

# NEW JERSEY DIVISION OF INVESTMENT

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## ANNUAL MEETING

State Investment Council

January 30, 2019

*“The mission of the New Jersey Division of Investment is to achieve the best possible return at an acceptable level of risk using the highest fiduciary standards.”*

## Background: The New Jersey State Investment Council

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### New Jersey State Investment Council (the “Council”)

- **The State Investment Council is responsible for the formulation of policies that govern the investment of funds by the Division of Investment consistent with the fiduciary duties set forth by statute**
  - the Council provides fiduciary oversight for approximately \$90 billion in assets managed by the Division
  - the Pension Fund, with \$78 billion in assets, is the largest fund managed by the Division and overseen by the Council
    - 795,000 participants
    - 49% are still working and contributing to the Fund, 42% are retired, and 9% are active, non-contributing members
- **The State Investment Council is NOT responsible for:**
  - Funding Policy (plan contributions)
  - Benefits Policy (plan design)
  - Actuarial Activities (setting actuarial expected return)

## Background: The New Jersey Division of Investment

### New Jersey Division of Investment (the “Division”)

#### Division of Investment Net Assets Under Management

Assets as of 6/30/18 (\$millions)	
Pension Fund	\$78,186
Cash Management Fund (CMF) <sup>(1)</sup>	12,812
Deferred Compensation Program Funds (DCP)	577
NJ Best Funds (NJBEST)	316
Supplemental Annuity Collective Trust (SACT)	235
Trustee’s Support of Public School Fund (TSPSF)	152
<b>Total</b>	<b>\$89,996</b>

#### Division of Investment “At A Glance”

- 42nd largest global pension fund manager <sup>(2)</sup>
- 18<sup>th</sup> largest U.S. pension fund manager <sup>(2)</sup>
- 64 active employees with a \$9 million personnel budget
- during Fiscal Year 2018, the Division traded:
  - › 584 million shares of stock worth \$22.1 billion
  - › \$19.3 billion in fixed income securities <sup>(3)</sup>
  - › \$1.68 billion in foreign currency transactions
- during Fiscal Year 2018, the Pension Fund earned:
  - › \$943 million in stock dividends
  - › \$375 million in bond interest

#### MISSION STATEMENT

***“The mission of the New Jersey Division of Investment is to achieve the best possible return at an acceptable level of risk utilizing the highest fiduciary standards.”***

Note: All figures are as of June 30, 2018 unless otherwise noted.

(1) The total for the CMF includes \$2 billion held for and included in the totals for the Pension Fund, the DCP, NJBest, SACT, and TSPSF

(2) Source: *Pensions and Investments* as of December 31, 2018

(3) The total trades in fixed income securities include only the Pension Fund

## Pension Fund Annual Performance: Fiscal Years 2004-2018

	Pension Fund <sup>(1)</sup>	Policy Benchmark	Outperformance (in basis points)
FY 2004	14.16%	14.44%	-28
FY 2005	8.77%	8.07%	70
FY 2006	9.79%	8.13%	166
FY 2007	17.14%	16.49%	65
FY 2008	-2.61%	-6.00%	339
FY 2009	-15.49%	-14.76%	-73
FY 2010	13.34%	13.51%	-17
FY 2011	17.97%	17.03%	94
FY 2012	2.47%	0.26%	221
FY 2013	11.72%	10.96%	76
FY 2014	16.79%	15.79%	100
FY 2015	4.09%	2.93%	116
FY 2016	-0.93%	0.23%	-116
FY 2017	13.07%	13.14%	-7
FY 2018	9.06%	8.65%	41
<b>Annualized Returns</b>	<b>7.57%</b>	<b>6.88%</b>	<b>69</b>

Over the past fifteen years, the Pension Fund has outperformed its Policy Benchmark by 69 basis points (annualized)

(1) Throughout this presentation, Total Pension Fund returns exclude Police and Fire mortgage program

## Long-Term Capital Market Returns

### Annualized Returns for Periods Ending December 31, 2018 (%)

	One Year	Three Years	Five Years	Ten Years	Fifteen Years
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#### Global Equity Indices

MSCI ALL Country World Index	-9.42	6.59	4.26	9.45	6.19
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#### US Equity Indices

Russell 3000	-5.25	8.95	7.90	13.17	7.88
Russell 1000	-4.79	9.07	8.20	13.27	7.91
Russell 2000	-11.03	7.34	4.40	11.95	7.47
Russell Growth	-2.12	10.84	9.98	15.13	8.62
Russell Value	-8.59	6.99	5.75	11.11	7.01

#### Non-US Equity Indices

MSCI EAFE	-13.79	2.87	0.53	6.31	4.74
MSCI Emerging Markets	-14.57	9.24	1.65	8.02	7.90

## Long-Term Capital Market Returns (continued)

	Annualized Returns for Periods Ending December 31, 2018 <sup>(1)</sup> (%)				
	One Year	Three Years	Five Years	Ten Years	Fifteen Years
<b>Fixed Income Indices</b>					
Bloomberg Barclays Aggregate	0.01	2.05	2.52	3.48	3.86
Bloomberg Barclays U.S. Treasury	0.86	1.40	2.01	2.08	3.48
Bloomberg Barclays U.S. Credit	-2.11	3.16	3.21	5.52	4.55
Bloomberg Barclays U.S. High Yield	-2.08	7.22	3.83	11.12	6.99
<b>Commodities</b>					
Bloomberg Commodities Index	-12.99	-0.79	-9.41	-4.15	-3.71
<b>Private Equity</b>					
Cambridge Global Private Equity and VC Index	17.18	13.85	13.45	11.17	13.32
<b>Real Estate</b>					
NCREIF Property Index	7.16	7.76	9.57	6.42	8.28
Bloomberg REIT Index	-4.57	4.28	8.60	12.73	8.37

