

NEW JERSEY DIVISION OF INVESTMENT

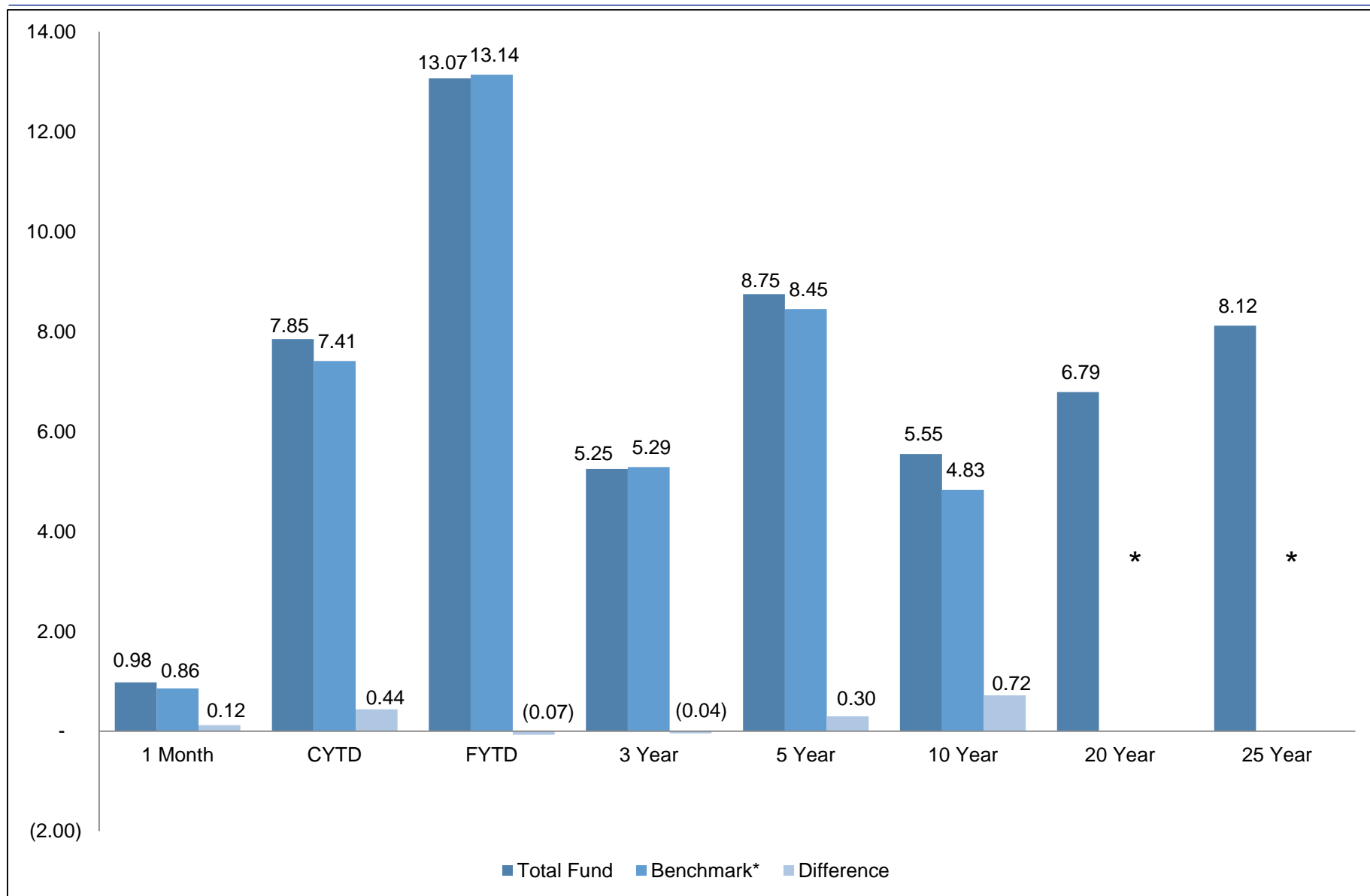
Directors Report

October 04, 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.”

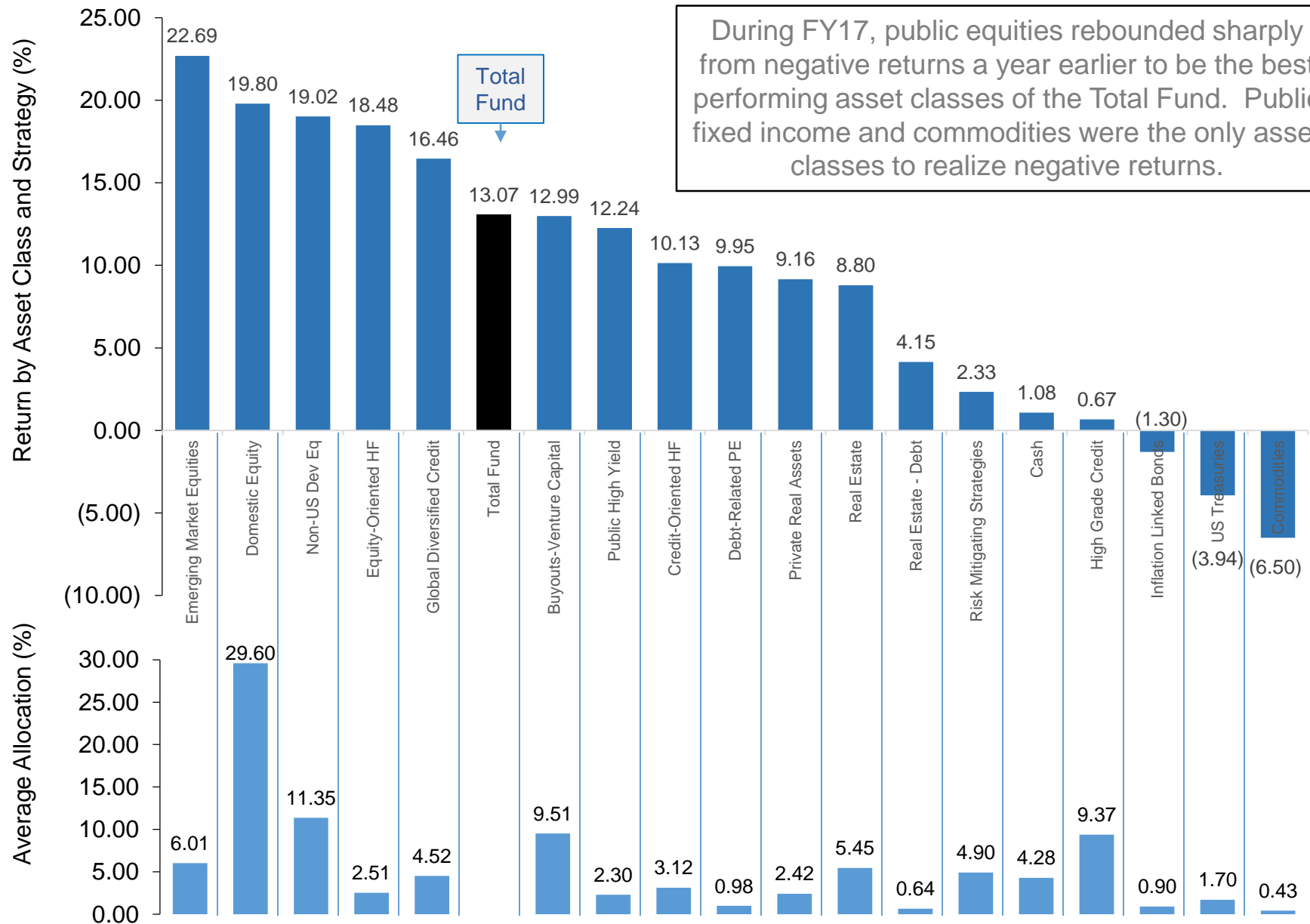
Total Fund⁽¹⁾ Performance for Periods Ended June 30, 2017



