

**Retirement Board Agenda  
November 19, 2020**

**PLEDGE OF ALLEGIANCE**

1. Roll Call
2. Approval of Minutes (R)

**INVESTMENT REPORT**

3. Annual Portfolio Review – Fixed Income
4. Wilshire Associates Quarterly Performance Report
5. Monthly Investment Report
6. Summary of Investment Transactions (R)

**EXECUTIVE DIRECTOR'S REPORT**

7. Executive Director's Update
  - Quarterly Financials
8. Final Filing of Proposed Amended Administrative Rule (R)
9. Review of Administrative Expenses
10. Superannuation and Survivor Benefits (R)
11. Special Cases (R)

**RETIREMENT REPORT**

12. Executive Session pursuant to R.C. 121.22 (G)(5) to review applications for Disability Retirement Benefits (R)
  - Personal Appearance (10:30 a.m.)
13. Approval of Disability Benefits (R)
14. Approval of Appeal on Personal Appearance (R)
15. Termination of Disability Benefits (R)
16. Disapproval of Appeal of Termination (R)
17. Disapproval of Disability Benefits (R)
18. Approval of Appeal for Disability Benefits (R)

**EXECUTIVE DIRECTOR'S REPORT (continued)**

19. Pension and Health Care Annual Actuarial Valuation
20. Allocation of Employer Contributions (R)
21. Health Care Surcharge (R)

**BOARD COMMUNICATION AND POLICY ISSUES**

22. Calendar Dates for Future Board Meetings
23. Continued or New Business
  - Board Information Requests and Follow-up Items

**Adjournment (R)**

Retirement Board Meeting  
November 19, 2020

\_\_\_\_\_ A.M.

Roll Call:

Hugh Garside	_____
Jeffrey T. DeLeone	_____
James Haller	_____
Matthew King	_____
Catherine Moss	_____
James Rossler	_____
Frank Weglarz	_____
Daniel Wilson	_____
Barbra Phillips	_____

**ITEM 2.**

**APPROVAL OF MINUTES OF THE RETIREMENT BOARD MEETING HELD ON  
October 15, 2020**

\_\_\_\_\_ moved and \_\_\_\_\_ seconded the motion to approve the minutes of the Retirement Board meeting held on Thursday, October 15, 2020.

Upon roll call, the vote was as follows:

<b><u>ROLL CALL:</u></b>	<b><u>YEA</u></b>	<b><u>NAY</u></b>	<b><u>ABSTAIN</u></b>
Barbra Phillips	_____	_____	_____
Jeffrey DeLeone	_____	_____	_____
James Haller	_____	_____	_____
Matthew King	_____	_____	_____
Catherine Moss	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____
Hugh Garside	_____	_____	_____

# Memo

**To:** Retirement Board  
**From:** Farouki Majeed  
**cc:** Richard Stensrud, Karen Roggenkamp  
**Date:** November 6, 2020  
**Re:** **Investment Report for the November Board Meeting**

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The November Investment Report for the Board includes the following agenda items:

- Annual Portfolio Review – Fixed Income
- Wilshire Quarterly Performance Report
- Quarterly Investment report and economic update for the period ended September 30, 2020

Included with the advance Board materials are the following reports prepared by Staff:

- Quarterly Securities Lending Review Report
- Quarterly Proxy Activity Report
- Manager Reviews – Fixed Income
- Monthly Top 20 Equity and Fixed Income Holdings Reports – September 30, 2020
- Monthly Compliance Update memo – September 30, 2020
- Quarterly Iran/Sudan Investments Activity Report

If anyone has any questions prior to the Board meeting, please email me at [fmajeed@ohsers.org](mailto:fmajeed@ohsers.org).

**ANNUAL PORTFOLIO REVIEW – FIXED INCOME**

# Fixed Income Portfolio Board Presentation

November 2020

*Serving the People Who Serve Our Schools®*



# Table of Contents

Portfolio Summary	2
Performance	7
Market Conditions	10
Outlook	12
Appendix	13



# Portfolio Summary

## \$2.74 Billion Market Value

- 15 Active Mandates across 3 Sectors
  - 10 ranked as B or higher (6 ranked as A)
  - 4 new strategies funded less than one year
- Fixed Income Allocation Underweight at 18% versus 19% Target Allocation

## Fixed Income Performance

- Absolute Return for 1 Year ending September 2020 was 8.03%
- Excess Net Return was 1.08% for the 1 Year Ending September 2020
- Long-Term Net Excess 3, 5 & 10 Year Returns are Positive

## Portfolio Structure

- Focus is on Yield and Capital Preservation
- Portfolio is Tilted Towards Higher Yielding Core Plus Assets
- High Yield represents 7.5% of the portfolio and EMD is at 7.4%
- Portfolio Fee Average is 29 bps

## Offers Diversification to Total Fund

- Contribution to Total Fund Risk is 4.3% while Portfolio Weight is 18%



# Characteristics

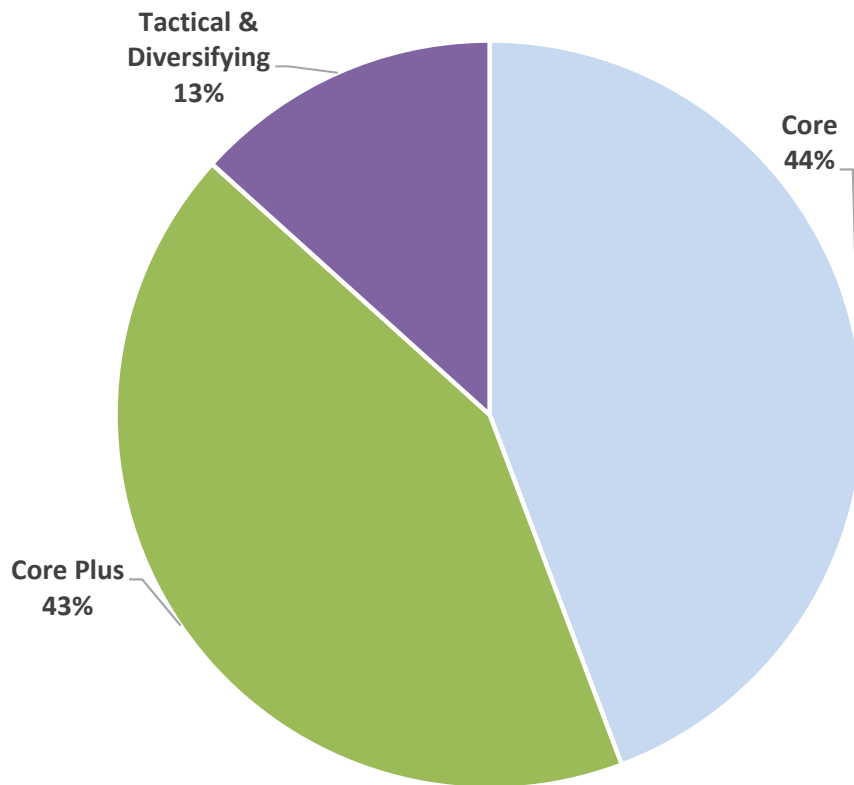
## as of September 30, 2020

Sector	Average Quality Rating	Yield to Maturity	Effective Duration
Core	AA-	1.34%	6.20 yrs.
Core Plus	A	2.44%	6.07 yrs.
Tactical & Diversifying	BB+	5.12%	4.30 yrs.
Portfolio	A	1.73%	5.40 yrs.
Index	AA	1.18%	6.12 yrs.

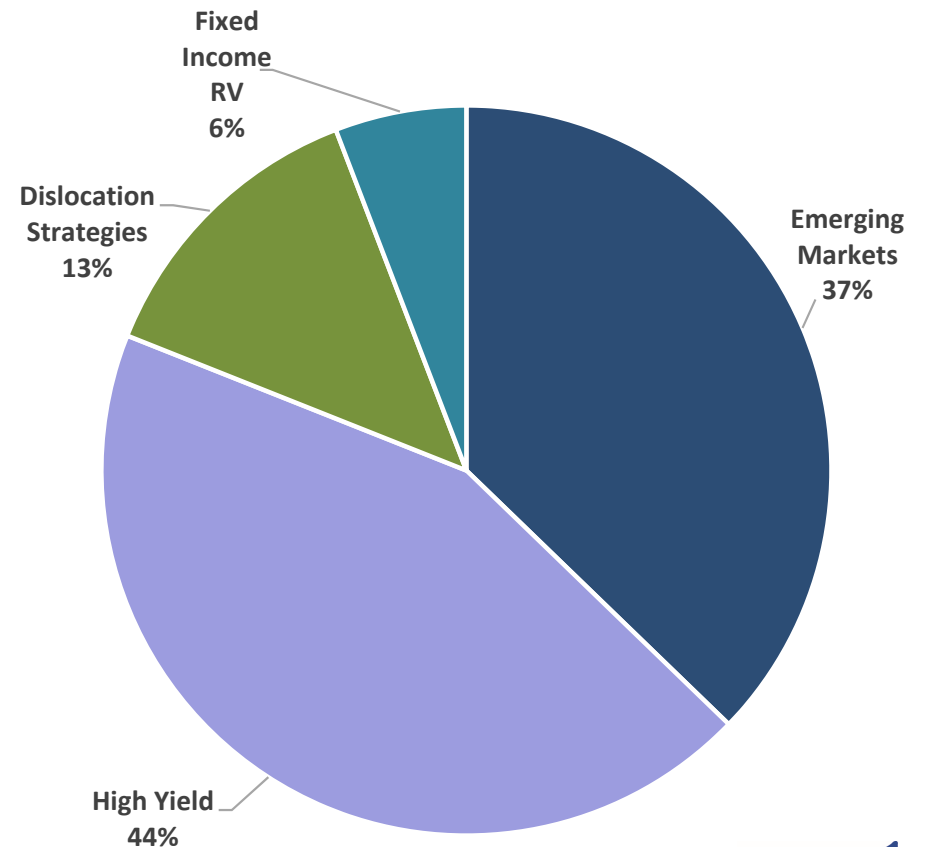


# Portfolio Structure

## Portfolio Sectors



## Tactical & Diversifying: Sector Breakout



**Wilshire Associates Quarterly Performance Report**

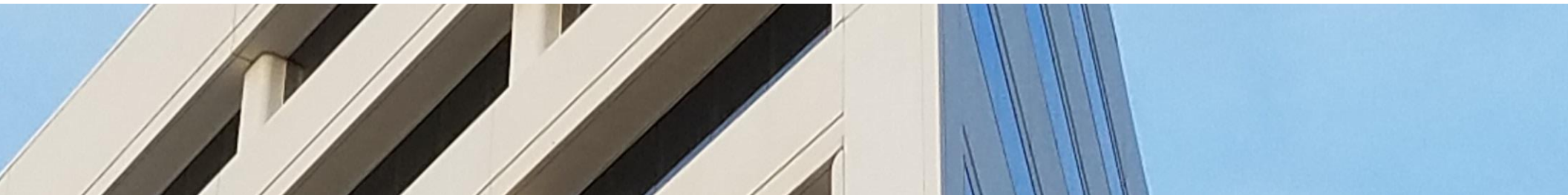


Prepared for



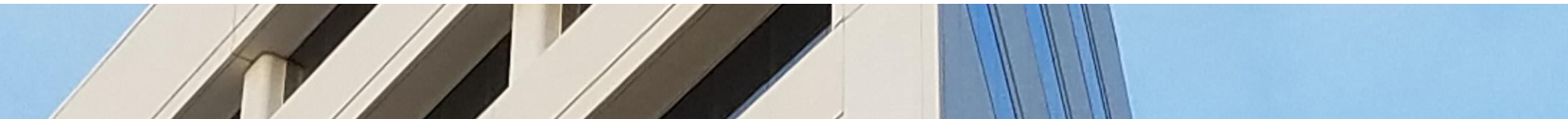
# WILSHIRE ASSOCIATES

Wilshire Consulting



## Executive Summary of Investment Performance

*As of September 30, 2020*



# CAPITAL MARKETS REVIEW

# ASSET CLASS PERFORMANCE

ASSET CLASS RETURNS - BEST TO WORST						ANNUALIZED 5-YEAR AS OF 9/20
2015	2016	2017	2018	2019	2020 YTD	
REITs 4.2%	MLPs 18.3%	Emrg Mrkts 37.7%	T-Bills 1.9%	U.S. Equity 31.0%	U.S. TIPS 9.2%	U.S. Equity 13.8%
U.S. Equity 0.7%	High Yield 17.1%	Developed 25.6%	Core Bond 0.0%	REITs 25.8%	Core Bond 6.8%	Emrg Mrkts 9.4%
Core Bond 0.6%	U.S. Equity 13.4%	U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	U.S. Equity 5.5%	High Yield 6.8%
T-Bills 0.1%	Commodities 11.8%	High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	T-Bills 0.7%	Developed 5.8%
Developed -0.4%	Emrg Mrkts 11.6%	REITs 4.2%	REITs -4.8%	High Yield 14.3%	High Yield 0.6%	U.S. TIPS 4.6%
U.S. TIPS -1.4%	REITs 7.2%	Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	Emrg Mrkts -0.9%	Core Bond 4.2%
High Yield -4.5%	U.S. TIPS 4.7%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	Developed -6.7%	REITs 3.7%
Emrg Mrkts -14.6%	Core Bond 2.6%	Commodities 1.7%	MLPs -12.4%	Commodities 7.7%	Commodities -12.1%	T-Bills 1.2%
Commodities -24.7%	Developed 1.5%	T-Bills 0.8%	Developed -13.4%	MLPs 6.6%	REITs -16.7%	Commodities -3.1%
MLPs -32.6%	T-Bills 0.3%	MLPs -6.5%	Emrg Mrkts -14.2%	T-Bills 2.3%	Midstream -36.2%	Midstream -4.5%

Data sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

# MARKET COMMENTARY

## U.S. Equity

The U.S. stock market was up 9.1% for the third quarter of 2020. Economic news from the quarter was mixed, with a focus on employment conditions remaining a key element of the recovery. Temporary job losses continues to fall while permanent losses rise. Both initial jobless claims and continuing claims are falling from reported highs during the second quarter.

Although the U.S. has experienced an overnight rate near zero before, this year is the first time that the bellwether 10-year Treasury has been below 1%. Interest rates have a natural floor, and as rates approach a bottom, yield (and price) changes can become asymmetrical. Rates either go up (and prices go down) or stay relatively steady. One consequence of this pattern is that fixed income returns tend to become less volatile. The history of Japan during the past 20 years serves as an example.

## Non-U.S. Equity

The U.K. suffered a contraction of nearly -20% during the second quarter. The government's furlough program, where they support a majority of employees' wages, has kept the unemployment rate to just 4%. Euro zone manufacturing activity is on the rise, led by particular strength in Germany. The Chinese economy actually grew during the second quarter after more than half of the country was shut down in February.

## Fixed Income

The 10-year Treasury yield ended the quarter at 0.69%, up just 3 basis points from June. The FOMC met three times during the quarter, as scheduled, with no change to their overnight rate. In a meaningful step, the Committee addressed a revised policy that allows inflation to move above the 2% target before increasing interest rates, adopting specific language to emphasize this goal.

# Wilshire Consulting

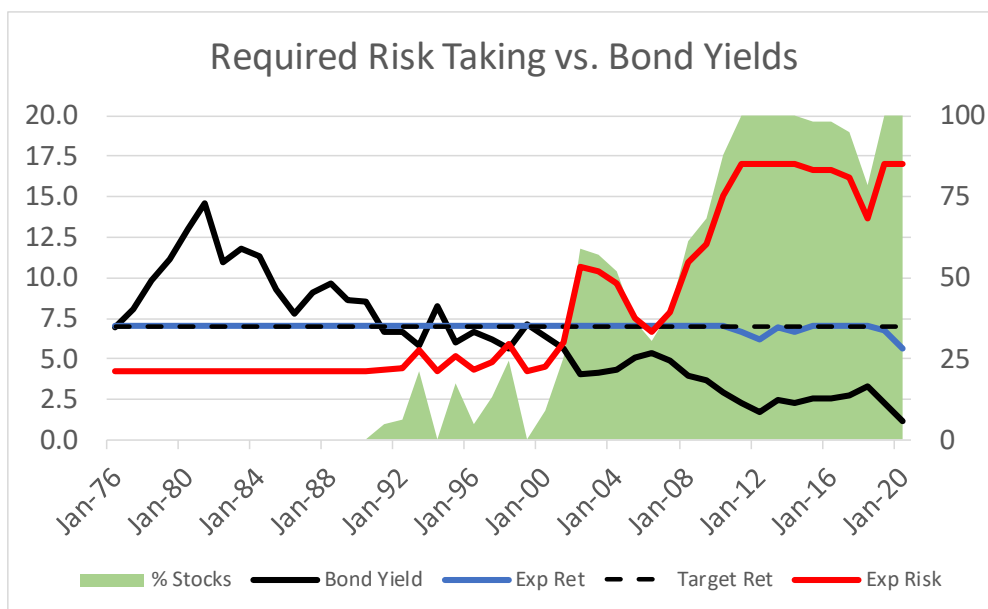
# SEPTEMBER 2020 ASSET CLASS ASSUMPTIONS

	EQUITY						FIXED INCOME						REAL ASSETS					
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Dev ex-US Bond (Hdg)	Real Estate			Cmnty	Real Assets	US CPI
													US RES	Global RES	Private RE			
COMPOUND RETURN (%)	5.50	6.00	6.00	6.25	5.95	7.45	0.55	1.05	1.75	0.40	3.45	0.25	5.20	5.40	6.65	2.35	5.35	1.80
ARITHMETIC RETURN (%)	6.85	7.50	9.00	7.90	7.30	10.85	0.55	1.15	2.15	0.60	3.95	0.35	6.55	6.55	7.55	3.40	5.70	1.80
EXPECTED RISK (%)	17.00	18.00	26.00	18.95	17.10	28.00	0.75	4.25	8.90	6.00	10.00	4.25	17.00	15.80	14.00	15.00	8.75	1.75
CASH YIELD (%)	1.75	2.50	2.25	2.45	2.05	0.00	0.55	1.85	2.70	1.15	6.80	1.10	3.85	3.85	2.50	0.55	2.05	0.00
GROWTH EXPOSURE	8.00	8.00	8.00	8.00	8.00	13.50	0.00	-0.90	-2.30	-3.00	4.00	-1.00	6.00	6.00	3.50	0.00	1.60	0.00
INFLATION EXPOSURE	-3.00	0.00	5.00	1.35	-1.10	-3.80	0.00	-2.50	-6.70	2.50	-1.00	-3.00	1.00	2.00	1.00	12.00	4.40	1.00
<b>CORRELATIONS</b>																		
US Stock	1.00																	
Dev ex-US Stock (USD)	0.81	1.00																
Emerging Mkt Stock	0.74	0.74	1.00															
Global ex-US Stock	0.83	0.96	0.87	1.00														
Global Stock	0.95	0.92	0.83	0.94	1.00													
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.93	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.60	0.47	1.00								
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.18	0.18	0.26	0.10	0.67	0.66	0.39	0.26	1.00						
US RE Securities	0.59	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
Global RE Securities	0.65	0.59	0.56	0.62	0.66	0.58	-0.05	0.17	0.22	0.11	0.62	0.03	0.94	1.00				
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.78	0.76	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.42	0.43	0.50	0.48	0.47	0.43	0.01	0.24	0.25	0.41	0.53	0.06	0.65	0.69	0.69	0.59	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

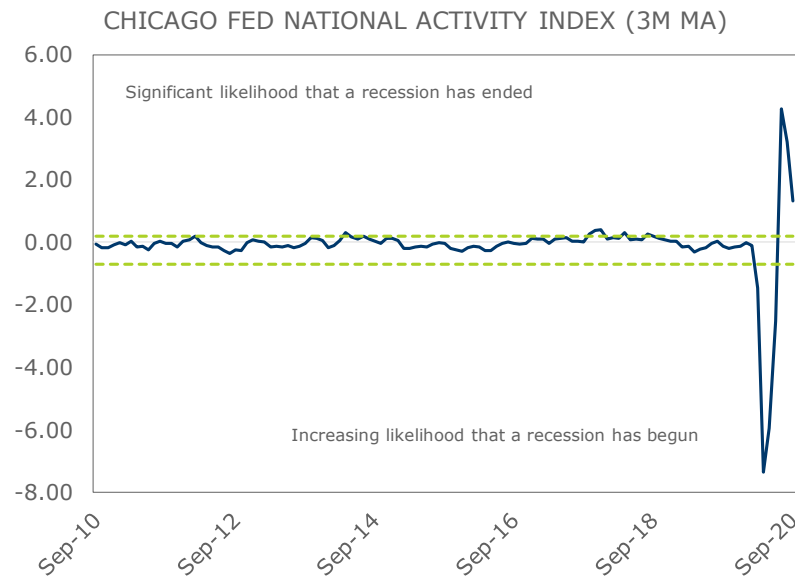


# TARGET RETURNS

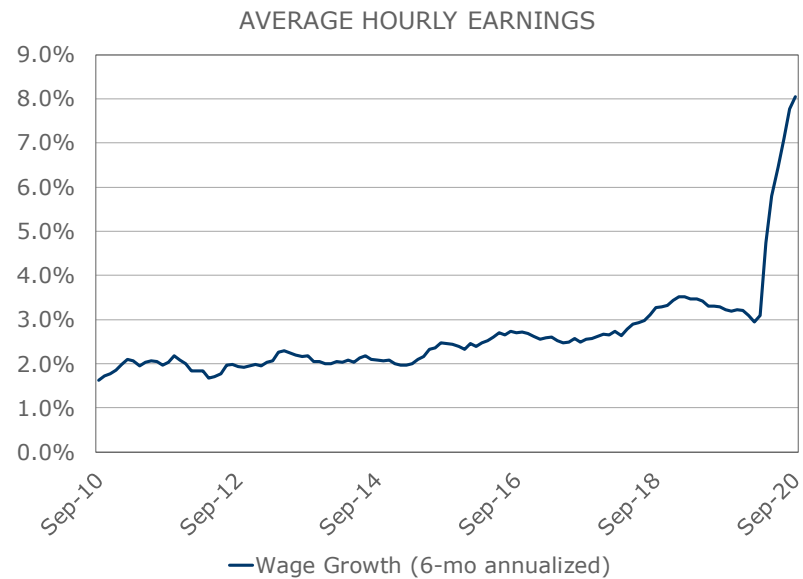
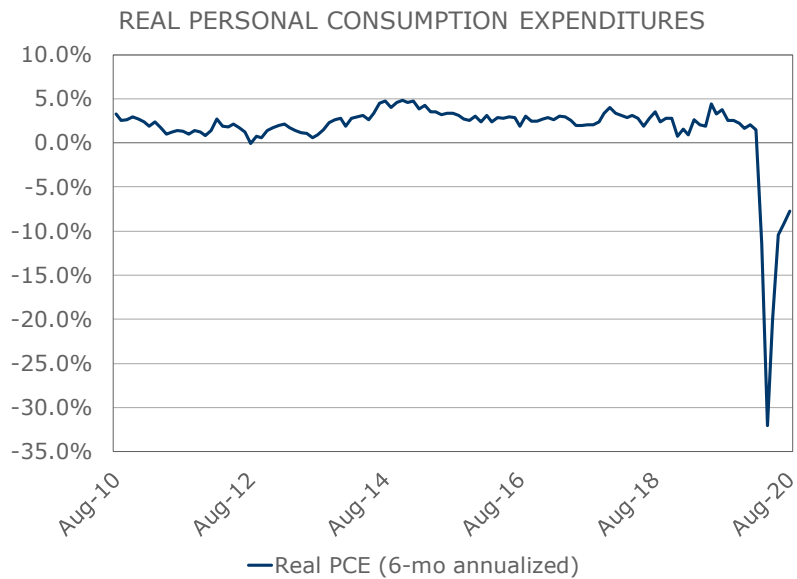
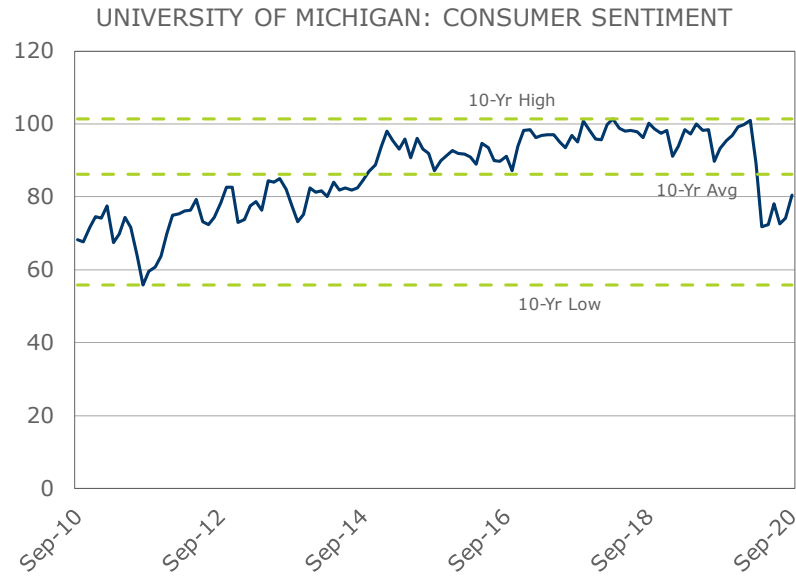
- Current low rate environment imposes significant challenges, through lower expected returns, and related pressure to take on greater levels of risk
- Exhibit below demonstrates how much risk taking is required within a stock/bond portfolio to meet a 7% return target – assuming the U.S. Stock and Core Bond assumptions on the previous slide
- Note that the current equity risk premium (of nearly 4.5%) is larger than the historical average (3.5%) – implying that the expected return line (in blue) would push lower at similar yield levels



# ECONOMIC GROWTH

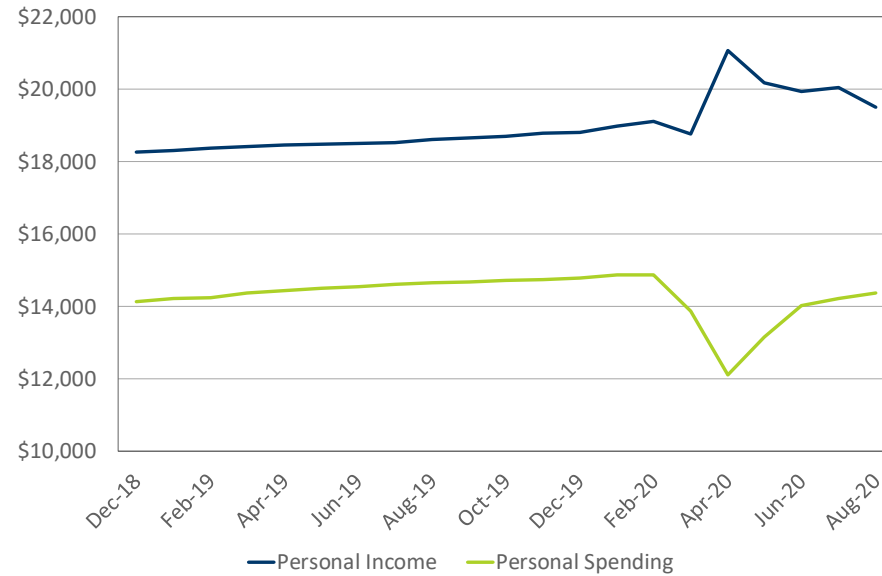


# CONSUMER ACTIVITY

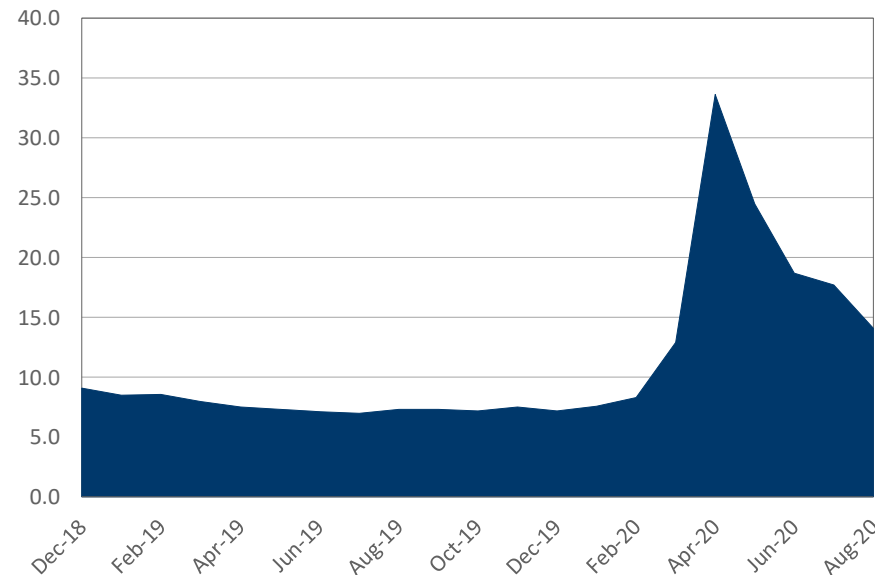


# IMPACT OF FISCAL STIMULUS

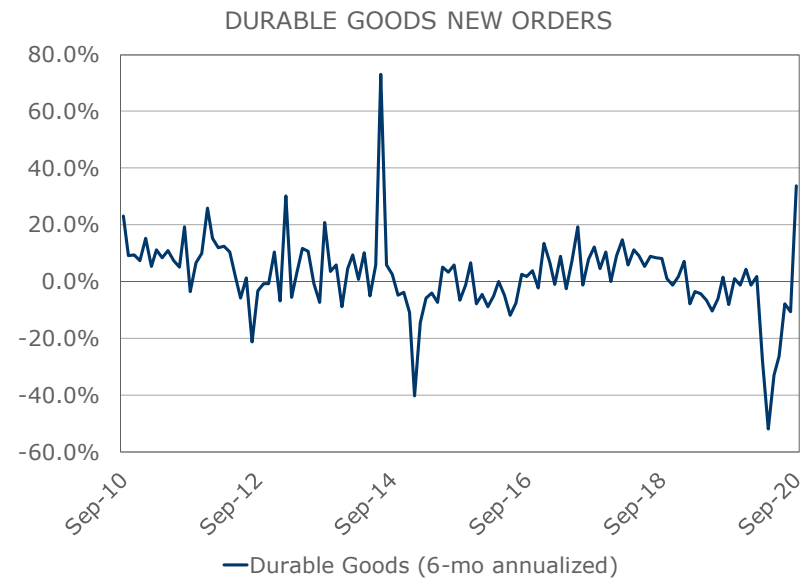
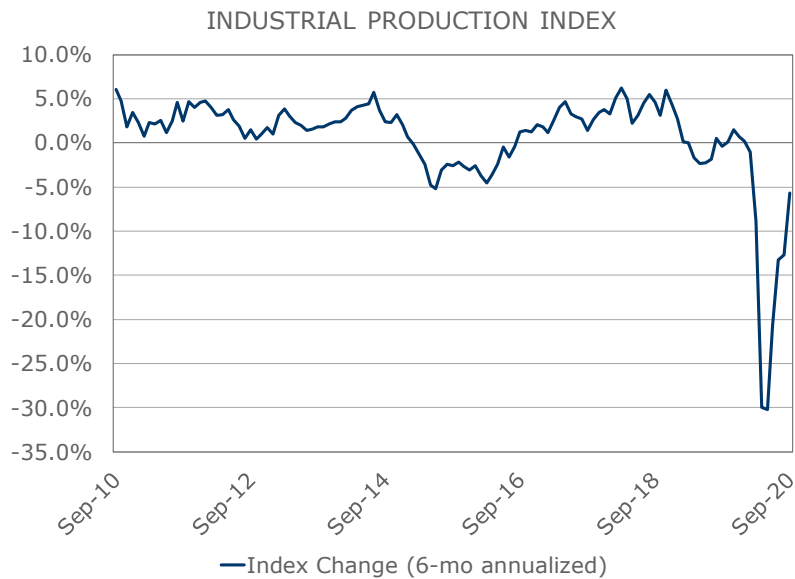
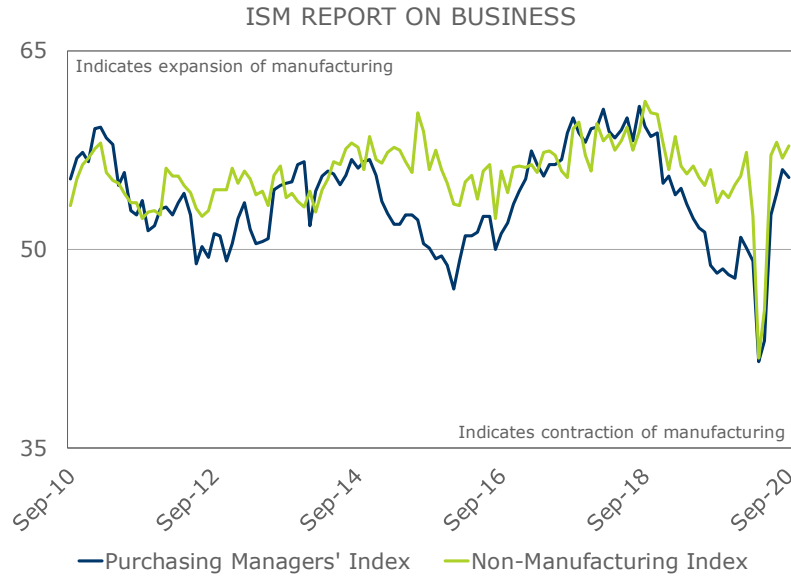
INCOME VS. SPENDING (\$BIL)



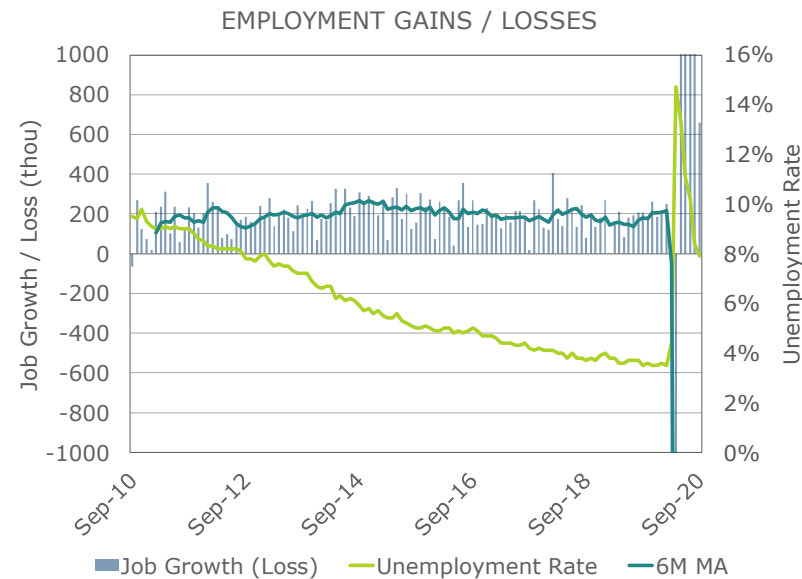
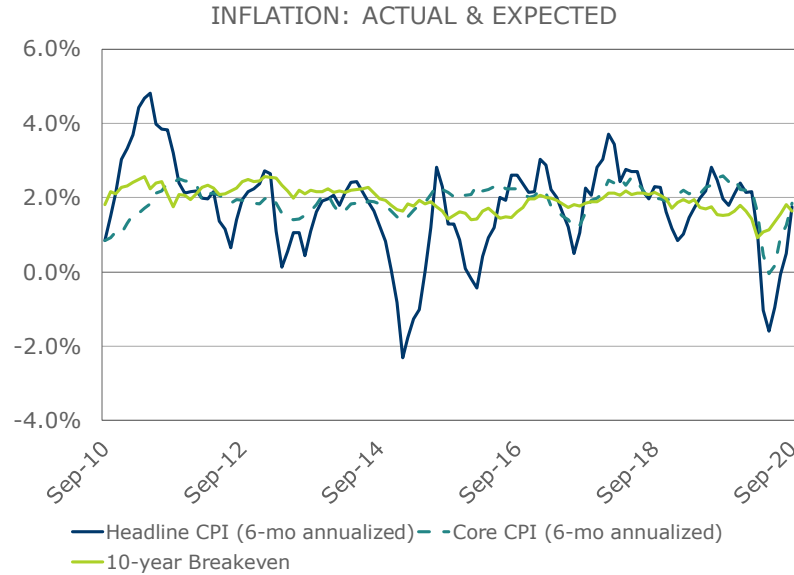
PERSONAL SAVINGS RATE (%)



# BUSINESS ACTIVITY



# INFLATION AND EMPLOYMENT

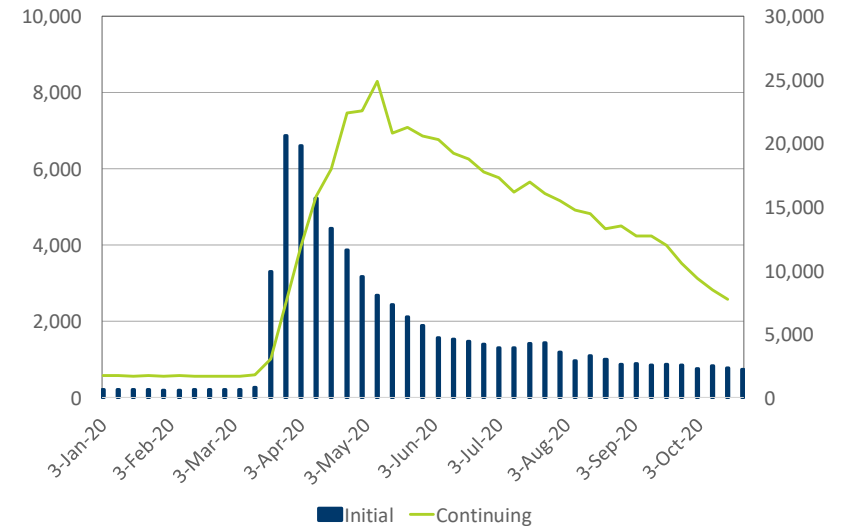


# Wilshire Consulting

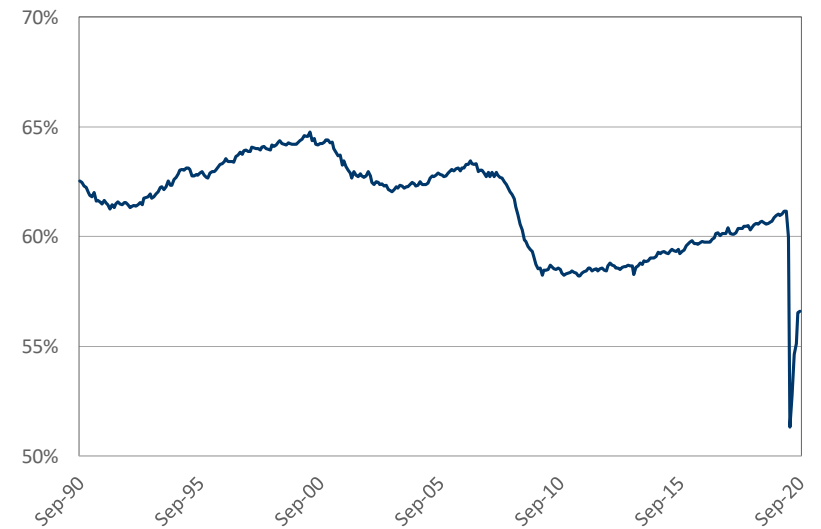
## U.S. EMPLOYMENT

- Employment conditions have been volatile this year with massive gains and losses, as seen on the previous page
- Unemployment claims have been declining with continued claims currently at 8 million
- Employment as a percent of the civilian, non-institutional population dropped to nearly 50%
- The ratio has never been that low in the post-WWII history

UNEMPLOYMENT CLAIMS (000)



EMPLOYED PERSONS / CIVILIAN POPULATION

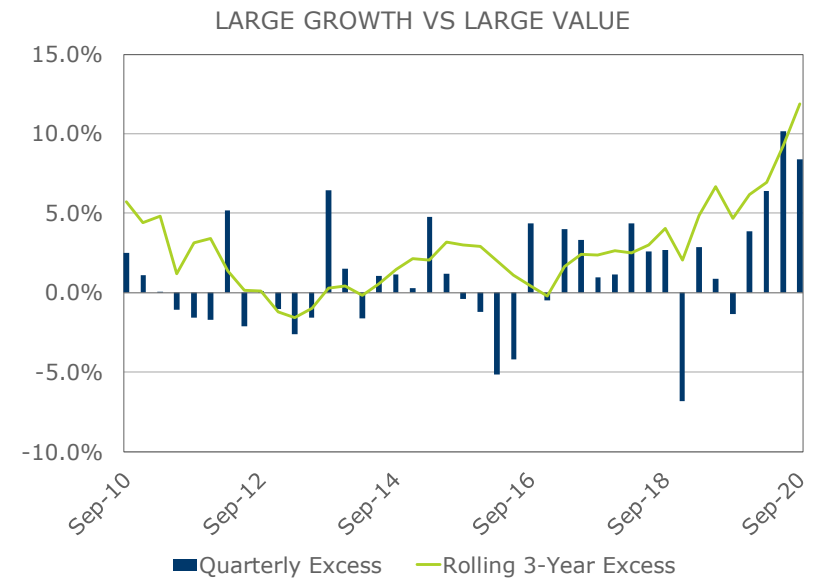
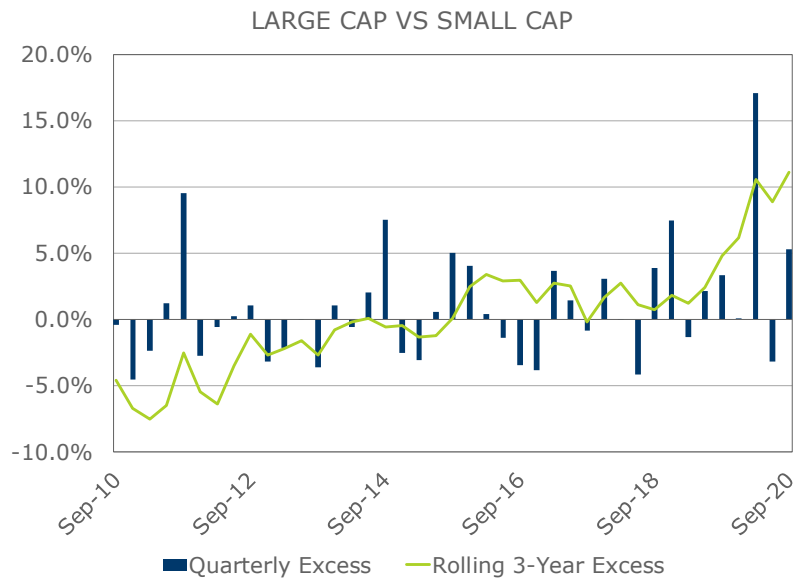
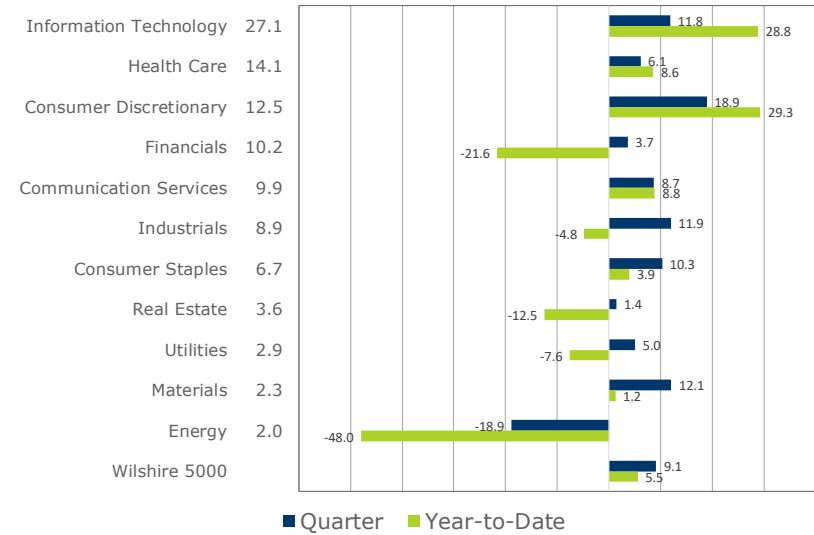


# Wilshire Consulting

## U.S. EQUITY MARKET

AS OF 9/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
WILSHIRE 5000 INDEX	9.1	5.5	15.1	11.7	13.8	13.5
WILSHIRE U.S. LARGE CAP	9.6	7.0	16.8	12.7	14.5	13.8
WILSHIRE U.S. SMALL CAP	4.0	-10.3	-2.3	1.5	7.5	10.2
WILSHIRE U.S. LARGE GROWTH	13.8	20.0	33.5	19.0	18.3	16.3
WILSHIRE U.S. LARGE VALUE	5.0	-5.5	1.2	6.4	10.4	11.3
WILSHIRE U.S. SMALL GROWTH	7.1	-0.1	10.0	6.8	10.7	12.0
WILSHIRE U.S. SMALL VALUE	1.0	-19.7	-13.2	-3.6	4.3	8.3
WILSHIRE REIT INDEX	1.3	-16.7	-17.7	0.4	3.7	8.0
MSCI USA MIN. VOL. INDEX	5.8	-1.1	1.9	10.6	12.5	13.4
FTSE RAFI U.S. 1000 INDEX	5.8	-8.1	-0.4	4.8	9.3	11.2

U.S. SECTOR WEIGHT AND RETURN (%)