(1) Private Equity and Real Estate (NCREIF) returns are presented with a one quarter lag

Source: Bloomberg, Cambridge Associates, and National Council of Real Estate Investment Fiduciaries

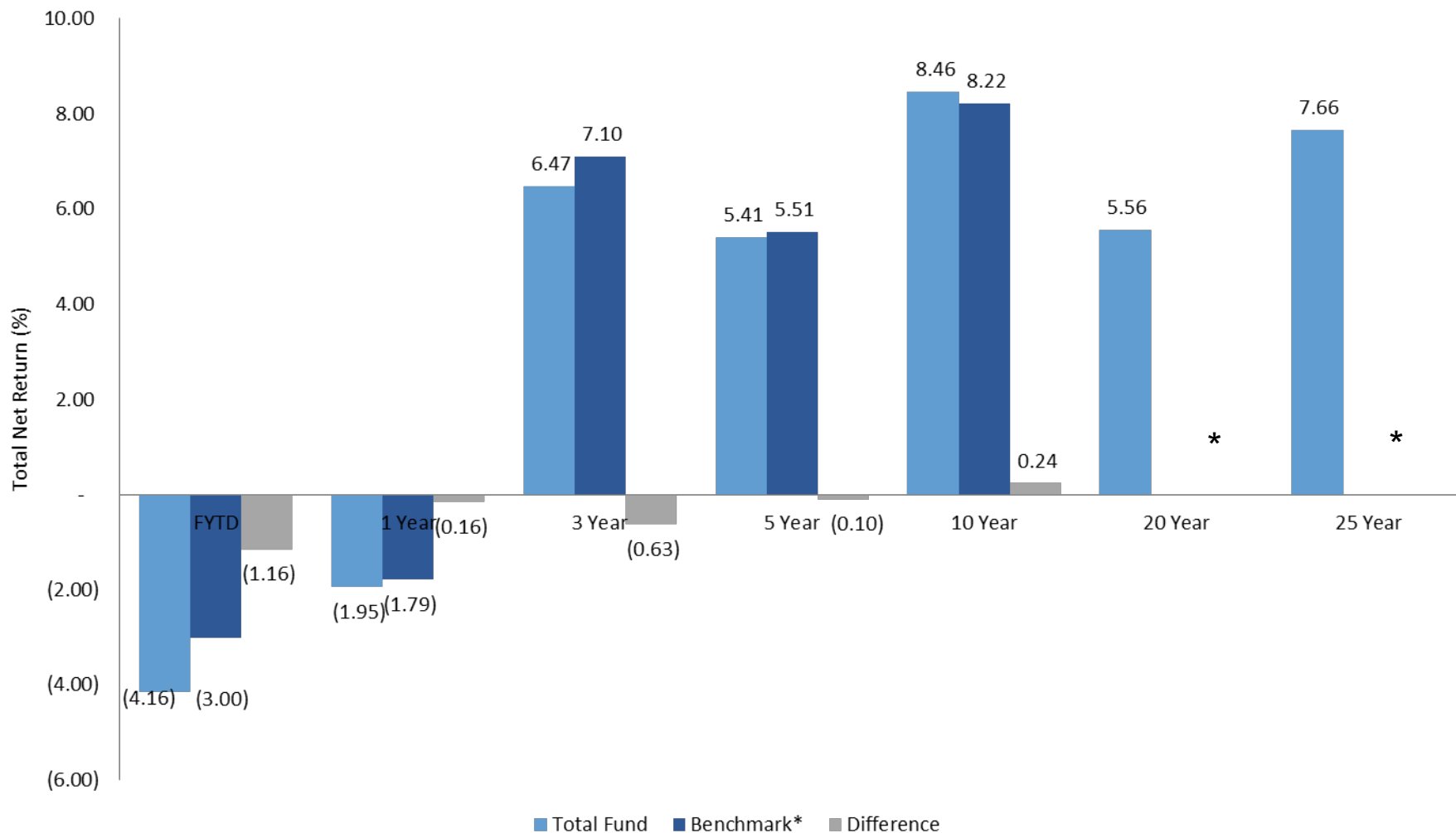
## Ten Year Periodic Table of Returns

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 <sup>(1)</sup>	2009 - 2018 <sup>(1)</sup>
EM 78.51	EM 18.88	Real Estate 14.27	EM 18.17	R3000 33.57	R3000 12.55	Real Estate 13.47	High Yield 17.13	EM 37.28	Private Equity 17.18	R3000 13.17
High Yield 58.21	Private Equity 18.77	Treasuries 9.81	EAFE 17.27	EAFE 22.78	Real Estate 11.81	U.S. Dollar 8.98	R3000 12.72	EAFE 25.03	Real Estate 7.16	Private Equity 11.17
EAFE 31.78	R3000 16.92	Corporates 8.35	R3000 16.37	Private Equity 20.05	U.S. Dollar 10.95	Private Equity 7.94	Commodities 11.40	R3000 21.12	U.S. Dollar 3.35	High Yield 11.12
R3000 28.29	Commodities 16.67	Private Equity 7.70	High Yield 15.77	Real Estate 10.99	Private Equity 10.25	Treasuries 0.84	EM 11.19	Private Equity 16.03	Treasuries 0.86	EM 8.02
Commodities 18.72	High Yield 15.12	High Yield 4.98	Private Equity 13.35	High Yield 7.44	Corporates 7.53	R3000 0.47	Real Estate 9.22	High Yield 7.50	High Yield -2.08	Real Estate 6.42
Private Equity 16.76	Real Estate 13.11	U.S. Dollar 1.83	Real Estate 10.54	U.S. Dollar 3.34	Treasuries 5.05	Corporates -0.77	Private Equity 8.51	Real Estate 6.89	Corporates -2.11	EAFE 6.31
Corporates 16.04	Corporates 8.47	R3000 1.03	Corporates 9.34	Corporates -2.01	High Yield 2.45	EAFE -0.81	Corporates 5.63	Corporates 6.18	R3000 -5.25	Corporates 5.52
Treasuries -3.57	EAFE 7.75	EAFE -12.14	Treasuries 1.99	EM -2.60	EM -2.19	High Yield -4.47	U.S. Dollar 2.82	Treasuries 2.31	Commodities -12.99	Treasuries 2.08
U.S. Dollar -4.76	Treasuries 5.87	Commodities -13.37	U.S. Dollar -0.70	Treasuries -2.75	EAFE -4.90	EM -14.92	Treasuries 1.04	Commodities 0.75	EAFE -13.79	U.S. Dollar 1.40
Real Estate -16.86	U.S. Dollar -1.79	EM -18.42	Commodities -1.14	Commodities -9.58	Commodities -17.04	Commodities -24.70	EAFE 1.00	U.S. Dollar -8.52	EM -14.57	Commodities -4.15

