

# NEW JERSEY DIVISION OF INVESTMENT

## Director's Report

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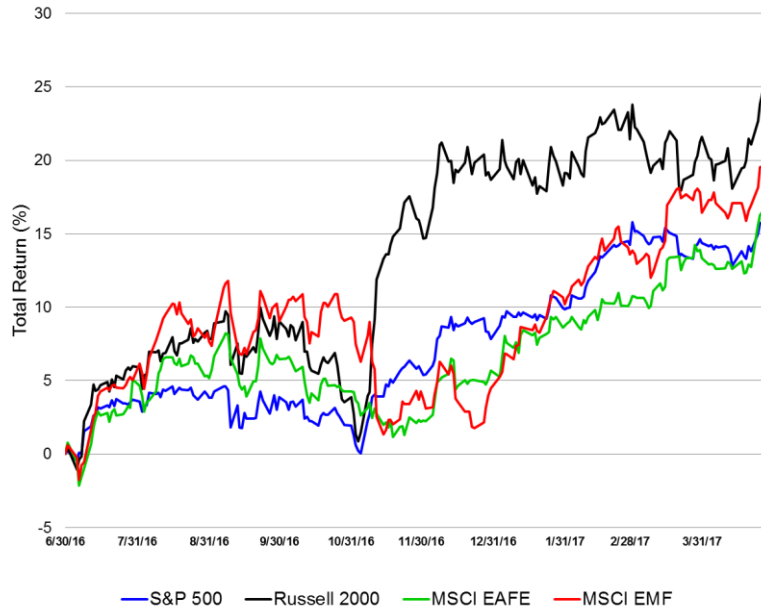
May 24, 2017

State Investment Council Meeting

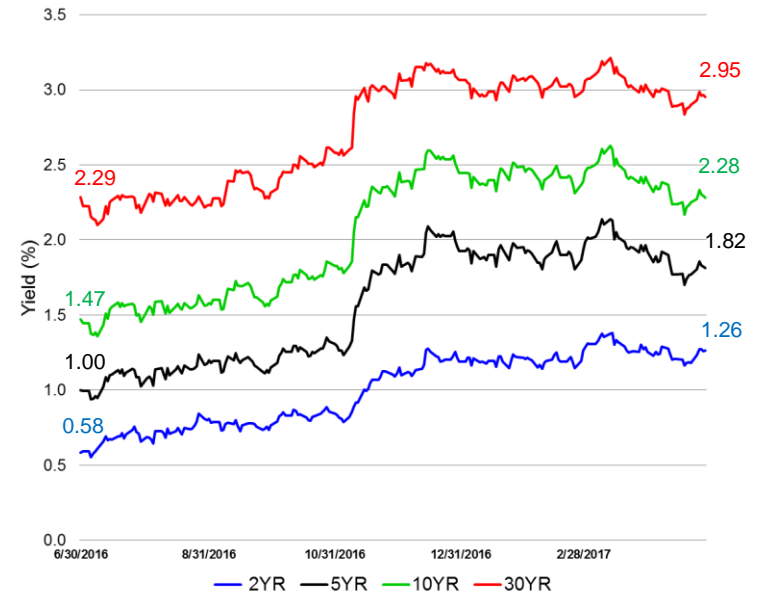
*“The mission of the New Jersey Division of Investment is to achieve the best possible return at an acceptable level of risk using the highest fiduciary standards.”*

# Capital Markets Update (through April 30, 2017)

## Fiscal Year 2017 Equity Market Returns



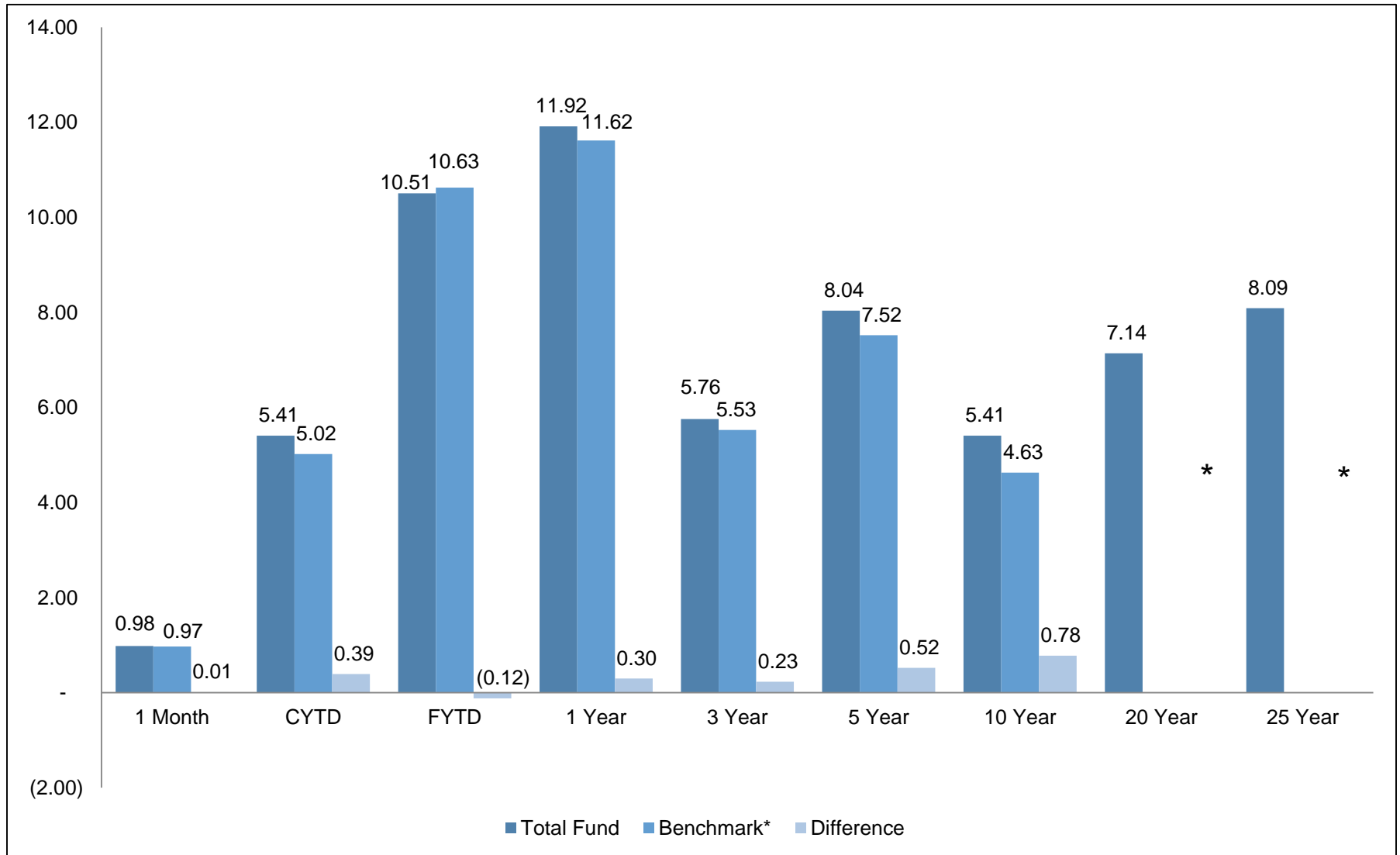
## Fiscal Year 2017 U.S. Treasury Yields



