

# **CITY OF GROSSE POINTE WOODS**

## **NOTICE OF ELECTRONIC RE-SCHEDULED REGULAR PENSION MEETING Pension Retirement System Board of Trustees**

Thursday, November 5, 2020

4:00 PM

### **Agenda**

The Pension Board will be conducting a meeting of the Grosse Pointe Woods Pension Board by video (Zoom) and telephone conference in accordance with the City of Grosse Pointe Woods City Council resolution adopted May 4, 2020. This notice is being provided to ensure that those wishing to participate in the meeting have an opportunity to do so. Additional instructions are listed below.

#### Join Zoom Meeting

<https://zoom.us/j/99855877303?pwd=Ni9qWEhIV0RVb0xYc3hrS2RXajd3UT09>

Meeting ID: 998 5587 7303

Passcode: 902317

One tap mobile

8887880099,,99855877303# US Toll-free

8778535247,,99855877303# US Toll-free

#### Dial by your location

888 788 0099 US Toll-free

877 853 5247 US Toll-free

Meeting ID: 998 5587 7303

Find your local number: <https://zoom.us/u/aUnlNd0i>

### **AGENDA**

1. Call to order
2. Roll call
3. Acceptance of the meeting agenda.
4. Meeting minutes dated August 6, 2020
5. Trial balance through September 30, 2020
6. Retirement Application – Deferred
  - a. Sheila Kenny Smith
7. Employee Contribution Refund
  - a. Kelly M. Poirier
8. Annual Administrative Fee Payment
9. 2019 Actuarial Reports – Rodwan Consulting Company
  - a. Summary Annual Report
  - b. City of Grosse Pointe Woods Employees Retirement System
  - c. City of Grosse Pointe Woods Employees Retirement System – GASB 67/68

- d. City of Grosse Pointe Woods Employees Retirement System – Supplemental Annuity GASB 67/68
- 10. 3<sup>rd</sup> Quarter Fund Evaluation Group Report
  - a. Portfolio Rebalancing Memo November 2020
- 11. Election Policies & Procedures – VanOverbeke, Michaud & Timmony, P.C.
- 12. Payment of Invoices -
  - a. FEG \$14,608.00
  - b. Rodwan Consulting \$1,450.00
  - c. Rodwan Consulting \$8,300.00
  - d. Rodwan Consulting \$2,400.00
  - e. Comerica \$1,500.00
- 13. New Business/Public Comment
- 14. Adjournment

**Next Regular Board Meeting – February 4, 2021**

**6:00 PM**

IN ACCORDANCE WITH PUBLIC ACT 267 (OPEN MEETINGS ACT)  
POSTED AND COPIES GIVEN TO NEWSPAPERS

The City of Grosse Pointe Woods will provide necessary, reasonable auxiliary aids and services to individuals with disabilities. Closed captioning and audio will be provided for all electronic meetings. All additional requests must be made in advance of a meeting.

Instructions for meeting participation

1. To join through Zoom: The meeting may be joined by clicking on the link provided on the agenda at the start time posted on the agenda, enter the meeting identification number, and password. Zoom may provide a couple of additional instructions for first time use. As an alternative to using the link, accessibility to the meeting may be obtained by using the browser at join.zoom.us. If having trouble logging in, try a different browser e.g. Chrome.

Join Zoom Meeting

<https://zoom.us/j/99855877303?pwd=Ni9qWEhIV0RVb0xYc3hrS2RXajd3UT09>

Meeting ID: 998 5587 7303

Passcode: 902317

2. Join by telephone: Dial the toll-free conferencing number provided and enter the meeting identification number, and password. Dial \*9 to be heard under Public Comment.

One tap mobile

8887880099,,99855877303# US Toll-free

8778535247,,99855877303# US Toll-free

Dial by your location

888 788 0099 US Toll-free

877 853 5247 US Toll-free

Meeting ID: 998 5587 7303

Find your local number: <https://zoom.us/u/aUnlNd0i>

In an effort to alleviate feedback and disruption of the meeting, choose one of the media options, either phone or Zoom, not both.

Meeting notices are posted on the City of Grosse Pointe Woods website home page at [www.gpwmi.us](http://www.gpwmi.us) and the on-line calendar, both containing a link to the agenda. The agenda contains all pertinent information including business to be conducted at the meeting, a hyperlink to participate using Zoom, and call-in telephone number with necessary meeting identification, and a password. Agendas will also be posted on six (6) City bulletin boards along Mack Avenue.

The following are procedures by which persons may contact members of the public body to provide input or ask questions:

1. To assist with meeting flow and organization, all public comment will be taken at the end of the meeting unless it is moved to a different location on the agenda upon a consensus of the Pension Board of Trustees;
2. The phone-in audience, when making public comment please state your name (optional) when called upon;
3. Audience participants will be muted upon entry and will have a chance to speak during the public comment portion of the meeting at the end of the agenda, at which time the microphones will be unmuted.
4. Those joining by Zoom will also be muted and may use the virtual raised “hand” to request to be heard under Public Comment.
5. Those joining by telephone need to dial in using the phone number provided on the agenda. When prompted, enter the meeting number and the password also located on the agenda. Dial \*9 to be heard under Public Comment.
6. The published agenda invites participants from the community to provide written questions, comments, and concerns in advance of the meeting to any Elected Official or the Pension Administrator regarding relevant City business and may be read under Public Comment. Emails may be sent to:

Chairperson Mayor Robert E. Novitke	<a href="mailto:mayornovitke@comcast.net">mayornovitke@comcast.net</a>	586 899-2082
Vicki Granger, Trustee	<a href="mailto:grangergpw@aol.com">grangergpw@aol.com</a>	313 882-9878
Anthony Chalut, Trustee	<a href="mailto:achalut@gpwmi.us">achalut@gpwmi.us</a>	313-343-2422
Matthew Crook, Trustee	<a href="mailto:Mcrook944@gmail.com">Mcrook944@gmail.com</a>	313-343-2460
Gary Zarb, Trustee	<a href="mailto:Gzarb99@yahoo.com">Gzarb99@yahoo.com</a>	313-886-1219

Jeffrey Davis, Vice President/Consultant, FEG	<a href="mailto:jdavis@feg.com">jdavis@feg.com</a>	513-977-4400
City Attorney Charles (Chip) Berschback	<a href="mailto:blbwlaw@yahoo.com">blbwlaw@yahoo.com</a>	586-777-0400
Pension Attorney Michael VanOverbeke	<a href="mailto:mvanoverbeke@vmtlaw.com">mvanoverbeke@vmtlaw.com</a>	313-578-1200
Sandra Rodwan, Rodwan Consulting	<a href="mailto:srodwan@aol.com">srodwan@aol.com</a>	248-399-8760
Tina Hoenicke, Pension Secretary	<a href="mailto:thoenicke@gpwmi.us">thoenicke@gpwmi.us</a>	313-343-2430

You may contact Cathrene Behrens, Pension Administrator, at [cbehrens@gpwmi.us](mailto:cbehrens@gpwmi.us) should you have any questions prior to the meeting starting.

NOTE TO PETITIONERS: YOU, OR A REPRESENTATIVE, ARE REQUESTED TO BE IN ATTENDANCE AT THE MEETING SHOULD COUNCIL HAVE QUESTIONS REGARDING YOUR REQUEST
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MINUTES OF A RE-SCHEDULED REGULAR MEETING OF THE BOARD OF TRUSTEES  
FOR THE RETIREMENT SYSTEM (i.e. The Board) OF THE CITY OF GROSSE POINTE  
WOODS, HELD ELECTRONICALLY ON THURSDAY, AUGUST 6, 2020 AT 4:00 PM, ,

The facilitator's statement was read.

The meeting was called to order at 4:00 p.m. by Chairperson Mayor Robert E. Novitke.

The following members were present:

Chairperson Mayor Robert E. Novitke  
Council Representative Victoria Granger  
General Employee Representative Matt Crook  
Citizen Representative Gary Zarb

Also present:

Pension Administrator, Cathrene Behrens  
City Attorney, Chip Berschback  
Pension Attorney, Michael VanOverbeke  
Fund Evaluation Group (FEG), Jeffrey Davis  
Rodwan Consulting Co., Sandra Rodwan  
Recording Secretary, Tina Hoenicke

Absent:

Public Safety Representative Anthony Chalut

Motion by Crook, supported by Zarb to excuse Public Safety Representative Tony Chalut from tonight's meeting.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

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

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

Motion by Crook, supported by Zarb to accept and place on file the minutes of the pension board meetings dated May 7, 2020 with recommended correction.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Zarb, supported by Crook to receive and place on file the trial balance report as presented through June 30, 2020.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Granger, supported by Crook to accept and place on file the retirement applications received from Gregory Tourville, Susan Stewart and James Arthur.

The Pension Administrator confirmed that all three individuals had met the retirement provisions as prescribed in the pension ordinance.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Crook, supported by Granger to acknowledge receipt of the correspondence received from Jeffrey Malinowski regarding Reciprocal Act 88 and to direct the Pension Administrator to notify him that in order to qualify for Reciprocal Act 88 the credited service must be with a Michigan based entity.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Granger, supported by Zarb to approve the 2021 Pension Meeting Schedule with the dates to be held as follows:

February 4, 2021  
May 6, 2021  
August 5, 2021  
November 4, 2021

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Crook, supported by Zarb to authorize the Pension Administrator to execute the fiduciary insurance binder documents with The Cincinnati Insurance Company for an annual premium of \$11,454 with the City Attorney to review the policy upon receipt.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Granger, supported by Crook to re-adopt the Amended Pension Investment Policy with revision as presented.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Pension Administrator Behrens advised the Pension Board that the 2020 MAPERS Annual Conference had been cancelled therefore agenda item #10 was no longer necessary.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Sandra Rodwan, Pension Actuary, provided a brief presentation to the Board regarding how changes to the mortality tables and the rate of return would impact the funding percentage of the Pension system.

Pension Board Meeting

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Motion by Granger, supported by Zarb to adopt PUB 2010 Mortality Tables with Generational Projection MP 2018 with an effective date of July 1, 2020 with these tables to be utilized during preparation of the actuarial report for fiscal year ending June 30, 2020.

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Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

Motion by Granger, supported by Crook to amend the Pension Investment Policy to reflect an interest rate of return of 7.5% instead of the 7.25% presented.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

Jeffrey Davis provided a review of the 2<sup>nd</sup> Quarter Fund Evaluation Group report ending June 30, 2020 and proposed the following: the sale of \$276,000 of the Gateway Fund and \$276,000 of the PIMCO all asset fund and the proceeds of these funds to be invested ishares S&P 500 Fund ETF, \$552,000. Discussion ensued with the following motion:

Motion by Zarb, supported by Granger to sell \$552,000 from the PIMCO All Asset fund and invest the proceeds of these funds in the ishares S&P 500 Fund ETF.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

Motion by Crook, supported by Granger to receive and place on file 2<sup>nd</sup> Quarter Report ending June 30, 2020 and place on file.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

Motion by Granger, supported by Zarb to approve the FEG invoice in the amount of \$14,636.00.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Granger, supported by Zarb to approve the Charles T. Berschback in the amount of \$620.00

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

New Business

Motion by Granger, supported by Zarb to approve the Comerica invoice in the amount of \$1,500.00

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Granger, supported by Zarb to approve the VanOverbeke, Michaud & Timmony, P.C invoice in the amount of \$2,350.00 for the period of January 1, 2020 through June 30, 2020.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb  
NO: None  
ABSENT: Chalut

Motion by Crook, supported by Granger to receive and place on file the rate increase letter dated July 31, 2020 for a CPI increase of 2.3% with an effective date of July 1, 2020 from VanOverbeke, Michaud & Timmony, P.C.



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Public Comment

None

Motion by Zarb, supported by Granger to adjourn at 05:39 pm.

Motion CARRIED by the following vote:

YES: Granger, Crook, Novitke, Zarb

NO: None

ABSENT: Chalut

Minutes recorded by

Approved by the Pension Board:

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Cathrene Behrens, Pension Administrator

PERIOD ENDING 09/30/2020

		BALANCE		END BALANCE	
		09/30/2019		2020-21	
GL NUMBER	DESCRIPTION	NORMAL	(ABNORMAL)	AMENDED BUDGET	NORMAL (ABNORMAL)
Fund 731 - PENSION FUND					
Assets					
Dept 000					
731-000-001.000	CASH		(300.00)		0.00
731-000-005.000	CASH	189,161.33			204,966.06
731-000-005.001	SCHWAB CASH		(729.54)		151,747.39
731-000-005.100	PENSION PETTY CASH		0.00		0.00
731-000-017.000	CASH -MERRILL LYNCH		0.00		0.00
731-000-018.000	MUTUAL FUNDS		0.00		0.00
731-000-040.000	ACCOUNT RECEIVABLE		0.00		0.00
731-000-050.000	CONTRIBUTIONS RECEIVABLE-ER		0.00		0.00
731-000-050.100	CONTRIBUTION RECEIVABLE-EE		0.00		0.00
731-000-050.200	MEDICARE CONTRIB RECEIVABLE		0.00		0.00
731-000-056.000	INTEREST REC	326.51			(0.22)
731-000-067.101	DUE F/GENERAL FUND		0.00		0.00
731-000-110.000	PREPAID EXPENSE		0.00		0.00
731-000-119.000	PREMIUM ON PURCHASE		0.00		0.00
731-000-120.000	US GOVT SECURTIES		0.00		0.00
731-000-121.000	BONDS	7,580,341.17			6,461,303.78
731-000-122.000	STOCKS	16,047,768.56			14,515,387.52
731-000-123.000	INDEXES	12,964,120.57			15,954,540.16
731-000-124.000	REAL ESTATE INV.		0.00		0.00
Total Dept 000		36,780,688.60			37,287,944.69
TOTAL ASSETS		36,780,688.60			37,287,944.69
Liabilities					
Dept 000					
731-000-201.000	WEEKLY A/P		0.00		0.00
731-000-202.000	ACCOUNTS PAYABLE		0.00		0.00
Total Dept 000		0.00			0.00
TOTAL LIABILITIES		0.00			0.00
Fund Equity					
Dept 000					
731-000-378.299	EMPLOYEE RESERVE-GEN		0.00		0.00
731-000-378.436	EMPLOYEE RESERVE-PS		0.00		0.00
731-000-379.299	EMPLOYER RES-GEN		0.00		0.00
731-000-379.436	EMPLOYER RES-PS		0.00		0.00
731-000-381.000	RETIREE BENEFITS RES	33,151,402.56			33,151,402.56
731-000-390.000	CURRENT FUND BALANCE		0.00		0.00
731-000-395.000	PRIOR FUND BALANCE	4,043,533.13			4,043,533.13
Total Dept 000		37,194,935.69			37,194,935.69
TOTAL FUND EQUITY		37,194,935.69			37,194,935.69
Revenues					
Dept 000					
731-000-581.000	EMPLOYER CONTRIBUTION-GENL	157,934.22		711,955.00	179,133.03
731-000-582.000	EMPLOYER CONTRIB-PS	167,148.43		789,908.00	196,918.49
731-000-583.000	EMPLOYER CONTRIBUTION-MEDICARE	30,342.80		95,000.00	22,766.80
731-000-588.000	EMPLOYEE CONTRIB	65,965.87		348,281.00	69,628.35
731-000-665.000	INTEREST INCOME	0.00		0.00	0.00
731-000-666.100	INVEST INCOME-INTERS	1,315.61		6,500.00	12.40
731-000-666.150	CAPITAL GAINS	0.00		0.00	0.00
731-000-666.200	INVEST INCOME-DIVIDE	51,649.37		250,000.00	0.00
731-000-694.000	OTHER INCOME	6,521.46		2,500.00	7,479.83
731-000-694.100	OVER/UNDER	0.00		0.00	0.00
731-000-695.000	GAIN ON MKT VALUE	48,091.14		0.00	2,284,199.99
731-000-699.000	TRF F/PRIOR YR RES	0.00		1,693,677.00	0.00
731-000-699.731	TRANSFER IN PENSION	0.00		0.00	0.00
Total Dept 000		528,968.90		3,897,821.00	2,760,138.89

PERIOD ENDING 09/30/2020

GL NUMBER	DESCRIPTION	BALANCE		2020-21 AMENDED BUDGET	END BALANCE	
		NORMAL	(ABNORMAL)		NORMAL	(ABNORMAL)
Fund 731 - PENSION FUND						
Revenues						
TOTAL REVENUES		528,968.90		3,897,821.00		2,760,138.89
Expenditures						
Dept 237 - RETIREE BENEFITS						
731-237-818.000	CONTRACTUAL SERVICES	0.00		0.00		0.00
731-237-860.000	EDUCATION & TRAINING	1,164.23		6,650.00		0.00
731-237-870.000	MISCELLANEOUS EXPENS	0.00		0.00		0.00
731-237-874.000	RETIREE BENEFIT PAYM	908,995.76		3,735,611.00		918,215.22
731-237-874.100	ANNUITY WITHDRAWAL	0.00		25,000.00		69,148.83
731-237-876.000	BANK & BENEFIT PAYMENT PROCESSING FEES	3,000.00		10,000.00		1,500.00
731-237-973.000	INVESTMENT ADVISOR FEES	15,000.00		60,000.00		15,000.00
731-237-973.100	ATTORNEY FEES	2,713.00		10,000.00		3,086.25
731-237-973.200	ACTUARIAL FEES	0.00		27,600.00		0.00
731-237-973.300	FIDUCIARY INSURANCE	12,343.00		12,960.00		11,454.00
731-237-975.000	FOREIGN TAX CHARGES	0.00		0.00		0.00
731-237-976.000	ADMINISTRATIVE COST	0.00		10,000.00		0.00
Total Dept 237 - RETIREE BENEFITS		943,215.99		3,897,821.00		1,018,404.30
TOTAL EXPENDITURES		943,215.99		3,897,821.00		1,018,404.30
Total Fund 731 - PENSION FUND						
TOTAL ASSETS		36,780,688.60				37,287,944.69
BEG. FUND BALANCE - 2019-20		37,194,935.69				37,194,935.69
+ NET OF REVENUES/EXPENDITURES - 2019-20						(1,648,725.59)
+ NET OF REVENUES & EXPENDITURES		(414,247.09)				1,741,734.59
= ENDING FUND BALANCE		36,780,688.60				37,287,944.69
+ LIABILITIES		0.00				0.00
= TOTAL LIABILITIES AND FUND BALANCE		36,780,688.60				37,287,944.69

User: chehrens

DB: Gpw

PERIOD ENDING 09/30/2020

		BALANCE		END BALANCE	
		09/30/2019		09/30/2020	
GL NUMBER	DESCRIPTION	NORMAL	(ABNORMAL)	2020-21 AMENDED BUDGET	NORMAL (ABNORMAL)
Fund 732 - SUPPLEMENTAL ANNUITY FUND					
Assets					
Dept 000					
732-000-001.000	CASH		0.00		0.00
732-000-004.000	CASH-TRUST		0.00		0.00
732-000-005.000	CASH		8,771.09		9,048.07
732-000-005.001	SCHWAB CASH	352,651.83			320,669.45
732-000-016.000	CASH		0.00		0.00
732-000-017.000	CASH -MERRILL LYNCH		0.00		0.00
732-000-056.000	INTEREST RECEIVABLE		20.17		1.31
732-000-056.100	CONTRIBUTIONS RECEIVABLE		0.00		0.00
732-000-067.101	DUE F/GENERAL FD		0.00		0.00
732-000-110.000	PREPAID EXPENSE		0.00		0.00
732-000-120.000	US GOVT SEC		0.00		0.00
732-000-121.100	BONDS	381,913.04			342,906.92
732-000-122.000	STOCKS	799,735.44			785,344.84
732-000-123.000	INDEXES	637,948.33			767,429.88
Total Dept 000		2,181,039.90			2,225,400.47
TOTAL ASSETS		2,181,039.90			2,225,400.47
Liabilities					
Dept 000					
732-000-201.000	WEEKLY A/P		0.00		0.00
732-000-202.000	ACCOUNTS PAYABLE		0.00		0.00
Total Dept 000		0.00			0.00
TOTAL LIABILITIES		0.00			0.00
Fund Equity					
Dept 000					
732-000-382.000	SUPPLEMENTAL ANNUITY RESERVE	788,255.00			788,255.00
732-000-390.000	CURRENT FUND BALANCE	991,026.90			991,026.90
732-000-395.000	PRIOR FUND BALANCE	65,928.00			65,928.00
Total Dept 000		1,845,209.90			1,845,209.90
TOTAL FUND EQUITY		1,845,209.90			1,845,209.90
Revenues					
Dept 000					
732-000-581.000	EMPLOYER CONTRIB-GEN	335,830.00		314,252.00	318,174.00
732-000-582.000	EMPLOYER CONTRIB-PS		0.00	11,193.00	0.00
732-000-665.000	INTEREST INCOME		0.00	0.00	0.00
732-000-666.100	INVEST INCOME-INTERS		0.00	200.00	0.00
732-000-666.150	CAPITAL GAINS		0.00	0.00	0.00
732-000-666.200	INVEST INCOME-DIVIDE		0.00	5,000.00	0.00
732-000-694.000	OTHER INCOME		0.00	500.00	0.00
732-000-695.000	UNREALIZED GAIN/LOSS		0.00	40,000.00	0.00
Total Dept 000		335,830.00		371,145.00	318,174.00
TOTAL REVENUES		335,830.00		371,145.00	318,174.00
Expenditures					
Dept 237 - RETIREE BENEFITS					
732-237-818.000	CONTRACTUAL SERVICES		0.00	0.00	0.00
732-237-860.000	EDUCATION & TRAINING		0.00	0.00	0.00
732-237-874.000	RETIREMENT BENEFITS		0.00	271,000.00	0.00
732-237-876.000	BANK & BENEFIT PAYMENT PROCESSING FEES		0.00	0.00	0.00
732-237-973.000	INVESTMENT ADVISOR FEES		0.00	0.00	0.00
732-237-973.100	ATTORNEY FEES		0.00	0.00	0.00
732-237-973.200	ACTUARIAL FEES		0.00	0.00	0.00
732-237-973.300	FIDUCIARY INSURANCE		0.00	0.00	0.00
732-237-976.000	ADMINISTRATIVE COST		0.00	0.00	0.00

10/28/2020 01:04 PM  
User: cbehrens  
DB: Gpw

TRIAL BALANCE REPORT FOR CITY OF GROSSE POINTE WOODS

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PERIOD ENDING 09/30/2020

GL NUMBER	DESCRIPTION	BALANCE	BALANCE	END BALANCE
		09/30/2019	2020-21	09/30/2020
		NORMAL (ABNORMAL)	AMENDED BUDGET	NORMAL (ABNORMAL)
Fund 732 - SUPPLEMENTAL ANNUITY FUND				
Expenditures				
Total Dept 237 - RETIREE BENEFITS		0.00	271,000.00	0.00
TOTAL EXPENDITURES		0.00	271,000.00	0.00
Total Fund 732 - SUPPLEMENTAL ANNUITY FUND				
TOTAL ASSETS		2,181,039.90		2,225,400.47
BEG. FUND BALANCE - 2019-20		1,845,209.90		1,845,209.90
+ NET OF REVENUES/EXPENDITURES - 2019-20				62,016.57
+ NET OF REVENUES & EXPENDITURES		335,830.00	100,145.00	318,174.00
= ENDING FUND BALANCE		2,181,039.90		2,225,400.47
+ LIABILITIES		0.00		0.00
= TOTAL LIABILITIES AND FUND BALANCE		2,181,039.90		2,225,400.47

6a

**CITY OF GROSSE POINTE WOODS  
EMPLOYEES RETIREMENT SYSTEM  
APPLICATION FOR DEFERRED RETIREMENT**

Pension Membership No. 553

To the Board of Trustees, City of Grosse Pointe Woods Employees Retirement System:

I, Sheila Smith a deferred vested member of the Retirement System, hereby apply for commencement of my retirement allowance which shall begin, the first day of the calendar month next following the month in which this application is filed with the Board, and, on or after my attainment of age 60.

Date of birth: [REDACTED]

I request my retirement be effective: 12/1/20

My title on the payroll was: Accounting Clerk

Department: Accounting

Dated at Grosse Pointe Woods, Michigan this 10 day of September, 2020.

[Signature]  
Signature of Witness

Sheila Smith  
Signature of Member

I elect to receive my retirement allowance in the following manner. (Place an X next to the option requested.) **PLEASE NOTE:** This is an irrevocable selection.

☒  
☐  
☐  
☐

Regular straight-life retirement allowance

Option I cash refund annuity

Option II (100%) joint and last survivorship annuity

Option III (50%) modified joint & last survivorship annuity

Write form of retirement elected above: Regular straight-life retirement allowance

☒ I certify that my (wife) (husband) at this date of retirement is: Greg Smith

Supplemental annuity payment (if applicable) per month will be: \$ 0.00

[Signature] 9/10/2020  
Signature of Witness & Date

Sheila Smith 9-10-2020  
Signature of Member & Date

**NOMINATION OF BENEFICIARY**

I nominate as my beneficiary:

Greg Smith

Beneficiary's date of birth: [REDACTED]

Beneficiary's relationship to me: husband

Sex: m

Beneficiary's place of birth: Detroit, MI

Beneficiary's address:

[REDACTED]

Dated at Grosse Pointe Woods, Michigan this 10th day of September, 2020

Signed: Sheila Smith

Subscribed and sworn to before me this 10th day of September, 2020.  
My commission expires on: 9/3/2023

[Signature]





## CITY OF GROSSE POINTE WOODS MEMORANDUM

7a

**Date:** October 28, 2020

**To:** Pension Board Trustees

**From:** Cathrene A. Behrens, Pension Administrator

A handwritten signature in blue ink, likely belonging to Cathrene A. Behrens, is placed next to the "From:" line.

**Re:** Refund Employee Contributions, with interest

On October 28, 2020 Kelly Poirier resigned her position at the City of Grosse Pointe Woods. Although Ms. Poirier made contributions to the Pension System, she was not vested.


Therefore I respectfully request the Pension Fund to refund Kelly Poirier her employee contributions, with interest, in the amount of \$4,063.42. This amount reflects \$3,934.91 in employee contributions and \$128.51 in interest earnings.

Thank you.



## CITY OF GROSSE POINTE WOODS MEMORANDUM



**Date:** October 28, 2020  
**To:** Pension Board of Trustees  
**From:** Cathrene Behrens, Pension Administrator   
**Re:** Payment of Annual Administrative Fees

---

Beginning in October, 2009 the Pension Board authorized an *annual* payment of \$10,000 to the City of Grosse Pointe Woods for administrative fees and services performed by Finance staff for pension related items.

I respectfully request a motion to approve payment of \$10,000 to the City of Grosse Pointe Woods General Fund, for administrative fees. This fee covers services rendered during fiscal year 20120-21. Fund are to be taken from budget line 731-237-976.000 with a budgeted amount of \$10,000.

Thank you.



# City of Grosse Pointe Woods Employees' Retirement System

## Summary Annual Report

June 30, 2020

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 Employees Retirement System**

### **Board Members**

Mayor Robert E. Novitke,  
*Chairman*

Anthony Chalut,  
*Trustee*

Matthew Crook,  
*Trustee*

Victoria Granger,  
*Trustee*

Gary Zarb,  
*Trustee*

Cathrene Behrens,  
*Pension Administrator*

Tina Hoenicke  
*Board Secretary*

### **Actuarial Information Used for this Report:**

1. 77 active members
2. 99 retirees/beneficiaries (and 14 deferred retirees)
3. Plan is open to new hires
4. \$34,383 average annual pension benefit
5. \$3,403,902 annual pension benefits paid
6. \$4,791,109 valuation payroll used
7. Employer's normal cost of benefits effective July 1, 2021: 8.55% General employees and 13.16% for Public Safety employees
8. Employer's actual total contribution rate effective July 1, 2021: 33.85% General employees and 38.46% for Public Safety employees
9. Weighted average member contribution rate effective July 1, 2021: 5.04% General employees and 5.82% Public Safety employees
10. The required employer contribution for the fiscal year was received
11. 7.50% assumed rate of investment return
12. 3.5% assumed rate of long-term wage inflation
13. 5 year smoothing method used
14. 25 year amortization period used
15. Method used is level percent of payroll
16. Cost method is individual entry-age
17. Current funding value of assets is 65.6% of accrued liability.

### **Professional Advisors**

*Investment Fiduciaries*  
Fund Evaluation Group (FEG)

### *Service Providers*

Charles Berschback, *City Attorney*  
Rodwan Consulting Company, *Actuary*  
Michael VanOverbeke,  
*Special Pension Attorney*

### **Investment Performance\***

	1	3	5	7	10
Combined	Year	Year	Year	Year	Year
Account	0.6%	3.5%	3.8%	5.2%	7.1%

\*Calendar year ending June 30, 2020 (net of fees)

### **2019-2020 Actual Expenditures**

Pension Payments/ Withdrawals: \$3,395,937  
Refund of Member Contributions: \$7,965  
Investment Fees: \$42,873  
Memberships/Training/Education/Travel: \$823  
Administrative Expenses: \$76,991

## City of Grosse Pointe Woods Employees' Retirement System

### Summary Annual Report (cont.)

#### **Actuarial Valuation Summary**

Rodwan Consulting Company was hired to prepare the June 30, 2020 Actuarial Valuation. The funding objective of the System is to contribute a contribution that remains level from year to year as a percent of payroll. 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:

<b>Contribution Requirements</b>	<b><u>General</u></b>	<b><u>Public Safety</u></b>
Normal Cost of Benefits		
Total	13.59%	18.98%
Member portion	5.04%	5.82%
Employer portion	8.55%	13.16%
Amortization of unfunded liability (25 years)	25.30%	25.30%
Computed Employer Rate	33.85%	38.46%

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

#### **Assets & Liabilities**

##### **Funded Status**

Market Value of Assets	\$35,546,210
Valuation Assets	39,020,573
Actuarial Accrued Liability	59,468,968
Funded Ratio	65.6%

The assumed rate of investment return was reduced to 7.5% and the Mortality Table was changed to the Pub 2010 Mortality Tables with MP 2018.

**Actuary's Statement** – The System is being funded based on sound actuarial assumptions, methods and level percent of payroll funding objective. For a complete analysis, please review the June 30, 2020 actuarial valuation.

#### **Revenues & Expenditures**

Beginning Balance (Market Value) – July 1, 2019	\$37,194,936
Revenues	
Employees' contributions	262,296
Employer contribution	1,406,409
Investment income	<u>157,140</u>
Total	1,825,845
Expenditures	
Pension payments	3,395,937
Refund of member contributions	7,965
Administrative Expenses	<u>70,669</u>
Total	3,474,471
Ending Balance (Market Value) – June 30, 2020	\$35,546,210
Recognized Return on Smoothed Funding Value of Assets	3.14%

September 2, 2020

The Board of Trustees  
City of Grosse Pointe Woods Employees Retirement System  
Grosse Pointe Woods, Michigan

Dear Board Members:

*The purpose of the annual actuarial valuation* of the City of Grosse Pointe Woods Employees Retirement System as of June 30, 2020 is to:

- Compute the liabilities associated with benefits likely to be paid on behalf of current retired and active members of the Retirement System,
- Compare accrued assets with accrued liabilities to assess the funded condition of the Retirement System, and
- Compute the City's recommended contribution rate for the Fiscal Year beginning July 1, 2021.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. Data concerning active members, retirees, beneficiaries and assets was provided by the City. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. The valuation was based on the provisions of the Retirement System as amended through June 30, 2020. The actuarial assumptions used in this valuation represent reasonable expectations of future experience under the System. This report was prepared under the direction of a member of the American Academy of Actuaries who meets the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Denise M. Jones

Senior Consultant



Sandra W. Rodwan

Member, American Academy of Actuaries

# ***City of Grosse Pointe Woods Employees Retirement System***

*Actuarial Valuation as of June 30, 2020*

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***Section One:***

***Valuation Summary***



## **Purpose of Valuation**

The purpose of the annual actuarial valuation of the City of Grosse Pointe Woods Employees Retirement System as of June 30, 2020 is to:

- ❖ Compute the liabilities associated with benefits likely to be paid on behalf of current retired and active members of the Retirement System,
- ❖ Compare accrued assets with accrued liabilities to assess the funded condition of the Retirement System, and
- ❖ Compute the City's recommended contribution rate for the Fiscal Year beginning July 1, 2021.

This valuation is exclusive of post-retirement health benefits.

## **Liabilities and Funded Condition of Retirement System**

Total accrued pension liabilities of the Retirement System as of June 30, 2020, were computed to be \$59,468,968. The funding value of accrued assets allocated to pensions was \$39,020,573. The ratio of the funding value of accrued assets allocated to pensions to accrued pensions liabilities was 65.6%.

## **Funding Value of Assets**

A funding value of assets was used for the June 30, 2020 valuation. The funding value spreads the difference between the actual and assumed investment return over 5 years.

## **Computed City Contribution Rate**

The City's normal cost contribution rate for pensions was computed to be 8.55% for General members and 13.16% for Public Safety members. Amortizing the unfunded accrued liability over 25 years resulted in an amortization payment of 25.30% of member payroll.

## **Retirement System Experience**

Overall recognized experience of the Retirement System during the year ended June 30, 2020 was unfavorable. The recognized rate of investment return on the smoothed funding value of assets was less than the assumed rate (3.14% vs. 7.50%). The smoothed funding value includes carry-forwards of positive and negative experience from the prior four years.

**Benefit Provision Changes**

There were no benefit changes included in this valuation.

**Assumption and Method Changes**

The investment return was reduced to 7.5% and the Mortality Table was changed to the Pub 2010 Tables with MP 2018.

**Participant Data**

	<b>06/30/2020</b>		<b>06/30/2019</b>	
	<b>Number</b>	<b>Payroll</b>	<b>Number</b>	<b>Payroll</b>
Active Members				
General	48	\$2,475,978	48	\$2,525,315
Public Safety	<u>29</u>	<u>2,315,131</u>	<u>26</u>	<u>2,191,285</u>
Total Active Members	77	\$4,791,109	74	\$4,716,600
Retirees and Beneficiaries				
General	48	1,062,763	51	\$982,878
Public Safety	<u>51</u>	<u>2,230,224</u>	<u>51</u>	<u>2,286,738</u>
Total Retirees and Beneficiaries	99	3,292,987	102	3,269,616
Inactive Vested Members				
General	14	\$161,188	14	\$161,188
Public Safety	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Inactive Vested Members	14	\$161,188	14	\$161,188

**Financial Data**

	<b>06/30/2020</b>	<b>06/30/2019</b>
Funding Value of Assets	\$39,020,573	\$39,610,422
Market Value of Assets	35,546,210	37,194,936





***Section Two:***

# ***Actuarial Calculations – Funding***



**Computed Contribution Rates for The Year Beginning July 1, 2021**

The contribution rates shown below are expressed as percents of active member payroll.

The normal cost can be viewed as the long-term on-going cost of the Retirement System.

The unfunded actuarial accrued liability was amortized as a level percent of payroll over 25 years. The 25 year period is the same as the period used last year to amortize the excess of accrued assets over accrued liabilities.

<u>FOR PENSIONS</u>	<u>Percents of Payroll</u>	
	<u>General</u>	<u>Public Safety</u>
Normal Cost		
Regular Retirement	10.58%	13.72%
Pre-retirement Death	0.21	0.26
Disability	0.59	3.48
Withdrawal	<u>2.21</u>	<u>1.52</u>
Total Normal Cost	13.59	18.98
Member Portion	5.04	5.82
<b>City's Computed Normal Cost</b>	<b>8.55</b>	<b>13.16</b>
Total Unfunded Accrued Liability	25.30	25.30
<b>City's Contribution Rate for Pensions</b>	<b>33.85%</b>	<b>38.46%</b>
<b>City's Dollar Contribution*</b>	<b>\$888,905</b>	<b>\$944,354</b>

\*Based on valuation payroll of \$2,475,978 and \$2,315,131 for General and Public Safety respectively, projected to mid-way through the contribution fiscal year.

**Unfunded Actuarial Accrued Liability**

	<b><u>6/30/2020</u></b>	<b><u>6/30/2019</u></b>
<b>Actuarial Accrued Liability</b>	\$59,468,968	\$55,232,024
<b>Assets Allocated to Funding</b>	<u>39,020,573</u>	<u>39,610,422</u>
<b>Unfunded Actuarial Accrued Liability</b>	\$20,448,395	\$15,621,602

**Computed City Contributions –  
(Excluding Supplemental Annuities)**

Fiscal Year Beginning July 1	Valuation Date June 30	Computed Dollar Contributions	Actual Dollar Contributions	Computed Percent of Payroll	
				General	Public Safety
2000	1999 (a)	234,977	312,475	0.00	0.00
2001	2000	44,773	306,070	0.00	0.00
2002	2001	266,451	306,000	0.00	0.00
2003	2002	534,143	534,143	0.00	0.00
2004	2003	1,019,328	1,106,564	1.40	5.74
2005	2004 (a)	1,349,607	1,220,333	8.12	12.64
2006	2005 (a)	841,374	1,306,228	12.54	15.50
2007	2006 (a)	1,016,356	1,016,356	15.21	18.59
2008	2007	1,037,161	1,115,843	14.65	17.98
2009	2008 (a)*	452,284	955,635	6.22	7.98
2010	2009	754,106#	751,202	10.56	12.26
2011	2010	786,228	712,463	12.64	14.28
2012	2011	743,380	767,521	12.55	14.25
2013	2012	891,295	888,696	15.29	16.99
2014	2013	906,319	889,829	16.12	18.14
2015	2014	843,859	925,683	16.82	19.24
2016	2015*	1,080,507	1,076,052	20.28	23.57
2017	2016	1,206,160	1,230,649	23.55	26.03
2018	2017	1,107,656	1,215,450	22.31	24.18
2019	2018	1,306,074	1,406,409	25.39	28.75
2020	2019	1,463,027		27.56	31.19
<b>2020(a)</b>	<b>2021</b>	<b>1,833,259</b>		<b>33.85</b>	<b>38.46</b>

(a) After changes in benefit provisions and/or actuarial assumptions.

\* Reflects amortization of the credit for accrued assets in excess of accrued liabilities for all valuations except 2005, 2006 and 2007 and 2009.

Prior to the fiscal year beginning July 1, 2006, contribution amounts included health insurance.

# Based on valuation payroll.

**Note:** Results prior to 2008 are based on reports provided by previous actuarial firm.

**History of Assets and Accrued Liabilities**

<b>Valuation Date June 30</b>	<b>Valuation Assets</b>	<b>Actuarial Accrued Liabilities</b>	<b>Funded Ratio</b>	<b>Unfunded Actuarial Accrued Liabilities</b>
1990	\$16,860	\$13,914	121.2%	\$(2,946)
1995	22,757	20,442	111.3	(2,135)
1996	24,251	20,354	119.1	(3,897)
1997	26,876	20,533	130.9	(6,343)
1998	30,018	22,403	134.0	(7,615)
1999 (a)	33,785	26,108	129.4	(7,677)
2000	36,943	27,097	136.3	(9,846)
2001	38,298	29,108	131.6	(9,190)
2002	37,739	30,427	124.0	(7,312)
2003	35,745	32,137	111.2	(3,608)
2004 (a)	34,404	33,804	101.8	(600)
2005 (a)	33,329	36,141	92.2	2,812
2006 (a)	33,549	36,846	91.1	3,297
2007	35,801	38,744	92.4	2,943
2008 (a)	37,728	36,310	103.9	(1,418)
2009	37,149	40,417	91.9	3,268
2010(a)	36,074	41,541	86.8	5,467
2011	37,667	42,738	88.1	5,071
2012	37,369	44,747	83.5	7,378
2013	37,171	44,950	82.7	7,779
2014	37,751	45,453	83.1	7,702
2015(a)	39,363	49,481	79.6	10,118
2016(a)	39,271	51,299	76.6	12,028
2017	40,087	50,976	78.6	10,889
2018	40,347	53,727	75.1	13,381
2019	39,610	55,232	71.7	15,622
<b>2020(a)</b>	<b>39,021</b>	<b>59,469</b>	<b>65.6</b>	<b>20,448</b>

(a) After changes in actuarial assumptions.

Results shown throughout this report for years prior to 2008 were prepared by the previous actuarial firm.

## Comments and Conclusion

**Comment 1:** The investment return was reduced to 7.5% and the Mortality Table was changed to the Pub 2010 Tables with MP 2018. The City's contribution rate would have been 30.72% of the total payroll and the funded ratio would have been 69.6% under the old assumptions.

**Comment 2:** Overall recognized experience of the Retirement System during the year ended June 30, 2020 was unfavorable. The recognized rate of investment return on the smoothed funding value of assets was less than the assumed rate (3.14% vs. 7.50%). The smoothed funding value includes carry-forwards of positive and negative experience from the prior four years.

**Conclusion:** The Retirement System is funding benefits in accordance with a sound level percent of payroll funding objective.

---

***Section Three:***

***Retirement System  
Benefit Provisions***



## Benefit Provision Summary

### ***Regular Retirement*** ***(No reduction factor for age)***

#### *Eligibility:*

General, Dispatchers/Communication Dispatcher and Public Safety members:  
Age 50 with 25 years of service, age 55 with 20 years of service, or age 60 with 10 or more years of service.

#### *Annual Benefit:*

General members - Hired prior to March 30, 2011:  
Final Average Compensation (FAC) times the sum of 2.0% times the first 25 years of service plus 1.0% times years of service in excess of 25 years.

General members - Hired after March 30, 2011:  
Final Average Compensation (FAC) times 1.75% times years of service.

Dispatchers/Communications Dispatcher – Hired prior to July 1, 2011:  
2.125% of Final Average Compensation (FAC) times service.

Dispatchers/Communications Dispatcher – Hired after July 1, 2011:  
1.75% of Final Average Compensation (FAC) times service.

Public Safety Officers and Command – Hired prior to July 1, 2011:  
2.5% of Final Average Compensation (FAC) times service to a maximum of 75% of FAC.

Public Safety Officers and Command – Hired after July 1, 2011:  
2.0% of Final Average Compensation (FAC) times service to a maximum of 75% of FAC.

#### *Type of Final Average Compensation:*

General members: Highest 4 years of compensation.

Communications Dispatcher: Highest 4 years of compensation.

Public Safety Officers: Highest 4 years of compensation.

Public Safety Command Officers: Highest 3 calendar years of compensation out of the last eight calendar years prior to retirement.

***Deferred Retirement  
(Vested benefit)***

*Eligibility:*

Any member who has 10 or more years of credited 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 Disability Retirement***

*Eligibility:*

No age or service requirements.

*Annual 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***

*Eligibility:*

10 or more years of credited service.

*Annual Benefit:*

Computed as a regular retirement.



***Duty Death in Service Survivor's Pension***

***Eligibility:***

No age or service requirements. Must be in receipt of worker's compensation.

***Annual 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.

***Annual Benefit:***

Computed as a regular retirement but actuarially reduced in accordance with a 100% joint and survivor election.

***Post-Retirement Cost-of-Living***

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.

Employees hired on or after 7/1/2016 are not eligible.

### ***Member Contributions***

General Members: 5.0% of annual compensation.

Communications Dispatcher – Hired prior to July 1, 2008: 6.0% of annual compensation

Communications Dispatcher - Hired after July 1, 2008: 5.0% of annual compensation.

Public Safety Members - Hired prior to July 1, 2007: 6.0% of annual compensation.

Public Safety - Hired on or after July 1, 2007: 5.0% of annual compensation.

### ***Annuity Withdrawal***

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.

### ***Pop-Up Provision***

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.

---

***Section Four:***

***Actuarial Assumptions  
And Methods***



## Actuarial Assumptions

### Economic Assumptions

<b>(i) Interest Rate</b>		7.50% (net of expenses)
<b>(ii) Salary Increases</b>		
	Wage Inflation	3.5%
	Merit and Longevity	Age-related rates

### Sample Annual Rates of Salary Increase

Sample Ages	Inflation	Merit and Longevity	
		General	Public Safety
20	3.5%	3.8%	3.0%
25	3.5	3.1	3.0
30	3.5	2.7	2.6
35	3.5	2.4	1.1
40	3.5	2.1	0.2
45	3.5	1.7	0.2
50	3.5	1.1	0.2
55	3.5	0.7	0.1
60	3.5	0.2	0.0

**Demographic Assumptions****(i) Mortality**

Pub-2010 Tables with MP 2018

Sample Ages	Pub 2010 Public Safety Healthy Retirees with Generational MP 2018		Pub 2010 General Healthy Retirees with Generational MP 2018	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
55	30.6	32.6	30.7	33.7
60	25.7	27.7	26.0	28.8
65	21.1	23.0	21.5	24.1
70	16.8	18.6	17.2	19.6
75	12.9	14.5	13.3	15.3
80	9.5	10.9	9.8	11.5

**(ii) Disability**

Sample Ages	Percent Becoming Disabled Within Next Year	
	General	Public Safety
20	0.04%	0.08%
25	0.04	0.15
30	0.04	0.30
35	0.04	0.49
40	0.10	0.68
45	0.15	0.87
50	0.25	1.06
55	0.49	1.26
60	1.20	1.46

**(iii) Termination of Employment**

Service-related rates for first 5 years of employment. Age related rates after first 5 years of employment

Sample Ages	Years of Service	% Separating Within One Year	
		General Members	Public Safety
ALL	0	20.00%	12.00%
	1	15.00	9.00
	2	12.00	8.00
	3	10.00	7.00
	4	8.00	6.00
25	5 & Over	6.00	4.50
30		6.00	3.90
35		5.00	2.30
40		3.00	0.90
45		2.00	0.50
50		2.00	0.50
55		1.30	0.50
60		1.30	0.50

**(iv) Retirement Rates**

## Age-related rates

**Active Members Retiring within Year  
Following Attainment of Indicated Retirement Age**

Age Retiring	% Retiring Within One Year	
	General	Public Safety
50	30%	40%
51	25	40
52	20	30
53	20	30
54	20	30
55	30	40
56	30	30
57	25	30
58	25	30
59	25	30
60	30	40
61	15	15
62	35	20
63	15	15
64	15	15
65	60	60
66	30	30
67	40	40
68	50	50
69	90	70
70	100	100

Members were assumed to be eligible for retirement after attaining age 50 with 25 years of service or age 55 with 20 years of service, or age 60 with 10 or more years of service.

### **Actuarial Method Used for the Valuation**

**Normal Cost.** Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- ❖ The annual normal costs for each individual active member, payable from date of hire to date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- ❖ Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

**Financing of Unfunded Actuarial Accrued Liability.** Unfunded actuarial accrued liabilities were amortized as a level percent of payroll over the same 25 year period used in the prior year's valuation.

Active member payroll was assumed to increase 3.5% a year.



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***Section Five:***  
***Valuation Data***



## Asset Summary

As of June 30, 2020, the market value of assets was reported to be \$35,546,210. The funding value of assets as of June 30, 2020 was \$39,020,573.

