

**CITY OF GROSSE POINTE WOODS**  
**NOTICE OF REGULAR MEETING**  
**Pension Retirement System Board of Trustees**  
**Thursday, February 6, 2025**  
**6:00 PM**

**City Hall Conference Room at 20025 Mack Plaza, Grosse Pointe Woods, MI**

**AGENDA**

1. Call to order
2. Roll call
3. Acceptance of the meeting agenda.
4. Meeting minutes dated November 7, 2024
5. Trial Balance through December 31, 2024
6. June 30, 2024 Actuarial Reports-Foster & Foster Actuaries and Consultants
  - a. Actuarial Valuation as of June 30, 2024
  - b. Actuarial Valuation as of June 30, 2024-Supplemental Annuity
  - c. Public Act 202 Valuation as of June 30, 2024
  - d. June 30, 2024 Summary Annual Report
7. Excerpt from City of Grosse Pointe Woods Annual Comprehensive Financial Report for Fiscal Year End June 30, 2024. Required Supplemental Information-Pension Plan and Supplemental Annuity
8. 4th Quarter 2024 Fund Evaluation Group Report
  - a. December 31, 2024 Performance Review
  - b. Q4 Hat Trick Year
9. Payment of Invoices -
  - a. FEG- \$ 14,745.00
  - b. Comerica quarterly invoice \$ 1,500.00
  - c. Foster & Foster Actuaries and Consultants \$ 2,500.00
10. Annual Administrative Fee Payment
11. New Business/Public Comment
12. Adjournment

**Next Regular Board Meeting – May 1, 2025**

**6:00 PM**

**Submitted by: \_\_\_\_\_, Pension Administrator**

In accordance with Public Act 267 of 1976 (Open Meetings Act), all members of the above Commission/Committee, as well as the general public, are invited to attend this meeting.

Necessary, reasonable auxiliary aids and services to aid individuals with disabilities will be provided. All such requests must be made at least five (5) days prior to a meeting. Individuals with disabilities requiring auxiliary aids or services should contact the City of Grosse Pointe Woods by writing or call the Pension Administrator at (313) 343-2604 or Telecommunications Device for the Deaf (TDD) (313) 343-9249.

MINUTES OF A REGULAR MEETING OF THE BOARD OF TRUSTEES FOR THE RETIREMENT SYSTEM (i.e. The Board) OF THE CITY OF GROSSE POINTE WOODS, HELD ON THURSDAY, NOVEMBER 7, 2024, IN THE CONFERENCE ROOM OF THE MUNICIPAL BUILDING, 20025 MACK PLAZA, GROSSE POINTE WOODS, MICHIGAN.

The meeting was called to order at 6:35 p.m. by Chairperson Mayor Arthur Bryant.

The following members were present:

Chairperson Mayor Arthur Bryant  
General Employee Representative Jeremy Bastien  
Citizen Representative Gary Zarb  
Public Safety Representative Brian Conigliaro

Also present:

Pension Administrator, Steven Schmidt  
Pension Attorney, Michael Vanoverbeke  
Fund Evaluation Group (FEG), Jeffrey Davis  
Recording Secretary, Tina Hoenicke

Motion by Conigliaro, supported by Zarb to excuse Council Representative Victoria Granger.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

Motion by Conigliaro, supported by Bastien that all items on today's agenda be received and placed on file.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

Motion by Zarb, supported by Conigliaro to accept and place on file the minutes of the pension board meeting dated August 1, 2024 as presented.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

Motion by Zarb, supported by Conigliaro to receive and place on file the trial balance report as presented through September 30, 2024.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

Motion by Zarb, supported by Conigliaro to refund unvested pension contributions, with interest, to Mr. Shane Hockley (DPS) in the amount of \$2,422.52.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

Motion by Zarb, supported by Bastien to receive and place on file the 3rd Quarter Investment Report from FEG ending September 30, 2024.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

Pension Attorney, Michael Vanoverbeke reviewed a draft of the Eligible Domestic Relations Order (EDRO) policy, discussed the issue with the board and will bring a final draft to the next meeting.

Motion by Zarb, supported by Bastien to approve payment for invoices 9.a. through 9.e.; FEG in the amount of \$14,234.00, Comerica in the amount of \$1,500.00, Foster & Foster Actuaries and Consultants in the amount of \$16,786.00, Mapers renewal in the amount of \$200.00 and VanOverbeke, Michaud & Timmony, P.C. in the amount of \$671.40.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb  
NO: None  
ABSENT: Granger

New Business/Public Comment: Pension Administrator, Steven Schmidt congratulated Brian Conigliaro on his re-election as Public Safety Representative.

Pension Board

11/7/2024

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Motion by Zarb, supported by Bastien to adjourn at 7:14 pm.

Motion CARRIED by the following vote:

YES: Bryant, Bastien, Conigliaro, Zarb

NO: None

ABSENT: Granger

Minutes recorded by: Tina Hoenicke

Approved by the Pension Board:

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Steven Schmidt, Pension Administrator

Fund 731 PENSION FUND

GL Number	Description	Balance
*** Assets ***		
731-000-005.000	CASH	235,792.20
731-000-005.001	SCHWAB CASH	156,389.13
731-000-056.000	INTEREST REC	1,218.65
731-000-122.000	MUTUAL FUNDS	21,717,462.77
731-000-124.000	INDEXES	23,130,064.23
<b>Total Assets</b>		<b>45,240,926.98</b>
*** Liabilities ***		
<b>Total Liabilities</b>		<b>0.00</b>
*** Fund Balance ***		
731-000-390.100	PRIOR FUND BALANCE	10,559,560.64
731-000-390.200	RETIREE BENEFITS RES	33,151,402.56
<b>Total Fund Balance</b>		<b>43,710,963.20</b>
<b>Beginning Fund Balance</b>		<b>43,710,963.20</b>
<b>Net of Revenues VS Expenditures</b>		<b>1,529,963.78</b>
<b>Ending Fund Balance</b>		<b>45,240,926.98</b>
<b>Total Liabilities And Fund Balance</b>		<b>45,240,926.98</b>

Fund 734 SUPPLEMENTAL ANNUITY FUND

GL Number	Description	Balance
*** Assets ***		
734-000-005.000	CASH	15,892.37
734-000-005.001	SCHWAB CASH	322,103.75
734-000-056.000	INTEREST RECEIVABLE	99.94
734-000-122.000	MUTUAL FUNDS	1,704,856.41
734-000-124.000	INDEXES	1,255,106.10
<b>Total Assets</b>		<b>3,298,058.57</b>
*** Liabilities ***		
<b>Total Liabilities</b>		<b>0.00</b>
*** Fund Balance ***		
734-000-390.000	CURRENT FUND BALANCE	2,102,863.57
734-000-390.100	PRIOR FUND BALANCE	65,928.00
734-000-390.300	SUPPLEMENTAL ANNUITY RESERVE	788,255.00
<b>Total Fund Balance</b>		<b>2,957,046.57</b>
<b>Beginning Fund Balance</b>		<b>2,957,046.57</b>
<b>Net of Revenues VS Expenditures</b>		<b>341,012.00</b>
<b>Ending Fund Balance</b>		<b>3,298,058.57</b>
<b>Total Liabilities And Fund Balance</b>		<b>3,298,058.57</b>

CITY OF GROSSE POINTE WOODS  
PENSION PLAN

GASB DISCLOSURE INFORMATION  
STATEMENTS 67/68  
MEASUREMENT DATE: JUNE 30, 2024

GASB 68 REPORTING  
AS OF JUNE 30, 2024



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS



September 3, 2024

Board of Trustees  
City of Grosse Pointe Woods Pension Plan

RE: GASB statements 67/68 – City of Grosse Pointe Woods Pension Plan

Dear Board:

We are pleased to present this report of the GASB statements 67/68 measured as of June 30, 2024 for the City of Grosse Pointe Woods Pension Plan.

The calculation of the liability associated with the benefits referenced in this report was performed to satisfy the requirements of GASB 67/68 and is not applicable for other purposes, such as determining the plan's funding requirements. Use of the results for other purposes may not be applicable and may produce significantly different results.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of June 30, 2024. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB 67/68.

In conducting the valuation, we have relied on personnel and plan design information supplied by the City and asset information supplied by the custodian bank. The actuarial assumptions and methods are described in the Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

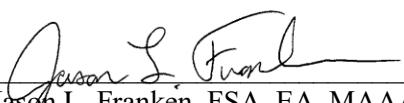
In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

To the best of our knowledge, these statements are complete and accurate and are in accordance with generally recognized actuarial practices and methods. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.



If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at (630) 620-2000.

Respectfully submitted,  
Foster & Foster, Inc.

  
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Jason L. Franken, FSA, EA, MAAA

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## I. SUMMARY

Valuation Date	06/30/2024	06/30/2023
GASB 67/68 Measurement Date	06/30/2024	06/30/2023
GASB 68 Reporting Date	06/30/2024	06/30/2023
<b>Plan Membership</b>		
Inactives Currently Receiving Benefits <sup>1</sup>	111	108
Inactives Not Yet Receiving Benefits	14	12
Active Plan Members	76	76
<b>Total</b>	<b>201</b>	<b>196</b>
<b>Covered Payroll</b>	<b>\$ 5,619,486</b>	<b>\$ 5,408,364</b>
<b>Net Pension Liability</b>		
Total Pension Liability	\$ 67,031,106	\$ 64,708,733
Plan Fiduciary Net Position	43,710,963	40,385,352
Net Pension Liability/(Asset)	\$ 23,320,143	\$ 24,323,381
<b>Plan Fiduciary Net Position</b>		
As a % of Total Pension Liability	65.21%	62.41%
<b>Net Pension Liability/(Asset)</b>		
As a % of Covered Payroll	414.99%	449.74%
<b>Total Pension Expense/(Income)</b>	<b>\$ (2,902,660)</b>	<b>\$ (4,277,189)</b>
<b>Development of Single Discount Rate</b>		
Single Discount Rate	7.37%	7.35%
Long-Term Expected Rate of Return	7.40%	7.40%
High-quality Municipal Bond Rate	4.21%	4.13%
<b>Number of Years Future Benefit Payments</b>		
Are Expected to be Paid	65	63

<sup>1</sup> The inactive counts include EDROs (3 for the June 30, 2024 measurement date and 3 for the prior measurement date).

## II. GASB EXHIBITS

SCHEDULE OF CHANGES IN NET PENSION LIABILITY

GASB 67/68 Measurement Date	06/30/2024	06/30/2023
GASB 68 Reporting Period Ending	06/30/2024	06/30/2023
<b>Total Pension Liability</b>		
Service Cost	812,864	1,029,503
Interest	4,670,531	4,655,548
Changes in Benefit Terms	0	(2,108,032)
Experience Gains/Losses	948,035	716,258
Changes of Assumptions	(155,143)	(5,158,946)
Benefit Payments	(3,953,914)	(3,921,734)
Net Change in Total Pension Liability	<u>2,322,373</u>	<u>(4,787,403)</u>
Total Pension Liability – Beginning	64,708,733	69,496,136
Total Pension Liability – Ending (a)	\$ 67,031,106	\$ 64,708,733
<b>Plan Fiduciary Net Position</b>		
Contributions – Employer	1,956,340	2,042,555
Contributions – Employee	311,863	297,963
Net Investment Income	5,069,650	3,922,857
Benefit Payments	(3,953,914)	(3,921,734)
Administrative Expense	(58,328)	(72,226)
Other	<u>0</u>	<u>0</u>
Net Change in Plan Fiduciary Net Position	3,325,611	2,269,415
Plan Fiduciary Net Position – Beginning	40,385,352	38,115,937
Adjustment to beginning of year	<u>0</u>	<u>0</u>
Plan Fiduciary Net Position – Ending (b)	\$ 43,710,963	\$ 40,385,352
Net Pension Liability – Ending (a) – (b)	\$ 23,320,143	\$ 24,323,381
<b>Plan Fiduciary Net Position</b>		
As % of Total Pension Liability	65.21%	62.41%
Covered Payroll	\$ 5,619,486	\$ 5,408,364
<b>Net Pension Liability</b>		
As % of Covered Payroll	414.99%	449.74%

SENSITIVITY TO CHANGES IN DISCOUNT RATE

GASB 67/68 Measurement Date	06/30/2024	06/30/2023
GASB 68 Reporting Date	06/30/2024	06/30/2023
Discount Rate	7.37%	7.35%
+ 1% Discount Rate	8.37%	8.35%
- 1% Discount Rate	6.37%	6.35%
Sponsor's Net Pension Liability		
Current Discount Rate	\$ 23,320,143	\$ 24,323,381
1% Increase in Discount Rate	16,509,954	17,685,706
1% Decrease in Discount Rate	31,514,908	32,318,597

PENSION EXPENSE  
YEAR-END JUNE 30, 2024

For the year ended June 30, 2024, the Sponsor will recognize a Pension Expense/(Income) of (\$2,902,660). Below is a summary of the components of the Pension expense.

Fiscal Year End	06/30/2024
Beginning of Measurement Period	07/01/2023
End of Measurement Period	06/30/2024
<hr/>	
Service Cost	\$ 812,864
Interest on Total Pension Liability	4,670,531
Changes in Benefit Terms	0
Contributions – Employee	(311,863)
Projected Earnings on Investments	(2,923,987)
Administrative Expenses	58,328
Recognition of deferred outflows/(inflows)	
Experience Gains/Losses	203,490
Assumption Changes	(5,388,587)
Investment Returns	(23,436)
Total Pension Expense	<hr/> (2,902,660)

PENSION DEFERRED OUTFLOWS/INFLOWS  
YEAR-END JUNE 30, 2024

On June 30, 2024, the Sponsor reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience	1,069,157	157,590
Changes of assumptions	0	3,378,442
Net difference between projected and actual earnings on pension plan investments	0	308,338
Total	\$ 1,069,157	\$ 3,844,370

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year-ended June 30:

2025	\$	(2,307,185)
2026	\$	417,248
2027	\$	(456,143)
2028	\$	(429,133)
2029	\$	0
Thereafter	\$	0



### III. SUPPLEMENTARY GASB 68 EXPENSE DETAIL

AMORTIZATION SCHEDULE – EXPERIENCE

Year	Initial Base	Recognition Period	2024	2025	2026	2027	2028	Thereafter
2024	\$ 948,035	4	\$ 237,008	\$ 237,009	\$ 237,009	\$ 237,009	\$ 0	\$ 0
2023	716,258	4	179,065	179,065	179,065	0	0	0
2022	(630,363)	4	(157,591)	(157,590)	0	0	0	0
2021	(219,966)	4	(54,992)	0	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$ 203,490	\$ 258,484	\$ 416,074	\$ 237,009	\$ 0	\$ 0

AMORTIZATION SCHEDULE – CHANGES OF ASSUMPTIONS

Year	Initial Base	Recognition Period	2024	2025	2026	2027	2028	Thereafter
2024	\$ (155,143)	4	\$ (38,785)	\$ (38,786)	\$ (38,786)	\$ (38,786)	0	0
2023	(5,158,946)	4	(1,289,737)	(1,289,737)	(1,289,737)	0	0	0
2022	(2,730,443)	4	(682,610)	(682,610)	0	0	0	0
2021	(13,509,818)	4	(3,377,455)	0	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$ (5,388,587)	\$ (2,011,133)	\$ (1,328,523)	\$ (38,786)	0	0

AMORTIZATION SCHEDULE – INVESTMENTS

Year	Initial Base	Recognition Period	2024	2025	2026	2027	2028	Thereafter
2024	\$ (2,145,663)	5	\$ (429,131)	\$ (429,133)	\$ (429,133)	\$ (429,133)	\$ (429,133)	0
2023	(1,126,166)	5	(225,233)	(225,233)	(225,233)	(225,233)	0	0
2022	9,920,315	5	2,001,415	2,001,415	1,984,063	0	0	0
2021	(9,507,925)	5	(1,901,585)	(1,901,585)	0	0	0	0
2020	2,655,490	5	531,098	0	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$ (23,436)	\$ (554,536)	1,329,697	\$ (654,366)	\$ (429,133)	0

#### IV. ADDITIONAL INFORMATION

SCHEDULE OF CONTRIBUTIONS

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contrib. as % of Covered Payroll
06/30/2024	\$ 1,878,969	\$ 1,956,340	\$ (77,371)	\$ 5,619,486	34.81%
06/30/2023	\$ 1,993,291	\$ 2,042,555	\$ (49,264)	\$ 5,408,364	37.77%

The following assumptions were used to determine the Actuarially Determined Contribution for the plan year ended June 30, 2024:

Calculation Timing	The Actuarially Determined Contribution is calculated using a June 30, 2022 valuation date.
Interest Rate	7.50%
Assumptions	All other assumptions and methods used for determining the Actuarially Determined Contribution can be found in the June 30, 2022 Actuarial Valuation Report for the City of Grosse Pointe Woods Pension Plan prepared by Foster & Foster Actuaries and Consultants.

## ASSUMPTIONS

Valuation Date	June 30, 2024
GASB 67/68 Measurement Date	June 30, 2024
GASB 68 Reporting Date	June 30, 2024
Discount Rate	7.37%
Long-Term Rate of Return	7.40%
Cost Method	Entry Age Normal
Latest Experience Study Date	April 24, 2023
Mortality	
<i>Active Lives</i>	PubS-2010 and PubG-2010 Employee mortality tables, with generational improvements using Scale MP-2018.
<i>Inactive Lives</i>	PubS-2010 and PubG-2010 Healthy Retiree mortality tables, with generational improvements using Scale MP-2018.
Salary Scale	Age-based
Inflation	2.50%

A summary of other assumptions reflected in the valuation can be found in the June 30, 2024 Actuarial Valuation Report for the City of Grosse Pointe Woods Pension Plan prepared by Foster and Foster Actuaries and Consultants.

### *Changes in Assumptions*

Total Pension Liability as of the June 30, 2024 measurement date reflects the following assumption change:

- The discount rate was updated from 7.35% to 7.37%.

*Development of the Discount Rate*

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate.

Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to provide future benefit payments for 65 years. Therefore benefit payments for 65 years were discounted using a Discount Rate equal to the Long-Term Expected Rate of Return of 7.40 percent.

Future benefit payments beyond 65 years were discounted using a high-quality municipal bond rate of 4.21 percent. The high-quality municipal bond rate was based on the daily rate closest to, but not later than the measurement date of the S&P Municipal Bond 20-Year High Grade Rate Index.

The single equivalent Discount Rate was 7.37 percent.



## SUMMARY OF CURRENT PLAN

Plan Description	The plan is a single-employer defined benefit pension plan administered by a Board of Trustees comprised of five members: a) the Mayor; b) a member of the City Council; c) a resident appointed by the Mayor; and d) two employees (one general and one public safety).
Benefits Provided	<p>The Plan provides retirement, termination, disability and death benefits.</p> <p>A summary of the benefit provisions can be found in the Actuarial Valuation as of June 30, 2024 for the City of Grosse Pointe Woods Pension Plan prepared by Foster &amp; Foster Actuaries and Consultants.</p>
Benefit Changes	No benefit changes have been reflected since the prior year.
Employee Retention Option Program	
Eligibility:	Command and Public Safety Officers: Age 50 with 25 years of service, or Age 55 with 20 years of service.
Participation:	5-year maximum.
Rate of return:	3.00% interest.
DROP balance:	The EROP balance as of June 30, 2024 is \$0.

CITY OF GROSSE POINTE WOODS  
PENSION PLAN SUPPLEMENTAL ANNUITY

GASB DISCLOSURE INFORMATION  
STATEMENTS 67/68  
MEASUREMENT DATE: JUNE 30, 2024

GASB 68 REPORTING  
AS OF JUNE 30, 2024



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

September 3, 2024

Board of Trustees  
City of Grosse Pointe Woods Pension Plan Supplemental Annuity

RE: GASB statements 67/68 – City of Grosse Pointe Woods Pension Plan Supplemental Annuity

Dear Board:

We are pleased to present this report of the GASB statements 67/68 measured as of June 30, 2024 for the City of Grosse Pointe Woods Pension Plan Supplemental Annuity.

The calculation of the liability associated with the benefits referenced in this report was performed to satisfy the requirements of GASB 67/68 and is not applicable for other purposes, such as determining the plan's funding requirements. Use of the results for other purposes may not be applicable and may produce significantly different results.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of June 30, 2024. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB 67/68.

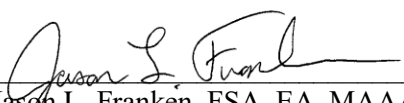
In conducting the valuation, we have relied on personnel and plan design information supplied by the City and asset information supplied by the custodian bank. The actuarial assumptions and methods are described in the Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

To the best of our knowledge, these statements are complete and accurate and are in accordance with generally recognized actuarial practices and methods. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at (630) 620-2000.

Respectfully submitted,  
Foster & Foster, Inc.

  
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Jason L. Franken, FSA, EA, MAAA

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## I. SUMMARY

Valuation Date	06/30/2024	06/30/2023
GASB 67/68 Measurement Date	06/30/2024	06/30/2023
GASB 68 Reporting Date	06/30/2024	06/30/2023
<b>Plan Membership</b>		
Inactives Currently Receiving Benefits	61	60
Inactives Not Yet Receiving Benefits	0	0
Active Plan Members	46	47
<b>Total</b>	<b>107</b>	<b>107</b>
<b>Covered Payroll</b>	<b>\$ 2,746,799</b>	<b>\$ 2,783,550</b>
<b>Net Pension Liability</b>		
Total Pension Liability	\$ 4,138,675	\$ 4,007,347
Plan Fiduciary Net Position	2,957,047	2,591,233
Net Pension Liability/(Asset)	\$ 1,181,628	\$ 1,416,114
<b>Plan Fiduciary Net Position</b>		
As a % of Total Pension Liability	71.45%	64.66%
<b>Net Pension Liability/(Asset)</b>		
As a % of Covered Payroll	43.02%	50.87%
<b>Total Pension Expense/(Income)</b>	<b>\$ 153,333</b>	<b>\$ 138,284</b>
<b>Development of Single Discount Rate</b>		
Single Discount Rate	7.40%	7.40%
Long-Term Expected Rate of Return	7.40%	7.40%
High-quality Municipal Bond Rate	4.21%	4.13%
Number of Years Future Benefit Payments Are Expected to be Paid	All Years	All Years

## II. GASB EXHIBITS

SCHEDULE OF CHANGES IN NET PENSION LIABILITY

GASB 67/68 Measurement Date	06/30/2024	06/30/2023
GASB 68 Reporting Period Ending	06/30/2024	06/30/2023
<b>Total Pension Liability</b>		
Service Cost	34,736	44,932
Interest	287,957	283,542
Changes in Benefit Terms	0	0
Experience Gains/Losses	110,188	39,243
Changes of Assumptions	0	47,379
Benefit Payments	(301,553)	(286,747)
Net Change in Total Pension Liability	<u>131,328</u>	<u>128,349</u>
Total Pension Liability – Beginning	4,007,347	3,878,998
Total Pension Liability – Ending (a)	\$ 4,138,675	\$ 4,007,347
<b>Plan Fiduciary Net Position</b>		
Contributions – Employer	345,827	329,201
Contributions – Employee	0	0
Net Investment Income	325,282	235,635
Benefit Payments	(301,553)	(286,747)
Administrative Expense	(3,742)	(4,372)
Other	<u>0</u>	<u>2,589</u>
Net Change in Plan Fiduciary Net Position	365,814	276,306
Plan Fiduciary Net Position – Beginning	2,591,233	2,314,927
Adjustment to beginning of year	<u>0</u>	<u>0</u>
Plan Fiduciary Net Position – Ending (b)	\$ 2,957,047	\$ 2,591,233
Net Pension Liability – Ending (a) – (b)	\$ 1,181,628	\$ 1,416,114
<b>Plan Fiduciary Net Position</b>		
As % of Total Pension Liability	71.45%	64.66%
Covered Payroll	\$ 2,746,799	\$ 2,783,550
<b>Net Pension Liability</b>		
As % of Covered Payroll	43.02%	50.87%



SENSITIVITY TO CHANGES IN DISCOUNT RATE

GASB 67/68 Measurement Date	06/30/2024	06/30/2023
GASB 68 Reporting Date	06/30/2024	06/30/2023
Discount Rate	7.40%	7.40%
+ 1% Discount Rate	8.40%	8.40%
- 1% Discount Rate	6.40%	6.40%
Sponsor's Net Pension Liability		
Current Discount Rate	\$ 1,181,628	\$ 1,416,114
1% Increase in Discount Rate	805,599	1,054,736
1% Decrease in Discount Rate	1,629,673	1,845,962

PENSION EXPENSE  
YEAR-END JUNE 30, 2024

For the year ended June 30, 2024, the Sponsor will recognize a Pension Expense/(Income) of \$153,333. Below is a summary of the components of the Pension expense.

Fiscal Year End	06/30/2024
Beginning of Measurement Period	07/01/2023
End of Measurement Period	06/30/2024
<hr/>	
Service Cost	\$ 34,736
Interest on Total Pension Liability	287,957
Changes in Benefit Terms	0
Projected Earnings on Investments	(193,251)
Administrative Expenses	3,742
Recognition of deferred outflows/(inflows)	
Experience Gains/Losses	25,372
Assumption Changes	(7,402)
Investment Returns	2,179
Total Pension Expense	<hr/> 153,333

PENSION DEFERRED OUTFLOWS/INFLOWS  
YEAR-END JUNE 30, 2024

On June 30, 2024, the Sponsor reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience	110,443	11,107
Changes of assumptions	28,428	3,031
Net difference between projected and actual earnings on pension plan investments	0	15,507
Total	\$ 138,871	\$ 29,645

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year-ended June 30:

2025	\$	17,111
2026	\$	115,894
2027	\$	2,627
2028	\$	(26,406)
2029	\$	0
Thereafter	\$	0

### III. SUPPLEMENTARY GASB 68 EXPENSE DETAIL

AMORTIZATION SCHEDULE – EXPERIENCE

Year	Initial Base	Recognition Period	2024	2025	2026	2027	2028	Thereafter
2024	\$ 110,188	4	\$ 27,547	\$ 27,547	\$ 27,547	\$ 27,547	\$ 0	\$ 0
2023	39,243	5	7,849	7,849	7,849	7,849	0	0
2022	(22,217)	6	(3,703)	(3,702)	(3,703)	(3,702)	0	0
2021	21,271	5	4,254	4,255	0	0	0	0
2020	(151,559)	4.30	(10,575)	0	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$ 25,372	\$ 35,949	\$ 31,693	\$ 31,694	\$ 0	\$ 0

AMORTIZATION SCHEDULE – CHANGES OF ASSUMPTIONS

Year	Initial Base	Recognition Period	2024	2025	2026	2027	2028	Thereafter
2023	\$ 47,379	5	\$ 9,476	\$ 9,476	\$ 9,476	\$ 9,476	\$ 0	\$ 0
2021	(15,148)	5	(3,030)	(3,031)	0	0	0	0
2020	(198,496)	4.30	(13,848)	0	0	0	0	0
Net Increase (Decrease) in Pension Expense			\$ (7,402)	\$ 6,445	\$ 9,476	\$ 9,476	\$ 0	\$ 0

AMORTIZATION SCHEDULE – INVESTMENTS

Year		Initial Base	Recognition Period		2024	2025	2026	2027	2028	Thereafter
2024	\$	(132,031)	5	\$	(26,407)	(26,406)	(26,406)	(26,406)	(26,406)	0
2023		(60,684)	5		(12,137)	(12,137)	(12,137)	(12,137)	0	0
2022		566,265	5		114,235	114,234	113,268	0	0	0
2021		(504,869)	5		(100,974)	(100,974)	0	0	0	0
2020		137,309	5		27,462	0	0	0	0	0
Net Increase (Decrease) in Pension Expense				\$	2,179	(25,283)	74,725	(38,543)	(26,406)	0

#### IV. ADDITIONAL INFORMATION



SCHEDULE OF CONTRIBUTIONS

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contrib. as % of Covered Payroll
06/30/2024	\$ 277,208	\$ 345,827	\$ (68,619)	\$ 2,746,799	12.59%
06/30/2023	\$ 229,734	\$ 329,201	\$ (99,467)	\$ 2,783,550	11.83%

The following assumptions were used to determine the Actuarially Determined Contribution for the plan year ended June 30, 2024:

Calculation Timing	The Actuarially Determined Contribution is calculated using a June 30, 2022 valuation date.
Interest Rate	7.50%
Assumptions	All other assumptions and methods used for determining the Actuarially Determined Contribution can be found in the June 30, 2022 Actuarial Valuation Report for the City of Grosse Pointe Woods Pension Plan Supplemental Annuity prepared by Foster & Foster Actuaries and Consultants.

## ASSUMPTIONS

Valuation Date	June 30, 2024
GASB 67/68 Measurement Date	June 30, 2024
GASB 68 Reporting Date	June 30, 2024
Discount Rate	7.40%
Long-Term Rate of Return	7.40%
Cost Method	Entry Age Normal
Latest Experience Study Date	April 24, 2023
Mortality	
<i>Active Lives</i>	PubS-2010 and PubG-2010 Employee mortality tables, with generational improvements using Scale MP-2018.
<i>Inactive Lives</i>	PubS-2010 and PubG-2010 Healthy Retiree mortality tables, with generational improvements using Scale MP-2018.
Salary Scale	Age-based
Inflation	2.50%

A summary of other assumptions reflected in the valuation can be found in the June 30, 2024 Actuarial Valuation Report for the City of Grosse Pointe Woods Pension Plan Supplemental Annuity prepared by Foster and Foster Actuaries and Consultants.

### *Changes in Assumptions*

Total Pension Liability as of the June 30, 2024 measurement date reflects no assumption changes.

*Development of the Discount Rate*

The projection of cash flows used to determine the Discount Rate assumed that current Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate.

Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments (7.40 percent) was applied to all periods of projected benefit payments to determine the Total Pension Liability.

No projected benefit payments were discounted using a high-quality municipal bond rate of 4.21 percent. The high-quality municipal bond rate was based on the daily rate closest to, but not later than the measurement date of the S&P Municipal Bond 20-Year High Grade Rate Index.

The single equivalent Discount Rate was 7.40 percent.

## SUMMARY OF CURRENT PLAN

Plan Description	The plan is a single-employer defined benefit pension plan administered by a Board of Trustees comprised of five members: a) the Mayor; b) a member of the City Council; c) a resident appointed by the Mayor; and d) two employees (one general and one public safety).
Benefits Provided	<p>The Plan provides retirement, termination, disability and death benefits.</p> <p>A summary of the benefit provisions can be found in the Actuarial Valuation as of June 30, 2024 for the City of Grosse Pointe Woods Pension Plan Supplemental Annuity prepared by Foster &amp; Foster Actuaries and Consultants.</p>
Benefit Changes	No benefit changes have been reflected since the prior year.

CITY OF GROSSE POINTE WOODS  
EMPLOYEES RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF JUNE 30, 2024

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR BEGINNING JULY 1, 2025

P.A. 202 VALUATION  
AS OF JUNE 30, 2024



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS



September 3, 2024

Board of Trustees  
City of Grosse Pointe Woods Employees Retirement System

Re: Actuarial Valuation Report – City of Grosse Pointe Woods Employees Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Grosse Pointe Woods Employees Retirement System. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Use of the results for other purposes may not be applicable and could produce significantly different results.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the Retirement System, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Board, financial reports prepared by the custodian bank and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.


The undersigned is familiar with the immediate and long-term aspects of pension valuations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Grosse Pointe Woods, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Grosse Pointe Woods Employees Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 630-620-0200.

Respectfully submitted,

Foster & Foster, Inc.

By:   
Jason L. Franken, FSA, EA, MAAA

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Grosse Pointe Woods Employees Retirement System, performed as of June 30, 2024, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year beginning July 1, 2025.

The contribution requirements, compared with those set forth in the June 30, 2023 actuarial report, are as follows:

Valuation Date	6/30/2024	6/30/2023
Applicable to Fiscal Year Beginning	<u>7/1/2025</u>	<u>7/1/2024</u>
Total Recommended Contribution	\$2,825,234	\$2,628,546
% of Projected Annual Payroll	48.06%	46.42%
Member Contributions (Est.)	(347,846)	(333,413)
% of Projected Annual Payroll	(5.92%)	(5.89%)
City Recommended Contribution	2,477,388	2,295,133
% of Projected Annual Payroll	42.14%	40.53%

As you can see, the Total Recommended Contribution shows an increase from the June 30, 2023 actuarial valuation report. The increase is attributable to the natural increase in the amortization payment due to the payroll growth assumption and unfavorable plan experience.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of unfavorable experience included an average salary increase of 11.16% which exceeded the 4.64% assumption and lower than expected inactive mortality. There were no significant sources of favorable experience.

## CHANGES SINCE THE PRIOR VALUATION

The valuation reflects no plan changes.

The valuation reflects no assumption or method changes.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

Valuation Date	<u>6/30/2024</u>	<u>6/30/2023</u>
<b>A. Participant Data</b>		
Number Included		
Actives	76	76
Service Retirees	92	90
Beneficiaries	19	18
Disability Retirees	0	0
Terminated Vested	<u>14</u>	<u>12</u>
Total	201	196
Total Projected Annual Payroll	\$5,878,408	\$5,661,562
Payroll Under Assumed Ret. Age	5,878,408	5,661,562
Annual Rate of Payments to:		
Service Retirees	3,291,240	3,150,364
Beneficiaries	615,592	556,774
Disability Retirees	0	0
Terminated Vested	148,381	134,569
<b>B. Assets</b>		
Actuarial Value	43,567,802	42,304,500
Market Value	43,710,963	40,385,352
<b>C. Liabilities</b>		
Present Value of Benefits (PVB)		
Actives		
Retirement Benefits	21,635,445	20,943,983
Disability Benefits	1,302,315	1,233,681
Death Benefits	289,682	279,276
Vested Benefits	800,242	800,171
Service Retirees <sup>1</sup>	42,564,738	41,152,637
Beneficiaries	5,852,814	5,377,261
Disability Retirees	0	0
Terminated Vested	<u>1,310,136</u>	<u>1,187,645</u>
Total	73,755,372	70,974,654

<sup>1</sup> Includes reserve for EROP balances. \$0 as of 6/30/2024 and \$0 as of 6/30/2023.

C. Liabilities - (Continued)	<u>6/30/2024</u>	<u>6/30/2023</u>
Present Value of Future Salaries	49,280,205	47,164,655
Normal Cost (Retirement)	647,108	621,011
Normal Cost (Disability)	67,840	62,509
Normal Cost (Death)	16,291	15,195
Normal Cost (Vesting)	<u>74,415</u>	<u>70,514</u>
Total Normal Cost (EAN)	805,654	769,229
Present Value of Future Normal Costs	6,579,088	6,239,476
Accrued Liability (Retirement)	16,225,797	15,803,923
Accrued Liability (Disability)	684,506	661,826
Accrued Liability (Death)	169,570	167,436
Accrued Liability (Vesting)	368,723	384,450
Accrued Liability (Inactives) <sup>1</sup>	<u>49,727,688</u>	<u>47,717,543</u>
Total Actuarial Accrued Liability	67,176,284	64,735,178
Unfunded Actuarial Accrued Liability (UAAL)	23,608,482	22,430,678
Funded Ratio (AVA / AL)	64.9%	65.4%

<sup>1</sup> Includes reserve for EROP balances. \$0 as of 6/30/2024 and \$0 as of 6/30/2023.

	<u>6/30/2024</u>	<u>6/30/2023</u>
D. Actuarial Present Value of Accrued Benefits		
Vested Accrued Benefits		
Inactives <sup>1</sup>	49,727,688	47,717,543
Actives	4,986,503	4,728,682
Member Contributions	<u>4,089,089</u>	<u>4,107,306</u>
Total	58,803,280	56,553,531
Non-vested Accrued Benefits	<u>2,963,718</u>	<u>2,760,465</u>
Total Present Value Accrued Benefits	61,766,998	59,313,996
Funded Ratio (MVA / PVAB)	70.8%	68.1%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	2,163,975	
Benefits Paid	(3,953,914)	
Interest	4,242,941	
Other	<u>0</u>	
Total	2,453,002	

<sup>1</sup> Includes reserve for EROP balances. \$0 as of 6/30/2024 and \$0 as of 6/30/2023.

Valuation Date	6/30/2024	6/30/2023
Applicable to Fiscal Year Beginning	<u>7/1/2025</u>	<u>7/1/2024</u>

E. Pension Cost

Normal Cost <sup>1</sup>	\$865,272	\$826,152
% of Total Annual Payroll <sup>1</sup>	14.72	14.59
Administrative Expenses <sup>1</sup>	65,514	61,218
% of Total Annual Payroll <sup>1</sup>	1.11	1.08
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 19 years (as of 6/30/2024) <sup>1</sup>	1,894,448	1,741,176
% of Total Annual Payroll <sup>1</sup>	32.23	30.75
Total Recommended Contribution	2,825,234	2,628,546
% of Total Annual Payroll <sup>1</sup>	48.06	46.42
Expected Member Contributions <sup>1</sup>	(347,846)	(333,413)
% of Total Annual Payroll <sup>1</sup>	(5.92)	(5.89)
Expected City Contribution	2,477,388	2,295,133
% of Total Annual Payroll <sup>1</sup>	42.14	40.53

F. Past Contributions

Plan Years Ending:	<u>6/30/2024</u>
Total Recommended Contribution	2,190,832
City Requirement	1,878,969
Actual Contributions Made:	
Members (excluding buyback)	311,863
City	<u>1,956,340</u>
Total	2,268,203

G. Net Actuarial (Gain)/Loss 996,434

<sup>1</sup> Contributions developed as of 6/30/2024 displayed above have been adjusted to account for assumed interest.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Accrued Liability</u>
2024	23,608,482
2025	23,461,062
2026	23,245,900
2030	21,672,469
2035	19,549,365
2039	18,001,637
2043	16,576,445

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		<u>Actual</u>	<u>Assumed</u>
Year Ended	6/30/2024	11.16%	4.64%
Year Ended	6/30/2023	11.60%	4.57%
Year Ended	6/30/2022	2.73%	4.55%

(ii) 3 Year Comparison of Investment Return on Actuarial Value

		<u>Actual</u>	<u>Assumed</u>
Year Ended	6/30/2024	7.26%	7.40%
Year Ended	6/30/2023	5.51%	7.50%
Year Ended	6/30/2022	4.66%	7.50%

PENSION COST BY DIVISION

	<u>General</u>	<u>Public Safety</u>	<u>Total</u>
Projected Payroll	2,882,541	2,995,867	5,878,408
Total Normal Cost <sup>1</sup>	364,425	500,847	865,272
% of Total Annual Payroll <sup>1</sup>	12.64	16.72	14.72
Administrative Expenses <sup>1</sup>	32,125	33,389	65,514
% of Total Annual Payroll <sup>1</sup>	1.11	1.11	1.11
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 19 years (as of 6/30/2024) <sup>1</sup>	928,963	965,485	1,894,448
% of Total Annual Payroll <sup>1</sup>	32.23	32.23	32.23
Total Recommended Contribution <sup>1</sup>	1,325,513	1,499,721	2,825,234
% of Total Annual Payroll <sup>1</sup>	45.98	50.06	48.06
Expected Member Contributions <sup>1</sup>	(154,792)	(193,054)	(347,846)
% of Total Annual Payroll <sup>1</sup>	(5.37)	(6.44)	(5.92)
Expected City Contribution	1,170,721	1,306,667	2,477,388
% of Total Annual Payroll <sup>1</sup>	40.61	43.62	42.14

<sup>1</sup> Contributions developed as of 6/30/2024 displayed above have been adjusted to account for assumed interest



DEVELOPMENT OF JUNE 30, 2024 AMORTIZATION PAYMENT

(1)	Unfunded Actuarial Accrued Liability as of June 30, 2023	\$22,430,678
(2)	Sponsor Normal Cost developed as of June 30, 2023	457,277
(3)	Expected administrative expenses for the year ended June 30, 2024	57,000
(4)	Expected interest on (1), (2) and (3)	1,695,818
(5)	Sponsor contributions to the System during the year ended June 30, 2024	1,956,340
(6)	Expected interest on (5)	72,385
(7)	Expected Unfunded Actuarial Accrued Liability as of June 30, 2024, (1)+(2)+(3)+(4)-(5)-(6)	22,612,048
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	996,434
(10)	Unfunded Accrued Liability as of June 30, 2024	23,608,482
(11)	UAAL Subject to Amortization (100% AAL less Actuarial Assets)	23,608,482

<u>Date</u> <u>Established</u>	<u>Years</u> <u>Remaining</u>	<u>6/30/2024</u> <u>Amount</u>	<u>Amortization</u> <u>Amount</u>
6/30/2024	19	23,608,482	1,763,918

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2023	\$22,430,678
(2) Expected UAAL as of June 30, 2024	22,612,048
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	58,663
Salary Increases	496,342
Active Decrements	125,513
Inactive Mortality	323,153
Other	<u>(7,237)</u>
Change in UAAL due to (Gain)/Loss	996,434
Change to UAAL due to Assumption Change	<u>0</u>
(4) Actual UAAL as of June 30, 2024	\$23,608,482

## RECONCILIATION OF CHANGES IN CONTRIBUTION REQUIREMENT

(1) Contribution Determined as of June 30, 2023	\$ 2,295,133
(2) Summary of Contribution Impact by component:	
Change in Normal Cost	39,120
Change in Assumed Administrative Expense	4,296
Investment Return (Actuarial Asset Basis)	4,707
Salary Increases	39,829
New Entrants	1,698
Active Decrements	10,072
Inactive Mortality	25,931
Contributions (More) or Less than Recommended	(6,438)
Increase in Amortization Payment Due to Payroll Growth Assumption	52,235
Change in Expected Member Contributions	(14,433)
Assumption Change	-
Other	25,238
Total Change in Contribution	182,255
(3) Contribution Determined as of June 30, 2024	\$2,477,388

P.A. 202 REPORTING  
AS OF JUNE 30, 2024

Michigan Public Act 202 of 2017 requires municipal retirement systems in the state to submit information concerning their actuarial accrued liabilities and funded status based on uniform assumptions. The information is to be furnished by the municipality on Form 5572.

Form 5572

Line

24	Actuarial Value of Assets	43,567,802
25	Actuarial Accrued Liabilities	71,787,484
26	Funded Ratio	60.7%
27	Actuarially Determined Contribution	3,633,964

The information was calculated based on the following assumptions, in compliance with the Uniform Assumptions pursuant to PA 202, applicable for fiscal year 2024. All other assumptions are as described in the Actuarial Assumptions and Methods section of this report.

Investment Rate of Return	6.90%
Discount Rate (equivalent single rate used)	6.77%
Periods with sufficient assets	6.90%
Periods without sufficient assets	3.65%
Salary Increase	Experience-based rates
Mortality Table	Pub-2010 with MP-2021
Amortization Period for Unfunded Actuarial Accrued Liability	15 years
Cost Method	Entry Age Normal
Amortization Method	Level percent of pay
Payroll Growth Assumption	3.00%

## FUNDING HISTORY

Valuation Date	Applicable Fiscal Year Beginning	Valuation Assets <sup>1</sup>	Actuarial		Unfunded Actuarial Accrued Liabilities <sup>1</sup>	General	Public Safety
			Accrued Liabilities <sup>1</sup>	Funded Ratio		Recommended Employer Contribution - as a% of Payroll	Recommended Employer Contribution - as a% of Payroll
6/30/2005	7/1/2006	33,329	36,141	92.2%	2,812	12.54%	15.50%
6/30/2006	7/1/2007	33,549	36,846	91.1%	3,297	15.21%	18.59%
6/30/2007	7/1/2008	35,801	38,744	92.4%	2,943	14.65%	17.98%
6/30/2008	7/1/2009	37,728	36,310	103.9%	(1,418)	6.22%	7.98%
6/30/2009	7/1/2010	37,149	40,417	91.9%	3,268	10.56%	12.26%
6/30/2010	7/1/2011	36,074	41,541	86.8%	5,467	12.64%	14.28%
6/30/2011	7/1/2012	37,667	42,738	88.1%	5,071	12.55%	14.25%
6/30/2012	7/1/2013	37,369	44,747	83.5%	7,378	15.29%	16.99%
6/30/2013	7/1/2014	37,171	44,950	82.7%	7,779	16.12%	18.14%
6/30/2014	7/1/2015	37,751	45,453	83.1%	7,702	16.82%	19.24%
6/30/2015	7/1/2016	39,363	49,481	79.6%	10,118	20.28%	23.57%
6/30/2016	7/1/2017	39,271	51,299	76.6%	12,028	23.55%	26.03%
6/30/2017	7/1/2018	40,087	50,976	78.6%	10,889	22.31%	24.18%
6/30/2018	7/1/2019	40,347	53,727	75.1%	13,380	25.39%	28.75%
6/30/2019	7/1/2020	39,610	55,232	71.7%	15,622	27.56%	31.19%
6/30/2020	7/1/2021	39,021	59,469	65.6%	20,448	33.85%	38.46%
6/30/2021	7/1/2022	41,122	63,086	65.2%	21,964	33.64%	37.54%
6/30/2022	7/1/2023	41,704	62,517	66.7%	20,814	32.09%	34.30%
6/30/2023	7/1/2024	42,305	64,735	65.4%	22,431	39.14%	42.04%
6/30/2024	7/1/2025	43,568	67,176	64.9%	23,608	40.61%	43.62%

<sup>1</sup>Dollar values reported in thousands.

PROJECTION OF BENEFIT PAYMENTS

Year	Payments for Current Actives	Payments for Current Inactives	Total Payments
2024	180,249	3,904,065	4,084,314
2025	266,220	3,957,110	4,223,330
2026	315,491	3,991,077	4,306,568
2027	397,077	4,030,926	4,428,003
2028	451,577	4,074,282	4,525,859
2029	474,968	4,124,947	4,599,915
2030	799,683	4,134,147	4,933,830
2031	1,238,247	4,136,271	5,374,518
2032	1,199,141	4,131,396	5,330,537
2033	1,288,355	4,119,638	5,407,993
2034	1,521,123	4,105,541	5,626,664
2035	1,966,419	4,089,489	6,055,908
2036	2,295,873	4,066,030	6,361,903
2037	2,509,406	4,024,464	6,533,870
2038	2,604,900	3,974,380	6,579,280
2039	2,606,573	3,919,673	6,526,246
2040	2,732,906	3,857,847	6,590,753
2041	2,790,394	3,788,217	6,578,611
2042	2,712,322	3,710,576	6,422,898
2043	2,693,787	3,624,892	6,318,679
2044	2,833,484	3,536,844	6,370,328
2045	2,973,782	3,448,614	6,422,396
2046	3,174,150	3,328,617	6,502,767
2047	3,394,576	3,192,326	6,586,902
2048	3,619,055	3,059,949	6,679,004
2049	3,598,839	2,908,705	6,507,544
2050	3,749,694	2,734,939	6,484,633
2051	3,902,334	2,566,358	6,468,692
2052	4,128,253	2,414,994	6,543,247
2053	4,221,818	2,268,383	6,490,201
2054	4,124,486	2,123,430	6,247,916
2055	4,198,724	1,976,338	6,175,062
2056	4,310,341	1,829,321	6,139,662
2057	4,334,857	1,682,816	6,017,673
2058	4,393,982	1,538,283	5,932,265
2059	4,285,881	1,405,759	5,691,640
2060	4,226,968	1,281,863	5,508,831
2061	4,233,572	1,165,721	5,399,293
2062	4,139,283	1,057,277	5,196,560
2063	4,061,845	956,600	5,018,445

## SUPPLEMENTAL ANNUITY VALUATION

Valuation Date	6/30/2024	6/30/2023
Applicable to Fiscal Year Beginning	<u>7/1/2025</u>	<u>7/1/2024</u>
Total Actuarial Accrued Liability	4,148,472	4,017,964
Market Value of Assets	<u>2,957,047</u>	<u>2,591,233</u>
Unfunded Actuarial Accrued Liability	1,191,425	1,426,731
Pension Cost		
Total Normal Cost (EAN) <sup>1</sup>	36,745	36,472
Administrative Expenses <sup>1</sup>	4,020	4,696
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 10 years (as of 6/30/2024) <sup>1</sup>	172,782	206,907
Total Recommended Contribution	213,547	248,075

<sup>1</sup> Contributions developed as of 6/30/2024 displayed above have been adjusted to account for assumed interest.

SUPPLEMENTAL ANNUITY VALUATION  
BY DIVISION

	<u>General</u>	<u>Public Safety</u>	<u>Total</u>
Total Actuarial Accrued Liability	3,854,074	294,398	4,148,472
Market Value of Assets	<u>2,747,199</u>	<u>209,848</u>	<u>2,957,047</u>
Unfunded Actuarial Accrued Liability	1,106,875	84,550	1,191,425
 Pension Cost - Total			
Total Normal Cost	36,745	0	36,745
Administrative Expenses	4,020	0	4,020
UAAL Amortization	<u>160,521</u>	<u>12,261</u>	<u>172,782</u>
Total Recommended Contribution	201,286	12,261	213,547
 Pension Cost - Dollars Per Active Member			
Total Normal Cost	799	0	
UAAL Amortization	<u>3,490</u>	<u>409</u>	
Total Recommended Contribution	4,376	409	
 Participant Summary			
Counts			
Actives	46	30 <sup>1</sup>	76
Retirees and Beneficiaries	53	8	61
 Supplemental Annuities			
Total Annuities	260,710	40,711	301,421
Average Annuities	4,919	5,089	4,941

<sup>1</sup> Summarized for cost per active member only. Currently no Public Safety members are eligible.



