

Investment Report

State Employee Retirees

Association

February **7, 2024**



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Bureau of Investments
Michigan Department of Treasury

Bureau of Investments
Ending Market Value Report
All Major Funds
As of December 31, 2023

STATE OF MICHIGAN ADMINISTERED DB RETIREMENT PLANS

	12/31/2022	12/31/2023
Public School Employees' Ret. System	\$71,718,203,849	\$78,733,668,755
State Employees' Retirement System	18,446,528,436	19,524,868,754
State Police Retirement System	2,103,958,799	2,342,475,280
Judges' Retirement System	279,432,387	280,307,674
Military Pension Fund	62,845,411	65,646,081
SUBTOTAL FOR DB PLANS	\$92,610,968,883	\$100,946,966,545

STATE OF MICHIGAN ADMINISTERED DC RETIREMENT PLANS

401(k) Plan	\$7,868,650,270	\$9,356,167,585
457 Plan	1,746,015,831	1,897,023,235
401(k) / 457 Plans - MPSERS Pension Plus	1,935,532,310	2,761,189,706
SUBTOTAL FOR DC PLANS	\$11,550,198,411	\$14,014,380,525

TOTAL RETIREMENT RELATED	\$104,161,167,294	\$114,961,347,070
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OTHER MAJOR FUNDS

Health and Human Services

Children's Trust	\$26,045,313	\$27,202,419
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Lottery

State Lottery	314,102,597	246,117,795
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Military & Veterans Affairs

Veterans' Trust	66,068,801	70,507,452
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Natural Resources

Game and Fish Lifetime License Trust	25,155,344	26,705,757
Game and Fish Protection Trust	253,821,691	272,151,780
Natural Resources Trust	730,765,041	767,988,362
Nongame Fish and Wildlife Trust	10,547,432	11,447,419
State Parks Endowment	379,948,240	419,274,078

Multiple Agencies

Gifts, Bequests, and Deposits Fund	208,488	219,644
Children With Special Needs	22,771,985	24,579,034

Transportation

Mackinac Bridge Authority	132,462,392	144,562,859
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Treasury

MESP 529 Plan	6,784,677,293	7,669,726,788
MI 529 Advisor Plan	940,035,219	1,105,379,011
MET I	83,584,138	97,206,863
MET II	923,694,073	970,619,422
Fostering Futures Trust Fund	1,958,101	3,816,812

