



TMRS Quarterly Summary

Period Ended: June 30, 2018

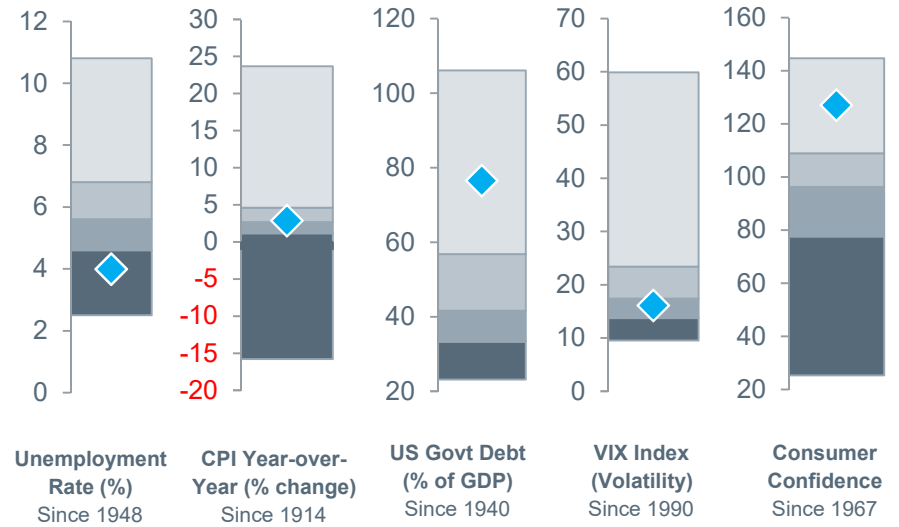


Second Quarter Economic Environment

Key Economic Indicators

The US dollar strengthened significantly relative to a trade weighted basket of currencies during the second quarter of 2018, reversing a trend of weakening that began over a year earlier. This tightening dollar liquidity environment and the escalating trade tensions between the United States and its global trading partners put significant pressure on non-US assets. Economic data released during the quarter continue to indicate a strong economic expansion in the United States. According to the Bureau of Economic Analysis, first quarter GDP grew at an annual rate of 2.0%. The heightened equity market volatility that characterized the first quarter of 2018 softened to a degree during Q2, as the S&P 500 produced three straight months of positive returns. Despite what appear to be relatively tight labor market conditions, wage growth has remained subdued. With this backdrop, the Federal Open Market Committee raised the Federal Funds rate to a range between 1.75% and 2.00% during its June meeting. The continued robust US economic activity also flowed through to heightened expectations for additional interest rate increases.