## ACTUARIAL ASSUMPTIONS AND METHODS

Interest Rate	7.40% per year compounded annually, net of investment related expenses.
Mortality Rate	<p><b>Active Lives</b>                      PubS-2010 and PubG-2010 Employee mortality tables, with generational improvements using Scale MP-2018.</p> <p><b>Inactive Lives</b>                      PubS-2010 and PubG-2010 Healthy Retiree mortality tables, with generational improvements using Scale MP-2018.</p>
Retirement Age	See table later in this section.
Disability Rate	0.20% for all general employees. 0.60% for all public safety employees. 100% of disabilities are assumed to be in the non-duty.
Termination Rate	See table later in this section.
Inflation	2.50%.
Salary Increases	See table below.

Ages	Inflation	Merit and Longevity	
		General	Public Safety
20	3.50%	3.84%	2.99%
25	3.50%	3.13%	2.99%
30	3.50%	2.69%	2.60%
35	3.50%	2.37%	1.10%
40	3.50%	2.14%	0.20%
45	3.50%	1.68%	0.20%
50	3.50%	1.14%	0.20%
55	3.50%	0.66%	0.10%
60	3.50%	0.16%	0.00%

Marital Status	90% of Members are assumed to be married.
Spouse's Age	Males are assumed to be three years older than females.
Member Contribution Interest	2.00%.
Cost-of-Living Adjustment	2.50%.

Annuity Withdrawal Assumptions 100% of members are assumed to elect a lump sum of member contributions in exchange for a reduced annuity benefit at retirement. The annuity offset is equal to the annuitized value of the member contributions using a 7.40% assumed interest rate.

EROP Assumptions 100% of eligible members elect to enter EROP according to the assumed retirement rates.

Members are assumed to remain in EROP for 5 years and take their balance at the end of the EROP period.

The EROP is assumed to continue beyond the six-year sunset provision. Members who become eligible to enter EROP after the six-year sunset are assumed to elect EROP when eligible.

Funding Method Entry Age Normal.

Actuarial Asset Method Investment gains and losses are smoothed over a five-year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of the Market Value of Assets.

Funding Policy Amortization Method The UAAL is amortized according to a level percentage of payroll method. The initial amortization amount is 100% of the Accrued Liability less the Actuarial Value of Assets. Ultimately, the amortization period will be a 15-year rolling methodology, with a phase in to 15 years as follows:

2023	20 Year Amortization
2024	19 Year Amortization
2025	18 Year Amortization
2026	17 Year Amortization
2027	16 Year Amortization
2028 and Later	15 Year Amortization

The use of a rolling amortization methodology with a reasonable amortization period and coupled with a payroll growth rate that is not too high will produce a significant annual payment towards the principal on the UAAL, resulting in an annual decrease in the UAAL, assuming the actuarial assumptions materialize.

The UAAL for the supplemental plan is amortized over a 10-year rolling period according to a level dollar basis.

Payroll Growth 3.00%.

Administrative Expenses

Expenses paid out of the fund other than investment-related expenses are assumed to be equal to the average of those paid in the previous 3 years, rounded to the nearest 1,000.

Basis for Assumptions

Experience study dated April 24, 2023.

Decrement Tables

General - % Terminating During the Year							Public Safety - % Terminating During the Year						
Age	Service						Age	Service					
	0	1	2	3	4	5+		0	1	2	3	4	5+
<							< 27	3%	3%	4%	8%	3%	3.0%
27	10%	15%	15%	20%	8%	7.0%	30	3%	3%	4%	8%	3%	3.0%
30	10%	15%	15%	20%	8%	7.0%	35	3%	3%	4%	8%	3%	2.0%
35	10%	15%	15%	20%	8%	5.0%	40	3%	3%	4%	8%	3%	1.0%
40	10%	15%	15%	20%	8%	4.0%	45	3%	3%	4%	8%	3%	0.5%
45	10%	15%	15%	20%	8%	3.0%	50	3%	3%	4%	8%	3%	0.5%
50	10%	15%	15%	20%	8%	3.0%	55+	3%	3%	4%	8%	3%	1.0%
55+	10%	15%	15%	20%	8%	1.0%							

% Retiring During the Year		
	General	Public Safety
Age	Rate	Rate
50-53	20%	20%
54	35%	20%
55	35%	30%
56	35%	10%
57-58	20%	10%
59	40%	10%
60	40%	40%
61-62	10%	40%
63	10%	50%
64	10%	70%
65-66	30%	100%
67	40%	100%
68	50%	100%
69	70%	100%
70+	100%	100%

## GLOSSARY

Total Annual Payroll is the projected annual rate of pay for the fiscal year following the valuation date of all covered members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded.

Unfunded Accrued Liability is the excess of the Accrued Actuarial Liability over the Actuarial Value of Assets.

Total Recommended Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over a closed period (19 years as of June 30, 2024). The recommended amount is adjusted for interest according to the timing of contributions during the year.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

## DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined under various assumption scenarios. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Payroll Growth: The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll does not increase according to the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

- Contribution Risk: This risk results from the potential that actual employer contributions may deviate from actuarially determined contributions, which are determined in accordance with the Board’s funding policy. The funding policy is intended to result in contribution requirements that if paid when due, will result in a reasonable expectation that assets will accumulate to be sufficient to pay plan benefits when due. Contribution deficits, particularly large deficits and those that occur repeatedly, increase future contribution requirements and put the plan at risk for not being able to pay plan benefits when due.

### Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature plans with a substantial inactive liability. Similarly, mature plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 67.8% on June 30, 2021 to 60.8% on June 30, 2024, indicating that the plan has been maturing.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 74.0%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors will need to be made up for over a shorter time horizon than would be needed for a less mature plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has stayed approximately the same from June 30, 2021 to June 30, 2024.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, stayed approximately the same from June 30, 2021 to June 30, 2024. The current Net Cash Flow Ratio of -4.0% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

### Low Default-Risk Obligation Measure

ASOP No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, was revised as of December 2021 to include a “low-default-risk obligation measure” (LDROM). This liability measure is consistent with the determination of the actuarial accrued liability shown on page 8 in terms of member data, plan provisions, and assumptions/methods, including the use of the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20 Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.21%, resulting in an LDROM of \$101,821,942. The LDROM should not be considered the “correct” liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. Given that plan benefits are paid over time through the combination of contributions and investment returns, prudent investments selected by the Board help to balance asset accumulation through these two sources.

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>6/30/2024</u>	<u>6/30/2023</u>	<u>6/30/2022</u>	<u>6/30/2021</u>
<u>Support Ratio</u>				
Total Actives	76	76	79	78
Total Inactives	125	120	119	115
Actives / Inactives	60.8%	63.3%	66.4%	67.8%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	43,710,963	40,385,352	38,115,937	45,943,628
Total Annual Payroll	5,878,408	5,661,562	5,668,368	5,616,709
MVA / Total Annual Payroll	743.6%	713.3%	672.4%	818.0%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	49,727,688	47,717,543	45,385,090	43,672,884
Total Accrued Liability	67,176,284	64,735,178	62,517,270	63,085,667
Inactive AL / Total AL	74.0%	73.7%	72.6%	69.2%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	43,567,802	42,304,500	41,703,710	41,121,607
Total Accrued Liability	67,176,284	64,735,178	62,517,270	63,085,667
AVA / Total Accrued Liability	64.9%	65.4%	66.7%	65.2%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>1</sup>	(1,744,039)	(1,653,442)	(1,303,740)	(1,712,263)
Market Value of Assets (MVA)	43,710,963	40,385,352	38,115,937	45,943,628
Ratio	-4.0%	-4.1%	-3.4%	-3.7%

<sup>1</sup> Determined as total contributions minus benefit payments and administrative expenses.



STATEMENT OF FIDUCIARY NET POSITION  
June 30, 2024

<u>ASSETS</u>	MARKET VALUE
Total Cash and Equivalents	697,788
Receivables:	
Accrued Interest and Dividends	1,477
Total Receivable	1,477
Investments:	
Equity Securities	24,458,762
Other Investments	18,552,936
Total Investments	43,011,698
Total Assets	43,710,963
 <u>LIABILITIES</u>	
Total Liabilities	0
Net Assets:	
Active and Retired Members' Equity	43,710,963
NET POSITION RESTRICTED FOR PENSIONS	43,710,963
TOTAL LIABILITIES AND NET ASSETS	43,710,963

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
 FOR THE YEAR ENDED June 30, 2024  
 Market Value Basis

ADDITIONS

Contributions:		
Member	311,863	
City	1,956,340	
 Total Contributions		 2,268,203
 Investment Income:		
Interest & Dividends		5,124,133
Less Expenses <sup>1</sup>		(54,483)
 Net Investment Income		 5,069,650
 Total Additions		 7,337,853

DEDUCTIONS

Distributions to Members:		
Benefit Payments	3,953,914	
 Total Distributions		 3,953,914
 Administrative Expenses		 58,328
 Total Deductions		 4,012,242
 Net Increase in Net Position		 3,325,611

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year		40,385,352
 End of the Year		 43,710,963

<sup>1</sup> Expenses include investment advisory, custodial and performance monitoring fees

ACTUARIAL ASSET VALUATION  
June 30, 2024

Development of Actuarial Value of Assets

Market Value of Assets, 6/30/2024	43,710,963
(Gains)/Losses Not Yet Recognized	<u>(143,161)</u>
Preliminary Actuarial Value of Assets, 6/30/2024	43,567,802
6/30/2024 Limited Actuarial Assets, Total	43,567,802

Development of Investment Gain/Loss

Market Value of Assets, 6/30/2023	40,385,352
Actuarial Value of Assets, 6/30/2023	42,304,500
Contributions Less Benefit Payments and Administrative Expenses	(1,744,039)
Expected Investment Earnings <sup>1</sup>	3,066,004
Actual Net Investment Earnings	<u>5,069,650</u>
2024 Actuarial Investment Gain/(Loss)	2,003,646

<sup>1</sup> Expected Investment Earnings = 7.40% x (42,304,500 + 0.5 x -1,744,039)

Gains/(Losses) Not Yet Recognized

Plan Year Ending	Gain/(Loss)	Amounts Not Yet Recognized by Valuation Year				
		2024	2025	2026	2027	2028
6/30/2021	9,247,348	1,849,470	0	0	0	0
6/30/2022	(9,558,691)	(3,823,476)	(1,911,738)	0	0	0
6/30/2023	857,083	514,250	342,833	171,417	0	0
6/30/2024	2,003,646	1,602,917	1,202,188	801,458	400,729	0
Total		143,161	(366,717)	972,875	400,729	0

Development of Asset Returns

(A) 6/30/2023 Actuarial Assets:	42,304,500
(I) Net Investment Income:	
1. Interest and Dividends	5,124,133
2. Change in Actuarial Value	(2,062,309)
3. Investment Expenses	<u>(54,483)</u>
Total	3,007,341
(B) 6/30/2024 Preliminary Actuarial Assets:	43,567,802
Actuarial Asset Rate of Return = (2 x I) / (A + B - I):	7.26%
Market Value of Assets Rate of Return:	12.83%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(58,663)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
June 30, 2024  
Actuarial Asset Basis

INCOME	
Contributions:	
Member	311,863
City	1,956,340
Total Contributions	2,268,203
Earnings from Investments	
Interest & Dividends	5,124,133
Change in Actuarial Value	(2,062,309)
Total Earnings and Investment Gains	3,061,824
EXPENSES	
Administrative Expenses:	
Investment Related <sup>1</sup>	54,483
Other	58,328
Total Administrative Expenses	112,811
Distributions to Members:	
Benefit Payments	3,953,914
Total Distributions	3,953,914
Change in Net Assets for the Year	1,263,302
Net Assets Beginning of the Year	42,304,500
Net Assets End of the Year	43,567,802
Excess Earnings Reserve	

<sup>1</sup> Investment Related expenses include investment advisory, custodial and performance monitoring fees.

SUPPLEMENTAL ANNUITY  
STATEMENT OF FIDUCIARY NET POSITION  
June 30, 2024

<u>ASSETS</u>	MARKET VALUE
Total Cash and Equivalents	47,206
Receivables:	
Accrued Interest and Dividends	100
Total Receivable	100
Investments:	
Equity Securities	1,654,635
Other Investments	1,255,106
Total Investments	2,909,741
Total Assets	2,957,047
 <u>LIABILITIES</u>	
Total Liabilities	0
Net Assets:	
Active and Retired Members' Equity	2,957,047
NET POSITION RESTRICTED FOR PENSIONS	2,957,047
TOTAL LIABILITIES AND NET ASSETS	2,957,047

SUPPLEMENTAL ANNUITY  
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED June 30, 2024  
Market Value Basis

ADDITIONS

Contributions:

Member	0
City	345,827

Total Contributions	345,827
---------------------	---------

Investment Income:

Interest & Dividends	328,778
Less Expenses <sup>1</sup>	(3,496)

Net Investment Income	325,282
-----------------------	---------

Total Additions	671,109
-----------------	---------

DEDUCTIONS

Distributions to Members:

Benefit Payments	301,553
------------------	---------

Total Distributions	301,553
---------------------	---------

Administrative Expenses	3,742
-------------------------	-------

Total Deductions	305,295
------------------	---------

Net Increase in Net Position	365,814
------------------------------	---------

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	2,591,233
-----------------------	-----------

End of the Year	2,957,047
-----------------	-----------

<sup>1</sup> Expenses include investment advisory, custodial and performance monitoring fees

STATISTICAL DATA

Valuation Date	<u>6/30/2024</u>	<u>6/30/2023</u>	<u>6/30/2022</u>	<u>6/30/2021</u>
<u>Actives</u>				
Number	76	76	79	78
Average Current Age	43.3	43.4	44.4	45.1
Average Age at Employment	32.5	32.2	33.2	33.0
Average Past Service	10.8	11.2	11.2	12.1
Average Annual Salary	\$73,941	\$71,163	\$68,679	\$68,880
<u>Service Retirees</u>				
Number	92	90	86	86
Average Current Age	69.6	69.5	69.1	69.4
Average Annual Benefit	\$35,774	\$35,004	\$35,037	\$33,872
EROP Retirees incl. in Retirees	0	0	0	0
<u>Beneficiaries</u>				
Number	19	18	17	16
Average Current Age	75.1	74.3	74.6	74.8
Average Annual Benefit	\$32,400	\$30,932	\$30,187	\$30,894
EDROs incl. in Beneficiaries	3	3	3	2
<u>Disability Retirees</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Terminated Vested</u>				
Number	14	12	16	13
Average Current Age	53.5	53.6	50.7	N/A
Average Annual Benefit <sup>1</sup>	\$12,365	\$12,234	\$11,409	\$11,460

<sup>1</sup> Average Annual Benefit for Terminated Vested members reflects the benefit for members entitled to a future annual benefit from the plan.

STATISTICAL DATA BY DIVISION

	<u>6/30/2024</u>	<u>6/30/2023</u>	<u>6/30/2022</u>	<u>6/30/2021</u>
<u>Actives - General</u>				
Number	46	47	50	49
Average Current Age	44.6	44.5	45.1	46.3
Average Age at Employment	35.6	35.0	35.9	35.8
Average Past Service	9.0	9.6	9.2	10.6
Average Annual Salary	\$59,713	\$59,224	\$56,213	\$57,476
<u>Actives - Public Safety</u>				
Number	30	29	29	29
Average Current Age	41.3	41.6	43.3	43.1
Average Age at Employment	27.7	27.7	28.6	28.5
Average Past Service	13.5	13.9	14.6	14.6
Average Annual Salary	\$95,756	\$90,511	\$90,172	\$88,148



AGE AND SERVICE DISTRIBUTION  
TOTAL

AGE	PAST SERVICE											Total	Total Pay <sup>1</sup>
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+		
20 - 24	1	1	0	0	0	0	0	0	0	0	0	2	\$ 118,722
25 - 29	3	2	0	2	1	0	0	0	0	0	0	8	\$ 499,862
30 - 34	1	2	2	0	0	3	1	0	0	0	0	9	\$ 614,237
35 - 39	1	0	2	2	1	2	1	0	0	0	0	9	\$ 530,879
40 - 44	1	1	0	0	0	0	1	5	4	0	0	12	\$ 1,047,874
45 - 49	0	0	0	0	0	2	2	1	8	0	0	13	\$ 1,092,619
50 - 54	1	0	1	0	0	4	0	0	6	1	0	13	\$ 1,064,990
55 - 59	1	0	0	0	0	1	1	1	1	0	0	5	\$ 401,436
60 - 64	0	1	1	0	1	1	0	0	0	0	0	4	\$ 195,540
65+	0	0	0	0	0	0	1	0	0	0	0	1	\$ 53,326
Total	9	7	6	4	3	13	7	7	19	1	0	76	\$ 5,619,486

<sup>1</sup> Total Pay is salaries for the period ending 6/30/2024.

AGE AND SERVICE DISTRIBUTION  
GENERAL

AGE	PAST SERVICE											Total	Total Pay <sup>1</sup>
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+		
20 - 24	1	0	0	0	0	0	0	0	0	0	0	1	\$ 51,492
25 - 29	2	1	0	1	1	0	0	0	0	0	0	5	\$ 276,794
30 - 34	1	1	1	0	0	0	1	0	0	0	0	4	\$ 175,374
35 - 39	0	0	2	2	0	2	1	0	0	0	0	7	\$ 385,461
40 - 44	1	1	0	0	0	0	1	2	0	0	0	5	\$ 325,132
45 - 49	0	0	0	0	0	2	1	0	4	0	0	7	\$ 445,389
50 - 54	1	0	1	0	0	3	0	0	2	1	0	8	\$ 554,578
55 - 59	1	0	0	0	0	0	1	1	1	0	0	4	\$ 283,712
60 - 64	0	1	1	0	1	1	0	0	0	0	0	4	\$ 195,540
65+	0	0	0	0	0	0	1	0	0	0	0	1	\$ 53,326
Total	7	4	5	3	2	8	6	3	7	1	0	46	\$ 2,746,799

<sup>1</sup> Total Pay is salaries for the period ending 6/30/2024.

AGE AND SERVICE DISTRIBUTION  
PUBLIC SAFETY

AGE	PAST SERVICE											Total	Total Pay <sup>1</sup>
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+		
20 - 24	0	1	0	0	0	0	0	0	0	0	0	1	\$ 67,230
25 - 29	1	1	0	1	0	0	0	0	0	0	0	3	\$ 223,069
30 - 34	0	1	1	0	0	3	0	0	0	0	0	5	\$ 438,863
35 - 39	1	0	0	0	1	0	0	0	0	0	0	2	\$ 145,418
40 - 44	0	0	0	0	0	0	0	3	4	0	0	7	\$ 722,742
45 - 49	0	0	0	0	0	0	1	1	4	0	0	6	\$ 647,229
50 - 54	0	0	0	0	0	1	0	0	4	0	0	5	\$ 510,413
55 - 59	0	0	0	0	0	1	0	0	0	0	0	1	\$ 117,724
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0	\$ 0
65+	0	0	0	0	0	0	0	0	0	0	0	0	\$ 0
Total	2	3	1	1	1	5	1	4	12	0	0	30	\$2,872,687

<sup>1</sup> Total Pay is salaries for the period ending 6/30/2024.

AGE DISTRIBUTION  
 RETIREES, DISABLEDS AND BENEFICIARIES

AGE	<u>General</u>		<u>Public Safety</u>		<u>Total</u>	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
< 45	0	\$ 0	0	\$ 0	0	\$ 0
45 - 49	0	\$ 0	2	\$ 92,189	2	\$ 92,189
50 - 54	2	\$ 55,015	0	\$ 0	2	\$ 55,015
55 - 59	4	\$ 120,427	4	\$ 186,845	8	\$ 307,272
60 - 64	10	\$ 204,606	10	\$ 485,623	20	\$ 690,229
65 - 69	9	\$ 205,994	10	\$ 539,398	19	\$ 745,392
70 - 74	16	\$ 407,061	7	\$ 353,094	23	\$ 760,154
75 - 79	5	\$ 63,523	10	\$ 418,750	15	\$ 482,273
80 - 84	6	\$ 169,364	7	\$ 309,058	13	\$ 478,422
85 - 89	5	\$ 97,821	2	\$ 154,292	7	\$ 252,113
90 - 94	1	\$ 14,866	1	\$ 28,905	2	\$ 43,771
95 - 99	0	\$ 0	0	\$ 0	0	\$ 0
100 +	0	\$ 0	0	\$ 0	0	\$ 0
Total	58	\$ 1,338,677	53	\$ 2,568,155	111	\$ 3,906,831

AGE DISTRIBUTION  
INACTIVE VESTED MEMBERS

AGE	<u>General</u>		<u>Public Safety</u>		<u>Total</u>	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
< 45	2	\$ 21,551	0	\$ 0	2	\$ 21,551
45 - 49	1	\$ 14,570	0	\$ 0	1	\$ 14,570
50 - 54	1	\$ 7,744	0	\$ 0	1	\$ 7,744
55 - 59	7	\$ 98,276	0	\$ 0	7	\$ 98,276
60 - 64	0	\$ 0	0	\$ 0	0	\$ 0
65+	1	\$ 6,240	0	\$ 0	1	\$ 6,240
Total	12	\$ 148,381	0	\$ 0	12	\$ 148,381

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 6/30/2023	76
b. Terminations	
i. Vested (partial or full) with deferred benefits	(1)
ii. Non-vested or full lump sum distribution received	0
iii. Refunded	(4)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(4)
f. EROP	<u>0</u>
g. Continuing participants	67
h. New entrants	<u>9</u>
i. Total active life participants in valuation	76

### 2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	90	18	0	12	120
Retired	4	0	0	0	4
EROP	0	0	0	0	0
Vested Deferred	0	0	0	1	1
Death, With Survivor	(1)	1	0	0	0
Death, No Survivor	(1)	0	0	0	(1)
Disabled	0	0	0	0	0
Refund of Contributions	0	0	0	0	0
Rehires	0	0	0	0	0
New EDROs	0	0	0	0	0
Data Corrections	0	0	0	0	0
Hired/Termed in Same Year	0	0	0	1	1
b. Number current valuation	92	19	0	14	125

## SUMMARY OF CURRENT PLAN PROVISIONS

Plan Administration	<p>The Plan is a single employer defined benefit pension plan administered by a Board of Trustees comprised of five members:</p> <ul style="list-style-type: none"><li>a.) The Mayor,</li><li>b.) A member of the City Council,</li><li>c.) A resident appointed by the Mayor, and</li><li>d.) Two employees (one general and one public safety).</li></ul>
Final Average Compensation (FAC)	<p>General members: Highest 4 years.</p> <p>Communications Dispatcher: Highest 4 years.</p> <p>Public Safety Officers: Highest 4 years.</p> <p>Public Safety Command Officers: Highest 3 calendar years of compensation out of the last eight calendar years prior to retirement.</p>
Regular Retirement	
Eligibility	<p>Age 50 with 25 years of service, age 55 with 20 years of service, or age 60 with 10 or more years of service.</p>
Annual Benefit	<p><b>General members hired before March 30, 2011:</b> FAC times sum of 2.00% times the first 25 years of service plus 1.00% times years of service in excess of 25 years.</p> <p><b>General members hired after March 30, 2011:</b> 1.75% times FAC times years of service.</p> <p><b>Dispatchers/Communications Dispatcher hired before July 1, 2011:</b> 2.125% times FAC times years of service.</p> <p><b>Dispatchers/Communications Dispatcher hired after July 1, 2011:</b> 1.75% times FAC times years of service.</p> <p><b>Public Safety Officers and Command:</b> 2.50% times FAC times years of service, maximum of 75% of FAC.</p>

### Duty Disability Retirement

Eligibility	No age or service requirements.
Benefit	Computed as regular retirement with additional service credit granted to the earlier of the date the member would attain age 55 years or the date the member would have satisfied regular retirement eligibility conditions had the member continued in City employment.  General/Communications Dispatcher members have worker's compensation offsets.  Public Safety members, depending upon whether or not they are eligible for a service retirement at the time of injury, may elect to choose between worker's compensation benefits or a disability pension.

### Non-Duty Disability Retirement

Eligibility	10 or more years of credited service.
Benefit	Computed as a regular retirement.

### Deferred Retirement

Eligibility	10 or more years of service.
Annual Benefit	Computed as regular retirement but based on service and final average compensation at time of termination. Benefits begin at age 60.

### Duty Death in Service Survivor's Pension

Eligibility	No age or service requirements. Must be in receipt of worker's compensation.
Benefit	Upon termination of worker's compensation a benefit equal to the worker's compensation amount shall be paid to the widow, unmarried children under 18 and dependent parents. Maximum benefit to the widow: 50% of final average compensation, to the children: 20% of final average compensation, and to the parents: 16-2/3% of final average compensation.

### Non-Duty Death in Service Survivor's Pension

Eligibility	10 years of service.
Benefit	Computed as a regular retirement but actuarially reduced in accordance with a 100% joint and survivor election.



Employee Retention Option Plan (EROP)

Eligibility	<p>Command and Public Safety Officers:                  Age 50 with 25 years of service, or                  Age 55 with 20 years of service.                  5-year maximum period of participation.</p>										
Benefit	<p>85% of participant's regular monthly accrued retirement benefit deposited into EROP account earning 3.00% interest.</p> <p>Not subject to COLA increases.</p> <p>Member contributions cease upon EROP entry.</p>										
Member Contributions	<p><b>General members:</b> 5.00% of annual compensation.</p> <p><b>Communications Dispatcher hired before July 1 2008:</b>                  6.00% of annual compensation.</p> <p><b>Communications Dispatcher hired after July 1 2008:</b> 5.00% of annual compensation.</p> <p><b>Public Safety Members:</b> 6.00% of annual compensation.</p>										
Annuity Withdrawal	<p>A member may withdraw accumulated member contributions in a lump sum at retirement. The retirement allowance is reduced by the actuarial equivalent of the annuity withdrawn, based on actuarial assumptions concerning interest and mortality used in the annual actuarial valuation.</p>										
Pop-Up Provision	<p>Upon the death of the beneficiary, a retiree who had previously selected either Option II or Option III will have the retirement allowance recomputed as a straight life allowance.</p>										
Supplemental Annuities											
Eligibility	<p>Age 50 with 25 years of service, age 55 with 20 years of service, or age 60 with 20 years of service. General members who qualify for a disability retirement are also eligible. Public Safety members with retirements effective after December 31, 1994 are not eligible.</p>										
Amount	<table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Years of Service</th> <th style="text-align: left; border-bottom: 1px solid black;">Monthly Benefit</th> </tr> </thead> <tbody> <tr> <td>10-14</td> <td>\$250</td> </tr> <tr> <td>15-19</td> <td>300</td> </tr> <tr> <td>20-24</td> <td>350</td> </tr> <tr> <td>25+</td> <td>400</td> </tr> </tbody> </table>	Years of Service	Monthly Benefit	10-14	\$250	15-19	300	20-24	350	25+	400
Years of Service	Monthly Benefit										
10-14	\$250										
15-19	300										
20-24	350										
25+	400										

Post-Retirement Cost-of-Living

Eligibility

Hired before July 1, 2016.

Amount

Annual adjustments based upon changes in the Consumer Price Index subject to a maximum increase of 2.5% of the adjusted retirement allowance. The cost-of-living adjustment shall be paid on both the base pensions and, for retirements on or after 7/1/90, supplemental annuity distributions.

# City of Grosse Pointe Woods Employees' Retirement System

## Summary Annual Report

### June 30, 2024

Dear Member:

The following is a summary of your retirement System. Each year, an actuarial valuation is prepared to compare assets to liabilities. Assets are held and invested in a trust separate from other City assets. The only disbursements from this trust are to members who are retired or disabled, beneficiaries of members, members who receive contribution refunds, and for Retirement System expenses.

As Retirement Board Members, our tasks include making sure trust assets are invested prudently, required City and member contributions are received and that benefits are paid in accordance with the Retirement System's provisions.

Various professionals are hired to help in the administration of the System. They are listed in the column to the right.

The City is funding Retirement System benefits as they accrue in accordance with a sound level percent of payroll funding objective.

Respectfully submitted,

**Board of Trustees**  
**City of Grosse Pointe Woods Retirement System**

**Board Members**

Arthur W. Bryant  
*Chairman*

Brian Conigliaro  
*Trustee*

Jeremy Bastien  
*Trustee*

Victoria Granger  
*Trustee*

Gary Zarb,  
*Trustee*

Steven Schmidt  
*Pension Administrator*

Tina Hoenicke  
*Board Secretary*

**Actuarial Information Used for this Report:**

1. 76 active members
2. 111 retirees/beneficiaries (and 14 deferred retirees)
3. Plan is open to new hires
4. \$35,441 average annual pension benefit
5. \$3,953,914 annual pension benefits paid
6. \$5,619,486 valuation payroll used (Combined General and Public Safety)
7. Employer's normal cost of benefits **effective July 1, 2025** is 8.38% General Employees and 11.39% for Public Safety employees.
8. Employer's actual total contribution rate **effective July 1, 2025** is 40.61% General employees and 43.62% for Public Safety employees
9. Weighted average member contribution rate **effective July 1, 2025** is 5.37% General employees and 6.44% for Public Safety employees.
10. The required employer contribution for the fiscal year was received
11. 7.40% assumed rate of investment return (net of expenses)
12. 3.50% assumed rate of long-term wage inflation
13. 5-year smoothing method used
14. 19-year amortization period that will phase into a 15 year open amortization period
15. Method used is level percent of payroll
16. Cost method is individual entry-age
17. Current funding value of assets is 64.9% of accrued liability

**Professional Advisors**

*Investment Fiduciaries*  
Fund Evaluation Group (FEG)

**Service Providers**

Rosati, Schultz, Joppich & Amtsbuechler, P.C.  
*City Attorney*

Foster & Foster Actuaries & Consultants,  
*Actuary*

Michael VanOverbeke,  
*Special Pension Attorney*

**Investment Performance\***

	1	3	5	7	10
Combined	Year	Year	Year	Year	Year
Account	13.0%	2.3%	7.7%	6.9%	5.6%

\*Calendar year ending June 30, 2024 (net of fees)

**2023-2024 Actual Expenditures**

Pension Payments/ Withdrawals:	\$ 3,925,353
Refund of Member Contributions:	\$ 28,561
Investment Fees:	\$ 54,483
Memberships/Training/Education:	\$ 188
Administrative Expenses:	<u>\$ 58,140</u>
Total:	<u>\$ 4,066,725</u>

## City of Grosse Pointe Woods Employees' Retirement System Summary Annual Report (cont.)

### Actuarial Valuation Summary

Foster & Foster Actuaries and Consultants were hired to prepare the June 30, 2024 Actuarial Valuation. The funding objective of the System is to contribute an amount as a percent of payroll that remains level from year to year. The actual level of contribution is dependent on past and assumed future experience, including investment performance, and benefit provisions.

Below is a summary of the results:

Contribution Requirements	<u>General</u>	<u>Public Safety</u>
Normal Cost of Benefits		
Total	13.75%	17.83%
Member portion	5.37%	6.44%
Employer portion	8.38%	11.39%
Amortization of unfunded liability (19 years)	32.23%	32.23%
Computed Employer Rate	40.61%	43.62%

*Contribution rates are expressed as percents of eligible member payroll. \*Weighted average.*

### **Assets & Liabilities**

#### **Funded Status**

Market Value of Assets	\$ 43,710,963
Valuation Assets	\$ 43,567,802
Actuarial Accrued Liability	\$ 67,176,284
Funded Ratio	64.90%

**Actuary's Statement** – The System is being funded based on sound actuarial assumption, methods, and level percent of payroll funding objective. For a complete analysis, please review the June 30, 2024 actuarial valuation.

#### **Revenues & Expenditures**

Beginning Balance (Market Value) – July 1, 2023	\$ 40,385,352
<b>Revenues</b>	
Employees' contributions	\$ 311,863
Employer contribution	\$ 1,956,340
Investment income	\$ 5,069,650
Other Income	\$ 0
Total	\$ 7,337,853
<b>Expenditures</b>	
Pension payments	\$ 3,925,353
Refund of member contributions	\$ 28,561
Administrative Expenses	\$ 58,328
Total	\$ 4,012,242
Ending Balance (Market Value) – June 30, 2024	\$ 43,71,963
Recognized Return on Smoothed Funding Value of Assets	7.26%

**City of Grosse Pointe Woods, Michigan**

**Required Supplementary Information  
Schedule of Changes in the Net Pension Liability and Related Ratios  
Pension Plan**

**Last Ten Fiscal Years**

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
<b>Total Pension Liability</b>										
Service cost	\$ 812,864	\$ 1,029,506	\$ 1,080,805	\$ 1,459,769	\$ 1,381,734	\$ 1,419,981	\$ 872,705	\$ 812,794	\$ 893,380	\$ 692,961
Interest	4,670,531	4,655,548	4,517,849	4,149,881	4,160,628	4,115,769	3,739,452	3,713,413	3,802,189	3,521,128
Changes in benefit terms	-	(2,108,032)	196,683	-	-	-	-	-	-	-
Differences between expected and actual experience	948,035	716,258	(630,363)	(219,966)	(2,041,992)	61,396	1,898,141	(1,943,674)	(509,341)	501,262
Changes in assumptions	(155,143)	(5,158,946)	(2,730,443)	(13,509,818)	1,372,928	(2,730,629)	17,877,664	(3,946,934)	7,000,034	5,686,156
Benefit payments, including refunds	(3,953,914)	(3,921,734)	(3,586,669)	(3,570,576)	(3,403,902)	(3,346,109)	(3,354,997)	(3,215,776)	(3,187,512)	(3,315,548)
<b>Net Change in Total Pension Liability</b>	<b>2,322,373</b>	<b>(4,787,400)</b>	<b>(1,152,138)</b>	<b>(11,690,710)</b>	<b>1,469,396</b>	<b>(479,592)</b>	<b>21,032,965</b>	<b>(4,580,177)</b>	<b>7,998,750</b>	<b>7,085,959</b>
<b>Total Pension Liability - Beginning of year</b>	<b>64,708,736</b>	<b>69,496,136</b>	<b>70,648,274</b>	<b>82,338,984</b>	<b>80,869,588</b>	<b>81,349,180</b>	<b>60,316,215</b>	<b>64,896,392</b>	<b>56,897,642</b>	<b>49,811,683</b>
<b>Total Pension Liability - End of year</b>	<b>\$ 67,031,109</b>	<b>\$ 64,708,736</b>	<b>\$ 69,496,136</b>	<b>\$ 70,648,274</b>	<b>\$ 82,338,984</b>	<b>\$ 80,869,588</b>	<b>\$ 81,349,180</b>	<b>\$ 60,316,215</b>	<b>\$ 64,896,392</b>	<b>\$ 56,897,642</b>
<b>Plan Fiduciary Net Position</b>										
Contributions - Employer	\$ 1,956,340	\$ 2,042,555	\$ 2,044,344	\$ 1,623,076	\$ 1,406,409	\$ 1,215,450	\$ 1,230,649	\$ 1,076,052	\$ 925,683	\$ 889,829
Contributions - Member	311,863	297,963	290,887	282,203	262,296	263,799	249,835	243,096	252,579	258,967
Net investment income (loss)	5,069,650	3,922,857	(6,523,478)	12,109,682	157,140	1,291,520	2,128,175	3,992,724	(1,359,930)	15,073
Administrative expenses	(58,328)	(72,227)	(52,775)	(46,967)	(70,669)	(58,125)	(62,843)	(37,168)	(51,765)	(69,537)
Benefit payments, including refunds	(3,953,914)	(3,921,734)	(3,586,669)	(3,570,576)	(3,403,902)	(3,346,109)	(3,354,997)	(3,215,776)	(3,187,512)	(3,315,548)
Other	-	-	-	-	-	-	22,728	12,254	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>3,325,611</b>	<b>2,269,414</b>	<b>(7,827,691)</b>	<b>10,397,418</b>	<b>(1,648,726)</b>	<b>(633,465)</b>	<b>213,547</b>	<b>2,071,182</b>	<b>(3,420,945)</b>	<b>(2,221,216)</b>
<b>Plan Fiduciary Net Position - Beginning of year</b>	<b>40,385,351</b>	<b>38,115,937</b>	<b>45,943,628</b>	<b>35,546,210</b>	<b>37,194,936</b>	<b>37,828,401</b>	<b>37,614,854</b>	<b>35,543,672</b>	<b>38,964,617</b>	<b>41,185,833</b>
<b>Plan Fiduciary Net Position - End of year</b>	<b>\$ 43,710,962</b>	<b>\$ 40,385,351</b>	<b>\$ 38,115,937</b>	<b>\$ 45,943,628</b>	<b>\$ 35,546,210</b>	<b>\$ 37,194,936</b>	<b>\$ 37,828,401</b>	<b>\$ 37,614,854</b>	<b>\$ 35,543,672</b>	<b>\$ 38,964,617</b>
<b>City's Net Pension Liability - Ending</b>	<b>\$ 23,320,147</b>	<b>\$ 24,323,385</b>	<b>\$ 31,380,199</b>	<b>\$ 24,704,646</b>	<b>\$ 46,792,774</b>	<b>\$ 43,674,652</b>	<b>\$ 43,520,779</b>	<b>\$ 22,701,361</b>	<b>\$ 29,352,720</b>	<b>\$ 17,933,025</b>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	65.21 %	62.41 %	54.85 %	65.03 %	43.17 %	45.99 %	46.50 %	62.36 %	55.02 %	68.48 %
<b>Covered Payroll</b>	\$ 5,619,486	\$ 5,408,364	\$ 5,425,650	\$ 5,372,630	\$ 4,791,109	\$ 4,716,600	\$ 4,544,155	\$ 4,493,845	\$ 4,592,611	\$ 4,651,563
<b>City's Net Pension Liability as a Percentage of Covered Payroll</b>	414.99 %	449.74 %	578.37 %	459.82 %	976.66 %	925.98 %	957.73 %	505.17 %	632.60 %	385.53 %

**City of Grosse Pointe Woods, Michigan**

**Required Supplementary Information  
Schedule of Changes in the Net Pension Liability and Related Ratios  
Pension Plan (Continued)**

**Last Ten Fiscal Years**

**Assumption Changes**

Assumption changes were made for each year as follows:

- 2015: Changed from the 1994 uninsured pension mortality table to the RP-2014 Healthy Annuitant Mortality Table and the discount rate from 8.0 to 6.82 percent
- 2016: Changed the investment rate of return from 8.0 to 7.8 percent, inflation from 4.0 to 3.5 percent, and the discount rate to 5.83 percent
- 2017: Changed the discount rate to 6.33 percent
- 2018: Changed the investment rate of return to 7.75 percent, inflation to 2.5 percent, the mortality table to the RP-2014 Mortality Table with MP-2017, and the discount rate to 5.12 percent
- 2019: Changed the discount rate to 5.21 percent
- 2020: Changed the investment rate of return to 7.50 percent, mortality table to the Pub-2010 Mortality Table with MP-2018 improvement scale, and the discount rate to 5.06 percent
- 2021: Changed the discount rate to 6.46 percent
- 2022: Changed the discount rate to 6.79 percent
- 2023: Changed the investment rate of return to 7.40 percent. Changed the discount rate to 7.35 percent due to a change in the crossover
- 2024: Changed the discount rate to 7.37 percent

**Changes in Benefit Terms**

- 2023: The \$2.1 million change in benefit terms resulted from the plan's addition of an Employee Retention Option Plan (EROP).

**City of Grosse Pointe Woods, Michigan**

Required Supplementary Information  
 Schedule of Pension Investment Returns  
 Pension Plan and Pension Plan Supplemental Annuity

	Last Ten Fiscal Years									
	Years Ended June 30									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Annual money-weighted rate of return - Net of investment expense	9.94 %	7.97 %	(16.99)%	36.24 %	1.52 %	4.89 %	4.84 %	11.60 %	(3.50)%	0.10 %

**City of Grosse Pointe Woods, Michigan**

**Required Supplementary Information  
Schedule of Pension Contributions  
Pension Plan**

	<b>Last Ten Fiscal Years</b>									
	<b>Years Ended June 30</b>									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 1,879,000	\$ 2,003,000	\$ 2,044,000	\$ 1,623,000	\$ 1,406,000	\$ 1,215,000	\$ 1,231,000	\$ 1,076,000	\$ 926,000	\$ 890,000
Contributions in relation to the actuarially determined contribution	1,956,000	2,043,000	2,044,000	1,623,000	1,406,000	1,215,000	1,231,000	1,076,000	926,000	890,000
<b>Additional Contribution</b>	<b>\$ 77,000</b>	<b>\$ 40,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Covered Payroll</b>	<b>\$ 5,619,486</b>	<b>\$ 5,408,364</b>	<b>\$ 5,425,650</b>	<b>\$ 5,372,630</b>	<b>\$ 4,791,109</b>	<b>\$ 4,716,600</b>	<b>\$ 4,544,155</b>	<b>\$ 4,493,845</b>	<b>\$ 4,592,611</b>	<b>\$ 4,651,563</b>
<b>Contributions as a Percentage of Covered Payroll</b>	<b>34.81 %</b>	<b>37.77 %</b>	<b>37.67 %</b>	<b>30.21 %</b>	<b>29.35 %</b>	<b>25.76 %</b>	<b>27.09 %</b>	<b>23.94 %</b>	<b>20.17 %</b>	<b>19.13 %</b>

**Notes to Schedule of Pension Contributions - Pension Plan**

Actuarial valuation information relative to the determination of contributions:

Valuation date      Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported. Covered payroll is as of June 30 of the current fiscal year.

Methods and assumptions used to determine contribution rates:

- Actuarial cost method      Entry age
- Amortization method      Level percentage of payroll
- Remaining amortization period      25 years, open
- Asset valuation method      5-year smoothed market
- Inflation      2.50 percent
- Salary increase      3.50 - 7.30 percent, including inflation
- Investment rate of return      7.40 percent - Net of expense
- Mortality      Pub-2010 Mortality Table with MP-2018



**City of Grosse Pointe Woods, Michigan**

**Required Supplementary Information  
Schedule of Changes in the Net Pension Liability and Related Ratios  
Supplemental Annuity**

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
<b>Total Pension Liability</b>										
Service cost	\$ 34,736	\$ 44,932	\$ 45,787	\$ 43,432	\$ 51,793	\$ 47,748	\$ 59,640	\$ 39,299	\$ 37,233	\$ 28,387
Interest	287,956	283,542	281,506	275,505	272,594	259,909	239,740	254,061	269,224	234,285
Differences between expected and actual experience	110,188	39,243	(22,217)	21,271	(151,559)	136,155	161,463	(227,980)	(232,788)	(399,452)
Changes in assumptions	-	47,379	-	(15,148)	(198,496)	(57,257)	567,907	-	86,953	831,276
Benefit payments, including refunds	(301,553)	(286,747)	(267,409)	(266,789)	(278,103)	(275,592)	(242,921)	(257,534)	(263,715)	(247,158)
<b>Net Change in Total Pension Liability</b>	131,327	128,349	37,667	58,271	(303,771)	110,963	785,829	(192,154)	(103,093)	447,338
<b>Total Pension Liability - Beginning of year</b>	4,007,347	3,878,998	3,841,331	3,783,060	4,086,831	3,975,968	3,190,039	3,382,193	3,485,286	3,037,948
<b>Total Pension Liability - End of year</b>	<b>\$ 4,138,674</b>	<b>\$ 4,007,347</b>	<b>\$ 3,878,998</b>	<b>\$ 3,841,331</b>	<b>\$ 3,783,060</b>	<b>\$ 4,086,831</b>	<b>\$ 3,975,968</b>	<b>\$ 3,190,039</b>	<b>\$ 3,382,193</b>	<b>\$ 3,485,286</b>
<b>Plan Fiduciary Net Position</b>										
Contributions - Employer	\$ 345,827	\$ 329,201	\$ 349,494	\$ 318,174	\$ 335,830	\$ 311,792	\$ 298,389	\$ 290,000	\$ 297,360	\$ 286,439
Net investment income (loss)	325,281	235,635	(368,012)	649,743	7,796	59,811	91,098	159,415	3,963	(9,093)
Administrative expenses	(3,742)	(4,372)	(7,005)	(2,519)	(3,506)	(2,693)	(5,768)	(995)	-	(22,140)
Benefit payments, including refunds	(301,553)	(286,747)	(267,409)	(266,789)	(278,103)	(275,592)	(242,921)	(257,534)	(263,715)	(247,158)
Other	-	2,589	2,024	-	-	-	960	-	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	365,813	276,306	(290,908)	698,609	62,017	93,318	141,758	190,886	37,608	8,048
<b>Plan Fiduciary Net Position - Beginning of year</b>	2,591,233	2,314,927	2,605,835	1,907,226	1,845,209	1,751,891	1,610,133	1,419,247	1,381,639	1,373,591
<b>Plan Fiduciary Net Position - End of year</b>	<b>\$ 2,957,046</b>	<b>\$ 2,591,233</b>	<b>\$ 2,314,927</b>	<b>\$ 2,605,835</b>	<b>\$ 1,907,226</b>	<b>\$ 1,845,209</b>	<b>\$ 1,751,891</b>	<b>\$ 1,610,133</b>	<b>\$ 1,419,247</b>	<b>\$ 1,381,639</b>
<b>City's Net Pension Liability - Ending</b>	<b>\$ 1,181,628</b>	<b>\$ 1,416,114</b>	<b>\$ 1,564,071</b>	<b>\$ 1,235,496</b>	<b>\$ 1,875,834</b>	<b>\$ 2,241,622</b>	<b>\$ 2,223,977</b>	<b>\$ 1,579,906</b>	<b>\$ 1,962,946</b>	<b>\$ 2,103,647</b>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	71.45 %	64.66 %	59.68 %	67.84 %	50.41 %	45.15 %	44.06 %	50.47 %	41.96 %	39.64 %
<b>Covered Payroll</b>	\$ 2,746,799	\$ 2,783,550	\$ 2,810,667	\$ 2,816,325	\$ 2,475,978	\$ 2,525,337	\$ 2,231,884	\$ 2,258,831	\$ 2,347,151	\$ 2,358,679
<b>City's Net Pension Liability as a Percentage of Covered Payroll</b>	43.02 %	50.87 %	55.65 %	43.87 %	75.76 %	88.77 %	99.65 %	69.94 %	83.63 %	89.19 %

**Required Supplementary Information  
Schedule of Changes in the Net Pension Liability and Related Ratios  
Supplemental Annuity (Continued)**

**Last Ten Fiscal Years**

GASB Statement No. 67 was implemented for the FYE June 30, 2014 and does not require retroactive implementation. The required supplementary information is intended to show information for 10 years, and additional years' information will be displayed as it becomes available.

