Wilshire

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Wilshire Consulting

Employees' Retirement Fund of the City of Dallas

Monthly Investment Summary

October 31, 2019

Wilshire Consulting

Asset Allocation & Performance

Dallas Total Fund

Periods Ended October 31, 2019

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value $	%
Global Equity Composite	1.76	1.05	16.01	8.79	10.49	6.10	8.64	9/1/2012	255,589,106	7.17
Global Low Volatility Composite	0.88	2.79	18.44	14.98	11.28		9.53	7/1/2015	366,494,541	10.29
Domestic Equity Composite	2.33	1.40	20.90	10.63	13.05	9.43	10.02	1/1/1990	476,339,375	13.37
International Equity Composite	3.76	1.95	15.10	9.84	7.46	4.28	5.41	1/1/1990	503,875,689	14.14
Global Fixed Income Composite	0.22	2.19	9.08	11.20	3.59	3.59	5.10	10/1/1995	520,001,761	14.59
High Yield Composite	0.25	1.13	11.38	7.64	5.22	4.59	6.48	1/1/1997	356,555,836	10.01
Credit Opportunities Composite	-0.08	-0.01	9.30	7.15	5.48		7.19	2/1/2016	175,542,079	4.93
Total Real Estate Composite	0.58	3.09	13.37	12.16	7.34	7.73	6.70	1/1/1990	407,768,958	11.44

Manager returns are net of fees.

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Dallas Total Fund

Periods Ended October 31, 2019

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	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value $	%
MLP Composite	**-5.34**	**-9.01**	**7.20**	**-5.38**	**-1.29**	**-5.95**	**4.12**	**1/1/2012**	**226,303,422**	**6.35**
Private Equity Composite	**-0.24**	**1.44**	**9.26**	**14.78**	**14.02**	**11.41**	**13.47**	**6/1/2009**	**255,397,105**	**7.17**
Managed Short Term Composite	**0.19**	**0.56**	**2.01**	**2.41**	**1.60**	**1.02**	**2.94**	**1/1/1990**	**19,345,029**	**0.54**
Dallas Total Fund	**0.78**	**1.07**	**13.65**	**10.05**	**7.98**	**5.74**	**9.03**	**1/1/1985**	**3,563,212,903**	**100.00**
Policy Index	0.93	1.37	14.59	10.82	7.88	5.53	9.64			

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Systematic Financial	**2.57**	**2.23**	**17.87**	**5.93**	**12.45**	**9.80**	**10.67**	**8/1/2003**	**67,129,801**	**14.09**
Russell 2000 Index	2.63	-0.40	17.18	4.90	10.96	7.37	9.03			
Redwood Investments *	**2.82**	**-7.57**	**12.16**	**0.35**	**7.92**		**5.19**	**10/1/2016**	**32,113,124**	**6.74**
Russell 2000 Growth Index	2.85	-2.40	18.62	6.40	13.22		10.52			
Channing Capital *	**0.84**	**-2.07**	**16.81**	**4.46**	**6.60**	**4.76**	**4.98**	**12/1/2013**	**32,973,207**	**6.92**
Russell 2000 Value Index	2.42	1.67	15.55	3.22	8.60	6.24	5.92			
Domestic Equity Small Cap Composite	**2.20**	**-1.39**	**16.17**	**4.15**	**9.93**	**7.47**	**9.17**	**6/1/2003**	**132,216,132**	**27.76**

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Smith Graham *	**2.93**	**2.04**	**18.09**	**5.98**			**0.38**	**1/1/2018**	**69,129,846**	**14.51**
Russell Midcap Index	1.05	0.11	23.21	13.72			6.40			
T. Rowe Price	**2.32**	**2.43**	**24.20**	**15.22**	**15.58**	**11.54**	**9.29**	**4/1/2006**	**145,991,774**	**30.65**
S&P 500	2.17	2.43	23.16	14.33	14.91	10.78	8.74			
Northern Trust S&P 500 (Lending)	**2.17**	**2.43**	**23.22**	**14.38**	**14.93**	**10.82**	**10.04**	**1/1/1995**	**129,001,623**	**27.08**
S&P 500	2.17	2.43	23.16	14.33	14.91	10.78	10.00			
Domestic Equity Composite	**2.33**	**1.40**	**20.90**	**10.63**	**13.05**	**9.43**	**10.02**	**1/1/1990**	**476,339,375**	**100.00**
Custom Benchmark	2.19	1.92	22.74	13.48	14.50	10.46	10.10			