## Derivation of Funding Value of Assets

A. Funding Value 6/30/2019	\$39,610,422
B. Market Value 06/30/2020	35,546,210
C. Market Value 06/30/2019	37,194,936
D. Non-Investment Net Cash Flow	(1,805,866)
E. Investment Income	
E1. Market Total B-C-D	157,140
E2. Amount for Immediate Recognition (7.75%)	2,999,830
E3. Amount for Phased-In Recognition E1.-E2.	(2,842,690)
F. Phased-In Recognition of Investment Income	
F1. Current Year $0.20 \times E3$ .	(568,538)
F2. First Prior Year	(352,153)
F3. Second Prior Year	(165,936)
F4. Third Prior Year	188,124
F5. Fourth Prior Year	(885,310)
F6. Total Phased-In Amount	(1,783,813)
G. Funding Value 06/30/2020 $A+D+E2+F6$	39,020,573
H. Difference Between Market and Funding Value	(3,474,363)
I. Rate of Return Based on Funding Value	3.14%
J. Rate of Return on Market Value	0.42%

## Participant Summary

### Retirees and Beneficiaries Included in the Valuation

There were 99 retirees and survivor beneficiaries included in the valuation, with annual pensions totaling \$3,292,987. There was 1 new retiree added to General, along with 3 new beneficiaries. There were six retirees removed from General during the year ended June 30, 2020.

There were also 14 vested inactive members included in the valuation, with deferred pensions totaling \$161,188.

### Pensions Being Paid Historical Schedule

Valuation Date June 30	No.	Annual Pensions	Average Pension	Discounted Value of Pensions	
				Total	Average
1985	45	\$372,747	\$8,283	\$4,633,062	\$102,957
1990	53	528,200	9,966	6,226,086	117,473
1995	64	779,106	12,174	9,080,522	141,883
2000	73	1,301,569	17,830	16,145,352	221,169
2001	76	1,428,339	18,794	17,730,248	233,293
2002	76	1,475,277	19,412	18,207,960	239,578
2003	81	1,649,089	20,359	20,247,071	249,964
2004	81	1,679,714	20,737	20,285,831	250,442
2005	83	1,756,466	21,162	21,204,118	255,471
2006	83	1,838,834	22,155	22,199,981	267,470
2007	85	1,934,698	22,761	23,067,937	271,387
2008	83	1,919,668	23,129	21,966,186	264,653
2009	85	2,083,133	24,507	24,748,740	291,162
2010	94	2,465,221	26,226	28,869,449	307,122
2011	96	2,571,790	26,789	30,458,222	317,273
2012	97	2,640,806	27,225	31,413,587	323,851
2013	96	2,692,624	28,048	31,989,823	333,227
2014	102	2,907,941	28,509	34,336,412	336,631
2015	101	2,966,859	29,375	36,200,190	358,418
2016	100	3,005,426	30,054	37,377,798	373,778
2017	100	3,026,373	30,264	37,221,505	372,215
2018	100	3,208,721	32,087	39,297,434	392,974
2019	102	3,269,616	32,055	39,468,484	386,946
<b>2020</b>	<b>99</b>	<b>3,292,987</b>	<b>32,262</b>	<b>41,482,217</b>	<b>419,012</b>

**Retirees and Beneficiaries - June 30, 2020**

<b>Attained Age</b>	<b>General</b>		<b>Public Safety</b>		<b>Fire Specialist</b>		<b>Totals</b>	
	<b>No.</b>	<b>Annual Pensions</b>	<b>No.</b>	<b>Annual Pensions</b>	<b>No.</b>	<b>Annual Pensions</b>	<b>No.</b>	<b>Annual Pensions</b>
40-44			1	\$37,839			1	\$37,839
45-49			1	46,669			1	46,669
50-54	2	56,715	2	68,320	1	29,467	5	154,502
55-59	3	75,430	5	254,027			8	329,457
60-64	6	128,908	10	503,179	1	24,696	17	656,782
65-69	7	193,330	6	282,518	2	62,407	15	538,255
70-74	10	157,999	10	376,058			20	534,058
75-79	5	136,784	7	279,768			12	416,552
								-
80-84	7	117,159	6	305,057			13	422,216
85-89	3	48,034	1	26,497			4	74,531
90-94	1	31,833					1	31,833
<b>Totals</b>	<b>44</b>	<b>\$946,193</b>	<b>49</b>	<b>\$2,179,931</b>	<b>4</b>	<b>\$116,569</b>	<b>97</b>	<b>\$3,242,694</b>

Also included in the valuation are 2 alternate payees with annual benefits of \$50,292.

**General Active Members - June 30, 2020**  
**Age and Service Distribution**

Attained Age	Service							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.	Payroll
20-24	1							1	38,491
25-29	1	0						1	27,319
30-34	2	3						5	234,498
35-39	1		3					4	215,917
40-44	3	2		2	2			9	382,484
45-49	3	1			5	0		9	544,283
50-54	0	1	1		1			3	164,225
55-59	3	1		2	3	1		10	531,810
60-64		1		1			1	3	194,766
65-69		1		1				2	88,786
70-74				<u>1</u>				<u>1</u>	<u>53,399</u>
<b>Total</b>	<b>14</b>	<b>10</b>	<b>4</b>	<b>7</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>48</b>	<b>\$2,475,978</b>

**Group Averages:**

Age: 47.6 years  
Service: 11.0 years  
Annual Pay: \$51,583

**Public Safety Active Members - June 30, 2020**  
**Age and Service Distribution**

<b>Attained Age</b>	<b>Service</b>						<b>Totals</b>	
	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>No.</b>	<b>Payroll</b>
25-29	3						3	\$ 217,858
30-34	1						1	\$ 46,230
35-39	1		1	5			7	597,976
40-44		1		4	1		6	517,165
45-49	1	1		4			6	414,674
50-54	1				1	1	3	269,372
55-59					3		3	251,856
<b>Total</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>13</b>	<b>5</b>	<b>1</b>	<b>29</b>	<b>\$2,315,131</b>

**Group Averages:**

Age: 42.7 years  
Service: 14.4 years  
Annual Pay: \$79,832

**Active Members – Comparative Summary**

	<b>June 30, 2020</b>		<b>June 30, 2019</b>	
	<b>General</b>	<b>Public Safety</b>	<b>General</b>	<b>Public Safety</b>
Active Members	48	29	48	26
Valuation Payroll	\$2,475,978	\$2,315,131	\$2,525,315	\$2,191,285
Average Compensation	\$51,583	\$79,832	\$52,611	\$84,281
Average Age (yrs.)	47.6	42.7	46.4	42.2
Average Service (yrs.)	11.0	14.4	11.1	13.2



***Section Six:***

***Supplemental Annuities***



**Computed Contributions for Supplemental Annuities Beginning July 1, 2021**

<u>CONTRIBUTIONS FOR</u>	<b>City Contributions Expressed As Dollars Per Active Member</b>	
	<u>General</u>	<u>Public Safety</u>
Normal Cost	\$896	\$0
Unfunded Actuarial Accrued Liability	<u>5,056</u>	<u>645</u>
Total Per Member	\$5,952	\$645

Actuarial accrued liability, \$3,767,677 was reduced by accrued assets, \$1,907,226, and the resulting unfunded actuarial accrued liability, \$1,860,451, was amortized as level dollar payments over a period of 10 years, the same period used for the June 30, 2019 valuation.

Contributions for Public Safety are shown per active member for historical reasons; there are no active Public Safety members currently eligible. The dollar amount of the Public Safety contribution is \$18,691.



### ***Supplemental Annuities***

***Eligibility:***

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.

***Amount:***

<b>Years of Service</b>	<b>Per Month</b>
10-14	\$250.00
15-19	300.00
20-24	350.00
25 & Over	400.00

### ***Post-Retirement Adjustments***

***Eligibility:***

Retirements effective on or after July 1, 1990.

***Benefit:***

The amounts in the above table are increased 2.5% compounded each year following retirement.

### ***Post-Retirement Survivor Benefits:***

50% of the benefit is payable to the spouse of a deceased member.

### Asset Summary for Supplemental Annuities

The reported market value of assets was used for the valuation of Supplemental Annuities.

<b>Reserves</b>	<b>June 30,</b>	
	<b>2020</b>	<b>2019</b>
Total	\$1,907,226	\$1,845,211

**Supplemental Annuities Summary**

	<u>No.</u>	<u>Annual Annuities</u>	<u>Average</u>	<u>Discounted Value of Annual Annuities</u>
General	48	\$229,472	\$4,780	\$2,621,665
Public Safety	7	31,474	4,496	269,444
<b>Total</b>	<b>55</b>	<b>\$260,946</b>	<b>\$4,744</b>	<b>\$2,891,109</b>

**Historical Comparison**

<b>Valuation Date June 30</b>	<b>General</b>		<b>Public Safety</b>		<b>Computed Contribution Per Active Member</b>	
		<b>Annual Supp.</b>		<b>Annual Supp.</b>	<b>General</b>	<b>Public Safety</b>
	<b>No.</b>	<b>Annuities</b>	<b>No.</b>	<b>Annuities</b>		
2000	32	139,275	12	44,008	2,537	843
2001	33	143,957	12	44,280	2,810	801
2002	34	150,600	12	44,558	3,008	810
2003	36	158,745	12	44,843	3,282	892
2004	35	157,881	12	45,136	3,620	875
2005	35	156,979	12	43,035	3,488	850
2006	35	158,696	12	40,943	3,460	791
2007	35	161,173	12	41,257	3,563	737
2008	37	167,435	12	45,189	3,508	998
2009	38	169,675	12	43,527	3,865	946
2010	43	189,117	11	38,228	4,329	887
2011	46	202,614	10	35,965	4,836	807
2012	47	209,510	10	36,352	5,575	883
2013	47	213,202	10	36,590	5,787	945
2014	50	222,371	10	36,751	5,777	851
2015	51	231,823	9	34,504	6,392	957
2016	48	218,913	9	34,513	6,061	866
2017	48	201,049	9	34,733	5,242	754
2018	49	227,829	8	33,250	5,645	682
2019	50	235,825	8	33,582	5,407	734
<b>2020</b>	<b>48</b>	<b>229,472</b>	<b>7</b>	<b>31,474</b>	<b>5,952</b>	<b>645</b>

#Supplemental annuities discontinued for Public Safety retiring 1/1/95 and later.

A post-retirement increase provision is applicable for retirements effective on or after July 1, 1990.

***City of Grosse Pointe Woods  
Employees Retirement System***

***Actuarial Information for GASB Statements 67/68***

***June 30, 2020***

September 24, 2020

The Board of Trustees  
City of Grosse Pointe Woods Employees Retirement System  
Grosse Pointe Woods, Michigan

Dear Board Members:

This document contains actuarial information required for Plan reporting purposes pursuant to Governmental Accounting Standards Board Statements No. 67/68 effective for the Fiscal Year ended June 30, 2020.

Respectfully submitted,



Denise M. Jones  
Senior Consultant



Sandra W. Rodwan  
Member, American Academy of Actuaries

**Net Pension Liability**

The components of the net pension liability at June 30, 2020 were as follows:

Total pension liability	\$82,338,984
Plan fiduciary net position	35,546,210
City's net pension liability	\$46,792,774
Plan fiduciary net position as a percentage of the total pension liability	43.17%
Covered payroll	4,791,109
City's net pension liability as a percent of payroll	976.7%

**Actuarial assumptions.** The total pension liability was determined based on the annual actuarial valuation as of June 30, 2020. The following actuarial assumptions were applied to compute the total pension liability:

Actuarial Cost Method	Entry Age
Inflation	2.50%
Salary Increases	7.3%-3.5% (includes inflation)
Cost of living adjustments	Based on CPI, Maximum is 2.5% per year, compounded

Mortality rates were based on the Pub 2010 Mortality Tables with MP 2018.

**Discount rate.** The discount rate used to measure the total pension liability was 5.06%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that City Contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the 5.06% discount rate is the single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the actuarial present values determined in conformity with GASB 67, paragraph 44.

**Sensitivity of Discount Rate**

	<b>1% Decrease 4.06%</b>	<b>GASB 67 Computed Rate 5.06%</b>	<b>1% Increase 6.06%</b>
City's net pension liability	\$59,949,392	\$46,792,774	\$36,274,917

**Schedule of Changes in the City's Net Pension Liability and Related Ratios**

	<b>Year Ended 6/30/2020</b>
Total pension liability	
Service cost	1,381,734
Interest	4,160,628
Changes in benefit terms	-
Differences between expected and actual experience	(2,041,993)
Changes of assumptions	
Economic assumptions	431,957
Demographic assumptions	940,972
Total due to assumption changes	1,372,928
Benefit payments, including refunds of member contributions	(3,403,902)
Net change in total pension liability	\$1,469,396
 Total pension liability-beginning	 80,869,588
Total pension liability-ending (a)	\$82,338,984
 Plan fiduciary net position	
Contributions-employer	1,406,409
Contributions-member	262,296
Net investment income	157,140
Benefit payments, including refunds of member contributions	(3,403,902)
Administrative Expense	(70,669)
Other	
Net change in plan fiduciary net position	(1,648,726)
 Plan fiduciary net position-beginning	 37,194,936
Plan fiduciary net position-ending (b)	35,546,210
 City's net pension liability-ending (a)-(b)	 \$46,792,774
 Plan fiduciary net position as a percentage of the total pension liability	 43.17%
 Covered employee payroll	 \$4,791,109
 City's net pension liability as a percentage of covered employee payroll	 976.7%



**Other Required Disclosures**

Total expected remaining service lives	<b><u>6/30/2020</u></b>
Active Participants	745.6
Inactive Participants	0
(a) Total expected remaining service lives	745.6
Number of Participants	
Active	77
Retired	97
Inactive Vested	14
(b) Total	188
(c) Average of expected remaining service lives of all active and inactive participants (a)/(b)	4.0
(d1) Difference between expected and actual demographic experience	(2,041,993)
(d2) Portion allocated to expense (d1)/(c)	(510,498)
(d3) Deferred portion (d1)-(d2)	(1,531,494)
(e1) Changes in assumptions	1,372,928
(e2) Portion allocated to expense (e1)/(c)	343,232
(e3) Deferred portion (e1)-(e2)	1,029,696
(f1) Difference between expected and actual investment experience	2,655,490
(f2) Portion allocated to expense (f1)/5	531,098
(f3) Deferred portion (f1)-(f2)	2,124,392
(g) Total Deferred Portion	1,622,594

**SCHEDULE OF CITY CONTRIBUTIONS**  
**LAST 10 FISCAL YEARS**  
**(Dollar Amounts in Thousands)**  
**Year Ended June 30**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	\$1,406	\$1,215	\$1,206	\$1,081	\$843	\$906	\$891	\$743	\$786	\$754
Contributions in relation to the actuarially determined contribution	1,406	1,215	1,231	1,076	926	890	\$889	\$768	\$712	\$751
Contribution excess (deficiency)	\$0	\$0	\$25	(\$5)	\$83	(\$16)	(\$2)	\$25	(\$74)	(\$3)
Covered employee payroll	\$4,791	\$4,717	\$4,544	\$4,494	\$4,592	\$4,652	\$4,412	\$5,003	\$5,210	\$5,249
Actual contributions as a percentage of covered employee payroll	29.35%	25.76%	27.09%	23.94%	20.17%	19.13%	20.15%	15.35%	13.67%	14.31%

**Notes to Schedule**

Valuation date: Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.  
Covered employee 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, open
Remaining amortization period	25 years
Asset valuation method	5 years smoothed market
Inflation	2.50%
Salary increases	7.3% - 3.5%, including inflation, effective with the June 30, 2016 actuarial valuation
Investment rate of return	7.75%, effective with the June 30, 2016 actuarial valuation, net of pension plan investment expense, including inflation
Mortality Table	RP 2014 effective with the June 30, 2015 actuarial valuation

**Table 1**  
**Projection of Total Contributions\***  
**Assuming 25 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>25 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2020	\$59,468,968	\$39,020,573	\$20,448,395	\$1,265,986	\$567,273	\$1,833,259	\$266,895	\$2,100,154
2021	61,327,744	36,731,909	24,595,835	1,522,759	544,394	2,067,153	258,266	2,325,419
2022	63,113,247	38,047,874	25,065,373	1,551,829	521,457	2,073,286	247,497	2,320,783
2023	64,826,837	39,274,964	25,551,873	1,581,948	510,064	2,092,012	242,467	2,334,479
2024	66,518,685	40,465,922	26,052,763	1,612,959	493,886	2,106,845	234,712	2,341,557
2025	68,159,185	41,589,623	26,569,562	1,644,955	482,467	2,127,422	229,151	2,356,573
2026	69,737,264	42,634,235	27,103,029	1,677,982	467,613	2,145,595	222,864	2,368,459
2027	71,267,131	43,614,376	27,652,755	1,712,017	430,629	2,142,646	206,133	2,348,779
2028	72,625,650	44,400,507	28,225,143	1,747,454	397,126	2,144,580	191,188	2,335,768
2029	73,794,912	44,974,283	28,820,629	1,784,321	366,804	2,151,125	177,250	2,328,375
2030	74,786,264	45,348,331	29,437,933	1,822,539	339,953	2,162,492	165,192	2,327,684
2031	75,641,639	45,567,024	30,074,615	1,861,957	297,986	2,159,943	146,936	2,306,879
2032	76,266,155	45,530,660	30,735,495	1,902,873	253,514	2,156,387	127,177	2,283,564
2033	76,621,918	45,200,108	31,421,810	1,945,363	212,491	2,157,854	108,936	2,266,790
2034	76,718,574	44,586,947	32,131,627	1,989,309	185,910	2,175,219	96,890	2,272,109
2035	76,623,193	43,762,724	32,860,469	2,034,433	161,300	2,195,733	85,317	2,281,050
2036	76,338,848	42,731,495	33,607,353	2,080,673	141,658	2,222,331	75,689	2,298,020
2037	75,870,003	41,498,738	34,371,265	2,127,968	127,728	2,255,696	68,809	2,324,505
2038	75,265,514	40,116,724	35,148,790	2,176,105	114,687	2,290,792	62,103	2,352,895
2039	74,532,349	38,593,399	35,938,950	2,225,025	105,224	2,330,249	56,901	2,387,150
2040	73,684,883	36,944,433	36,740,450	2,274,647	97,977	2,372,624	52,915	2,425,539
2041	72,731,069	35,178,425	37,552,644	2,324,931	86,345	2,411,276	46,180	2,457,456
2042	71,649,765	33,273,684	38,376,081	2,375,911	77,585	2,453,496	41,363	2,494,859
2043	70,461,929	31,252,448	39,209,481	2,427,508	60,064	2,487,572	32,668	2,520,240
2044	69,126,364	29,071,756	40,054,608	2,479,831	41,948	2,521,779	23,398	2,545,177

**Table 1 (Continued)**  
**Projection of Total Contributions\***  
**Assuming 25 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>25 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2045	\$67,610,993	\$26,698,463	\$40,912,530	\$2,532,946	\$30,108	\$2,563,054	\$17,161	\$2,580,215
2046	65,962,275	24,182,369	41,779,906	2,586,646	22,543	2,609,189	13,115	2,622,304
2047	64,215,636	21,561,485	42,654,151	2,640,772	17,260	2,658,032	10,294	2,668,326
2048	62,381,106	18,846,759	43,534,347	2,695,266	12,989	2,708,255	8,013	2,716,268
2049	60,471,634	16,052,243	44,419,391	2,750,060	9,666	2,759,726	6,012	2,765,738
2050	58,500,622	13,192,445	45,308,177	2,805,086	7,232	2,812,318	4,523	2,816,841
2051	56,472,004	10,271,759	46,200,245	2,860,315	5,136	2,865,451	3,261	2,868,712
2052	54,399,777	7,305,276	47,094,501	2,915,679	3,925	2,919,604	2,548	2,922,152
2053	52,288,859	4,298,347	47,990,512	2,971,153	2,759	2,973,912	1,826	2,975,738
2054	50,148,118	1,260,543	48,887,575	3,026,691	1,824	3,028,515	1,218	3,029,733
2055	47,985,721	0	47,985,721	2,970,856	1,296	2,972,152	862	2,973,014
2056	45,813,254	0	45,813,254	2,836,356	938	2,837,294	620	2,837,914
2057	43,638,176	0	43,638,176	2,701,694	685	2,702,379	449	2,702,828
2058	41,467,430	0	41,467,430	2,567,300	442	2,567,742	304	2,568,046
2059	39,300,866	0	39,300,866	2,433,166	301	2,433,467	209	2,433,676
2060	37,150,789	0	37,150,789	2,300,052	209	2,300,261	150	2,300,411
2061	35,023,706	0	35,023,706	2,168,361	134	2,168,495	98	2,168,593
2062	32,925,860	0	32,925,860	2,038,481	91	2,038,572	73	2,038,645
2063	30,863,815	0	30,863,815	1,910,817	71	1,910,888	57	1,910,945
2064	28,843,865	0	28,843,865	1,785,760	26	1,785,786	22	1,785,808
2065	26,871,595	0	26,871,595	1,663,654	18	1,663,672	16	1,663,688
2066	24,953,272	0	24,953,272	1,544,888	11	1,544,899	9	1,544,908
2067	23,094,526	0	23,094,526	1,429,811	6	1,429,817	5	1,429,822
2068	21,300,663	0	21,300,663	1,318,751	0	1,318,751	0	1,318,751
2069	19,576,637	0	19,576,637	1,212,014	0	1,212,014	0	1,212,014

**Table 1 (Continued)**  
**Projection of Total Contributions\***  
**Assuming 25 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>25 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2070	\$17,927,137	\$0	\$17,927,137	\$1,109,891	\$0	\$1,109,891	\$0	\$1,109,891
2071	16,356,183	0	16,356,183	1,012,632	0	1,012,632	0	1,012,632
2072	14,867,129	0	14,867,129	920,443	0	920,443	0	920,443
2073	13,462,635	0	13,462,635	833,489	0	833,489	0	833,489
2074	12,144,345	0	12,144,345	751,872	0	751,872	0	751,872
2075	10,912,714	0	10,912,714	675,620	0	675,620	0	675,620
2076	9,767,053	0	9,767,053	604,690	0	604,690	0	604,690
2077	8,705,877	0	8,705,877	538,992	0	538,992	0	538,992
2078	7,727,147	0	7,727,147	478,397	0	478,397	0	478,397
2079	6,828,454	0	6,828,454	422,758	0	422,758	0	422,758
2080	6,006,892	0	6,006,892	371,894	0	371,894	0	371,894
2081	5,259,066	0	5,259,066	325,595	0	325,595	0	325,595
2082	4,581,387	0	4,581,387	283,639	0	283,639	0	283,639
2083	3,970,126	0	3,970,126	245,795	0	245,795	0	245,795
2084	3,421,407	0	3,421,407	211,824	0	211,824	0	211,824
2085	2,931,205	0	2,931,205	181,475	0	181,475	0	181,475
2086	2,495,301	0	2,495,301	154,487	0	154,487	0	154,487
2087	2,109,459	0	2,109,459	130,599	0	130,599	0	130,599
2088	1,769,470	0	1,769,470	109,550	0	109,550	0	109,550
2089	1,471,361	0	1,471,361	91,094	0	91,094	0	91,094
2090	1,211,530	0	1,211,530	75,007	0	75,007	0	75,007
2091	986,761	0	986,761	61,092	0	61,092	0	61,092
2092	794,100	0	794,100	49,164	0	49,164	0	49,164
2093	630,687	0	630,687	39,047	0	39,047	0	39,047
2094	493,731	0	493,731	30,568	0	30,568	0	30,568

**Table 1 (Continued)**  
**Projection of Total Contributions\***  
**Assuming 25 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>25 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2095	\$380,523	\$0	\$380,523	\$23,559	\$0	\$23,559	\$0	\$23,559
2096	288,406	0	288,406	17,856	0	17,856	0	17,856
2097	214,710	0	214,710	13,293	0	13,293	0	13,293
2098	156,839	0	156,839	9,710	0	9,710	0	9,710
2099	112,277	0	112,277	6,951	0	6,951	0	6,951
2100	78,689	0	78,689	4,872	0	4,872	0	4,872
2101	53,934	0	53,934	3,339	0	3,339	0	3,339
2102	36,126	0	36,126	2,237	0	2,237	0	2,237
2103	23,618	0	23,618	1,462	0	1,462	0	1,462
2104	15,060	0	15,060	932	0	932	0	932
2105	9,356	0	9,356	579	0	579	0	579
2106	5,660	0	5,660	350	0	350	0	350
2107	3,333	0	3,333	206	0	206	0	206
2108	1,911	0	1,911	118	0	118	0	118
2109	1,063	0	1,063	66	0	66	0	66
2110	573	0	573	35	0	35	0	35
2111	295	0	295	18	0	18	0	18
2112	147	0	147	9	0	9	0	9
2113	69	0	69	4	0	4	0	4
2114	31	0	31	2	0	2	0	2
2115	14	0	14	1	0	1	0	1
2116	5	0	5	0	0	0	0	0
2117	0	0	0	0	0	0	0	0
2118	0	0	0	0	0	0	0	0
2119	0	0	0	0	0	0	0	0

\*The Projection of Contributions uses the plan's actuarial valuation interest and mortality assumptions.

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2020	\$35,546,210	\$2,100,154	\$(3,456,248)	\$(70,669)	\$2,612,462	\$36,731,909
2021	36,731,909	2,325,419	(3,638,120)	(74,218)	2,702,884	38,047,874
2022	38,047,874	2,320,783	(3,810,755)	(77,739)	2,794,801	39,274,964
2023	39,274,964	2,334,479	(3,945,239)	(80,483)	2,882,201	40,465,922
2024	40,465,922	2,341,557	(4,100,077)	(83,642)	2,965,863	41,589,623
2025	41,589,623	2,356,573	(4,269,107)	(87,090)	3,044,236	42,634,235
2026	42,634,235	2,368,459	(4,415,659)	(90,079)	3,117,420	43,614,376
2027	43,614,376	2,348,779	(4,649,068)	(94,841)	3,181,261	44,400,507
2028	44,400,507	2,335,768	(4,892,597)	(99,809)	3,230,414	44,974,283
2029	44,974,283	2,328,375	(5,114,661)	(104,339)	3,264,673	45,348,331
2030	45,348,331	2,327,684	(5,287,229)	(107,859)	3,286,097	45,567,024
2031	45,567,024	2,306,879	(5,523,256)	(112,674)	3,292,687	45,530,660
2032	45,530,660	2,283,564	(5,775,716)	(117,825)	3,279,425	45,200,108
2033	45,200,108	2,266,790	(6,002,809)	(122,457)	3,245,315	44,586,947
2034	44,586,947	2,272,109	(6,163,949)	(125,745)	3,193,362	43,762,724
2035	43,762,724	2,281,050	(6,309,855)	(128,721)	3,126,297	42,731,495
2036	42,731,495	2,298,020	(6,443,790)	(131,453)	3,044,466	41,498,738
2037	41,498,738	2,324,505	(6,523,398)	(133,077)	2,949,956	40,116,724
2038	40,116,724	2,352,895	(6,586,793)	(134,371)	2,844,944	38,593,399
2039	38,593,399	2,387,150	(6,631,124)	(135,275)	2,730,283	36,944,433
2040	36,944,433	2,425,539	(6,662,482)	(135,915)	2,606,850	35,178,425
2041	35,178,425	2,457,456	(6,699,696)	(136,674)	2,474,173	33,273,684
2042	33,273,684	2,494,859	(6,711,451)	(136,914)	2,332,270	31,252,448
2043	31,252,448	2,520,240	(6,743,752)	(137,573)	2,180,393	29,071,756
2044	29,071,756	2,545,177	(6,795,630)	(138,631)	2,015,791	26,698,463

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Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2045	\$26,698,463	\$2,580,215	\$(6,796,722)	\$(138,653)	\$1,839,066	\$24,182,369
2046	24,182,369	2,622,304	(6,758,702)	(137,878)	1,653,392	21,561,485
2047	21,561,485	2,668,326	(6,706,773)	(136,818)	1,460,539	18,846,759
2048	18,846,759	2,716,268	(6,636,803)	(135,391)	1,261,410	16,052,243
2049	16,052,243	2,765,738	(6,548,974)	(133,599)	1,057,037	13,192,445
2050	13,192,445	2,816,841	(6,453,970)	(131,661)	848,104	10,271,759
2051	10,271,759	2,868,712	(6,341,151)	(129,359)	635,315	7,305,276
2052	7,305,276	2,922,152	(6,221,569)	(126,920)	419,408	4,298,347
2053	4,298,347	2,975,738	(6,090,225)	(124,241)	200,924	1,260,543
2054	1,260,543	3,029,733	(5,948,800)	(121,356)	0	0
2055	0	2,973,014	(5,794,811)	(118,214)	0	0
2056	0	2,837,914	(5,632,885)	(114,911)	0	0
2057	0	2,702,828	(5,463,998)	(111,466)	0	0
2058	0	2,568,046	(5,295,628)	(108,031)	0	0
2059	0	2,433,676	(5,115,413)	(104,354)	0	0
2060	0	2,300,411	(4,930,028)	(100,573)	0	0
2061	0	2,168,593	(4,740,158)	(96,699)	0	0
2062	0	2,038,645	(4,545,991)	(92,738)	0	0
2063	0	1,910,945	(4,348,277)	(88,705)	0	0
2064	0	1,785,808	(4,148,101)	(84,621)	0	0
2065	0	1,663,688	(3,945,315)	(80,484)	0	0
2066	0	1,544,908	(3,741,005)	(76,317)	0	0
2067	0	1,429,822	(3,535,872)	(72,132)	0	0
2068	0	1,318,751	(3,330,676)	(67,946)	0	0
2069	0	1,212,014	(3,126,094)	(63,772)	0	0



Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2070	\$0	\$1,109,891	\$(2,923,089)	\$(59,631)	\$0	\$0
2071	0	1,012,632	(2,722,674)	(55,543)	0	0
2072	0	920,443	(2,525,791)	(51,526)	0	0
2073	0	833,489	(2,333,632)	(47,606)	0	0
2074	0	751,872	(2,147,532)	(43,810)	0	0
2075	0	675,620	(1,968,653)	(40,161)	0	0
2076	0	604,690	(1,797,757)	(36,674)	0	0
2077	0	538,992	(1,635,261)	(33,359)	0	0
2078	0	478,397	(1,481,398)	(30,221)	0	0
2079	0	422,758	(1,336,495)	(27,264)	0	0
2080	0	371,894	(1,200,781)	(24,496)	0	0
2081	0	325,595	(1,074,242)	(21,915)	0	0
2082	0	283,639	(956,711)	(19,517)	0	0
2083	0	245,795	(848,068)	(17,301)	0	0
2084	0	211,824	(748,172)	(15,263)	0	0
2085	0	181,475	(656,902)	(13,401)	0	0
2086	0	154,487	(573,968)	(11,709)	0	0
2087	0	130,599	(499,020)	(10,180)	0	0
2088	0	109,550	(431,504)	(8,803)	0	0
2089	0	91,094	(370,745)	(7,563)	0	0
2090	0	75,007	(316,095)	(6,448)	0	0
2091	0	61,092	(267,040)	(5,448)	0	0
2092	0	49,164	(223,266)	(4,555)	0	0
2093	0	39,047	(184,486)	(3,764)	0	0
2094	0	30,568	(150,417)	(3,069)	0	0

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2095	\$0	\$23,559	\$(120,791)	\$(2,464)	\$0	\$0
2096	0	17,856	(95,423)	(1,947)	0	0
2097	0	13,293	(74,047)	(1,511)	0	0
2098	0	9,710	(56,377)	(1,150)	0	0
2099	0	6,951	(42,050)	(858)	0	0
2100	0	4,872	(30,682)	(626)	0	0
2101	0	3,339	(21,869)	(446)	0	0
2102	0	2,237	(15,226)	(311)	0	0
2103	0	1,462	(10,337)	(211)	0	0
2104	0	932	(6,837)	(139)	0	0
2105	0	579	(4,402)	(90)	0	0
2106	0	350	(2,751)	(56)	0	0
2107	0	206	(1,674)	(34)	0	0
2108	0	118	(991)	(20)	0	0
2109	0	66	(569)	(12)	0	0
2110	0	35	(323)	(7)	0	0
2111	0	18	(170)	(3)	0	0
2112	0	9	(88)	(2)	0	0
2113	0	4	(43)	(1)	0	0
2114	0	2	(19)	0	0	0
2115	0	1	(10)	0	0	0
2116	0	0	(5)	0	0	0
2117	0	0	0	0	0	0
2118	0	0	0	0	0	0
2119	0	0	0	0	0	0

\*From Table 1.

\*\*Assumed Mortality for Benefit Payout Projection was based on the RP 2014 Mortality Table with MP 2017.

\*\*\*Administrative expense was assumed to be 2.04% of pension payroll.

\*\*\*\*Long-term expected rate of return on pension plan investments was 7.50%.

Table 3: Actuarial Present Values of Projected Benefit Payments

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
1	\$35,546,210	\$3,456,248	\$3,456,248	\$0	\$3,215,114	\$0	\$3,289,842
2	36,731,909	3,638,120	3,638,120	0	3,148,184	0	3,296,228
3	38,047,874	3,810,755	3,810,755	0	3,067,508	0	3,286,407
4	39,274,964	3,945,239	3,945,239	0	2,954,197	0	3,238,574
5	40,465,922	4,100,077	4,100,077	0	2,855,944	0	3,203,632
6	41,589,623	4,269,107	4,269,107	0	2,766,217	0	3,175,103
7	42,634,235	4,415,659	4,415,659	0	2,661,560	0	3,125,981
8	43,614,376	4,649,068	4,649,068	0	2,606,743	0	3,132,758
9	44,400,507	4,892,597	4,892,597	0	2,551,898	0	3,138,127
10	44,974,283	5,114,661	5,114,661	0	2,481,602	0	3,122,612
11	45,348,331	5,287,229	5,287,229	0	2,386,355	0	3,072,553
12	45,567,024	5,523,256	5,523,256	0	2,318,962	0	3,055,179
13	45,530,660	5,775,716	5,775,716	0	2,255,775	0	3,041,007
14	45,200,108	6,002,809	6,002,809	0	2,180,901	0	3,008,404
15	44,586,947	6,163,949	6,163,949	0	2,083,205	0	2,940,430
16	43,762,724	6,309,855	6,309,855	0	1,983,736	0	2,865,110
17	42,731,495	6,443,790	6,443,790	0	1,884,506	0	2,785,053
18	41,498,738	6,523,398	6,523,398	0	1,774,686	0	2,683,713
19	40,116,724	6,586,793	6,586,793	0	1,666,914	0	2,579,326
20	38,593,399	6,631,124	6,631,124	0	1,561,054	0	2,471,664
21	36,944,433	6,662,482	6,662,482	0	1,459,010	0	2,363,788
22	35,178,425	6,699,696	6,699,696	0	1,364,800	0	2,262,547
23	33,273,684	6,711,451	6,711,451	0	1,271,809	0	2,157,392
24	31,252,448	6,743,752	6,743,752	0	1,188,772	0	2,063,405
25	29,071,756	6,795,630	6,795,630	0	1,114,341	0	1,979,168

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
26	\$26,698,463	\$6,796,722	\$6,796,722	\$0	\$1,036,763	\$0	\$1,884,181
27	24,182,369	6,758,702	6,758,702	0	959,036	0	1,783,432
28	21,561,485	6,706,773	6,706,773	0	885,272	0	1,684,523
29	18,846,759	6,636,803	6,636,803	0	814,917	0	1,586,691
30	16,052,243	6,548,974	6,548,974	0	748,031	0	1,490,311
31	13,192,445	6,453,970	6,453,970	0	685,748	0	1,397,979
32	10,271,759	6,341,151	6,341,151	0	626,754	0	1,307,410
33	7,305,276	6,221,569	6,221,569	0	572,032	0	1,220,995
34	4,298,347	6,090,225	4,298,347	1,791,878	367,632	786,868	1,137,673
35	1,260,543	5,948,800	1,260,543	4,688,257	100,291	2,009,522	1,057,751
36	0	5,794,811	0	5,794,811	0	2,424,424	980,762
37	0	5,632,885	0	5,632,885	0	2,300,320	907,455
38	0	5,463,998	0	5,463,998	0	2,177,990	837,867
39	0	5,295,628	0	5,295,628	0	2,060,397	772,951
40	0	5,115,413	0	5,115,413	0	1,942,684	710,699
41	0	4,930,028	0	4,930,028	0	1,827,506	651,965
42	0	4,740,158	0	4,740,158	0	1,715,104	596,675
43	0	4,545,991	0	4,545,991	0	1,605,514	544,683
44	0	4,348,277	0	4,348,277	0	1,498,963	495,909
45	0	4,148,101	0	4,148,101	0	1,395,761	450,303
46	0	3,945,315	0	3,945,315	0	1,295,780	407,668
47	0	3,741,005	0	3,741,005	0	1,199,295	367,946
48	0	3,535,872	0	3,535,872	0	1,106,426	331,026
49	0	3,330,676	0	3,330,676	0	1,017,293	296,803
50	0	3,126,094	0	3,126,094	0	931,974	265,160

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
51	\$0	\$2,923,089	\$0	\$2,923,089	\$0	\$850,613	\$236,003
52	0	2,722,674	0	2,722,674	0	773,346	209,239
53	0	2,525,791	0	2,525,791	0	700,267	184,762
54	0	2,333,632	0	2,333,632	0	631,519	162,487
55	0	2,147,532	0	2,147,532	0	567,259	142,330
56	0	1,968,653	0	1,968,653	0	507,574	124,193
57	0	1,797,757	0	1,797,757	0	452,428	107,951
58	0	1,635,261	0	1,635,261	0	401,692	93,466
59	0	1,481,398	0	1,481,398	0	355,194	80,595
60	0	1,336,495	0	1,336,495	0	312,788	69,211
61	0	1,200,781	0	1,200,781	0	274,305	59,189
62	0	1,074,242	0	1,074,242	0	239,530	50,402
63	0	956,711	0	956,711	0	208,222	42,727
64	0	848,068	0	848,068	0	180,163	36,051
65	0	748,172	0	748,172	0	155,140	30,273
66	0	656,902	0	656,902	0	132,957	25,300
67	0	573,968	0	573,968	0	113,393	21,042
68	0	499,020	0	499,020	0	96,229	17,413
69	0	431,504	0	431,504	0	81,219	14,333
70	0	370,745	0	370,745	0	68,114	11,722
71	0	316,095	0	316,095	0	56,685	9,513
72	0	267,040	0	267,040	0	46,743	7,649
73	0	223,266	0	223,266	0	38,146	6,088
74	0	184,486	0	184,486	0	30,767	4,788
75	0	150,417	0	150,417	0	24,485	3,716

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
76	\$0	\$120,791	\$0	\$120,791	\$0	\$19,192	\$2,840
77	0	95,423	0	95,423	0	14,799	2,136
78	0	74,047	0	74,047	0	11,209	1,578
79	0	56,377	0	56,377	0	8,330	1,143
80	0	42,050	0	42,050	0	6,065	812
81	0	30,682	0	30,682	0	4,319	564
82	0	21,869	0	21,869	0	3,005	382
83	0	15,226	0	15,226	0	2,042	253
84	0	10,337	0	10,337	0	1,353	164
85	0	6,837	0	6,837	0	874	103
86	0	4,402	0	4,402	0	549	63
87	0	2,751	0	2,751	0	335	38
88	0	1,674	0	1,674	0	199	22
89	0	991	0	991	0	115	12
90	0	569	0	569	0	64	7
91	0	323	0	323	0	36	4
92	0	170	0	170	0	18	2
93	0	88	0	88	0	9	1
94	0	43	0	43	0	4	0
95	0	19	0	19	0	2	0
96	0	10	0	10	0	1	0
97	0	5	0	5	0	0	0
98	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
					\$61,600,269	\$34,667,119	\$ 96,267,388

\* From Table 2.

\*\*7.50% was the assumed rate of return used to project the plan's fiduciary net position and is the discount rate used for column (f).

\*\*\*2.45% Municipal bond rate in the "Fidelity Index 20 Year GO AA Index" as of June 30, 2020.

\*\*\*\*5.06% was the single discount rate that produces a total actuarial present value that equals the sum of the actuarial present values of "funded" and "unfunded" benefit payments in columns (f) and (g).

# ***City of Grosse Pointe Woods Employees Retirement System***

## ***Supplemental Annuity***

***Actuarial Information for GASB Statements 67/68***

***June 30, 2020***





September 24, 2020

The Board of Trustees  
City of Grosse Pointe Woods Employees Retirement System  
Grosse Pointe Woods, Michigan

Dear Board Members:

This document contains actuarial information required for Plan reporting purposes pursuant to Governmental Accounting Standards Board Statements No. 67/68 effective for the Fiscal Year ended June 30, 2020.

Respectfully submitted,

A handwritten signature in black ink that reads 'Denise M. Jones'.

Denise M. Jones  
Senior Consultant

A handwritten signature in black ink that reads 'Sandra W. Rodwan'.

Sandra W. Rodwan  
Member, American Academy of Actuaries



**Net Pension Liability**

The components of the net pension liability at June 30, 2020 were as follows:

Total pension liability	\$3,783,063
Plan fiduciary net position	1,907,226
City's net pension liability	\$1,875,837
Plan fiduciary net position as a percentage of the total pension liability	50.41%
Covered payroll	\$2,475,978
City's net pension liability as a percent of payroll	75.8%

**Actuarial assumptions.** The total pension liability was determined based on the annual actuarial valuation as of June 30, 2020. The following actuarial assumptions were applied to compute the total pension liability:

Actuarial Cost Method	Entry Age
Inflation	2.50%
Salary Increases	0.00%
Cost of living adjustments	Based on CPI, Maximum is 2.5% per year, compounded

Mortality rates were based on the Publication 2010 Mortality Tables with MP 2018.

**Discount rate.** The discount rate used to measure the total pension liability was 7.46%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at rates equal to the difference between actuarially determined contributions and the member rate. Based on these assumptions, the 7.46% discount rate is the single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the actuarial present values determined in conformity with GASB 67, paragraph 44.