**Assumption Changes**

Assumption changes were made for each year as follows:

- 2015: Changed from the 1994 uninsured pension mortality table to the RP-2014 Healthy Annuitant Mortality Table, inflation from 0.0 to 4.0 percent, and the discount rate from 8.0 to 7.98 percent
- 2016: Changed the investment rate of return from 8.0 to 7.8 percent, inflation to 3.5 percent, and the discount rate to 7.71 percent
- 2018: Changed the investment rate of return to 7.75 percent, inflation to 2.5 percent, the mortality table to the RP-2014 Mortality Table with MP-2017, and the discount rate to 6.73 percent
- 2019: Changed the discount rate to 6.86 percent
- 2020: Changed the investment rate of return to 7.50 percent, mortality table to the Pub-2010 Mortality Table with MP-2018 improvement scale, and the discount rate to 7.46 percent
- 2021: Changed the discount rate to 7.50 percent
- 2023: Changed the investment rate of return to 7.40 percent and the discount rate to 7.40 percent
- 2024: No changes

**City of Grosse Pointe Woods, Michigan**

**Required Supplementary Information  
Schedule of Pension Contributions  
Supplemental Annuity**

	Last Ten Fiscal Years									
	Years Ended June 30									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 345,827	\$ 329,201	\$ 349,494	\$ 318,174	\$ 335,830	\$ 311,792	\$ 298,000	\$ 290,000	\$ 297,360	\$ 286,439
Contributions in relation to the actuarially determined contribution	345,827	329,201	349,494	318,174	335,830	311,792	298,000	290,000	297,360	286,439
<b>Contribution Deficiency</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Covered Payroll</b>	<b>\$ 2,746,799</b>	<b>\$ 2,783,550</b>	<b>\$ 2,810,667</b>	<b>\$ 2,816,325</b>	<b>\$ 2,475,978</b>	<b>\$ 2,525,337</b>	<b>\$ 2,231,884</b>	<b>\$ 2,258,831</b>	<b>\$ 2,347,151</b>	<b>\$ 2,358,679</b>
<b>Contributions as a Percentage of Covered Payroll</b>	<b>12.59 %</b>	<b>11.83 %</b>	<b>12.43 %</b>	<b>11.30 %</b>	<b>13.56 %</b>	<b>12.35 %</b>	<b>13.35 %</b>	<b>12.84 %</b>	<b>12.67 %</b>	<b>12.14 %</b>

**Notes to Schedule of Pension Contributions - Supplemental Annuity**

Actuarial valuation information relative to the determination of contributions:

Valuation date Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported. Covered payroll is as of June 30 of the current fiscal year. Public safety members retiring after December 31, 1994 are not covered.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level dollar
Remaining amortization period	25 years, open
Asset valuation method	Market
Inflation	2.50 percent
Salary increase	0.00 percent
Investment rate of return	7.40 percent - Net of expense
Mortality	Pub-2010 Mortality Table with MP-2018



# COMPOSITE PERFORMANCE REVIEW

Report for Periods Ending December 31, 2024

## City of Grosse Pointe Woods Employees Retirement System



*Presented by:*

Jeffrey A. Davis, CFA, CAIA  
Senior Vice President

Andrew Manley  
Senior Institutional Portfolio Analyst



# City of Grosse Pointe Woods Employees Retirement System

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## FOURTH QUARTER 2024 MARKET SUMMARY

*The often-observed “Santa Claus Rally” failed to materialize in the final month of 2024, as losses blanketed the financial markets in December. For the calendar year period, however, most major asset classes and sub-asset categories generated positive returns, with gains remaining concentrated within domestic-oriented corners of the market, notably mega-cap tech stocks. Despite the sharp rally across small cap stocks that immediately followed the U.S. presidential election, this upward momentum sharply reversed in December, with the Russell 2000 Index witnessing a nearly double-digit decline (-8.3%), almost eliminating the index’s gain for the quarter.*

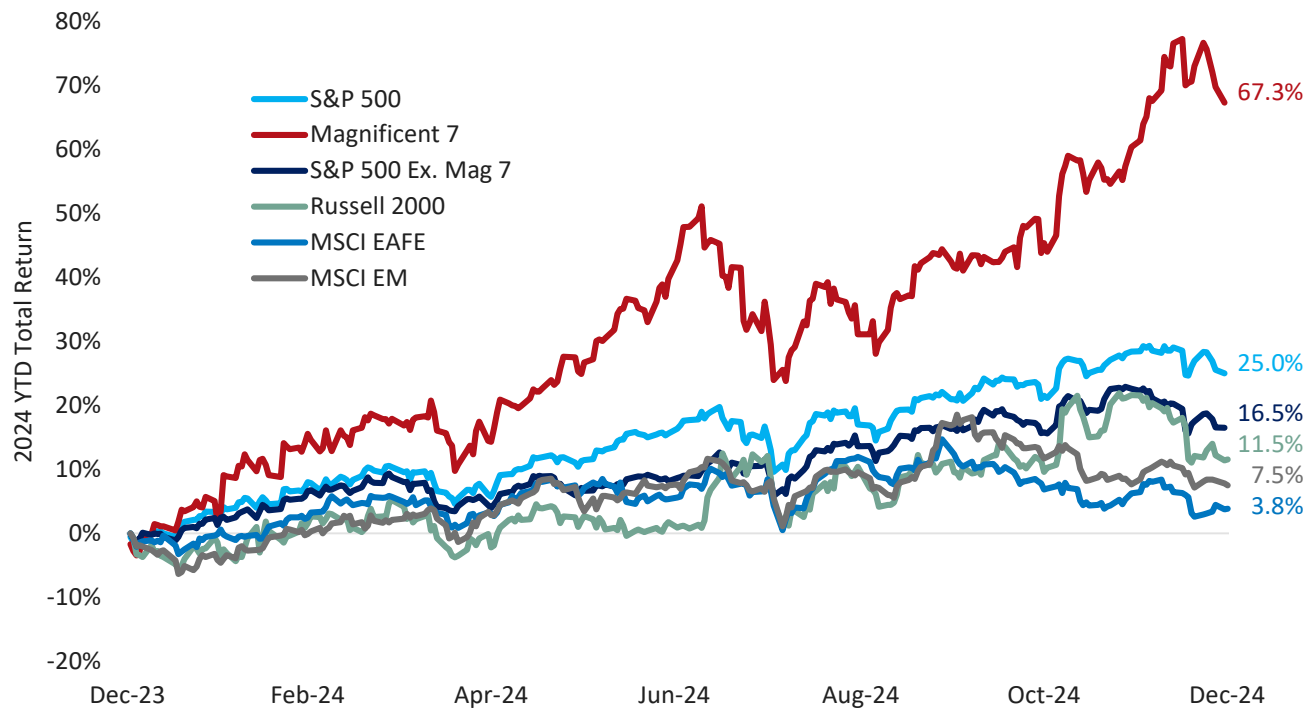
*Bond markets took a hit amid December’s spike in interest rates, with rate-sensitive sectors such as core and the relatively long-duration investment grade corporate space underperforming shorter-duration sectors. Real estate investment trusts (REITs) suffered in both December and the fourth quarter, with interest rate headwinds weighing down the sector and leading to underperformance versus competing categories such as energy infrastructure and global listed infrastructure.*

# ECONOMIC AND MARKET INSIGHTS

- The overarching performance theme across the stock market took on a familiar tone, which was one of concentration. One look at the calendar-year evolution of global equity performance highlights the persistent leadership of the seven largest technology companies within the U.S. large cap space.
- This 7-constituent lineup, colloquially called the Magnificent 7 (Mag 7), outperformed the broader U.S. large cap market by over 40 percentage points in 2024. The dominance displayed by these highly successful and innovative companies resembled a broader trend that has firmly been in place in the post-pandemic period, which has been the U.S.'s leadership on the global economic playing field.

## THE MAGNIFICENT 7 OUTPACED ALL MAJOR EQUITY MARKETS IN 2024

2024 YTD Total Return Across Major Equity Indices

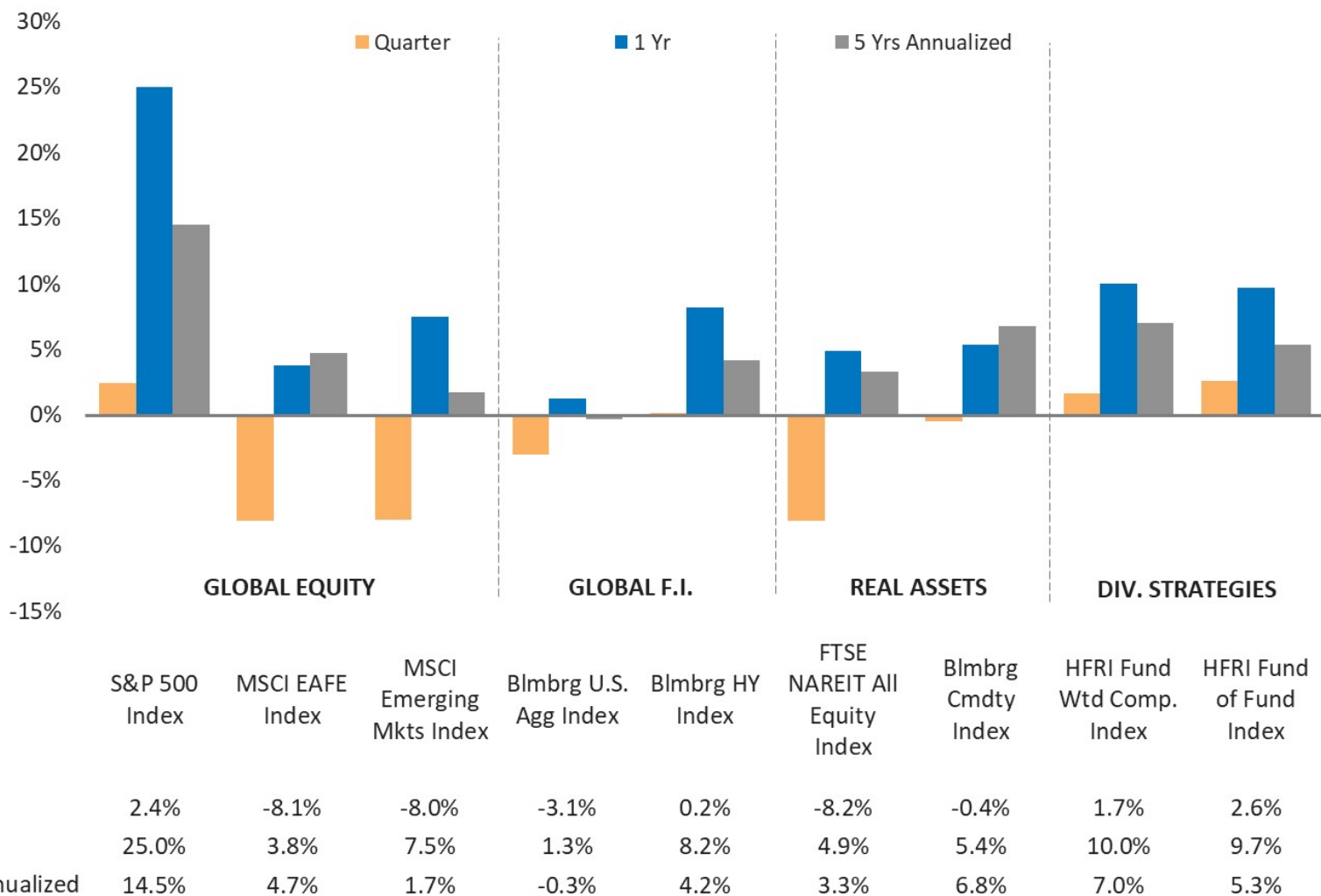


Data source: Bloomberg, L.P.

The Magnificent Seven consists of Meta, Tesla, Alphabet (Google), Amazon, Microsoft, Apple, and NVIDIA

# MARKET RETURNS

## MAJOR ASSET CLASS RETURNS



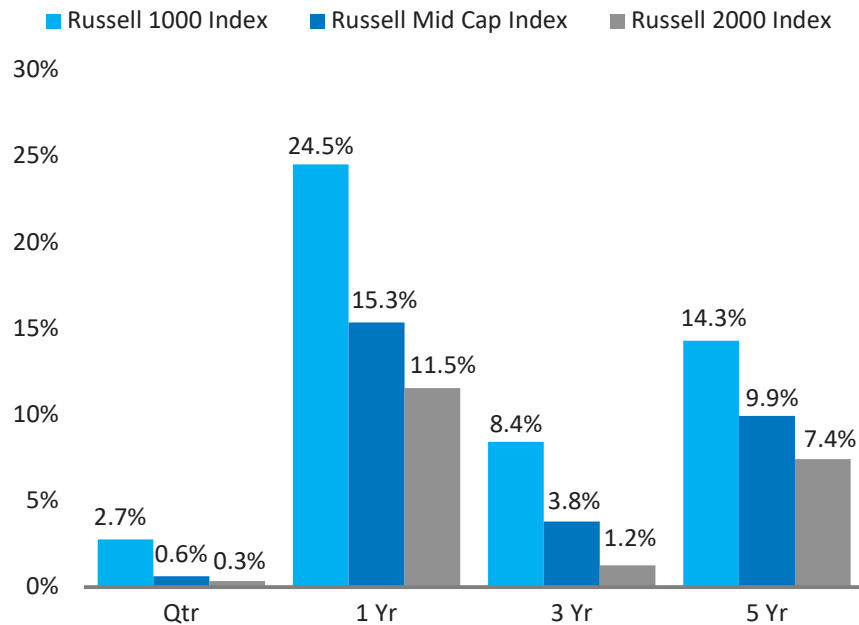
Data sources: Lipper and Hedge Fund Research, data as of the fifth business day following quarter-end



# GLOBAL EQUITY, U.S.

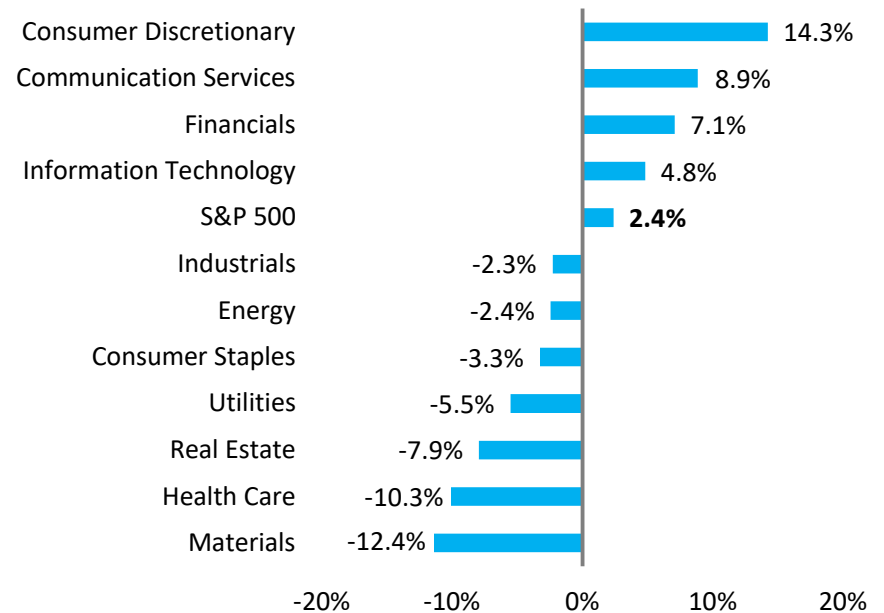
- U.S. equity markets had a volatile fourth quarter, guided by a presidential election rally in November, but experienced December weakness instead of a highly anticipated “Santa Claus Rally.”
- Strong economic data and corporate earnings buoyed U.S. equity markets, while the strengthening of the U.S. dollar (USD) negatively affected international equity markets.
- The S&P 500 Index reached new highs in early December, driven by gains in the technology and consumer discretionary sectors. However, the Federal Reserve’s (Fed’s) indication of fewer expected rate cuts in 2025 amid increasing inflationary concerns led to late-quarter volatility, softening the gains witnessed earlier in the quarter.
- Despite concerns about inflation hovering closer to 3% rather than the Fed’s 2% target, the U.S. economy’s resilience and strong labor market data helped support investor confidence. Overall, large cap growth stocks outperformed, which continued the trend observed throughout the year.

## LARGE CAP, MID CAP, AND SMALL CAP



Data source: Russell  
©2025 Fund Evaluation Group, LLC

## S&P 500 SECTOR PERFORMANCE

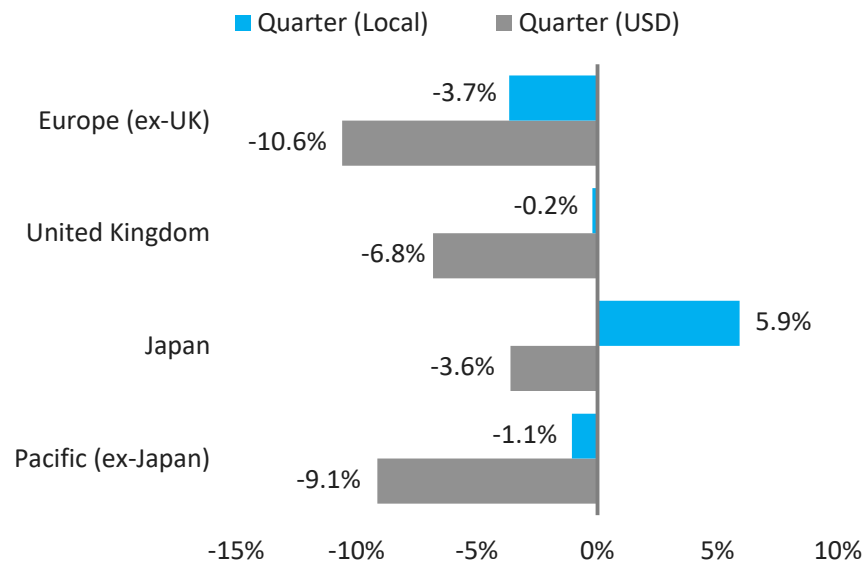


Data source: FactSet

## GLOBAL EQUITY, NON-U.S.

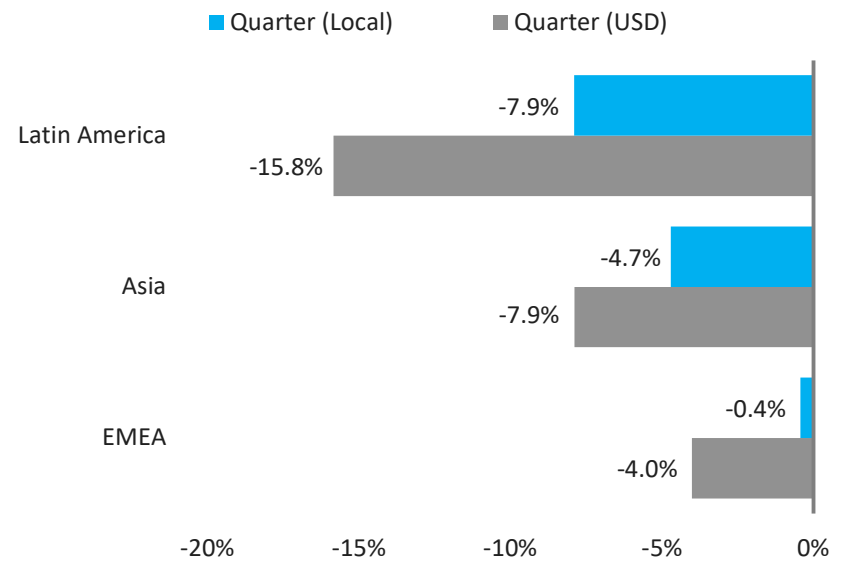
- The strengthening of the U.S. dollar was the predominant story for U.S. investors in international markets. Economic weakness internationally has led global central banks to adopt an easier monetary path with lower interest rates relative to the Fed, which supported the value of the U.S. dollar. Further, concerns surrounding stubborn inflation in the U.S. have caused the Fed to indicate fewer rate cuts than previously anticipated.
- Japanese equity markets experienced gains in yen terms as investors began to price in an improved earnings outlook for large cap exporters on the backdrop of a weakening Yen. Despite challenges, share buybacks totaled more than 100 billion USD in 2024, a new Japanese record for the third consecutive year.
- Political instability in Germany and France, triggered by government spending and fiscal budget plan concerns, weighed on sentiment. Sectors such as materials, real estate, and consumer staples underperformed, while industrials showed some resilience. In local terms, the UK equity markets held steady in the fourth quarter.
- Donald Trump’s victory and a GOP sweep in the U.S. election acted as a headwind to emerging markets, leaving investors uncertain about the impact of proposed tariffs.

### MSCI EAFE REGIONAL QUARTERLY RETURNS



Data source: MSCI Barra

### MSCI EM REGIONAL QUARTERLY RETURNS



Data source: MSCI Barra

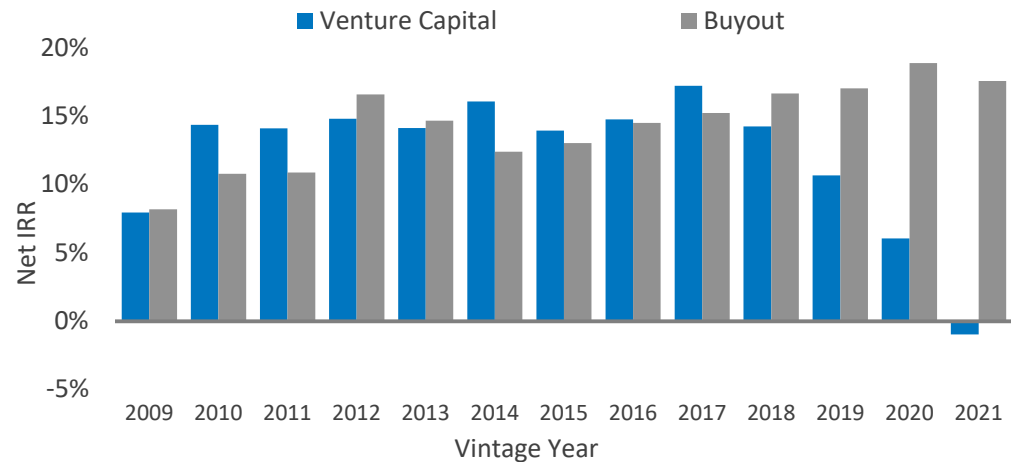
Note: EMEA – Europe, Middle East, and Africa

# GLOBAL EQUITY, PRIVATE

- Private equity reports performance on a lag; the latest data available are through June 30, 2024.
- Private equity deal activity was relatively subdued, with exit activity contracting due to ongoing uncertainty, interest rates, and valuation concerns.
- Sluggish exit activity impacted venture capital (VC) fundraising, with distributions remaining well below historical norms. An increase in initial public offerings (IPOs) and mergers and acquisitions is anticipated in 2025. However, many limited partners (LPs) have remained skeptical of significant increases in near-term distribution activity.
- Demand for buyout strategies remained strong, with fundraising in line with recent annual figures. Yet, dealmaking for new platforms remained muted as general partners (GP) focused on add-on acquisitions.
- The secondary market experienced record-breaking activity. Both LP-led and GP-led transactions drove the increase, as LPs sought early liquidity and GPs opted for continuation funds to retain high-performing assets.

## MEDIAN VENTURE CAPITAL AND BUYOUT VINTAGE YEAR IRR

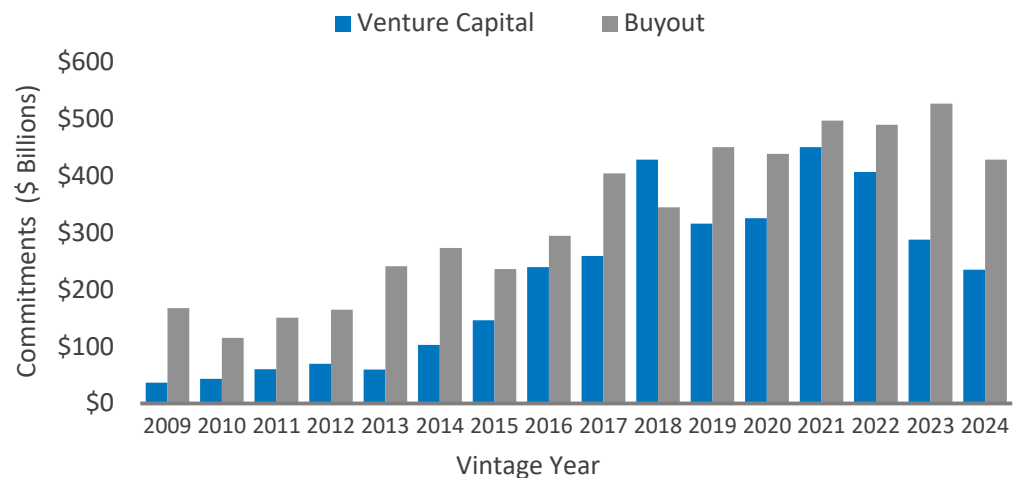
As of June 30, 2024



Data source: LSEG; the most recent return information available is through June 30, 2024

## VENTURE CAPITAL AND BUYOUT FUNDRAISING ACTIVITY

As of December 31, 2024

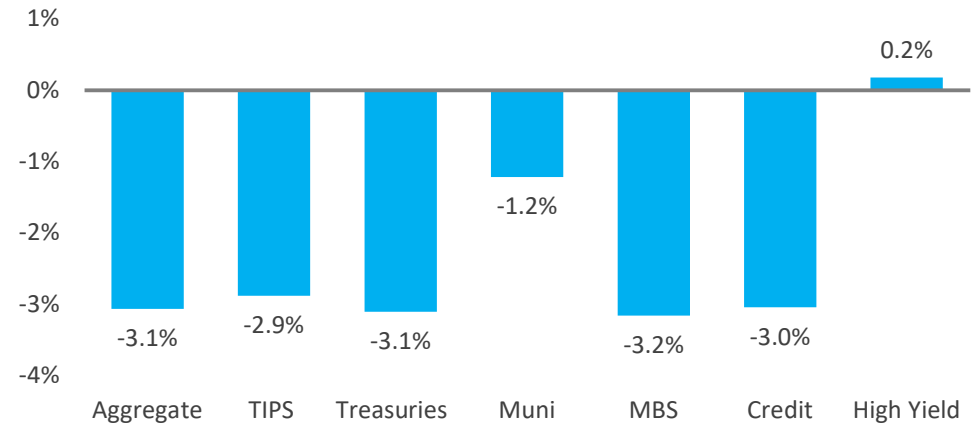


Data source: Pitchbook

# GLOBAL FIXED INCOME

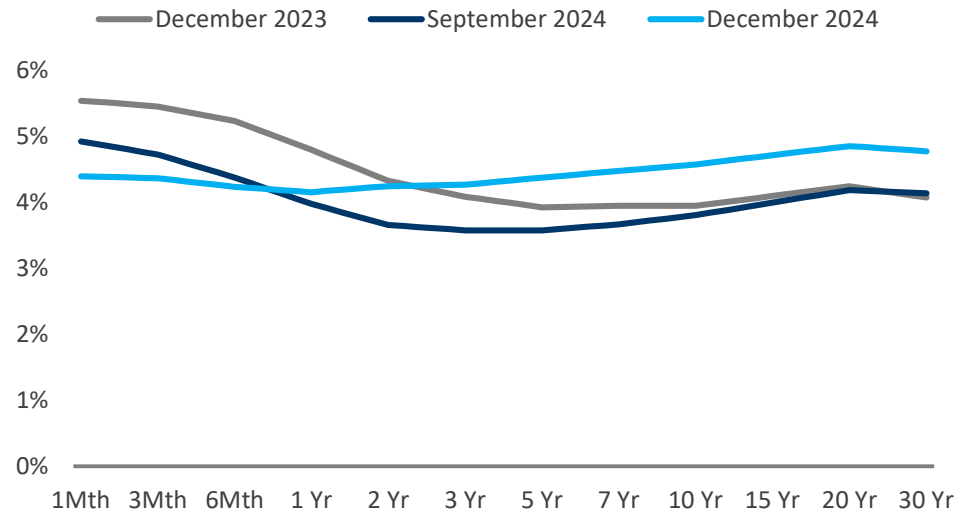
- Interest-rate-sensitive bonds sold off as rates rose in response to inflation concerns. President-elect Trump’s proposed policies were viewed as boosting growth but also risking inflation. Relatedly, rate cuts by the European Central Bank and Bank of England have outpaced the Fed’s easing, which contributed to increased demand for U.S. dollars.
- The 10-year Treasury yield increased to 4.57%, and the yield curve structure remained ascending with a 33 bp 10-year to 2-year spread. The Fed made two 25 bps cuts, bringing the fed funds rate to 4.25%-4.5%, and markets priced in less than a 10% chance of a January rate reduction.
- Credit spreads tightened, supported by signs of strength and stability in the U.S. economy. High yield (HY) spreads narrowed to below 3% by year-end, the tightest levels since the years before the Great Financial Crisis. Investment grade (IG) spreads also reached multi-decade lows. U.S. institutional loan activity surged as speculative-grade borrowers took advantage of favorable credit conditions.

## BLOOMBERG U.S. FIXED INCOME INDEX RETURNS



Data source: FactSet

## U.S. TREASURY YIELD CURVE

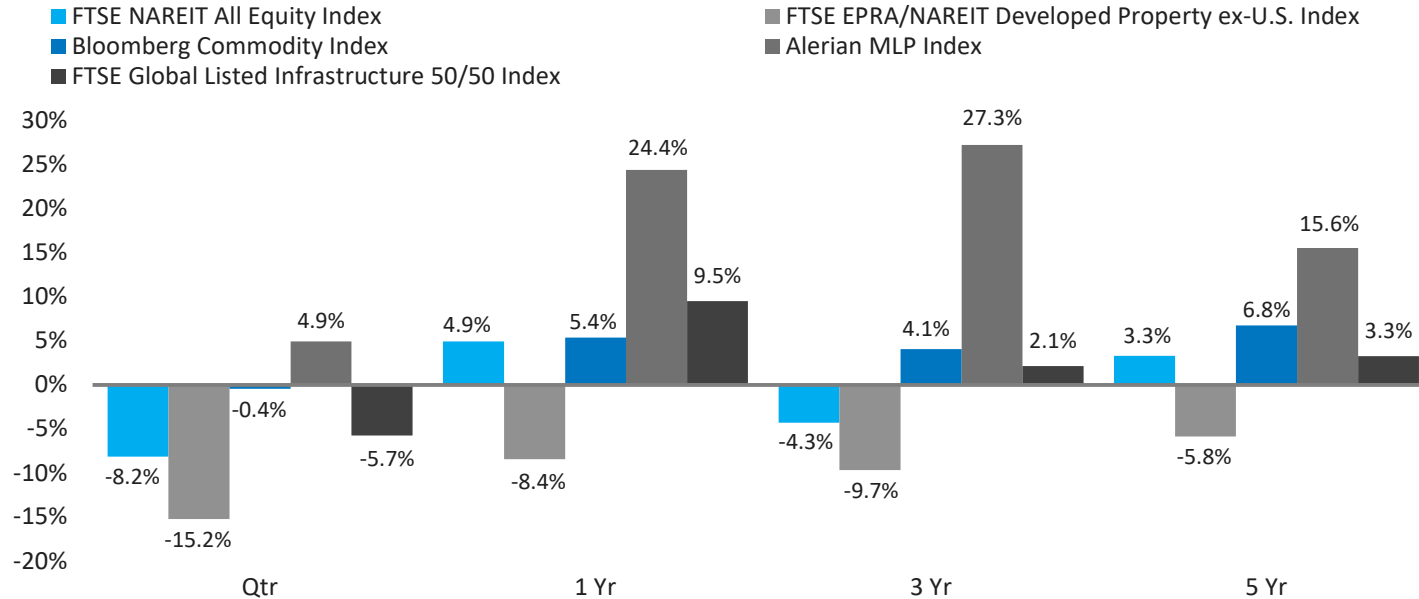


Data source: FactSet

# REAL ASSETS

- U.S. REITs ended 2024 with modest performance, driven by a pullback in December that erased much of the year's earlier gains. The downturn was influenced by hawkish Fed commentary, which signaled fewer-than-expected rate cuts in 2025. Despite the broader challenges, U.S. retail REITs, particularly regional malls, demonstrated strong performance over the past year, supported by limited new construction and increased traffic to neighborhood retail centers. Global REITs fared worse than their U.S. counterparts, with more significant drawdowns in European and Asian markets.
- Crude oil prices rose modestly, supported by cold weather, reduced U.S. stockpiles, and expectations of economic stimulus in China. Although volatile, natural gas prices rose through the quarter, rebounding on anticipated winter heating demand despite abundant U.S. storage levels.
- Global listed infrastructure stocks declined due in part to rising interest rates and hawkish Fed commentary. Midstream energy ended the year strong, as prudent spending supported share buybacks and deleveraging.

## PUBLIC REAL ASSETS – REAL ESTATE, COMMODITIES, MLPs, AND INFRASTRUCTURE

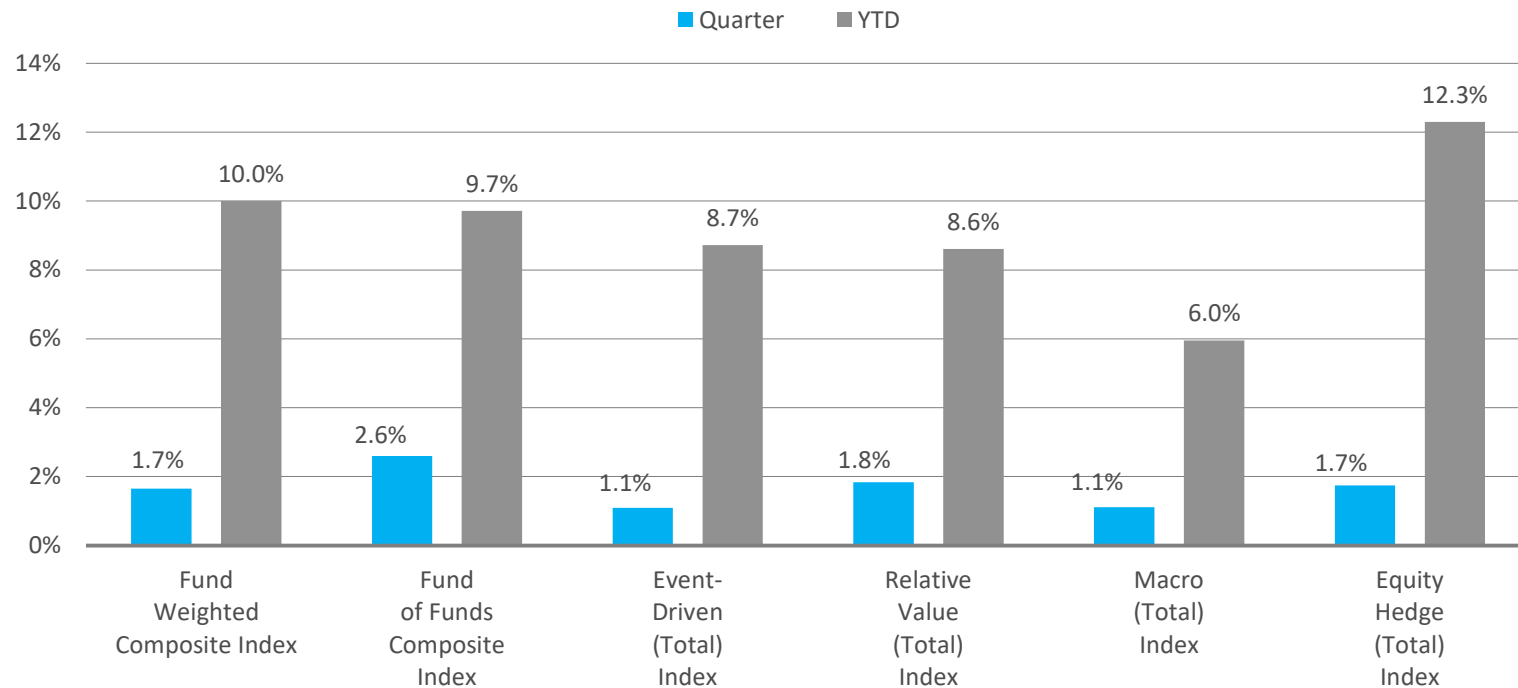


Data sources: NAREIT, FactSet, and Alerian

## DIVERSIFYING STRATEGIES, HEDGE FUNDS

- Hedge funds finished the year with a strong fourth quarter across all major strategies. The relative value and hedged equity indices led, gaining nearly 2% each. Global macro, the laggard for the year, generated a strong enough gain in the final quarter to surpass a 5% return in 2024.
- Within hedged equity, the technology-focused managers were the leaders for the quarter and the year. The risk-on spirit persisted throughout 2024, with the technology sector being the biggest beneficiary.
- Systematic macro managers felt the tailwind of continued uptrends in the U.S. dollar, rallying each month of the quarter. Commodities were another area of strength, led by long positions in cocoa. Prices hit new record highs as West African supply disruptions continued. Short exposures to U.S. Treasuries were also a positive contributor.

### HFRI INDICES PERFORMANCE RETURNS IN U.S. DOLLARS



Data source: Hedge Fund Research

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending December 31, 2024

	Annualized							Since Inception	Date	Market Value
	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr			
<b>Total Composite</b>	<b>-1.6%</b>	<b>5.3%</b>	<b>12.4%</b>	<b>2.7%</b>	<b>7.5%</b>	<b>6.6%</b>	<b>6.3%</b>	<b>6.2%</b>	1/05	\$48,285,982
Target Weighted Index <sup>1</sup>	-1.5	5.0	11.8	3.4	7.1	6.5	6.5	6.5		
Broad Policy Index <sup>2</sup>	-1.6	4.5	12.4	3.2	7.1	6.9	7.0	6.6		
Actuarial Rate <sup>3</sup>	1.8	3.6	7.3	7.4	7.5	7.6	7.6	7.7		
<b>Domestic Equity</b>										
<b>iShares S&amp;P 500 Index</b>	<b>2.4</b>	<b>8.4</b>	<b>25.0</b>	<b>8.9</b>	<b>14.5</b>	<b>13.8</b>	<b>13.1</b>	<b>13.0</b>	8/14	15,638,284
S&P 500 Index	2.4	8.4	25.0	8.9	14.5	13.8	13.1	13.0		
S&P 500 Equal Weighted Index	-1.9	7.5	13.0	4.5	10.8	10.3	10.3	10.3		
<b>Invesco S&amp;P 500 Equal Weighted Index</b>	<b>-3.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.0</b>	8/24	3,125,227
S&P 500 Equal Weighted Index	-1.9	-	-	-	-	-	-	0.4		
<b>iShares Russell Midcap Index</b>	<b>0.6</b>	<b>9.8</b>	<b>15.1</b>	<b>3.6</b>	<b>9.8</b>	<b>9.5</b>	<b>9.5</b>	<b>9.8</b>	9/14	2,347,462
Russell Midcap Index	0.6	9.9	15.3	3.8	9.9	9.6	9.6	10.0		
<b>Small Cap Equity</b>										
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>-0.6</b>	<b>9.4</b>	<b>8.6</b>	<b>1.8</b>	<b>8.3</b>	<b>-</b>	<b>-</b>	<b>10.0</b>	8/19	3,274,197
S&P SmallCap 600 Index	-0.6	9.5	8.7	1.9	8.4	-	-	10.1		
<b>International Equity</b>										
<b>EuroPacific Growth Fund</b>	<b>-7.1</b>	<b>-2.1</b>	<b>4.9</b>	<b>-2.1</b>	<b>3.8</b>	<b>3.9</b>	<b>5.6</b>	<b>5.2</b>	9/14	2,932,387
MSCI AC World Index ex-US	-7.6	-0.1	5.5	0.8	4.1	3.5	4.8	4.3		
<b>Dodge &amp; Cox International Stock Fund</b>	<b>-8.5</b>	<b>0.6</b>	<b>3.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8.0</b>	11/23	2,736,900
MSCI AC World Index ex-U.S.	-7.6	-0.1	5.5	-	-	-	-	10.0		
MSCI EAFE Index	-8.1	-1.4	3.8	-	-	-	-	8.6		
<b>Brown International Small Company</b>	<b>-3.6</b>	<b>8.4</b>	<b>8.4</b>	<b>-3.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.1</b>	5/21	1,221,518
MSCI Small Cap EAFE Index	-8.4	1.3	1.8	-3.2	-	-	-	-2.9		
MSCI ACWI ex-U.S. Small Cap Index	-7.7	0.6	3.4	-1.5	-	-	-	-1.2		
<b>Redwheel Global Emerging Equity Fund</b>	<b>-11.8</b>	<b>-5.3</b>	<b>-2.1</b>	<b>-8.0</b>	<b>-0.1</b>	<b>-</b>	<b>-</b>	<b>-2.1</b>	2/18	573,113
<b>DFA Emerging Markets Fund</b>	<b>-7.3</b>	<b>-0.7</b>	<b>6.9</b>	<b>0.2</b>	<b>3.2</b>	<b>2.3</b>	<b>4.2</b>	<b>3.7</b>	9/14	1,520,778
MSCI Emerging Markets Index	-8.0	0.0	7.5	-1.9	1.7	1.4	3.6	3.1		

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending December 31, 2024

	Annualized							Since Inception	Date	Market Value
	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr			
<b><u>Fixed Income</u></b>										
<b>Dodge &amp; Cox Income Fund</b>	<b>-3.3%</b>	<b>2.1%</b>	<b>2.3%</b>	<b>-0.6%</b>	<b>1.3%</b>	-	-	<b>2.4%</b>	2/19	\$3,226,370
Bloomberg IG Credit Index	-3.3	2.3	1.6	-2.4	0.1	-	-	1.8		
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	-	-	1.0		
<b>DoubleLine Total Return Bond Fund</b>	<b>-2.8</b>	<b>2.8</b>	<b>3.1</b>	<b>-1.7</b>	<b>-0.2</b>	-	-	<b>0.7</b>	2/19	2,936,979
Bloomberg U.S. MBS Index	-3.2	2.2	1.2	-2.1	-0.7	-	-	0.3		
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	-	-	1.0		
<b>Vanguard Total Bond Fund</b>	<b>-3.0</b>	<b>1.9</b>	<b>1.2</b>	<b>-2.4</b>	<b>-0.3</b>	-	-	<b>1.0</b>	2/19	2,756,594
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	-	-	1.0		
<b><u>Low Volatility</u></b>										
<b>Gateway Fund</b>	<b>2.1</b>	<b>6.3</b>	<b>15.4</b>	<b>5.3</b>	<b>6.9</b>	-	-	<b>5.9</b>	8/18	1,230,946
<b>PIMCO All Asset Fund</b>	<b>-3.4</b>	<b>2.1</b>	<b>4.1</b>	<b>0.0</b>	<b>4.6</b>	-	-	<b>5.6</b>	11/18	1,206,412
HFRX Equity Hedge Index	0.3	2.6	7.8	3.7	5.5	-	-	5.5		
<b><u>Real Estate</u></b>										
<b>Principal Real Estate Securities Fund</b>	<b>-7.1</b>	<b>7.1</b>	<b>5.5</b>	<b>-3.7</b>	<b>3.9</b>	<b>6.1</b>	<b>6.2</b>	<b>7.6</b>	9/14	1,024,666
FTSE NAREIT All Equity Index <sup>4</sup>	-8.2	7.3	5.7	-4.0	2.8	4.3	4.2	5.4		
<b><u>Natural Resources</u></b>										
<b>Tortoise MLP &amp; Pipeline Fund</b>	<b>11.8</b>	<b>20.1</b>	<b>42.9</b>	<b>25.8</b>	<b>14.6</b>	<b>10.3</b>	-	<b>10.4</b>	8/17	762,487
Alerian MLP Index	4.9	5.7	24.4	27.3	15.6	9.8	-	9.3		
Tortoise North American Pipeline Index	10.1	21.6	38.5	21.8	14.2	11.6	-	11.3		
<b>Cohen &amp; Steers Global Listed Infrastructure</b>	<b>-6.3</b>	<b>7.4</b>	<b>11.7</b>	-	-	-	-	<b>2.8</b>	5/22	1,293,169
FTSE Global Core Infrastructure 50/50	-5.7	7.1	9.5	-	-	-	-	1.6		
DJ Brookfield Global Infrastructure Index	-2.2	11.0	11.3	-	-	-	-	2.7		
<b><u>Cash</u></b>										
<b>Schwab Government Money Fund</b>	<b>1.1</b>	<b>2.3</b>	<b>4.9</b>	<b>3.6</b>	<b>2.2</b>	<b>2.0</b>	<b>1.4</b>	<b>1.4</b>	7/14	478,493
U.S. 91-Day Treasury Bills	1.1	2.4	5.0	4.0	2.5	2.3	1.8	1.7		



# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending December 31, 2024

	Annualized							Since Inception	Date	Market Value
	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr			
<b><u>Long Term Manager Performance</u></b>										
<b><u>Domestic Equity</u></b>										
<b>iShares S&amp;P 500 Index</b>	<b>2.4%</b>	<b>8.4%</b>	<b>25.0%</b>	<b>8.9%</b>	<b>14.5%</b>	<b>13.8%</b>	<b>13.1%</b>	<b>10.5%</b>	<i>1/05</i>	
S&P 500 Index	2.4	8.4	25.0	8.9	14.5	13.8	13.1	10.5		
S&P 500 Equal Weighted Index	-1.9	7.5	13.0	4.5	10.8	10.3	10.3	10.1		
<b>Invesco S&amp;P 500 Equal Weighted Index</b>	<b>-3.3</b>	<b>6.2</b>	<b>10.9</b>	<b>3.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.5</b>	<i>11/21</i>	
S&P 500 Equal Weighted Index	-1.9	7.5	13.0	4.5	-	-	-	6.4		
<b>iShares Russell Midcap Index</b>	<b>0.6</b>	<b>9.8</b>	<b>15.1</b>	<b>3.6</b>	<b>9.8</b>	<b>9.5</b>	<b>9.5</b>	<b>9.6</b>	<i>1/05</i>	
Russell Midcap Index	0.6	9.9	15.3	3.8	9.9	9.6	9.6	9.8		
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>-0.6</b>	<b>9.4</b>	<b>8.6</b>	<b>1.8</b>	<b>8.3</b>	<b>7.6</b>	<b>8.9</b>	<b>11.6</b>	<i>9/10</i>	
S&P SmallCap 600 Index	-0.6	9.5	8.7	1.9	8.4	7.7	9.0	11.7		
<b><u>International Equity</u></b>										
<b>EuroPacific Growth Fund</b>	<b>-7.1</b>	<b>-2.1</b>	<b>4.9</b>	<b>-2.1</b>	<b>3.8</b>	<b>3.9</b>	<b>5.6</b>	<b>5.2</b>	<i>8/08</i>	
MSCI AC World Index ex-U.S.	-7.6	-0.1	5.5	0.8	4.1	3.5	4.8	3.8		
<b>Dodge &amp; Cox International Stock Fund</b>	<b>-8.5</b>	<b>0.6</b>	<b>3.8</b>	<b>4.1</b>	<b>5.1</b>	<b>3.7</b>	<b>4.4</b>	<b>5.6</b>	<i>1/05</i>	
MSCI AC World Index ex-U.S.	-7.6	-0.1	5.5	0.8	4.1	3.5	4.8	5.1		
MSCI EAFE Index	-8.1	-1.4	3.8	1.6	4.7	4.1	5.2	4.9		
<b>Brown International Small Company</b>	<b>-3.6</b>	<b>8.4</b>	<b>8.4</b>	<b>-3.6</b>	<b>8.0</b>	<b>8.8</b>	<b>-</b>	<b>11.4</b>	<i>9/15</i>	
MSCI Small Cap EAFE Index	-8.4	1.3	1.8	-3.2	2.3	2.0	-	5.7		
MSCI ACWI ex-U.S. Small Cap Index	-7.7	0.6	3.4	-1.5	4.3	3.1	-	6.4		
<b>Redwheel Global Emerging Equity Fund</b>	<b>-11.7</b>	<b>-4.8</b>	<b>-1.4</b>	<b>-7.8</b>	<b>0.3</b>	<b>-0.9</b>	<b>3.5</b>	<b>5.5</b>	<i>7/12</i>	
MSCI Emerging Markets Index	-8.0	0.0	7.5	-1.9	1.7	1.4	3.6	3.4		
<b>DFA Emerging Markets Fund</b>	<b>-7.3</b>	<b>-0.7</b>	<b>6.9</b>	<b>0.2</b>	<b>3.2</b>	<b>2.3</b>	<b>4.2</b>	<b>6.4</b>	<i>1/05</i>	
MSCI Emerging Markets Index	-8.0	0.0	7.5	-1.9	1.7	1.4	3.6	6.0		

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending December 31, 2024

	Annualized							Since Inception	Date	Market Value
	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr			
<b><u>Fixed Income</u></b>										
<b>Dodge &amp; Cox Income Fund</b>	<b>-3.3%</b>	<b>2.1%</b>	<b>2.3%</b>	<b>-0.6%</b>	<b>1.3%</b>	<b>2.2%</b>	<b>2.5%</b>	<b>3.9%</b>	<i>1/05</i>	
Bloomberg IG Credit Index	-3.3	2.3	1.6	-2.4	0.1	1.5	2.1	3.6		
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	1.0	1.3	3.0		
<b>DoubleLine Total Return Bond Fund</b>	<b>-2.8</b>	<b>2.8</b>	<b>3.1</b>	<b>-1.7</b>	<b>-0.2</b>	<b>0.9</b>	<b>1.5</b>	<b>3.5</b>	<i>4/10</i>	
Bloomberg U.S. MBS Index	-3.2	2.2	1.2	-2.1	-0.7	0.5	0.9	1.7		
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	1.0	1.3	2.2		
<b>Vanguard Total Bond Fund</b>	<b>-3.0</b>	<b>1.9</b>	<b>1.2</b>	<b>-2.4</b>	<b>-0.3</b>	<b>1.0</b>	<b>1.3</b>	<b>3.0</b>	<i>1/05</i>	
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	1.0	1.3	3.0		
<b><u>Low Volatility</u></b>										
<b>Gateway Fund</b>	<b>2.1</b>	<b>6.3</b>	<b>15.4</b>	<b>5.3</b>	<b>6.9</b>	<b>5.8</b>	<b>5.9</b>	<b>4.9</b>	<i>1/05</i>	
<b>PIMCO All Asset Fund</b>	<b>-3.4</b>	<b>2.1</b>	<b>4.1</b>	<b>0.0</b>	<b>4.6</b>	<b>4.2</b>	<b>4.7</b>	<b>5.2</b>	<i>1/05</i>	
HFRX Equity Hedge Index	0.3	2.6	7.8	3.7	5.5	4.0	3.5	2.0		
<b><u>Real Estate</u></b>										
<b>Principal Real Estate Securities Fund</b>	<b>-7.1</b>	<b>7.1</b>	<b>5.5</b>	<b>-3.7</b>	<b>3.9</b>	<b>6.1</b>	<b>6.2</b>	<b>8.4</b>	<i>1/05</i>	
FTSE NAREIT All Equity Index <sup>4</sup>	-8.2	7.3	5.7	-4.0	2.8	4.3	4.2	6.1		
<b><u>Natural Resources</u></b>										
<b>Tortoise MLP &amp; Pipeline Fund</b>	<b>11.8</b>	<b>20.1</b>	<b>42.9</b>	<b>25.8</b>	<b>14.6</b>	<b>10.3</b>	<b>6.0</b>	<b>9.1</b>	<i>5/11</i>	
Alerian MLP Index	4.9	5.7	24.4	27.3	15.6	9.8	3.7	6.0		
Tortoise North American Pipeline Index	10.1	21.6	38.5	21.8	14.2	11.6	7.7	-		
<b>Cohen &amp; Steers Global Listed Infrastructure</b>	<b>-6.3</b>	<b>7.4</b>	<b>11.7</b>	<b>2.8</b>	<b>4.6</b>	<b>6.0</b>	<b>6.0</b>	<b>6.8</b>	<i>1/05</i>	
FTSE Global Core Infrastructure 50/50	-5.7	7.1	9.5	2.1	3.3	5.0	5.4	-		
DJ Brookfield Global Infrastructure Index	-2.2	11.0	11.3	4.0	4.1	5.1	4.3	8.1		
<b><u>Cash</u></b>										
<b>Schwab Government Money Fund</b>	<b>1.1</b>	<b>2.3</b>	<b>4.9</b>	<b>3.6</b>	<b>2.2</b>	<b>2.0</b>	<b>1.4</b>	<b>1.4</b>	<i>1/05</i>	
U.S. 91-Day Treasury Bills	1.1	2.4	5.0	4.0	2.5	2.3	1.8	1.6		

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending December 31, 2024

### Footnotes:

\* Performance returns are net of investment management fees.