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

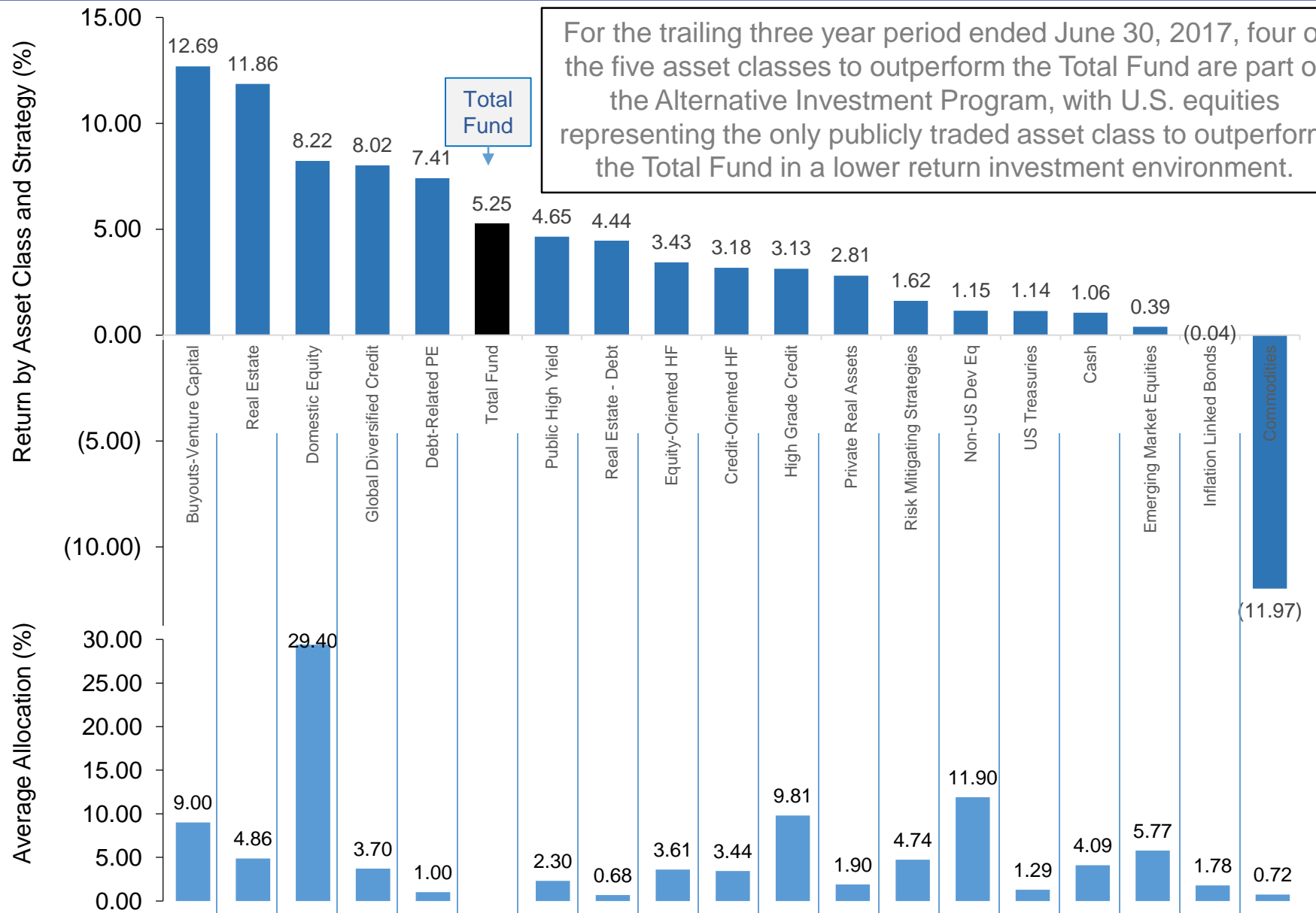
*Benchmark return not available for 20 and 25-Year period

Pension Fund Returns⁽¹⁾ By Asset Class and Strategy: FY17



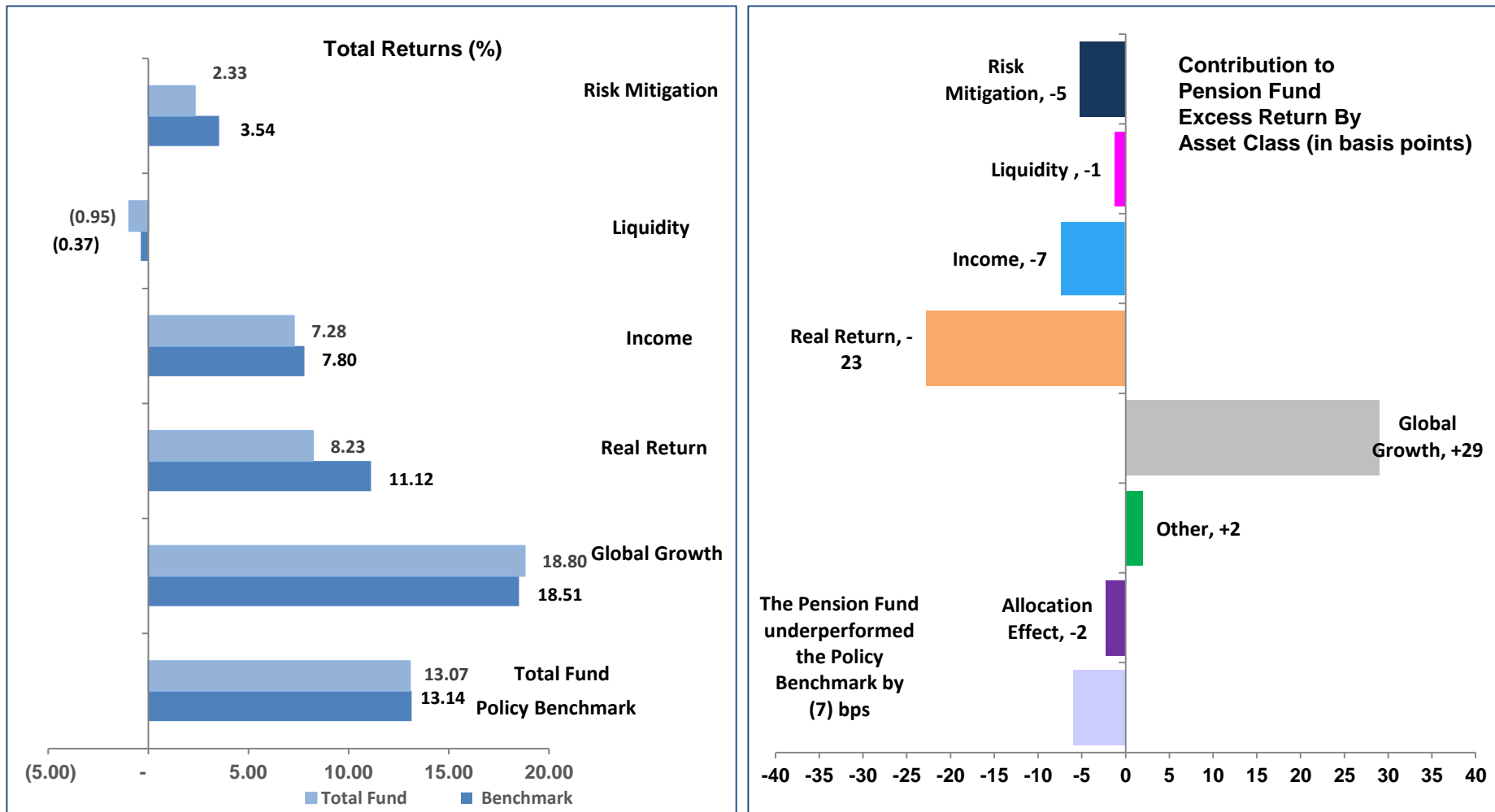
(1) Returns are unaudited. Pension Fund return excludes Police and Fire Mortgage Program.