SUBTOTAL FOR TRUST AND AGENCY FUNDS	\$10,695,846,149	\$11,857,505,496
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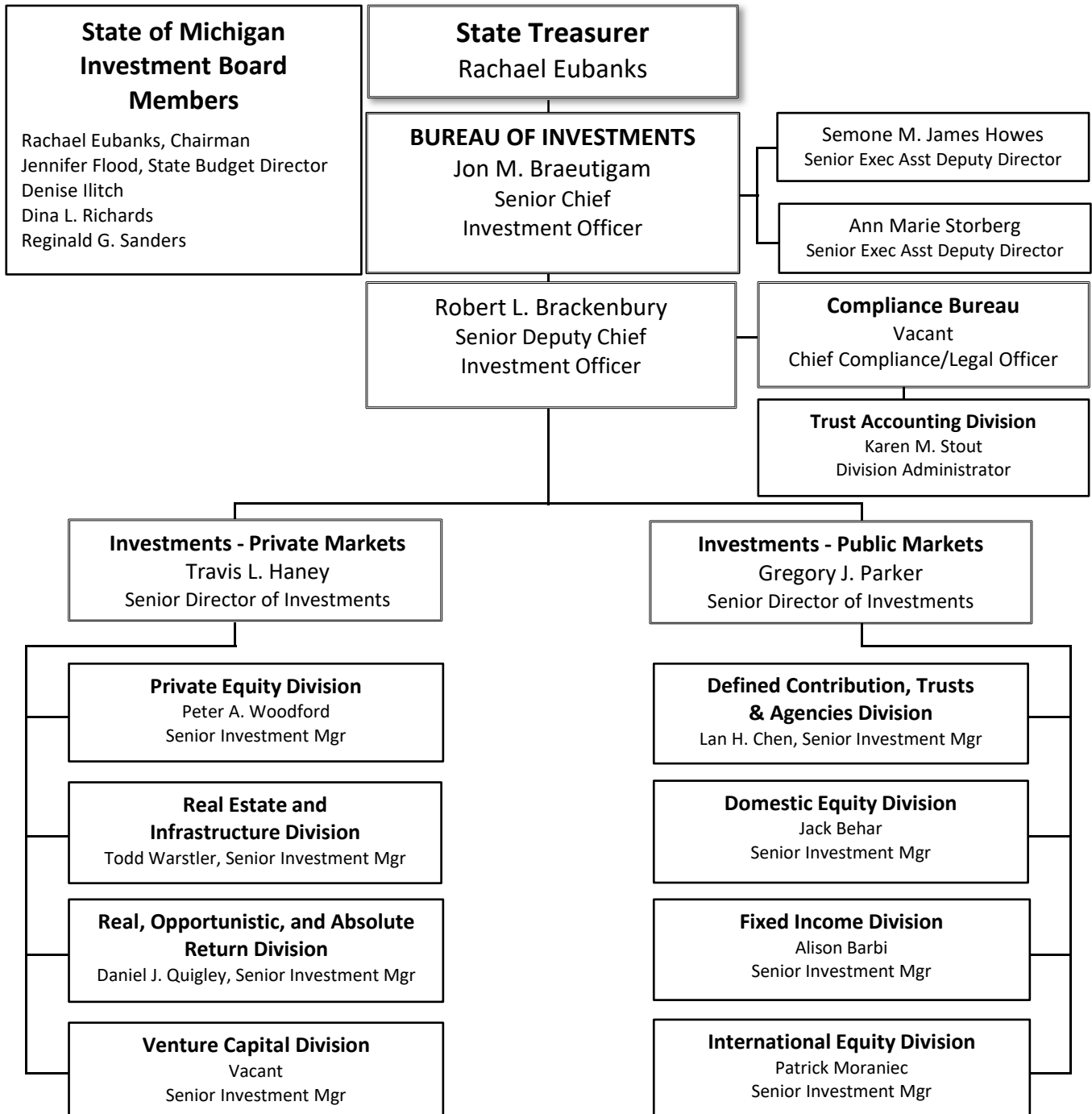
COMMON CASH

State Treasurer's Common Cash	\$29,056,431,706	\$28,805,871,014
TOTAL UNDER MANAGEMENT	\$143,913,445,148	\$155,624,723,579

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

Bureau of Investments

January 1, 2024



- 75 BOI staff (50 investment professionals; 25 Compliance, Trust Accounting, and support staff)
- 60% of BOI investment staff have advanced degrees and/or a professional designation

Plan Membership Summary

As of September 30, 2023

MEMBER TYPE	MSERS
Retirees & Benef. Receiving Benefits	59,614
Current Employees Vested	4,046
Current Employees Non-Vested	12
Inactive Entitled Employees Not Yet Receiving Benefits	1,625
Total MSERS Members	65,297

Source: Pension Plans Component Unit Financial Reports Fiscal Year Ended September 30, 2023 - draft version

MSERS Funded Ratio

\$19.6 Billion as of 12/31/2023

FY Ending September	Market Value of Assets	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Ratio Actuarial Value
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%
2016	\$10,980	\$10,937	\$17,016	64.3%
1983	\$1,842	\$1,752	\$2,369	74.0%

(\$ in Millions)

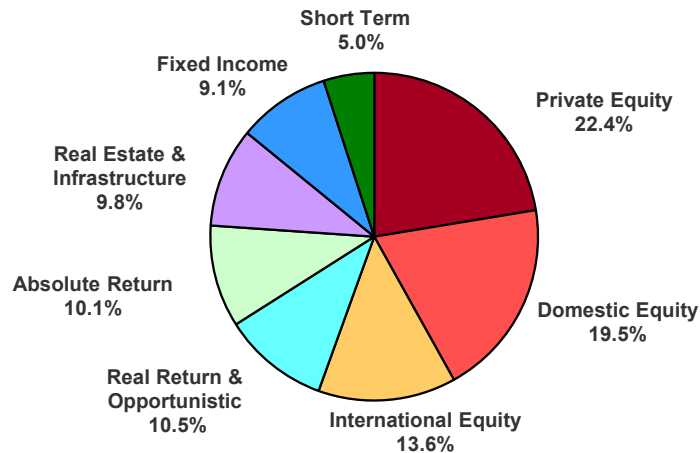
Pension Plan Only

* Revised actuarial assumptions and/or methods.