	April 30, 2017	MTD %	CYTD%	FYTD %	1 Yr %	3 Yrs %	5 Yrs %	10 Yrs %	
<b>Domestic Equity</b>	S&P 500	1.03	7.16	15.53	17.91	10.47	13.67	7.15	1
	Russell 2000	1.10	3.58	22.91	25.60	9.02	12.95	7.03	2
<b>International Equity</b>	MSCI EAFE	2.54	9.97	16.22	11.29	0.86	6.78	0.87	3
	MSCI EMF	2.19	13.88	18.99	19.14	1.79	1.49	2.47	4
<b>Bond</b>	Barclays Agg	0.77	1.59	(0.98)	0.83	2.66	2.27	4.30	5
	Barclays HY	1.15	3.89	11.57	13.30	4.74	6.84	7.44	6
	Barclays US Tips	0.59	1.86	0.37	1.73	1.77	0.69	4.22	7
<b>Commodity</b>	Bloomberg	(1.57)	(4.00)	(5.44)	(1.76)	(15.21)	(9.87)	(6.98)	8
<b>Real Estate</b>	Bloomberg REIT	0.56	3.37	(0.56)	8.84	9.70	9.84	4.99	9
<b>Hedge Funds</b>	HFRI Composite Index*	0.59	3.09	7.40	8.24	3.13	4.28	3.20	10

\*Preliminary

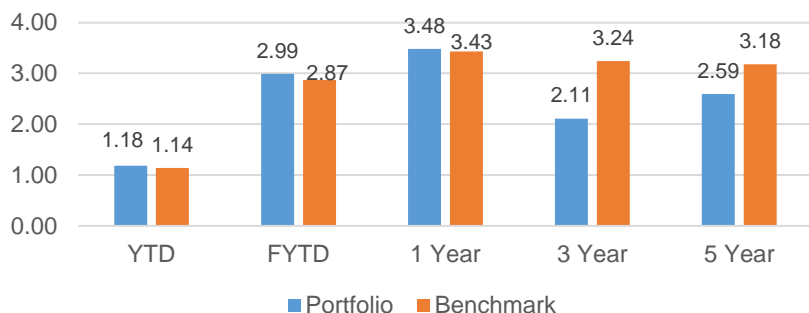
## Total Fund<sup>(1)</sup> Performance For Periods Ended April 30, 2017



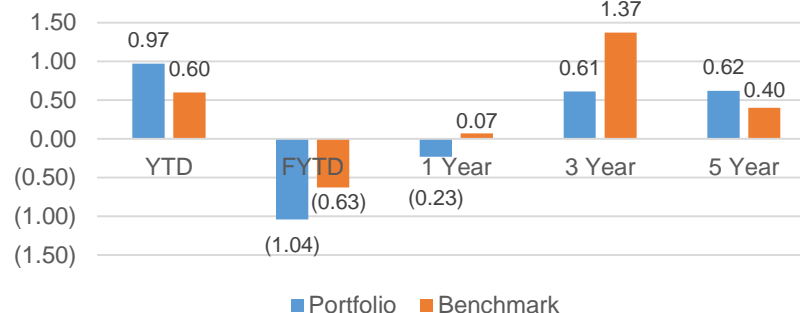
\*Benchmark return not available for 20 and 25-Year period; the 1Q17 return for the Private Equity component of the Total Policy Benchmark was unavailable at the time of this report.

<sup>1</sup> Total Fund Performance excludes Police & Fire Mortgage Program

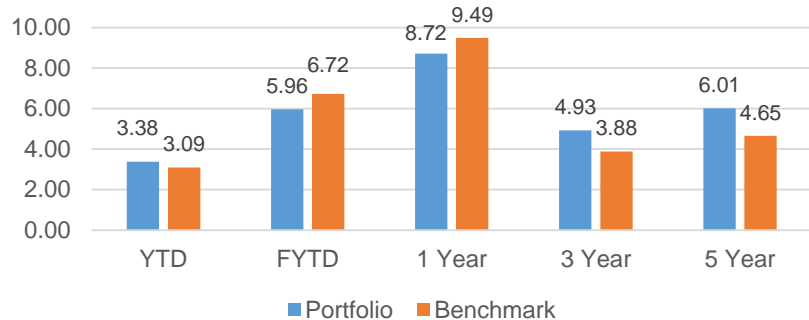
## Risk Mitigation



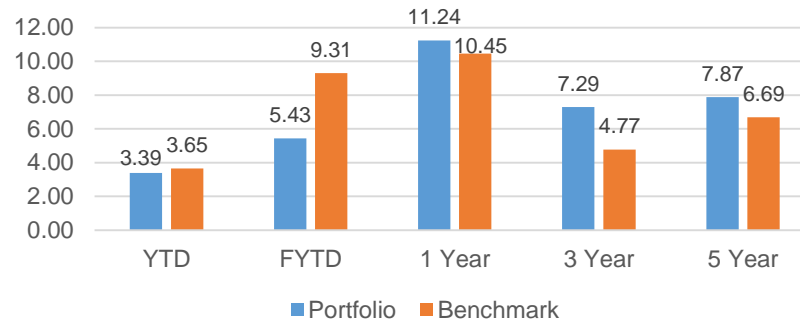
## Liquidity



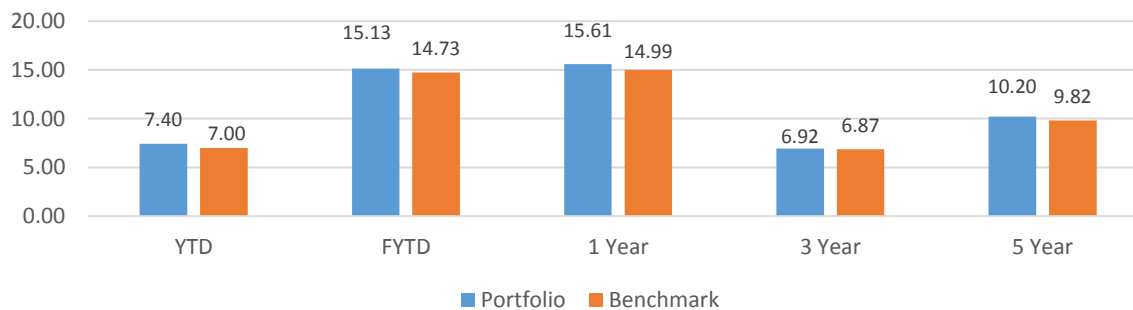
## Income



## Real Return



## Global Growth



\* The 1Q17 return for the Private Equity component of the Global Growth Benchmark was unavailable at the time of this report.