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Periods Ended October 31, 2019

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Adelante Capital Management	**0.98**	**6.98**	**30.07**	**25.13**	**10.81**	**8.17**	**10.40**	**10/1/2001**	**93,453,878**	**22.92**
Wilshire U.S. Real Estate Securities Index	1.02	7.25	28.45	23.24	9.86	8.50	10.75			
CenterSquare	**1.55**	**8.39**	**30.05**	**24.97**			**18.95**	**6/1/2018**	**94,417,281**	**23.15**
Wilshire U.S. Real Estate Securities Index	1.02	7.25	28.45	23.24			17.51			
REIT Composite	**1.27**	**7.68**	**30.07**	**25.06**	**10.25**	**8.18**	**10.53**	**10/1/2001**	**187,871,159**	**46.07**
Wilshire U.S. Real Estate Securities Index	1.02	7.25	28.45	23.24	9.86	8.50	10.75			
Heitman America Real Estate Trust, LP	**0.00**	**1.57**	**2.36**	**2.92**	**5.75**	**8.07**	**10.61**	**12/1/2010**	**87,402,971**	**21.43**
NCREIF ODCE NOF	0.00	1.08	3.08	4.65	6.34	8.36	10.37			
Invesco Core Real Estate USA, LLC	**0.00**	**2.02**	**4.23**	**6.51**	**8.10**	**9.91**	**10.99**	**12/1/2010**	**71,240,822**	**17.47**
NCREIF ODCE NOF	0.00	1.08	3.08	4.65	6.34	8.36	10.37			
Invesco II	**0.00**	**-5.80**	**-0.13**	**-0.13**	**0.50**	**-1.00**	**-0.26**	**11/1/2013**	**61,254,006**	**15.02**
Invesco II Custom Benchmark	0.00	-5.80	-0.13	-0.13	0.50	-1.00	-0.26			

***** Manager returns are net of fees. Private Core Real Estate manager information is preliminary as market values are not yet finalized by the manag

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Asset Allocation & Performance

Dallas Total Fund

Periods Ended October 31, 2019

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value $	%
Private Core Real Estate Composite	**0.00**	**-0.34**	**2.31**	**3.27**	**5.13**	**7.14**	**9.51**	**10/1/2010**	**219,897,799**	**53.93**
Custom Benchmark	0.00	-0.44	2.43	3.64	5.11	6.31	8.85			
Total Real Estate Composite	**0.58**	**3.09**	**13.37**	**12.16**	**7.34**	**7.73**	**6.70**	**1/1/1990**	**407,768,958**	**100.00**
Custom Benchmark	0.51	3.37	14.93	13.40	7.67	7.65	8.73			

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Employees' Retirement Fund of the City of Dallas

Private Equity & Direct Private Real Estate Monthly Performance and Market Value Summary

Periods Ended 10/31/19

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	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple [3]
Invesco II	61,254,006	65,188,333	65,188,333	3,924,838	Jan-14	3.8%	1.0
Total Direct Private Real Estate	**61,254,006**	**65,188,333**	**65,188,333**	**3,924,838**	**Jan-14**	**3.8%**	**1.0**

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple [3]
Hamilton Lane Secondary Fund II	1,721,200	25,000,000	22,848,181	26,979,853	Jul-09	8.7%	1.3
Hamilton Lane Secondary Fund III	11,487,843	30,000,000	17,762,479	17,778,462	Nov-12	19.6%	1.6
Hamilton Lane Secondary Fund IV	22,244,166	30,000,000	18,041,820	1,065,637	Mar-17	27.7%	1.3
Hamilton Lane Fund VII Composite	27,470,481	50,000,000	42,992,714	31,470,418	Jan-10	6.9%	1.4
Hamilton Lane Fund VIII (Global)	22,526,924	30,000,000	16,412,837	3,388,561	Nov-12	11.5%	1.6
Hamilton Lane Cash	-	-	-	-	Aug-09	-.-	-.-
GCM Grosvenor - Partnership, L.P.	46,289,441	75,000,000	81,662,229	86,300,329	Jun-11	15.3%	1.6
GCM Grosvenor - Partnership II, L.P. (2014)	49,163,565	60,000,000	57,931,924	18,715,561	Jul-14	11.8%	1.2
GCM Grosvenor - Partnership II, L.P. (2015)	30,854,151	20,000,000	26,063,160	2,775,246	Dec-15	15.4%	1.3
GCM Grosvenor - Partnership II, L.P. (2017)	7,856,414	30,000,000	7,981,464	104,310	Jan-18	-5.5%	1.0
GCM Grosvenor Cash	-	-	-	-	Jun-11	-.-	-.-
Fairview Capital III *	35,782,920	40,000,000	31,880,328	1,630,828	Aug-15	10.1%	1.2
Total Private Equity Composite	**255,397,105**	**390,000,000**	**323,577,136**	**190,209,205**	**Jul-09**	**13.2%**	**1.4**