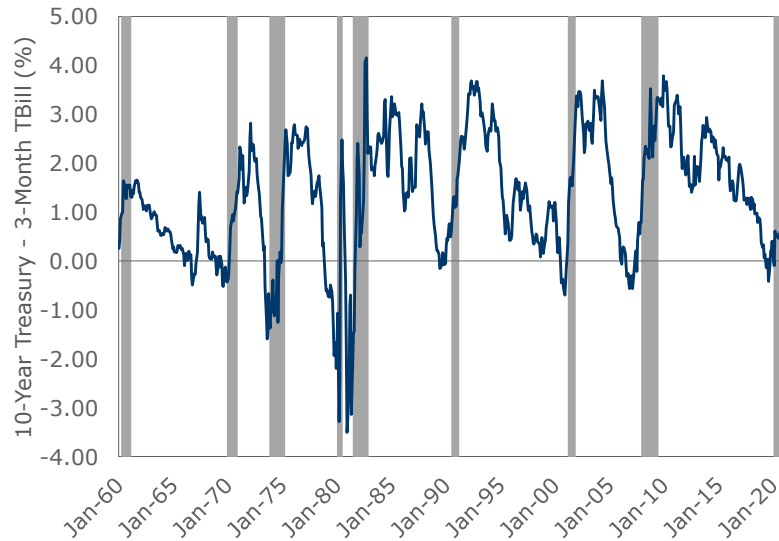


Data sources: Bloomberg, Wilshire Atlas

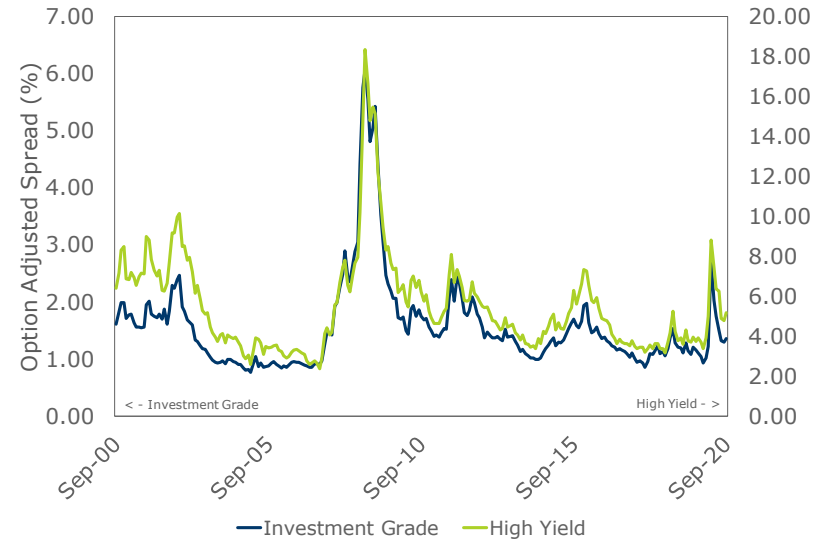


# RISK MONITOR

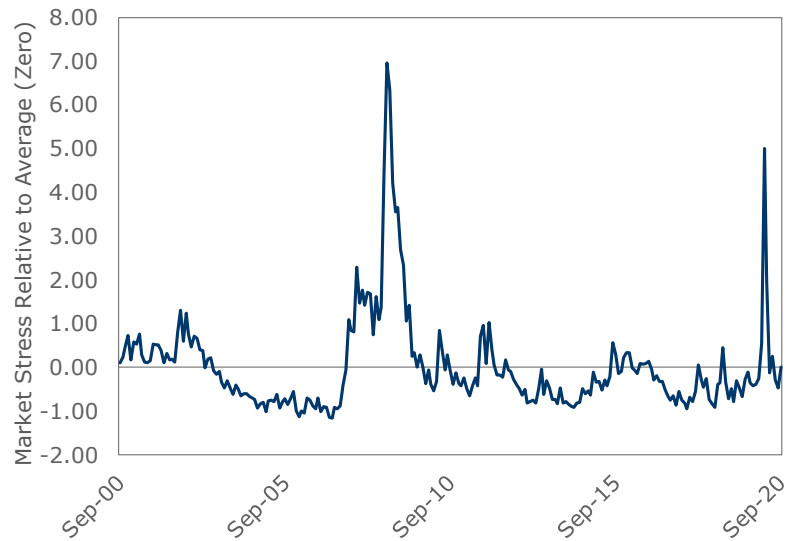
YIELD CURVE SLOPE VS RECESSIONS (IN GRAY)



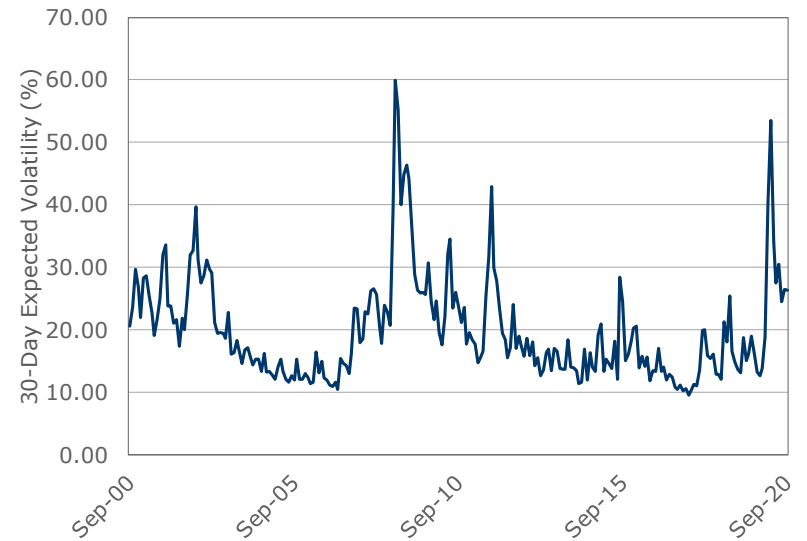
BLOOMBERG BARCLAYS CREDIT INDEXES



ST. LOUIS FED FINANCIAL STRESS INDEX



CBOE VOLATILITY INDEX

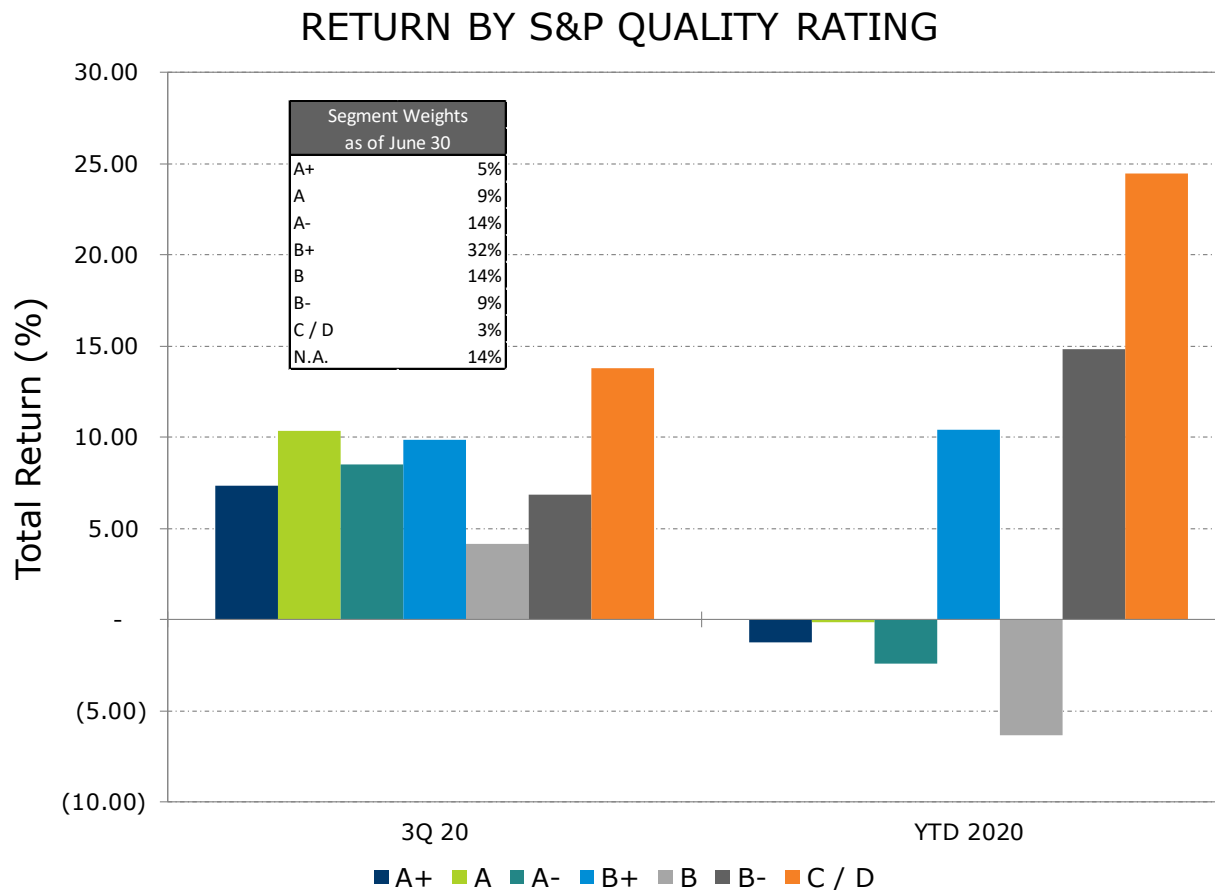


Data sources: Bloomberg

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# RETURNS BY QUALITY SEGMENT

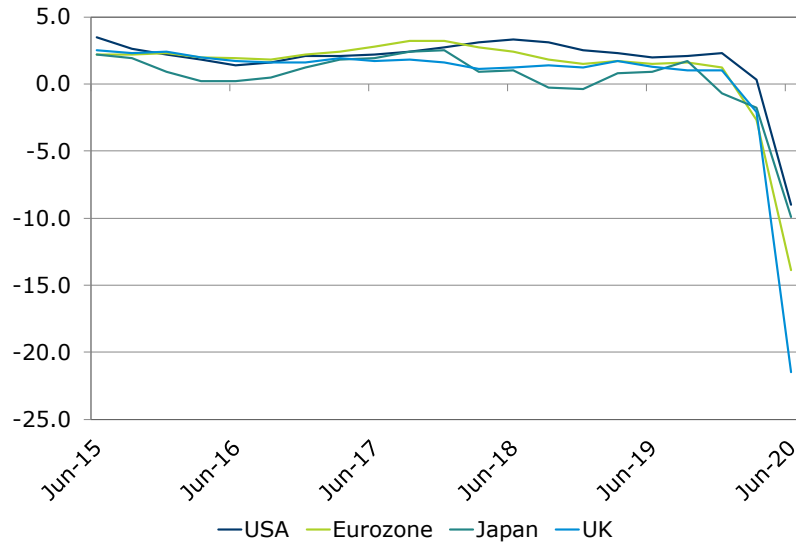
Although gains were broad based for the quarter, lower quality names lead for the year



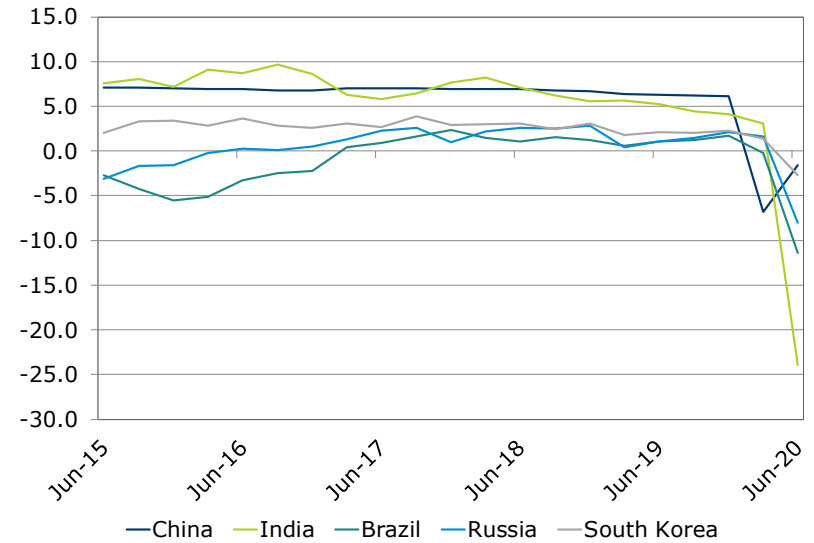
Data sources: Wilshire Atlas

# NON-U.S. GROWTH AND INFLATION

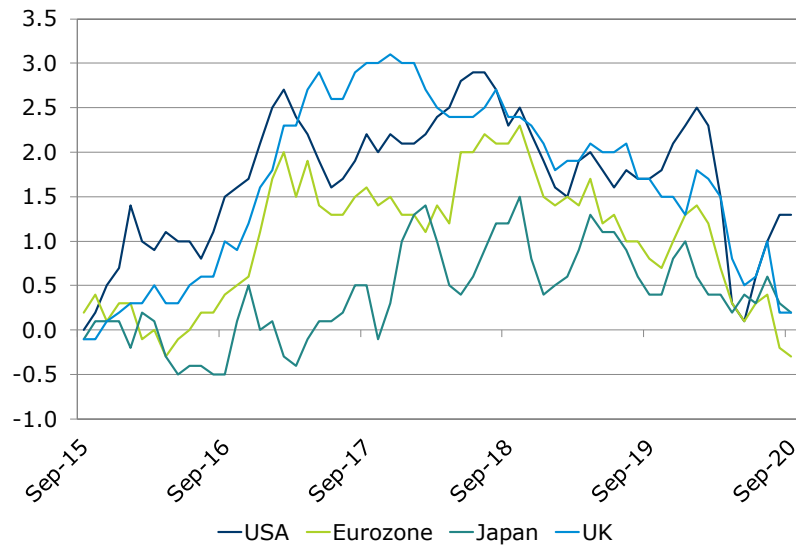
DEVELOPED MARKETS REAL GDP GROWTH YoY (%)



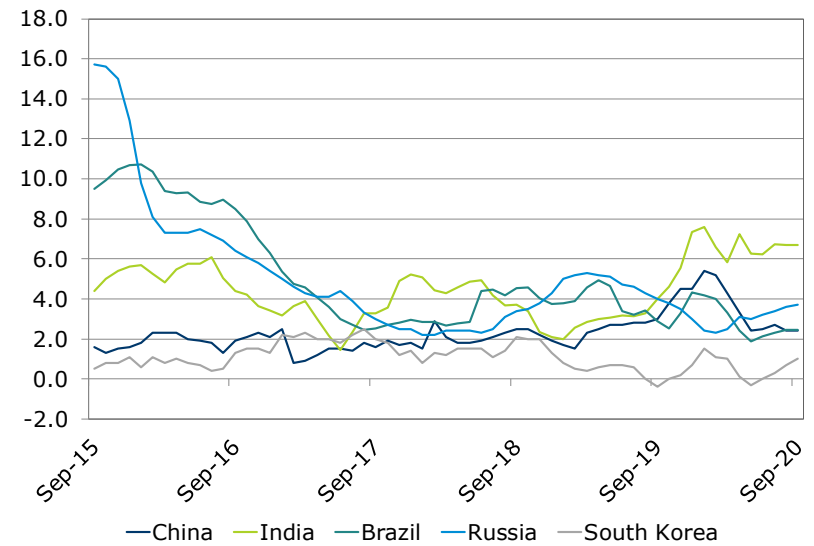
EMERGING MARKETS REAL GDP GROWTH YoY (%)



DEVELOPED MARKETS CPI GROWTH YoY (%)



EMERGING MARKETS CPI GROWTH YoY (%)



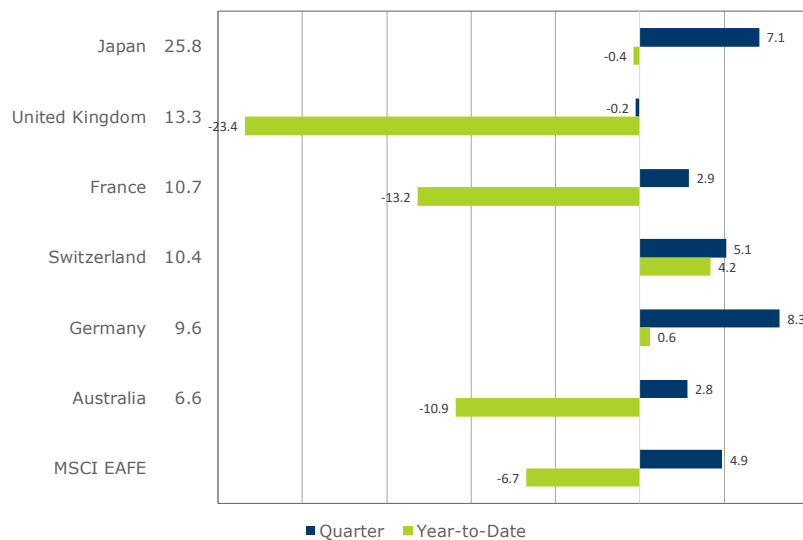
Data sources: Bloomberg

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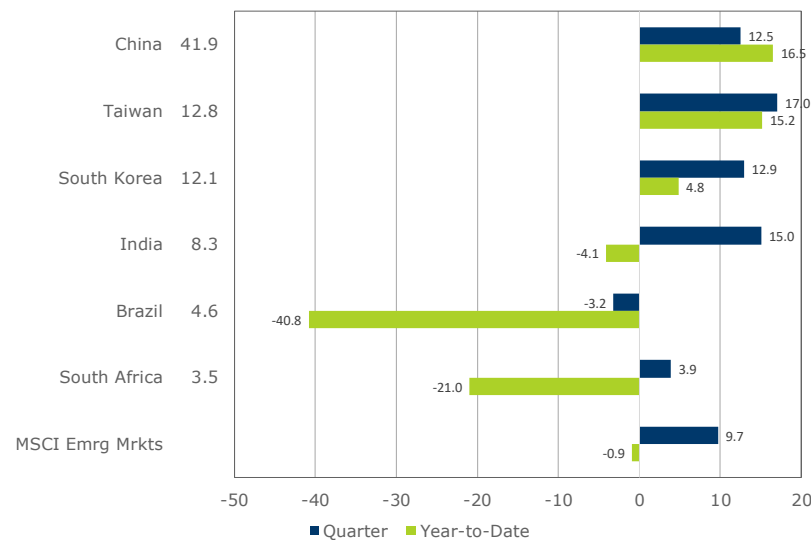
# NON-U.S. EQUITY MARKET

AS OF 9/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI EX-US (\$G)	6.4	-5.1	3.4	1.6	6.7	4.5
MSCI EAFE (\$G)	4.9	-6.7	0.9	1.1	5.8	5.1
MSCI EMERGING MARKETS (\$G)	9.7	-0.9	10.9	2.8	9.4	2.9
MSCI FRONTIER MARKETS (\$G)	4.4	-16.9	-11.2	-5.1	1.2	0.7
MSCI ACWI EX-US GROWTH (\$G)	10.2	7.5	17.9	7.7	10.6	6.8
MSCI ACWI EX-US VALUE (\$G)	3.1	-16.7	-9.5	-4.3	3.0	2.4
MSCI ACWI EX-US SMALL (\$G)	10.6	-3.3	7.4	1.3	7.2	5.7
MSCI ACWI MINIMUM VOLATILITY	4.9	-3.0	0.0	7.1	9.6	9.7
MSCI EAFE MINIMUM VOLATILITY	3.5	-6.9	-2.7	2.4	5.8	6.7
FTSE RAFI DEVELOPED EX-US	3.1	-15.0	-8.1	-3.7	3.3	2.9
MSCI EAFE LC (G)	1.3	-9.1	-4.3	1.0	5.3	6.8
MSCI EMERGING MARKETS LC (G)	8.8	2.9	12.8	5.2	10.0	6.0

DEVELOPED MARKETS WEIGHT AND RETURN (%)



EMERGING MARKETS WEIGHT AND RETURN (%)



Data sources: Bloomberg

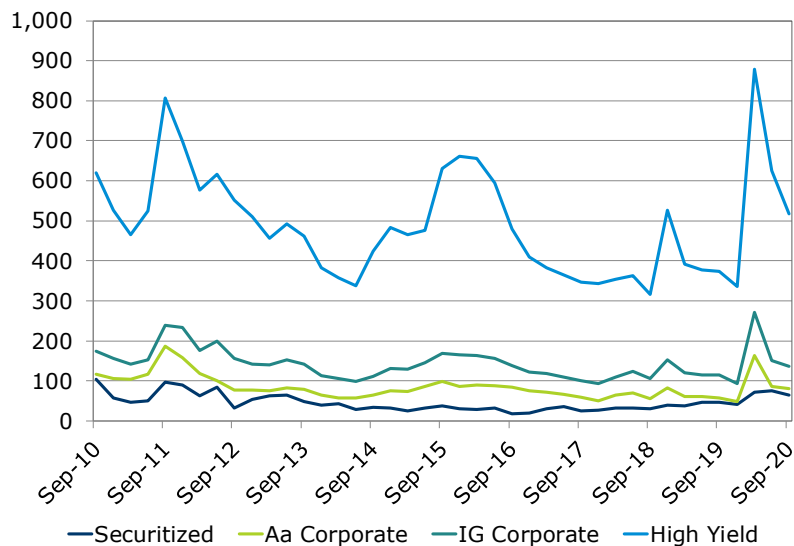
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# U.S. FIXED INCOME

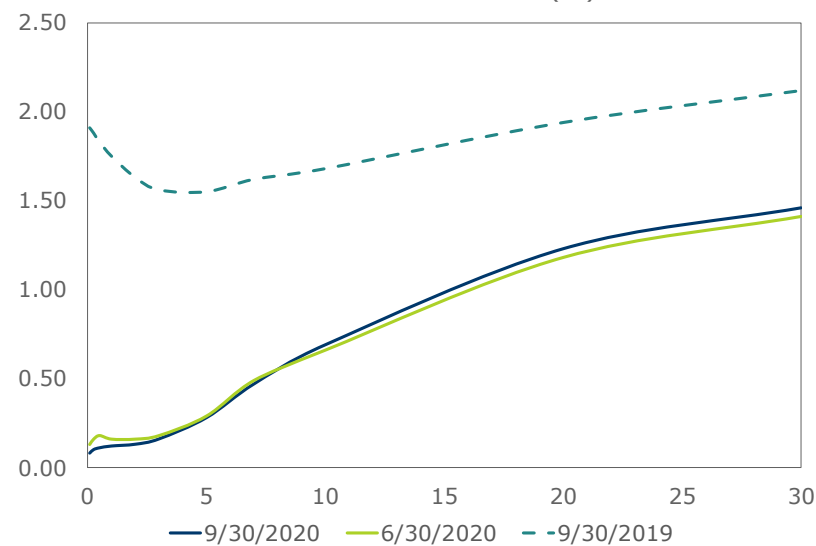
AS OF 9/30/2020	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS AGGREGATE	1.2	6.1	0.6	6.8	7.0	5.2	4.2	3.6
BLOOMBERG BARCLAYS TREASURY	0.5	7.2	0.2	8.9	8.0	5.5	3.7	3.1
BLOOMBERG BARCLAYS GOV'T-REL.	1.1	6.0	1.1	5.0	5.2	4.8	4.1	3.3
BLOOMBERG BARCLAYS SECURITIZED	1.3	2.4	0.2	3.9	4.5	3.8	3.1	3.1
BLOOMBERG BARCLAYS CORPORATE	2.0	8.7	1.5	6.6	7.9	6.4	6.0	5.1
BLOOMBERG BARCLAYS LT G/C	2.3	16.8	1.2	14.2	12.9	10.2	8.8	7.4
BLOOMBERG BARCLAYS LT TREASURY	1.3	19.4	0.1	21.3	16.3	11.9	8.2	7.2
BLOOMBERG BARCLAYS LT GOV't-REL.	2.8	13.6	2.3	6.7	6.6	7.8	7.8	6.7
BLOOMBERG BARCLAYS LT CORP.	3.1	15.3	1.9	8.4	9.8	8.8	8.9	7.4
BLOOMBERG BARCLAYS U.S. TIPS *	0.6	7.9	3.0	9.2	10.1	5.8	4.6	3.6
BLOOMBERG BARCLAYS HIGH YIELD	5.8	3.7	4.6	0.6	3.3	4.2	6.8	6.5
TREASURY BILLS	0.1	0.3	0.0	0.7	1.2	1.7	1.2	0.7

\* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

FIXED INCOME OPTION ADJUSTED SPREAD (BPS)



TREASURY YIELD CURVE (%)



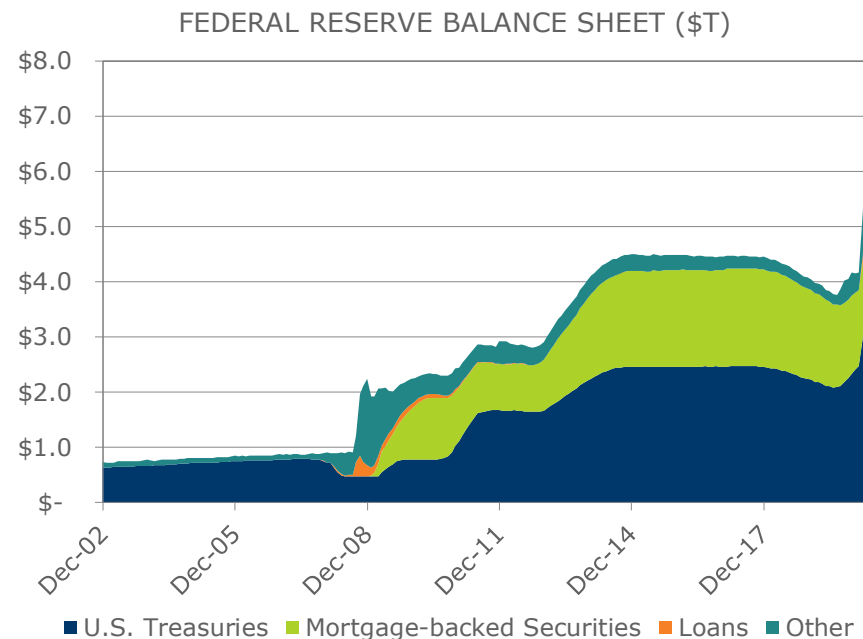
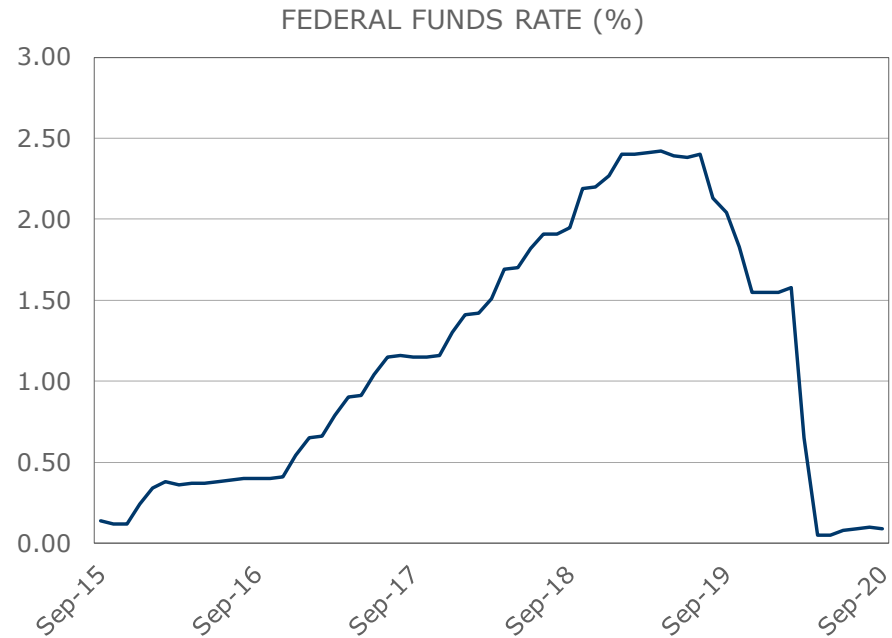
Data sources: Bloomberg

# Wilshire Consulting

## FEDERAL RESERVE

- Current expectation for the Fed-funds rate is to remain near zero through 2022
- Federal Reserve has added nearly \$3 trillion in assets to their balance sheet just this year
- Unlike after the GFC, the Fed is also buying corporate and municipal bonds in addition to Treasuries and MBS

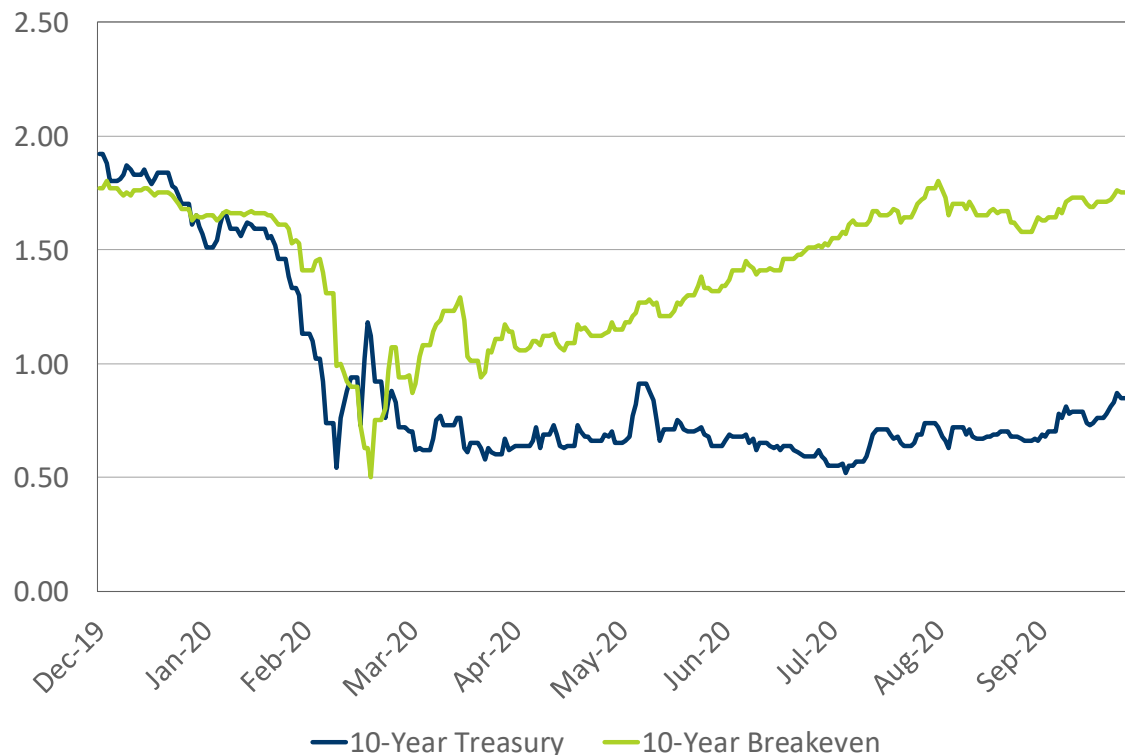
	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020		\$2,935



# TREASURIES AT LOW LEVELS

- Treasury yields and breakeven inflation both dropped as the U.S. entered coronavirus-related lockdowns; breakeven inflation has since increased
- Nearly 100 basis point spread between the two implies that investing in a 10-year Treasury is currently expected to cost an investor, in real terms

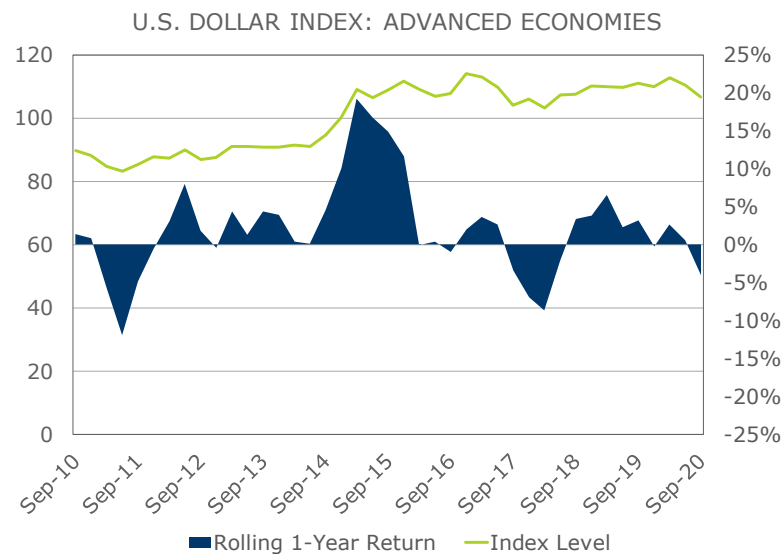
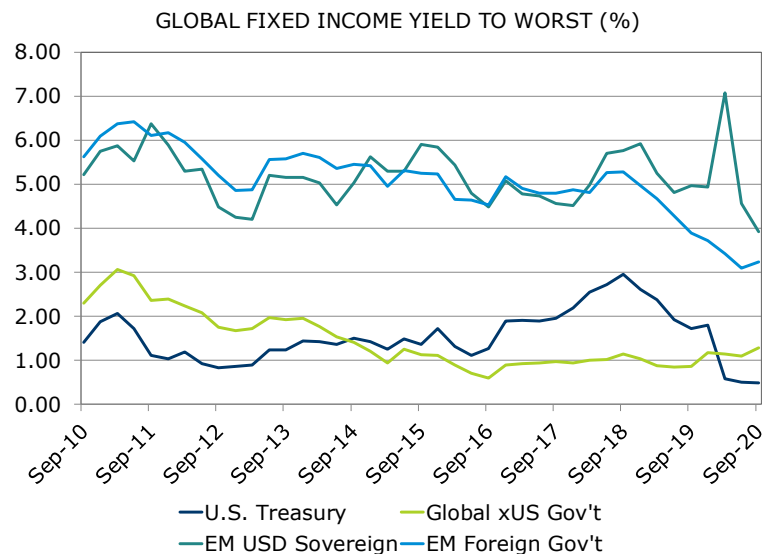
YIELDS & BREAKEVEN (%)



# NON-U.S. FIXED INCOME

AS OF 9/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
<b>DEVELOPED MARKETS</b>						
BLMBRG BRCLYS GLBL AGGREGATE xUS	4.1	4.8	5.5	3.1	3.6	1.3
BLMBRG BRCLYS GLBL AGGREGATE xUS *	0.7	3.0	1.8	4.9	4.3	4.1
BLMBRG BRCLYS GLOBAL INF LNKD xUS	3.9	6.0	5.4	3.8	3.8	3.5
BLMBRG BRCLYS GLOBAL INF LNKD xUS *	-0.3	6.4	0.9	6.4	6.3	5.9
<b>EMERGING MARKETS (HARD CURRENCY)</b>						
BLMBRG BRCLYS EM USD AGGREGATE	2.4	1.9	4.1	4.2	6.2	5.4
<b>EMERGING MARKETS (FOREIGN CURRENCY)</b>						
BLMBRG BRCLYS EM LOCAL CURR. GOV'T	1.8	-1.6	2.3	2.1	4.9	2.0
BLMBRG BRCLYS EM LOCAL CURR. GOV'T *	-0.6	2.3	2.8	4.5	4.1	3.3
EURO vs. DOLLAR	4.3	4.5	7.5	-0.3	1.0	-1.5
YEN vs. DOLLAR	2.3	3.0	2.5	2.2	2.6	-2.3
POUND vs. DOLLAR	4.2	-2.5	5.1	-1.2	-3.1	-1.9

\* Returns are reported in terms of local market investors, which removes currency effects.



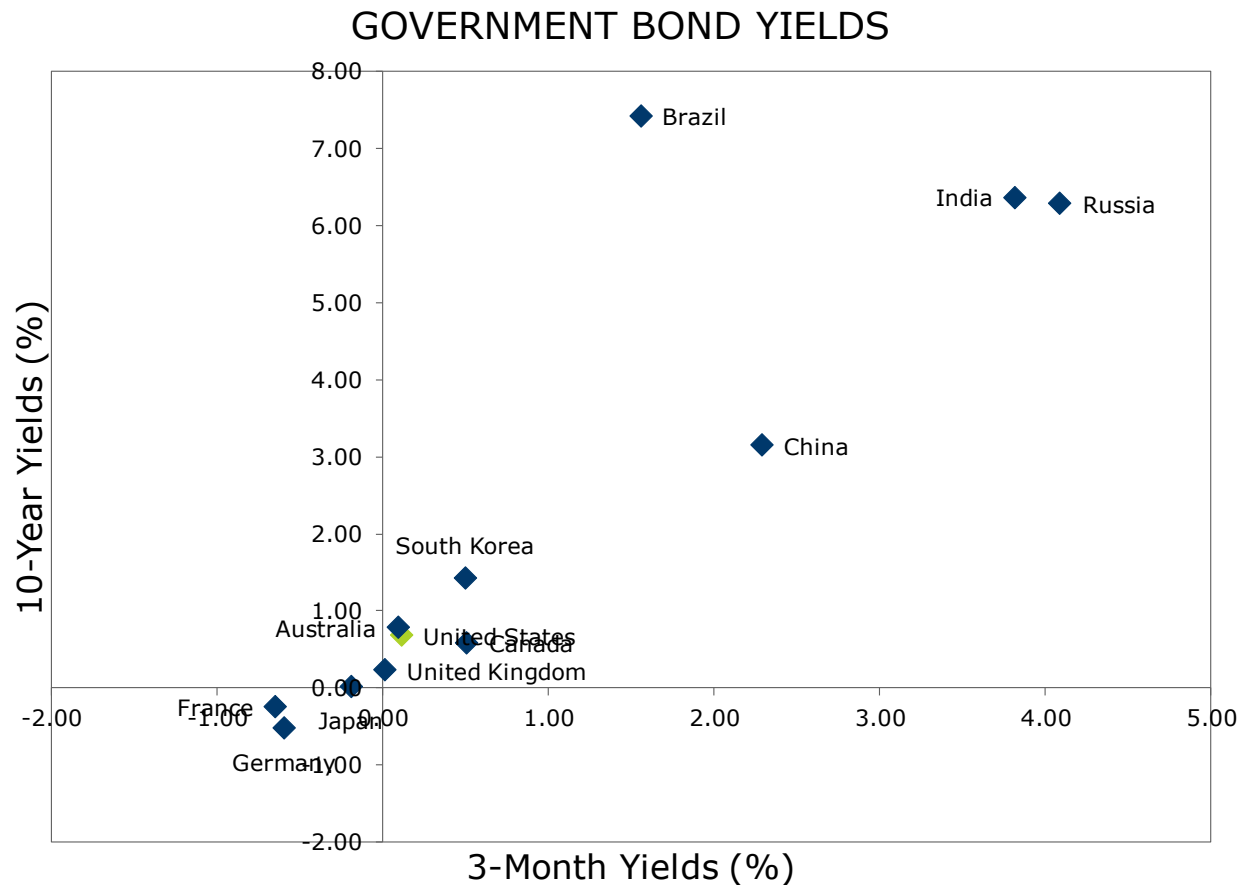
Data sources: Bloomberg

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# GLOBAL INTEREST RATES

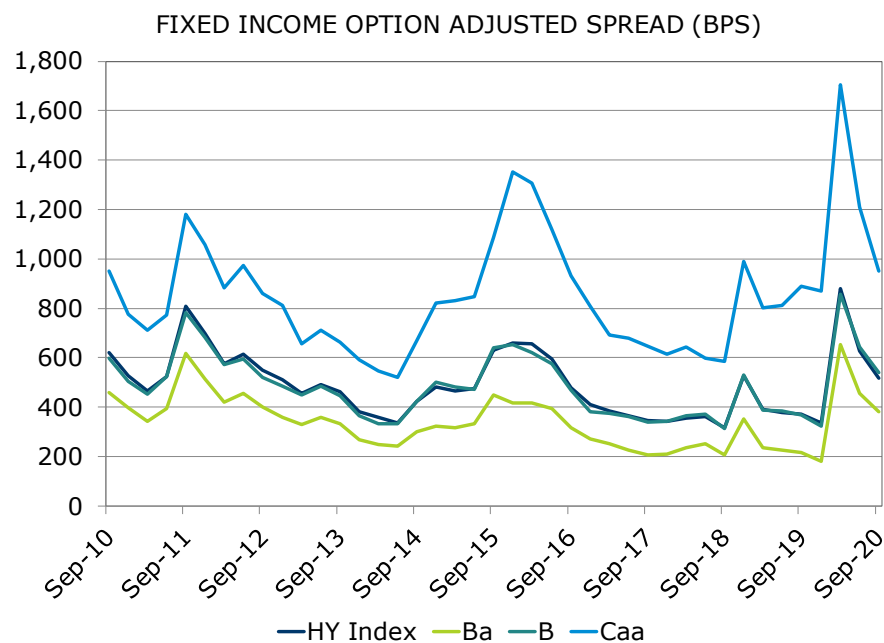
Negative rates found in Germany and France; low but positive rates, and at similar levels, in the U.S. and Australia while the U.K. approaches zero in both the short and long-term



Data sources: Bloomberg

# HIGH YIELD BOND MARKET

AS OF 9/30/2020		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS HIGH YIELD		5.8	4.6	0.6	3.3	4.2	6.8	6.5
S&P LSTA LEVERAGE LOAN INDEX		4.9	3.5	-0.5	1.7	3.4	4.1	4.1
<b>HIGH YIELD QUALITY DISTRIBUTION</b>	<b>WEIGHT</b>							
Ba U.S. HIGH YIELD	54.6%	4.4	4.0	4.2	6.8	5.7	7.3	6.9
B U.S. HIGH YIELD	32.7%	6.0	4.5	-1.2	1.4	4.0	6.2	6.1
Caa U.S. HIGH YIELD	11.9%	10.1	7.3	-7.0	-3.5	-0.3	5.6	6.0
Ca to D U.S. HIGH YIELD	0.8%	23.9	6.7	-23.5	-29.1	-8.8	4.1	-5.8
Non-Rated U.S. HIGH YIELD	0.0%	0.0	0.0	-6.5	-4.7	-0.5	0.6	3.7



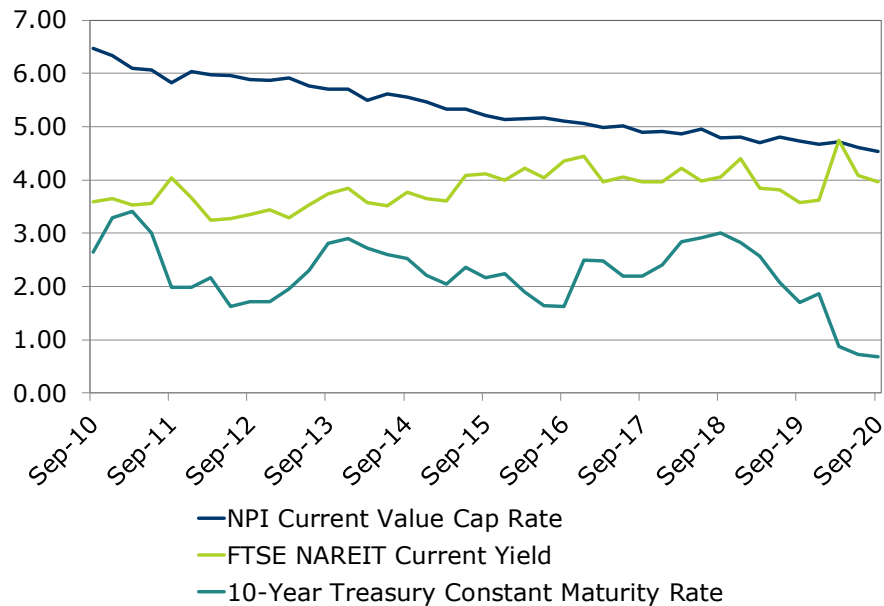
Data sources: Bloomberg

# Wilshire Consulting

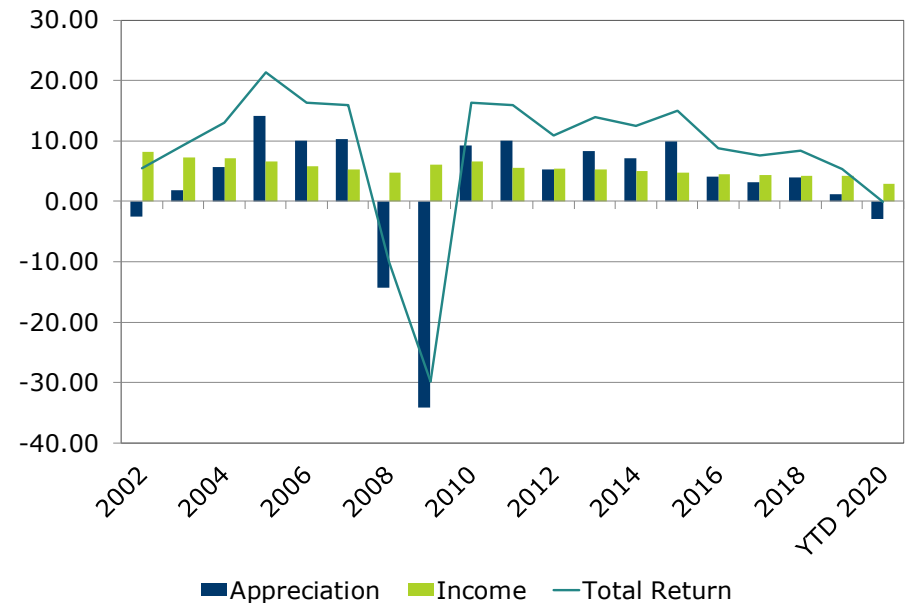
## REAL ASSETS

AS OF 9/30/2020	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS U.S. TIPS	3.0	9.2	10.1	5.8	4.6	3.6
BLOOMBERG COMMODITY INDEX	9.1	-12.1	-8.2	-4.2	-3.1	-6.0
WILSHIRE GLOBAL RESI INDEX	1.3	-19.3	-18.3	-0.7	3.0	6.5
NCREIF ODCE FUND INDEX	0.5	-0.1	1.4	5.2	6.6	10.3
NCREIF TIMBERLAND INDEX	0.0	0.2	0.2	2.2	2.6	4.4
ALERIAN MIDSTREAM ENERGY	-9.4	-36.2	-34.8	-11.9	-4.5	n.a.

