



Quarterly Board Executive Summary Presentation

Texas Municipal Retirement System
Period Ended: December 31, 2021



Total Fund Performance

How Did TMRS Perform Relative to Investment Policy Benchmarks?

	Performance (%)						
	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Total Fund	3.71	12.80	12.80	11.43	8.94	7.36	7.69
Actual Allocation Benchmark	3.18	12.19	12.19	11.24	8.71	7.11	7.46
Difference	0.53	0.61	0.61	0.19	0.23	0.25	0.23

The Total Fund returned 3.71% net of fees in the fourth quarter and 12.80% over the trailing 12 months.

- Fourth Quarter – TMRS outperformed the Actual Allocation Benchmark (3.18%) by 53 basis points.
 - Outperformance for the quarter was driven primarily by Private Equity and Hedge Funds, which beat their custom benchmarks by 781 and 141 basis points, respectively.
- Trailing year – TMRS outperformed the Actual Allocation Benchmark (12.19%) by 61 basis points.
 - Private Equity and Real Estate drove relative performance over the trailing 12-months as the asset classes outpaced their custom benchmarks by 1443 and 193 basis points, respectively.
 - Hedge Funds and Total Equity detracted from relative performance as they trailed their custom benchmarks by 309 and 54 basis points, respectively.

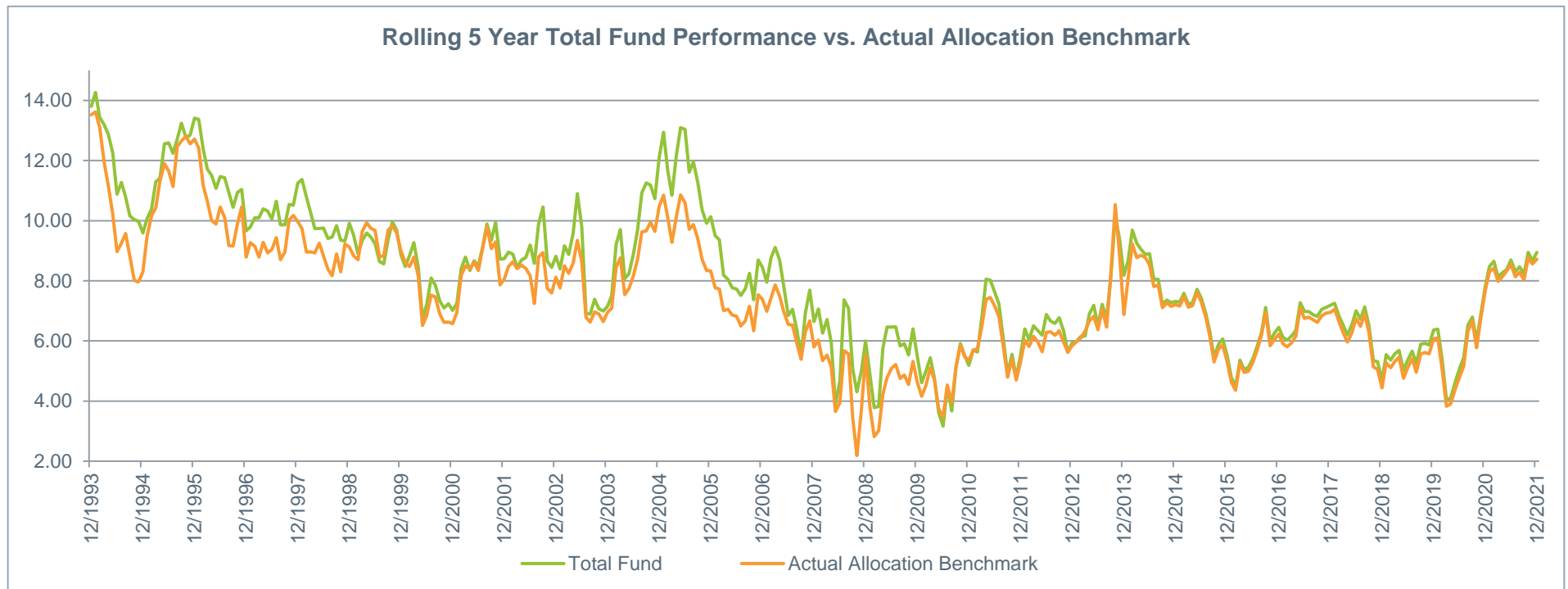
The Total Fund outperformed the Actual Allocation Benchmark net of fees over all trailing time periods ended December 31, 2021.

Total Fund Performance

How Did TMRS Perform Relative to Investment Policy Benchmarks?

The Total Fund performance expectation, as stated in the Investment Policy Statement, is to exceed the Actual Allocation Benchmark over rolling five-year periods.