Pension Fund Returns⁽¹⁾ By Asset Class and Strategy: Three Year Period Ended June 30, 2017



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

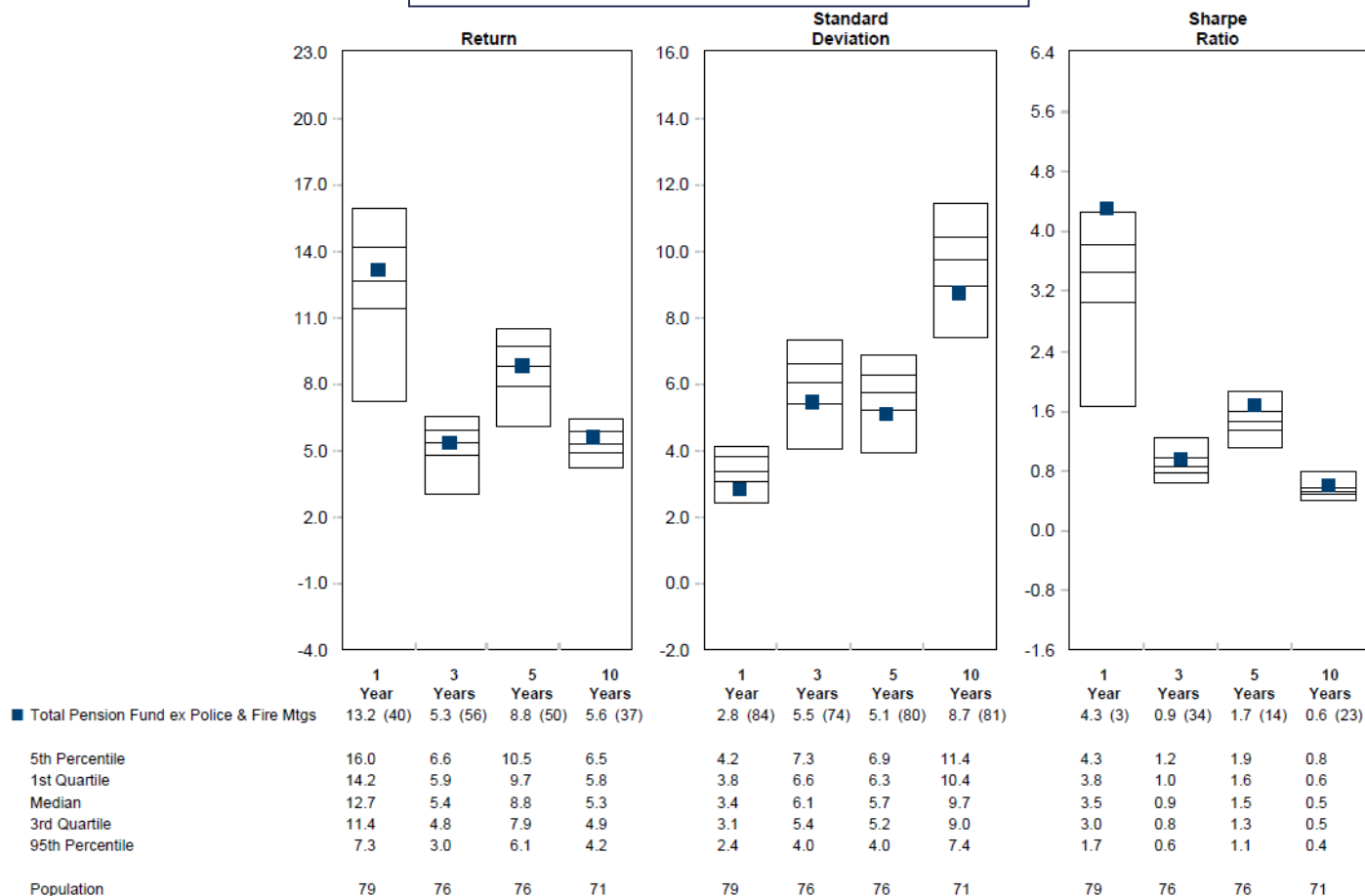
Total Fund Attribution versus Policy Benchmark: FY17 (1)



During FY17, the above policy allocation to Global Growth added value as global public equity markets realized strong absolute returns. Relative returns within Real Return and Income offset the favorable impact of the Global Growth bucket performance.

NJ Pension Fund Performance Comparison versus Peers

Periods Ending June 30, 2017



Parentheses contain percentile rankings

For Return Rank- 1 is best; 100 is worst

For Risk (Deviation) Rank- 100 is best; 1 is worst

The Fund's returns rank at or above the median peer group returns for the one, five and ten-year periods. The Fund's risk-adjusted returns rank in the top quartile for the same time periods.

Source: Aon Hewitt, BNY Mellon and State Street

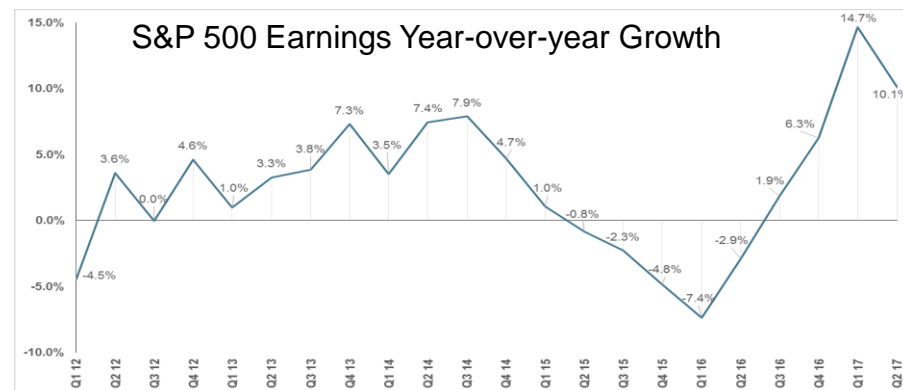
Note: Peer comparison is presented using a universe of gross returns

Domestic Equity Portfolio Review

FY17 US Equity Portfolio Review

During FY 2017, the U.S. Equity Portfolio returned 19.80%

- During FY17, the U.S. equity markets rallied on optimism for economic and earnings reflation globally, as well as prospects for corporate tax reform, deregulation, and increased infrastructure spending.
- Improving global economic growth led to an acceleration in year-over-year earnings growth, reaching nearly 15% in calendar Q1 2017, the fastest growth rate in five years.



The U.S. Equity Portfolio return of 19.80% was 171 basis points ahead of the benchmark

- A key driver of the outperformance was good stock selection, particularly in the information technology and financials sectors.
 - Financials rallied on higher interest rate expectations as the Federal Reserve started to tighten and begins to wind down its \$4.5 trillion balance sheet. In addition, expectations for improvement on the regulatory front and increased total capital returned to shareholders through dividends and share repurchases also boosted the financials sector's performance.
 - Information technology benefited from the shift toward cloud computing, and digitalization, driving robust free cash flow and earnings growth. The information technology sector posted the highest year-over-year earnings growth rate over the last two quarters in FY17, increasing over 20% in both quarters.
 - FY 2017 marks the eleventh fiscal year of the past thirteen that the Domestic Equity portfolio outperformed its benchmark index.
 - ***The U.S. Equity Portfolio benefited from strong relative returns within the Information Technology and Financials sectors during FY17. An improving global economic environment, and optimism for tax reform and deregulation in the U.S. drove equity returns.***

U.S. Equity Portfolio Return By Fiscal Year

(Total Return in %)

<u>Fiscal Year</u>	New Jersey Division of Investment Domestic Equity	S&P 1500 Benchmark	Relative outperformance (in basis points)
2005	7.49	7.23	26
2006	10.47	9.22	125
2007	20.56	20.22	34
2008	-10.16	-12.72	256
2009	-23.86	-26.34	248
2010	16.43	15.57	86
2011	33.40	31.65	175
2012	3.54	4.63	-109
2013	21.89	21.13	76
2014	26.23	24.70	153
2015	7.48	7.31	17
2016	-1.58	3.64	-522
2017	19.80	18.09	171