REAL ESTATE VALUATION (%)



NCREIF ODCE FUND INDEX RETURN (%)



Data sources: Bloomberg, National Council of Real Estate Investment Fiduciaries



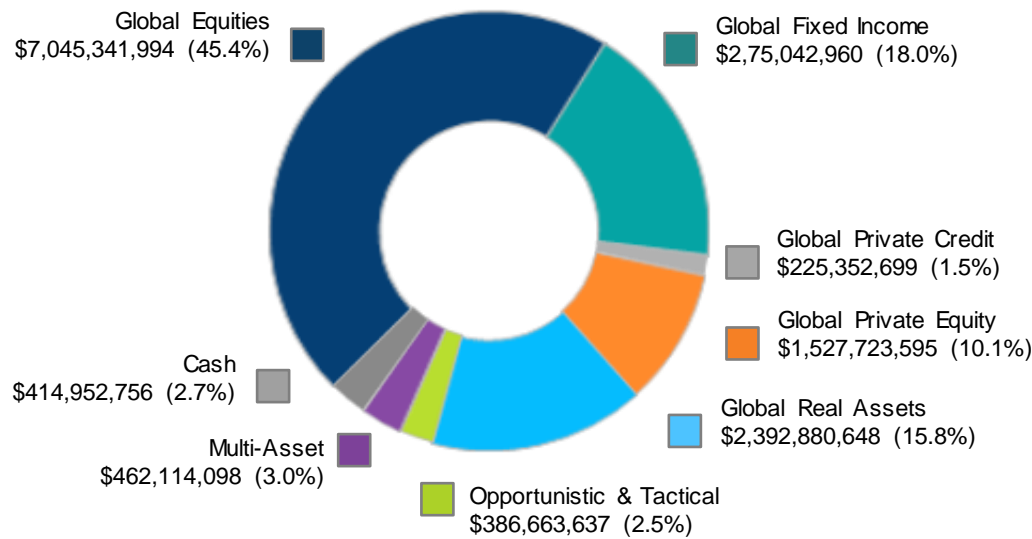
# TOTAL FUND REVIEW

# Asset Allocation Summary

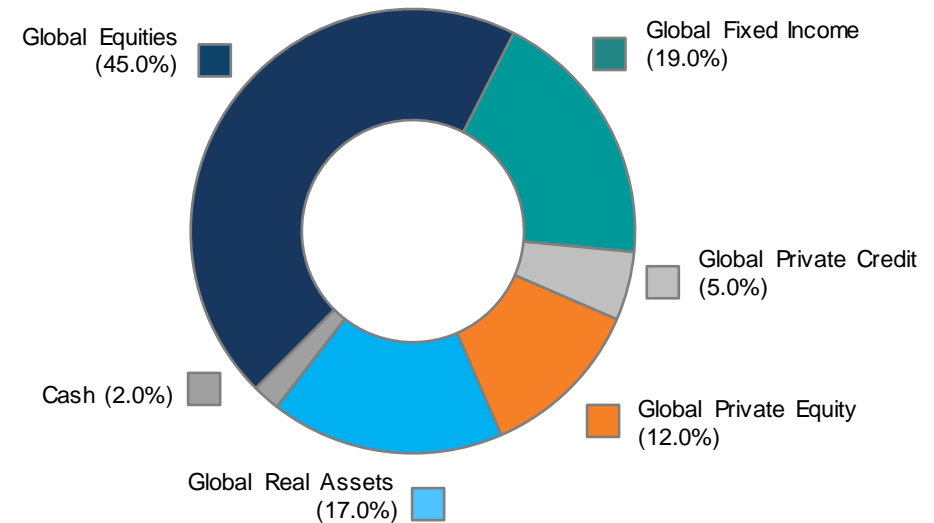
Total Fund

Periods Ended September 30, 2020

## Actual Allocation



## Current Policy



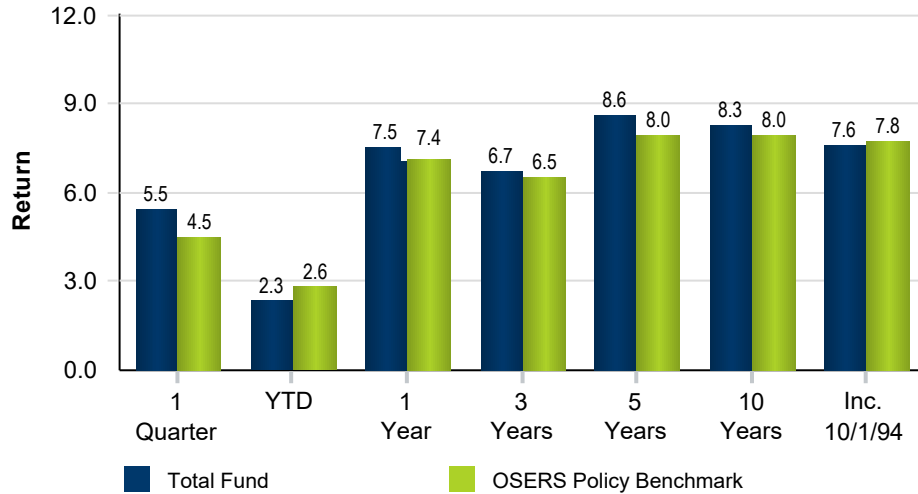
**\$15,190,072,387**

# Composite Performance Summary

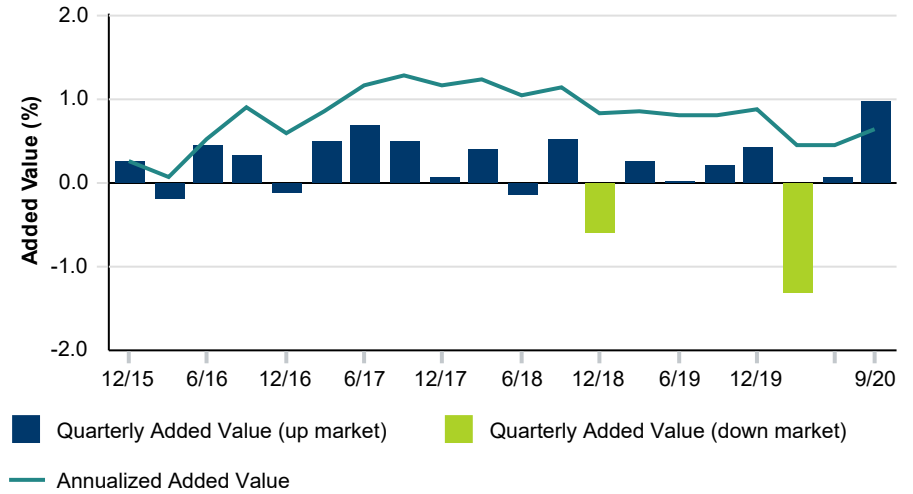
Total Fund

Periods Ended September 30, 2020

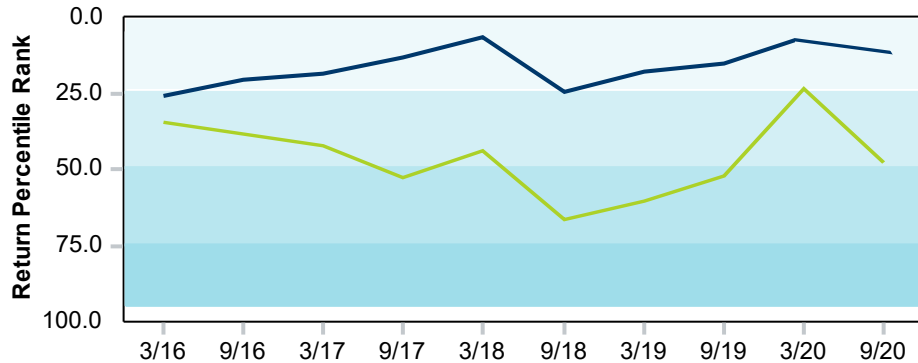
**Comparative Performance**



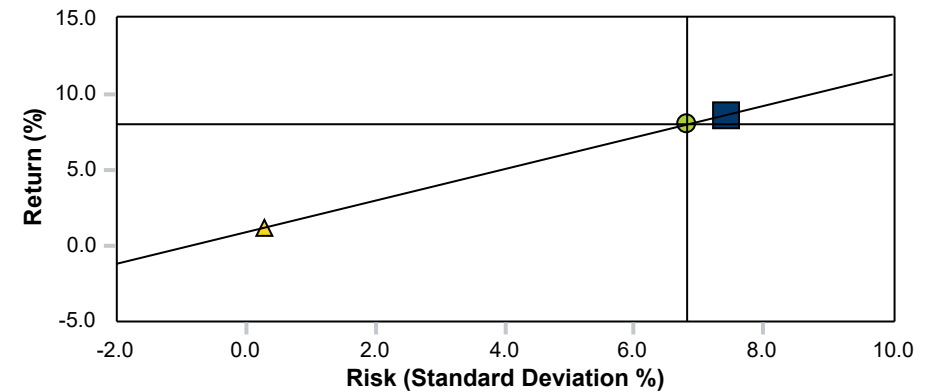
**Added Value History**



**Rolling Percentile Rank: All Public Plans-Total Fund**



**Risk and Return 10/1/15 - 09/30/20**

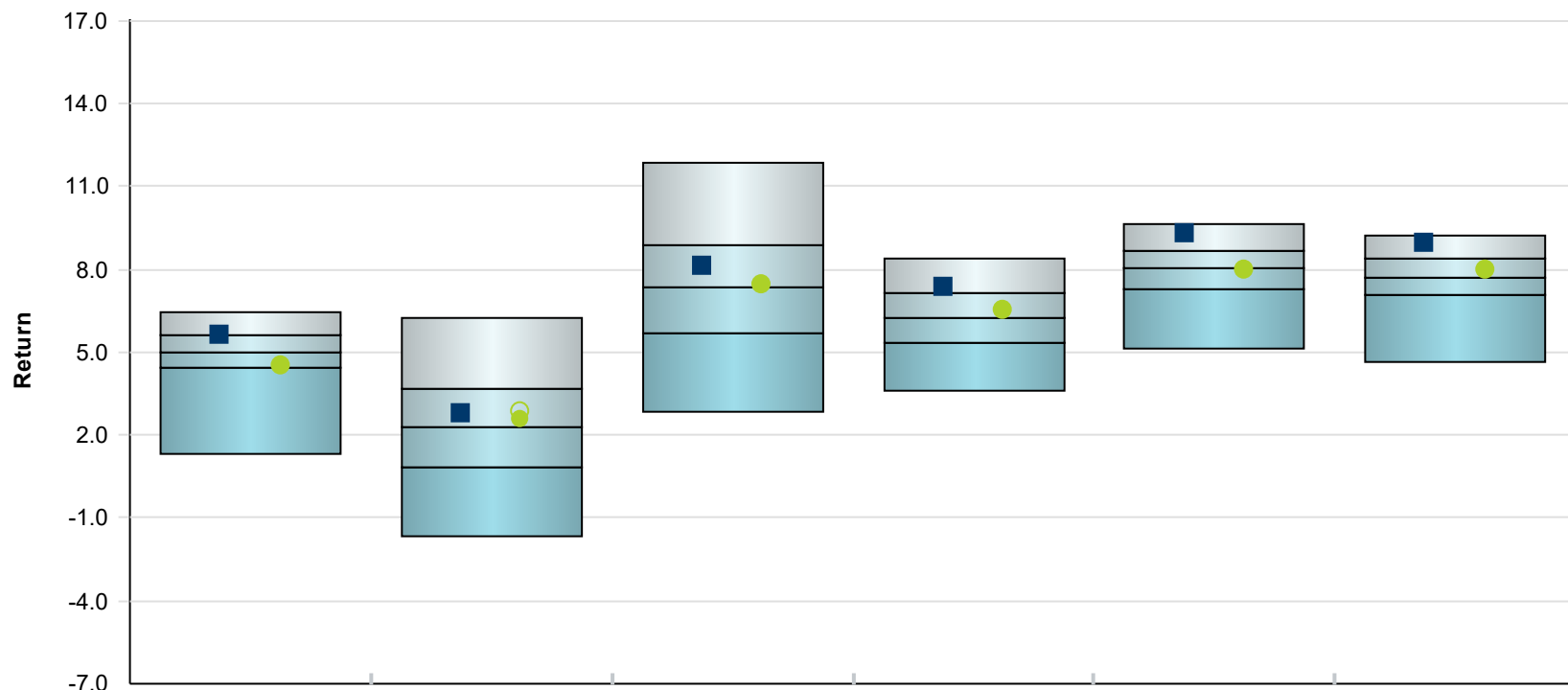


	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Total Fund	10	9 (90%)	1 (10%)	0 (0%)	0 (0%)
Benchmark	10	1 (10%)	7 (70%)	2 (20%)	0 (0%)

# Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans-Total Fund

Periods Ended September 30, 2020

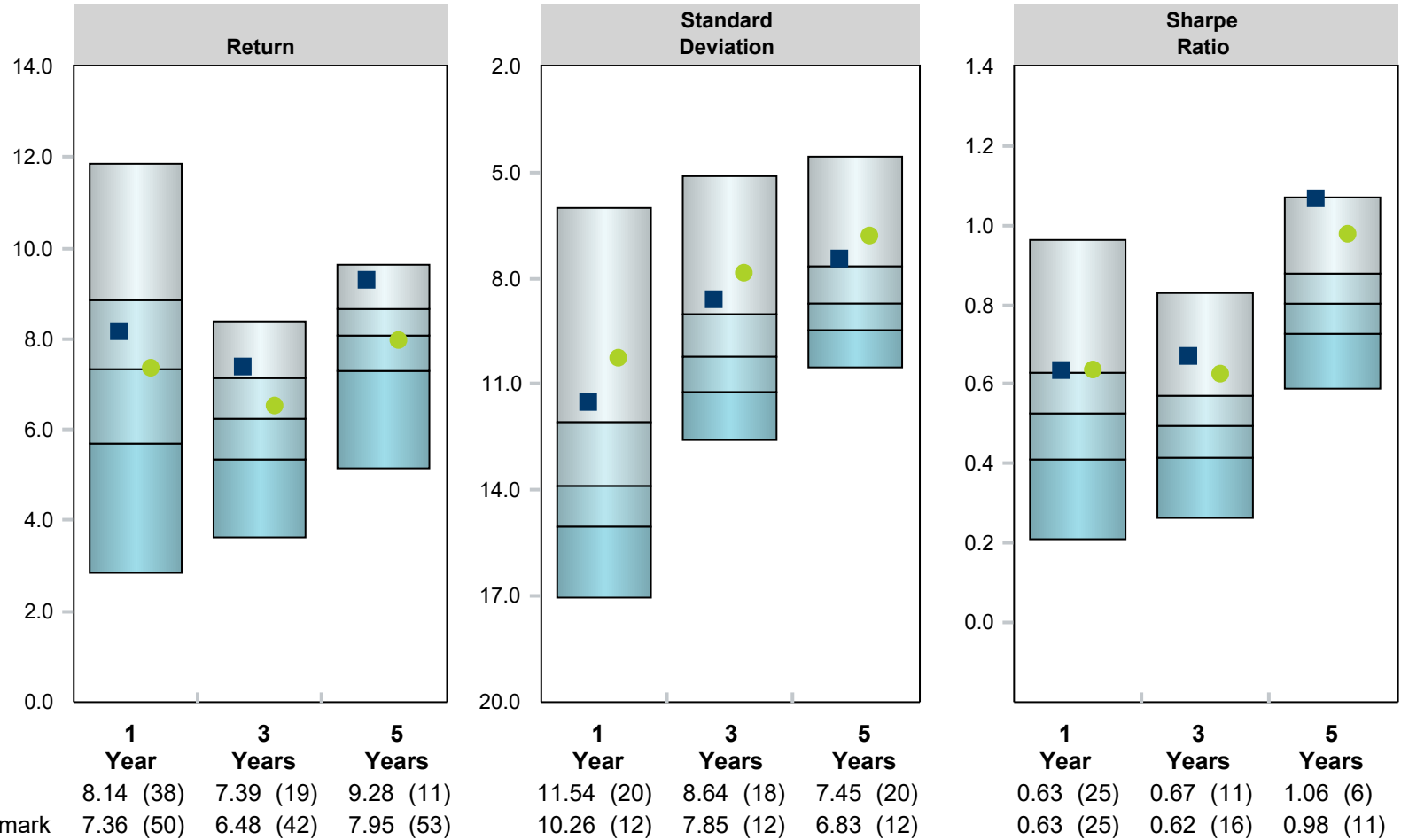


	QTD	YTD	1 Year	3 Years	5 Years	10 Years
■ Total Fund	5.64 (24)	2.76 (42)	8.14 (38)	7.39 (19)	9.28 (11)	8.98 (8)
● OSERS Policy Benchmark	4.51 (72)	2.55 (47)	7.36 (50)	6.48 (42)	7.95 (53)	7.98 (40)
5th Percentile	6.48	6.27	11.86	8.39	9.62	9.25
1st Quartile	5.63	3.68	8.86	7.12	8.68	8.39
Median	5.03	2.29	7.35	6.22	8.06	7.70
3rd Quartile	4.43	0.81	5.71	5.36	7.30	7.08
95th Percentile	1.36	-1.66	2.84	3.61	5.13	4.68
Population	499	488	484	469	448	396

Parenteses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Gross of Fees

# Plan Sponsor Peer Group Analysis - Multi Statistics

Total Fund vs All Public Plans-Total Fund  
 Periods Ended September 30, 2020



5th Percentile	11.86	8.39	9.62	6.02	5.11	4.56	0.96	0.83	1.07
1st Quartile	8.86	7.12	8.68	12.06	9.03	7.69	0.63	0.57	0.88
Median	7.35	6.22	8.06	13.90	10.25	8.73	0.53	0.50	0.80
3rd Quartile	5.71	5.36	7.30	15.06	11.21	9.49	0.41	0.41	0.73
95th Percentile	2.84	3.61	5.13	17.02	12.59	10.54	0.21	0.27	0.59

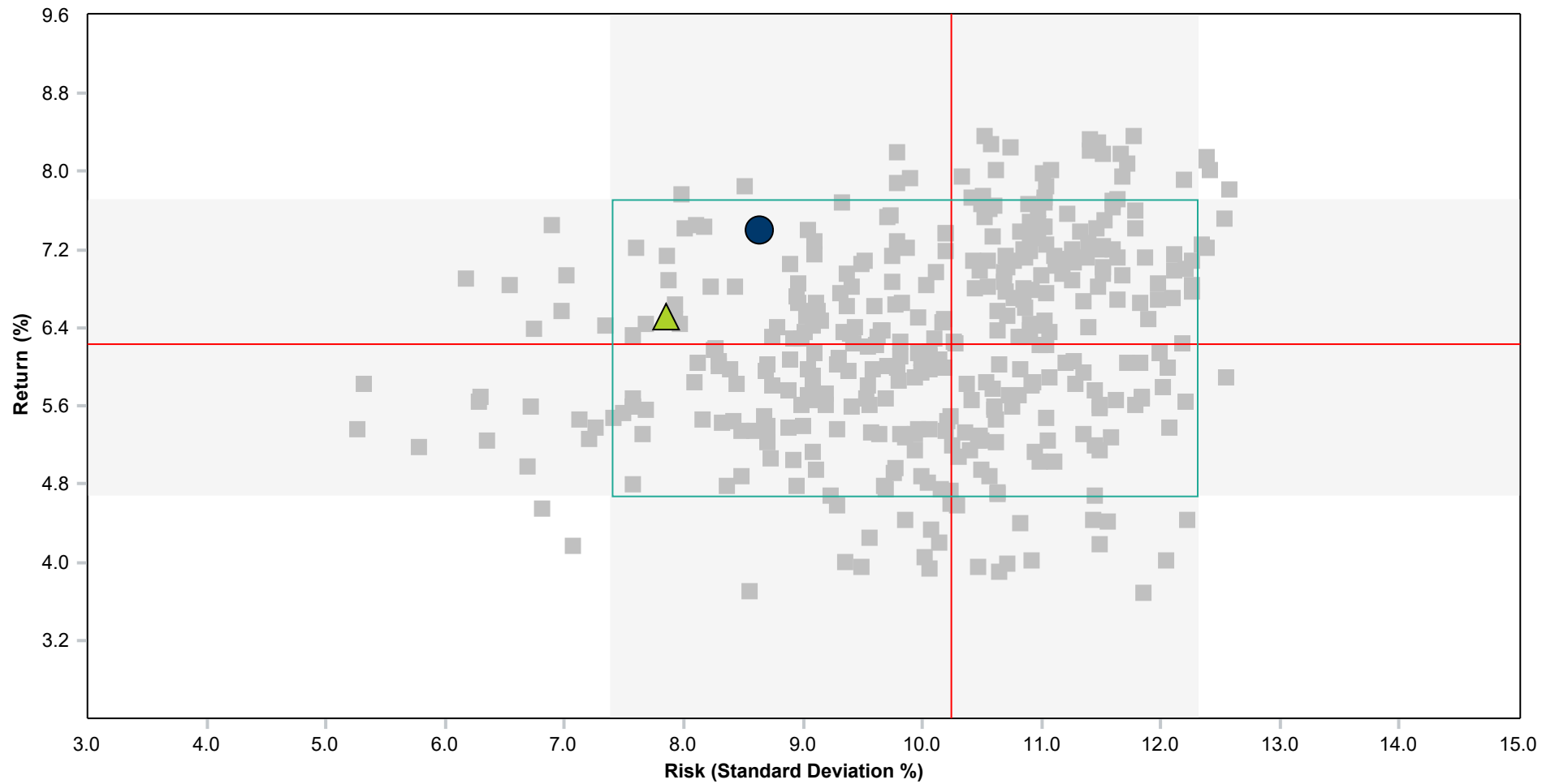
Parenteses contain percentile rankings.  
 Calculation based on monthly periodicity.  
 Gross of Fees



# Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund

Periods Ended October 1, 2017 To September 30, 2020



	Return	Standard Deviation
● Total Fund	7.39	8.64
▲ OSERS Policy Benchmark	6.48	7.85
— Median	6.22	10.25

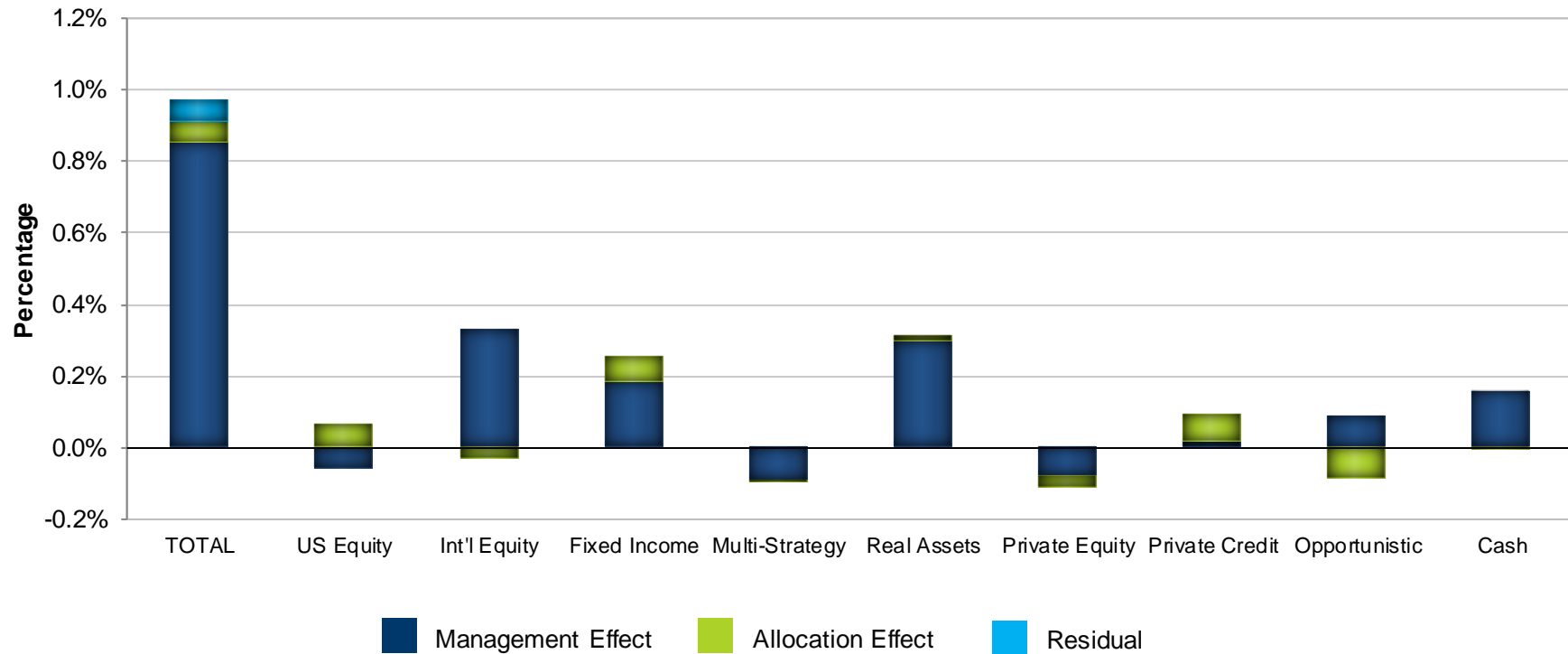
Calculation based on monthly periodicity.  
Gross of Fees

# Attribution Analysis

Total Fund

One Quarter Ending September 30, 2020

## Total Fund Attribution Summary



	TOTAL	US Equity	Int'l Equity	Fixed Income	Multi-Strategy	Real Assets	Private Equity	Private Credit	Opportunistic	Cash
Total	1.0%	0.0%	0.3%	0.3%	-0.1%	0.3%	-0.1%	0.1%	0.0%	0.2%
Mgmt Effect	0.9%	-0.1%	0.3%	0.2%	-0.1%	0.3%	-0.1%	0.0%	0.1%	0.2%
Allocation	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	-0.1%	0.0%
Residual	0.1%									

# Asset Class Performance

Total Fund

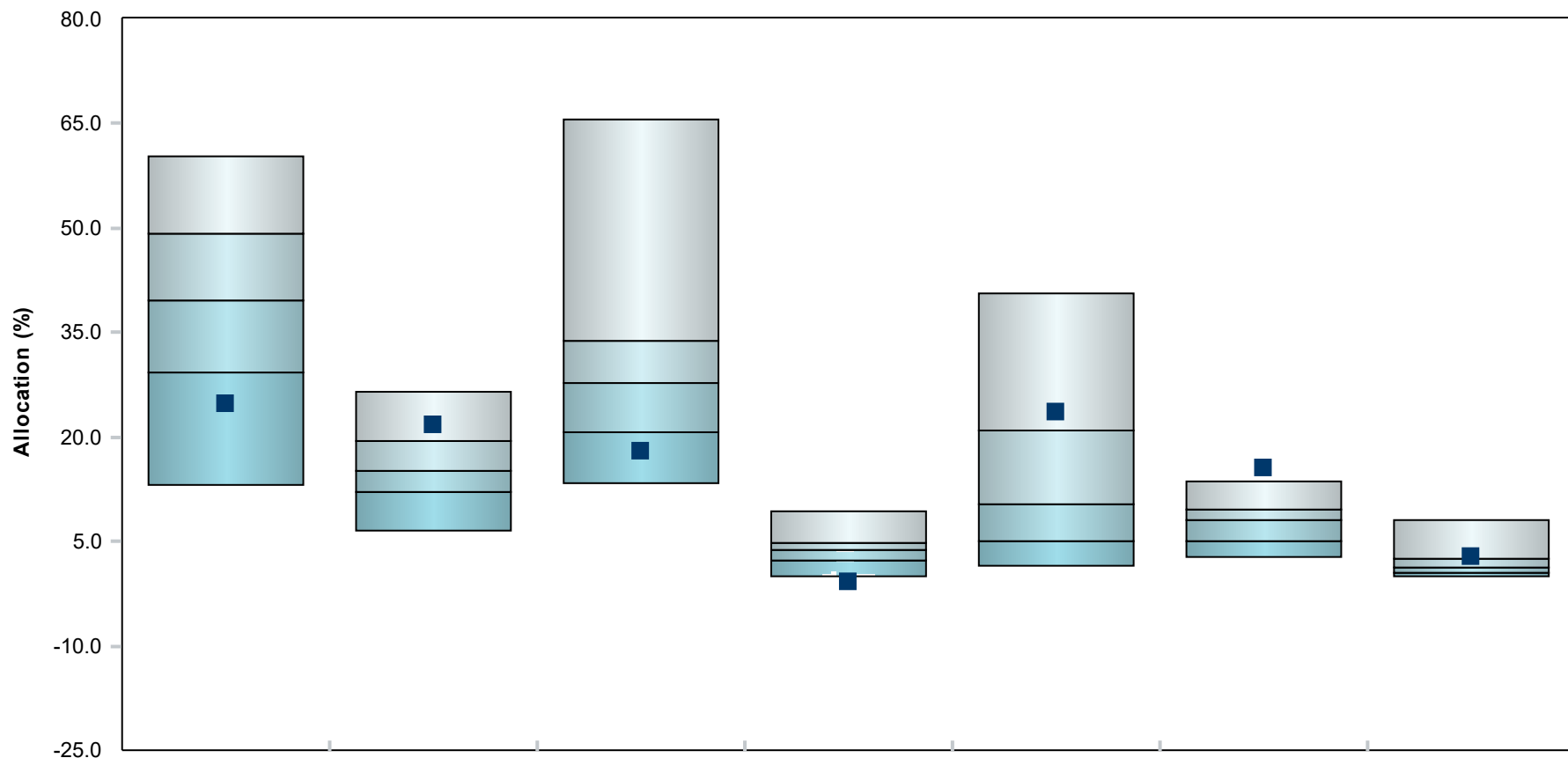
Periods Ended September 30, 2020

	QTD	YTD	Fiscal YTD	1 Year	Annualized					Inception Date
					3 Years	5 Years	10 Years	20 Years	Since Inception	
<b>Total Fund</b>	<b>5.5</b>	<b>2.3</b>	<b>5.5</b>	<b>7.5</b>	<b>6.7</b>	<b>8.6</b>	<b>8.3</b>	<b>5.4</b>	<b>7.6</b>	<b>Oct-94</b>
<i>OSERS Policy BM</i>	4.5	2.6	4.5	7.4	6.5	7.9	8.0	5.6	7.8	
Value Added	1.0	-0.2	1.0	0.2	0.2	0.6	0.3	-0.1	-0.1	
<b>Global Equities</b>	<b>8.5</b>	<b>1.9</b>	<b>8.5</b>	<b>11.3</b>	<b>7.0</b>	<b>10.6</b>	<b>9.3</b>		<b>7.5</b>	<b>Jul-02</b>
<i>Custom Gbl Equities BM</i>	7.7	-0.1	7.7	8.9	6.4	10.0	8.8		7.1	
Value Added	0.7	2.0	0.7	2.4	0.6	0.7	0.4		0.3	
<b>US Equity</b>	<b>9.0</b>	<b>6.7</b>	<b>9.0</b>	<b>15.9</b>	<b>11.4</b>	<b>13.5</b>	<b>13.3</b>	<b>6.2</b>	<b>9.7</b>	<b>Oct-94</b>
<i>Russell 3000 Index</i>	9.2	5.4	9.2	15.0	11.6	13.7	13.5	6.6	10.0	
Value Added	-0.2	1.2	-0.2	0.9	-0.2	-0.2	-0.2	-0.4	-0.3	
<b>Non-US Equity</b>	<b>7.8</b>	<b>-3.1</b>	<b>7.8</b>	<b>6.5</b>	<b>2.5</b>	<b>7.7</b>	<b>5.2</b>	<b>4.7</b>	<b>6.2</b>	<b>Dec-94</b>
<i>Custom Non-US Equity BM</i>	6.3	-5.4	6.3	3.0	1.2	6.2	4.3	3.9	5.6	
Value Added	1.6	2.3	1.6	3.5	1.4	1.5	1.0	0.8	0.6	
<b>Global Fixed Income</b>	<b>1.7</b>	<b>7.5</b>	<b>1.7</b>	<b>8.0</b>	<b>5.6</b>	<b>5.1</b>	<b>4.5</b>	<b>5.8</b>	<b>6.2</b>	<b>Oct-94</b>
<i>Bloomberg U.S. Aggregate</i>	0.6	6.8	0.6	7.0	5.2	4.2	3.6	5.0	5.6	
Value Added	1.1	0.7	1.1	1.0	0.4	0.9	0.9	0.8	0.5	
<b>Multi-Asset Strategies</b>	<b>3.1</b>	<b>0.5</b>	<b>3.1</b>	<b>3.0</b>	<b>2.6</b>	<b>3.3</b>	<b>3.9</b>		<b>3.5</b>	<b>Jun-08</b>
<i>Custom MAS BM</i>	4.3	3.2	4.3	6.6	3.8	4.1	3.6		2.9	
Value Added	-1.3	-2.7	-1.3	-3.6	-1.2	-0.8	0.4		0.6	
<b>Global Private Equity</b>	<b>6.6</b>	<b>2.1</b>	<b>6.6</b>	<b>5.9</b>	<b>12.4</b>	<b>13.2</b>	<b>15.0</b>	<b>4.4</b>	<b>12.1</b>	<b>Oct-94</b>
<i>Custom Gbl Private Equity BM</i>	7.4	2.6	7.4	3.5	10.4	9.9	14.6	7.8	12.1	
Value Added	-0.8	-0.5	-0.8	2.4	2.0	3.3	0.4	-3.4	0.0	
<b>Global Private Credit</b>	<b>3.5</b>		<b>3.5</b>						<b>3.5</b>	<b>Jul-20</b>
<i>3 Mo. LIBOR + 4.5%</i>	1.2		1.2						1.2	
Value Added	2.3		2.3						2.3	
<b>Global Real Assets</b>	<b>0.9</b>	<b>1.0</b>	<b>0.9</b>	<b>3.0</b>	<b>7.3</b>	<b>8.3</b>	<b>10.1</b>	<b>6.3</b>	<b>7.3</b>	<b>Sep-94</b>
<i>Custom Gbl Real Assets BM</i>	-1.0	1.3	-1.0	2.7	5.4	6.8	9.7	8.7	9.3	
Value Added	1.9	-0.3	1.9	0.3	1.8	1.5	0.4	-2.4	-1.9	
<b>Opportunistic &amp; Tactical</b>	<b>4.6</b>	<b>-4.0</b>	<b>4.6</b>	<b>-4.2</b>	<b>3.2</b>	<b>5.0</b>			<b>5.5</b>	<b>Jun-13</b>
<i>Opportunistic &amp; Tactical BM</i>	1.1	-0.8	1.1	3.9	5.3	7.2			6.8	
Value Added	3.5	-3.3	3.5	-8.1	-2.1	-2.2			-1.4	
<b>Cash Equivalents*</b>	<b>7.6</b>	<b>5.9</b>	<b>7.6</b>	<b>5.1</b>	<b>3.4</b>	<b>2.8</b>	<b>1.6</b>		<b>2.1</b>	<b>Jul-02</b>
<i>FTSE 30 Day Treasury Bill</i>	0.0	0.4	0.0	0.9	1.6	1.1	0.6		1.2	
Value Added	7.6	5.5	7.6	4.3	1.8	1.7	1.1		0.9	
<b>Short-Term Cash</b>	<b>0.0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.0</b>	<b>1.7</b>	<b>1.3</b>	<b>0.7</b>	<b>1.9</b>	<b>4.0</b>	<b>Mar-84</b>
<i>FTSE 30 Day Treasury Bill</i>	0.0	0.4	0.0	0.9	1.6	1.1	0.6	1.4	3.2	
Value Added	-0.0	0.1	-0.0	0.2	0.1	0.2	0.1	0.5	0.8	

# Plan Sponsor TF Asset Allocation

Total Fund vs All Public Plans-Total Fund

Periods Ended September 30, 2020



	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ Total Fund	24.74	21.64	18.01	0.00	23.13	15.75	2.73
5th Percentile	60.36	26.40	65.65	9.45	40.58	13.64	7.96
1st Quartile	49.12	19.39	33.87	4.74	20.85	9.61	2.51
Median	39.52	15.17	27.74	3.66	10.30	8.01	1.23
3rd Quartile	29.38	11.98	20.59	2.20	5.10	5.07	0.60
95th Percentile	13.08	6.48	13.30	0.08	1.61	2.70	0.07

Alternatives include Global Private Equity and Global Private Credit.  
Real Estate includes Global Real Assets.



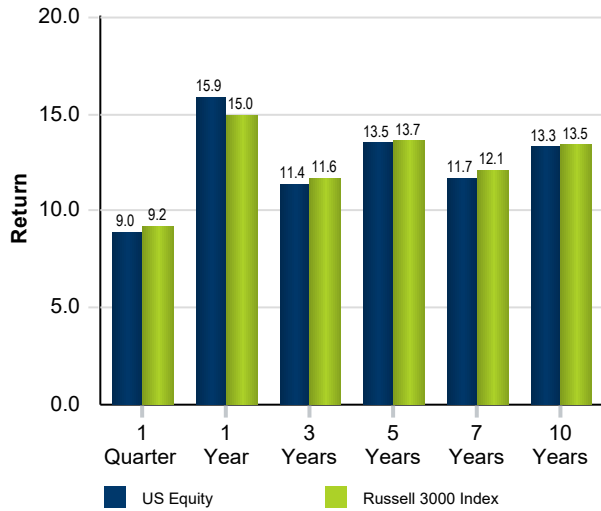
# US EQUITY

# Performance Summary

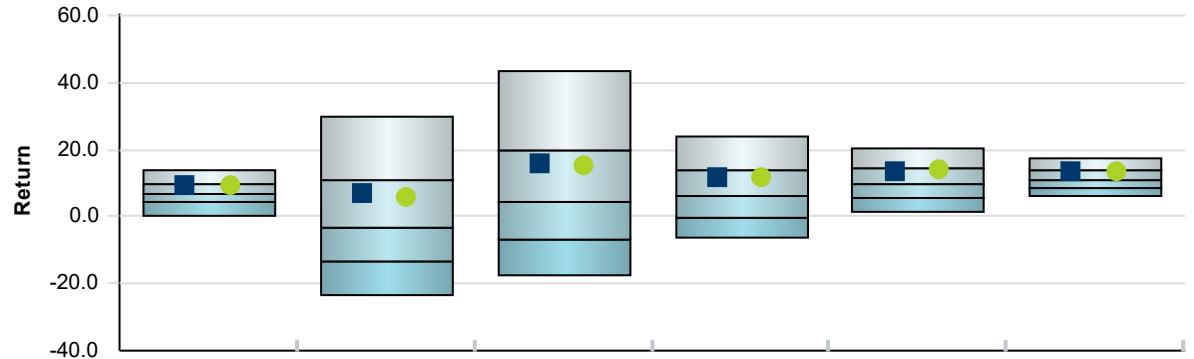
## US Equity

Periods Ended September 30, 2020

### Comparative Performance

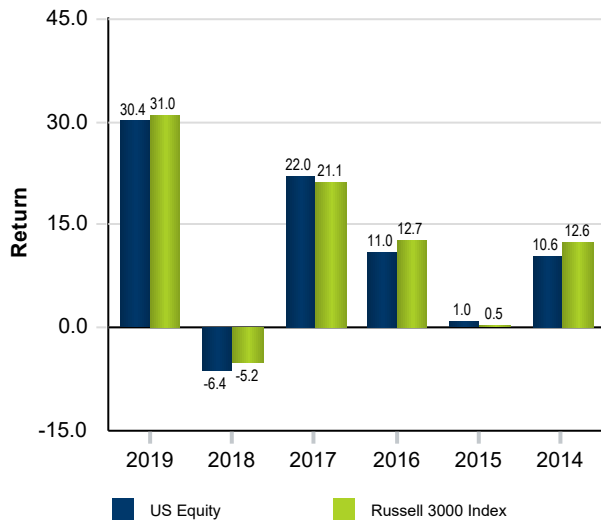


### Peer Group Analysis: IM U.S. Equity (SA+CF)

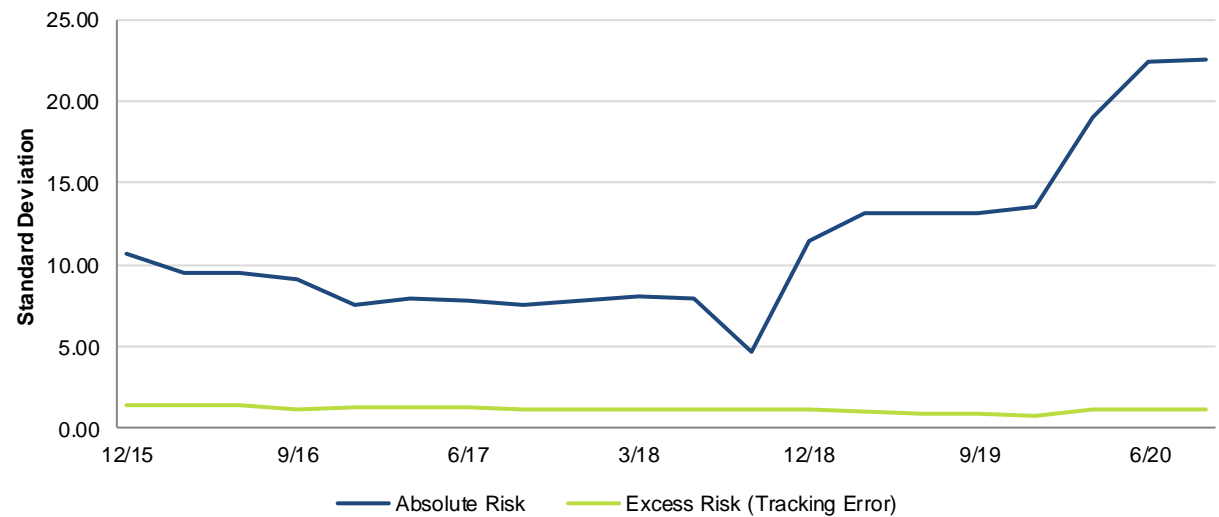


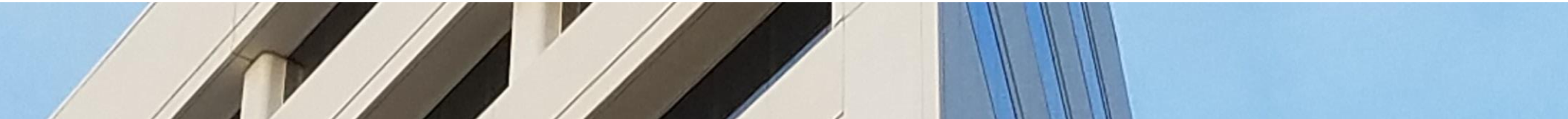
	Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years
■ Fund	8.97 (32)	6.66 (31)	15.91 (31)	11.43 (33)	13.51 (30)	13.31 (31)
● Benchmark	9.21 (29)	5.41 (34)	15.00 (32)	11.65 (32)	13.69 (29)	13.48 (30)
Median	6.79	-3.22	4.57	6.31	9.68	11.16

### Comparative Performance



### Rolling 3 Year Risk Statistics





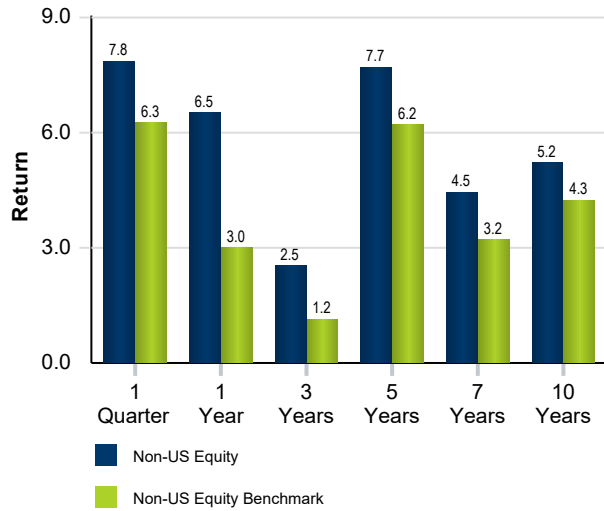
# NON-US EQUITY

# Performance Summary

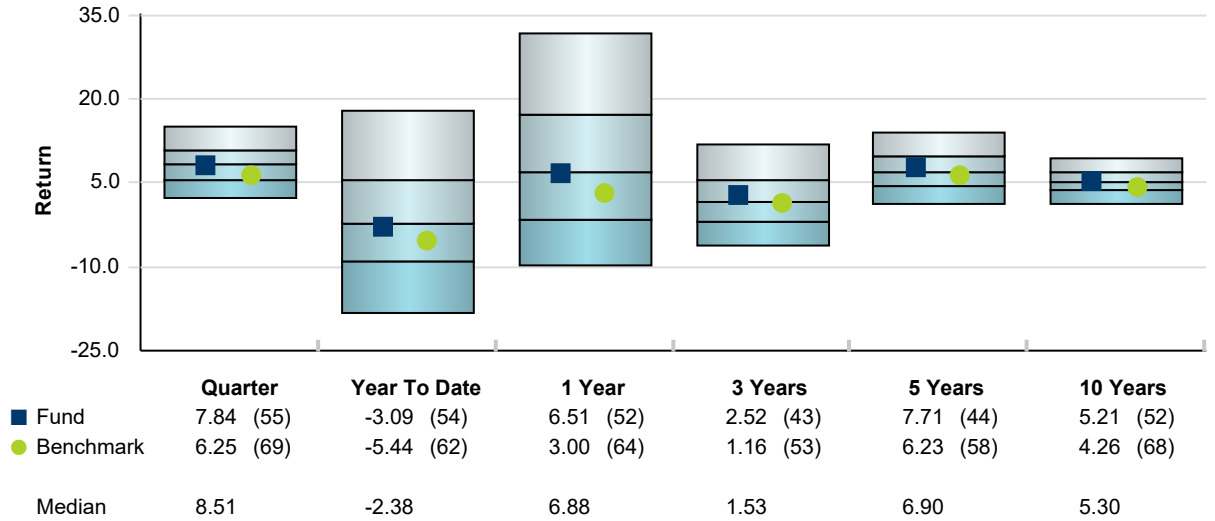
Non-US Equity

Periods Ended September 30, 2020

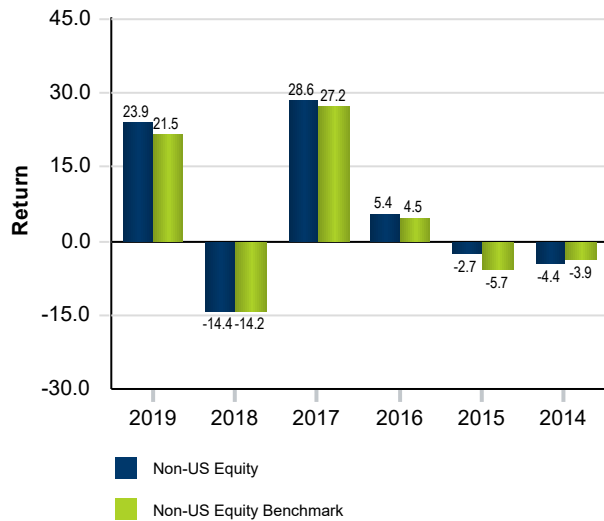
## Comparative Performance



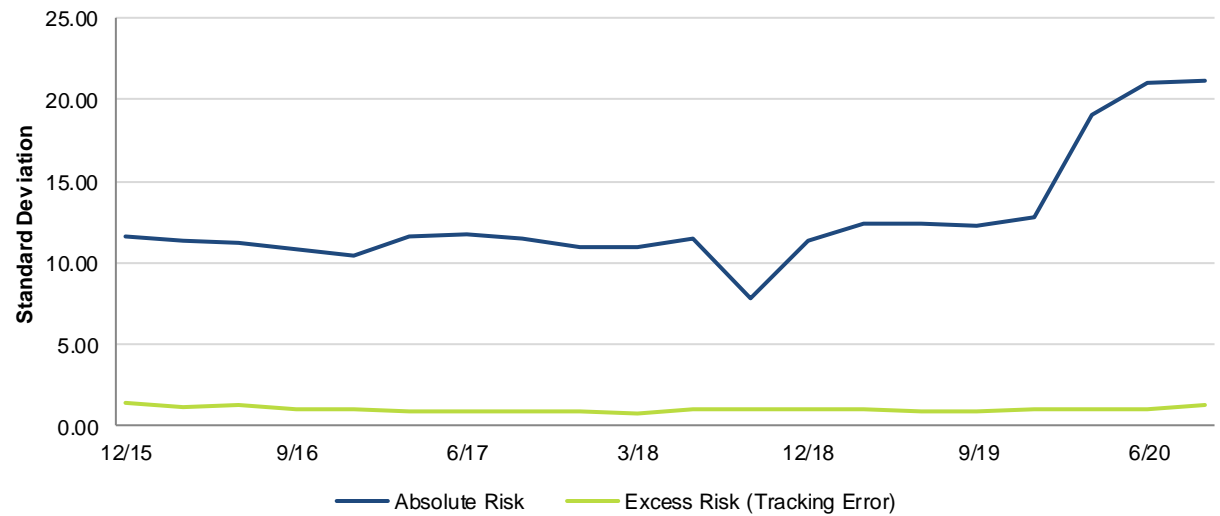
## Peer Group Analysis: IM International Equity (SA+CF)