Over the past decade, U.S. Equities were the best performing asset class as equity returns quadrupled from trough to peak following the lows of the financial crisis. The wide variation of returns amongst asset classes in each of the past ten years demonstrates the important role of diversification in asset allocation.

(1) 2018 Private Equity (PE) and Real Estate (RE) returns reflect one year ended 9/30/18; 2009-2018 PE and RE returns reflect ten years ended 9/30/18  
Source: Bloomberg, Cambridge Associates, and National Council of Real Estate Investment Fiduciaries

## Pension Fund<sup>(1)</sup> Net Returns for Periods Ending December 31, 2018



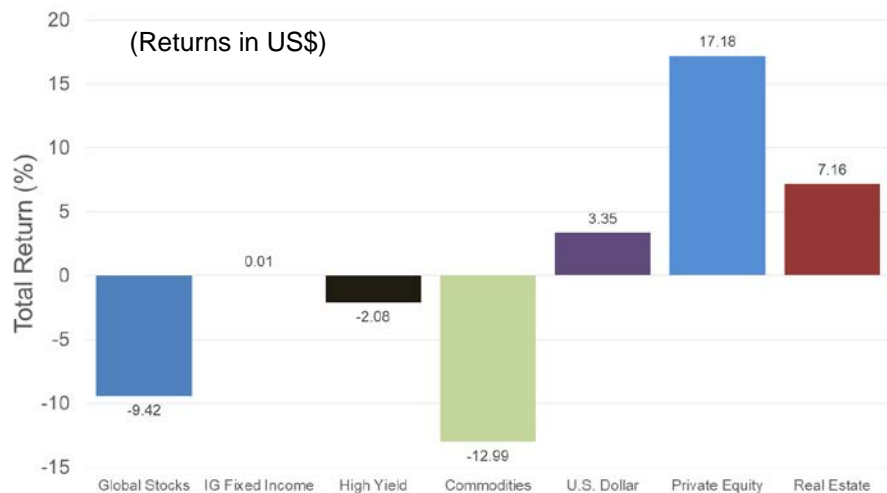
(1) Total Pension Fund returns exclude Police and Fire mortgage program, are unaudited, and are net of all fees. Both the Fund and Benchmark returns are based on preliminary values.

\* Benchmark return not available for 20 and 25-Year period

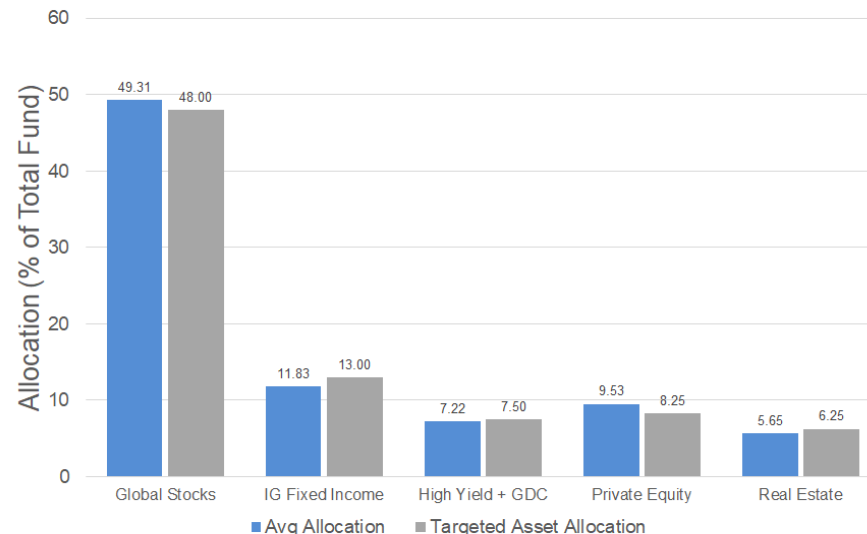


## Calendar Year 2018 Capital Markets Review: Multi-Asset Class Returns

### 2018 Select Capital Market Returns <sup>(1)</sup>



### 2018 Pension Fund Asset Allocation



During 2018, most public market indices realized negative returns. In this environment, Global Stocks (-9.42%) underperformed while IG Fixed Income (+0.01%) returns were flat. Private Equity (+17.18%) and Real Estate (+7.16%) outperformed.

The Pension Fund maintained a modestly above targeted allocation to Global Stocks on balance during 2018. During the December quarter, the Fund was below its targeted allocation to Global Stocks. The above target allocation to Private Equity benefited relative returns.