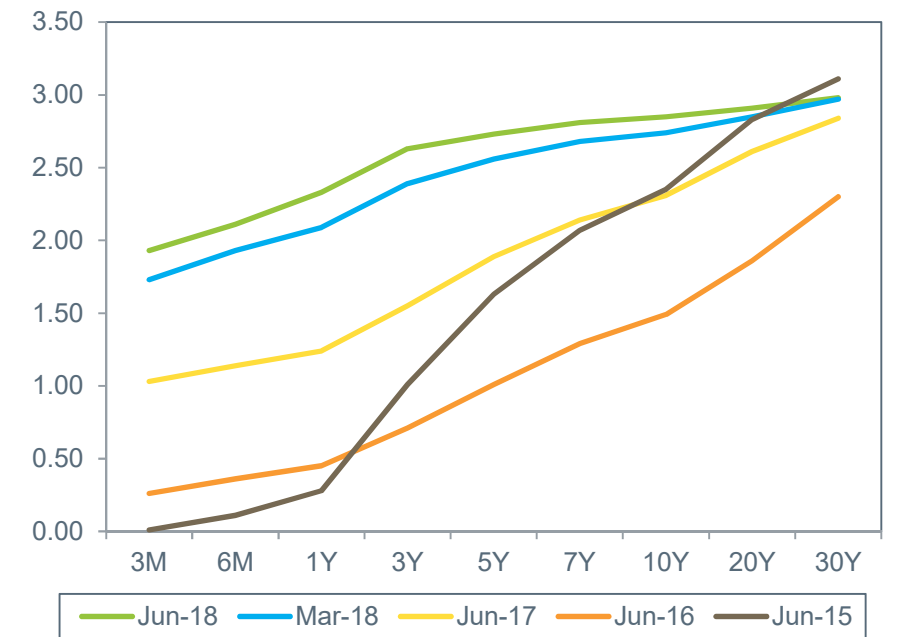
Key Economic Indicators



Economic Indicators

	Jun-18	Mar-18	Jun-17	Jun-15	20 Yr
Federal Funds Rate (%)	1.91 ▲	1.68	1.06	0.08	2.02
Breakeven Infl. - 1 Yr (%)	1.42 ▼	2.23	0.72	0.73	N/A
Breakeven Infl. - 10 Yr (%)	2.13 ▲	2.06	1.74	1.89	N/A
CPI YoY (Headline) (%)	2.9 ▲	2.4	1.6	0.1	2.2
Unemployment Rate (%)	4.0 ▼	4.1	4.3	5.3	5.9
Real GDP YoY (%)	2.8 ▲	2.6	2.1	3.4	2.3
PMI - Manufacturing	60.2 ▲	59.3	56.7	52.3	52.5
USD Total Wtd Idx	89.97 ▲	86.37	90.49	89.82	86.45
WTI Crude Oil per Barrel (\$)	74.2 ▲	64.9	46.0	59.5	58.8
Gold Spot per Oz (\$)	1,253 ▼	1,326	1,242	1,172	856

Treasury Yield Curve (%)



Market Performance (%)

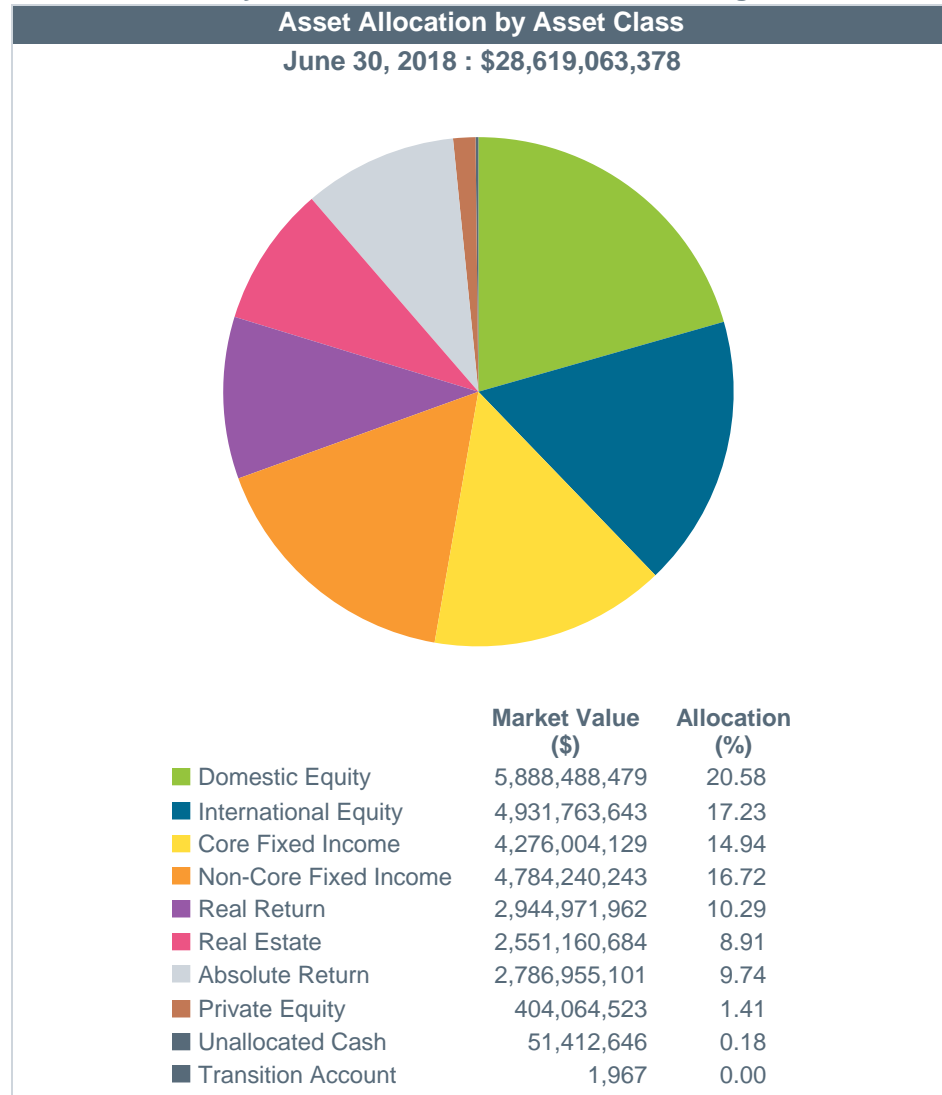
	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	3.43	2.65	14.37	13.42	10.17
Russell 2000	7.75	7.66	17.57	12.46	10.60
MSCI EAFE (Net)	-1.24	-2.75	6.84	6.44	2.84
MSCI EAFE SC (Net)	-1.57	-1.33	12.45	11.32	6.81
MSCI Emg Mkts (Net)	-7.96	-6.66	8.20	5.01	2.26
Bloomberg US Agg Bond	-0.16	-1.62	-0.40	2.27	3.72
ICE BofAML 3 Mo US T-Bill	0.45	0.81	1.36	0.42	0.35
NCREIF ODCE (Gross)	2.05	4.30	8.44	11.04	5.29
Wilshire US REIT	9.73	1.52	3.88	8.42	7.81
HFRI FOF Comp	0.41	0.68	5.13	3.45	1.40
Bloomberg Comdty (TR)	0.40	0.00	7.35	-6.40	-9.04

Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as N/A.



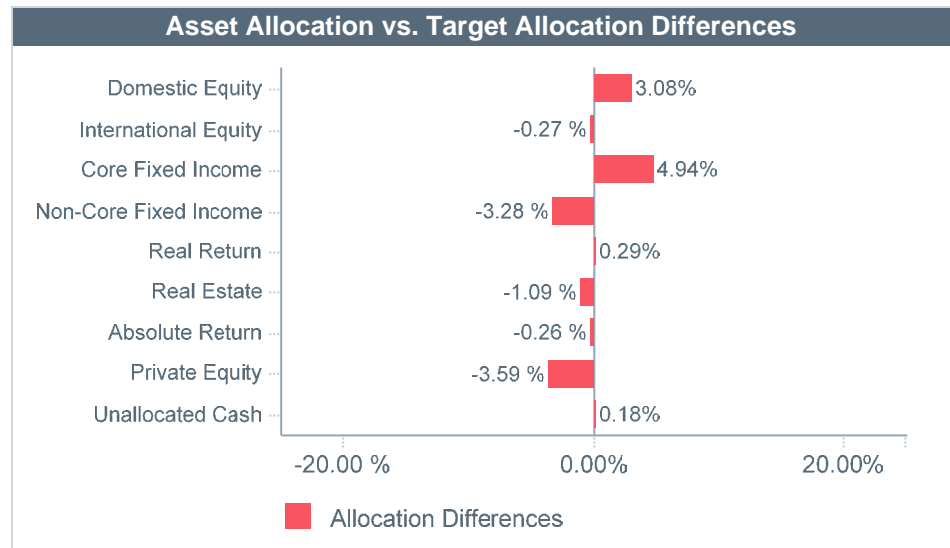
Total Fund Composite

Asset Allocation by Asset Class, Asset Allocation vs. Target, and Schedule of Investable Assets