## Comparative Performance



## Rolling 3 Year Risk Statistics







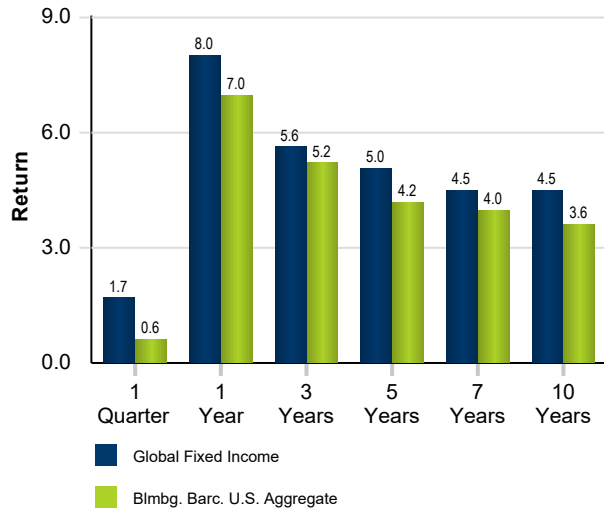
# GLOBAL FIXED INCOME

# Performance Summary

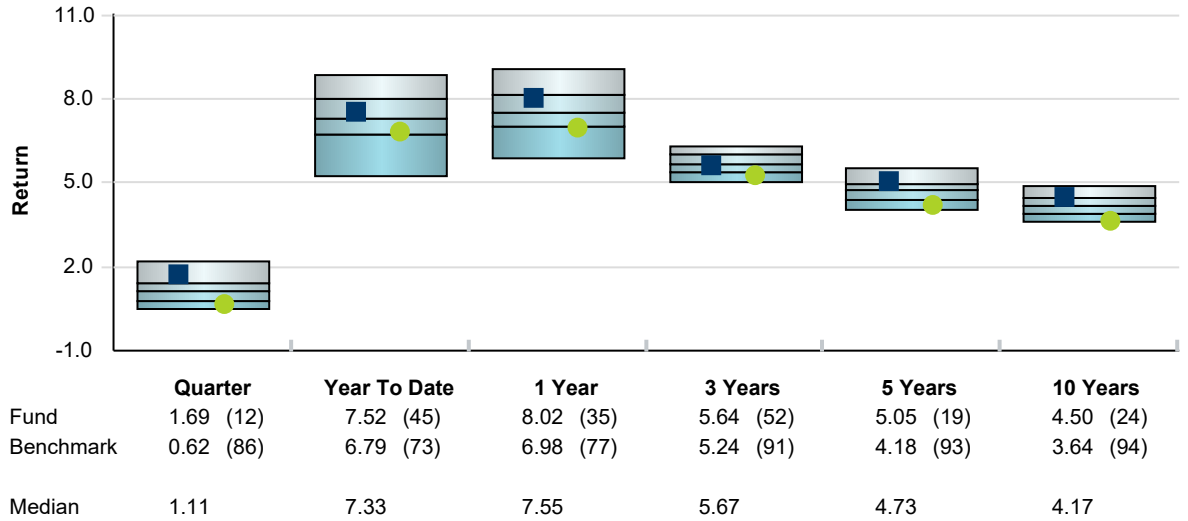
Global Fixed Income

Periods Ended September 30, 2020

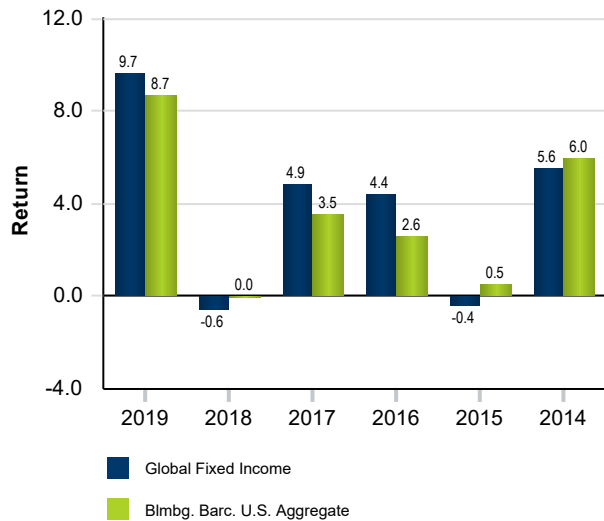
## Comparative Performance



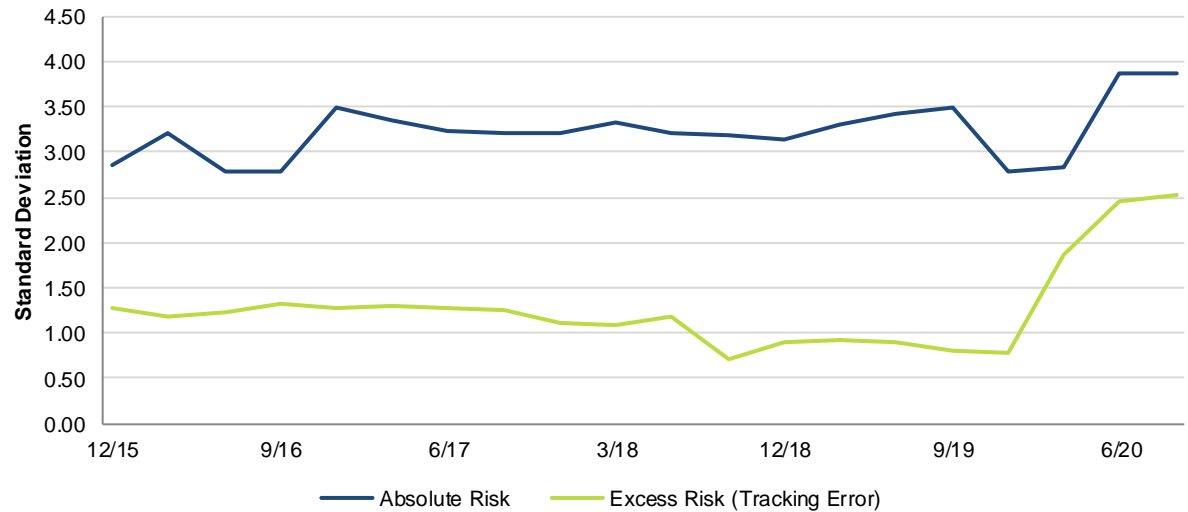
## Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)



## Comparative Performance



## Rolling 3 Year Risk Statistics





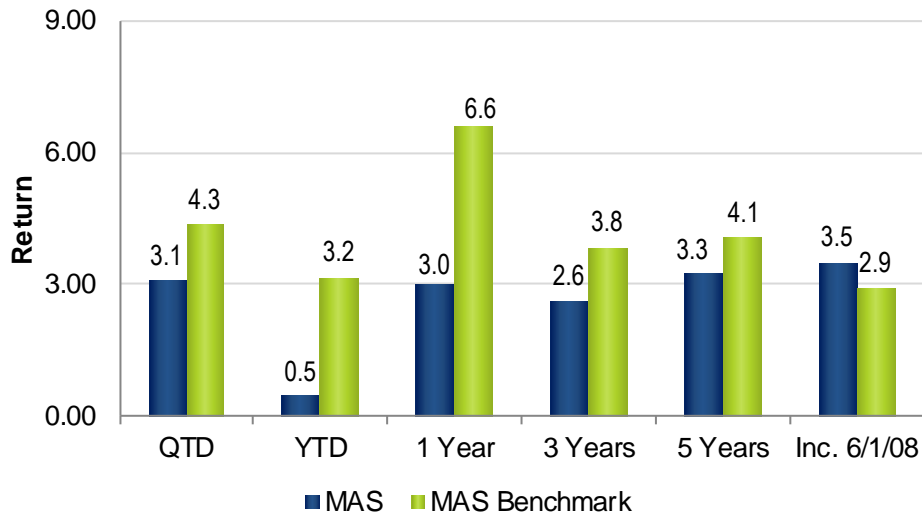
# MULTI-ASSET STRATEGIES

# Manager Summary

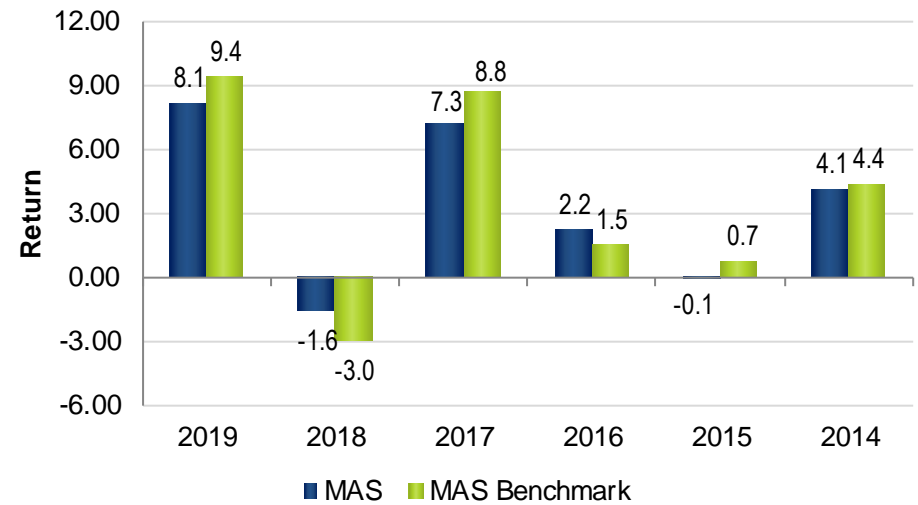
Multi-Asset Strategies

Periods Ended September 30, 2020

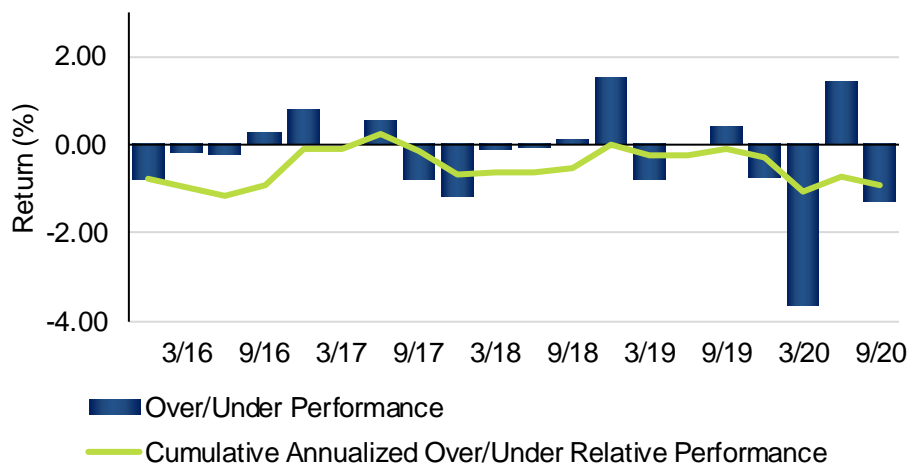
**Comparative Performance**



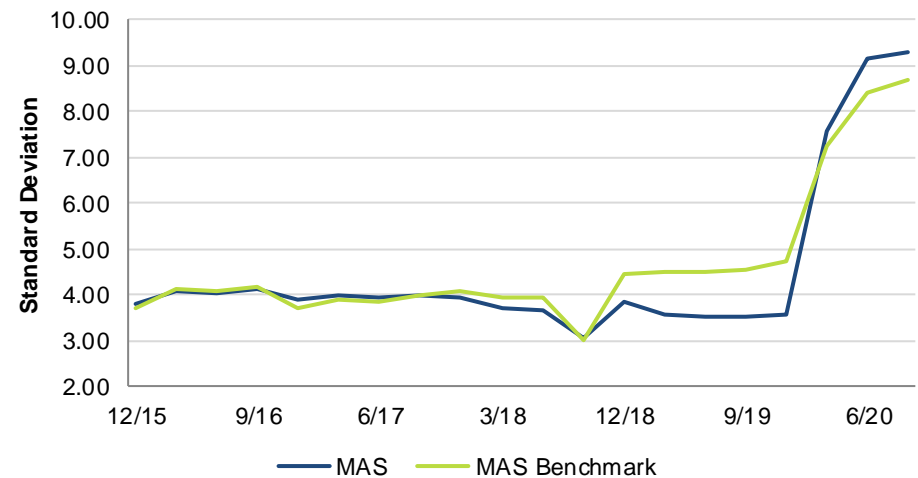
**Comparative Performance**



**Relative Performance**



**3-Yr Rolling Absolute Risk Statistics**





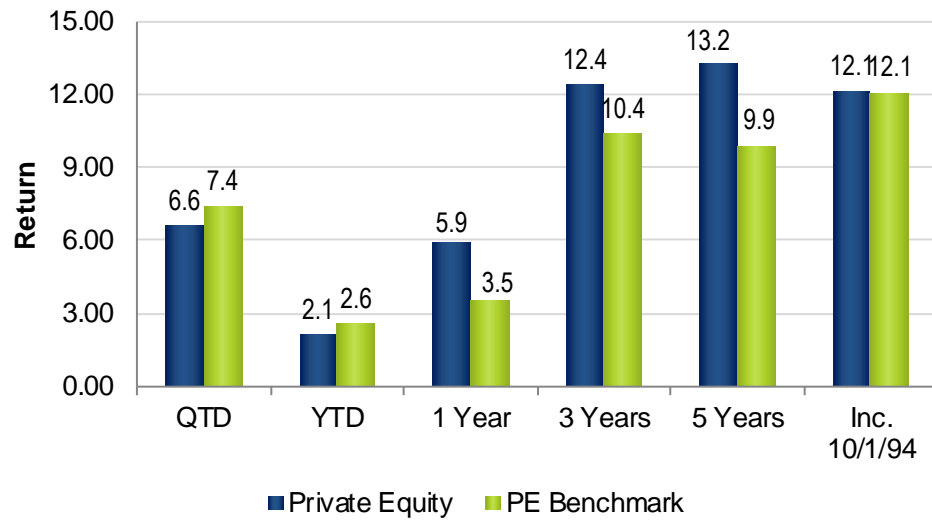
# GLOBAL PRIVATE EQUITY

# Manager Summary

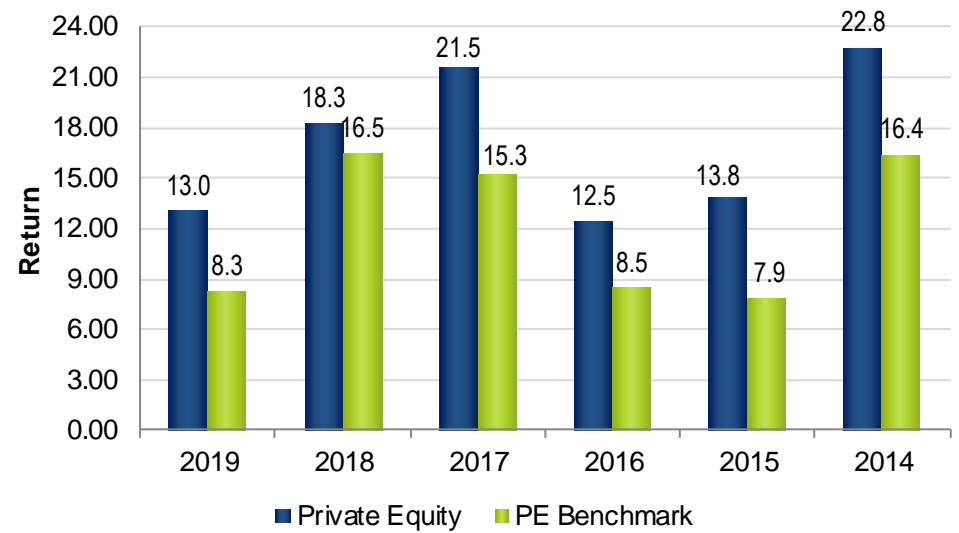
Global Private Equity

Periods Ended September 30, 2020

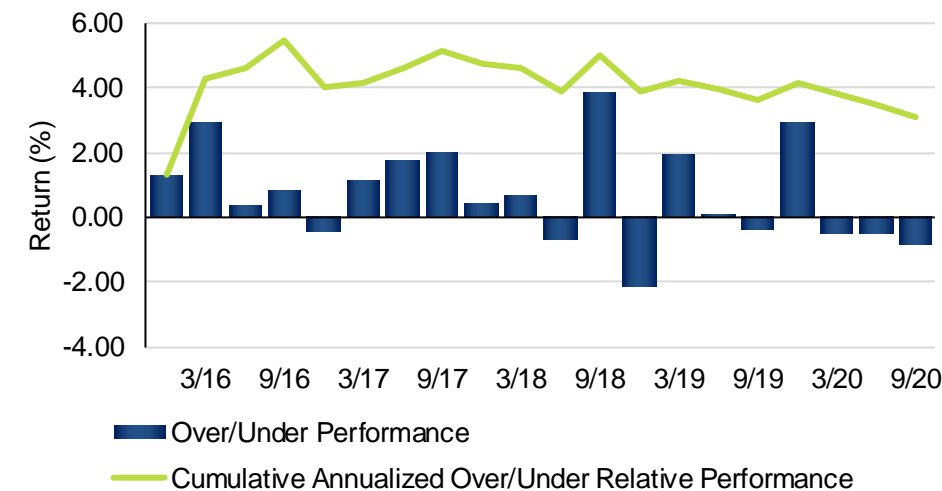
**Comparative Performance**



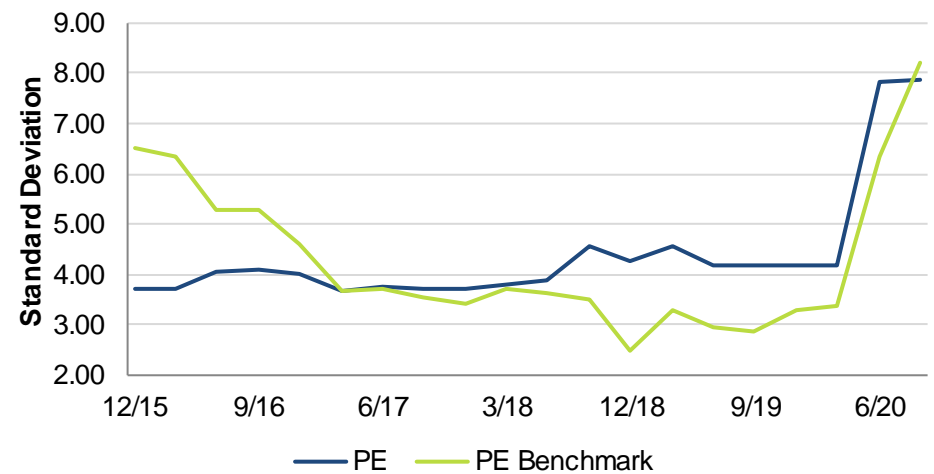
**Comparative Performance**



**Relative Performance**



**3-Yr Rolling Absolute Risk Statistics**





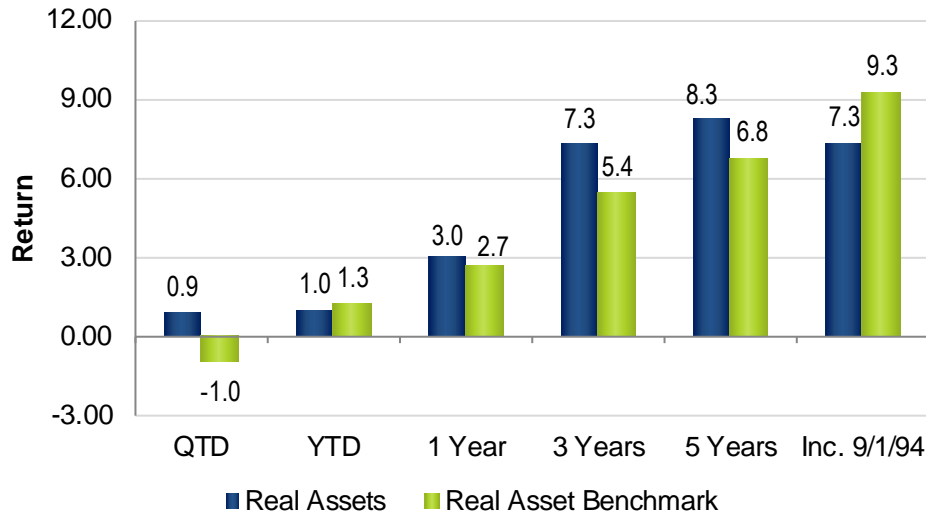
# GLOBAL REAL ASSETS

# Manager Summary

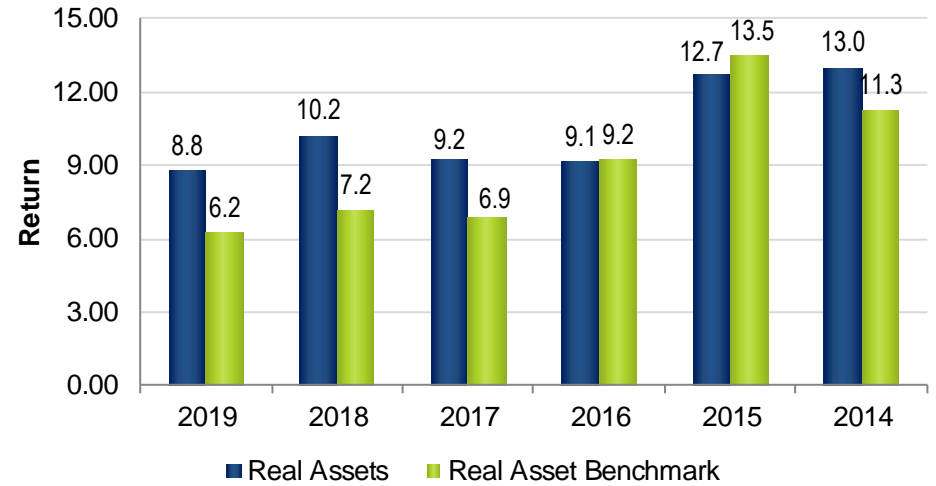
Global Real Assets

Periods Ended September 30, 2020

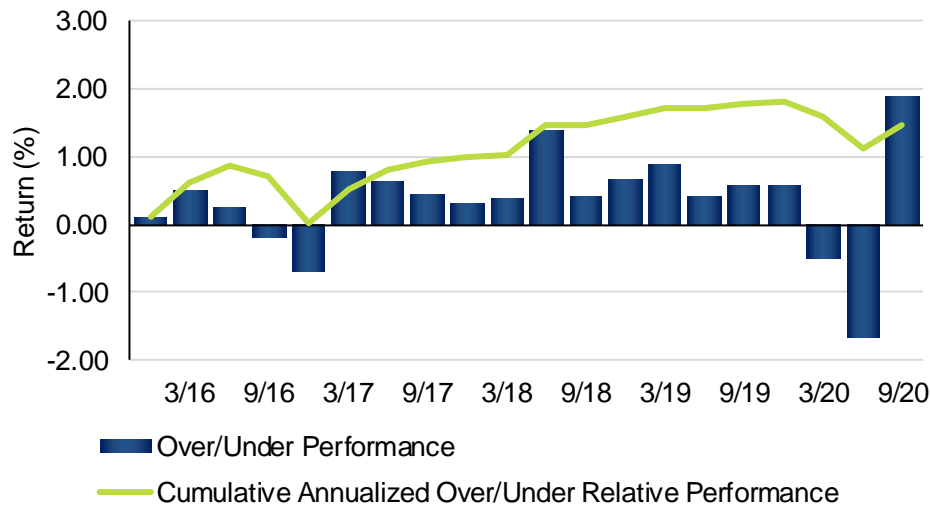
**Comparative Performance**



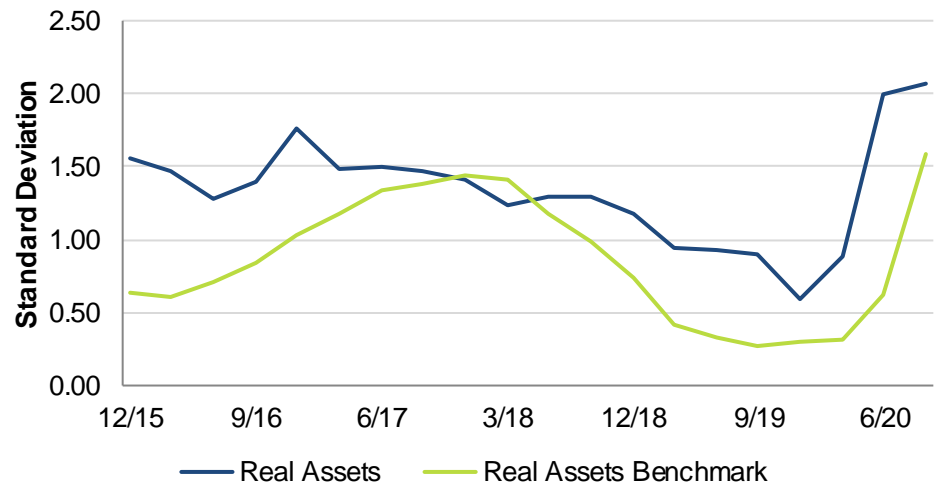
**Comparative Performance**



**Relative Performance**



**3-Yr Rolling Absolute Risk Statistics**







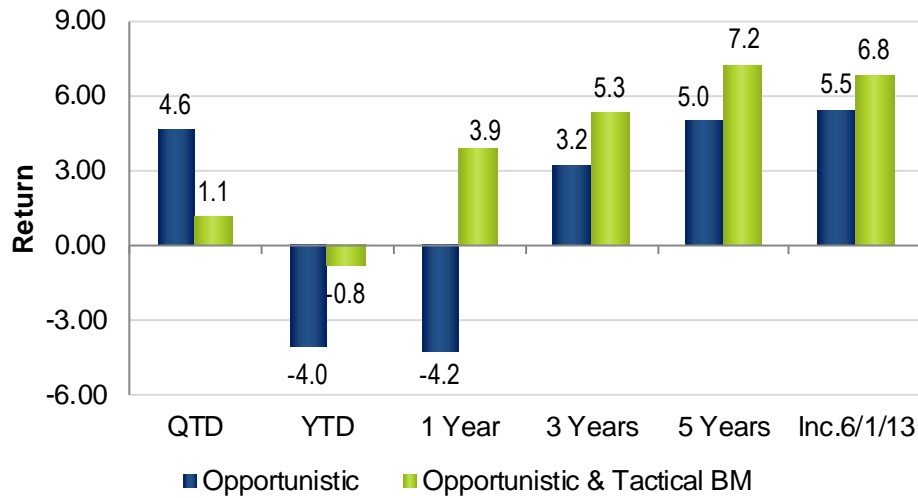
# OPPORTUNISTIC & TACTICAL

# Manager Summary

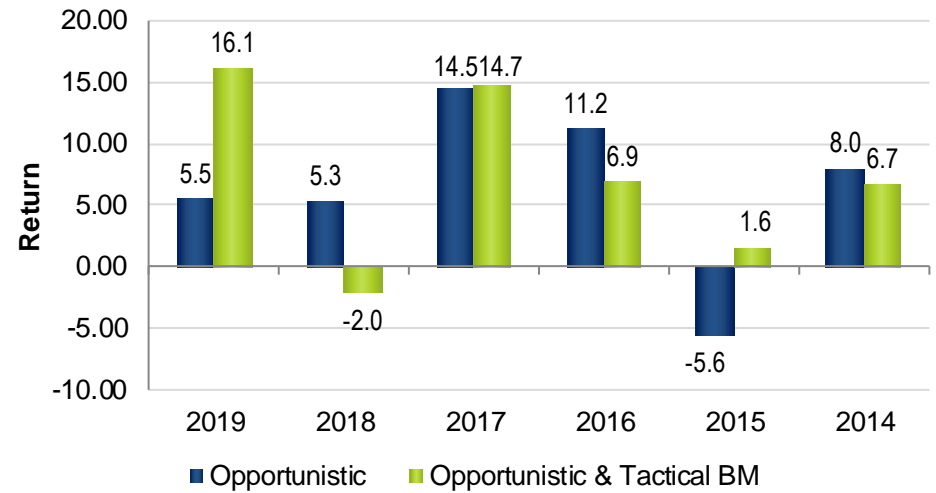
Opportunistic & Tactical

Periods Ended September 30, 2020

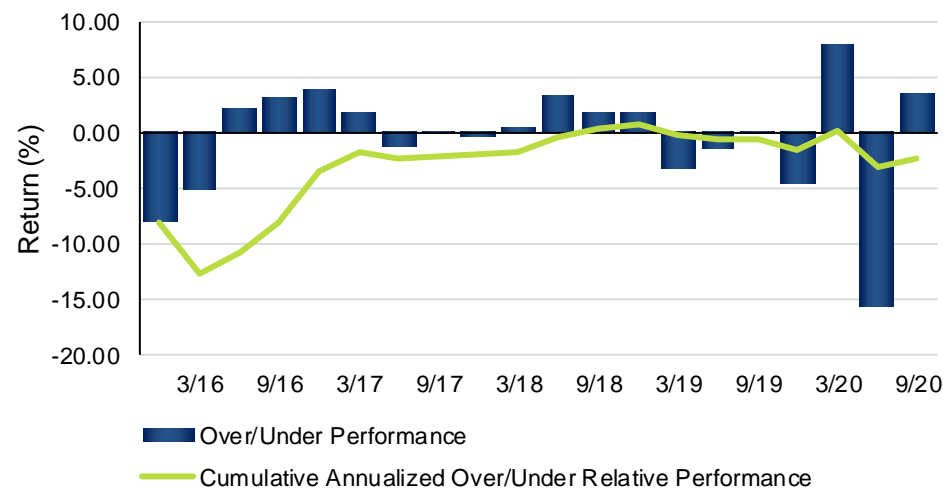
**Comparative Performance**



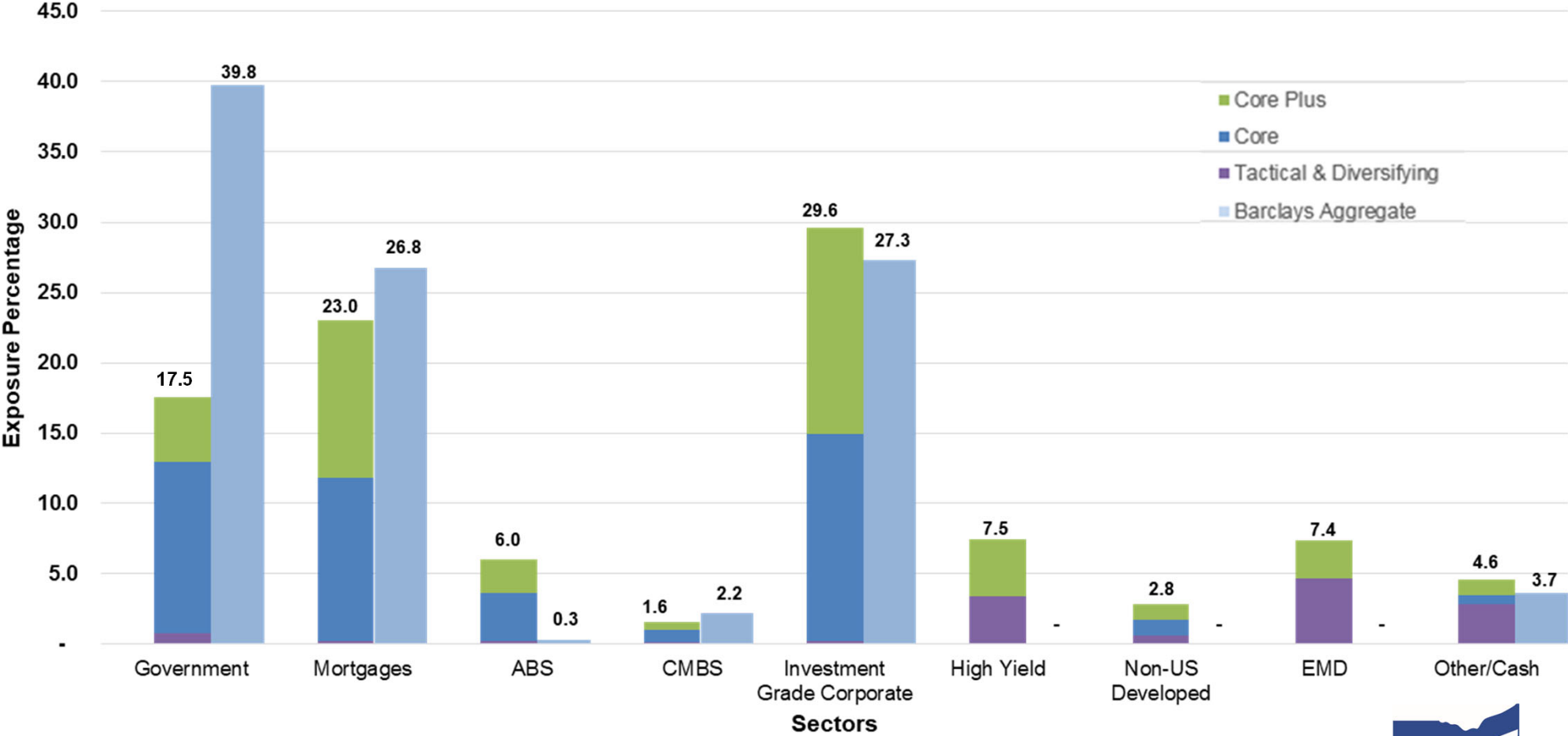
**Comparative Performance**



**Relative Performance**



# Sector Exposures as of September 30, 2020



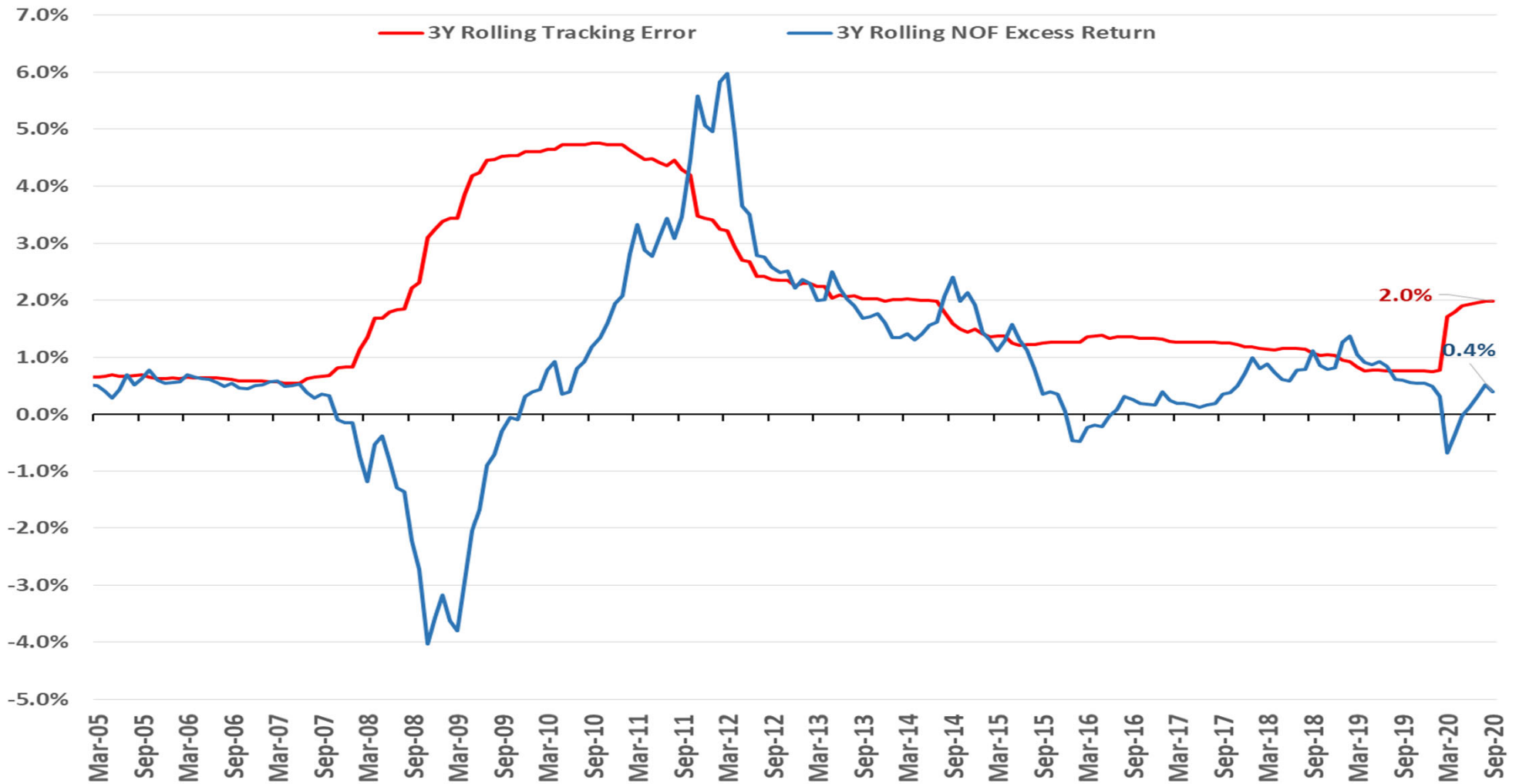
# Fixed Income Net of Fee Performance as of September 30, 2020

	One Year	Three Years	Five Years	Ten Years
<b>Fixed Income</b>	<b>8.03%</b>	<b>5.64%</b>	<b>5.05%</b>	<b>4.50%</b>
-Core (44%)	7.62	5.59	4.46	4.16
-Core Plus (43%)	8.03	5.77	5.34	4.86
-Tactical & Diversifying (13%)	2.57	0.77	5.02	N/A
<b>Fixed Income Benchmark*</b>	<b>6.98%</b>	<b>5.24%</b>	<b>4.18%</b>	<b>3.64%</b>
<b>Excess Return</b>	<b>1.05%</b>	<b>0.40%</b>	<b>0.87%</b>	<b>0.86%</b>

\*Fixed Income Benchmark is the Bloomberg Barclays U.S. Aggregate Bond Index



# Three Year Risk & Return



# Calendar 2020 and Goals Review

## Strong Fixed Income Returns Driven By:

- Federal Reserve Cut Rates in March 2020 from 1.5% to 0%
- Fiscal Stimulus Totaling \$3 Trillion Limiting Impact from CoVid-19
- Conservative Positioning in Core Strategies Going Into Q1 2020
- Increasing Allocations to Core Plus and High Yield Strategies in Q2 2020

## Tactically Managed Sector Allocations

- \$95 Million Withdrawn from Core
- \$5 Million Contributed to Core Plus
- \$130 Million Contributed to High Yield & Dislocation Strategies
- Transferred 3 High Conviction MAS Strategies into Tactical & Diversifying on July 1<sup>st</sup>

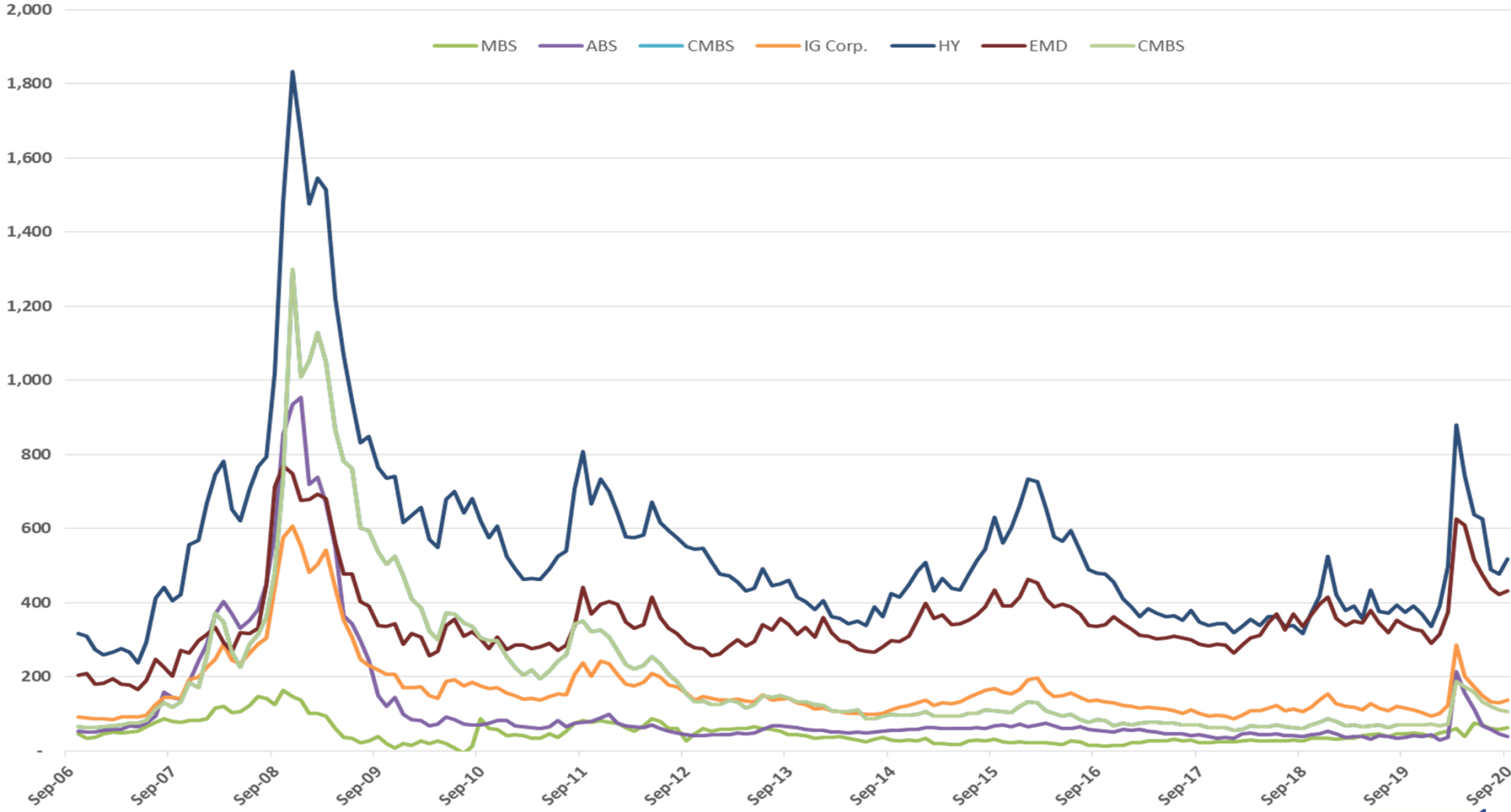
## Committed \$100 Million to Two New Mandates

- 2 CoVid Dislocation Strategies: 1) Securitized Credit Focus 2) Corporate Credit Focus
- Drawdown Structures – Call Capital over Next 18-24 Months
- Opportunity to Invest with High Quality, Well Known Fixed Income Managers

## Portfolio Monitoring

- Added 1.7% to the Fixed Income Allocation during the Year
- Current Underweight of 1.0% as Forward Looking Fixed Income Returns are Expected To Be Lower

# Historical Spreads



# Fixed Income Quilt Table

as of September 30, 2020

FYTD	One Year	Three Years	Five Years	Ten Years
High Yield 4.60%	U.S. TIPS 10.08%	Inv. Grade Corp. 6.39%	High Yield 6.79%	High Yield 6.46%
U.S. TIPS 3.03%	U.S. Treasury 8.02%	U.S. TIPS 5.78%	Inv. Grade Corp. 5.97%	Inv. Grade Corp. 5.14%
EMD Local 1.82%	Inv. Grade Corp. 7.90%	U.S. Treasury 5.49%	EMD Local 4.92%	U.S. Aggregate 3.64%
Inv. Grade Corp. 1.54%	U.S. Aggregate 6.98%	U.S. Aggregate 5.24%	U.S. TIPS 4.61%	U.S. TIPS 3.57%
U.S. Aggregate 0.62%	Agency MBS 4.36%	High Yield 4.20%	U.S. Aggregate 4.18%	U.S. Treasury 3.14%
U.S. Treasury 0.17%	High Yield 3.25%	Agency MBS 3.68%	U.S. Treasury 3.74%	Agency MBS 3.00%
Agency MBS 0.11%	EMD Local 2.31%	EMD Local 2.05%	Agency MBS 2.98%	EMD Local 2.03%





# Fixed Income Outlook

## Current Economic Conditions

- Negative Economic Growth (-2.9% YoY)
- High Unemployment (7.9%)
- High Market Volatility
- Low Inflation (1.7%)

## Forward Looking Market and Economic Conditions

- Low Interest Rates Expected to Remain Near Zero Until At Least 2022
- Risk of Temporary Layoffs Becoming Permanent
- Additional Fiscal Stimulus Package in Q1
- Continued High Market Volatility Until a Vaccine is Developed

## Future Portfolio Impact

- Coupon Payments will Drive Returns
- Yield will Remain Lower with Fed Reducing Rates to 0%
- Long Term Fixed Income Returns Expected to be 2-3%
- Portfolio Focused on Income & Diversification

# Acronym and Definition Appendix

- **Core:** Mandates holding securities like the index
- **Core Plus:** Mandates that hold core securities plus higher yielding, riskier securities. Riskier securities include high yield, Non-U.S. and emerging market debt.
- **Tactical & Diversifying:** Mandates with non-index holdings in emerging market debt and high yield as well as non-traditional strategies like long/short credit, sovereign bond arbitrage and emerging market macro.