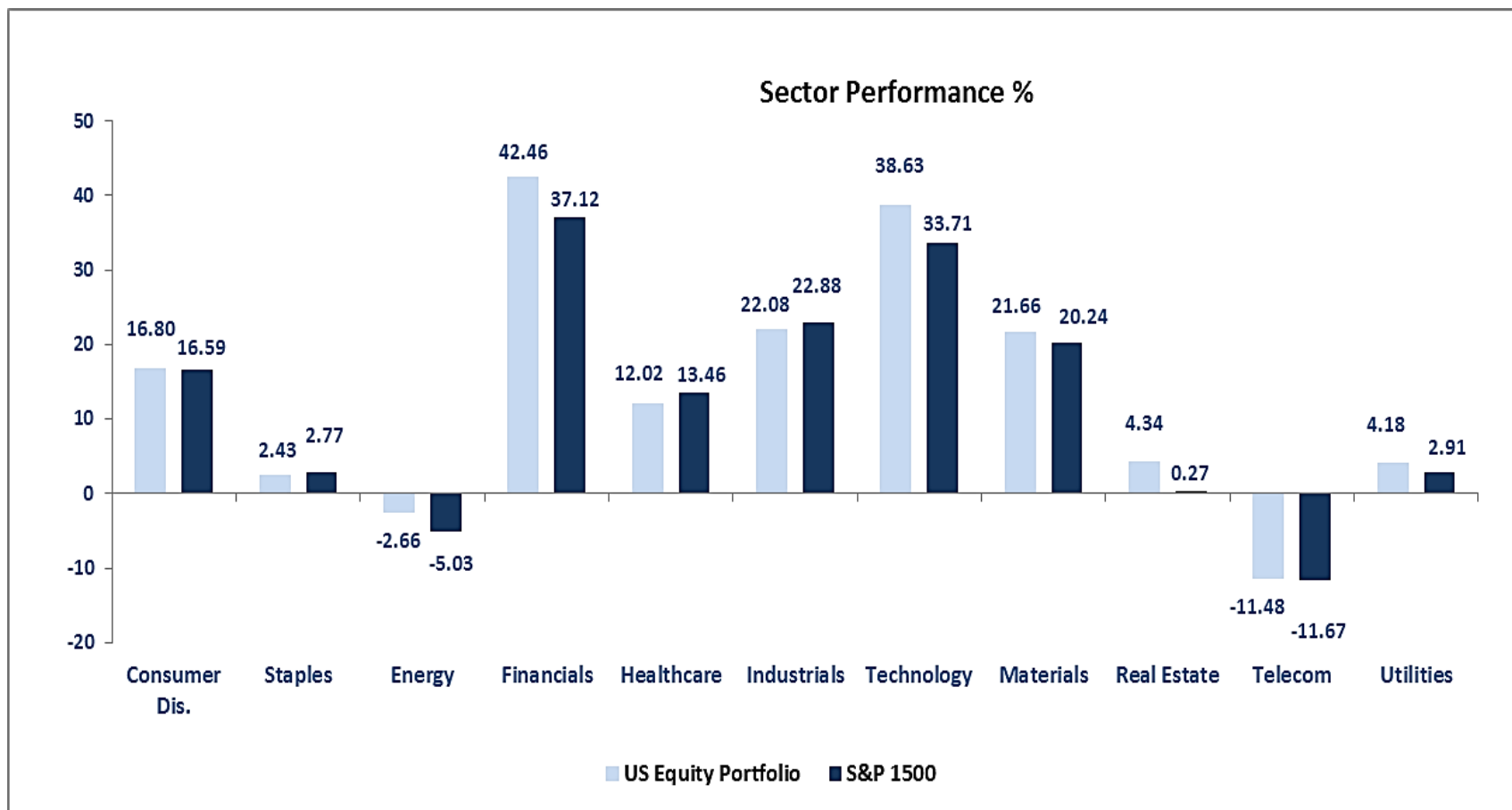
Annualized Returns

(Periods Ending 6/30/17)

One Year	19.80	18.09	171
Three Years	8.22	9.51	-129
Five Years	14.29	14.68	-39
Ten Years	7.93	7.34	59

The U.S. Equity portfolio has outperformed in eleven of the last thirteen fiscal years, realizing outperformance of 60 basis points (annualized) over the same time horizon. Based on an average portfolio value of \$23 billion, the 60 basis point outperformance over the past 13 years is equivalent to an additional \$1.7 billion of value for the Fund.

FY17 Domestic Equity Sector Returns

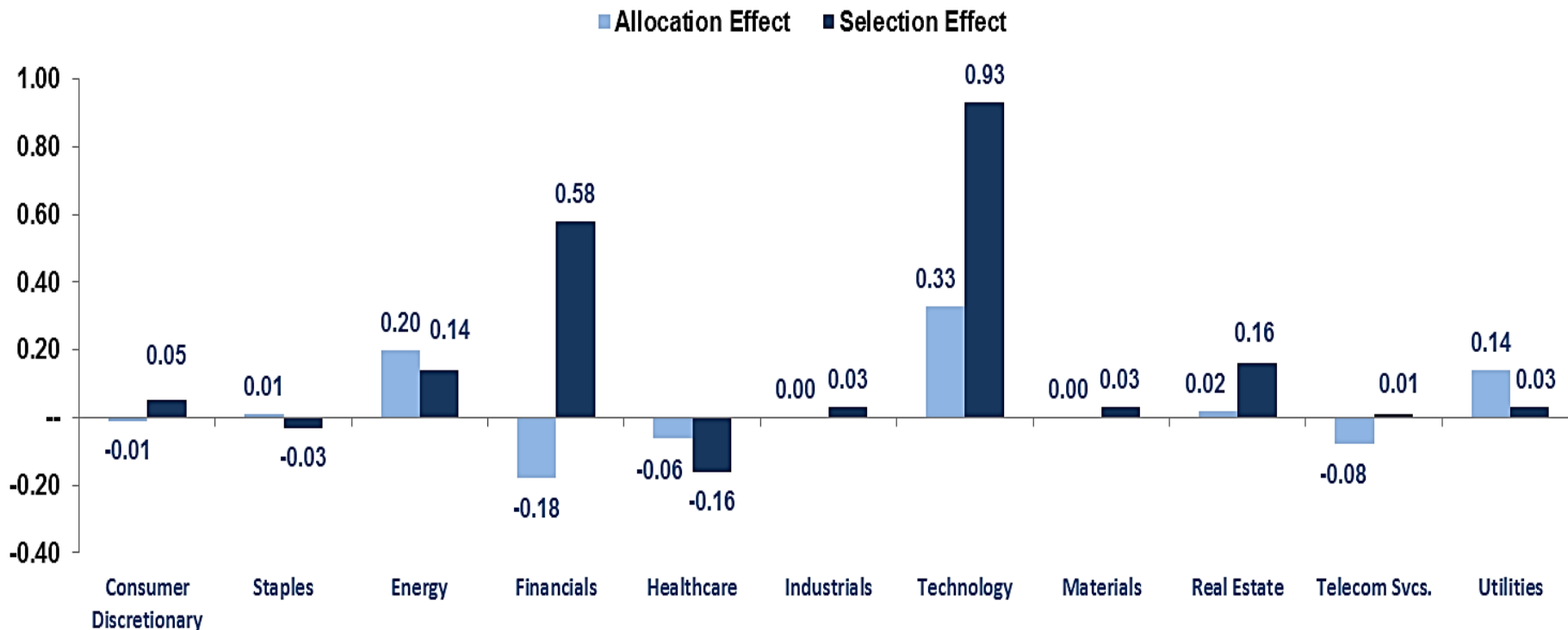


Source: FactSet

Domestic Equity Portfolio FY17 Return: 19.80%
 S&P 1500 Benchmark FY17 Return: 18.09%

During FY17, the domestic equity portfolio outperformed its benchmark by 171 basis points. Nine of eleven sectors posted positive returns during the fiscal year.

FY17 Domestic Equity Selection and Allocation Effect



Source: FactSet

Domestic Equity Portfolio FY17 Return: 19.80%
S&P 1500 Benchmark FY17 Return: 18.09%

During FY17, security selection was the primary factor contributing to favorable relative returns. The information technology and financials sectors provided the highest selection contribution to portfolio performance.

U.S. Equity Portfolio Top Holdings as of 6/30/17

<u>Company</u>	<u>Portfolio Weight</u>	<u>S&P 1500 Weight</u>	<u>Overweight/ Underweight</u>
Apple Inc.	3.54%	3.25%	+ 29 bps
Microsoft Corp.	2.99%	2.30%	+ 69 bps
Alphabet Inc.	2.96%	2.37%	+ 59 bps
Facebook, Inc.	2.45%	1.54%	+ 91 bps
Amazon.com, Inc.	2.20%	1.66%	+ 54 bps
JPMorgan Chase & Co.	1.91%	1.40%	+ 51 bps
Johnson & Johnson	1.90%	1.54%	+ 36 bps
Exxon Mobil Corp.	1.73%	1.48%	+ 25 bps
Bank of America Corp.	1.49%	1.04%	+ 45 bps
Wells Fargo & Co.	1.45%	1.08%	+ 37 bps

U.S. Equity Portfolio: Key Drivers Of Security Selection For FY17

FY17 Outperformers

<u>Company</u>	<u>Average Portfolio Weight</u>	<u>Average Benchmark Weight</u>	<u>Benchmark Total Return</u>	<u>Relative Contribution</u>
Facebook, Inc.	2.23%	1.41%	32.11%	+25 bps
Bank of America Corp.	1.29%	0.94%	85.48%	+23 bps
Apple	3.46%	3.04%	53.53%	+20 bps
Prudential Financial	0.56%	0.19%	56.22%	+19 bps
Western Digital	0.31%	0.09%	92.65%	+19 bps