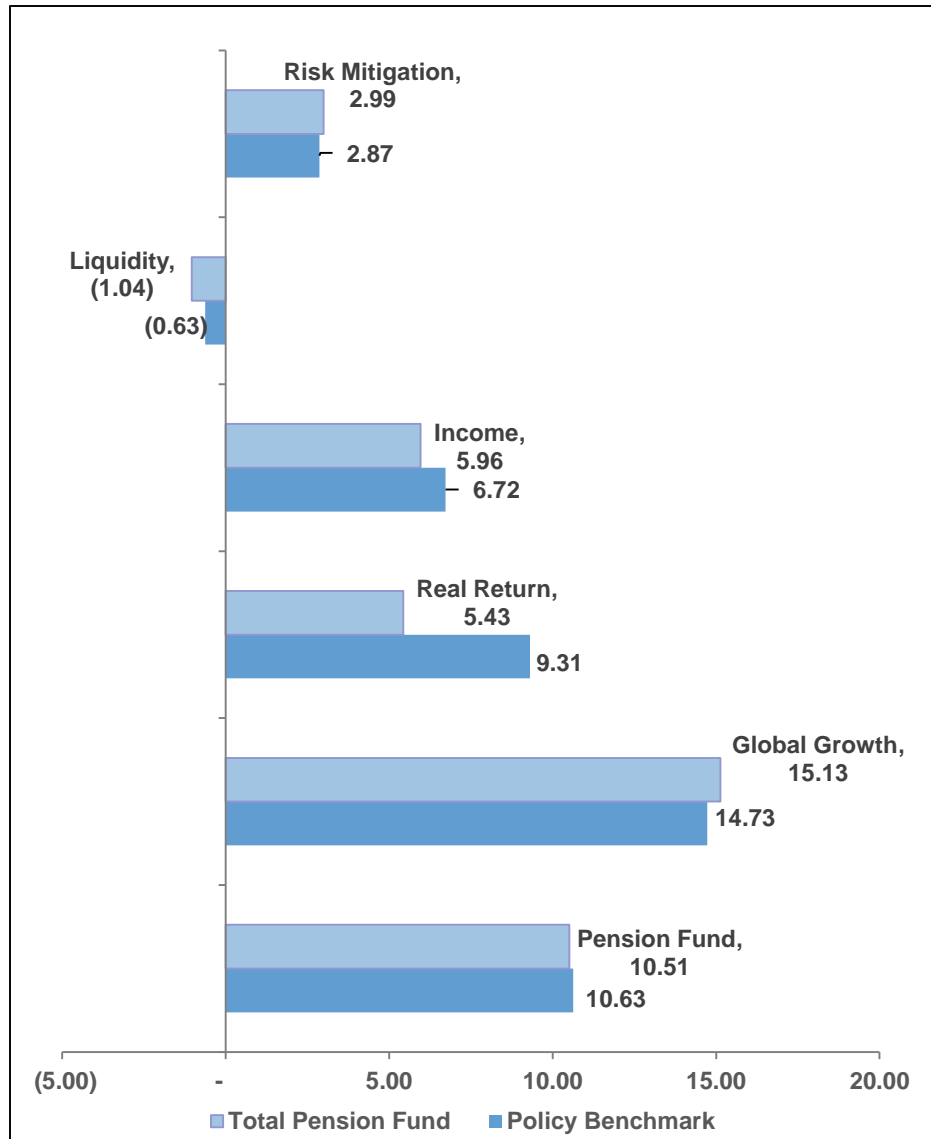
Asset Class	ASSET ALLOCATION <sup>(1)</sup>				PERFORMANCE (for periods ending April 30, 2017) <sup>(2)</sup>							
	As of April 30, 2017				Calendar YTD		FYTD		Trailing Twelve Months		Trailing Three Years	
	Mkt Value	Actual (%)	Target (%)	Difference	NJ	Bench	NJ	Bench	NJ	Bench	NJ	Bench
<b>RISK MITIGATION</b>												
Absolute Return HFs	2,942	4.00%	5.00%	-1.00%	1.18%	1.14%	2.99%	2.87%	3.48%	3.43%	2.11%	3.24%
Risk Mitigation Hedging	196	0.27%	0.00%	0.27%								
<b>TOTAL RISK MITIGATION</b>	<b>3,138</b>	<b>4.26%</b>	<b>5.00%</b>	<b>-0.74%</b>	<b>1.18%</b>	<b>1.14%</b>	<b>2.99%</b>	<b>2.87%</b>	<b>3.48%</b>	<b>3.43%</b>	<b>2.11%</b>	<b>3.24%</b>
<b>LIQUIDITY</b>												
Cash Eqv	3,086	4.19%	5.50%	-1.31%	0.35%	0.17%	0.91%	0.35%	1.21%	0.40%	1.06%	0.19%
Short Term	1,256	1.71%	0.00%	1.71%	0.44%	0.17%	0.94%	0.35%	1.13%	0.40%	0.60%	0.19%
TIPS	370	0.50%	0.00%	0.50%	2.28%	1.37%	-0.33%	-2.10%	0.90%	-0.72%	0.95%	1.48%
US Treasuries	1,318	1.79%	3.00%	-1.21%	1.88%	1.37%	-4.41%	-2.79%	-2.63%	-0.65%	1.08%	2.32%
<b>TOTAL LIQUIDITY</b>	<b>6,030</b>	<b>8.19%</b>	<b>8.50%</b>	<b>-0.31%</b>	<b>0.97%</b>	<b>0.60%</b>	<b>-1.04%</b>	<b>-0.63%</b>	<b>-0.23%</b>	<b>0.07%</b>	<b>0.61%</b>	<b>1.37%</b>
<b>INCOME</b>												
Investment Grade Credit	7,140	9.70%	10.00%	-0.30%	2.13%	1.88%	0.13%	-0.17%	1.98%	2.06%	3.54%	3.12%
Public High Yield	1,521	2.07%	2.50%	-0.43%	4.08%	3.89%	11.35%	11.57%	12.76%	13.30%	4.98%	4.74%
Global Diversified Credit	3,402	4.62%	5.00%	-0.38%	5.35%	3.89%	13.35%	11.57%	18.48%	13.30%	8.96%	4.74%
Credit-Oriented HFs	1,981	2.69%	1.00%	1.69%	4.64%	4.62%	10.74%	12.70%	15.64%	17.44%	3.65%	2.30%
Debt-Related PE	698	0.95%	2.00%	-1.05%	0.81%	4.23%	5.05%	17.85%	6.43%	24.42%	6.88%	8.11%
Debt Related Real Estate	435	0.59%	1.00%	-0.41%	2.57%	2.39%	-0.16%	7.02%	-1.39%	14.39%	4.29%	7.56%
<b>TOTAL INCOME</b>	<b>15,178</b>	<b>20.62%</b>	<b>21.50%</b>	<b>-0.88%</b>	<b>3.38%</b>	<b>3.09%</b>	<b>5.96%</b>	<b>6.72%</b>	<b>8.72%</b>	<b>9.49%</b>	<b>4.93%</b>	<b>3.88%</b>
<b>REAL RETURN</b>												
Commodities	190	0.26%	0.00%	0.26%	1.78%	-3.80%	-1.76%	-5.06%	7.81%	-1.32%		
Private Real Assets	1,895	2.58%	2.50%	0.08%	3.38%	8.06%	10.41%	20.38%	17.55%	17.85%		
Equity Related Real Estate	3,905	5.31%	6.25%	-0.94%	3.36%	1.88%	3.81%	5.72%	8.70%	7.79%	12.23%	11.04%
<b>TOTAL REAL RETURN</b>	<b>5,990</b>	<b>8.14%</b>	<b>8.75%</b>	<b>-0.61%</b>	<b>3.39%</b>	<b>3.65%</b>	<b>5.43%</b>	<b>9.31%</b>	<b>11.24%</b>	<b>10.45%</b>	<b>7.29%</b>	<b>4.77%</b>
<b>GLOBAL GROWTH</b>												
US Equity	21,535	29.26%	30.00%	-0.74%	7.22%	6.81%	17.62%	15.85%	19.40%	18.30%	9.31%	10.46%
Non-US Dev Market Eq	8,360	11.36%	11.50%	-0.14%	9.72%	9.16%	14.91%	15.53%	10.98%	10.74%	0.94%	0.70%
Emerging Market Eq	4,797	6.52%	6.50%	0.02%	14.07%	14.10%	18.68%	19.03%	19.76%	19.39%	1.26%	2.02%
Buyouts/Venture Cap	6,815	9.26%	8.25%	1.01%	1.77%	0.00%	5.83%	6.58%	8.03%	6.83%	13.84%	7.85%
Equity-Oriented HFs	1,125	1.53%	0.00%	1.53%	5.24%	3.84%	14.02%	10.47%	13.89%	12.13%	2.19%	4.46%
<b>TOTAL GLOBAL GROWTH</b>	<b>42,632</b>	<b>57.93%</b>	<b>56.25%</b>	<b>1.68%</b>	<b>7.40%</b>	<b>7.00%</b>	<b>15.13%</b>	<b>14.73%</b>	<b>15.61%</b>	<b>14.99%</b>	<b>6.92%</b>	<b>6.87%</b>
<b>OTHER</b>												
OPPORTUNISTIC PE	290	0.39%			2.58%		5.60%		6.42%			
OTHER	338	0.46%										
<b>TOTAL FUND <sup>(3)</sup></b>	<b>73,596</b>	<b>100.00%</b>			<b>5.41%</b>	<b>5.02%</b>	<b>10.51%</b>	<b>10.63%</b>	<b>11.92%</b>	<b>11.62%</b>	<b>5.76%</b>	<b>5.53%</b>
				S&P 500	7.16%		15.53%		17.91%		10.47%	
				Russell 2000	3.58%		22.91%		25.60%		9.02%	
				MSCI EAFE	9.97%		16.22%		11.29%		0.86%	
				MSCI EMF	13.88%		18.99%		19.14%		1.79%	
				Barclays Agg	1.59%		-0.98%		0.83%		2.66%	
				Barclays HY	3.89%		11.57%		13.30%		4.74%	
				Bloomberg Commodities	-4.00%		-5.44%		-1.76%		-15.21%	
				Bloomberg REIT	3.37%		-0.56%		8.84%		9.70%	
				HFRI	3.09%		7.40%		8.24%		3.13%	

