Investment Report

State Employee Retirees Association

February **5, 2025**



Robert L. Brackenbury, Deputy CIO
Bureau of Investments
Michigan Department of Treasury

Bureau of Investments

Ending Market Value Report All Major Funds

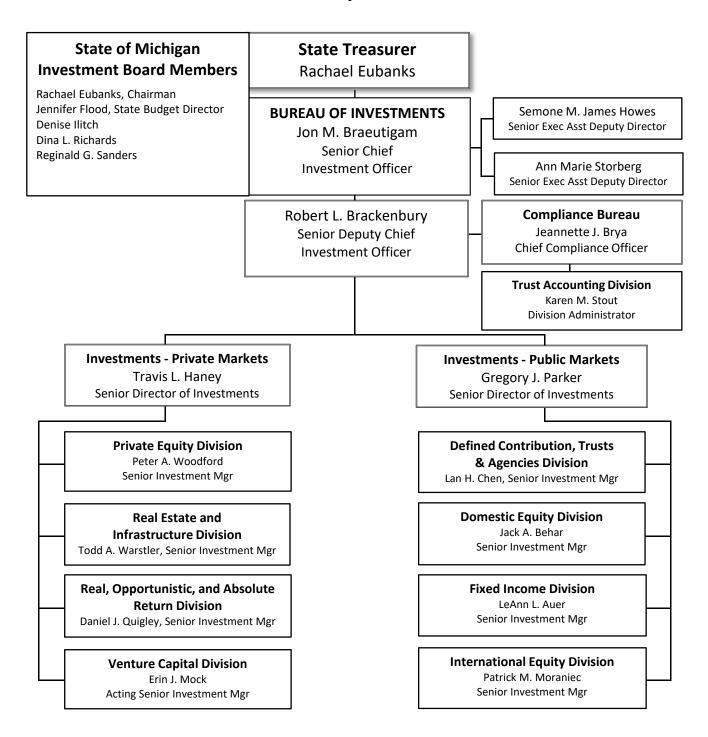
As of December 31, 2024

STATE OF MICHIGAN ADMINISTERED DB RETIREMENT PLANS							
	12/31/2023	12/31/2024					
Public School Employees' Ret. System	\$78,733,668,755	\$86,393,387,301					
State Employees' Retirement System	19,524,868,754	20,861,259,420					
State Police Retirement System	2,342,475,280	2,523,365,738					
Judges' Retirement System	280,307,674	283,173,549					
Military Pension Fund	65,646,081	69,125,188					
SUBTOTAL FOR DB PLANS	\$100,946,966,545	\$110,130,311,197					
STATE OF MICHIGAN ADMINISTERED DC RETIREMENT PLANS							
401(k) Plan	\$9,356,167,585	\$10,641,790,504					
457 Plan	1,897,023,235	1,994,186,024					
401(k) / 457 Plans - MPSERS Pension Plus	2,761,189,706	3,617,638,193					
SUBTOTAL FOR DC PLANS	\$14,014,380,525	\$16,253,614,722					
TOTAL RETIREMENT RELATED	\$114,961,347,070	\$126,383,925,919					
OTHER MAJOR F		¥ 120,000,020,0					
Health and Human Services							
Children's Trust	\$27,202,419	\$28,394,028					
Lottery	ΨΕΙ,ΣΟΣ,ΨΙΟ	Ψ20,004,020					
State Lottery	246,117,795	154,615,511					
Military & Veterans Affairs	_ 10,111,100	10 1,0 10,0 1 1					
Veterans' Trust	70,507,452	74,773,525					
Natural Resources	,,,,,	, -,-					
Game and Fish Lifetime License Trust	26,705,757	29,228,237					
Game and Fish Protection Trust	272,151,780	287,813,209					
Natural Resources Trust	767,988,362	821,014,230					
Nongame Fish and Wildlife Trust	11,447,419	12,138,757					
State Parks Endowment	419,274,078	456,765,463					
Multiple Agencies							
Gifts, Bequests, and Deposits Fund	219,644	233,055					
Children With Special Needs	24,579,034	26,163,851					
<u>Transportation</u>							
Mackinac Bridge Authority	144,562,859	154,284,269					
<u>Treasury</u>							
MESP 529 Plan	7,669,726,788	8,468,901,577					
MI 529 Advisor Plan	1,105,379,011	1,263,243,777					
METI	97,206,863	100,480,529					
MET II	970,619,422	1,012,288,945					
Fostering Futures Trust Fund	3,816,812	4,673,009					
SUBTOTAL FOR TRUST AND AGENCY FUNDS	\$11,857,505,496	\$12,895,011,973					
<u>COMMON CASH</u>							
State Treasurer's Common Cash	28,805,871,014	25,663,351,321					
TOTAL UNDER MANAGEMENT	\$155,624,723,579	\$164,942,289,212					