Public Market Equivalent (PME) [2]	**314,750,216**	**16.7%**

* Next Generation Manager

[1] Total Value to Paid-in Capital ("TVPI") multiple calculation = *(market value + distributions) / capital called*

[2] The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

[3] Private Equity cash account

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Dallas Total Fund

Periods Ended October 31, 2019

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value $	%
Acadian International	**3.39**	**-0.90**	**13.24**	**6.24**	**7.65**	**5.89**	**8.17**	**4/1/1989**	**101,544,880**	**20.15**
Custom Benchmark	4.05	3.51	14.75	8.77	6.98	5.31	5.81			
Ativo International *	**2.98**	**2.14**	**17.31**	**12.46**			**1.34**	**1/1/2018**	**36,384,204**	**7.22**
MSCI EAFE Index (Net)	3.59	3.80	16.86	11.04			0.40			
AQR Capital Management	**3.90**	**2.64**	**13.26**	**8.06**	**6.15**	**3.52**	**3.09**	**4/1/2006**	**198,706,793**	**39.44**
Custom Benchmark	3.49	2.87	15.45	11.27	8.07	3.82	2.86			
Baillie Gifford	**5.00**	**3.53**					**9.22**	**4/1/2019**	**85,803,055**	**17.03**
MSCI AC World ex USA (Net)	3.49	2.87					4.66			
Earnest Partners	**2.96**	**2.20**					**3.36**	**4/1/2019**	**81,434,353**	**16.16**
MSCI AC World ex USA (Net)	3.49	2.87					4.66			
BlackRock ACWI Ex U.S.									**1,470**	**0.00**
International Equity Composite	**3.76**	**1.95**	**15.10**	**9.84**	**7.46**	**4.28**	**5.41**	**1/1/1990**	**503,875,689**	**100.00**
Custom Benchmark	3.56	2.96	15.36	10.92	7.93	4.01	4.52			

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Ariel Global *	**0.86**	**1.73**	**11.59**	**4.93**			**2.89**	**1/1/2018**	**108,228,622**	**42.34**
MSCI AC World Index (Net)	2.74	2.41	19.38	12.59			4.36			
Wellington	**2.37**	**0.22**	**19.43**	**11.66**	**10.28**	**7.26**	**11.14**	**9/1/2012**	**127,441,436**	**49.86**
MSCI AC World Index (Net)	2.74	2.41	19.38	12.59	11.33	7.08	9.50			
Northern Trust Global Equity	**2.79**	**2.71**	**19.81**	**12.83**	**11.61**		**11.12**	**10/1/2015**	**19,919,048**	**7.79**
MSCI AC World IMI (Net)	2.75	2.26	19.06	12.01	11.07		10.59			
Global Equity Composite	**1.76**	**1.05**	**16.01**	**8.79**	**10.49**	**6.10**	**8.64**	**9/1/2012**	**255,589,106**	**100.00**
MSCI AC World Index (Net)	2.74	2.41	19.38	12.59	11.33	7.08	9.50			

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Acadian Global Low Vol.	**0.69**	**1.93**	**17.69**	**13.13**	**10.68**		**8.90**	**7/1/2015**	**183,624,026**	**50.10**
MSCI AC World Index (Net)	2.74	2.41	19.38	12.59	11.33		7.63			
MSCI ACWI Minimum Volatility Index (Net)	1.06	3.61	18.82	16.39	11.35		9.63			
BlackRock Global Low Vol.	**1.07**	**3.67**	**19.19**	**16.83**	**11.86**		**10.15**	**7/1/2015**	**182,870,515**	**49.90**
MSCI ACWI Minimum Volatility Index (Net)	1.06	3.61	18.82	16.39	11.35		9.63			
Global Low Volatility Composite	**0.88**	**2.79**	**18.44**	**14.98**	**11.28**		**9.53**	**7/1/2015**	**366,494,541**	**100.00**
MSCI ACWI Minimum Volatility Index (Net)	1.06	3.61	18.82	16.39	11.35		9.63			