**Sensitivity of Discount Rate**

	<b>1% Decrease 6.46%</b>	<b>GASB 67 Computed Rate 7.46%</b>	<b>1% Increase 8.46%</b>
City's net pension liability	\$2,299,513	\$1,875,837	\$1,521,592

**Schedule of Changes in the City's Net Pension Liability and Related Ratios**

	<b>Year Ended <u>6/30/2020</u></b>
Total pension liability	
Service cost	\$51,793
Interest	272,594
Changes in benefit terms	-
Differences between expected and actual experience	(151,559)
Changes of assumptions	
Investment return assumption	(244,784)
Demographic Assumptions	46,288
Total due to assumption changes	(198,496)
Benefit payments, including refunds of member contributions	(278,103)
Net change in total pension liability	(303,771)
 Total pension liability-beginning	 4,086,834
Total pension liability-ending (a)	\$3,783,063
 Plan fiduciary net position	
Contributions-employer	335,830
Contributions-member	-
Net investment income	7,796
Benefit payments, including refunds of member contributions	(278,103)
Administrative Expense	(3,506)
Other	-
Net change in plan fiduciary net position	62,017
 Plan fiduciary net position-beginning	 1,845,209
Plan fiduciary net position-ending (b)	1,907,226
 City's net pension liability-ending (a)-(b)	 \$1,875,837
 Plan fiduciary net position as a percentage of the total pension liability	 50.41%
 Covered employee payroll	 \$2,475,978
 City's net pension liability as a percentage of covered employee payroll	 75.8%

**Additional Required Disclosures**

Total expected remaining service lives	<b><u>6/30/2020</u></b>
Active Participants	438.4
Inactive Participants	0
(a) Total expected remaining service lives	438.4
Number of Participants	
Active	48
Retired	55
Inactive Vested	0
(b) Total	103
(c) Average of expected remaining service lives of all active and inactive participants (a)/(b)	4.3
(d1) Difference between expected and actual demographic experience	(151,559)
(d2) Portion allocated to expense (d1)/(c)	(35,246)
(d3) Deferred portion (d1)-(d2)	(116,313)
(e1) Changes in assumptions	(198,496)
(e2) Portion allocated to expense (e1)/(c)	(46,162)
(e3) Deferred portion (e1)-(e2)	(152,334)
(f1) Difference between expected and actual investment experience	137,309
(f2) Portion allocated to expense (f1)/5	27,462
(f3) Deferred portion (f1)-(f2)	109,847
(g) Total Deferred Portion	(158,800)

**SCHEDULE OF CITY CONTRIBUTIONS**  
**LAST 10 FISCAL YEARS**  
**Year Ended June 30**

	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Actuarially determined contribution	\$335,830	\$311,792	\$309,953	\$300,424	\$280,573	\$318,665	\$307,006	\$272,460	\$317,224	\$271,713
Contributions in relation to the actuarially determined contribution	335,830	311,792	298,389	290,000	297,360	286,439	277,776	238,579	227,345	224,202
Contribution excess (deficiency)	\$0	\$0	(\$11,564)	(\$10,424)	\$16,787	(\$32,226)	(\$29,230)	(\$33,881)	(\$89,879)	(\$47,511)
<hr/>										
Covered employee payroll	2,475,978	2,525,337	2,231,884	2,258,831	2,347,151	\$2,358,679	\$2,196,932	\$2,626,341	\$2,636,547	\$2,769,200
Actual contributions as a percentage of covered employee payroll	13.56%	12.35%	13.37%	12.84%	12.67%	12.14%	12.64%	9.08%	8.62%	8.10%

**Notes to Schedule**

Valuation date: Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.  
Covered employee 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 Dollar
Remaining amortization period	10 years open
Asset valuation method	Market
Inflation	2.5%
Salary increases	0.0%
Investment rate of return	7.75% effective with the June 30, 2016 actuarial valuation, net of pension plan investment expense, including inflation
Mortality Table	RP 2014 effective with the June 30, 2015 actuarial valuation

**Table 1**  
**Projection of Total Contributions\***  
**Assuming 10 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>10 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2020	\$3,767,677	\$1,907,226	\$1,860,451	\$261,359	\$43,011	\$304,370	\$0	\$304,370
2021	3,522,926	2,131,244	1,391,682	195,505	40,603	236,108	0	236,108
2022	3,598,868	2,291,648	1,307,220	183,640	37,756	221,396	0	221,396
2023	3,666,840	2,437,638	1,229,202	172,680	35,925	208,605	0	208,605
2024	3,729,607	2,572,535	1,157,072	162,547	32,815	195,362	0	195,362
2025	3,781,079	2,690,460	1,090,619	153,212	31,110	184,322	0	184,322
2026	3,825,935	2,796,669	1,029,266	144,593	28,821	173,414	0	173,414
2027	3,862,082	2,889,402	972,680	136,643	25,900	162,543	0	162,543
2028	3,888,012	2,967,491	920,521	129,316	23,084	152,400	0	152,400
2029	3,901,665	3,029,121	872,544	122,576	20,811	143,387	0	143,387
2030	3,905,286	3,076,939	828,347	116,367	18,891	135,258	0	135,258
2031	3,900,996	3,113,470	787,526	110,633	16,909	127,542	0	127,542
2032	3,888,118	3,138,263	749,855	105,341	15,271	120,612	0	120,612
2033	3,867,349	3,152,288	715,061	100,453	13,927	114,380	0	114,380
2034	3,840,664	3,157,839	682,825	95,924	12,937	108,861	0	108,861
2035	3,809,703	3,156,792	652,911	91,722	11,760	103,482	0	103,482
2036	3,772,517	3,147,303	625,214	87,831	10,388	98,219	0	98,219
2037	3,728,096	3,128,510	599,586	84,231	9,222	93,453	0	93,453
2038	3,677,746	3,101,946	575,800	80,889	7,917	88,806	0	88,806
2039	3,621,532	3,067,860	553,672	77,781	6,795	84,576	0	84,576
2040	3,559,640	3,026,550	533,090	74,889	5,918	80,807	0	80,807
2041	3,492,640	2,978,740	513,900	72,193	4,722	76,915	0	76,915
2042	3,419,734	2,923,727	496,007	69,680	3,963	73,643	0	73,643
2043	3,342,894	2,863,674	479,220	67,321	3,190	70,511	0	70,511
2044	3,262,198	2,798,749	463,449	65,106	2,448	67,554	0	67,554

**Table 1 (Continued)**  
**Projection of Total Contributions\***  
**Assuming 10 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>10 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2045	\$3,175,439	\$2,726,724	\$448,715	\$63,036	\$1,830	\$64,866	\$0	\$64,866
2046	3,084,040	2,649,163	434,877	61,092	1,403	62,495	0	62,495
2047	2,990,149	2,568,414	421,735	59,246	1,118	60,364	0	60,364
2048	2,893,242	2,483,965	409,277	57,496	885	58,381	0	58,381
2049	2,794,559	2,397,170	397,389	55,826	695	56,521	0	56,521
2050	2,694,923	2,308,939	385,984	54,224	520	54,744	0	54,744
2051	2,593,666	2,218,634	375,032	52,685	371	53,056	0	53,056
2052	2,492,146	2,127,686	364,460	51,200	305	51,505	0	51,505
2053	2,390,908	2,036,706	354,202	49,759	213	49,972	0	49,972
2054	2,290,093	1,945,864	344,229	48,358	137	48,495	0	48,495
2055	2,189,514	1,854,980	334,534	46,996	94	47,090	0	47,090
2056	2,089,906	1,764,840	325,066	45,666	64	45,730	0	45,730
2057	1,991,512	1,675,705	315,807	44,365	42	44,407	0	44,407
2058	1,894,486	1,587,769	306,717	43,088	29	43,117	0	43,117
2059	1,798,365	1,500,532	297,833	41,840	22	41,862	0	41,862
2060	1,703,877	1,414,777	289,100	40,613	14	40,627	0	40,627
2061	1,611,159	1,330,647	280,512	39,407	9	39,416	0	39,416
2062	1,520,344	1,248,291	272,053	38,218	7	38,225	0	38,225
2063	1,431,567	1,167,852	263,715	37,047	7	37,054	0	37,054
2064	1,344,958	1,089,466	255,492	35,892	2	35,894	0	35,894
2065	1,260,625	1,013,251	247,374	34,751	2	34,753	0	34,753
2066	1,178,715	939,353	239,362	33,626	1	33,627	0	33,627
2067	1,099,371	867,913	231,458	32,516	0	32,516	0	32,516
2068	1,022,703	799,069	223,634	31,416	0	31,416	0	31,416
2069	948,852	732,938	215,914	30,332	0	30,332	0	30,332

**Table 1 (Continued)**  
**Projection of Total Contributions\***  
**Assuming 10 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>10 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2070	\$877,916	\$669,635	\$208,281	\$29,260	\$0	\$29,260	\$0	\$29,260
2071	809,996	609,253	200,743	28,201	0	28,201	0	28,201
2072	745,165	551,872	193,293	27,154	0	27,154	0	27,154
2073	683,487	497,543	185,944	26,122	0	26,122	0	26,122
2074	624,996	446,305	178,691	25,103	0	25,103	0	25,103
2075	569,712	398,169	171,543	24,099	0	24,099	0	24,099
2076	517,617	353,114	164,503	23,110	0	23,110	0	23,110
2077	468,691	311,106	157,585	22,138	0	22,138	0	22,138
2078	422,869	272,077	150,792	21,183	0	21,183	0	21,183
2079	380,069	235,942	144,127	20,247	0	20,247	0	20,247
2080	340,205	202,594	137,611	19,332	0	19,332	0	19,332
2081	303,171	171,932	131,239	18,437	0	18,437	0	18,437
2082	268,870	143,847	125,023	17,563	0	17,563	0	17,563
2083	237,211	118,243	118,968	16,713	0	16,713	0	16,713
2084	208,105	95,030	113,075	15,885	0	15,885	0	15,885
2085	181,478	74,130	107,348	15,080	0	15,080	0	15,080
2086	157,257	55,466	101,791	14,300	0	14,300	0	14,300
2087	135,356	38,957	96,399	13,542	0	13,542	0	13,542
2088	115,695	24,514	91,181	12,809	0	12,809	0	12,809
2089	98,160	12,017	86,143	12,101	0	12,101	0	12,101
2090	82,633	1,352	81,281	11,418	0	11,418	0	11,418
2091	68,973	0	68,973	9,689	0	9,689	0	9,689
2092	57,063	0	57,063	8,016	0	8,016	0	8,016
2093	46,763	0	46,763	6,569	0	6,569	0	6,569
2094	37,931	0	37,931	5,329	0	5,329	0	5,329



**Table 1 (Continued)**  
**Projection of Total Contributions\***  
**Assuming 10 Year Open Amortization of UAAL**

<b>Year Beg. 7/1</b>	<b>Projected Entry Age AAL</b>	<b>Projected Funding Value of Assets</b>	<b>UAAL</b>	<b>10 Year Open Amortization</b>	<b>Projected Employer Normal Cost</b>	<b>Employer Contribution</b>	<b>Employee Contribution</b>	<b>Total Contributions</b>
2095	\$30,428	\$0	\$30,428	\$4,275	0	\$4,275	\$0	\$4,275
2096	24,122	0	24,122	3,389	0	3,389	0	3,389
2097	18,876	0	18,876	2,652	0	2,652	0	2,652
2098	14,570	0	14,570	2,047	0	2,047	0	2,047
2099	11,082	0	11,082	1,557	0	1,557	0	1,557
2100	8,298	0	8,298	1,166	0	1,166	0	1,166
2101	6,108	0	6,108	858	0	858	0	858
2102	4,417	0	4,417	621	0	621	0	621
2103	3,134	0	3,134	440	0	440	0	440
2104	2,183	0	2,183	307	0	307	0	307
2105	1,491	0	1,491	209	0	209	0	209
2106	996	0	996	140	0	140	0	140
2107	652	0	652	92	0	92	0	92
2108	414	0	414	58	0	58	0	58
2109	257	0	257	36	0	36	0	36
2110	155	0	155	22	0	22	0	22
2111	91	0	91	13	0	13	0	13
2112	50	0	50	7	0	7	0	7
2113	26	0	26	4	0	4	0	4
2114	13	0	13	2	0	2	0	2
2115	6	0	6	1	0	1	0	1
2116	2	0	2	0	0	0	0	0
2117	0	0	0	0	0	0	0	0
2118	0	0	0	0	0	0	0	0
2119	0	0	0	0	0	0	0	0

\*The Projection of Contributions uses the plan's actuarial valuation interest and mortality assumptions.

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2020	\$1,907,226	\$304,370	\$(222,815)	\$(3,506)	\$145,969	\$2,131,244
2021	2,131,244	236,108	(231,927)	(3,641)	159,864	2,291,648
2022	2,291,648	221,396	(242,536)	(3,808)	170,938	2,437,638
2023	2,437,638	208,605	(250,860)	(3,939)	181,091	2,572,535
2024	2,572,535	195,362	(263,529)	(4,137)	190,229	2,690,460
2025	2,690,460	184,322	(272,170)	(4,273)	198,330	2,796,669
2026	2,796,669	173,414	(281,778)	(4,424)	205,521	2,889,402
2027	2,889,402	162,543	(291,571)	(4,578)	211,695	2,967,491
2028	2,967,491	152,400	(302,762)	(4,753)	216,745	3,029,121
2029	3,029,121	143,387	(311,381)	(4,889)	220,701	3,076,939
2030	3,076,939	135,258	(317,492)	(4,985)	223,750	3,113,470
2031	3,113,470	127,542	(323,634)	(5,081)	225,966	3,138,263
2032	3,138,263	120,612	(328,794)	(5,162)	227,369	3,152,288
2033	3,152,288	114,380	(331,698)	(5,208)	228,077	3,157,839
2034	3,157,839	108,861	(332,921)	(5,227)	228,240	3,156,792
2035	3,156,792	103,482	(335,562)	(5,268)	227,859	3,147,303
2036	3,147,303	98,219	(338,534)	(5,315)	226,837	3,128,510
2037	3,128,510	93,453	(339,878)	(5,336)	225,197	3,101,946
2038	3,101,946	88,806	(340,550)	(5,347)	223,005	3,067,860
2039	3,067,860	84,576	(340,815)	(5,351)	220,280	3,026,550
2040	3,026,550	80,807	(340,333)	(5,343)	217,059	2,978,740
2041	2,978,740	76,915	(339,933)	(5,337)	213,342	2,923,727
2042	2,923,727	73,643	(337,579)	(5,300)	209,183	2,863,674
2043	2,863,674	70,511	(334,845)	(5,257)	204,666	2,798,749
2044	2,798,749	67,554	(334,050)	(5,245)	199,716	2,726,724

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2045	\$2,726,724	\$64,866	\$(331,531)	\$(5,205)	\$194,309	\$2,649,163
2046	2,649,163	62,495	(326,702)	(5,129)	188,587	2,568,414
2047	2,568,414	60,364	(322,368)	(5,061)	182,616	2,483,965
2048	2,483,965	58,381	(316,632)	(4,971)	176,427	2,397,170
2049	2,397,170	56,521	(309,985)	(4,867)	170,100	2,308,939
2050	2,308,939	54,744	(303,924)	(4,772)	163,647	2,218,634
2051	2,218,634	53,056	(296,446)	(4,654)	157,096	2,127,686
2052	2,127,686	51,505	(288,476)	(4,529)	150,520	2,036,706
2053	2,036,706	49,972	(280,360)	(4,402)	143,948	1,945,864
2054	1,945,864	48,495	(272,481)	(4,278)	137,380	1,854,980
2055	1,854,980	47,090	(263,923)	(4,144)	130,837	1,764,840
2056	1,764,840	45,730	(255,215)	(4,007)	124,357	1,675,705
2057	1,675,705	44,407	(246,431)	(3,869)	117,957	1,587,769
2058	1,587,769	43,117	(238,239)	(3,740)	111,625	1,500,532
2059	1,500,532	41,862	(229,389)	(3,601)	105,373	1,414,777
2060	1,414,777	40,627	(220,527)	(3,462)	99,232	1,330,647
2061	1,330,647	39,416	(211,664)	(3,323)	93,215	1,248,291
2062	1,248,291	38,225	(202,810)	(3,184)	87,330	1,167,852
2063	1,167,852	37,054	(193,984)	(3,046)	81,590	1,089,466
2064	1,089,466	35,894	(185,203)	(2,908)	76,002	1,013,251
2065	1,013,251	34,753	(176,457)	(2,770)	70,576	939,353
2066	939,353	33,627	(167,756)	(2,634)	65,323	867,913
2067	867,913	32,516	(159,114)	(2,498)	60,252	799,069
2068	799,069	31,416	(150,557)	(2,364)	55,374	732,938
2069	732,938	30,332	(142,099)	(2,231)	50,695	669,635

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2070	\$669,635	\$29,260	\$(133,767)	\$(2,100)	\$46,225	\$609,253
2071	609,253	28,201	(125,578)	(1,972)	41,968	551,872
2072	551,872	27,154	(117,568)	(1,846)	37,931	497,543
2073	497,543	26,122	(109,752)	(1,723)	34,115	446,305
2074	446,305	25,103	(102,158)	(1,604)	30,523	398,169
2075	398,169	24,099	(94,820)	(1,489)	27,155	353,114
2076	353,114	23,110	(87,748)	(1,378)	24,008	311,106
2077	311,106	22,138	(80,975)	(1,271)	21,079	272,077
2078	272,077	21,183	(74,510)	(1,170)	18,362	235,942
2079	235,942	20,247	(68,373)	(1,073)	15,851	202,594
2080	202,594	19,332	(62,549)	(982)	13,537	171,932
2081	171,932	18,437	(57,040)	(896)	11,414	143,847
2082	143,847	17,563	(51,826)	(814)	9,473	118,243
2083	118,243	16,713	(46,899)	(736)	7,709	95,030
2084	95,030	15,885	(42,236)	(663)	6,114	74,130
2085	74,130	15,080	(37,834)	(594)	4,684	55,466
2086	55,466	14,300	(33,693)	(529)	3,413	38,957
2087	38,957	13,542	(29,811)	(468)	2,294	24,514
2088	24,514	12,809	(26,214)	(412)	1,320	12,017
2089	12,017	12,101	(22,890)	(359)	483	1,352
2090	1,352	11,418	(19,853)	(312)	0	0
2091	0	9,689	(17,085)	(268)	0	0
2092	0	8,016	(14,582)	(229)	0	0
2093	0	6,569	(12,337)	(194)	0	0
2094	0	5,329	(10,348)	(162)	0	0

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2095	\$0	\$4,275	\$(8,587)	\$(135)	\$0	\$0
2096	0	3,389	(7,052)	(111)	0	0
2097	0	2,652	(5,720)	(90)	0	0
2098	0	2,047	(4,583)	(72)	0	0
2099	0	1,557	(3,616)	(57)	0	0
2100	0	1,166	(2,810)	(44)	0	0
2101	0	858	(2,148)	(34)	0	0
2102	0	621	(1,615)	(25)	0	0
2103	0	440	(1,188)	(19)	0	0
2104	0	307	(857)	(13)	0	0
2105	0	209	(606)	(10)	0	0
2106	0	140	(420)	(7)	0	0
2107	0	92	(285)	(4)	0	0
2108	0	58	(189)	(3)	0	0
2109	0	36	(120)	(2)	0	0
2110	0	22	(77)	(1)	0	0
2111	0	13	(47)	(1)	0	0
2112	0	7	(28)	0	0	0
2113	0	4	(15)	0	0	0
2114	0	2	(8)	0	0	0
2115	0	1	(4)	0	0	0
2116	0	0	(2)	0	0	0
2117	0	0	0	0	0	0
2118	0	0	0	0	0	0
2119	0	0	0	0	0	0

\*From Table 1.

\*\*Assumed Mortality for Benefit Payout Projection was based on the Publication 2010 Mortality Tables with MP 2018.

\*\*\*Administrative expense was assumed to be 1.57% of pension payroll.

\*\*\*\*Long term expected rate of return on pension plan investments was 7.50%.

Table 3: Actuarial Present Values of Projected Benefit Payments

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(c)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
1	\$1,907,226	\$222,815	\$222,815	\$0	\$207,270	\$0	\$207,351
2	2,131,244	231,927	231,927	0	200,694	0	200,852
3	2,291,648	242,536	242,536	0	195,232	0	195,462
4	2,437,638	250,860	250,860	0	187,844	0	188,140
5	2,572,535	263,529	263,529	0	183,563	0	183,925
6	2,690,460	272,170	272,170	0	176,356	0	176,772
7	2,796,669	281,778	281,778	0	169,843	0	170,311
8	2,889,402	291,571	291,571	0	163,485	0	164,000
9	2,967,491	302,762	302,762	0	157,916	0	158,476
10	3,029,121	311,381	311,381	0	151,080	0	151,676
11	3,076,939	317,492	317,492	0	143,298	0	143,919
12	3,113,470	323,634	323,634	0	135,879	0	136,522
13	3,138,263	328,794	328,794	0	128,414	0	129,073
14	3,152,288	331,698	331,698	0	120,510	0	121,176
15	3,157,839	332,921	332,921	0	112,516	0	113,182
16	3,156,792	335,562	335,562	0	105,496	0	106,163
17	3,147,303	338,534	338,534	0	99,005	0	99,670
18	3,128,510	339,878	339,878	0	92,464	0	93,121
19	3,101,946	340,550	340,550	0	86,183	0	86,829
20	3,067,860	340,815	340,815	0	80,232	0	80,866
21	3,026,550	340,333	340,333	0	74,529	0	75,147
22	2,978,740	339,933	339,933	0	69,248	0	69,850
23	2,923,727	337,579	337,579	0	63,971	0	64,552
24	2,863,674	334,845	334,845	0	59,026	0	59,586
25	2,798,749	334,050	334,050	0	54,777	0	55,319

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
26	\$2,726,724	\$331,531	\$331,531	\$0	\$50,571	\$0	\$51,091
27	2,649,163	326,702	326,702	0	46,358	0	46,853
28	2,568,414	322,368	322,368	0	42,552	0	43,023
29	2,483,965	316,632	316,632	0	38,878	0	39,325
30	2,397,170	309,985	309,985	0	35,407	0	35,827
31	2,308,939	303,924	303,924	0	32,293	0	32,689
32	2,218,634	296,446	296,446	0	29,300	0	29,672
33	2,127,686	288,476	288,476	0	26,523	0	26,870
34	2,036,706	280,360	280,360	0	23,979	0	24,302
35	1,945,864	272,481	272,481	0	21,679	0	21,980
36	1,854,980	263,923	263,923	0	19,533	0	19,812
37	1,764,840	255,215	255,215	0	17,571	0	17,829
38	1,675,705	246,431	246,431	0	15,782	0	16,020
39	1,587,769	238,239	238,239	0	14,193	0	14,413
40	1,500,532	229,389	229,389	0	12,713	0	12,914
41	1,414,777	220,527	220,527	0	11,369	0	11,554
42	1,330,647	211,664	211,664	0	10,151	0	10,320
43	1,248,291	202,810	202,810	0	9,047	0	9,202
44	1,167,852	193,984	193,984	0	8,050	0	8,191
45	1,089,466	185,203	185,203	0	7,149	0	7,277
46	1,013,251	176,457	176,457	0	6,337	0	6,452
47	939,353	167,756	167,756	0	5,604	0	5,708
48	867,913	159,114	159,114	0	4,944	0	5,039
49	799,069	150,557	150,557	0	4,352	0	4,437
50	732,938	142,099	142,099	0	3,821	0	3,897

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
51	\$669,635	\$133,767	\$133,767	\$0	\$3,346	\$0	\$3,414
52	609,253	125,578	125,578	0	2,922	0	2,982
53	551,872	117,568	117,568	0	2,545	0	2,598
54	497,543	109,752	109,752	0	2,210	0	2,257
55	446,305	102,158	102,158	0	1,913	0	1,955
56	398,169	94,820	94,820	0	1,652	0	1,689
57	353,114	87,748	87,748	0	1,422	0	1,454
58	311,106	80,975	80,975	0	1,221	0	1,249
59	272,077	74,510	74,510	0	1,045	0	1,070
60	235,942	68,373	68,373	0	892	0	913
61	202,594	62,549	62,549	0	759	0	778
62	171,932	57,040	57,040	0	644	0	660
63	143,847	51,826	51,826	0	544	0	558
64	118,243	46,899	46,899	0	458	0	470
65	95,030	42,236	42,236	0	384	0	394
66	74,130	37,834	37,834	0	320	0	328
67	55,466	33,693	33,693	0	265	0	272
68	38,957	29,811	29,811	0	218	0	224
69	24,514	26,214	24,514	1,700	167	320	183
70	12,017	22,890	12,017	10,873	76	1,998	149
71	1,352	19,853	1,352	18,501	8	3,318	120
72	0	17,085	0	17,085	0	2,991	96
73	0	14,582	0	14,582	0	2,491	76
74	0	12,337	0	12,337	0	2,057	60
75	0	10,348	0	10,348	0	1,684	47



Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year	Projected Beginning Fiduciary Net Position*	Projected Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefits Payments**	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
76	\$0	\$8,587	\$0	\$8,587	\$0	\$1,364	\$36
77	0	7,052	0	7,052	0	1,094	28
78	0	5,720	0	5,720	0	866	21
79	0	4,583	0	4,583	0	677	16
80	0	3,616	0	3,616	0	522	11
81	0	2,810	0	2,810	0	396	8
82	0	2,148	0	2,148	0	295	6
83	0	1,615	0	1,615	0	217	4
84	0	1,188	0	1,188	0	156	3
85	0	857	0	857	0	110	2
86	0	606	0	606	0	76	1
87	0	420	0	420	0	51	1
88	0	285	0	285	0	34	1
89	0	189	0	189	0	22	0
90	0	120	0	120	0	14	0
91	0	77	0	77	0	9	0
92	0	47	0	47	0	5	0
93	0	28	0	28	0	3	0
94	0	15	0	15	0	2	0
95	0	8	0	8	0	1	0
96	0	4	0	4	0	0	0
97	0	2	0	2	0	0	0
98	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
					\$3,739,998	\$20,773	\$3,760,771

\* From Table 2.

\*\*7.50% was the assumed rate of return used to project the plan's fiduciary net position and is the discount rate used for column (f).

\*\*\*2.45% Municipal bond rate in the "Fidelity Index 20 Year GO AA Index" as of June 30, 2020.

\*\*\*\*7.46% was the single discount rate that produces a total actuarial present value that equals the sum of the actuarial present values of "funded" and "unfunded" benefit payments in columns (f) and (g).

**TO:** City of Grosse Pointe Woods Pension Board  
**FROM:** FEG  
**SUBJECT:** Portfolio Rebalancing to Strategic Targets  
**DATE:** November 5, 2020

**Rationale:**

The schedule below provides a summary of portfolio transactions that will rebalance the City of Grosse Pointe Woods Retirement System to the targets established in the Investment Policy Statement adopted August 6, 2020. The recommendations are based on September 30, 2020 market values:

**Exhibit 1:**

**Strategic Allocation Before Rebalancing:**

	<b><u>Current Weight</u></b>	<b><u>Target Weight</u></b>
Large Cap Equity	29.2%	30.0%
Mid Cap Equity	5.8%	5.0%
Small Cap Equity	7.5%	7.0%
International Equity	10.6%	10.0%
International Small Cap Equity	5.8%	5.0%
Emerging Markets	11.0%	10.0%
Fixed Income	17.3%	20.0%
Public Real Estate	2.9%	3.0%
Public Natural Resources	1.7%	3.0%
Low Volatility (Diversifying Strategies)	6.9%	7.0%
Cash	1.2%	0.0%
	100.0%	100.0%

**Exhibit 2:**

<b><u>Transactions:</u></b>		<b><u>Ticker:</u></b>	<b><u>\$ Amount:</u></b>	<b><u>% of Plan:</u></b>
Sell	iShares Russell Midcap Index	IWR	(314,000)	-0.8%
Sell	Vanguard S&P600 Index	VIOO	(196,000)	-0.5%
Sell	EurPacific Growth Fund	FEUPX	(236,000)	-0.6%
Sell	Templeton Instl Foreign Small Company	TFSCX	(314,000)	-0.8%
Sell	DFA Emerging Markets Fund	DFEMX	(393,000)	-1.0%
Buy	iShares S&P 500 Index	IVV	393,000	1.0%
Buy	Vanguard Total Bond Fund	VBTLX	500,000	1.3%
Buy	Dodge & Cox Income	DODIX	280,000	0.7%
Buy	DoubleLine Total Return Bond Fund	DBLTX	280,000	0.7%

**Exhibit 3:****Strategic Allocation After Rebalancing:**

	<b><u>After Rebalancing</u></b>	<b><u>Target Weight</u></b>
Large Cap Equity	30.2%	30.0%
Mid Cap Equity	5.0%	5.0%
Small Cap Equity	7.0%	7.0%
International Equity	10.0%	10.0%
International Small Cap Equity	5.0%	5.0%
Emerging Markets	10.0%	10.0%
Fixed Income	20.0%	20.0%
Public Real Estate	2.9%	3.0%
Public Natural Resources	1.7%	3.0%
Low Volatility (Diversifying Strategies)	6.9%	7.0%
Cash	1.2%	0.0%
	100.0%	100.0%



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# COMPOSITE PERFORMANCE REVIEW

Report for Periods Ending September 30, 2020

## City of Grosse Pointe Woods Employees Retirement System

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*Presented by:*

Jeffrey A. Davis, CAIA  
Vice President



# City of Grosse Pointe Woods Employees Retirement System

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Long Term Manager Performance	9-55

# THIRD QUARTER 2020 MARKET SUMMARY

*The eruption of risk-on tailwinds that started in late March prevailed during the third quarter, propelling risky asset prices higher, as investors braced for the looming November U.S. presidential election. Incoming U.S. economic data continued to surprise to the upside, sending economic surprise aggregates to their highest levels since early-2018, albeit with many measures continuing to reflect the challenging economic backdrop.*

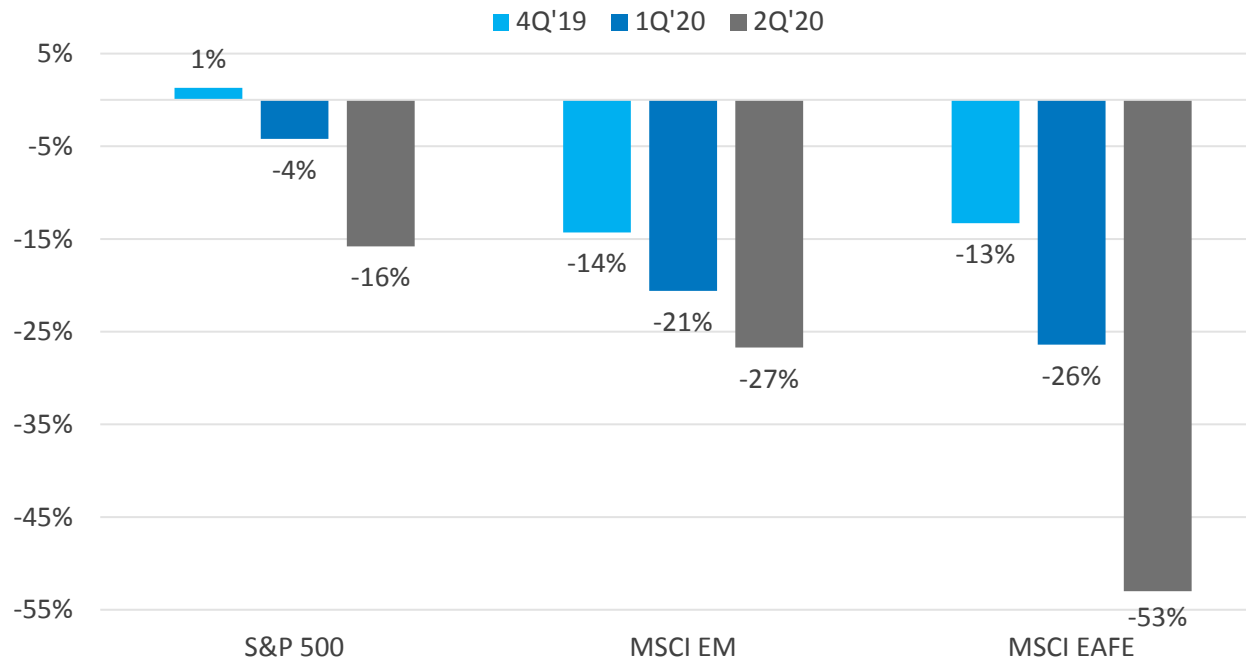
*Global equity returns were generally positive, as U.S. large cap growth equities maintained their impressive performance streak. U.S. equities outpaced developed international markets but underperformed the emerging market region, due in part to the decline in the U.S. dollar (USD). Despite the bullish sentiment, core bond returns were modestly positive, although they trailed the more risk-oriented sectors: investment-grade corporates, high yield, and bank loans. In real assets, performance for the quarter was mixed, despite an increase in inflationary sentiment and weakness in the USD. REIT returns were essentially neutral, commodities returns were positive, and energy infrastructure performance was negative.*

# MARKET INSIGHTS

- The decline in equity earnings has been global, but the declines vary across markets with the U.S. proving to be the most resilient and emerging markets declining less than some may have expected. Developed international markets have faced more sizeable declines in earnings.
- The less substantial earnings declines witnessed in the U.S. and emerging markets amid the COVID-19 pandemic helps to explain why the U.S. equity market and emerging markets have witnessed stronger performance rallies.

## THE DECLINE IN EARNINGS HAS BEEN MOST SUBSTANTIAL IN DEVELOPED INTERNATIONAL MARKETS

Trailing 12-month YoY Earnings Growth of the S&P 500, MSCI EAFE, and MSCI Indices



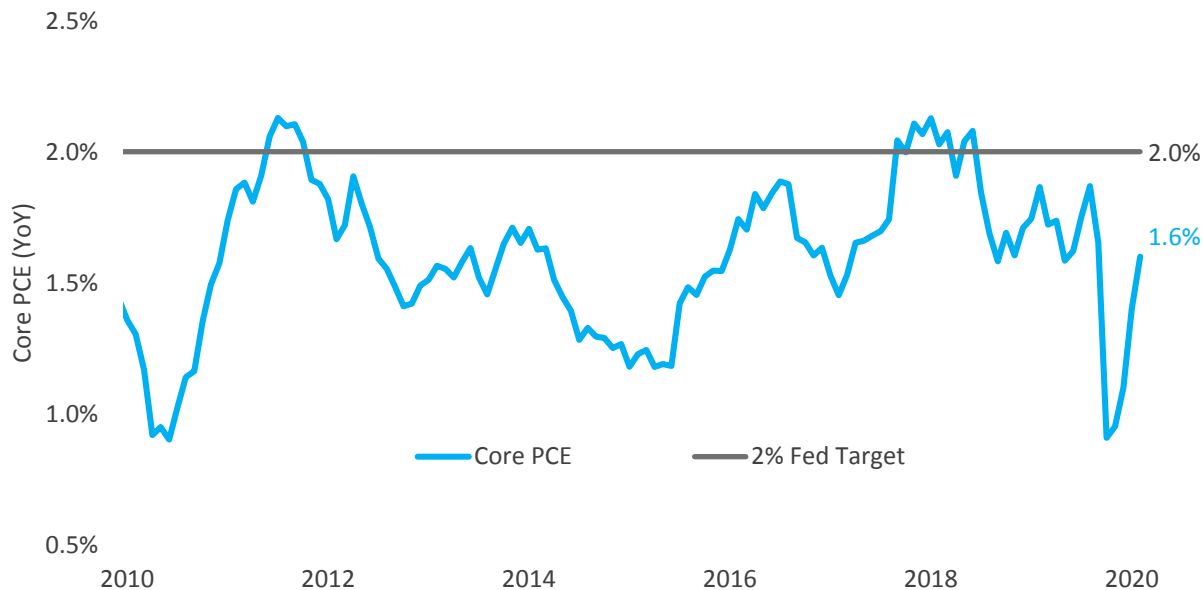
Data sources: Standard & Poor's, MSCI, and Strategas

# ECONOMIC INSIGHTS

- At the Federal Reserve's (Fed) virtual annual Jackson Hole Symposium in late August, Chairman Powell announced changes to the Fed's management of their inflation mandate. This represents a potentially material change to their adjustment of policy rates during periods of significant trend deviations from the Fed's 2% inflation target.
- In essence, the Fed has increased their flexibility around the management of short-term policy rates if/when annual inflation rates finally rise above the stated 2% target. In the future, the Fed is likely to allow inflation to run "hotter" than the targeted 2%, before adjusting policy rates higher to regain lost ground on their inflation mandate following the disinflationary forces due to COVID-19.

## U.S. INFLATION HAS BEEN BELOW THE FED'S TARGET OVER THE LAST DECADE

U.S. Core Personal Consumption Expenditure, YoY Change (%)

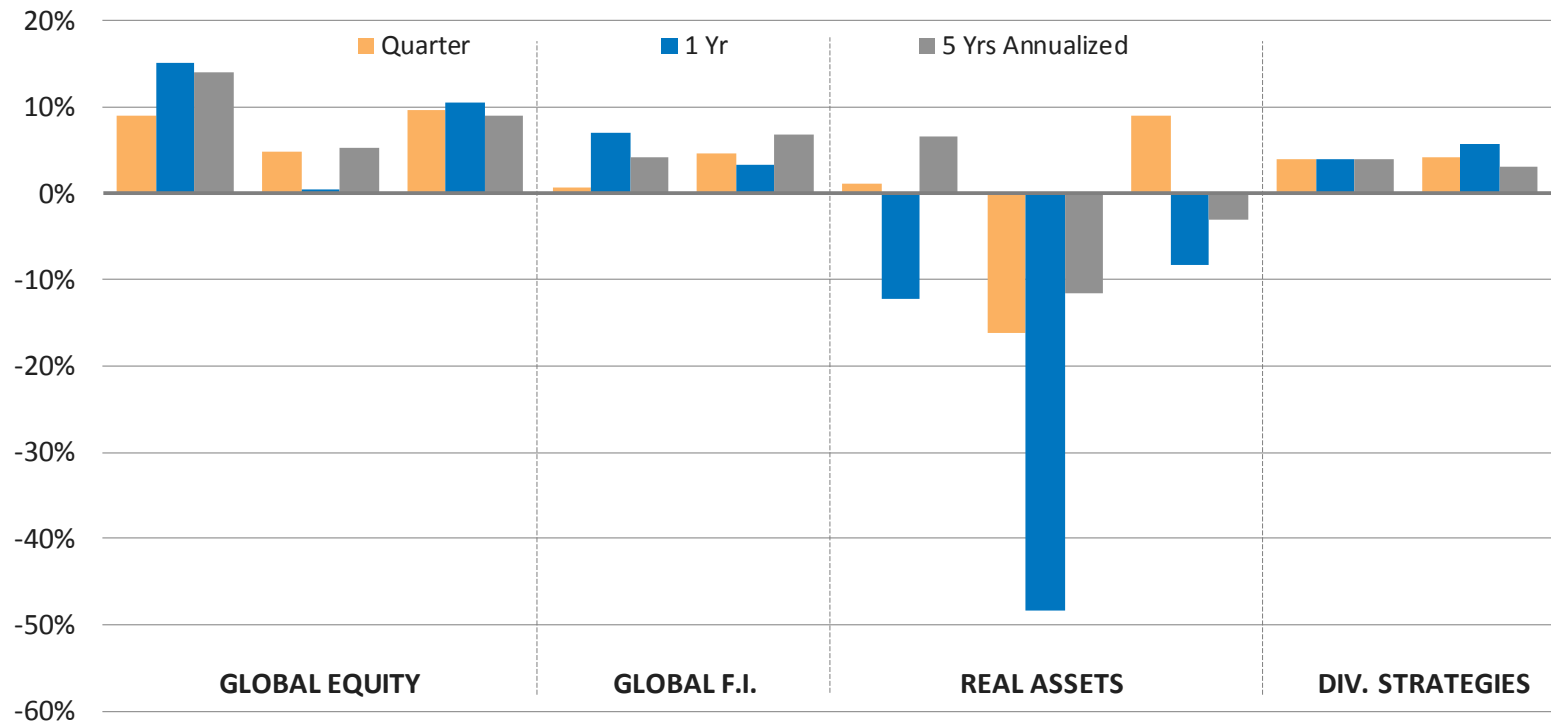


Data sources: BEA, Bloomberg, L.P.; Data as of August 2020



# MARKET RETURNS

## MAJOR ASSET CLASS RETURNS



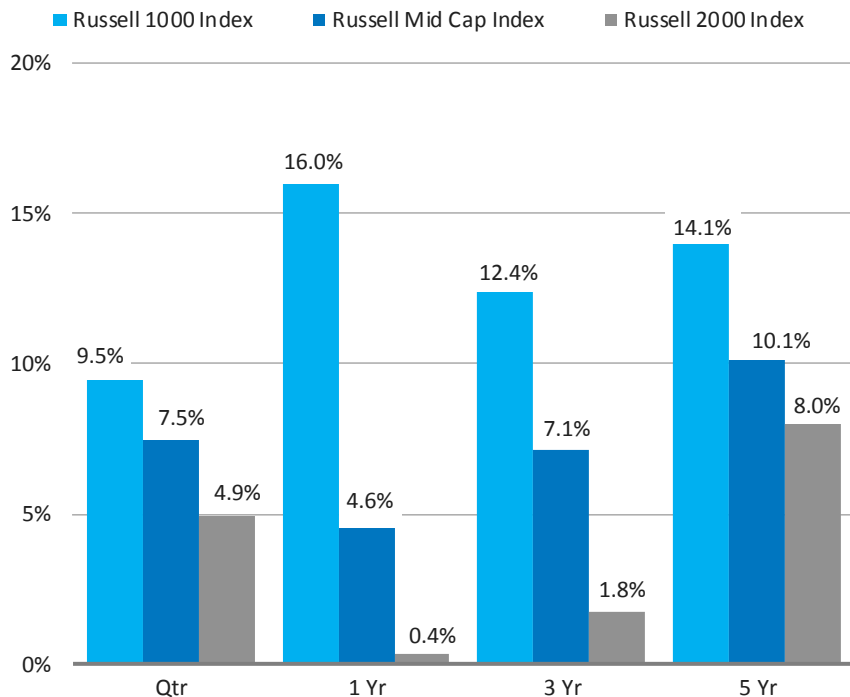
Quarter	8.9%	4.8%	9.6%	0.6%	4.6%	1.2%	-16.3%	9.1%	4.1%	4.2%
1 Yr	15.1%	0.5%	10.5%	7.0%	3.3%	-12.2%	-48.4%	-8.2%	4.0%	5.6%
5 Yrs Annualized	14.1%	5.3%	9.0%	4.2%	6.8%	6.6%	-11.6%	-3.1%	4.0%	3.1%

Data sources: Lipper and HedgeFund Research

# GLOBAL EQUITY, U.S.

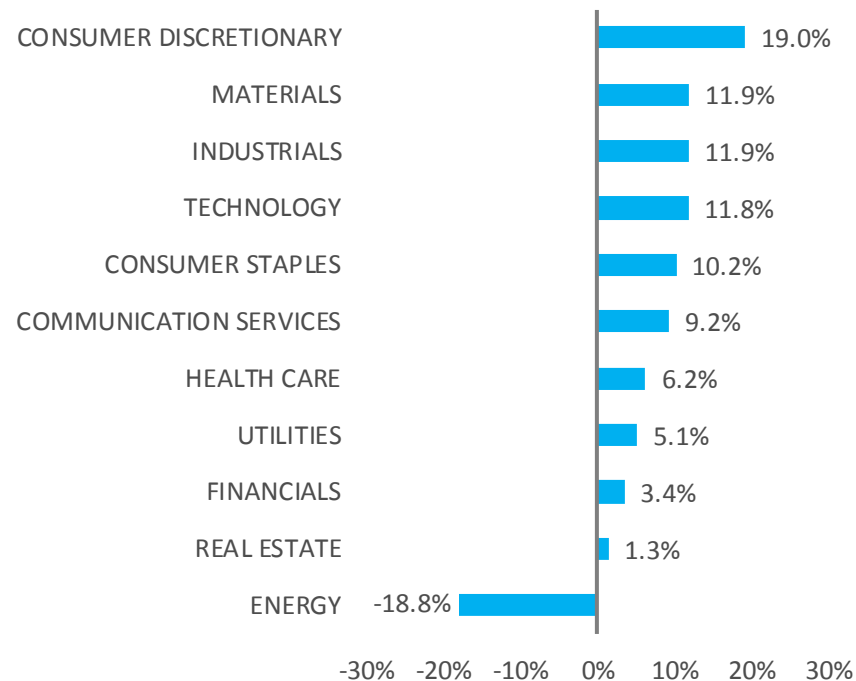
- In the U.S., stocks rallied due to a rise in heightened consumer confidence exhibited in consumer spending data, elevated industrial production, and a decline in the unemployment rate from the peak witnessed in April 2020. The S&P 500 Index set a record in August, surpassing the February 2020 high, prior to the full global spread of the COVID-19 pandemic.
- For the quarter, the U.S. saw broad strength across sectors, with cyclical sectors performing well with the gradual resumption of economic activity. The lone exception to positive performance was energy, which continued to face pressure from both the demand and supply sides. The Permian, shale producers, and global producers such as Russia, Brazil, and Saudi Arabia continue to produce at levels in excess of current market demand.

## LARGE CAP, MID CAP, AND SMALL CAP



Data source: Russell

## RUSSELL 3000 SECTOR PERFORMANCE

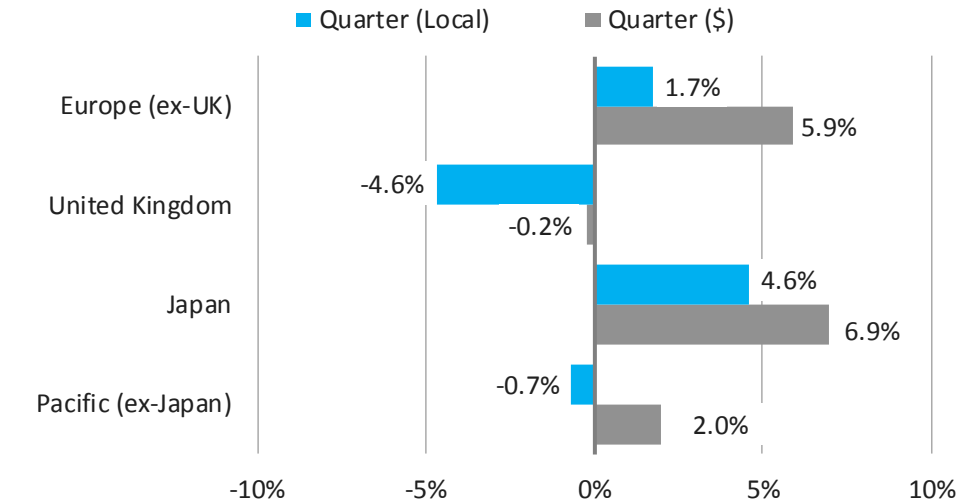


Data source: Russell

# GLOBAL EQUITY, NON-U.S.

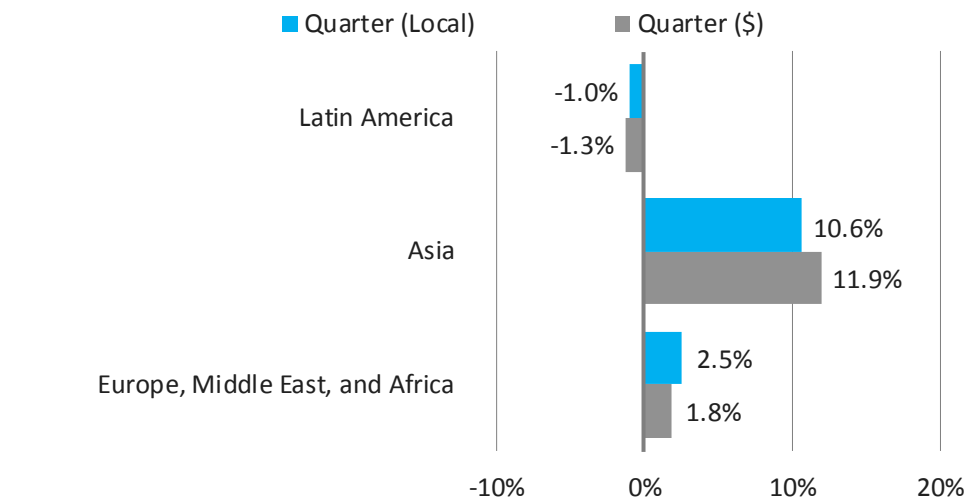
- Growth in European economies—most notably Spain and France—stalled in the quarter, as lockdown measures were reinstated in the wake of increased hospitalization rates due to COVID-19. This move affected business activity and weighed on equity markets.
- The UK also lagged other regions, due in part to lingering Brexit concerns as opposed to what had been the myopic focus on COVID-19. Japanese equities fared well, as there were positive surprises in the quarterly earnings reporting, as well as positive industrial production data.
- Although performance varied, emerging markets performed best globally. India was the best performing market, as the Indian government advanced key agriculture and labor reforms. Chinese equities also had a strong quarter due to positive gross domestic product growth in the second quarter.
- Weakness occurred in Turkey and Thailand, which suffered negative double-digit returns primarily due to lira weakness and increases in COVID-19 cases, respectively.

## MSCI EAFE REGIONAL QUARTERLY RETURNS



Data source: MSCI Barra

## MSCI EM REGIONAL QUARTERLY RETURNS



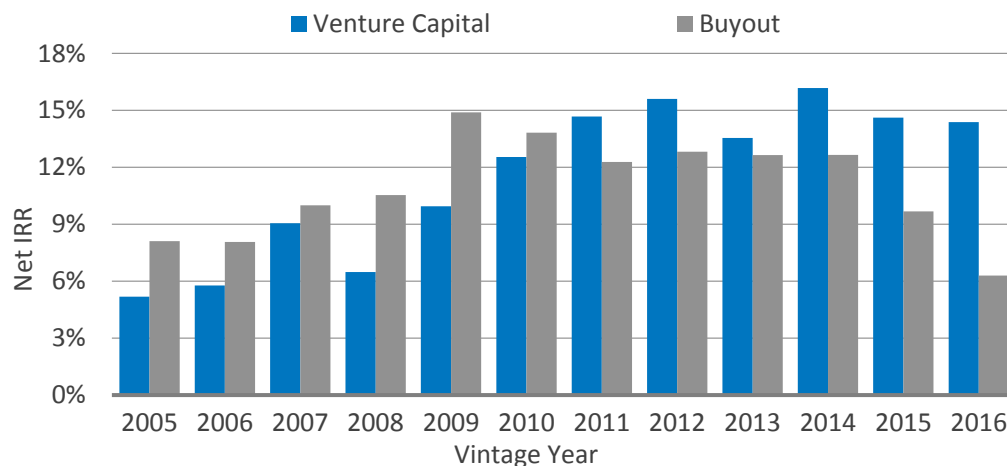
Data source: MSCI Barra

# GLOBAL EQUITY, PRIVATE

- Private equity reports performance on a lag and is available through March 31, 2020. The last three weeks of the first quarter was a time of significant volatility in both the financial markets and the economy, as society began reacting to COVID-19.
- Median private equity returns for both venture capital and buyout funds have generally been in the low- to mid-teens since the 2010 vintage years. Buyout funds outperformed during the 2000s, while median venture funds from the following decade's vintage years have performed better than buyout.
- Commitments to private equity funds were off to a strong start in the first quarter, though were mixed through the end of September. Venture funds are on track to exceed 2019's fundraising level, while fundraising for buyout funds dropped.
- Venture-backed initial-public-offerings through September have already exceed last year's level, with the active life science sector playing an integral role in the number. Buyout-backed IPOs are off last year's pace.

