FUND EVALUATION REPORT

Plymouth County Retirement Association

Investment Review
November 27, 2018

MEKETA INVESTMENT GROUP

Boston	Chicago	Miami	Portland	San Diego	London
Massachusetts	Illinois	Florida	Oregon	California	United Kingdom

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Agenda

1. **Interim Update as of October 31, 2018**
2. **Short Duration Fixed Income RFP Respondent Review**
3. **Private Equity Manager Finalist Overview**
4. **Appendices**
   - Private Markets – First Quarter 2018 Review
   - Disclaimer, Glossary, and Notes

Interim Update
As of October 31, 2018

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Total Retirement Association

As of October 31, 2018

Asset Class Net Performance Summary

	Market Value ($)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	**982,922,002**	**100.0**	**-5.5**	**-3.6**	**-1.2**	**5.9**	**5.2**	**8.1**	**7.7**	**Nov-89**
Custom Benchmark - Policy Benchmark (Net)			*-4.5*	*-0.6*	*2.2*	*6.9*	*6.0*	*8.7*	*--*	*Nov-89*
Domestic Equity Assets	**235,459,886**	**24.0**	**-9.6**	**2.0**	**5.8**	**--**	**--**	**--**	**12.9**	**Jan-16**
Russell 3000			*-7.4*	*2.4*	*6.6*	*11.3*	*10.8*	*13.3*	*12.6*	*Jan-16*
International Developed Market Equity Assets	**145,284,750**	**14.8**	**-9.0**	**-13.2**	**-11.0**	**--**	**--**	**--**	**4.3**	**Jan-16**
MSCI EAFE			*-8.0*	*-9.3*	*-6.9*	*3.6*	*2.0*	*6.9*	*4.9*	*Jan-16*
International Emerging Market Equity Assets	**82,487,586**	**8.4**	**-9.9**	**-17.4**	**-14.1**	**--**	**--**	**--**	**7.1**	**Jan-16**
MSCI Emerging Markets			*-8.7*	*-15.7*	*-12.5*	*6.5*	*0.8*	*7.8*	*9.3*	*Jan-16*
Global Equity Assets	**93,513,210**	**9.5**	**-5.2**	**--**	**--**	**--**	**--**	**--**	**-7.7**	**Feb-18**
MSCI ACWI			*-7.5*	*-4.0*	*-0.5*	*7.7*	*6.1*	*9.7*	*-9.1*	*Feb-18*
Domestic Fixed Income	**84,992,885**	**8.6**	**-0.8**	**-2.1**	**-1.7**	**--**	**--**	**--**	**1.8**	**Jan-16**
75% Bbg Barclays Aggregate/25% Bbg Barclays US TIPs 1-10 year			*-0.8*	*-2.0*	*-1.7*	*1.1*	*1.6*	*--*	*1.4*	*Jan-16*
Value Added Fixed Income	**69,411,532**	**7.1**	**-0.7**	**2.1**	**2.1**	**--**	**--**	**--**	**6.7**	**Jan-16**
50% BBgBarc US High Yield/ 50% Credit Suisse Leveraged Loans			*-0.8*	*2.6*	*2.9*	*6.0*	*4.4*	*9.3*	*7.7*	*Jan-16*
International Fixed Income	**36,156,814**	**3.7**	**-0.7**	**-1.9**	**-0.2**	**--**	**--**	**--**	**5.6**	**Jan-16**
Custom Benchmark - Global Fixed Income			*-2.2*	*-5.1*	*-3.8*	*3.4*	*2.4*	*--*	*4.1*	*Jan-16*
Hedge Fund	**44,950,338**	**4.6**	**-2.6**	**-0.5**	**-0.1**	**3.9**	**4.3**	**--**	**4.7**	**Feb-10**
HFRI Fund of Funds Composite Index			*-3.0*	*-2.1*	*-1.2*	*1.9*	*2.3*	*2.9*	*2.6*	*Feb-10*
Real Estate	**97,788,171**	**9.9**	**-0.5**	**1.9**	**2.7**	**--**	**--**	**--**	**3.8**	**Jan-16**
NCREIF ODCE			*0.0*	*6.5*	*8.7*	*8.8*	*10.7*	*5.6*	*8.1*	*Jan-16*
Private Equity	**36,981,342**	**3.8**	**0.0**	**4.1**	**9.5**	**--**	**--**	**--**	**5.1**	**Jan-16**
Cambridge Associates Fund of Funds Composite 1-Quarter Lag			*0.0*	*12.7*	*16.5*	*9.8*	*12.5*	*8.3*	*10.4*	*Jan-16*
Real Assets	**25,089,793**	**2.6**	**0.0**	**-0.2**	**-0.9**	**--**	**--**	**--**	**-2.7**	**Jan-16**
CPI+3%			*0.6*	*4.5*	*5.5*	*5.1*	*4.6*	*4.5*	*5.2*	*Jan-16*
Cash and Cash Equivalent	**10,805,694**	**1.1**								

Total Retirement Association

As of October 31, 2018

Trailing Net Performance

	Market Value ($)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	**982,922,002**	**100.0**	**--**	**-5.5**	**-3.6**	**-1.2**	**5.9**	**5.2**	**8.1**	**7.7**	**Nov-89**
Custom Benchmark - Policy Benchmark (Net)				*-4.5*	*-0.6*	*2.2*	*6.9*	*6.0*	*8.7*	*--*	*Nov-89*
Domestic Equity Assets	**235,459,886**	**24.0**	**24.0**	**-9.6**	**2.0**	**5.8**	**--**	**--**	**--**	**12.9**	**Jan-16**
Russell 3000				*-7.4*	*2.4*	*6.6*	*11.3*	*10.8*	*13.3*	*12.6*	*Jan-16*
Rhumbline Russell 1000 Value	32,947,510	3.4	14.0	-5.2	-1.5	2.9	8.7	8.5	--	9.6	Apr-13
Russell 1000 Value				*-5.2*	*-1.5*	*3.0*	*8.9*	*8.6*	*11.3*	*9.7*	*Apr-13*
Rhumbline Russell 1000 Growth	42,563,360	4.3	18.1	-8.9	6.6	10.7	13.6	13.3	--	15.3	Jul-09
Russell 1000 Growth				*-8.9*	*6.6*	*10.7*	*13.7*	*13.4*	*15.5*	*15.4*	*Jul-09*
Fisher Midcap Value	42,509,128	4.3	18.1	-10.1	-3.7	0.7	9.9	8.3	13.7	7.2	Apr-07
Russell MidCap Value				*-7.2*	*-4.3*	*0.2*	*8.2*	*8.1*	*13.3*	*6.6*	*Apr-07*
Boston Company Small Cap Growth	48,699,137	5.0	20.7	-11.7	11.7	15.7	15.4	11.8	--	14.9	Aug-09
Russell 2000 Growth				*-12.7*	*1.1*	*4.1*	*10.7*	*8.8*	*13.9*	*13.8*	*Aug-09*
LMCG Small Cap Value	68,343,163	7.0	29.0	-10.2	-6.2	-3.8	8.4	6.9	--	7.9	Mar-11
Russell 2000 Value				*-9.0*	*-2.5*	*-0.6*	*10.5*	*7.2*	*10.9*	*8.7*	*Mar-11*
International Developed Market Equity Assets	**145,284,750**	**14.8**	**14.8**	**-9.0**	**-13.2**	**-11.0**	**--**	**--**	**--**	**4.3**	**Jan-16**
MSCI EAFE				*-8.0*	*-9.3*	*-6.9*	*3.6*	*2.0*	*6.9*	*4.9*	*Jan-16*
KBI Master Account	69,472,571	7.1	47.8	-8.3	-12.4	-9.8	2.0	0.4	5.7	3.3	Jul-05
MSCI EAFE				*-8.0*	*-9.3*	*-6.9*	*3.6*	*2.0*	*6.9*	*4.2*	*Jul-05*
HGK TS International Equity	42,076,413	4.3	29.0	-9.0	-12.8	-12.1	3.9	2.2	--	5.2	Feb-11
MSCI EAFE				*-8.0*	*-9.3*	*-6.9*	*3.6*	*2.0*	*6.9*	*3.4*	*Feb-11*
Copper Rock International Small Cap	33,735,767	3.4	23.2	-10.2	-15.2	--	--	--	--	-13.8	Nov-17
MSCI EAFE Small Cap				*-9.6*	*-11.6*	*-7.8*	*6.6*	*5.2*	*11.6*	*-9.3*	*Nov-17*
International Emerging Market Equity Assets	**82,487,586**	**8.4**	**8.4**	**-9.9**	**-17.4**	**-14.1**	**--**	**--**	**--**	**7.1**	**Jan-16**
MSCI Emerging Markets				*-8.7*	*-15.7*	*-12.5*	*6.5*	*0.8*	*7.8*	*9.3*	*Jan-16*
LMCG Emerging Markets	82,487,586	8.4	100.0	-9.9	-17.4	-14.1	4.5	-0.7	--	0.0	Sep-13
MSCI Emerging Markets				*-8.7*	*-15.7*	*-12.5*	*6.5*	*0.8*	*7.8*	*1.7*	*Sep-13*

Total Retirement Association

As of October 31, 2018

	Market Value ($)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Global Equity Assets	**93,513,210**	**9.5**	**9.5**	**-5.2**	**--**	**--**	**--**	**--**	**--**	**-7.7**	**Feb-18**
MSCI ACWI				*-7.5*	*-4.0*	*-0.5*	*7.7*	*6.1*	*9.7*	*-9.1*	*Feb-18*
First Eagle Global Value Fund	18,421,415	1.9	19.7	-4.5	--	--	--	--	--	-7.9	Feb-18
MSCI ACWI				*-7.5*	*-4.0*	*-0.5*	*7.7*	*6.1*	*9.7*	*-9.1*	*Feb-18*
Kopernik Global All Cap Fund	17,521,997	1.8	18.7	-0.2	--	--	--	--	--	-12.4	Feb-18
MSCI ACWI				*-7.5*	*-4.0*	*-0.5*	*7.7*	*6.1*	*9.7*	*-9.1*	*Feb-18*
Lee Munder Global Multi-Cap Strategy	26,953,299	2.7	28.8	-8.3	--	--	--	--	--	-5.5	Mar-18
MSCI ACWI				*-7.5*	*-4.0*	*-0.5*	*7.7*	*6.1*	*9.7*	*-5.1*	*Mar-18*
Wellington Durable Enterprises, L.P.	30,616,498	3.1	32.7	-5.5	--	--	--	--	--	2.1	Mar-18
MSCI ACWI				*-7.5*	*-4.0*	*-0.5*	*7.7*	*6.1*	*9.7*	*-5.1*	*Mar-18*
Domestic Fixed Income	**84,992,885**	**8.6**	**8.6**	**-0.8**	**-2.1**	**-1.7**	**--**	**--**	**--**	**1.8**	**Jan-16**
75% Bbg Barclays Aggregate/25% Bbg Barclays US TIPs 1-10 year				*-0.8*	*-2.0*	*-1.7*	*1.1*	*1.6*	*--*	*1.4*	*Jan-16*
IR&M Core Bonds	84,992,885	8.6	100.0	-0.8	-2.1	-1.7	1.3	1.8	4.7	3.9	Nov-04
75% Bbg Barclays Aggregate/25% Bbg Barclays US TIPs 1-10 year				*-0.8*	*-2.0*	*-1.7*	*1.1*	*1.6*	*--*	*--*	*Nov-04*
Value Added Fixed Income	**69,411,532**	**7.1**	**7.1**	**-0.7**	**2.1**	**2.1**	**--**	**--**	**--**	**6.7**	**Jan-16**
50% BBgBarc US High Yield/ 50% Credit Suisse Leveraged Loans				*-0.8*	*2.6*	*2.9*	*6.0*	*4.4*	*9.3*	*7.7*	*Jan-16*
Eaton Vance High Yield	33,795,825	3.4	48.7	-1.3	0.5	0.4	5.4	4.5	10.5	6.8	Apr-06
ICE BofAML US High Yield TR				*-1.6*	*0.9*	*0.9*	*6.7*	*4.7*	*11.2*	*7.2*	*Apr-06*
THL Bank Loan Select Fund	35,615,707	3.6	51.3	0.0	3.8	3.9	5.6	4.6	--	5.6	Sep-10
Credit Suisse Leveraged Loans				*0.0*	*4.4*	*4.9*	*5.5*	*4.2*	*7.3*	*5.0*	*Sep-10*
International Fixed Income	**36,156,814**	**3.7**	**3.7**	**-0.7**	**-1.9**	**-0.2**	**--**	**--**	**--**	**5.6**	**Jan-16**
Custom Benchmark - Global Fixed Income				*-2.2*	*-5.1*	*-3.8*	*3.4*	*2.4*	*--*	*4.1*	*Jan-16*
Franklin Templeton Emerging Market Bonds	36,156,814	3.7	100.0	-0.7	-1.9	-0.1	6.6	3.5	9.3	6.7	May-06
JP Morgan EMBI Global Diversified				*-2.2*	*-5.1*	*-4.4*	*4.3*	*4.3*	*9.2*	*6.7*	*May-06*

As of October 31, 2018

	Market Value ($)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Hedge Fund	**44,950,338**	**4.6**	**4.6**	**-2.6**	**-0.5**	**-0.1**	**3.9**	**4.3**	**--**	**4.7**	**Feb-10**
HFRI Fund of Funds Composite Index				*-3.0*	*-2.1*	*-1.2*	*1.9*	*2.3*	*2.9*	*2.6*	*Feb-10*
ABS Offshore SPC - Global Segregated Portfolio	20,533,076	2.1	45.7	-5.3	-3.7	-3.0	1.5	3.4	--	4.9	Aug-10
HFRI Fund of Funds Composite Index				*-3.0*	*-2.1*	*-1.2*	*1.9*	*2.3*	*2.9*	*2.7*	*Aug-10*
Entrust Special Opportunities Fund III, Ltd.	24,417,262	2.5	54.3	0.0	2.2	3.5	--	--	--	18.0	Oct-16
HFRI Fund of Funds Composite Index				*-3.0*	*-2.1*	*-1.2*	*1.9*	*2.3*	*2.9*	*3.0*	*Oct-16*
Real Estate	**97,788,171**	**9.9**	**9.9**	**-0.5**	**1.9**	**2.7**	**--**	**--**	**--**	**3.8**	**Jan-16**
NCREIF ODCE				*0.0*	*6.5*	*8.7*	*8.8*	*10.7*	*5.6*	*8.1*	*Jan-16*
Core Real Estate	**75,796,755**	**7.7**	**77.5**	**-0.7**	**3.8**	**6.0**	**7.4**	**9.3**	**3.8**	**--**	
PRISA I	39,687,182	4.0	52.4	0.0	5.5	7.6	8.8	10.5	3.8	6.7	Sep-04
NCREIF-ODCE				*0.0*	*6.5*	*8.7*	*8.8*	*10.7*	*5.6*	*8.0*	*Sep-04*
Invesco REIT	15,848,454	1.6	20.9	-3.1	-1.9	0.6	4.5	7.3	10.8	10.8	Dec-02
Wilshire REIT				*-3.0*	*-0.8*	*1.8*	*4.0*	*7.7*	*11.3*	*10.2*	*Dec-02*
TA Realty Core Property Fund, L.P.	20,261,120	2.1	26.7	0.0	--	--	--	--	--	8.5	Mar-18
NCREIF-ODCE				*0.0*	*6.5*	*8.7*	*8.8*	*10.7*	*5.6*	*6.5*	*Mar-18*
Non-Core Real Estate	**21,991,416**	**2.2**	**22.5**	**0.0**	**-4.0**	**-8.4**	**--**	**--**	**--**	**-5.3**	**Jan-16**
Mesirow Financial International Real Estate Fund I	3,291,285	0.3	15.0								
DSF Multi-Family Real Estate Fund III	9,601,139	1.0	43.7								
AEW Partners Real Estate VIII	5,003,723	0.5	22.8								
DSF Capital Partners IV	1,550,932	0.2	7.1								
Hunt Redevelopment & Renovation	168,092	0.0	0.8								
1921 Realty, Inc	933,768	0.1	4.2								
New Boston Institutional Fund, LP VII	320,647	0.0	1.5								
Berkshire Multfamily Value Fund II	0	0.0	0.0								
Carlyle Realty Partners VIII	1,121,830	0.1	5.1								

Hedge Fund managers: The market value and performance data is based on an estimate.
Invesco REIT: Market value as of October 31, 2018.

	Market Value ($)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	**36,981,342**	**3.8**	**3.8**	**0.0**	**4.1**	**9.5**	**--**	**--**	**--**	**5.1**	**Jan-16**
Cambridge Associates Fund of Funds Composite 1-Quarter Lag				*0.0*	*12.7*	*16.5*	*9.8*	*12.5*	*8.3*	*10.4*	*Jan-16*
Private Equity General	**28,630,318**	**2.9**	**77.4**	**0.0**	**4.2**	**7.8**	**--**	**--**	**--**	**3.2**	**Jan-16**
Euro Choice V Programme	5,598,526	0.6	19.6								
Lexington Capital Partners VII	3,086,195	0.3	10.8								
TRG Growth Partnership II	2,134,098	0.2	7.5								
Landmark Equity Partners XIV	1,303,735	0.1	4.6								
Summit Partners Growth Equity Fund IX	5,430,367	0.6	19.0								
Leeds Equity Partners V	1,878,344	0.2	6.6								
Audax Mezzaine Debt IV	2,375,281	0.2	8.3								
Siguler Guff Distressed Opportunities Fund III, LP	1,030,337	0.1	3.6								
Mesirow Financial Capital Partners IX, LP	265,163	0.0	0.9								
Leeds Equity Partners IV	38,615	0.0	0.1								
DN Partners II, LP	905,412	0.1	3.2								
Euro Choice II	170,561	0.0	0.6								
RIMCO Royalty Partners, LP	1	0.0	0.0								
Charles River Partnership XI	92,929	0.0	0.3								
LLR Equity Partners V, LP.	1,842,965	0.2	6.4								
Wellspring Capital Partners VI	404,237	0.0	1.4								
Trilantic Capital Partners VI, L.P.	2,073,552	0.2	7.2								

As of October 31, 2018

	Market Value ($)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Venture Capital	**8,351,024**	**0.8**	**22.6**	**0.0**	**3.0**	**14.6**	**--**	**--**	**--**	**11.1**	**Jan-16**
Ascent Ventures V	4,437,392	0.5	53.1								
Globespan Capital V	3,665,098	0.4	43.9								
Ascend Ventures II	69,137	0.0	0.8								
Ascent Ventures IV	179,397	0.0	2.1								
Real Assets	**25,089,793**	**2.6**	**2.6**	**0.0**	**-0.2**	**-0.9**	**--**	**--**	**--**	**-2.7**	**Jan-16**
CPI+3%				*0.6*	*4.5*	*5.5*	*5.1*	*4.6*	*4.5*	*5.2*	*Jan-16*
JP Morgan Global Maritime Investment	6,729,562	0.7	26.8								
Timbervest Partners III, LP	5,196,291	0.5	20.7								
BTG Pactual Global Timberland Resources	3,129,900	0.3	12.5								
Global Infrastructure Partners III	8,780,992	0.9	35.0								
Basalt Infrastructure Partners II	1,253,048	0.1	5.0								
IFM Global Infrastructure	20,000,000	2.0	79.7								
Cash and Cash Equivalent	**10,805,694**	**1.1**	**1.1**								
Cash	10,805,694	1.1	100.0								

Ascend II: Market value as of September 30, 2018.