Asset Allocation vs. Target Allocation

	Market Value (\$)	Allocation (%)	Target (%)
Domestic Equity	5,888,488,479	20.58	17.50
International Equity	4,931,763,643	17.23	17.50
Core Fixed Income	4,276,004,129	14.94	10.00
Non-Core Fixed Income	4,784,240,243	16.72	20.00
Real Return	2,944,971,962	10.29	10.00
Real Estate	2,551,160,684	8.91	10.00
Absolute Return	2,786,955,101	9.74	10.00
Private Equity	404,064,523	1.41	5.00
Unallocated Cash	51,412,646	0.18	0.00
Total Fund	28,619,061,411	100.00	100.00



Schedule of Investable Assets

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
CYTD	28,433,178,555	-91,816,414	277,701,237	28,619,063,378	1.09	101.09

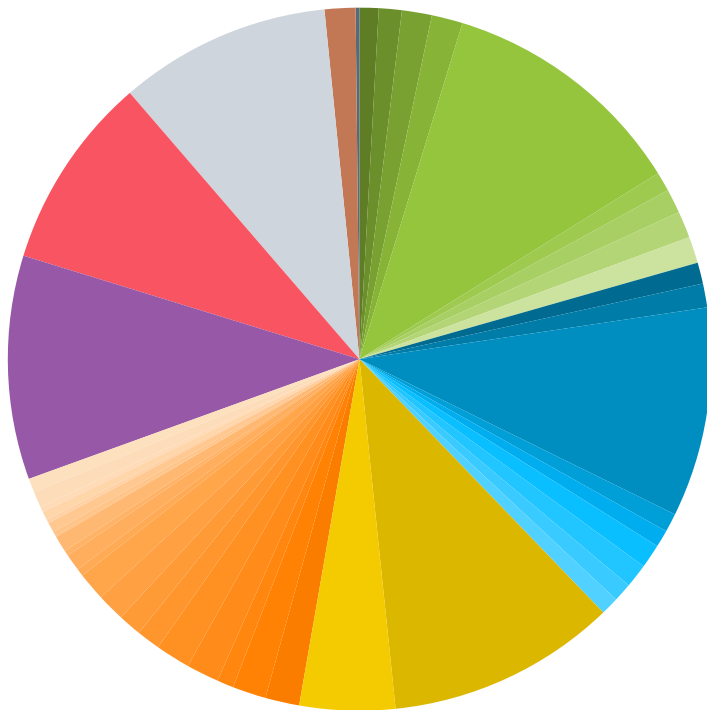
Performance shown is gross of fees and provided by State Street. Allocations shown may not sum up to 100% exactly due to rounding. Gain/Loss figure includes both realized and unrealized gains and losses. Asset Allocation vs. Target Allocation charts do not include the Transition Account. Domestic Equity includes Citi Global Markets, Inc.