## MEDIAN VENTURE CAPITAL AND BUYOUT VINTAGE YEAR IRR

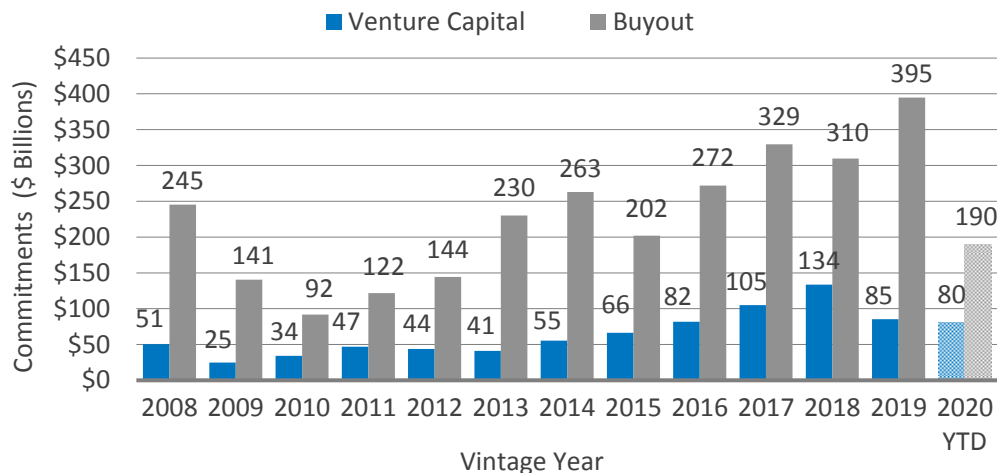
As of March 31, 2020



Data source: Pitchbook; The most recent private equity return information available is through March 31, 2020

## VENTURE CAPITAL AND BUYOUT FUNDRAISING ACTIVITY

As of September 30, 2020

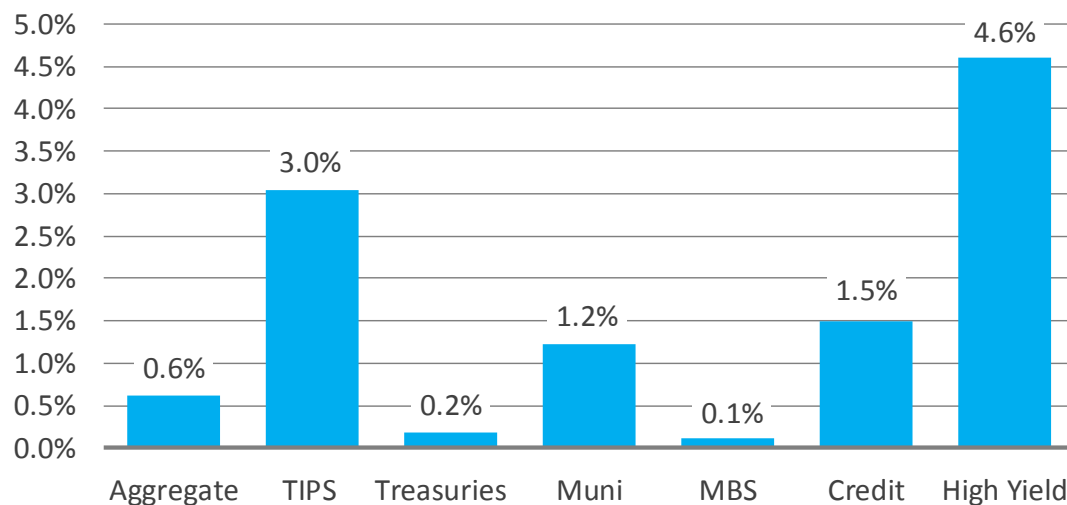


Data source: Pitchbook

# GLOBAL FIXED INCOME

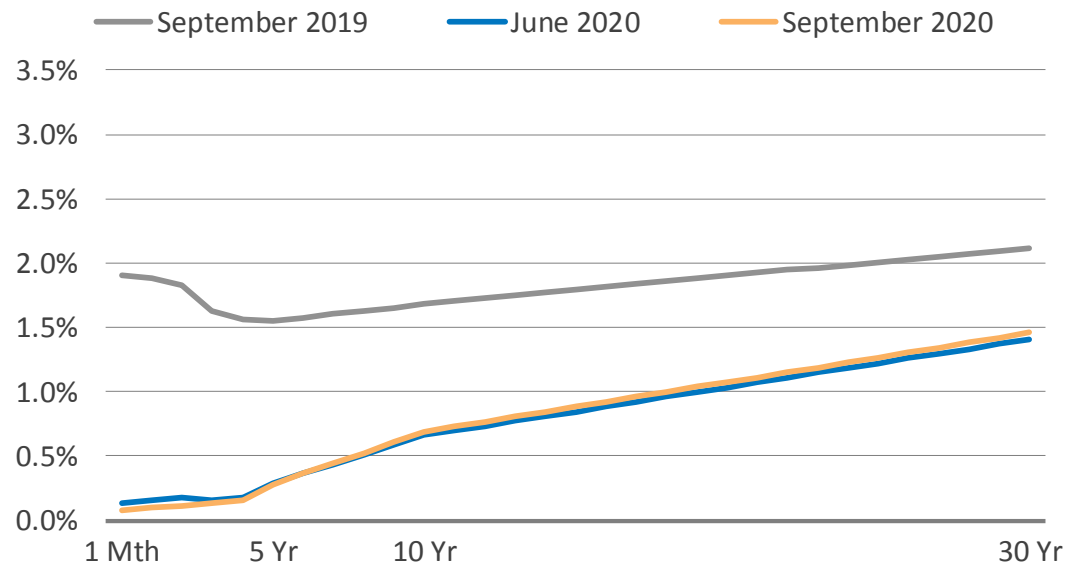
- After a relatively muted second quarter, the Fed returned to the headlines this quarter, announcing major changes to inflation policy with a shift towards “average inflation targeting” in August, followed in September by a commitment to keeping the federal funds rate at zero through 2023.
- Risk-on sentiment continued to prevail across fixed income markets in the third quarter. The Fed’s ongoing support of credit markets, accompanied by investors’ search for yield in a low rate environment, buoyed those markets. Investment-grade corporate credit spreads have generally returned to levels witnessed in January 2020, though high yield spreads remain relatively elevated.
- Strong demand has supported issuance in corporate credit markets across both investment-grade and high yield issuers. Within credit, default rates continue to rise as a result of a decline in earnings and increased borrowing.
- Securitized credit markets continued their rebound through the quarter, even through September, when corporate credit markets declined.

## BLOOMBERG BARCLAYS U.S. FIXED INCOME INDEX RETURNS



Data source: Barclays

## U.S. TREASURY YIELD CURVE

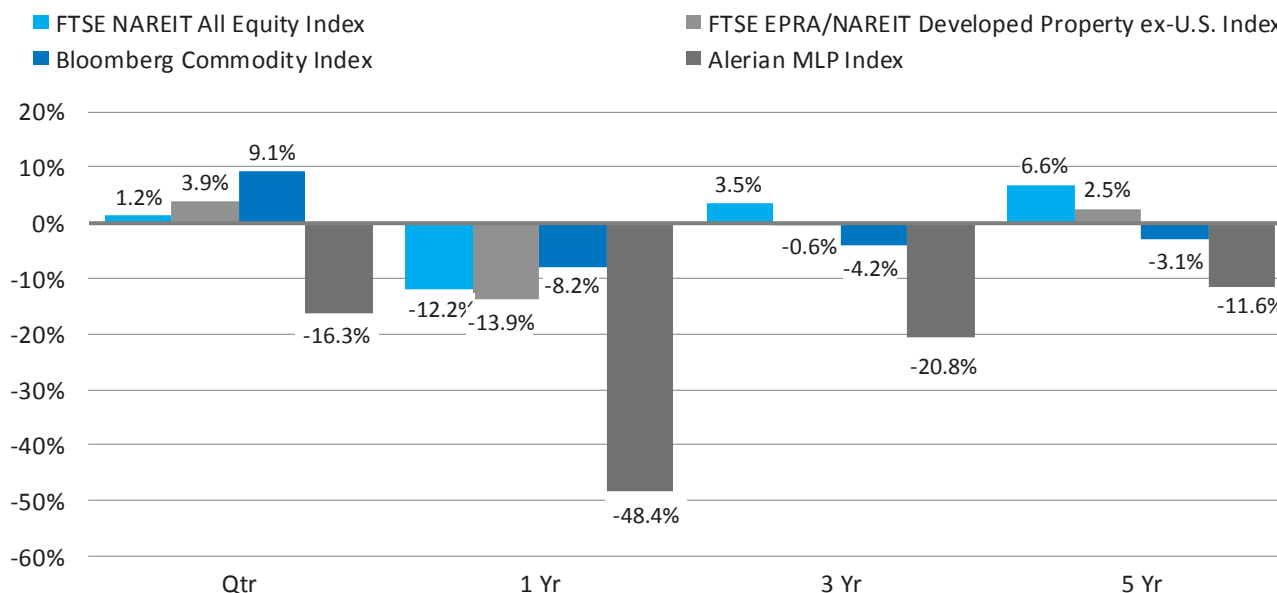


Data source: Bloomberg, L.P.

# REAL ASSETS

- REITs showed some signs of improvement over a volatile quarter, with large uplifts in both data centers and industrial property types, in keeping with the trend for 2020. As COVID-19 concerns and uncertainty continue to permeate, retail, shopping centers, and office continued to show poor performance, while property types supporting the digital economy continued to perform well.
- Daily WTI oil spot prices averaged ~\$40 per barrel in the third quarter and have fluctuated within a narrow band of about \$38-\$43 since June 2020. While that is a significant rise from the multiyear low seen in April, uncertainty remains in the market. Global oil demand has recovered to approximately 93 million barrels per day, which is aiding price stabilization.
- MLPs, as measured by the Alerian MLP Total Return Index, suffered double-digit declines as the industry adjusts to changing flows resulting from reduced production and demand limited by the gradual economic recovery.

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



Data sources: NAREIT, Bloomberg, L.P., and Alerian

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending September 30, 2020

	Annualized							Since Inception	Date	Market Value
	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr			
<b>Total Composite</b>	<b>6.2%</b>	<b>0.3%</b>	<b>6.5%</b>	<b>4.3%</b>	<b>6.7%</b>	<b>5.3%</b>	<b>6.7%</b>	<b>5.6%</b>	1/05	\$39,299,332
Target Weighted Index <sup>1</sup>	4.8	-1.0	5.1	4.2	6.8	5.2	6.0	6.0		
Broad Policy Index <sup>2</sup>	5.9	3.5	10.0	6.9	8.7	6.9	7.3	6.4		
Actuarial 7.75%	1.9	5.8	7.8	7.8	7.8	7.8	7.8	7.8		
<b>Domestic Equity</b>										
<b>iShares S&amp;P 500 Index</b>	<b>8.9</b>	<b>5.6</b>	<b>15.1</b>	<b>12.2</b>	<b>14.1</b>	-	-	<b>11.1</b>	8/14	11,493,924
S&P 500 Index	8.9	5.6	15.1	12.3	14.1	-	-	11.1		
S&P 500 Equal Weighted Index	6.2	-6.3	0.3	4.3	8.1	-	-	5.6		
<b>iShares Russell Midcap Index</b>	<b>7.4</b>	<b>-2.5</b>	<b>4.4</b>	<b>7.0</b>	<b>10.0</b>	-	-	<b>8.2</b>	9/14	2,277,584
Russell Midcap Index	7.5	-2.3	4.6	7.1	10.1	-	-	8.3		
<b>Small Cap Equity</b>										
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>3.2</b>	<b>-15.1</b>	<b>-8.2</b>	-	-	-	-	<b>-4.7</b>	8/19	2,950,462
S&P SmallCap 600 Index	3.2	-15.2	-8.3	-	-	-	-	-4.8		
<b>International Equity</b>										
<b>EuroPacific Growth Fund</b>	<b>9.6</b>	<b>4.3</b>	<b>14.8</b>	<b>5.6</b>	<b>9.0</b>	-	-	<b>6.5</b>	9/14	4,158,277
MSCI AC World Index ex-US	6.3	-5.4	3.0	1.2	6.2	-	-	2.9		
<b>Templeton Inst'l Foreign Smaller Co.</b>	<b>12.8</b>	<b>-4.9</b>	<b>4.2</b>	<b>0.1</b>	<b>5.5</b>	-	-	<b>4.0</b>	9/14	2,279,988
MSCI Small Cap EAFE Index	10.3	-4.2	6.8	1.4	7.4	-	-	6.2		
<b>RWC Global Emerging Equity Fund</b>	<b>9.1</b>	<b>0.0</b>	<b>11.2</b>	-	-	-	-	<b>-5.2</b>	2/18	1,467,992
<b>DFA Emerging Markets Fund</b>	<b>8.6</b>	<b>-5.3</b>	<b>4.9</b>	<b>0.6</b>	<b>7.7</b>	-	-	<b>2.6</b>	9/14	2,851,526
MSCI Emerging Markets Index	9.6	-1.2	10.5	2.4	9.0	-	-	3.7		
<b>Fixed Income</b>										
<b>Dodge &amp; Cox Income Fund</b>	<b>1.5</b>	<b>6.8</b>	<b>7.7</b>	-	-	-	-	<b>9.2</b>	2/19	2,374,913
Bloomberg Barclays IG Credit Index	1.1	7.7	8.5	-	-	-	-	11.6		
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	-	-	-	-	9.2		
<b>DoubleLine Total Return Bond Fund</b>	<b>1.0</b>	<b>3.7</b>	<b>3.5</b>	-	-	-	-	<b>5.6</b>	2/19	2,152,584
Bloomberg Barclays US MBS Index	0.1	3.6	4.4	-	-	-	-	5.9		
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	-	-	-	-	9.2		
<b>Vanguard Total Bond Fund</b>	<b>0.6</b>	<b>7.0</b>	<b>7.0</b>	-	-	-	-	<b>9.4</b>	2/19	2,276,715
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	-	-	-	-	9.2		

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending September 30, 2020

	Annualized									
	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Date	Market Value
<u>Low Volatility</u>										
Gateway Fund	3.2%	0.7%	4.3%	-	-	-	-	1.9%	8/18	\$1,551,952
PIMCO All Asset Fund	2.5	-3.3	0.8	-	-	-	-	3.9	11/18	1,166,980
HFRX Equity Hedge Index	3.6	-2.9	-0.4	-	-	-	-	1.6		
<u>Real Estate</u>										
Principal Real Estate Securities Fund	2.6	-11.3	-10.9	4.8	6.6	-	-	7.6	9/14	1,158,460
FTSE NAREIT Equity REIT Index	1.4	-17.5	-18.2	0.2	3.9	-	-	4.9		
FTSE NAREIT All Equity Index	1.2	-12.3	-12.2	3.5	6.6	-	-	6.8		
<u>Natural Resources</u>										
Tortoise MLP & Pipeline Fund	-11.2	-41.8	-41.2	-16.1	-	-	-	-15.0	8/17	665,558
Alerian MLP Index	-16.3	-46.2	-48.4	-20.8	-	-	-	-20.1		
Tortoise North American Pipeline Index	-7.5	-32.8	-31.8	-9.3	-	-	-	-8.5		
<u>Cash</u>										
Schwab Government Money Fund	0.0	0.2	0.5	1.1	0.7	-	-	0.6	7/14	472,417
U.S. 91-Day Treasury Bills	0.0	0.3	0.7	1.5	1.1	-	-	0.9		



# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending September 30, 2020

	Annualized									
	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Date	Market Value
<u>Long Term Manager Performance</u>										
<u>Domestic Equity</u>										
iShares S&P 500 Index	8.9%	5.6%	15.1%	12.2%	14.1%	12.6%	13.7%	9.1%	1/05	
S&P 500 Index	8.9	5.6	15.1	12.3	14.1	12.7	13.7	9.1		
S&P 500 Equal Weighted Index	6.2	-6.3	0.3	4.3	8.1	7.5	9.9	7.1		
iShares Russell Midcap Index	7.4	-2.5	4.4	7.0	10.0	9.2	11.6	8.9	1/05	
Russell Midcap Index	7.5	-2.3	4.6	7.1	10.1	9.4	11.8	9.1		
Vanguard S&P Small Cap 600 Index	3.2	-15.1	-8.2	-0.3	7.2	6.4	10.5	10.5	9/10	
S&P SmallCap 600 Index	3.2	-15.2	-8.3	-0.3	7.2	6.5	10.6	10.6		
<u>International Equity</u>										
EuroPacific Growth Fund	9.6	4.3	14.8	5.6	9.0	6.6	6.7	5.8	8/08	
MSCI AC World Index ex-U.S.	6.3	-5.4	3.0	1.2	6.2	3.2	4.0	3.0		
Templeton Inst'l Foreign Smaller Co.	12.8	-4.9	4.2	0.1	5.5	3.9	6.1	7.1	1/05	
MSCI Small Cap EAFE Index	10.3	-4.2	6.8	1.4	7.4	5.7	7.3	6.2		
RWC Global Emerging Equity Fund	11.5	1.3	12.8	0.3	12.0	7.8	-	8.4	7/12	
MSCI Emerging Markets Index	9.6	-1.2	10.5	2.4	9.0	3.7	-	4.0		
DFA Emerging Markets Fund	8.6	-5.3	4.9	0.6	7.7	2.9	2.2	6.7	1/05	
MSCI Emerging Markets Index	9.6	-1.2	10.5	2.4	9.0	3.7	2.5	7.1		
<u>Fixed Income</u>										
Dodge & Cox Income Fund	1.5	6.8	7.7	5.5	5.2	4.6	4.4	5.0	1/05	
Bloomberg Barclays IG Credit Index	1.1	7.7	8.5	6.3	5.7	5.3	5.0	5.1		
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	4.0	3.6	4.4		
DoubleLine Total Return Bond Fund	1.0	3.7	3.5	3.8	3.3	3.7	4.6	5.4	4/10	
Bloomberg Barclays US MBS Index	0.1	3.6	4.4	3.7	3.0	3.2	3.0	3.2		
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	4.0	3.6	4.0		
Vanguard Total Bond Fund	0.6	7.0	7.0	5.3	4.2	3.9	3.6	4.3	1/05	
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	4.0	3.6	4.4		

# City of Grosse Pointe Woods Employees Retirement System

## Summary of Investment Performance

Report for Periods Ending September 30, 2020

	Annualized									
	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Date	Market Value
<u>Low Volatility</u>										
Gateway Fund	3.2%	0.7%	4.3%	3.0%	5.0%	4.6%	4.8%	4.1%	1/05	
PIMCO All Asset Fund	2.5	-3.3	0.8	2.1	5.9	3.1	4.0	4.9	1/05	
HFRX Equity Hedge Index	3.6	-2.9	-0.4	0.0	1.6	1.4	0.7	0.6		
<u>Real Estate</u>										
Principal Real Estate Securities Fund	2.6	-11.3	-10.9	4.8	6.6	8.5	9.6	8.6	1/05	
FTSE NAREIT Equity REIT Index	1.4	-17.5	-18.2	0.2	3.9	6.1	7.9	6.9		
FTSE NAREIT All Equity Index	1.2	-12.3	-12.2	3.5	6.6	7.7	9.2	7.7		
<u>Natural Resources</u>										
Tortoise MLP & Pipeline Fund	-11.2	-41.8	-41.2	-16.1	-6.1	-6.4	-	-0.4	5/11	
Alerian MLP Index	-16.3	-46.2	-48.4	-20.8	-11.6	-11.9	-	-5.8		
Tortoise North American Pipeline Index	-7.5	-32.8	-31.8	-9.3	-0.6	-1.6	-	-		
<u>Cash</u>										
Schwab Government Money Fund	0.0	0.2	0.5	1.1	0.7	0.5	0.3	1.1	1/05	
U.S. 91-Day Treasury Bills	0.0	0.3	0.7	1.5	1.1	0.8	0.6	1.2		

### 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: 30.0% 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, 10.0% MSCI Emerging Markets Index, 20.0% Bloomberg Barclays US Aggregate Index, 3.0% Alerian MLP Index, 3.0% FTSE NAREIT All Equity Index, and 7.0% 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 Barclays US Aggregate Index.

<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	29.2%	30.0%	5.0% - 35.0%
Mid Cap Equity	5.8%	5.0%	0.0% - 15.0%
Small Cap Equity	7.5%	7.0%	5.0% - 30.0%
International Equity	10.6%	10.0%	5.0% - 25.0%
International Small Cap Equity	5.8%	5.0%	0.0% - 15.0%
Emerging Markets	11.0%	10.0%	5.0% - 20.0%
Fixed Income	17.3%	20.0%	5.0% - 30.0%
Public Real Estate	2.9%	3.0%	0.0% - 10.0%
Public Natural Resources	1.7%	3.0%	0.0% - 10.0%
Low Volatility	6.9%	7.0%	0.0% - 20.0%
Cash	1.2%	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	iShares S&P 500 Index	100.0%	0.0%	\$11,493,924	29.2%
Mid Cap Equity - Broad	iShares Russell Midcap Index	100.0%	0.0%	\$2,277,584	5.8%
Small Cap Equity - Broad	Vanguard S&P Small Cap 600 Index	100.0%	0.0%	\$2,950,462	7.5%
International Equity - Core	EuroPacific Growth Fund	100.0%	0.0%	\$4,158,277	10.6%
International Small Cap Equity - Core	Templeton Inst'l Foreign Smaller Co.	100.0%	0.0%	\$2,279,988	5.8%
Emerging Markets - Core	DFA Emerging Markets Fund	100.0%	0.0%	\$2,851,526	7.3%
Emerging Markets - Growth	RWC Global Emerging Equity Fund	100.0%	0.0%	\$1,467,992	3.7%
Fixed Income - Core	Dodge & Cox Income Fund	100.0%	0.0%	\$2,374,913	6.0%
Fixed Income - Core	Vanguard Total Bond Fund	100.0%	0.0%	\$2,276,715	5.8%
Fixed Income - Core Plus	DoubleLine Total Return Bond Fund	100.0%	0.0%	\$2,152,584	5.5%
Public Real Estate - Equity	Principal Real Estate Securities Fund	100.0%	0.0%	\$1,158,460	2.9%
Public Natural Resources - MLP	Tortoise MLP & Pipeline Fund	100.0%	0.0%	\$665,558	1.7%
Low Volatility - Liquid	Gateway Fund	100.0%	0.0%	\$1,551,952	3.9%
Low Volatility - Tactical	PIMCO All Asset Fund	100.0%	0.0%	\$1,166,980	3.0%
Cash - Cash	Schwab Government Money Fund	100.0%	0.0%	\$472,417	1.2%
<b>Total</b>				<b>\$39,299,332</b>	<b>100.0%</b>

# City of Grosse Pointe Woods Employees Retirement System

## Investment Metrics

Report for Periods Ending September 30, 2020

Statistical Measures	Sharpe Ratio	Standard Deviation	Tracking Error	Information Ratio
<b>Total Composite</b>	<b>0.5</b>	<b>12.0%</b>	<b>2.2%</b>	<b>-0.9</b>
Target Weighted Index	0.5	11.5	1.7	-0.1
Broad Policy Index	0.7	11.0	0.0	--

Asset Growth Summary (in thousands)	Qtr	YTD
Beginning Market Value	\$ 37,276	\$ 40,610
Net Contributions/(Distributions)	\$ (261)	\$ (1,319)
<b>Market Appreciation/(Depreciation)</b>	<b>\$ 2,284</b>	<b>\$ 8</b>
<b>Ending Market Value</b>	<b>\$ 39,299</b>	<b>\$ 39,299</b>

\* Risk Statistics are based on monthly data.

\* Target Weighted Index is currently comprised of: 30.0% 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, 10.0% MSCI Emerging Markets Index, 20.0% Bloomberg Barclays US Aggregate Index, 3.0% Alerian MLP Index, 3.0% FTSE NAREIT All Equity Index, and 7.0% 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 Barclays US Aggregate Index.

# City of Grosse Pointe Woods Employees Retirement System

## iShares S&P 500 Index

### Summary of Performance and Statistics

Report For Periods Ending September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
<b>iShares S&amp;P 500 Index</b>	<b>8.9%</b>	<b>5.6%</b>	<b>15.1%</b>	<b>12.2%</b>	<b>14.1%</b>	<b>12.6%</b>	<b>13.7%</b>	<b>9.1%</b>	<b>1/05</b>
S&P 500 Index	8.9	5.6	15.1	12.3	14.1	12.7	13.7	9.1	
S&P 500 Equal Weighted Index	6.2	-6.3	0.3	4.3	8.1	7.5	9.9	7.1	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>iShares S&amp;P 500 Index</b>	<b>1.00</b>	<b>0.0%</b>	<b>1.00</b>	<b>17.0%</b>	<b>0.0%</b>	<b>-1.7</b>
S&P 500 Index	1.00	0.0	1.00	17.0	0.0	--
S&P 500 Equal Weighted Index	1.10	-7.3	0.95	18.3	4.3	1.4

Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover
<b>iShares S&amp;P 500 Index</b>	<b>26.3</b>	<b>3.6</b>	<b>452,977.0M</b>	<b>1.8%</b>	<b>--%</b>
S&P 500 Index	26.3	3.6	452,977.0	1.8	--
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 September 30, 2020

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

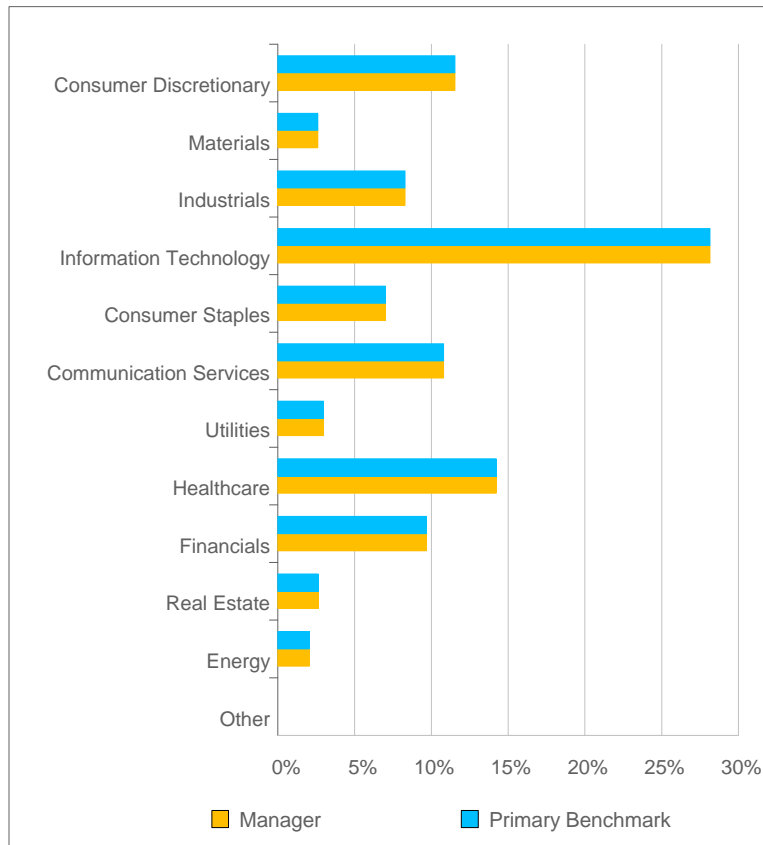
# City of Grosse Pointe Woods Employees Retirement System

## iShares S&P 500 Index

### Equity Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Consumer Discretionary	12%	12%	15.1%	28.9%
Materials	3	3	13.3	12.2
Industrials	8	8	12.5	1.3
Information Technology	28	28	12.0	47.2
Consumer Staples	7	7	10.4	7.8
Communication Services	11	11	8.9	18.4
Utilities	3	3	6.1	-5.0
Healthcare	14	14	5.9	20.1
Financials	10	10	4.5	-11.9
Real Estate	3	3	1.9	1.9
Energy	2	2	-19.7	-45.2
Other	0	0	-	-

#### Top Five Holdings

	Weighting
APPLE INC	6.5%
MICROSOFT CORP	5.6
AMAZON COM INC	4.8
FACEBOOK CLASS A INC	2.3
ALPHABET INC CLASS A	1.6

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.

\* 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.

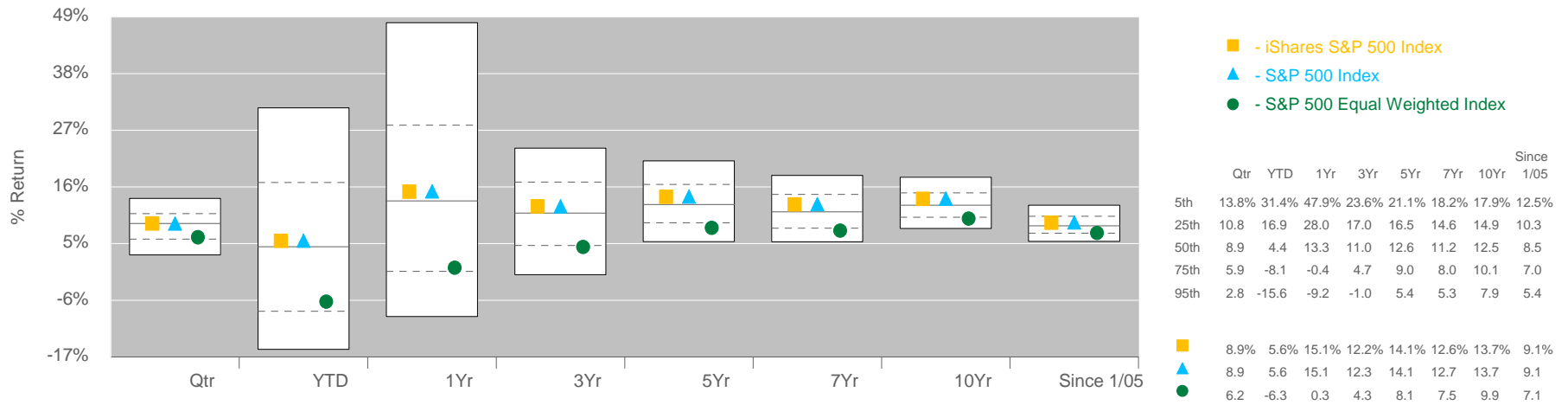


# City of Grosse Pointe Woods Employees Retirement System

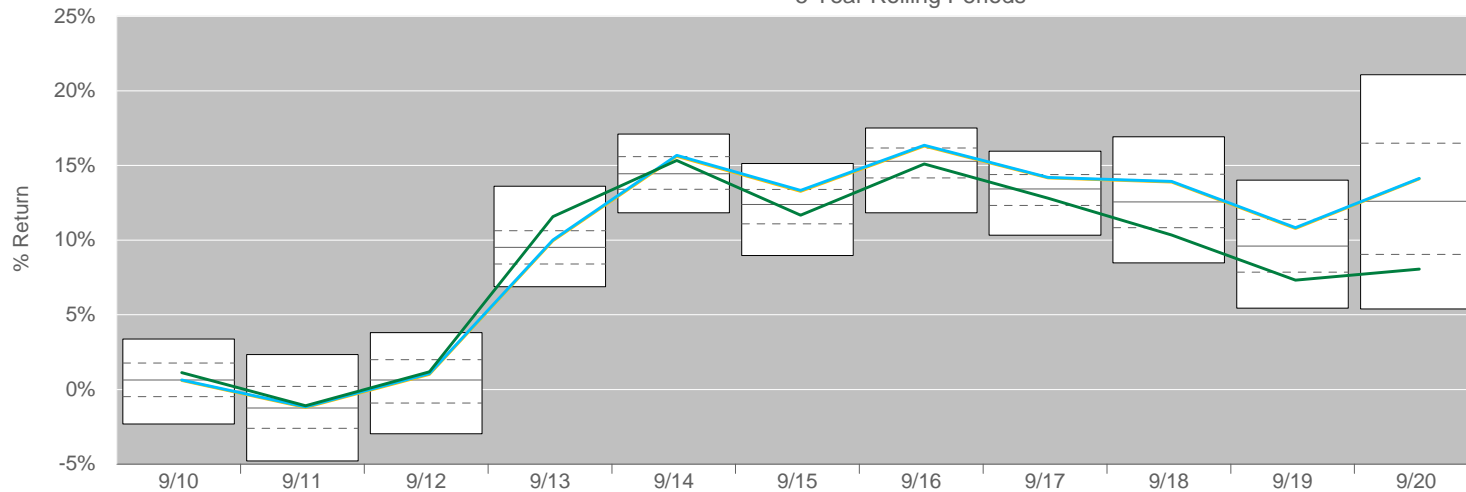
## iShares S&P 500 Index

### Broad Large Cap Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2005 to September 30, 2020  
5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## iShares Russell Midcap Index

### Summary of Performance and Statistics

Report For Periods Ending September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
iShares Russell Midcap Index	7.4%	-2.5%	4.4%	7.0%	10.0%	9.2%	11.6%	8.9%	1/05
Russell Midcap Index	7.5	-2.3	4.6	7.1	10.1	9.4	11.8	9.1	
Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio			
iShares Russell Midcap Index	1.00	-0.2%	1.00	19.3%	0.1%	-2.6			
Russell Midcap Index	1.00	0.0	1.00	19.3	0.0	--			
Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover				
iShares Russell Midcap Index	23.7	2.9	17,297.0M	1.8%	--%				
Russell Midcap Index	23.7	2.9	17,297.0	1.8	--				

\* 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 September 30, 2020

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

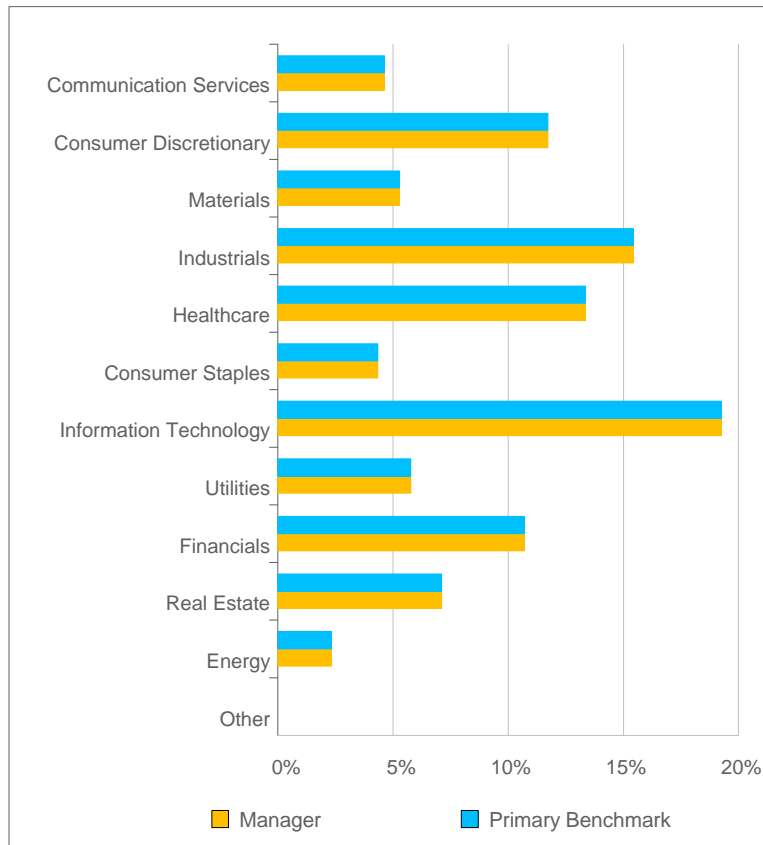
# City of Grosse Pointe Woods Employees Retirement System

## iShares Russell Midcap Index

### Equity Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Communication Services	5%	5%	15.5%	14.2%
Consumer Discretionary	12	12	14.7	8.6
Materials	5	5	12.9	9.4
Industrials	15	15	11.9	7.3
Healthcare	13	13	9.1	31.9
Consumer Staples	4	4	6.8	7.5
Information Technology	19	19	6.2	26.2
Utilities	6	6	4.3	-11.1
Financials	11	11	2.4	-15.3
Real Estate	7	7	0.3	-19.6
Energy	2	2	-15.6	-45.5
Other	0	0	-	-

#### Top Five Holdings

	Weighting
Docusign	0.5%
Veeva Systems Inc	0.5
Lululemon Athletica Inc	0.5
Xcel Energy Inc	0.5
Chipotle Mexican Grill	0.4

Number of Holdings: 821

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

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

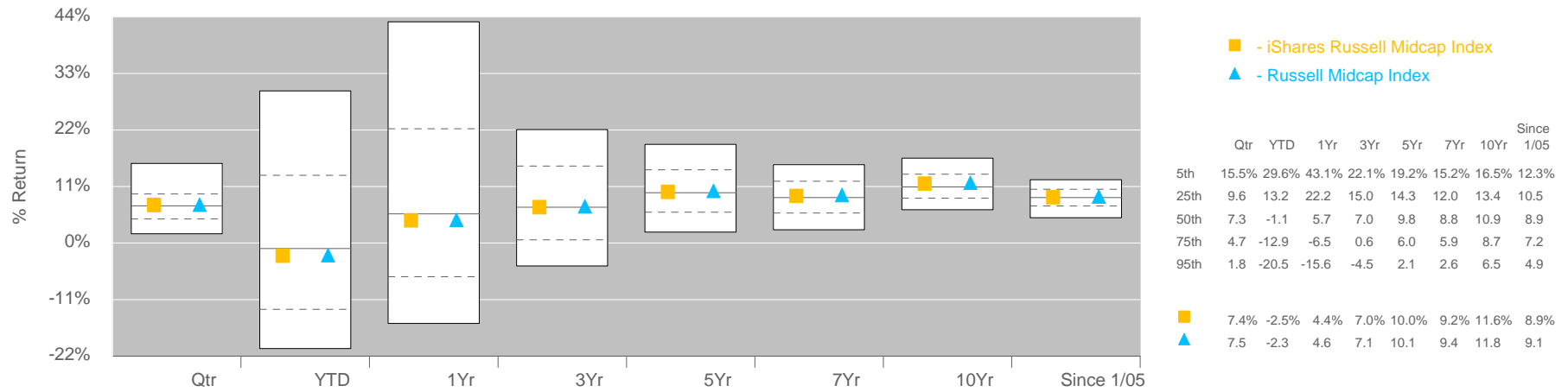
\* Effective fourth quarter 2018, Telecommunication Services was replaced by Communication Services by the Global Industry Classification Standard (GICS). Some members of Consumer Discretionary, Technology, and Telecommunication Services were reclassified as Communication Services.

# City of Grosse Pointe Woods Employees Retirement System

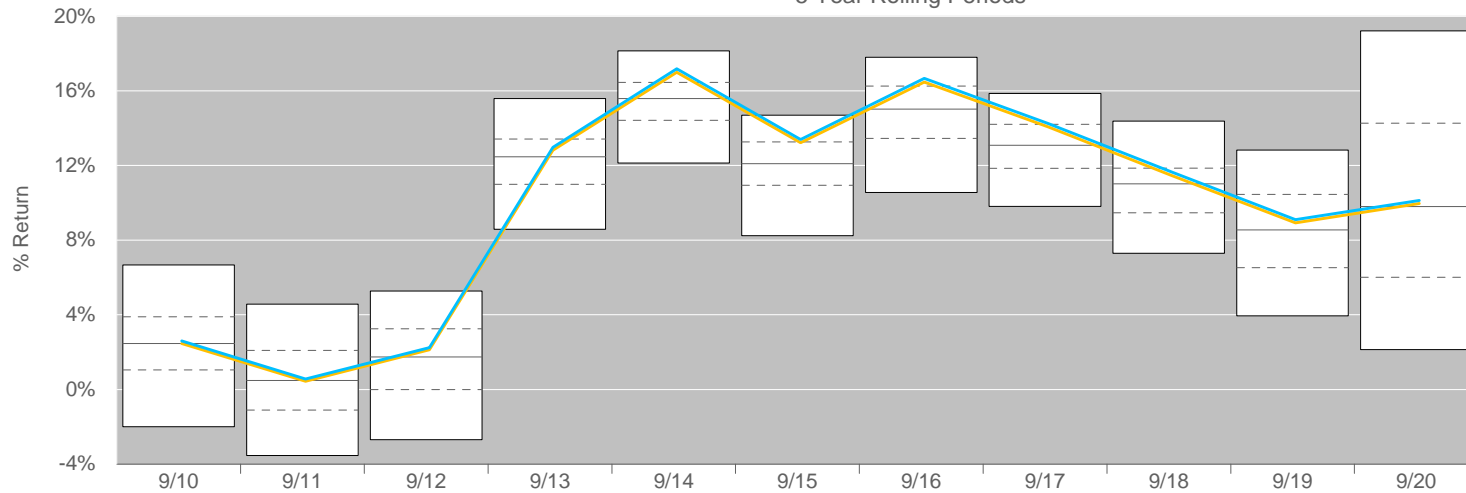
## iShares Russell Midcap Index

### Broad Mid Cap Universe

For Report Periods Ending September 30, 2020



### Report From September 30, 2005 to September 30, 2020 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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>3.2%</b>	<b>-15.1%</b>	<b>-8.2%</b>	<b>-0.3%</b>	<b>7.2%</b>	<b>6.4%</b>	<b>10.5%</b>	<b>10.5%</b>	<b>9/10</b>
S&P SmallCap 600 Index	3.2	-15.2	-8.3	-0.3	7.2	6.5	10.6	10.6	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>1.00</b>	<b>0.0%</b>	<b>1.00</b>	<b>22.3%</b>	<b>0.1%</b>	<b>-0.2</b>
S&P SmallCap 600 Index	1.00	0.0	1.00	22.3	0.0	--

Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover
<b>Vanguard S&amp;P Small Cap 600 Index</b>	<b>15.1</b>	<b>1.5</b>	<b>1,843.0M</b>	<b>1.8%</b>	<b>--%</b>
S&P SmallCap 600 Index	15.1	1.5	1,843.0	1.8	--

\* 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 September 30, 2020

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

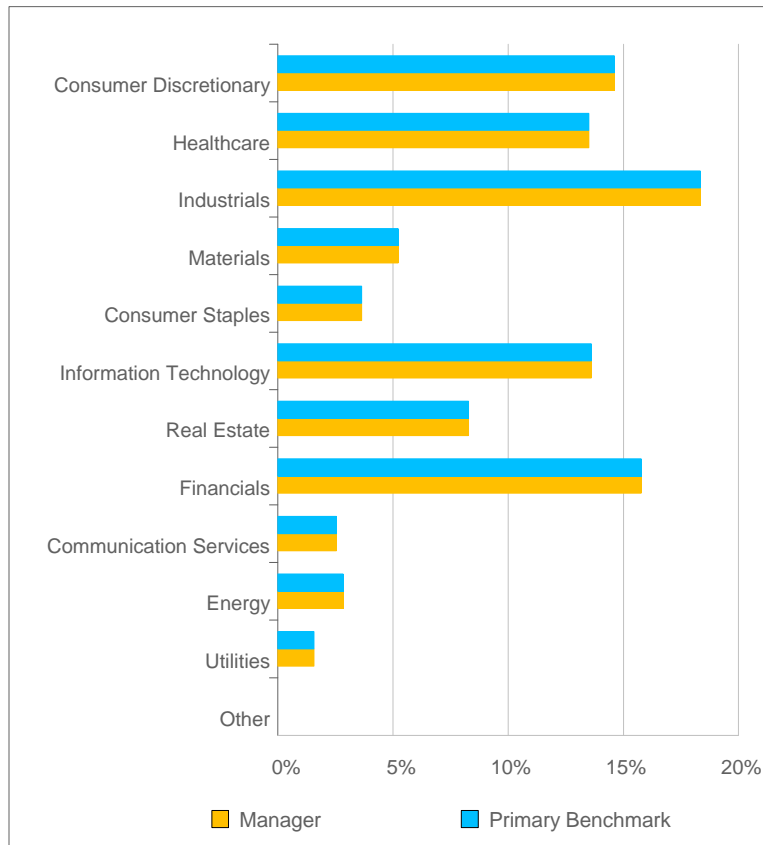
# City of Grosse Pointe Woods Employees Retirement System

## Vanguard S&P Small Cap 600 Index

### Equity Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Consumer Discretionary	15%	15%	14.4%	6.2%
Healthcare	14	14	9.2	16.8
Industrials	18	18	6.5	-5.9
Materials	5	5	2.1	-9.8
Consumer Staples	4	4	1.6	1.2
Information Technology	14	14	-0.6	0.7
Real Estate	8	8	-1.4	-1.4
Financials	16	16	-3.6	-26.1
Communication Services	3	3	-5.9	-0.1
Energy	3	3	-9.7	-56.3
Utilities	2	2	-10.0	-22.6
Other	0	0	-	-

#### Top Five Holdings

	Weighting
STAMPS.COM INC	0.7%
MERITAGE CORP	0.6
KINSALE CAPITAL GROUP	0.6
NEOGENOMICS INC	0.6
SIMPSON MANUFACTURING	0.6

Number of Holdings: 601

\* 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.