Total Retirement Association

As of October 31, 2018

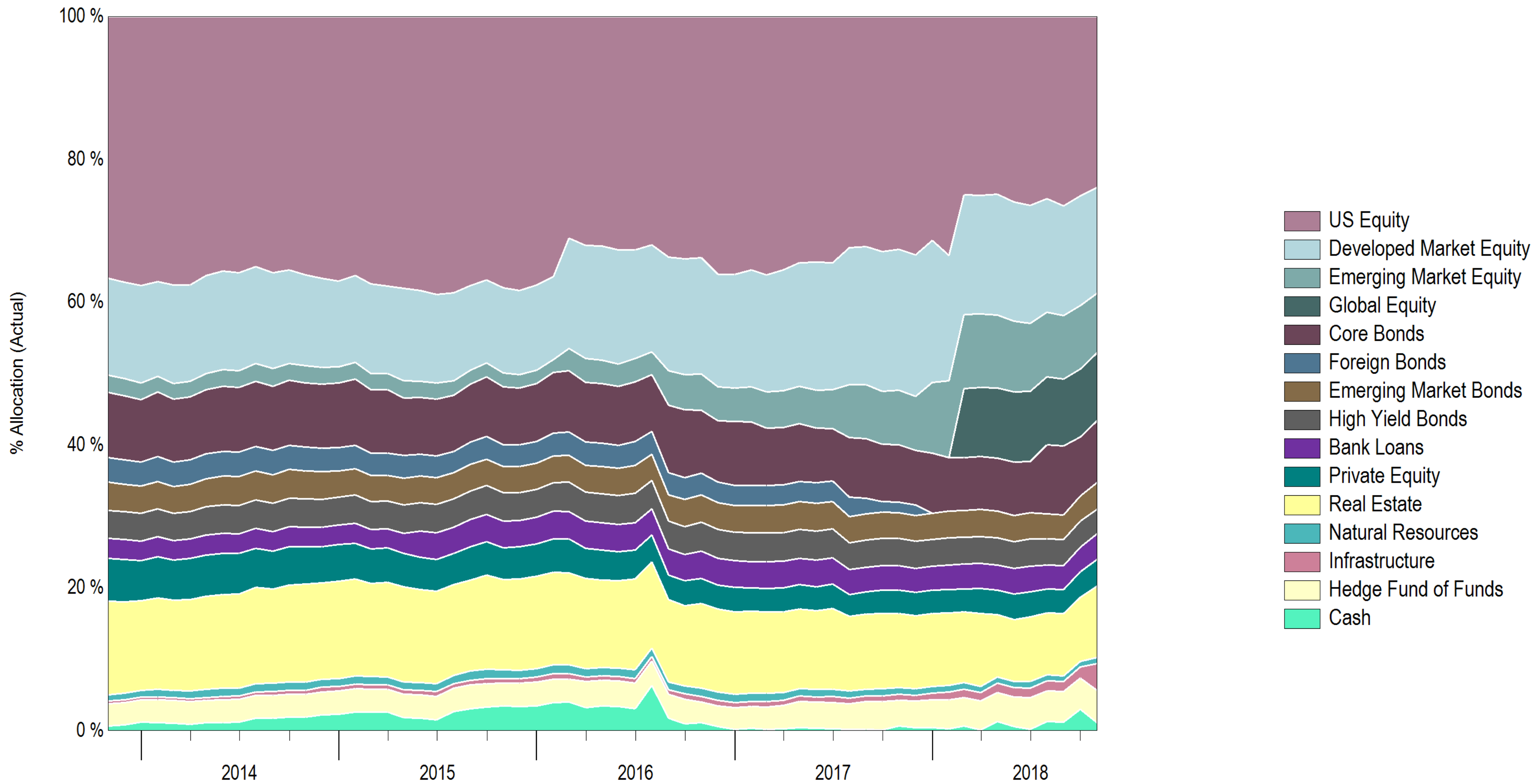
Allocation vs. Target

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	$235,459,874	24%	26%	21% - 36%	Yes
Developed Market Equity	$145,284,750	15%	6%	1% - 16%	Yes
Emerging Market Equity	$82,487,586	8%	10%	5% - 20%	Yes
Global Equity	$93,513,210	10%	10%	5% - 20%	Yes
Core Bonds	$84,992,885	9%	9%	4% - 14%	Yes
Emerging Market Bonds	$36,156,814	4%	2%	0% - 7%	Yes
High Yield Bonds	$33,795,825	3%	2%	0% - 7%	Yes
Bank Loans	$35,615,707	4%	2%	0% - 7%	Yes
Private Equity	$36,981,342	4%	13%	8% - 18%	No
Real Estate	$97,788,171	10%	10%	5% - 15%	Yes
Natural Resources	$8,326,191	1%	2%	0% - 4%	Yes
Infrastructure	$36,763,602	4%	4%	2% - 6%	Yes
Hedge Fund of Funds	$44,950,338	5%	4%	2% - 6%	Yes
Cash	$10,805,694	1%	0%	0% - 3%	Yes
Total	**$982,921,990**	**100%**	**100%**		

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Total Equity	$638,677,100	65%	69%	60% - 80%	Yes
Total Fixed Income	$190,561,231	19%	15%	5% - 25%	Yes
Total Real Assets	$142,877,964	15%	16%	13% - 19%	Yes
Cash	$10,805,694	1%	0%	0% - 3%	Yes

Plymouth County Retirement Association adopted a new asset allocation as of May 2017.

Asset Allocation History
5 Years Ending October 31, 2018



Annual Investment Expense Analysis
As Of October 31, 2018

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Domestic Equity Assets		**$235,459,886**		
Rhumbline Russell 1000 Value	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	$32,947,510	$15,679	0.05%
Rhumbline Russell 1000 Growth	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	$42,563,360	$19,525	0.05%
Fisher Midcap Value	0.80% of First 25.0 Mil, 0.75% of Next 25.0 Mil, 0.67% Thereafter	$42,509,128	$331,318	0.78%
Boston Company Small Cap Growth	0.45% of Assets	$48,699,137	$219,146	0.45%
LMCG Small Cap Value	0.90% of Assets	$68,343,163	$615,088	0.90%
International Developed Market Equity Assets		**$145,284,750**		
KBI Master Account	0.65% of Assets	$69,472,571	$451,572	0.65%
HGK TS International Equity	1.00% of Assets	$42,076,413	$420,764	1.00%
Copper Rock International Small Cap	0.85% of Assets	$33,735,767	$286,754	0.85%
International Emerging Market Equity Assets		**$82,487,586**		
LMCG Emerging Markets	0.75% of Assets	$82,487,586	$618,657	0.75%
Global Equity Assets		**$93,513,210**		
First Eagle Global Value Fund	0.75% of Assets	$18,421,415	$138,161	0.75%
Kopernik Global All Cap Fund	0.80% of First 50.0 Mil, 0.75% of Next 150.0 Mil, 0.70% of Next 250.0 Mil, 0.65% of Next 350.0 Mil	$17,521,997	$140,176	0.80%
Lee Munder Global Multi-Cap Strategy	0.45% of Assets	$26,953,299	$121,290	0.45%
Wellington Durable Enterprises, L.P.	0.60% of Assets	$30,616,498	$183,699	0.60%
Domestic Fixed Income		**$84,992,885**		
IR&M Core Bonds	0.25% of First 50.0 Mil, 0.20% of Next 50.0 Mil, 0.15% Thereafter	$84,992,885	$194,986	0.23%
Value Added Fixed Income		**$69,411,532**		
Eaton Vance High Yield	0.50% of Assets	$33,795,825	$168,979	0.50%
THL Bank Loan Select Fund	0.40% of Assets	$35,615,707	$142,463	0.40%
International Fixed Income		**$36,156,814**		
Franklin Templeton Emerging Market Bonds	0.99% of Assets	$36,156,814	$357,952	0.99%

Plymouth County Retirement Association

Short Duration Fixed Income
RFP Respondent Review

Background

- On September 13, 2018, Meketa Investment Group issued an RFP on behalf of the Retirement Association.
  - Subsequently, the search was posted to Meketa's website, send to PERAC, and picked up by a variety of news sources.
- Meketa requested that all respondents submit the RFP by September 27, 2018.
- The following pages are completed in accordance with PERAC regulations, and follow the revised search process provided in the new Chapter 176 regulations enacted at the end of 2011.
  - The ratings reflect Meketa Investment Group's opinions on each manager within the context of the Plymouth County Retirement Association's overall plan.
- Meketa received eighteen responses; these responses are reviewed on the following pages.

RFP Respondents

Manager	Headquarters	Strategy	Overall Rating
Income Research & Management	Boston, Massachusetts	1-3 Year Credit	Highly Advantageous
Lord Abbett	Jersey City, New Jersey	Short Duration Credit	Highly Advantageous
Aegon Asset Management	Cedar Rapids, Iowa	Short Duration Strategy	Advantageous
Barrow, Hanley, Mewhinney & Strauss, LLC	Dallas, Texas	Short Maturity Fixed Income	Advantageous
Dimensional Fund Advisors LP	Austin, Texas	Short-Term Extended Quality Portfolio	Advantageous
Garcia Hamilton	Huston, Texas	Short Duration Government Credit	Advantageous
Great Lakes Advisors	Chicago, Illinois	Short Term Fixed Income	Advantageous
Janus Henderson Investors	Denver, Colorado	Janus Henderson Short Duration Fixed Income	Advantageous
Johnson Investment Counsel	Cincinnati, Ohio	Short Duration Fixed Income	Advantageous
Macquarie Investment Management	Philadelphia, Pennsylvania	Limited Term Multisector Fixed Income	Advantageous
Newfleet Asset Management	Boston, Massachusetts	Newfleet Multi-Sector Short Duration	Advantageous
PIMCO	Newport Beach, California	PIMCO Low Duration Income Fund	Advantageous
Ryan Labs Asset Management	New York, New York	Short Duration Government/Credit	Advantageous
Segall Bryant & Hamill	Chicago, Illinois	Short Term Fixed Income	Advantageous
Thornburg Investment Management	Santa Fe, New Mexico	Thornburg Limited Term Income Strategy	Advantageous
Wilmington Trust	Wilmington, Delaware	Wilmington Trust Short-Term Bond	Advantageous
Mesirow Financial	Chicago, Illinois	Mesirow Financial Short Term Fixed Income	Not Advantageous
Palmer Square Capital Management LLC	Mission Woods, Kansas	Palmer Square Income Plus Strategy	Not Advantageous

Income Research & Management (IR&M)

Rating Criteria	Rating	Rationale
Overall	Highly Advantageous	
Organization	Highly Advantageous	• IR&M is located in Boston, Massachusetts and is 87% employee owned, with ownership distributed among 52 employees. The remaining 13% is family owned. Founder John Sommers transferred a portion of his shares to his two sons not involved in the business. • The firm was founded in 1987 and has close to $72 billion in assets under management. The 1-3 Year Credit strategy was incepted in 2012 and has $331 million in assets under management.
Team	Highly Advantageous	• The investment team consists of 41 professionals, of which 14 are portfolio managers. Portfolio managers' involvement in the strategy varies depending on the extent that their sector expertise is utilized within portfolio guidelines. Since portfolio managers are not assigned specific portfolios or mandates, they have buy and sell authority within the bounds of their respective sectors. • The team is also supported by 18 analysts, who are responsible for credit analysis within their respective sectors, 5 traders, and 4 directors.
Investment Philosophy	Highly Advantageous	• The investment philosophy is centered on bottom-up security selection, diversification, risk control, and a value orientation. The team believes that they can add value in the long run through security selection and active portfolio risk management. They also look into sub-sectors of the market for issues that may offer structural or price advantages.
Investment Process	Advantageous	• New ideas are sourced from new issues, secondary market activity, management meetings, conferences, or team conversations. Then securities are evaluated on an issue by issue basis, placing heavy emphasis on credit fundamentals, structural features, volatility, and liquidity. Analysts layer top-down analysis by going through different testing methodologies, giving special attention to downside risk under extreme scenarios. The team opts to maintain a duration and yield curve neutral stance, while setting overall sector exposure targets. Portfolio managers, who act as sector specialists, are responsible for determining sub-sector exposure that must fall within limit bands. • Portfolio managers are ultimately responsible for buy and sell decisions within their respective areas of expertise.
Performance	Not Advantageous	• IR&M has underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, and since inception trailing periods, with excess returns of -0.15%, -0.32%, -0.30% and -0.33% respectively.
Fees	Advantageous	• Private Investment Fund: Effective Fee of 0.22%.

Lord Abbett

Rating Criteria	Rating	Rationale
Overall	Highly Advantageous	
Organization	Highly Advantageous	• Lord Abbett is located in Jersey City, New Jersey and is 100% employee owned, with no single person owning more than 25%. • The firm was founded in 1929 and currently manages $162 billion in total assets and $42.9 billion in the Short Duration Credit strategy, which was instituted in 2008.
Team	Advantageous	• The taxable fixed income team is led by Steven Rocco. He is supported by four senior team members who oversee portfolio management efforts in specific market segments. Portfolio manager Andrew O'Brien is responsible for the day to day management of the Short Duration Credit strategy. • Senior investment professionals are supported by a team of 24 credit analyst and five traders.
Investment Philosophy	Highly Advantageous	• The team seeks to add value by taking advantage of dislocations in valuations across sectors through sector rotation. At the security level, they seek to capture inefficiencies in bond prices using qualitative and quantitative methods. • The Short Duration Credit team's portfolio focus is on three main sectors: investment grade corporate credit, CMBS, high yield corporate credit, which typically compromise more than 50% of the overall portfolio.
Investment Process	Advantageous	• The investment process begins with an evaluation of the global economic and financial market environment by the portfolio management team in order to set sector allocation targets. The team employs proprietary models that recommend optimal sector allocations based on historical and inter-sector spread relationships as a starting point for discussion. Once attractive sectors are determined, the analyst team conducts in-depth fundamental analysis for security selection decisions. • Portfolio manager Andrew O'Brien holds all final decision making authority for the Short Duration strategy.
Performance	Highly Advantageous	• Lord Abbett has outperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods with excess returns of 0.90%, 1.16%, 1.03%, 1.54%, and 1.72% respectively.
Fees	Advantageous	• Collective Investment Trust: Effective Fee of 0.27%.

Aegon Asset Management

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Not Advantageous	• Aegon Asset Management U.S., located in Cedar Rapids, Iowa, is an asset management subsidiary of Aegon N.V, a publicly traded financial services firm. (NYSE:AEG). • The firm was formed in 2001 and manages $101 billion in AUM across a mix of strategies. The Short Duration strategy incepted in 2006 and had approximately $3 billion in assets.
Team	Advantageous	• The strategy is managed by the Short Duration Portfolio Management Team, which comprises five portfolio managers: Doug Weih (co-head of Public Fixed Income), Glen Kneeland, Norbert King, Tyler Knight (Head of Structured Finance), and Brian Westhoff (Head of Multi-Sector Portfolio Management). • The management team is supported by 18 credit and 6 structured research analysts. This team supports other products as well. • Employees are encouraged to invest in Aegon's investment strategies available in pooled vehicles.
Investment Philosophy	Not Advantageous	• The team takes a value oriented and total return management approach. Aegon believes that a credit intensive and fundamentally driven process allows the team to identify relative value investment opportunities. • The team believes that investing in non-index sectors, especially in the securitized space, allows for diversification benefits and for higher spread with equal or better credit quality relative to index-only sectors. In addition, the team also can allow modest opportunistic allocations that may offer attractive relative value and diversification benefits.
Investment Process	Advantageous	• The process begins with idea generation in the form of screens, idiosyncratic ideas, market flows, and news issues. After that, the team conducts bottom up credit research that focuses on cash flow generation, debt levels, maturity schedules, liquidity and consideration of future credit profiles. Structured research analysts focus on collateral performance, issuer strength, and structure of securities. They also stress test the securities using proprietary methods. • Portfolio managers conduct macroeconomic analysis to come up with overarching themes and a global house view of the macro environment, interest rates, and relative attractiveness of various asset classes. Once qualitative and quantitative factors are considered the Short Duration team strives to come to a consensus when making decisions. However, if a consensus can't be reached the decision is taken by the portfolio manager with most experience in the sector.
Performance	Highly Advantageous	• Aegon Asset Management has outperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten- and since inception trailing periods, with excess returns of 0.62%, 0.91%, 0.83%, 1.18% and 1.07% respectively.
Fees	Highly Advantageous	• Separate Account: Effective Fee of 0.20%.

Barrow, Hanley, Mewhinney & Strauss, LLC ("BHMS")

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• BHMS is a Dallas-based asset management firm and is an affiliate of BrightSphere Investment Group plc, a public firm (NYSE: BSIG). BSIG owns 75.1% of BMS and the remaining 24.9% is owned by portfolio managers and analysts through a limited partnership. • BHMS was established in 1979 and now manages roughly $85 billion in AUM across all strategies. There is approximately $1.5 billion in the Short Maturity strategy, whose track record dates back to 1984.
Team	Advantageous	• The strategy is managed by six portfolio managers: Rahul Bapna (co-lead portfolio manager), David Hardin (co-lead portfolio manager), Mark Luchsinger, Scott McDonald, Debbie Petruzzelli, and Erik Olson. Team leadership has been going through a transition process in the past year with David Hardin set to retire in January 2019 and Mr. Bapna set to take over as the lead portfolio management. • The Short Maturity strategy is supported by seven fixed income research analysts. Portfolio managers have research responsibilities and they work closely with analysts. • None of the fixed income directors are invested in any fixed income commingled fund.
Investment Philosophy	Advantageous	• BHMS is a value-oriented manager that seeks to take advantage of temporary market inefficiencies through a bottom up, research driven process. • The team seeks to out yield the benchmark by selecting securities that offer a yield to maturity advantage. At the same time, the strategy draws away from securities that can detract from this natural advantage such as market timing and the use of leveraged derivatives. • BHMS seeks to add value by being "benchmark contrarian."
Investment Process	Advantageous	• The team utilizes a three-step process. First, a relative return model is used to source ideas, identifying value across sectors, quality, and yield curve. Then the security selection process highlights credits that have a greater probability of rating upgrades and the MBS selection process focuses on loan level characteristics as well as refinancing risk. The final step includes scenario forecasting and stress testing once the portfolio is constructed. • Decisions are made based by consensus, but if consensus cannot be reached decisions are made by Rahul Bapna and David Hardin, co-lead portfolio managers.
Performance	Not Advantageous	• The strategy has underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten- and since inception trailing periods, with excess returns of -0.46%, -0.63%, -0.55%, -1.17% and -0.62% respectively.
Fees	Advantageous	• Separate Account: Effective Fee of 0.25%.

Dimensional Fund Advisors LP

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Dimensional Fund Advisors is based in Austin, Texas and is 70% owned by current and former employees and their families. The remaining 30% is held by outside investors. • The firm was established in 1981 and has $582 billion in assets under management. The Short-Term Extended Quality strategy was launched in 2009 and it currently has close to $6 billion in assets.
Team	Advantageous	• Dave Plecha and Joseph Kolersich are responsible for day to day management of the strategy • There are no requirements for any portfolio manager to invest in the funds they manage, however a number of investment professionals invest in the funds under their management.
Investment Philosophy	Advantageous	• The key tenets to Dimensional's philosophy are that market prices contain information about differences in expected returns, diversification improves the reliability of outcomes, and that managing tradeoffs adds value.
Investment Process	Advantageous	• The team uses information in credit and term spreads to establish expected returns for fixed income securities. They believe that securities with wider credit or term spreads historically offer higher premiums and higher expected return. Securities are ranked systematically every day from highest to lowest expected return. The team then determines if holdings with low expected returns should be replaced with securities offering higher expected returns. • The Investment Committee is ultimately responsible for portfolio oversight and dictates the types of securities that can be bought and sold. Portfolio managers must stay within the Investment Committee's parameters. • The strategy does not incorporate either top-down macroeconomic analysis or fundamental analysis.
Performance	Not Advantageous	• Dimensional Fund Advisors outperformed the Bloomberg Barclays 1-3 Year Credit index over the five-year trailing return period, with an excess return of 0.11%. However, they underperformed the remainder of the periods including, the one-, three-year, and since inception periods, with excess returns of -0.32, -0.08%, and -0.07% respectively.
Fees	Advantageous	• Mutual Fund (DFEQX): Effective Fee of 0.22%.

Garcia Hamilton

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Highly Advantageous	• Garcia Hamilton is an asset manager located in Houston, Texas and was founded in 1998. The firm is 100% employee owned by nine internal partners; 91% of the firm is owned by women and minorities. • The firm manages $10.5 billion in AUM, of which $146 million is in the Short Duration Government Credit Strategy, the inception of which dates to 2013.
Team	Advantageous	• Gilbert Garcia will serve as the primary portfolio manager, but he is supported by five portfolio managers including Nancy Rodriguez, Jeffrey Detwiler, Karen Tass, Don Elsenbrock, and Benjamin Monkiewicz. • The team is supported by four research analysts. All members of the fixed income team act as generalists and work on all strategies.
Investment Philosophy	Advantageous	• Garcia Hamilton's investment philosophy is founded on the goals of preserving capital, maintaining liquidity, and providing high current income. The team believes that their strategies should act as an anchor in client's portfolios. • The team uses on a top-down approach. They seek to outperform the benchmark through interest rate calls and active sector rotation. They believe that credit research adds little value over the long-term.
Investment Process	Advantageous	• The team starts with an economic outlook in which they set target portfolio duration based on the anticipation of interest rates. Then they determine sector exposure, excluding foreign companies, alcohol, tobacco, gambling, and defense companies. After that, they determine how they want to be positioned along the yield curve based on their expectations. Once the macroeconomic views are established, the team sources ideas from third parties and determines if securities meet quality and duration criteria. • Gilbert Garcia and/or Karen Tass make the final decisions on all portfolios.
Performance	Advantageous	• Garcia Hamilton has seen moderate outperformance of the Bloomberg Barclays 1-3 Year Credit index. Excess returns for the one-, three-, five- and since inception trailing periods are 0.51%, 0.17%, 0.36% and 0.36% respectively.
Fees	Highly Advantageous	• Separate Account: Effective Fee of 0.16%.