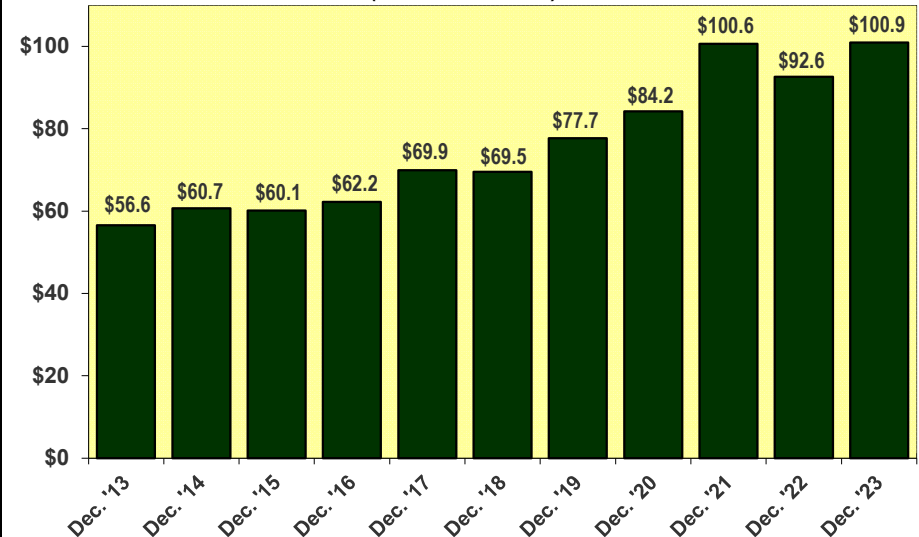
Source: SMRS Component Unit Comprehensive Annual Financial Reports and Annual Actuarial Valuation Reports, years ending in September

STATE OF MICHIGAN RETIREMENT SYSTEM PROFILE - DECEMBER 2023

Asset Allocation ~ 12/31/23



Market Value*
(Billions of Dollars)



Asset Allocation By Market Value
(In Millions)

Investment Strategies	12/31/2023		12/31/2022	
Private Equity	\$22,622	22.4%	\$22,383	24.2%
Domestic Equity	19,730	19.5%	17,200	18.6%
International Equity	13,708	13.6%	12,622	13.6%
Real Return & Opportunistic	10,551	10.5%	11,138	12.0%
Absolute Return	10,213	10.1%	9,339	10.1%
Real Estate & Infrastructure	9,890	9.8%	10,028	10.8%
Fixed Income	9,149	9.1%	8,534	9.2%
Short Term	5,084	5.0%	1,367	1.5%
TOTAL	\$100,947	100.0%	\$92,611	100.0%

Market Value By Plan ~ 12/31/23
(in Millions)

	Pension Plan Mkt. Value	OPEB** Mkt. Value	Combined Mkt. Value	%
MPERS	\$66,258	\$12,476	\$78,734	78.0%
MSERS - (closed)	13,715	5,875	19,590	19.4%
MSPRS	1,918	424	2,342	2.3%
MJRS - (closed)	268	13	281	0.3%
TOTAL	\$82,159	\$18,788	\$100,947	100.0%

MSERS includes the Military Pension Fund

Short Term Equivalents (in Billions)

Short Term Strategy	\$5.1	
Short Term in Other Inv. Strategies	0.8	
TOTAL SHORT TERM	\$5.9	5.8% of Total Funds

13th Largest State Public Retirement System in the U.S.

Pensions & Investments survey - February 13, 2023 issue

*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, 2023

Asset Allocation By Market Value

(In Millions)

Investment Strategies	12/31/2023		Target Allocation	
			Target	Range
Private Equity	\$4,393	22.5%	16.0%	13% - 27%
Domestic Equity	3,834	19.6%	25.0%	17% - 32%
International Equity	2,664	13.6%	15.0%	12% - 22%
Absolute Return	1,985	10.2%	9.0%	5% - 11%
Real Estate & Infrastructure	1,923	9.9%	10.0%	8% - 18%
Real Estate & Infrastructure	1,923	9.9%	10.0%	8% - 18%
Fixed Income	1,779	9.1%	13.0%	8% - 18%
Short Term Return	896	4.6%	2.0%	1% - 8%
TOTAL	\$19,397	100%	100%	