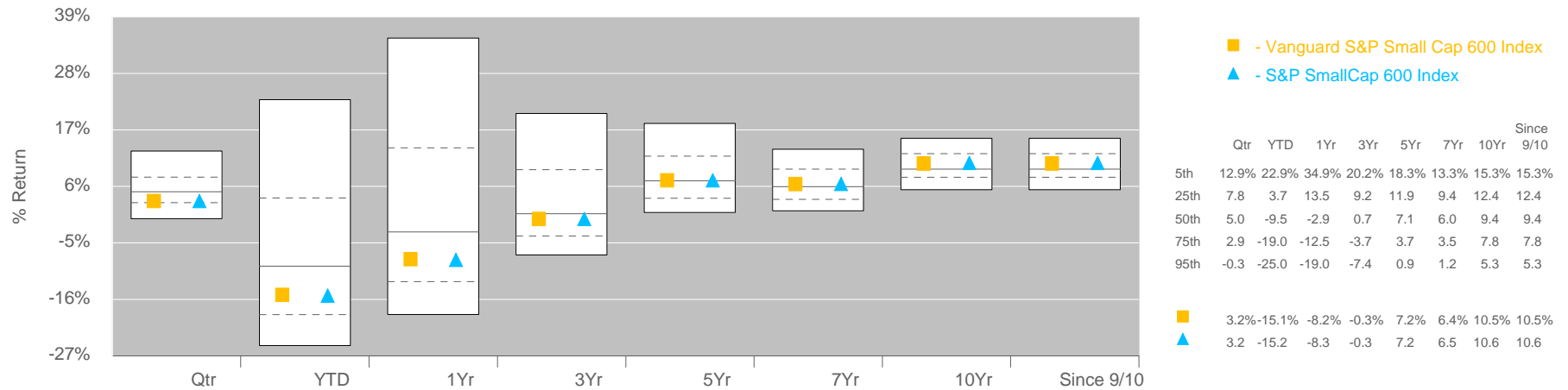


# City of Grosse Pointe Woods Employees Retirement System

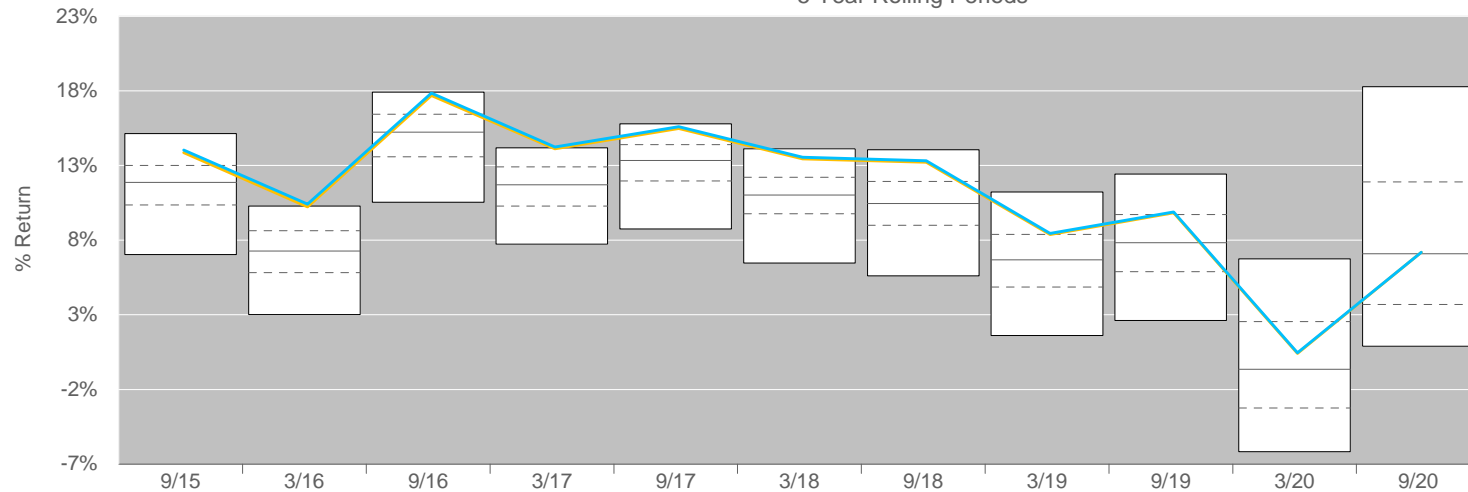
## Vanguard S&P Small Cap 600 Index

### Broad Small Cap Universe

For Report Periods Ending September 30, 2020



### Report From September 30, 2010 to September 30, 2020 5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## EuroPacific Growth Fund

### Summary of Performance and Statistics

Report For Periods Ending September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
EuroPacific Growth Fund	9.6%	4.3%	14.8%	5.6%	9.0%	6.6%	6.7%	5.8%	8/08
MSCI AC World Index ex-U.S.	6.3	-5.4	3.0	1.2	6.2	3.2	4.0	3.0	
Risk Statistics (5 years)	Beta		Alpha		R²		Standard Deviation	Tracking Error	Information Ratio
EuroPacific Growth Fund	1.01		2.7%		0.94		16.5%	3.7%	0.7
MSCI AC World Index ex-U.S.	1.00		0.0		1.00		15.5	0.0	--
Portfolio Statistics	Trailing P/E		Trailing P/B		Wtd Avg Mkt Cap		Current Yield	Equity Annual Turnover	
EuroPacific Growth Fund	26.1		3.2		105,506.0M		1.2%	38.0%	
MSCI AC World Index ex-U.S.	19.8		1.6		71,609.2		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

## EuroPacific Growth Fund

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

Report For Periods Ending September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 2.7%	Yes
Beta < 1.20	Beta = 1.01	Yes
Alpha > 0.0%	Alpha = 2.7%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 25th Percentile	Yes

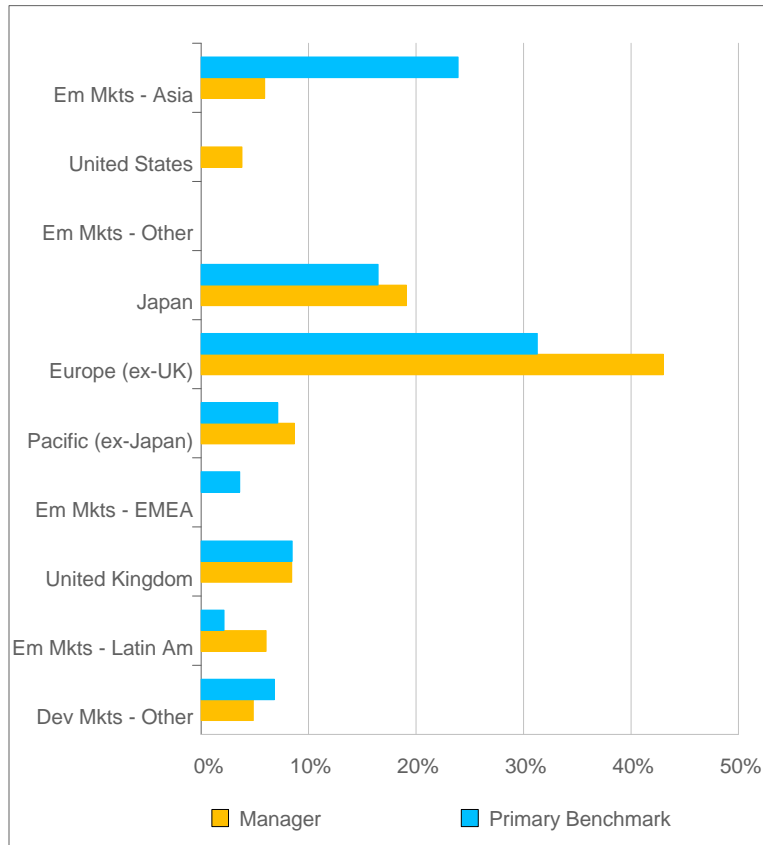
# City of Grosse Pointe Woods Employees Retirement System

## EuroPacific Growth Fund

### International Sector

Report For Periods Ending September 30, 2020

#### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Em Mkts - Asia	6%	24%	11.1%	19.2%
United States	4	0	9.5	16.4
Em Mkts - Other	0	0	8.3	-2.7
Japan	19	16	6.9	6.9
Europe (ex-UK)	43	31	5.9	4.4
Pacific (ex-Japan)	9	7	2.0	-6.1
Em Mkts - EMEA	0	4	1.8	-12.1
United Kingdom	8	8	-0.2	-15.8
Em Mkts - Latin Am	6	2	-1.3	-29.4
Dev Mkts - Other	5	7	-2.0	3.5

#### Top Five Countries

	Weighting
Japan	14.5%
China	11.7
India	8.3
France	8.2
United Kingdom	6.4

Number of Holdings: 309

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

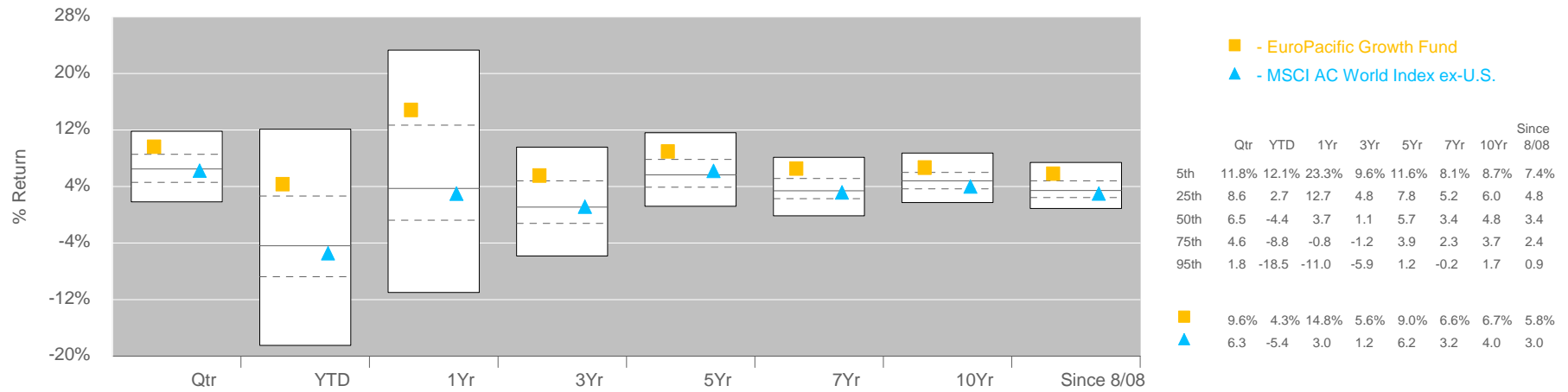
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

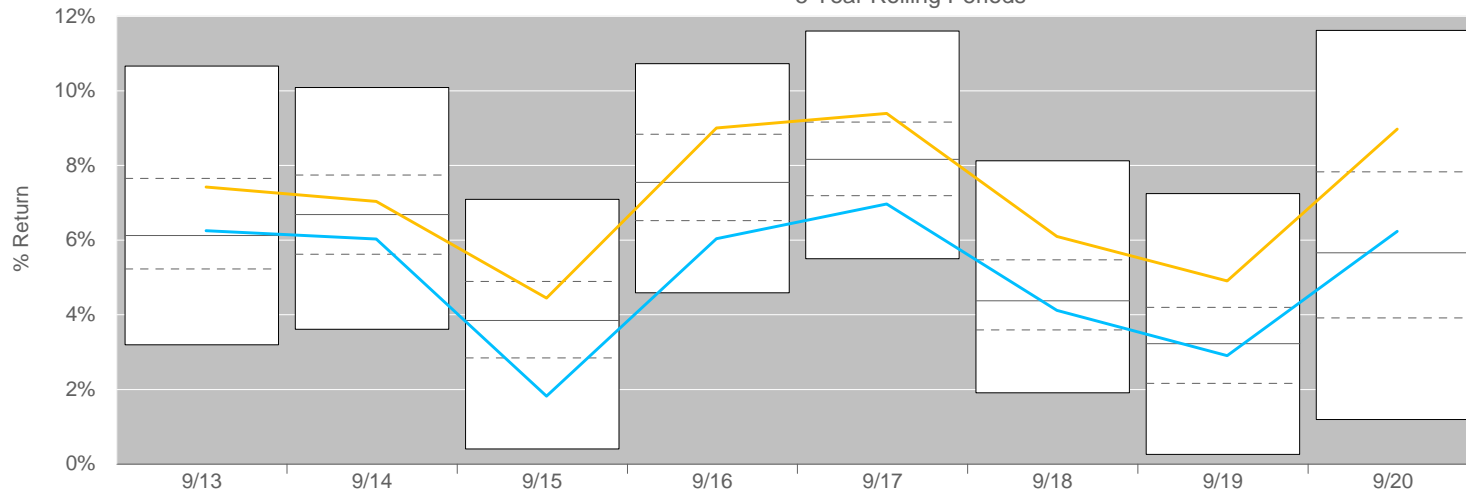
## EuroPacific Growth Fund

### International Equity Universe

For Report Periods Ending September 30, 2020



### Report From September 30, 2008 to September 30, 2020 5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Templeton Inst'l Foreign Smaller Co.

### Summary of Performance and Statistics

Report For Periods Ending September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
Templeton Inst'l Foreign Smaller Co.	12.8%	-4.9%	4.2%	0.1%	5.5%	3.9%	6.1%	7.1%	1/05
MSCI Small Cap EAFE Index	10.3	-4.2	6.8	1.4	7.4	5.7	7.3	6.2	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
Templeton Inst'l Foreign Smaller Co.	1.04	-2.1%	0.94	18.9%	4.3%	-0.4
MSCI Small Cap EAFE Index	1.00	0.0	1.00	17.8	0.0	--

Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover
Templeton Inst'l Foreign Smaller Co.	17.0	1.8	2,899.8M	2.4%	39.4%
MSCI Small Cap EAFE Index	21.1	1.3	2,012.6	2.2	--

\* 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

## Templeton Inst'l Foreign Smaller Co.

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

Report For Periods Ending September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -1.8%	No
Beta < 1.20	Beta = 1.04	Yes
Alpha > 0.0%	Alpha = -2.1%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 33rd Percentile	No

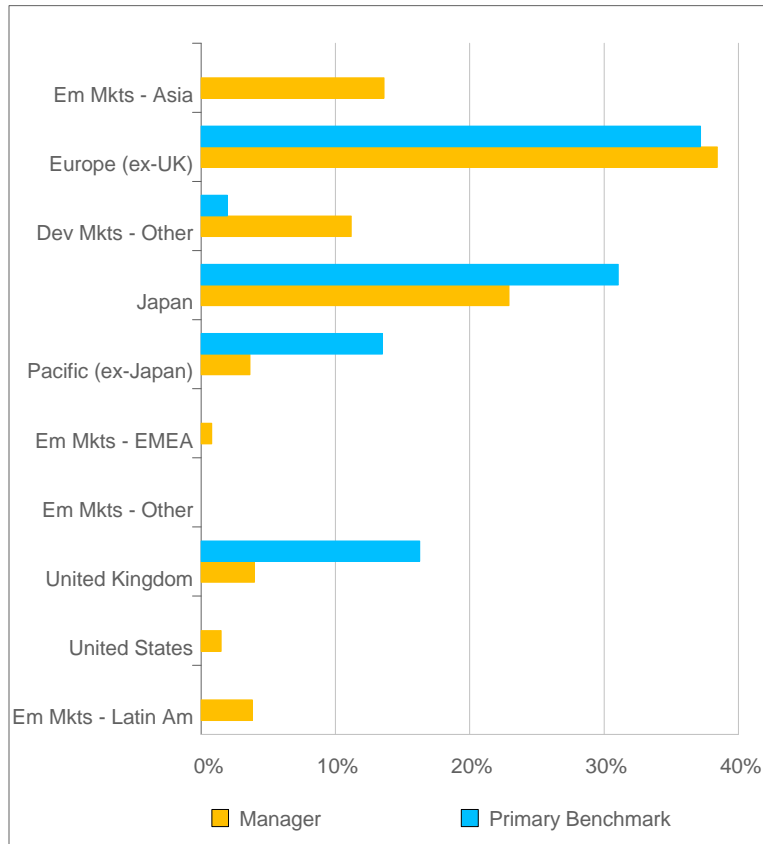
# City of Grosse Pointe Woods Employees Retirement System

## Templeton Inst'l Foreign Smaller Co.

### International Sector

Report For Periods Ending September 30, 2020

#### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Em Mkts - Asia	14%	0%	14.2%	16.0%
Europe (ex-UK)	38	37	13.1	15.7
Dev Mkts - Other	11	2	10.1	-7.4
Japan	23	31	9.6	7.0
Pacific (ex-Japan)	4	14	9.4	5.2
Em Mkts - EMEA	1	0	9.0	5.5
Em Mkts - Other	0	0	8.3	-2.7
United Kingdom	4	16	6.5	-7.3
United States	2	0	5.5	-0.3
Em Mkts - Latin Am	4	0	1.6	-24.9

#### Top Five Countries

	Weighting
Japan	22.9%
Taiwan	7.5
Switzerland	7.3
Germany	5.8
Italy	5.5

Number of Holdings: 107

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

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

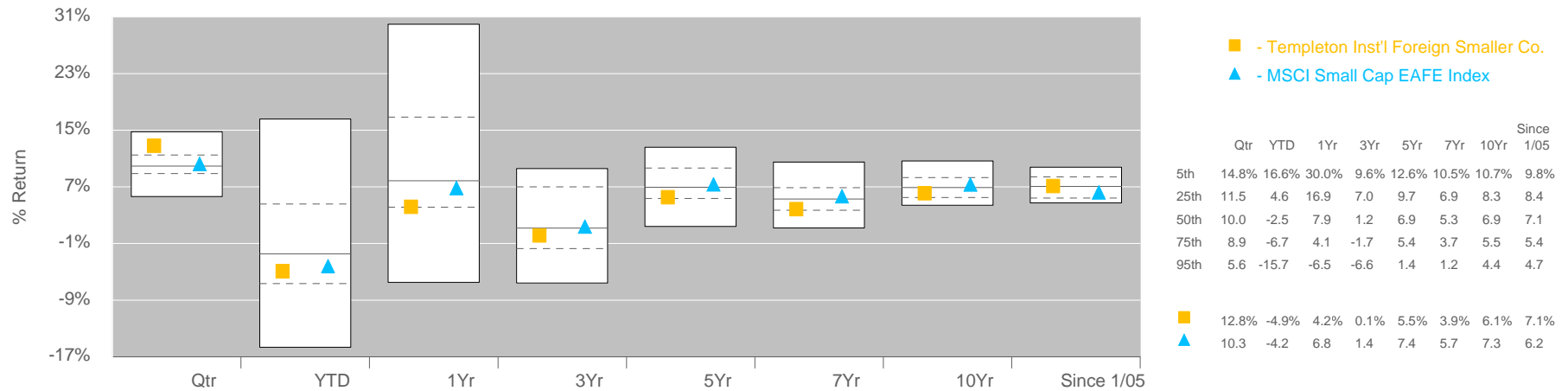


# City of Grosse Pointe Woods Employees Retirement System

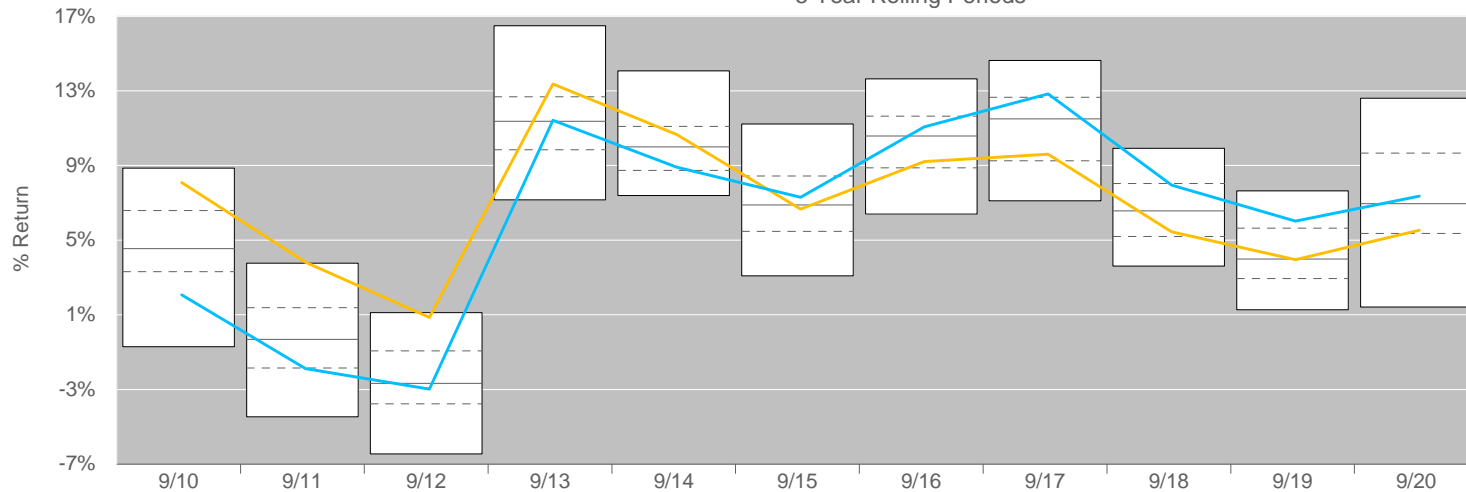
## Templeton Inst'l Foreign Smaller Co.

International Small Cap Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2005 to September 30, 2020  
5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## RWC Global Emerging Equity Fund

### Summary of Performance and Statistics

Report For Periods Ending September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	Since Inception	Inception Date
RWC Global Emerging Equity Fund	11.5%	1.3%	12.8%	0.3%	12.0%	7.8%	8.4%	7/12
MSCI Emerging Markets Index	9.6	-1.2	10.5	2.4	9.0	3.7	4.0	
Risk Statistics (5 years)	Beta		Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio	
RWC Global Emerging Equity Fund	1.16		1.8%	0.89	24.4%	7.6%	0.4	
MSCI Emerging Markets Index	1.00		0.0	1.00	19.2	0.0	--	
Portfolio Statistics	Trailing P/E		Trailing P/B	Wtd Avg Mkt Cap		Current Yield	Equity Annual Turnover	
RWC Global Emerging Equity Fund	33.6		4.4	125,150.0M		1.7%	103.5%	
MSCI Emerging Markets Index	18.6		1.8	114,366.7		2.3	--	

\* 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

## RWC Global Emerging Equity Fund

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

Report For Periods Ending September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 3.1%	Yes
Beta < 1.20	Beta = 1.16	Yes
Alpha > 0.0%	Alpha = 1.8%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 25th Percentile	Yes

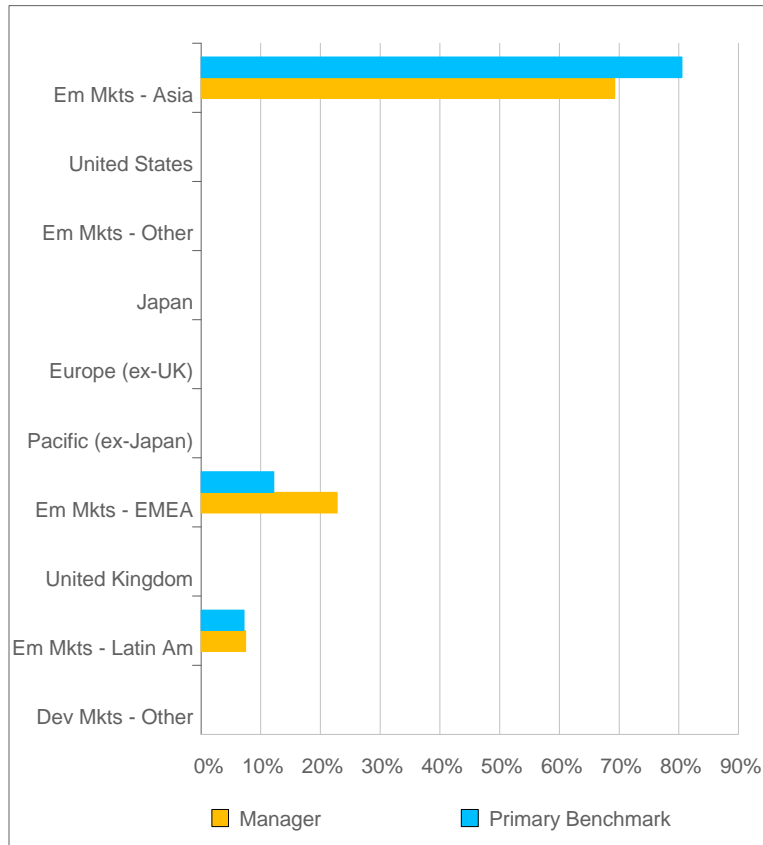
# City of Grosse Pointe Woods Employees Retirement System

## RWC Global Emerging Equity Fund

### Emerging Markets Sector

Report For Periods Ending September 30, 2020

#### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Em Mkts - Asia	69%	81%	11.1%	19.2%
United States	0	0	9.5	16.4
Em Mkts - Other	0	0	8.3	-2.7
Japan	0	0	6.9	6.9
Europe (ex-UK)	0	0	5.9	4.4
Pacific (ex-Japan)	0	0	2.0	-6.1
Em Mkts - EMEA	23	12	1.8	-12.1
United Kingdom	0	0	-0.2	-15.8
Em Mkts - Latin Am	8	7	-1.3	-29.4
Dev Mkts - Other	0	0	-2.0	3.5

#### Top Five Countries

	Weighting
China	38.4%
Korea, South	10.3
India	9.2
Taiwan	8.7
Brazil	6.0

Number of Holdings: 62

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

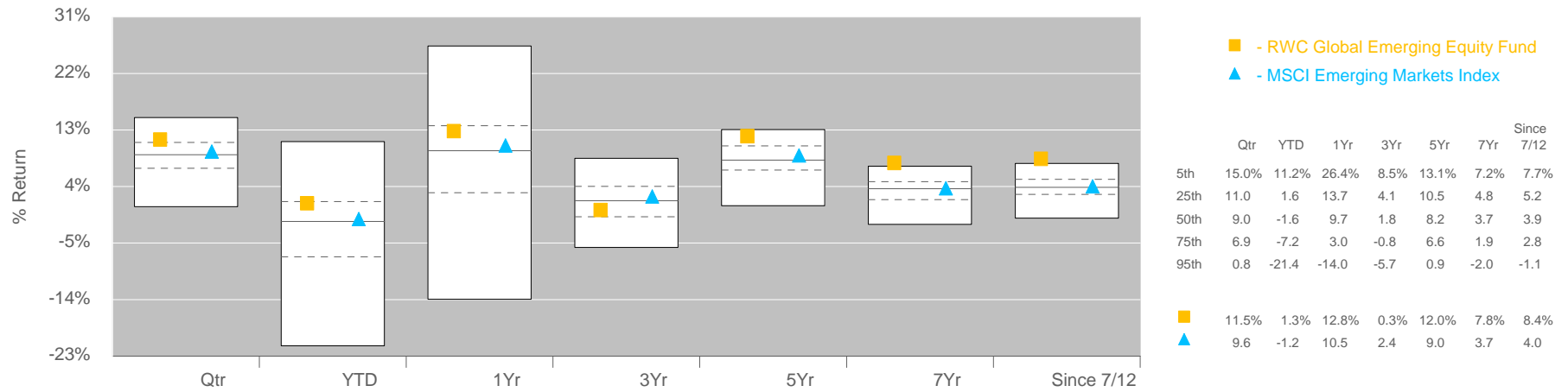
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

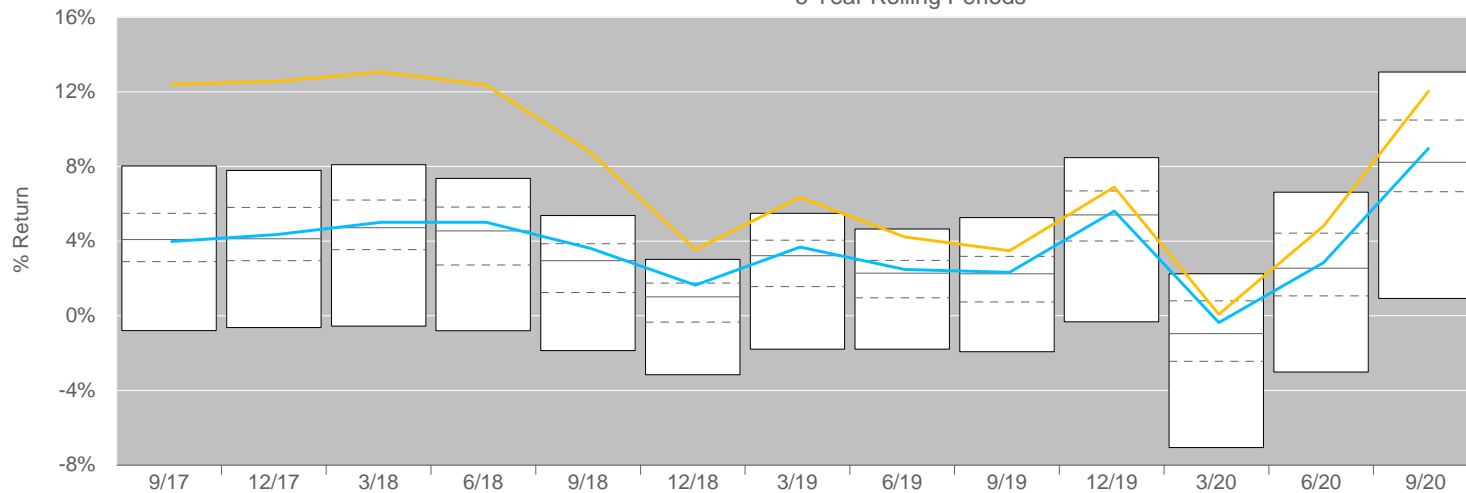
## RWC Global Emerging Equity Fund

### Emerging Markets Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2012 to September 30, 2020  
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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
DFA Emerging Markets Fund	8.6%	-5.3%	4.9%	0.6%	7.7%	2.9%	2.2%	6.7%	1/05
MSCI Emerging Markets Index	9.6	-1.2	10.5	2.4	9.0	3.7	2.5	7.1	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
DFA Emerging Markets Fund	1.00	-1.3%	0.97	19.3%	3.0%	-0.4
MSCI Emerging Markets Index	1.00	0.0	1.00	19.2	0.0	--

Portfolio Statistics	Trailing P/E	Trailing P/B	Wtd Avg Mkt Cap	Current Yield	Equity Annual Turnover
DFA Emerging Markets Fund	16.1	1.6	132,696.5M	2.4%	9.0%
MSCI Emerging Markets Index	18.6	1.8	114,366.7	2.3	--

\* 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 September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -1.3%	No
Beta < 1.20	Beta = 1.00	Yes
Alpha > 0.0%	Alpha = -1.3%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 50th Percentile	No

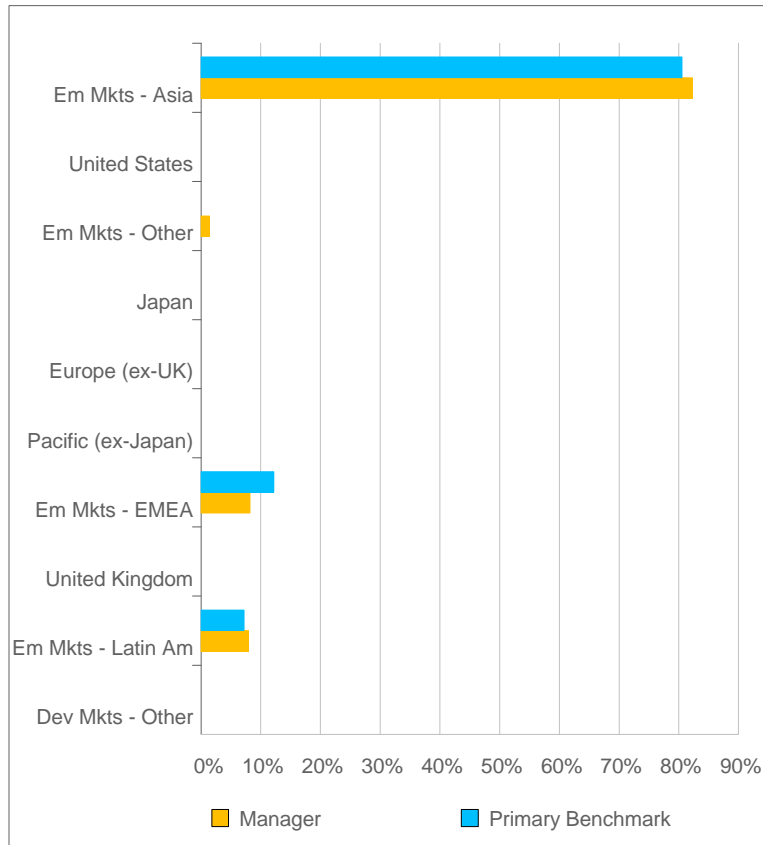
# City of Grosse Pointe Woods Employees Retirement System

## DFA Emerging Markets Fund

### Emerging Markets Sector

Report For Periods Ending September 30, 2020

#### Region Allocation



Region	Region Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Em Mkts - Asia	82%	81%	11.1%	19.2%
United States	0	0	9.5	16.4
Em Mkts - Other	1	0	8.3	-2.7
Japan	0	0	6.9	6.9
Europe (ex-UK)	0	0	5.9	4.4
Pacific (ex-Japan)	0	0	2.0	-6.1
Em Mkts - EMEA	8	12	1.8	-12.1
United Kingdom	0	0	-0.2	-15.8
Em Mkts - Latin Am	8	7	-1.3	-29.4
Dev Mkts - Other	0	0	-2.0	3.5

#### Top Five Countries

	Weighting
China	36.7%
Taiwan	14.5
Korea, South	13.9
India	10.6
South Africa	4.6

Number of Holdings: 1613

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

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

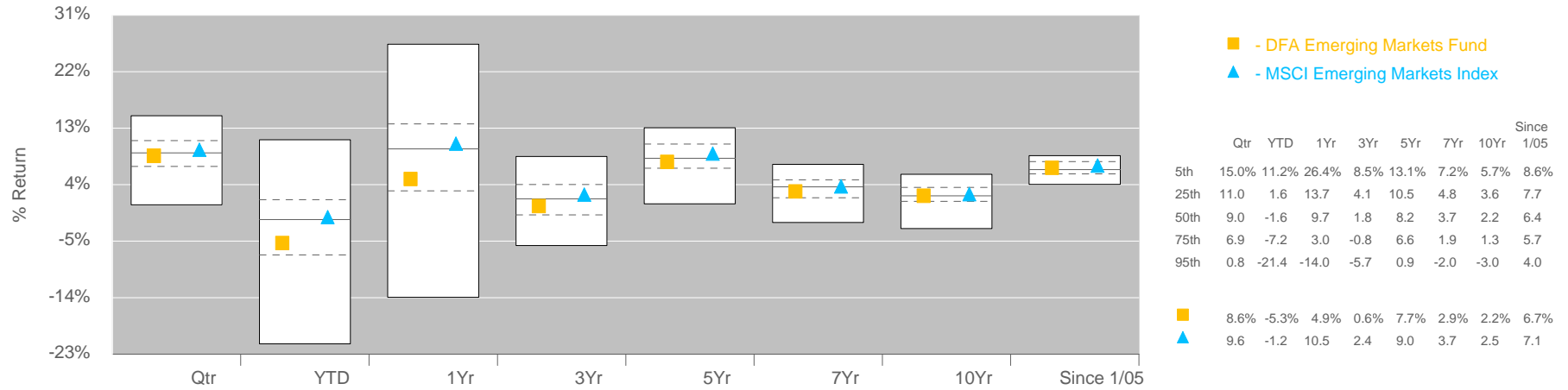


# City of Grosse Pointe Woods Employees Retirement System

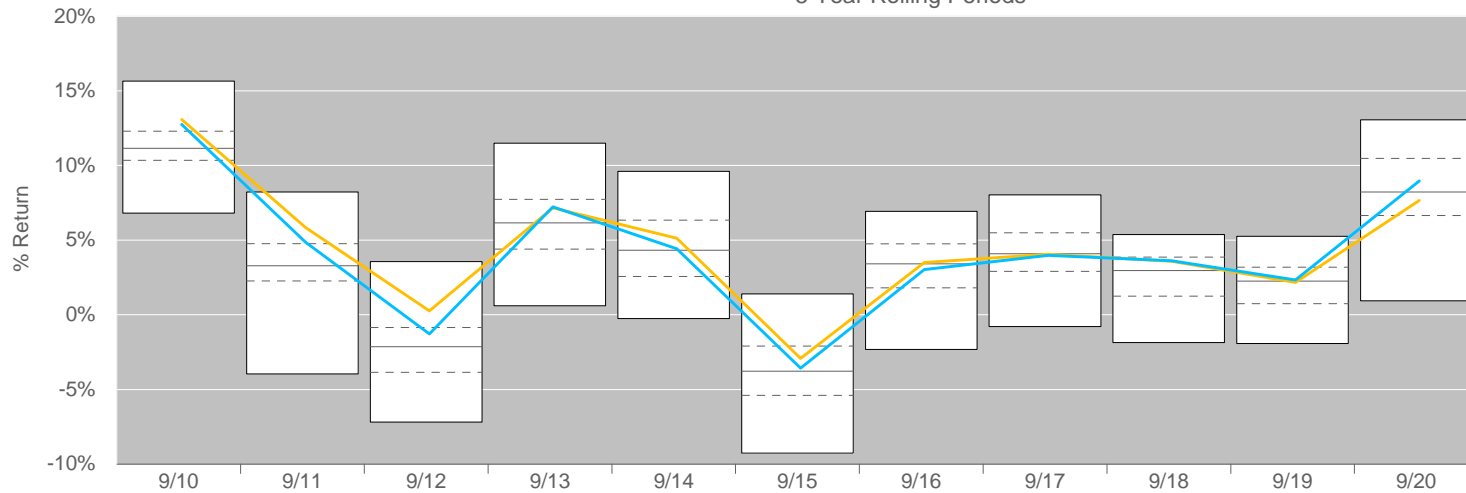
## DFA Emerging Markets Fund

### Emerging Markets Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2005 to September 30, 2020  
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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
<b>Dodge &amp; Cox Income Fund</b>	<b>1.5%</b>	<b>6.8%</b>	<b>7.7%</b>	<b>5.5%</b>	<b>5.2%</b>	<b>4.6%</b>	<b>4.4%</b>	<b>5.0%</b>	<b>1/05</b>
Bloomberg Barclays IG Credit Index	1.1	7.7	8.5	6.3	5.7	5.3	5.0	5.1	
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	4.0	3.6	4.4	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>Dodge &amp; Cox Income Fund</b>	<b>0.62</b>	<b>1.3%</b>	<b>0.87</b>	<b>3.4%</b>	<b>2.2%</b>	<b>-0.2</b>
Bloomberg Barclays IG Credit Index	1.00	0.0	1.00	5.2	0.0	--
Bloomberg Barclays US Aggregate Index	0.56	0.5	0.77	3.3	2.3	0.4

Portfolio Statistics	Effective Duration	Wtd Avg Maturity	Wtd Avg Credit	Yield to Worst	FI Annl Turnover
<b>Dodge &amp; Cox Income Fund</b>	<b>4.8yrs</b>	<b>9.0yrs</b>	<b>A</b>	<b>2.0%</b>	<b>53.0%</b>
Bloomberg Barclays IG Credit Index	8.6	11.8	A-	1.7	--
Bloomberg Barclays US Aggregate Index	6.1	8.2	AA	1.2	--

\* 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 September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = -0.5%	No
Beta < 1.20	Beta = 0.62	Yes
Alpha > 0.0%	Alpha = 1.3%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 25th Percentile	Yes

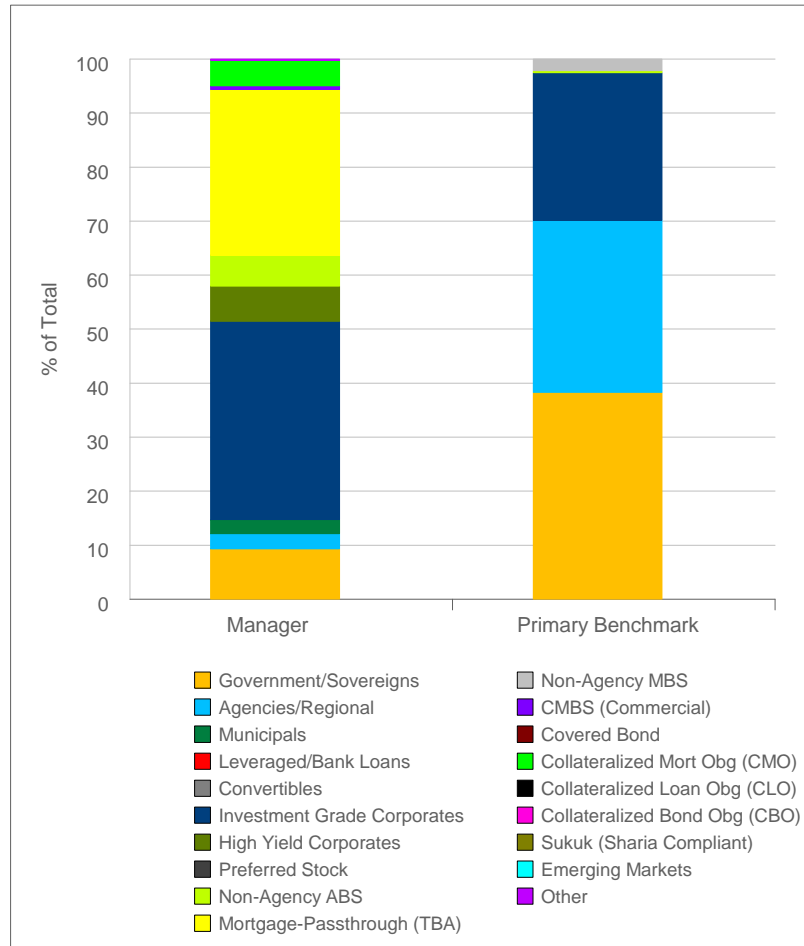
# City of Grosse Pointe Woods Employees Retirement System

## Dodge & Cox Income Fund

### Fixed Income Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Benchmark	3 Months	12 Months
Total Weighting	100%	100%	0.6%	7.0%
Government/Sovereigns	9	38	0.2	8.0
Agencies/Regional	3	32	0.4	5.3
Municipals	3	0	1.2	4.1
Leveraged/Bank Loans	0	0	3.4	0.1
Convertibles	0	0	13.9	31.2
Investment Grade Corporates	37	27	1.5	7.9
High Yield Corporates	6	0	4.6	3.3
Preferred Stock	0	0	7.1	3.3
Non-Agency ABS	6	0	0.8	4.6
Mortgage-Passthrough (TBA)	31	0	3.1	7.8
Non-Agency MBS	0	2	0.1	4.4
CMBS (Commercial)	1	0	1.9	6.0
Covered Bond	0	0	0.0	2.3
Collateralized Mort Obg (CMO)	5	0	0.1	4.4
Collateralized Loan Obg (CLO)	0	0	3.4	0.1
Collateralized Bond Obg (CBO)	0	0	0.0	0.0
Sukuk (Sharia Compliant)	0	0	0.0	0.0
Emerging Markets	0	0	2.3	1.3
Other	0	0	0.0	0.0

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

\*Benchmark weightings are for the Bloomberg Barclays US Aggregate Index.

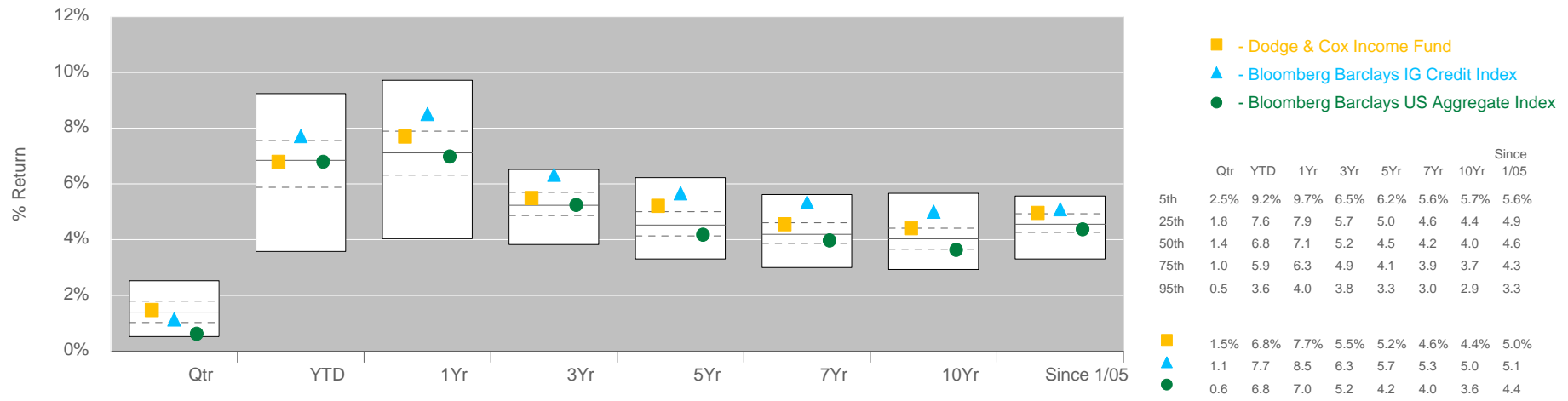
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

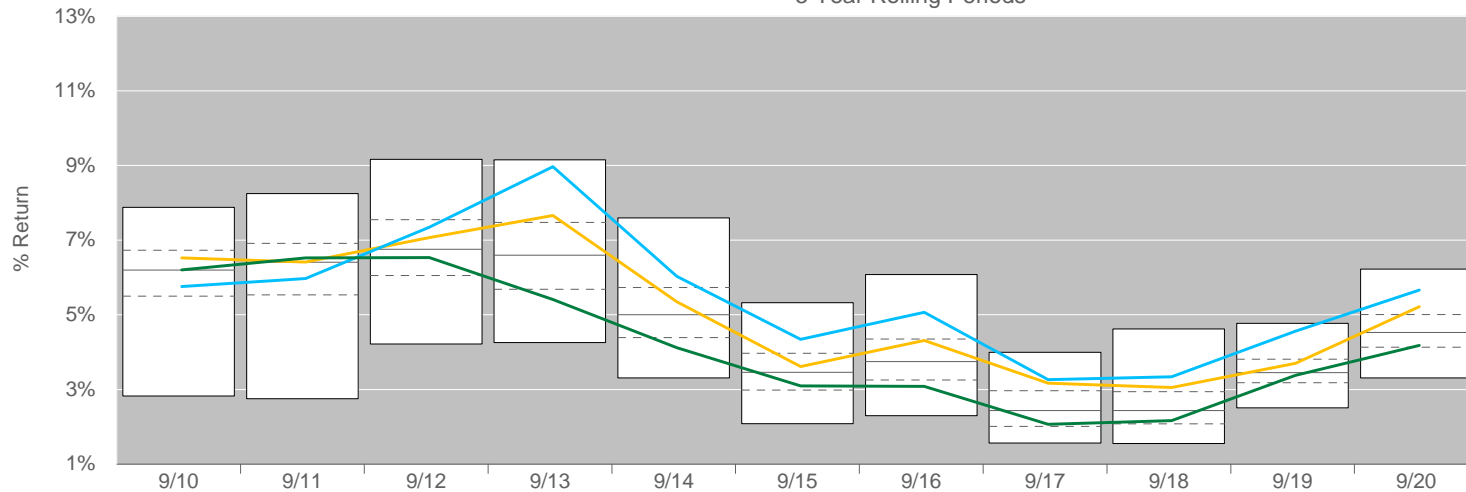
## Dodge & Cox Income Fund

### Core Fixed Income Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2005 to September 30, 2020  
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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
<b>DoubleLine Total Return Bond Fund</b>	<b>1.0%</b>	<b>3.7%</b>	<b>3.5%</b>	<b>3.8%</b>	<b>3.3%</b>	<b>3.7%</b>	<b>4.6%</b>	<b>5.4%</b>	<b>4/10</b>
Bloomberg Barclays US MBS Index	0.1	3.6	4.4	3.7	3.0	3.2	3.0	3.2	
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	4.0	3.6	4.0	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>DoubleLine Total Return Bond Fund</b>	<b>0.74</b>	<b>0.8%</b>	<b>0.28</b>	<b>3.1%</b>	<b>2.6%</b>	<b>0.1</b>
Bloomberg Barclays US MBS Index	1.00	0.0	1.00	2.2	0.0	--
Bloomberg Barclays US Aggregate Index	1.25	0.7	0.70	3.3	2.0	-0.4

Portfolio Statistics	Effective Duration	Wtd Avg Maturity	Wtd Avg Credit	Yield to Worst	FI Annl Turnover
<b>DoubleLine Total Return Bond Fund</b>	<b>3.3yrs</b>	<b>5.3yrs</b>	<b>A-</b>	<b>2.1%</b>	<b>22.0%</b>
Bloomberg Barclays US MBS Index	2.1	3.7	AAA	1.3	--
Bloomberg Barclays US Aggregate Index	6.1	8.2	AA	1.2	--

\* 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 September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 0.3%	Yes
Beta < 1.20	Beta = 0.74	Yes
Alpha > 0.0%	Alpha = 0.8%	Yes
Peer Group Rank > 50th Percentile	Ranks in Bottom 25th Percentile	No

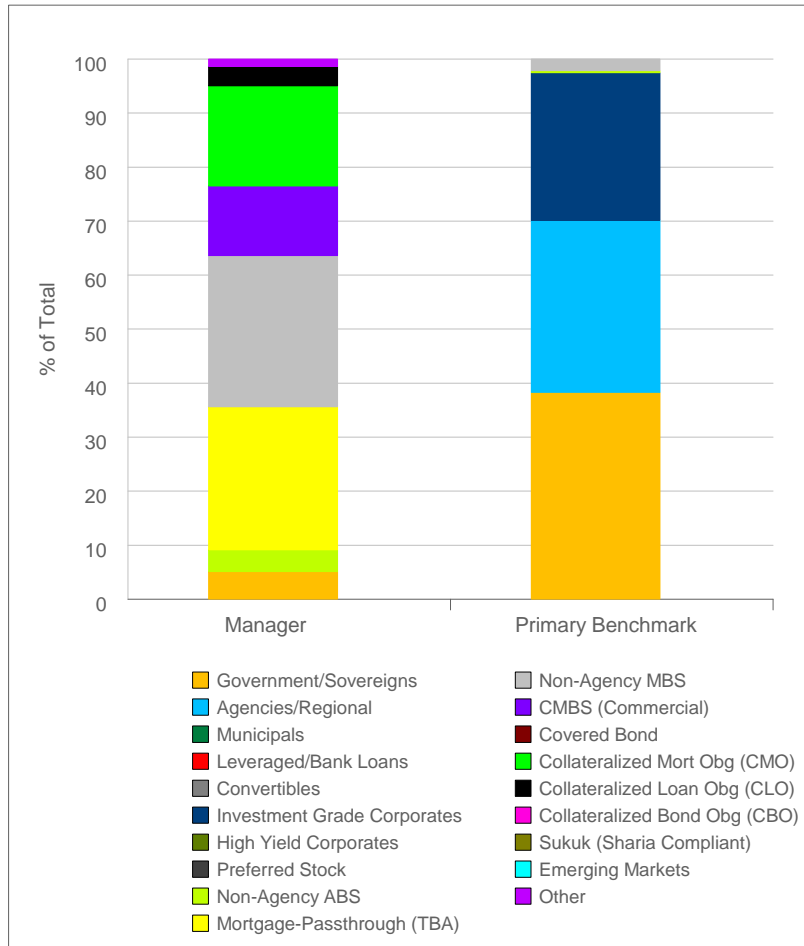
# City of Grosse Pointe Woods Employees Retirement System

## DoubleLine Total Return Bond Fund

### Fixed Income Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Benchmark	3 Months	12 Months
Total Weighting	100%	100%	0.6%	7.0%
Government/Sovereigns	5	38	0.2	8.0
Agencies/Regional	0	32	0.4	5.3
Municipals	0	0	1.2	4.1
Leveraged/Bank Loans	0	0	3.4	0.1
Convertibles	0	0	13.9	31.2
Investment Grade Corporates	0	27	1.5	7.9
High Yield Corporates	0	0	4.6	3.3
Preferred Stock	0	0	7.1	3.3
Non-Agency ABS	4	0	0.8	4.6
Mortgage-Passthrough (TBA)	26	0	3.1	7.8
Non-Agency MBS	28	2	0.1	4.4
CMBS (Commercial)	13	0	1.9	6.0
Covered Bond	0	0	0.0	2.3
Collateralized Mort Obg (CMO)	19	0	0.1	4.4
Collateralized Loan Obg (CLO)	4	0	3.4	0.1
Collateralized Bond Obg (CBO)	0	0	0.0	0.0
Sukuk (Sharia Compliant)	0	0	0.0	0.0
Emerging Markets	0	0	2.3	1.3
Other	1	0	0.0	0.0

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

\*Benchmark weightings are for the Bloomberg Barclays US Aggregate Index.