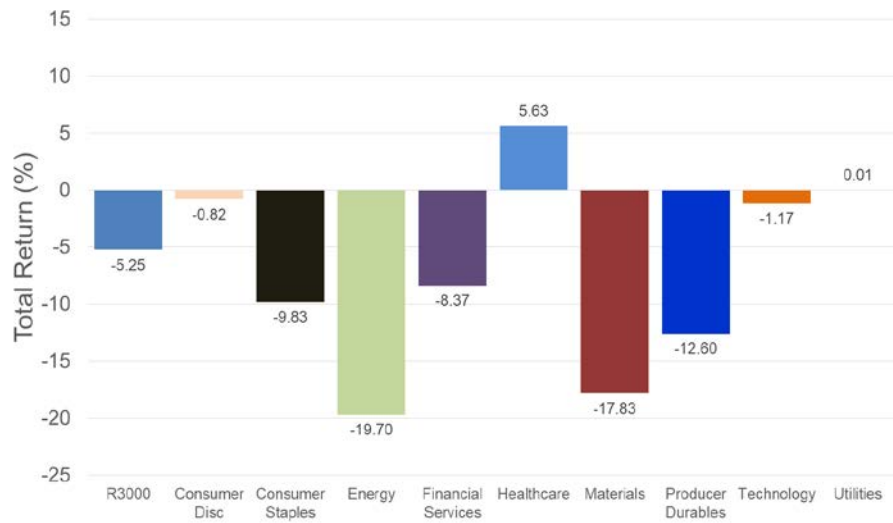
During 2018, financial market returns were weak, led lower by negative returns in Global Stocks. Private Equity and Real Estate realized attractive returns on an absolute and relative basis.

(1) Private Equity (PE) and Real Estate (RE) returns reflect one year ended 9/30/18

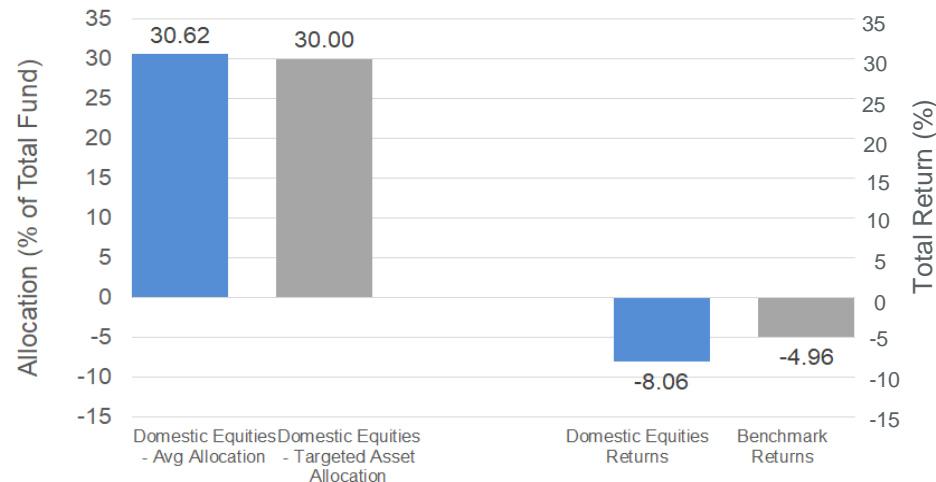
Source: Bloomberg, Cambridge Associates, National Council of Real Estate Investment Fiduciaries, and State Street

## Calendar Year 2018 Capital Markets Review: US Equity Sector Returns

### 2018 Select Capital Market Returns



### 2018 Pension Fund Asset Allocation and Returns



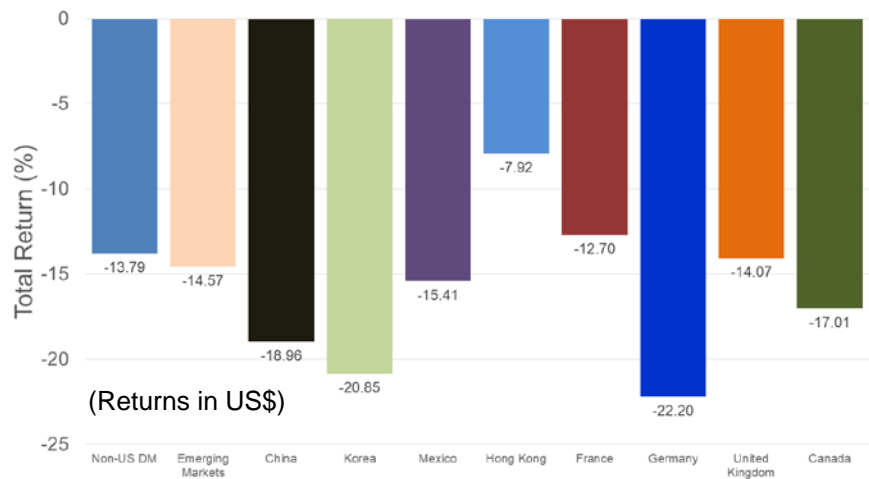
During 2018, U.S. Equities (-5.25%) realized their worst returns since the financial crisis, with Healthcare (+5.63%) representing the only sector with positive returns. Energy (-19.70%) was the worst performing sector as WTI crude oil declined by 20% over the past year.

During 2018, the Pension Fund maintained an allocation to U.S. Equities broadly in line with the targeted allocation. Relative returns within the U.S. Equities portfolio were adversely impacted by a more value-oriented investment approach as growth stocks outperformed.

