.9	3.2	2.5	-0.2	-0.4	Dec-10
Total Real Assets Policy Index				-0.1	-0.1	7.6	7.5	7.0	8.8	10.0	Dec-10
Real Estate	170,189,475	9.1	53.8	5.2	5.2	14.4	3.8	3.7	-1.8	3.7	Mar-85
NCREIF Property (1 Qtr Lag)				-3.5	-3.5	5.5	8.1	7.5	8.8	8.0	Mar-85
Natural Resources	108,253,308	5.8	34.2	-3.8	-3.8	-7.8	-1.3	-0.7	1.6	2.7	Dec-10
NCREIF Farmland Total Return Index (1 Qtr Lag)				3.3	3.3	9.6	6.8	6.4	8.8	10.4	Dec-10
Infrastructure	37,648,191	2.0	11.9	-5.8	-5.8	1.4	11.7	3.5	7.3	7.3	Jul-12
S&P Global Infrastructure TR USD				3.9	3.9	-3.5	15.6	5.9	6.4	7.1	Jul-12

<sup>1</sup> All Private Market market values are one quarter lagged unless otherwise noted.

# MEKETA

#### **Dallas Police & Fire Pension System**





#### DPFP | As of March 31, 2023

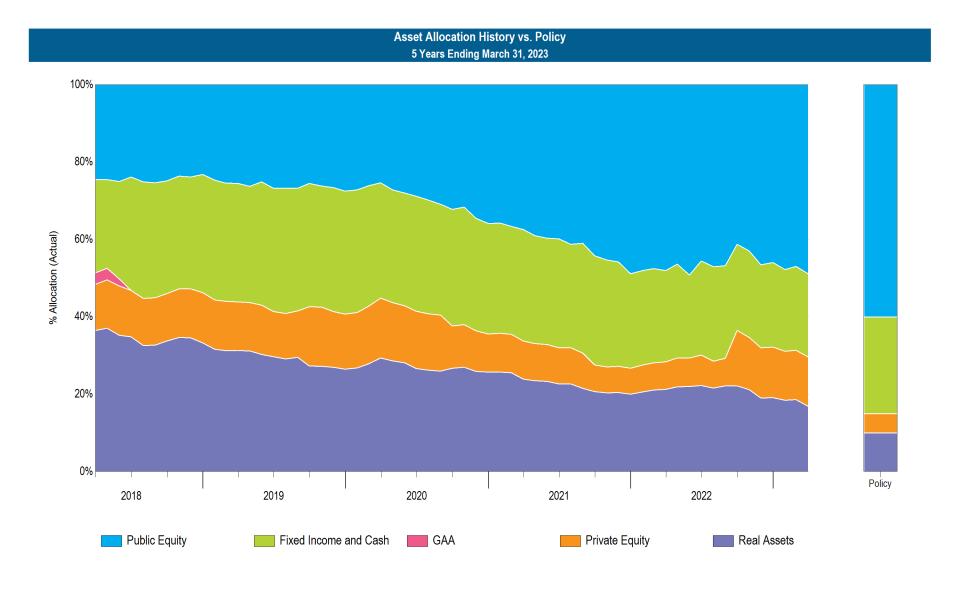
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Equity	\$1,156,382,509	62%	65%		
Global Equity	\$829,028,180	44%	55%	36% - 60%	Yes
Emerging Market Equity	\$88,510,814	5%	5%	3% - 7%	Yes
Private Equity	\$238,843,515	13%	5%		
Fixed Income and Cash	\$405,311,768	22%	25%		
Cash	\$70,170,112	4%	3%	0% - 6%	Yes
Short-Term Investment Grade Bonds	\$55,103,072	3%	6%	0% - 9%	Yes
Investment Grade Bonds	\$68,460,508	4%	4%	2% - 6%	Yes
Bank Loans	\$74,107,616	4%	4%	2% - 6%	Yes
High Yield Bonds	\$70,059,493	4%	4%	2% - 6%	Yes
Emerging Market Debt	\$63,128,497	3%	4%	2% - 6%	Yes
Private Debt	\$4,282,470	0%	0%		
Real Assets	\$316,090,974	17%	10%		
Real Estate	\$170,189,475	9%	5%		
Natural Resources/DPFP Agriculture	\$108,253,308	6%	5%		
Infrastructure	\$37,648,191	2%	0%		
Total	\$1,877,785,250	100%	100%		

<sup>1</sup> As of 3/31/2023, the Safety Reserve exposure was approximately \$125.3 million (6.7%).

 $^2$  Global equity consists of 24% US, 18% Developed Non-US, and 2% Emerging Markets.

<sup>3</sup> Rebalancing ranges are not established for illiquid assets (Private Equity, Private Debt, Natural Resources, Infrastructure and Real Estate).