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

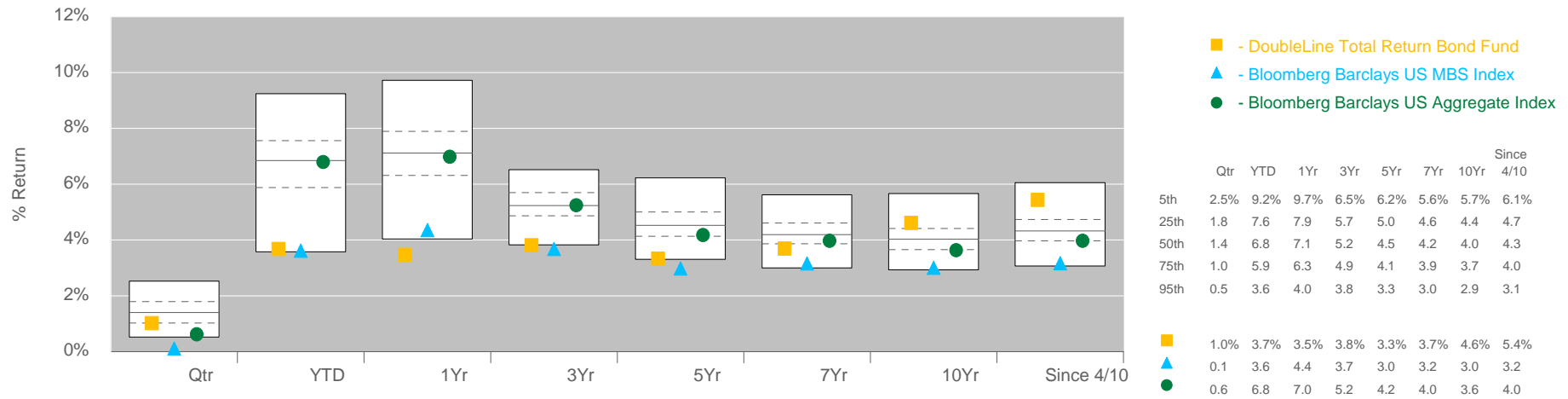


# City of Grosse Pointe Woods Employees Retirement System

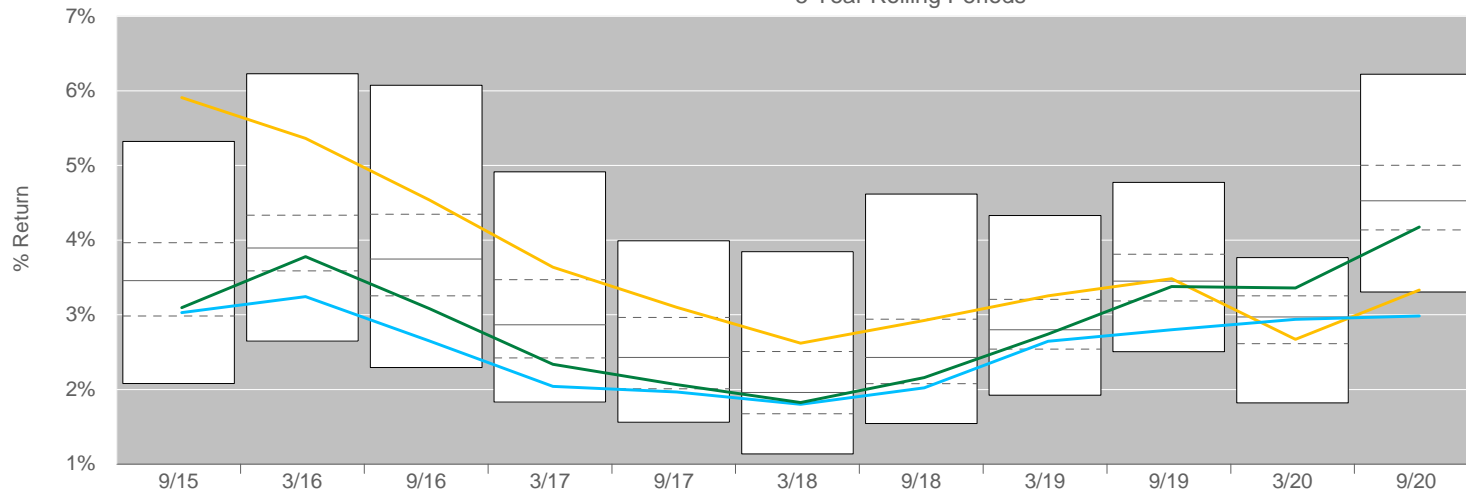
## DoubleLine Total Return Bond Fund

### Core Fixed Income Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2010 to September 30, 2020  
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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
Vanguard Total Bond Fund	0.6%	7.0%	7.0%	5.3%	4.2%	3.9%	3.6%	4.3%	1/05
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	4.0	3.6	4.4	
Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio			
Vanguard Total Bond Fund	1.03	-0.1%	0.99	3.4%	0.3%	0.1			
Bloomberg Barclays US Aggregate Index	1.00	0.0	1.00	3.3	0.0	--			
Portfolio Statistics	Effective Duration	Wtd Avg Maturity	Wtd Avg Credit	Yield to Worst	FI Annl Turnover				
Vanguard Total Bond Fund	6.1yrs	8.2yrs	AA	1.2%	--%				
Bloomberg Barclays US Aggregate Index	6.1	8.2	AA	1.2	--				

\* 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 September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 0.0%	Yes
Beta < 1.20	Beta = 1.03	Yes
Alpha > 0.0%	Alpha = -0.1%	No
Peer Group Rank > 50th Percentile	Ranks in Bottom 33rd Percentile	No

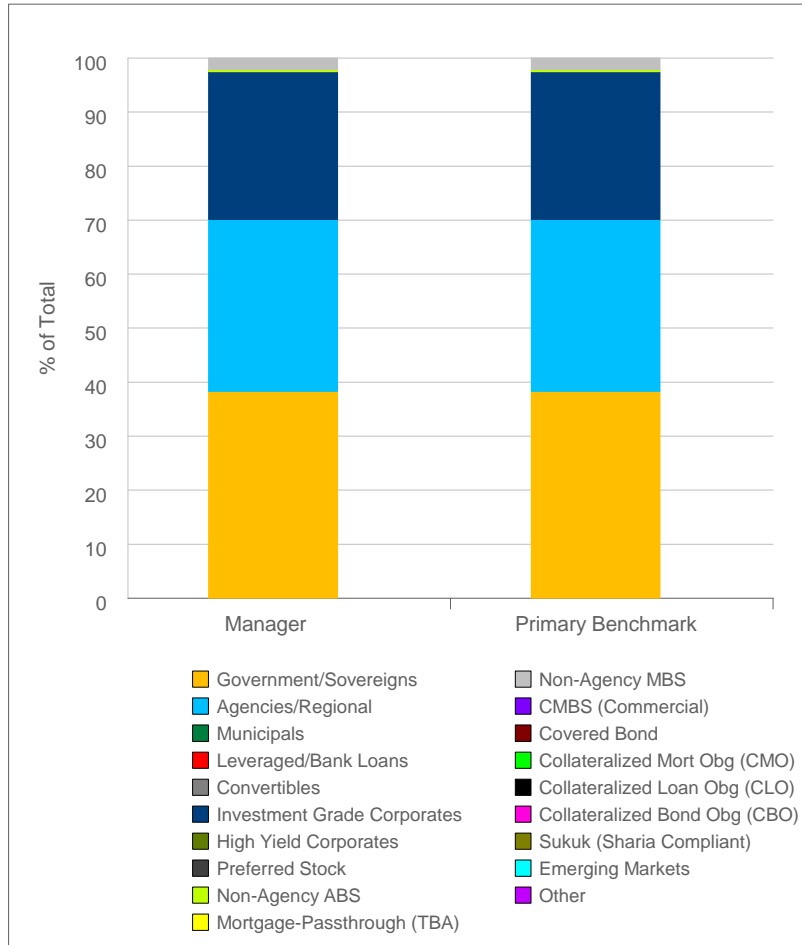
# City of Grosse Pointe Woods Employees Retirement System

## Vanguard Total Bond Fund

### Fixed Income Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Total Weighting	100%	100%	0.6%	7.0%
Government/Sovereigns	38	38	0.2	8.0
Agencies/Regional	32	32	0.4	5.3
Municipals	0	0	1.2	4.1
Leveraged/Bank Loans	0	0	3.4	0.1
Convertibles	0	0	13.9	31.2
Investment Grade Corporates	27	27	1.5	7.9
High Yield Corporates	0	0	4.6	3.3
Preferred Stock	0	0	7.1	3.3
Non-Agency ABS	0	0	0.8	4.6
Mortgage-Passthrough (TBA)	0	0	3.1	7.8
Non-Agency MBS	2	2	0.1	4.4
CMBS (Commercial)	0	0	1.9	6.0
Covered Bond	0	0	0.0	2.3
Collateralized Mort Obg (CMO)	0	0	0.1	4.4
Collateralized Loan Obg (CLO)	0	0	3.4	0.1
Collateralized Bond Obg (CBO)	0	0	0.0	0.0
Sukuk (Sharia Compliant)	0	0	0.0	0.0
Emerging Markets	0	0	2.3	1.3
Other	0	0	0.0	0.0

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

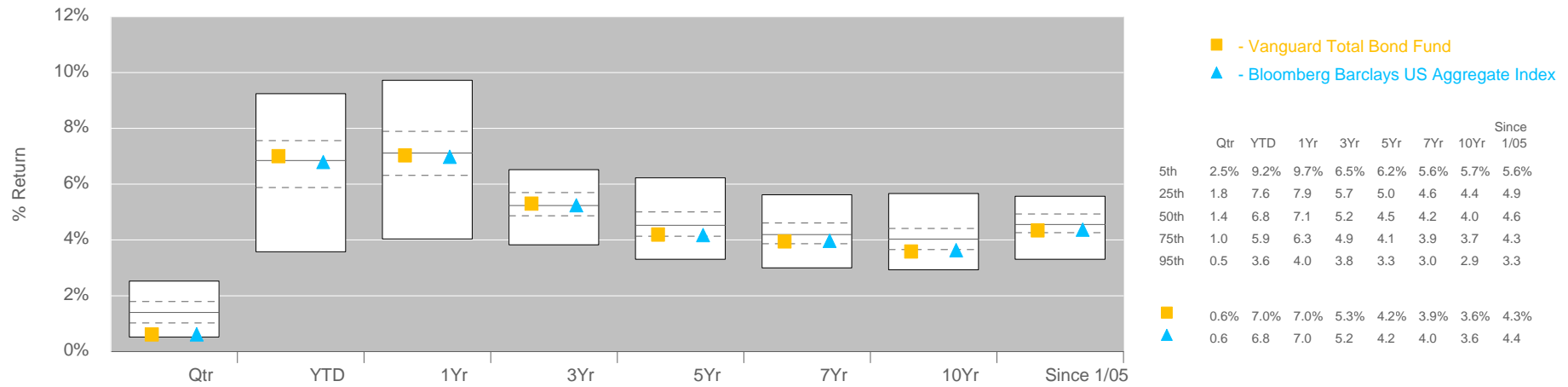
\* Manager data represents the most current available at the time of report publication.

# City of Grosse Pointe Woods Employees Retirement System

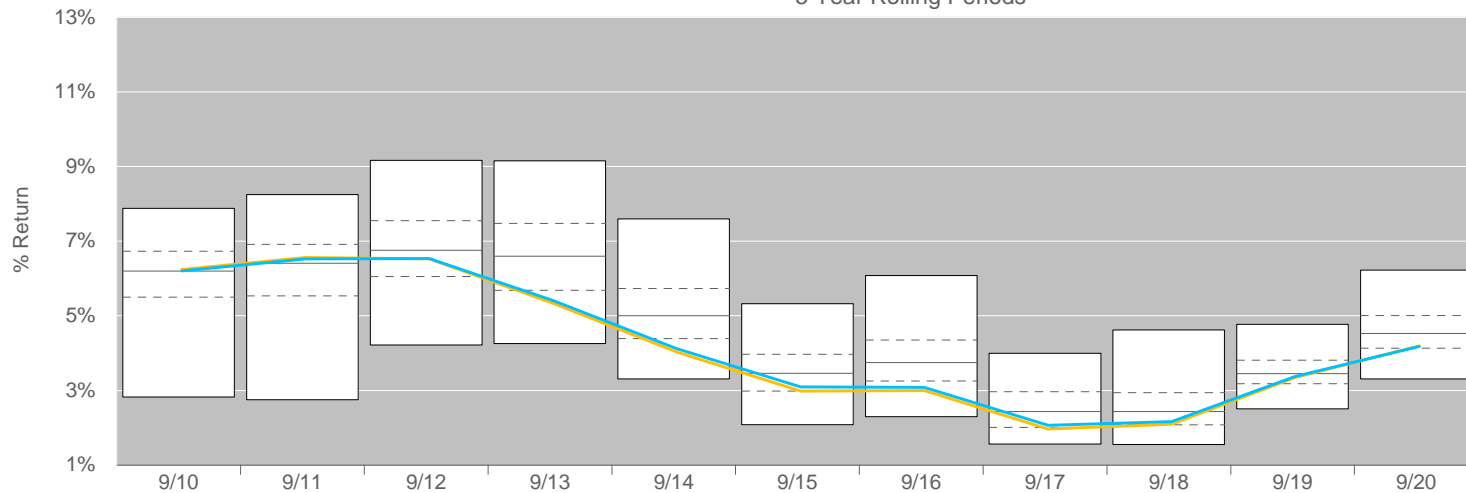
## Vanguard Total Bond Fund

### Core Fixed Income Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2005 to September 30, 2020  
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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	10Yr	Since Inception	Inception Date
Principal Real Estate Securities Fund	2.6%	-11.3%	-10.9%	4.8%	6.6%	8.5%	9.6%	8.6%	1/05
FTSE NAREIT Equity REIT Index	1.4	-17.5	-18.2	0.2	3.9	6.1	7.9	6.9	
FTSE NAREIT All Equity Index	1.2	-12.3	-12.2	3.5	6.6	7.7	9.2	7.7	
Risk Statistics (5 years)	Beta		Alpha		R <sup>2</sup>	Standard Deviation	Tracking Error		Information Ratio
Principal Real Estate Securities Fund	0.90		2.9%		0.97	16.5%	3.2%		0.8
FTSE NAREIT Equity REIT Index	1.00		0.0		1.00	17.8	0.0		--
FTSE NAREIT All Equity Index	0.92		2.9		0.98	16.9	2.3		0.0
Portfolio Statistics	Current P/FFO		Growth in FFO		Wtd Avg Mkt Cap		Current Yield		Equity Annual Turnover
Principal Real Estate Securities Fund	22.4		1.8%		25,772.7M		3.4%		29.8%
FTSE NAREIT Equity REIT Index	18.9		0.2		5,456.1		4.3		--
FTSE NAREIT All Equity Index	18.9		0.2		6,660.5		3.8		--

\* 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 September 30, 2020

Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 2.6%	Yes
Beta < 1.20	Beta = 0.90	Yes
Alpha > 0.0%	Alpha = 2.9%	Yes
Peer Group Rank > 50th Percentile	Ranks in Top 25th Percentile	Yes

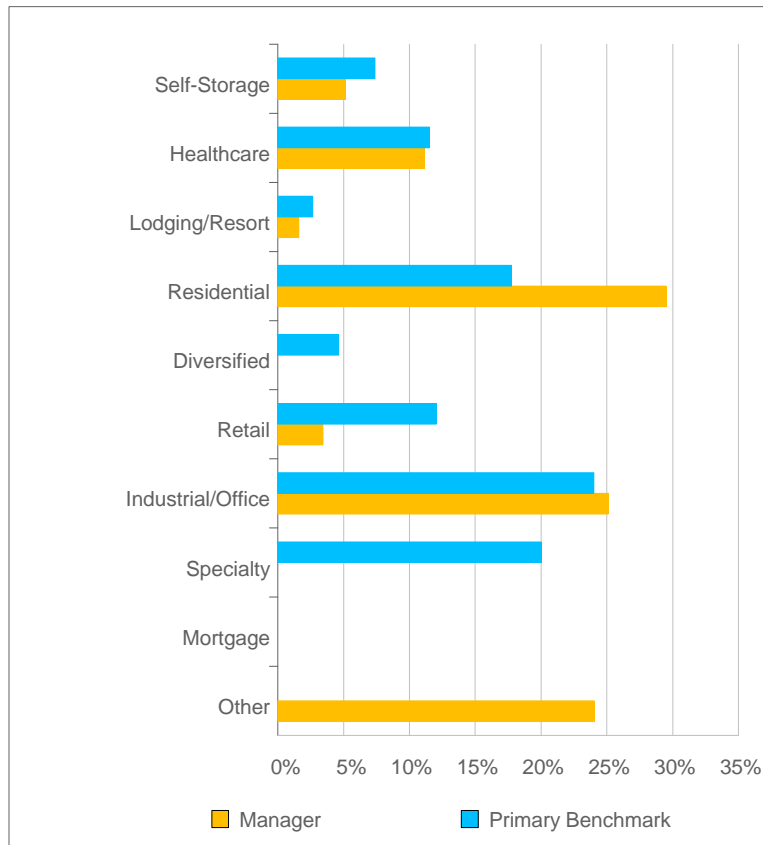
# City of Grosse Pointe Woods Employees Retirement System

## Principal Real Estate Securities Fund

### Real Estate Sector

Report For Periods Ending September 30, 2020

#### Sector Allocation



Sector	Sector Weightings		Market Total Returns	
	Manager	Primary Benchmark	3 Months	12 Months
Self-Storage	5%	7%	16.9%	-4.3%
Healthcare	11	12	3.8	-27.3
Lodging/Resort	2	3	-1.4	-47.0
Residential	30	18	-3.4	-21.8
Diversified	0	5	-3.8	-34.5
Retail	3	12	-4.1	-40.8
Industrial/Office	25	24	-	-
Specialty	0	20	-	-
Mortgage	0	0	-	-
Other	24	0	-	-

\* 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.

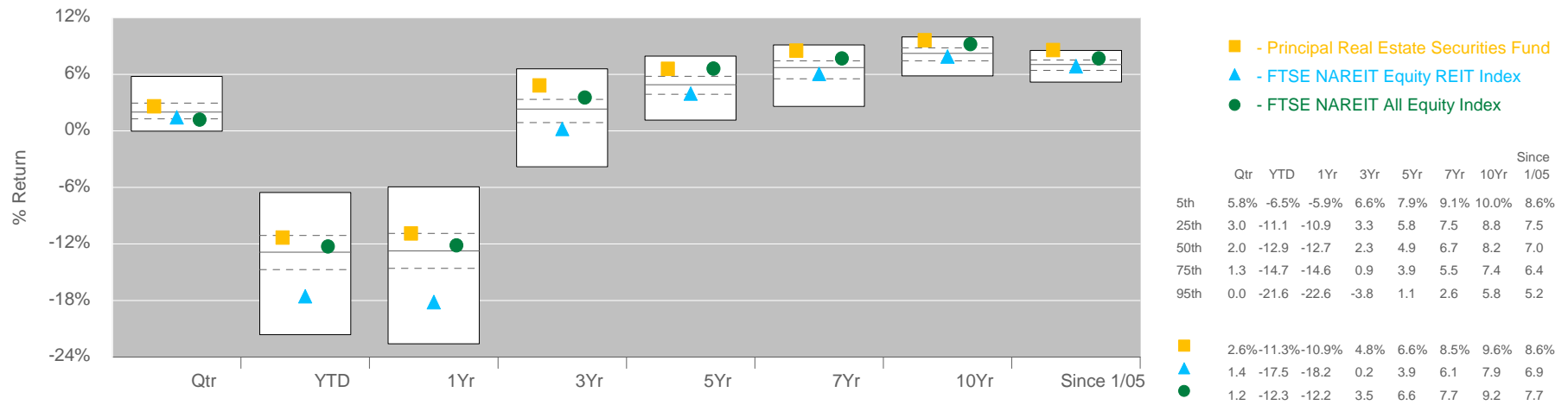


# City of Grosse Pointe Woods Employees Retirement System

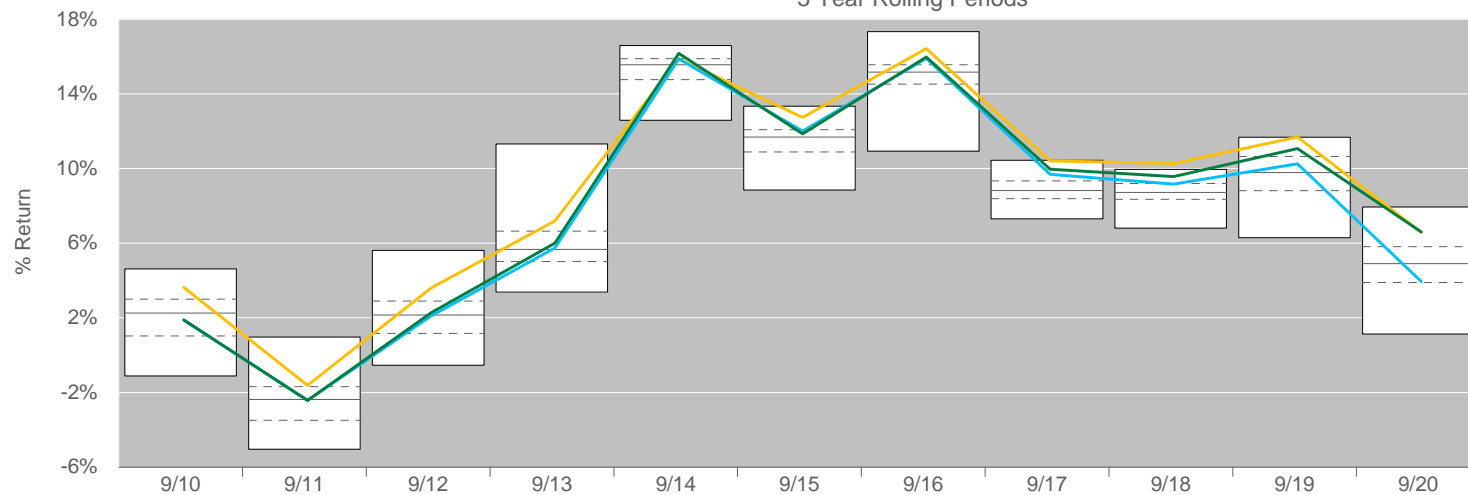
## Principal Real Estate Securities Fund

### REIT Manager Universe

For Report Periods Ending September 30, 2020



Report From September 30, 2005 to September 30, 2020  
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 September 30, 2020

Performance Results	Qtr	YTD	1Yr	3Yr	5Yr	7Yr	Since Inception	Inception Date
<b>Tortoise MLP &amp; Pipeline Fund</b>	<b>-11.2%</b>	<b>-41.8%</b>	<b>-41.2%</b>	<b>-16.1%</b>	<b>-6.1%</b>	<b>-6.4%</b>	<b>-0.4%</b>	<i>5/11</i>
Alerian MLP Index	-16.3	-46.2	-48.4	-20.8	-11.6	-11.9	-5.8	
Tortoise North American Pipeline Index	-7.5	-32.8	-31.8	-9.3	-0.6	-1.6	--	

Risk Statistics (5 years)	Beta	Alpha	R <sup>2</sup>	Standard Deviation	Tracking Error	Information Ratio
<b>Tortoise MLP &amp; Pipeline Fund</b>	<b>0.75</b>	<b>2.3%</b>	<b>0.90</b>	<b>29.5%</b>	<b>13.0%</b>	<b>0.4</b>
Alerian MLP Index	1.00	0.0	1.00	36.6	0.0	--
Tortoise North American Pipeline Index	0.61	6.0	0.87	25.0	6.2	-0.9

\* 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

## Tortoise MLP & Pipeline Fund

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

Report For Periods Ending September 30, 2020

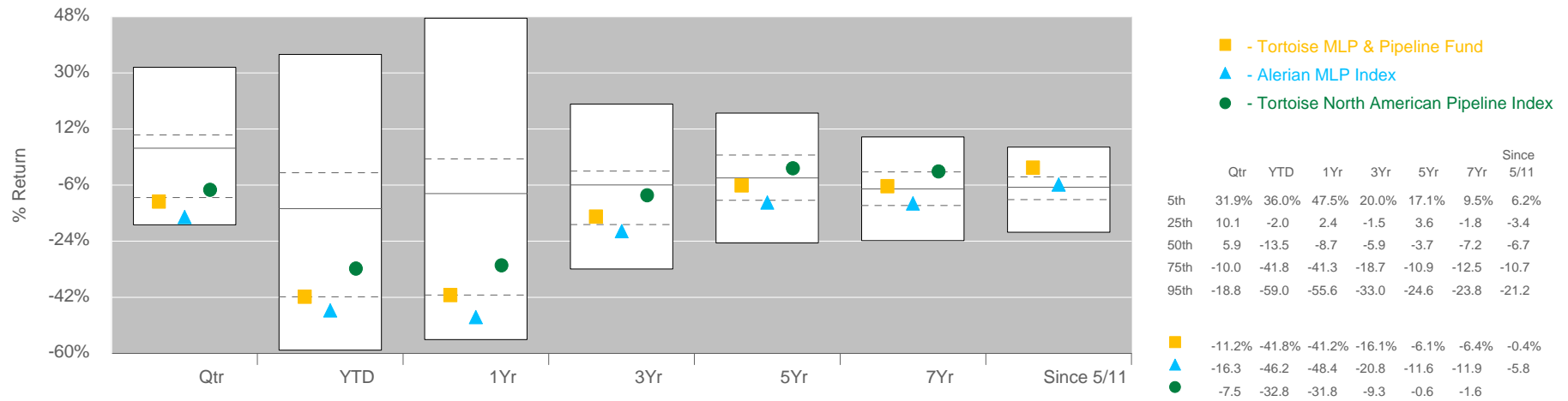
Performance Objectives	Result	Objective Achieved
<b>Measurement Period:</b> Moving 5 Year		
Return > Benchmark	Return over benchmark = 5.5%	Yes
Beta < 1.20	Beta = 0.75	Yes
Alpha > 0.0%	Alpha = 2.3%	Yes
Peer Group Rank > 50th Percentile	Ranks in Bottom 50th Percentile	No

# City of Grosse Pointe Woods Employees Retirement System

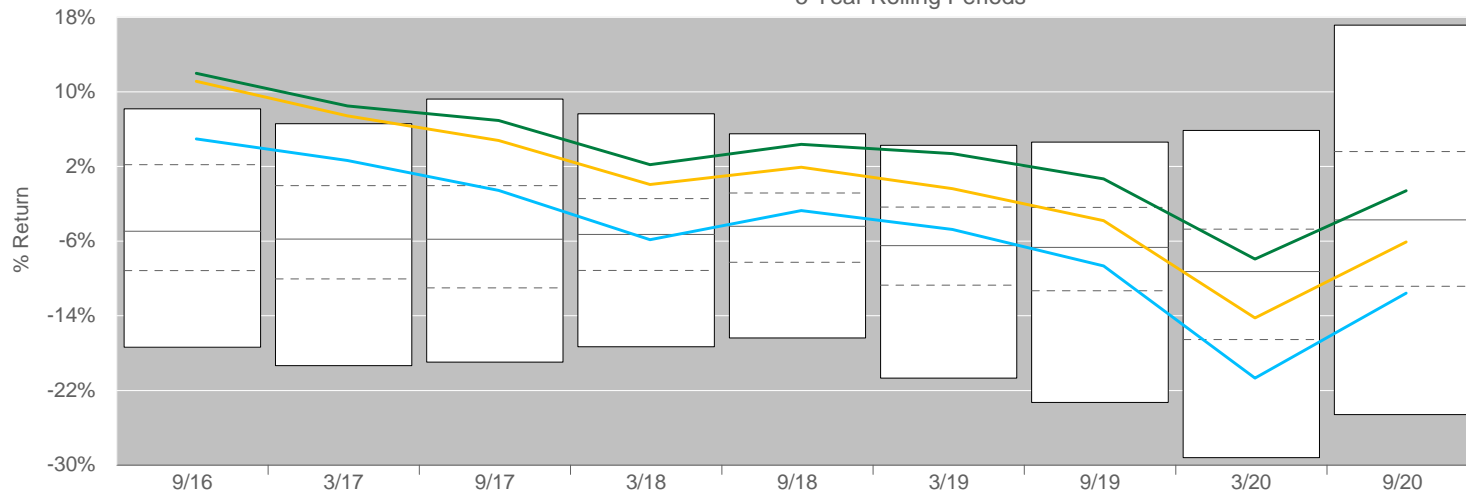
## Tortoise MLP & Pipeline Fund

### Natural Resources Universe

For Report Periods Ending September 30, 2020



### Report From September 30, 2011 to September 30, 2020 5 Year Rolling Periods



# City of Grosse Pointe Woods Employees Retirement System

## Breakdown of Fees

Report For Periods Ending September 30, 2020

	Annual Fee/ Expense Ratio	Market Value	Percent Allocation	Weighted Average Fee	Annualized Fee
iShares S&P 500 Index	0.04%	\$11,493,924	29.2%	0.01%	\$4,598
iShares Russell Midcap Index	0.20%	\$2,277,584	5.8%	0.01%	\$4,555
Vanguard S&P Small Cap 600 Index	0.15%	\$2,950,462	7.5%	0.01%	\$4,426
EuroPacific Growth Fund	0.60%	\$4,158,277	10.6%	0.06%	\$24,950
Templeton Inst'l Foreign Smaller Co.	0.99%	\$2,279,988	5.8%	0.06%	\$22,572
RWC Global Emerging Equity Fund	1.33%	\$1,467,992	3.7%	0.05%	\$19,524
DFA Emerging Markets Fund	0.48%	\$2,851,526	7.3%	0.03%	\$13,687
Dodge & Cox Income Fund	0.43%	\$2,374,913	6.0%	0.03%	\$10,212
DoubleLine Total Return Bond Fund	0.47%	\$2,152,584	5.5%	0.03%	\$10,117
Vanguard Total Bond Fund	0.05%	\$2,276,715	5.8%	0.00%	\$1,138
Gateway Fund	0.70%	\$1,551,952	3.9%	0.03%	\$10,864
PIMCO All Asset Fund	1.01%	\$1,166,980	3.0%	0.03%	\$11,786
Principal Real Estate Securities Fund	0.85%	\$1,158,460	2.9%	0.03%	\$9,847
Tortoise MLP & Pipeline Fund	0.97%	\$665,558	1.7%	0.02%	\$6,456
Schwab Government Money Fund	0.23%	\$472,417	1.2%	0.00%	\$1,087
<b>Total Investment Management Fees</b>		<b>\$39,299,332</b>	<b>100.0%</b>	<b>0.40%</b>	<b>\$155,819</b>

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

\* Annualized fee is an estimate based on market values as of September 30, 2020.

## Index Summary Sheet for Periods Ending September 30, 2020

Global Equity	Qtr	YTD	1 Yr	Annualized		
				3 Yr	5 Yr	10 Yr
MSCI AC World Index	8.1%	1.4%	10.4%	7.1%	10.3%	8.5%
MSCI World Index	7.9	1.7	10.4	7.7	10.5	9.4
S&P 500 Index	8.9	5.6	15.1	12.3	14.1	13.7
Russell 3000 Index	9.2	5.4	15.0	11.6	13.7	13.5
Russell 1000 Index	9.5	6.4	16.0	12.4	14.1	13.8
Russell 1000 Growth Index	13.2	24.3	37.5	21.7	20.1	17.3
Russell 1000 Value Index	5.6	-11.6	-5.0	2.6	7.7	9.9
Russell Midcap Index	7.5	-2.3	4.6	7.1	10.1	11.8
Russell Midcap Growth Index	9.4	13.9	23.2	16.2	15.5	14.6
Russell Midcap Value Index	6.4	-12.8	-7.3	0.8	6.4	9.7
Russell 2000 Index	4.9	-8.7	0.4	1.8	8.0	9.9
Russell 2000 Growth Index	7.2	3.9	15.7	8.2	11.4	12.3
Russell 2000 Value Index	2.6	-21.5	-14.9	-5.1	4.1	7.1
Russell Microcap Index	3.7	-7.9	4.4	-0.1	6.7	9.5
MSCI AC World Index ex-U.S.	6.3	-5.4	3.0	1.2	6.2	4.0
MSCI EAFE Index	4.8	-7.1	0.5	0.6	5.3	4.6
MSCI EAFE Growth Index	8.4	4.6	13.4	7.1	9.2	7.0
MSCI EAFE Value Index	1.2	-18.3	-11.9	-5.9	1.1	2.1
MSCI Small Cap EAFE Index	10.3	-4.2	6.8	1.4	7.4	7.3
MSCI Emerging Markets Index	9.6	-1.2	10.5	2.4	9.0	2.5
MSCI Emerging Markets Small Cap Index	11.8	-2.4	6.9	-1.1	4.6	1.0
MSCI Frontier Markets Index	8.3	-8.8	-2.7	-1.7	3.8	3.0
HFRI Equity Hedge Index	6.0	2.5	8.3	3.8	5.6	4.6
HFRI Emerging Markets	5.7	1.2	6.4	1.5	5.6	2.4
HFRI FOF: Strategic Index	5.8	3.4	8.0	3.0	3.8	3.2
Thomson One All Private Capital Index	0.0	-1.2	3.2	8.4	9.5	10.8
Thomson One Buyout Index	0.0	-1.4	4.7	10.0	13.0	13.1
Thomson One Fund of Funds Index	0.0	3.5	7.7	10.4	9.6	11.0
Thomson One Venture Capital Index	0.0	6.4	12.9	16.4	12.0	15.2
Global Fixed Income						
Bloomberg Barclays US Aggregate Index	0.6	6.8	7.0	5.2	4.2	3.6
Bloomberg Barclays U.S. TIPS Index	3.0	9.2	10.1	5.8	4.6	3.6
Bloomberg Barclays Government Bond Index	0.2	8.8	8.0	5.5	3.7	3.1
Bloomberg Barclays Municipals Index	1.2	3.3	4.1	4.3	3.8	4.0
Bloomberg Barclays Asset Backed Index	0.8	4.1	4.5	3.5	2.7	2.4

## Index Summary Sheet for Periods Ending September 30, 2020

Global Fixed Income (continued)	Qtr	YTD	1 Yr	Annualized		
				3 Yr	5 Yr	10 Yr
Bloomberg Barclays US MBS Index	0.1%	3.6%	4.4%	3.7%	3.0%	3.0%
Bloomberg Barclays IG CMBS Index	1.9	6.3	6.0	5.3	4.2	4.5
Bloomberg Barclays U.S. Credit Index	1.5	6.4	7.5	6.2	5.7	4.9
Bloomberg Barclays US Corporate HY Index	4.6	0.6	3.3	4.2	6.8	6.5
Bloomberg Barclays Interm. US G/C Index	0.6	5.9	6.3	4.4	3.4	2.9
ICE BofA 1-3 Yr. Govt. Bond Index	0.1	3.1	3.6	2.6	1.8	1.3
U.S. 91-Day Treasury Bills	0.0	0.3	0.7	1.5	1.1	0.6
CS Leveraged Loan Index	3.4	-1.6	0.1	2.9	3.9	4.4
JPMorgan Non-U.S. GBI Hedged Index	0.9	3.5	1.6	4.7	4.2	4.1
JPMorgan Non-U.S. GBI Index	4.4	5.6	5.4	3.5	3.8	1.3
JPMorgan EMBI Plus Index	1.8	1.3	4.8	2.5	5.5	4.8
JPMorgan EMBI Global Index	2.3	0.4	2.5	3.3	6.0	5.2
HFRI RV: Fixed Income - Corporate Index	3.4	0.6	2.5	3.4	5.1	4.6
HFRI ED: Distressed/Restructuring Index	3.0	-0.3	-0.3	0.8	3.6	3.8
Thomson One Distressed Index	0.0	-5.0	-3.4	2.5	6.3	8.1
Real Assets						
FTSE NAREIT All Equity Index	1.2	-12.3	-12.2	3.5	6.6	9.2
S&P Developed BMI Property Index	2.8	-17.6	-16.1	-1.1	2.7	5.3
S&P Developed ex-U.S. Property Index	4.8	-16.7	-12.3	-0.3	3.7	5.1
NCREIF Property Index	0.0	-0.3	1.3	4.9	6.1	9.3
Bloomberg Commodity Index	9.1	-12.1	-8.2	-4.2	-3.1	-6.0
Alerian MLP Index	-16.3	-46.2	-48.4	-20.8	-11.6	-4.2
NCREIF Timberland Index	0.0	0.2	0.1	2.1	2.6	4.4
Thomson One Private Real Estate Index	0.0	-5.5	-1.9	3.7	5.9	8.0
S&P Real Assets Equity Total Return Index	1.0	-17.7	-14.6	-1.5	3.2	5.1
Diversifying Strategies						
HFRI Fund of Funds Index	4.1	2.4	5.6	2.8	3.1	2.9
HFRI Fund Weighted Composite Index	4.2	0.6	4.2	2.8	4.1	3.6
HFRI FOF: Conservative Index	2.3	0.3	1.9	2.2	2.3	2.6
HFRI Event Driven	4.3	-2.2	0.6	1.6	4.0	4.0
HFRI Relative Value Total Index	2.6	-2.2	-0.4	1.9	3.4	4.2
HFRI Macro Index	1.3	0.6	0.4	1.7	1.2	1.0
Other						
Consumer Price Index - U.S.	1.0	0.5	1.4	1.9	1.9	1.8
U.S. Dollar Index	-3.6	-2.6	-5.5	0.1	-0.6	1.7

\* 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 Barclays US Aggregate Index	20.00%
HFRI Equity Hedge Index	5.00%
U.S. 91-Day Treasury Bills	1.00%
Bloomberg Commodity Index	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%

<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 Barclays US Aggregate Index	20.00%
Alerian MLP Index	3.00%
FTSE NAREIT All Equity Index	3.00%
HFRI FOF: Conservative Index	7.00%

<u>November 30, 2018</u>	<u>Weight</u>
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 Barclays US Aggregate Index	20.00%
U.S. 91-Day Treasury Bills	1.00%
Bloomberg Commodity Index	3.00%
FTSE NAREIT All Equity Index	3.00%
HFRI FOF: Conservative Index	10.00%
S&P 500 Energy Sector Index	3.00%



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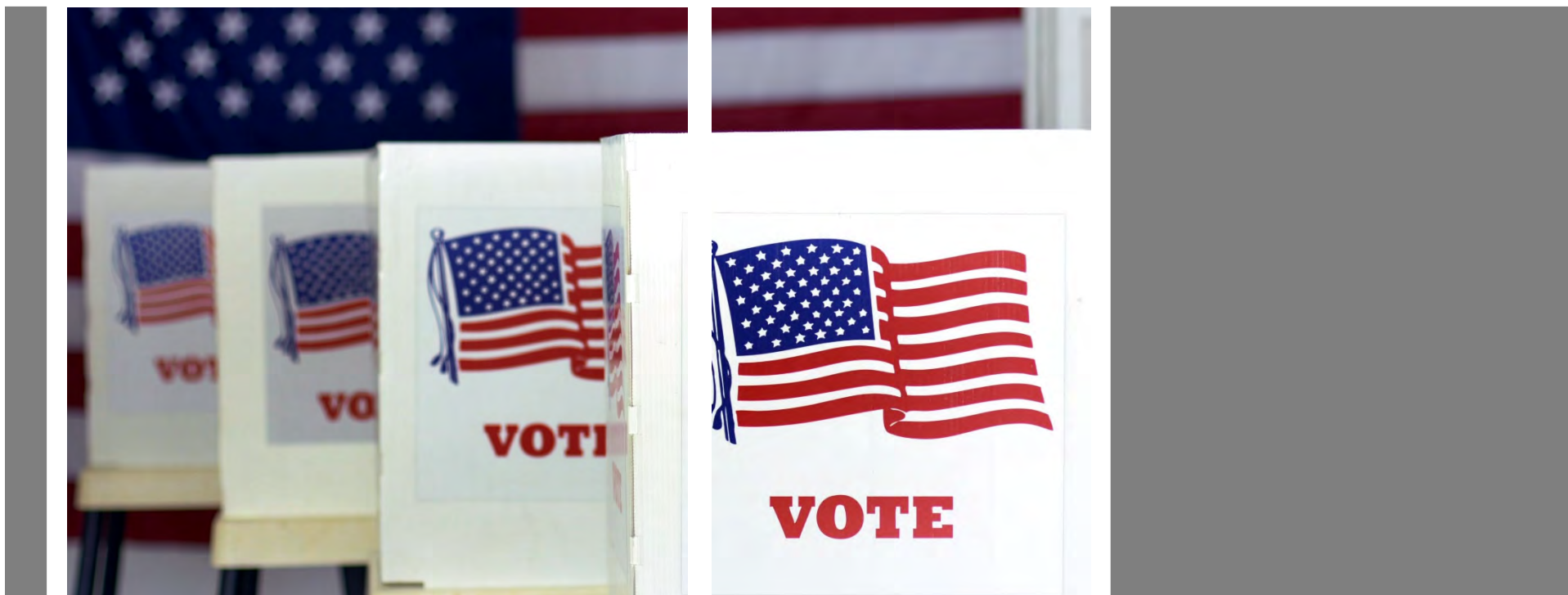
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Index performance results do not represent any managed portfolio returns. An investor cannot invest directly in a presented index, as an investment vehicle replicating an index would be required. An index does not charge management fees or brokerage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

This report is prepared for informational purposes only. Past performance is not indicative of future results.



# ELECTIONS AND MARKETS

Third Quarter 2020

## ELECTIONS AMID A DIVISIVE PERIOD

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*For most of the 21st century, the political environment evoked one label in particular: divisive.*

In fact, the political discord has only increased over the past 20 years. In most circumstances, avoiding political discussion is sage advice.

We are providing this presentation based on high demand from clients regarding elections and investing, and we intend to keep the focus in that direction. We are not advancing the campaign of any candidate nor supporting any political party or platform within this presentation.

Rather, our objective is to address questions from clients, who we understand represent questions from a diverse spectrum of political ideologies, as do our employees. We will address not only historical information, but elements of each presidential campaign's policies and proposals that could impact markets.

We hope that you find this information balanced and beneficial for a macro-view of elections and investments.