Great Lakes Advisors

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Great Lakes Advisors is located in Chicago, Illinois and it is owned by Wintrust Financial Corporation, a publicly traded financial services firm (NASDAQ:WTFC). However, investment management professionals participate in a tracking share equity program that serves as a proxy for ownership in the firm. • The firm was founded in 1981 and now totals $9 billion of assets under management across strategies. The short duration strategy started in 1999 and has close to $320 million in assets.
Team	Advantageous	• Patrick Morrissey is the Head of Fixed Income and oversees all fixed income portfolios. He works alongside portfolio managers Nancy Studenroth, Richard Rokus, Brian Schuster, and David Kopp. Portfolio managers also act as analysts, having responsibilities for specific sectors.
Investment Philosophy	Advantageous	• Great Lakes Advisors takes a controlled approach to fixed income management, focusing on fundamental analysis as a way to seek excess returns. • The team believes that focusing on higher income sectors and securities as well as having the flexibility to overweight or underweight specific industries is a good way to add value.
Investment Process	Advantageous	• The first step in the investment process is to examine the macroeconomic landscape to come up with curve and sector positioning. The team then conducts internal fundamental credit research by running financial metrics and reviewing credit profiles. Third party research and resources are also used at this point in the investment process. Approximately 50% of research is conducted in house and 50% comes from external sources. After all these factors are considered, the portfolio is constructed with a view to duration management as well as long and short-term trends. • The decisions are made as a team, however Patrick Morrissey is responsible for overseeing all fixed income portfolios.
Performance	Not Advantageous	• Great Lakes Advisors has underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods, with excess returns of -0.11%, -0.35%, -0.37%, -0.97% and -0.69% respectively.
Fees	Advantageous	• Separate Account: Effective Fee of 0.23%.

Janus Henderson Investors

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Janus Henderson Investors is a publicly traded asset management firm headquartered in London, UK (NYSE & ASX: JHG). • The firm was founded in 1969 and manages $370 billion in assets across strategies. The Short Duration Fixed Income strategy started in 1992 and has approximately $3 billion in assets under management.
Team	Advantageous	• The strategy is co-managed by Darrell Watters and Mayur Saigal. They are also responsible for managing the firms other fixed income strategies. • Mr. Watters and Mr. Saigal are supported by 18 credit analysts, 10 securitized analysts, and one emerging market analyst. All analysts are partnered with equity analysts in the same sectors and industries to leverage ideas and help the team understand companies holistically.
Investment Philosophy	Advantageous	• The investment philosophy is based on the idea that fundamental research can lead to excess returns and aid in the preservation of capital. • The team believes that analyzing companies from both the equity and bondholder perspectives allows for a better understanding of management motivation, optimal capital structure, and potential catalysts that could lead to ratings upgrade or downgrade potential. The investment team can make decisions to buy or sell a security ahead of movements by the rating agencies.
Investment Process	Highly advantageous	• Janus employs a four-step investment process that includes fundamental research, macroeconomic views, sector views, and security selection. Fundamental research is the first and most important step as it drives decisions going forward. It includes getting cash flows right, understanding management, evaluating the downside, as well as leveraging firm wide research resources. The team uses their fundamental views to develop views on the economic environment, interest rates, and yield curve positioning. Based on these factors the team then determines relative weights across sectors. Lastly, the team makes decisions to include securities in portfolios based on relative value and investment criteria. • Janus utilizes a team based approach when it comes to decision making. However, the responsibility for the day to day management of the portfolio rests on Darrell Watters and Mayur Saigal.
Performance	Not Advantageous	• Janus Henderson has underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods, with excess returns of -0.21%, -0.42%, -0.25%, -0.21% and -0.53% respectively.
Fees	Advantageous	• Separate Account: Effective Fee of 0.22%.

Johnson Institutional Management

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Highly Advantageous	• Johnson Institutional Management is a division of Johnson Investment Counsel, Inc., an investment advisory firm based in Cincinnati, Ohio. Johnson is 100% employee-owned, with ownership dispersed among 30 shareholders and no single employee owning a majority interest. • The firm was established in 1976 and manages $3 billion in assets across strategies. The Short Duration Fixed Income strategy was instituted in 1994 and has $1 billion in assets.
Team	Advantageous	• The team is led by Jason Jackman, who serves as the lead portfolio manager for the Short Duration strategy. Mr. Jackman, together with four other portfolio managers, manage all of the firm's fixed income strategies. • All portfolio managers are generalists, making it easier to share ideas and better debate relative positions within portfolios.
Investment Philosophy	Advantageous	• The team's investment philosophy rests on the belief that quality and yield are not two opposing forces, but can be combined in a way as to outperform and also provide downside protection. Thus, the team describes itself as having a "quality yield" investment style, seeking to have a yield advantage while focusing on low yield spread beta.
Investment Process	Advantageous	• The team starts by considering all dollar-denominated investment grade securities within the contexts and objectives of client portfolios. When looking at securities the team takes into consideration yield spreads, yield curve roll, and performs a thorough credit review. The team stays excludes derivatives, currency exposure, and below investment grade bonds from their portfolios. • All decisions require unanimous approval by all five members of the investment team before being implemented in portfolios.
Performance	Not Advantageous	• Johnson Institutional Management underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods, with excess returns of -0.41%, -0.50%, -0.42%, -0.82%, and -0.54% respectively .
Fees	Advantageous	• Separate Account: Effective Fee of 0.25%.

Macquarie Investment Management

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Macquarie is a Philadelphia based asset manager and subsidiary to Macquarie Group Limited, a publicly traded firm that traces back to 1929 (ASX:MQG). Macquarie currently holds a 95% interest in the firm and the remaining 5% is owned by employees. • The firm's total assets under management total $249 billion. The Limited Term Fixed Income strategy has close to $3 billion in assets.
Team	Advantageous	• The portfolio managers responsible for the strategy are Roger Early, David Hillmever, and Cynthia Isom. • Portfolio managers are supported by 15 analysts and 7 quantitative analysts who are divided into sectors and industries. The firm does not utilize a global research platform, as they believe will lead to deterioration of style purity. • All portfolio managers are encouraged to invest in the products they manage. They also receive part of their compensation through a profit sharing plan, which exclusively invests in Macquarie Investment Management mutual funds.
Investment Philosophy	Advantageous	• The team believes that the market misprices credit, prepayment, and liquidity risks. One way that they seek to add value is by emphasizing issue selection from sound corporations while staying away from making decisions based on macroeconomic assumptions. • Macquarie may utilize out of benchmark allocations if they generate correlation benefits and present potential alpha opportunities.
Investment Process	Advantageous	• The twofold investment process emphasizes the idea that security selection is the best way to generate alpha. First, cash flow and balance sheet models are developed to determine whether a company has the ability and willingness to pay future coupon payments. Analysts also conduct stress tests under various market environments as well as growth scenarios. Second, the team uses relative value factors to determine how a credit trades relative to its peers and the industry in general. After that, analysts set price targets and entry points. • The ultimate decision making authority lies with the lead portfolio manager.
Performance	Advantageous	• Macquarie Investment Management had slight underperformance versus the Bloomberg Barclays 1-3 Year Credit index over the one-year trailing period, with an excess return of -0.19%. In the remainder of the periods the strategy outperformed, including three-, five-, ten-, and since inception, with excess returns of 0.90%, 1.48%, 2.07% and 1.85% respectively.
Fees	Highly Advantageous	• Separate Account: Effective Fee of 0.18%.

Newfleet Asset Management

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Newfleet Asset Management is an affiliate of Virtus Investment Partners, a publicly traded investment advisor (NASDAQ:VRTS). This Hartford, Connecticut-based company was established in 1989. • Total firm assets under management are close to $12 billion and the Multi-Sector Short Duration Strategy, launched in 1993, has $7 billion assets under management.
Team	Advantageous	• Portfolio managers responsible for the multi-sector short duration strategy include David Albrycht, Benjamin Caron, Steve Hooker, Lisa Baribault, and Christine Ouellette. They all have portfolio management and marketing responsibilities but the degree of involvement in each varies. • Portfolio managers are supported by 21 sector specialists and research analysts, who have portfolio management responsibilities within their dedicated sectors, and three traders.
Investment Philosophy	Advantageous	• The team believes that sector rotation, security selection, and risk management are the best way to achieve excess returns. The team also has the flexibility to include up to 35% in non-investment grade securities and 35% in non-US securities. • The team finds that there are attractive opportunities in spread sector securities, as they believe that inefficiencies in the credit market allow for potential excess returns.
Investment Process	Advantageous	• The investment process starts with a top-down outlook in which the team determines value opportunities and target portfolio allocations. After emphasizing undervalued sectors the team conducts fundamental credit analysis and also assesses relative value of underlying securities. Currently, 70-80% of credit research is internally generated while the remaining 20-30% comes from Bloomberg, Factset, Markit Hub, CreditSights, Moody's, and S&P. • All final decisions for the Multi-Sector Short Duration strategy rest upon the portfolio management team, which typically works collaboratively to reach a consensus. When agreement is not possible David Albrycht, CIO and Senior Portfolio Manager, has final decision making authority.
Performance	Highly Advantageous	• Newfleet Asset Management slightly underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-year trailing period, with an excess return of -0.10%. In the remainder of the periods the manager outperformed, including three-, five-, ten-, and since inception, with excess returns of 1.76%, 1.29%, 2.61% and 1.86% respectively.
Fees	Highly Advantageous	• Separate Account: Effective Fee of 0.18%.

PIMCO

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• PIMCO is headquartered in Newport Beach, California and has 13 other offices around the world. Allianz Asset Management ("AAM") is the majority shareholder with minority interests held by AAM affiliates and by former and current PIMCO employees. • The firm was established in 1971 and it has $1.7 trillion in assets under management. The Low Duration Income Fund started in 2004 and it has close to $3 billion assets.
Team	Not Advantageous	• The fund is managed by Daniel Ivascyn, Alfred Murata, and Eve Tournier who only recently took over responsibility of the strategy. Ms. Tournier has managed the fund since March 2016, while Daniel Ivascyn and Alfred Murata joined her two months later in May of 2016. Since Bill Gross's departure in 2014, the investment team has seen elevated turnover, but has been relatively settled in the last year. • The team is supported by 60 credit analysts, who work within specific sectors and geographies.
Investment Philosophy	Advantageous	• The main tenets of PIMCO's investment philosophy include stable income and attractive risk adjusted returns, quality and limited interest rate exposure, emphasis on structural security, and risk management. Through these four pillars, PIMCO seeks to deliver consistent income while protecting capital. • The fund is a benchmark agnostic, multi-sector low duration strategy.
Investment Process	Advantageous	• The investment process starts with a top-down analysis conducted annually in which PIMCO's investment professionals get together over a three-day forum to discuss the global economy and financial markets going forward. The annual Secular Forum sets the tone for everything else and helps the Low Duration team determine exposure across key risk factors. In addition, the research analysts conducts bottom-up analysis that aligns security selection with macroeconomic outlooks. • Daniel Ivascyn, Alfred Murata, and Eve Tournier are ultimately responsible for all investment decisions in the portfolio.
Performance	Highly Advantageous	• PIMCO outperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods, with excess returns of 1.54%, 5.33%, 2.20%, 1.69%, and 0.79% respectively.
Fees	Not Advantageous	• Separate Account: Effective Fee of 0.50%.

Ryan Labs

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Ryan Labs was established in 1998 and is based in New York, New York. The firm is a wholly-owned subsidiary of Sun Life. • The inception of the Short Duration Government/Credit strategy is 2009, and it has $183 million in assets under management. Total firm assets under management are $8 billion.
Team	Advantageous	• The investment team is headed by CIO Richard Familetti. He is supported by four senior portfolio managers and six credit analysts. The portfolio management team has responsibility for the management of all fixed income strategies. Though members of the investment team are generalists, they each have sector specializations.
Investment Philosophy	Highly Advantageous	• Ryan Labs seeks to add value through issue selection and sector rotation while minimizing downside risk. The investment team in place has also been a contributor to the firm's ability to add value over time. The investment team structure prevents a bias towards holding securities in all sectors at all times, which has served the team well in the past. • The team actively looks for "upgrade" candidates and mispriced securities, especially in the securitized credit space. One core belief is that deep value is identified through finding underappreciated loan quality.
Investment Process	Advantageous	• The team is focused on finding undervalued securitized opportunities in the ABS and CMBS space using the "law of large numbers" for statistical characteristics. The team also incorporates underlying property valuations and technical analysis into their investment process. Their fundamental analysis strives to be forward looking on negative events and take advantage of opportunities when they arise. • There is no ultimate decision maker; all decisions are taken through a team-based approach.
Performance	Not Advantageous	• Ryan Labs Asset Management underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, and since inception trailing periods, with excess returns of -0.08%, -0.65%, -0.65% and -1.17% respectively .
Fees	Not Advantageous	• Separate Account: Effective Fee of 0.45%, but open to negotiation.

Segall Bryant & Hamill

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Segall Bryant & Hamill ("SBH") was established in 1994 and since then the firm has acquired several teams to expand their product offerings. The ownership structure of the firm consists of a 53% stake held by 39 employee partners and 47% owned by Thoma Bravo, LLC, a private equity firm. • Total assets under management is close to $20 billion. The Short Duration strategy has $309 million in assets under management.
Team	Highly Advantageous	• Jim Dadura and Greg Hosbein have been the portfolio managers for the Short Term Fixed Income strategy since 2002. Portfolio managers and analysts have responsibility for managing all fixed income strategies. Analysts operate as generalists, which, they believe, allows assessment of the entire investment universe and eliminate sector bias.
Investment Philosophy	Advantageous	• SBH's goal is to take advantage of market inefficiencies and identify opportunities in small issue corporates and taxable municipal bonds. The team seeks to achieve this through fundamental analysis, a consistent, and repeatable investment process in a risk controlled framework.
Investment Process	Advantageous	• The investment process begins by screening for operating cash flow, free cash flow stability, interest coverage, and leverage ratios, as well as ranking companies with public debt by financial and credit strength. The firm uses the services of CMS BondEdge, Bloomberg, and MarketAxess to screen securities and Interactive Data Corporation (IDC) as their third-party pricing service. Macroeconomic analysis is conducted by forecasting trends in the economy, Federal Reserve policy, inflation, supply and demand, and dollar exchange rates. A buy decision is considered after examining historical yield spreads, performing price sensitivities, and considering relative value. • Both Jim Durand and Greg Hosbein have final authority over all investment decisions. Sell decisions can be triggered by a single vote by either manager.
Performance	Not Advantageous	• Segall Bryant & Hamill underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten- and since inception trailing periods, with excess returns of -0.27%, -0.64%, -0.54%, -1.45% and -0.90% respectively .
Fees	Highly Advantageous	• Separate Account: Effective Fee of 0.20%.

Thornburg Investment Management

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Thornburg was founded in 1982 in Santa Fe, New Mexico and it currently has $46.7 billion in assets under management. The firm is privately held. The Thornburg family members and revocable trust owns 29%, the Thornburg irrevocable family trust holds 44%, CIO Brian McMahon holds 17%, and other Thornburg employees own the remaining 10%. Founder and Chairman Garret Thornburg owns all voting shares. • The Short Duration Credit Fixed Income strategy was launched in 1993 and has $13 billion in assets under management.
Team	Advantageous	• Jason Brady has served as portfolio manager for the strategy since 2007. Lon Erickson and Jeff Klingelhofer joined as co-portfolio managers in 2010 and 2015 respectively. Portfolio managers for the Short Duration strategy also serve as portfolio managers for other taxable fixed income strategies.
Investment Philosophy	Advantageous	• The team at Thornburg believes that consistent long-term outperformance is achievable through bottom-up fundamental analysis. The team also employs macroeconomic analysis as a way of managing risk and enhancing returns. • The strategy uses laddered, unconstrained portfolios to take advantage of a collective relative value framework and manage duration, yield curve exposure, and cash flow needs.
Investment Process	Advantageous	• The team screens the entire global universe fixed income universe as well as income-producing equity securities when trying to find investment opportunities. Then fundamental research is conducted utilizing both qualitative and quantitative factors, such as history of successful strategy execution, rate scenarios, scenario modeling, and performance, among other things. External sources are also used at this stage of the investment process, including Bloomberg, FactSet and Intex. Portfolio managers construct the portfolio in a "three basket" system across opportunistic, counter-cyclical, and structural factors. • Investment decisions are made by consensus among co-portfolio managers Jason Brady, Lon Erickson, and Jeff Klingelhofer.
Performance	Advantageous	• Thornburg Investment Management slightly underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-year trailing period, with an excess return of -0.10%. In the remainder of the periods the manager outperformed, including three-, five-, ten-, and since inception, with excess returns of 0.62%, 1.03%, 1.50% and 0.50% respectively.
Fees	Not Advantageous	• Separate Account: Effective Fee of 0.35%.

Wilmington Trust

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	• Wilmington Trust is based in Wilmington, Delaware and is a wholly-owned subsidiary of M&T Bank Corporation. Wilmington Trust was founded in 1995 and currently has $71 billion in assets under management. • The Short-Term Bond Fund was incepted in 1996 and has $51 billion in assets under management.
Team	Advantageous	• Wilmer Stith III and James Hannan are head co-portfolio managers on the fixed income investment team. Messrs. Stith and Hannan have 23 and 30 years of investment industry experience, respectively and have both been with the firm for 23 years. Portfolio managers are supported by a team of six research analysts.
Investment Philosophy	Advantageous	• The investment philosophy is focused on a top-down, relative value approach that seeks to add value through portfolio positioning based on sector, duration, interest rate, and credit analysis. The team's goal is to use a combination of sector rotation, industries allocation, and yield curve management to add incremental value over the index.
Investment Process	Advantageous	• The investment process starts with top-down analysis that consists of expectations for economic growth, inflation, and Federal Reserve policy. The team then uses technical methods to conduct trend analysis and Fibonacci analysis to monitor risk premiums, duration, and to forecast interest rates. • Co-portfolio managers Wilmer Stith and James Hannan are the ultimate decision makers for the strategy.
Performance	Not Advantageous	• Wilmington Trust underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods, with excess returns of -0.32%, -0.57%, -0.50%, -1.06% and -1.04% respectively.
Fees	Advantageous	• Separate Account: Effective Fee of 0.22%.

Mesirow Financial

Rating Criteria	Rating	Rationale
Overall	Not Advantageous	
Organization	Advantageous	• Mesirow Financial Investment Management, Inc. is a subsidiary of Mesirow Financial Holdings. • The Chicago, Illinois-based firm, founded in 1937, now has $111 billion in assets under management. The Short Term strategy's incepted in 2005 and it has $717 million assets.
Team	Not Advantageous	• Peter Hegel serves as the Head of Fixed Income, senior portfolio manager, and MBS and ABS sector specialist. He is supported by three portfolio members (Mark Newlin, Christopher Langs, and Ryan Johnson), one senior sector specialist, one credit analyst, and one trader. There are seven total investment team members, and all are shareholders of the firm. Mark Newlin will be retiring from the firm in 2019, which adds to a recent retirements of key investment team members in the last 24 months.
Investment Philosophy	Advantageous	• The team believes that they can add incremental returns through sector rotation, yield curve management and issue selection. The main source of benefit coming from an emphasis in yield, underweight treasuries, while staying duration neutral. • The team may also decide to include out of benchmark securities in the portfolio for diversification benefits and volatility reduction.
Investment Process	Advantageous	• The process begins by setting the investable universe of securities which is determined by client guidelines. Then the fixed income team meets to discuss market conditions to determine sector weightings, yield curve position, and critical holdings at the issuer level. After that, sector specialists analyze yield spreads, issuance patterns and they meet with traders to determine relative value within each sector. Credit analysts on the other hand focus on issuer and security level due diligence. • Sector weighting and yield curve positioning decisions need consensus among Peter Hegel, Mark Newlin, Christopher Langs, and Ryan Johnson.
Performance	Not Advantageous	• Mesirow Financial has underperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, ten-, and since inception trailing periods, with excess returns of -0.69%, -0.66%, -0.52%, -0.66% and -0.31% respectively .
Fees	Advantageous	• Separate Account: Effective Fee of 0.23%.