MERS Time-Weighted Rates of Return

As of December 31, 2023

Asset Class w/Benchmark	One Year* Rate	Three Years* Rate	Five Years* Rate	Seven Years* Rate	Ten Years* Rate
Total Plan	9.8%	7.9%	10.0%	9.8%	9.0%
Median - Greater than \$10 Billion**					
Domestic Equities	29.0%	7.9%	14.1%	12.5%	11.2%
S&P 1500 Index	25.5%	9.8%	15.4%	13.0%	11.8%
International Equities	17.5%	1.3%	7.7%	6.9%	4.8%
International Equities Median	15.6%	1.6%	7.1%	6.3%	3.8%
Fixed Income	7.4%	-0.7%	2.5%	2.7%	3.2%
Barclays U.S. Aggregate	5.5%	-3.3%	1.1%	1.3%	1.8%
Private Equity and Venture Capital	2.3%	14.9%	14.1%	15.1%	14.3%
PE and VC Blended Benchmark***	25.2%	13.4%	13.2%	15.6%	15.2%
Real Estate	-0.1%	14.0%	8.0%	8.5%	10.0%
NCREIF NPI	-7.9%	4.6%	4.3%	5.0%	6.8%
Infrastructure****	8.0%	15.7%	9.9%	11.6%	10.7%
Absolute Return	9.9%	9.5%	7.3%	7.2%	5.6%
HFRI FOF Cons 1 month lagged	4.7%	4.8%	4.7%	4.0%	3.4%
Real Return / Opportunistic	-0.6%	9.5%	10.7%	12.1%	12.1%
50%CPI +4% and 50% actuarial rate 6%	7.3%	8.4%	7.6%	7.6%	7.4%
Cash Equivalents	5.2%	2.3%	2.1%	2.0%	1.5%
30-Day T-Bill	5.1%	2.2%	1.8%	1.7%	1.2%