NOTE: Military Pension Fund is included in MSERS total on the month-end SMRS Profile report.

Bureau of Investments

January 1, 2025



- 73 BOI staff (51 investment professionals; 22 Compliance, Trust Accounting, and support staff)
- 59% of BOI investment staff have advanced degrees and/or a professional designation

Plan Membership Summary

As of September 30, 2024

MEMBER TYPE	MSERS
Retirees & Benef. Receiving Benefits	58,928
Current Employees Vested	3,460
Current Employees Non-Vested	9
Inactive Entitled Employees Not Yet Receiving Benefits	1,419
Total MSERS Members	63,816

Source: Pension Plans Component Unit Financial Reports Fiscal Year Ended September 30, 2024 - draft version

MSERS Funded Ratio *\$14.3 Billion as of 12/31/2024

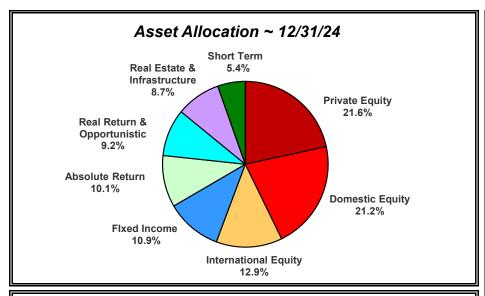
FY Ending September	Market Value of Assets	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Ratio Actuarial Value
* 2023	\$13,344	\$13,600	\$18,995	71.6%
2022	\$13,065	\$13,617	\$19,568	69.6%
* 2021	\$14,482	\$13,690	\$19,799	69.1%
2020	\$12,028	\$12,296	\$18,743	65.6%
2019	\$12,228	\$12,374	\$18,921	65.4%
2018	\$12,398	\$12,494	\$18,995	65.8%
2017	\$11,807	\$11,884	\$17,881	66.5%
1983	\$1,842	\$1,752	\$2,369	74.0%

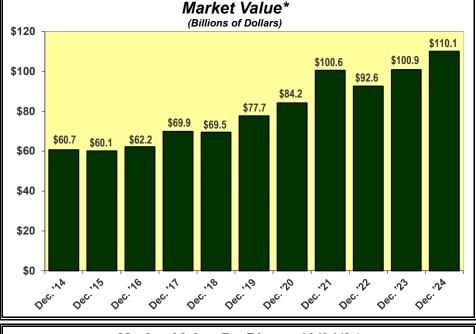
(\$ in Millions) Pension Plan Only

Source: SMRS Component Unit Comprehensive Annual Financial Reports and Annual Actuarial Valuation Reports, years ending in September

^{*} Revised actuarial assumptions and/or methods.

STATE OF MICHIGAN RETIREMENT SYSTEM **PROFILE - DECEMBER 2024**





Asset Allocation By Market Value
(In Millions)

Investment Strategies	12/31/2	12/31/2024		12/31/2023		
Private Equity	\$23,807	21.6%	\$22,622	22.4%		
Domestic Equity	23,346	21.2%	19,730	19.5%		
International Equity	14,196	12.9%	13,708	13.6%		
Fixed Income	11,971	10.9%	9,149	9.1%		
Absolute Return	11,113	10.1%	10,213	10.1%		
Real Return & Opportunistic	10,098	9.2%	10,551	10.5%		
Real Estate & Infrastructure	9,631	8.7%	9,890	9.8%		
Short Term	5,968	5.4%	5,084	5.0%		
TOTAL	\$110,130	100.0%	\$100,947	100.0%		

	Market Value	e By Plan ~ (in Millions)	12/31/24	
	%			
MPSERS	\$72,181	\$14,213	\$86,394	78.4%
MSERS - (closed)	14,360	6,570	20,930	19.0%
MSPRS	2,049	474	2,523	2.3%
MJRS - (closed)	269	14	283	0.3%
TOTAL	\$88,859	\$21,271	\$110,130	100.0%
MSERS includes the Military	Pension Fund			

Short Term Equivalents (in Billions)

\$6.0 **Short Term Strategy** Short Term in Other Inv. Strategies **TOTAL SHORT TERM** \$7.6

6.9% of Total Funds

12th Largest State Public Retirement System in the U.S.