FY17 Underperformers

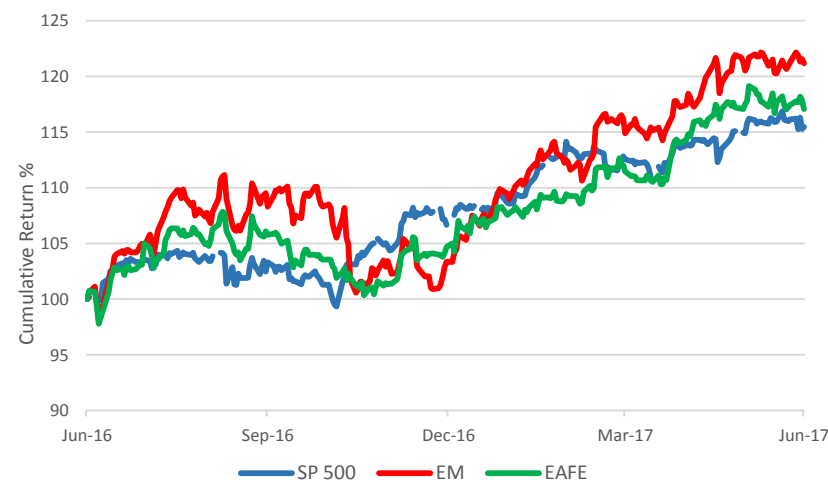
<u>Company</u>	<u>Average Portfolio Weight</u>	<u>Average Benchmark Weight</u>	<u>Benchmark Total Return</u>	<u>Relative Contribution</u>
Priceline Group Inc.	0.02%	0.36%	49.68%	-14 bps
UnitedHealth Group	0.28%	0.69%	33.49%	-13 bps
CSX Corporation	0.02%	0.17%	113.20%	-12 bps
Under Armour, Inc	0.20%	0.05%	-44.62%	-11 bps
3M Company	0.00%	0.51%	21.90%	-10 bps

International Equity Portfolio Review

FY17 International Equity Portfolio Review

In FY17, International Equity was the best performing asset class within the NJ Pension Fund

- During FY17, Non-U.S. Developed Market (DM) and Emerging Market (EM) equities outperformed U.S. Equities. The Developed Markets (DM) portfolio rose 19.02% and the Emerging Markets (EM) portfolio gained 24.07%
- The strong performance of international equity markets was supported by improving economic growth prospects and a rebound in inflation, as global central banks remained largely accommodative, European political risk eased, and, more recently, the US dollar weakened.



- **Notwithstanding strong absolute returns, the International Equity Portfolio underperformed its benchmark in a strong global equity market environment**
 - key factors that drove relative returns include a below benchmark allocation to EM, an underweight allocation to China, sector selection within the DM portfolio, and security selection within the small cap universe
 - currency hedging strategies added value, somewhat offsetting the impact of a stronger dollar during the first half of FY17
- **Within DM, an overweight allocation to Healthcare and an underweight allocation to Financials impacted relative returns**
 - Healthcare underperformed the broader market as defensive sectors lagged a sharp move to higher valuations
 - Financials outperformed as strong global market returns reflected improving fundamentals within the financial sector
 - the adverse impact of sector selection was somewhat offset by the portfolio's underweight allocation to Energy that added value as concerns over oil supply and demand dynamics hurt the sector's return
- **Within EM, the primary driver of underperformance was an underweight allocation to China and an overweight to Brazil**
 - China is the largest index country weight and was one of the top performing countries in EM in FY17; consequently, the underweight allocation, based on concerns regarding structural economic issues and the effectiveness of stimulative economic policies, was the key contributor to relative returns within the EM portfolio
 - an overweight allocation to Brazil also impacted relative returns as political risk and an ongoing corruption scandal led to underperformance

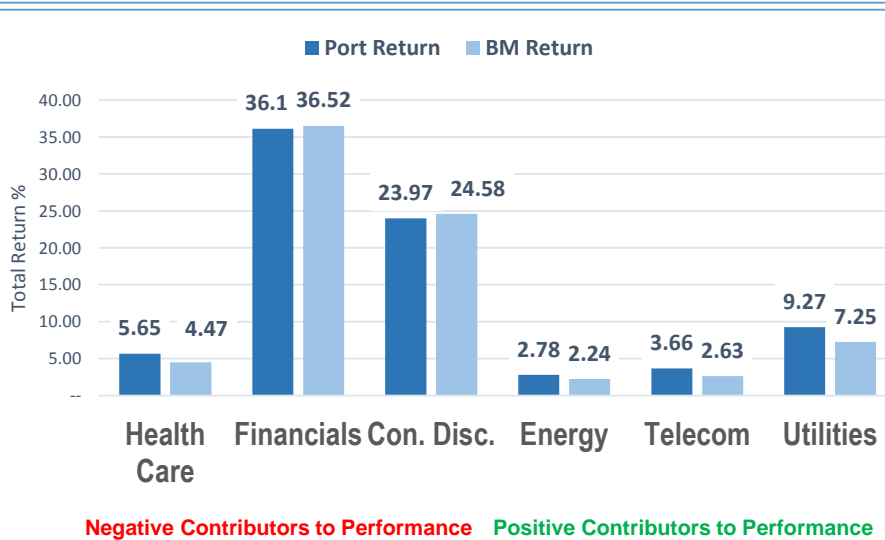
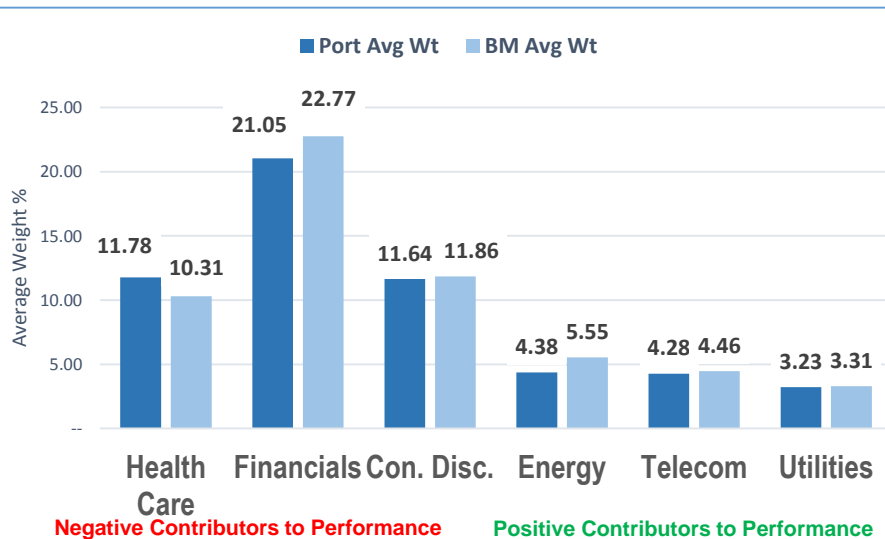
International Equity Portfolio: FY17 Performance Review

(Total Return in %)	Quarter Ended								FY17	
	9/30/2016		12/31/2016		3/31/2017		6/30/2017		NJDOI	Benchmark
	<u>NJDOI</u>	<u>Benchmark</u>	<u>NJDOI</u>	<u>Benchmark</u>	<u>NJDOI</u>	<u>Benchmark</u>	<u>NJDOI</u>	<u>Benchmark</u>	<u>NJDOI</u>	<u>Benchmark</u>
International Equity with Hedges	6.81	7.29	-1.85	-1.89	8.61	8.6	5.61	6.04	20.24	21.21
International Developed Markets	6.06	6.36	-1.25	-0.5	7.26	6.89	5.95	5.72	19.02	19.59
International Emerging Markets	8.68	9.13	-4.27	-4.4	11.55	11.64	5.71	6.53	22.69	24.07

During FY17, the International Equity Portfolio underperformed its benchmark by 97 basis points (20.24% vs 21.21%). An underweight to Emerging Markets and an overweight to Developed Markets Healthcare were the primary contributors to the negative relative return.