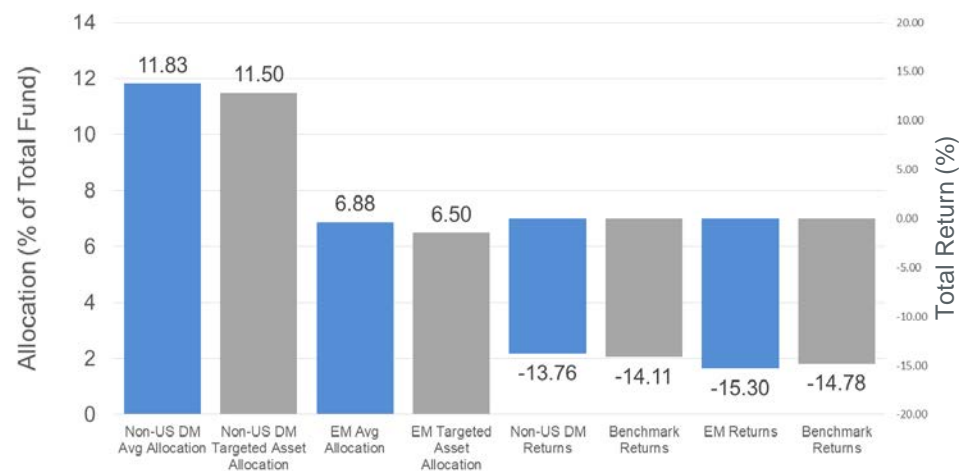
**U.S. Equities realized negative returns during 2018, while outperforming the global equity marketplace. This marked the first year of negative returns for U.S. Equities since 2008.**

## Calendar Year 2018 Capital Markets Review: International Equity Returns

### 2018 Select Capital Market Returns



### 2018 Pension Fund Asset Allocation and Returns



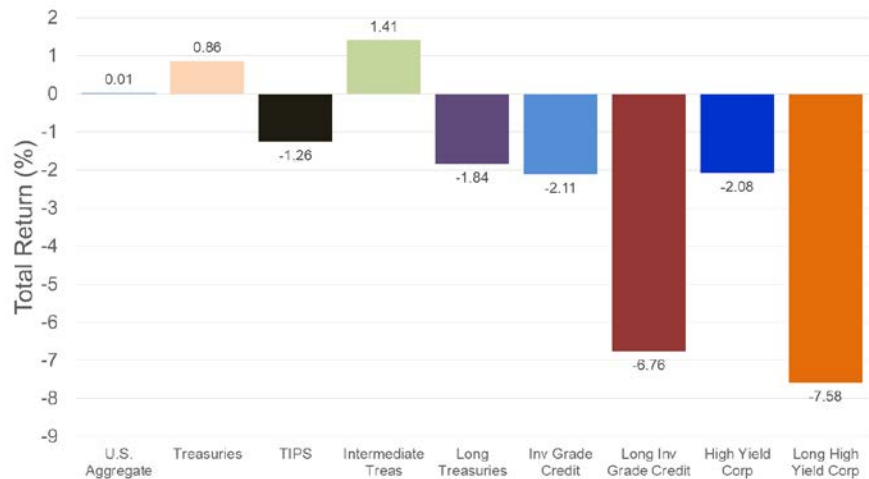
During 2018, Emerging markets (EM) were the worst performing subsector of the global equity market, following a year in which EM was the best performing subsector. EM underperformed Developed Markets (DM) by 78 basis points (-14.57% vs. -13.79%) as concerns related to growth in China and trade disputes adversely impacted returns.

On balance, the Pension Fund's modestly above targeted allocation to EM and DM adversely impacted returns. Relative returns within the DM portfolio added value. Relative returns within the EM portfolio improved during the second half of 2018 following a restructuring of the EM Equity Adviser Program.

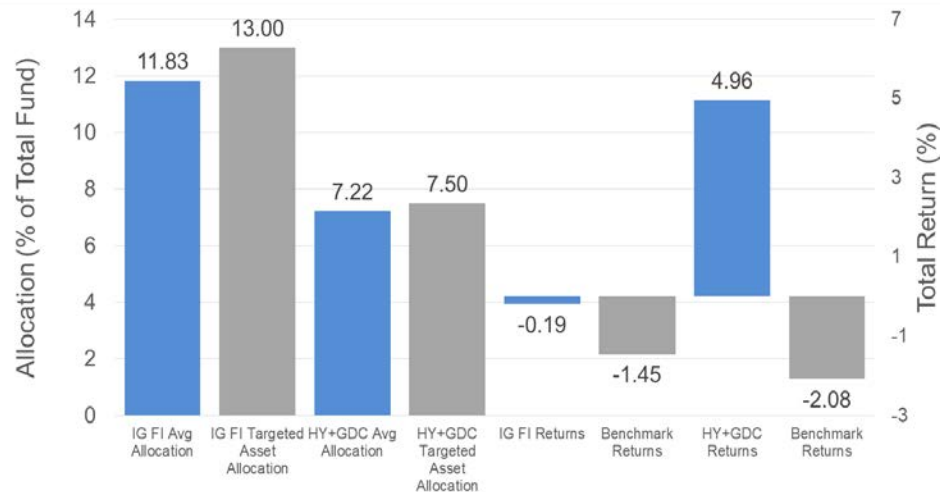
**Emerging Market and Non-U.S. Developed Market Equities were the worst performers within Global Equities during 2018.**