Texas Municipal Retirement System
Asset Allocation By Manager

As of June 30, 2018

June 30, 2018 : \$28,619,063,378



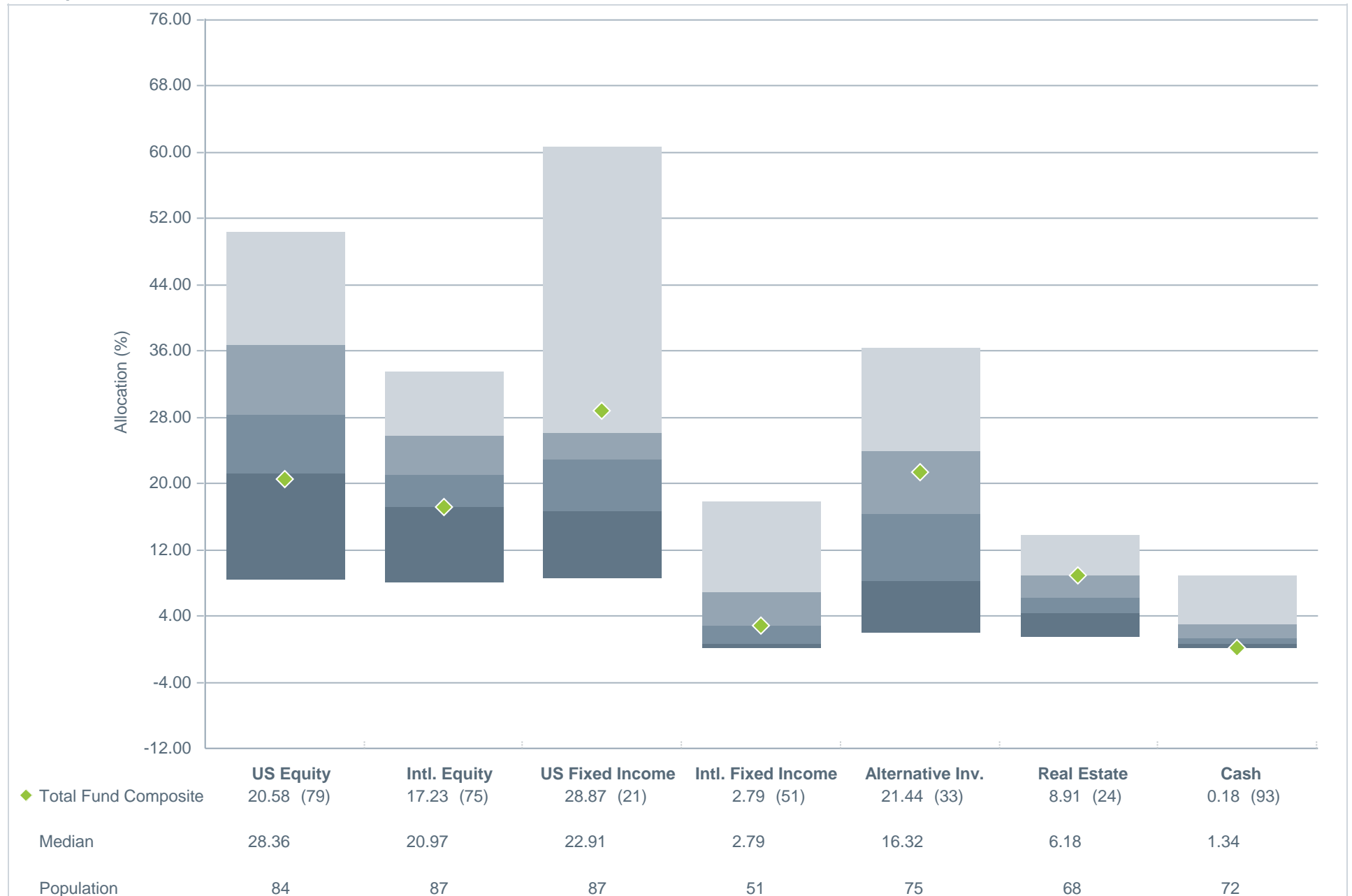
	Market Value (\$)	Allocation (%)
■ Sasco U.S. Contrarian Value (SA)	250,354,783	0.87
■ Epoch U.S. Choice (SA)	300,923,385	1.05
■ State Street Russell Fndmtl US Index NL (CF)	392,974,831	1.37
■ UBS US Equity Min Volatility Index (CF)	410,582,475	1.43
■ NT Collective Russell 3000 Index NL (CF)	3,262,196,373	11.40
■ The Boston Company Mid Cap Opp Value (SA)	254,149,472	0.89
■ Champlain Mid-Cap Core (SA)	317,142,422	1.11
■ Wellington US Small Cap Opp (SA)	350,447,692	1.22
■ The Boston Company Small Cap Opp Value (SA)	349,708,021	1.22
■ State Street Russell RAFI Gbl Ex US Index NL (CF)	278,706,522	0.97
■ UBS World Ex US Min Volatility NL (CF)	313,335,127	1.09
■ NT Daily Collective ACW Ex US IMI Non-Lending (CF)	2,757,913,742	9.64
■ Wellington International Horizons (SA)	245,096,460	0.86
■ Lazard International Equity Plus (SA)	226,216,474	0.79
■ Wasatch International Small Cap Growth (SA)	314,917,622	1.10
■ Wellington International Small Cap Opp (SA)	313,535,090	1.10
■ Acadian Emerging Markets (SA)	246,210,513	0.86
■ William Blair Emerging Markets (SA)	235,832,092	0.82
■ BlackRock, Inc. Core (SA)	3,021,577,767	10.56
■ PIMCO Core Plus Fixed Income (SA)	1,254,426,363	4.38