# Acronym and Definition Appendix

## (continued)

- ABS: Asset Backed Security
- CMBS: Commercial Mortgage Backed Security
- EMD: Emerging Market Debt
- HY: High Yield
- IG Corp: Investment Grade Corporates
- MBS: Residential Mortgage Backed Security
- NOF: Net of Fee
- U.S. TIPS: United States Treasury Inflation Protected Securities



**Monthly Investment Report**

# Ohio SERS Investment Report

## Monthly Report to the Board

For the period ending:  
September 30, 2020

Prepared by Investment and IAD Staff

Farouki Majeed, Chief Investment Officer

*Meeting Date: November 2020*

*Serving the People Who Serve Our Schools®*





## **Investment Agenda**

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Annual Portfolio Review – Fixed Income

Wilshire Quarterly Performance Report (September 30, 2020)

Quarterly Investment Report (September 30, 2020)



# Economic and Financial Market Outlook



## Ohio SERS Investment Report

Quarter Ending: 09/30/2020

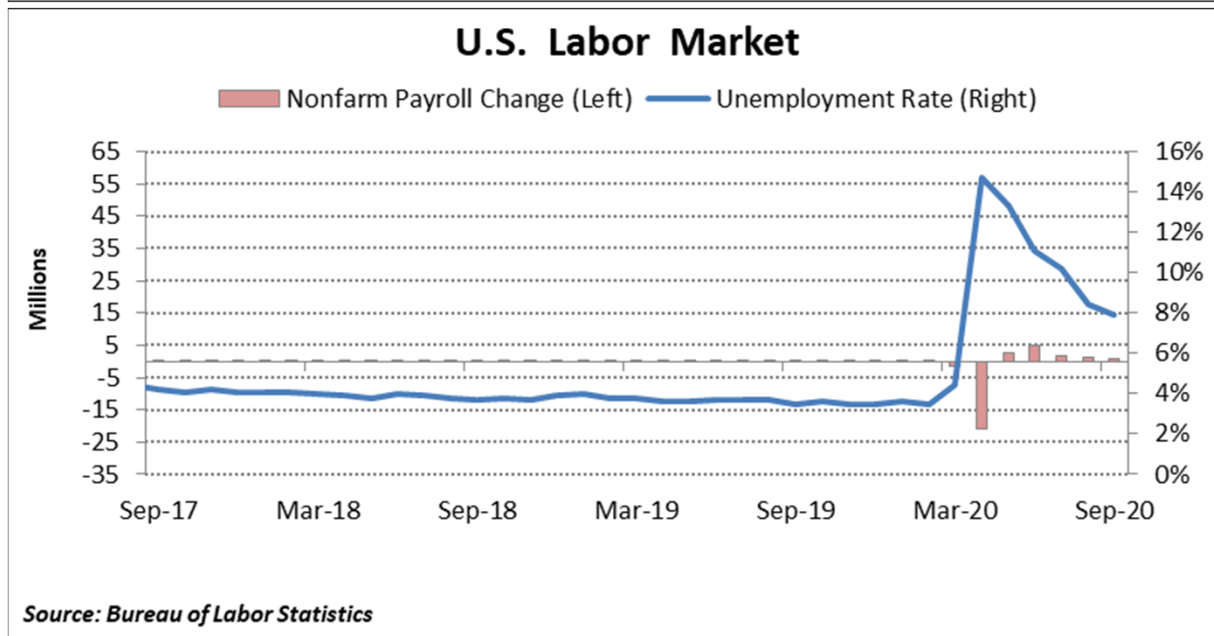
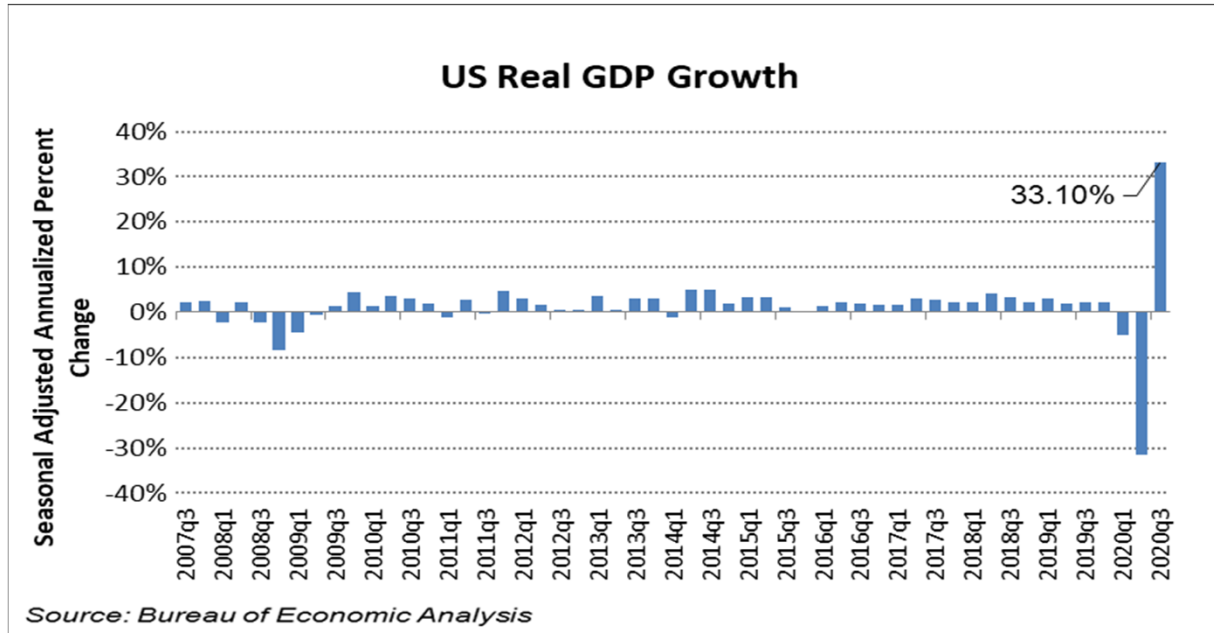
- US Real GDP grew 7.4% from June to September; the Q3 quarterly gain equals an annual growth rate of 33.1%. The main drivers of the Q3 rebound were strong recovery of personal consumption expenditures (PCE), private inventory investment, nonresidential and residential fixed investments. October Blue Chip consensus expects the recovery rate to moderate to 3.8% in Q4. *(Source: Bureau of Economic Analysis and Blue Chip Economic Indicators)*
- The US labor market continued to recover as non-farm payrolls increased by 661,000 in September and the unemployment rate declined to 7.9%. *(Sources: Bureau of Labor Statistics and Department of Labor)*
- The US headline inflation was 1.4% in September. Over the last 12 months, the energy index declined 7.7% while the food index increased 3.9%. The core inflation, excluding food and energy, remained at 1.7%. *(Source: Bureau of Labor Statistics)*.
- The 10-year Treasury nominal yield was 69bps in September. The 10-year real yield was -71bps.
- The housing market, S&P Case-Shiller 20-City home price index, posted a solid annual gain of 5.2% in August, up from 4.1% in July.
- The Consumer Sentiment Index released by Thomson Reuters and University of Michigan was 80.4, an increase of 8.5% from the previous month. The US Economic Surprise index was down from the August level, but remained high at 172.9. The Global Economic Surprise index was at a solid level of 89.4. The Leading Economic Index (LEI) issued by the Conference Board continued its recovery, reaching 107.2 in September.
- The US manufacturing PMI remained at a solid level of 55.4, slightly down from the August level. Global manufacturing continues to recover as the JPMorgan Global Manufacturing PMI increased to 52.3 in September. *(Source: Institute for Supply Management, Markit)*.
- Equity markets were down in September amid uncertainty of upcoming fiscal stimulus and looming resurgence of coronavirus infections in the US and Europe. The US equity markets declined 3.64%. The non-US developed and emerging markets were down 2.82% and 1.60%, respectively.
- The US fixed income market, Bloomberg Barclay's US Aggregate Bond Index, was down 0.05% in September.

Notes: Acronym – PMI – Purchasing-Managers' Index





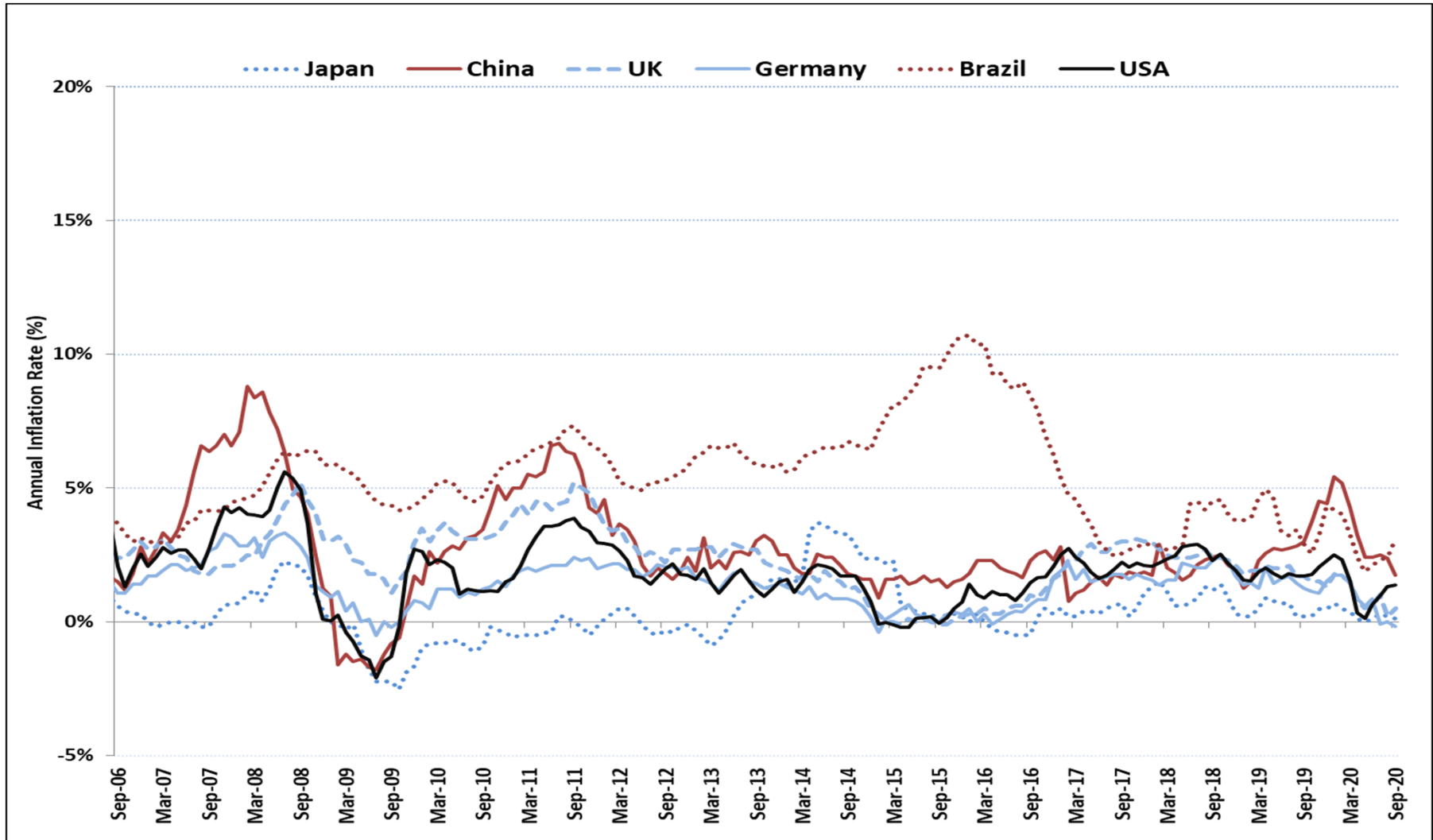
**ECONOMY** US Real GDP Growth and Labor Market





Ohio SERS Investment Report  
**ECONOMY** Headline Inflation

Quarter Ending: 09/30/2020



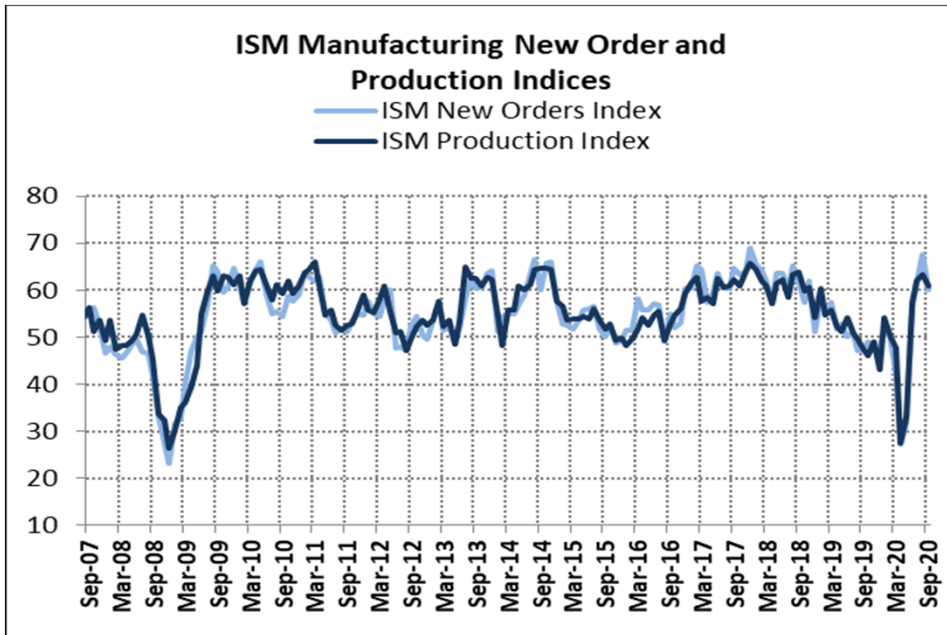
	Japan	China	UK	Germany	Brazil	USA
<b>Sep-20</b>	0.1	1.7	0.5	-0.2	3.1	1.4



# Ohio SERS Investment Report

## **ECONOMY** US & Global Manufacturing Activities

Quarter Ending: 09/30/2020

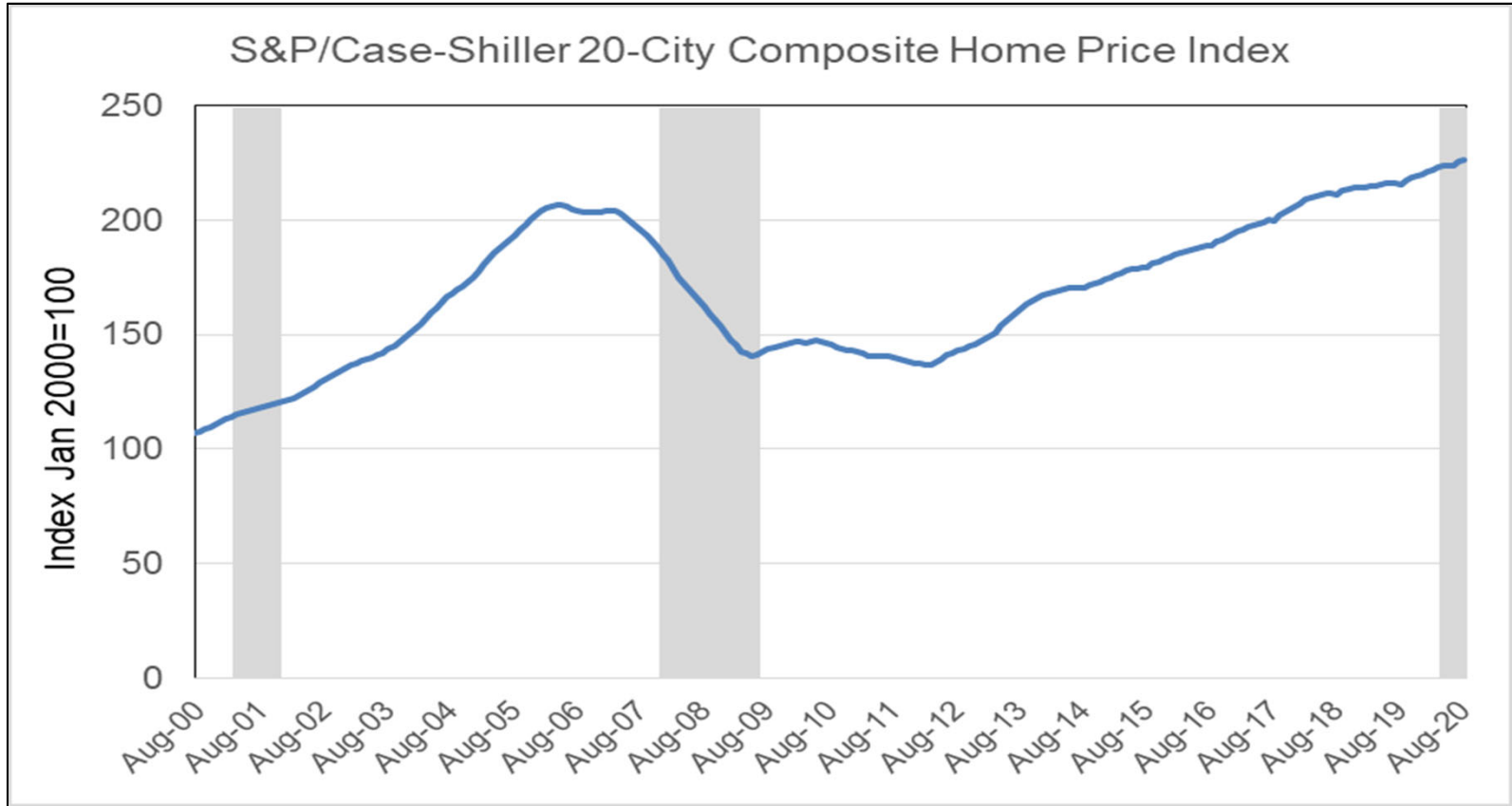


Source: Manufacturing ISM Report On Business & JPMorgan Global Manufacturing PMI™  
Notes: Acronym – ISM – Institute of Supply Management; PMI – Purchasing Managers Index



Ohio SERS Investment Report  
**ECONOMY** US Housing Market

Quarter Ending: 09/30/2020



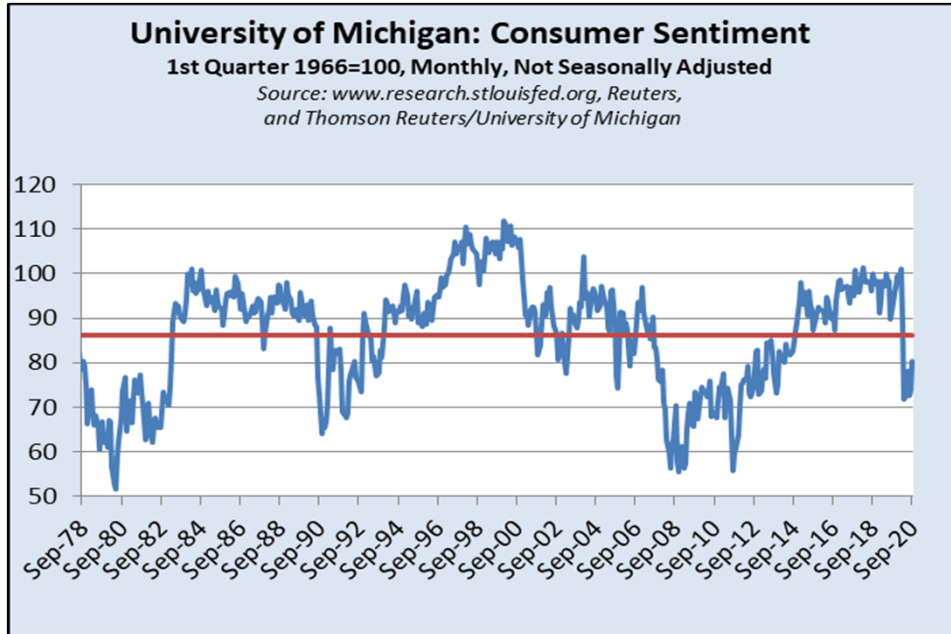
Date	S&P Case-Shiller 20-City Home Price Index January 2000 = 100, Seasonally Adjusted
Jul-16	188.79
Jul-17	200.03
Jul-18	211.94
Jul-19	216.09
Jul-20	225.31
Aug-20	226.36



# Ohio SERS Investment Report

## ECONOMY

### Consumer Sentiment

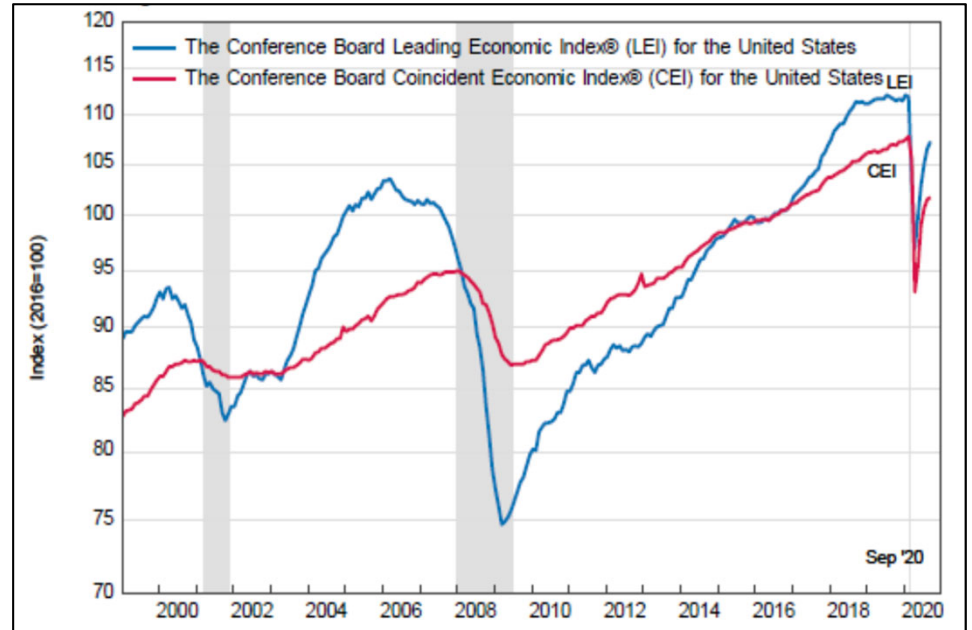


Index of Consumer Sentiment				
Aug-20	Sep-20	Sep-19	M-M Change	Y-Y Change
74.1	80.4	93.2	8.5%	-13.7%

Sources: Thomson Reuters / University of Michigan;

Quarter Ending: 09/30/2020

### The Leading Economic Index (LEI) and Coincident Economic Index (CEI) for the United States



Index	Jul-20	Aug-20	Sep-20	Month -Month Percent Change	6-Month Percent Change
LEI	105.0 r	106.5 r	107.2 p	0.7	3.6
CEI	100.7 r	101.5 r	101.7 p	0.2	-3.5

p Preliminary; r Revised; Indexes equal 100 in 2016

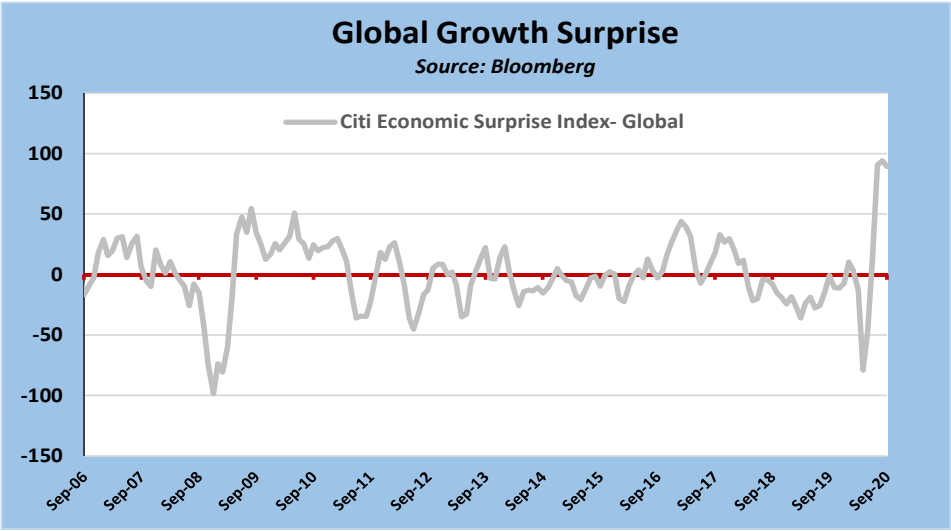
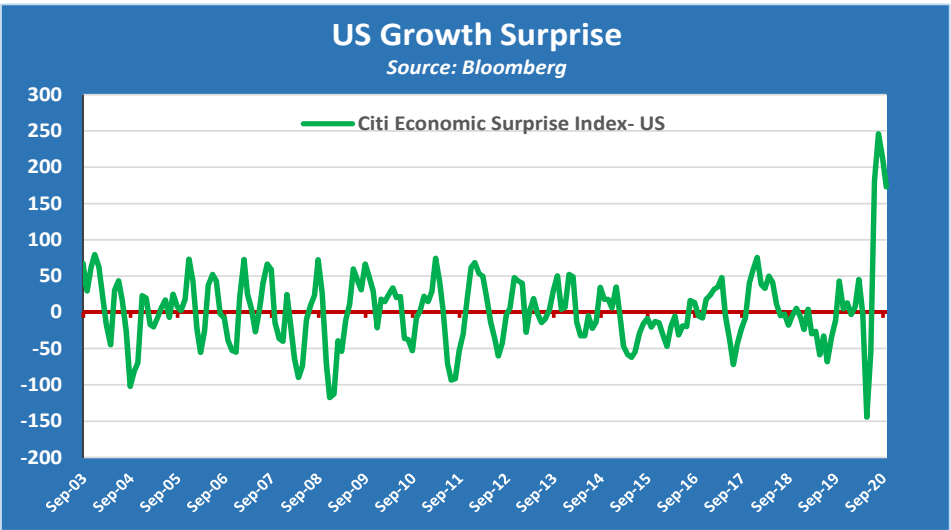
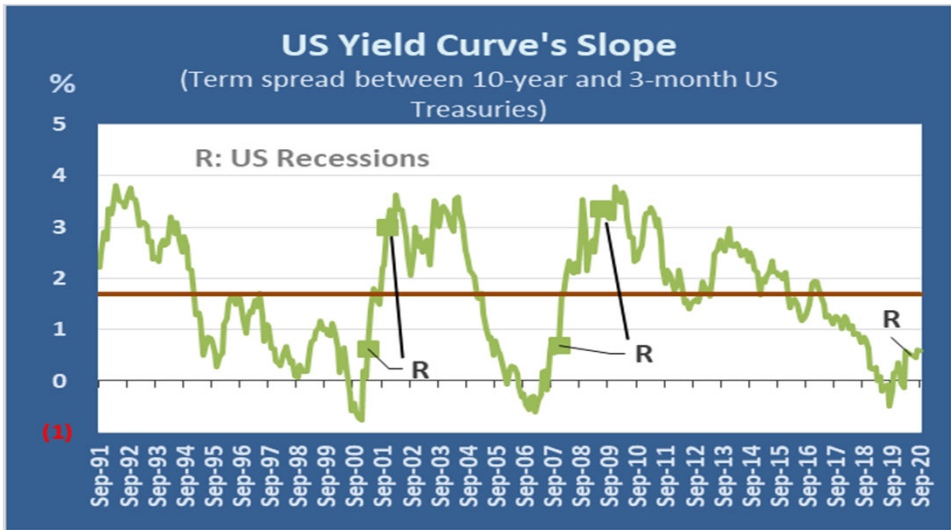
Sources: The Conference Board and advisorperspectives.com



# Ohio SERS Investment Report

## ECONOMY

Quarter Ending: 09/30/2020

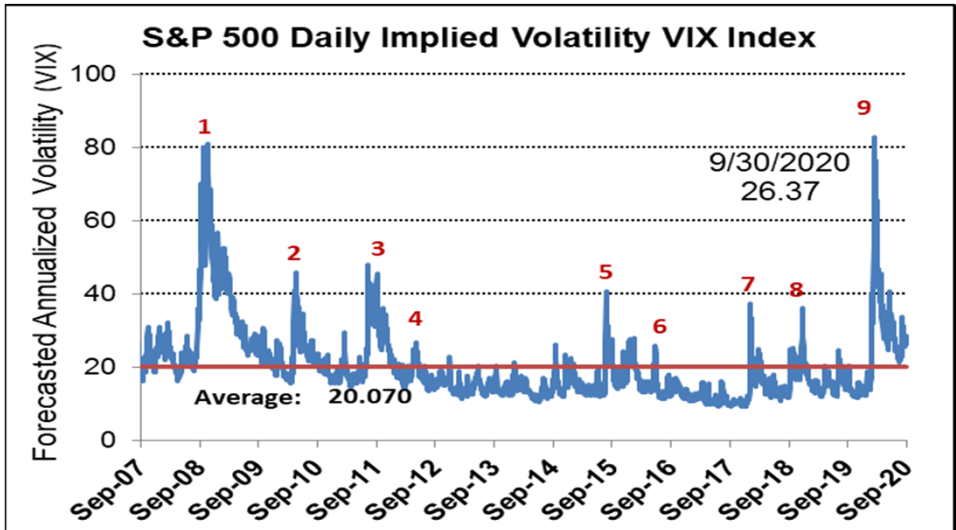
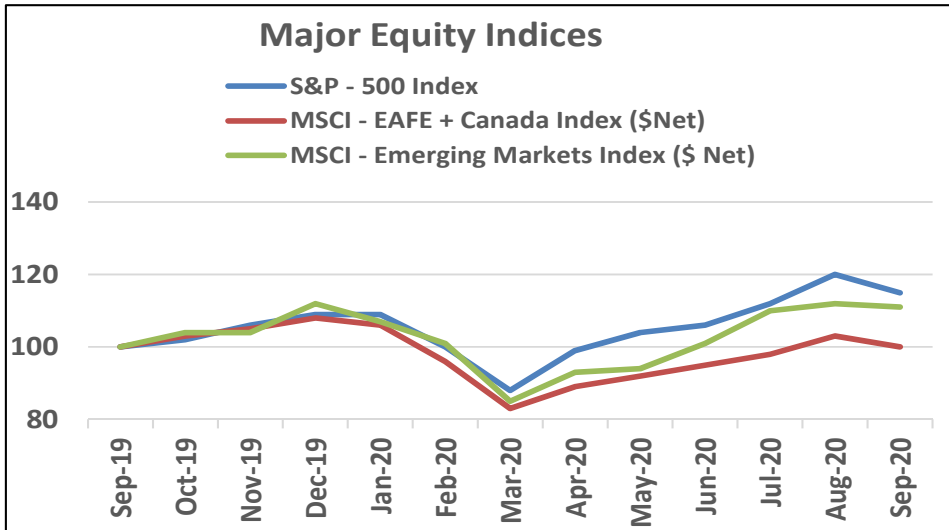




# Ohio SERS Investment Report

## MARKETS Equity

Quarter Ending: 09/30/2020



	Return as of 9/30/2020	
	1 Year	FYTD
S&P 500	15.15	8.93
MSCI - EAFE + Canada Index (\$Net)	0.16	4.92
MSCI - Emerging Markets Index (\$Net)	10.54	9.56

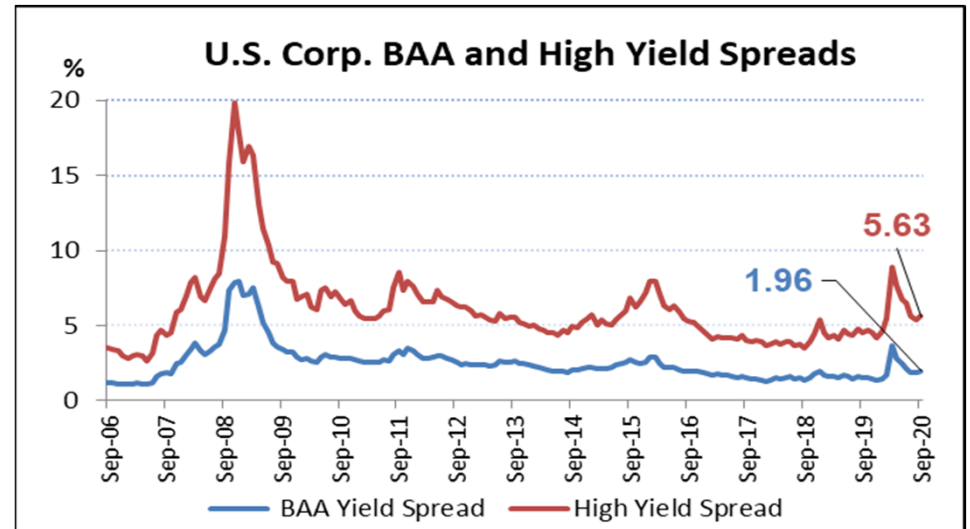
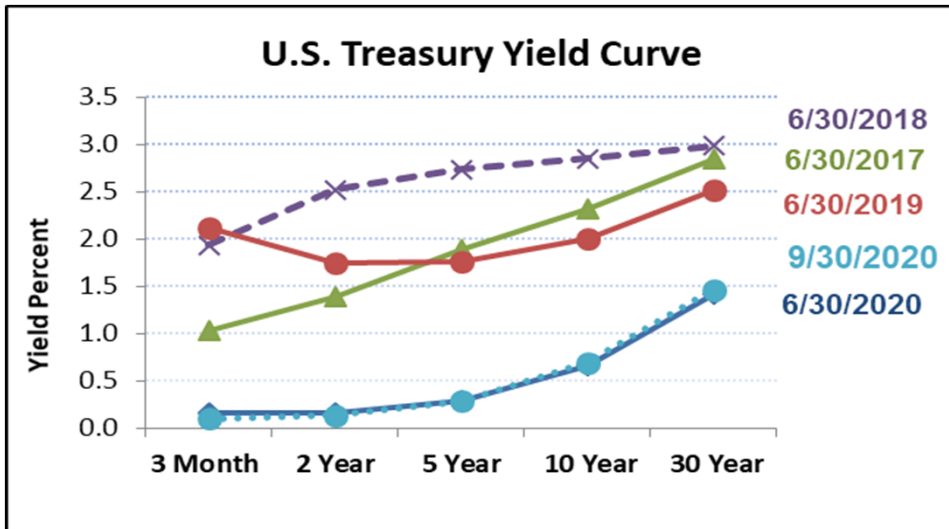
- 1** 2008 (Nov.) Financial Crisis S&P 500: -48.8%
- 2** 2010 (May) Flash crash; Europe/ Greece debt S&P 500: -16%
- 3** 2011 (Aug.) US downgrade, Europe periphery S&P 500: -19.4%
- 4** 2012 (June) Eurozone double dip S&P 500: -9.9%
- 5** 2015 (Aug.) Global slowdown, China, Fed S&P 500: -12.4%
- 6** 2016 (Feb.) Oil crash, US recession fear, China S&P 500: -10.5%
- 7** 2018 (Feb.) Inflation, trade, tech S&P 500 : -10.2%
- 8** 2018 (Dec.) Interest rate hike, trade tension, global slowdown S&P 500: -10.5%
- 9** 2020 (Mar.) Coronavirus, S&P 500 : -23.7%

Sources: [www.research.stlouisfed.org](http://www.research.stlouisfed.org), and Wilshire Compass



Ohio SERS Investment Report  
**MARKETS** Fixed Income

Quarter Ending: 09/30/2020



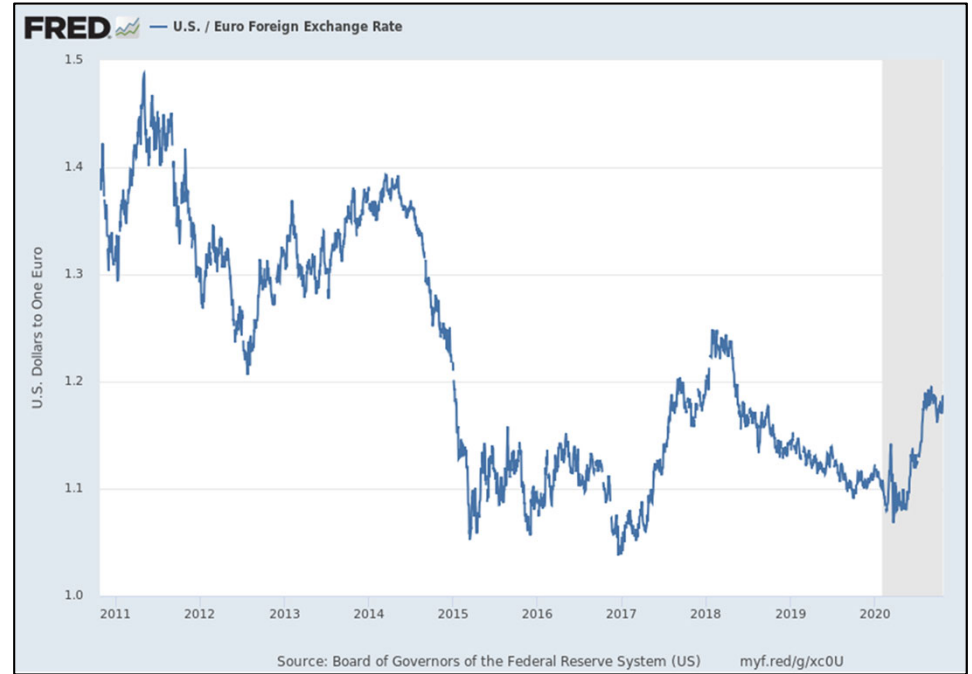
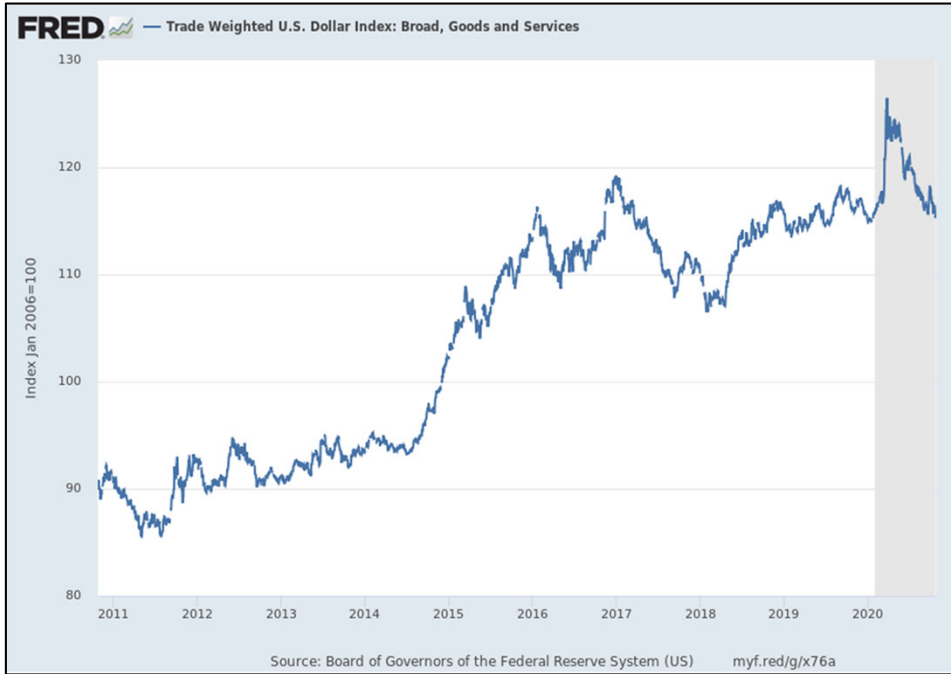




# Ohio SERS Investment Report

## MARKETS Foreign Exchange

Quarter Ending: 09/30/2020

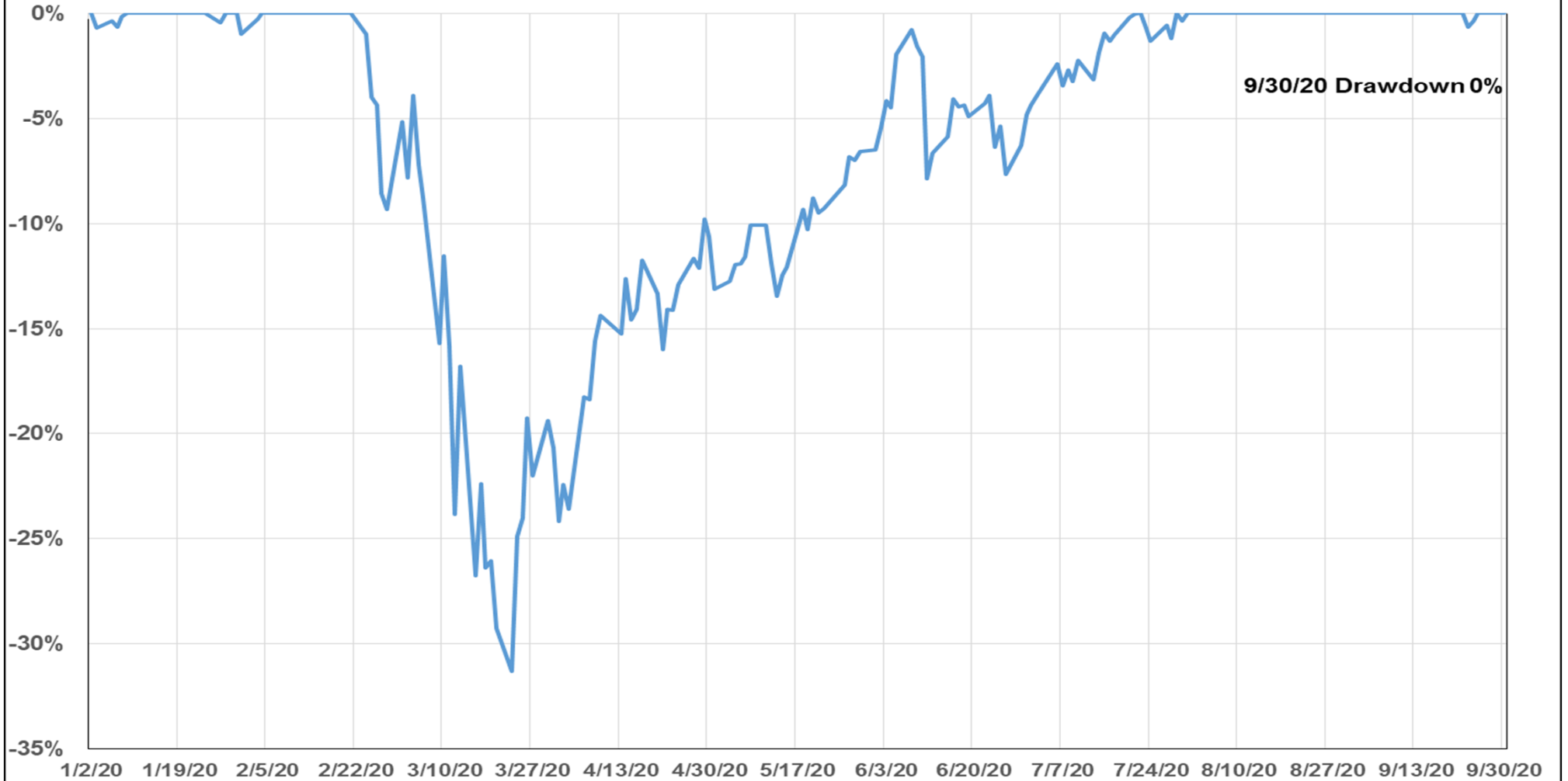


Date	Trade Weighted Broad U.S. Dollar Index January 1997=100
June-16	112.15
June-17	111.97
June-18	113.27
June-19	114.56
June-20	120.86
September-20	117.35

Date	U.S. / Euro Foreign Exchange Rate U.S. Dollars to One Euro
June-16	1.10
June-17	1.14
June-18	1.17
June-19	1.14
June-20	1.12
September-20	1.17