- Five-year – TMRS outperformed the Actual Allocation Benchmark by 23 basis points, net of fees.
- The chart below shows that TMRS has beaten the five-year rolling performance expectation 93% of time since 1993, and 97% over the last ten years.



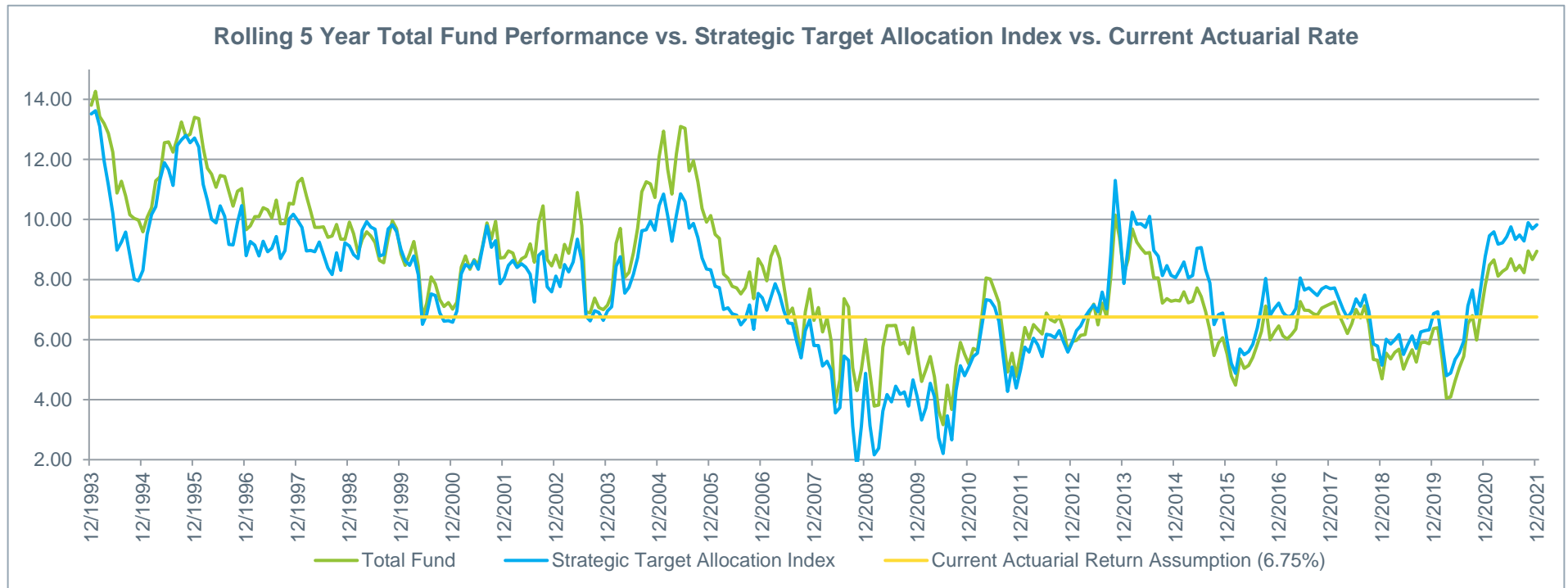
Performance shown is net of fees. Please see the Addendum for custom benchmark definitions.

Total Fund Performance

How Did TMRS Perform Relative to Investment Policy Benchmarks?

TMRS exceeded the Board's Assumed Long-Term Rate of Return of 6.75% for the five-year period.

- Although not fully implemented to the Strategic Target Allocation, the chart below illustrates TMRS' rolling five-year returns relative to the Strategic Target Allocation Index as a gauge for the effectiveness of the Board-approved Strategic Target Allocation, which was designed to meet or exceed the actuarial return assumption of 6.75%. The five-year return for the Strategic Target Allocation Index was 9.83%.



Performance shown is net of fees. Please see the Addendum for custom benchmark definitions.

Asset Class Performance

How Did TMRS' Asset Classes Perform Relative to Their Respective Benchmarks?

As shown on page 12 of the Quarterly Board Presentation, TMRS' Asset Class relative performance was mixed for the fourth quarter of 2021.

- Relative Outperformers – Four of the seven Asset Classes matched or exceeded their benchmarks, net of fees, in the quarter. Private Equity and Hedge Funds were the top relative performers, beating their custom benchmarks by 781 and 141 basis points, respectively, for the quarter.
- Relative Underperformers – Real Estate was the primary detractor in the fourth quarter, trailing its custom index by 99 basis points. Total Equity and Non-Core Fixed also modestly underperformed their benchmarks for the quarter.