\* Calculated returns may differ from the manager's due to differences in security pricing and/or cash flows.

\* Manager and index data represent the most current available at the time of report publication.

\* For managers and indices that report returns on a lag, 0.0% is utilized for the most recent time period until the actual return data are reported.

\* The fiscal year ends in June.

<sup>1</sup> Target Weighted Index is currently comprised of: 6.0% S&P Real Assets Equity Total Return Index, 37.0% Russell 1000 Index, 5.0% Russell Midcap Index, 7.0% Russell 2000 Index, 10.0% MSCI EAFE Index, 5.0% MSCI Small Cap EAFE Index, 5.0% MSCI Emerging Markets Index, 20.0% Bloomberg U.S. Aggregate Index, and 5.0% HFRI FOF: Conservative Index. Please see Appendix for benchmark history.

<sup>2</sup> Broad Policy Index is comprised of: 70.0% MSCI AC World Index and 30.0% Bloomberg U.S. Aggregate Index.

<sup>3</sup> Actuarial Rate is currently comprised of: 100.0% 7.3% Absolute Return. Please see Appendix for benchmark history.

<sup>4</sup> FTSE NAREIT All Equity Index is currently comprised of: 100.0% FTSE NAREIT All Equity Index. Please see Appendix for benchmark history.

<sup>A</sup> RWC Global Emerging Equity Fund (LT) uses longer term composite returns for performance evaluation rather than the shorter-term mutual fund returns.

## City of Grosse Pointe Woods Employees Retirement System

### Schedule of Asset and Style Allocation

Asset Class	Current Weight	Target Weight	Target Range
Large Cap Equity	38.9%	37.0%	10.0% - 50.0%
Mid Cap Equity	4.9%	5.0%	0.0% - 15.0%
Small Cap Equity	6.8%	7.0%	5.0% - 30.0%
International Equity	11.7%	10.0%	5.0% - 25.0%
International Small Cap Equity	2.5%	5.0%	0.0% - 15.0%
Emerging Markets	4.3%	5.0%	0.0% - 15.0%
Fixed Income	18.5%	20.0%	5.0% - 30.0%
Low Volatility	5.0%	5.0%	0.0% - 20.0%
Real Assets	6.4%	6.0%	0.0% - 10.0%
Cash	1.0%	0.0%	0.0% - 5.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	

# City of Grosse Pointe Woods Employees Retirement System

## Schedule of Asset and Style Allocation

Asset Class - Style	Manager	Portfolio Invested	Portfolio Cash	Market Value	Current Weight
Large Cap Equity - Broad	Invesco S&P 500 Equal Weighted Index	100.0%	0.0%	\$3,125,227	6.5%
Large Cap Equity - Broad	iShares S&P 500 Index	100.0%	0.0%	\$15,638,284	32.4%
Mid Cap Equity - Broad	iShares Russell Midcap Index	100.0%	0.0%	\$2,347,462	4.9%
Small Cap Equity - Broad	Vanguard S&P Small Cap 600 Index	100.0%	0.0%	\$3,274,197	6.8%
International Equity - Core	EuroPacific Growth Fund	100.0%	0.0%	\$2,932,387	6.1%
International Equity - Value	Dodge & Cox International Stock Fund	100.0%	0.0%	\$2,736,900	5.7%
International Small Cap Equity - Core	Brown International Small Company	100.0%	0.0%	\$1,221,518	2.5%
Emerging Markets - Core	DFA Emerging Markets Fund	100.0%	0.0%	\$1,520,778	3.1%
Emerging Markets - Growth	Redwheel Global Emerging Equity Fund	100.0%	0.0%	\$573,113	1.2%
Fixed Income - Core	Dodge & Cox Income Fund	100.0%	0.0%	\$3,226,370	6.7%
Fixed Income - Core	Vanguard Total Bond Fund	100.0%	0.0%	\$2,756,594	5.7%
Fixed Income - Core Plus	DoubleLine Total Return Bond Fund	100.0%	0.0%	\$2,936,979	6.1%
Low Volatility - Liquid	Gateway Fund	100.0%	0.0%	\$1,230,946	2.5%
Low Volatility - Tactical	PIMCO All Asset Fund	100.0%	0.0%	\$1,206,412	2.5%
Real Assets - Core	Principal Real Estate Securities Fund	100.0%	0.0%	\$1,024,666	2.1%
Real Assets - Infrastructure	Cohen & Steers Global Listed Infrastructure	100.0%	0.0%	\$1,293,169	2.7%
Real Assets - MLP	Tortoise MLP & Pipeline Fund	100.0%	0.0%	\$762,487	1.6%
Cash - Cash	Schwab Government Money Fund	100.0%	0.0%	\$478,493	1.0%
<b>Total</b>				<b>\$48,285,982</b>	<b>100.0%</b>

# City of Grosse Pointe Woods Employees Retirement System

## Investment Metrics

Report for Periods Ending December 31, 2024

Statistical Measures	Sharpe Ratio	Standard Deviation	Tracking Error	Information Ratio
<b>Total Composite</b>	<b>0.3</b>	<b>16.4%</b>	<b>2.6%</b>	<b>0.2</b>
Target Weighted Index	0.3	15.4	2.1	0.3
Broad Policy Index	0.3	14.5	0.0	--

### Asset Growth Summary (in thousands)

	Qtr	FYTD
Beginning Market Value	\$ 49,488	\$ 46,416
Net Contributions/(Distributions)	\$ (416)	\$ (357)
<b>Market Appreciation/(Depreciation)</b>	<b>\$ (786)</b>	<b>\$ 2,227</b>
<b>Ending Market Value</b>	<b>\$ 48,286</b>	<b>\$ 48,286</b>

\* Risk Statistics are based on monthly data.

\* Target Weighted Index is currently comprised of: 6.0% S&P Real Assets Equity Total Return Index, 37.0% Russell 1000 Index, 5.0% Russell Midcap Index, 7.0% Russell 2000 Index, 10.0% MSCI EAFE Index, 5.0% MSCI Small Cap EAFE Index, 5.0% MSCI Emerging Markets Index, 20.0% Bloomberg U.S. Aggregate Index, and 5.0% HFRI FOF: Conservative Index. Please see Appendix for benchmark history.

\* Broad Policy Index is comprised of: 70.0% MSCI AC World Index and 30.0% Bloomberg U.S. Aggregate Index.

# City of Grosse Pointe Woods Employees Retirement System

## iShares S&P 500 Index

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>iShares S&amp;P 500 Index</b>	<b>2.4%</b>	<b>8.4%</b>	<b>25.0%</b>	<b>8.9%</b>	<b>14.5%</b>	<b>13.8%</b>	<b>13.1%</b>	<b>10.5%</b>	<i>1/05</i>
S&P 500 Index	2.4	8.4	25.0	8.9	14.5	13.8	13.1	10.5	
S&P 500 Equal Weighted Index	-1.9	7.5	13.0	4.5	10.8	10.3	10.3	10.1	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>iShares S&amp;P 500 Index</b>	<b>1.00</b>	<b>0.0%</b>	<b>1.00</b>	<b>21.1%</b>	<b>0.0%</b>	<b>-1.6</b>
S&P 500 Index	1.00	0.0	1.00	21.1	0.0	--
S&P 500 Equal Weighted Index	1.06	-4.5	0.89	23.1	6.8	0.5

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>iShares S&amp;P 500 Index</b>	<b>27.6</b>	<b>4.9</b>	<b>1,117,127.0M</b>	<b>1.3%</b>	<b>--%</b>
S&P 500 Index	27.6	4.9	1,117,127.0	1.3	--
S&P 500 Equal Weighted Index	--	--	--	--	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## iShares S&P 500 Index

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 0.0%	No
Beta < 1.20	Beta = 1.00	Yes
Alpha > 0.0%	Alpha = 0.0%	No
Peer Group Rank > 50th Percentile	Ranks in Top 50th Percentile	Yes



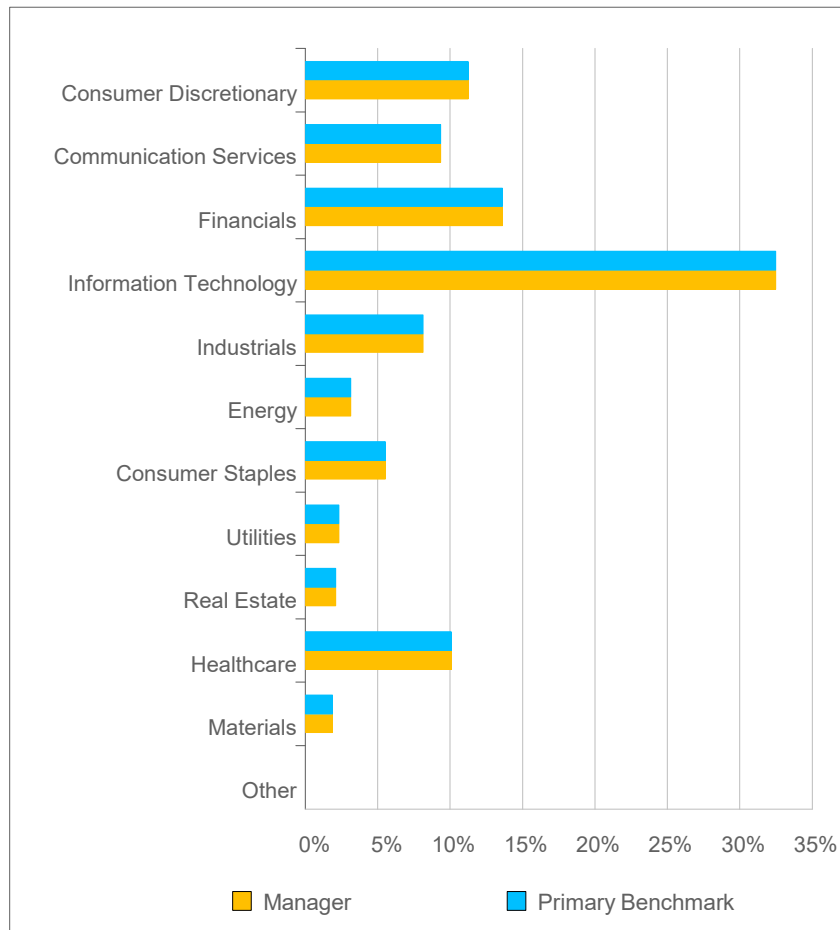
# City of Grosse Pointe Woods Employees Retirement System

## iShares S&P 500 Index

### Equity Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Consumer Discretionary	11%	11%	14.3%	30.1%
Communication Services	9	9	8.9	40.2
Financials	14	14	7.1	30.6
Information Technology	32	32	4.8	36.6
Industrials	8	8	-2.3	17.5
Energy	3	3	-2.4	5.4
Consumer Staples	6	6	-3.3	14.9
Utilities	2	2	-5.5	23.4
Real Estate	2	2	-7.9	5.2
Healthcare	10	10	-10.3	2.5
Materials	2	2	-12.4	0.0
Other	0	0	-	-

#### Top Five Holdings

	Weighting
Apple Inc.	7.6%
NVIDIA Corporation	6.6
Microsoft Corporation	6.3
Amazon.com, Inc.	4.1
Meta Platforms Inc Class A	2.6

Number of Holdings: 503

\* Sector weightings may not add up to 100% due to rounding.

\* Manager data represents the most current available at the time of report publication.

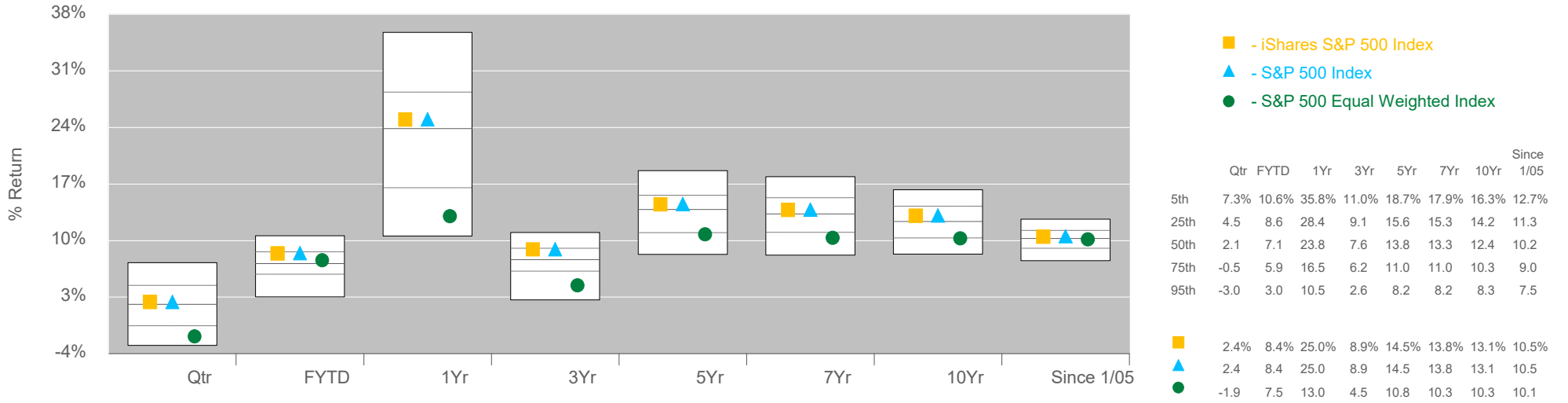
\* Effective fourth quarter 2018, Telecommunication Services was replaced by Communication Services by the Global Industry Classification Standard (GICS). Some members of Consumer Discretionary, Technology, and Telecommunication Services were reclassified as Communication Services.

# City of Grosse Pointe Woods Employees Retirement System

## iShares S&P 500 Index

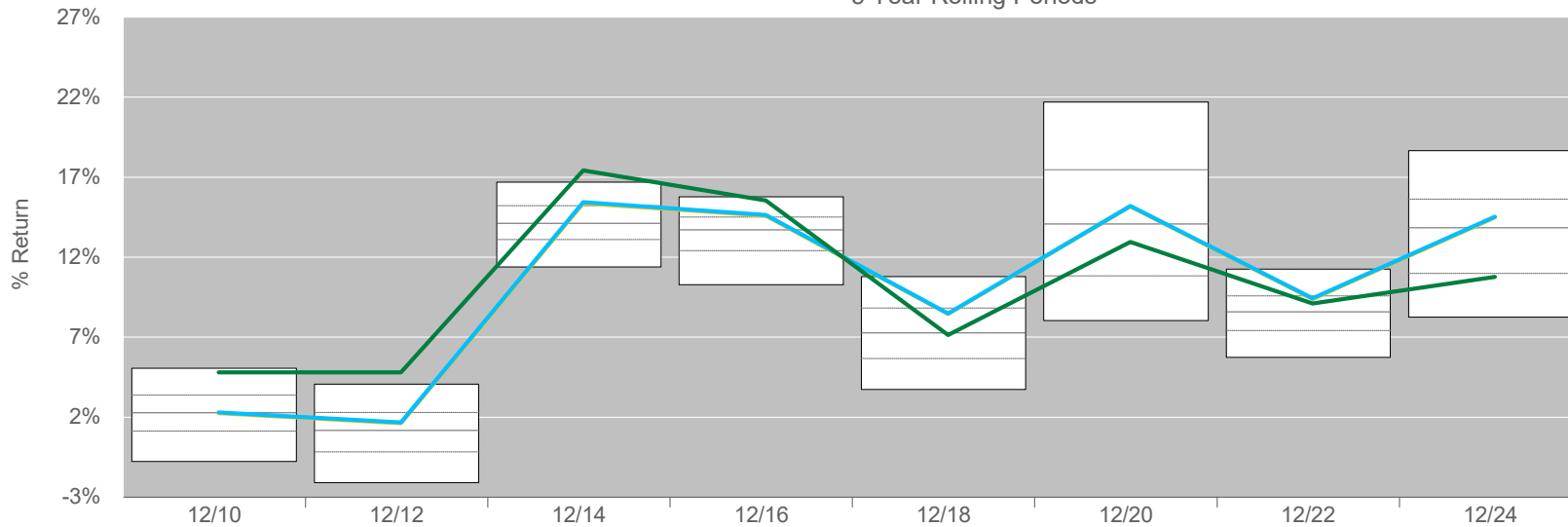
### Broad Large Cap Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Invesco S&P 500 Equal Weighted Index

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

Performance Results	Qtr	FYTD	1Yr	3Yr	Since Inception	Inception Date
Invesco S&P 500 Equal Weighted Index	-3.3%	6.2%	10.9%	3.6%	5.5%	11/21
S&P 500 Equal Weighted Index	-1.9	7.5	13.0	4.5	6.4	

Risk Statistics (Since 11/21)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
Invesco S&P 500 Equal Weighted Index	0.99	-0.9%	0.99	19.9%	1.5%	-0.6
S&P 500 Equal Weighted Index	1.00	0.0	1.00	20.1	0.0	--

Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover
Invesco S&P 500 Equal Weighted Index	20.6	2.7	43,509.2M	2.2%	--%
S&P 500 Equal Weighted Index	--	--	--	--	--

### Asset Growth Summary (in thousands)

Beginning Market Value	\$	0
Net Contributions/(Distributions)	\$	0
<b>Market Appreciation/(Depreciation)</b>	<b>\$</b>	<b>0</b>
<b>Ending Market Value</b>	<b>\$</b>	<b>0</b>

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Invesco S&P 500 Equal Weighted Index

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
Time Period From 11/21 To 12/24		
Return > Benchmark	Return over benchmark = -0.9%	No
Beta < 1.20	Beta = 0.99	Yes
Alpha > 0.0%	Alpha = -0.9%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 25th Percentile	No

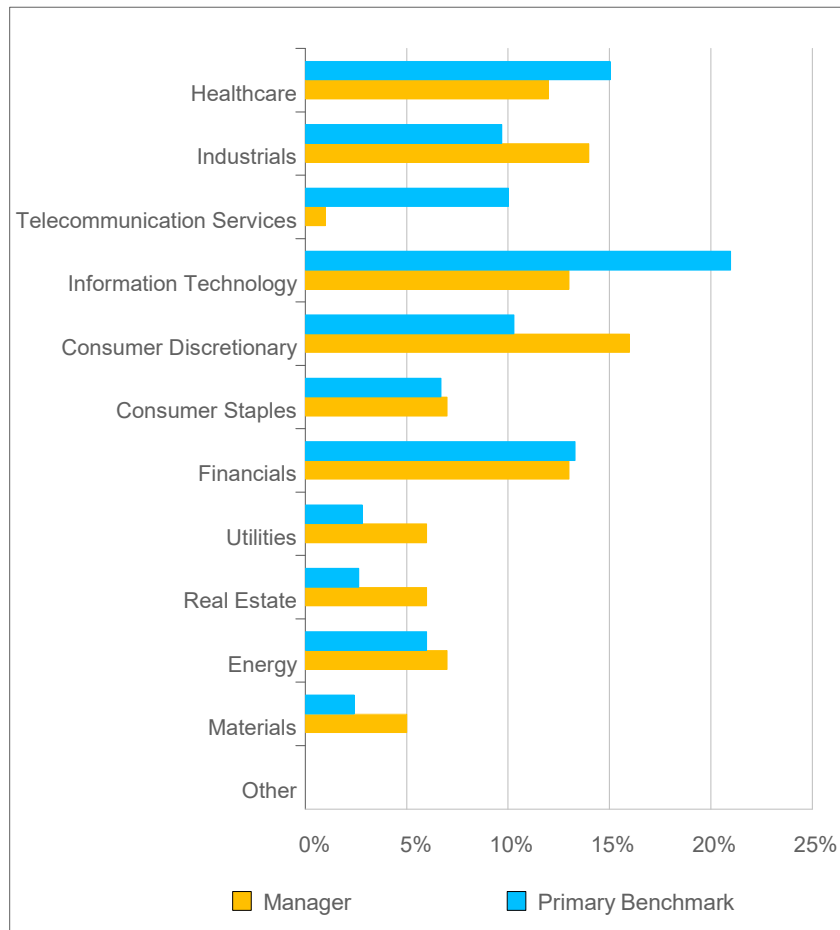
# City of Grosse Pointe Woods Employees Retirement System

## Invesco S&P 500 Equal Weighted Index

### Equity Sector

Report For Periods Ending December 31, 2024 \*

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Benchmark	3 Months	12 Months
Healthcare	12%	15%	14.5%	18.4%
Industrials	14	10	10.0	11.2
Telecommunication Services	1	10	9.9	4.4
Information Technology	13	21	8.8	31.5
Consumer Discretionary	16	10	8.2	32.5
Consumer Staples	7	7	5.7	2.9
Financials	13	13	4.4	8.7
Utilities	6	3	2.4	2.9
Real Estate	6	3	0.9	0.9
Energy	7	6	0.6	13.9
Materials	5	2	0.4	4.0
Other	0	0	-	-

Top Five Holdings	Weighting
NVIDIA Corporation	0.2%
Allergan, Inc.	0.2
Eli Lilly and Company	0.2
Xilinx, Inc.	0.2
Apartment Investment and Management Comp	0.2/

Number of Holdings: 505

\* Sector weightings may not add up to 100% due to rounding.

\* Manager data represents the most current available at the time of report publication.

\* Benchmark weightings are for the S&P 500 Index.

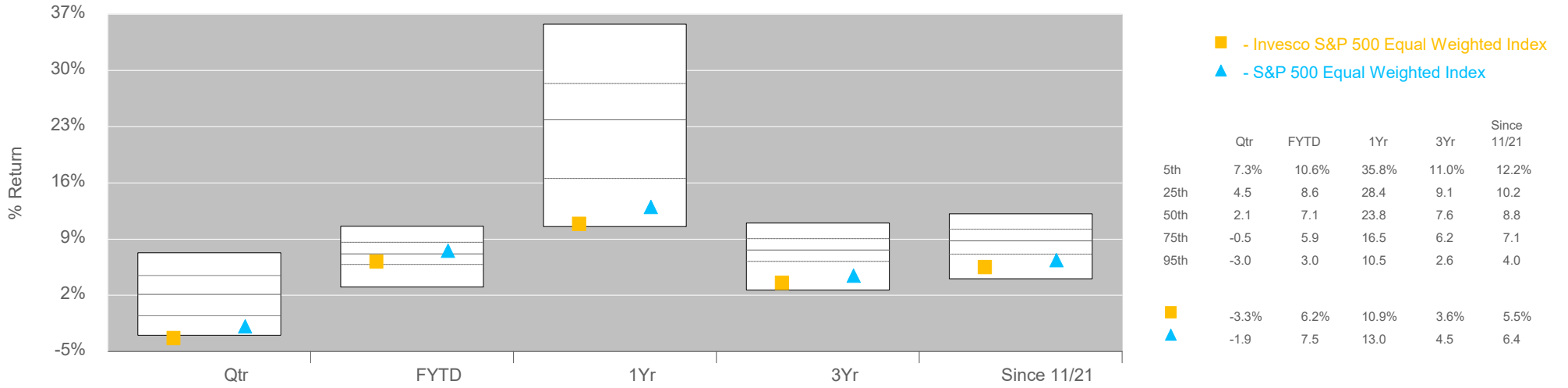
\* Effective fourth quarter 2018, Telecommunication Services was replaced by Communication Services by the Global Industry Classification Standard (GICS). Some members of Consumer Discretionary, Technology, and Telecommunication Services were reclassified as Communication Services. This page was generated using sector information prior to this quarter as manager sectors under the current GICS classification are unavailable.

# City of Grosse Pointe Woods Employees Retirement System

## Invesco S&P 500 Equal Weighted Index

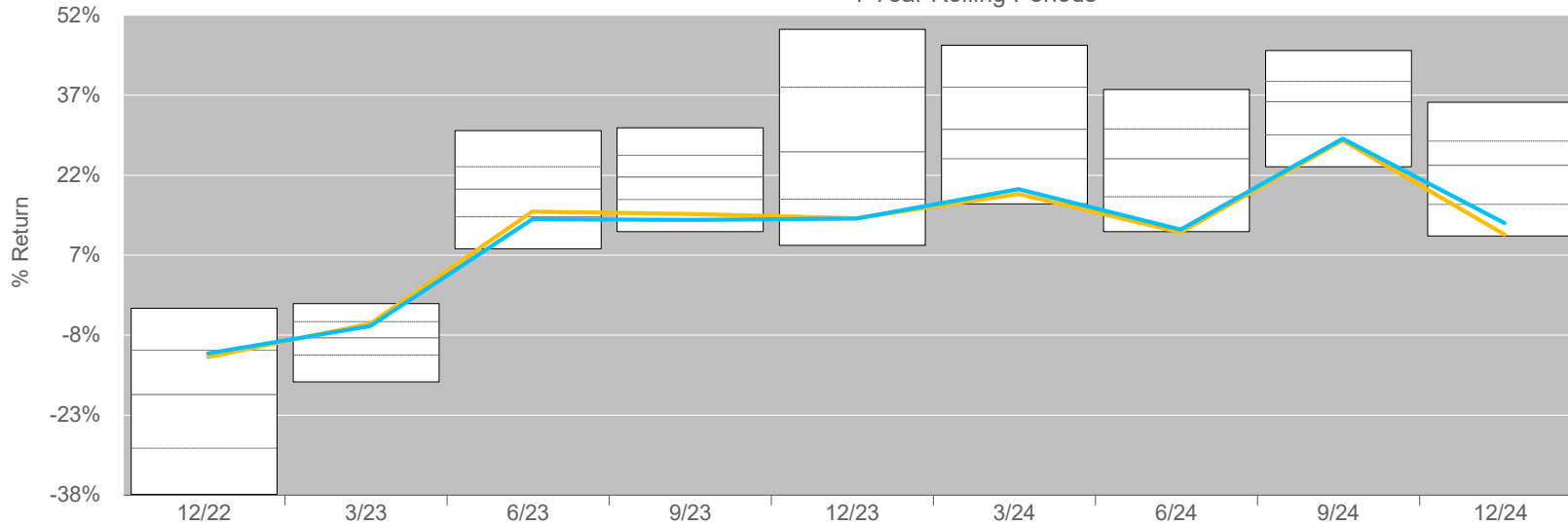
Broad Large Cap Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2021 to December 31, 2024

1 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## iShares Russell Midcap Index

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>iShares Russell Midcap Index</b>	<b>0.6%</b>	<b>9.8%</b>	<b>15.1%</b>	<b>3.6%</b>	<b>9.8%</b>	<b>9.5%</b>	<b>9.5%</b>	<b>9.6%</b>	<i>1/05</i>
Russell Midcap Index	0.6	9.9	15.3	3.8	9.9	9.6	9.6	9.8	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>iShares Russell Midcap Index</b>	<b>1.00</b>	<b>-0.2%</b>	<b>1.00</b>	<b>24.2%</b>	<b>0.1%</b>	<b>-3.4</b>
Russell Midcap Index	1.00	0.0	1.00	24.2	0.0	--

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>iShares Russell Midcap Index</b>	<b>21.7</b>	<b>2.9</b>	<b>28,636.0 M</b>	<b>1.6%</b>	<b>--%</b>
Russell Midcap Index	21.7	2.9	28,636.0	1.6	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## iShares Russell Midcap Index

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -0.2%	No
Beta < 1.20	Beta = 1.00	Yes
Alpha > 0.0%	Alpha = -0.2%	No
Peer Group Rank > 50th Percentile	Ranks in Top 50th Percentile	Yes



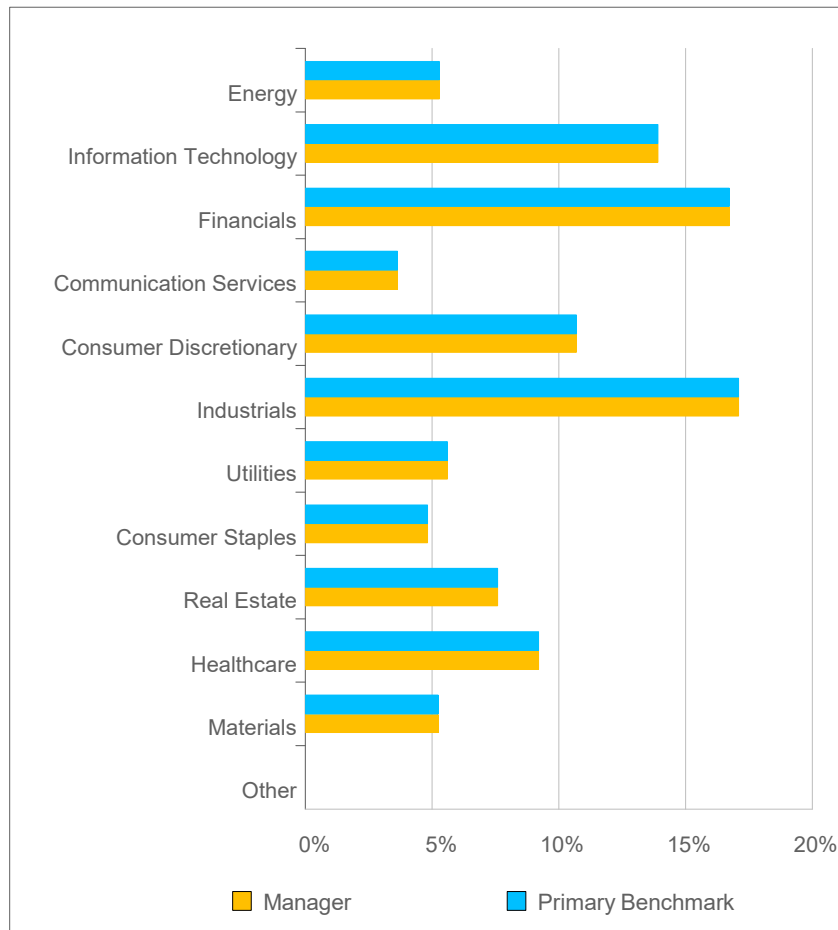
# City of Grosse Pointe Woods Employees Retirement System

## iShares Russell Midcap Index

### Equity Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Energy	5%	5%	10.7%	21.5%
Information Technology	14	14	10.4	22.7
Financials	17	17	7.0	30.0
Communication Services	4	4	6.7	18.0
Consumer Discretionary	11	11	-1.0	12.7
Industrials	17	17	-1.0	19.2
Utilities	6	6	-1.9	29.6
Consumer Staples	5	5	-3.4	-2.6
Real Estate	8	8	-6.8	8.8
Healthcare	9	9	-7.7	-5.4
Materials	5	5	-10.5	-4.4
Other	0	0	-	-

#### Top Five Holdings

	Weighting
Palantir Technologies Inc. Class A	1.3%
AppLovin Corp. Class A	0.7
Arthur J. Gallagher & Co.	0.6
Williams Companies, Inc.	0.6
Hilton Worldwide Holdings Inc.	0.5

Number of Holdings: 808

\* Sector weightings may not add up to 100% due to rounding.

\* Manager data represents the most current available at the time of report publication.

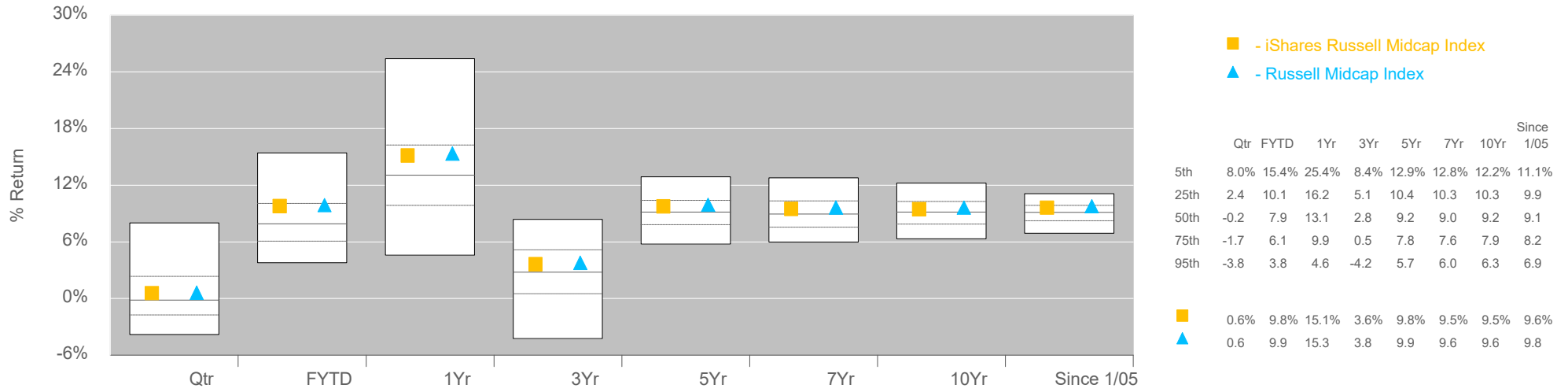
\* Effective fourth quarter 2018, Telecommunication Services was replaced by Communication Services by the Global Industry Classification Standard (GICS). Some members of Consumer Discretionary, Technology, and Telecommunication Services were reclassified as Communication Services.

# City of Grosse Pointe Woods Employees Retirement System

## iShares Russell Midcap Index

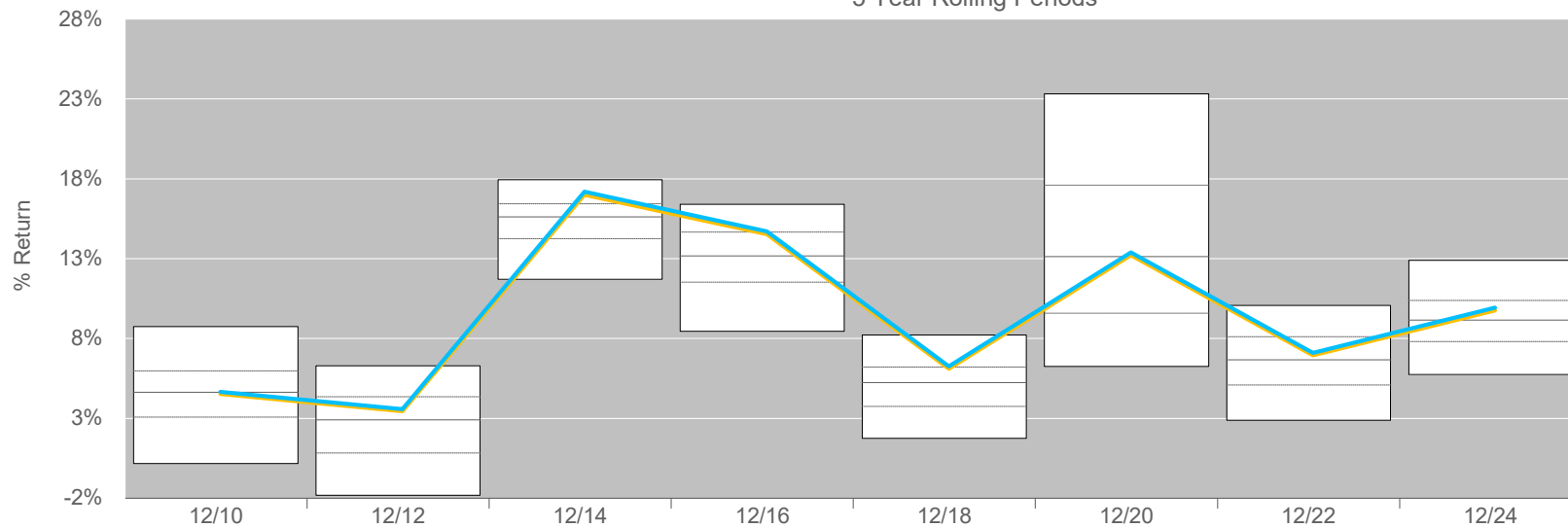
### Broad Mid Cap Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Vanguard S&P Small Cap 600 Index

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>-0.6%</b>	<b>9.4%</b>	<b>8.6%</b>	<b>1.8%</b>	<b>8.3%</b>	<b>7.6%</b>	<b>8.9%</b>	<b>11.6%</b>	<i>9/10</i>
S&P SmallCap 600 Index	-0.6	9.5	8.7	1.9	8.4	7.7	9.0	11.7	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>1.00</b>	<b>-0.1%</b>	<b>1.00</b>	<b>27.5%</b>	<b>0.1%</b>	<b>-1.0</b>
S&P SmallCap 600 Index	1.00	0.0	1.00	27.5	0.0	--

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>17.8</b>	<b>0.0</b>	<b>3,428.0M</b>	<b>1.6%</b>	<b>--%</b>
S&P SmallCap 600 Index	17.8	0.0	3,428.0	1.6	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Vanguard S&P Small Cap 600 Index

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -0.1%	No
Beta < 1.20	Beta = 1.00	Yes
Alpha > 0.0%	Alpha = -0.1%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 50th Percentile	No

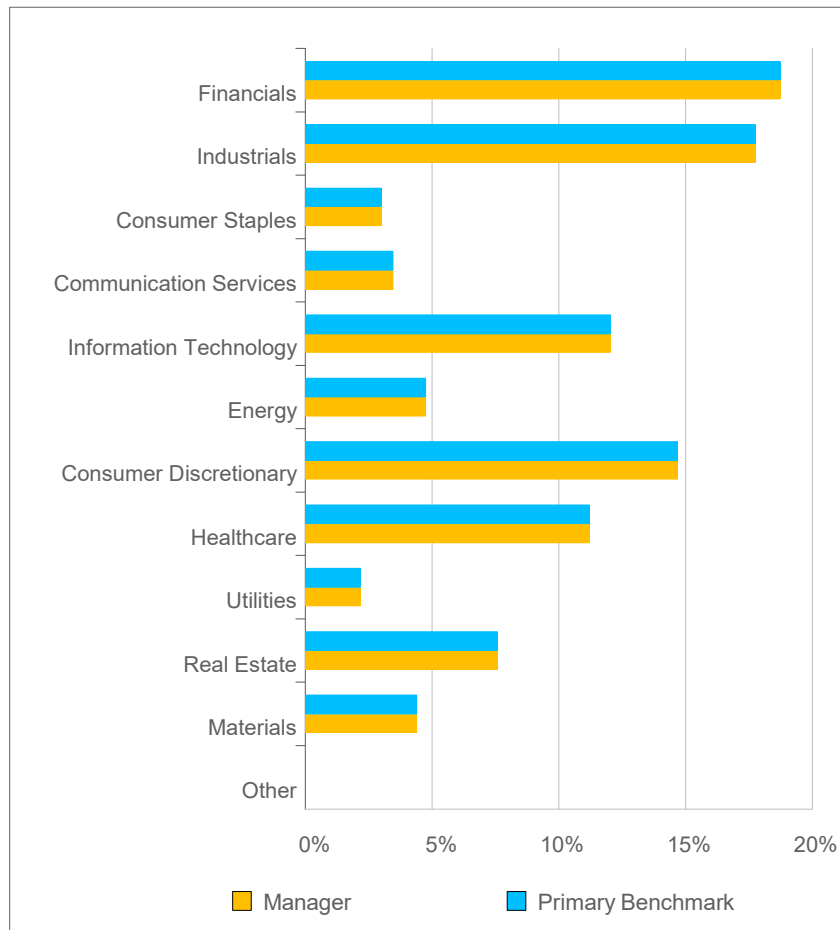
# City of Grosse Pointe Woods Employees Retirement System

## Vanguard S&P Small Cap 600 Index

### Equity Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Financials	19%	19%	3.9%	18.9%
Industrials	18	18	1.9	16.4
Consumer Staples	3	3	1.1	-0.3
Communication Services	3	3	0.9	17.1
Information Technology	12	12	-0.4	-1.5
Energy	5	5	-0.6	-5.6
Consumer Discretionary	15	15	-1.4	6.2
Healthcare	11	11	-3.9	4.3
Utilities	2	2	-4.5	2.6
Real Estate	8	8	-6.2	8.0
Materials	4	4	-7.9	1.1
Other	0	0	-	-

#### Top Five Holdings

	Weighting
Bath & Body Works, Inc.	0.6%
Glaukos Corp	0.6
Alaska Air Group, Inc.	0.6
ATI Inc.	0.6
Robert Half Inc.	0.5

Number of Holdings: 602

\* Sector weightings may not add up to 100% due to rounding.

\* Manager data represents the most current available at the time of report publication.

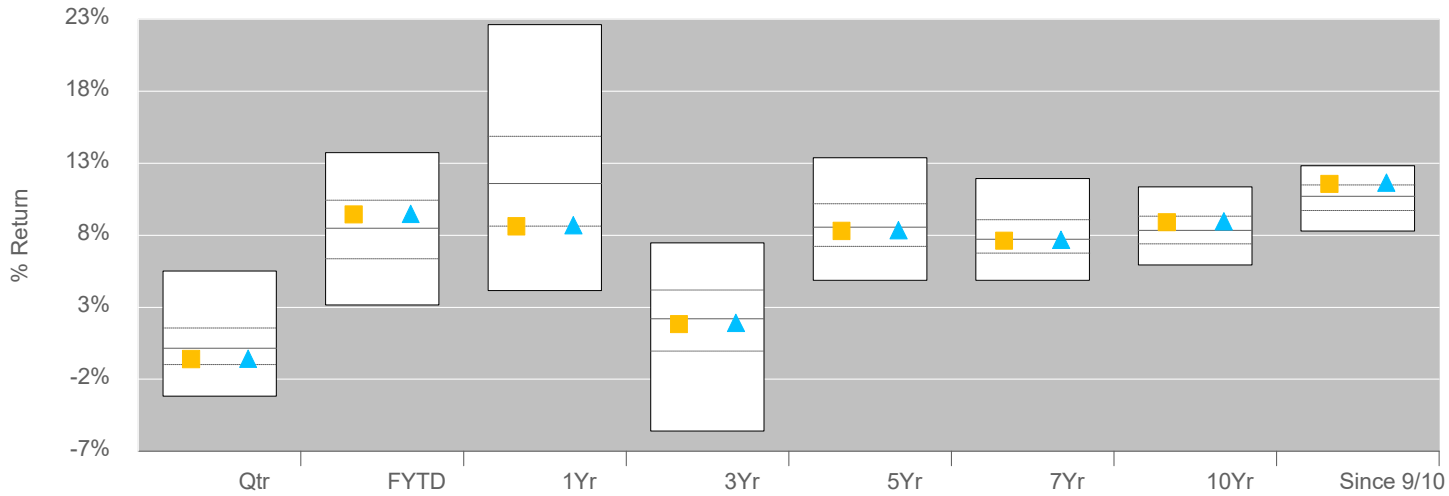
\* Effective fourth quarter 2018, Telecommunication Services was replaced by Communication Services by the Global Industry Classification Standard (GICS). Some members of Consumer Discretionary, Technology, and Telecommunication Services were reclassified as Communication Services.

# City of Grosse Pointe Woods Employees Retirement System

## Vanguard S&P Small Cap 600 Index

### Broad Small Cap Universe

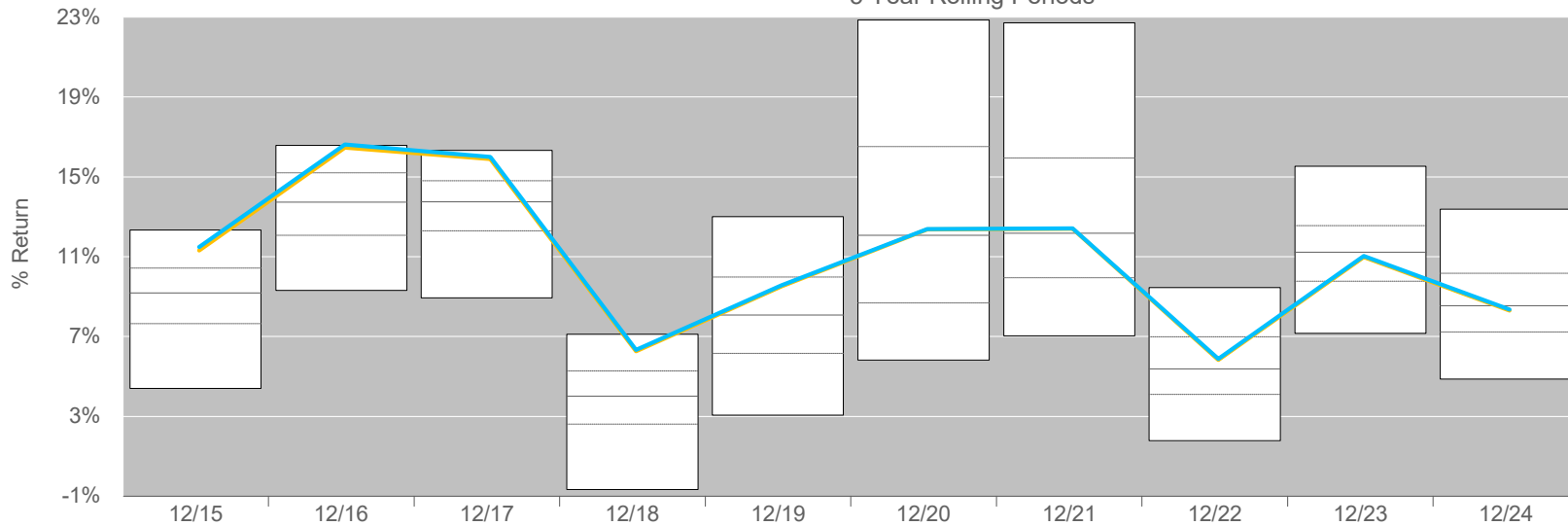
For Report Periods Ending December 31, 2024



	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since 9/10
5th	5.5%	13.7%	22.6%	7.5%	13.4%	11.9%	11.4%	12.8%
25th	1.5	10.4	14.9	4.2	10.2	9.1	9.3	11.5
50th	0.2	8.5	11.6	2.2	8.6	7.7	8.3	10.7
75th	-1.0	6.4	8.6	0.0	7.2	6.8	7.4	9.7
95th	-3.2	3.1	4.2	-5.6	4.9	4.9	5.9	8.3
■	-0.6%	9.4%	8.6%	1.8%	8.3%	7.6%	8.9%	11.6%
▲	-0.6	9.5	8.7	1.9	8.4	7.7	9.0	11.7

Report From December 31, 2010 to December 31, 2024

### 5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## EuroPacific Growth Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>EuroPacific Growth Fund</b>	-7.1%	-2.1%	4.9%	-2.1%	3.8%	3.9%	5.6%	5.2%	8/08
MSCI AC World Index ex-U.S.	-7.6	-0.1	5.5	0.8	4.1	3.5	4.8	3.8	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>EuroPacific Growth Fund</b>	1.05	-0.4%	0.94	19.9%	4.7%	-0.1
MSCI AC World Index ex-U.S.	1.00	0.0	1.00	18.3	0.0	--

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>EuroPacific Growth Fund</b>	21.2	3.0	145,011.0M	1.8%	30.0%
MSCI AC World Index ex-U.S.	15.8	1.9	108,814.0	2.9	--

\* Risk Statistics are based on monthly data. MSCI does not compute the Weighted Average Market Capitalization - the average market capitalization is used as the best available representation.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## EuroPacific Growth Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -0.3%	No
Beta < 1.20	Beta = 1.05	Yes
Alpha > 0.0%	Alpha = -0.4%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 33rd Percentile	No



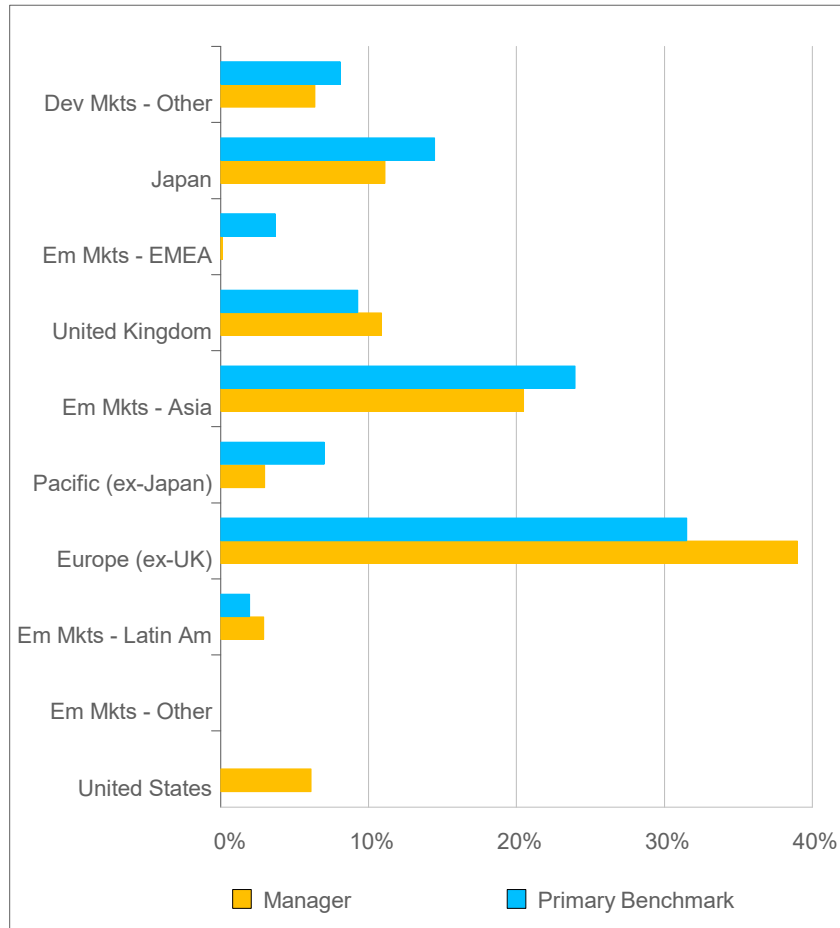
# City of Grosse Pointe Woods Employees Retirement System

## EuroPacific Growth Fund

International Sector

Report For Periods Ending December 31, 2024

### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Dev Mkts - Other	6%	8%	-1.6%	12.7%
Japan	11	14	-3.6	8.7
Em Mkts - EMEA	0	4	-4.0	6.0
United Kingdom	11	9	-6.8	7.8
Em Mkts - Asia	20	24	-7.7	12.7
Pacific (ex-Japan)	3	7	-9.1	4.3
Europe (ex-UK)	39	32	-10.1	1.4
Em Mkts - Latin Am	3	2	-15.7	-26.0
Em Mkts - Other	0	0	-	-
United States	6	0	-	-

Top Five Countries	Weighting
France	11.1%
Japan	11.1
United Kingdom	10.9
Germany	7.4
India	7.1

Number of Holdings: 316

\* Sector weightings may not add up to 100% due to rounding.