■ Ellington RMBS/CMBS (SA)	446,903,395	1.56
■ Voya RMBS/CMBS (SA)	441,740,564	1.54
■ Waterfall Eden Fund, LP	218,312,400	0.76
■ Octagon Credit Advisors	431,561,807	1.51
■ GSO Capital Advisors	454,302,223	1.59
■ Columbia Management Investment Advisers, LLC	311,866,304	1.09
■ Neuberger Berman Investment Advisers, LLC	306,300,000	1.07
■ Alliance Bernstein Emerging Mkt Debt (SA)	366,130,191	1.28
■ BlueBay Emerging Mkt Debt (SA)	371,012,611	1.30
■ Bain Capital Credit, LP	100,991,800	0.35
■ Beach Point Total Ret Fd II, LP	221,828,000	0.78
■ BlackRock Global Credit Opportunities, LP	70,111,349	0.24
■ GoldenTree Asset Management, LP	207,780,400	0.73
■ Marathon CLO Equity Fund, LP	20,152,452	0.07
■ Marathon ECO Fund III, LP	60,326,463	0.21
■ Marathon SPS Fund, LP	129,730,500	0.45
■ Adams Street Private Credit Fund-A, LP	970,980	0.00
■ Golub Capital Pearls DLP, LP	47,502,992	0.17
■ H.I.G. Whitehorse Capital, LLC	111,354,241	0.39
■ PIMCO Corp Op Fd II Onshore, LP	72,924,205	0.25
■ TCW Brazos Fund, LLC	210,119,885	0.73
■ White Oak Summit Fund, LP	182,317,482	0.64
■ Real Return	2,944,971,962	10.29
■ Real Estate	2,551,160,684	8.91
■ Absolute Return	2,786,955,101	9.74
■ Private Equity	404,064,523	1.41
■ State Street Government STIF 6 (CF) - Cash	51,412,646	0.18
■ Citigroup Global Markets, Inc.	9,026	0.00
■ Transition Account	1,967	0.00