Palmer Square Capital Management LLC

Rating Criteria	Rating	Rationale
Overall	Not Advantageous	
Organization	Advantageous	• Palmer Square Capital is a Mission Woods, Kansas based asset manager founded in 2009 by Christopher Long, who serves as the firm's president. The company ownership is divided between employees, holding 42.7%, and the Bicknell Family Holding Company, with a 57.3% stake. • The firm has $6 billion of assets under management, of which $600 million is under the Income/Short Duration strategy, which was launched in 2013.
Team	Advantageous	• There are 14 investment professionals who contribute to the research and management of all strategies. Angie Long, CIO and portfolio manager, is the lead on the Short Duration fixed income strategy. She is supported by three other portfolio managers, three structured credit sector team members, and nine corporate credit sector team members. Christopher and Angie Long each have 21 years of investment experience in the credit markets.
Investment Philosophy	Not Advantageous	• The investment philosophy is founded on the belief that opportunities can be exploited across corporate credit and structured securities through cross-asset relative value, top-down, and bottom-up analysis. The team believes that this style allows them to deliver downside protection and attractive risk-adjusted returns. • The strategy is not managed to a specific benchmark and has the flexibility to invest up to 30% of net assets in high yield securities. Securities allowable in the strategy include loans, bonds, convertible debt, CLOs, ABS, and MBS.
Investment Process	Advantageous	• The investment process consists of four steps including top-down analysis, bottom-up analysis, fundamental credit analysis, portfolio construction, and risk management. Top-down analysis consists of macroeconomic outlook, cross-asset relative value, industry analysis, and market trends. Analysts are responsible for conducting bottom up research putting emphasis on borrower characteristics, structure, and evaluation of securities, and monitoring once a security makes it in the portfolio on an ongoing basis. • The portfolio management team operates on a consensus based system for sector allocation and security selection is largely run by the sector teams. However, Angie Long, CIO and Portfolio Manager, has the final decision making authority.
Performance	Highly Advantageous	• Palmer Square Capital Management has outperformed the Bloomberg Barclays 1-3 Year Credit index over the one-, three-, five-, and since inception trailing periods. With excess returns of 2.28%, 1.94%, 2.05% and 2.14% respectively.
Fees	Advantageous	• Separate Account: Effective Fee of 0.25%.

Manager Trailing Performance (Net of Fees)
As of September 30, 2018

Manager	Inception Date	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception
Income Research & Management[1]	02/2012	0.51%	1.11%	1.09%	-	1.22%
Lord Abbett	01/2008	1.56%	2.59%	2.42%	4.57%	4.26%
Aegon Asset Management	01/2006	1.28%	2.35%	2.22%	4.21%	4.17%
Barrow, Hanley, Mewhinney & Strauss, LLC	01/1984	0.20%	0.80%	0.84%	1.86%	3.84%
Dimensional Fund Advisors LP	03/2009	0.34%	1.36%	1.51%	-	2.81%
Garcia Hamilton	09/2013	1.17%	1.60%	1.75%	-	1.75%
Great Lakes Advisors	07/1999	0.55%	1.08%	1.03%	2.06%	3.14%
Janus Henderson Investors	09/1992	0.45%	1.02%	1.14%	2.82%	3.93%
Johnson Investment Counsel	01/1994	0.25%	0.93%	0.98%	2.21%	2.47%
Macquarie Investment Management	12/1992	0.47%	2.34%	2.87%	5.10%	4.46%
Newfleet Asset Management	08/1993	0.56%	3.20%	2.69%	5.64%	5.13%
PIMCO	07/2004	2.20%	6.76%	3.59%	4.72%	3.79%
Ryan Labs Asset Management	06/2009	0.58%	0.78%	0.74%	-	1.20%
Segall Bryant & Hamill	07/2002	0.39%	0.79%	0.85%	1.58%	2.31%
Thornburg Investment Management	02/1993	0.56%	2.05%	2.42%	4.53%	4.92%
Wilmington Trust	04/1996	0.34%	0.87%	0.89%	1.97%	3.16%
Mesirow Financial	04/2005	-0.03%	0.78%	0.87%	2.37%	2.79%
Palmer Square Capital Management LLC	02/2013	2.94%	3.38%	3.44%	-	3.51%
Bloomberg Barclays 1-3 Yr Credit	*NA*	*0.66%*	*1.43%*	*1.39%*	*3.03%*	-
Bloomberg Barclays 1-3 Yr Govt/Credit	*NA*	*0.20%*	*0.73%*	*0.83%*	*1.67%*	-

[1] Due to performance breaks in the IR&M 1-3 Year Credit composite, net monthly returns for 03/2016 and 02/2017 were taken from the IR&M Short Credit Mutual Fund.

Manager Trailing Performance (Net of Fees)[1]
As of September 30, 2018

Manager	Inception Date	1 Year Excess Returns (%)	3 Year Excess Return (%)	5 Year Excess Return (%)	10 Year Excess Return (%)	Since Inception Excess Return
Income Research & Management[2]	02/2012	-0.15%	-0.32%	-0.30%	-	-0.33%
Lord Abbett	01/2008	0.90%	1.16%	1.03%	1.54%	1.72%
Aegon Asset Management	01/2006	0.62%	0.91%	0.83%	1.18%	1.07%
Barrow, Hanley, Mewhinney & Strauss, LLC	01/1984	-0.46%	-0.63%	-0.55%	-1.17%	-0.62%
Dimensional Fund Advisors LP	03/2009	-0.32%	-0.08%	0.11%	-	-0.07%
Garcia Hamilton	09/2013	0.51%	0.17%	0.36%	-	0.36%
Great Lakes Advisors	07/1999	-0.11%	-0.35%	-0.37%	-0.97%	-0.69%
Janus Henderson Investors	09/1992	-0.21	-0.42%	-0.25%	-0.21%	-0.53%
Johnson Investment Counsel	01/1994	-0.41	-0.50%	-0.42%	-0.82%	-0.54%
Macquarie Investment Management	12/1992	-0.19%	0.90%	1.48%	2.07%	1.85%
Newfleet Asset Management	08/1993	-0.10%	1.76%	1.29%	2.61%	1.86%
PIMCO	07/2004	1.54%	5.33%	2.20%	1.69%	0.79%
Ryan Labs Asset Management	06/2009	-0.08%	-0.65%	-0.65%	-	-1.17%
Segall Bryant & Hamill	07/2002	-0.27%	-0.64%	-0.54%	-1.45%	-0.90%
Thornburg Investment Management	02/1993	-0.10%	0.62%	1.03%	1.50%	0.50%
Wilmington Trust	04/1996	-0.32%	-0.57%	-0.50%	-1.06%	-1.04%
Mesirow Financial	04/2005	-0.69%	-0.66%	-0.52%	-0.66%	-0.31%
Palmer Square Capital Management LLC	02/2013	2.28%	1.94%	2.05%	-	2.14%

1 Benchmark is the Barclays 1-3 Year Credit Index.
2 Due to performance breaks in the IR&M 1-3 Year Credit composite, net monthly returns for 03/2016 and 02/2017 were taken from the IR&M Short Credit Mutual Fund.

Proposed Fees

Manager	Vehicle Type	Estimated Effective Fee (%)[1]
Income Research & Management	Private Investment Fund	0.22%
Lord Abbett	Collective Investment Trust	0.27%
Aegon Asset Management	Separate Account	0.20%
Barrow, Hanley, Mewhinney & Strauss, LLC	Separate Account	0.25%
Dimensional Fund Advisors LP	Mutual Fund (DFEQX)	0.22%
Garcia Hamilton	Separate Account	0.16%
Great Lakes Advisors	Separate Account	0.23%
Janus Henderson Investors	Separate Account	0.22%
Johnson Investment Counsel	Separate Account	0.25%
Macquarie Investment Management	Separate Account	0.18%
Newfleet Asset Management	Separate Account	0.18%
PIMCO	Mutual Fund (PFIIX)	0.50%
Ryan Labs Asset Management[2]	Separate Account	0.45%
Segall Bryant & Hamill	Separate Account	0.20%
Thornburg Investment Management	Separate Account	0.35%
Wilmington Trust	Separate Account	0.22%
Mesirow Financial	Separate Account	0.23%
Palmer Square Capital Management LLC	Separate Account	0.25%

[1] Assumes a mandate size of $30 million. In certain cases operating expenses for commingled fund/collective investment trust vehicles were unspecified. Operating expenses for separate accounts are subject to price proposals from the custodian bank. In some instances operating expenses were left unspecified.

[2] Fees are negotiable.

Summary

- A total of 18 managers submitted responses to this search. Based upon our review and evaluation of each respondent, Meketa Investment Group has rated Lord Abbett and Income Research & Management as "Highly Advantageous." Fourteen managers were ranked as "Advantageous," and two managers were ranked as "Not Advantageous."

Private Equity Manager Finalist Overview

Background

- At the October meeting, Meketa Investment Group reviewed proposals from private equity managers for consideration from within the Retirement Association's private equity allocation.
  - For private equity, Meketa recommends approximately three investments per year with an approximate commitment of $12 million to each manager.
- Behrman Capital, Summit Partners, SK Capital Partners, and were selected as finalists and invited to interview.

Behrman Capital VI
Overview

Behrman Capital	
Firm Location (Headquarters)	New York, NY
Firm Inception	1991
Strategy Inception	1991
Firm AUM (As of 6/30/2018)	$3.3B
Strategy AUM	$3.3B
Ownership Structure	Employee owned

- Behrman Capital was founded in 1991 by Darryl Behrman and Grant Behrman and is a private equity firm headquartered in New York with an additional office in San Francisco. The firm has historically focused on growth-oriented buyout investments in middle market companies throughout North America. Behrman Capital currently manages assets of approximately $3.3 billion across five prior vehicles raised.

Behrman Capital VI
Investment Team

- The Behrman team consists of nine investment professionals led by the firm's Managing Partners, Grant Behrman and William Matthes. Additionally, the investment team is supported by two exclusive Operating Partners.

- The firm has experienced limited employee turnover with only one senior level departure occurring in the last five years.

Behrman Capital VI
Investment Terms

Behrman Capital VI	
Partnership Name	Behrman Capital VI
Partnership Type	Delaware Limited Partnership
Investment Strategy/Focus	Middle Market Buyout & Growth Equity
Geographic Focus	North America
Vintage Year	2018
Fund Size[1]	$500 million target
Anticipated Final Closing	Q1 2019
Total Term	Ten years, subject to two one-year extensions at the discretion of the General Partner with the consent of 51% interest of the Limited Partners
Fees / Expenses:	
Management Fee	2.0% of commitments during the Commitment Period; thereafter, 2.0% of invested capital..
Preferred Return	8%
Carried Interest / Performance Fee	20% carried interest with 100% GP Catch-Up

[1] Behrman Capital VI has closed on approximately $250 million of its $500 million target.

Behrman Capital VI
Investment Strategy

- Behrman Capital VI will make buyout and growth equity investments in North American middle market companies operating within the defense and aerospace, specialty manufacturing, and healthcare services industries.
- The Fund will focus primarily on profitable businesses displaying a history of consistent cash flow generation and EBITDA in the $15 million to $40 million range.
- The investment team intends to add value to portfolio companies through add-on acquisitions, operational improvements, enhancing management teams, and strategic initiatives.

Behrman Capital VI
Historical Track Record[1]
(as of June 30, 2018)

	Year of First Investment	Number of Investments	Invested Capital ($ mm)	Realized Value ($ mm)	Unrealized Value ($ mm)	Total Value ($ mm)	Gross IRR (%)	Net IRR (%)	Peer Median[2] (%)	Quartile Ranking[1]
Behrman Capital Fund I	1992	N/A	107	217	0	217	31	16	20	3rd
Behrman Capital Fund II	1998	N/A	449	647	0	647	6	3	9	3rd
Behrman Capital Fund III	2000	N/A	1,035	2,248	0	2,248	17	12	14	3rd
Behrman Capital Fund IV (Annex Fund)	2008	N/A	199	N/A	N/A	334	13	7	14	4th
Behrman Capital Fund V	2012	N/A	881	N/A	N/A	1,771	20	16	17	3rd
Total		**N/A**	**2,671**	**N/A**	**N/A**	**5,217**	**14**	**10**	**14**	**3rd**

[1] Information marked as "N/A" was not provided by the manager in the RFP response.
[2] Benchmark Source: Cambridge Associates (Buyout & Growth Equity; United States)

Behrman Capital VI
Status Update

- Behrman Capital VI has closed on approximately $250 million of commitments to date and is anticipating a final close in the first quarter of 2019.

Relative Strengths & Potential Weakness

Behrman Capital	
Relative Strengths	• Extensive firm history executing both buyout and growth equity investments (representing capital of $3.3 billion) across multiple market cycles. • The firm's five Partners have worked together at the firm for at least the past 13 years.
Potential Weaknesses	• Track record performance is variable with consistent underperformance; all five prior funds are currently performing 3rd and 4th quartile. • Potential succession issues exist with the firm's Managing Partners entering the later stages of their respective careers.

Summit Partners Growth Equity Fund X Overview

Summit Partners	
Firm Location (Headquarters)	Boston, MA
Firm Inception	1984
Strategy Inception	1984
Firm AUM (As of 6/30/2018)	$22.0B
Strategy AUM	$13.6B
Ownership Structure	Employee owned

- Summit Partners was founded in 1984 and is a global alternative asset management firm headquartered in Boston, MA with additional offices in Menlo Park, CA and London. The firm manages investment vehicles focused on growth equity, credit, venture capital, and public equity investments. Summit is currently led by a group of 26 Managing Directors with an average tenure of more than 13 years at the firm.

Summit Partners Growth Equity Fund X
Investment Team

- The U.S. Growth Equity platform includes 36 total investment professionals. Leadership of the group is overseen by 10 Managing Directors, most of whom have worked at the firm for over a decade.
- Summit has experienced some senior-level turnover with six Managing Directors leaving in the past five years, although several of these individuals transitioned to retirement via an orderly succession plan and now serve as Senior Advisors to the firm.

Summit Partners Growth Equity Fund X
Investment Terms

Summit Partners Growth Equity Fund X	
Partnership Name	Summit Partners Growth Equity Fund X
Partnership Type	Cayman Islands Limited Partnership
Investment Strategy/Focus	Growth Equity
Geographic Focus	North America
Vintage Year	2018
Fund Size	$4.0 billion target
Anticipated Final Closing	February 2019
Total Term	Ten years, subject to two two-year extensions each with the consent of the General Partner and two-thirds in interest of the Limited Partners
Fees / Expenses:	
Management Fee[1]	1.0% of commitments for the twelve month period commencing on the First Draw Down Date; 1.85% of commitments in the succeeding twelve month period, and, thereafter; 2.0% of commitments
Preferred Return	8%
Carried Interest / Performance Fee	20% carried interest with 100% GP Catch-Up

[1] Following the sixth anniversary, the management fee will be reduced by 10 basis points per year.

Summit Partners Growth Equity Fund X
Investment Strategy

- Summit Partners Growth Equity Fund X will make growth-oriented investments in profitable, well-managed businesses within the firm's three primary target sectors: Healthcare, Technology, and Growth Products and Services.
- Target companies will have strong recurring revenue models and growth rates, while the Fund will focus primarily on opportunities in the U.S. and Canada. Fund X expects to make between 25 and 35 investments ranging between $75 million and $300 million per transaction.
- The investment team plans to create value within underlying investments by improving operational efficiency and enhancing portfolio company management to facilitate revenue growth.

Summit Partners Growth Equity Fund X
Historical Track Record
(as of June 30, 2018)

	Year of First Investment	Number of Investments	Invested Capital ($ mm)	Realized Value ($ mm)	Unrealized Value ($ mm)	Total Value ($ mm)	Gross IRR (%)	Net IRR (%)	Peer Median[1] (%)	Quartile Ranking[1]
Summit Growth VII	2006	47	3,119	6,336	1,573	7,908	19	11	6	2nd
Summit Growth VIII	2012	28	2,790	3,304	2,995	6,300	36	25	14	1st
Summit Growth IX	2016	14	1,852	355	1,931	2,287	94	51	9	1st
Total		**89**	**7,761**	**9,995**	**6,499**	**16,495**	-	-	**-**	**-**

[1] Benchmark Source: Cambridge Associates (Growth Equity; United States)

Summit Partners Growth Equity Fund X
Status Update

- Summit Partners Growth Equity Fund X is anticipating a first and final close on February 26, 2019.

Summit Partners Growth Equity Fund X

Summit Partners	
Relative Strengths	• Summit has a deep and experienced management team. The Fund will be managed by 10 Managing Directors specifically dedicated to the U.S. growth equity investment efforts with an average tenure at the firm of 16 years. • Over the Firm's history, Summit has generated strong absolute and relative returns. Summit's three most recent funds rank in the first or high second quartile. • The portfolio is expected to be well diversified across technology, healthcare, life sciences, and other sectors in which the Summit team has strong prior experience.
Potential Weaknesses	• Several managing directors who were responsible for earlier fund performance have retired in the past 10 years. • There is some potential for conflicts of interest with other Summit-managed funds, although potential conflicts appear to be well managed. • Summit recently underwent a team re-organization and has moved toward industry teams away from their previous generalist approach. While less proven under this model, Summit believes that the change allows it be more targeted in sourcing and executing investments.

SK Capital Partners V Overview

SK Capital Partners	
Firm Location (Headquarters)	New York, NY
Firm Inception	2007
Strategy Inception	2007
Firm AUM (As of 7/2018)	$3.9B
Strategy AUM	$3.9B
Ownership Structure	Employee owned

- SK Capital Partners ("SK Capital") was founded in 2007 by Barry Siadat and Jamshid Keynejad and is a private investment firm with headquarters in New York, NY. SK Capital is led by five Managing Directors who have worked together at the firm for at least the past eight years, while four of the five worked previously together for many years at Arsenal Capital Partners prior to the firm's formation. SK Capital has raised three prior funds and currently manages assets of approximately $3.9 billion.

SK Capital Partners V
Investment Team

- The SK Capital team currently consists of 28 investment professionals and is led by five Managing Directors: Barry Siadat, Jamshid Keynejad, Jack Norris, Aaron Davenport, and James Marden. Messrs. Siadat, Norris, Davenport, and Marden previously worked together for several years at Arsenal Capital Partners, a private equity firm focused on buyout investments in industrial and healthcare companies, prior to forming SK Capital.

- SK Capital has experienced moderate employee turnover with three mid/senior professionals leaving the firm in the past five years.

SK Capital Partners V
Investment Terms

SK Capital Partners V	
Partnership Name	SK Capital Partners V[1]
Partnership Type	Cayman Islands Limited Partnership
Investment Strategy/Focus	Middle Market Buyout
Geographic Focus	North America
Vintage Year	2018
Fund Size	$2.0 billion target[2]
Anticipated Final Closing	January 2019
Total Term	Ten years, subject to a one-year extension at the discretion of the General Partner and two further one-year extensions with consent of the Advisory Board
Fees / Expenses:	
Management Fee	2.0% on committed capital during the commitment period; thereafter, 2.0% of invested capital
Preferred Return	8%
Carried Interest / Performance Fee	20% carried interest with 100% GP Catch-Up

[1] Fund V-A will serve as the Main Fund while Fund V-B will serve as the Overage Fund; both vehicles are Cayman Islands Limited Partnerships.
[2] The firm has closed on $1.7 billion across both the Main Fund and the Overage Fund; total capitalization for both vehicles is capped at $2.0 billion.

SK Capital Partners V
Investment Strategy

- SK Capital Partners V will make control investments primarily in North American businesses operating within the Specialty Materials, Chemicals, and Pharmaceuticals sectors, where the firm's Managing Directors have significant prior experience.
- The Fund expects to make between six and nine platform investments while remaining agnostic with respect to size and geography.
- The investment team plans to add value to portfolio companies through operational improvements, add-on acquisitions, and the implementation of strategic initiatives.

SK Capital Partners V
Historical Track Record
(as of June 30, 2018)

	Year of First Investment	Number of Investments	Invested Capital ($ mm)	Realized Value ($ mm)	Unrealized Value ($ mm)	Total Value ($ mm)	Gross IRR (%)	Net IRR (%)	Peer Median[1] (%)	Quartile Ranking[1]
SK Capital Partners II	2009	1	3	74	82	156	420	351	21	1st
SK Capital Partners III	2011	9	443	702	522	1,223	31	25	15	1st
SK Capital Partners IV	2015	8	782	0	824	824	6	3	15	4th
Total[2]		**18**	**1,228**	**775**	**1,427**	**2,203**	**39**	**26**	**17**	**1st**

[1] Benchmark Source: Cambridge Associates (Buyout; United States)
[2] Total Gross and Net IRR figures as of March 31, 2018.

SK Capital Partners V
Status Update

- SK Capital Partners V has closed on approximately $1.7 billion of commitments to date and is anticipating a final close in January 2019.

Relative Strengths & Potential Weakness

SK Capital Partners	
Relative Strengths	• SK Capital is led by an experienced group of five Managing Directors, four of whom previously worked together at Arsenal Capital Partners. The senior team has been stable with no partner level departures over the firm's history. The Managing Directors have worked together at the firm for eight years. • The track record is relatively strong with Funds II-III generating impressive returns.
Potential Weaknesses	• The firm is still relatively young and its strategy is less proven across market cycles, although the investment team has experience working together at a prior firm. • Fund IV is at an early stage in its life cycle and has not yet generated meaningful performance.

Appendices

Private Markets First Quarter 2018 Review

INTERIM REPORT

Plymouth County Retirement Association

Private Markets Program
March 31, 2018

M E K E T A   I N V E S T M E N T   G R O U P

BOSTON	CHICAGO	MIAMI	PORTLAND	SAN DIEGO	LONDON
MASSACHUSETTS	ILLINOIS	FLORIDA	OREGON	CALIFORNIA	UNITED KINGDOM

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Table of Contents

The purpose of this document is to offer a review of the Retirement Association's aggregate private market investments.