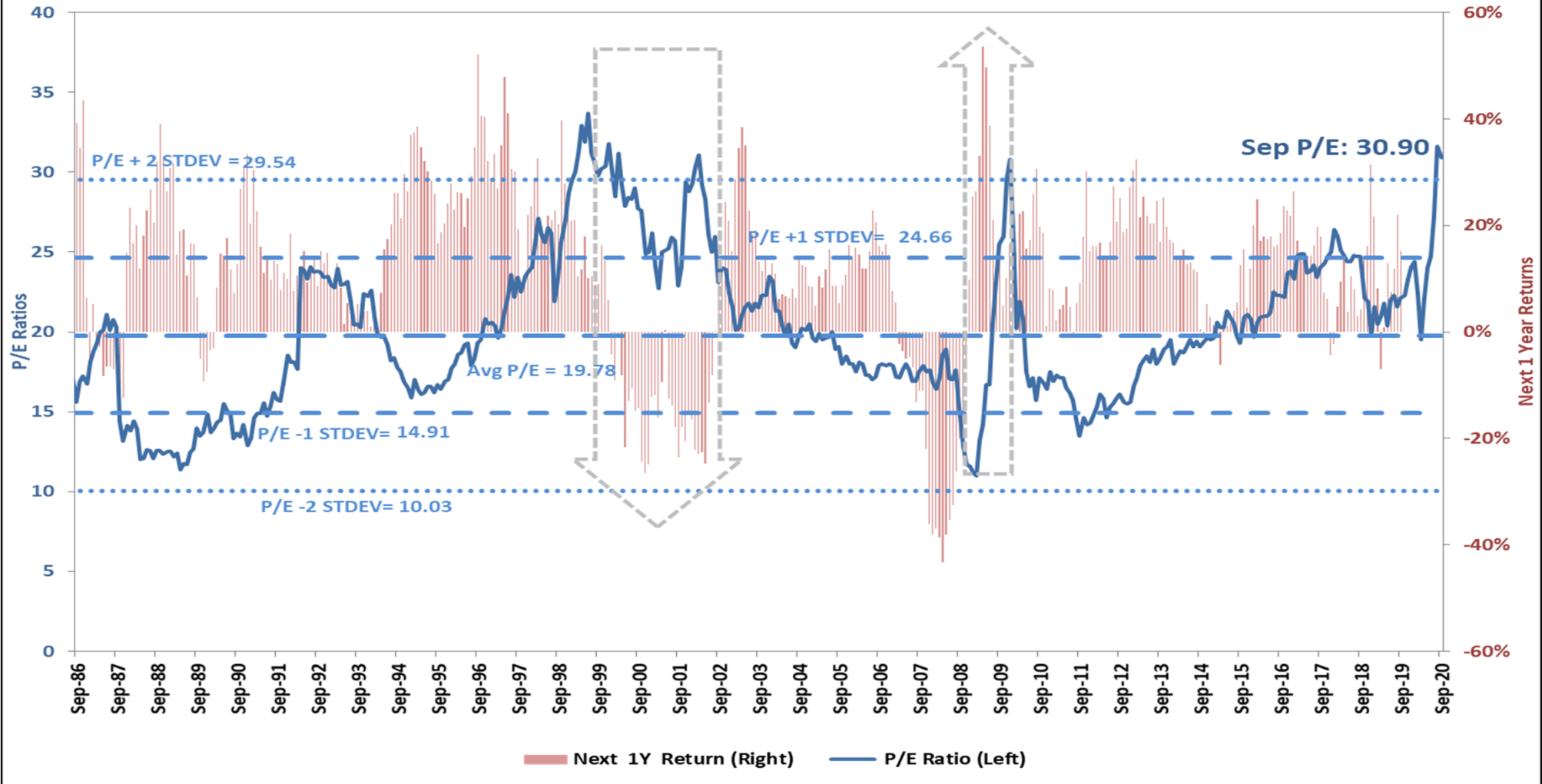


### 2020 S&P 500 Drawdown (%)



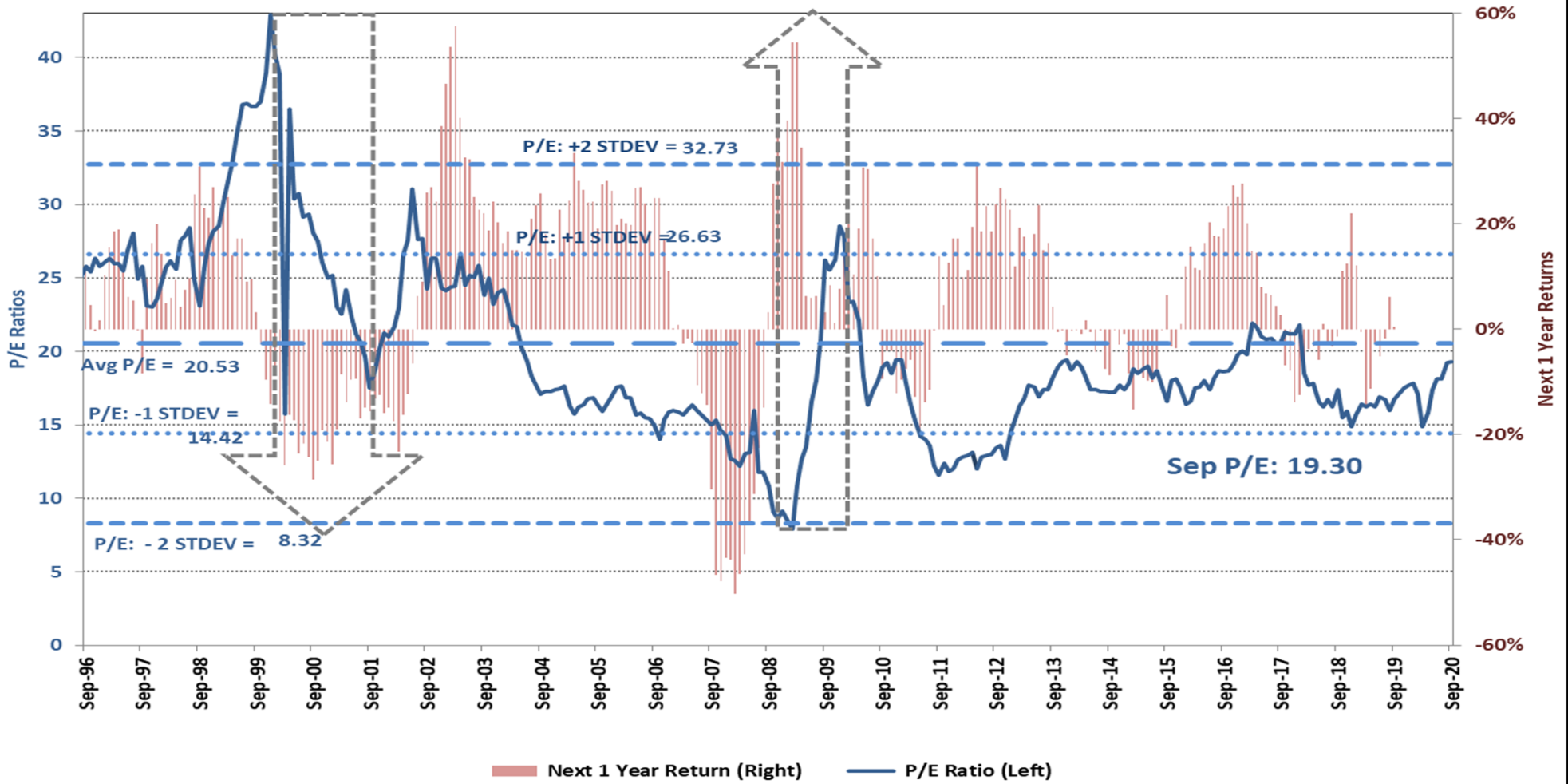


### S&P 500 P/E Ratios and Next 1 Year Returns



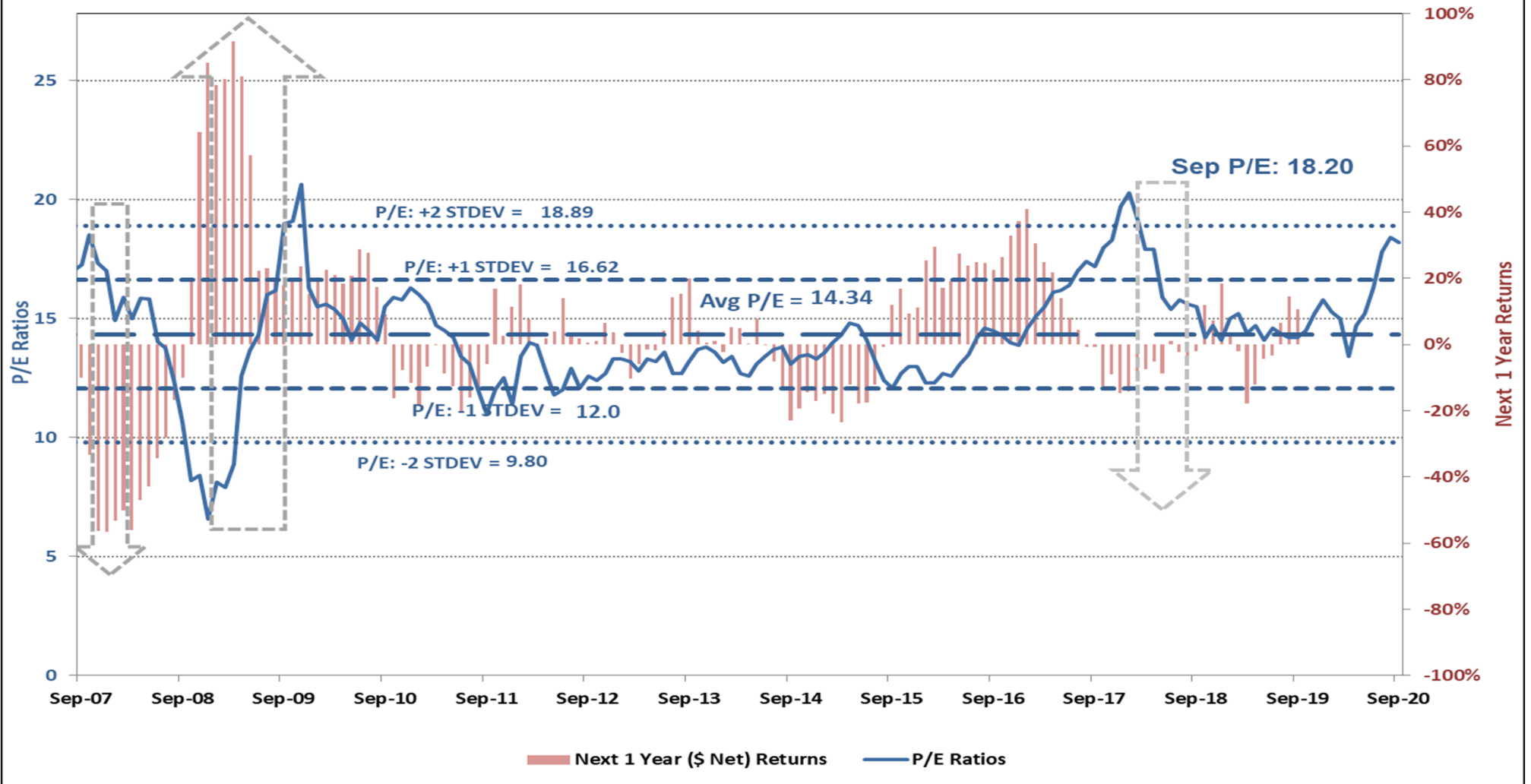


### MSCI EAFE (\$ Net) P/E Ratios and Next 1 Year Returns



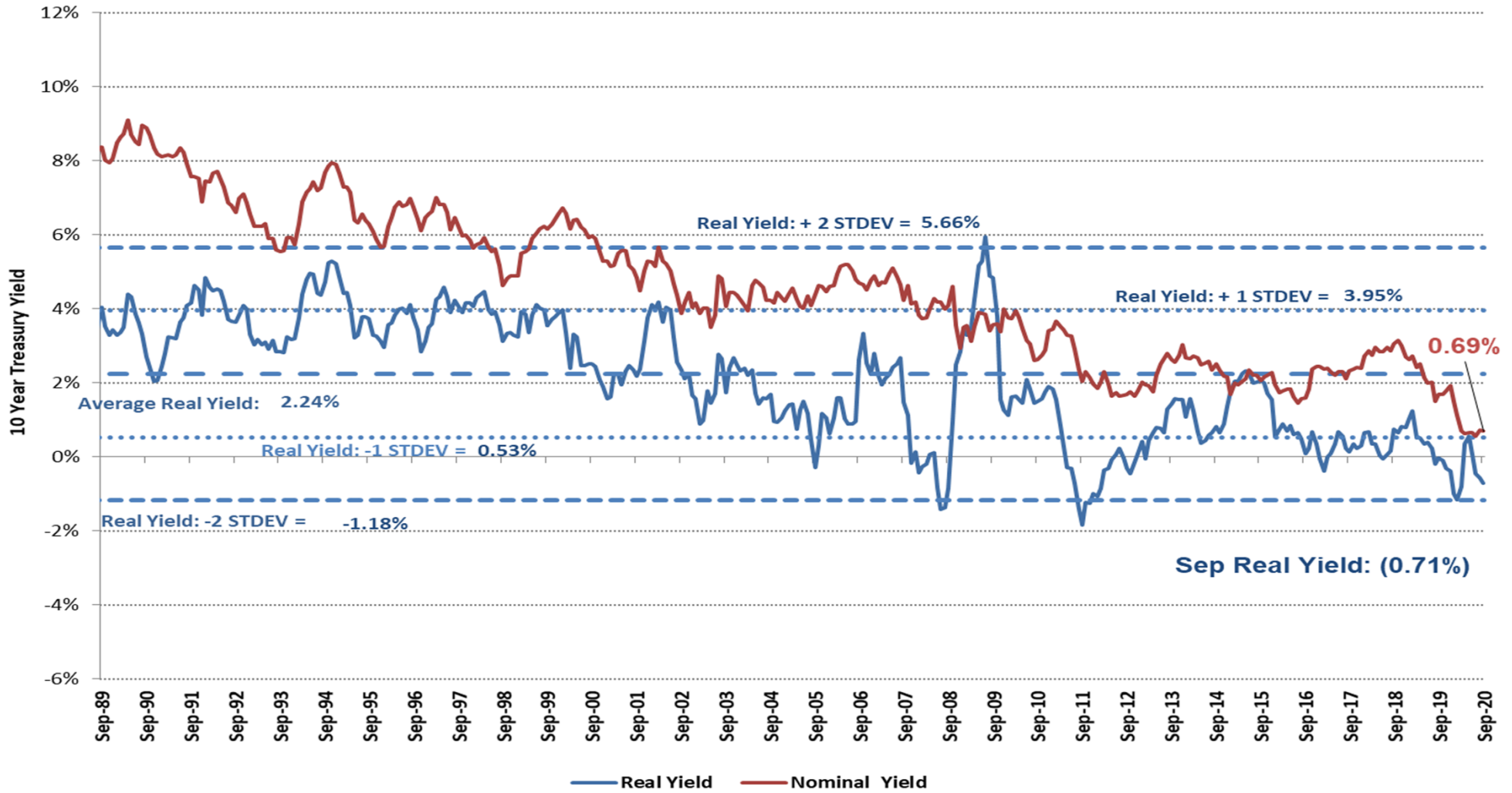


### MSCI EM P/E Ratios and Next 1 Year (\$ Net) Returns





### 10 Year Treasury Nominal and Real Yields





# SERS' Investment Portfolios Review



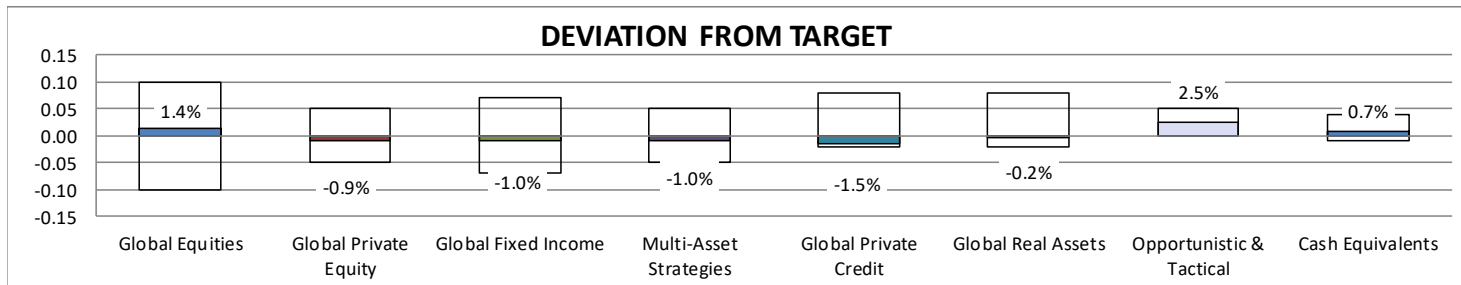
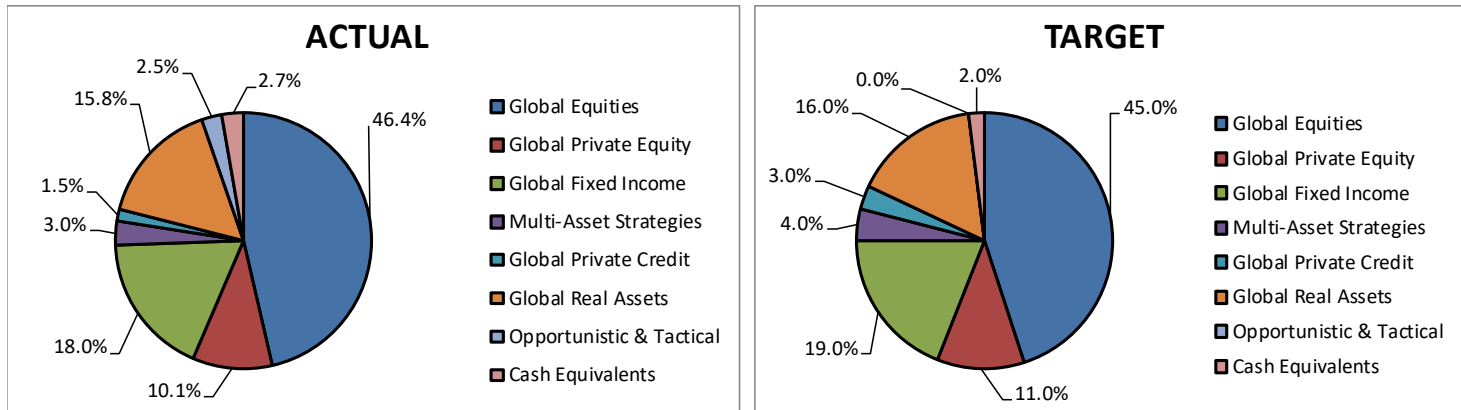
# Ohio SERS Investment Report

Quarter Ending: 09/30/2020

## Total Fund: Asset Allocation & Valuation

Asset Class	Market Value \$	Actual	Target	Range
Global Equities	7,045,341,994	46.4%	45.0%	35% - 55%
US Equity	3,758,562,931	24.7%	22.5%	15% - 30%
Non-US Equity	3,286,779,063	21.6%	22.5%	15% - 30%
Global Private Equity	1,527,723,595	10.1%	11.0%	8% - 16%
Global Fixed Income	2,735,042,960	18.0%	19.0%	12% - 26%
Multi-Asset Strategies	462,114,098	3.0%	4.0%	0% - 4%
Global Private Credit	225,352,699	1.5%	3.0%	3% - 7%
Global Real Assets	2,392,880,648	15.8%	16.0%	14% - 20%
Opportunistic & Tactical	386,663,637	2.5%	0.0%	0% - 5%
Cash Equivalents	414,952,756	2.7%	2.0%	0% - 5%
Short-Term	393,557,335	2.6%	2.0%	
Russell EA Overlay	-3,227,572	0.0%	0.0%	
Direct Rebalance Overlay	-8,427	0.0%	0.0%	
Currency Overlay	24,631,420	0.2%	0.0%	
<b>Total Fund</b>	<b>15,190,072,387</b>	<b>100.0%</b>	<b>100.0%</b>	

Source: BNY Mellon GRS



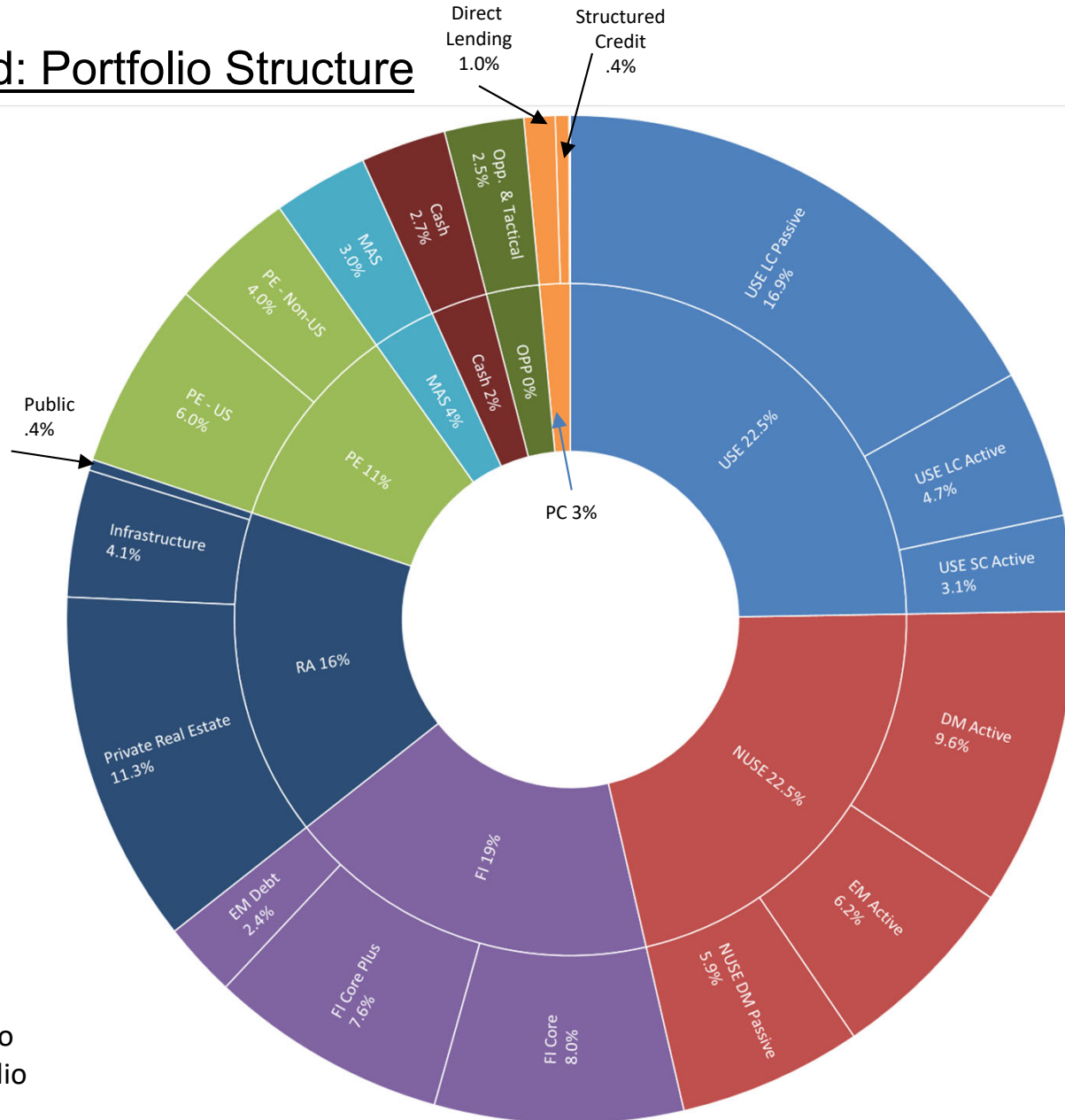




# Ohio SERS Investment Report

Quarter Ending: 09/30/2020

## Total Fund: Portfolio Structure



Inner ring – Policy Portfolio  
Outer ring – Actual Portfolio

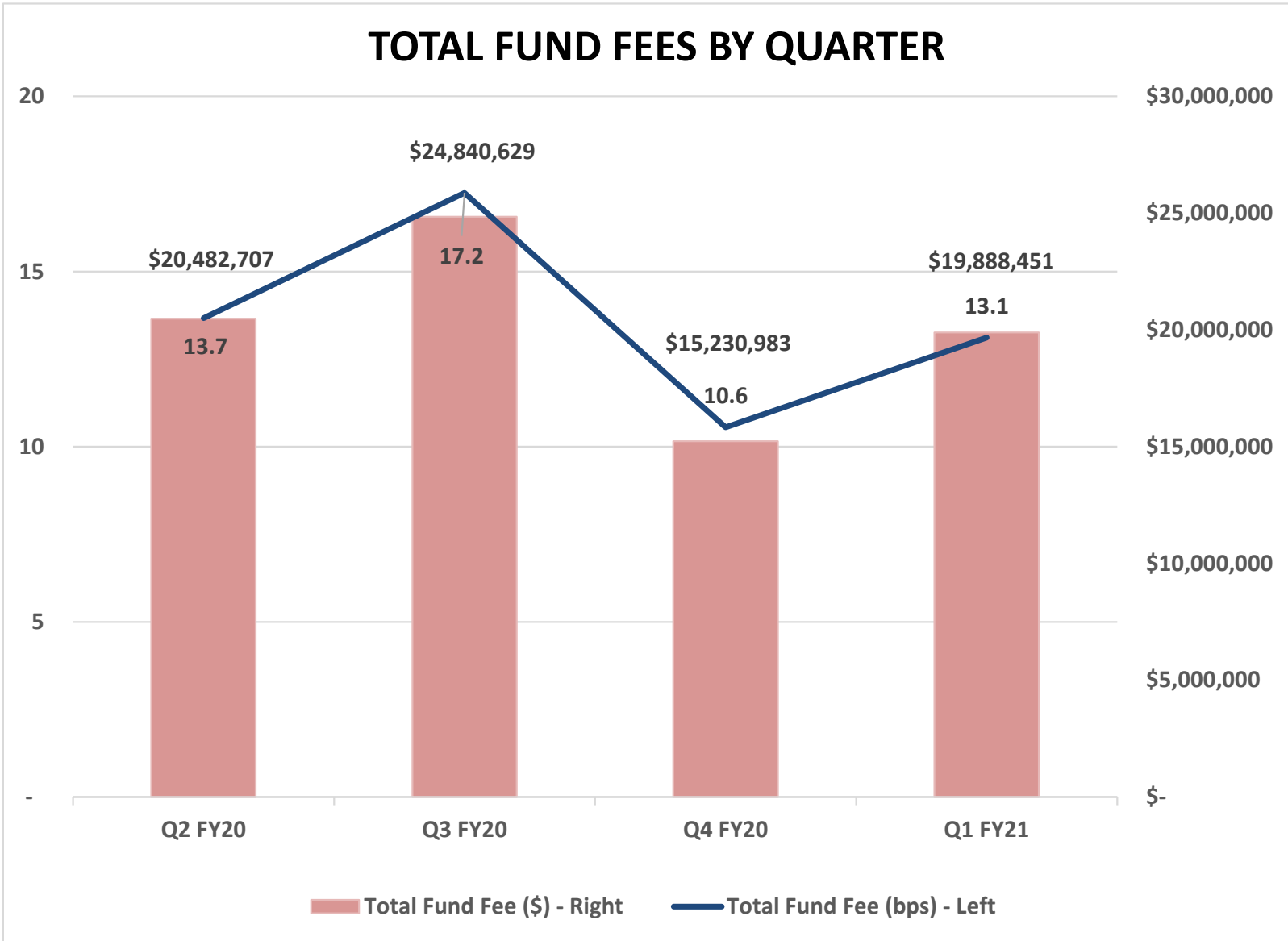


## CHANGE IN NET ASSETS

	<i>vs. One Year Ago, since 10/01/2019</i>	<i>vs. Three Years Ago, since 10/01/2017</i>
<b>Beginning Market Value</b>	14,628,509,356	13,969,788,833
<b>Gain/Loss</b>	1,142,216,619	3,026,511,874
<b>Expenses</b>	(67,153,588)	(194,728,320)
<b>Net Transfer</b>	(513,500,000)	(1,611,500,000)
<b>End of Period Market Value</b>	<b>15,190,072,387</b>	<b>15,190,072,387</b>

***\*Origins of the Net Transfer***

<i>Dividends/Interest</i>	<i>176,400,991</i>
<i>Net Distributions</i>	<i>337,099,009</i>
<i>Cash on Hand</i>	<i>Not Required</i>





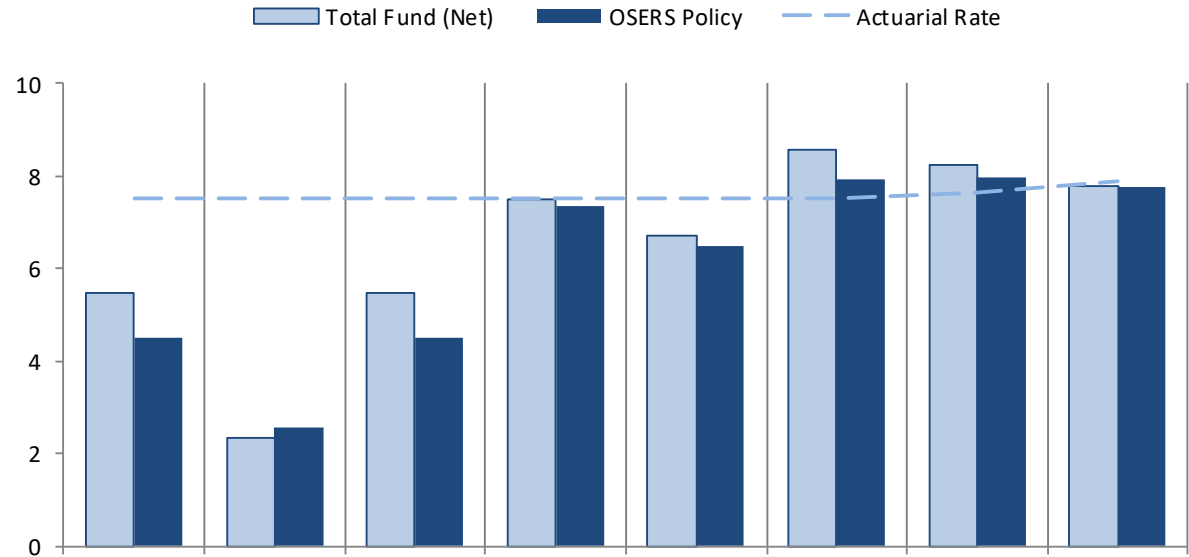
**Total Fund Performance**

**Current Benchmark:**

- 22.5% Russell 3000
- 22.5% MSCI ACWI ex US Index (net dividends)
- 11% Burgiss All Private Equity benchmark (1q lag) (BAPE)
- 19% Bloomberg Barclays Aggregate Bond
- 16% NCREIF Property (1q lag)
- 4% HFRI Fund of Funds Composite plus 1%
- 3% LIBOR + 4.5%
- 2% Citigroup 30 Day US T-Bill

**Actuarial Rate**

(7.5% adopted 4/21/16)



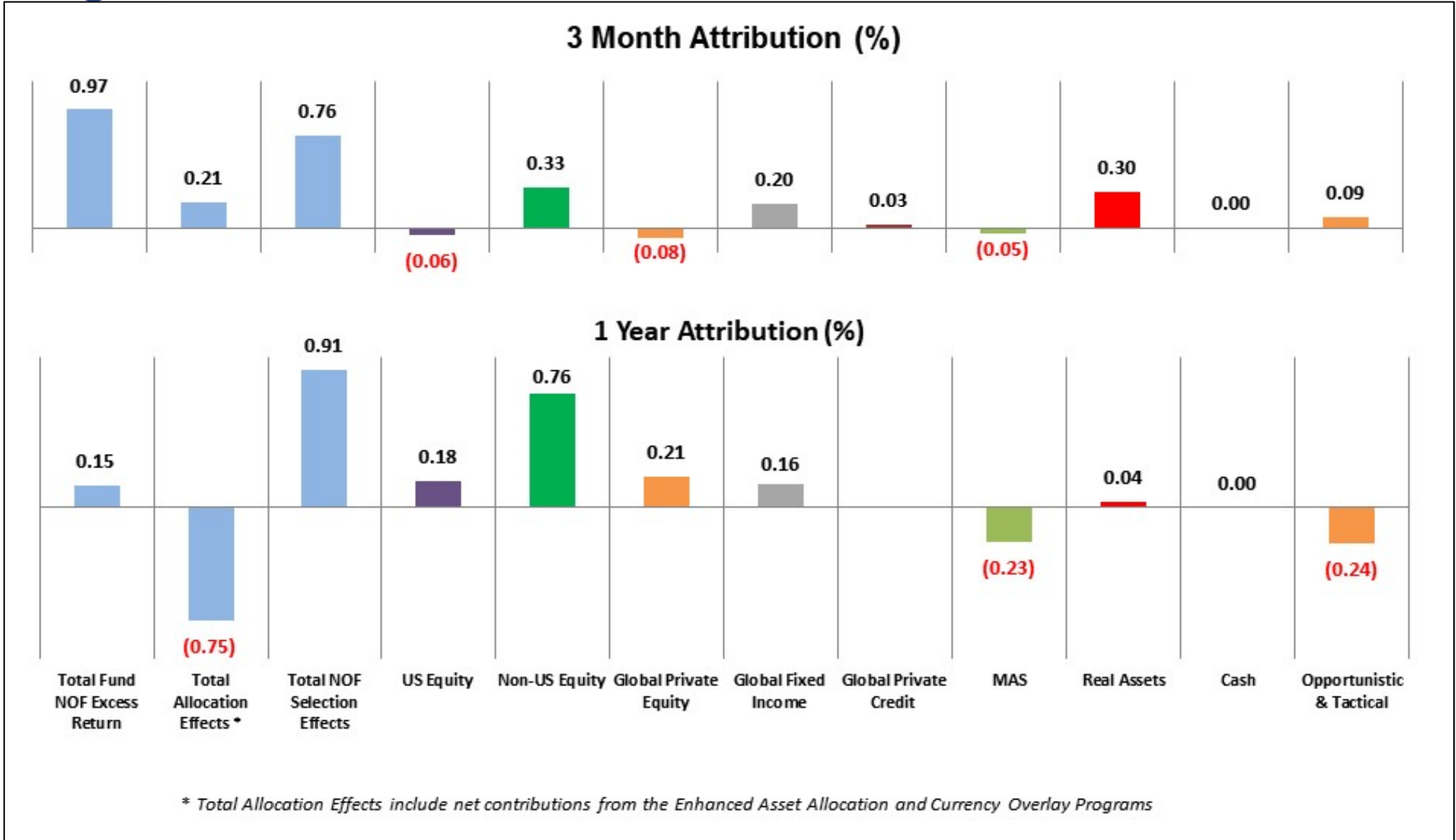
	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD*
Total Fund (Gross)	5.64	2.77	5.64	8.15	7.39	9.28	8.98	8.15
Total Fund (Net)	5.49	2.33	5.49	7.51	6.72	8.59	8.26	7.64
OSERS Policy	4.51	2.55	4.51	7.36	6.48	7.95	7.98	7.77
Value Added (Net of Fee)	0.97	(0.22)	0.97	0.15	0.24	0.64	0.29	(0.14)

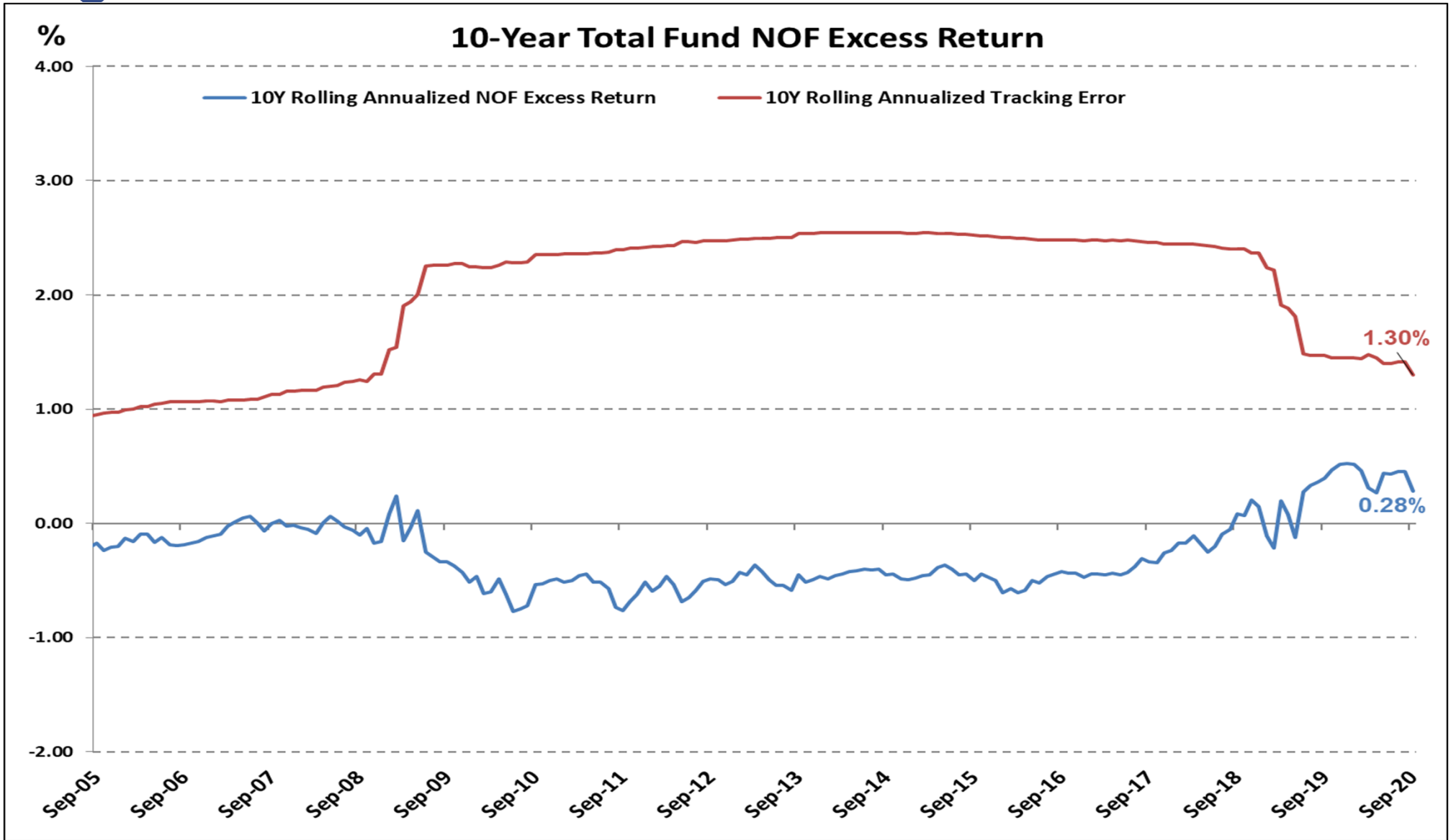
Source: BNY Mellon GRS

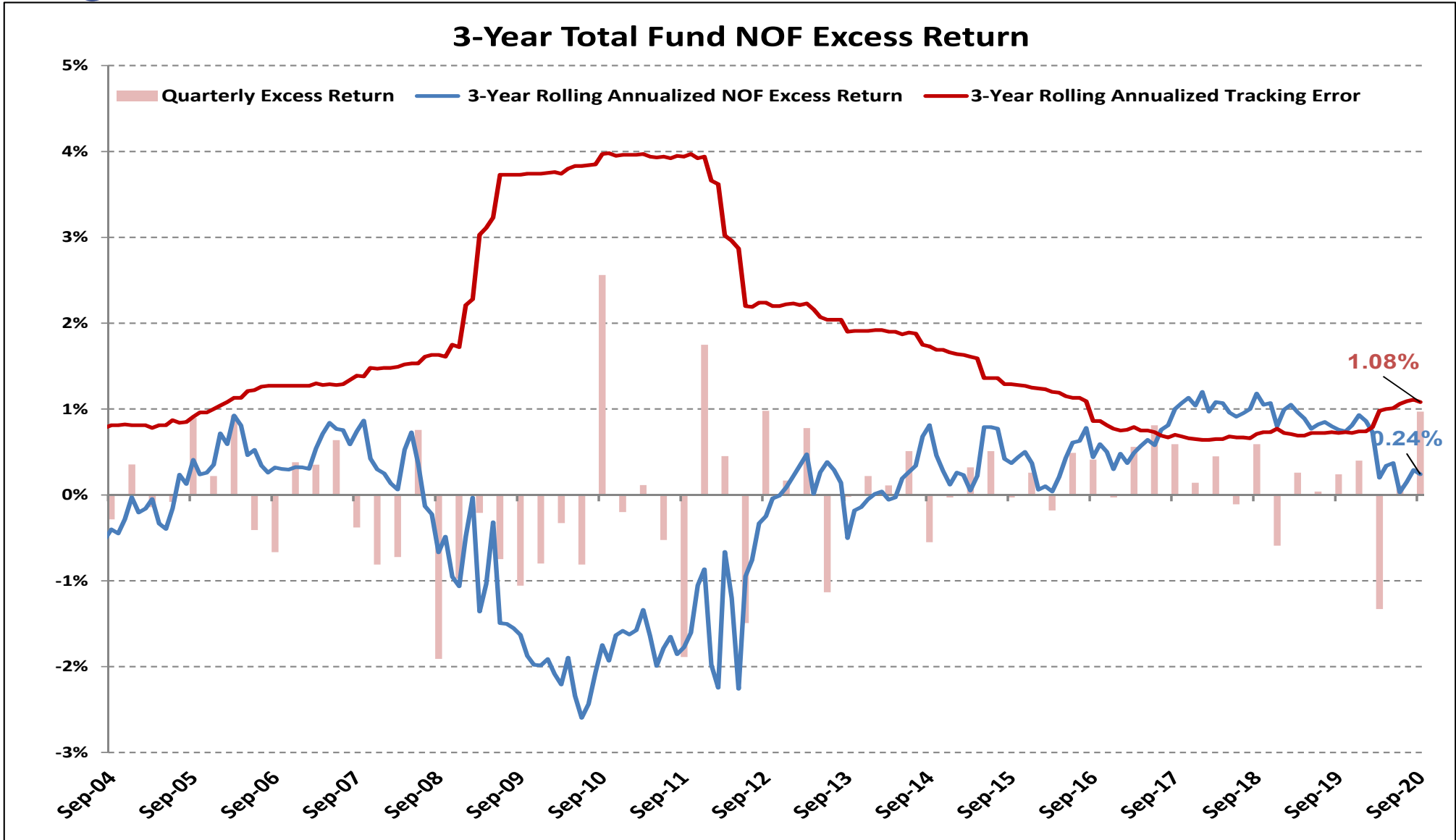
\*ITD is Inception date 10/1/1994 (26 years and 0 months)



**Net of Fee Excess Return Attribution**

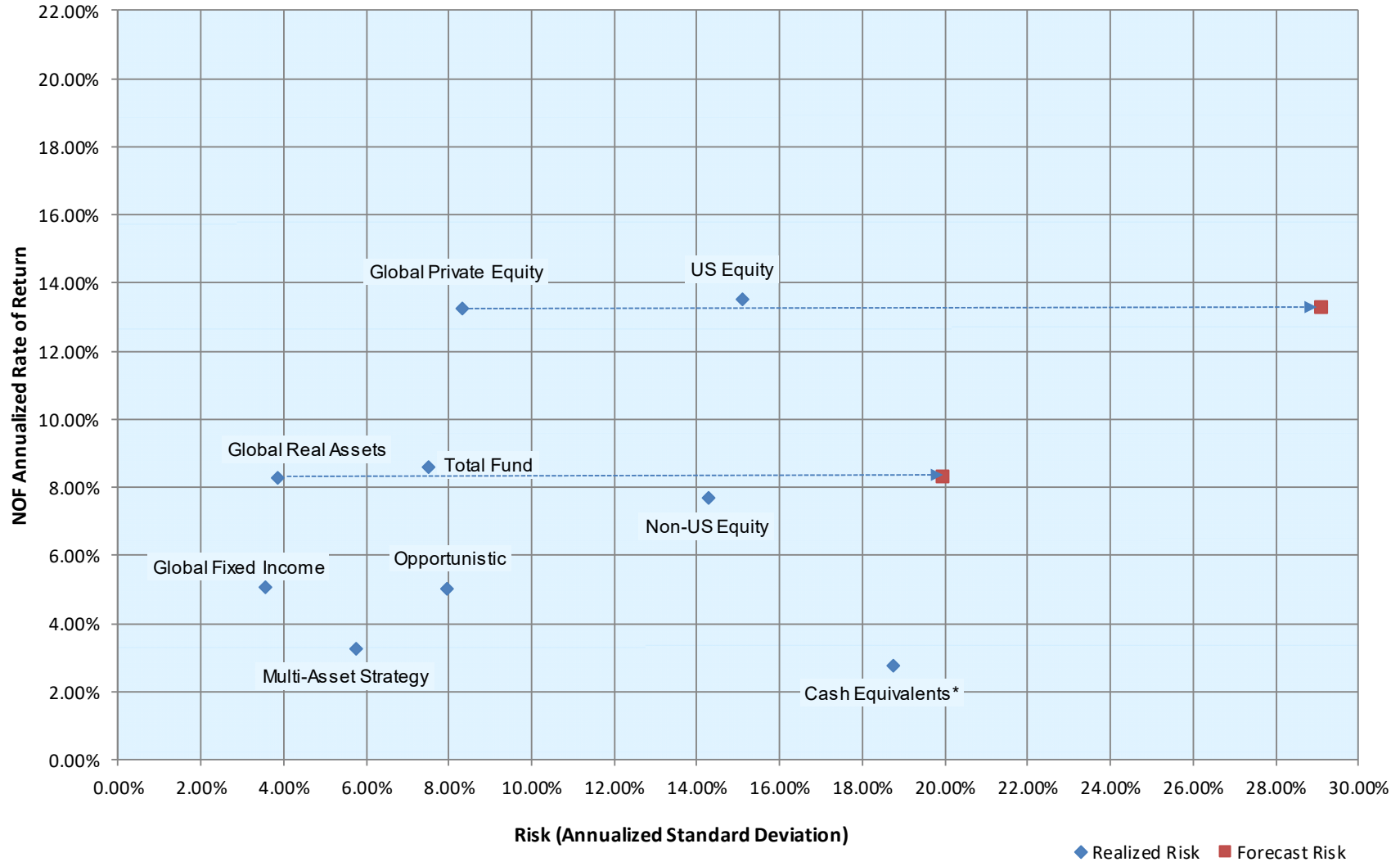








## 5 Year Risk and Return

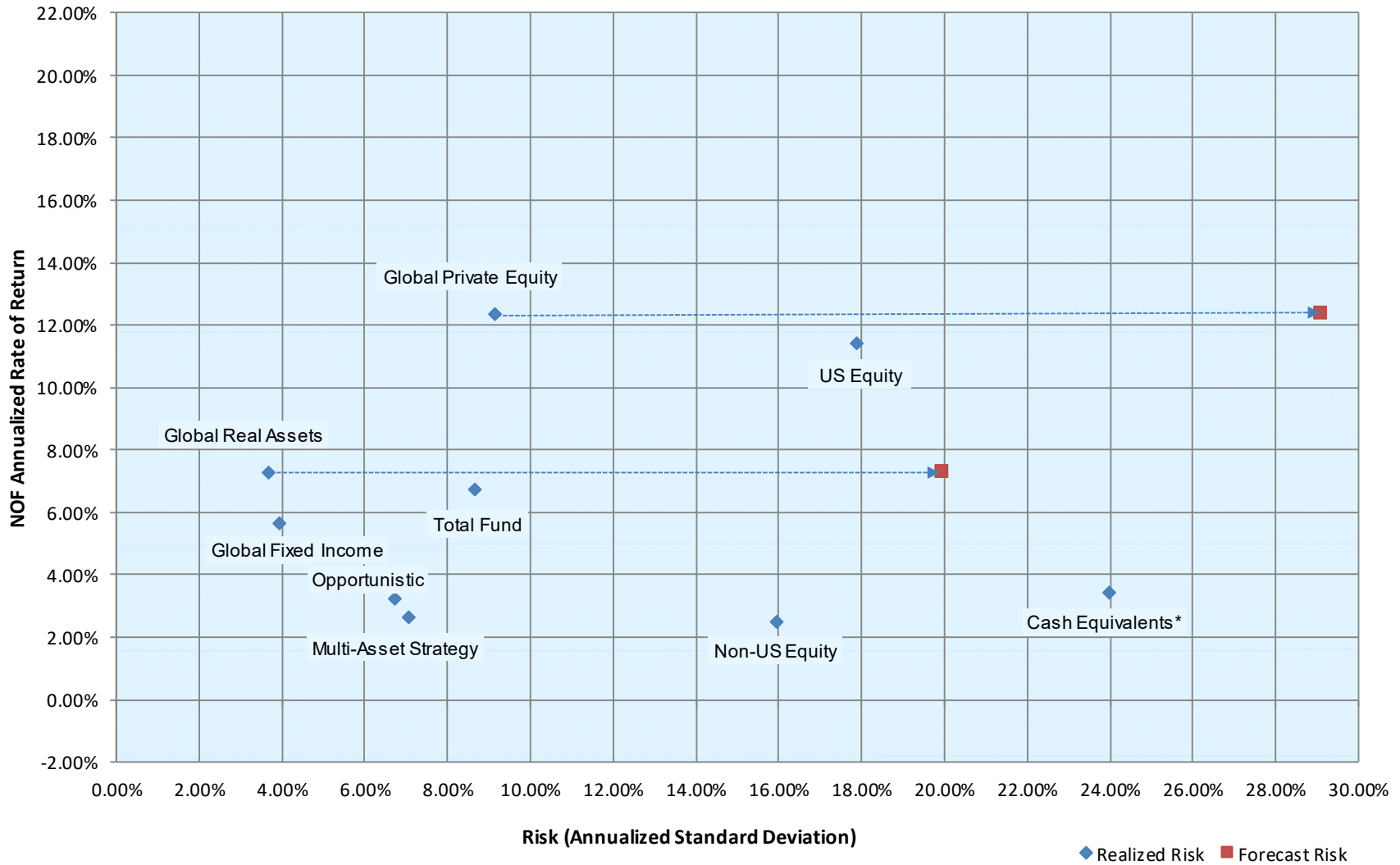


\*Cash Equivalents include Short-Term, Enhanced Allocation Overlay and Currency Overlay