<sup>1</sup> Current assets do not include receivables of \$257 million related to Real Estate secondary sale

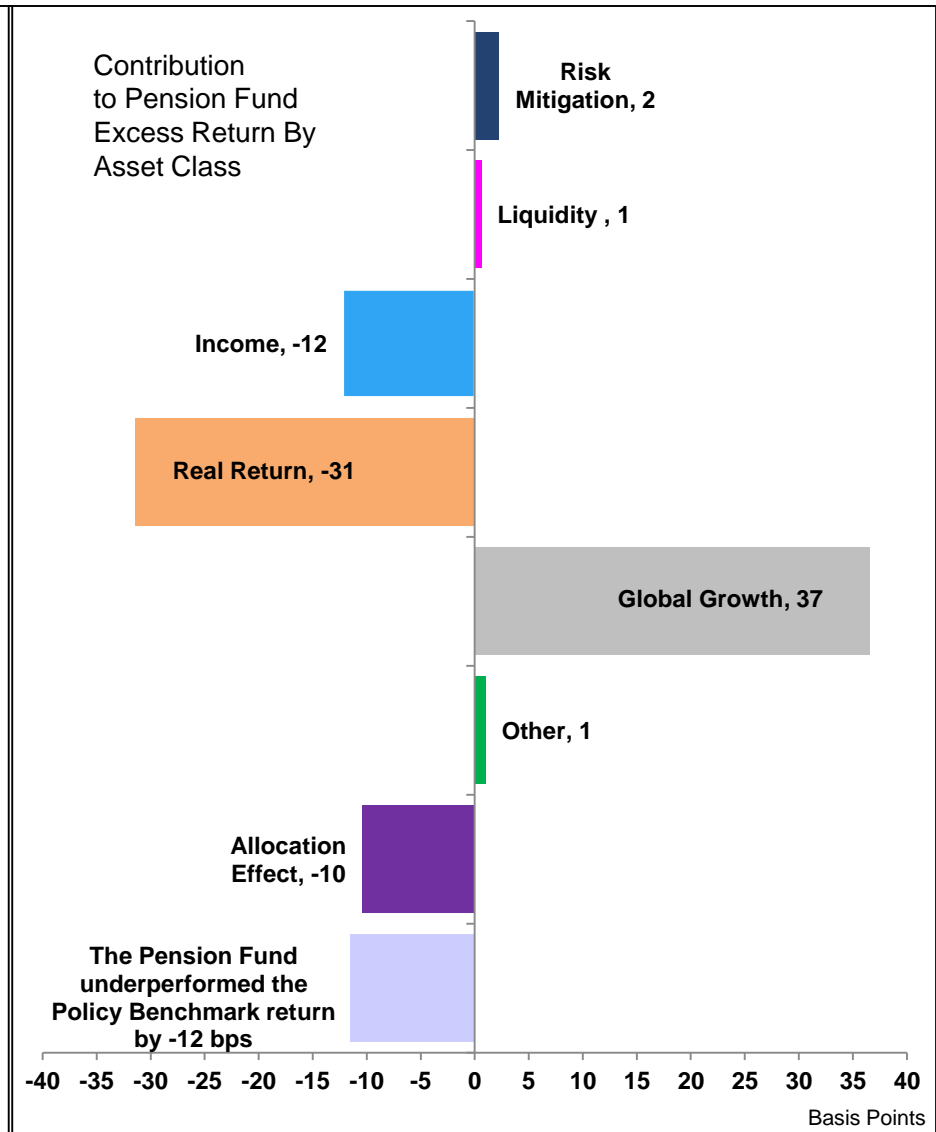
<sup>2</sup> The 1Q17 return for the Private Equity component of the Global Growth and Total Policy Benchmark was unavailable at the time of this report.

<sup>3</sup> Total Fund Performance excludes Police & Fire Mortgage Program

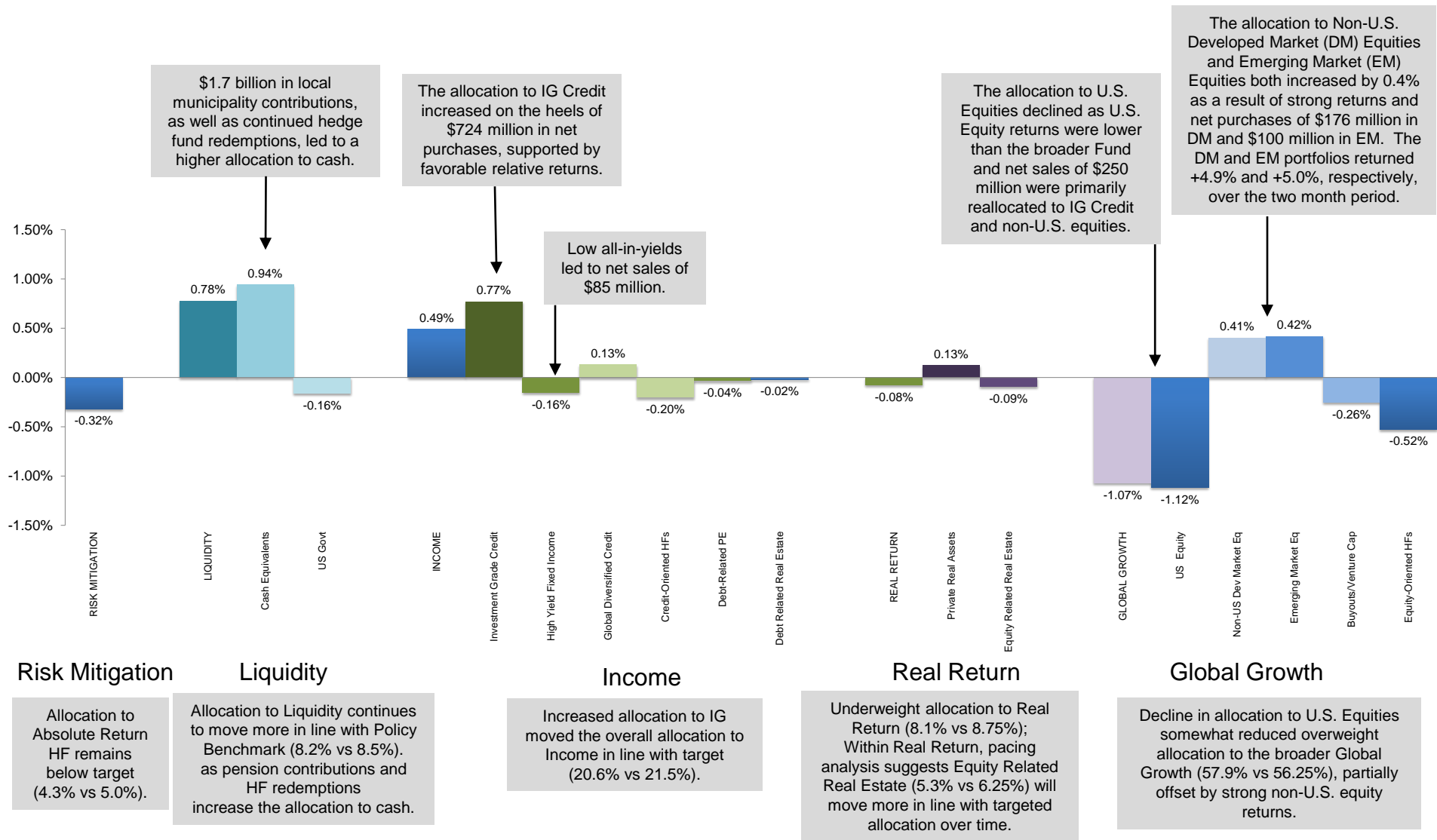
## Performance by Asset Class Fiscal Year to Date through April 30th, 2017