As of March 31, 2018, the Retirement Association had committed $374.6 million to forty-four partnerships. The reported fair value of those forty-four partnerships, in aggregate, was $157.3 million at the end of the first quarter.

Aggregate Private Equity Program[1]		Aggregate Real Assets Program[1]		Aggregate Real Estate Program[1]	
Number of Partnerships	23	**Number of Partnerships**	6	**Number of Partnerships**	15
Committed Capital[2]	$131.2 million	**Committed Capital[2]**	$60.4 million	**Committed Capital**	$183.0 million
Capital Called	$91.7 million	**Capital Called**	$24.9 million	**Capital Called**	$128.2 million
Distributions	$79.0 million	**Distributions**	$1.8 million	**Distributions**	$83.2 million
Reported Value	$33.5 million	**Reported Value**	$20.8 million	**Reported Value**	$103.0 million
Total Value Multiple	1.2x	**Total Value Multiple**	0.9x	**Total Value Multiple**	1.4x
Net IRR	4.3%	**Net IRR**	-3.0%	**Net IRR**	5.5%
Q1 2018 IRR[3]	-4.1%	**Q1 2018 IRR[3]**	2.4%	**Q1 2018 IRR[3]**	0.9%
Trailing Year IRR[3]	12.5%	**Trailing Year IRR[3]**	-0.04%	**Trailing Year IRR[3]**	4.5%

[1] Throughout this report, numbers may not sum due to rounding.
[2] Some partnership commitments were made in foreign currency. This total reflects committed capital in U.S. dollars, adjusted for foreign currency exchange rates, as of the report date.
[3] IRR is net of Meketa Investment Group fees, but gross of prior advisory fees.

The Retirement Association did not make any new commitments during the first quarter of 2018.

In aggregate, approximately $1.7 million was called by the underlying managers from the Retirement Association during the first quarter.

- LLR Equity Partners V called $1.2 million from the Association primarily to fund new investments in 3SI Security Systems, a Philadelphia-based provider of asset protection systems and GPS tracking technologies; PCS, an independent retirement services automation platform headquartered in Philadelphia; and eLocal, a national provider of digital performance marketing services.
- Summit Partners Growth Equity Fund IX called $0.5 million from the Association primarily to fund a new investment in Medical Review Institute of America, an independent medical review company serving health insurers, benefit managers, and employers.

Distributions received by the Retirement Association from underlying partnerships during the first quarter totaled approximately $1.2 million.

- Ascent Venture Partners V distributed approximately $0.4 million to the Association during the quarter in proceeds received from the 2016 sale of CloudLock, which returned a total value multiple of 6.7x.
- Landmark Equity Partners XIV distributed $0.3 million to the Association primarily in proceeds received from various underlying partnership investments.
- Lexington Capital Partners VII distributed $0.3 million to the Association primarily in realized gains received from various underlying partnership investments.
- Siguler Guff Distressed Opportunities Fund III distributed approximately $0.1 million to the Association in additional proceeds received from the 2016 partial realization of H/2 Investors.

During the first quarter of 2018, the Retirement Association did not make any new commitments.

In aggregate, approximately $2.0 million was called by the underlying managers from the Retirement Association during the first quarter.

- Global Infrastructure Partners III called $1.4 million during the quarter primarily to fund an investment in Equis Energy, the largest renewable energy company in the Asia-Pacific region.
- Basalt Infrastructure Partners II called $0.6 million during the quarter primarily to fund a new investment in Boardwalk, a portfolio of five essential energy assets.

Distributions received by the Retirement Association from underlying partnerships during the first quarter totaled approximately $0.2 million.

- Domain Timbervest Partners III distributed proceeds of $0.1 million to the Association during the quarter, primarily in proceeds received from various existing timberland assets.

During the first quarter of 2018, the Retirement Association made a new real estate commitment of $25.0 million to TA Realty Core Property Fund, an open-end vehicle focused on diversified core investments throughout the U.S.

In aggregate, $16.2 million was called by the underlying managers from the Retirement Association during the first quarter.

- TA Realty Core Property Fund called approximately $13.5 million to fund future portfolio investments in addition to the working capital needs of the partnership.
- DSF Multi-Family Real Estate Fund III called approximately $1.6 million from the Association primarily to fund the acquisition of a 300-unit apartment community located in Tarrytown, New York.
- AEW Partners Real Estate Fund VIII called $0.8 million from the Association during the quarter primarily to fund continuing investments in the Dalfen Industrial Portfolio (acquisition of three additional properties in Georgia, North Carolina, and Texas) as well as a mezzanine loan investment.
- Carlyle Realty Partners VIII called $0.1 million from the Association to fund follow-on investments in addition to management fees and the working capital needs of the partnership.

Distributions received by the Retirement Association from underlying partnerships during the first quarter totaled approximately $17.8 million.

- Invesco Equity Real Estate Securities Trust returned $14.0 million to the Association during the quarter as part of a redemption request.
- Real Estate International Partnership Fund I distributed $1.5 million to the Association during the quarter, representing 100% preferred return from various existing portfolio investments.
- Hunt Redevelopment and Renovation Fund distributed $1.0 million to the Association during the quarter primarily from the sale of Cobblestone at Essen Apartments, which generated a gross total value multiple of 2.0x.

Investment Roadmap

As of September 15, 2018

Buyout	Funds of Funds	Growth Equity	Other	Private Debt	Secondary	Special Situations	Venture Capital
Leeds Equity IV $5.0mm 2004	Euro Choice II €4.1mm 2004	TRG Growth II $7.5mm 2007	Senior Tour Players $2.6mm 1998	Audax Mezzanine IV $10.0mm 2016	Landmark Equity XIV $6.0mm 2008	Levine Leichtman D.V. $3.0mm 2005	Charles River X $5.0mm 1999
Mesirow Capital IX $4.0mm 2005	Singular Guff III $6.0mm 2008	Summit Growth IX $10.0mm 2016	RIMCO $2.0mm 2001		Lexington Capital VII $10.0mm 2010		Charles River XI $1.8mm 2000
DN Partners II $5.0mm 2007	Euro Choice V €5.0mm 2012						Ascent Venture IV $2.5mm 2004
Leeds Equity V $2.5mm 2010							Ascend Ventures II $2.5mm 2005
LLR Equity V $12.0mm 2017							Globespan Capital V $5.0mm 2006
Wellspring VI $12.0mm 2017							Ascent Venture V $5.0mm 2011
Trilantic VI $12.0mm 2017							
HarborVest Co-Invest V $12.0mm 2018							
Ironsides Direct V $12.0mm 2018							
Ridgemont III $12.0mm 2018							

- White box: Current investment.
- Green box: Investment made subsequent to quarter end and, as such, is not included in any other section of this report.
- Gray box: Liquidated Investment.

Investment Roadmap

As of September 15, 2018

Natural Resources	Opportunistic	Value-Added	Core
Timbervest Partners III $5 mm 2010	JPM Global Maritime $10 mm 2010	Global Partners III $10 mm 2016	IFM Global (U.S.) $20 mm Open-end
BTG Global Timberland €4.3mm 2011			Basalt II $10 mm 2017

- White box: Current investment.
- Green box: Investment made subsequent to quarter end and, as such, is not included in any other section of this report.

Investment Roadmap

As of September 15, 2018

Core	Funds of Funds	Opportunistic	Value-Added
Invesco REIT $22 mm Open-End	Real Estate Int'l I $15 mm 2007	1921 Realty $5 mm 2008	Intercontinental III $4 mm 2001
JP Morgan Strat. Property $27 mm Open-End		AEW Partners VIII $25 mm 2017	Hunt Redevelopment $10 mm 2003
Multi-Employer Trust $5 mm Open-End		Carlyle VIII $18 mm 2017	Intercontinental IV $4 mm 2004
PRISA I $15 mm Open-End			Berkshire Multifamily II $10 mm 2007
TA Realty Core $25 mm Open-End			New Boston VII $5 mm 2007
			DSF Capital IV $5 mm 2011
			DSF Real Estate III $15 mm 2016

- White box: Current Investment.
- Green box: Investment made subsequent to quarter end and, as such, is not included in any other section of this report.
- Gray box: Liquidated Investment.

Aggregate Private Equity Program Partnership Roster

	Vintage Year	Commitment ($ mm)	Committed (%)	Reported Fair Value ($ mm)	Reported Fair Value (%)
Total Program		**131.2**	**100**	**33.5**	**100**
Fund of Funds		**17.7**	**13**	**6.7**	**20**
Euro Choice II, L.P.[1]	2004	5.5	4	0.0	0
Siguler Guff Distressed Opportunities Fund III, L.P.	2008	6.0	5	1.2	3
Euro Choice V, L.P.[2]	2012	6.1	5	5.5	16
Secondary		**16.0**	**12**	**5.2**	**16**
Landmark Equity Partners XIV, L.P.	2008	6.0	5	1.7	5
Lexington Capital Partners VII, L.P.	2009	10.0	8	3.6	11
Buyout		**40.5**	**31**	**5.2**	**16**
Leeds Equity Partners IV, L.P.	2004	5.0	4	1.0	3
Mesirow Financial Capital Partners IX, L.P.	2005	4.0	3	0.3	1
DN Partners II, L.P.	2007	5.0	4	0.9	3
Leeds Equity Partners V, L.P.	2010	2.5	2	2.3	7
LLR Equity Partners V, L.P.	2017	12.0	9	0.9	3
Wellspring Capital Partners VI, L.P.	2017	12.0	9	-0.2	-1
Special Situations		**3.0**	**2**	**0.0**	**0**
Levine Leichtman Capital Partners Deep Value Fund, L.P.	2005	3.0	2	0.0	0
Private Debt		**10.0**	**8**	**1.9**	**6**
Audax Mezzanine Fund IV, L.P.	2016	10.0	8	1.9	6
Venture Capital		**21.8**	**17**	**9.9**	**29**
Charles River Partnership X, L.P.	1999	5.0	4	0.0	0
Charles River Partnership XI, L.P.	2000	1.8	1	0.2	< 1
Ascent Venture Partners IV, L.P.	2004	2.5	2	0.2	1

[1] The Retirement Association committed €4.1 million to the Partnership in 2004. The $5.5 million is an estimated amount based on the contributed capital and unfunded commitment as of 3/31/18.
[2] The Retirement Association committed €5.0 million to the Partnership in 2013. The $6.1 million is an estimated amount based on the contributed capital and unfunded commitment as of 3/31/18.

	Vintage Year	Commitment ($ mm)	Committed (%)	Reported Fair Value ($ mm)	Reported Fair Value (%)
Ascend Ventures II, L.P.	2005	2.5	2	0.1	< 1
Globespan Capital Partners V, L.P.	2006	5.0	4	5.1	15
Ascent Venture Partners V, L.P.	2011	5.0	4	4.3	13
Growth Equity		**17.5**	**13**	**4.5**	**13**
TRG Growth Partnership II, L.P.	2007	7.5	6	2.5	7
Summit Partners Growth Equity Fund IX, L.P.	2016	10.0	8	2.0	6
Other		**4.6**	**4**	**0.0**	**0**
Senior Tour Players, L.P. [3]	1998	2.6	2	0.0	0
Rimco Production Company, Inc[4]	2001	2.0	2	0.0	0

[3] Partnership was liquidated in January 2018.
[4] Partnership was liquidated in January 2018.

Aggregate Real Assets Program Partnership Roster

	Vintage Year	Commitment ($ mm)	Committed (%)	Reported Fair Value ($ mm)	Reported Fair Value (%)
Total Program		**60.4**	**100**	**20.8**	**100**
Core		**30.0**	**50**	**1.3**	**6**
IFM Global Infrastructure (U.S.), L.P.	Open-End	20.0	33	0.0	0
Basalt Infrastructure Partners II	2017	10.0	17	1.3	6
Natural Resources		**10.4**	**17**	**9.3**	**45**
Domain Timbervest Partners III, L.P.	2010	5.0	8	5.7	27
BTG Pactual Global Timberland Resources Fund, LLC[1]	2011	5.4	9	3.6	17
Opportunistic		**10.0**	**17**	**6.6**	**32**
JPMorgan Global Maritime Investment	2010	10.0	17	6.6	32
Value-Added		**10.0**	**17**	**3.6**	**17**
Global Infrastructure Partners III, L.P.	2016	10.0	17	3.6	17

[1] The Retirement Association committed €4.3 million to the Partnership in 2010. The $5.4 million is an estimated amount based on the contributed capital and unfunded commitment as of 3/31/18.

Aggregate Real Estate Program Partnership Roster

	Vintage Year	Commitment ($ mm)	Committed (%)	Reported Fair Value ($ mm)	Reported Fair Value (%)
Total Program		**183.0**	**100**	**103.0**	**100**
Core		**67.0**	**37**	**84.5**	**82**
PRISA I	Open-End	15.0	8	39.1	38
Multi-Employer Property Trust	Open-End	5.0	3	15.9	15
Invesco Equity Real Estate Securities Trust	Open-End	22.0	12	15.2	15
TA Realty Core Property Fund, L.P.	Open-End	25.0	14	14.3	14
Opportunistic		**48.0**	**26**	**4.3**	**4**
1921 Realty, Inc.	2008	5.0	3	0.9	1
AEW Partners Real Estate Fund VIII, L.P.	2017	25.0	14	3.4	3
Carlyle Realty Partners VIII, L.P. [1]	2017	18.0	10	NM	NM
Value-Added		**53.0**	**29**	**10.2**	**10**
Intercontinental Real Estate Investment Fund III, LLC	2001	4.0	2	0.0	0
Hunt Redevelopment and Renovation Fund, LLC	2003	10.0	5	0.2	< 1
Intercontinental Real Estate Investment Fund IV, LLC	2004	4.0	2	0.0	0
Berkshire Multifamily Value Fund II, L.P.	2007	10.0	5	0.1	< 1
New Boston Institutional Fund VII, L.P.	2007	5.0	3	0.4	< 1
DSF Capital Partners IV, L.P.	2011	5.0	3	2.2	2
DSF Multi-Family Real Estate Fund III, L.P.	2016	15.0	8	7.4	7
Fund of Funds		**15.0**	**8**	**4.0**	**4**
Real Estate International Partnership Fund I, L.P.	2007	15.0	8	4.0	4

[1] Due to a negative account balance as of 3/31/18, Reported Fair Value for the Partnership has been listed as "Not Meaningful."

Aggregate Program Performance Summary

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date[1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Total Program		**131.2**	**91.7**	**44.1**	**79.0**	**33.5**	**112.4**	**4.3**	**1.2**
Vintage Year 1998		**2.6**	**2.7**	**0.0**	**0.1**	**0.0**	**0.1**	**-25.5**	**0.0**
Senior Tour Players, L.P.	Other	2.6	2.7	0.0	0.1	0.0	0.1	-25.5	0.0
Vintage Year 1999		**5.0**	**4.4**	**0.6**	**2.2**	**0.0**	**2.2**	**-14.9**	**0.5**
Charles River Partnership X, L.P.	Venture Capital	5.0	4.4	0.6	2.2	0.0	2.2	-14.9	0.5
Vintage Year 2000		**1.8**	**1.8**	**0.0**	**1.9**	**0.2**	**2.1**	**3.1**	**1.1**
Charles River Partnership XI, L.P.	Venture Capital	1.8	1.8	0.0	1.9	0.2	2.1	3.1	1.1
Vintage Year 2001		**2.0**	**2.0**	**0.0**	**7.5**	**0.0**	**7.5**	**29.1**	**3.7**
Rimco Production Company, Inc	Other	2.0	2.0	0.0	7.5	0.0	7.5	29.1	3.7
Vintage Year 2004		**13.0**	**13.1**	**0.4**	**13.3**	**1.2**	**14.5**	**1.8**	**1.1**
Ascent Venture Partners IV, L.P.	Venture Capital	2.5	2.5	0.0	0.4	0.2	0.6	-21.4	0.2
Euro Choice II, L.P.	Fund of Funds	5.5	5.5	0.4	7.7	0.0	7.7	6.4	1.4
Leeds Equity Partners IV, L.P.	Buyout	5.0	5.0	0.0	5.2	1.0	6.2	3.4	1.2
Vintage Year 2005		**9.5**	**11.0**	**0.3**	**7.8**	**0.5**	**8.2**	**-5.2**	**0.7**
Ascend Ventures II, L.P.	Venture Capital	2.5	2.3	0.2	0.8	0.1	1.0	-8.9	0.4
Levine Leichtman Capital Partners Deep Value Fund, L.P.	Special Situations	3.0	4.9	0.0	5.1	0.0	5.1	1.3	1.0
Mesirow Financial Capital Partners IX, L.P.	Buyout	4.0	3.8	0.2	1.9	0.3	2.2	-6.9	0.6
Vintage Year 2006		**5.0**	**4.9**	**0.1**	**4.6**	**5.1**	**9.8**	**12.4**	**2.0**
Globespan Capital Partners V, L.P.	Venture Capital	5.0	4.9	0.1	4.6	5.1	9.8	12.4	2.0

[1] In certain instances, Total Contributions Paid to Date may exceed Capital Committed as certain partnerships may call fees outside of commitment and most partnerships reserve a limited right to recycle capital and/or recall distributions.
[2] Unfunded Commitment amounts are an approximation due to the inclusion of recallable distributions.
[3] The Net IRR calculations were performed by Meketa Investment Group. Total Program IRR is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year IRRs are net of partnership fees but gross of Meketa Investment Group fees.
[4] The Inv. Multiple calculations were performed by Meketa Investment Group. Total Program Inv. Multiple is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year Inv. Multiples are net of partnership fees but gross of Meketa Investment Group fees.

Aggregate Program Performance Summary

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date[1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Vintage Year 2007		**12.5**	**9.7**	**2.8**	**6.7**	**3.4**	**10.1**	**0.7**	**1.0**
DN Partners II, L.P.	Buyout	5.0	2.3	2.7	0.0	0.9	0.9	-13.0	0.4
TRG Growth Partnership II, L.P.	Growth Equity	7.5	7.4	0.1	6.7	2.5	9.2	4.6	1.2
Vintage Year 2008		**12.0**	**12.1**	**0.2**	**13.9**	**2.8**	**16.7**	**9.0**	**1.4**
Landmark Equity Partners XIV, L.P.	Secondary	6.0	6.2	0.0	5.9	1.7	7.6	6.8	1.2
Siguler Guff Distressed Opportunities Fund III, L.P.	Fund of Funds	6.0	5.8	0.2	7.9	1.2	9.1	10.3	1.6
Vintage Year 2009		**10.0**	**10.5**	**0.0**	**11.7**	**3.6**	**15.3**	**15.0**	**1.5**
Lexington Capital Partners VII, L.P.	Secondary	10.0	10.5	0.0	11.7	3.6	15.3	15.0	1.5
Vintage Year 2010		**2.5**	**3.6**	**0.0**	**3.0**	**2.3**	**5.3**	**13.0**	**1.5**
Leeds Equity Partners V, L.P.	Buyout	2.5	3.6	0.0	3.0	2.3	5.3	13.0	1.5
Vintage Year 2011		**5.0**	**4.8**	**0.4**	**3.4**	**4.3**	**7.7**	**10.8**	**1.6**
Ascent Venture Partners V, L.P.	Venture Capital	5.0	4.8	0.4	3.4	4.3	7.7	10.8	1.6
Vintage Year 2012		**6.1**	**5.4**	**0.9**	**1.5**	**5.5**	**7.0**	**10.8**	**1.3**
Euro Choice V, L.P.	Fund of Funds	6.1	5.4	0.9	1.5	5.5	7.0	10.8	1.3
Vintage Year 2016		**20.0**	**4.4**	**15.6**	**1.3**	**3.9**	**5.3**	**NM**	**1.2**
Audax Mezzanine Fund IV, L.P.	Private Debt	10.0	2.2	7.8	0.3	1.9	2.3	NM	1.1
Summit Partners Growth Equity Fund IX, L.P.	Growth Equity	10.0	2.3	7.7	1.0	2.0	3.0	NM	1.3
Vintage Year 2017		**24.0**	**1.2**	**22.8**	**0.0**	**0.7**	**0.7**	**NM**	**0.6**
LLR Equity Partners V, L.P.	Buyout	12.0	1.2	10.8	0.0	0.9	0.9	NM	0.7
Wellspring Capital Partners VI, L.P. [5]	Buyout	12.0	0.0	12.0	0.0	NM	NM	NM	NM

[5] Due to a negative account balance as of 3/31/18, Reported Fair Value for the Partnership has been listed as “Not Meaningful.”