Allocations shown may not sum up to 100% exactly due to rounding.



**Texas Municipal Retirement System
All Public Plans > \$1B-Total Fund
Plan Sponsor TF Asset Allocation**

As of June 30, 2018



Parenteses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding. Intl Fixed Income consists of Alliance Bernstein Emerging Mkt Debt (SA), BlueBay Emerging Mkt Debt (SA), and Marathon ECO Fund III, LP.



**Texas Municipal Retirement System
Comparative Performance**

As of June 30, 2018

	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	2017	Since Incep.	Inception Date
Total Fund Composite	0.84	1.09	7.84	6.90	7.30	6.68	6.92	14.27	8.58	01/01/1989
Actual Allocation Benchmark	0.84	0.74	7.09	6.12	6.78	6.22	6.58	13.30	7.96	
Difference	0.00	0.35	0.75	0.78	0.52	0.46	0.34	0.97	0.62	
Global Equity Composite	0.68	0.50	12.16	9.41	10.56	9.12	6.69	24.22	6.06	02/01/2008
Global Equity Benchmark	0.84	-0.01	11.43	9.08	10.30	8.90	6.51	23.84	5.87	
Difference	-0.16	0.51	0.73	0.33	0.26	0.22	0.18	0.38	0.19	
Domestic Equity Composite	3.99	3.29	14.75	11.39	13.08	12.85	10.12	20.55	9.13	02/01/2008
Russell 3000 Index	3.89	3.22	14.78	11.58	13.29	13.01	10.23	21.13	9.23	
Difference	0.10	0.07	-0.03	-0.19	-0.21	-0.16	-0.11	-0.58	-0.10	
International Equity Composite	-3.02	-2.64	9.27	6.39	7.19	4.74	2.79	29.41	2.52	02/01/2008
International Equity Benchmark	-2.61	-3.65	7.75	5.46	6.39	4.09	2.27	27.81	1.99	
Difference	-0.41	1.01	1.52	0.93	0.80	0.65	0.52	1.60	0.53	
Core Fixed Income Composite	0.01	-1.41	0.02	1.98	2.48	2.83	3.83	3.93	7.52	01/01/1989
Fixed Income Benchmark	-0.16	-1.62	-0.40	1.72	2.27	2.57	3.65	3.54	6.95	
Difference	0.17	0.21	0.42	0.26	0.21	0.26	0.18	0.39	0.57	
Non-Core Fixed Income Composite	0.05	1.48	4.61	5.39	N/A	N/A	N/A	8.06	5.13	10/01/2014
Non-Core Fixed Income Benchmark	0.05	1.18	3.52	3.65	N/A	N/A	N/A	5.54	3.62	
Difference	0.00	0.30	1.09	1.74	N/A	N/A	N/A	2.52	1.51	

Performance shown is gross of fees and provided by State Street. Performance is annualized for periods greater than one year. Real Estate and Private Equity fund returns are calculated by Private Edge. Private Real Estate fund returns are lagged 1 quarter. Inception dates shown for the Private Real Estate and Private Equity funds and composites represent the first full quarter following initial funding. Inception dates for non-real estate and private equity funds and composites represent the first full month following initial funding.



Texas Municipal Retirement System
Comparative Performance

As of June 30, 2018

	1 Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	2017	Since Incep.	Inception Date
Real Return Composite	1.65	-0.16	4.82	3.51	3.15	3.01	N/A	8.32	3.60	02/01/2011
Real Return Benchmark	1.73	-0.07	5.16	4.42	3.76	2.94	3.03	9.91	3.72	
Difference	-0.08	-0.09	-0.34	-0.91	-0.61	0.07	N/A	-1.59	-0.12	
Real Estate Composite	2.35	5.00	10.86	14.12	14.29	N/A	N/A	11.93	13.14	01/01/2012
Real Estate Benchmark	2.19	4.31	8.08	9.95	11.42	11.78	5.11	7.65	11.37	
Difference	0.16	0.69	2.78	4.17	2.87	N/A	N/A	4.28	1.77	
Absolute Return Composite	0.97	2.39	7.09	5.21	N/A	N/A	N/A	11.35	5.30	08/01/2014
Absolute Return Benchmark	0.43	1.90	5.26	1.48	3.10	2.65	1.39	7.11	2.40	
Difference	0.54	0.49	1.83	3.73	N/A	N/A	N/A	4.24	2.90	
Absolute Return Direct Composite	0.76	2.33	7.39	N/A	N/A	N/A	N/A	13.21	7.18	01/01/2016
Absolute Return Benchmark	0.43	1.90	5.26	1.48	3.10	2.65	1.39	7.11	3.00	
Difference	0.33	0.43	2.13	N/A	N/A	N/A	N/A	6.10	4.18	
Private Equity Composite	10.33	23.31	35.00	N/A	N/A	N/A	N/A	19.69	17.63	01/01/2016
Private Equity Benchmark	10.33	23.31	35.00	N/A	N/A	N/A	N/A	19.69	17.63	
Difference	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	0.00	
Russell 3000+3% Index (1 Qtr Lag)	0.09	7.22	17.23	13.53	16.42	15.76	12.91	22.27	19.23	
Difference	10.24	16.09	17.77	N/A	N/A	N/A	N/A	-2.58	-1.60	
TMRS Unallocated Cash (SA)	0.43	0.67	1.18	0.88	0.60	0.45	0.43	0.72	0.44	06/01/2008
FTSE 30 Day T-Bill Index	0.42	0.77	1.27	0.60	0.36	0.27	0.25	0.80	0.27	
Difference	0.01	-0.10	-0.09	0.28	0.24	0.18	0.18	-0.08	0.17	

