

## **Total Fund Performance**

#### **How Did TMRS Perform Relative to Investment Policy Benchmarks?**

	Performance (%)								
	QTD	CYTD	1	3	5	7	10		
			Year	Years	Years	Years	Years		
Total Fund	-5.83	-7.46	-2.95	5.51	5.86	5.90	6.42		
Actual Allocation Benchmark	-7.68	-9.03	-5.30	4.82	5.33	5.41	6.04		
Difference	1.85	1.57	2.35	0.69	0.53	0.49	0.38		

The Total Fund returned -5.83% net of fees in the second quarter and -2.95% over the trailing 12 months.

- Second Quarter TMRS outperformed the Actual Allocation Benchmark (-7.68%) by 185 basis points.
  - Outperformance for the quarter was driven primarily by Private Equity and OPPM, which outperformed their custom benchmarks by 971 and 425 basis points, respectively.
- Trailing year TMRS outperformed the Actual Allocation Benchmark (-5.30%) by 235 basis points.
  - Private Equity and Non-Core Fixed Income drove relative performance over the trailing 12-months
    as the asset classes outpaced their custom benchmarks by 2545 and 531 basis points,
    respectively.
  - Hedge Funds and Total Equity detracted from relative performance as they trailed their custom benchmarks by 459 and 66 basis points, respectively.

The Total Fund outperformed the Actual Allocation Benchmark net of fees for all periods as of June 30, 2022.

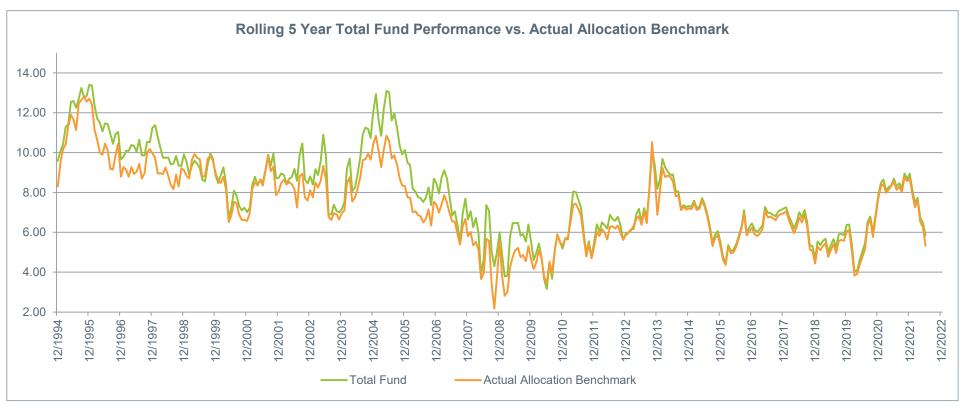


## **Total Fund Performance**

### **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 53 basis points, net of fees.
- The chart below shows that TMRS has beaten the five-year rolling performance expectation 93% of time since 1994, and 97% over the last ten years.



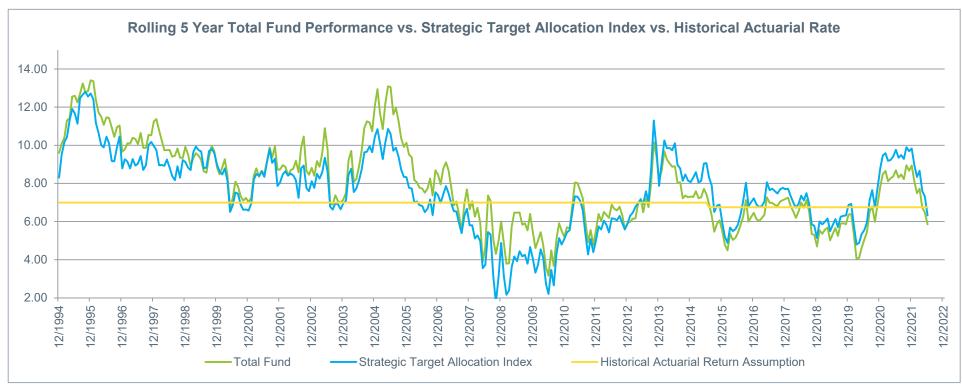


## **Total Fund Performance**

### **How Did TMRS Perform Relative to Investment Policy Benchmarks?**

TMRS trailed the Board's Assumed Long-Term Rate of Return of 6.75% for the five-year period as of June 30, 2022.

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 6.32%.





## **Asset Class Performance**

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

TMRS' Asset Class relative performance was mixed for the second quarter of 2022.

- Relative Outperformers Four of the seven Asset Classes matched or exceeded their benchmarks, net
  of fees, in the quarter. Private Equity and OPPM were the top relative performers, beating their custom
  benchmarks by 971 and 425 basis points, respectively.
- Relative Underperformers Hedge Funds and Core Fixed Income were the primary detractors in the second quarter, trailing their custom indices by 329 and 10 basis points, respectively. Total Equity also trailed its primary benchmark by 2 basis points.