## Calendar Year 2018 Capital Markets Review: Fixed Income Returns

### 2018 Select Capital Market Returns



### 2018 Pension Fund Asset Allocation and Returns

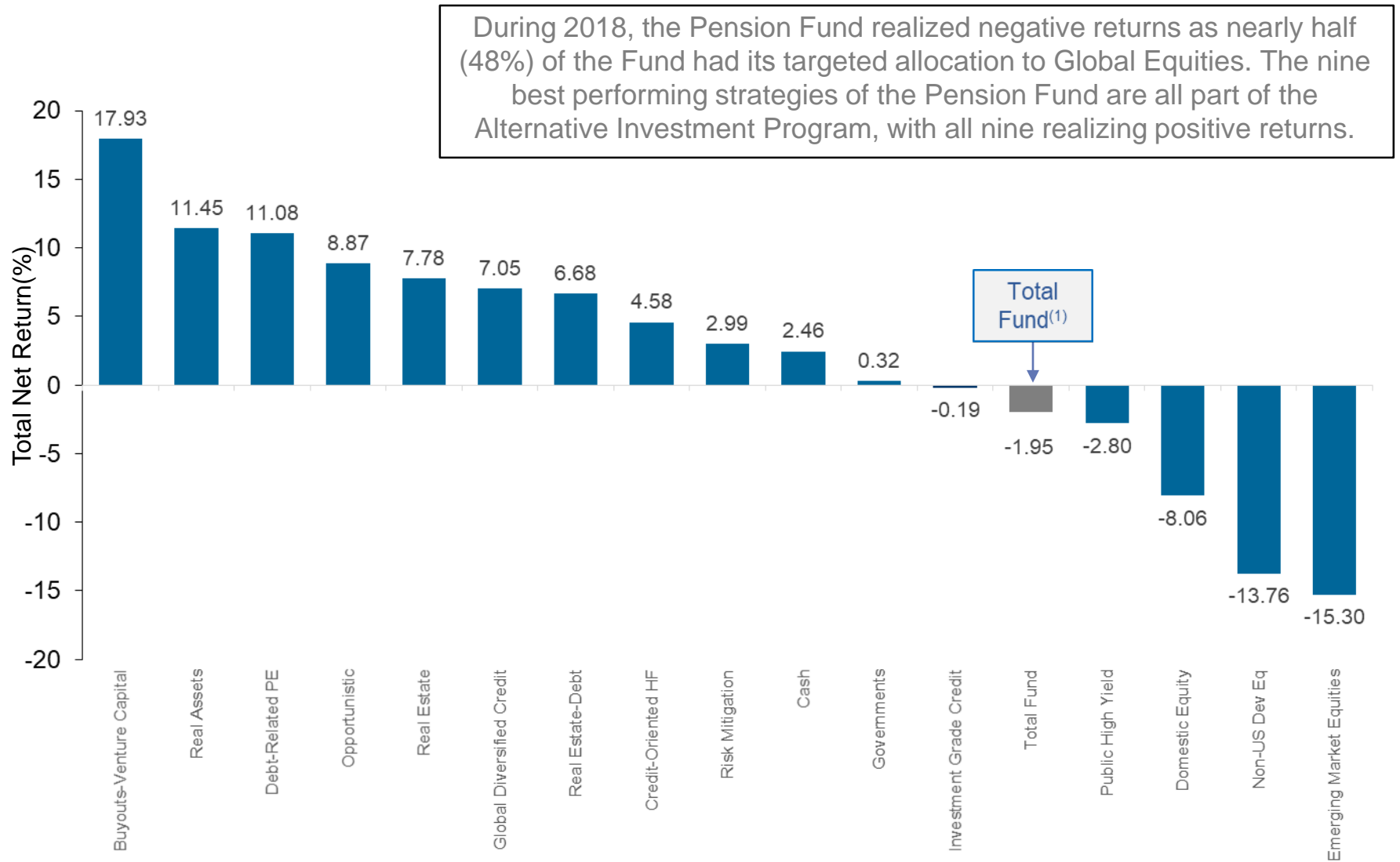


Fixed income returns (+0.01%) were broadly unchanged over the past year. During 2018, longer duration fixed income securities underperformed in a rising rate environment. Lower quality credit also underperformed as High Yield returned -2.08%. Credit spread widening adversely impacted longer dated securities with Long U.S. Credit and Long High Yield returning -6.76% and -7.58%, respectively.

The Pension Fund maintained a modestly below targeted allocation to Fixed Income during 2018 as interest rates continued to move higher. The below targeted allocation to High Yield and the above targeted allocation to Global Diversified Credit (GDC) benefitted the Pension Fund as GDC outperformed.

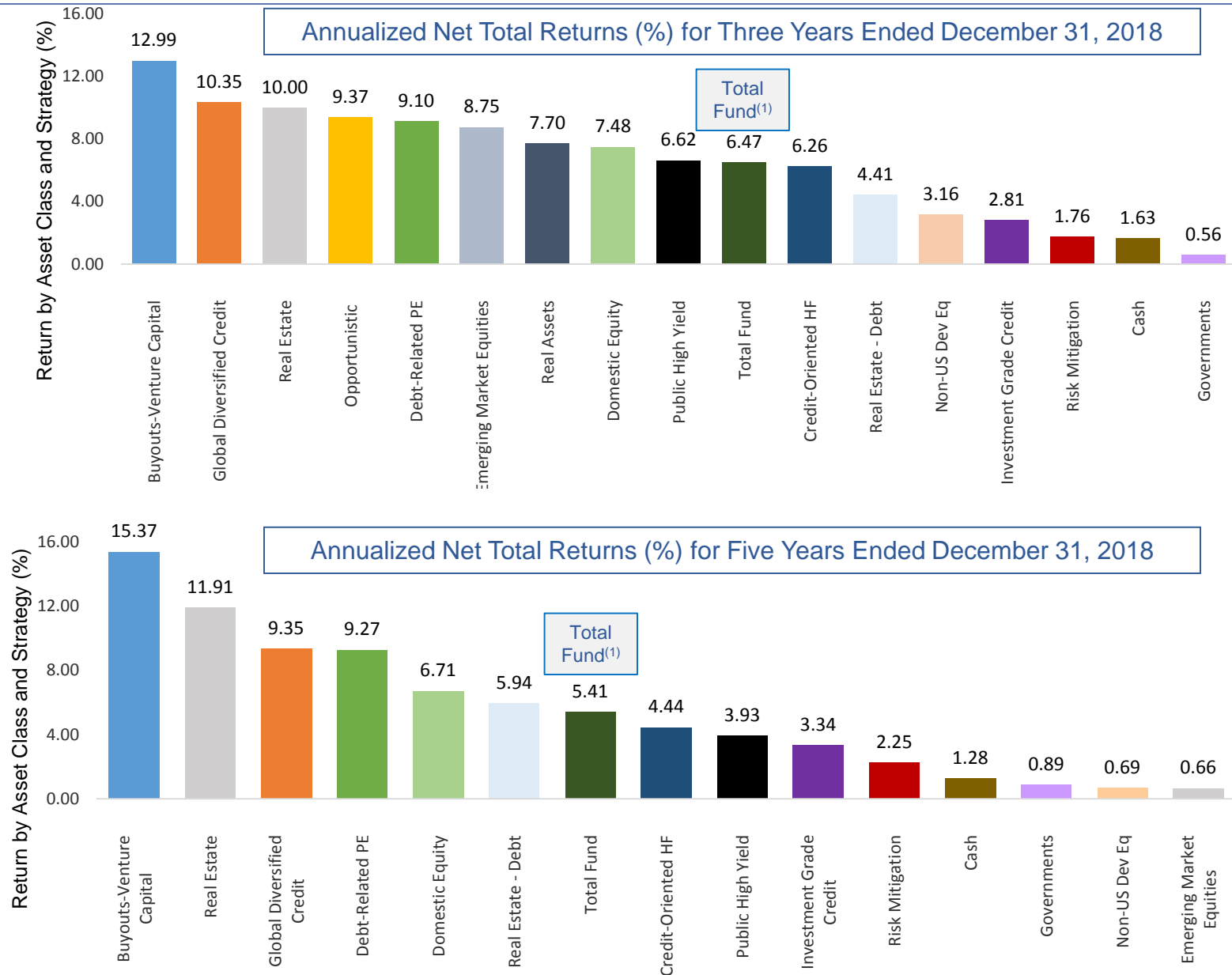
Over the past year, longer duration and lower quality fixed income securities underperformed as yields rose and credit spreads widened.