Pensions & Investments survey - February 12, 2024 issue

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^{*}The combined net payout for the plans for FY 2022 was \$1.2 billion with \$25.6 billion paid out FY 2010 thru FY 2022 (Pension ACFRs). This represents the amount paid to beneficiaries in excess of employer and employee contributions.

^{**}OPEB - Other Post Employment Benefits

MSERS Asset Allocation

As of December 31, 2024

Asset Allocation By Market Value

(In Millions)

				Target Allocation		
Investment Strategies	12/31/2024		Target	Ran	ge	
Domestic Equity	\$	4,617	22.1%	21.0%	13% -	27%
Private Equity		4,518	21.7%	16.0%	13% -	27%
International Equity		2,750	13.2%	14.0%	10% -	20%
Absolute Return		2,110	10.1%	13.0%	7% -	18%
Fixed Income		2,055	9.8%	15.0%	10% -	20%
Real Return & Opportunistic		1,916	9.2%	9.0%	5% -	15%
Real Estate & Infrastructure		1,828	8.8%	8.0%	5% -	15%
Short Term		1,067	5.1%	4.0%	1% -	8%
TOTAL		\$20,861	100%	100%		

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MSERS Time-Weighted Rates of Return

As of September 30, 2024

Asset Class w/Benchmark	One Year* Rate	Three Years*	Five Years* Rate	Seven Years* Rate	Ten Years* Rate
Total Plan	16.0%	6.4%	10.2%	9.7%	9.1%
Median - Greater than \$10 Billion**	18.2%	-3.9%	0.0%	8.3%	8.0%
Domestic Equities	40.5%	10.8%	14.9%	13.9%	12.8%
S&P 1500 Index	35.5%	11.5%	15.6%	14.1%	13.1%
International Equities	26.5%	3.7%	8.3%	6.0%	6.2%
International Equities Median**	25.1%	4.3%	8.6%	6.3%	6.0%
Fixed Income	13.5%	0.9%	2.0%	3.0%	3.4%
Bloomberg US Agg Index	11.6%	-1.4%	0.3%	1.5%	1.8%
Private Equity and Venture Capital	5.2%	4.7%	13.7%	14.2%	13.0%
PE and VC Blended Benchmark***	28.2%	13.3%	18.5%	17.7%	16.2%
Real Estate	0.4%	9.6%	6.8%	7.7%	8.5%
NCREIF - Property Blended Index***	-4.7%	-0.4%	1.9%	2.9%	4.5%
Infrastructure	6.7%	11.9%	9.6%	10.3%	9.7%
CPI + 4% Lagged 3m	7.1%	9.1%	8.3%	7.8%	6.9%
Absolute Return	12.2%	8.2%	8.6%	7.5%	6.1%
HFRI FOF Cons 1 month lagged	6.6%	3.7%	5.1%	4.4%	3.6%
Real Return and Opportunistic	8.6%	8.3%	11.1%	11.5%	10.5%
50% CPI+4% and 50% actuarial rate 6%	6.8%	8.0%	7.7%	7.5%	7.4%
Cash Equivalents	5.7%	3.7%	2.5%	2.5%	1.9%
30-Day T-Bill	5.6%	3.6%	2.3%	2.2%	1.6%

 ^{*} Annualized Return

^{**} Comparison universe is the State Street Universe comprised of Public Funds greater than \$10 Billion on the total plan level and greater than \$1 Billion for asset classes.