## Pension Fund Attribution vs. Benchmark Fiscal Year to Date through April 30th, 2017



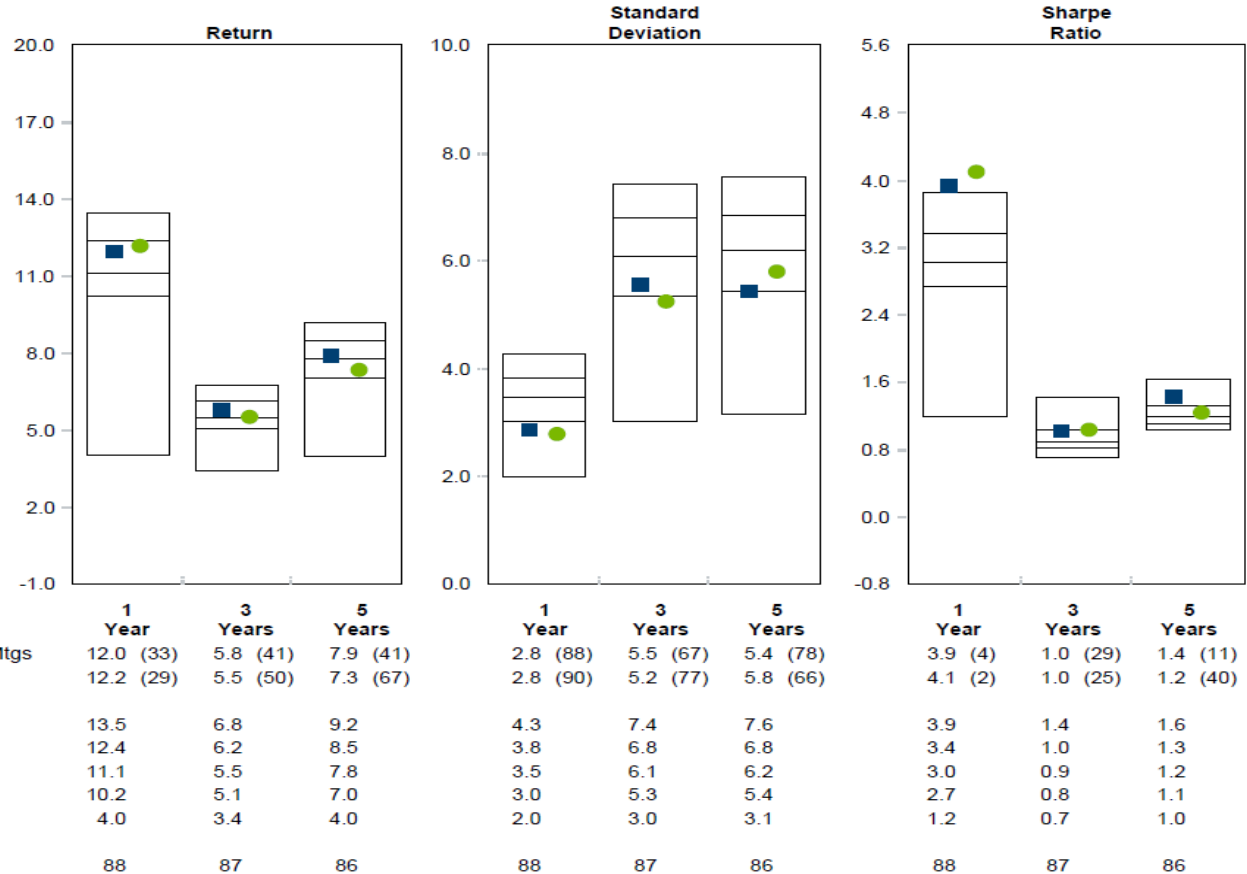
# Pension Fund Update: Change in Sector Allocation from February 28, 2017 – April 30, 2017



Strong non-U.S. Equity returns and a modest redistribution out of U.S. Equities led to a higher allocation to both DM and EM equities that is more in line with targeted allocations.

# NJ Pension Fund Performance Comparison versus Peers

Periods Ending March 31, 2017



Parentheses contain percentile rankings.

All Public Plans > \$1B - Total Fund: A Universe comprised of Total Fund portfolio returns, gross of fees, of public defined benefit plans > \$1B calculated and provided by BNY Mellon Performance & Risk Analytics and Investment Metrics  
NJDOI Net of Fee Performance Source: State Street



The Fund's net returns ranked above the median peer universe of gross returns for the one, three, and five year periods ended March 31, 2017.

The Fund's risk-adjusted returns ranked in the top quartile for the one and five year periods.



# Noteworthy Developments

**Legislative Update:** Senate Bill 3040, which would transfer investment authority over PFRS assets from the Division to the PFRS Board of Trustees, passed the Senate and Assembly. The Governor issued a conditional veto of the bill on May 8<sup>th</sup>.

**Retirement of International Equity Portfolio Manager:** Karen Paardecamp, Head of International Equities, has announced her retirement, effective June 1, 2017. Ms. Paardecamp has 18 years of State service, including the last 9 with the Division. In light of Ms. Paardecamp's planned retirement, the Division is now reassessing its staffing needs. In the interim, responsibilities have been allocated between two internal investment professionals with prior experience working on the International Equity team. Extensive training and knowledge transfer has been ongoing and the Division expects to have a smooth transition to a new leadership team within International Equities.

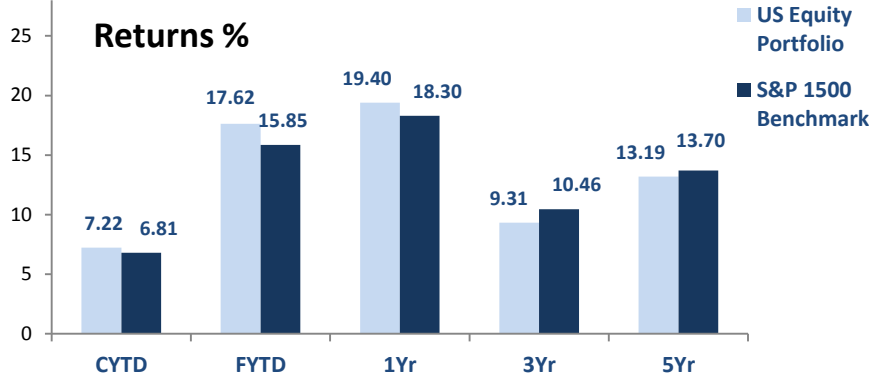
- On November 30, 2016, the Division notified the SIC under its Notification Procedures of negotiations to transfer the GP interest in two partnerships managed by GM Asset Management (NJDOI/GMAM Core Plus Real Estate Investment Program, L.P. and NJDOI/GMAM Opportunistic Real Estate Investment Program, L.P.) GM is exiting third-party management in the wake of its corporate reorganization.
- The Division negotiated favorable economics with BlackRock Investment Management, the new manager of the partnerships. BlackRock will manage the partnerships for a fee of 45bps vs. 116bps (blended rate) charged by GM, resulting in an estimated fee savings of \$232,000 for the first year.
- In connection with the transfer, the two partnerships were renamed. NJDOI/GMAM Core Plus Real Estate Investment Program, L.P. was renamed NJDOI Core Plus Real Estate Investment Program, L.P. and NJDOI/GMAM Opportunistic Real Estate Investment Program, L.P. was renamed NJDOI Opportunistic Real Estate Investment Program, L.P.
- The transfer took effect on April 5, 2017.