### 3 Year Risk and Return

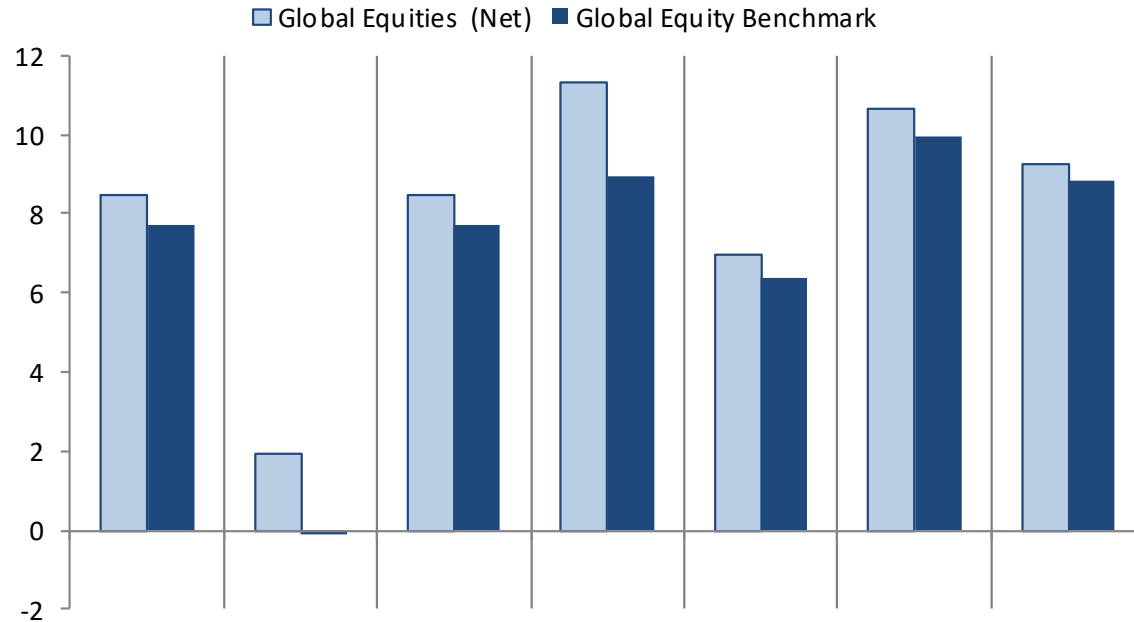


\*Cash Equivalents include Short-Term, Enhanced Allocation Overlay and Currency Overlay



## Global Equities Performance

**Current Benchmark:**  
 50% Russell 3000  
 50% MSCI ACWI ex US Index  
 (net dividends)



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Global Equities (Gross)	8.52	2.15	8.52	11.65	7.30	10.99	9.63
Global Equities (Net)	8.46	1.92	8.46	11.33	6.97	10.65	9.25
Global Equity Benchmark	7.73	(0.09)	7.73	8.92	6.36	9.97	8.85
MSCI ACWI	8.25	1.77	8.25	11.00	7.68	10.90	9.13
Value Added (Net of Fee)	0.73	2.01	0.73	2.41	0.62	0.67	0.41

Source: BNY Mellon GRS

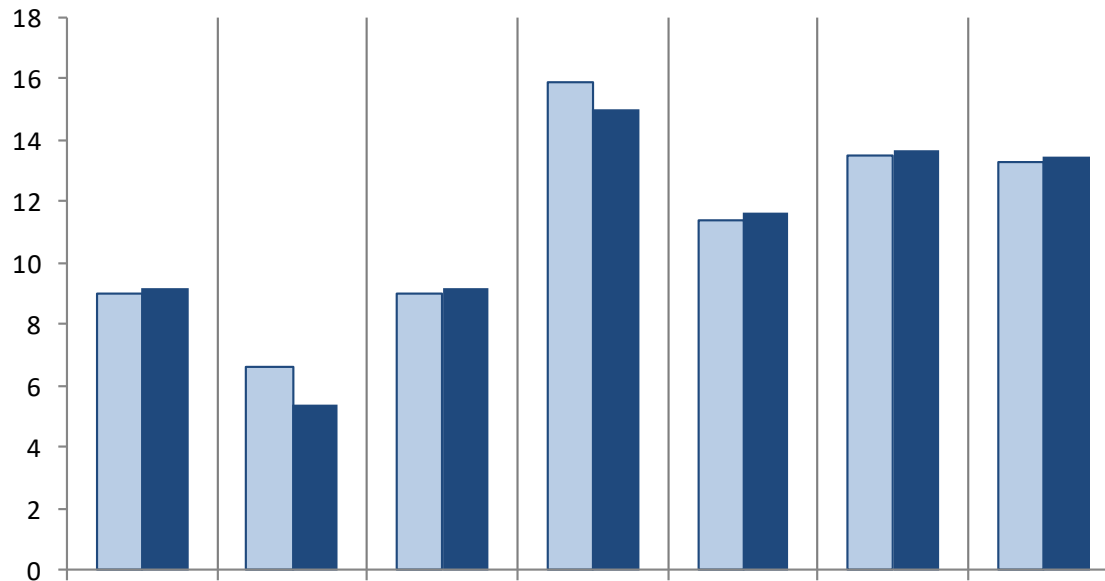


## US Equity Performance

■ US Equity Portfolio (Net)
 ■ US Equity Policy Benchmark

**Current Benchmark:**

*Russell 3000*



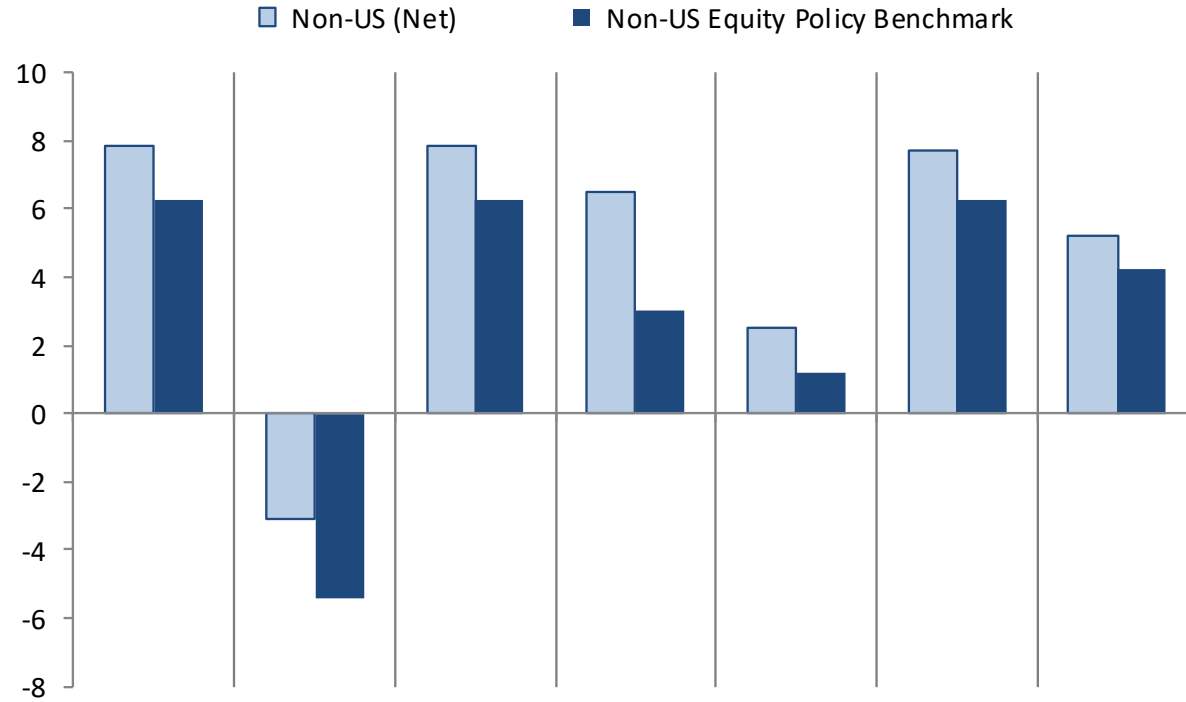
	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
US Equity Portfolio (Gross)	9.00	6.81	9.00	16.11	11.65	13.76	13.62
US Equity Portfolio (Net)	8.97	6.66	8.97	15.91	11.42	13.50	13.31
US Equity Policy Benchmark	9.21	5.41	9.21	15.00	11.65	13.69	13.48
Value Added (Net of Fee)	(0.24)	1.24	(0.24)	0.90	(0.22)	(0.18)	(0.18)

Source: BNY Mellon GRS



## Non-US Equity Performance

**Current Benchmark:**  
 MSCI ACWI Ex US Index  
 (Net dividends)



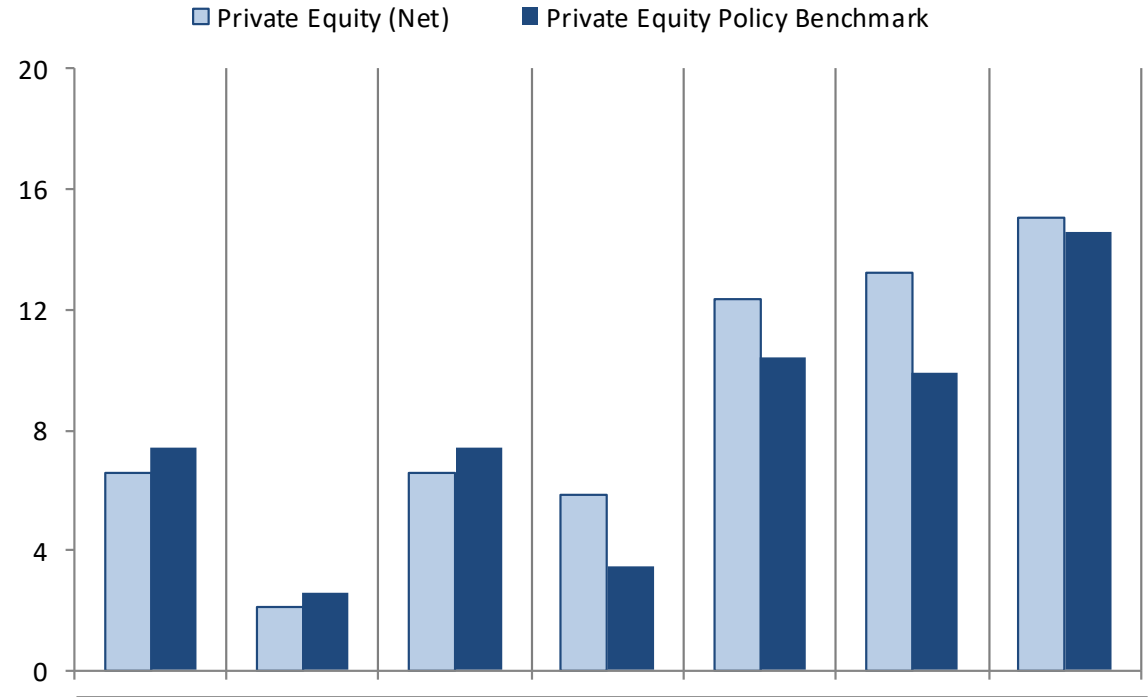
	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Non-US (Gross)	7.95	(2.79)	7.95	6.94	2.94	8.13	5.64
Non-US (Net)	7.84	(3.09)	7.84	6.51	2.51	7.70	5.21
Non-US Equity Policy Benchmark	6.25	(5.44)	6.25	3.00	1.16	6.23	4.26
Value Added (Net of Fee)	1.59	2.34	1.59	3.50	1.35	1.47	0.95

Source: BNY Mellon GRS



## Global Private Equity Performance

**Current Benchmark:**  
*Burgiss All Private Equity Index*



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Private Equity (Gross)	7.09	3.15	7.09	7.57	13.96	14.80	16.72
Private Equity (Net)	6.59	2.11	6.59	5.88	12.38	13.25	15.03
Private Equity Policy Benchmark	7.40	2.57	7.40	3.50	10.38	9.90	14.61
Value Added (Net of Fee)	(0.81)	(0.46)	(0.81)	2.38	1.99	3.35	0.42

Source: BNY Mellon GRS

The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

Global Private Equity performance is reported one quarter in arrears.



## Public vs Private Equity - Performance (Net)

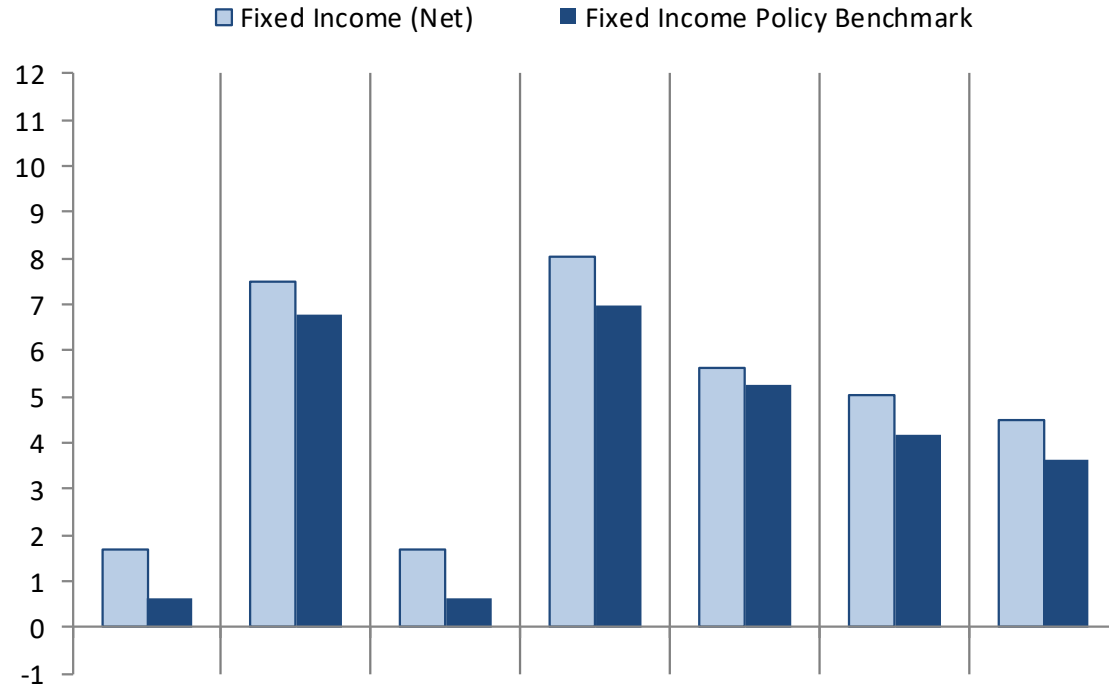
	3 Year	5 Year	10 Year
US Equity	11.42	13.50	13.31
Non-US Equity	2.51	7.70	5.21
Global Equity	6.97	10.65	9.25
Private Equity	12.38	13.25	15.03

\* Private Equity returns are lagged one quarter



## Global Fixed Income Performance

**Current Benchmark:**  
*Bloomberg Barclays Aggregate  
 Bond Index*



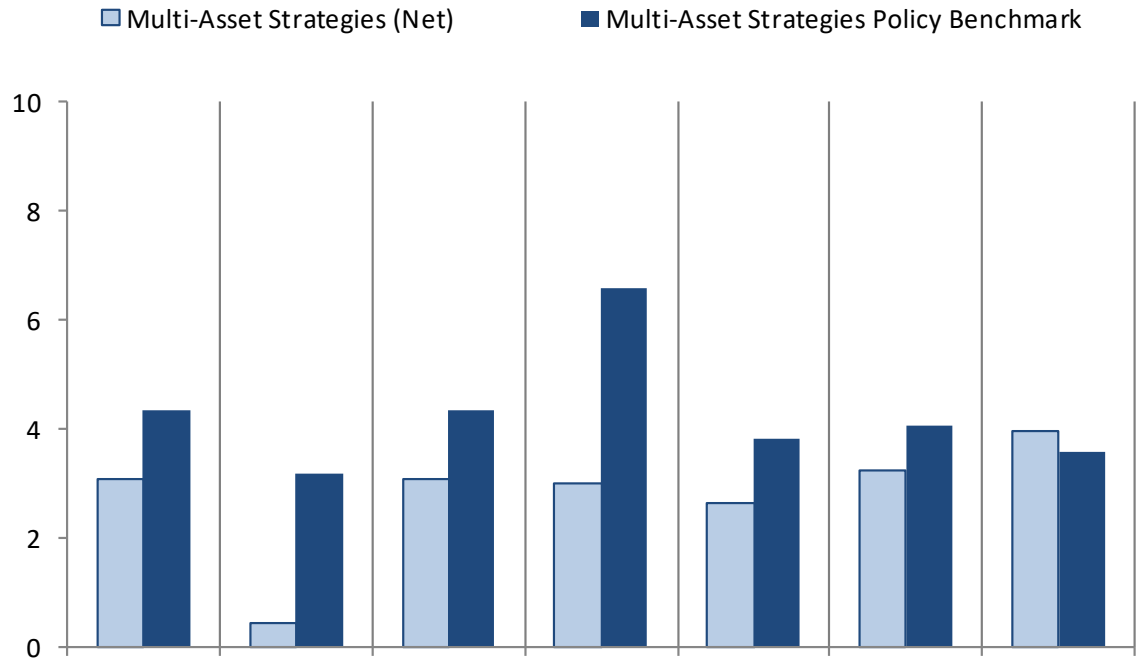
	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Fixed Income (Gross)	1.77	7.70	1.77	8.26	5.87	5.28	4.73
Fixed Income (Net)	1.69	7.52	1.69	8.03	5.64	5.05	4.50
Fixed Income Policy Benchmark	0.62	6.79	0.62	6.98	5.24	4.18	3.64
Value Added (Net of Fee)	1.08	0.72	1.08	1.04	0.40	0.88	0.87

Source: BNY Mellon GRS



## Multi-Asset Strategies Performance

**Current Benchmark:**  
*HFRI Fund of Funds Composite  
 plus 1%*



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Multi-Asset Strategies (Gross)	3.27	1.25	3.27	4.13	3.92	4.62	5.48
Multi-Asset Strategies (Net)	3.08	0.45	3.08	2.99	2.62	3.26	3.95
Multi-Asset Strategies Policy Benchmark	4.35	3.17	4.35	6.59	3.84	4.06	3.59
Value Added (Net of Fee)	(1.27)	(2.72)	(1.27)	(3.60)	(1.22)	(0.80)	0.35

Source: BNY Mellon GRS

The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

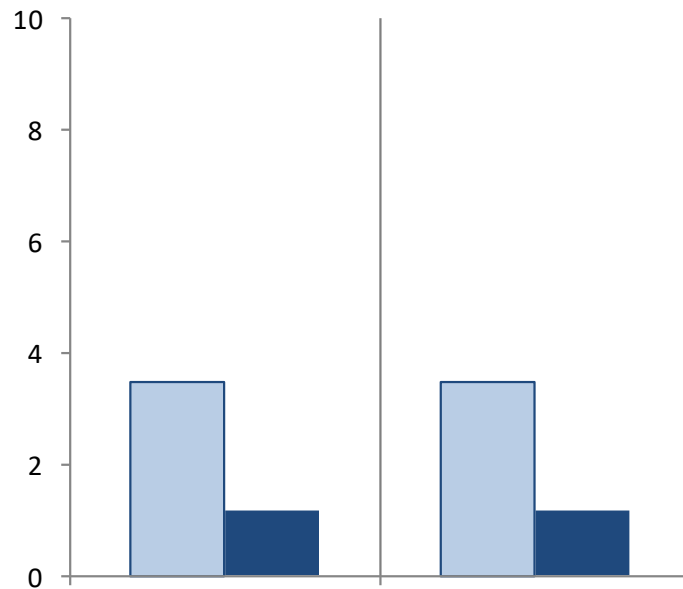




## Global Private Credit

**Current Benchmark:**  
 3 Month LIBOR plus 4.5%

■ Global Private Credit (Net)  
 ■ Global Private Credit Policy Benchmark



	Qtr	FYTD
Global Private Credit (Gross)	3.95	3.95
Global Private Credit (Net)	3.49	3.49
Global Private Credit Policy Benchmark	1.19	1.19
Value Added (Net of Fee)	2.30	2.30

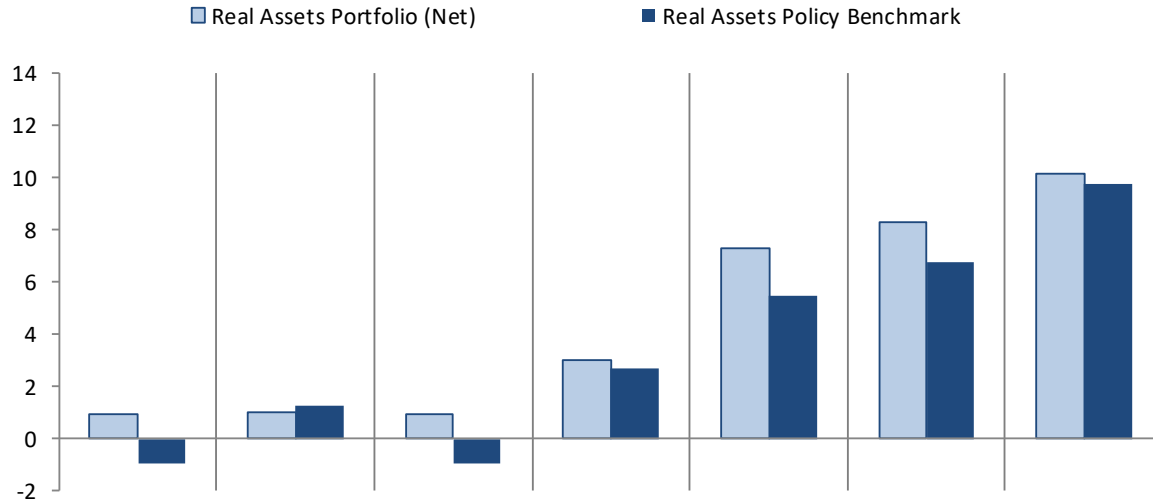
Source: BNY Mellon GRS

The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.



### Global Real Assets Performance

**Current Benchmark:**  
NCREIF Property Index (1q lag)



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Real Assets Portfolio (Gross)	1.13	1.52	1.13	3.79	8.31	9.33	11.28
Real Assets Portfolio (Net)	0.91	1.00	0.91	3.03	7.28	8.27	10.11
Real Assets Policy Benchmark	(0.99)	1.26	(0.99)	2.69	5.44	6.77	9.70
Real Assets Value Added (NOF)	1.90	(0.25)	1.90	0.34	1.84	1.50	0.41
Real Assets Core (Net)	(1.22)	1.55	(1.22)	3.27	6.74	7.89	10.81
Real Assets Policy Benchmark	(0.99)	1.26	(0.99)	2.69	5.44	6.77	9.70
Real Assets Core Value Added (NOF)	(0.23)	0.29	(0.23)	0.58	1.30	1.12	1.11
Real Assets Non-Core (Net)	0.05	(0.75)	0.05	4.11	7.35	8.02	9.60
Real Assets Policy Benchmark	(0.99)	1.26	(0.99)	2.69	5.44	6.77	9.70
Real Assets Non-Core Value Added (NOF)	1.04	(2.01)	1.04	1.42	1.91	1.25	(0.10)
Real Assets Infrastructure (Net)	7.65	2.87	7.65	4.81	11.17	n/a	n/a
Real Assets Policy Benchmark	(0.99)	1.26	(0.99)	2.69	5.44	n/a	n/a
Real Assets Infrastructure Value Added (NOF)	8.64	1.61	8.64	2.12	5.73	n/a	n/a

Source: BNY Mellon GRS

The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

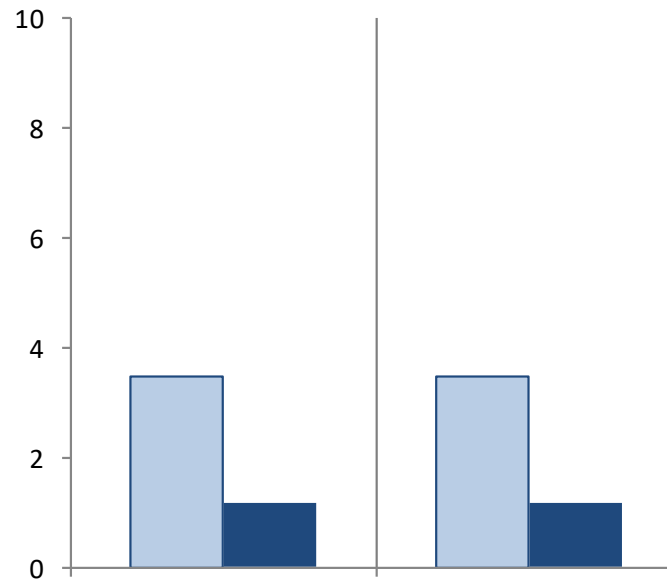
Global Real Assets performance is reported one quarter in arrears.



## Global Private Credit

**Current Benchmark:**  
 3 Month LIBOR plus 4.5%

■ Global Private Credit (Net)  
 ■ Global Private Credit Policy Benchmark



	Qtr	FYTD
Global Private Credit (Gross)	3.95	3.95
Global Private Credit (Net)	3.49	3.49
Global Private Credit Policy Benchmark	1.19	1.19
Value Added (Net of Fee)	2.30	2.30

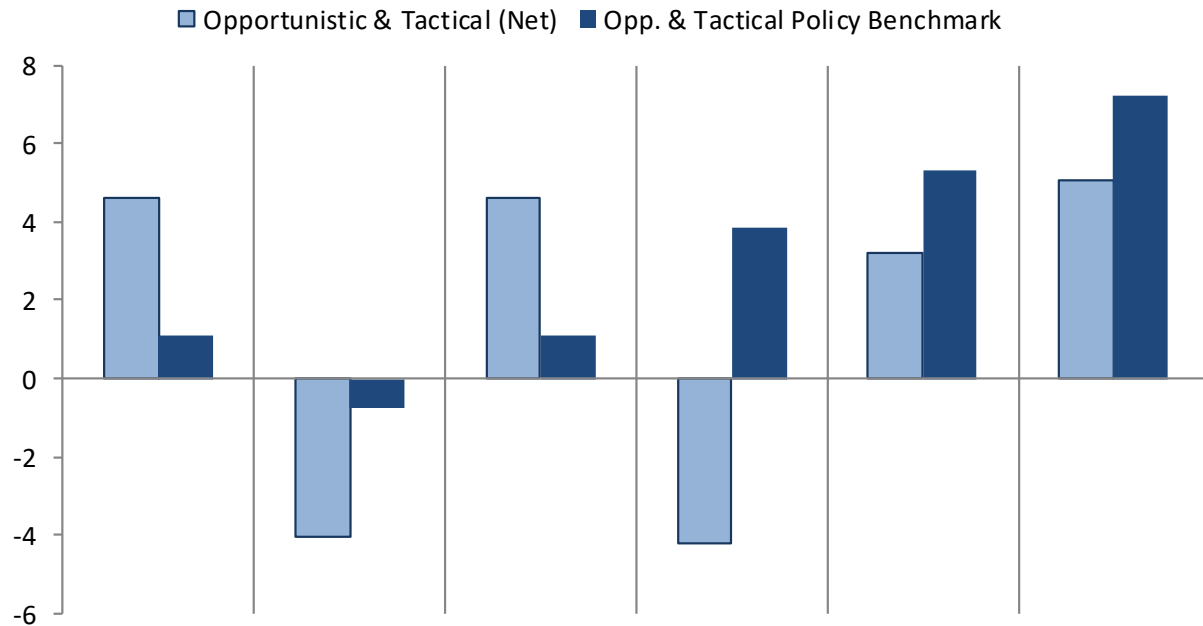
Source: BNY Mellon GRS

The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.



## Opportunistic & Tactical Performance

**Current Benchmark:**  
*Bloomberg Barclays Aggregate  
 Bond Index + 2%*



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year
Opportunistic & Tactical (Gross)	5.05	(2.80)	5.05	(2.58)	4.83	6.49
Opportunistic & Tactical (Net)	4.62	(4.03)	4.62	(4.20)	3.21	5.04
Opp. & Tactical Policy Benchmark	1.12	(0.78)	1.12	3.87	5.31	7.24
Value Added (Net of Fee)	3.50	(3.25)	3.50	(8.07)	(2.09)	(2.20)

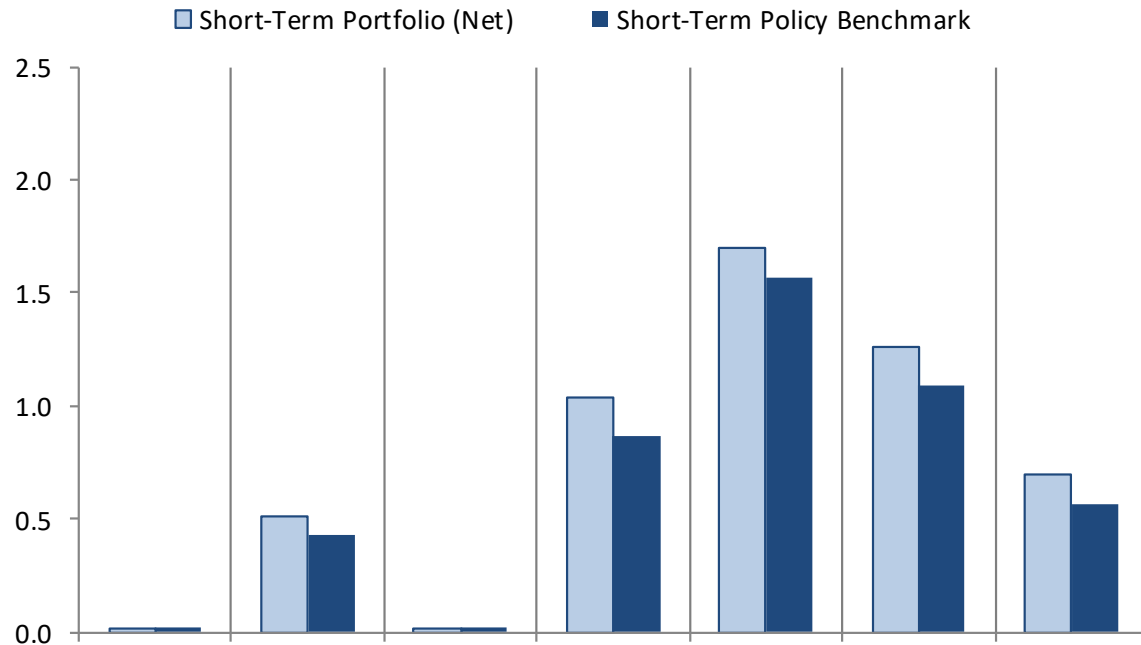
Source: BNY Mellon GRS



## Short-Term Performance

**Current Benchmark:**

*Citigroup 30 Day Treasury Bill Index*

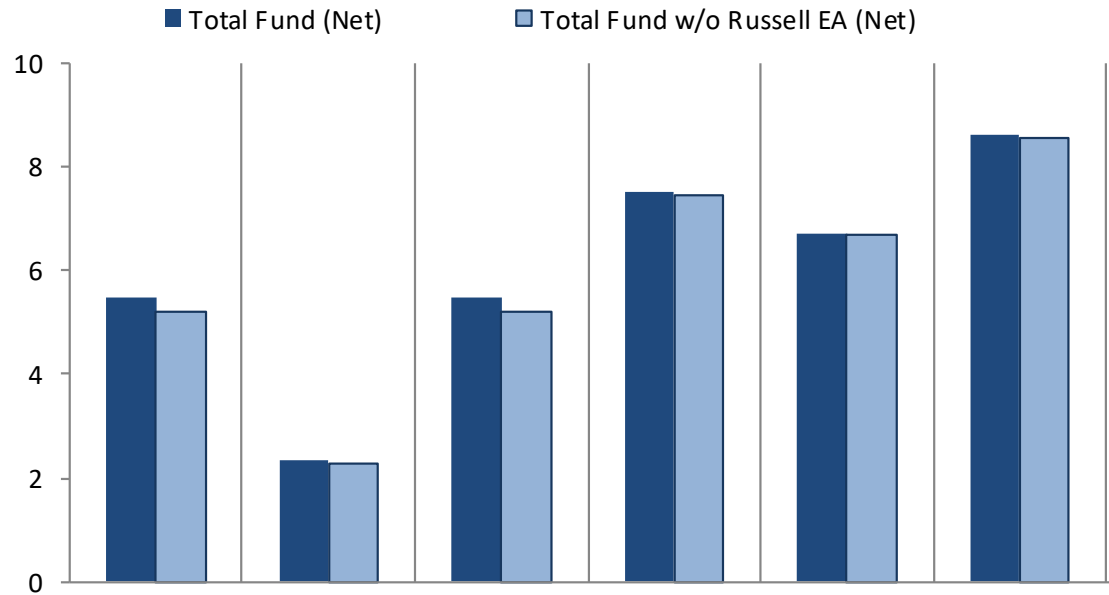


	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Short-Term Portfolio (Gross)	0.01	0.51	0.01	1.04	1.70	1.26	0.70
Short-Term Portfolio (Net)	0.01	0.51	0.01	1.04	1.70	1.26	0.70
Short-Term Policy Benchmark	0.03	0.43	0.03	0.86	1.57	1.09	0.57
Value Added (Net of Fee)	(0.01)	0.08	(0.01)	0.18	0.13	0.17	0.15

Source: BNY Mellon GRS



Russell EA Overlay Performance

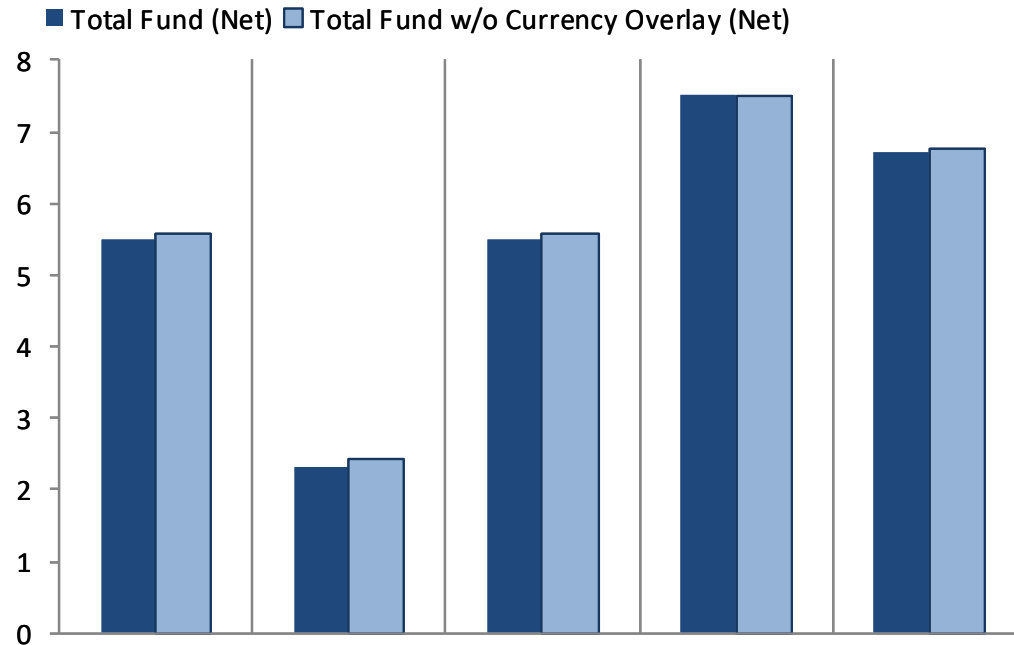


	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year
Total Fund (Gross)	5.64	2.77	5.64	8.15	7.39	9.28
Total Fund w/o Russell EA (Gross)	5.36	2.70	5.36	8.08	7.33	9.23
Total Fund (Net)	5.49	2.33	5.49	7.51	6.72	8.59
Total Fund w/o Russell EA (Net)	5.21	2.26	5.21	7.44	6.67	8.55
Russell EA Overlay Impact (Net of Fee)	0.28	0.07	0.28	0.07	0.05	0.04

Source: BNY Mellon GRS



## Currency Overlay Performance



	Qtr	CYTD	FYTD	1 Year	3 Year
Total Fund (Gross)	5.64	2.77	5.64	8.15	7.39
Total Fund w/o Currency Overlay (Gross)	5.72	2.83	5.72	8.28	7.40
Total Fund (Net)	5.49	2.33	5.49	7.51	6.72
Total Fund w/o Currency Overlay (Net)	5.57	2.42	5.57	7.51	6.75
Currency Overlay Impact (Net of Fee)	(0.09)	(0.09)	(0.09)	0.00	(0.04)

Source: BNY Mellon GRS



## Proposed Investment Agenda – Next Meeting

Annual Portfolio Review – Global Equity  
Investment Report (October 31, 2020)



**Summary of Investment Transactions (R)**

**SUMMARY OF INVESTMENT TRANSACTIONS**

\_\_\_\_\_ moved and \_\_\_\_\_ seconded that the following summary of investment transactions made in compliance with the Ohio Revised Code Section 3309.15 during the period of **October 1, 2020** through **October 30, 2020** hereby be approved. A detailed list of these transactions is found in the Board Agenda posted prior to the November 2020 Retirement Board Meeting.

## A. PURCHASES

Asset Class	Approximate Cost (in millions)
US Equities	\$ 21.2
Non-US Equities	135.7
Fixed Income	458.8
Multi-Asset Strategies	.7
Private Equity Capital Calls	37.1
Real Asset Capital Calls	88.2
Opportunistic	19.0
Global Private Credit	14.1
Cash Equivalents	249.0

## B. SALES

Asset Class	Approximate Net Proceeds (in millions)	Approximate Gain/(Loss) (in millions)
US Equities	\$16.8	\$ 4.1
Non-US Equities	133.7	8.4
Fixed Income	431.3	1.6
Multi-Asset Strategies	79.2	37.6
Private Equity distributions	26.4	n/a
Real Asset distributions	4.2	n/a
Opportunistic	n/a	n/a
Global Private Credit	n/a	n/a
Cash Equivalents	286.8	n/a

Upon roll call, the vote was as follows:

<b><u>ROLL CALL:</u></b>	<b><u>YEA</u></b>	<b><u>NAY</u></b>	<b><u>ABSTAIN</u></b>
Barbra Phillips	_____	_____	_____
Jeffrey DeLeone	_____	_____	_____
James Haller	_____	_____	_____
Matthew King	_____	_____	_____
Catherine Moss	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____
Hugh Garside	_____	_____	_____

**EXECUTIVE DIRECTOR'S UPDATE**

- **Quarterly Financials**

**STATE LEGISLATION BOARD REPORT**  
**133<sup>rd</sup> General Assembly**  
**(Prepared by Chris Collins as of November 6, 2020)**

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**HB326 PUBLIC EMPLOYEE RETIREMENT-DISABILITY BENEFIT** Adam Miller (D – Columbus) To allow a Public Employees Retirement System or School Employees Retirement System disability benefit recipient elected to certain offices to continue receiving a disability benefit during the term of office.

Current Status: 11/12/2019 House Insurance, (First Hearing)

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**HCR13 GENDER REPRESENTATION** Thomas West (D- Canton), Sara Carruthers (R-Hamilton) - To encourage equitable and diverse gender representation on the boards and in senior management of Ohio companies and institutions.

Current Status: 11/12/2019 House Civil Justice, (Second Hearing)

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**HB46 STATE GOVT EXPENDITURE DATABASE** Dave Greenspan (R- Westlake) - To require the Treasurer of State to establish the Ohio State Government Expenditure Database

Current Status: 01/22/2020 Substitute Bill Accepted

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**HB530 OPERS PROTECTION** Diane Grendell (R- Chesterland) - Regarding state retirement system fiduciary duties, Public Employees Retirement System management fees and employee pay, and creating the Committee on Pension Salaries and Fees

Current Status: 03/10/2020 Referred to Financial Institutions Committee

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**HB514 BROADCAST RETIREMENT BOARD MEETINGS** Brigid Kelly (D - Cincinnati) Haraz Ghanbari (R – Perrysburg) - To require the state retirement systems to publicly broadcast board meetings.

Current Status: 03/10/2020 Referred to Financial Institutions Committee

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**HB515 RETIREMENT SYSTEMS - FINANCIAL DISCLOSURES** Brigid Kelly (D - Cincinnati) Haraz Ghanbari (R – Perrysburg) - To require the boards of the state retirement systems to disclose certain financial information regarding alternative investments.

Current Status: 03/10/2020 Referred to Financial Institutions Committee

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**HB516 FORMER STATE RETIREMENT PERSONNEL** Brigid Kelly (D - Cincinnati) Haraz Ghanbari (R – Perrysburg) Regarding the prohibition against the state retirement systems doing business with a former state retirement system employee, officer, or board member.

Current Status: 03/10/2020 Referred to Financial Institutions Committee

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**HB197** OMNIBUS MEASURES ON CORONAVIRUS Jena Powell (R-Arcanum) Derek Merrin (R-Monclova) To continue essential operations of state government and maintain the continuity of the state tax code in response to the declared pandemic and global health emergency related to COVID-19, to make appropriations, and to declare an emergency.

Current Status: 03/27/2020 SIGNED BY GOVERNOR; eff. 3/27/20

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**FEDERAL LEGISLATION BOARD REPORT**  
**116<sup>th</sup> United States Congress**  
**(Prepared by Chris Collins as of November 6, 2020)**

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**H.R. 141**

SPONSOR: Rep. Rodney Davis (R-IL)

LAST ACTIONS: House - 01/31/2019 Referred to the Subcommittee on Social Security

CAPTION: Social Security Fairness Act of 2019

COMMENT: Repeals the GPO and WEP. 259 co-sponsors; nine Ohioans

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**S. 521**

SPONSOR: Sen. Sherrod Brown (D-OH)

LAST ACTIONS: Senate - 02/14/2019 Referred to Committee on Finance

CAPTION: Social Security Fairness Act of 2019

COMMENT: Repeals the GPO and WEP. 38 co-sponsors.

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**H.R.3934**

SPONSOR: Rep. Kevin Brady (R-TX)

LAST ACTIONS: House - 07/24/2019 Referred to the House Committee on Ways and Means.

CAPTION: To amend title II of the Social Security Act to replace the windfall elimination provision with a formula equalizing benefits for certain individuals with non-covered employment, and for other purposes.

COMMENT: 48 co-sponsors; three Ohioans

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**H.R.4540**

SPONSOR: Rep. Richard Neal (D-MA)

LAST ACTIONS: House - 09/27/2019 Referred to the House Committee on Ways and Means.

CAPTION: To amend title II of the Social Security Act to provide an equitable Social Security formula for individuals with non-covered employment and to provide relief for individuals currently affected by the Windfall Elimination Provision.

COMMENT: 146 co-sponsors; four Ohioans

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**H.R.4763**

SPONSOR: Rep. Kaptur, Marcy (D-OH)

LAST ACTIONS: House - 10/18/2019 Referred to the House Committee on Energy and Commerce.

CAPTION: To extend the limited wraparound coverage pilot program for an additional 5 years, and for other purposes.

COMMENT: Eight co-sponsors, all of whom are Ohioans.

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**H.R.748**

SPONSOR: Courtney, Joe (D-CT)

LAST ACTION: 03/27/2020 Became Public Law No: 116-136.

CAPTION: CARES Act (Coronavirus Aid, Relief, and Economic Security Act)

COMMENT: Initially introduced as a repeal of the health care “Cadillac Tax.” 369 co-sponsors; 14 Ohioans. Ultimately became vehicle for COVID-19 relief legislation.

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**S. 2543**

SPONSOR: Grassley, Chuck (R-IA)

LAST ACTION: Senate - 09/25/2019 Placed on Senate Legislative Calendar under General Orders. Calendar No. 225.

CAPTION: The Prescription Drug Pricing Reduction Act (PDPRA)

COMMENT: This bill alters several programs and requirements relating to the prices of prescription drugs under Medicare and Medicaid. No co-sponsors.

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**H.R. 3 –**

SPONSOR: Pallone, Frank (D-NJ)

LAST ACTION: Senate - 09/08/2020 Read the second time. Placed on Senate Legislative Calendar under General Orders. Calendar No. 521.

CAPTION: The Elijah E. Cummings Lower Drug Costs Now Act.

COMMENT: This bill establishes several programs and requirements relating to the prices of prescription drugs, health care coverage and costs, and public health. 106 co-sponsors.

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**FINAL FILING of PROPOSED AMENDED ADMINISTRATIVE RULE (R)**



## FINAL FILING OF PROPOSED AMENDED ADMINISTRATIVE RULE

Legal Counsel discussed with the Retirement Board filing with JCARR the following proposed amended rule: 3309-1-11 Membership determinations, that has been reviewed by JCARR and is ready for final adoption by the Board.

\_\_\_\_\_ moved and \_\_\_\_\_ seconded that proposed amended rule 3309-1-11 Membership determinations be adopted.

### **3309-1-11 Membership determinations.**

- (A) A request for a determination as to whether an individual or a group of individuals are required to be members of the school employees retirement system may be initiated by an employer, an affected individual, or the retirement system.
- (1) An employer or individual who has a question as to membership requirements shall request in writing a determination by the retirement system. Such determination shall be made as provided in rule 3309-1-03 of the Administrative Code.
- (2) When a membership determination has been initiated, the employer and any affected individual or individuals shall furnish such documents and information requested by the retirement system.
- (B) If contributions have not been remitted and the retirement system determines the individual is covered by this system, the employer shall be liable for employee and employer compulsory contributions pursuant to rule 3309-1-13 of the Administrative Code. If no membership record and/or contributions are received by the system within thirty days of the determination, a charge, based on an estimated salary for such individual's position, against the employer shall be made for collection through the state school foundation program if available or by direct billing.
- (C) If contributions have been remitted and the retirement system determines the individual is not covered by this system, any contributions received shall be unauthorized and shall be refunded.
- (D)
- [\(1\) The definition of "employee" in division \(B\)\(2\) of section 3309.01 of the Revised Code does not include a person who holds a position for which the person is required to have a certificate or license issued pursuant to sections 3319.22 to 3319.31 of the Revised Code.](#)
- [\(2\)](#) The retirement board has determined that the phrase "service common to the normal daily operation of an educational unit" as used in division (B)(2) of section 3309.01 of the Revised Code means:
- [\(a\)](#) Any service required to be provided by an educational unit or the provision of which is governed by law, statute, or rule; or
- [\(b\)](#) Any service necessary on a regular continuous basis to the efficient operation of an educational unit; or
- [\(c\)](#) Any service which, through custom and usage, has become a service commonly provided or procured by an educational unit on a regular continuous basis.