Aggregate Program Performance Summary

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date[1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Total Program		**60.4**	**24.9**	**35.9**	**1.8**	**20.8**	**22.6**	**-3.0**	**0.9**
Total Closed-end		**40.4**	**24.9**	**15.9**	**1.8**	**20.8**	**22.6**	**-3.0**	**0.9**
Vintage Year 2010		**15.0**	**14.2**	**1.1**	**1.3**	**12.3**	**13.6**	**-1.1**	**1.0**
Domain Timbervest Partners III, L.P.	Natural Resources	5.0	5.0	0.0	0.5	5.7	6.2	4.1	1.2
JPMorgan Global Maritime Investment	Opportunistic	10.0	9.2	1.1	0.8	6.6	7.4	-6.6	0.8
Vintage Year 2011		**5.4**	**5.0**	**0.4**	**0.1**	**3.6**	**3.7**	**-6.2**	**0.7**
BTG Pactual Global Timberland Resources Fund, LLC	Natural Resources	5.4	5.0	0.4	0.1	3.6	3.7	-6.2	0.7
Vintage Year 2016		**10.0**	**4.1**	**5.9**	**0.3**	**3.6**	**3.9**	**NM**	**1.0**
Global Infrastructure Partners III, L.P.	Value-Added	10.0	4.1	5.9	0.3	3.6	3.9	NM	1.0
Vintage Year 2017		**10.0**	**1.6**	**8.4**	**0.0**	**1.3**	**1.4**	**NM**	**0.9**
Basalt Infrastructure Partners II	Core	10.0	1.6	8.4	0.0	1.3	1.4	NM	0.9
Total Open-end		**20.0**	**0.0**	**20.0**	**0.0**	**NA**	**NA**	**NA**	**NA**
IFM Global Infrastructure (U.S.), L.P.	Core	20.0	0.0	20.0	0.0	NA	NA	NA	NA

1 In certain instances, Total Contributions Paid to Date may exceed Capital Committed as certain partnerships may call fees outside of commitment and most partnerships reserve a limited right to recycle capital and/or recall distributions.
2 Unfunded Commitment amounts are an approximation due to the inclusion of recallable distributions.
3 The Net IRR calculations were performed by Meketa Investment Group. Total Program IRR is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year IRRs are net of partnership fees but gross of Meketa Investment Group fees.
4 The Inv. Multiple calculations were performed by Meketa Investment Group. Total Program Inv. Multiple is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year Inv. Multiples are net of partnership fees but gross of Meketa Investment Group fees.

Aggregate Program Performance Summary

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date[1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Total Program		**183.0**	**128.6**	**63.0**	**83.2**	**103.0**	**186.3**	**5.5**	**1.4**
Total Closed-end		**116.0**	**68.5**	**51.5**	**56.2**	**18.5**	**74.7**	**1.7**	**1.1**
Vintage Year 2001		**4.0**	**4.6**	**0.0**	**5.7**	**0.0**	**5.7**	**2.4**	**1.2**
Intercontinental Real Estate Investment Fund III, LLC	Value-Added	4.0	4.6	0.0	5.7	0.0	5.7	2.4	1.2
Vintage Year 2003		**10.0**	**9.0**	**1.9**	**11.6**	**0.2**	**11.7**	**5.1**	**1.3**
Hunt Redevelopment and Renovation Fund, LLC	Value-Added	10.0	9.0	1.9	11.6	0.2	11.7	5.1	1.3
Vintage Year 2004		**4.0**	**4.6**	**0.0**	**2.4**	**0.0**	**2.4**	**-8.0**	**0.5**
Intercontinental Real Estate Investment Fund IV, LLC	Value-Added	4.0	4.6	0.0	2.4	0.0	2.4	-8.0	0.5
Vintage Year 2007		**30.0**	**26.9**	**4.3**	**30.7**	**4.4**	**35.2**	**5.5**	**1.3**
Berkshire Multifamily Value Fund II, L.P.	Value-Added	10.0	11.3	0.0	17.8	0.1	17.9	11.0	1.6
New Boston Institutional Fund VII, L.P.	Value-Added	5.0	3.0	2.0	3.7	0.4	4.1	6.0	1.4
Real Estate International Partnership Fund I, L.P.	Fund of Funds	15.0	12.7	2.3	9.2	4.0	13.2	0.7	1.0
Vintage Year 2008		**5.0**	**5.4**	**0.0**	**0.0**	**0.9**	**0.9**	**-16.4**	**0.2**
1921 Realty, Inc.	Opportunistic	5.0	5.4	0.0	0.0	0.9	0.9	-16.4	0.2
Vintage Year 2011		**5.0**	**5.0**	**0.0**	**3.8**	**2.2**	**6.0**	**5.0**	**1.2**
DSF Capital Partners IV, L.P.	Value-Added	5.0	5.0	0.0	3.8	2.2	6.0	5.0	1.2
Vintage Year 2016		**15.0**	**7.7**	**7.7**	**0.6**	**7.4**	**8.0**	**NM**	**1.0**
DSF Multi-Family Real Estate Fund III, L.P.	Value-Added	15.0	7.7	7.7	0.6	7.4	8.0	NM	1.0

[1] In certain instances, Total Contributions Paid to Date may exceed Capital Committed as certain partnerships may call fees outside of commitment and most partnerships reserve a limited right to recycle capital and/or recall distributions.
[2] Unfunded Commitment amounts are an approximation due to the inclusion of recallable distributions.
[3] The Net IRR calculations were performed by Meketa Investment Group. Total Program IRR is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year IRRs are net of partnership fees but gross of Meketa Investment Group fees.
[4] The Inv. Multiple calculations were performed by Meketa Investment Group. Total Program Inv. Multiple is net of fees, expenses, and carried interest for each partnership and net of Meketa Investment Group fees. Partnership and Vintage Year Inv. Multiples are net of partnership fees but gross of Meketa Investment Group fees.

Aggregate Program Performance Summary

	Investment Strategy	Capital Committed ($ mm)	Total Contributions Paid to Date[1] ($ mm)	Unfunded Commitment[2] ($ mm)	Total Distributions Received to Date ($ mm)	Reported Fair Value ($ mm)	Reported Fair Value Plus Distributions ($ mm)	Net IRR[3] (%)	Inv. Multiple[4] (x)
Vintage Year 2017		**43.0**	**5.4**	**37.6**	**1.4**	**3.4**	**4.8**	**NM**	**0.9**
AEW Partners Real Estate Fund VIII, L.P.	Opportunistic	25.0	5.2	19.8	1.4	3.4	4.8	NM	0.9
Carlyle Realty Partners VIII, L.P. [5]	Opportunistic	18.0	0.2	17.8	0.0	NM	NM	NM	NM
Total Open-End		**67.0**	**59.7**	**11.5**	**27.0**	**84.5**	**111.5**	**7.1**	**1.9**
Invesco Equity Real Estate Securities Trust	Core	22.0	23.9	0.0	27.0	15.2	42.2	8.0	1.8
Multi-Employer Property Trust	Core	5.0	5.0	0.0	0.0	15.9	15.9	6.5	3.2
PRISA I	Core	15.0	17.2	0.0	0.0	39.1	39.1	6.7	2.3
TA Realty Core Property Fund, L.P.	Core	25.0	13.5	11.5	0.0	14.3	14.3	NM	1.1

[5] Due to a negative account balance as of 3/31/18, Reported Fair Value for the Partnership has been listed as "Not Meaningful."

Open-end Real Estate Time-Weighted Performance

	1Q18 (%)	1 YR (%)	3 YR (%)	5 YR (%)	Since Inception (%)	Inception Date
Private Real Estate	**17.6**	**22.2**	**12.0**	**12.2**	**7.6**	**12/30/1999**
Invesco REIT	-3.3	-0.9	1.6	5.6	9.3	11/20/2002
MSCI US REIT	*-8.4*	*-5.6*	*-0.4*	*4.5*	*9.1*	
Multi Employer Property Trust	1.7	5.9	8.1	9.8	6.3	12/30/1999
NCREIF ODCE Equal Weighted (net)	*2.0*	*7.3*	*9.3*	*10.5*	*7.2*	
PRISA I	2.2	7.4	9.4	10.8	6.9	6/30/2004
NCREIF ODCE Equal Weighted (net)	*2.0*	*7.3*	*9.3*	*10.5*	*7.1*	

The IRR (internal rate of return) and investment multiple are the most meaningful measures of performance for a private equity fund. IRR measures how assets are performing in relation to time. Investment multiple shows the cash on cash return generated on the invested capital by the underlying assets.

As of March 31, 2018, the Retirement Association's Private Equity Program generated a 4.3% net IRR and a 1.2x net TVM. After adjusting for capital calls and distributions that occurred during the quarter, the reported fair value of the Program decreased by approximately $1.4 million or 4.0%, which was primarily driven by decreases in the valuations of Globespan Capital Partners V ($1.0 million or 16.3%), Ascent Venture Partners IV ($0.2 million or 49.7%), and LLR Equity Partners V ($0.1 million or 20.8%).

As of March 31, 2018, the Retirement Association's Real Assets Program generated a -3.0% net IRR and a 0.9x net TVM. After adjusting for capital calls and distributions that occurred during the quarter, the reported fair value of the Program increased by approximately $0.5 million or 2.4%. Performance was primarily driven by an increase in the valuations of Domain Timbervest Partners III ($0.2 million or 4.2%), BTG Pactual Global Timberland Resources Fund ($0.2 million or 5.2%), and JPMorgan Global Maritime Investment ($0.1 million or 1.7%).

As of March 31, 2018, the Retirement Association's Real Estate Program generated a 5.5% net IRR and a 1.4x net investment multiple. After adjusting for capital calls and distributions that occurred during the quarter, the reported fair value of the Program increased by approximately $0.9 million, or 0.8%. Performance was primarily driven by increases in the valuations of PRISA I ($0.8 million or 2.2%), TA Realty Core Property Fund ($0.8 million or 12.0%), and Multi-Employer Property Trust ($0.3 million or 1.7%).

Appendices

Confidentiality

The material contained in this report is confidential and may not be reproduced, disclosed, or distributed, in whole or in part, to any person or entity other than the intended recipient. The data are provided for informational purposes only, may not be complete, and cannot be relied upon for any purpose other than for discussion.

Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

Natural Resources

Escalating tensions in the Middle East, particularly in Syria and Iran, have once again increased concerns over global oil supply.

- Military strikes coordinated by the U.S., UK, and France on Syria, internal protests in Iran, and rising conflict between Saudi Arabia and Iran have collectively stoked fears of disruptions in oil production and helped push oil prices higher.
- During the quarter, West Texas Intermediate ("WTI") oil increased by 8% to $63 per barrel while Brent oil increased 3% to $66 per barrel. Relative to one year prior, WTI and Brent prices are up 27% and 28%, respectively. Higher oil prices have resulted in increased exploration and production activity in the U.S. During the quarter, 51 additional oil rigs were added bringing the U.S. total to 799.
- U.S. gasoline prices for regular blend rose to $2.80 per gallon during the first quarter, representing a 5% increase from the previous quarter and a 12% increase from one year prior.
- Despite increased natural gas consumption, significant production from the Northeast and associated gas from the Permian Basin continues to keep natural gas prices low relative to a decade ago. Liquefied natural gas export capacity along the Gulf Coast and increased midstream energy development are helping transform the U.S. into a major energy exporter. Henry Hub natural gas prices decreased by 5% during the quarter to approximately $2.7/MM BTU. Relative to one year prior, natural gas prices were down by 7%. The number of U.S. natural gas rigs increased by 6 to 188 in total during the quarter.
- The price of gold increased by 5% during the quarter to $1,325 per ounce. Relative to one year prior, gold prices were up by approximately 8%.
- Copper prices fell to $3.08 per pound during the quarter, representing a 1% decrease from the previous quarter and a 17% increase relative to one year prior. Robust global economic growth helped drive copper prices higher over the past year.

- U.S. farmers are expected to plant a record amount of soybean acreage during the 2018 U.S. planting season at the expense of corn acreage. Potential tariffs and the uncertainty of trade wars raised concerns across the agriculture industry. During the first quarter, corn and soybean prices increased by 15% and 8%, respectively. The NCREIF Farmland index experienced a 1.3% increase during the quarter driven by 0.5% of income gains and 0.8% appreciation gains.
- Lumber and panel prices increased by 16% and 26%, respectively, during the first quarter. Relative to one year prior, prices were up 25% and 34%, respectively. The NCREIF Timberland index was up 0.9% during the quarter driven solely by income returns.

Infrastructure

Infrastructure fundraising and transactions

- At the end of 2018's first quarter, a total of 178 unlisted infrastructure funds were in market, according to Preqin, with a combined fundraising target of approximately $133 billion. By number, Europe-focused funds represented the largest proportion of funds in market (46%), followed by North America (26%) and Asia (7%).
- Five unlisted infrastructure funds closed during the quarter, raising a total of $5.7 billion. Partners Group Direct Infrastructure 2016 accounted for almost 46% of this total, raising €2.2 billion. Other notable funds closing this quarter included Basalt Infrastructure Partners II ($1.23 billion) and Brookfield Infrastructure Debt Fund I (€885 million).
- According to Preqin, 564 deals were completed by unlisted infrastructure fund managers in the first quarter with an estimated aggregate value of $222 billion and an average deal size of $439 million, which is an increase of 39% over last quarter's. Both deal volume and aggregate values have decreased since the last quarter. This quarter's deal volume is at its lowest since Q2 2015.

Several notable transactions occurred during the first quarter

- A consortium led by agreed Danish pension funds ATP, PFA, PKDA, and Macquarie Infrastructure and Real Assets acquired a 100% ownership stake in TDC Group for DKK40.3 billion ($6.7 billion). TDC Group, a Danish telecom operator, will look to consolidate and strengthen its products.
- CVC Capital Partners acquired a 20% stake in Gas Natural Fenosa, a Spanish natural gas and electrical energy utilities company for €3.8 billion from Repsol. The utilities company will attempt to restart investments in new development after years of debt reduction. GIP III also owns a 20% stake in the company, which is rebranding itself as Naturgy as it broadens its source portfolio and begins investing in solar as well.
- Fortum, a Finland government owned energy company, purchased a 47% stake in Uniper, an international energy company located in Germany for €3.8 billion. Fortum will focus on Uniper's hydropower and nuclear power assets and attempt to restructure other parts of Uniper.

Selected economic data

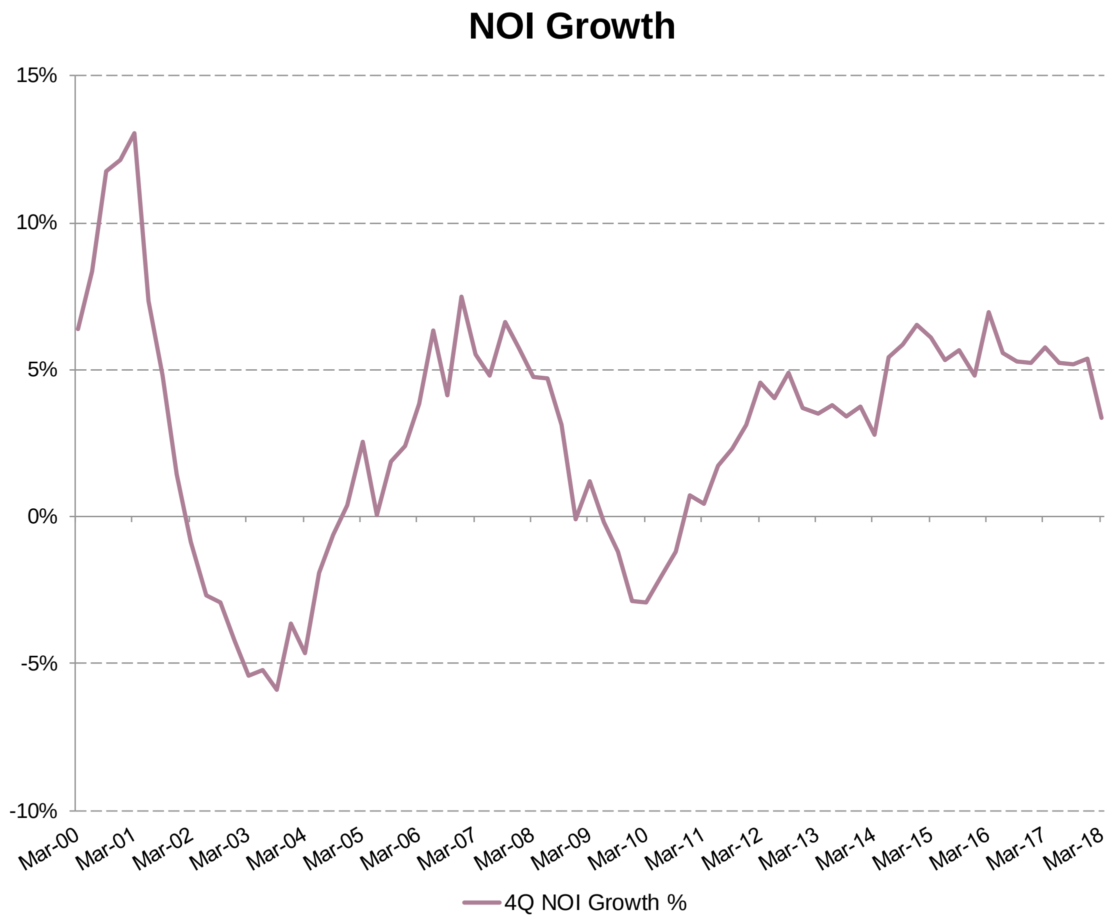
During the first quarter of 2018, airports[1], seaport[2] utilization, and electricity generation increased, while roads[3] decreased, as compared to the same period in 2017.

- ***Utilities:*** Net energy generation increased 5.5% during the first quarter of 2018 compared to the same quarter of 2017. Coal-generated power and hydroelectric decreased over the same period in 2017, while natural gas, nuclear, wind, and solar saw an uptick. Net generation has been essentially flat for the last decade as increases in energy efficiency balanced against economic demand growth.
- ***Transportation*:** During the first quarter, approximately 741 billion miles were travelled on U.S. roads, representing a 0.9% decrease over the same period in 2017. Container volume at the nation's three largest U.S. ports (Long Beach, Los Angeles, and New York/New Jersey) increased by approximately 6.3% compared to the first quarter of 2017. The number of domestic and international flights during the period was slightly up at 0.8% over the same period in 2017.

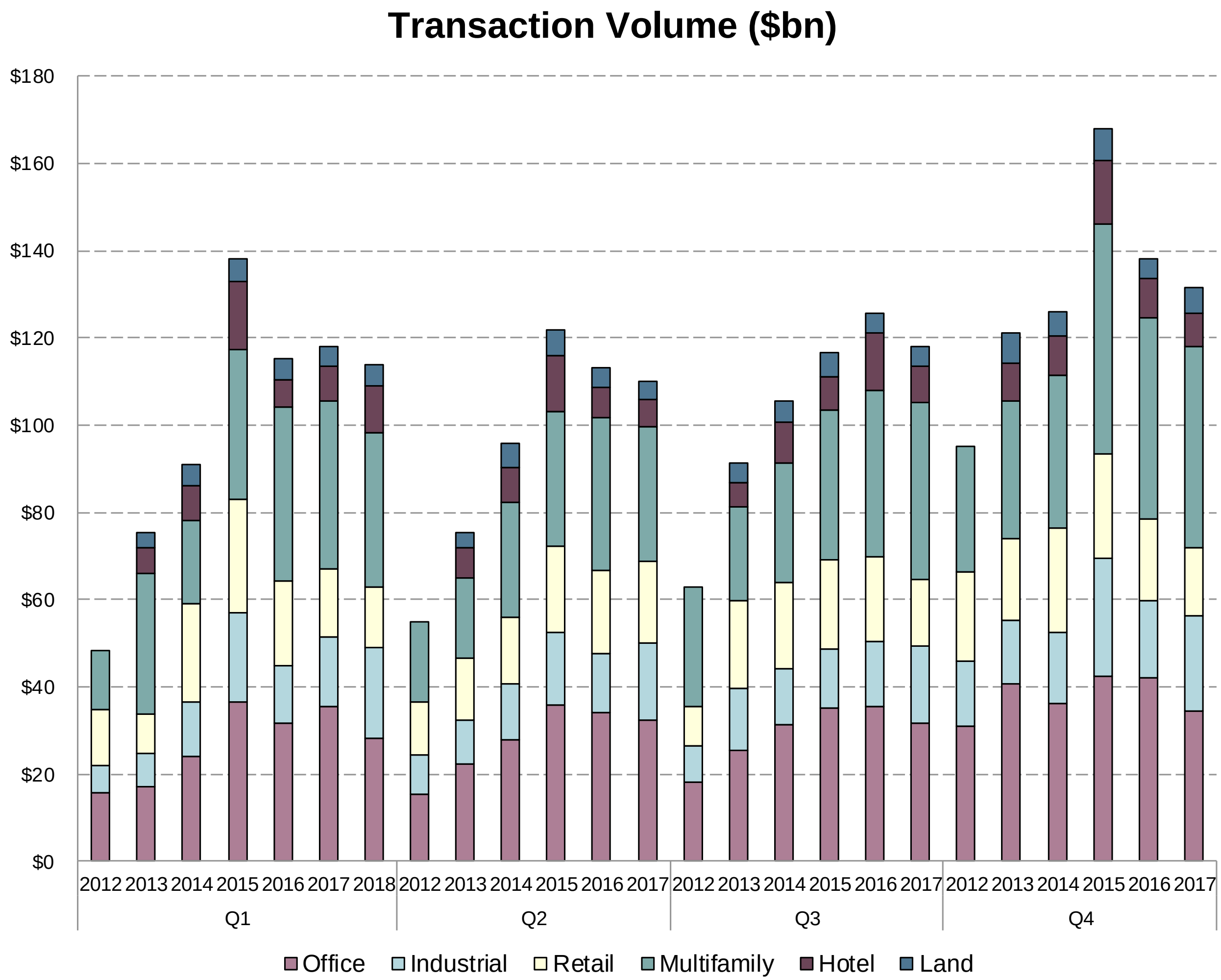
[1] Represent all U.S. domestic and international flights, excluding foreign point-to-point flights.
[2] Represents the top three U.S. ports by container volume, as measured by twenty-foot equivalent units (TEU).
[3] Aggregate travel on U.S. roads.