		Statistics Sur	nmary			
5 Years Ending March 31, 2023						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
DPFP	3.5%	7.8%	-0.2	0.6	0.3	6.7%
Policy Index	4.5%	10.7%		1.0	0.3	0.0%
Public Equity	7.2%	17.8%	0.3	1.0	0.3	2.2%
MSCI ACWI IMI Net USD	6.6%	18.1%		1.0	0.3	0.0%
Global Equity	7.6%	18.2%	0.5	1.0	0.3	2.2%
MSCI ACWI IMI Net USD	6.6%	18.1%		1.0	0.3	0.0%
Emerging Markets Equity	1.7%	17.9%	0.5	0.9	0.0	4.5%
MSCI Emerging Markets IMI Net	-0.6%	18.9%		1.0	-0.1	0.0%
Private Equity	4.4%	54.5%	-0.1	-0.4	0.1	60.6%
Russell 3000 +2% Lagged	13.4%	19.2%		1.0	0.6	0.0%
Short Term Core Bonds	1.7%	2.0%	0.5	1.0	0.2	1.0%
Bloomberg US Aggregate 1-3 Yr TR	1.2%	1.7%		1.0	-0.1	0.0%
Bank Loans	3.8%	5.1%	0.1	0.7	0.5	2.8%
Credit Suisse Leveraged Loan	3.5%	7.2%		1.0	0.3	0.0%
High Yield Bonds	1.2%	10.0%	-1.2	1.1	0.0	1.6%
Bloomberg US Corporate High Yield TR	3.2%	9.3%		1.0	0.2	0.0%
Emerging Markets Debt	-5.5%	14.5%	-0.9	1.3	-0.5	4.5%
50% JPM EMBI/50% JPM GBI-EM	-1.4%	11.2%		1.0	-0.2	0.0%



Statistics Summary						
5 Years Ending March 31, 2023						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Real Estate	3.7%	4.3%	-0.6	0.1	0.5	6.3%
NCREIF Property (1 Qtr Lag)	7.5%	5.2%		1.0	1.2	0.0%
Natural Resources	-0.7%	6.7%	-1.1	0.4	-0.3	6.8%
NCREIF Farmland Total Return Index (1 Qtr Lag)	6.4%	3.2%		1.0	1.6	0.0%
Infrastructure	3.5%	15.8%	-0.1	0.0	0.1	23.6%
S&P Global Infrastructure TR USD	5.9%	18.4%		1.0	0.2	0.0%



Benchmark History					
		As of March 31, 2023			
DPFP					
10/1/2021	Present	55% MSCI ACWI IMI Net USD / 5% MSCI Emerging Markets IMI Net / 5% Russell 3000 + 2% 1Q Lagged / 6% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg US Corporate High Yield TR / 4% Bloomberg US Aggregate TR / 4% S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index (1 Qtr Lag) / 5% NCREIF Property (1 Qtr Lag) / 3% 91 Day T-Bills			
8/1/2021	9/30/2021	55% MSCI ACWI IMI Net USD / 5% MSCI Emerging Markets IMI Net / 5% Cambridge Associates US All PE (1 Qtr Lag) / 6% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg US Corporate High Yield TR / 4% Bloomberg US Aggregate TR / 4% S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index (1 Qtr Lag) / 5% NCREIF Property (1 Qtr Lag) / 3% 91 Day T-Bills			
1/1/2019	7/31/2021	40% MSCI ACWI IMI Net USD / 10% MSCI Emerging Markets IMI Net / 5% Cambridge Associates US All PE (1 Qtr Lag) / 12% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg Global Aggregate TR / 4% Bloomberg US Corporate High Yield TR / 4% Bloomberg US Aggregate TR / 4% S&P/LSTA Leveraged Loan / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% NCREIF Farmland Total Return Index (1 Qtr Lag) / 5% NCREIF Property (1 Qtr Lag) / 3% 91 Day T-Bills			
10/1/2018	12/31/2018	40% MSCI ACWI Gross / 10% MSCI Emerging Markets Gross / 5% Russell 3000 +2% Lagged / 12% Bloomberg US Aggregate 1-3 Yr TR / 4% Bloomberg Global Aggregate TR / 4% Bloomberg US High Yield 2% Issuer Cap TR / 4% S&P/LSTA Leveraged Loan / 4% Bloomberg US Aggregate TR / 4% 50% JPM EMBI/50% JPM GBI-EM / 5% Natural Resources Benchmark (Linked) / 5% NCREIF Property Index / 3% 91 Day T- Bills			
4/1/2016	9/30/2018	20% MSCI ACWI Gross / 5% MSCI Emerging Markets Gross / 5% Russell 3000 +2% Lagged / 2% Bloomberg US Aggregate 1-3 Yr TR / 3% Bloomberg Global Aggregate TR / 5% Bloomberg Global High Yield TR / 6% S&P/LSTA Leveraged Loan / 6% HFRI RV: FI (50/50-ABS/Corp) / 6% 50% JPM EMBI/50% JPM GBI-EM / 5% Barclays Global High Yield +2% / 5% 60% MSCI ACWI/40% Barclays Global Agg / 3% 60% MSCI ACWI/40% Barclays Global Agg / 2% HFRX Absolute Return Index / 5% Natural Resources Benchmark (Linked) / 5% S&P Global Infrastructure TR USD / 12% NCREIF Property Index / 3% CPI + 5% (Seasonally Adjusted) / 2% 91 Day T-Bills			
4/1/2014	3/31/2016	15% MSCI ACWI / 15% S&P 500 + 2% / 10% Total Global Natural Resources Custom Benchmark / 15% Bloomberg Global Aggregate TR / 20% CPI + 5% (Seasonally Adjusted) / 10% CPI + 5% (Seasonally Adjusted) / 15% NCREIF Property Index			
Total Real Asse	ts				
12/31/2010	Present	50% NCREIF Property (1 Qtr Lag) / 50% NCREIF Farmland Total Return Index (1 Qtr Lag)			

Disclaimer, Glossary, and Notes



WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT, 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.

EFFECTIVE JANUARY 1, 2023, ASSET CLASS AND TOTAL PLAN PERFORMANCE IS ROLLED UP USING A WEIGHTED AVERAGE CALCULATION.



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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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



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

5% (discount)1% pro rata, plus65 (yrs. to maturity)5.26% (current yield)6

= 6.26% (yield to maturity)

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

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

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

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

The Russell Indices<sup>®</sup>, 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.