- Historical performance shown for the Global Equity, Domestic Equity, International Equity, Total Fixed Income, and Real Return composites is provided by State Street.
- RVK notes that for private market investments like Commercial Real Estate and Private Equity, for which there are no market prices, as are available for public securities, and for which an appraised value is calculated only quarterly, daily time weighted return calculations (public market return methodology) are imperfect at best and usually misleading. Real Estate and Private Equity fund returns are calculated by Private Edge.
- Please see Addendum for custom benchmark descriptions.

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Composite Benchmark Comments

The **Actual Allocation Benchmark** is calculated monthly using beginning of month asset class weights applied to each corresponding benchmark return and currently consists of the following:

- Russell 3000 Index
- International Equity Benchmark
- Fixed Income Benchmark
- Non-Core Fixed Income Benchmark
- Real Return Benchmark
- Real Estate Benchmark
- Absolute Return Benchmark
- Private Equity Benchmark
- FTSE 30 Day T-Bill Index

The **Global Equity Benchmark** is calculated monthly and consists of 50% Russell 3000 Index and 50% MSCI EAFE Index (USD) (Net) through 07/31/2010; a blend of the Russell 3000 Index, MSCI ACW Ex US IM Index (USD) (Net) and MSCI EAFE Index (USD) (Net) at beginning of month investment weights through 11/30/2012; and a blend of the Russell 3000 Index and MSCI ACW Ex US IM Index (USD) (Net) at beginning of the month weights thereafter.

The **International Equity Benchmark** is calculated monthly and consists of the MSCI EAFE Index (USD) (Net) through 07/31/2010; a blend of the MSCI ACW Ex US IM Index (USD) (Net) and MSCI EAFE Index (USD) (Net) at beginning of month investment weights through 01/31/2012; and the MSCI ACW Ex US IM Index (USD) (Net) thereafter.

The **Fixed Income Benchmark** is calculated monthly and consists of the Bloomberg US Gov't Crdt Lng Trm Bond Index through 06/30/2009; Bloomberg US Agg Bond Index thereafter.

The **Non-Core Fixed Income Benchmark** is calculated monthly using beginning of the month sub-asset class weights within the Non-Core Fixed Income Composite applied to each sub-asset class primary benchmark return.

The **Real Return Benchmark** is calculated monthly using beginning of the sub-asset class weights within the Real Return Composite applied to each sub-asset class primary benchmark return.

The **Real Estate Benchmark** is calculated monthly and consists of the NCREIF ODCE Index (AWA) (Gross); interim months assume a 0.00% return. The return is composed of lagged and un-lagged returns in the same proportion as the market value of managers whose returns are being reported on a lagged versus non-lagged basis.

The **Absolute Return Benchmark** is calculated monthly and consists of the HFRI FOF: Dvf'd Index (1 Mo Lag).

The **Private Equity Benchmark** is set equal to the Composite return.

Real Estate Performance Comments

"Privately held real estate fund returns are one-quarter lagged and are provided by Private Edge. Quarterly returns are incorporated in the last month of that particular quarter. The returns for the first two months are zero.

Market values are previous quarter-end values as reported, rolled forward with current cash flows. Returns and market values provided by Private Edge are rolled into their respective Real Estate composite and the Total Plan composite.

Publicly traded real estate fund performance is non-lagged, reflecting monthly fluctuations. Detailed information regarding methodology can be found in the internal TMRS Performance Reporting Policy statement" (State Street Performance Team).

H/2 CP, LP is a publicly traded real estate fund, previously classified as non-public. Performance from 10/2015 - 12/2015 is revised to reflect the change in calculation methodology.

PORTLAND

CHICAGO

NEW YORK

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