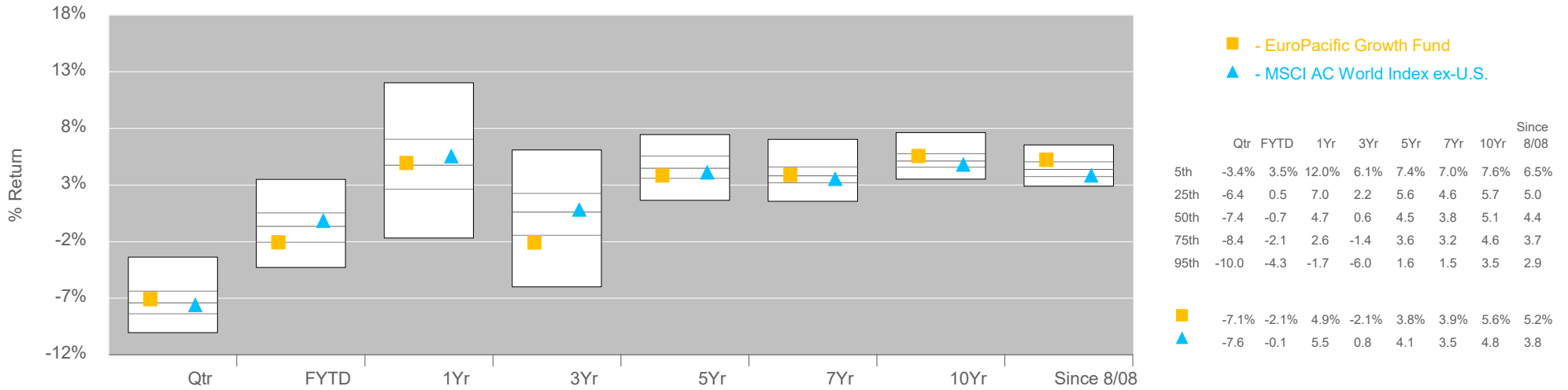
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## EuroPacific Growth Fund

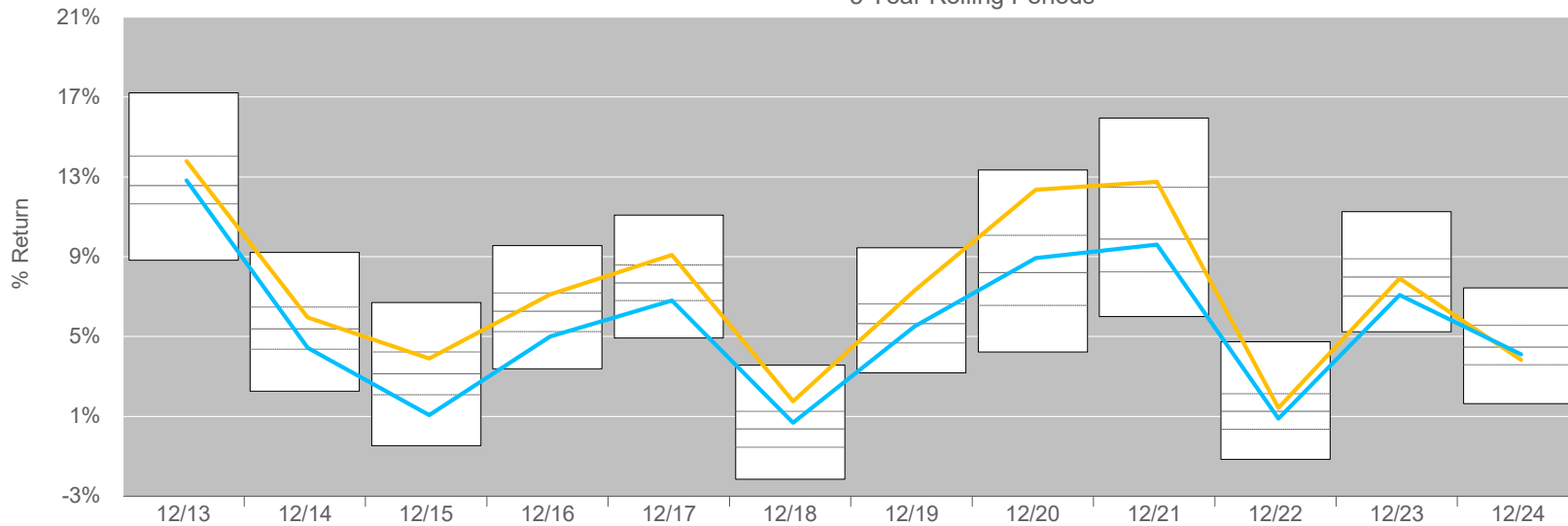
### International Equity Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2008 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox International Stock Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>Dodge &amp; Cox International Stock Fund</b>	<b>-8.5%</b>	<b>0.6%</b>	<b>3.8%</b>	<b>4.1%</b>	<b>5.1%</b>	<b>3.7%</b>	<b>4.4%</b>	<b>5.6%</b>	<i>1/05</i>
MSCI AC World Index ex-U.S.	-7.6	-0.1	5.5	0.8	4.1	3.5	4.8	5.1	
MSCI EAFE Index	-8.1	-1.4	3.8	1.6	4.7	4.1	5.2	4.9	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>Dodge &amp; Cox International Stock Fund</b>	<b>1.14</b>	<b>0.7%</b>	<b>0.89</b>	<b>22.6%</b>	<b>7.5%</b>	<b>0.1</b>
MSCI AC World Index ex-U.S.	1.00	0.0	1.00	18.3	0.0	--
MSCI EAFE Index	1.01	0.6	0.96	19.0	7.7	0.0

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>Dodge &amp; Cox International Stock Fund</b>	<b>14.0</b>	<b>1.5</b>	<b>103,000.0 M</b>	<b>3.1%</b>	<b>11.0%</b>
MSCI AC World Index ex-U.S.	15.8	1.9	108,814.0	2.9	--
MSCI EAFE Index	16.3	1.9	85,966.0	3.0	--

\* Risk Statistics are based on monthly data. MSCI does not compute the Weighted Average Market Capitalization - the average market capitalization is used as the best available representation.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox International Stock Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 1.0%	Yes
Beta < 1.20	Beta = 1.14	Yes
Alpha > 0.0%	Alpha = 0.7%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 50th Percentile	Yes

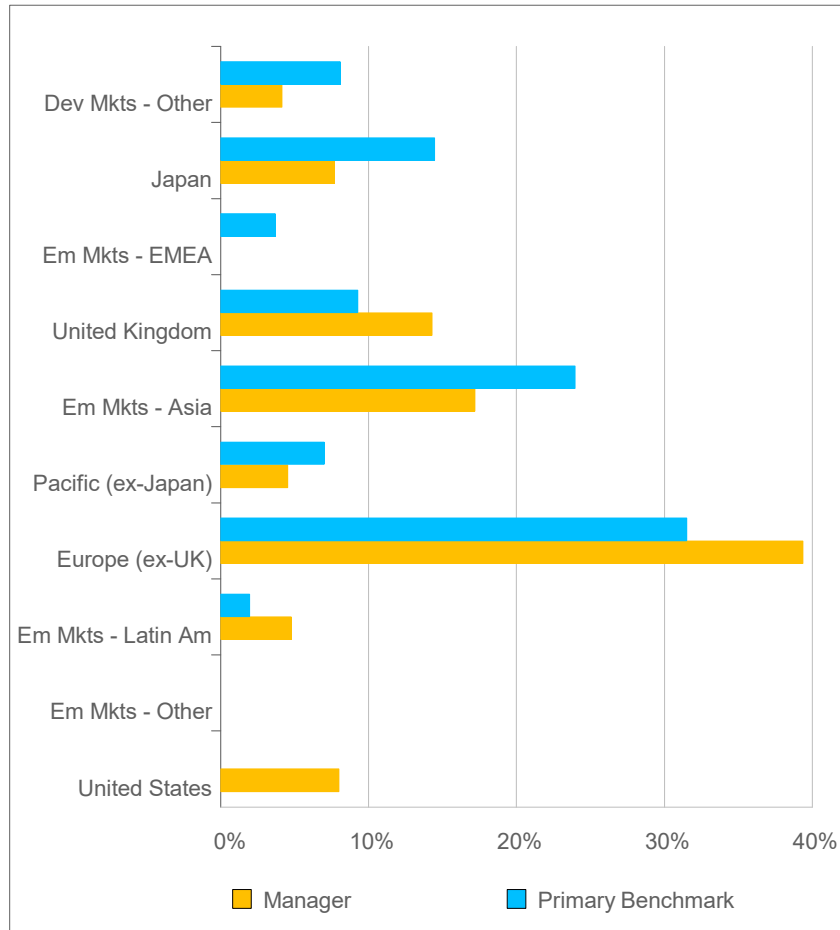
# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox International Stock Fund

International Sector

Report For Periods Ending December 31, 2024

### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Dev Mkts - Other	4%	8%	-1.6%	12.7%
Japan	8	14	-3.6	8.7
Em Mkts - EMEA	0	4	-4.0	6.0
United Kingdom	14	9	-6.8	7.8
Em Mkts - Asia	17	24	-7.7	12.7
Pacific (ex-Japan)	5	7	-9.1	4.3
Europe (ex-UK)	39	32	-10.1	1.4
Em Mkts - Latin Am	5	2	-15.7	-26.0
Em Mkts - Other	0	0	-	-
United States	8	0	-	-

Top Five Countries	Weighting
United Kingdom	14.3%
Switzerland	11.8
France	11.2
China	9.3
Japan	7.7

Number of Holdings: 79

\* Sector weightings may not add up to 100% due to rounding.

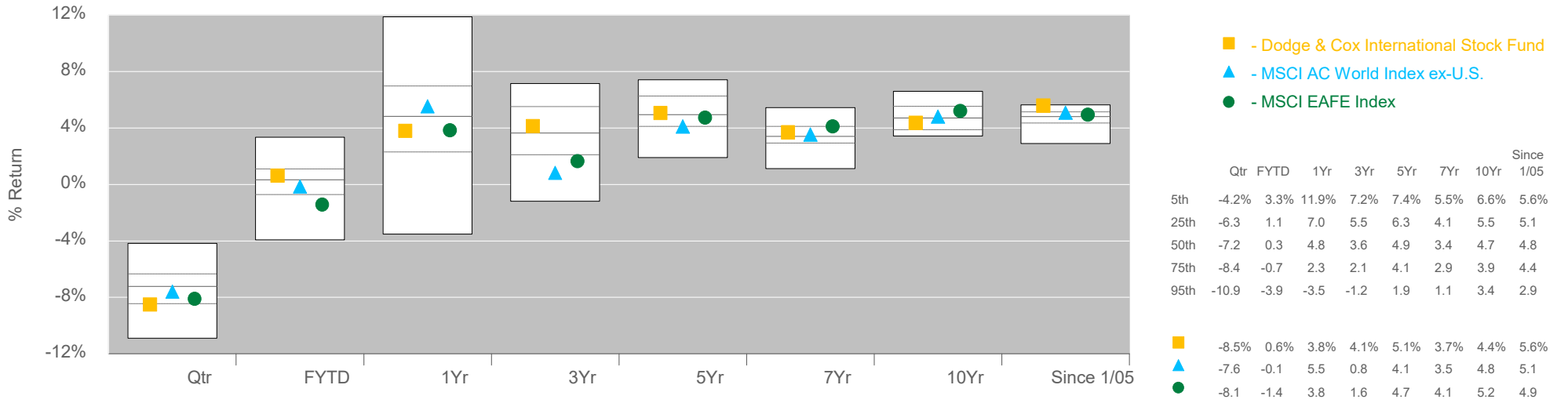
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox International Stock Fund

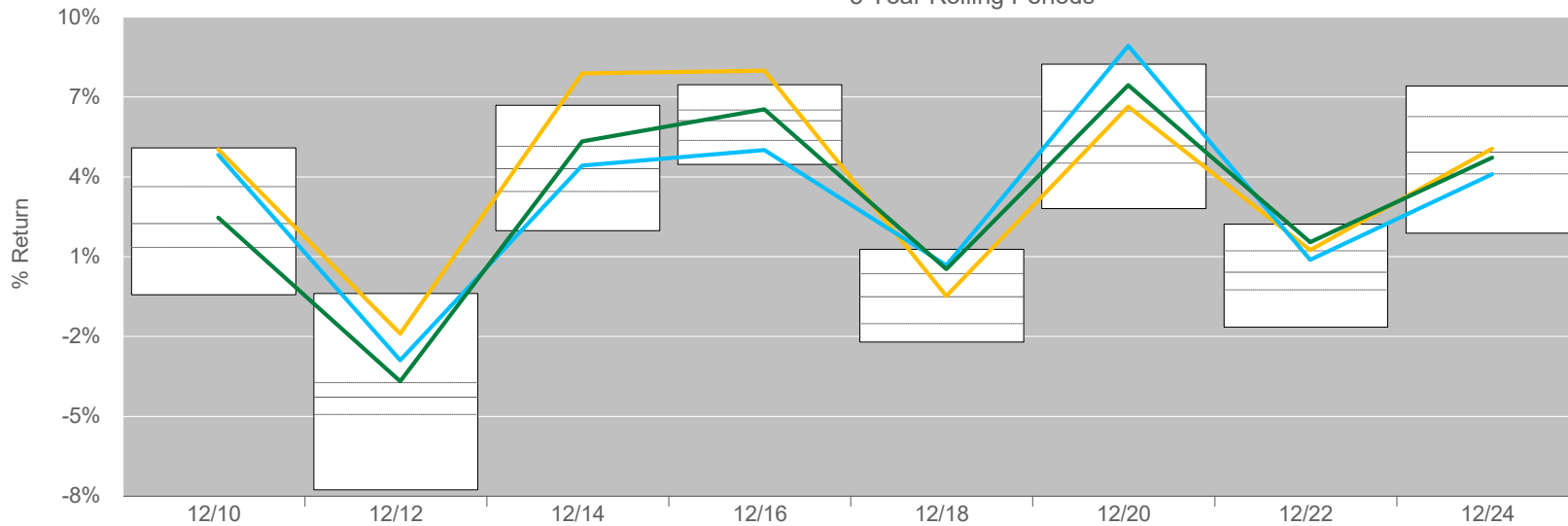
International Value Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods

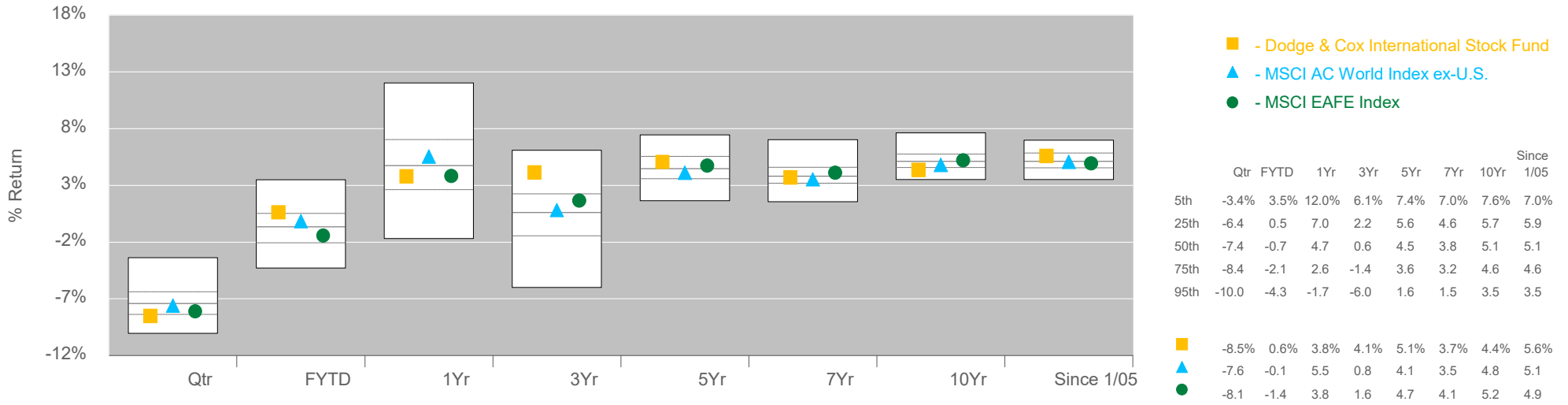


# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox International Stock Fund

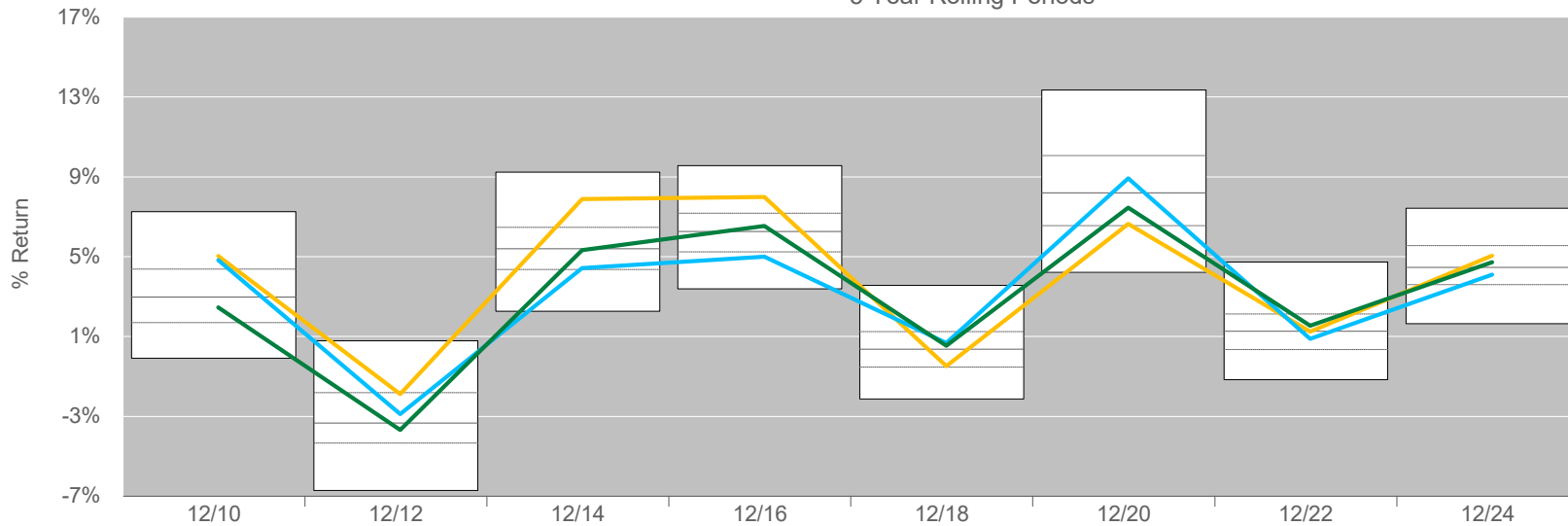
### International Equity Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Brown International Small Company

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

Performance Results	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	Since Inception	Inception Date
<b>Brown International Small Company</b>	<b>-3.6%</b>	<b>8.4%</b>	<b>8.4%</b>	<b>-3.6%</b>	<b>8.0%</b>	<b>8.8%</b>	<b>11.4%</b>	<i>9/15</i>
MSCI Small Cap EAFE Index	-8.4	1.3	1.8	-3.2	2.3	2.0	5.7	
MSCI ACWI ex-U.S. Small Cap Index	-7.7	0.6	3.4	-1.5	4.3	3.1	6.4	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>Brown International Small Company</b>	<b>0.98</b>	<b>5.7%</b>	<b>0.80</b>	<b>24.5%</b>	<b>10.0%</b>	<b>0.6</b>
MSCI Small Cap EAFE Index	1.00	0.0	1.00	21.1	0.0	--
MSCI ACWI ex-U.S. Small Cap Index	0.97	2.0	0.98	21.0	10.6	0.3

Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover
<b>Brown International Small Company</b>	<b>74.6</b>	<b>15.3</b>	<b>7,016.6M</b>	<b>1.1%</b>	<b>13.8%</b>
MSCI Small Cap EAFE Index	11.3	1.3	3,000.0	3.0	--
MSCI ACWI ex-U.S. Small Cap Index	12.6	1.4	2,734.0	2.8	--

### Asset Growth Summary (in thousands)

Beginning Market Value	\$	0
Net Contributions/(Distributions)	\$	0
<b>Market Appreciation/(Depreciation)</b>	<b>\$</b>	<b>0</b>
<b>Ending Market Value</b>	<b>\$</b>	<b>0</b>

\* Risk Statistics are based on monthly data. MSCI does not compute the Weighted Average Market Capitalization - the average market capitalization is used as the best available representation.

\* Manager data represents the most current available at the time of report publication.



# City of Grosse Pointe Woods Employees Retirement System

## Brown International Small Company

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 5.7%	Yes
Beta < 1.20	Beta = 0.98	Yes
Alpha > 0.0%	Alpha = 5.7%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 5th Percentile	Yes

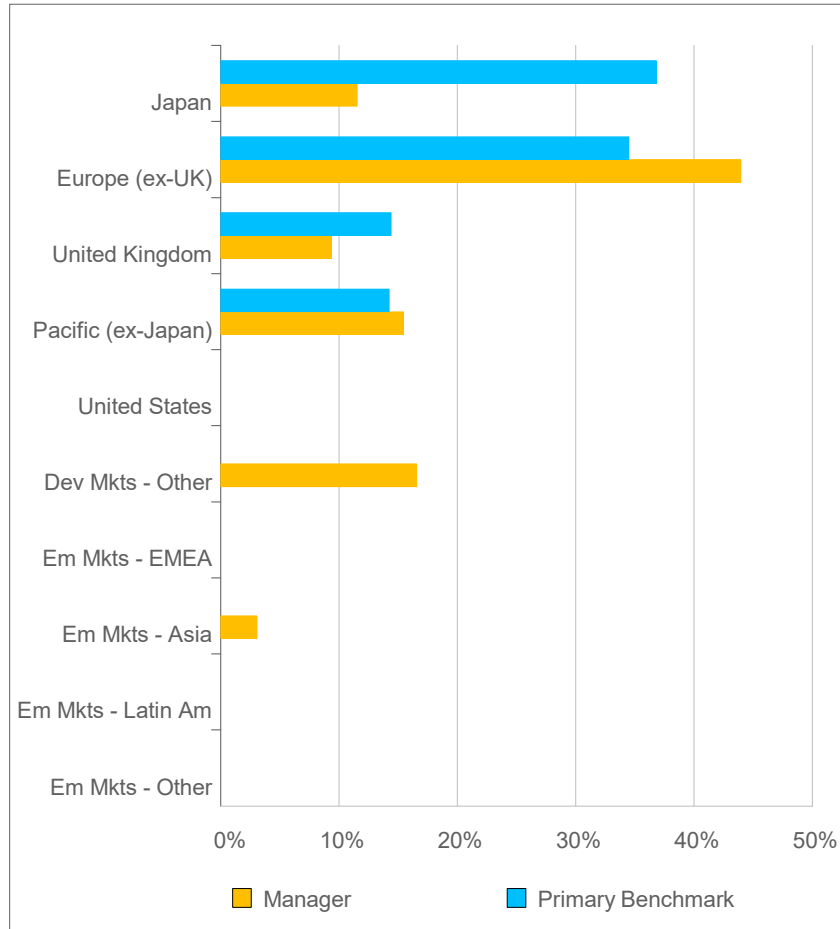
# City of Grosse Pointe Woods Employees Retirement System

## Brown International Small Company

International Sector

Report For Periods Ending December 31, 2024

### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Japan	12%	37%	-5.9%	4.8%
Europe (ex-UK)	44	35	-8.8	-0.4
United Kingdom	9	14	-9.5	5.2
Pacific (ex-Japan)	15	14	-11.7	-0.6
United States	0	0	-	-9.1
Dev Mkts - Other	17	0	-	-
Em Mkts - EMEA	0	0	-	-
Em Mkts - Asia	3	0	-	-
Em Mkts - Latin Am	0	0	-	-
Em Mkts - Other	0	0	-	-

Top Five Countries	Weighting
France	15.2%
Australia	13.8
Sweden	12.5
Japan	11.5
United Kingdom	9.4

Number of Holdings: 39

\* Sector weightings may not add up to 100% due to rounding.

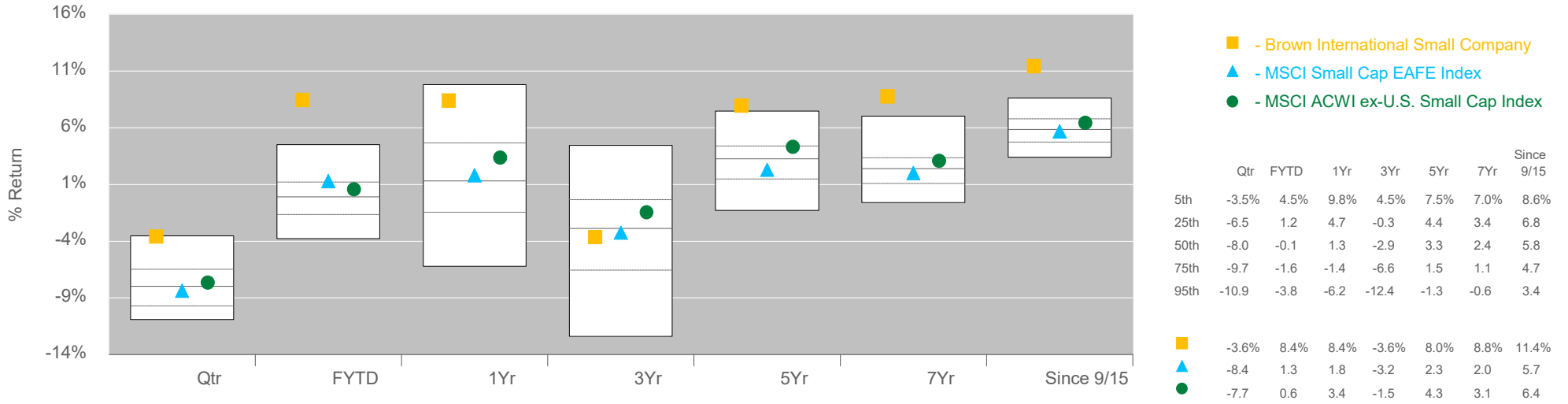
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Brown International Small Company

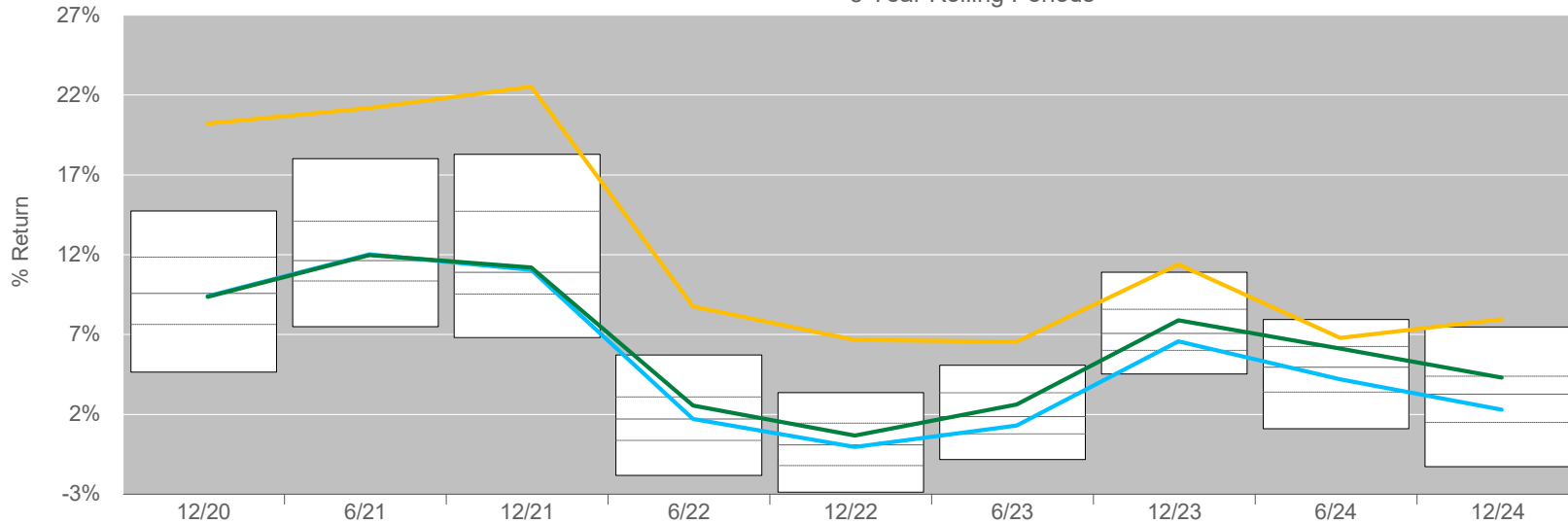
International Small Cap Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2015 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Redwheel Global Emerging Equity Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>Redwheel Global Emerging Equity Fund</b>	<b>-11.7%</b>	<b>-4.8%</b>	<b>-1.4%</b>	<b>-7.8%</b>	<b>0.3%</b>	<b>-0.9%</b>	<b>3.5%</b>	<b>5.5%</b>	<i>7/12</i>
MSCI Emerging Markets Index	-8.0	0.0	7.5	-1.9	1.7	1.4	3.6	3.4	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>Redwheel Global Emerging Equity Fund</b>	<b>1.25</b>	<b>-1.2%</b>	<b>0.91</b>	<b>25.2%</b>	<b>8.6%</b>	<b>-0.2</b>
MSCI Emerging Markets Index	1.00	0.0	1.00	19.2	0.0	--

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>Redwheel Global Emerging Equity Fund</b>	<b>10.2</b>	<b>1.3</b>	<b>100,368.2M</b>	<b>2.9%</b>	<b>98.9%</b>
MSCI Emerging Markets Index	14.3	2.0	169,541.0	2.6	--

\* Risk Statistics are based on monthly data. MSCI does not compute the Weighted Average Market Capitalization - the average market capitalization is used as the best available representation.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Redwheel Global Emerging Equity Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -1.4%	No
Beta < 1.20	Beta = 1.25	No
Alpha > 0.0%	Alpha = -1.2%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 33rd Percentile	No

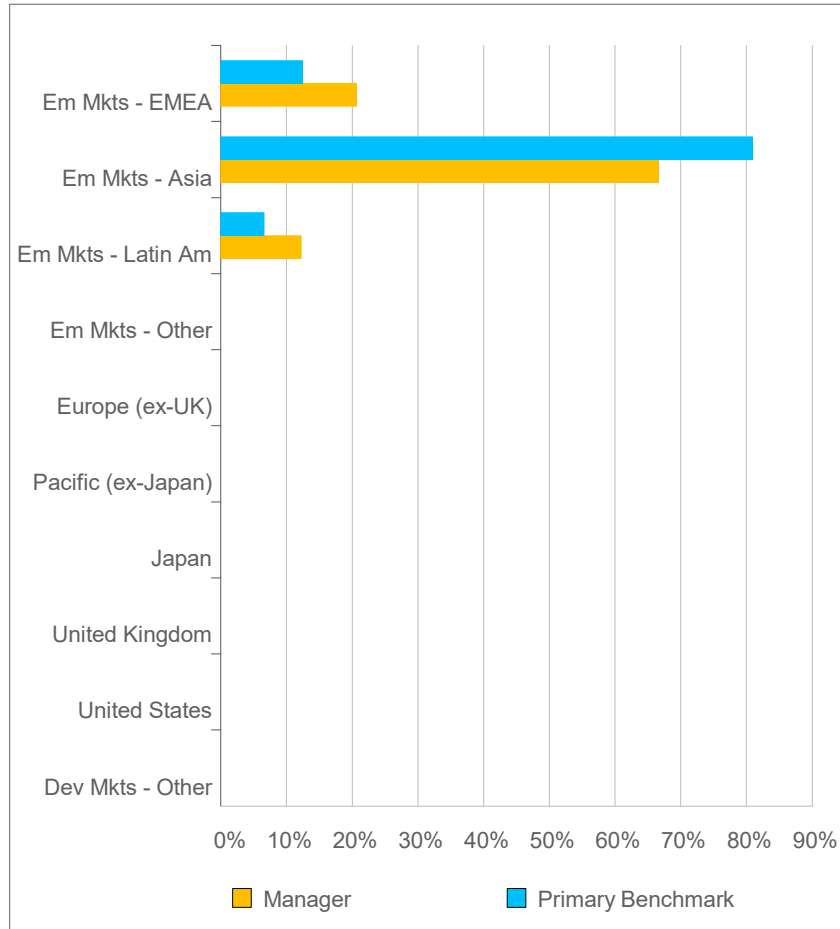
# City of Grosse Pointe Woods Employees Retirement System

## Redwheel Global Emerging Equity Fund

### Emerging Markets Sector

Report For Periods Ending December 31, 2024

#### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Em Mkts - EMEA	21%	12%	-4.0%	6.0%
Em Mkts - Asia	67	81	-7.7	12.7
Em Mkts - Latin Am	12	7	-15.7	-26.0
Em Mkts - Other	0	0	-	-
Europe (ex-UK)	0	0	-	-
Pacific (ex-Japan)	0	0	-	-
Japan	0	0	-	-
United Kingdom	0	0	-	-
United States	0	0	-	-
Dev Mkts - Other	0	0	-	-

Top Five Countries	Weighting
China	37.2%
India	9.5
Korea, South	8.0
Taiwan	7.3
South Africa	6.9

Number of Holdings: 64

\* Sector weightings may not add up to 100% due to rounding.

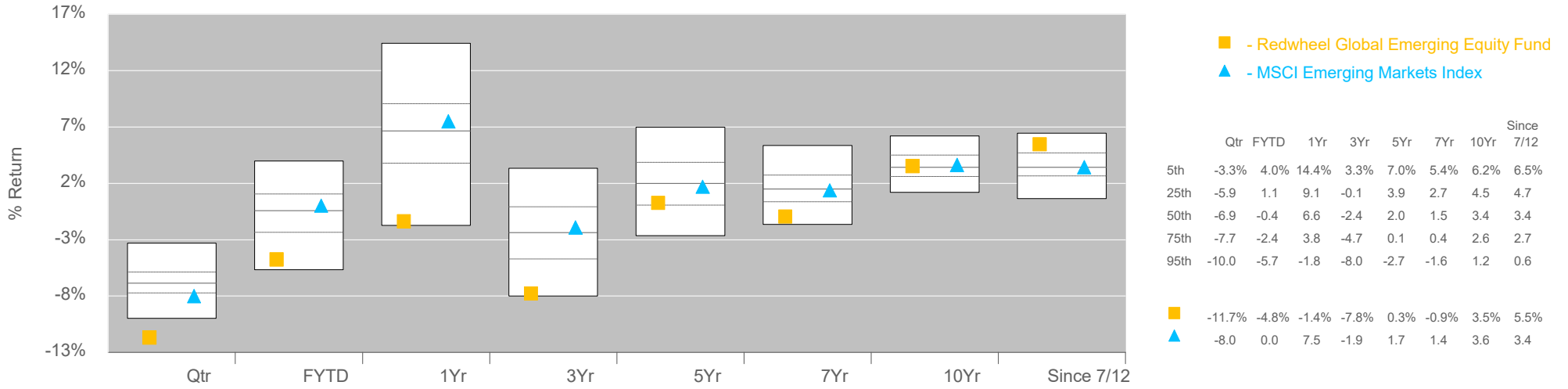
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Redwheel Global Emerging Equity Fund

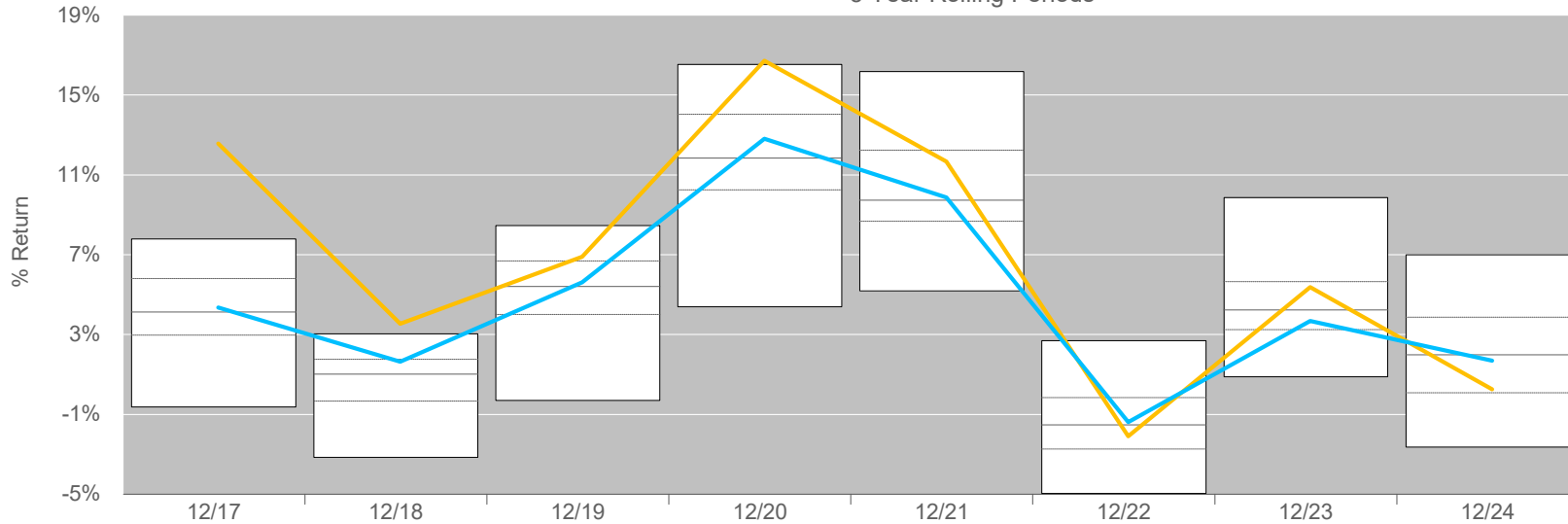
### Emerging Markets Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2012 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## DFA Emerging Markets Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>DFA Emerging Markets Fund</b>	<b>-7.3%</b>	<b>-0.7%</b>	<b>6.9%</b>	<b>0.2%</b>	<b>3.2%</b>	<b>2.3%</b>	<b>4.2%</b>	<b>6.4%</b>	<b>1/05</b>
MSCI Emerging Markets Index	-8.0	0.0	7.5	-1.9	1.7	1.4	3.6	6.0	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>DFA Emerging Markets Fund</b>	<b>1.00</b>	<b>1.5%</b>	<b>0.97</b>	<b>19.7%</b>	<b>3.4%</b>	<b>0.5</b>
MSCI Emerging Markets Index	1.00	0.0	1.00	19.2	0.0	--

<b>Portfolio Statistics</b>	<b>Trailing P/E</b>	<b>Trailing P/B</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>DFA Emerging Markets Fund</b>	<b>14.7</b>	<b>1.8</b>	<b>125,493.9M</b>	<b>2.4%</b>	<b>14.0%</b>
MSCI Emerging Markets Index	14.3	2.0	169,541.0	2.6	--

\* Risk Statistics are based on monthly data. MSCI does not compute the Weighted Average Market Capitalization - the average market capitalization is used as the best available representation.

\* Manager data represents the most current available at the time of report publication.



# City of Grosse Pointe Woods Employees Retirement System

## DFA Emerging Markets Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 1.6%	Yes
Beta < 1.20	Beta = 1.00	Yes
Alpha > 0.0%	Alpha = 1.5%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 33rd Percentile	Yes

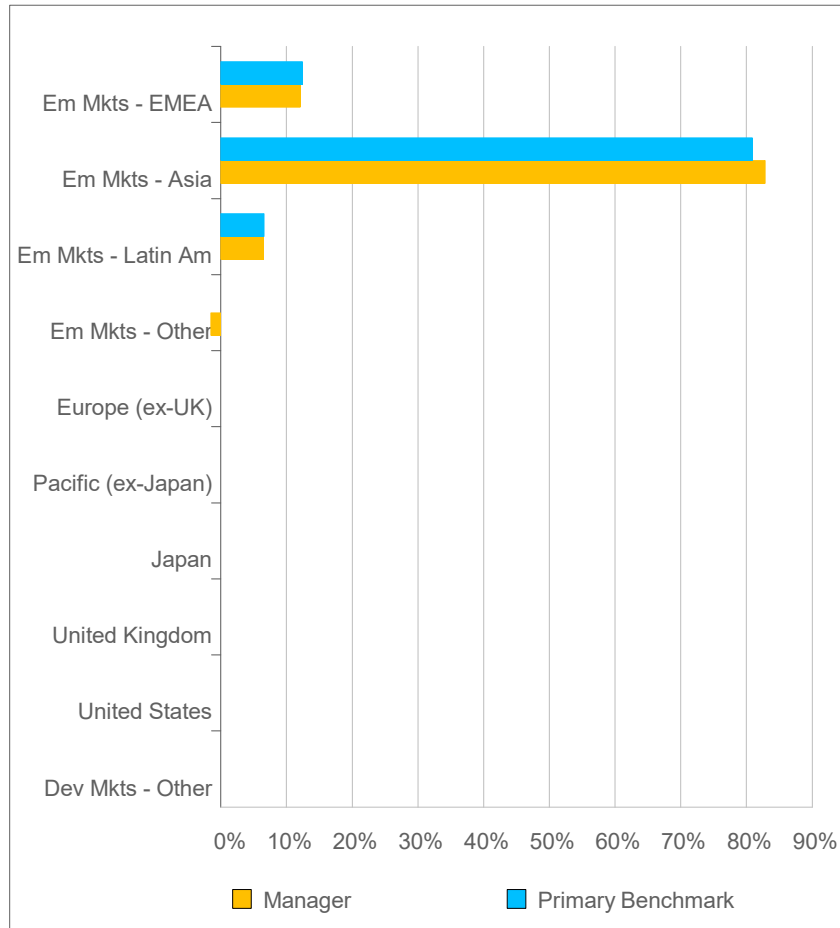
# City of Grosse Pointe Woods Employees Retirement System

## DFA Emerging Markets Fund

### Emerging Markets Sector

Report For Periods Ending December 31, 2024

#### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Em Mkts - EMEA	12%	12%	-4.0%	6.0%
Em Mkts - Asia	83	81	-7.7	12.7
Em Mkts - Latin Am	7	7	-15.7	-26.0
Em Mkts - Other	-2	0	-	-
Europe (ex-UK)	0	0	-	-
Pacific (ex-Japan)	0	0	-	-
Japan	0	0	-	-
United Kingdom	0	0	-	-
United States	0	0	-	-
Dev Mkts - Other	0	0	-	-

Top Five Countries	Weighting
China	25.0%
India	21.3
Taiwan	18.7
Korea, South	10.8
Brazil	4.1

Number of Holdings: 2300

\* Sector weightings may not add up to 100% due to rounding.