**Purpose of Notification:** The Division is notifying the SIC of these modifications under its Modification Procedures.

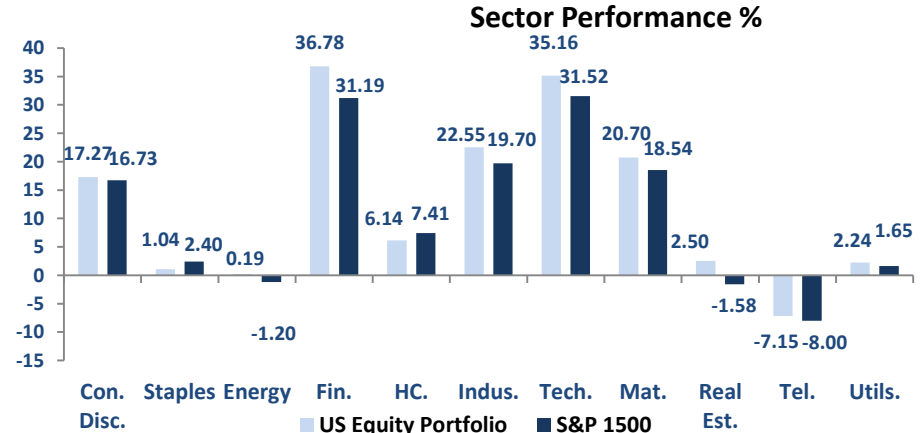
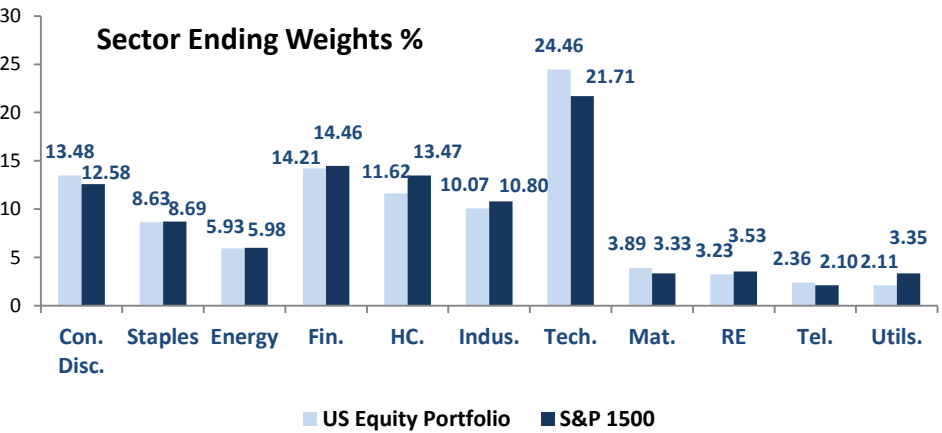
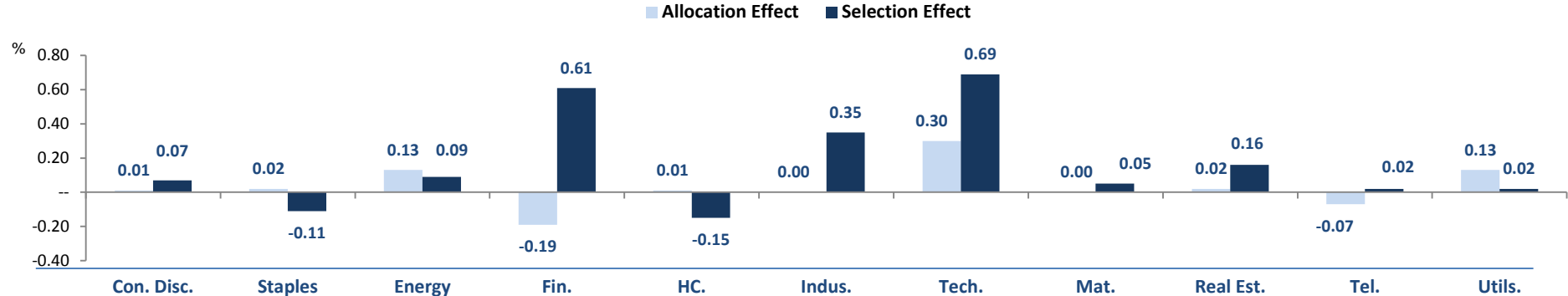
# Performance Appendix

# U.S. Equity Portfolio – As of April 30<sup>h</sup> 2017

The 17.62% return for the US equities portfolio outpaced the S&P 1500 benchmark by 177 basis points during the fiscal 2017 year-to-date time period. Importantly, first quarter corporate earnings were tracking toward 14% year-over-year growth, the strongest result in 22 quarters on improving economic conditions. Information technology was the best performing sector, increasing 31.59% fiscal year-to-date, barely ahead of the financials 31.19% return. Telecom services, real estate and energy were the laggards on higher interest rate expectations and lower oil prices. Stock selection for the fund was strongest among information technology, financials, and industrials, while healthcare and consumer staples lagged the benchmark.

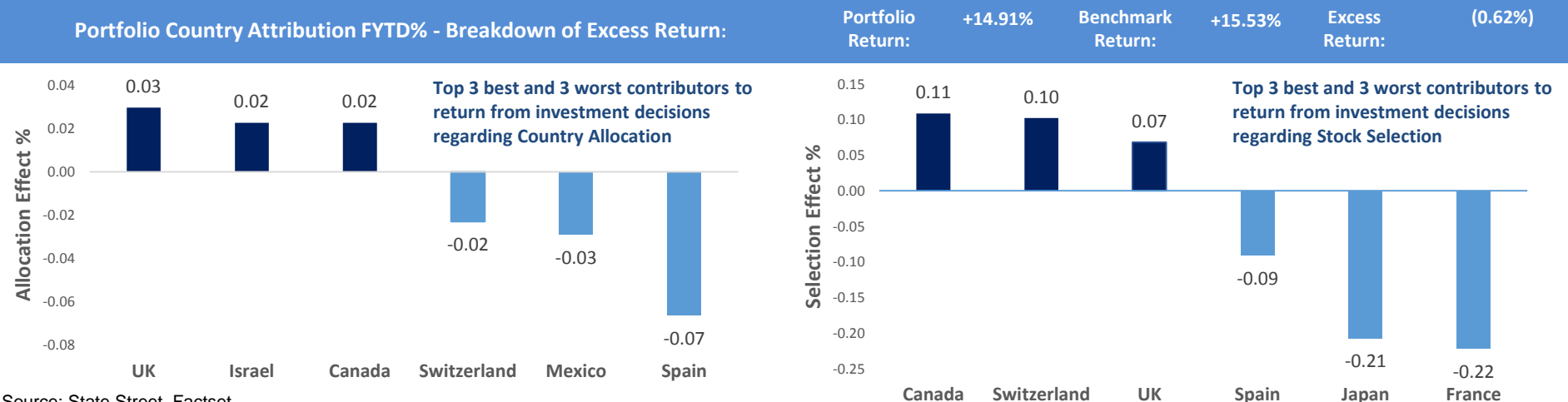
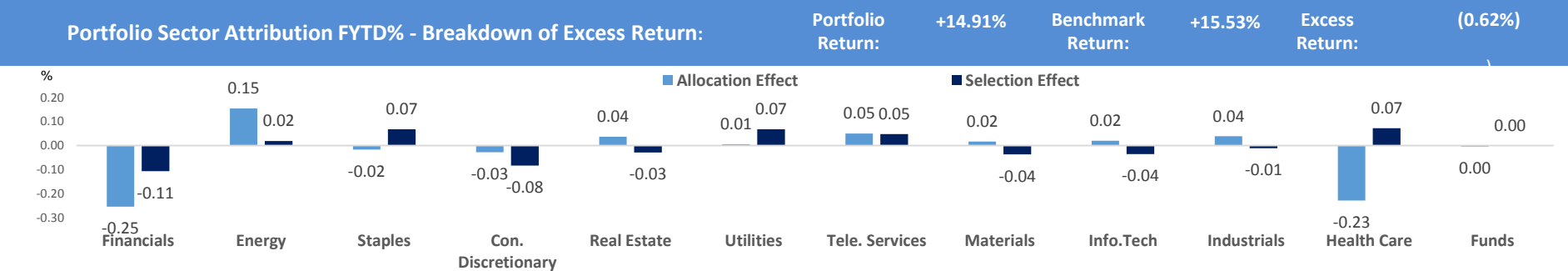
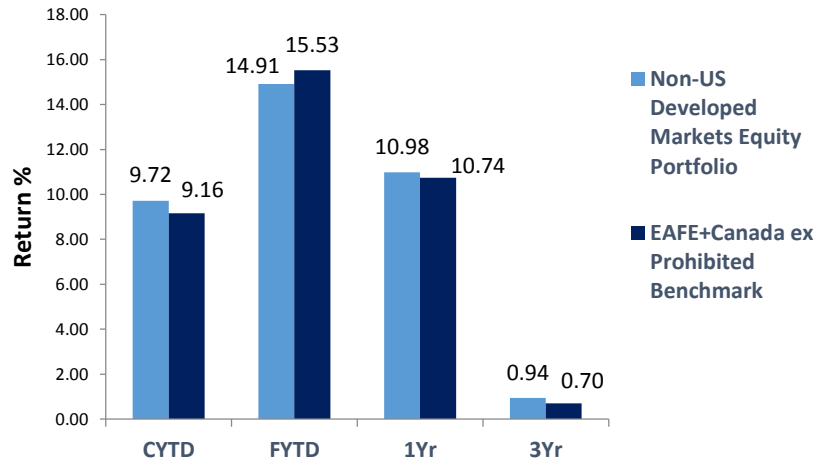