^{***} Inception to present: S&P500 + 300 BP with a 3 month lag

SMRS by Asset Class

12/31/2024

Domestic Equity
\$23.3 Billion in Managed Funds
19 Strategies
Approximately 1,200 Stocks

Real Estate and Infrastructure \$9.6 Billion in Managed Funds 47 Advisors 121 Accounts

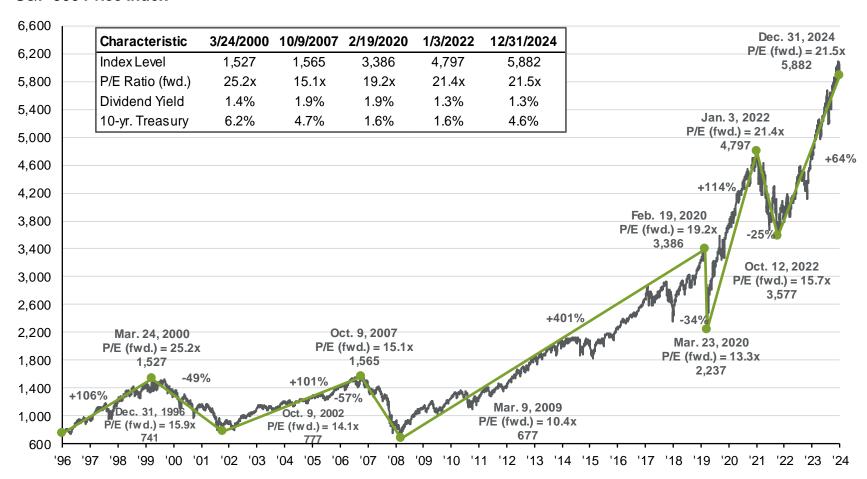
Absolute Return \$11.2 Billion in Managed Funds 7 Strategies 29 Managers Real and Opportunistic Return \$10.1 Billion in Managed Funds 6 Strategies 18 Managers

Fixed Income \$11.9 Billion in Managed Funds 5 Strategies 10 Managers Short Term Investments \$7.1 Billion in Managed Funds 2 Strategies 2 Managers

International Equity \$14.2 Billion in Managed Funds 18 Strategies Representing 2,495 Stocks Trust Accounting
Approximately 15,000 Trades Annually
\$139 Billion in 100 Funds

Private Equity
\$23.8 Billion in Managed Funds
60 Sponsors
312 Partnerships
3,752 Companies

S&P 500 Price Index



Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat.
Forward price-to-earnings ratio is a bottom-up calculation based on IBES estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.

J.P.Morgan
ASSET MANAGEMENT

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SMRS Defined Contribution Strategies

9/30/24

Markets	Amo	unt	% of Total	Fee per \$1,000
QDIA	(\$ in Millions)			
	9/30/24	9/30/23		
Total Target Date Fund	\$5,736	\$4,048	35.6%	\$0.55
Tier I Index Funds				
State Street S&P 500 Index Fund	\$2,484	\$1,845		\$0.08
State Street Bond Market Index Fund	1,301	1,068		0.15
State Street Global All Cap Equity ex-U.S. Index Fund	1,136	841		0.40
State Street S&P Mid Cap Index Fund	902	731		0.15
BlackRock Government Short-Term Investment CL F	310	279		0.55
BlackRock S&P Small Cap 600 Equity Index CL F	185	159		0.23
BlackRock Emerging Markets Index CL F	123	103		0.70
Total Tier I Index	\$6,440	\$5,026	40.0%	\$0.16
Tier II Active Funds			1	
Stable Value Fund	\$1,101	\$1,184		\$2.17
Dodge & Cox Stock Fund	760	645		4.10
Jennison Large Cap Growth Fund	665	481		2.75
American Funds EuroPacific Growth R6	264	236		4.70
T. Rowe Price Mid-Cap Value Fund	189	146		5.11
Voya Small Cap Growth Equity Fund	169	126		3.33
Artisan Mid Cap Fund	134	128		6.85
PIMCO Total Return I Fund	113	97		5.10
Virtus Ceredex Small-Cap Value Eq I	79	70		4.90
Prudential High Yield Fund	49	42		3.60
Total Tier II Active	\$3,521	\$3,153	21.8%	\$3.03
Tier III				
Total Self Directed Brokerage Account	\$417	\$272	2.6%	NA
Total Defined Contribution Assets	\$16,114	\$12,500	100.0%	\$0.86

^{*}Loan Fund \$191M as of 9/30/24

NOTE: Totals may not be exact due to rounding.