Promulgated Under: 111.15  
Statutory Authority: 3309.04  
Rule Amplifies: 3309.01, 3309.23

Prior Effective Dates: 09/27/2004, 04/03/2009

Upon roll call, the vote was as follows:

<b><u>ROLL CALL:</u></b>	<b><u>YEA</u></b>	<b><u>NAY</u></b>	<b><u>ABSTAIN</u></b>
Barbra Phillips	_____	_____	_____
Jeffrey DeLeone	_____	_____	_____
James Haller	_____	_____	_____
Matthew King	_____	_____	_____
Catherine Moss	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____
Hugh Garside	_____	_____	_____

**School Employees Retirement System of Ohio**  
**REVIEW OF ADMINISTRATIVE EXPENSES**  
**October 2020**

The following are preliminary administrative operation expenses of the School Employees Retirement System of Ohio during the period **October 1, 2020 - October 31, 2020**

<b>Account</b>	<b>Vendor</b>	<b>Amount</b>
Salaries & Wages	ADP, LLC	527,056.32
	ADP, LLC	540,966.67
	Account Totals:	1,068,022.99
Salaries & Wages - Overtime	ADP, LLC	3,361.67
	ADP, LLC	2,580.67
	Account Totals:	5,942.34
Vacation Leave Expense	ADP, LLC	98,681.50
	Account Totals:	98,681.50
Sick Leave Expense	ADP, LLC	32,141.41
	Account Totals:	32,141.41
Employer Contributions - PERS	Ohio Public Emp. Retirement System	77,850.66
	Ohio Public Emp. Retirement System	78,747.54
	Account Totals:	156,598.20
Group Life	American United Life Insurance Company	8,227.30
	Account Totals:	8,227.30
Long Term Disability	American United Life Insurance Company	2,368.44
	Account Totals:	2,368.44
Short Term Disability	American United Life Insurance Company	1,259.92
	American United Life Insurance Company	1,262.31
	Account Totals:	2,522.23
Group Health Claims	Aetna Daily Wires - ESERS	249,601.61
	SaveonSP, LLC	1,011.00
	Account Totals:	250,612.61
Group Health - Admin Fees	Aetna Admin - ESERS	7,272.93
	Account Totals:	7,272.93

Prescription Claims	Express Scripts - ESERS	357.93
	Express Scripts - ESERS	2,643.21
	Express Scripts - ESERS	11,788.34
	Express Scripts - ESERS	13,895.20
	Express Scripts - ESERS	16,979.37
	Express Scripts - ESERS	64,436.00
	Account Totals:	110,100.05
Group Health - Stop Loss	Sunlife Financial	13,356.81
	Account Totals:	13,356.81
Vision Claims	VSP - (OH)	1,787.25
	Account Totals:	1,787.25
Vision Admin Fees	VSP - (OH)	170.28
	Account Totals:	170.28
Group Health - Employee Cost	Employee Premiums	(772.36)
	Employee Premiums	(12,975.16)
	Employee Premiums	(12,975.16)
	Account Totals:	(26,722.68)
Group Health - Wellness Incentive	ADP, LLC	1,984.75
	ADP, LLC	1,998.60
	Account Totals:	3,983.35
Group Health - Tobacco Premiums	ADP, LLC	(420.00)
	ADP, LLC	(420.00)
	Account Totals:	(840.00)
Medicare Premium - Employer	ADP, LLC	7,945.93
	ADP, LLC	8,027.01
	Account Totals:	15,972.94
Workers Compensation	Ohio Bureau Of Workers Compensation	3,979.00
	Account Totals:	3,979.00
Deferred Compensation Match	ADP, LLC	2,415.00
	ADP, LLC	2,430.00
	Account Totals:	4,845.00

Actuarial Services	Cavanaugh MacDonald Consulting, LLC	12,000.00
		Account Totals: 12,000.00
Audit	RSM US LLP	75,000.00
		Account Totals: 75,000.00
Custodial Fees - Investment Accounting	Huntington National Bank	25,000.00
	BNY Mellon Asset Servicing	54,143.47
		Account Totals: 79,143.47
Custodial Banking	Huntington National Bank	11,466.61
	Fifth Third Bank	250.00
	Treasurer of State - Warrants	577.22
	Treasurer of State - Warrants	649.04
		Account Totals: 12,942.87
Master Recordkeeper Fees	BNY Mellon Asset Servicing	94,047.38
		Account Totals: 94,047.38
Investment Advisory Fees	Aksia	16,666.67
	Wilshire	37,500.00
		Account Totals: 54,166.67
Performance/Analytics Fee	Barra LLC	59,611.25
	BNY Mellon Asset Servicing	34,401.66
	Wilshire Associates Incorporated	3,000.00
		Account Totals: 97,012.91
Other Prof. Inv. Related Consulting	Gmei Utility	83.43
		Account Totals: 83.43
Medical Consultant	Borchers, M.D., Glen G.	3,333.34
		Account Totals: 3,333.34
Special Counsel	Ice Miller LLP	600.00
	Ice Miller LLP	20,650.00
	Standley LawGroup LLP	390.00
		Account Totals: 21,640.00

Technical	HMB, Inc.	10,560.00
	IBM Corporation	29,500.00
	Sagitec Solutions, LLC	26,785.00
	Velosio	283.75
	Account Totals:	67,128.75
Other Professional Services	Attorney General	9,614.75
	Contoural, Inc.	15,953.25
	Drake, Carol N.	3,333.33
	Drake, Carol N.	3,273.33
	LexisNexis Risk Data Management, Inc	1,623.01
	Performance Leadership Group, LLC	9,000.00
	Vorys Advisors LLC	3,333.33
	Wickert, Kimberly	178.50
	Account Totals:	46,309.50
Postage	Columbus Courier & Freight LLC	203.07
	Notifii LLC	237.00
	Pitney Bowes Inc.	266.18
	Pitney Bowes Inc.	121.21
	Pitney Bowes Inc.	249.88
	Postmaster	1,205.00
	Unishippers Association	31.00
	Unishippers Association	31.00
	Unishippers Association	31.00
	Unishippers Association	119.83
	Unishippers Association	135.90
	United States Postal Service	82,000.00
	Account Totals:	84,631.07
Telecommunications Services	Best Buy	160.84
	CenturyLink	4,538.60
	Nextel Communications	163.39
	TBG Conferencing	963.98
	Time Warner Cable	174.13
	Verizon Wireless	262.96
	Verizon Wireless	696.63
	XO Communications	1,764.27
	Account Totals:	8,724.80
Communications & Publications	Tension Envelope Corporation	2,049.28
	Account Totals:	2,049.28
Hardware Maintenance	Selectus Consulting LLC	93,173.00
	Vertiv Corporation	1,599.00
	Account Totals:	94,772.00

Software Maintenance	Dell Marketing LP	3,439.20
	Sagitec Solutions, LLC	35,000.00
	Account Totals:	38,439.20
Software Subscriptions	ADP, LLC	2,777.37
	KLDiscovery	1,275.00
	Liquid Web Inc	263.50
	Melissa Data Corporation	5,197.00
	Shi International Corp.	50,318.96
	Wellness IQ	828.77
	Zoom	257.87
	Account Totals:	60,918.47
Hardware < \$5,000	Amazon.com	147.98
	Amazon.com	392.87
	Account Totals:	540.85
Equipment Repairs & Maintenance	Canon Financial Services, Inc	1,647.27
	Digital Print Solutions	457.71
	Ricoh USA, Inc	183.98
	Ricoh USA, Inc	330.30
	Ricoh USA, Inc	389.58
	Account Totals:	3,008.84
Office Supplies & Expenses	Staples Business Advantage	329.57
	Account Totals:	329.57
Records Storage	Vital Records Holdings, LLC	1,372.49
	Account Totals:	1,372.49
Seminars & Conferences	Institutional Limited Partners Association	249.00
	Medicare Rights Center	40.00
	Ohio SHRM State Council	898.00
	Ohio State University	900.00
	Account Totals:	2,087.00
Travel & Transportation	Haller, James	420.23
	Haller, James	51.00
	Haller, James	355.20
	HoneyBaked Ham	175.54
	King, Matt	433.00
	King, Matt	420.25
	Kroger	11.09

	Moss, Catherine	443.18
	Moss, Catherine	104.14
	Moss, Catherine	443.18
	Phillips, Barbra	357.28
	Phillips, Barbra	79.76
	Phillips, Barbra	356.97
	Rossler, James	244.00
	Rossler, James	67.58
	Rossler, James	244.00
	Weglarz, Frank	517.44
	Weglarz, Frank	327.46
	Wilson, Daniel L.	409.31
	Account Totals:	5,460.61
Subscriptions		
	Constant Contact	125.00
	DLT Solutions	8,482.46
	Hannah News Service	6,400.00
	Shutterstock, Inc.	29.00
	Stylebooks.com, Inc.	22.00
	Wall Street Journal	19.49
	Account Totals:	15,077.95
Memberships		
	CFA Institute	275.00
	IPMA-HR	114.00
	National Association for Business Economics	150.00
	Society for Human Resource Management	219.00
	Account Totals:	758.00
Management Liability Insurance		
	ARC Excess & Surplus, LLC.	251,295.05
	Account Totals:	251,295.05
Operations Maintenance		
	Amtrec, LLC	1,666.00
	AT&T	226.94
	Northeast Ohio Natural Gas Corp.	65.80
	South Central Power Company	882.00
	Stanley Convergent Security Solutions, Inc.	216.00
	Account Totals:	3,056.74
Staff Support		
	Matrix Integrated Psychological Services	590.70
	Franklin Services	1,108.09
	ThrivePass	594.00
	Certif-A-Gift Company	336.00
	Franklin Services	340.00
	Grainger	69.88
	Amazon.com	138.00
	Employee Reimbursement	1,545.00
	Employee Reimbursement	1,545.00
	Account Totals:	6,266.67



Recruiting Expenses	ADP Screening & Selection Services	213.25
	Indeed	425.92
	LinkedIn Corporation	1,355.01
	Account Totals:	1,994.18
Interior Landscaping	Ambius Inc. (05)	1,356.37
	Account Totals:	1,356.37
Vehicle Expense	Moo Moo Car Wash	7.00
	Ohio Treasurer of State - BMV	91.42
	Account Totals:	98.42
Board Member - School Board Reimb.	Ashland City School District	665.61
	Account Totals:	665.61
Ohio Retirement Study Council	Ohio Retirement Study Council	11,132.98
	Account Totals:	11,132.98
Reimbursement of Leased Svcs	OSERS Broad St. LLC	(25,416.67)
	Account Totals:	(25,416.67)
<b>Total Administrative Expenses</b>		2,890,449.75

**School Employees Retirement System of Ohio**Summary of administrative operation expenses during the period **October 1, 2020 - October 31, 2020.**

<b>Account</b>	<b>Amount</b>
Salaries & Wages	1,068,022.99
Salaries & Wages - Overtime	5,942.34
Vacation Leave Expense	98,681.50
Sick Leave Expense	32,141.41
Employer Contributions - PERS	156,598.20
Group Life	8,227.30
Long Term Disability	2,368.44
Short Term Disability	2,522.23
Group Health Claims	250,612.61
Group Health - Admin Fees	7,272.93
Prescription Claims	110,100.05
Group Health - Stop Loss	13,356.81
Vision Claims	1,787.25
Vision Admin Fees	170.28
Group Health - Employee Cost	(26,722.68)
Group Health - Wellness Incentive	3,983.35
Group Health - Tobacco Premiums	(840.00)
Medicare Premium - Employer	15,972.94
Workers Compensation	3,979.00
Deferred Compensation Match	4,845.00
Actuarial Services	12,000.00
Audit	75,000.00
Custodial Fees - Investment Accounting	79,143.47
Custodial Banking	12,942.87

Master Recordkeeper Fees	94,047.38
Investment Advisory Fees	54,166.67
Performance/Analytics Fee	97,012.91
Other Prof. Inv. Related Consulting	83.43
Medical Consultant	3,333.34
Special Counsel	21,640.00
Technical	67,128.75
Other Professional Services	46,309.50
Postage	84,631.07
Telecommunications Services	8,724.80
Communications & Publications	2,049.28
Hardware Maintenance	94,772.00
Software Maintenance	38,439.20
Software Subscriptions	60,918.47
Hardware <\$5,000	540.85
Equipment Repairs & Maintenance	3,008.84
Office Supplies & Expenses	329.57
Records Storage	1,372.49
Seminars & Conferences	2,087.00
Travel & Transportation	5,460.61
Subscriptions	15,077.95
Memberships	758.00
Management Liability Insurance	251,295.05
Operations Maintenance	3,056.74
Staff Support	6,266.67
Recruiting Expenses	1,994.18

Interior Landscaping	1,356.37
Vehicle Expense	98.42
Board Member - School Board Reimb.	665.61
Ohio Retirement Study Council	11,132.98
Reimbursement of Leased Svcs	(25,416.67)
<b>Total Administrative Expenses</b>	<b>2,890,449.75</b>

IT WAS MOVED BY \_\_\_\_\_ AND SECONDED BY \_\_\_\_\_ THAT THE FOLLOWING **505** SUPERANNUATION RETIREMENTS, **20** SURVIVOR BENEFITS, AND **3** TRANSFERS BE APPROVED AND, FURTHER, THAT THE PERSONS LISTED BELOW BE GRANTED ALLOWANCES AND BENEFITS IN THE AMOUNTS SET FORTH AND EFFECTIVE AS OF THE DATES GIVEN IN THE REPORT.

**SPECIAL CASES - ADJUSTMENTS**

\_\_\_\_\_ moved and \_\_\_\_\_ seconded the motion that the following report on Special Cases be approved in the amounts and dates as set forth below.

**EXECUTIVE SESSION**

\_\_\_\_\_ moved and \_\_\_\_\_ seconded the motion that the Board go into Executive Session pursuant to R.C. 121.22 (G)(5) to review applications for Disability Retirement Benefits.

# Memo

**To:** SERS Retirement Board

**From:** Richard Stensrud, Executive Director

**cc:** Karen Roggenkamp, Deputy Executive Director  
Tracy Valentino, Chief Financial Officer

**Date:** November 6, 2020

**Re:** **Presentation of Pension and Health Care Actuarial Valuations  
as of June 30, 2020**

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The basic financial objective of SERS is to establish and receive contributions which, when expressed in terms of percentages of active member payroll, remains approximately level from generation to generation, and which, when combined with present assets and future investment returns, will be sufficient to meet the present and future financial obligations of SERS. An actuarial valuation is performed annually to measure progress toward this objective and to establish the allocation of the employer contribution to the Pension, Death Benefit and Medicare B Funds ("Basic Benefits"). To that end, the actuarial valuation as of June 30, 2020 is attached for your review and consideration.

The June 30, 2020 valuation reports indicates that the funded ratio of the Basic Benefits increased to 71.49% from the 70.51% funded ratio reported in 2019 and the amortization period of the unfunded actuarial accrued liability decreased to 24 years. Although current year investment earnings fell below the 7.5% assumed rate of return, recognition of deferred actuarial gains from smoothing, along with the changes in the retiree cost-of-living adjustment (COLA) secured through the passage of House Bill 49 and Senate Bill 8 helped to offset those losses, resulting in a slight gain in the funded ratio.

Although health care is not funded on an actuarial basis, an annual valuation is performed to fulfill the requirements of GASB Statement 74 - Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans and Statement 75 - Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. That valuation reports that even with no allocation of the employer contribution in 2020, health care experienced an increase in the funded ratio, increasing the solvency of the fund to 2054. This is an increase of nineteen years.



On Thursday, November 19, 2020, John Garrett, Todd Green and Alisa Bennett from Cavanaugh Macdonald Consulting, LLC will present the results of the FY2020 Pension and Health Care Actuarial Valuations and the recommended surcharge level. With regard to these valuations, there are two resolutions for your vote: (1) The actuary's recommended allocation of employer contributions to the Pension, Death Benefit, Medicare B and Health Care Funds for fiscal year 2021; and (2) The actuary's recommendation establishing the minimum compensation amount for purposes of the fiscal year 2022 Health Care surcharge.

If you have any questions, please feel free to contact me.



# **School Employees Retirement System of Ohio 2020 Actuarial Valuation Results**

November 19, 2020



# Benefit Financing



- Basic Retirement Funding Equation

$$C + I = B + E$$

C = Contributions

I = Investment Income

B = Benefits Paid

E = Expenses (administration)



## Key Findings



- Funded status for Basic Benefits increased from 70.51% to 71.49%.
- Actuarially determined contribution rate increased from 10.68% to 10.86% for Basic Benefits.
- Board-adopted funding policy requires at least a 13.50% employer contribution rate for funding of Basic Benefits since funded ratio is greater than 70%, but less than 80%.
- Based on Board Resolution dated October 15, 2020, the entire employer contribution of 14% will be allocated to Basic Benefits.
- Health Care Fund will receive the 1.50% employer surcharge, with no additional contribution from employer.



# Funded Status



<u>Benefit</u>	<u>June 30, 2020</u>	<u>June 30, 2019</u>
Pension Benefits	71.9%	71.0%
Medicare Part B	50.7%	45.3%
Post-Retirement Death Benefits	66.8%	65.0%
Health Care	26.9%	21.1%



# Pension Results



# Comments on Pension Valuation



- Total market value investment return was 2.67%.
  - Market value investment return for Health Care Fund was 1.76%
  - Market value investment return for Basic Benefits Fund was 2.70%
- Total blended smoothed actuarial value return for entire fund 7.37%.
  - Smoothed (market value) return for funds that support Health Care was 1.76%
  - Smoothed return for funds that support Basic Benefits was 7.55%
- Funded ratio increased from 70.51% to 71.49%.



# Comments on Pension Valuation

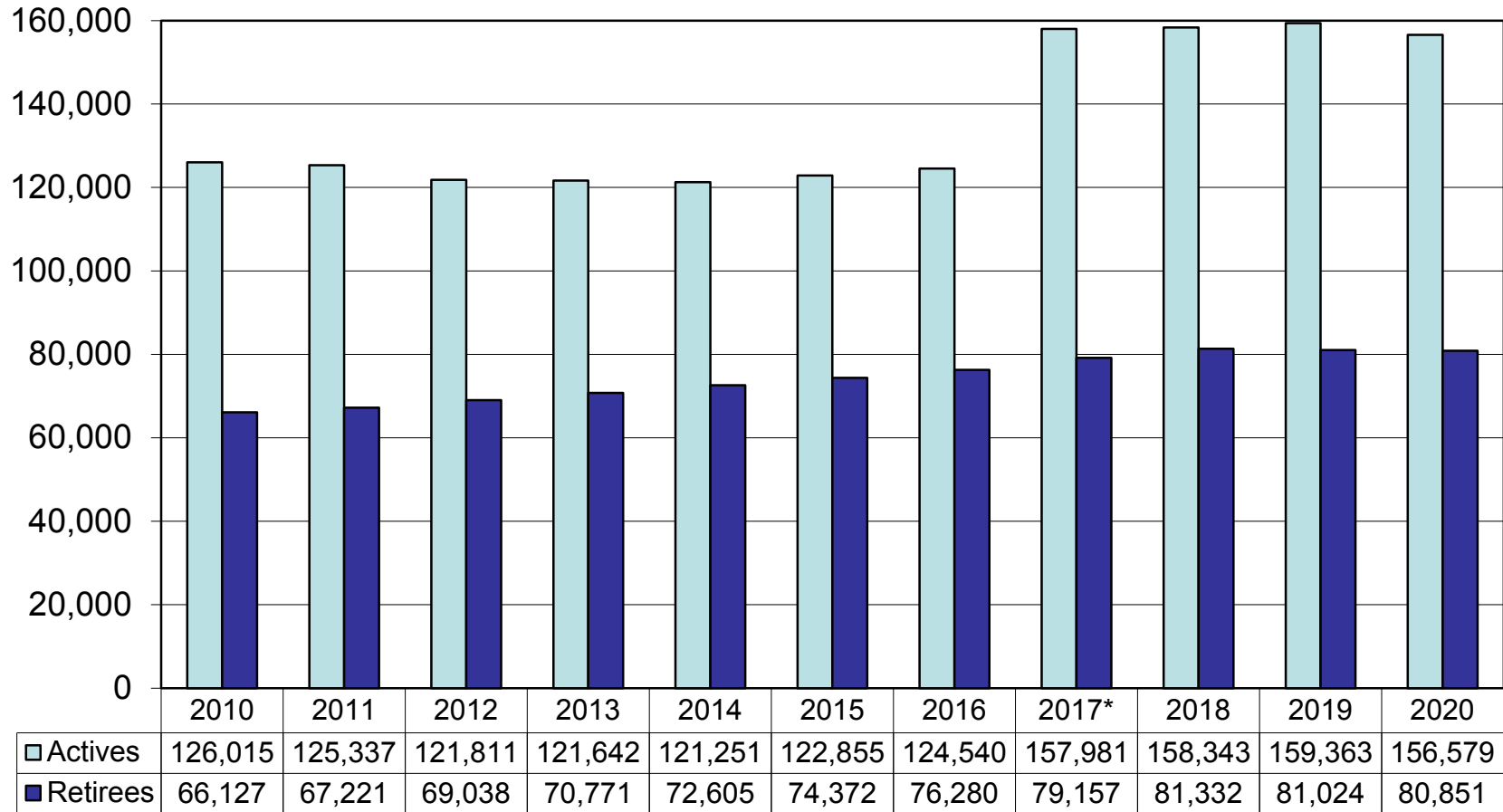


- Actuarially determined contribution rate increased from 10.68% to 10.86% on current 24-year amortization schedule.
- \$617 million of unrecognized investment losses, which will be recognized as investment losses over the next three years.
  - 2020/2021 - \$194 Million
  - 2021/2022 - \$244 Million
  - 2022/2023 - \$179 Million
- Anticipated COLA gain for 2020/2021 plan year is \$220 million which will offset 2020/2021 investment loss due to asset smoothing.





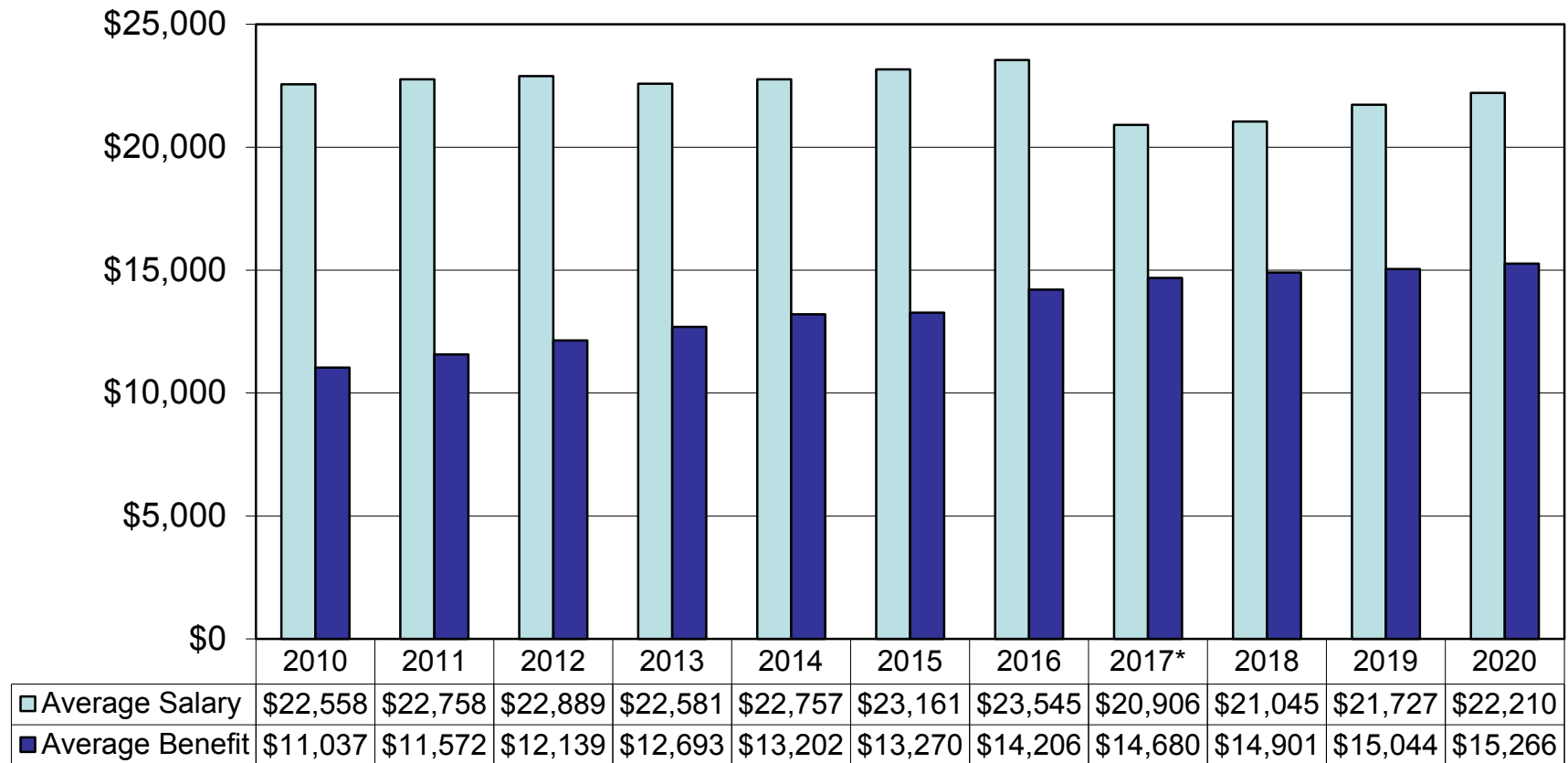
# Active and Retired Membership



\* 2017 active membership reflects an increase of 32,641 members with 0.25 or less years of service who have been re-categorized from inactive to active status.



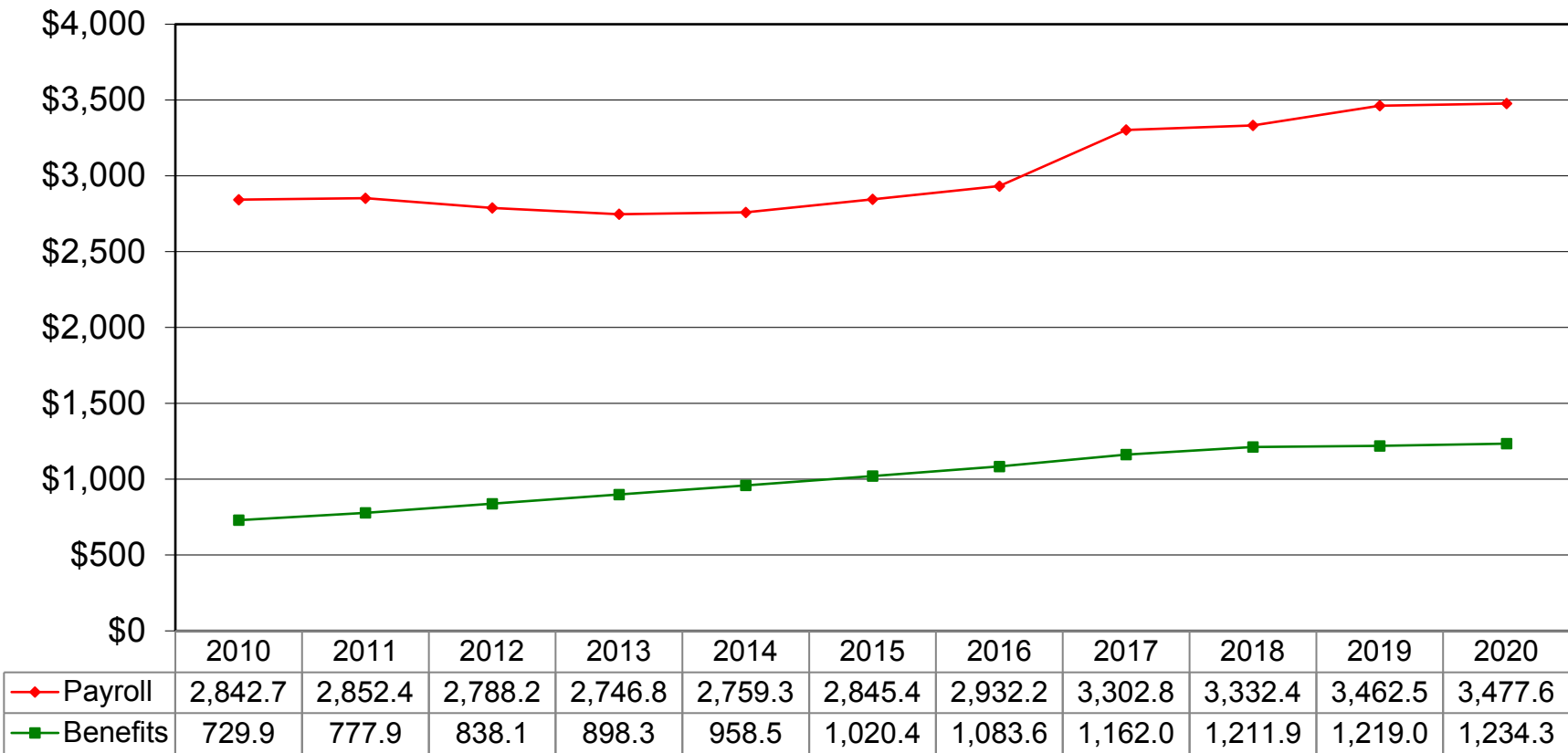
# Average Salary and Benefits



\*Average annual salary in 2017 reflects the re-categorization of 32,641 members. The average annual salary for this group was \$7,518.



# Payroll and Benefits (\$ Millions)



◆ **Payroll**                      ■ **Benefits**



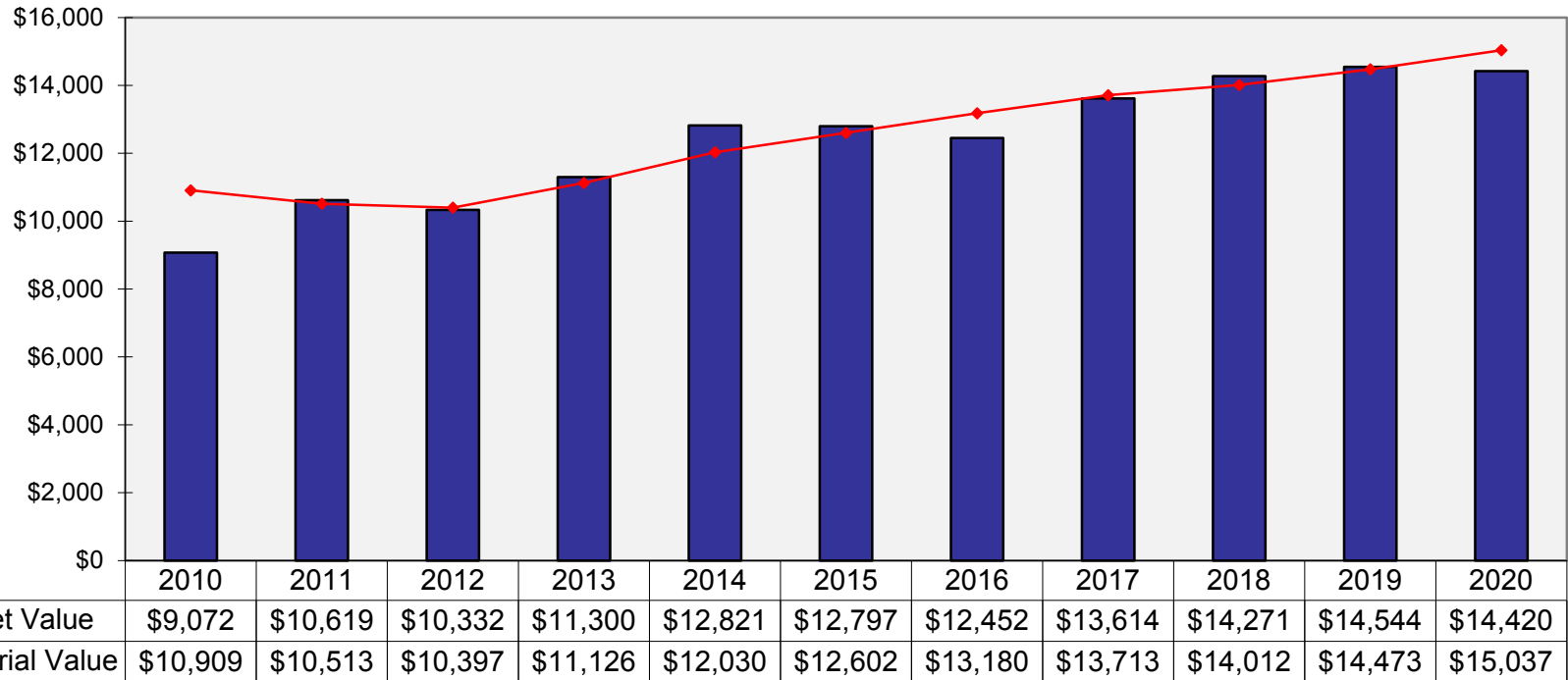
# Average Age and Service



	June 30, 2020	June 30, 2019
Active Average Age	47.5	47.1
Active Average Service	7.7	7.5
Average Age Retirees and Beneficiaries	74.9	74.7
Average Age Disabilities	66.5	66.0
Average Age Survivors	72.7	72.6



# Assets (\$ Millions)



■ Market Value
 ◆ Actuarial Value

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Market Return	12.7%	19.0%	(0.5)%	12.4%	16.7%	3.2%	0.6%	12.9%	9.0%	5.7%	2.7%
Actuarial Return	11.9%	(1.6)%	1.0%	10.1%	11.5%	8.3%	7.9%	7.5%	6.3%	7.1%	7.6%



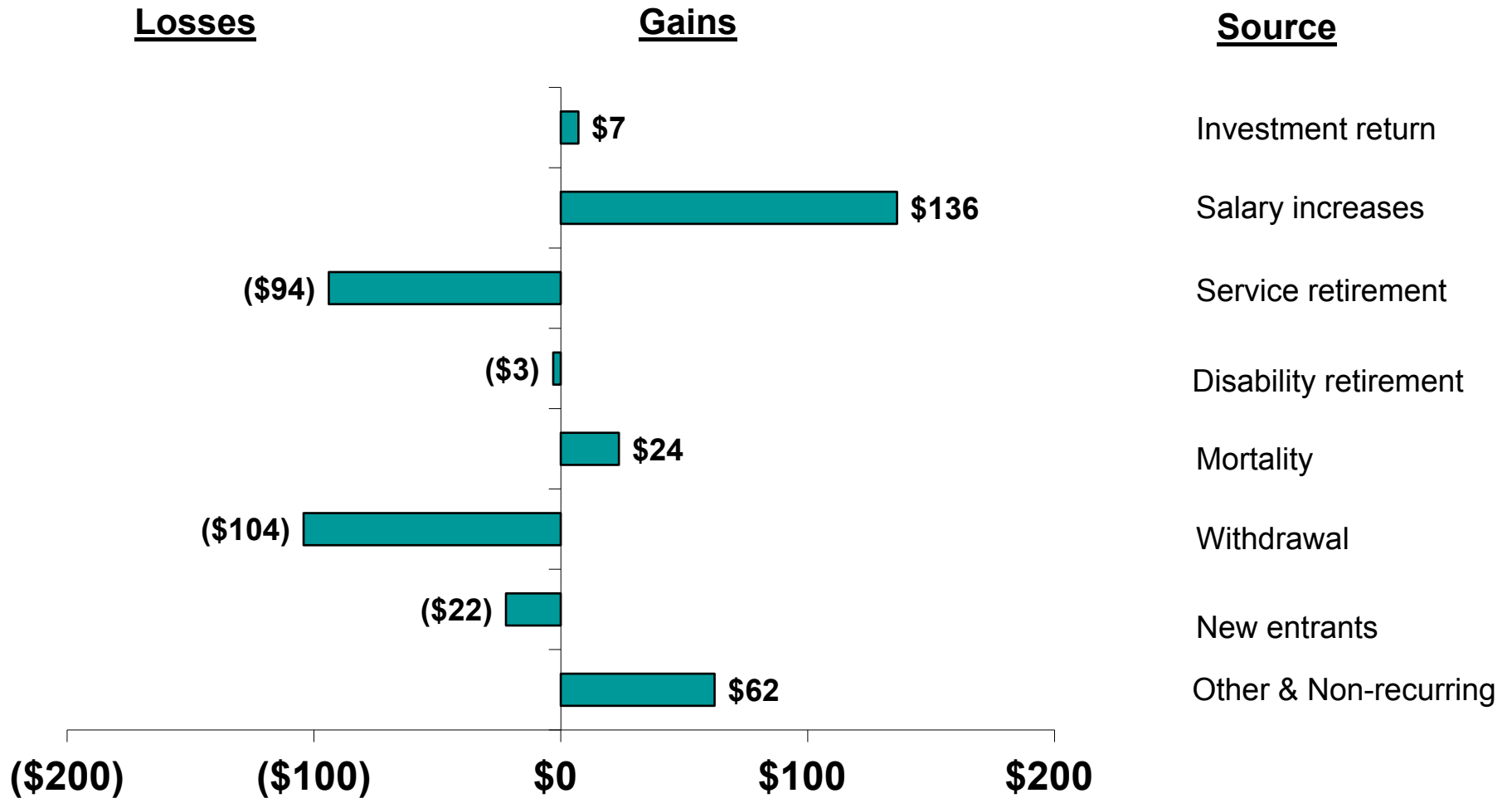
# Pension Funding Results



	June 30, 2020 Valuation			
	Pension	Death Benefits	Medicare Part B	Total
Total Normal Cost Rate	9.81%	0.01%	0.24%	10.06%
Less Member Rate	<u>10.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>10.00%</u>
Employer Normal Cost Rate	(0.19%)	0.01%	0.24%	0.06%
Rate to Amortize UAL	<u>10.43%</u>	<u>0.02%</u>	<u>0.35%</u>	<u>10.80%</u>
Actuarially Determined Contribution Rate	10.24%	0.03%	0.59%	10.86%
Funded Policy Contribution Rate				14.00%
Unfunded Accrued Liability (\$ millions)	\$5,790	\$3	\$194	\$5,997
Amortization Period	24	24	24	24
	June 30, 2019 Valuation			
Actuarially Determined Contribution Rate	10.03%	0.03%	0.62%	10.68%
Unfunded Accrued Liability (\$ millions)	\$5,823	\$14	\$217	\$6,054
Amortization Period	25	25	25	25



# 2020 Pension Gain/Loss Analysis (\$ Millions)





# Health Care Fund Results





# Comments on OPEB Valuation



- OPEB valuation recognizes actuarial gains due to lower than expected claims costs.
- Beginning in plan year 2021, Medicare Advantage plan premium rates exclude the ACA Health Insurer Fee, which was repealed on December 20, 2019, resulting in lower claims projections.
- No changes were incorporated at this time for COVID-19 due to the level of uncertainty regarding the impact on both plan costs and contribution levels going forward (e.g., the impact of routine care being deferred, direct COVID-19 treatment and prevention costs, changes in contribution and budget projections).
- Funded ratio was 21.09 % as of June 30, 2019, funded ratio is 26.86% as of June 30, 2020.



## Comments on OPEB Valuation



- Market value of assets used for valuation purposes. Investment return was 1.76% versus assumed rate of 5.25%.
- For funding valuation purposes, UAL amortization period remains 30 years.
- Actuarially Determined Employer Contribution (ADEC) was 4.63% as of June 30, 2019, ADEC is 3.67% as of June 30, 2020.
- Funding policy requires at least 13.50% of 14.00% employer contribution rate to be allocated to Pension.
- Based on Board resolution dated October 15, 2020, the Health Care Fund will not receive any employer contribution other than 1.50% surcharge.



## Comments on OPEB Valuation



- If the Health Care Fund receives only the 1.50% in future years, and ***all other actuarial assumptions are met***, the Health Care Fund is projected to remain solvent through 2054; 34 years of solvency.
- The projections are based on a 7.50% future asset rate of return assumption, on a payroll growth assumption of 3.50% per year, and on the assumption that the health care contribution rate will be 0.00%, plus a health care surcharge of 1.50%, or 1.50%.
- These projections assume there will be no health care cost increases due to ACA law changes or COVID-19 impact other than anticipated health care trend.



## Comments on OPEB Valuation



- Valuation reflects the Marketplace Wraparound Plan for Participants not eligible for Medicare.
- Current legislation has continued the Wraparound plan through 2020 with ongoing continuation under discussion. An HRA option was offered in 2020 and will continue to be offered in 2021.
- SERS Health Care and Government Relations staff are working with federal officials to extend the Wraparound program for 5-10 years.



# Health Care Fund Results



Health Care Fund		
	June 30, 2020	June 30, 2019
Total Normal Cost Rate	2.09%	2.53%
Less Member Rate	<u>0.00%</u>	<u>0.00%</u>
Employer Normal Cost Rate	2.09%	2.53%
Rate to Amortize UAL	<u>1.58%</u>	<u>2.10%</u>
Total Recommended Employer Contribution Rate	3.67%	4.63%
Unfunded Accrued Liability*	\$1,314	\$1,735
Employer Contribution Toward Health Care	1.50%	1.50%
Amortization Period	30	30

\* \$ millions



## 2020 Health Care Experience Gain/(Loss) (\$ Millions)



(1) Unfunded Actuarial Accrued Liability (UAAL) as of 6/30/2019	\$1,735
(2) Normal Cost from last valuation	88
(3) Expected employer contributions	161
(4) Interest accrual: $[(1)+(2)] \times 0.0525 - (3) \times 0.0525 / 2$	<u>91</u>
(5) Expected UAAL before changes: $(1)+(2)-(3)+(4)$	\$1,753
(6) Gain/(Loss) due to claims experience	491
(7) Expected UAAL after changes: $(5)-(6)$	\$1,262
(8) Actual UAAL as of 6/30/2020	\$1,314
(9) Total gain/(loss): $(7)-(8)$	\$ (52)
(a) Contribution shortfall	(83)
(b) Investment gain/(loss)	(16)
(c) Experience gain/(loss): $(9)-(9a)-(9b)$	\$ 47
(10) Accrued liabilities as of 6/30/2020	\$1,797
(11) Experience gain/(loss) as % of AAL at end of year: $(9c)/(10)$	2.6%



## Surcharge Level



- The current surcharge level is \$23,000 for the 2020-2021 fiscal year.
- For the 2021-2022 fiscal year, our calculations show a level of \$25,000 would be required to meet the stated funding policy goal, assuming that the Health Care Fund receives no employer contribution in the future.
- The surcharge level is limited to 2.00% of each individual employer's payroll and 1.50% of total System payroll

**ACTUARIAL VALUATION REPORT**

**ALLOCATION OF EMPLOYER CONTRIBUTIONS**

\_\_\_\_\_ moved and \_\_\_\_\_ seconded that after review and discussion of the actuary's *Report on the Annual Basic Benefits Valuation of the School Employees Retirement System of Ohio* (prepared as of June 30, 2020) at the November 2020 Board meeting, the Board accept the actuary's recommended allocation of the 14% employer contribution for fiscal year 2021 as follows: Pension Fund (10.24%), Death Benefit Fund (.03%), Medicare B Fund (.59%) and Health Care Fund (.00%). The remainder (3.14%) will also be allocated proportionately to the Pension Fund, Death Benefit Fund and Medicare B Fund in accordance with the funding policy approved by the Board on June 18, 2015.

Upon roll call, the vote was as follows:

<b><u>ROLL CALL:</u></b>	<b><u>YEA</u></b>	<b><u>NAY</u></b>	<b><u>ABSTAIN</u></b>
Barbra Phillips	_____	_____	_____
Jeffrey DeLeone	_____	_____	_____
James Haller	_____	_____	_____
Matthew King	_____	_____	_____
Catherine Moss	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____
Hugh Garside	_____	_____	_____



**ACTUARIAL VALUATION REPORT**

**HEALTH CARE SURCHARGE LEVEL FOR FY2022**

\_\_\_\_\_ moved and \_\_\_\_\_ seconded the motion to accept the recommendation of SERS's actuary, Cavanaugh Macdonald Consulting, LLC, and establish \$25,000 as the minimum compensation amount for purposes of the fiscal year 2022 Health Care surcharge.

Upon roll call, the vote was as follows:

<b><u>ROLL CALL:</u></b>	<b><u>YEA</u></b>	<b><u>NAY</u></b>	<b><u>ABSTAIN</u></b>
Barbra Phillips	_____	_____	_____
Jeffrey DeLeone	_____	_____	_____
James Haller	_____	_____	_____
Matthew King	_____	_____	_____
Catherine Moss	_____	_____	_____
James Rossler	_____	_____	_____
Frank Weglarz	_____	_____	_____
Daniel Wilson	_____	_____	_____
Hugh Garside	_____	_____	_____

**CALENDAR DATES FOR FUTURE BOARD MEETINGS**

**CALENDAR DATES FOR 2020**

**AUDIT COMMITTEE MEETINGS**

December 16 - 2:30 p.m. (Weds.)

**COMPENSATION COMMITTEE MEETINGS**

December 17 - 7:30 a.m. (Thurs.)

**BOARD MEETINGS**

December 17 and 18 (Thurs. and Fri.)

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**CALENDAR DATES FOR 2021**

**AUDIT COMMITTEE MEETINGS**

March 17 - 2:30 p.m. (Weds.)  
June 16 - 2:30 p.m. (Weds.)  
September 15 - 2:30 p.m. (Weds.)  
December 15 - 2:30 p.m. (Weds.)

**COMPENSATION COMMITTEE MEETINGS**

March 18 - 7:30 a.m. (Thurs.)  
June 17 - 7:30 a.m. (Thurs.)  
September 16 - 7:30 a.m. (Thurs.)  
December 16 - 7:30 a.m. (Thurs.)

**BOARD MEETINGS**

February 18 and 19 (Thurs. and Fri.)  
March 18 and 19 (Thurs. and Fri.)  
April 15 and 16 (Thurs. and Fri.)  
May 20 and 21 (Thurs. and Fri.)  
June 17 and 18 (Thurs. and Fri.)  
July 15 and 16 (Thurs. and Fri.)  
September 16 and 17 (Thurs. and Fri.)  
October 21 and 22 (Thurs. and Fri.)  
November 18 and 19 (Thurs. and Fri.)  
December 16 and 17 (Thurs. and Fri.)

**\*\*NOTE: The above dates are *tentative*.**

**CONTINUED OR NEW BUSINESS**

**Board Information Requested**

**BOARD INFORMATION REQUESTS AND FOLLOW-UP ITEMS**

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**ADJOURNMENT(R)**

\_\_\_\_\_ moved that the Board adjourn to meet on Thursday, December 16, 2020 for their regularly scheduled meeting.

The meeting adjourned at \_\_\_\_\_ p.m.

\_\_\_\_\_  
Hugh Garside, Jr.

\_\_\_\_\_  
Richard Stensrud, Secretary