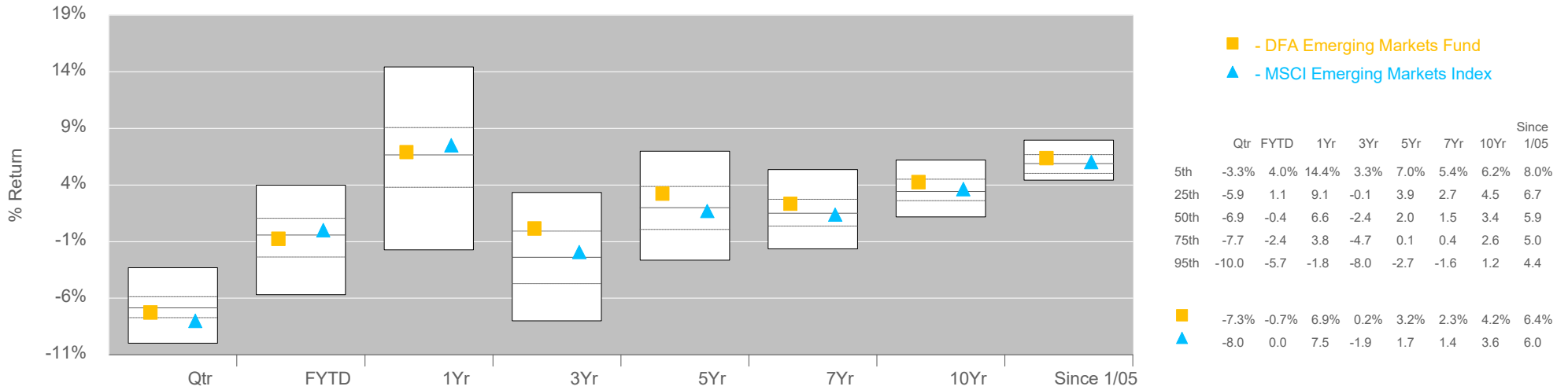
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## DFA Emerging Markets Fund

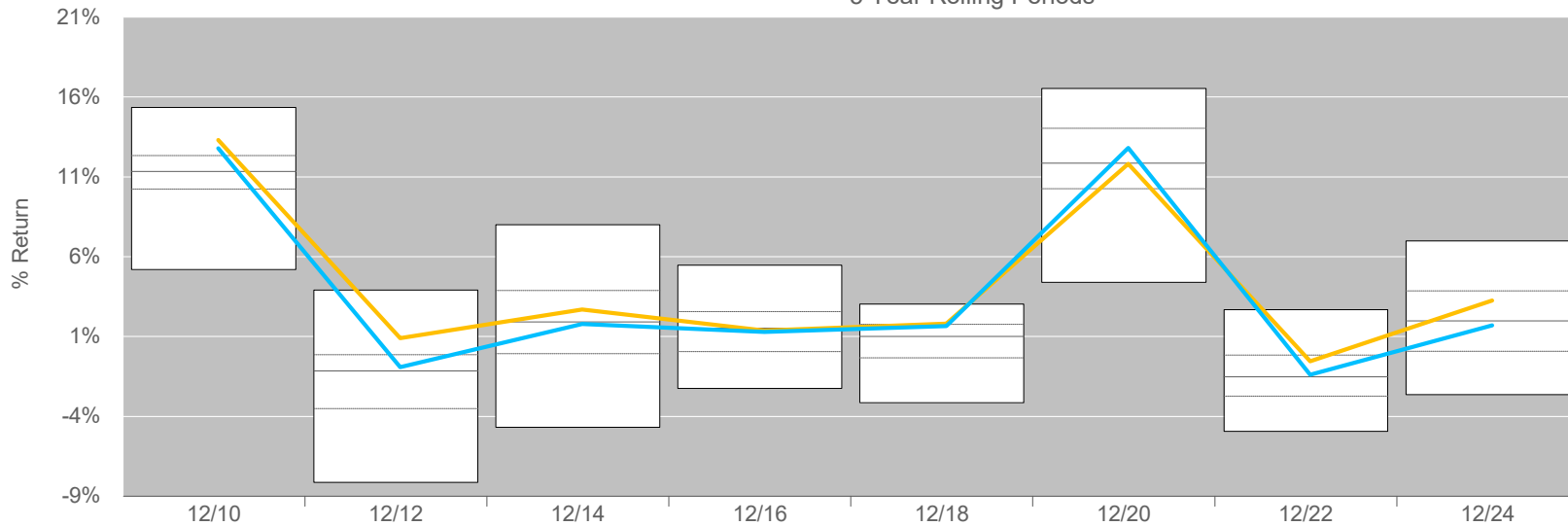
### Emerging Markets Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox Income Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>Dodge &amp; Cox Income Fund</b>	<b>-3.3%</b>	<b>2.1%</b>	<b>2.3%</b>	<b>-0.6%</b>	<b>1.3%</b>	<b>2.2%</b>	<b>2.5%</b>	<b>3.9%</b>	<i>1/05</i>
Bloomberg IG Credit Index	-3.3	2.3	1.6	-2.4	0.1	1.5	2.1	3.6	
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	1.0	1.3	3.0	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>Dodge &amp; Cox Income Fund</b>	<b>0.79</b>	<b>0.7%</b>	<b>0.96</b>	<b>6.8%</b>	<b>2.2%</b>	<b>0.6</b>
Bloomberg IG Credit Index	1.00	0.0	1.00	8.4	0.0	--
Bloomberg U.S. Aggregate Index	0.74	-1.0	0.92	6.4	1.9	0.8

<b>Portfolio Statistics</b>	<b>Effective Duration</b>	<b>Wtd Avg Maturity</b>	<b>Wtd Avg Credit</b>	<b>Yield to Worst</b>	<b>FI Annl Turnover</b>
<b>Dodge &amp; Cox Income Fund</b>	<b>6.3yrs</b>	<b>9.6yrs</b>	<b>A</b>	<b>4.7%</b>	<b>6.0%</b>
Bloomberg IG Credit Index	--	--	--	--	--
Bloomberg U.S. Aggregate Index	5.9	8.3	AA	4.9	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox Income Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 1.2%	Yes
Beta < 1.20	Beta = 0.79	Yes
Alpha > 0.0%	Alpha = 0.7%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 25th Percentile	Yes

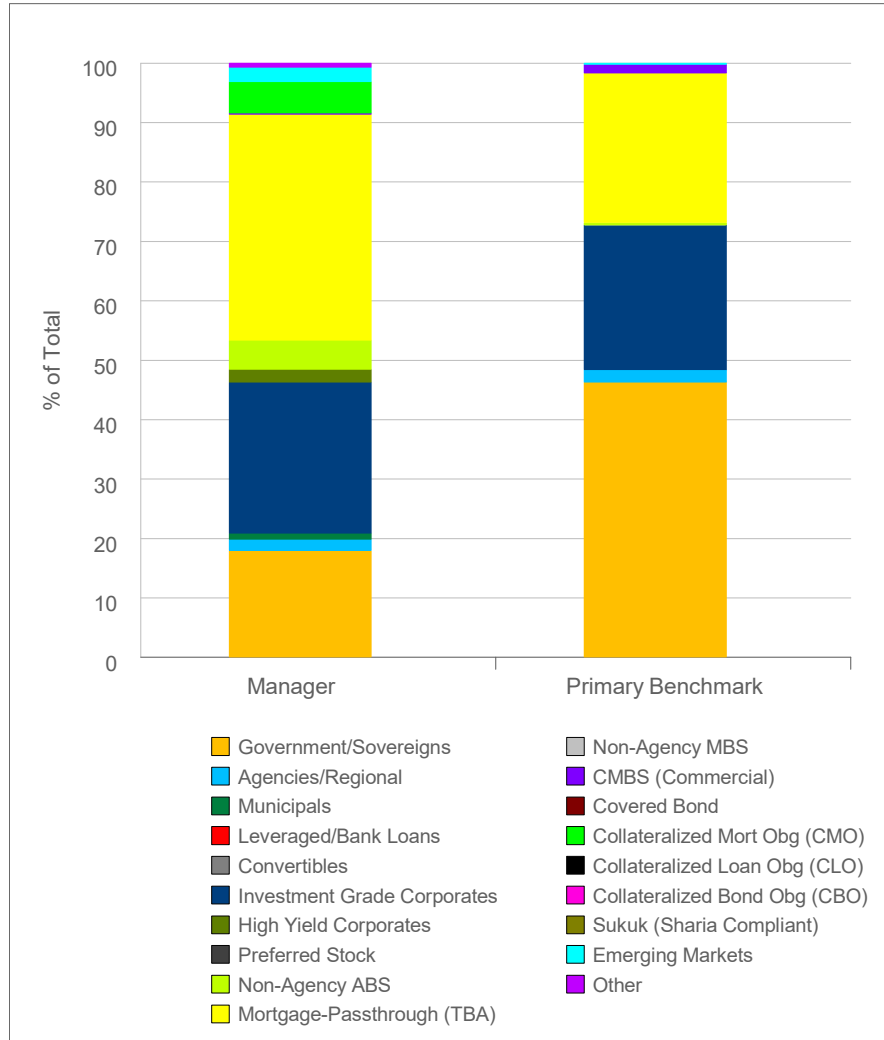
# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox Income Fund

### Fixed Income Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Benchmark	3 Months	12 Months
Total Weighting	100%	100%	-3.1%	1.3%
Government/Sovereigns	18	46	-3.1	0.6
Agencies/Regional	2	2	-2.1	2.3
Municipals	1	0	-	-
Leveraged/Bank Loans	0	0	-	-
Convertibles	0	0	-	-
Investment Grade Corporates	25	24	-3.0	2.1
High Yield Corporates	2	0	-	-
Preferred Stock	0	0	-	-
Non-Agency ABS	5	0	-0.1	5.0
Mortgage-Passthrough (TBA)	38	25	-3.2	1.3
Non-Agency MBS	0	0	-	-
CMBS (Commercial)	0	2	-1.5	4.7
Covered Bond	0	0	-	-
Collateralized Mort Obg (CMO)	5	0	-	-
Collateralized Loan Obg (CLO)	0	0	-	-
Collateralized Bond Obg (CBO)	0	0	-	-
Sukuk (Sharia Compliant)	0	0	-	-
Emerging Markets	2	0	-3.7	2.8
Other	1	0	-	-

\*Sector weightings may not add up to 100% due to rounding.

\*Benchmark weightings are for the Bloomberg U.S. Aggregate Index.

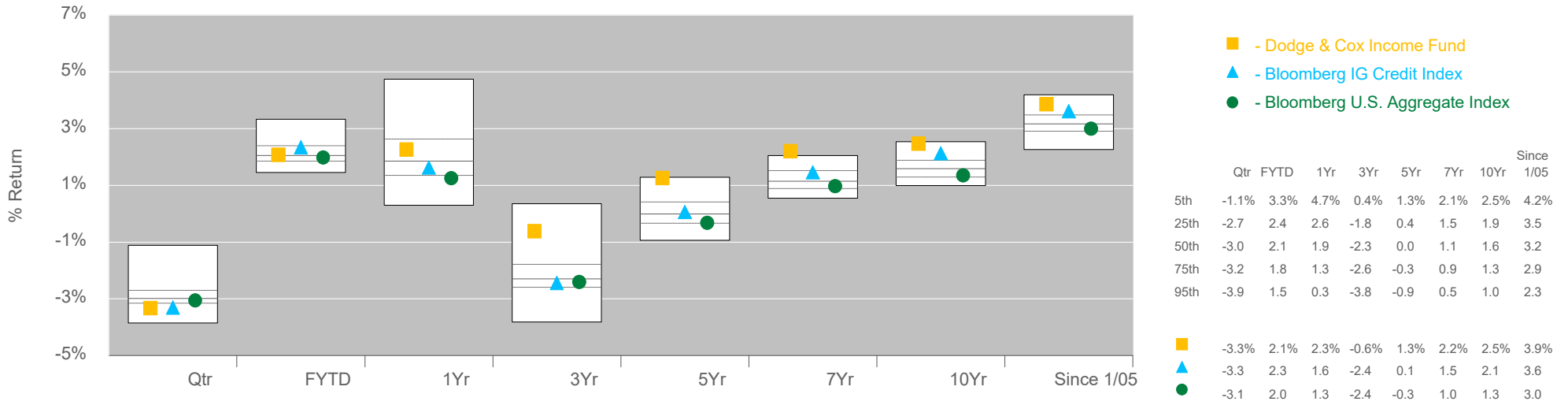
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox Income Fund

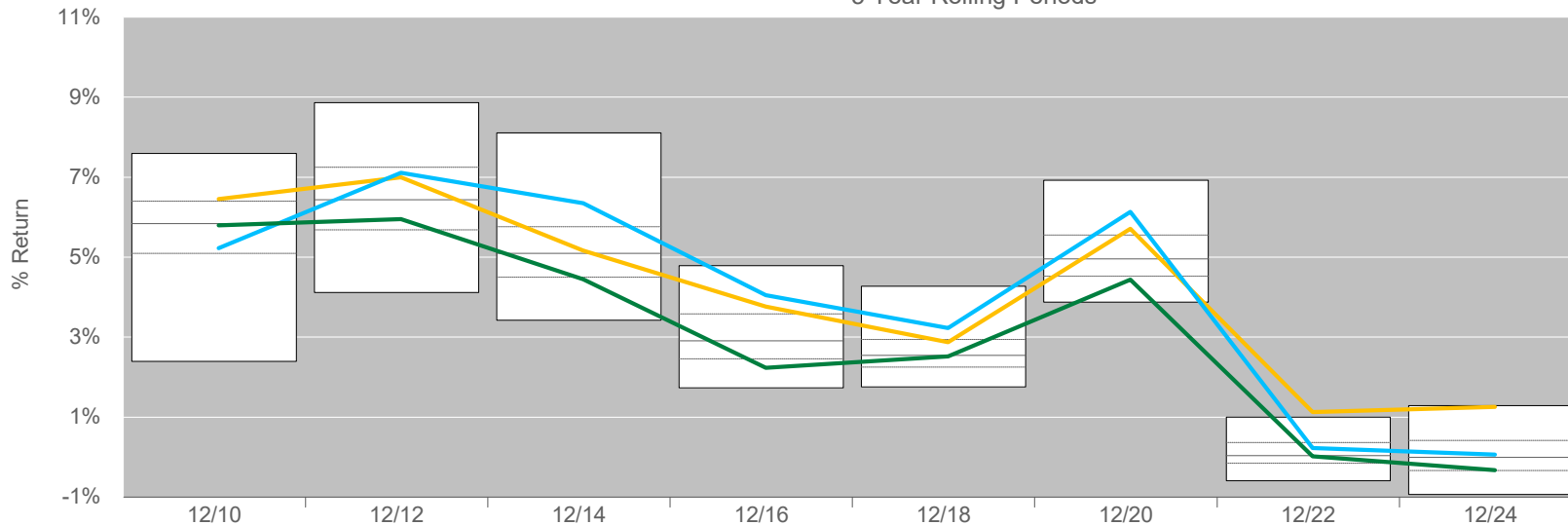
Core Fixed Income Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## DoubleLine Total Return Bond Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>DoubleLine Total Return Bond Fund</b>	<b>-2.8%</b>	<b>2.8%</b>	<b>3.1%</b>	<b>-1.7%</b>	<b>-0.2%</b>	<b>0.9%</b>	<b>1.5%</b>	<b>3.5%</b>	<i>4/10</i>
Bloomberg U.S. MBS Index	-3.2	2.2	1.2	-2.1	-0.7	0.5	0.9	1.7	
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	1.0	1.3	2.2	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>DoubleLine Total Return Bond Fund</b>	<b>0.81</b>	<b>0.0%</b>	<b>0.80</b>	<b>6.1%</b>	<b>3.0%</b>	<b>0.2</b>
Bloomberg U.S. MBS Index	1.00	0.0	1.00	6.7	0.0	--
Bloomberg U.S. Aggregate Index	0.91	0.1	0.92	6.4	2.2	0.1

<b>Portfolio Statistics</b>	<b>Effective Duration</b>	<b>Wtd Avg Maturity</b>	<b>Wtd Avg Credit</b>	<b>Yield to Worst</b>	<b>FI Annl Turnover</b>
<b>DoubleLine Total Return Bond Fund</b>	<b>5.8yrs</b>	<b>6.0yrs</b>	<b>A+</b>	<b>5.4%</b>	<b>36.0%</b>
Bloomberg U.S. MBS Index	--	--	--	--	--
Bloomberg U.S. Aggregate Index	5.9	8.3	AA	4.9	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.



# City of Grosse Pointe Woods Employees Retirement System

## DoubleLine Total Return Bond Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 0.6%	Yes
Beta < 1.20	Beta = 0.81	Yes
Alpha > 0.0%	Alpha = 0.0%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 50th Percentile	No

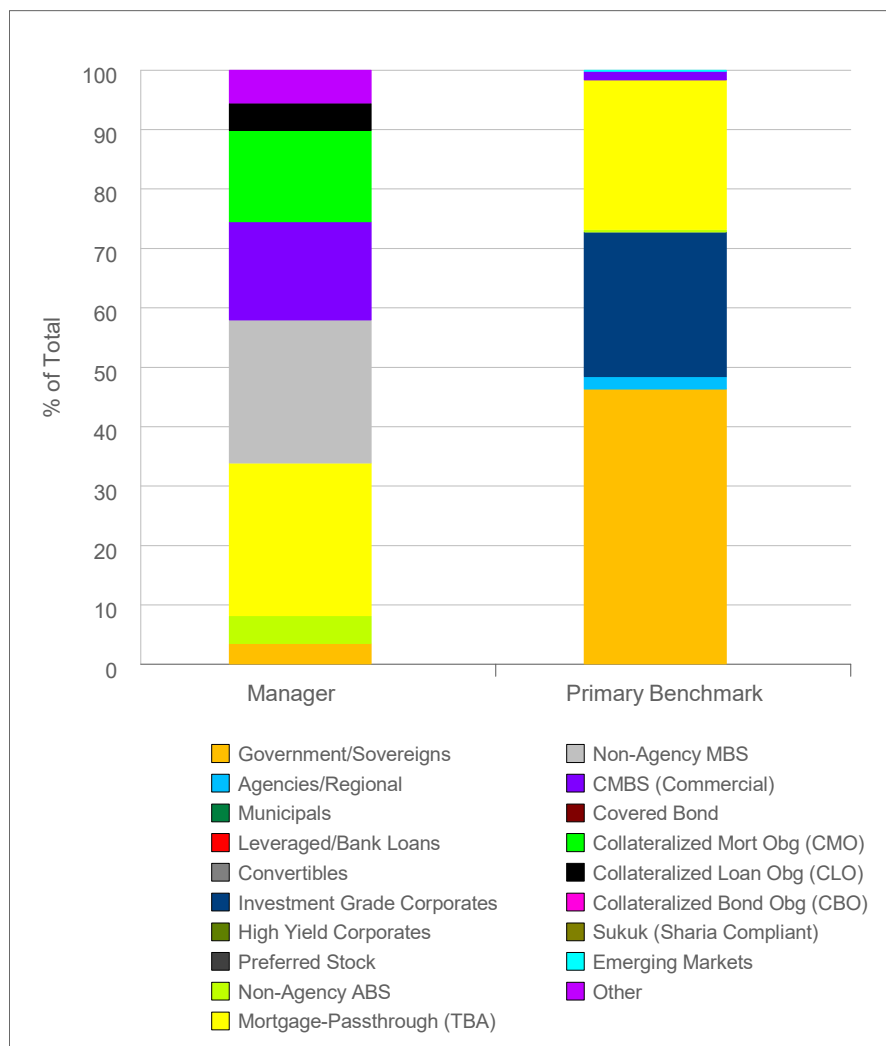
# City of Grosse Pointe Woods Employees Retirement System

## DoubleLine Total Return Bond Fund

### Fixed Income Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Benchmark	3 Months	12 Months
Total Weighting	100%	100%	-3.1%	1.3%
Government/Sovereigns	3	46	-3.1	0.6
Agencies/Regional	0	2	-2.1	2.3
Municipals	0	0	-	-
Leveraged/Bank Loans	0	0	-	-
Convertibles	0	0	-	-
Investment Grade Corporates	0	24	-3.0	2.1
High Yield Corporates	0	0	-	-
Preferred Stock	0	0	-	-
Non-Agency ABS	5	0	-0.1	5.0
Mortgage-Passthrough (TBA)	26	25	-3.2	1.3
Non-Agency MBS	24	0	-	-
CMBS (Commercial)	17	2	-1.5	4.7
Covered Bond	0	0	-	-
Collateralized Mort Obg (CMO)	15	0	-	-
Collateralized Loan Obg (CLO)	5	0	-	-
Collateralized Bond Obg (CBO)	0	0	-	-
Sukuk (Sharia Compliant)	0	0	-	-
Emerging Markets	0	0	-3.7	2.8
Other	6	0	-	-

\*Sector weightings may not add up to 100% due to rounding.

\*Benchmark weightings are for the Bloomberg U.S. Aggregate Index.

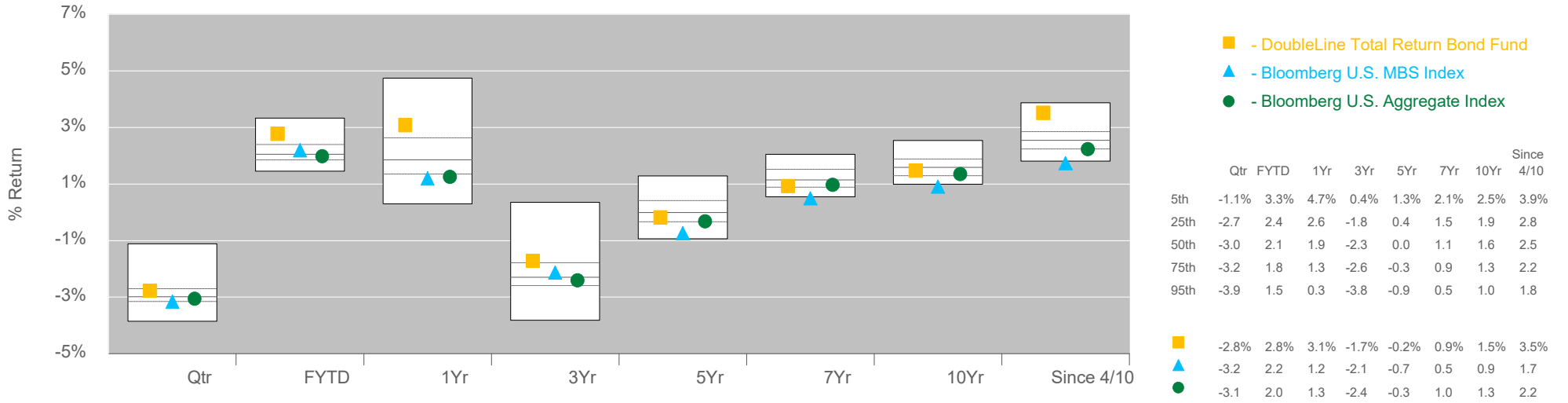
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## DoubleLine Total Return Bond Fund

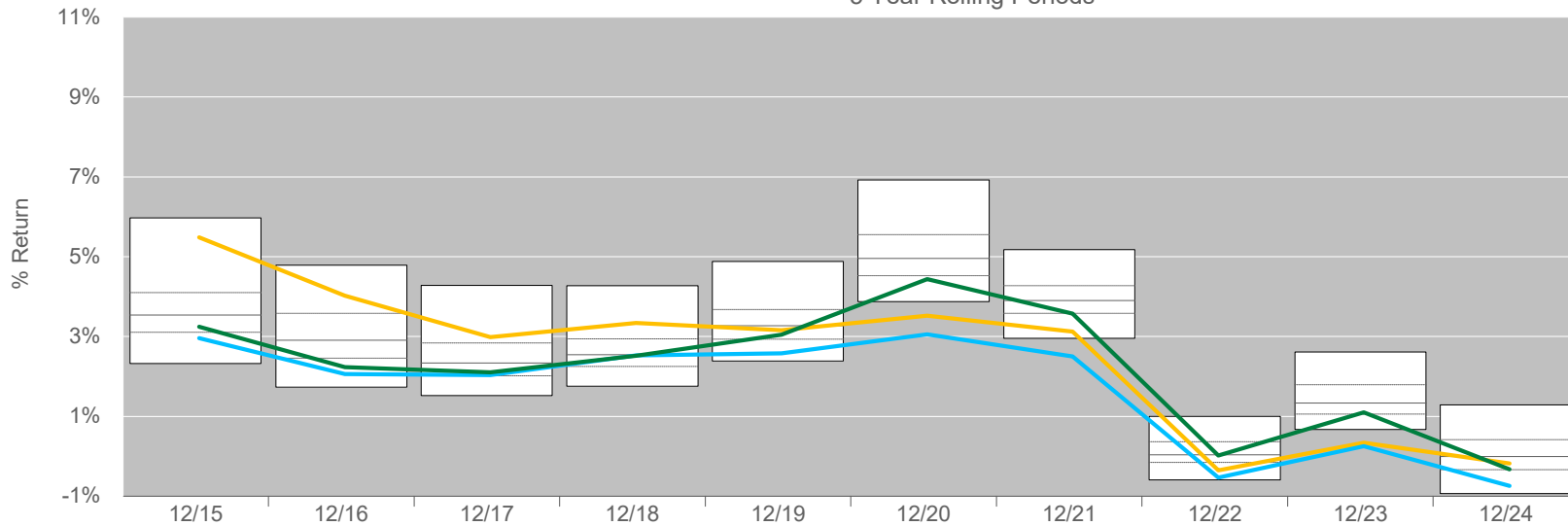
Core Fixed Income Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2010 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Vanguard Total Bond Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

Performance Results	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
Vanguard Total Bond Fund	-3.0%	1.9%	1.2%	-2.4%	-0.3%	1.0%	1.3%	3.0%	1/05
Bloomberg U.S. Aggregate Index	-3.1	2.0	1.3	-2.4	-0.3	1.0	1.3	3.0	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
Vanguard Total Bond Fund	1.00	0.0%	1.00	6.4%	0.3%	0.0
Bloomberg U.S. Aggregate Index	1.00	0.0	1.00	6.4	0.0	--

Portfolio Statistics	Effective Duration	Wtd Avg Maturity	Wtd Avg Credit	Yield to Worst	FI Annl Turnover
Vanguard Total Bond Fund	5.9yrs	8.3yrs	AA	4.9%	--%
Bloomberg U.S. Aggregate Index	5.9	8.3	AA	4.9	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Vanguard Total Bond Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 0.0%	Yes
Beta < 1.20	Beta = 1.00	Yes
Alpha > 0.0%	Alpha = 0.0%	Yes
Peer Group Rank > 50th Percentile	Ranks in Bottom 33rd Percentile	No

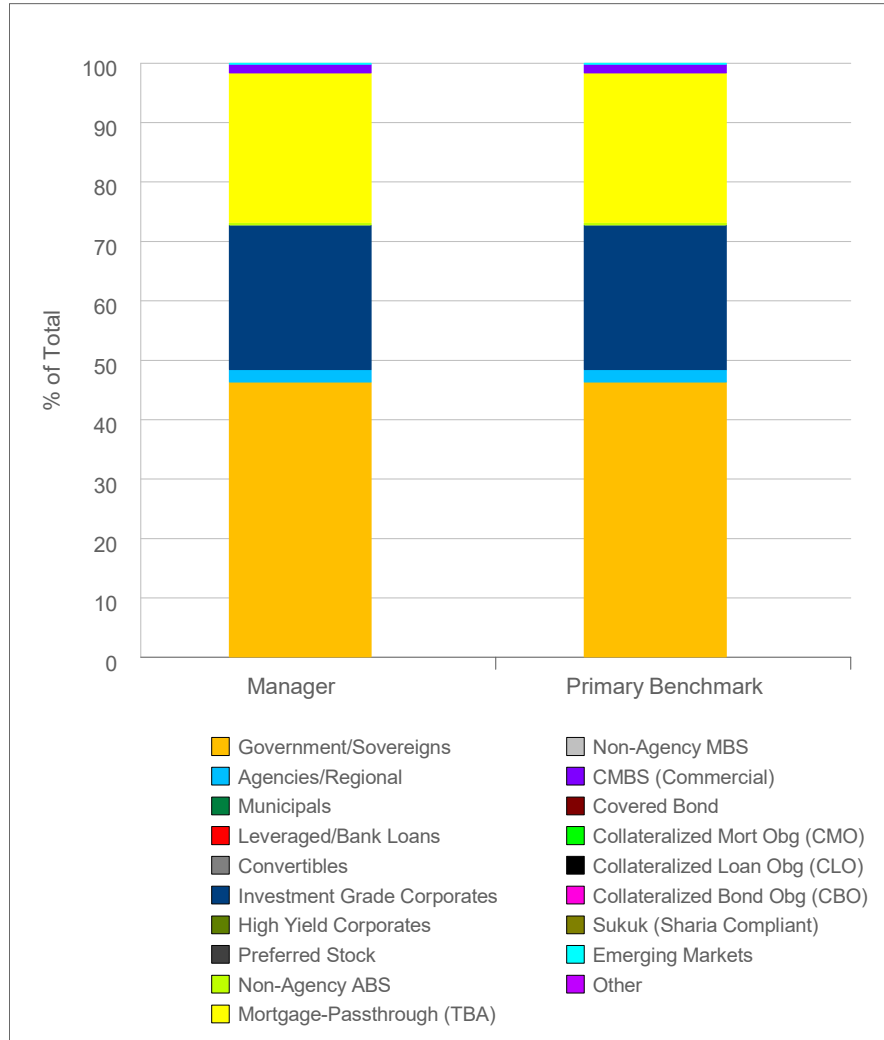
# City of Grosse Pointe Woods Employees Retirement System

## Vanguard Total Bond Fund

### Fixed Income Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Total Weighting	100%	100%	-3.1%	1.3%
Government/Sovereigns	46	46	-3.1	0.6
Agencies/Regional	2	2	-2.1	2.3
Municipals	0	0	-	-
Leveraged/Bank Loans	0	0	-	-
Convertibles	0	0	-	-
Investment Grade Corporates	24	24	-3.0	2.1
High Yield Corporates	0	0	-	-
Preferred Stock	0	0	-	-
Non-Agency ABS	0	0	-0.1	5.0
Mortgage-Passthrough (TBA)	25	25	-3.2	1.3
Non-Agency MBS	0	0	-	-
CMBS (Commercial)	2	2	-1.5	4.7
Covered Bond	0	0	-	-
Collateralized Mort Obg (CMO)	0	0	-	-
Collateralized Loan Obg (CLO)	0	0	-	-
Collateralized Bond Obg (CBO)	0	0	-	-
Sukuk (Sharia Compliant)	0	0	-	-
Emerging Markets	0	0	-3.7	2.8
Other	0	0	-	-

\*Sector weightings may not add up to 100% due to rounding.

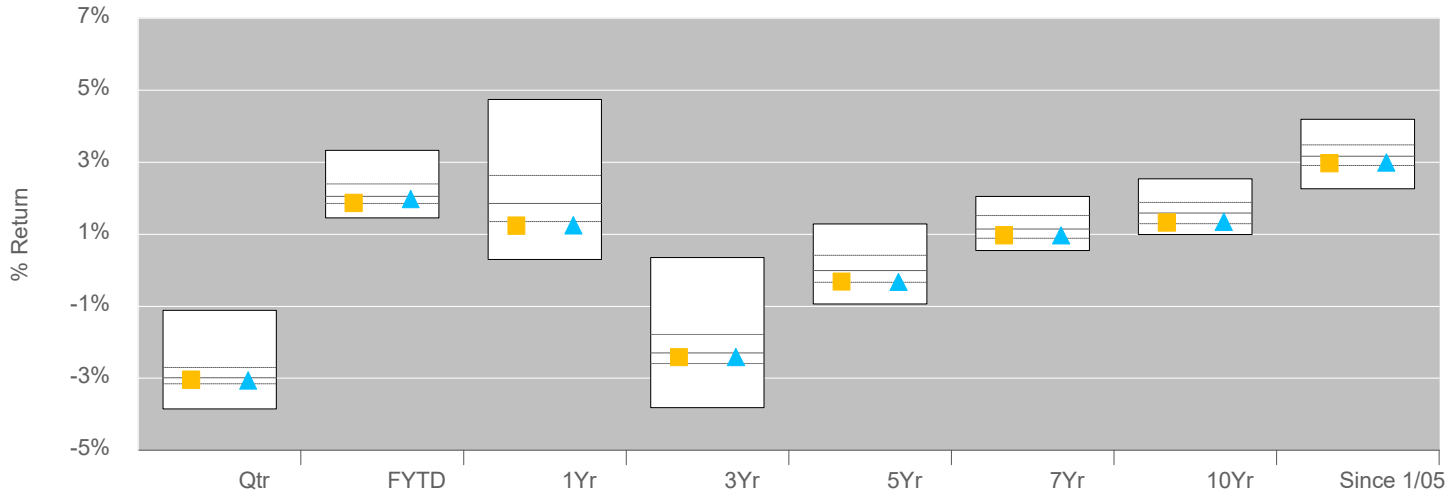
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Vanguard Total Bond Fund

Core Fixed Income Universe

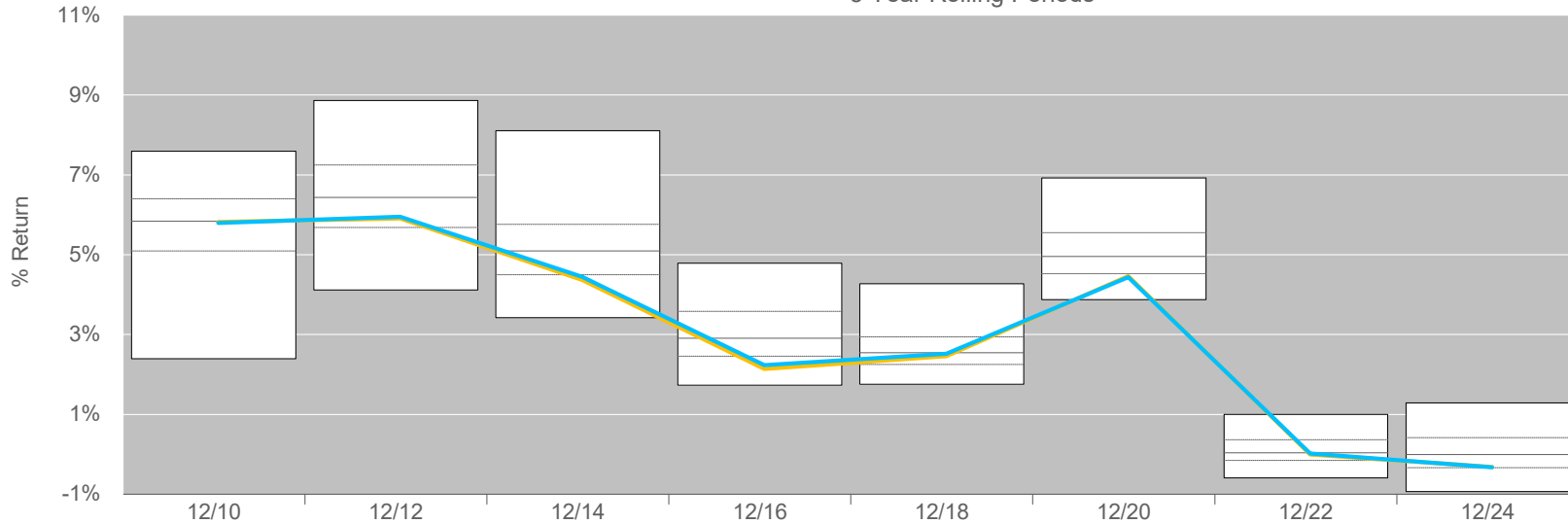
For Report Periods Ending December 31, 2024



	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since 1/05
5th	-1.1%	3.3%	4.7%	0.4%	1.3%	2.1%	2.5%	4.2%
25th	-2.7	2.4	2.6	-1.8	0.4	1.5	1.9	3.5
50th	-3.0	2.1	1.9	-2.3	0.0	1.1	1.6	3.2
75th	-3.2	1.8	1.3	-2.6	-0.3	0.9	1.3	2.9
95th	-3.9	1.5	0.3	-3.8	-0.9	0.5	1.0	2.3
<b>■ - Vanguard Total Bond Fund</b>	<b>-3.0%</b>	<b>1.9%</b>	<b>1.2%</b>	<b>-2.4%</b>	<b>-0.3%</b>	<b>1.0%</b>	<b>1.3%</b>	<b>3.0%</b>
<b>▲ - Bloomberg U.S. Aggregate Index</b>	<b>-3.1</b>	<b>2.0</b>	<b>1.3</b>	<b>-2.4</b>	<b>-0.3</b>	<b>1.0</b>	<b>1.3</b>	<b>3.0</b>

Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Principal Real Estate Securities Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>Principal Real Estate Securities Fund</b>	-7.1%	7.1%	5.5%	-3.7%	3.9%	6.1%	6.2%	8.4%	1/05
FTSE NAREIT All Equity Index	-8.2	7.3	5.7	-4.0	2.8	4.3	4.2	6.1	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>Principal Real Estate Securities Fund</b>	0.92	1.1%	0.98	21.8%	3.1%	0.3
FTSE NAREIT All Equity Index	1.00	0.0	1.00	23.4	0.0	--

<b>Portfolio Statistics</b>	<b>Current P/FFO</b>	<b>Growth in FFO</b>	<b>Wtd Avg Mkt Cap</b>	<b>Current Yield</b>	<b>Equity Annual Turnover</b>
<b>Principal Real Estate Securities Fund</b>	18.1	4.8%	38,665.7 M	3.7%	31.0%
FTSE NAREIT All Equity Index	--	--	--	--	--

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.



# City of Grosse Pointe Woods Employees Retirement System

## Principal Real Estate Securities Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 1.1%	Yes
Beta < 1.20	Beta = 0.92	Yes
Alpha > 0.0%	Alpha = 1.1%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 50th Percentile	Yes

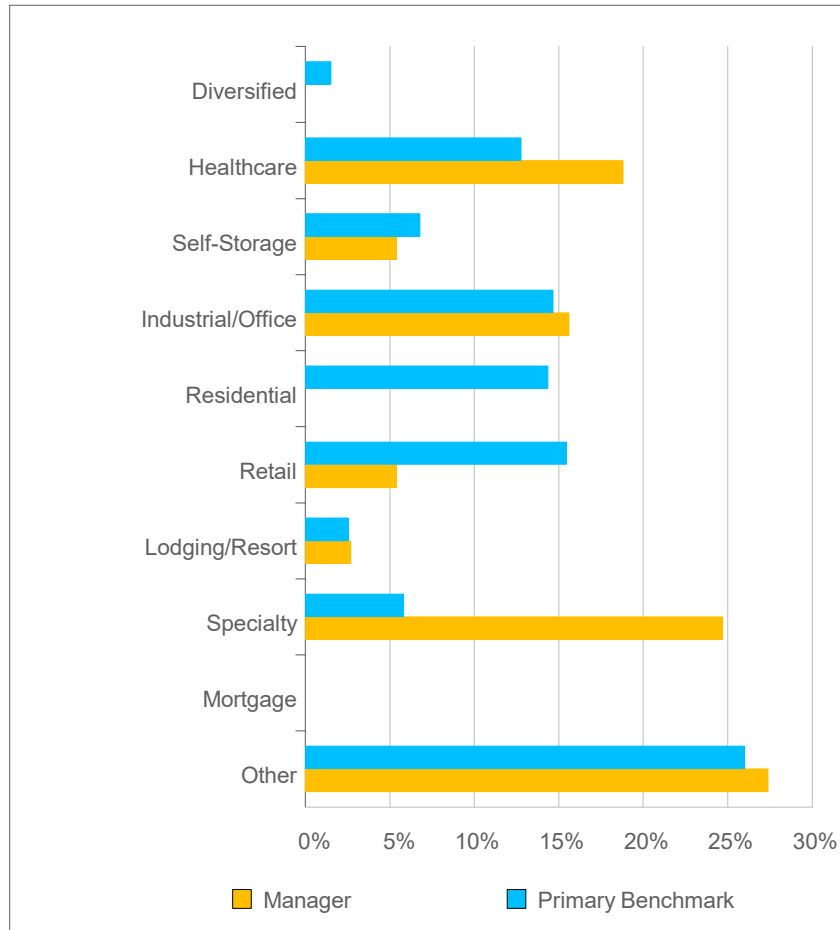
# City of Grosse Pointe Woods Employees Retirement System

## Principal Real Estate Securities Fund

### Real Estate Sector

Report For Periods Ending December 31, 2024

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Benchmark	3 Months	12 Months
Diversified	0%	2%	-%	%
Healthcare	19	13	-	
Self-Storage	5	7	-	
Industrial/Office	16	15	-	
Residential	0	14	-	
Retail	5	15	-	
Lodging/Resort	3	3	-	
Specialty	25	6	-	
Mortgage	0	0	-	
Other	27	26	-	

\* Sector weightings may not add up to 100% due to rounding.

\* Accrued income in total market value may not be available for all managers.

\* Manager data represents the most current available at the time of report publication.

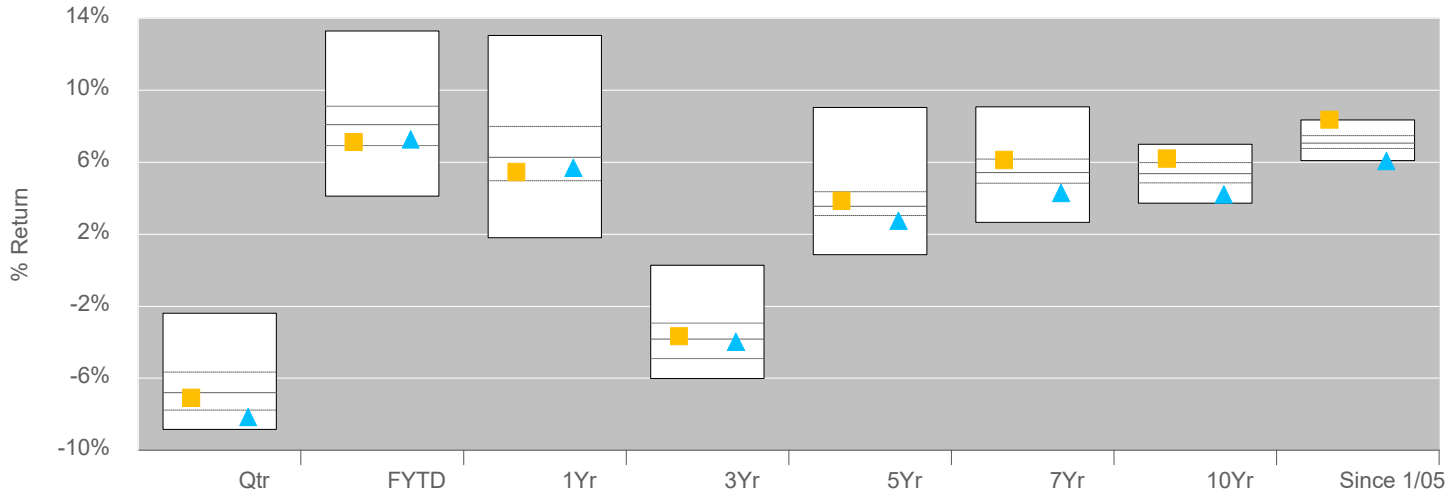
\*Benchmark weightings are for the FTSE NAREIT Equity Index.

# City of Grosse Pointe Woods Employees Retirement System

## Principal Real Estate Securities Fund

### REIT Manager Universe

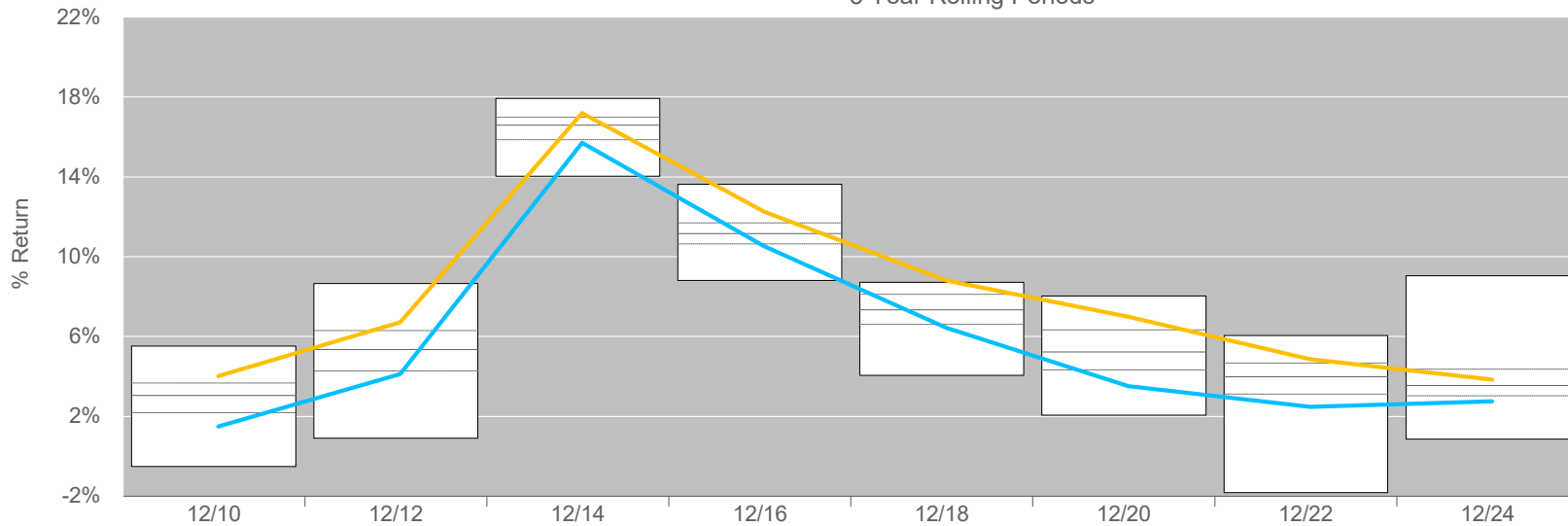
For Report Periods Ending December 31, 2024



	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since 1/05
5th	-2.4%	13.3%	13.1%	0.3%	9.1%	9.1%	7.0%	8.4%
25th	-5.7%	9.1%	8.0%	-2.9%	4.4%	6.2%	6.0%	7.5%
50th	-6.8%	8.1%	6.3%	-3.8%	3.5%	5.4%	5.4%	7.1%
75th	-7.8%	6.9%	5.0%	-4.9%	3.0%	4.8%	4.9%	6.8%
95th	-8.9%	4.1%	1.8%	-6.0%	0.9%	2.6%	3.7%	6.1%

Report From December 31, 2005 to December 31, 2024

5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Tortoise MLP & Pipeline Fund

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

<b>Performance Results</b>	<b>Qtr</b>	<b>FYTD</b>	<b>1Yr</b>	<b>3Yr</b>	<b>5Yr</b>	<b>7Yr</b>	<b>10Yr</b>	<b>Since Inception</b>	<b>Inception Date</b>
<b>Tortoise MLP &amp; Pipeline Fund</b>	<b>11.8%</b>	<b>20.1%</b>	<b>42.9%</b>	<b>25.8%</b>	<b>14.6%</b>	<b>10.3%</b>	<b>6.0%</b>	<b>9.1%</b>	<i>5/11</i>
Alerian MLP Index	4.9	5.7	24.4	27.3	15.6	9.8	3.7	6.0	
Tortoise North American Pipeline Index	10.1	21.6	38.5	21.8	14.2	11.6	7.7	--	

<b>Risk Statistics (5 years)</b>	<b>Beta</b>	<b>Alpha</b>	<b>R<sup>2</sup></b>	<b>Standard Deviation</b>	<b>Tracking Error</b>	<b>Information Ratio</b>
<b>Tortoise MLP &amp; Pipeline Fund</b>	<b>0.75</b>	<b>2.3%</b>	<b>0.91</b>	<b>37.1%</b>	<b>13.2%</b>	<b>-0.1</b>
Alerian MLP Index	1.00	0.0	1.00	49.4	0.0	--
Tortoise North American Pipeline Index	0.62	3.6	0.87	30.8	6.3	0.1

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Tortoise MLP & Pipeline Fund

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

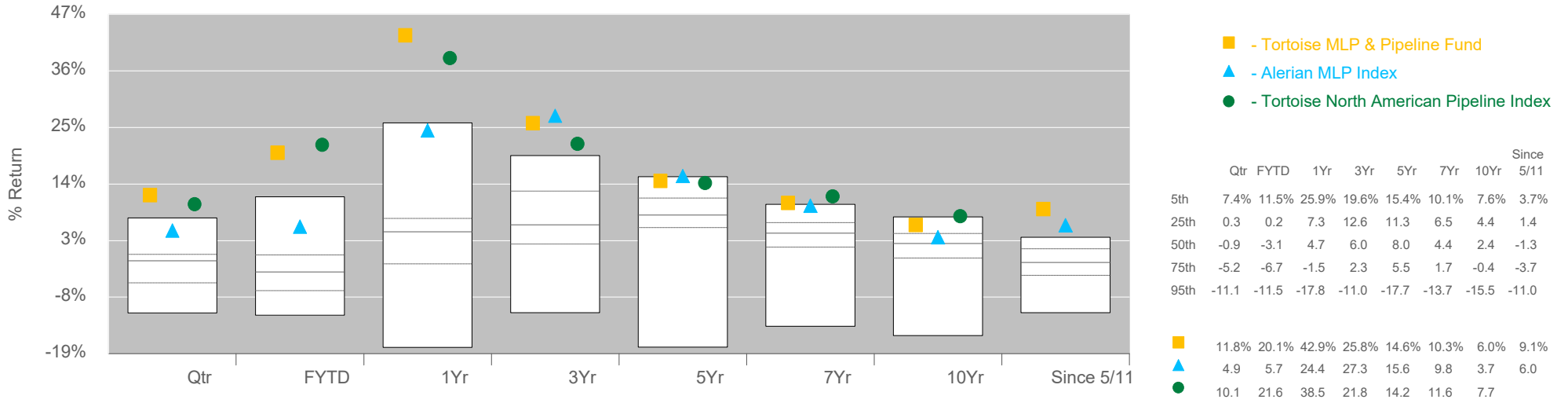
Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -0.9%	No
Beta < 1.20	Beta = 0.75	Yes
Alpha > 0.0%	Alpha = 2.3%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 25th Percentile	Yes

# City of Grosse Pointe Woods Employees Retirement System

## Tortoise MLP & Pipeline Fund

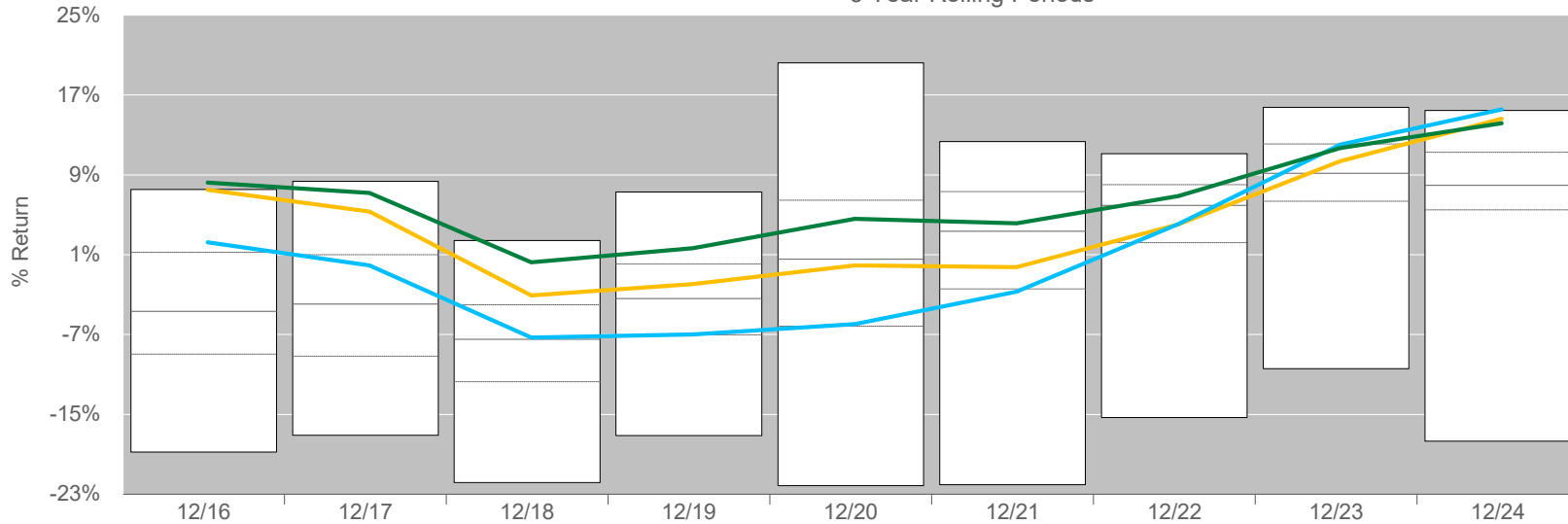
### Natural Resources Universe

For Report Periods Ending December 31, 2024



Report From December 31, 2011 to December 31, 2024

### 5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Cohen & Steers Global Listed Infrastructure

### Summary of Performance and Statistics

Report For Periods Ending December 31, 2024

Performance Results	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
<b>Cohen &amp; Steers Global Listed Infrastructure</b>	<b>-6.3%</b>	<b>7.4%</b>	<b>11.7%</b>	<b>2.8%</b>	<b>4.6%</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.8%</b>	<i>1/05</i>
FTSE Global Core Infrastructure 50/50	-5.7	7.1	9.5	2.1	3.3	5.0	5.4	--	
DJ Brookfield Global Infrastructure Index	-2.2	11.0	11.3	4.0	4.1	5.1	4.3	8.1	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>Cohen &amp; Steers Global Listed Infrastructure</b>	<b>0.95</b>	<b>1.4%</b>	<b>0.98</b>	<b>17.1%</b>	<b>2.7%</b>	<b>0.5</b>
FTSE Global Core Infrastructure 50/50	1.00	0.0	1.00	17.6	0.0	--
DJ Brookfield Global Infrastructure Index	1.06	0.8	0.94	19.5	5.5	0.1

### Asset Growth Summary (in thousands)

Beginning Market Value	\$	0
Net Contributions/(Distributions)	\$	0
<b>Market Appreciation/(Depreciation)</b>	<b>\$</b>	<b>0</b>
<b>Ending Market Value</b>	<b>\$</b>	<b>0</b>

\* Risk Statistics are based on monthly data.