<b>Portfolio Sector Attribution FYTD% - Breakdown of Excess Return:</b>	Portfolio Return: <b>+17.62%</b>	Benchmark Return: <b>+15.85%</b>	Excess Return: <b>+1.77%</b>
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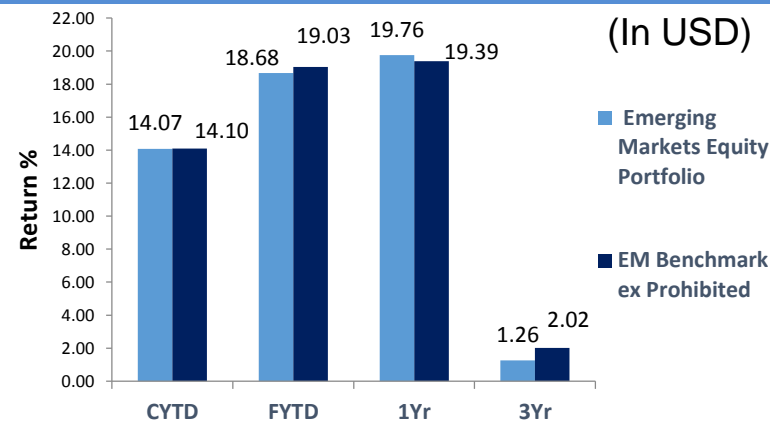
Source: State Street, Factset

For the fiscal year through April 30<sup>th</sup>, the Non-US Developed Markets Equity Portfolio returned 14.91% versus the Benchmark return of 15.53%. Renewed optimism regarding the global growth outlook spurred a strong rally in markets starting at the end of 2016, especially in Europe (YTD Europe has outperformed the US: 7.1% vs. 6.49% in local currency), as strong macroeconomic data and favorable outcomes in the Dutch and French elections eased some of the uncertainty over the stability of the European Union. Portfolio performance benefitted from both the underweight allocation to and stock selection in the UK, as returns were hurt from an unexpectedly stronger pound and the triggering of Article 50 to officially exit the European Union. The underweight to Energy, which returned 2.88%, also positively contributed. Detracting from performance was the underweight allocation to and stock selection in Financials (+31% return), as financials experienced a turnaround in sentiment due to a rising perception its bad loan and profitability issues are improving. The overweight allocation to Healthcare also adversely impacted returns, as Healthcare underperformed.

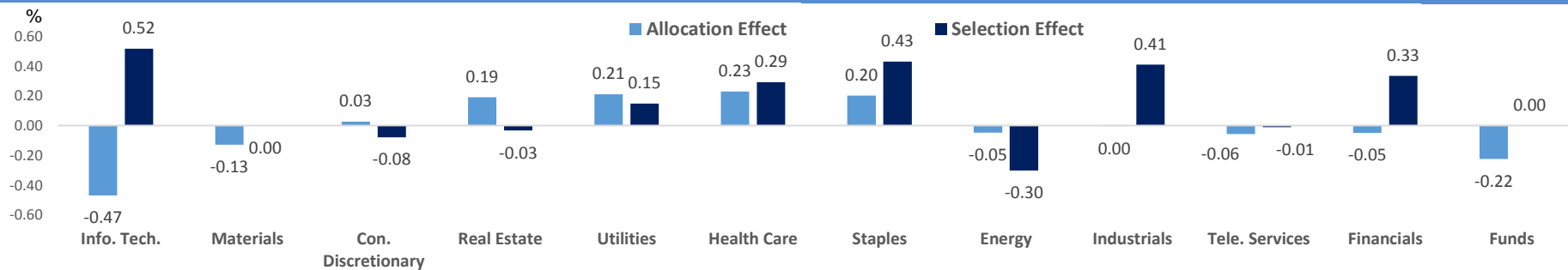


Source: State Street, Factset

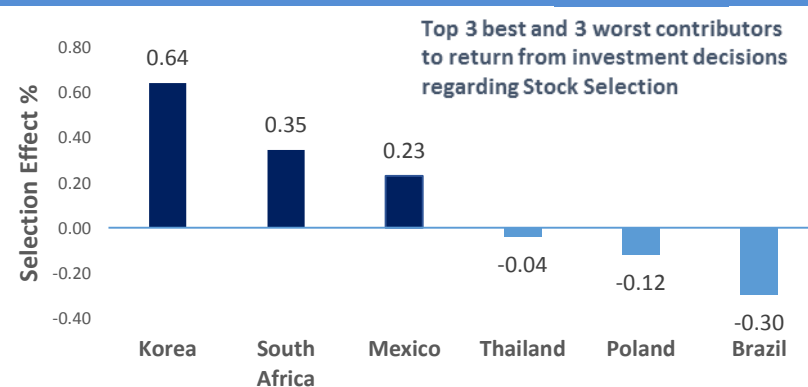
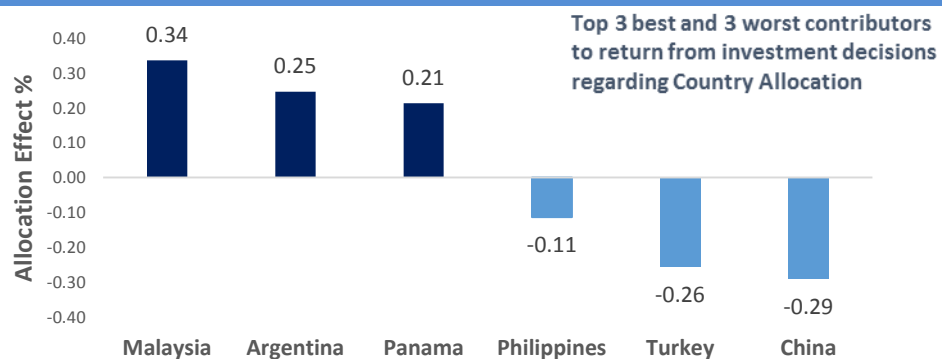
For the fiscal year through April 30<sup>th</sup>, the Emerging Markets Equity Portfolio returned 18.68% versus the Benchmark return of 19.03%. Emerging market equities outperformed developed markets during this time period (19% vs. 16%) as markets proved resilient in the midst of concerns about Chinese economic stability, trade protectionism, and geopolitics – in particular, a failed coup attempt in Turkey and the presidential impeachments in South Korea and Brazil. The beginning of 2017 included weak US economic data and disappointing progress in fiscal policy implementation; this helped to cause a decline in the USD (YTD, the DXY is down 3.6%) which in turn gave greater support to the strong returns of the emerging markets. Portfolio performance benefitted from an underweight to Malaysia (+1.15% return), and the allocation to Argentina (+45% return) which is not in the benchmark. But an overweight to Turkey (+0.88% return) and an underweight to China (+23% return), hurt performance as did stock selection in Brazil. Regarding sectors, the underweight to and stock selection in Consumer Staples contributed the most to performance, while the underweight in Energy, which returned +26%, detracted the most.