The Investment Policy Statement performance expectations for each Asset Class performance is to meet or exceed their respective benchmarks over rolling five-year periods. As shown below, five of the seven asset classes outperformed their respective benchmarks for the 5-year period. Total Equity trailed its custom benchmark by 58 basis points and Other Public & Private Markets trailed its custom benchmark by 4 basis points.

TMRS Composite Objectives - Policy Benchmarks				
Objective:	Meet or exceed its policy benchmark performance net of fees over rolling five year periods.			
TMRS Composites	Benchmark	5 Year Composite Return	5 Year Benchmark Return	Meets Objective
Total Equity	Total Equity Benchmark	13.62	14.20	No
Core Fixed Income	Bloomberg US Agg Bond Index	3.91	3.57	Yes
Non-Core Fixed Income	Non-Core Fixed Income Benchmark	5.57	5.03	Yes
Other Public & Private Markets	OPPM Benchmark	6.53	6.57	No
Real Estate	NCREIF ODCE Index	8.69	7.41	Yes
Hedge Funds	Hedge Funds Benchmark	6.25	5.31	Yes
Private Equity	Private Equity Benchmark	22.55	20.03	Yes

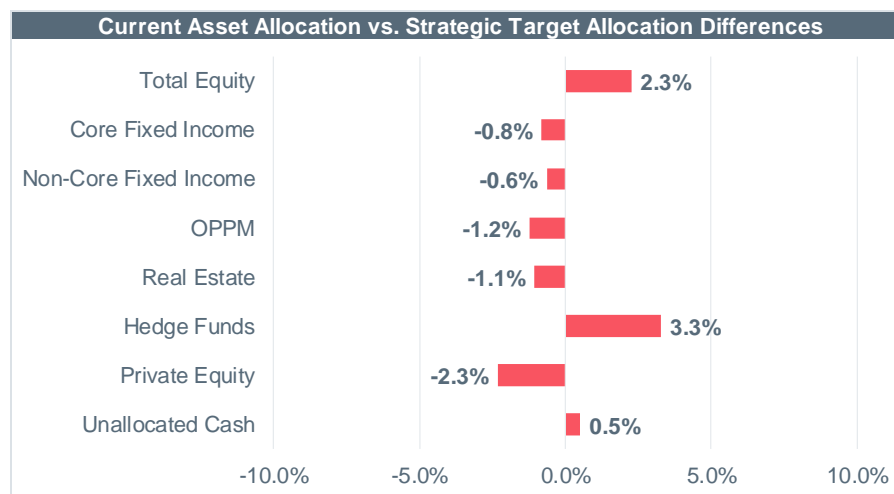
Performance shown is net of fees. Please see the Addendum for custom benchmark definitions.

Asset Allocation Relative to Target

How Is TMRS Positioned Relative to the Board's Strategic Target Allocation?

The Total Fund market value was \$37.8 billion as of December 31, 2021, an increase of nearly \$4.1 billion over the calendar year. All asset classes were within their respective Strategic Target Asset Allocation ranges as of quarter-end.

Current Asset Allocation vs. Strategic Target Allocation					
	Market Value (\$)	Current (%)	Target (%)	Minimum Allocation (%)	Maximum Allocation (%)
Total Fund	37,778,876,154	100.0	100.0	-	-
Total Equity	14,075,362,947	37.3	35.0	25.0	45.0
Core Fixed Income	1,956,298,610	5.2	6.0	1.0	11.0
Non-Core Fixed Income	7,315,060,266	19.4	20.0	15.0	25.0
OPPM	4,072,765,847	10.8	12.0	7.0	17.0
Real Estate	4,136,177,750	11.0	12.0	7.0	17.0
Hedge Funds	3,127,664,474	8.3	5.0	0.0	10.0
Private Equity	2,900,381,457	7.7	10.0	5.0	15.0
Unallocated Cash	195,164,802	0.5	0.0	0.0	3.0