Source: State Street

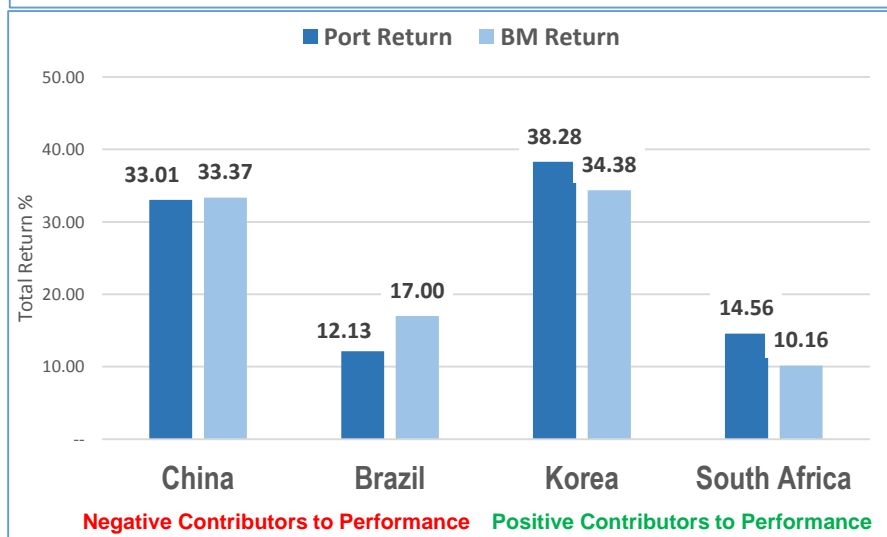
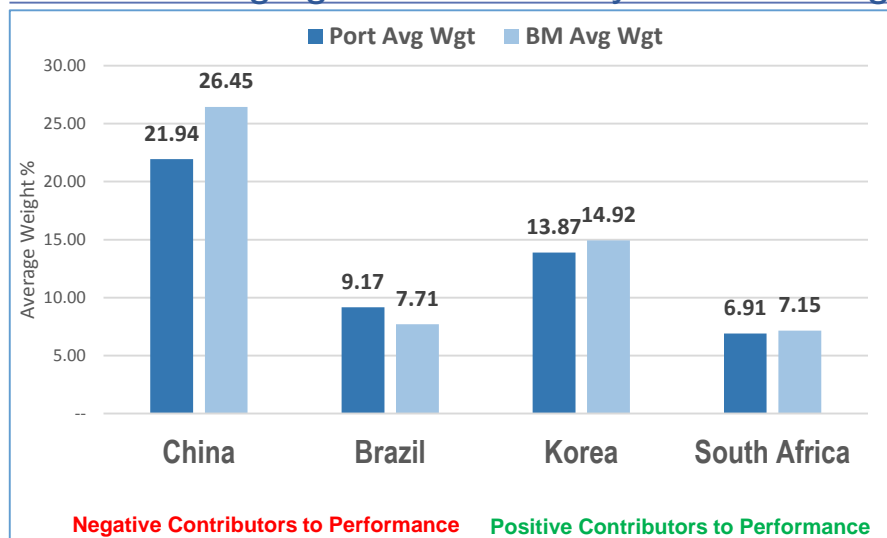
Select Developed Market Sector FY17 Average Weights and Returns



- During FY17, the overweight allocation to the defensive Healthcare sector was the primary factor impacting relative returns in the Developed Markets (DM) Portfolio. Defensive sectors underperformed in the midst of a strong global equity market rally.
- The underweight allocation to Financials also adversely impacted returns. During FY17, Financials returned +36.5%, outperforming the broader market, as global financial conditions and bank balance sheets improved.
- The overall negative impact of sector selection was partly offset by the underweight allocation to the Energy sector. During FY17, Energy returned 2.2%, significantly underperforming the broader market, as supply imbalances put downward pressure on oil prices.

During FY17, sector selection adversely impacted relative returns for the non-U.S. Developed Markets portfolio. The portfolio's overweight allocation to more defensive sectors was the primary driver of relative returns as valuations moved sharply higher for the broader market.

Select Emerging Market Country FY17 Average Weights and Returns



- During FY17, the underweight allocation to China was the primary factor impacting relative returns in the Emerging Markets (EM) portfolio. The underweight position reflected concerns over fiscal policy, economic growth prospects, corporate governance structure, and a slowdown in global trade.
- The overweight allocation to Brazil also adversely impacted returns. During FY17, Brazil returned +12%, underperforming the broader market as an investment thesis based on more attractive valuations and expectations for reforms was overcome by a new round of corporate and political scandals.
- Favorable security selection added value, particularly within Korea and South Africa. Specifically, security selection within Information Technology, Financials, Consumer Staples, and Materials partly offset the overall impact of country selection.

During FY17, country selection adversely impacted relative returns for the Emerging Markets portfolio. The portfolio's underweight allocation to China, in particular, weighed on performance as China (up +26%) outperformed the broader market.

Fixed Income Portfolio Review

FY17 Fixed Income Portfolio Review

- **The Fixed Income portfolio outperformed its benchmark index by 25 basis points during FY17**
 - FY17 marked the eighth time in the past ten years that the Fixed Income portfolio has outperformed its benchmark
 - favorable relative returns for Global Diversified Credit (GDC) were offset by underperformance within the Investment Grade (IG) and U.S. Government portfolios primarily due to yield curve and duration positioning
 - the portfolio's above benchmark allocation to credit versus Treasuries added value as did its commitment to TIPS within the U.S. Government portfolio
 - the High Yield (HY) sector realized strong returns, with the HY portfolio returning better than 12% during FY17
 - *During FY17, the Fund benefited from strong returns within the GDC portfolio, as well as an overweight allocation to IG, offset by yield curve and duration positioning*
- **Within the public fixed income portfolio, the key drivers of relative returns were yield curve strategies that favored longer-dated Treasuries and intermediate-term corporates, as well as an emphasis on higher quality corporates in the midst of a sharp narrowing in credit spreads**
 - the portfolio maintained a below-benchmark allocation to longer-dated investment grade credit as spread curves flattened sharply; at the same time, duration exposure was concentrated in the U.S. Government sector as long-dated Treasury yields rose
 - an overweight allocation to higher quality securities in the IG portfolio detracted from relative returns as lower quality credits outperformed in the midst of meaningful spread compression during FY17
 - within IG, the portfolio's modest allocation to out-of-benchmark BBB-rated corporates added value as BBB outperformed the A or better index by 328 basis points on a duration-matched basis
 - within HY, the portfolio's overweight allocation to CCC-rated securities added value as CCCs returned 20.7% versus 12.7% for the broader HY index
 - within the US Treasury portfolio, the out-of-benchmark allocation to TIPS positively impacted relative returns as TIPS outperformed Treasuries by 169 basis points

The Fixed Income Portfolio Has Realized A Consistent Track Record of Outperformance

(Total Return in %)

<u>Fiscal Year</u>	New Jersey Division of Investment	Benchmark	Outperformance (in basis points)
2008	9.06	6.78	228
2009	6.65	5.34	131
2010	16.73	16.49	24
2011	5.96	3.20	276
2012	15.87	16.50	-63
2013	1.70	0.87	83
2014	7.62	7.45	17
2015	1.76	0.52	124
2016	4.90	4.93	-3
2017	5.14	4.89	25

Annualized Returns

(Periods Ending 6/30/17)

One Year	5.14	4.89	25
Three Years	3.92	3.43	49
Five Years	4.20	3.70	50
Ten Years	7.43	6.57	86

The Fixed Income portfolio has outperformed in eight of the last ten fiscal years, realizing outperformance of 86 basis points (annualized) over the same horizon. Based on an average portfolio value of \$18 billion, the 86 basis points of outperformance over the past decade is equivalent to an additional \$1.5 billion of value for the Fund.

Fixed Income Portfolio: Fiscal Year 2017 Performance Review

New Jersey Division of Investment FY17 Fixed Income Returns By Sector

Sector	Quarter Ended								Fiscal Year 2017	
	9/30/2016		12/31/2016		3/31/2017		6/30/2017		NJDOI	Benchmark
	NJDOI	Benchmark	NJDOI	Benchmark	NJDOI	Benchmark	NJDOI	Benchmark		
U.S. Government	0.27	0.08	-5.02	-3.84	1.06	0.67	1.11	1.19	-2.69	-1.97
Investment Grade (IG)	0.85	1.16	-2.79	-3.14	1.26	0.98	1.41	2.09	0.67	1.01
High Yield (HY)	5.04	5.55	1.86	1.75	2.99	2.70	1.87	2.17	12.24	12.70
Global Diversified Credit (GDC)	3.85	5.55	3.60	1.75	4.48	2.70	3.61	2.17	16.46	12.70
Total Fixed Income	1.93	2.66	-0.95	-1.39	2.19	1.59	1.91	1.99	5.14	4.89

During FY17, the Fixed Income portfolio outperformed its benchmark by 25 basis points (+5.14% versus +4.89%). Strong relative returns for GDC were offset by underperformance within the Treasury and IG sectors, largely as a result of yield curve and duration positioning.