\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

## Cohen & Steers Global Listed Infrastructure

### Summary of Performance Relative to Investment Policy Statement Objectives

Report For Periods Ending December 31, 2024

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 1.4%	Yes
Beta < 1.20	Beta = 0.95	Yes
Alpha > 0.0%	Alpha = 1.4%	Yes
Peer Group Rank > 50th Percentile	Ranks in Bottom 25th Percentile	No

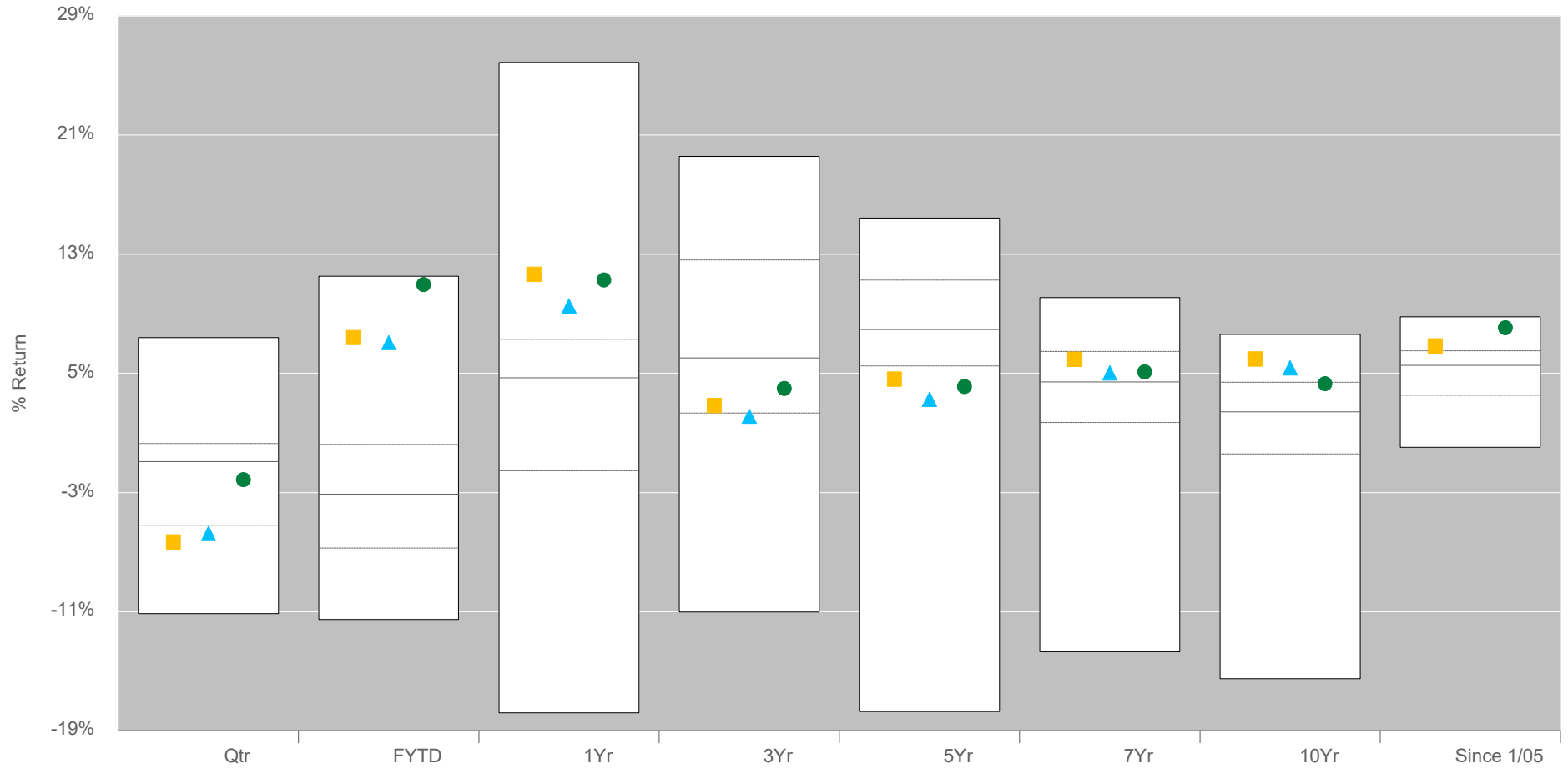


# City of Grosse Pointe Woods Employees Retirement System

## Cohen & Steers Global Listed Infrastructure

### Natural Resources Universe

For Report Periods Ending December 31, 2024



	Qtr	FYTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since 1/05
5th Percentile	7.4%	11.5%	25.9%	19.6%	15.4%	10.1%	7.6%	8.8%
25th Percentile	0.3	0.2	7.3	12.6	11.3	6.5	4.4	6.5
50th Percentile	-0.9	-3.1	4.7	6.0	8.0	4.4	2.4	5.5
75th Percentile	-5.2	-6.7	-1.5	2.3	5.5	1.7	-0.4	3.5
95th Percentile	-11.1	-11.5	-17.8	-11.0	-17.7	-13.7	-15.5	0.0
■ - Cohen & Steers Global Listed Infrastructure	-6.3%	7.4%	11.7%	2.8%	4.6%	6.0%	6.0%	6.8%
▲ - FTSE Global Core Infrastructure	-5.7%	7.1	9.5	2.1	3.3	5.0	5.4	--
● - DJ Brookfield Global Infrastructure Index	-2.2%	11.0	11.3	4.0	4.1	5.1	4.3	8.1

# City of Grosse Pointe Woods Employees Retirement System

## Breakdown of Fees

Report For Periods Ending December 31, 2024

	Annual Fee/ Expense Ratio	Market Value	Percent Allocation	Weighted Average Fee	Annualized Fee
iShares S&P 500 Index	0.04%	\$15,638,284	32.4%	0.01%	\$6,255
Invesco S&P 500 Equal Weighted Index	0.20%	\$3,125,227	6.5%	0.01%	\$6,250
iShares Russell Midcap Index	0.20%	\$2,347,462	4.9%	0.01%	\$4,695
Vanguard S&P Small Cap 600 Index	0.10%	\$3,274,197	6.8%	0.01%	\$3,274
EuroPacific Growth Fund	0.57%	\$2,932,387	6.1%	0.03%	\$16,715
Dodge & Cox International Stock Fund	0.63%	\$2,736,900	5.7%	0.04%	\$17,242
Brown International Small Company	1.31%	\$1,221,518	2.5%	0.03%	\$16,002
Redwheel Global Emerging Equity Fund	1.39%	\$573,113	1.2%	0.02%	\$7,966
DFA Emerging Markets Fund	0.36%	\$1,520,778	3.1%	0.01%	\$5,475
Dodge & Cox Income Fund	0.41%	\$3,226,370	6.7%	0.03%	\$13,228
DoubleLine Total Return Bond Fund	0.48%	\$2,936,979	6.1%	0.03%	\$14,097
Vanguard Total Bond Fund	0.05%	\$2,756,594	5.7%	0.00%	\$1,378
Gateway Fund	0.70%	\$1,230,946	2.5%	0.02%	\$8,617
PIMCO All Asset Fund	0.89%	\$1,206,412	2.5%	0.02%	\$10,737
Principal Real Estate Securities Fund	0.86%	\$1,024,666	2.1%	0.02%	\$8,812
Tortoise MLP & Pipeline Fund	0.93%	\$762,487	1.6%	0.01%	\$7,091
Cohen & Steers Global Listed Infrastructure	0.94%	\$1,293,169	2.7%	0.03%	\$12,156
Schwab Government Money Fund	0.23%	\$478,493	1.0%	0.00%	\$1,101
<b>Total Investment Management Fees</b>		<b>\$48,285,982</b>	<b>100.0%</b>	<b>0.33%</b>	<b>\$161,092</b>

\* Mutual Fund expense ratios are deducted from the NAV of the fund.

\* Annualized fee is an estimate based on market values as of December 31, 2024.

## Index Summary Sheet for Periods Ending December 31, 2024

	Qtr	YTD	1 Yr	Annualized		
				3 Yr	5 Yr	10 Yr
<b>Global Equity</b>						
MSCI AC World Index	-1.0%	17.5%	17.5%	5.4%	10.1%	9.2%
MSCI World Index	-0.2	18.7	18.7	6.3	11.2	9.9
S&P 500 Index	2.4	25.0	25.0	8.9	14.5	13.1
Russell 3000 Index	2.6	23.8	23.8	8.0	13.9	12.5
Russell 1000 Index	2.7	24.5	24.5	8.4	14.3	12.9
Russell 1000 Growth Index	7.1	33.4	33.4	10.5	19.0	16.8
Russell 1000 Value Index	-2.0	14.4	14.4	5.6	8.7	8.5
Russell Midcap Index	0.6	15.3	15.3	3.8	9.9	9.6
Russell Midcap Growth Index	8.1	22.1	22.1	4.0	11.5	11.5
Russell Midcap Value Index	-1.7	13.1	13.1	3.9	8.6	8.1
Russell 2000 Index	0.3	11.5	11.5	1.2	7.4	7.8
Russell 2000 Growth Index	1.7	15.2	15.2	0.2	6.9	8.1
Russell 2000 Value Index	-1.1	8.1	8.1	1.9	7.3	7.1
Russell Microcap Index	5.9	13.7	13.7	-1.0	7.0	6.8
MSCI AC World Index ex-U.S.	-7.6	5.5	5.5	0.8	4.1	4.8
MSCI EAFE Index	-8.1	3.8	3.8	1.6	4.7	5.2
MSCI EAFE Growth Index	-9.1	2.0	2.0	-2.6	4.0	5.8
MSCI EAFE Value Index	-7.1	5.7	5.7	5.9	5.1	4.3
MSCI Small Cap EAFE Index	-8.4	1.8	1.8	-3.2	2.3	5.5
MSCI Emerging Markets Index	-8.0	7.5	7.5	-1.9	1.7	3.6
MSCI Emerging Markets Small Cap Index	-7.2	4.8	4.8	2.1	8.6	5.7
MSCI Frontier Markets Index	-1.2	9.4	9.4	-3.5	1.8	2.2
HFRI Equity Hedge Index	1.7	12.3	12.3	4.0	8.2	6.3
HFRI Emerging Markets	0.1	9.8	9.8	1.2	4.6	4.4
HFRI FOF: Strategic Index	2.4	12.1	12.1	2.3	5.4	4.0
LSEG All Private Equity Index	0.0	5.2	5.2	0.2	13.4	13.5
LSEG Buyout Index	0.0	6.6	6.6	4.8	14.1	13.7
LSEG Fund of Funds Index	0.0	1.7	1.7	-6.6	10.5	10.7
LSEG Venture Capital Index	0.0	1.8	1.8	-8.2	12.1	12.5
<b>Global Fixed Income</b>						
Bloomberg U.S. Aggregate Index	-3.1	1.3	1.3	-2.4	-0.3	1.3
Bloomberg U.S. TIPS Index	-2.9	1.8	1.8	-2.3	1.9	2.2
Bloomberg Government Bond Index	-3.1	0.6	0.6	-2.8	-0.6	0.9
Bloomberg Municipals Index	-1.2	1.1	1.1	-0.6	1.0	2.3
Bloomberg Asset Backed Index	-0.1	5.0	5.0	2.0	2.0	2.1

## Index Summary Sheet for Periods Ending December 31, 2024

	Qtr	YTD	1 Yr	Annualized		
				3 Yr	5 Yr	10 Yr
<b>Global Fixed Income (continued)</b>						
Bloomberg US MBS Index	-3.2%	1.2%	1.2%	-2.1%	-0.7%	0.9%
Bloomberg IG CMBS Index	-1.4	5.0	5.0	-0.5	1.0	2.2
Bloomberg U.S. Credit Index	-3.0	2.0	2.0	-2.2	0.2	2.3
Bloomberg U.S. Corporate HY Index	0.2	8.2	8.2	2.9	4.2	5.2
Bloomberg Intermediate U.S. G/C Index	-1.6	3.0	3.0	-0.2	0.9	1.7
ICE BofA 1-3 Yr. Govt. Bond Index	-0.1	4.1	4.1	1.5	1.4	1.4
U.S. 91-Day Treasury Bills	1.1	5.0	5.0	4.0	2.5	1.8
CS Leveraged Loan Index	0.0	6.6	6.6	6.0	5.2	4.9
JPMorgan Non-U.S. GBI Hedged Index	0.5	4.2	4.2	0.0	0.4	2.0
JPMorgan Non-U.S. GBI Index	-8.7	-7.8	-7.8	-9.2	-5.6	-1.9
JPMorgan EMBI Plus Index	-1.5	7.7	7.7	-3.6	-1.8	1.7
JPMorgan EMBI Global Index	-2.1	5.7	5.7	-0.8	0.3	3.1
HFRI RV: Fixed Income - Corporate Index	1.5	9.7	9.7	4.3	5.4	5.1
HFRI ED: Distressed/Restructuring Index	1.9	10.5	10.5	4.5	8.1	5.3
LSEG Distressed Index	0.0	4.0	4.0	5.4	10.7	9.1
<b>Real Assets</b>						
FTSE NAREIT All Equity Index	-8.2	4.9	4.9	-4.3	3.3	5.8
S&P Developed BMI Property Index	-9.3	1.7	1.7	-5.6	-0.3	2.7
S&P Developed ex-U.S. Property Index	-13.7	-5.5	-5.5	-8.0	-4.1	1.2
NCREIF Property Index	0.0	-0.4	-0.4	-1.1	3.0	5.6
Bloomberg Commodity Index Total Return	-0.4	5.4	5.4	4.1	6.8	1.3
Alerian MLP Index	4.9	24.4	24.4	27.3	15.6	3.7
NCREIF Timberland Index	0.0	5.5	5.5	9.2	7.5	5.3
LSEG Private Real Estate Index	0.0	0.5	0.5	0.1	5.7	7.6
S&P Real Assets Equity Total Return Index	-6.7	3.8	3.8	-0.5	2.8	3.8
<b>Diversifying Strategies</b>						
HFRI Fund of Funds Index	2.6	9.7	9.7	3.3	5.3	3.8
HFRI Fund Weighted Composite Index	1.7	10.0	10.0	4.5	7.0	5.3
HFRI FOF: Conservative Index	1.1	6.2	6.2	3.9	5.1	3.7
HFRI Event Driven	1.1	8.7	8.7	4.5	7.0	5.4
HFRI Relative Value Total Index	1.8	8.6	8.6	4.9	5.1	4.5
HFRI Macro Index	1.1	6.0	6.0	4.8	5.5	3.1
<b>Other</b>						
Consumer Price Index - U.S.	0.5	2.4	2.4	4.0	4.1	3.0
U.S. Dollar Index	7.6	7.1	7.1	4.2	2.4	1.8

\* For indices that report returns on a lag, 0.0% is utilized for the most recent time period until the actual return data are reported.

# City of Grosse Pointe Woods Employees Retirement System

## Benchmark Composition Summary

### Target Weighted Index

<u>Since Inception</u>	<u>Weight</u>
Russell 1000 Index	15.00%
Russell Midcap Index	4.00%
Russell 2000 Index	6.00%
MSCI EAFE Index	10.00%
MSCI Small Cap EAFE Index	5.00%
MSCI Emerging Markets Index	12.00%
Bloomberg U.S. Aggregate Index	20.00%
HFRI Equity Hedge Index	5.00%
U.S. 91-Day Treasury Bills	1.00%
Bloomberg Commodity Index Total Return	3.00%
FTSE NAREIT All Equity Index	3.00%
HFRI FOF: Conservative Index	10.00%
MSCI Frontier Markets Index	3.00%
S&P 500 Energy Sector Index	3.00%
<b><u>November 30, 2018</u></b>	<b><u>Weight</u></b>
Russell 1000 Index	23.00%
Russell Midcap Index	5.00%
Russell 2000 Index	7.00%
MSCI EAFE Index	10.00%
MSCI Small Cap EAFE Index	5.00%
MSCI Emerging Markets Index	10.00%
Bloomberg U.S. Aggregate Index	20.00%
U.S. 91-Day Treasury Bills	1.00%
Bloomberg Commodity Index Total Return	3.00%
FTSE NAREIT All Equity Index	3.00%
HFRI FOF: Conservative Index	10.00%
S&P 500 Energy Sector Index	3.00%

### FTSE NAREIT All Equity Index

<u>Since Inception</u>	<u>Weight</u>
MSCI U.S. REIT Index	100.00%
<b><u>February 29, 2024</u></b>	<b><u>Weight</u></b>
FTSE NAREIT All Equity Index	100.00%

<u>August 31, 2020</u>	<u>Weight</u>
Russell 1000 Index	30.00%
Russell Midcap Index	5.00%
Russell 2000 Index	7.00%
MSCI EAFE Index	10.00%
MSCI Small Cap EAFE Index	5.00%
MSCI Emerging Markets Index	10.00%
Bloomberg U.S. Aggregate Index	20.00%
Alerian MLP Index	3.00%
FTSE NAREIT All Equity Index	3.00%
HFRI FOF: Conservative Index	7.00%

<u>August 31, 2024</u>	<u>Weight</u>
S&P Real Assets Equity Total Return Index	6.00%
Russell 1000 Index	37.00%
Russell Midcap Index	5.00%
Russell 2000 Index	7.00%
MSCI EAFE Index	10.00%
MSCI Small Cap EAFE Index	5.00%
MSCI Emerging Markets Index	5.00%
Bloomberg U.S. Aggregate Index	20.00%
HFRI FOF: Conservative Index	5.00%

### Actuarial Rate

<u>Since Inception</u>	<u>Weight</u>
7.75% Absolute Return	100.00%

<u>August 31, 2020</u>	<u>Weight</u>
7.5% Absolute Return	100.00%

<u>June 30, 2023</u>	<u>Weight</u>
7.4% Absolute Return	100.00%

<u>June 30, 2024</u>	<u>Weight</u>
7.3% Absolute Return	100.00%

## Definitions

**Alpha** – Measures how well a portfolio performed versus its benchmark after factoring in the amount of risk (as measured by beta) taken. Technically, alpha is the difference between the excess return of a portfolio and the excess return of the benchmark multiplied by beta. Excess return is simply the actual return minus the return of the risk-free asset, U.S. Treasury Bill. A positive alpha indicates the portfolio has performed better than the benchmark on a risk-adjusted basis.

**Annual Standard Deviation** – A measure of variability in returns. The annual standard deviation measures the dispersion of annual returns around the average annualized return.

**Beta** – A coefficient measuring a portfolio's relative volatility with respect to its market. Technically, beta is the covariance of a portfolio's return with the benchmark portfolio's return divided by the variance of the benchmark portfolio's return. Thus, a portfolio with a beta greater than 1.00, indicates the portfolio experienced greater volatility than the benchmark, whereas a portfolio with a beta less than 1.00, indicates the portfolio experienced less volatility than the benchmark.

**Consumer Price Index** – Measures the change in consumer prices, as determined by a monthly survey of the U.S. Bureau of Labor Statistics. CPI components include housing costs, food, transportation and electricity.

**Duration** – A measure of the price sensitivity of a bond or bond portfolio to a change in interest rates.

**Information Ratio** – Describes the risk / reward trade-off of alpha and tracking error. Because the formula for calculating information ratio is Alpha divided by Tracking Error, the larger the information ratio, the more attractive the portfolio is from an overall risk return profile.

**Max Drawdown** – The maximum loss incurred by a portfolio during a specified time period.

**R<sup>2</sup>** – Also called the coefficient of determination. On the detail page, R<sup>2</sup> measures how much of the variation in the investment manager's returns can be explained by movements in the market (benchmark).

**Sharpe Ratio** – A risk-adjusted measure calculated using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe ratio, the better the manager's historical risk-adjusted performance.

**Tracking Error** – A measure that describes the volatility of the expected excess return (alpha) achieved through active management. Since excess return can only be achieved through a portfolio that actively differs from the benchmark, the level of tracking error is indicative of how different the portfolio will perform relative to any given benchmark.

## Disclosures

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Index performance results do not represent any managed portfolio returns. An investor cannot invest directly in a presented index, as an investment vehicle replicating an index would be required. An index does not charge management fees or brokerage expenses, and no such fees or expenses were deducted from the performance shown.

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# Hat Trick Year?

Investment Opportunities and Risks in 2025

Fourth Quarter 2024

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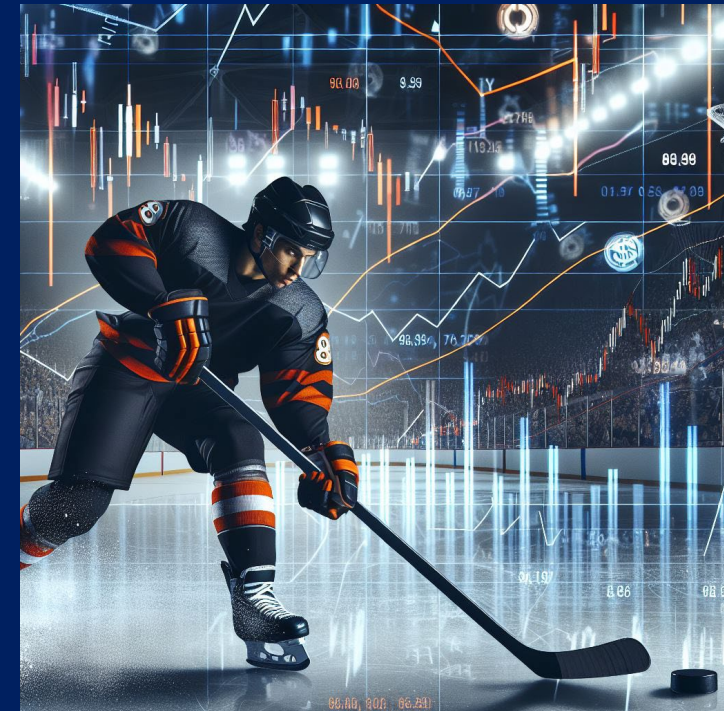
## *After two years of strong market returns, can the market register a hat trick with a third?*

A hat trick is a term for when an athlete completes a feat three times in a competition. In North America, this most commonly references three goals in a hockey game.

Following the market declines of 2022, U.S. equity markets posted two consecutive years of gains above 20%, a feat occurring only 10 times in over 150 years of market history. **Even rarer is a third year of equal gains, occurring only in the late-1990s bull market.** The Roaring 20s also experienced a few years of continued strength, but astute investors understand the difficult market history that followed both periods.

Today, the S&P 500 Index, supported predominantly by the Magnificent Seven mega-cap stocks, is arguably priced for perfection. There are reasons performance could persist or broaden to other assets, yet there is also the risk of reversion, which is why the best investment decisions are made with a long-term perspective.

Investors know that market corrections are part of investing, and even strong performance years have periods of weakness, so a correction would not be unexpected. However, opportunities and risks exist in tandem amid a backdrop of expensive markets, needed earnings growth, tariffs, deregulation, and not quite tepid inflation.



Source: Created with Microsoft Copilot powered by Dall-E

*We explore large cap's leadership, the AI story, tariffs, regulation, and inflationary risk as we consider the potential for a hat trick year and opportunities for investors beyond the mega-cap leaders.*

## Contents:

Can U.S. Large Cap Continue to Lead?

Does AI Have the Potential to Meet Expectations?

What About Tariffs Risks and Easing Regulations?

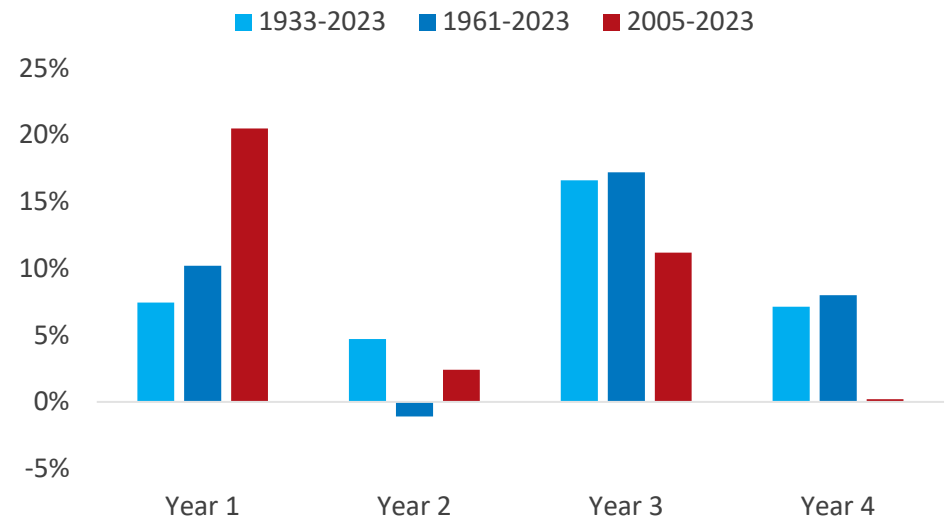
Is There Risk of an Inflationary Resurgence?

Are there Opportunities in non-mag 7 assets?

- Markets responded to the election with a rally triggered by anticipation of improved economic and business conditions.
- Whether these conditions arise will be due to reasons beyond who occupies a political office. Earnings strength and valuation changes contribute far more meaningfully to returns.
- Sentiment may cast the first year of a new presidency in a favorable light on average, providing sound returns. However, investors should understand that dispersion exists around averages.

## THE FIRST YEAR OF A PRESIDENCY HAS GENERALLY BEEN GOOD FOR STOCKS

S&P 500 Index Average Annual Price Returns by Presidential Cycle Year



Data source: Strategas

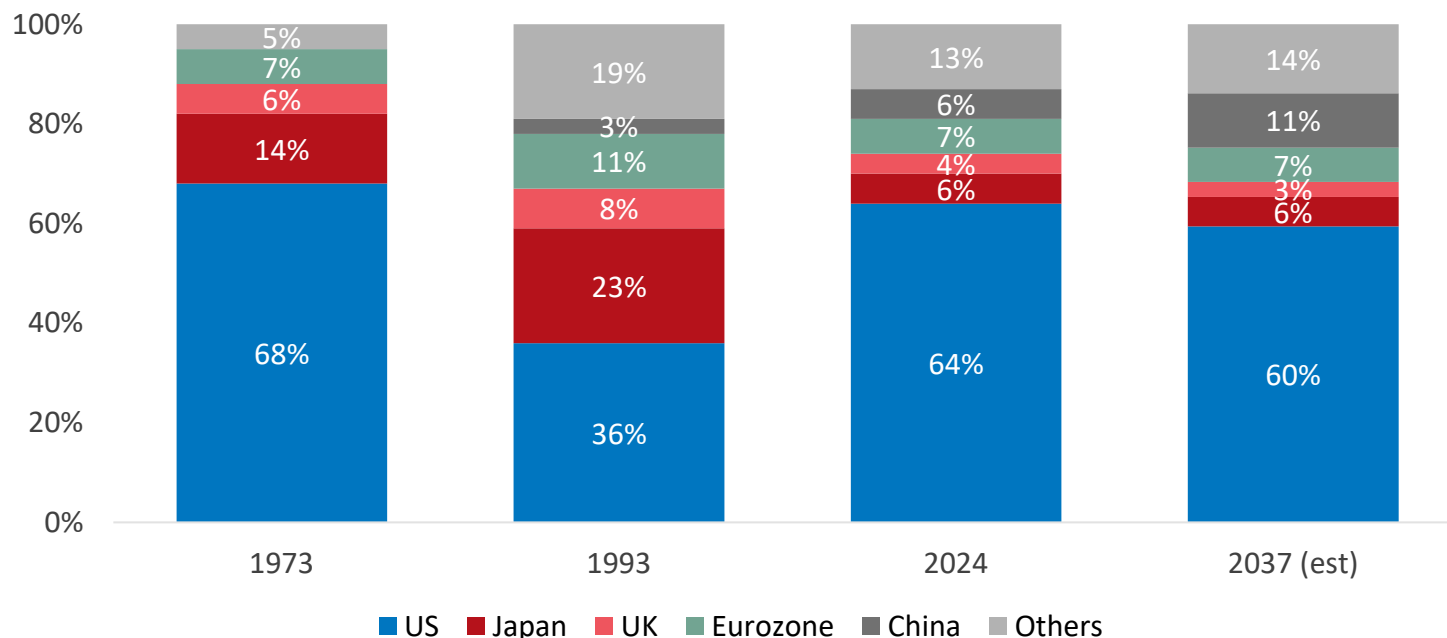


CAN U.S. LARGE CAP CONTINUE TO LEAD?

- The exceptional performance of the U.S. equity market versus the rest of the world has shifted the relative size of global equity markets.
- Ten years ago, the U.S. market was just over 50% of the global market, but now that measure is well over 60%, creating challenges for benchmark-sensitive asset allocators.
- Fifty years ago, the U.S. was of similar relative size, so today’s measure is not unprecedented. Still, U.S. market performance after this period was particularly weak, with substantial declines witnessed in 1974.

## THE U.S. STOCK MARKET HAS BEEN HEAVILY CONCENTRATED BEFORE

Global Listed Equity Country Weights as Historical Points



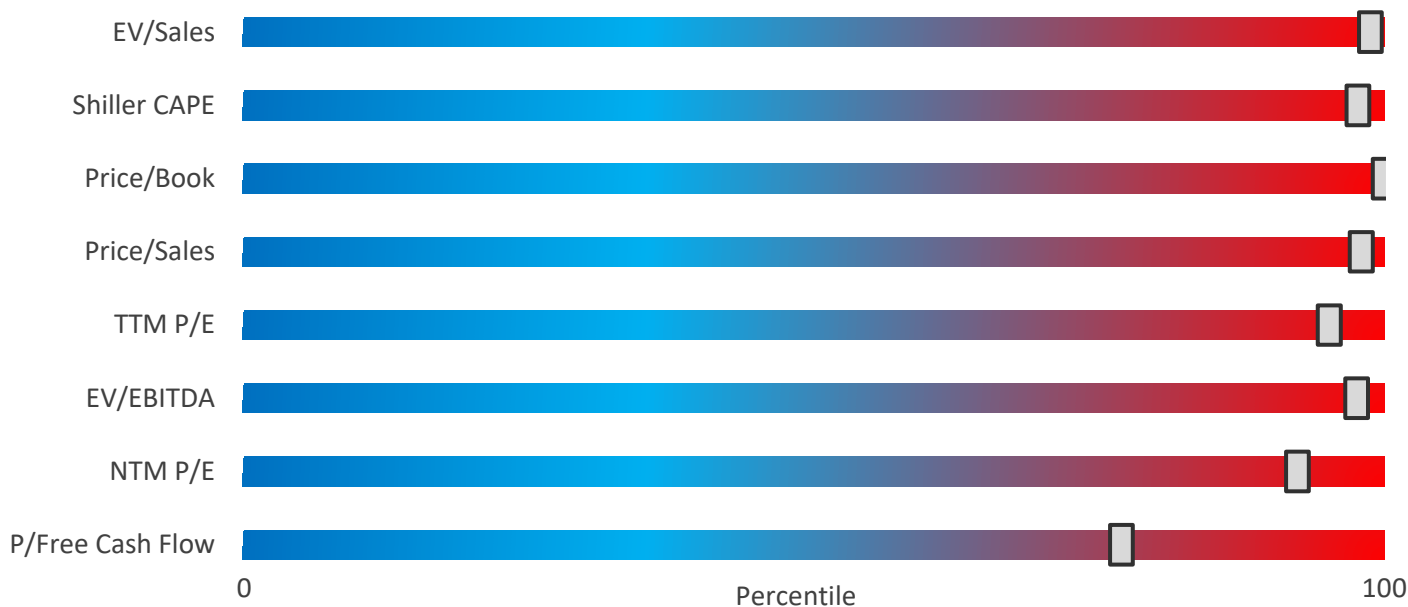
Data sources: SEC, Credit Suisse, McKinsey, MSCI, Bloomberg, Haver Analytics, and J.P. Morgan, data as of February 2024

Eurozone historical data are estimated by summing member states or applying the prevailing ratio of reported states to estimate the eurozone total where data are incomplete

- The U.S. equity market is historically expensive by any measure, with some valuation metrics at all-time highs and others exceeded only by the peak of the technology bubble.
- Valuations do not indicate that markets will decline next year, as the late '90s bull market showed, but instead reflect long-term return potential. That bull market provided weak returns in the decade after the late '90s valuations, and from the peak of that bubble, 10-year returns were zero.
- For the U.S. equity market to continue to outperform other markets, strong earnings will likely need to be the driving force for returns rather than further increases to already elevated price multiples. A resurgence of inflation also puts current valuations at risk.

## PRICED FOR PERFECTION, A HISTORICALLY EXPENSIVE MARKET

S&P 500 Index Valuations, Percentile vs. History

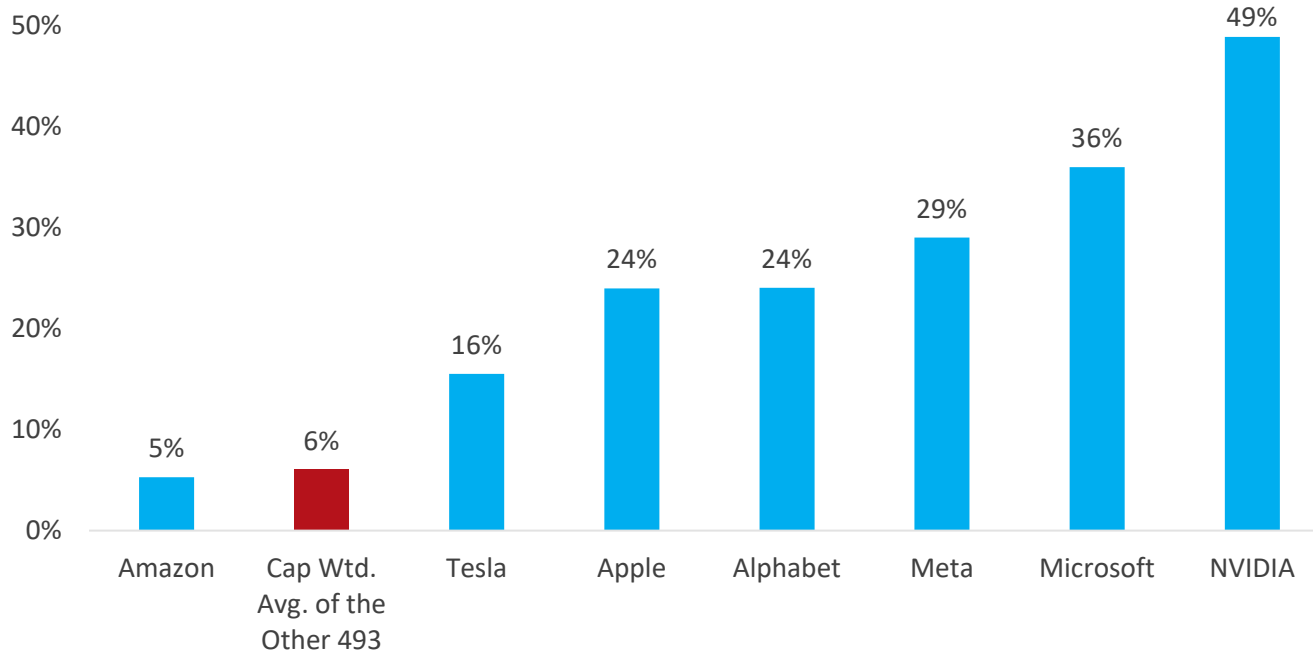


Data source: Strategas

- The substantial net income margin of most of the Magnificent Seven (Mag 7) contributes heavily to the S&P 500 Index's profitability versus the rest of the companies in the index.
- Further, the earnings growth of the Mag 7 far outpaces the rest of the index, which had essentially flat earnings growth over the past year.
- The profitability of these mega-cap technology-related companies is why investors have driven up the value of these stocks, as they clearly sit in a position of strength.

## THE MAG 7 ARE LEADERS OF PROFITABILITY

The Mag 7 vs. Other 493 S&P 500 Index Stocks, Net Margin

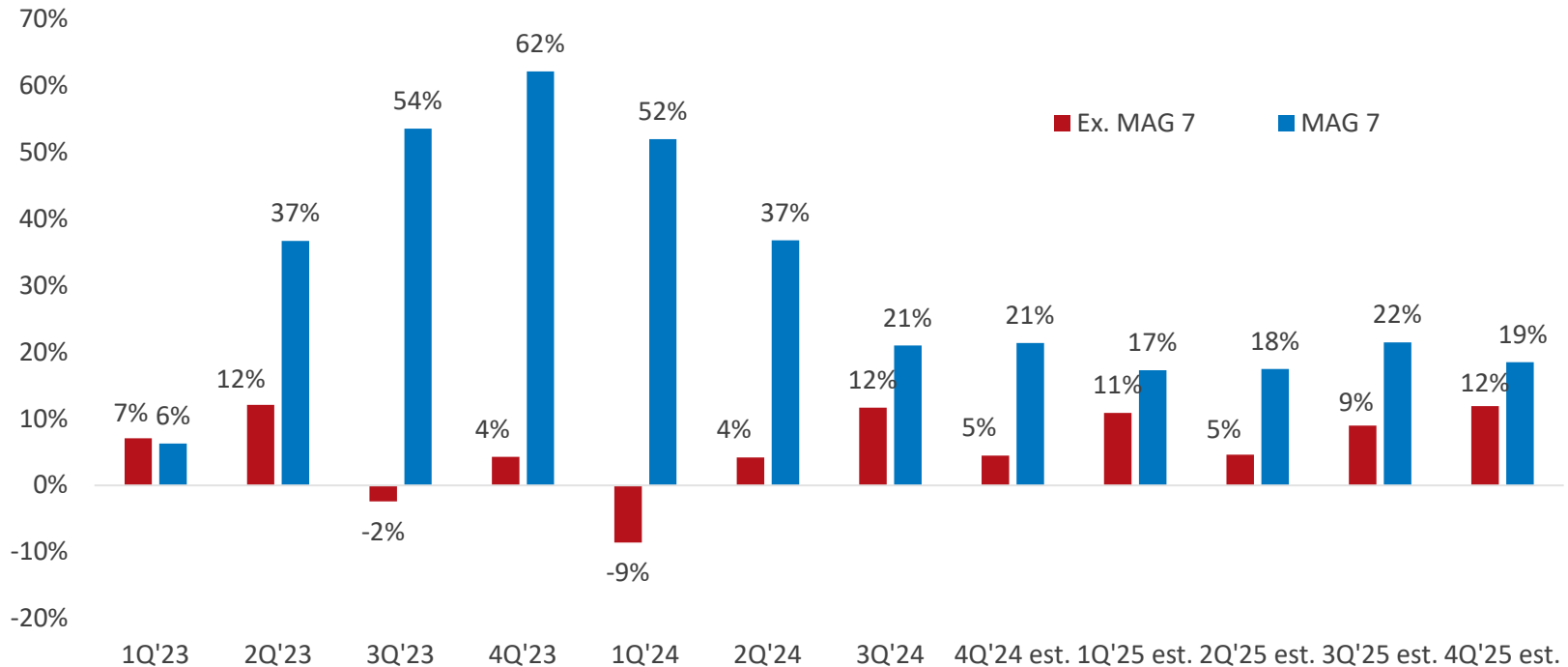


Data source: FactSet

- Expected earnings growth is projected to subside but remain strong for the Mag 7, while the remaining 493 stocks are anticipated to move past the point of earnings declines in late '23/early '24 to more sustained earnings growth.
- Pricing is such that persistent earnings growth supported by strong revenues derived from investment in AI will be required to maintain current valuations for the Mag 7. Falling short of expectations could lead to repricing.

## LIKELY STILL STRONG, BUT WILL THE MAG 7 EARNINGS BE STRONG ENOUGH

S&P 500 Index ex-Mag 7 vs. Mag 7 Net Income Growth, Year-over-Year



Data source: FactSet



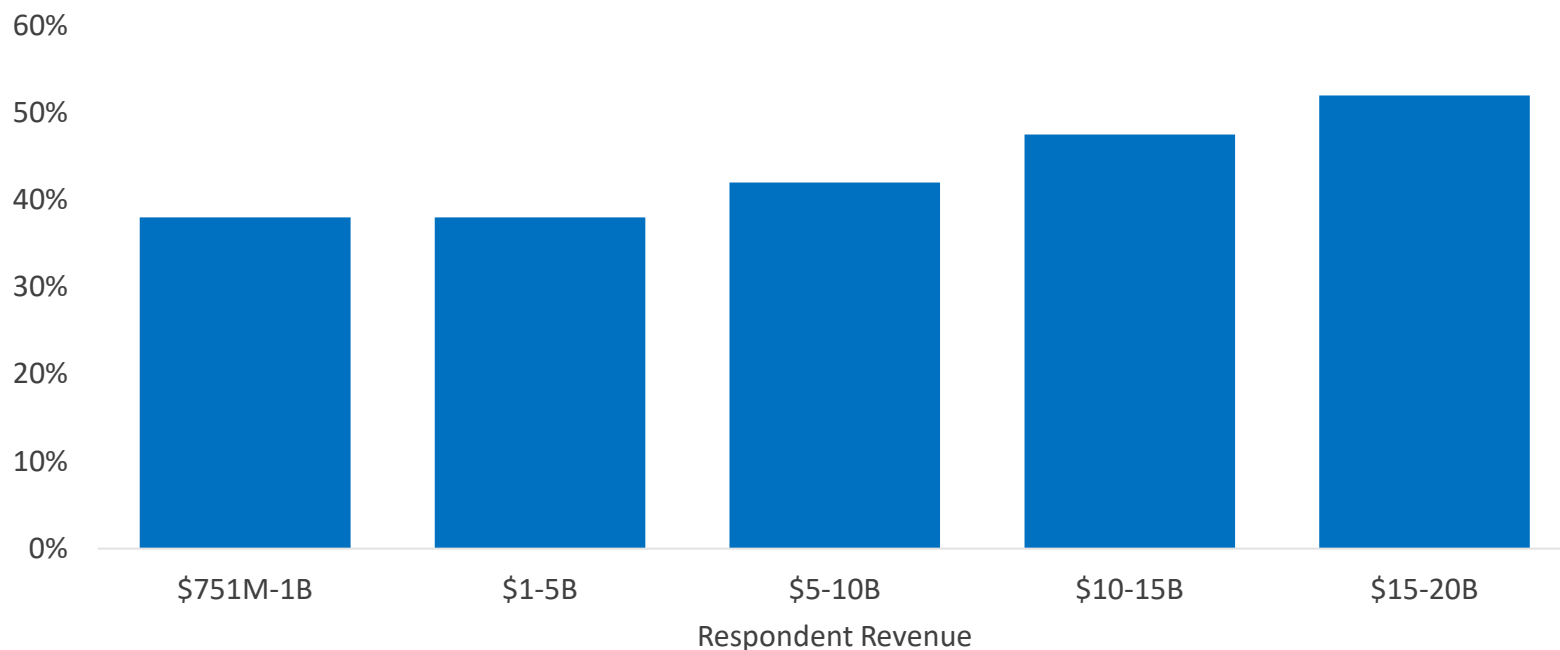
DOES AI HAVE THE POTENTIAL TO MEET  
EXPECTATIONS?



- Many companies have moved from plans to test AI into plans to adopt AI, as initial use of applications has broadly met or exceeded expectations, as evidenced by Morgan Stanley's survey of global firms' return on investment for generative AI.
- The success of initial efforts has raised the AI adoption rate above that of the Internet, and the advancement of NVIDIA's computing power is outpacing Moore's Law, which pointed to a doubling of transistor density approximately every two years, leading to exponential growth in computing power.
- This early success is a driving force behind the bullish views of the potential for AI.

## AI ADOPTION TRENDS ARE OFF TO A GOOD START, FREQUENTLY EXCEEDING EXPECTATIONS

Companies Reporting that Return on Investment in Generative AI Projects Exceeded Expectations, % of Survey Respondents

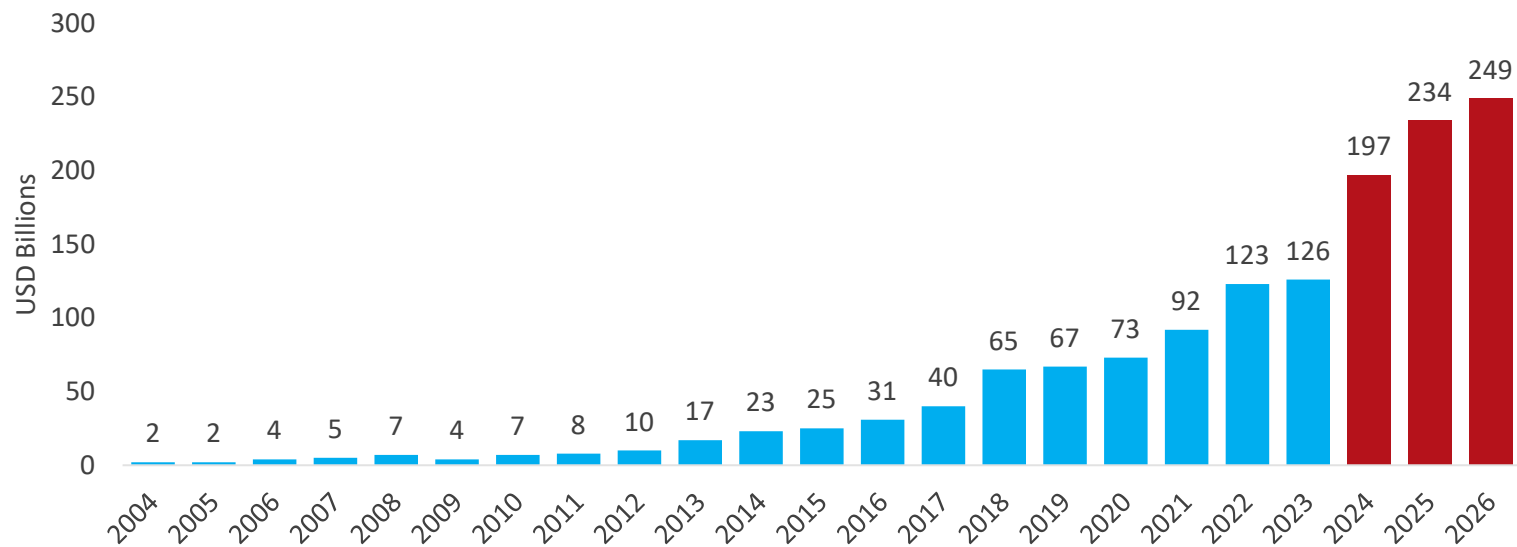


Data sources: AlphaWise, Morgan Stanley Research, and J.P. Morgan Asset Management

- Technological development starts with hardware, moves to platforms, and becomes applications. The optimism surrounding AI has led the major AI hyperscalers to plan substantial capital expenditures (capex) to continue this progression.
- What will be important to investors is whether these companies' AI investments translate into revenue sufficient to support their already high margins and valuations and provide an adequate return on investment.
- AI has the potential to be the next great technological wave. Still, the pace of adoption may or may not be adequate to support the valuation of these industry leaders, even if AI exceeds expectations in the long run.