* Annualized Returns

** 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

**** Infrastructure Investment benchmark is composed of US CPI + 4%, 3 month lag

SMRS by Asset Class

12/31/2023

Domestic Equity

\$19.7 Billion in Managed Funds

19 Strategies

Approximately 1,696 Stocks

Real Estate and Infrastructure

\$9.9 Billion in Managed Funds

48 Advisors

121 Accounts

Absolute Return

\$10.2 Billion in Managed Funds

7 Strategies

25 Managers

Real and Opportunistic Return

\$10.6 Billion in Managed Funds

7 Strategies

18 Managers

Fixed Income

\$9.1 Billion in Managed Funds

5 Strategies

12 Managers

Short Term Investments

\$5.1 Billion in Managed Funds

3 Strategies

2 Managers

International Equity

\$13.7 Billion in Managed Funds

18 Strategies

Representing 2,607 Stocks

Trust Accounting

Approximately 15,000 Trades Annually

\$132 Billion in 100 Funds

Private Equity

\$22.7 Billion in Managed Funds

61 Sponsors

303 Partnerships

3,684 Companies

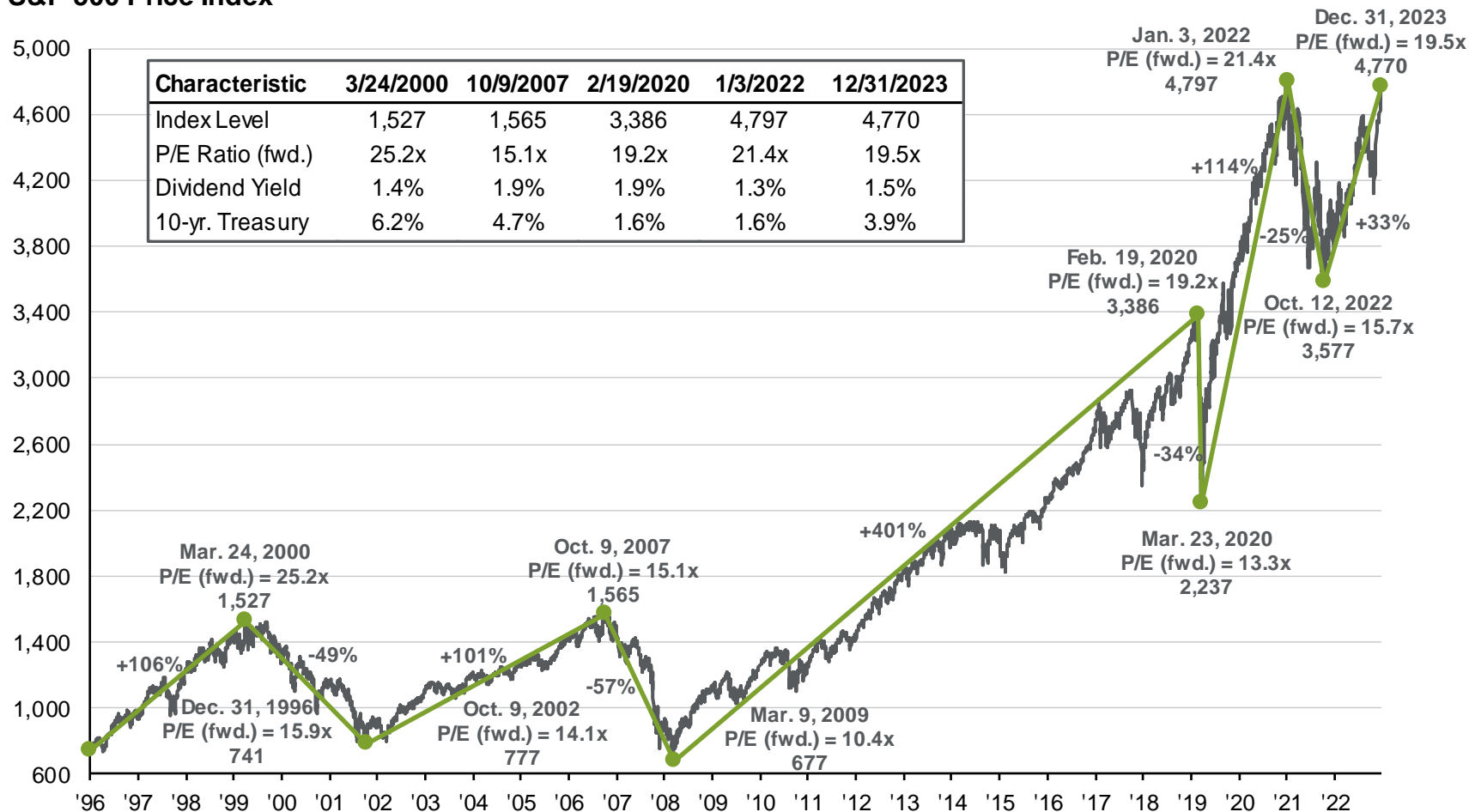


S&P 500 Index at inflection points

GTM

U.S.

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.

Guide to the Markets – U.S. Data are as of December 31, 2023.

SMRS

Defined Contribution Strategies

9/30/23

Markets	Amount		% of Total	Fee per \$1,000
QDIA (\$ in Millions)				
	9/30/23	9/30/22		
Total Target Date Fund	\$4,048	\$3,077	32.4%	\$0.55
Tier I Index Funds				
State Street S&P 500 Index Fund	\$1,845	\$1,491		\$0.13
State Street Bond Market Index Fund	1,068	983		0.20
State Street Global All Cap Equity ex-U.S. Index Fund	841	664		0.45
State Street S&P Mid Cap Index Fund	731	633		0.20
BlackRock Government Short-Term Investment CL F	279	241		0.56
BlackRock S&P Small Cap 600 Equity Index CL F	159	150		0.25
BlackRock Emerging Markets Index CL F	103	93		0.69
Total Tier I Index	\$5,026	\$4,255	40.2%	\$0.25
Tier II Active Funds				
Stable Value Fund	\$1,184	\$1,270		\$2.14
Dodge & Cox Stock Fund	645	568		4.10
Jennison Large Cap Growth Fund	481	370		2.85
American Funds EuroPacific Growth R6	236	214		4.70
T. Rowe Price Mid-Cap Value Fund	146	128		5.06
Artisan Mid Cap Fund	128	112		6.88
Voya Small Cap Growth Equity Fund	126	113		3.32
PIMCO Total Return I Fund	97	97		4.90
Virtus Ceredex Small-Cap Value Eq I	70	61		6.50
Prudential High Yield Fund	42	40		3.76
Total Tier II Active	\$3,153	\$2,974	25.2%	\$3.42
Tier III				
Total Self Directed Brokerage Account	\$272	\$232	2.2%	NA
Total Defined Contribution Assets	\$12,500	\$10,537	100.0%	\$1.14

*Loan Fund \$200M as of 9/30/23

NOTE: Totals may not be exact due to rounding.