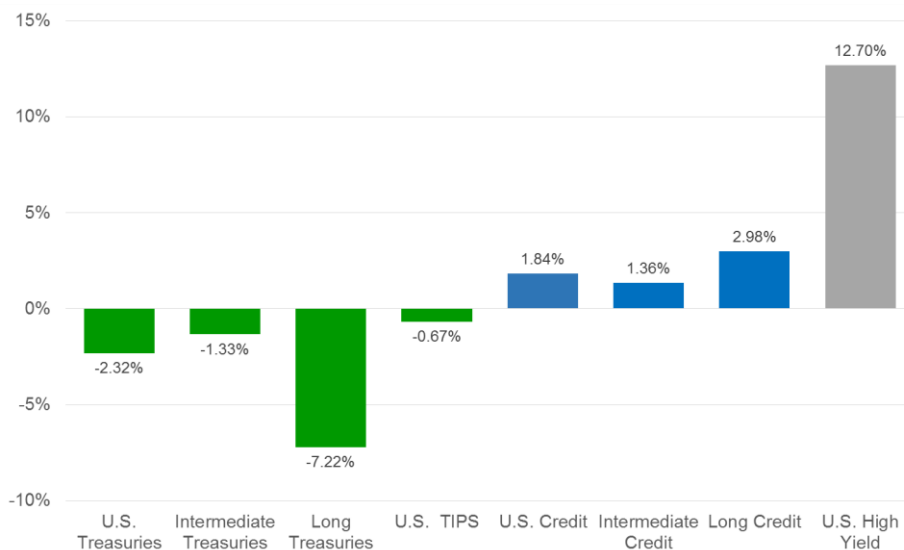
Global Diversified Credit (GDC) led strong Fixed Income returns in FY17

- **The Global Diversified Credit (GDC) strategy has capitalized on regulatory changes that have driven secular changes in the lending marketplace.**
 - as traditional market participants have receded, the long-term orientation of the GDC portfolio allows the Division to take advantage of structural changes in the market and extract value in less liquid investments with a more attractive risk-return profile
 - over the past five years, the GDC portfolio has earned an annualized return in excess of 12%, exceeding the HY benchmark by more than 500 bps on an annualized basis
- **GDC has consistently taken advantage of the illiquidity premium to invest in idiosyncratic credit opportunities.**
 - differentiated returns with spreads in excess of “on-the-run” credit names, with less correlation to the broader markets
- **Drivers of GDC’s strong performance in FY17 (+16.46%) were broad-based and supported by favorable returns in bank loans, middle-market lending, structured credit products, and opportunistic credit mandates.**
 - during FY17, GDC performance was led by commitments to bank loans and corporate bonds with higher returns vs. HY
 - strong corporate earnings and relatively stable interest rates provided a favorable backdrop for performance, where focus was on issuers with good operating fundamentals
 - the Division’s exposure to structured credit, specifically RMBS, produced healthy double-digit returns in excess of the benchmark
 - middle-market lending strategies, both in public and private vehicles, realized consistent and favorable returns during FY17
 - additionally, the Division realized solid returns from tactical allocations to differentiated private credit opportunities
- **The GDC portfolio is modestly underweight its targeted asset allocation, reflecting a disciplined approach to capital deployment focused on the best risk-return investment opportunities**
 - there is sufficient dry powder in the GDC portfolio to allow for opportunistic investments to be made to capitalize on market dislocations that may emerge in both private and public credit markets

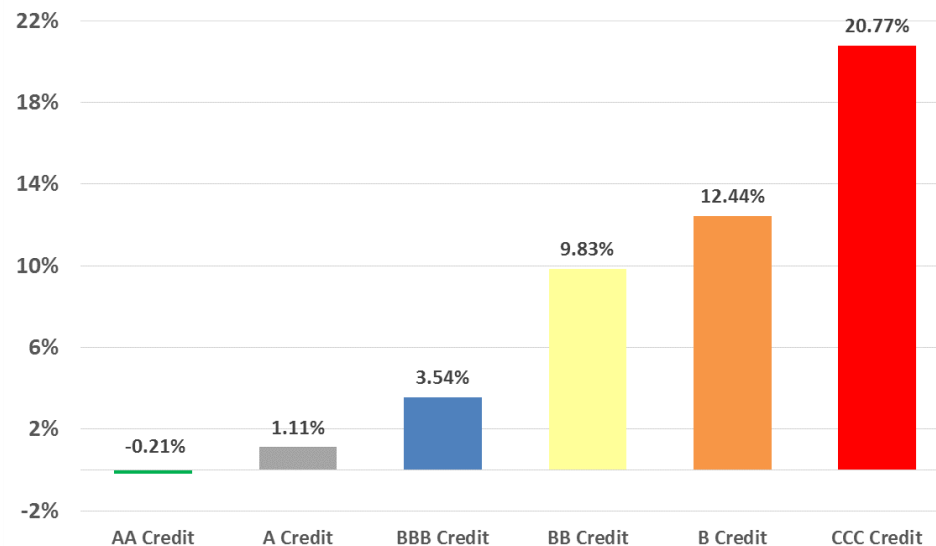
During FY17, the Fixed Income portfolio benefited from strong absolute returns across GDC, where gains were broad-based across exposures within the portfolio.

FY17 Fixed Income Review: Sector, Quality and Yield Curve Returns

FY17 Select Sector and Yield Curve Returns



FY17 Select Quality Returns

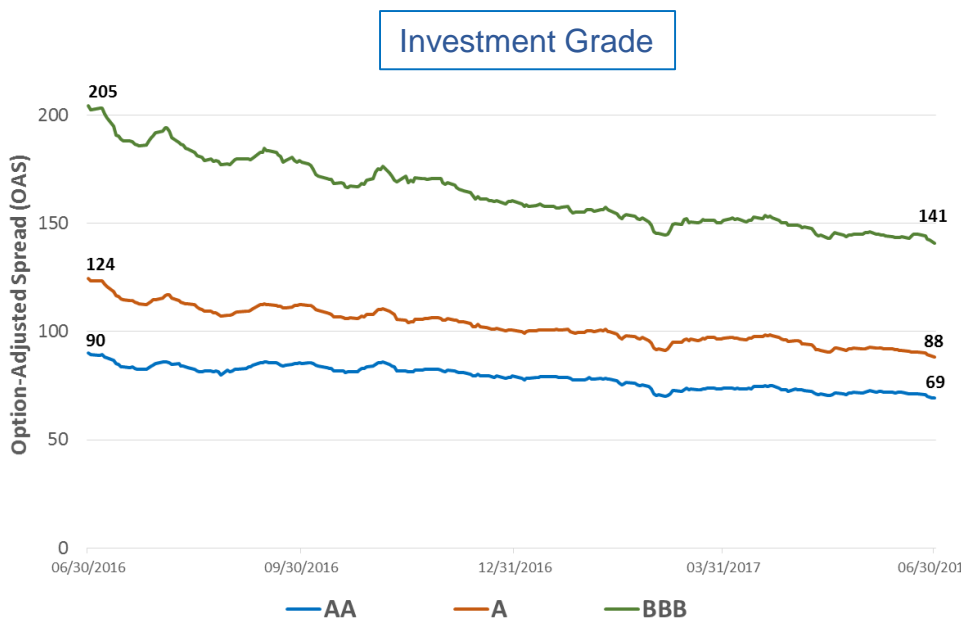


During FY17, the portfolio's yield curve positioning adversely impacted relative returns. The portfolio was underweight Long Credit and emphasized Long Treasuries to gain duration exposure. This structure underperformed as corporate spread curves flattened sharply and the Treasury yield curve steepened.

During FY17, lower quality securities outperformed. The IG portfolio's overweight allocation to AA-rated issues adversely impacted performance. Conversely, the below benchmark allocation to BB-rated securities in High Yield positively impacted relative returns.

Within the IG portfolio, the above benchmark allocation to higher quality securities adversely impacted returns, offset somewhat by our exposure to BBBs. The portfolio's allocation to TIPS vs nominal Treasuries added value, while yield curve strategies detracted from relative returns.

FY17 Credit Spreads – Investment Grade and High Yield



During FY17, BBB-rated securities were the top performing IG quality sector, returning 3.54%, outperforming duration-matched Treasuries by 643 bps of excess returns. Credit spreads for A-rated issues tightened by 36 bps, ending FY17 just inside AA-rated valuations at the start of the fiscal year.

During FY17, CCC-rated securities returned 20.77% as credit spreads tightened 439 bps from the start of the year. BB-rated spreads ended FY17 at +227 bps, just 22 bps higher versus BBBs at the start of the fiscal year.

During FY17, Investment Grade (IG) Credit and High Yield (HY) outperformed as credit spreads narrowed sharply and Treasury yields rose. In this environment, lower quality corporates outperformed higher quality corporates, particularly in the HY space.