## Pension Fund Net Returns<sup>(1)</sup> By Asset Class and Strategy: Calendar Year 2018



(1) Returns are net of all fees and unaudited. Pension Fund return excludes Police and Fire Mortgage Program

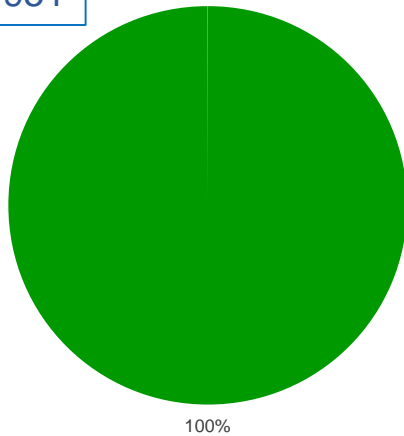
## Pension Fund Three and Five Year Net Returns<sup>(1)</sup> By Asset Class and Strategy



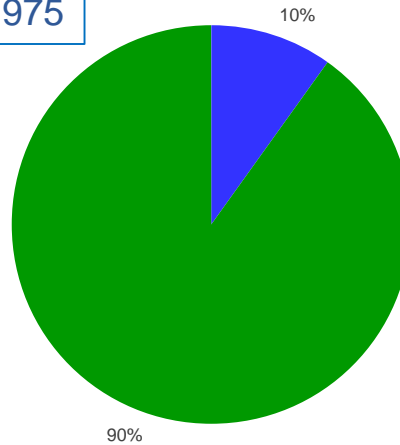
(1) Returns are net of all fees and unaudited. Pension Fund return excludes Police and Fire Mortgage Program

## Pension Fund Asset Allocation: A Long-Term Perspective

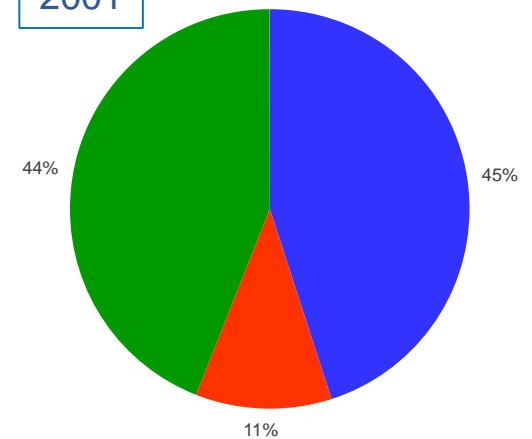
1951



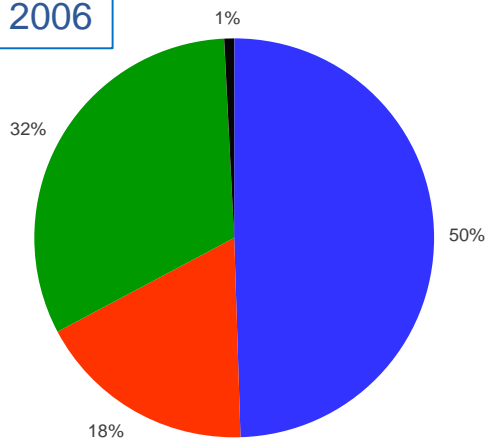
1975



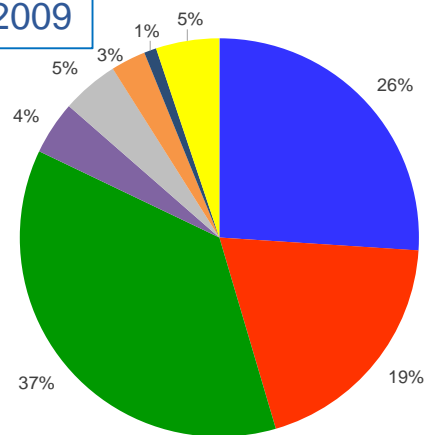
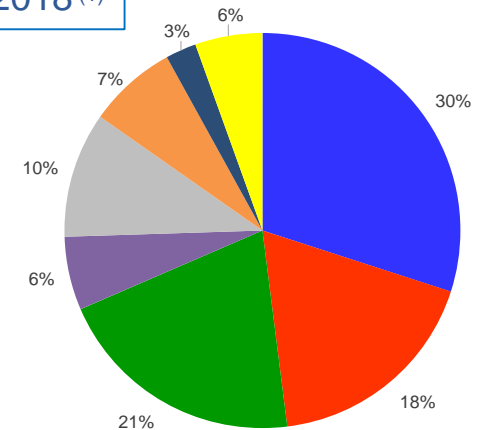
2001



2006



2009

2018<sup>(1)</sup>

■ Domestic Equity ■ International Equity ■ Fixed Income ■ Hedge Funds ■ Private Equity ■ Real Estate ■ Real Assets ■ Cash ■ Alternative Investment Program

The well diversified Pension Fund asset allocation has evolved over a period of decades from a portfolio comprised solely of fixed income securities.