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 70 basis points and Hedge Funds trailed its custom benchmark by 87 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	6.12	6.82	No					
Core Fixed Income	Bloomberg US Agg Bond Index	1.17	0.88	Yes					
Non-Core Fixed Income	Non-Core Fixed Income Benchmark	4.25	2.71	Yes					
Other Public & Private Markets	OPPM Benchmark	3.91	3.13	Yes					
Real Estate	NCREIF ODCE Index	10.65	9.68	Yes					
Hedge Funds	Hedge Funds Benchmark	4.55	5.42	No					
Private Equity	Private Equity Benchmark	23.96	18.75	Yes					



# **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	34,796,385,530	100.00	-5.83	-7.46	-2.95	5.51	5.86	5.90	6.42	6.57	8.15	01/01/1989
Actual Allocation Benchmark	04,730,000,000	100.00	-7.68	-9.03	-5.30	4.82	5.33	5.41	6.04	6.12	7.59	01/01/1303
Difference			1.85	1.57	2.35	0.69	0.53	0.49	0.38	0.45	0.56	
Difference			1.00	1.07	2.55	0.08	0.55	0.48	0.50	0.40	0.50	
Total Equity	11,411,970,075	32.80	-15.85	-20.99	-17.18	4.93	6.12	6.62	8.83	N/A	5.63	02/01/2008
Total Equity Benchmark			-15.83	-20.44	-16.52	5.98	6.82	7.13	9.16	N/A	5.82	
Difference			-0.02	-0.55	-0.66	-1.05	-0.70	-0.51	-0.33	N/A	-0.19	
Core Fixed Income	1,752,376,776	5.04	-4.79	-10.42	-10.35	-0.62	1.17	1.66	1.74	3.52	6.76	01/01/1989
Fixed Income Benchmark			-4.69	-10.35	-10.29	-0.94	0.88	1.42	1.54	3.20	6.25	
Difference			-0.10	-0.07	-0.06	0.32	0.29	0.24	0.20	0.32	0.51	
Non-Core Fixed Income	7,162,836,322	20.59	-2.12	-2.04	-0.71	3.77	4.25	4.20	N/A	N/A	4.16	10/01/2014
Non-Core Fixed Income Benchmark			-5.29	-7.69	-6.02	1.56	2.71	2.76	N/A	N/A	2.82	
Difference			3.17	5.65	5.31	2.21	1.54	1.44	N/A	N/A	1.34	
ОРРМ	3,837,928,213	11.03	-6.65	-8.57	-4.82	3.49	3.91	3.66	3.10	N/A	3.59	02/01/2011
OPPM Benchmark			-10.90	-11.36	-6.58	2.16	3.13	3.36	2.55	3.87	3.32	
Difference			4.25	2.79	1.76	1.33	0.78	0.30	0.55	N/A	0.27	
Real Estate	4,348,913,851	12.50	8.57	14.49	26.83	11.09	10.65	11.37	11.38	N/A	11.11	01/01/2012
Real Estate Benchmark			7.14	15.34	27.26	10.96	9.68	10.02	10.82	6.93	10.88	
Difference			1.43	-0.85	-0.43	0.13	0.97	1.35	0.56	N/A	0.23	
Hedge Funds	2,720,124,623	7.82	-0.42	-1.98	-0.72	4.30	4.55	4.29	N/A	N/A	4.20	08/01/2014
Hedge Funds Benchmark			2.87	4.22	3.87	7.32	5.42	3.74	4.54	2.42	3.94	
Difference			-3.29	-6.20	-4.59	-3.02	-0.87	0.55	N/A	N/A	0.26	
Private Equity	3,404,212,222	9.78	4.24	12.05	31.75	27.19	23.96	N/A	N/A	N/A	19.15	01/01/2016
Private Equity Benchmark			-5.47	0.30	6.30	18.41	18.75	N/A	N/A	N/A	15.28	
Difference			9.71	11.75	25.45	8.78	5.21	N/A	N/A	N/A	3.87	
TMRS Unallocated Cash	158,023,448	0.45	0.26	0.29	0.29	0.60	1.04	0.95	0.72	N/A	0.60	06/01/2008
FTSE 30 Day T-Bill Index			0.10	0.12	0.15	0.53	1.02	0.81	0.57	0.62	0.46	
Difference			0.16	0.17	0.14	0.07	0.02	0.14	0.15	N/A	0.14	

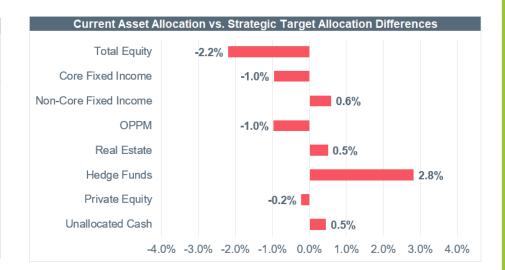


# **Asset Allocation Relative to Target**

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

The Total Fund market value was \$34.8 billion as of June 30, 2022, a decrease of approximately \$220 million for the quarter. 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	34,796,385,530	100.0	100.0	-	-				
Total Equity	11,411,970,075	32.8	35.0	25.0	45.0				
Core Fixed Income	1,752,376,776	5.0	6.0	1.0	11.0				
Non-Core Fixed Income	7,162,836,322	20.6	20.0	15.0	25.0				
OPPM	3,837,928,213	11.0	12.0	7.0	17.0				
Real Estate	4,348,913,851	12.5	12.0	7.0	17.0				
Hedge Funds	2,720,124,623	7.8	5.0	0.0	10.0				
Private Equity	3,404,212,222	9.8	10.0	5.0	15.0				
Unallocated Cash	158,023,448	0.5	0.0	0.0	3.0				





### **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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