*We fully expect that about 49% of the country will be elated with the results on election night while another 49% end up furious and distraught. The other 2% are likely so frustrated with politics that they have simply shut their eyes and ears to the noise.*

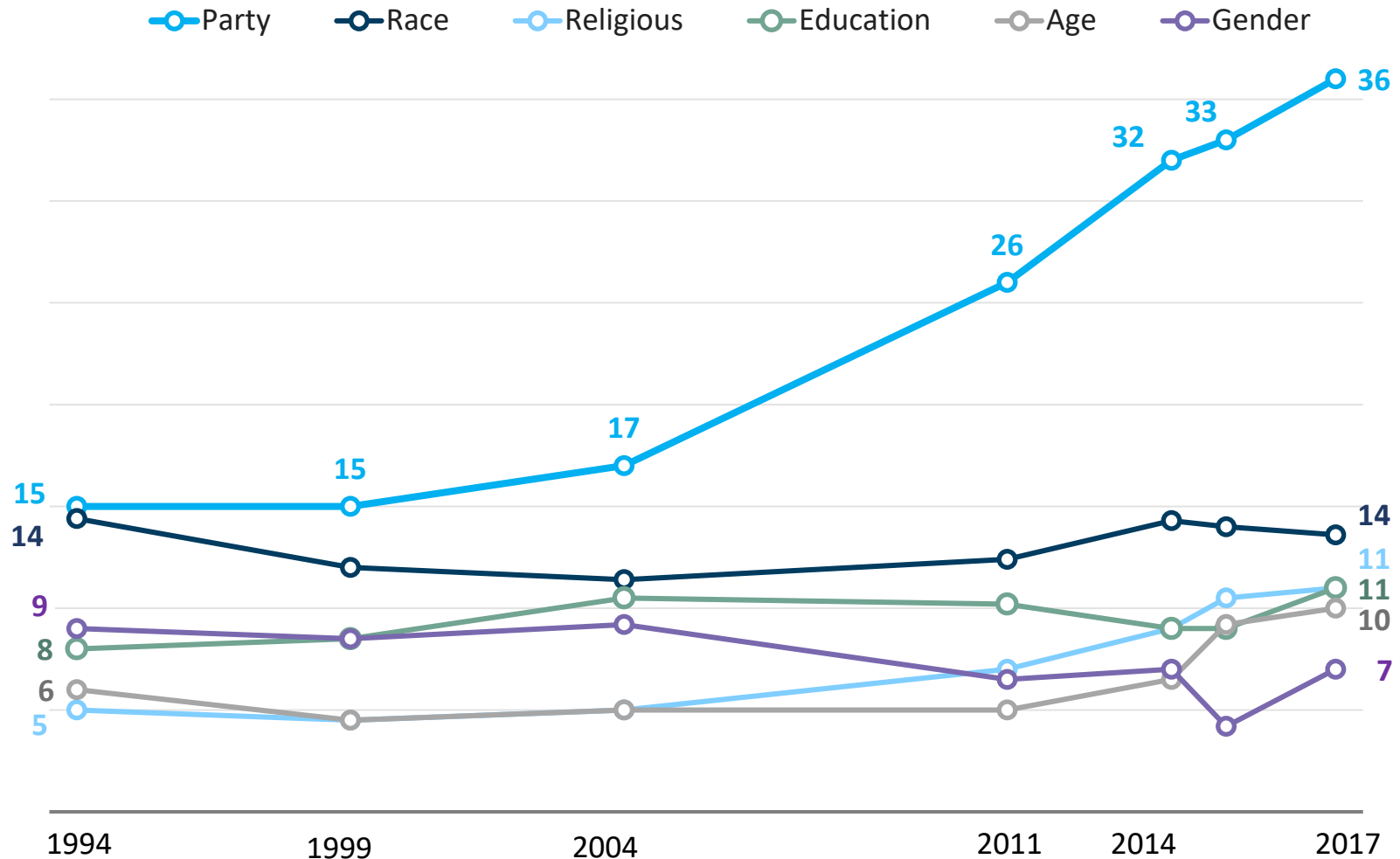
*It is not our intent to make any readers of this presentation furious, distraught, or frustrated. If we present information in a balanced perspective, we hope to avoid creating a feeling of elation as well. We know that these feelings are rooted in caring for the country.*

*Further, our three branches of the federal government provide inherent checks and balances. These aid in limiting the abrupt enactment of drastic policy changes from the far ends of the political spectrum, supporting the nation's ideal not only as a melting pot of people, but of ideas as well.*

# ELECTIONS AMID A DIVISIVE PERIOD

## PARTY DIVIDE INCREASING AMONG AMERICANS, WHILE DEMOGRAPHICS REMAIN CONSISTENT

Average Gap in the Share Taking a Conservative Position



Note: Indicates average gap between the share of two groups taking the conservative position across 10 values items. Party = difference between Rep/Lean Rep and Dem/Lean Dem. Race = white non-Hispanic and black non-Hispanic. Religion = weekly religious service attenders and less often. Education = college grad and non-college grad. Age = 18-49 and 50+.

Data source: PEW Research Center, Survey of Americans conducted June/July 2017

# ELECTIONS AND MARKETS

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Generally, making asset allocation decisions on potential policy changes as a consequence of an election is less than prudent, and we do not advocate portfolio changes on the basis of potential election outcomes. Nevertheless, elections set the fundamental tone of policy that dictates the playing field in which commerce and investment occur, so understanding policy is important. Fortunately, American ingenuity has historically found a way of overcoming bad policies.

*To aid in the understanding of the fundamental underpinnings of the implications of the election, we assembled this presentation to address:*

---

## I. Polls, Markets, and Party Control

- Why do we not advocate investing based on polls?
- How has the market generally behaved around elections and what could uncertainty around the results mean for markets?
- Lastly, what has party control generally meant for markets?

---

## II. There is No Escape From Taxes

- The inescapable aspect of taxes is always with us, but at what level?
- How do Biden's proposals compare to previous tax increases, and what could that mean for earnings?

---

## III. Economic Concerns and Policy Implications

- One of the primary drivers of election success has often been the state of the economy; how does the COVID-19 pandemic influence the electorate?
- What could be in store for the pace of new regulations, corporate taxes and government spending, renewable energy, technology companies, and inflation?

Most importantly, readers should understand that no political party has a monopoly on success of the United States and markets have performed well regardless of who is in charge. If any message is to be received from this presentation, this is the most important one.



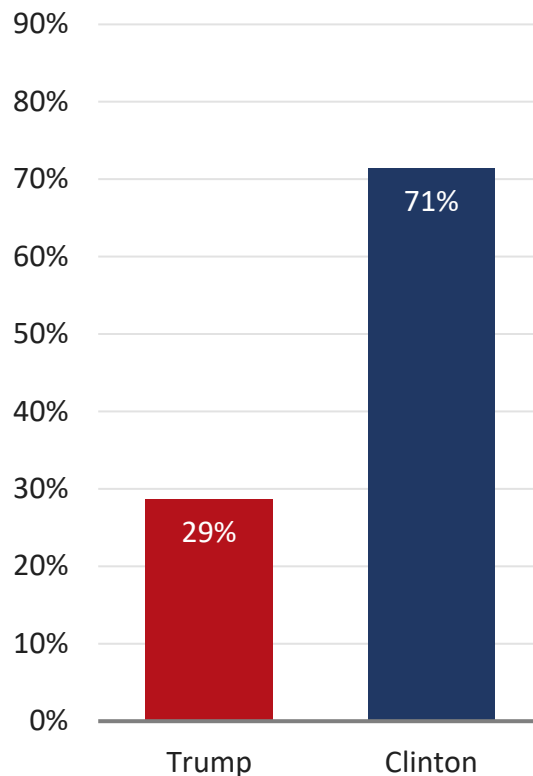
# POLLS, MARKETS, AND PARTY CONTROL

# MAKING INVESTMENT DECISIONS BASED ON POLLING SEEMS FOOLISH

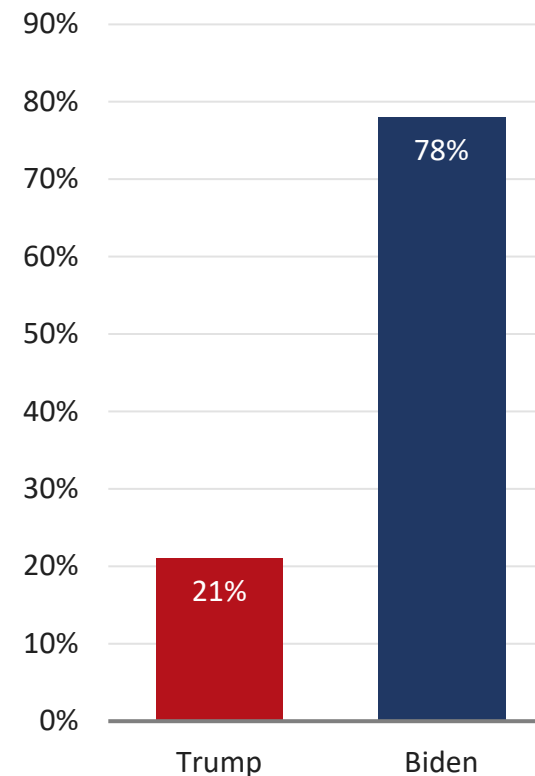
- Clinton's 2016 polling was highly volatile, with breaking news about controversies during her time as the Secretary of State. This year, Biden's polling has been less volatile than Clinton's.
- Nevertheless, forecasts of all types are notoriously inaccurate. The disparity between the 2016 presidential election polling and results, as well as the market's moves that went counter to speculations, illustrate why making investment decisions around election expectations is often ill-advised.

## 538 PRESIDENTIAL ELECTION FORECAST

Final 2016 Election Probability



2020 Probability



Data source: [https://projects.fivethirtyeight.com/2020-election-forecast/?cid=referral\\_taboola\\_feed](https://projects.fivethirtyeight.com/2020-election-forecast/?cid=referral_taboola_feed). 2020 probability as of September 30, 2020.

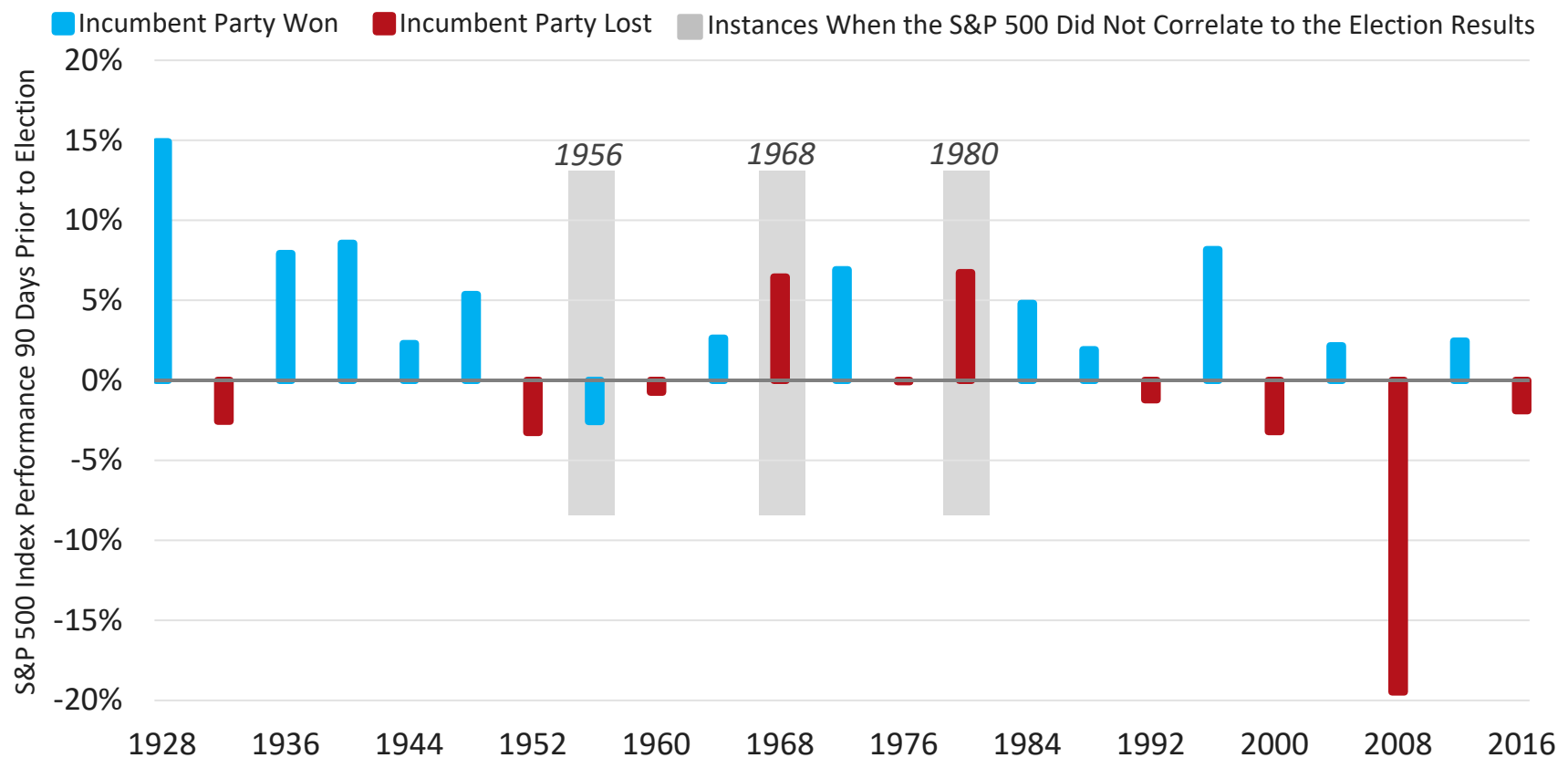


# THE EQUITY MARKET AS A POLITICAL PUNDIT

- The return of the S&P 500 Index has been a better predictor of presidential election results than the pundits.
- Since 1984, a positive return in the three months prior to election has preceded the incumbent party's reelection and a negative return has preceded a loss.
- The accuracy of the S&P 500's return as a predictor has been 87% when going back to 1928.

## THE U.S. STOCK MARKET HAS BEEN AN EFFECTIVE ELECTION PREDICTOR

S&P 500 Index Performance 90 Days Prior to Election Day, 1928-2016



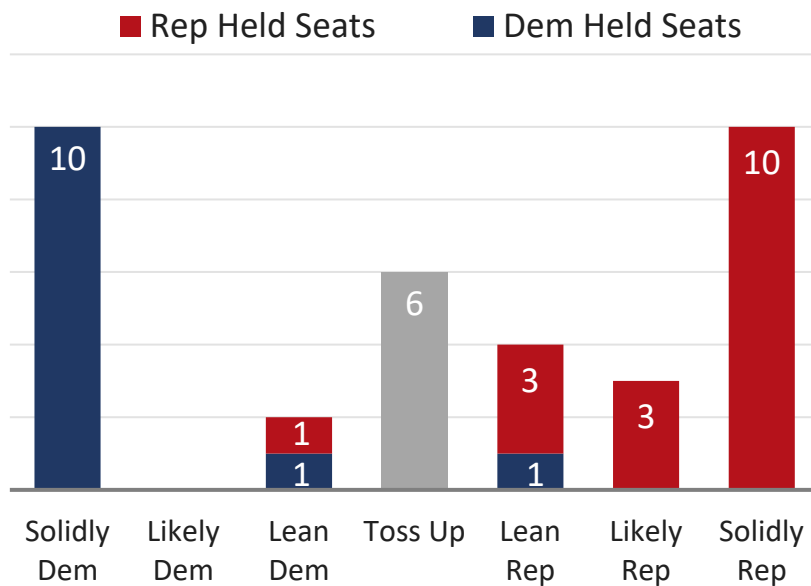
Data source: Strategas

## SCOTUS AND THE SENATE

- The death of Justice Ruth Bader Ginsburg has brought an elevated level of political tension to 2020.
- Some have attributed Republicans' 2018 gain of a net two Senate seats to the contentious confirmation of Justice Kavanaugh, although both parties insist the confirmation and SCOTUS will drive their parties to vote.
- Republicans could potentially have the confirmation completed before the November 10 Affordable Care Act (ACA) hearing before the Supreme Court, creating more uncertainty about the outcome for ACA and for healthcare companies, whose stocks had been weak amid expectations of complete Democratic control and Biden's proposed public option managed care company that would compete with the private sector.

### SENATE SEATS UP FOR GRABS

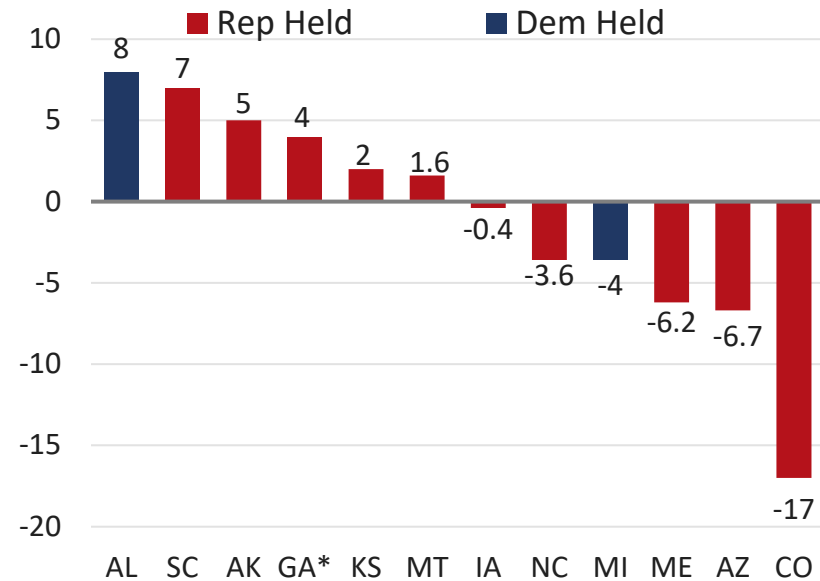
2020 Senate Race Reports



Data sources: Strategas and The Cook Report, as of September 9, 2020

### REPUBLICAN CANDIDATES' LEAD IN KEY 2020 RACES

Real Clear Politics Average



\*Ga- is reported for the Perdue seat

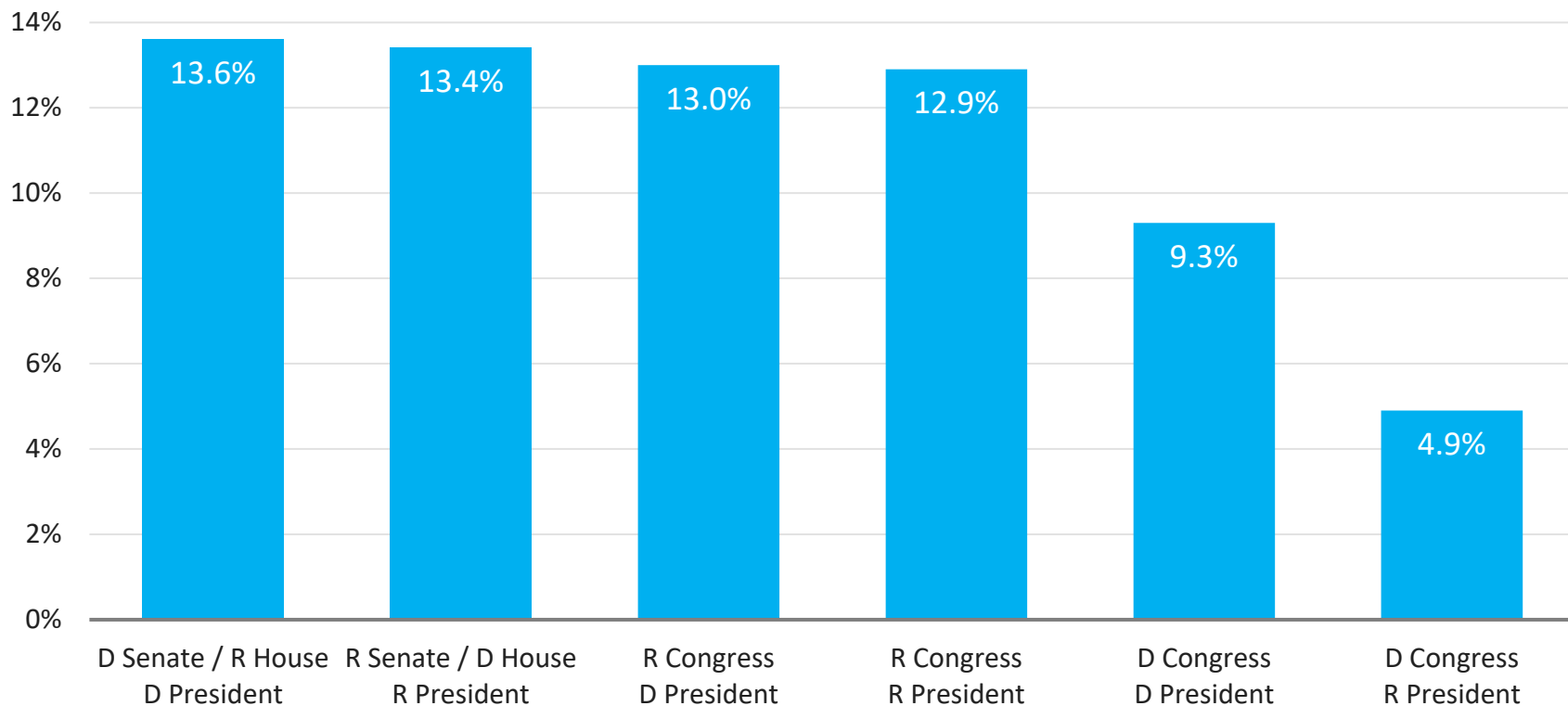
Data sources: Strategas and Real Clear Politics as of September 21, 2020

## CONTROL OF THE LEGISLATIVE AND EXECUTIVE BRANCHES

- Investors should take solace in knowing that in most cases, equity market performance has been strong regardless of who controls the White House.
- Having some level of partisan divide has historically been good in most cases, as negotiation is required to enact public policy and drastic changes are constrained.

### MANY TIMES, GRIDLOCK IS GOOD

Partisan Control, Average Annual S&P 500 Index Performance, 1933-2019

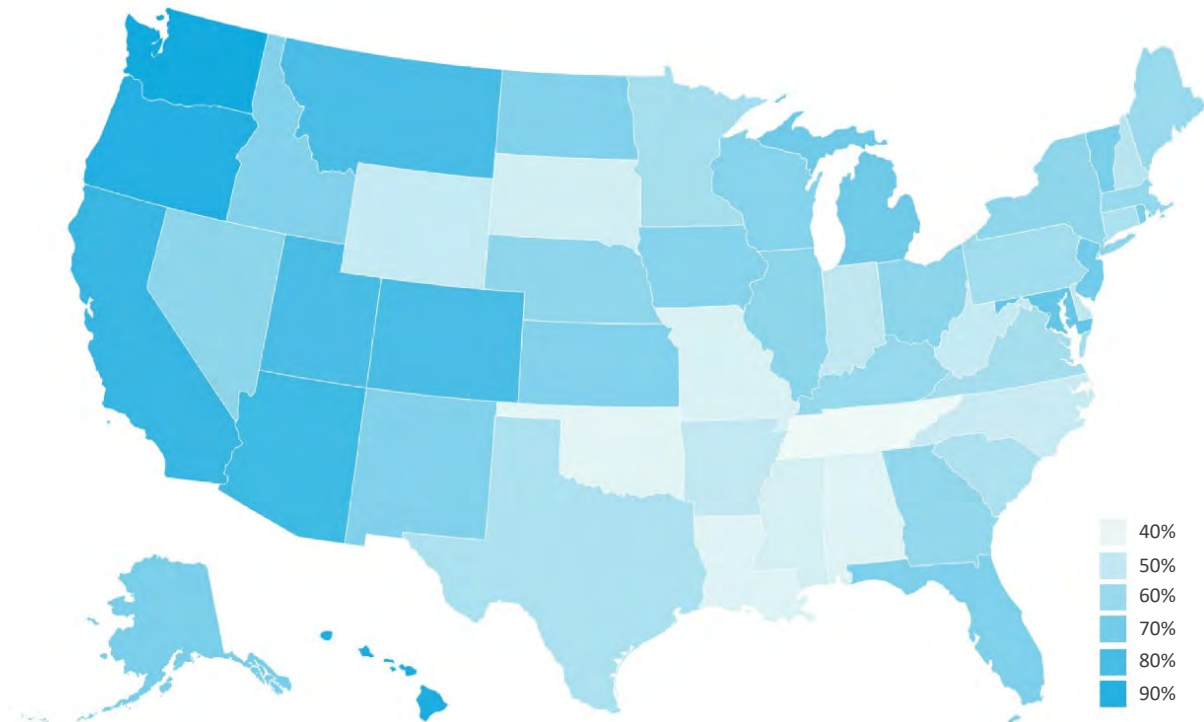


Source: Strategas. Excludes 2001-02 due to Rep. Jeffords change in party affiliation

## DELAYED RESULTS? AMERICANS VOTING ABSENTEE/BY MAIL

- Due to the COVID-19 pandemic, many more voters are expected to use absentee or mail-in voting, potentially delaying clarity in the results of the election.
- The infrastructure and procedures to support absentee voting vary between the states, with some that have sound capabilities due to a long history of absentee voting, and other states with limited experience.
- In 2000, during the “hanging chad” debate, the U.S. equity market declined approximately 5% before resolution of the presidential election. This market decline was vastly overshadowed by the bursting of the technology bubble earlier in 2000 and the recession that followed in 2001.

**HOW LIKELY IS IT THAT YOU WILL VOTE BY ABSENTEE OR MAIL-IN BALLOT?**  
Percent of respondents planning to vote who say “very likely” or “somewhat likely”



*National sample, N = 19,058, Time period: 7/10/2020-7/26/2020*

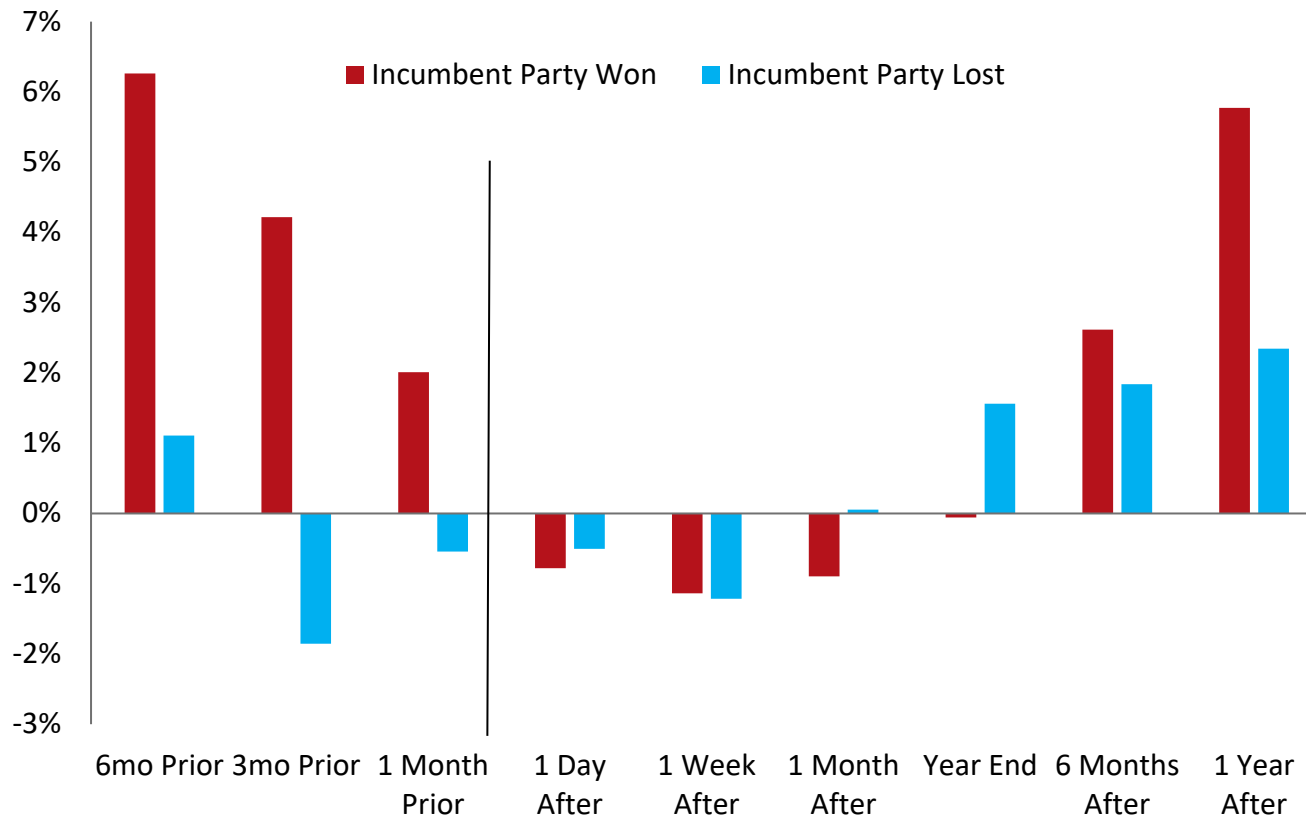
Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States  
(A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) [www.covidstates.org](http://www.covidstates.org).

## MARKETS PAUSE TO FIND FOOTING POST-ELECTION

- Market performance has tended to be weak on average surrounding an election, albeit across a wide performance range, as results and potential policy changes are considered.
- The underlying contributors to market volatility and weakness are likely not limited to the change in the occupant of the White House, but also affected by the political composition of both houses of Congress.

### S&P 500 INDEX AVERAGE PRICE PERFORMANCE WEAK NEAR ELECTIONS

Presidential Elections Results, 1936-2017



Data source: Strategas



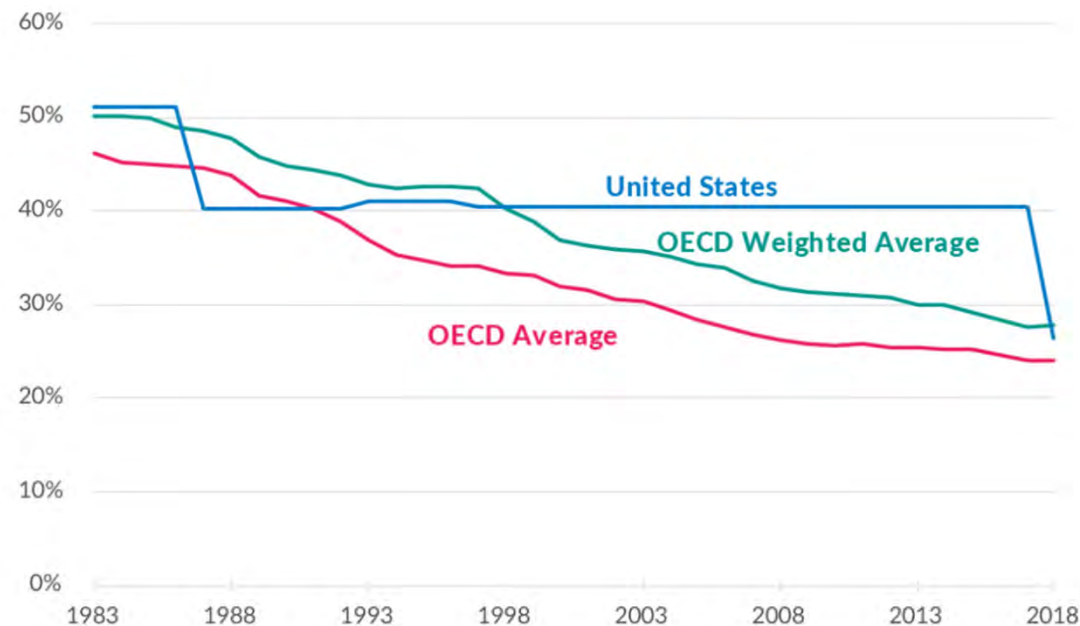
THERE IS NO ESCAPE FROM TAXES

# CORPORATE TAX REDUCTION

- The 2017 tax cuts included a reduction in U.S. corporate taxes intended to make U.S. domiciled companies more globally competitive, as well as to encourage companies to repatriate foreign revenue. These cuts boosted equity earnings and were attributed to supporting the 2018 equity rally.
- The Democratic party platform and Vice President Joe Biden's campaign propose reversing a portion of the tax cuts to pay for increased spending.
- The Republican party and President Trump advocate for maintaining corporate tax cuts.

## CORPORATE TAX CUTS PUT U.S. COMPANIES IN LINE WITH OECD NATIONS

Top Corporate Income Tax Rate, U.S. vs. OECD, 1983-2018



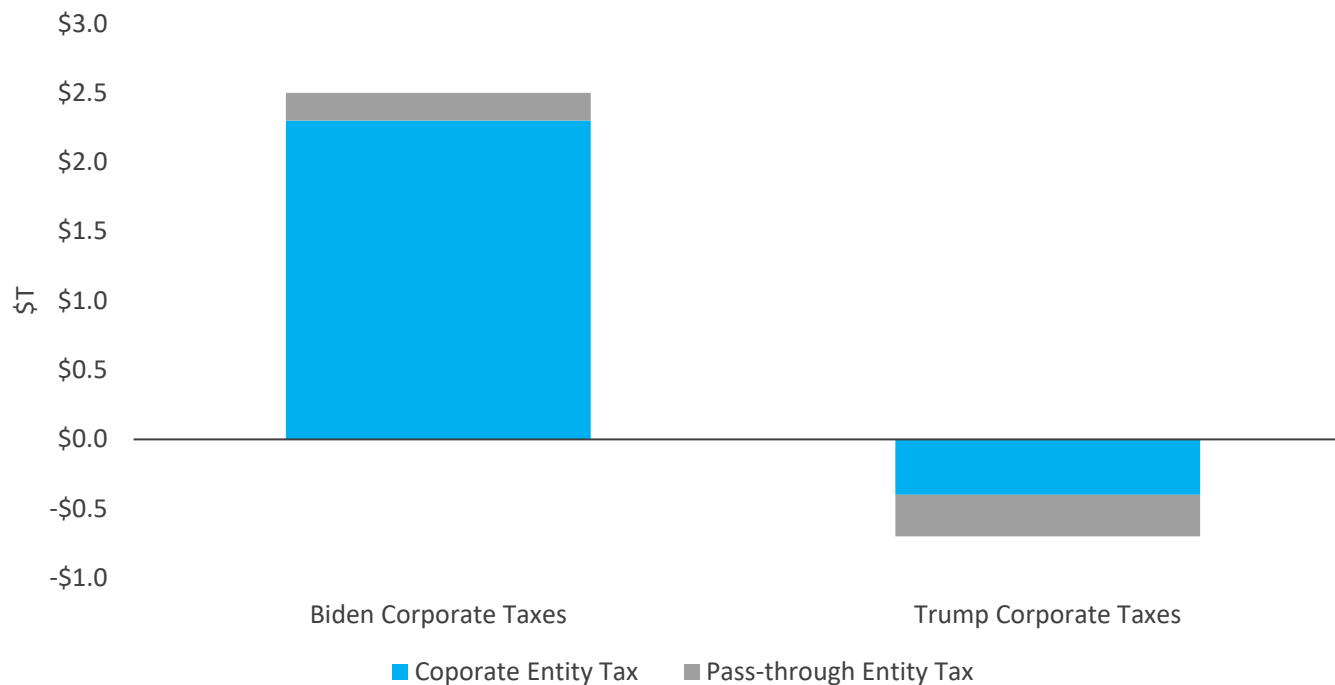
Sources: UBS, CBT Tax Database, EICD Statistics, USDA ERS International Macroeconomic Data Set  
OECD = Organization for Economic Co-operation and Development

# BIDEN CORPORATE TAX PROPOSAL

- Biden's proposed corporate tax increase from 21% to 28% is presented as a removal of half of the corporate tax cuts from the Tax Cuts and Jobs Act of 2017 (TCJA) that reduced the maximum corporate tax rate from 35% to 21%.
- Due to base-broadening and sector-specific tax proposals, Biden's proposal results in approximately \$2.5 trillion in new taxes over 10 years, which is far greater than the TCJA tax reduction.

## BIDEN PROPOSED TAX INCREASES VERSUS TRUMP TAX CUTS

\$Trillions of Corporate and Pass-Through Taxes Raised/Reduced over 10 Years



Data sources: JP Morgan Asset Management and Cornerstone Research, Joint Committee on Taxation, August 2020

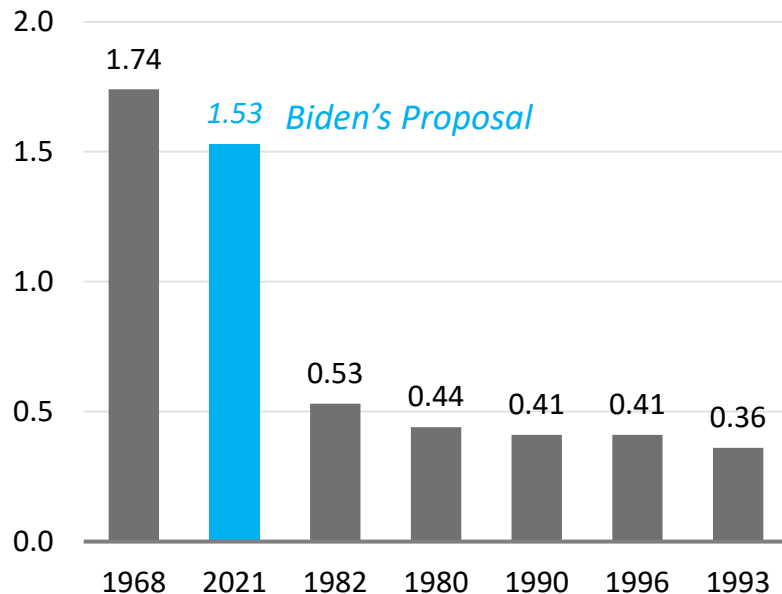


## BIDEN PROPOSING HIGHER TAX RATES

- Biden's proposed tax increases – 1.53% of GDP – are the largest first year tax increases as a percent of GDP since 1968 – 1.74% of GDP under President Lyndon Johnson. The next two largest tax increases as a percent of GDP measured 0.53% and 0.44% in the years 1982 and 1980, respectively.
- The 1968 tax increase coincided with a dramatic decline in both economic growth and the equity markets, as the tax surcharge was extended twice until ending in 1973.
- Biden states that the increased taxation will support government spending in infrastructure and healthcare, among other areas. More information follows in the section *Economic Concerns and Policy Implications*.

### BIDEN'S TAX INCREASE IS ~3X LARGER THAN ANY SINCE 1968

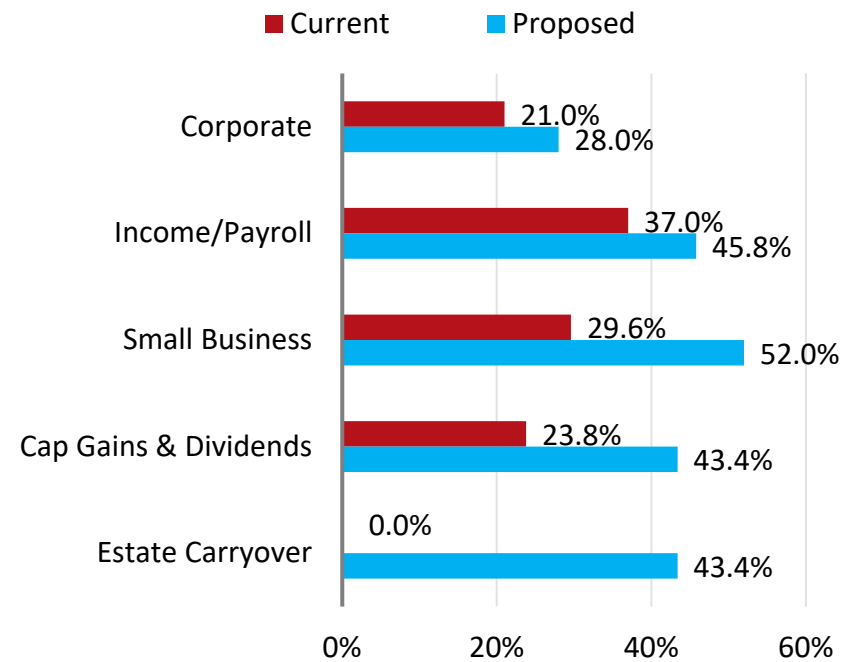
Tax Increases as a Percent of GDP, First Year



Data source: Strategas, as of September 9, 2020.

### BIDEN'S TAX INCREASES FOR BUSINESS AND INDIVIDUALS

Biden Campaign Tax Rate Proposals



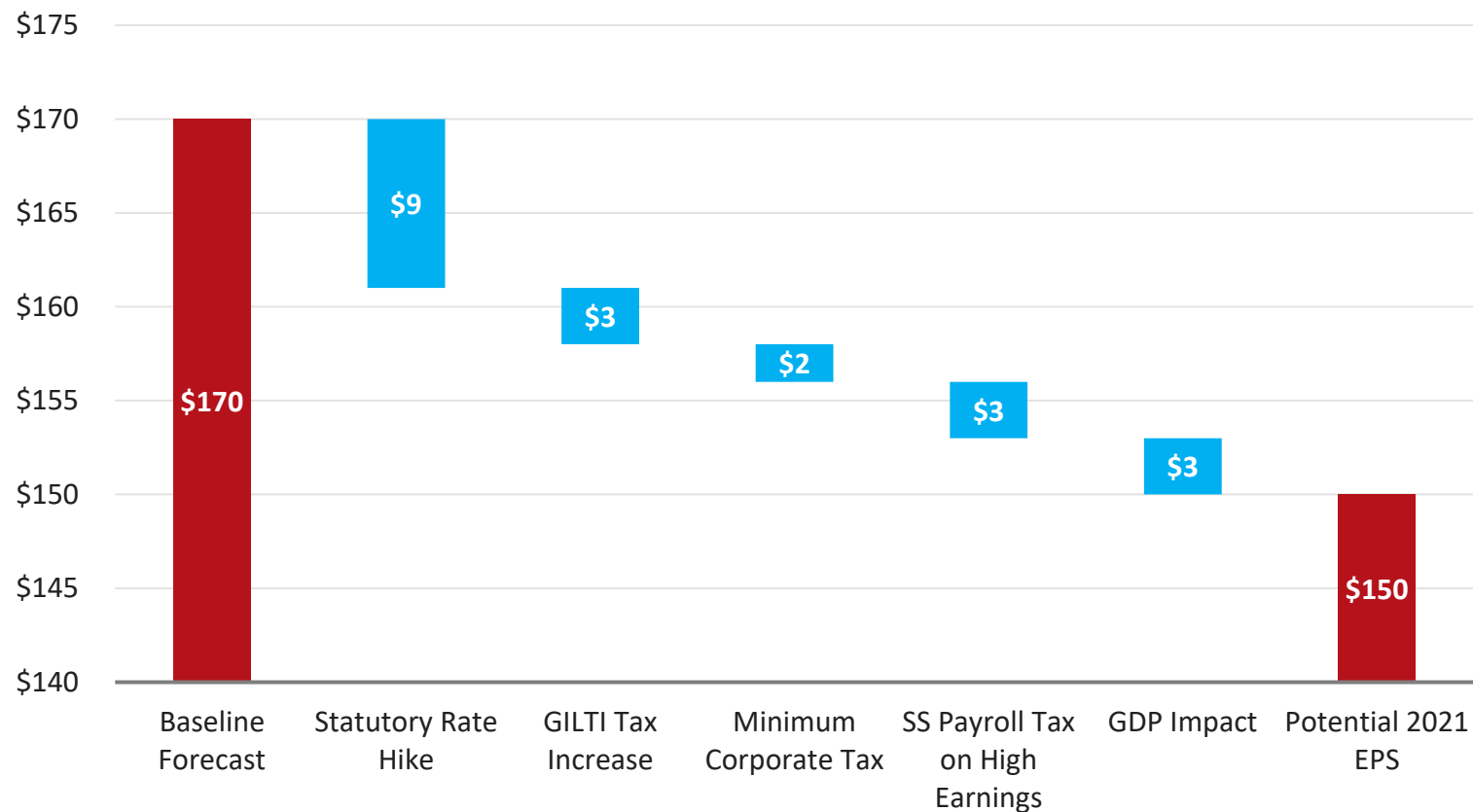
Data source: Strategas, as of September 9, 2020.

# THE IMPACT OF TAXES ON U.S. EQUITY EARNINGS

- Estimates are that the impact of proposed tax increases would be a 10% to 12% decline in equity earnings for the S&P 500 Index.

## TAX INCREASES COULD REDUCE S&P 500 EPS BY 12% (\$20) IN 2021

Potential Impact of Tax Reform on 2021 S&P 500 EPS



Data sources: Tax Foundation, FactSet, Goldman Sachs Global Investment Research. Data as of June 4, 2020.



## ECONOMIC CONCERNS AND POLICY IMPLICATIONS

# IT'S THE ECONOMY, STUPID

- James Carville coined the phrase, “It’s the economy, stupid” when directing Bill Clinton’s campaign in the run against President George H.W. Bush, whose reelection campaign was plagued by the early-1990’s recession.
- Historically, an economic recession in the final two years of a presidency has resulted in the incumbent party’s defeat. Only President Coolidge broke this streak in the 1920s.
- Prior to the pandemic, the U.S. economy was strong and impressive household income growth spanned all demographics, especially among some that traditionally have heavily favored Democratic candidates.
- The pandemic triggered a massive rise in unemployment. Although household income losses were offset by the CARES Act, furloughed employees have become permanently unemployed and greater attention is now also given to other social issues.

## RECESSIONS KILL U.S. PRESIDENCIES, U.S. RECESSIONS VERSUS RE-ELECTION RESULTS

No Recession Two Years Before Re-Election			Recession Two Years Before Re-Election		
President	Recession?	Re-Elected?	President	Recession?	Re-Elected?
Obama	No	✓	H.W. Bush	Yes	✗
W. Bush	No	✓	Carter	Yes	✗
Clinton	No	✓	Ford	Yes	✗
Reagan	No	✓	Hoover	Yes	✗
Nixon	No	✓	Coolidge	Yes	✓
LBJ	No	✓	Taft	Yes	✗
Eisenhower	No	✓			
Truman	No	✓			
FDR	No	✓			
FDR	No	✓			
FDR	No	✓			
Wilson	No	✓			

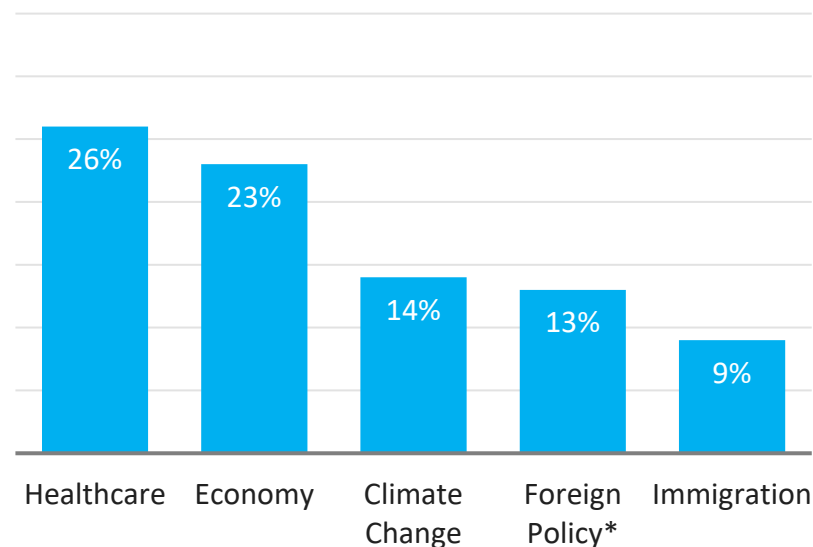
Data sources: Strategas and Bruce Mehlman

## ISSUES ON VOTERS' MINDS

- Healthcare and the economy were the dominant issues occupying voters' minds prior to the pandemic.
- As the worst of the outbreak subsided and the economy started to show signs of improvement, the favorability of congressional Republicans started to improve.
- Now, issues surrounding the recent social unrest and violent protests have become increasing concerns of the important suburban women voter demographic.
- Healthcare has waned as a concern among voters, but the SCOTUS confirmation process and the looming arguments over ACA may bring healthcare issues back to the forefront.