Asset Class Performance

	Allocation		Performance (%)									
	Market Value (\$)	%	Quarter	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	15 Years	Since Incep.	Inception Date
Total Fund	37,778,876,154	100.00	3.71	12.80	12.80	11.43	8.94	7.36	7.69	6.96	8.54	01/01/1989
Actual Allocation Benchmark			3.18	12.19	12.19	11.24	8.71	7.11	7.46	6.73	8.01	
Difference			0.53	0.61	0.61	0.19	0.23	0.25	0.23	0.23	0.53	
Total Equity	14,075,362,947	37.26	5.83	17.68	17.68	19.41	13.62	10.73	12.10	N/A	7.64	02/01/2008
Total Equity Benchmark			6.10	18.22	18.22	20.20	14.20	11.15	12.35	N/A	7.79	
Difference			-0.27	-0.54	-0.54	-0.79	-0.58	-0.42	-0.25	N/A	-0.15	
Core Fixed Income	1,956,298,610	5.18	0.06	-1.38	-1.38	5.27	3.91	3.31	3.15	4.13	7.22	01/01/1989
Fixed Income Benchmark			0.01	-1.55	-1.55	4.79	3.57	3.00	2.90	3.89	6.70	
Difference			0.05	0.17	0.17	0.48	0.34	0.31	0.25	0.24	0.52	
Non-Core Fixed Income	7,315,060,266	19.36	-0.20	6.28	6.28	6.02	5.57	4.82	N/A	N/A	4.75	10/01/2014
Non-Core Fixed Income Benchmark			0.08	6.42	6.42	5.63	5.03	4.20	N/A	N/A	4.16	
Difference			-0.28	-0.14	-0.14	0.39	0.54	0.62	N/A	N/A	0.59	
OPPM	4,072,765,847	10.78	4.33	13.29	13.29	9.67	6.53	4.76	4.35	N/A	4.61	02/01/2011
OPPM Benchmark			3.30	13.72	13.72	9.25	6.57	4.98	4.06	4.76	4.62	
Difference			1.03	-0.43	-0.43	0.42	-0.04	-0.22	0.29	N/A	-0.01	
Real Estate	4,136,177,750	10.95	5.42	16.07	16.07	7.45	8.69	9.81	10.20	N/A	10.20	01/01/2012
Real Estate Benchmark			6.41	14.14	14.14	6.91	7.41	8.83	9.87	6.48	9.87	
Difference			-0.99	1.93	1.93	0.54	1.28	0.98	0.33	N/A	0.33	
Hedge Funds	3,127,664,474	8.28	0.72	4.43	4.43	6.09	6.25	4.95	N/A	N/A	4.77	08/01/2014
Hedge Funds Benchmark			-0.69	7.52	7.52	6.88	5.31	3.68	4.22	2.74	3.63	
Difference			1.41	-3.09	-3.09	-0.79	0.94	1.27	N/A	N/A	1.14	
Private Equity	2,900,381,457	7.68	6.70	46.31	46.31	25.07	22.55	N/A	N/A	N/A	18.63	01/01/2016
Private Equity Benchmark			-1.11	31.88	31.88	20.81	20.03	N/A	N/A	N/A	16.60	
Difference			7.81	14.43	14.43	4.26	2.52	N/A	N/A	N/A	2.03	
TMRS Unallocated Cash	195,164,802	0.52	0.00	0.05	0.05	0.91	1.02	0.93	0.69	N/A	0.60	06/01/2008
FTSE 30 Day T-Bill Index			0.02	0.04	0.04	0.89	1.06	0.79	0.56	0.78	0.47	
Difference			-0.02	0.01	0.01	0.02	-0.04	0.14	0.13	N/A	0.13	

Performance shown is net of fees. Please see the Addendum for custom benchmark definitions.

Addendum

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:

- Total Equity Benchmark
- Fixed Income Benchmark
- Non-Core Fixed Income Benchmark
- OPPM Benchmark
- Real Estate Benchmark
- Hedge Funds Benchmark
- Private Equity Benchmark
- FTSE 30 Day T-Bill Index

The **Strategic Target Allocation Index** represents asset allocation targets adopted historically and currently consists of the following:

- 35.0% Total Equity Benchmark
- 6.0% Fixed Income Benchmark
- 20.0% Non-Core Fixed Income Benchmark
- 12.0% OPPM Benchmark
- 12.0% Real Estate Benchmark
- 5.0% Hedge Funds Benchmark
- 10.0% Private Equity Benchmark

Asset Class Composite Benchmarks:

The **Total 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 through 12/31/2018; and MSCI ACW 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 through 6/30/2021, and the Bloomberg US Agg Bond Index + 1.5% on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis.

The **OPPM Benchmark** is calculated monthly using beginning of the month sub-asset class weights within the OPPM Composite applied to each sub-asset class primary benchmark return through 6/30/2021, and the MSCI ACW IM Index (USD) (Net) on an unlagged, month lagged, or quarter lagged basis in proportion of the managers in the composite on an unlagged, month lagged, or quarter lagged basis.

The **Real Estate Benchmark** is the NCREIF ODCE Index (Gross), one quarter lag through 06/30/2021, and NCREIF ODCE Index (Net), one quarter lag thereafter.

The **Hedge Funds Benchmark** is calculated monthly and consists of the HFRI FOF: Dvf'd Index (1 Mo Lag) through 6/30/2021, and HFRI Asset Weighted Composite Index (1 Mo Lag) thereafter.

The **Private Equity Benchmark** is set equal to the Composite return through 6/30/2021, and MSCI ACW IM Index (USD) (Net), one quarter lag thereafter.

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