Real Estate Fundamentals
Vacancy by Property Type

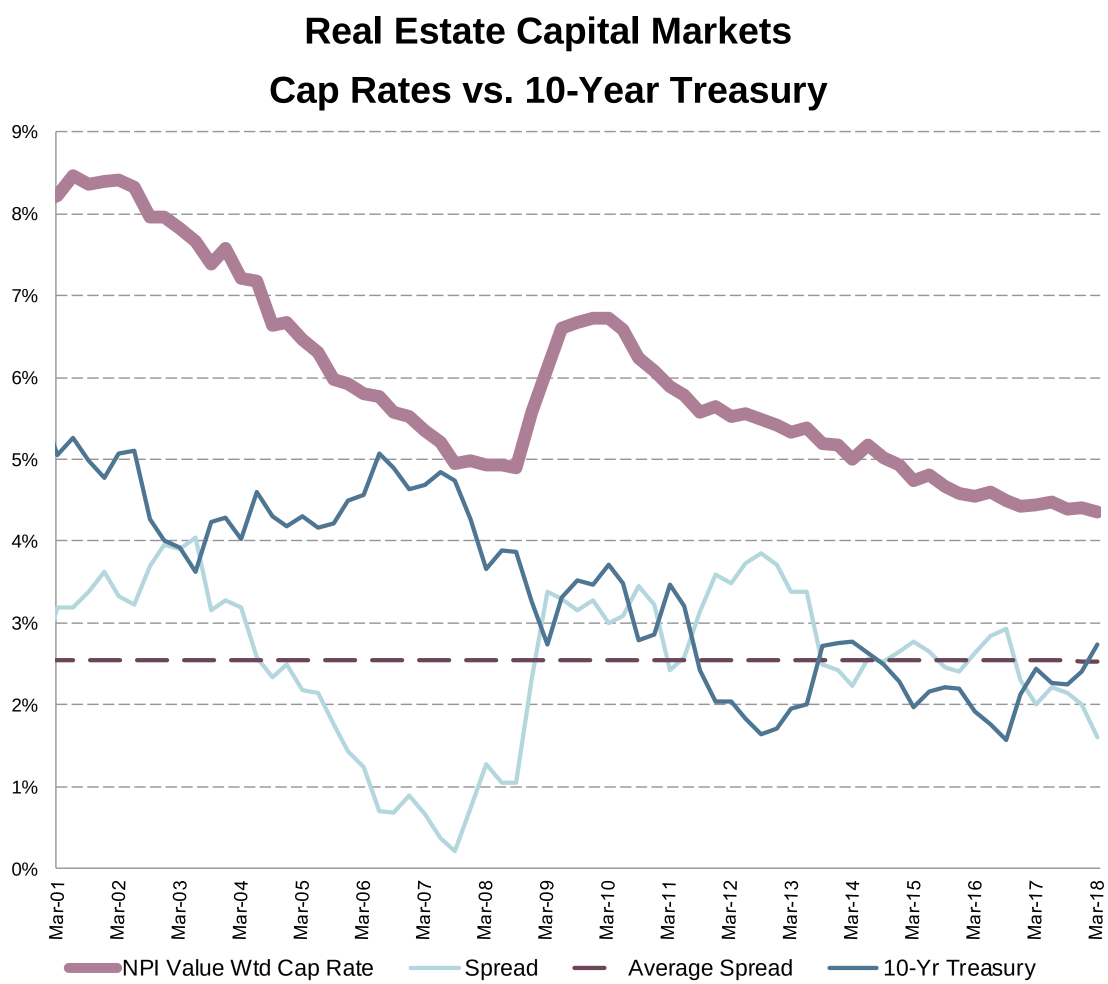
In the first quarter of 2018, vacancy rates across office, retail and multifamily properties decreased slightly, while the vacancy rate for industrial remained relatively flat. Compared to the same period one year ago, vacancy in multifamily properties dropped by 10 basis points, office by 32 basis points, industrial by 65 basis points, and retail by 61 basis points. Overall, total vacancy across all property types decreased 57 basis points from Q1 2017. Industrial properties exhibit the highest occupancy rates at 96%, while office properties continue to have the highest vacancy rate of the major property types, at 11%.



The trailing twelve-month rate of NOI growth has moderated, dropping 200 basis points to 3.4% through Q1 2018. This fall is largely due to a slowdown in the office sector's twelve-month trailing NOI growth, which dropped from 8.8% to 3.2% in the previous quarter. The strongest NOI growth continued to be for industrial properties, which grew at 9.4% year-over-year, ending Q1 2018. Retail property NOI growth dropped off sharply year-over-year ending Q1 2018, with 0.0% growth. Multifamily NOI growth remained relatively flat at 3.4% year-over-year.



Private real estate transaction volume for properties valued over $2.5 million decreased 3.6% in Q1 2018 when compared to Q1 2017. Multifamily volumes decreased 24% during the quarter, while office volumes were down 18%, retail volumes were down 10%, and industrial volumes were down 5%. Multifamily and office properties made up the largest percentage of total transaction volume at 31% and 25%, respectively.

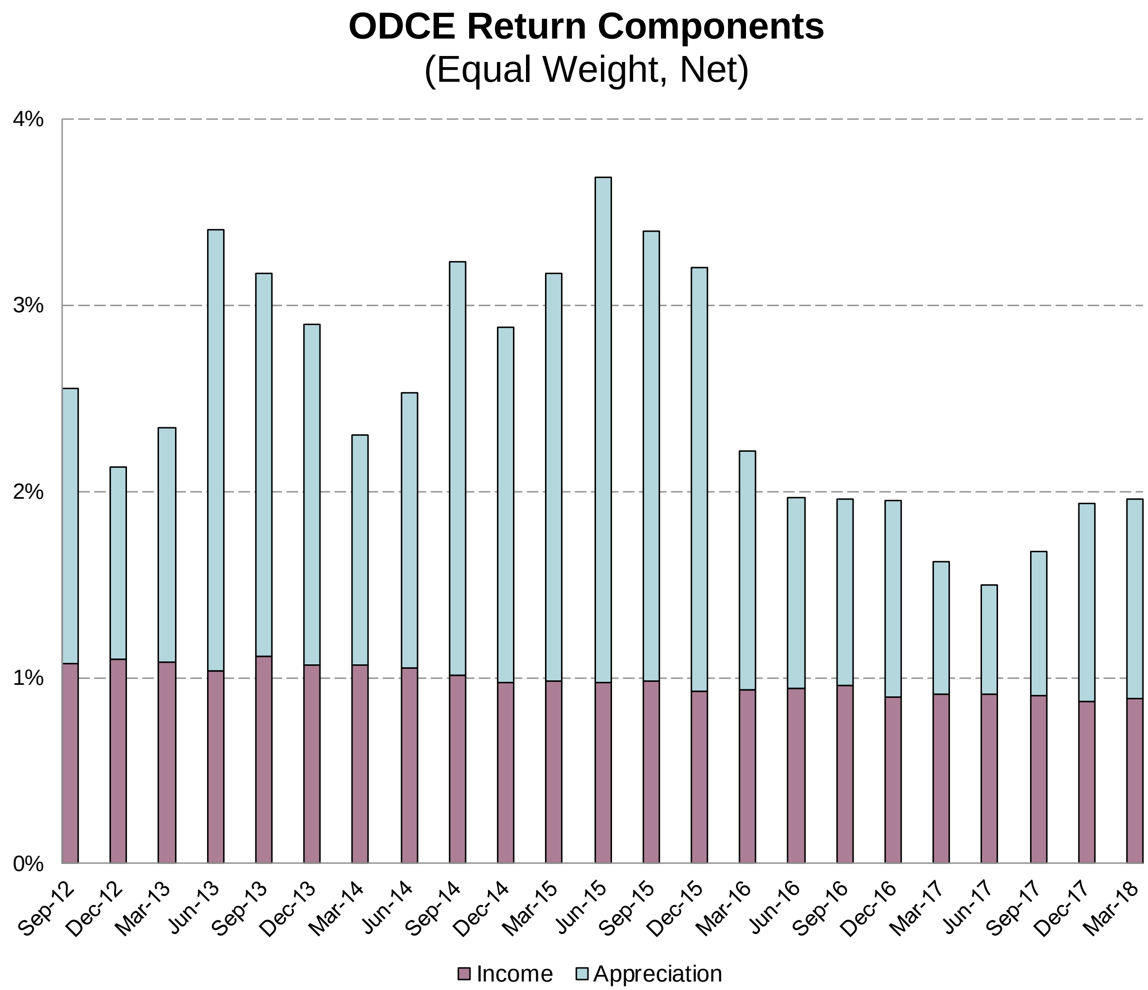


The NPI Value Weighted Cap Rate remained below 4.4%, continuing a declining trend post-GFC. 10-year Treasury yields continued to trend up over the quarter after a slight pullback in Q3 2017. The spread between cap rates and the 10-year Treasury tightened further, ending the quarter at 1.6%, 91 basis points below the long-term average.

Trailing Period Returns

As of March 31, 2018	1 Year	3 Years	5 Years	10 Years
NFI-ODCE (EW, net)	**7.3%**	**9.3%**	**10.5%**	**4.0%**
NCREIF Property Index	**7.1**	**8.7**	**10.0**	**6.1**
NFI-CEVA (EW, net)	**9.2**	**11.1**	**12.7**	**4.6**
NAREIT Index	**-1.1**	**2.9**	**6.7**	**6.9**

The private real estate indices continued to post positive returns, driven by strong property-level fundamentals. The public real estate index has seen weaker performance recently as interest rates have started to tick higher. The NFI-CEVA (Closed-End Value Add) Index has outperformed over recent time periods, although the funds included in the index utilize higher leverage and vacancy risk than the comparable indices, which generally include stabilized properties.



The NFI-ODCE Equal Weight return for Q1 2018 was just shy of 2.0%, almost identical to the index's return in Q4 2017. Appreciation returns appear to have rebounded from the dip in 2017, returning 1.1% in both Q4 2017 and Q1 2018. Income returns have averaged 0.9% over the last two years, which is slightly down from the five-year average of 1.0%.

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If we manage your assets on a discretionary basis, please contact us if there are any changes in your financial situation or investment objectives, or if you want to impose any reasonable restrictions on our management of your account or reasonably modify existing restrictions.

In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material. Note that for unlisted securities the valuations may be lagged by one or more calendar quarters, or may reflect original cost.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the Retirement System will receive a return of the amount invested.

In some cases Meketa Investment Group assists the Retirement System in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the Retirement System.

Valuation Policies

The values of companies and partnerships in this review are based on unaudited reports for March 31, 2018, provided by the General Partners, unless otherwise noted.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

While all private markets partnerships are audited by an independent entity, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.

Private markets investors have developed a number of unique terms to describe their investment work. The following glossary of private markets terms is intended to help make sense of these terms. Where the term “private equity” is used, the definition will generally also apply to private debt funds that are structured in similar manner.

Absorption: The amount of inventory or units of a specific commercial property type that become occupied during a specified time period (usually a year) in a given market, typically reported as the absorption rate.

Advisory Board: Partnerships often establish an advisory board comprised of representatives of the Limited Partners to oversee the on-going work of the General Partners. Advisory boards typically meet once each year to review the partnership’s investments. It is important to note that unlike the Board of Directors of a public company, the advisory board has very little power to control the activities of the General Partners.

Angel Investor: Angel investors are individuals who invest their own capital directly in small, early stage companies. Angels are an alternative source of funding for entrepreneurs. Such investments are characterized by high levels of risk and potentially a large return on investment.

Appraisal: An estimate of a property's fair market value that is typically based on replacement cost, discounted cash flow analysis and/or comparable sales price.

Appreciation: An increase in the value or price of a real estate asset.

Appreciation Return: The portion of the total return generated by the change in the value of the real estate assets during the current quarter, as measured by both appraisals and sales of assets.

Asset Management: The various disciplines involved with managing real property assets from the time of investment through the time of disposition, including acquisition, management, leasing, operational/financial reporting, appraisals, audits, market review and asset disposition plans.

Asset Management Fee: A fee charged to investors based on the amount invested into real estate assets for the fund or account.

Barrel: 42 U.S. gallons of oil.

Base Metals: Non-precious, non-ferrous metals that include copper, aluminum, lead, nickel, tin, and zinc.

Base Rent: A set amount used as a minimum rent with provisions for increasing the rent over the term of the lease.

Biofuels: Biofuels are combustible fuels, such as bio-ethanol, that are made and processed from vegetation sources such as corn, sugar cane, barley, or wheat.

Blind Pool: Most Limited Partnerships are organized as blind pools, meaning that Limited Partners commit capital to the partnership before any actual investments are made. At the point of commitment, the Limited Partners do not know specifically how their money will be used (hence the term blind pool), and must therefore rely entirely upon the track record and experience of the General Partner.

BOE/day: A daily production metric equivalent to the energy content of a barrel of oil equivalent often related to natural gas, natural liquids, and condensates.

Broker: A person who acts as an intermediary between two or more parties in connection with a transaction.

Brownfield: A project with an operating history. The initial outlay is entirely to the public entity. Brownfield can be considered an easier starting point for investors, given the shorter J-curve and lower level of risk. Meketa Investment Group categorizes a Fund as brownfield if the Fund’s investment strategy calls for over 65% of its underlying investments to be in brownfield (operating) assets.

Buyout Fund: A buyout partnership uses the partners' capital to purchase existing, established businesses. The acquired firms may be family owned prior to purchase, or may be operating divisions of larger companies seeking to restructure their businesses. In a few cases, the buyout partners may purchase all of the outstanding shares of a publicly traded company, effectively taking it private. Buyout funds are not involved in venture capital or startups.

Buyout partnerships own the acquired companies outright, or in combination with other buyout partnerships. In some cases the buyout partners will replace the existing management with a new team, or the acquired firm will be left autonomous. The buyout partners frequently take one or more board seats in order to ensure control of the business.

Capital Appreciation: The change in market value of a property or portfolio adjusted for capital improvements and partial sales.

Capital Call (Contribution): Once a partnership has declared its first close, the General Partners will begin to make portfolio investments. As each investment is made, the capital necessary to fund the investment is "called" from the Limited Partners.

Capitalization Rate: A percentage that relates the value of an income-producing property to its future income, expressed as net operating income divided by purchase price. This is also referred to as cap rate.

Carried Interest: The share of profits that the fund manager is due once it has returned the cost of investment to investors. Carried interest is normally expressed as a percentage of the total profits of the fund. The industry norm is 20%. The fund manager will normally therefore receive 20% of the profits generated by the fund and distribute the remaining 80% of the profits to investors.

Carrying Value: The General Partner must list on the partnership's balance sheet a value for every investment held. These valuations are called carrying values, and in most cases are simply the original cost of the investment. Note that carrying values in most cases are not audited and do not represent actual market values.

Cash Flow Positive: When a company generates more free cash than it consumes in normal operations, it is deemed to be cash flow positive. Such companies may not need extra financing or debt in order to grow.

Cash Leasing Farmland: A low risk/return strategy that shifts the operational risk of farming to a local operator. Farmland investors receive stable lease payments from the local operators who are allowed to farm the land. Cash leasing is typically used for row croplands.

Cash on Cash Return: The simple gross total return earned by the Limited Partners, calculated as the total distributions received divided by the total contributions made. Thus, if an investor supplied a total of $100 in cash calls and contributions, and received over the life of the partnership $200 in distributions, the cash on cash return would be 100%. The cash on cash return is typically reported as a multiple. In the example above, the investment returned 2x (two times).

Chip-N-Saw: Produced from mid-sized trees that are cut and chipped to pulpwood chips or small dimension lumber. Chip-N-Saw is typically derived from trees measuring 10-13" DBH.

Claw-Back Provision: A claw-back provision ensures that a General Partner does not receive more than its agreed percentage of carried interest over the life of the fund. So, for example, if a General Partner receives 21% of the partnership's profits instead of the agreed 20%, Limited Partners can claw back the extra one percent.

Cleantech: A broad term used to classify products or services that improve energy productivity, performance, or efficiency while reducing input costs, consumption, waste, or pollution. Common products associated with cleantech are wind farms, photovoltaics, fuel cells, biofuels, and smart grid technologies.

Closed-end Fund: A commingled fund that has a targeted range of investor capital and a finite life.

Closings and Closing Dates: Every partnership must specify the date upon which the General Partners will cease fundraising and begin making actual investments with the Limited Partners' committed capital. That date is called the closing date, and defines the vintage year of the partnership. Most partnerships, however, have several closing dates, and all partnerships must eventually have a final closing. In most cases, the final closing lags six to nine months after the first closing. If a majority of the original Limited Partners consent, a partnership can remain open to new investors after the final closing and while early investments are being made, in order to have time to attract additional investors.

Co-Investment: In some cases, Limited Partners want the right to make additional direct investments in one or more of the underlying companies purchased by the General Partner. If the partnership agreement gives co-investment rights to specific Limited Partners, then they may elect to invest additional monies “along side” the General Partner in various deals. In these cases, the co-investing Limited Partners would have two investments in an underlying property: their share of the partnership’s investment, and their direct additional co-investment on the side. Note that co-investment rights may be available only to the largest Limited Partners.

Co-investment rights are often negotiated by very large Limited Partners when they have strong convictions about the deal finding skills of the General Partners, because co-investment rights permit them to make even larger investments in the underlying properties than would otherwise be possible, without paying carried interest.

Committed Capital: When a Limited Partnership is formed, each Limited Partner agrees to contribute a specific amount of capital to be invested over the life of the partnership. Once the agreement is signed, the Limited Partners are legally bound and committed to supply the agreed upon capital when it is called for by the General Partner.

Concession: A business operated under a contract or license associated with a degree of exclusivity. In the case of a public service concession, a private company (the concessionaire) enters into an agreement with the government to have the exclusive right to operate, maintain and carry out investment in a public asset (such as a utility) for a given number of years.

Concessions: Cash or cash equivalents expended by the landlord in the form of rental abatement, additional tenant finish allowance, moving expenses or other monies expended to influence or persuade a tenant to sign a lease.

Consolidation (Roll Up): Many industries in America are highly fragmented, as the market space is serviced by a large number of locally owned businesses. By consolidating fragmented industries (i.e., purchasing many local businesses), firms can create a single larger company with greater market control, more attractive financial characteristics, and potentially, better pricing flexibility and lower costs.

Construction Loan: Interim financing during the developmental phase of a property.

Convertible Bonds: Some private equity partnerships, generally those that provide mezzanine financing, may take convertible bonds as part of their compensation for providing investment capital. The convertible bond pays interest like other bonds, but can be exchanged for shares of the company stock at a favorable price if certain conditions are met, hence the term convertible.

Core Properties: The major property types - specifically office, retail, industrial and multifamily. Core assets tend to be built within the past five years or recently renovated. They are substantially leased (90% or better) with higher-credit tenants and well-structured long-term leases with the majority fairly early in the term of the lease. Core assets generate good, stable income that, together with potential appreciation, is expected to generate total returns in the 10% to 12% range.

Crude Oil: An unpurified mixture of liquid hydrocarbons derived from rock formations, containing different levels or impurities such as water or sulfur.

DBH: DBH (Diameter at Breast Height) is the most common measure made by a forester to determine the growth, volume, yield, and potential of a tree. DBH is defined as 4.5 ft. above the ground on the uphill side of a tree.

Development Well: A well drilled in a proven area of an oil or gas reservoir to a depth known to be productive.

Direct Investment: Partnerships that invest in companies are said to make direct investments. The alternative is a partnership that invests in other partnerships, a fund of funds.