**Portfolio Sector Attribution FYTD% - Breakdown of Excess Return:** Portfolio Return: +18.68% | Benchmark Return: +19.03% | Excess Return: (0.35%)

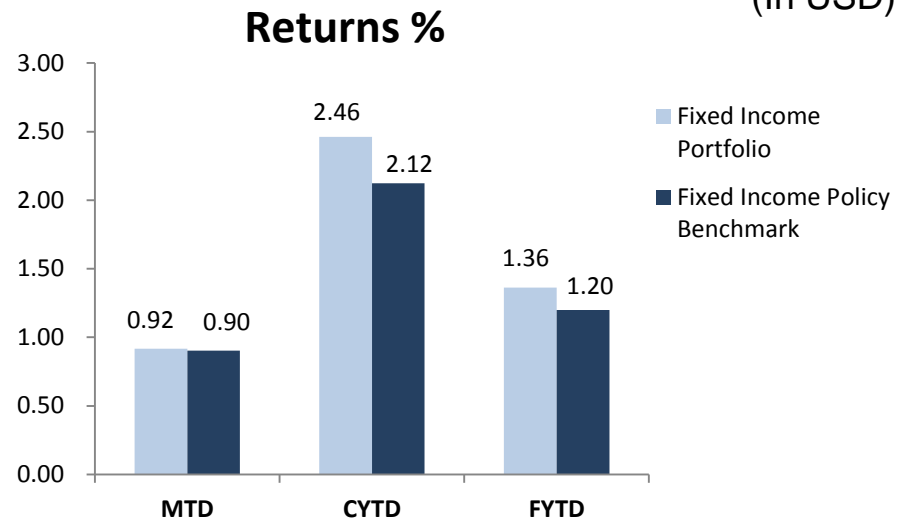


**Portfolio Country Attribution FYTD% - Breakdown of Excess Return:** Portfolio Return: +18.68% | Benchmark Return: +19.03% | Excess Return: (0.35%)

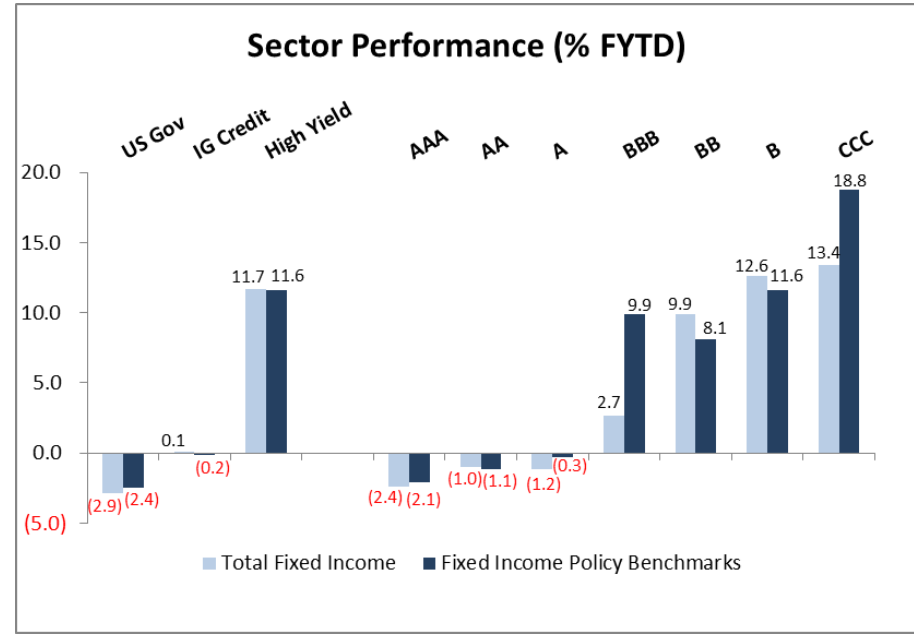
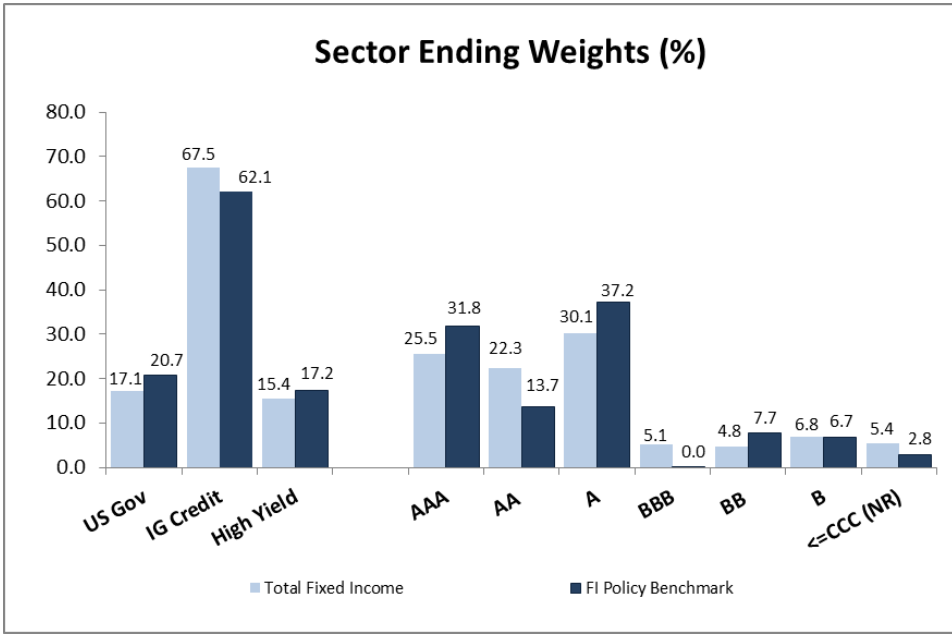


For the fiscal year through April 30<sup>th</sup>, the US Fixed Income portfolio returned 1.36% versus the benchmark return of 1.20%. Relative returns were positively impacted by a short duration bias across the portfolio, outperformance within High Yield and an overweight allocation to TIPS. Through April 30<sup>th</sup>, the Barclays High Yield Index, Custom IG Credit and US Government Benchmarks returned 11.57%, -0.17% and -2.45%, respectively. As interest rates have broadly risen since the start of the fiscal year, the portfolio has benefited from its short duration position. However, as credit spreads have tightened the portfolio's defensive positioning has offset some of those gains. Fiscal-year-to-date, TIPS have outperformed nominal Treasuries by approximately 316 basis points. The Portfolio's allocation to TIPS within the US Government sector has helped boost performance versus its index and the broader composite benchmark.

(In USD)



Portfolio Sector Attribution – Weights and Performance



Source: State Street and FactSet