### VOTERS TOP CONCERNS HAVE CHANGED TO THE ECONOMY AND COVID-19 SINCE FEBRUARY

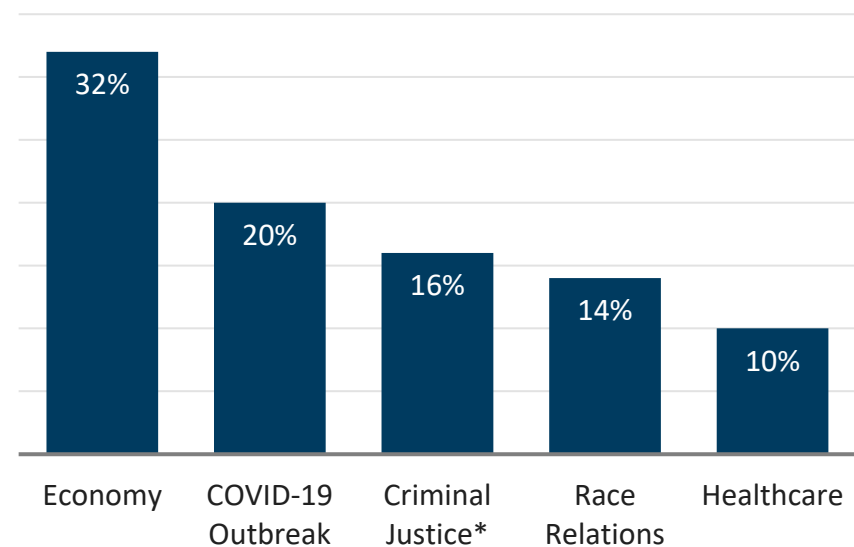
February Poll



\*Foreign Policy and National Security

Data sources: Strategas and KFF Polling, as of September 21, 2020

September Poll



\*Criminal Justice and Policing

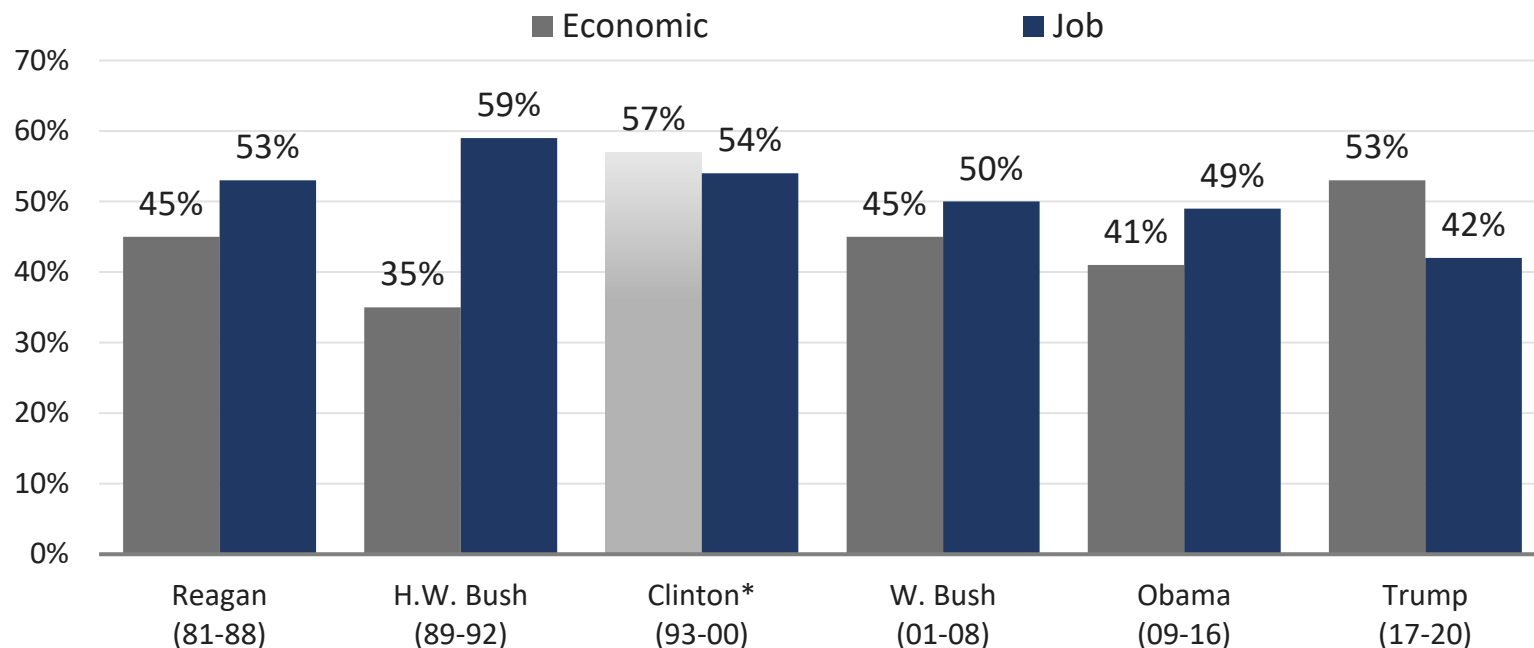
Data sources: Strategas and KFF Polling, as of September 21, 2020

## ECONOMIC APPROVAL VERSUS JOB APPROVAL

- Economic approval generally falls heavily along party lines in approval of a U.S. President. President Trump has generally received a higher economic approval rating, but a lower job approval rating.
- The COVID-19 pandemic was a unique trigger for economic recession, as the economy was running well prior to the pandemic. Thus, voters may assign less blame to President Trump for the economic downturn but consider the handling of the pandemic and other social issues more heavily when voting.
- The higher unemployment rate, especially in areas that were harmed by the trade war and the pandemic's impact on manufacturing, could aid Vice President Biden.

### TRUMP UNIQUE IN HAVING *CONSISTENTLY* HIGHER ECONOMIC APPROVAL THAN JOB APPROVAL

Share who Approve of President's Job Performance and Handling of the Economy



*\*Clinton's job approval exceeded his economic approval until 1998.*

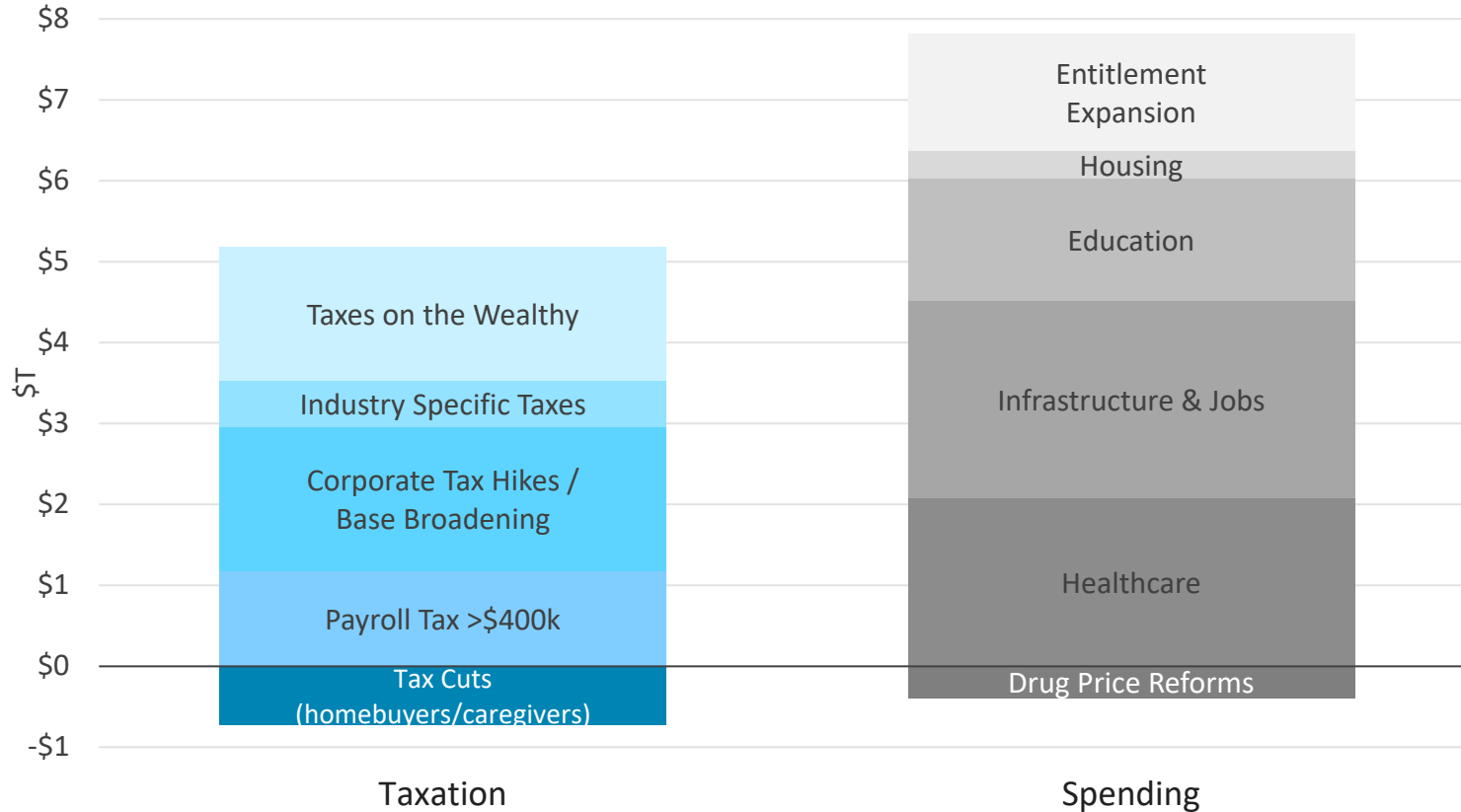
Data sources: Wall Street Journal and Gallup surveys of U.S. adults, data as of September 13, 2020. Note: Data show the full-term average.

# TAXES INTENDED FOR GOVERNMENT SPENDING

- Biden's proposed taxation plan is to support the expansion of government spending of almost \$8 trillion over the next ten years, although one should expect significant government spending regardless of who is in power.
- Proposed spending increases are focused on entitlements, educations, infrastructure and employment, and healthcare.

## THE BIDEN TAXATION AND SPENDING AGENDA

\$Trillions over 10 Years



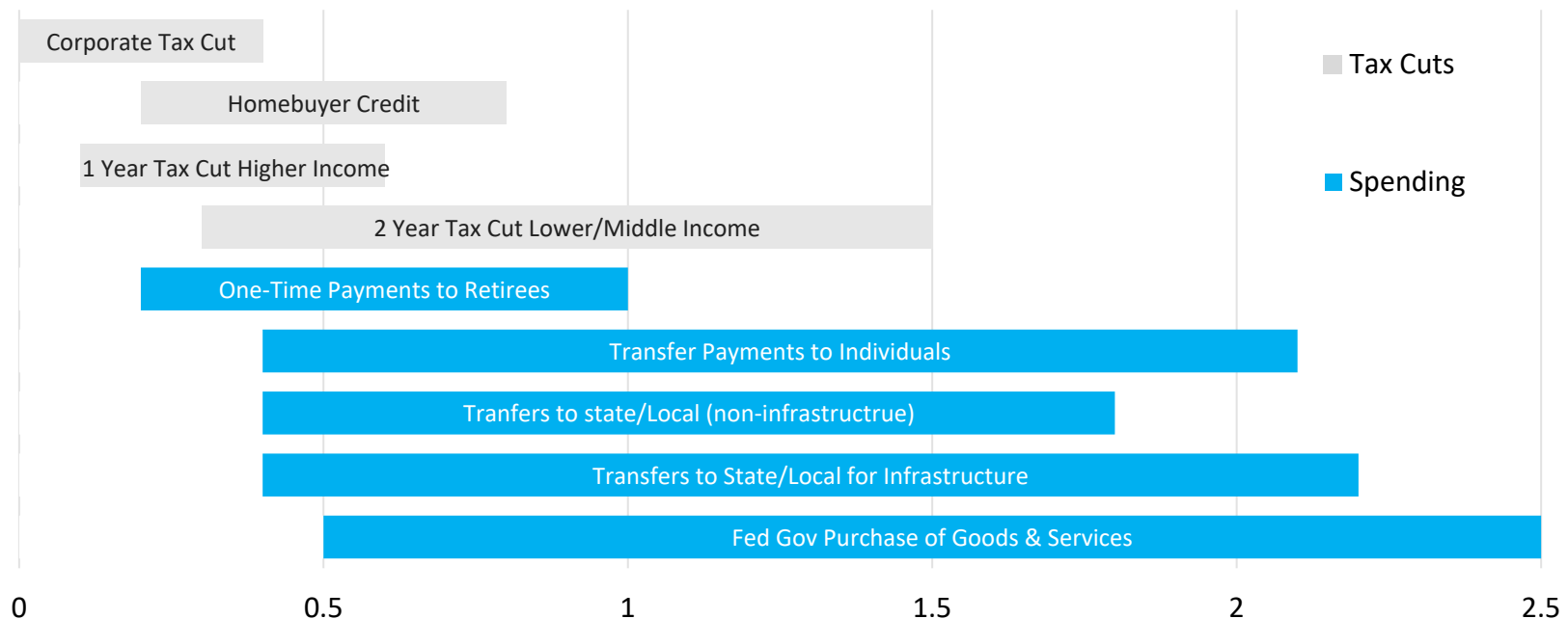
Data sources: JP Morgan Asset Management and Cornerstone Research, Joint Committee on Taxation, August 2020

## ESTIMATED EFFECTIVENESS OF SPENDING FOR GROWTH

- Biden's proposed spending is focused on areas the Congressional Budget Office (CBO) estimated to have the greatest potential as growth multipliers, albeit with an extremely wide range of potential benefits.
- The CBO's estimates of the benefit of a \$1 increase in aggregate demand vary depending on the degree to which the economy is running near potential and whether the Federal Reserve's (Fed) offsetting reaction to avoid inflation is limited. Multiples tend to be more effective when the economy is weak and the Fed is expected to remain accommodative to fiscal policy, as are current conditions.

### CBO ESTIMATES MULTIPLIERS FROM INFRASTRUCTURE AND GOODS & SERVICES ARE STRONGEST

Estimates of Growth Multiplier by Policy



Data source: Congressional Budget Office Macroeconomic Division, February 2015.

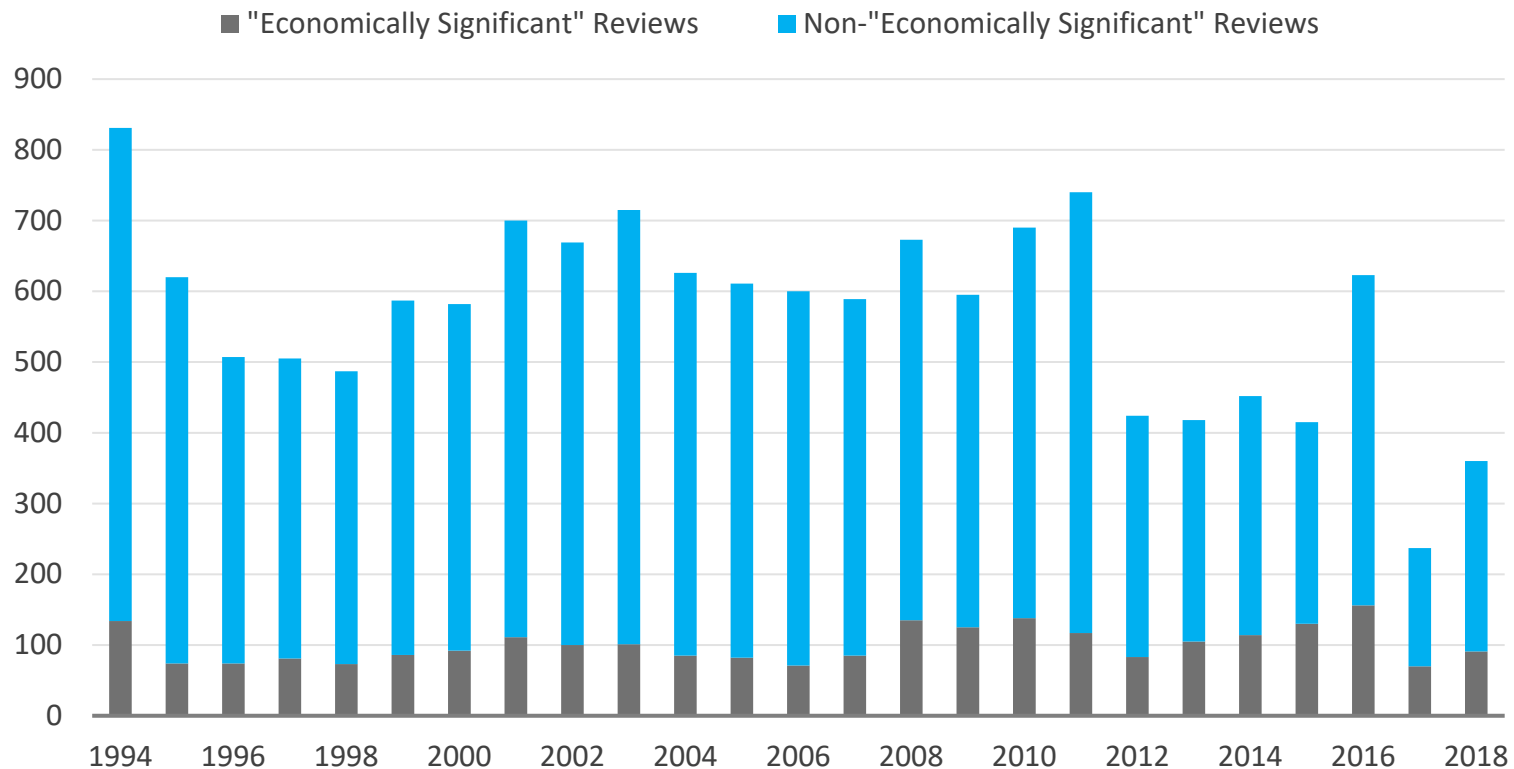


## REGULATORY ENVIRONMENT

- Early in the Trump presidency, the administration pushed for a reduction in regulatory rules with what became the “one in, two out” policy, requiring that for new “incremental costs” resulting from new regulations, equivalent costs associated with two existing regulations must be repealed.
- Under a Biden administration, expectations that a deregulatory environment would persist are unlikely.

### DECLINING REGULATORY RULES UNDER THE TRUMP ADMINISTRATION

Total Number of OIRA Economically Significant and Non-Economically Significant Reviews, 1994-2018



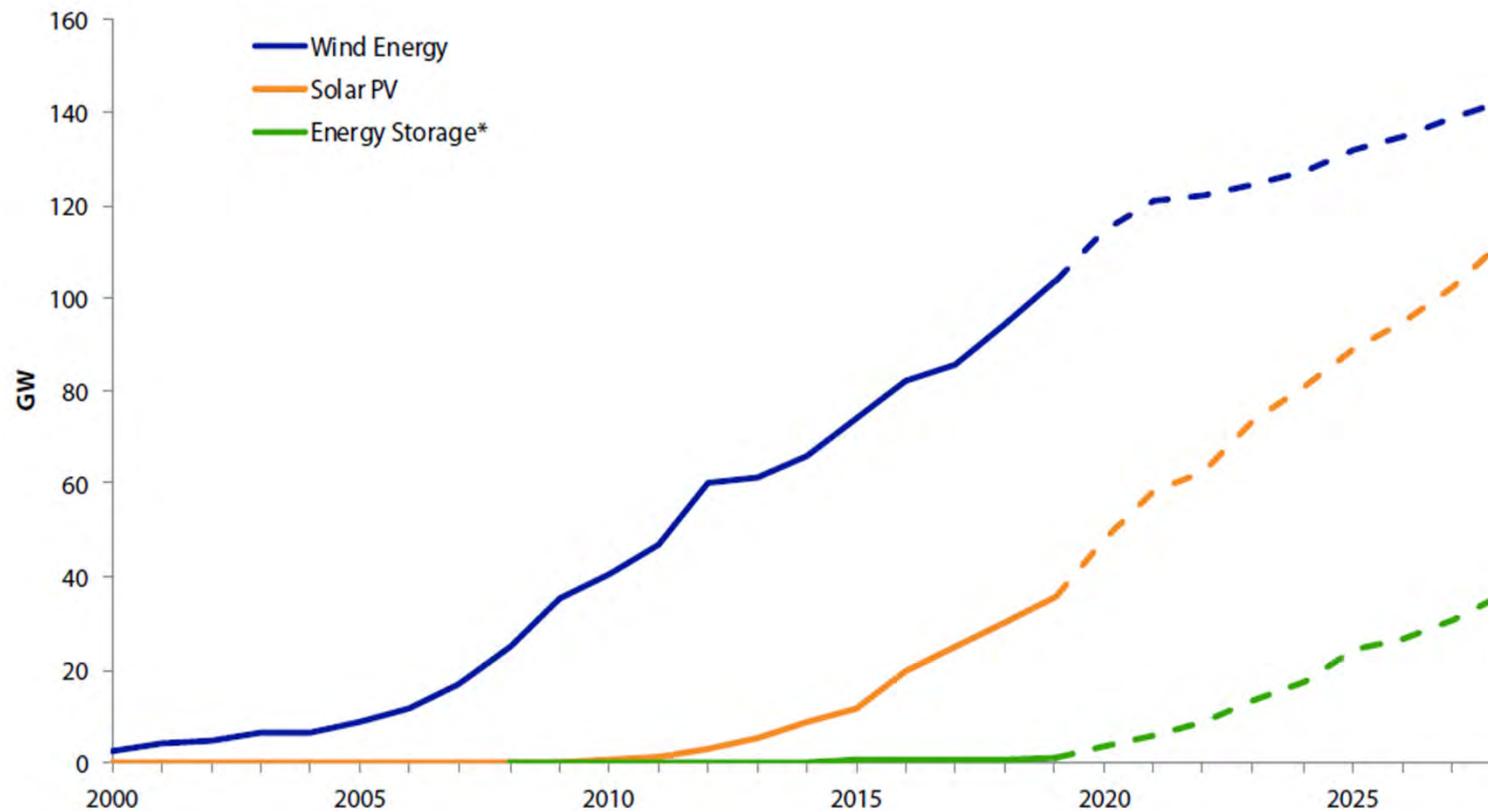
Source: Congressional Research Services and Office of Information and Regulatory Affairs, July 1, 2019

# RENEWABLE ENERGY

- Renewable energy growth has accelerated over the past decade and is forecasted to continue growing.
- Under Democratic control of both the White House and Congress, renewable energy is likely to benefit from incentives and restrictions that promote green energy use and disincentivize traditional fossil-fuel use.

## GREEN ENERGY USE INCREASING

Total U.S. Installed Utility-Scale Capacity



\*Battery storage. Includes variety of battery chemistries. Does not reflect 23 GW of existing pumped hydro capacity.

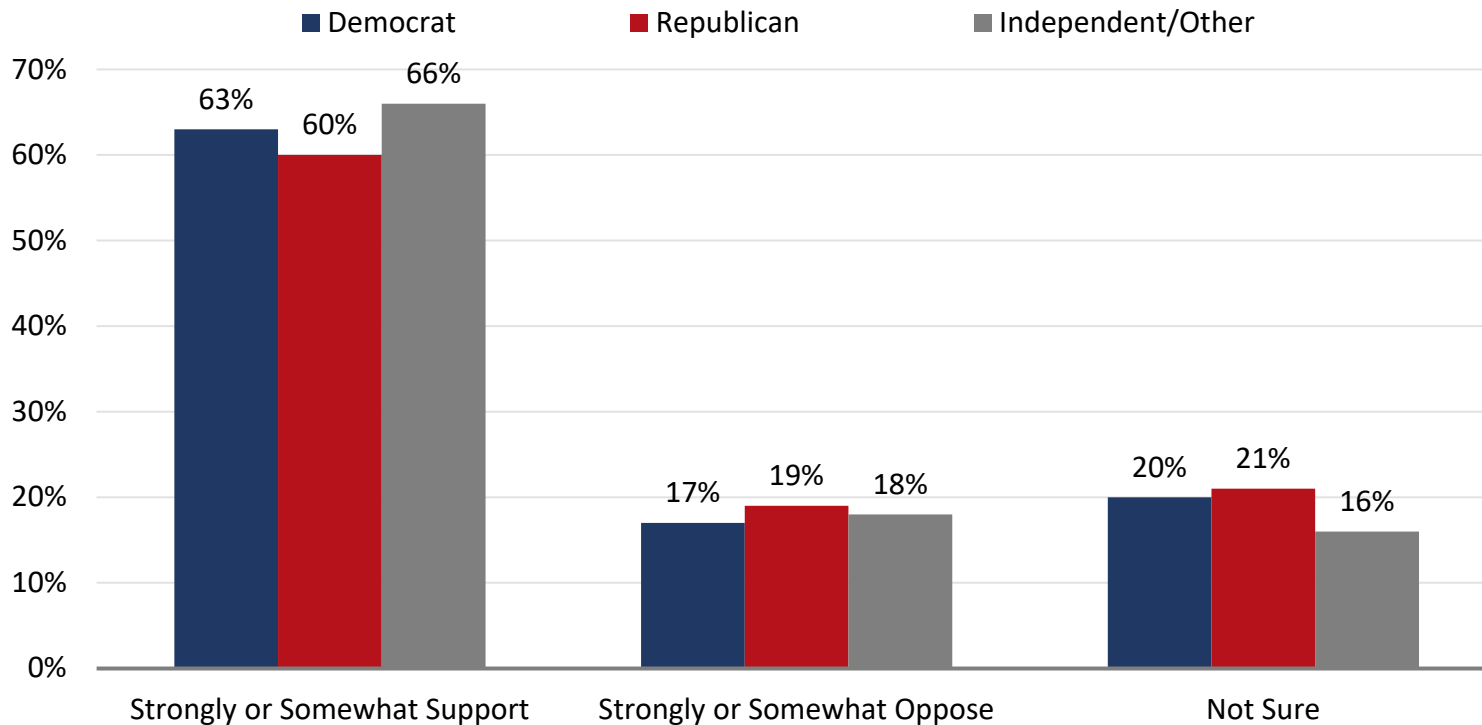
Sources: Actuals: EIA. Electric Power Monthly. February 26, 2020; wind and solar PV forecasts: BNEF. New Energy Outlook. June 18, 2019; energy storage forecasts: BNEF. 2019 Long-Term Energy Storage Outlook. July 31, 2019.

## TECHNOLOGY

- One area of agreement between voters of both parties has been the concern that large technology and tech-enabled businesses are “too large.”
- Expectations are that the Trump administration would push this issue harder than a Biden administration.
- Reasons for the public’s concern with the dominance of large technology companies varies, and encompasses issues such as privacy, profitability, competitiveness, manipulating information flow, national security, and censorship.

### BI-PARTISAN AGREEMENT FOR BREAKING UP BIG TECH

Would you support or oppose a policy breaking up big tech companies by undoing recent mergers, like Facebook buying Instagram, so there is more competition in the future?

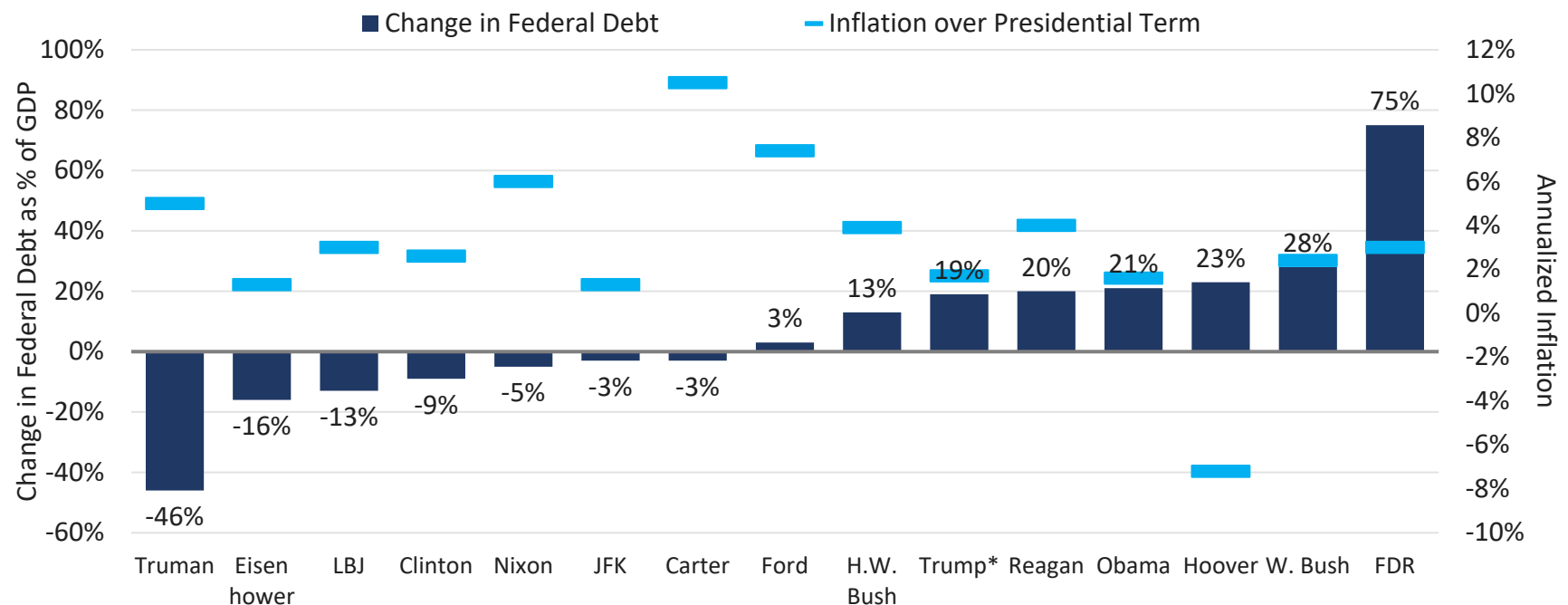


Data sources: Vox, YouGov/Data for Progress, September 2019.

# INFLATION CONCERNS

- Democratic presidencies tend to push for policies that further federal spending on social programs and infrastructure, in addition to further stimulus desired by both parties in response to COVID-19.
- Presidential party affiliations have little to do with the management of gross federal debt. Nevertheless, many worry that this expansion of federal spending, and thereby debt, may lead to inflation concerns.
- Recent research by a Hoover Institute fellow suggests that large federal deficits do not typically create unexpected inflation. Rather, the level of and expected changes to the discount rate on government debt tend to create fiscally-driven inflation by decreasing the total market value of debt. The research suggests this contributed to the lack of inflation following the monetary and fiscal response to the Global Financial Crisis.

## CHANGE IN FEDERAL DEBT AS A PERCENT OF GDP BY PRESIDENTIAL TERM



\*Estimated as of April 2020

Data Source: Federal Reserve Bank of St. Louis



# CONCLUSION

“Too often, we judge other groups by their worst examples – while judging ourselves by our best intentions. And this has strained our bonds of understanding and common purpose. But Americans, I think, have a great advantage. To renew our unity, we only need to remember our values. We have never been held together by blood or background. We are bound by things of the spirit – by shared commitments to common ideals.”



Photo Credit:  
Joseph August /  
Shutterstock.com

“There is not a liberal America and a conservative America - there is the United States of America. There is not a black America and a white America and Latino America and Asian America - there's the United States of America.”



Photo Credit:  
Evan El-Amin /  
Shutterstock.com



# IN CONCLUSION

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## **Polls, Markets and Party Control**

- Polls do not differ dramatically from 2016, meaning the outcome remains unknowable. One hopes that there is not a strained period of uncertainty, the markets will digest the results and refocus on the fundamentals of the economy and commerce. Markets can respond well regardless of who controls public policy.

## **There is No Escape from Taxes**

- Taxes may be the most substantial wild card in the forthcoming election. The degree to which the pandemic-recovering economy can accept a substantial tax burden, even for the benefit of government infrastructure spending, remains undeterminable.

## **Economic Concerns and Policy Implications**

- The economy is clearly hampered by the pandemic, but the trajectory is positive and the U.S. benefits from being on sound economic footing prior to the pandemic. Although the pace of new regulations may change, the drivers of inflation remain subdued, and renewable energy and technology companies will likely face the same opportunities and challenges that they face today.

No party has a monopoly on the success of the U.S. economy and markets and investors should generally not make substantial asset allocation changes based on election forecasts, which like any forecast, are typically inaccurate.

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**Libby Cantrill | Managing Director and Head of Public Policy for PIMCO**

With the election just months away, Libby joins us to discuss the political implications of COVID-19 and recent civil unrest, as well as the economic implications of the election outcomes.



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# DISCLOSURES

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Standard deviation is a measure of the dispersion of a set of data from its mean.

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All data as of September 30, 2020 unless otherwise specified.



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**M E M O R A N D U M**

**TO: MICHIGAN RETIREMENT SYSTEMS AND HEALTH CARE PLANS**

**FROM: VANOVERBEKE, MICHAUD & TIMMONY, P.C.**

**RE: MICHIGAN PUBLIC ACT 228 of 2020  
OPEN MEETINGS ACT AMENDMENTS**

**DATE: OCTOBER 20, 2020**

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On Friday, October 16, 2020, the Michigan governor signed Public Act 228 of 2020 (“PA 228”) thereby amending the Michigan Open Meetings Act (“OMA”). PA 228 was passed in direct response to the recent opinions and orders issued by the Michigan Supreme Court holding that the Emergency Powers of the Governor Act of 1945 (“EPGA”) was an unconstitutional delegation of legislative authority to the governor, and thus, the governor lacked the legal authority to issue executive orders during the COVID-19 pandemic without prior legislative approval. Specifically, PA 228 amends the OMA to include guidance concerning how and when a public body may hold a virtual meeting. This memorandum is intended to provide a legal update on the Supreme Court’s recent opinions; to discuss and analyze the new provisions added to the OMA via PA 228; and to offer recommendations and actions regarding compliance with the new provisions.

**MICHIGAN SUPREME COURT**

On October 2, 2020, in a 4-3 opinion, the Michigan Supreme Court ruled that the governor did not have the authority to declare a state of emergency or issue emergency executive orders after April 30, 2020. The Supreme Court was answering two questions of law posed to it by a federal court, which was reviewing the authority relied upon by the governor to issue executive orders related to the COVID-19 pandemic. The Supreme Court held that:

1. The governor did not have authority to issue or renew any executive orders related to the COVID-19 pandemic under the Emergency Management Act of 1976 (“EMA”) (MCL § 30.401, *et seq.*) after April 30, 2020 – the date through which the Legislature extended the Governor’s state-of-emergency and state-of-disaster declarations; and

2. The governor did not possess authority to exercise emergency powers under the Emergency Powers of the Governor Act of 1945 (“EPGA”) because the EPGA unlawfully delegates legislative power to the executive branch in violation of the Michigan Constitution.

Consistent with that opinion, in *House of Representatives v Governor*, Case No. 161917 (2020), the Court similarly held that the governor did not have the authority to issue executive orders pursuant to the EPGA. Accordingly, the Court determined that the governor lacked the authority after April 30, 2020, to issue or renew any executive orders related to the COVID-19 pandemic under either of these laws and that “executive orders issued under that act are of no continuing legal effect.”

In light of the Supreme Court’s decisions and to address issues regarding compliance with the OMA, PA 228 of 2020 was enacted.

### **PA 228 of 2020**

The OMA generally requires all meetings of a public body to be open to the public and held in a place available to the general public, and all decisions of a public body must be made at a meeting open to the public. It is noted that prior to the adoption of PA 228, the OMA was silent as to electronic meetings and did not require that a meeting of a public body be held in a “physical” location. PA 228 amends the OMA to specifically allow meetings of a public body to be held electronically or with remote participation under certain circumstances, and establishes procedures and requirements for such a meeting.

The OMA, as amended by PA 228, now requires the public body to establish procedures to accommodate the absence of a member of the public body due to any of the following reasons: (1) military duty; (2) a medical condition defined as an illness, injury, disability, or other health-related condition; or, (3) a statewide or local state of emergency or state of disaster declared by the governor or by a local official or governing body, that would risk the personal health or safety of members of the public or the public body if the meeting were held in person.

The required procedures must provide for two-way communication between members of the public body and members of the public during the public participation portion of a meeting (including technology that allows members of the public to submit typed comments that can be shared with all the meeting participants). In addition, each member of the public body attending a meeting being held remotely **must** make a public announcement at the start of the meeting, to be included in the minutes, that he or she is doing so. A member attending remotely for a reason other than military duty **must further specify the county, city, township, or village and state where he or she is physically located.**

PA 228 also requires the procedures to include notification requirements to the public of the physical absence of one or more members of the public body including information about how to contact the member(s) before the meeting to give input on anything that will come before the public body.

## **Requirements for Conducting Electronic Meetings**

Under PA 228, meetings of a public body that are held wholly or partly by electronic means are permitted only under the following circumstances:

- Before January 1, 2021, and retroactive to March 18, 2020, any circumstances, including those requiring accommodation of absent members due to military duty or medical condition;
- On and after January 1, 2021, through December 31, 2021, only those circumstances requiring accommodation of members absent due to military duty, a medical condition, or a statewide or local state of emergency or disaster; and
- After December 31, 2021, only in the circumstances requiring accommodation of members absent due to military duty.

In light of the foregoing, any electronic or virtual meetings held after March 18, 2020, in accordance with the governor's prior executive orders (which are consistent with the provisions enacted via PA 228), were held in accordance with the OMA and decisions made at those meetings remain in full force and effect. From January 1, 2021, through December 31, 2021, a meeting can be held electronically due to a state of emergency or disaster only to allow the electronic attendance of a member who lives in the affected area or to allow the electronic meeting of a public body that regularly holds its meetings in the affected area. Meetings of a public body that are wholly electronic need not designate a physical place of the meeting.

Electronic meetings held to accommodate member(s) absent due to military duty or a medical condition may only be attended remotely by those members. All other members of the public body must be physically present to participate. Members of a public body and members of the public attending and participating electronically in a meeting that is otherwise held in a physical place are to be considered present and in attendance at the meeting for all purposes.

## **Posting Requirements for Electronic Meetings**

In addition to the physical notices required to be posted under the OMA, if your board has an official internet presence, advance notice of an electronic meeting must be posted on the website, either on or linked from its homepage, at least 18 hours before the start of the electronic meeting. A sample notice is provided at the end of this memorandum. It must clearly explain all of the following:

- Why the board is meeting electronically;
- How members of the public can participate in the meeting, including any phone number or internet address needed to do so;
- How members of the public can contact members of the public body to ask or give input about any business that will come before the public body at the meeting; and
- How persons with disabilities can participate.

Additionally, if your board is meeting electronically and "directly or indirectly maintains an official internet presence that includes monthly or more frequent updates of public meeting agendas or minutes", then you are now required to make the agenda available to the public on the internet at least two hours before the start of the meeting. Please remember that the OMA does not require you to have an agenda and neither is one required to be posted and regularly updated on your website. Please also note that the posted agenda may still be amended at the meeting.

The Board cannot require a person to register or provide his or her name or other information as a condition of participating in an electronic meeting, or require a person to otherwise fulfill a condition for attendance, except for mechanisms the public body requires that are necessary to allow the person to participate in a meeting's public comment period. If during an electronic meeting a closed session of the board were held electronically in compliance with applicable provisions of the OMA, members of the public otherwise participating in the meeting would have to be excluded from participating in the closed session.

As always, contact this office if you need any assistance.



[SAMPLE]

[RETIREMENT BOARD LETTERHEAD]

Date of Notice:

**NOTICE OF MEETING**

There will be an electronic meeting of the Board of Trustees of the \_\_\_\_\_ as follows:

Date:

Time:

Location:      **Electronic Participation information including conference call dial-in number and virtual meeting information:**  
Participant Passcode:

**To mitigate the spread of the novel coronavirus (COVID-19), a new strain of coronavirus that had not been previously identified in humans which can easily spread from person to person and can result in serious illness or death, the meeting is being held electronically in accordance with Section 3a the Open Meetings Act in an effort to protect the health and safety of the public. Members of the public wishing to participate in the meeting may do so by dialing into the meeting at the conference call dial-in number [or virtual meeting internet address] provided above. You may also direct any questions or comments to the Board via email at \_\_\_\_\_.**

**Anyone wishing to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact \_\_\_\_\_ at \_\_\_\_\_ at least 48 hours prior to the meeting so that appropriate arrangements can be made.**

12a

## INVOICE



201 East Fifth Street, Suite 1600  
Cincinnati, Ohio 45202

DATE	INVOICE #
10/31/20	202010154

**BILL TO:**

City of Grosse Pointe Woods  
Employees Retirement System  
Cathy Behrens  
20025 Mack Plaza  
Grosse Pointe Woods, MI 48236

**Fee Schedule: includes CIS**

.12% first \$50 Million  
.10% next \$50 Million  
.05% next \$150 Million  
.04% next \$250 Million  
.03% over \$500 Million  
Minimum annual fee \$60,000

Professional Services for the period

7/1/20-9/30/20

**AMOUNT**

Based on the market value of

\$ 37,275,729 @ 6/30/20 =

\$ 14,608.00

**Total Amount Due**

Payment due upon receipt of invoice

\$ 14,608.00

Reference: DAVIS  
Inception: 7/3/2014  
Updated: 12/1/15 Prorated w/ Retiree HC Benefits  
Note: Assets of Employee Retirement System and Healthcare Benefits Plan are aggregated for fee break purposes.

**Remittance Information**

Please include invoice number and make payable to Fund Evaluation Group

Mail: P.O. Box 639176, Cincinnati, OH 45263-9176

Wire or ACH: Fifth Third Bank, 38 Fountain Square Plaza, Cincinnati, OH 45263, R/T #042000314, Account #7027869440

Remittance information to [accountsreceivable@feg.com](mailto:accountsreceivable@feg.com)

RODWAN CONSULTING COMPANY  
2310 E. ELEVEN MILE ROAD  
ROYAL OAK, MI 48067

126

# INVOICE

DATE	INVOICE NO.
10/11/2020	2841

## BILL TO:

Ms. Cathrene Behrens  
Treasurer/Comptroller  
City of Grosse Pointe Woods  
20025 Mack Avenue  
Grosse Pointe Woods, MI 48236

## DESCRIPTION

## AMOUNT

Re: Grosse Pointe Woods Employees Retirement System--PA 202 Actuarial Information

For actuarial services rendered in connection with computing the disclosures required for reporting to the State of Michigan for the fiscal year ended June 30, 2020, pursuant to Public Act 202 of 2017, based on the Uniform Assumptions established under the Act. Please see report dated September 28, 2020.

1,450.00

We appreciate working for you.

**TOTAL**

\$1,450.00



RODWAN CONSULTING COMPANY  
2310 E. ELEVEN MILE ROAD  
ROYAL OAK, MI 48067



# INVOICE

DATE	INVOICE NO.
9/22/2020	2825

## BILL TO:

Ms. Cathrene Behrens  
Treasurer/Comptroller  
City of Grosse Pointe Woods  
20025 Mack Avenue  
Grosse Pointe Woods, MI 48236

### DESCRIPTION

### AMOUNT

For annual retainer actuarial and consulting services for the City of Grosse Pointe Woods Employees Retirement System for the year beginning July 1, 2020, including the annual actuarial valuation of the Retirement System as of June 30, 2020, not including additional services provided pursuant to Governmental Accounting Standards Board Statements 67 and 68.

8,300.00

**TOTAL**

\$8,300.00

RODWAN CONSULTING COMPANY  
2310 E. ELEVEN MILE ROAD  
ROYAL OAK, MI 48067



# INVOICE

DATE	INVOICE NO.
8/18/2020	2817

## BILL TO:

Ms. Cathrene Behrens  
Treasurer/Comptroller  
City of Grosse Pointe Woods  
20025 Mack Avenue  
Grosse Pointe Woods, MI 48236

DESCRIPTION	AMOUNT
Re: Grosse Pointe Woods Employees Retirement System--Supplemental Actuarial Valuations  For Supplemental Actuarial Valuations to compute the impact on computed employer contribution rates and liabilities associated with 3 alternative packages of assumption changes under consideration, as requested by the Board. Report dated July 23, 2020.	2,400.00
We appreciate working for you.	<b>TOTAL</b> \$2,400.00

INSTITUTIONAL T

GROSSE POINTE WOODS EMPLOYEES PENSION

Billing Period: 07/01/2020 - 09/30/2020  
Due Date: 11/18/2020  
Invoice No: 1055009530  
Account No: 1055009530  
Administrator: Saquanda M. Nalls  
Phone: (313) 222-8708

TREASURER/CONTROLLER  
CITY OF GROSSE POINTE WOODS  
20025 MACK AVENUE  
GROSSE POINTE WOODS, MI 48236

The following is a statement of transactions pertaining to your account(s). For further information, please review the enclosed detail.

Opening Balance	\$1,500.00
Payment received through 10/08/2020	1,500.00
Current Period Charges	1,500.00
Balance Due	\$1,500.00

Please detach and return this portion of the statement with your check payable as indicated below

Comerica Bank  
Attn: Trust Fee Accounting Group  
P.O. Box 67600  
Detroit, MI 48267

Account No.  
1055009530

Invoice No.  
462807

Due Date  
11/18/2020

Total Balance Due  
\$1,500.00



## INSTITUTIONAL TRUST

Page 2

GROSSE POINTE WOODS EMPLOYEES PENSION

Billing Period: 07/01/2020 - 09/30/2020  
Due Date: 11/18/2020  
Invoice No: 462807  
Account No: 1055009530

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1055009530**Market Value Fees**

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Gross Market Value		
174,982.05 @ 0.0005 each annually x 1/4	21.87	
Base Fee	125.00	\$146.87

**Participant Services**

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Lump Sum Distributions		
1 @ 20.00 each	20.00	
Benefit Payments - Checks		
6 @ 2.00 each	12.00	
Benefit Payments - EFT		
295 @ 2.00 each	590.00	
Postage		
302 @ 0.55 each	166.10	\$788.10

**Other Fees**

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Account Minimum	565.03	\$565.03
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<b>Total Services</b>		<b>\$1,500.00</b>
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<b>Total Current Period</b>		<b>\$1,500.00</b>
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