## PLANNED CAPEX FROM AI HYPERSCALERS IS EXPECTED TO MORE THAN DOUBLE

Capex from Major AI Hyperscalers (Alphabet, Amazon (AWS), Meta, Microsoft, and Oracle, 2024-2026 Forecasted)



Data sources: J.P. Morgan Asset Management

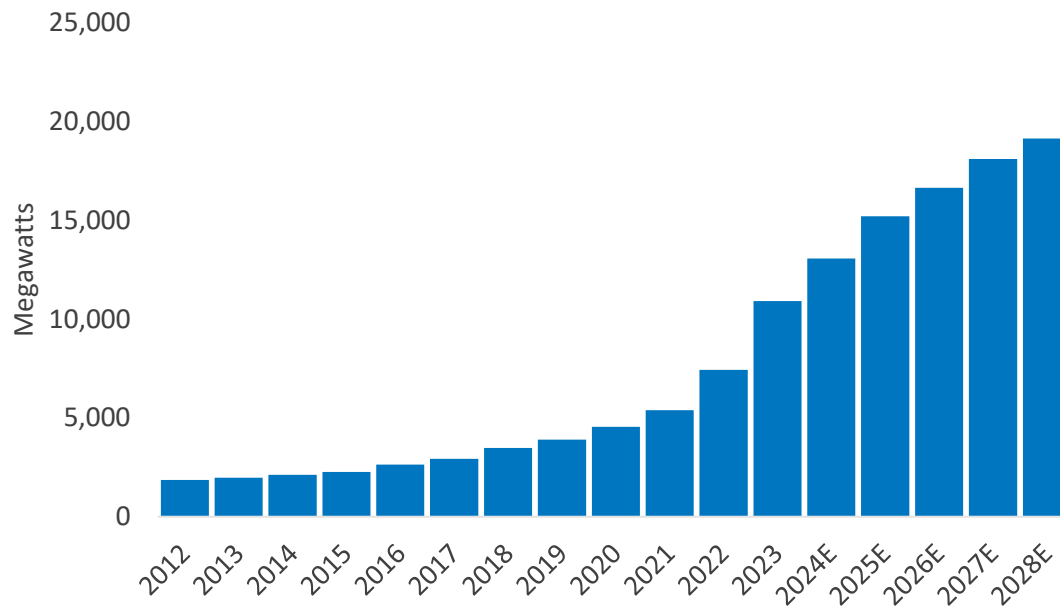
Data for 2024, 2025 and 2026 reflects consensus estimates. Capex shown is company total, except for Amazon, which reflects an estimate for AWS spend (2004 to 2012 are J.P. Morgan Asset Management estimates and 2012 to current are Bloomberg consensus estimates).

Hyperscalers are the large cloud computing companies that own and operate data centers with horizontally linked servers that, along with cooling and data storage capabilities, enable them to house and operate AI workloads.

- AI has led to the expansion and quick absorption of data centers, which have grown tremendously in recent years, making data centers a bright spot for real estate investors, and this trend is forecasted to continue.
- Further, data centers require substantial power. Greater efficiencies improved data center power use in the last decade, but efficiency gains in power intensity are waning while demand is growing, supporting the need for additional data center capacity and energy. The latter of which also provides investors with an inflation hedge.
- Lastly, the chips that support AI are predominately produced in Taiwan, and replicating that production is expensive. The challenging relationship between the U.S. and China and China’s stance on Taiwan illustrate risks in the semiconductor supply chain.

## DATA CENTERS ARE GROWING TO MEET STRONG DEMAND...

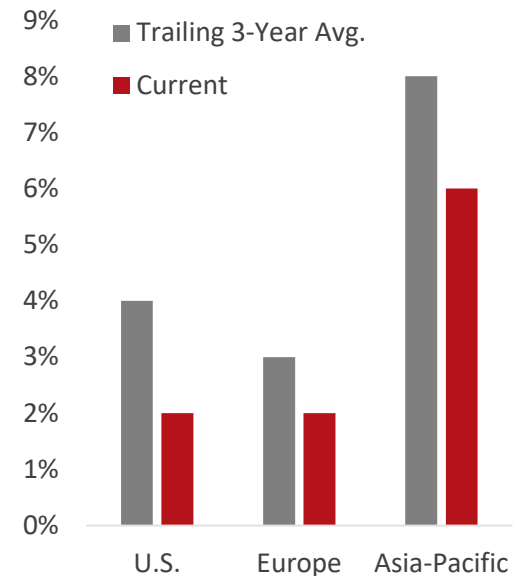
U.S. Data Center Supply, Commissioned Power in Megawatts



Data source: Green Street, as of April 2024

## AMID TIGHT SUPPLY

Primary Market Vacancy



Data source: Green Street, as of September 2024

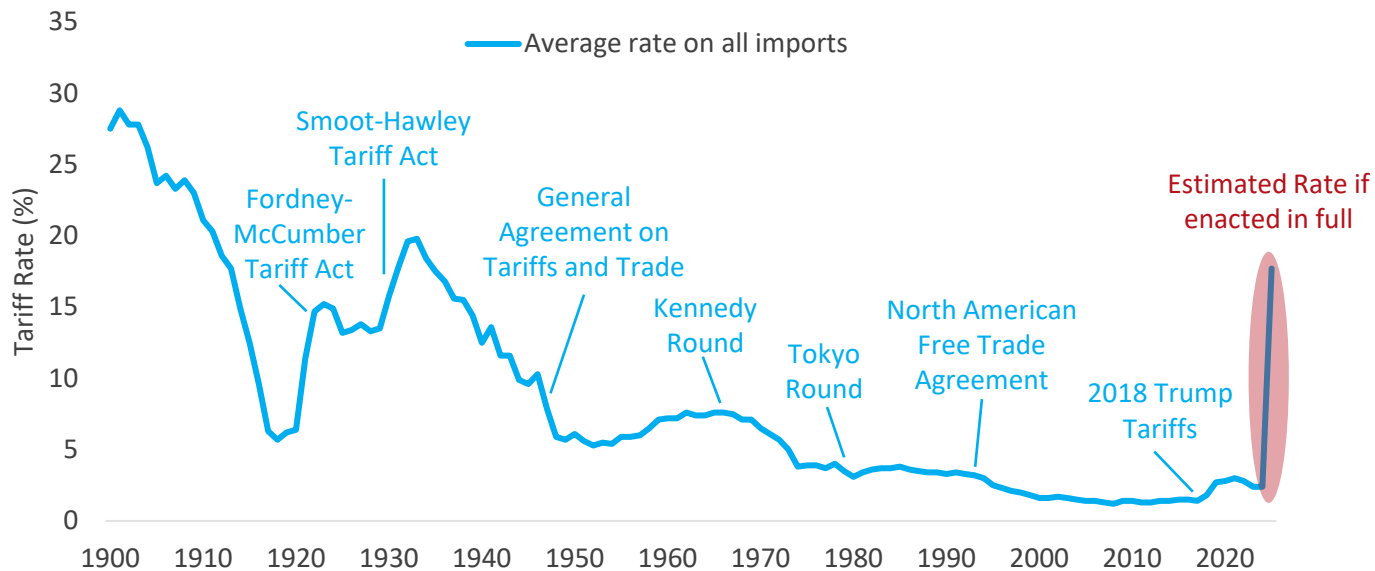


WHAT ABOUT TARIFFS RISKS AND EASING  
REGULATIONS?

- Concerns exist that if tariffs against U.S. trading partners were enacted at the levels Trump has threatened – for example, a 25% tariff against Mexico unless they help stem the flow of illegal drugs and help restrict border crossings – these taxes on imports would create an inflationary resurgence.
- Conversely, in his first term, Trump used tariffs as a bargaining tool in negotiating a trade deal with China, upon which some tariffs were enacted, and renegotiating the United States-Mexico-Canada Agreement (f.k.a. NAFTA).
- Tariffs against China increased materially and were held in place by the Biden Administration, but tariffs against other nations held relatively steady throughout Trump’s first presidential term.

## AT THE FULL LEVEL TRUMP HAS STATED, TARIFFS WOULD REACH 1930s LEVELS, BUT IS THIS LIKELY?

Average U.S. Tariff Levels

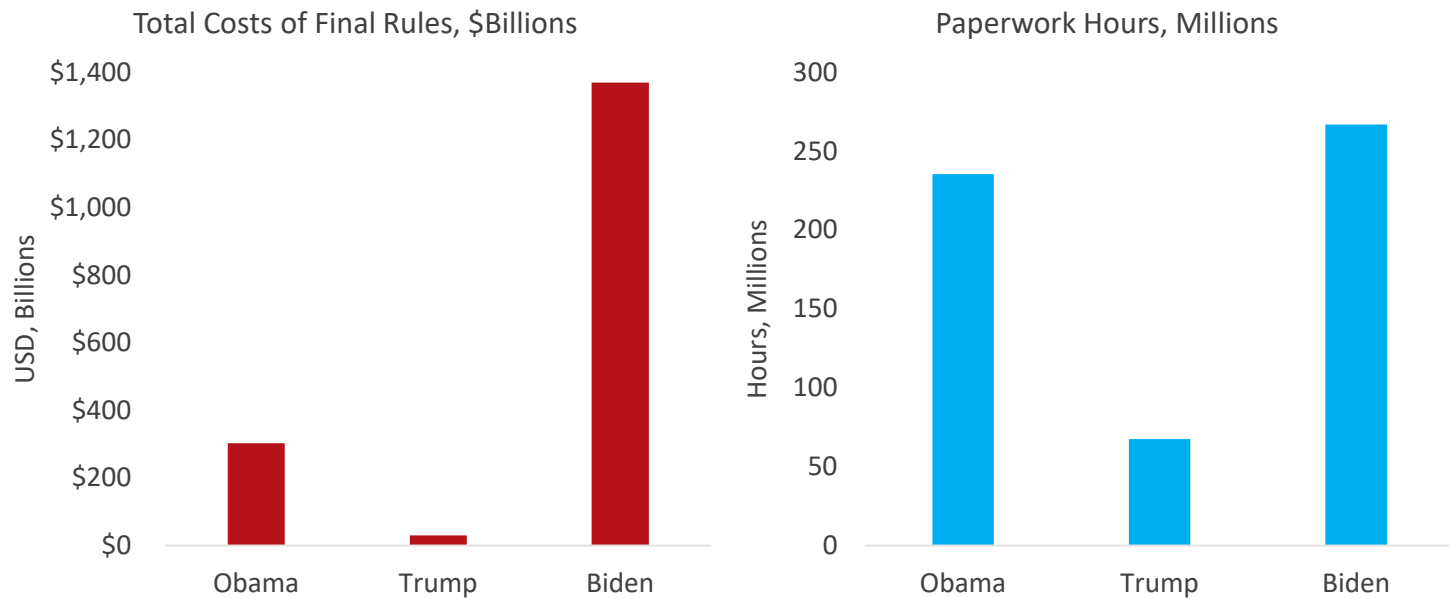


Data source: Tax Foundation, October 2024

- The cost of regulation pressures smaller businesses in particular, and a reduction in the regulatory burden is widely anticipated under the Trump Administration.
- The Biden Administration’s regulatory approach was costly and a material shift from the first Trump Administration.
- A reduction in the regulatory burden could help stoke animal spirits and free capital to help spur investment, particularly among smaller companies.

## THE COST OF BIDEN’S REGULATORY ACTIVITY HAS BEEN MATERIAL

Regulatory Activity by Administration, Inauguration Day to April 19<sup>th</sup> of Year 4



Data source: Doug Holtz Eakin, American Action Forum, April 2024

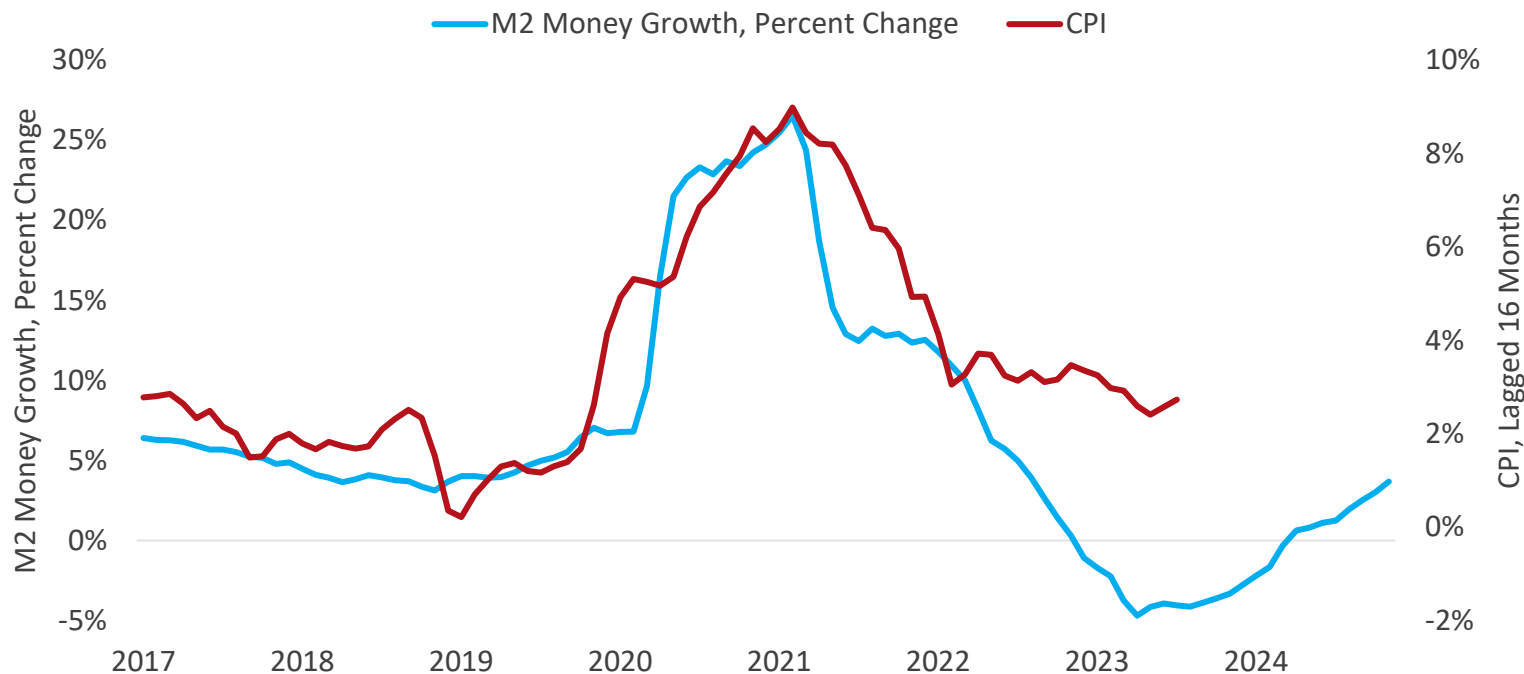


IS THERE RISK OF AN INFLATIONARY RESURGENCE?

- Inflation has remained stubbornly above the Federal Reserve’s (Fed’s) target of 2%, driven primarily by shelter costs. This has kept measures of core and “sticky” inflation higher than headline inflation, which has been closer to the Fed’s target due to energy prices.
- Money supply led the inflationary rise and fall in the most recent cycle, and a reacceleration of money supply growth seems to be supporting a similar pattern.

## MONEY GROWTH MAY BE LEADING INFLATION HIGHER

M2 Money Growth, Year-over-Year Percentage Change and CPI Lagged 16 Months



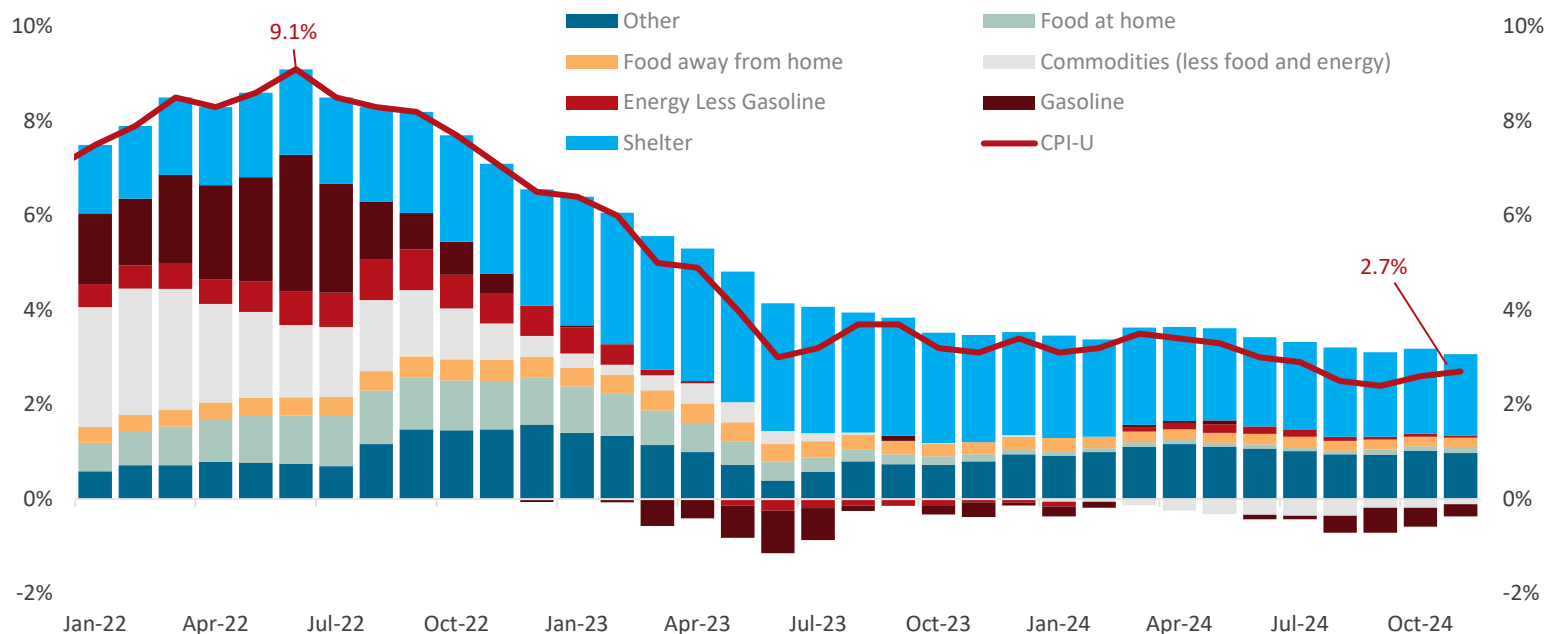
Data source: Federal Reserve Bank of St. Louis



- The rising cost of goods led the supply-constrained inflationary wave that followed the pandemic. It was soon followed by other forces that increased the cost of services, recreation, auto insurance, etc.
- In 2024, easing energy prices helped bring headline inflation to 2.7%, but high mortgage rates, limited housing supply, and insurance have been a primary influence behind inflation staying closer to 3% rather than falling toward 2%.
- If energy or other costs were to increase materially, headline inflation could raise inflationary concerns, potentially pressuring risk assets as well as bonds.

## SHELTER INFLATION IS STILL PAINFULLY ELEVATED, ENERGY IS SOFTENING THE BLOW

Contribution to CPI, Year-over-Year Percentage Change

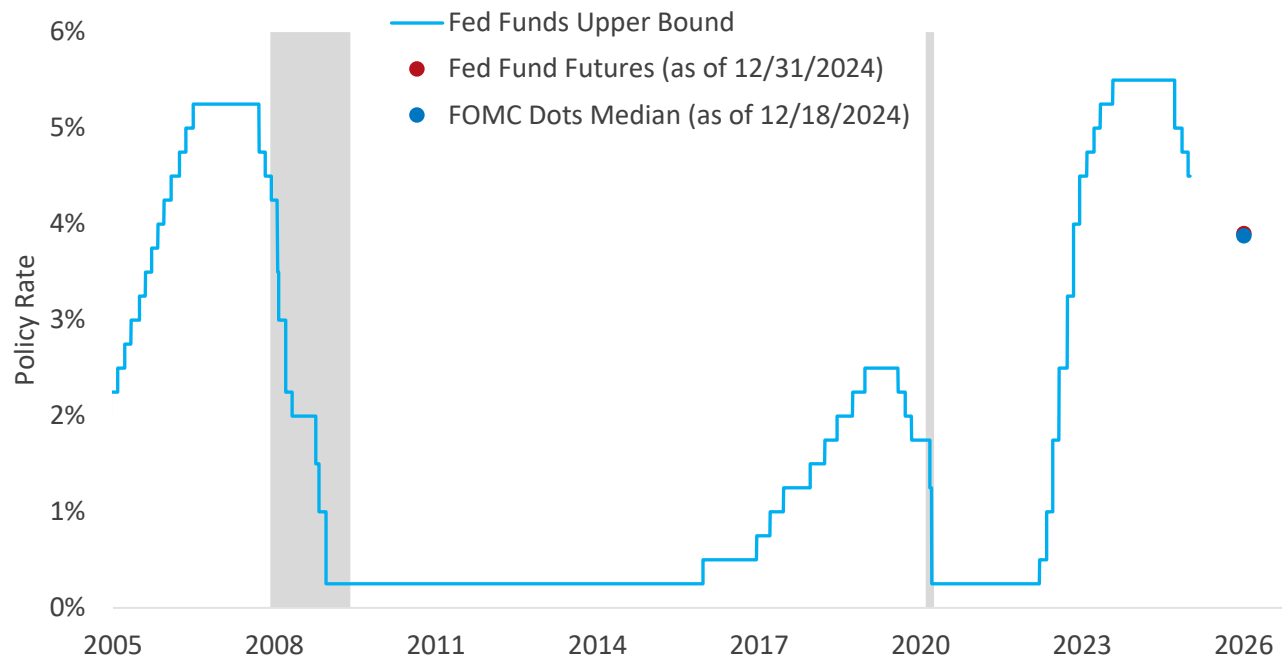


Data source: FactSet, as of November 30, 2024

- Prior to the Fed's first cut, markets had been expressing concerns that the Fed was slow to reduce rates and that aggressive easing would be necessary in 2025 and 2026. Market rate expectations were substantially lower than the Fed's dot plot of expectations.
- Now, markets are more concerned with potential inflationary pressures that might reduce the pace of rate cuts. The FOMC median rate expectations are below the market's, and Fed Chair Powell stated that the Fed's inflation projection for the current year has "kind of fallen apart."

## THE MARKET IS PRICING IN HIGHER RATES THAN THE FED IS SIGNALING

Fed Funds Rate vs. Market Expectations

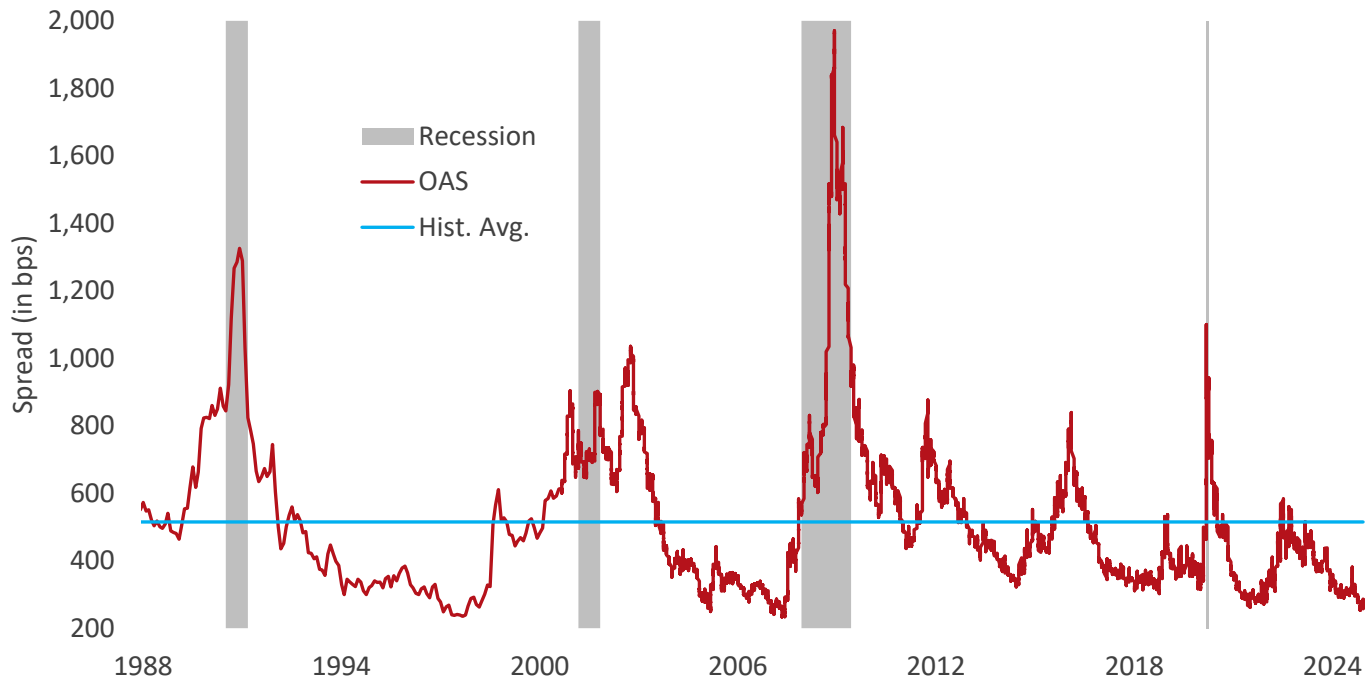


Data sources: Federal Reserve, Bloomberg, L.P., NBER, Shaded Areas Denote Recession

- Slower rate cuts would maintain higher base rates, keeping core bond yields elevated and pressuring credit spreads already at historically low levels. Defaults have yet to pick up broadly, but defaults have increased among the riskiest credits.
- Further, core bonds have suffered a difficult period as rates rose. Resurging inflation presents the risk of Treasury rates rising along the yield curve, negatively impacting bond values.

## HIGH YIELD CREDIT SPREADS ARE HISTORICALLY TIGHT

Bloomberg U.S. High Yield OAS & Cycles



Data sources: Bloomberg, L.P., NBER; Data as of 12/31/2024 Note: Monthly yield spread vs. 5 -Year Treasury used for 1/1987 - 9/2000; Daily OAS used thereafter

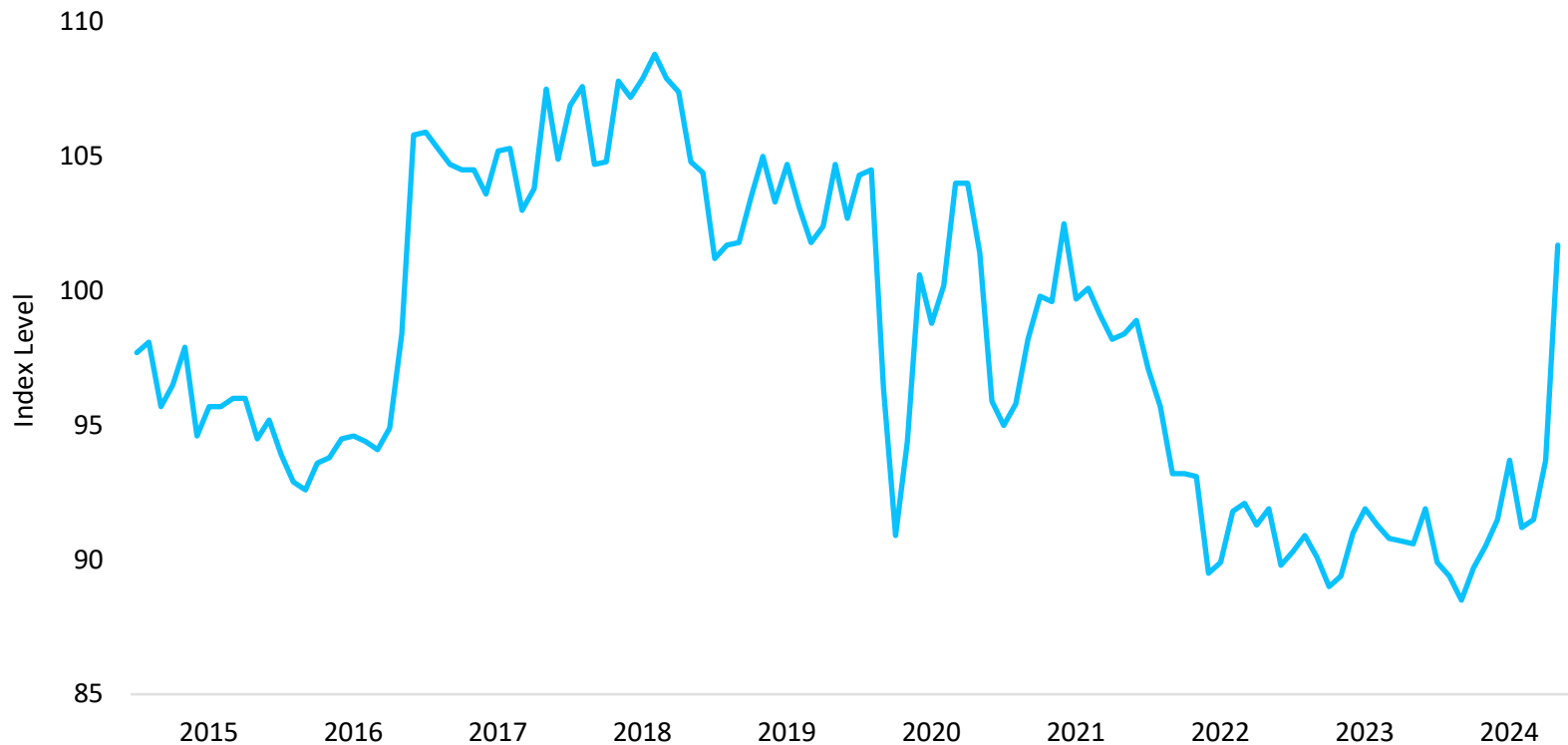


ARE THERE OPPORTUNITIES IN NON-MAG 7 ASSETS?

- The potential for a reduced regulatory burden and continuation of tax cuts has stoked animal spirits and has small businesses far more optimistic about economic trends, approaching pre-pandemic levels from what were the weakest readings in the past decade.
- Positive sentiment has the potential to turn into capital investment to drive earnings growth for companies across the cap spectrum.

## **SMALL BUSINESSES ARE MORE OPTIMISTIC ABOUT ECONOMIC TRENDS THAN THEY HAVE BEEN IN YEARS**

NFIB Small Business Economic Trends, Optimism Index, United States, 1986=100, Seasonally Adjusted

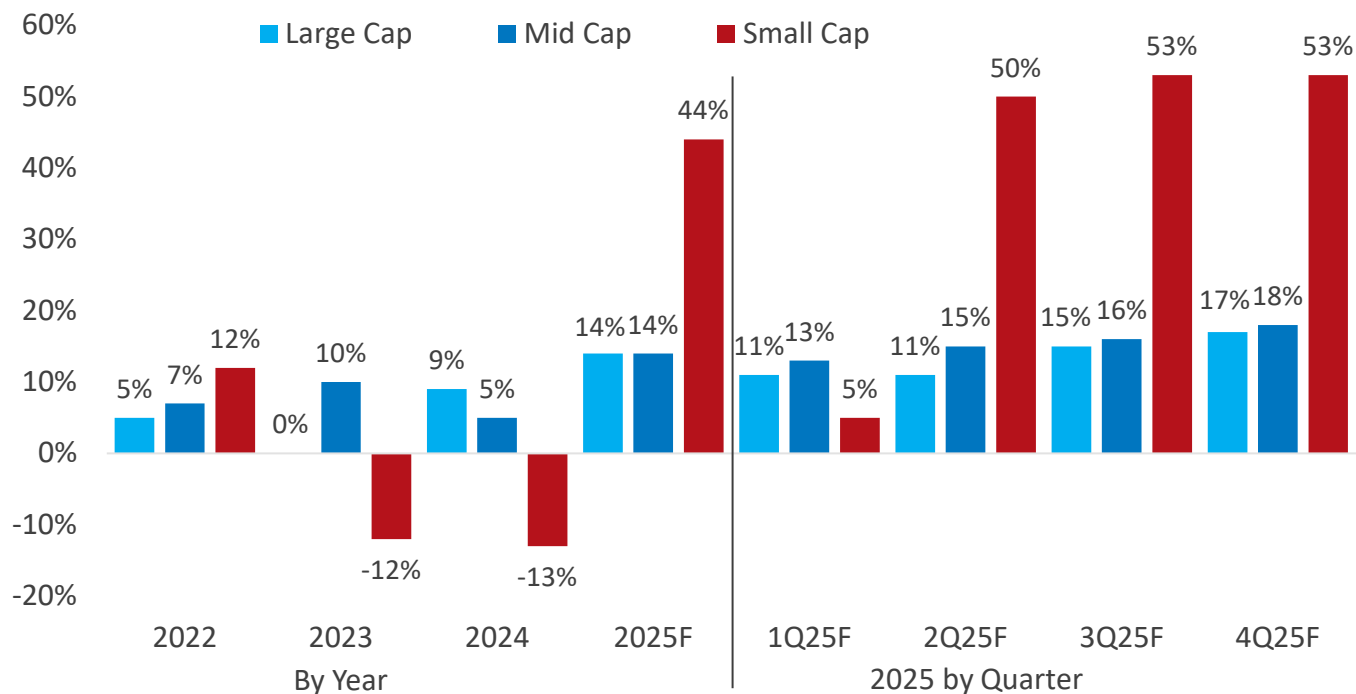


Data source: FactSet

- Earnings for small cap companies tend to be far more volatile and cyclical than those of large companies.
- Small cap earnings have been particularly weak in recent years as labor costs and interest rates rose.
- The outlook for a reduced regulatory burden in conjunction with easing Fed policy may benefit small cap stocks if inflation does not experience a resurgence.

## SMALL CAP STOCKS ARE ESTIMATED TO HAVE A SURGE OF EARNINGS GROWTH

Pro-Forma Earnings Per Share Growth, Year-over-Year



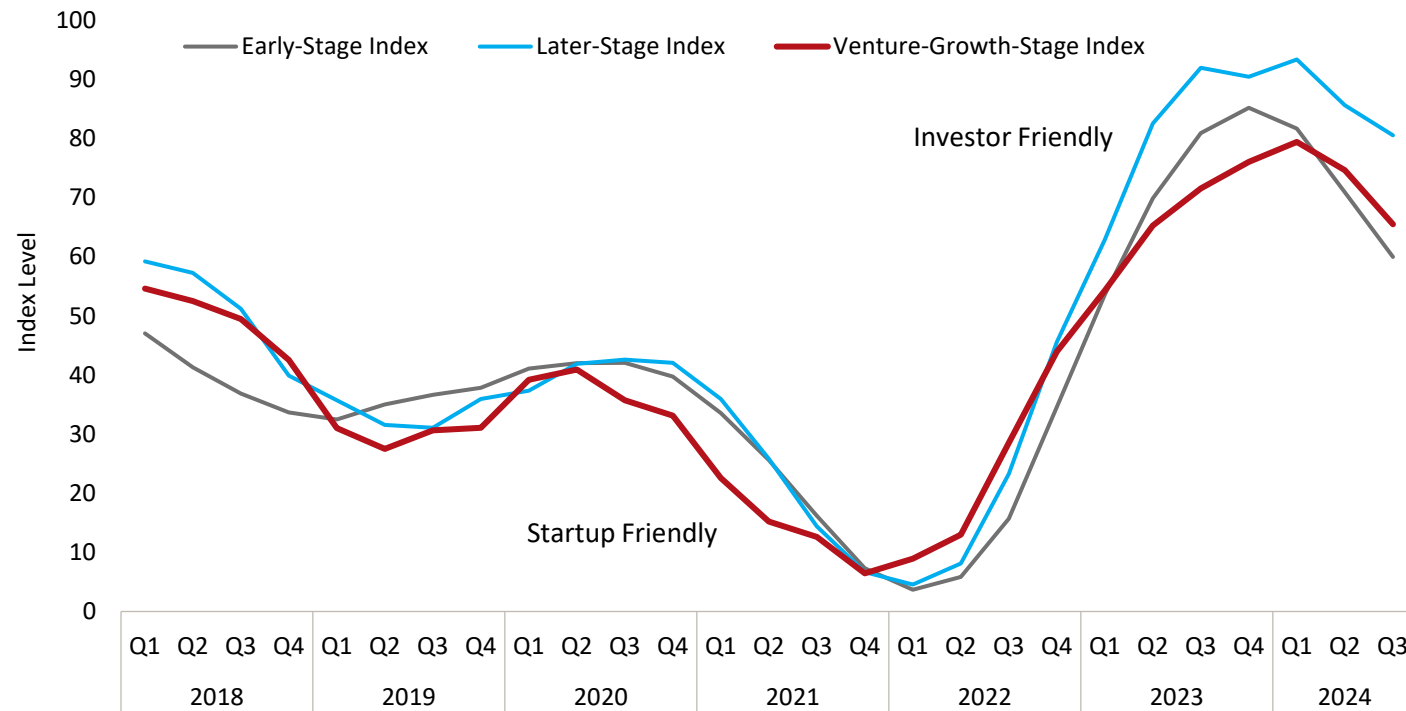
Data sources: FactSet, Standard and Poor’s, Russell, and J.P. Morgan

Large cap = the S&P 500 Index, mid cap = the Russell Mid Cap Index, and small cap = the Russell 2000 Index

- The gradual return to more normal conditions in buyout and more substantial stress in venture capital has begun to return fundraising and other measures to more sustainable levels while limiting exits.
- Consequently, much more investor-friendly terms are present in the private markets than at the 2021 peak of private equity dynamics.

## PRIVATE EQUITY MARKET FAVORS INVESTORS OVER FOUNDERS

U.S. Venture Capital Dealmaking Indicator



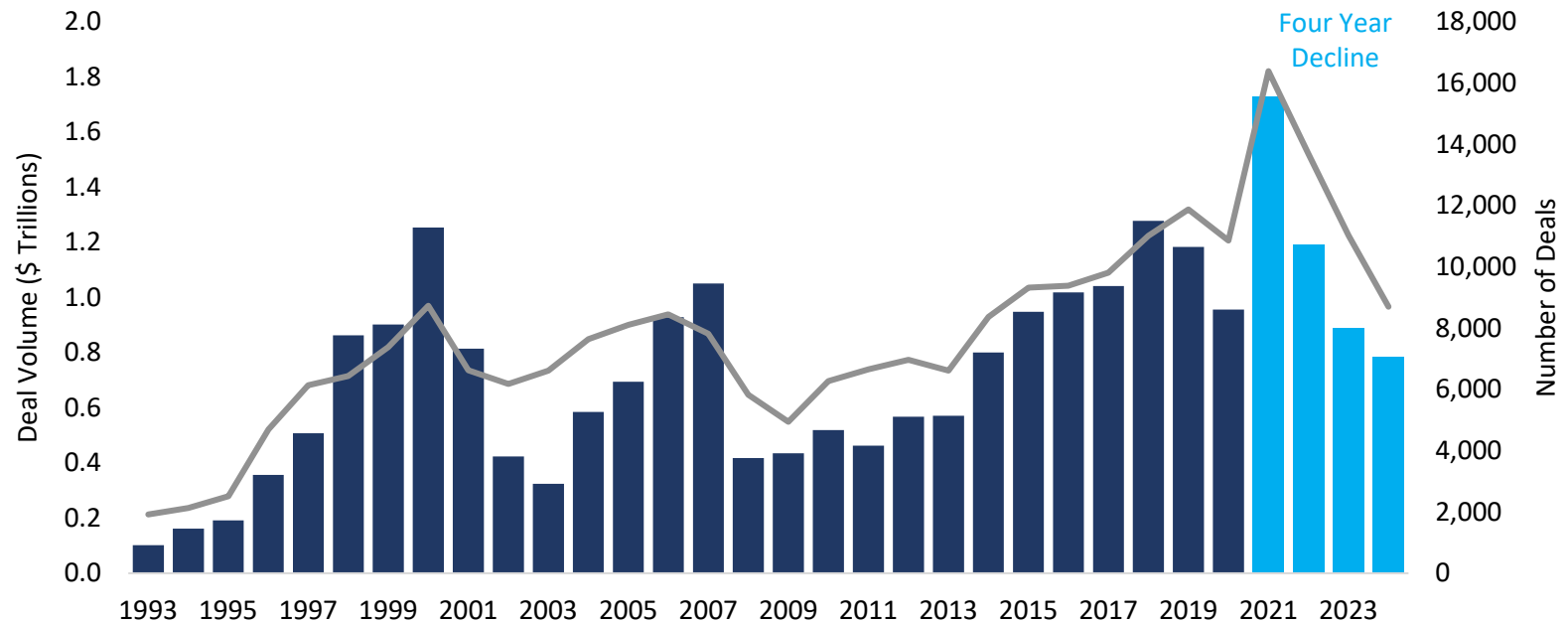
Data source: Pitchbook

The dealmaking indicator measures dividend catch-up policies, liquidation preference, anti-dilution terms, voting rights, and valuation step-ups

- The Federal Trade Commission (FTC) under Lina Khan, who will no longer be the FTC Chair, aggressively pressured merger and acquisition (M&A) activity. Trump’s named appointee, Andrew Ferguson, has indicated plans to ease the FTC’s stance on all but the largest technology companies.
- Similarly, Initial public offering (IPO) activity has been substantially muted in recent years, measuring at 30-year lows.
- Increases in M&A and IPOs could benefit animal spirits, supporting private exits, private capital managers with dry powder, and event-driven hedge funds.

## DEAL ACTIVITY IS EXPECTED TO INCREASE FROM RESTRAINED LEVELS

U.S. M&A Activity, Deal Volume (Bars) and Number of Deals (Line)



Data source: FactSet





## CONCLUSION

Walter Gretzky, Wayne's father, told his son to "Go to where the puck is going, not where it has been," and that quote is often used as sage advice to investors to avoid chasing returns. There are many reasons to believe the strength of large cap U.S. equities could continue, and history has proven that it is possible. Still, a sound understanding of market history also reminds one of the risks present in current market conditions.

Although the fear of missing out may lead one to assume that "this time is different," the fundamental truths of investing always ring true as the price paid is the primary determinant of long-term returns. Investors are cautioned to maintain a long-term perspective and avoid the behavioral biases that often contradict one's investment objectives.

Investors can take actions such as ensuring diversification in equity exposure, emphasizing quality over junk, finding other investments tied to prevailing market themes such as data centers, ensuring fixed income duration is on target, and avoiding the desire to stretch for yield.

## ***Hat Trick Year?***

### Supporting Forces

- Mag 7 Profitability
- AI's Potential
- Deregulation
- Animal Spirits
- Broadening Market Performance

### Potential Risks

- High Valuations Reprice
- AI Capex Requires Revenue
- Tariffs
- Inflation and Monetary Policy
- Higher Rates and Market Correction

- Valuations are extremely expensive in U.S. large cap and high yield credit, while generally elevated elsewhere, presenting a risk of repricing.
- Fundamentals are sound, and sentiment is positive. Sentiment, however, can change quickly and trigger a repricing of valuations.

## FEG OCIO VFS DASHBOARD

		VALUATION			FUNDAMENTAL			SENTIMENT
		Signal	Z-Score	Hist. %-ile	Signal	Z-Score	Hist. %-ile	Signal
GLOBAL EQUITY	U.S. Large Cap (Core)	●	2.51	98%	●	-0.20	57%	●
	U.S. Large Cap (Value)	●	1.85	85%	●	-0.31	59%	●
	U.S. Large Cap (Growth)	●	2.20	82%	●	-0.13	49%	●
	U.S. Mid Cap	●	1.50	74%	●	-0.60	42%	●
	U.S. Small Cap	●	0.89	68%	●	-0.89	26%	●
	U.S. Micro Cap	●	0.20	65%	●	-0.61	45%	●
	International Developed	●	0.52	67%	●	-0.25	52%	●
	Emerging Markets	●	-0.78	30%	●	-0.55	41%	●
FIXED INCOME	Interest Rate Sensitive (Core)	●	-0.18	65%	●	1.09	-	●
	Credit Sensitive (High Yield)	●	0.76	96%	●	-1.22	17%	●
	TIPS	●	-0.81	31%	●	-0.29	44%	●
REAL ASSETS	Real Estate (U.S. REITs)	●	0.91	86%	●	-0.41	41%	●
	Commodity Futures	●	-0.42	54%	●	-0.50	39%	●
	Global Listed Infrastructure	●	0.19	54%	●	1.07	73%	●

Data sources: FEG, Bloomberg, L.P.; Valuation and Fundamental Data as of 11/30/2024 and Sentiment Data as of 12/31/2024  
 Red is Negative, Yellow is Neutral, and Green is Positive



**January 15 FEG Community Foundation Survey**  
Opening January 15, FEG's Community Foundation Survey provides peer data across financial and enterprise topics relevant to community foundations. We provide insights into current challenges, empowering community foundations to help make a greater future impact. To learn more, visit [www.feg.com/cf](http://www.feg.com/cf).



**January 29 FEG's 2025 Investment Outlook**  
Hear from FEG Chief Investment Officers Nolan Bean and Greg Dowling, and Managing Director of Private Capital Nathan Werner, as they assess potential investment risks and opportunities in 2025. To register, [click here](#).



**April 2-3 FEG Hockey Classic**  
Mark your calendars for an unforgettable experience! What started as a casual event for hockey enthusiasts in the investment community has evolved into an exhilarating opportunity to hit the ice, connect with peers, and support a great cause. Clients and friends of FEG are invited. To save the date, visit [www.feg.com/2025-hockey-classic-invite](http://www.feg.com/2025-hockey-classic-invite)



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All data as of December 2024, unless otherwise specified.





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**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

# Invoice

Date	Invoice #
1/14/2025	34560

Bill To
City of Grosse Pointe Woods 20025 Mack Plaza Drive Grosse Pointe Woods, MI 48236

Phone: (630) 620-0200  
 Fax: (239) 481-0634  
 Email: AR@foster-foster.com  
 Website: www.foster-foster.com  
 Federal EIN: 59-1921114

**City of Grosse Pointe Woods  
OPEB Program**

Terms	Due Date
Net 30	2/13/2025

Description	Amount
Preparation of the Public Act 202 Report for the fiscal year ending 06/30/2024	1,500.00

***Thank you for your business!***

Most preferred method of payment is an ACH deposit.  
 Please reference Plan name & Invoice # above.

- Account Title: Foster & Foster, Inc.
- Account Number: 6100000360
- Routing Number: 063114661
- Bank Name: Cogent Bank

**Balance Due                    \$1,500.00**

For payment via a mailed check, please remit to:  
 Foster & Foster, Inc.  
 184 Shuman Blvd., Ste.305, Naperville, IL 60563



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

# Invoice

Date	Invoice #
1/7/2025	34457

Bill To
City of Grosse Pointe Woods 20025 Mack Plaza Drive Grosse Pointe Woods, MI 48236

Phone: (630) 620-0200  
 Fax: (239) 481-0634  
 Email: AR@foster-foster.com  
 Website: www.foster-foster.com  
 Federal EIN: 59-1921114

**City of Grosse Pointe Woods**

Terms	Due Date
Net 30	2/6/2025

Description	Amount
Prepare 6/30/2024 Benefit Statements	1,000.00

***Thank you for your business!***

Most preferred method of payment is an ACH deposit.  
 Please reference Plan name & Invoice # above.  
 • Account Title: Foster & Foster, Inc.  
 • Account Number: 6100000360  
 • Routing Number: 063114661  
 • Bank Name: Cogent Bank

**Balance Due                    \$1,000.00**

For payment via a mailed check, please remit to:  
 Foster & Foster, Inc.  
 184 Shuman Blvd., Ste.305, Naperville, IL 60563



## CITY OF GROSSE POINTE WOODS MEMORANDUM

---

**Date:** February 6, 2024  
**To:** Pension Board of Trustees  
**From:** Steven Schmidt, Pension Administrator  
**Re:** Annual Administrative Fee

---

I respectfully request a motion to approve the payment of \$14,000 to the City of Grosse Pointe Woods General Fund, for administrative fees. This fee covers services rendered during fiscal year 2024-2025. Funds are to be taken from budget line 731-237-976.000 with a budgeted amount of \$14,000.

Thank you.