(1) 2018 reflects the Council's current targeted asset allocation

## Pension Fund Asset Allocation: Recent Trends in the Targeted Asset Allocation

Asset Class	FY 2013 Target	FY 2014 Target	FY 2015 Target	FY 2016 Target	FY 2017 Target	FY 2018 Target
<b>RISK MITIGATION</b>	<b>4.00%</b>	<b>4.50%</b>	<b>4.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>
Absolute Return HF's	4.00%	4.50%	4.00%	5.00%	5.00%	5.00%
<b>LIQUIDITY</b>	<b>6.50%</b>	<b>9.50%</b>	<b>8.25%</b>	<b>8.00%</b>	<b>8.50%</b>	<b>8.50%</b>
Cash Equivalents	1.50%	6.00%	5.00%	5.00%	5.50%	5.50%
TIPS	2.50%	2.50%	1.50%	1.50%	-	-
US Treasuries	2.50%	1.00%	1.75%	1.50%	3.00%	3.00%
<b>INCOME</b>	<b>26.00%</b>	<b>24.20%</b>	<b>22.60%</b>	<b>21.75%</b>	<b>21.50%</b>	<b>21.50%</b>
Investment Grade Credit	13.00%	11.20%	10.00%	8.00%	10.00%	10.00%
High Yield	6.00%	5.50%	2.00%	2.00%	2.50%	2.50%
Global Diversified Credit	--	--	3.50%	5.00%	5.00%	5.00%
Credit-Oriented HF's	4.00%	3.75%	4.00%	3.75%	1.00%	1.00%
Debt-Related PE	1.50%	1.25%	1.00%	1.00%	2.00%	2.00%
Debt Related Real Estate	--	1.30%	1.00%	0.80%	1.00%	1.00%
P&F Mortgage	1.50%	1.20%	1.10%	1.20%	-	-
<b>REAL RETURN</b>	<b>9.50%</b>	<b>5.70%</b>	<b>7.25%</b>	<b>7.75%</b>	<b>8.75%</b>	<b>8.75%</b>
Commodities	4.00%	2.50%	1.00%	0.50%	-	-
Private Real Assets	--	--	2.00%	2.00%	2.50%	2.50%
Equity Related Real Estate	5.50%	3.20%	4.25%	5.25%	6.25%	6.25%
<b>GLOBAL GROWTH</b>	<b>54.00%</b>	<b>56.10%</b>	<b>57.90%</b>	<b>57.50%</b>	<b>56.25%</b>	<b>56.25%</b>
US Equity	23.80%	25.90%	27.25%	26.00%	30.00%	30.00%
Non-US Dev Market Eq	12.50%	12.70%	12.00%	13.25%	11.50%	11.50%
Emerging Market Eq	7.00%	6.50%	6.40%	6.50%	6.50%	6.50%
Buyouts/Venture Cap	6.20%	7.00%	8.25%	8.00%	8.25%	8.25%
Equity-Oriented HF's	4.50%	4.00%	4.00%	3.75%	-	-



## Division of Investment Update: 2018 Year in Review and 2019 Key Goals and Initiatives

### The Division worked with the Environmental, Social, and Governance (ESG) Committee to jointly develop an ESG Policy that was approved by the Council

- **the new ESG Policy is consistent with the Division's fiduciary responsibilities**
  - ESG considerations are integrated into all asset classes and investment analysis, including both active and passive investments

### The Division is focused on implementation of P.L. 2018, c.55 (the "Act") which provides for the transfer of oversight of the Police and Firemen's Retirement System ("PFRS") from the Council to a newly constituted PFRS Board

- **the Division will be presenting proposed amendments to the Council Regs that are necessary for implementation of the Act**
- **the Division continues to work closely with the Fund's custodian bank to meet all operational requirements**

### The Division is engaged in a multi-year review and refresh of its information technology, trading, reporting and risk analytics capabilities

- **the long-term objective of the initiative is to ensure the Division's entire front, middle and back-office IT infrastructure is consistent with best practices**
  - the Division expects to benefit from enhancements to trade order management, risk management, compliance, portfolio analytics, and performance attribution systems

### The Division will be working with its team of investment consultants on the development of a formal Asset Allocation Study during the first half of 2019

- **this follows completion of an Asset-Liability study conducted by Aon Hewitt in 2018**
  - a key conclusion of the study was that the Council's targeted asset allocation and level of risk was appropriate based on the Pension Fund's liabilities and financial profile

### The Division is working towards filling key staffing roles following the departure of senior investment professionals

- the Division thanks Chris McDonough for his countless contributions as Director
- the Division thanks Amanda Truppa for all of her contributions during this transition period
- the Division thanks Linda Brooks, Cindy Everett, Manick Jhingade, Rosetta Muccie, and Tim Patton for their years of dedicated service and wishes them the very best in their retirement
- the Division welcomes Richmond Akumiah, April Brogle, Jesse Delgado, Lynn Jahn, Brian Mladenetz, and Ting Yang