Direct Operation Farmland: A strategy typically employed with permanent crops to retain complete control over the assets. Farmland investors use farmland management firms to operate the farm and add value through increased quality and output. The primary risks associated with direct operation are operating, weather, and marketing risks.

Diversification: The process of consummating individual investments in a manner that insulates a portfolio against the risk of reduced yield or capital loss, accomplished by allocating individual investments among a variety of asset types, each with different characteristics.

Downstream: Portion of the energy chain that includes oil refineries, petrochemical plants, power generation, and distribution outlets.

Dry Hole: An oil well that fails to find or produce any oil or gas.

Due Diligence: The process of examining a property, related documents, and procedures conducted by or for the potential lender or purchaser to reduce risk. Applying a consistent standard of inspection and investigation one can determine if the actual conditions do or do not reflect the information as represented.

E&P: Acronym for "Exploration and Production" that relates to the exploration, development, and production of crude oil or natural gas reserves. E&P is also referred to as the upstream sector.

EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization): The “top line” profits of a private company are the monies earned before paying interest and taxes, and adding back depreciation and amortization. Unlike public companies, which are valued as the multiple of bottom line earnings to the stock price (P/E or price to earnings), private companies are valued as the multiple of EBITDA to the price of the stock.

There is no simple conversion factor that will convert an EBITDA multiple to a P/E for all companies, but in general, a factor of 2 is appropriate. Thus, a private company selling for an EBITDA multiple of 6 is priced about as richly as a public company with a P/E of 12.

EBITDA Multiples: The ratio of a private company’s top line earnings to the price of its shares. See EBITDA above.

Enterprise Value: A measure of a company's value, often used as an alternative to straightforward market capitalization. Enterprise Value is calculated as market cap plus debt, minority interest and preferred shares, minus total cash and cash equivalents.

Exploratory Well: A well drilled to find and produce oil or gas in an unproven area or expand production of a previously known reservoir.

Fee Income: The General Partners in a private markets partnership generally receive two types of compensation: fee income as payment for their portfolio management services, and a share of any profits (carried interest) as incentive compensation.

Fuel Cell: A device that captures the electricity generated from a chemical reaction between a fuel and an oxidant. An example is a hydrogen fuel cell, which uses hydrogen as the fuel and oxygen as the oxidant to produce electricity and water.

Fund of Funds: A private markets partnership that consists primarily of investments in other partnerships, as opposed to direct investments in individual companies and deals. The General Partners of a fund of funds thus act as a manager of managers to create a diversified portfolio of partnerships, each of which in turn consists of a portfolio of direct investment deals.

Although a fund of funds is a collection of partnerships, the fund of funds itself is a partnership, and therefore has a vintage year, a commitment period, a distribution phase, and a final end. Thus, fund of funds have finite lifetimes, just like their underlying partnerships.

The advantages of a fund of funds are high diversification and “one stop shopping,” i.e., the client has a single relationship with the fund of funds manager.

The disadvantages of fund of funds are higher costs (another entire layer of management fees and carried interest), an additional loss of liquidity, and an additional loss of control by the Limited Partners. Just as with direct private markets funds, a fund of funds is organized as a blind pool. That is, when a new fund of funds is announced, and a subscription target set, early investors do not know what specific sub-funds will be selected by the manager. Generally, the Private Placement Memorandum gives the General Partner almost unlimited latitude in making subsequent investments.

General Partner: The control partner in private equity partnerships, analogous to the portfolio manager in a public stock portfolio. Under the IRS code, the General Partner must commit some personal capital to the partnership (a minimum of 1% of the partnership’s committed capital), and unlike the Limited Partners, is liable for leverage and other losses generated by the partnership.

Geothermal Energy: Energy extracted from the earth's interior to produce heat and electricity. Applications of geothermal energy include conventional geothermal (use of steam to drive turbines), geothermal heat pumps (pipes sunk beneath the earth's surface to act as a heat exchanger during the warmer and colder seasons), and direct heat (hot water pumped from the earth for use as a heat source).

Greenfield: A project without an operating history. Some of the initial outlay may be to the public entity, but the majority is used for construction. Greenfield opportunities may take an exceptionally long time to come to fruition. Meketa Investment Group categorizes a Fund as Greenfield if the Fund's investment strategy calls for over 65% of its underlying investments to be in greenfield assets.

Growth (Expansion Capital): A strategy that entails providing capital to a private company with the intention that the capital be used to expand operations. Generally, expansion capital strategies result in minority equity positions in companies, but with some degree of control over how the expansion capital is spent.

Hedging: Strategy used to limit or offset exposure to pricing risk of an underlying commodity. A common way to execute this strategy is through the use of futures contracts, a financial derivative that allows for the sale of a commodity at a pre-specified price in the future, whether or not the market price increases or decreases at the time. Counterparties to the futures contracts are speculators who are willing to accept the risk of price fluctuations in exchange for the potential upside.

High-rise: In the central business district, this could mean a building higher than 25 stories above ground level, but in suburban markets, it generally refers to buildings higher than seven or eight stories.

Hurdle Rate: The minimum rate of return that the Limited Partners must receive before the General Partners have a right to a share of any additional profits (carried interest) produced by the partnership's investments. For example, the partnership may specify that once the Limited Partners have received distributions representing an 8% total return on their commitment (the hurdle rate), the General Partner will share in all future distributions until they have been allocated 80% to the Limited Partners, and 20% to the General Partners (their carried interest).

Hydro Energy: Energy derived from the natural movement of falling or flowing water. The most common form of hydro energy comes from dammed water driving a turbine and generator to produce electricity. Once a hydroelectric complex is built, no direct waste is produced.

Hydrocarbon: A hydrogen and carbon compound created from the decomposition of organic material over time. Most hydrocarbons are found naturally in fossil fuels such as crude oil, natural gas, and coal.

Improvements: In the context of leasing, the term typically refers to the improvements made to or inside a building but may include any permanent structure or other development, such as a street, sidewalk, utilities, etc.

Independent Oil Company: A company involved in the exploration, production, and development of oil and natural gas that is not a Major Oil Company.

In-Kind Distribution: Most distributions from private equity partnerships are in cash. However, in some cases, a private deal will be taken public through an initial public offering (IPO), or through a trade sale for stock to a public company. In these cases, the Limited Partners will receive their distributions in the form of publicly traded common stocks and/or rights and warrants.

Investment Period: The period of time after the first closing during which the General Partner will call capital from the Limited Partners and make partnership investments. Legally, the investment period is usually six years. Practically, it is three to four years. Not to be confused with the term of the partnership, generally ten to twelve years.

IPO (Initial Public Offering): When a private company issues publicly traded stock, it becomes known as a public company. The initial sale of publicly available stock is called the initial public offering, or IPO.

IRR (Internal Rate of Return): The annualized rate of return on capital that is generated or capable of being generated within an investment or portfolio over a period of time, assuming all cash flows can be reinvested at the same rate. Mathematically, the IRR of an investment is the discount rate applied to that investment such that the net present value of the investment is zero. IRR is commonly used to measure profitability by applying the calculation to the after-tax cash flows to arrive at an after-tax equity yield rate.

J-Curve: Many private markets partnerships have small negative returns in their first years of operation as capital is invested. The negative returns result because the partnership's investments have not matured and turned a profit, but the partnership has nevertheless experienced various operating costs. When early deals begin to mature and are liquidated at a profit, the partnership's returns should become positive. Thus, the graph of the partnership's returns versus time can resemble the capital letter "J."

Landfill Methane: Landfill methane is generated from the decomposition of waste in landfills. Bacteria break down the organic matter, releasing a gas that is rich in methane. By capturing the methane, greenhouse gases released into the atmosphere are reduced, and the gases can be used as an energy source.

Later Stage Fund: A venture capital partnership that specializes in investing in startup companies that have already achieved at least some actual revenues, or a venture fund that provides subsequent rounds of venture financing after all of the capital provided in the first rounds has been consumed.

Lead Investor: Describes a General Partner who is the "lead" investor in a deal, as opposed to co-investors or follow-on investors. The term implies that the lead investor has taken the lead in sourcing, evaluating, and executing the deal.

Lease: An agreement whereby the owner of real property gives the right of possession to another for a specified period of time and for a specified consideration.

Lease Rate: The period rental payment to a lessor for the use of assets. It may also be considered as the implicit interest rate in minimum lease payments.

Leverage: Many General Partners use both equity capital provided by the Limited Partners and money borrowed from banks or other lenders to finance their investments. Any borrowed money is called leverage. If a deal is successful, leverage can often enhance the returns of the Limited Partners substantially. On the other hand, too much leverage can cripple an investment with interest and financing costs. It is important to note that the Limited Partners are not responsible for the repayment of any borrowed money.

Leveraged Buyouts: The purchase of a private or public company wherein the bulk of the purchase price is paid using borrowed money.

Lifecycle: The various developmental stages of a property: pre-development, development, leasing, operating and redevelopment (or rehab).

Limited Partner: All investors in a Limited Partnership other than the named General Partner are defined under the IRS code as Limited Partners. Limited Partners have only the control rights defined for them in the Private Placement Memorandum, and are generally passive investors in the partnership's deals.

A very important point is that Limited Partner's total liability for all deals made by the partnership are limited strictly by law to the Limited Partner's committed capital. Thus, even if the General Partners borrow a great deal of money (leverage), and lose it all, the lenders have no recourse to the assets of the Limited Partners. In effect, a Limited Partner can lose no more than the amount of money invested.

Look-Back Provision: See Claw-Back Provision above.

Low-rise: A building with fewer than four stories above ground level.

Major Oil Company: One of the original "Seven Sisters" consisting initially of Exxon, British Petroleum, Chevron, Gulf, Mobil, Texaco, and Royal Dutch Shell.

Market Strategy: A course of action defined with respect to a particular real estate market phase. For example, consider the market strategy of avoiding real estate transactions when there is an oversupply of space available in the market.

Market Value: The most probable price that a property would bring in a competitive and open market under fair sale conditions. Market value also refers to an estimate of this price.

Mezzanine Financing: An additional level of financing provided to a private company to expand sales, market share, or develop new products. Most mezzanine financing is structured as a package of high coupon bonds with equity "kickers," i.e., rights to acquire the company's stock at a favorable price at a future point. Companies seeking mezzanine financing often have substantial revenues, and if not actual profits, the expectation of imminent profitability.

Midstream: Portion of the energy chain that transports and stores commodities such as oil and natural gas.

MMCF: One million cubic feet.

Multiples and Multiple Expansion: Managers purchasing public common stocks often buy companies with low price to earnings multiples when they believe some factor will induce other investors to bid up the price of the stock without an increase in actual earnings, thus causing the price multiple to expand. In the same fashion, a General Partner may purchase a private company with a low EBITDA multiple, expecting to profit through an expansion of that multiple. A typical example of a multiple expansion plan is consolidation. Many small companies, operating independently, may each be priced at relatively low multiples. But if purchased and combined into a larger, cohesive entity, investors might be willing to pay a higher multiple for the aggregate than for any individual component.

Natural Gas: A gaseous fossil fuel consisting primarily of methane and other heavier hydrocarbons. Natural gas burns cleaner than oil and coal and is a major source of electricity generation through the use of gas and steam turbines.

Net Metering: An arrangement that allows a facility to sell any excess energy it generates back to the electrical grid to offset its consumption.

Net Operating Income (NOI): The potential rental income plus other income, less vacancy, credit losses, and operating expenses.

Oil Sands: Naturally occurring mixtures of a very dense, tar-like form of petroleum called bitumen and sand or clay. Because of the high production and refining costs associated with oil sands, economic feasibility only occurs with high oil prices.

OPEC: OPEC (Organization of Petroleum Exporting Countries) is an oil cartel comprising twelve countries around the world.

Open-end Fund: A commingled fund that does not have a finite life, it continually accepts new investor capital and makes new property investments.

Operator: The party responsible for managing the asset; may be (and usually is) different than the owner/lessee of the asset.

Opportunistic: A phrase generally used by advisers and managers to describe investments in underperforming and/or undermanaged assets that hold the expectation of near-term increases in cash flow and value. Total return objectives for opportunistic strategies tend to be 20% or higher. Opportunistic investments typically involve a high degree of leverage - typically 60% to 100% on an asset basis and 60% to 80% on a portfolio basis.

Permanent Crops: Permanent crops include those grown on a tree or vine such as almonds, wine grapes, apples, and oranges. They are usually directly operated to produce higher income returns from crop sales but can carry a higher level or risk.

PFI: The Private Finance Initiative specifies a method, developed initially by the U.K. government, to provide financial support for Public-Private Partnerships. This has since been adopted as part of a wider reform program for the delivery of public services which is driven by the WTO, IMF & World Bank as a part of their “deregulation” and privatization drive. In return for their services, the private sector receives payment linked to its performance.

Pipeline: A system made of steel piping used to transport oil, gas, and other liquids from one location to another.

Placement Agent: Unlike public stock management companies, most of whom utilize an in-house sales force to market their services, private equity partnerships are generally marketed by third-party placement agents. These outside marketing firms and individuals are paid a commission by the General Partner.

Platform Company: Some private equity buyout funds attempt to add value by merging companies into larger, more cost efficient enterprises. This strategy generally begins with the acquisition of a platform company, often a market leader, to which other companies are added.

Possible Reserves: Reserves of oil or natural gas that have a less likely chance of being recovered than probable reserves. These reserves are often claimed as having a 10% certainty of being produced and are also known as P10 or 3P.

PPM (Private Placement Memorandum): Because Limited Partnership interests are not registered with the SEC, private equity managers must distribute a comprehensive document to prospective investors that describes the broad investment thesis of the partnership, and highlights any risks involved in the partnership. This document is called a Private Placement Memorandum.

PPP: A Public Private Partnership (or P3) is a system in which a government service or private business venture is funded and operated through a partnership of government and one or more private sector companies. Also referred to as Collective Development Agreements or Alternative Finance Procurement.

Precious Metals: Precious metals include gold, silver, palladium, and platinum. These metals have wide industrial uses but are better known for their usage in jewelry, art, and store of value.

Pre-merch (merchantable): Logs that do not meet the minimum size, quality, or usable volume required for the commercial sale of timber.

Privatization: The transfer of property or control of assets used to provide public services from the public sector to the private sector.

Probable Reserves: Probable reserves are those reserves based on median estimates and claim a 50% confidence of recoverability. These reserves are also known as P50 or 2P.

Producing Well: A well the produces oil and gas in sufficient quantities such that the revenue generated exceeds the associated production costs and taxes.

Property Type: The classification of commercial real estate based on its primary use. The four primary property types are: retail, industrial, office, and multi-family residential.

Proved Reserves: Reserves of oil or natural gas that are claimed to have a 90% certainty of being recovered using existing technology. The SEC only allows oil companies to report proved reserves to investors. Proved reserves are also known as P90 or 1P.

Public to Private: If a private partnership (or group of private partnerships) purchases all of the outstanding shares of a publicly traded company, the company's shares may be de-listed from the stock exchange. The company is then said to have been "taken private." For example, in June 1989, the private partnership Wings Holdings acquired the public stock of Northwest Airlines in a $3.65 billion-dollar leveraged buyout. Following this acquisition, Northwest became a privately held corporation for the first time since 1941.

Pulpwood: Wood cut and chipped for the manufacturing of paper and paper related products. Pulpwood is typically too small or of insufficient quality for sawtimber and is classified as 6-9" DBH.

Real Estate Cycles (phases): The regularly repeating sequence of economic downturns and upturns and associated changes in real estate market transactions tied to market dynamics and changing macroeconomic conditions, whose phases include (in order) recession, recovery, expansion, and oversupply.

Real Estate Investment Trust (REIT): An investment vehicle in which investors purchase certificates of ownership in the trust, which in turn invests the money in real property and then distributes any profits to the investors. The trust is not subject to corporate income tax as long as it complies with the tax requirements for a REIT.

Shareholders must include their share of the REIT's income in their personal tax returns. (Barron's Dictionary of Real Estate Terms and Encyclopedia of Real Estate Terms 2nd Edition, Damien Abbott)

Real Estate Trends: Long-term movements or tendencies in the demand for commercial real estate (which can typically last for years or decades), usually tied to macro-economic or business cycles.

Renewable Energy: Energy derived from natural resources such as solar, wind, geothermal, or biofuels. Unlike oil, natural gas, or coal, these sources of energy are naturally replenished, providing a potential source of cleaner and more sustainable energy.

Row Crops: Row crops are those that are planted and harvested annually from the soil, as opposed to trees or vines, and include corn, cotton, rice, soybeans, and vegetables. Row crops are often eligible to receive federal subsidies.

Sawtimber: Timber of sufficient size and quality to be cut and harvested for lumber or other solid wood products. Sawtimber is usually derived from trees measuring 14" + DBH.

Secondary Fund: Occasionally, a Limited Partner will wish to sell his interest in a partnership before the term of the partnership is completed. Any such sale is termed a secondary market sale. A secondary fund creates a portfolio of partnership interests from earlier partnerships purchased in the secondary market. The advantage of a secondary fund is that it gives investors an opportunity to invest in seasoned partnerships from closed funds of prior vintage years.

Shadow Tolls: Payments made by government to the private sector operator of a road based, at least in part, on the number of vehicles using the road. They are currently in operation on some roads in the U.K., and they have also been adopted in other countries.

Solar Energy: Source of energy derived from the sun's light and heat. Common solar technologies include photovoltaics (PV) and solar thermal.

Sponsor: Every private equity opportunity that Meketa Investment Group evaluates is assigned to a sponsor. This individual, who is a member of Meketa Investment Group's Private Equity Investment Committee, is responsible for the collection of information and the evaluation of the opportunity.

Submarket: A segment or portion of a larger geographic market defined and identified on the basis of one or more attributes that distinguish it from other submarkets or locations.

Take Down/Draw Down: A take down or a draw down is the same as a capital call.

Term: The term of a private partnership is its expected lifetime, and is specified in the Private Placement Memorandum. Most partnerships have a term of ten years, with the option to extend the term once or twice by an additional year if the Limited Partners approve.

The term of a partnership consists of several phases. After the final closing, no new commitments are accepted and the partnership enters the commitment phase or investment phase, legally lasting up to six years, but generally lasting three to four years, during which the individual investments are made. A distribution phase follows, during which mature investments are realized and profits distributed to the partners. The final phase is the liquidation phase, during which all remaining properties and assets are sold in order to terminate the partnership.

Trade Sale: The most prevalent exit strategy for many private equity managers involves selling a company in the private markets, usually through an auction process, to other private equity investors or to larger companies. This type of exit is termed a trade sale.

Turnaround: A turnaround strategy involves buying a troubled company, usually for a relatively low price, and making significant managerial or organizational changes to better the company's operations and enhance profitability.

Upstream: Portion of the energy industry engaged in the exploration, production, and development of crude oil and natural gas reserves.

Vacancy: The number of units or space (of a specific commercial type) that are vacant and available for occupancy at a particular point in time within a given market (usually expressed as a vacancy rate).

Vacancy Rate: The percentage of the total supply of units or space of a specific commercial type that is vacant and available for occupancy at a particular point in time within a given market.

Value-added: A phrase generally used by advisers and managers to describe investments in underperforming and/or undermanaged assets. The objective is to generate 13 % to 18% returns.

VCOC (Venture Capital Operating Company): The IRS code defines one category of private partnerships to be venture capital operating companies for tax purposes. The General Partners of VCOCs are not required to register with the SEC as investment advisors. The name venture capital operating company relates only to the partnership's legal and tax structure, and does not imply that the partnership will invest in venture capital deals. For example, a middle market buyout fund, which invests only in mature companies with enterprise values of between $200 million and $1 billion, may be structured as a venture capital operating company.

Veneer: Continuous sheets of thin wood cut from trees measuring at least 16" + DBH. Veneer is commonly used in the manufacture of furniture and plywood.

Venture Capital: Money supplied to entrepreneurs to create new businesses is called venture capital. It is the first stage of financing for any new venture.

Traditionally, the recipient of the venture capital was a small group of entrepreneurs with an idea and a business plan, but no management team, corporate structure, revenues or profits. In the 1990s, however, venture capital was often used to seed established teams of entrepreneurs with well-defined products and in-place corporate structures. Thus, there is great variability in the meaning of venture capital and in the types of deals financed with venture capital money.

Vintage Year: The calendar year in which the first cash flow to a partnership occurred. This cash flow can be intended for management fees or investment capital. Vintage year can be used to differentiate the partnerships established over time by a General Partner, to track portfolio commitment pacing, and to benchmark portfolio performance.

Warrants: Just like publicly traded companies, private companies may issue warrants to their shareholders or to other groups providing some form of financing. A warrant is the right to purchase shares of the company's stock at a future date at a predetermined price, called the exercise price. Warrants become valuable if the exercise price is below the market price of the stock.

Wind Energy: Source of energy derived from wind motion that can be converted to electricity by turning a turbine and generator.

Disclaimer, Glossary, and Notes

Disclaimer

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Notes

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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.