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Atlantic Trust CIBC	**-5.66**	**-9.67**	**4.99**	**-6.74**	**-2.05**	**-6.51**	**4.19**	**1/1/2012**	**112,083,923**	**49.53**
Alerian MLP Index	-6.22	-10.76	4.18	-6.36	-3.06	-8.96	-0.61			
Harvest Fund Advisors MLP	**-5.02**	**-8.35**	**9.46**	**-4.00**	**-0.61**	**-6.03**	**3.68**	**1/1/2012**	**114,219,500**	**50.47**
Alerian MLP Index	-6.22	-10.76	4.18	-6.36	-3.06	-8.96	-0.61			
MLP Composite	**-5.34**	**-9.01**	**7.20**	**-5.38**	**-1.29**	**-5.95**	**4.12**	**1/1/2012**	**226,303,422**	**100.00**
Alerian MLP Index	-6.22	-10.76	4.18	-6.36	-3.06	-8.96	-0.61			

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Securian Asset Management	**0.33**	**2.27**	**9.35**	**11.12**	**3.98**	**4.02**	**4.83**	**7/1/2007**	**225,401,831**	**43.35**
Blmbg. Barc. U.S. Aggregate	0.30	2.35	8.85	11.51	3.29	3.24	4.44			
Aberdeen Global Fixed Income	**0.17**	**2.13**	**9.46**	**12.10**	**3.34**	**3.27**	**4.83**	**5/1/2007**	**224,619,797**	**43.20**
Blmbg. Barc. U.S. Aggregate	0.30	2.35	8.85	11.51	3.29	3.24	4.29			
Garcia Hamilton *	**0.06**	**2.14**	**7.15**	**8.81**	**3.17**	**3.26**	**3.70**	**11/1/2013**	**69,980,134**	**13.46**
Blmbg. Barc. U.S. Aggregate	0.30	2.35	8.85	11.51	3.29	3.24	3.39			
Global Fixed Income Composite	**0.22**	**2.19**	**9.08**	**11.20**	**3.59**	**3.59**	**5.10**	**10/1/1995**	**520,001,761**	**100.00**
Blmbg. Barc. U.S. Aggregate	0.30	2.35	8.85	11.51	3.29	3.24	5.23			

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Neuberger Berman	**-0.08**	**-0.01**	**9.30**	**7.15**	**5.48**		**7.19**	**2/1/2016**	**175,542,079**	
Custom Benchmark	0.33	0.72	10.78	8.71	5.23		7.73			

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Oaktree Capital Management	**0.23**	**0.91**	**10.61**	**6.76**	**4.63**	**3.97**	**6.67**	**2/1/1997**	**178,812,475**	**50.15**
FTSE High Yield Market Capped Index	0.22	0.74	11.13	7.58	5.70	4.73				
FTSE High Yield Cash Pay	0.23	0.75	11.18	7.66	5.76	4.77	6.84			
BlackRock	**0.28**	**1.36**	**12.15**	**8.52**	**5.82**	**4.73**	**6.42**	**10/1/2006**	**177,743,361**	**49.85**
FTSE High Yield Market Capped Index	0.22	0.74	11.13	7.58	5.70	4.73	6.86			
FTSE High Yield Cash Pay	0.23	0.75	11.18	7.66	5.76	4.77	6.93			
High Yield Composite	**0.25**	**1.13**	**11.38**	**7.64**	**5.22**	**4.59**	**6.48**	**1/1/1997**	**356,555,836**	**100.00**
FTSE High Yield Cash Pay	0.23	0.75	11.18	7.66	5.76	4.77	6.85			

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Cash Account	**0.19**	**0.56**	**2.01**	**2.41**	**1.60**	**1.02**	**3.30**	**1/1/1988**	**19,345,029**	**100.00**
Managed Short Term Composite	**0.19**	**0.56**	**2.01**	**2.41**	**1.60**	**1.02**	**2.94**	**1/1/1990**	**19,345,029**	**100.00**

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