Public Markets Outlook

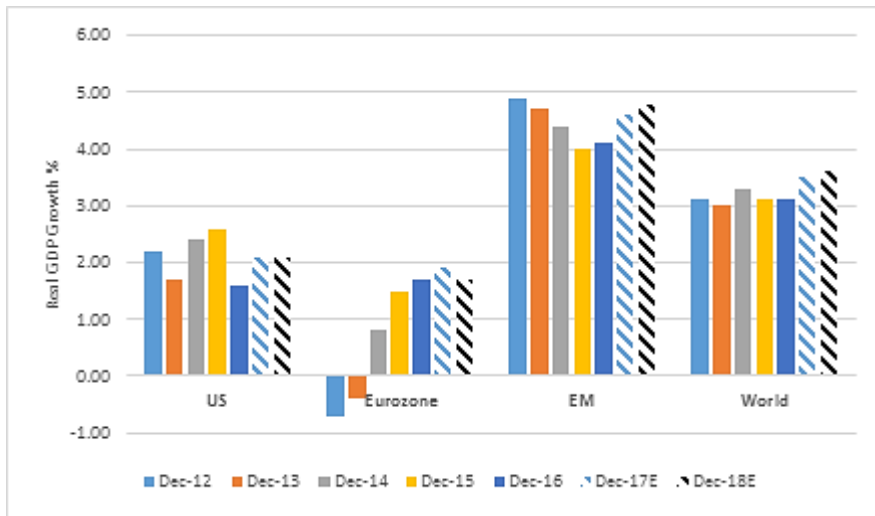
Review of Outlook for Public Markets

- In May, the Division presented to the SIC its current investment themes and tactical asset allocation outlook. Among the themes included were:
 - The Division expects to maintain a pronounced home country bias within global equities, but may tilt the allocation somewhat in favor of non-U.S. equities relative to the targeted AA
 - valuations for U.S. Equities have reached their highest levels of the past decade and appear to be discounting strong earnings growth and fiscal stimulus, at the same time certain risks appear to be deemphasized
 - Non-U.S. equity valuations are viewed more constructively, particularly in light of more favorable earnings and economic growth potential within EM and an extended period of policy accommodation within DM
 - any tilt would likely be modest, as risks remain elevated ahead of Brexit negotiations, continued pressure on the EU institution, elections in Germany, further deleveraging, and the eventual tapering of ECB monetary policy
 - While longer-term return prospects for fixed income are constrained by still low yields, the move to higher yields over the past nine months provides somewhat more attractive income prospects for an asset class with favorable defensive characteristics
 - quarterly pension payments and an improved cash flow outlook for the Fund also favor fixed income relative to an allocation to cash where the return prospects are more modest
 - the Division expects to be at or below the target allocations for investment grade and high yield credit as tightening spreads have lead to higher valuations at the same time fundamentals have weakened.
- Since May, allocations within the portfolio have marginally increased to Government Bonds, Developed Non-U.S. Equities, and Emerging Market Equities, while the allocation to high yield bonds was decreased.
- The Division's current outlook is consistent with the view communicated in May.

The Division's current outlook for public equity and fixed income markets is consistent with view presented in May as part of the asset allocation discussion

Global Economic and Earnings Growth Appear to Be Accelerating

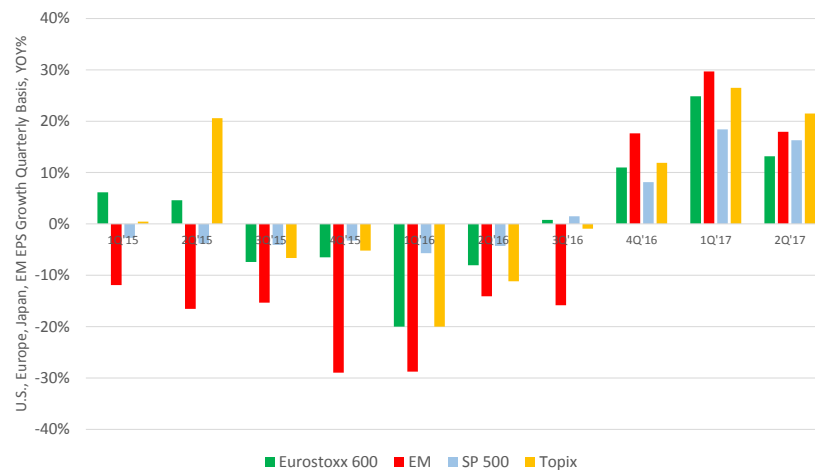
Global Economic Growth Appears to Be Strengthening



After six years of subpar global economic growth, a recovery appears to be taking hold, led by non-U.S. economies, with IMF projections for global growth to accelerate from 3.2% in 2016 to 3.5% in 2017.

According to the IMF, 2017 projected economic growth moved higher for the Emerging Markets (from 4.3% to 4.6%), the Eurozone (from 1.7% to 1.9%), Japan (from 1.2% to 1.3%) and China (from 6.6% to 6.7%). In contrast, 2017 projected economic growth for the U.S. was reduced from 2.3% to 2.1%.

Global Earnings Growth Appears to Be Accelerating



Global earnings growth is accelerating as economic growth gains strength. 2017 consensus earnings growth estimates are forecast to increase by 20% for the Emerging Markets, by 12% for the Eurozone, 18% for Japan, and by 10% for the US.

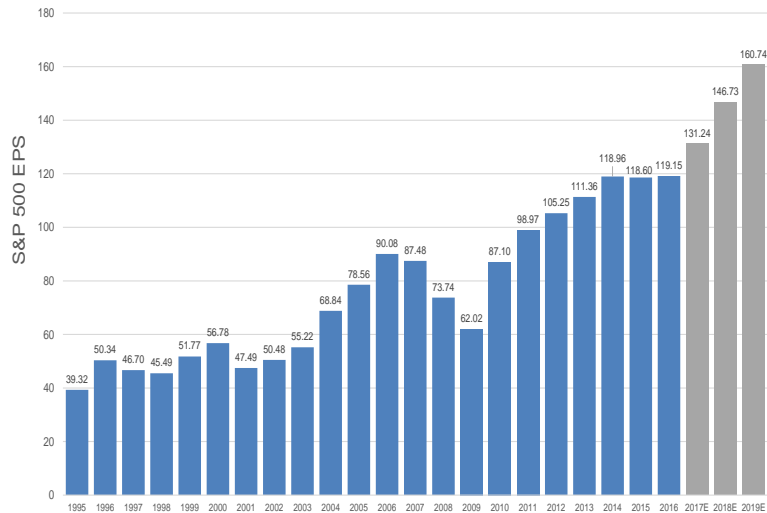
Non-U.S. earnings growth is outpacing U.S. growth following an extended period of languishing earnings. From the peak in 2007, Eurozone earnings growth has lagged behind that of the S&P 500 by 56% as Eurozone EPS growth fell 24% vs. a 32% rise for S&P 500 EPS growth. Similarly, EPS growth in Emerging Markets has been negative (down 27%) since its peak in 2011.

Positive economic and EPS growth provide a constructive outlook for global equities, with non-U.S. equity markets appearing to offer more favorable growth prospects

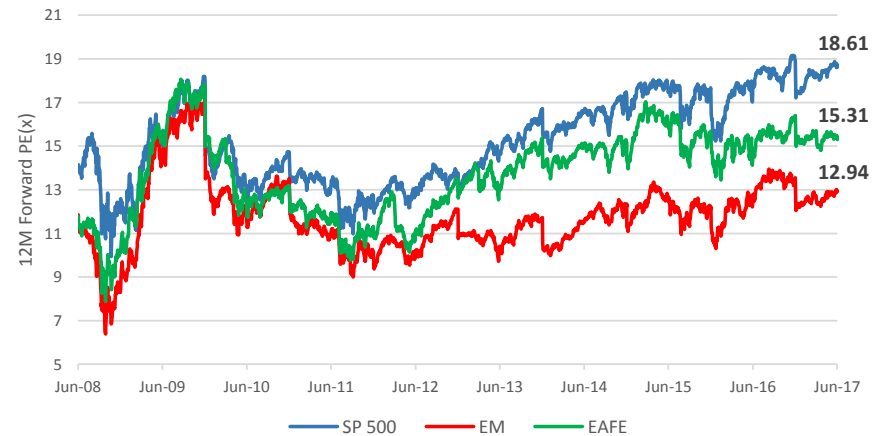
Global Equity Returns and Valuations

Global equity valuations now appear more attractive relative to the U.S. following a period of subpar economic growth, earnings growth, and equity returns.

As of June 30, 2017, DM ex-U.S. equity markets traded at 15.3x 12M forward earnings vs. 18.6x for the U.S. This compares to 13x, 15.6x and 14.2x, respectively for Emerging Markets, European stocks, and Japan.



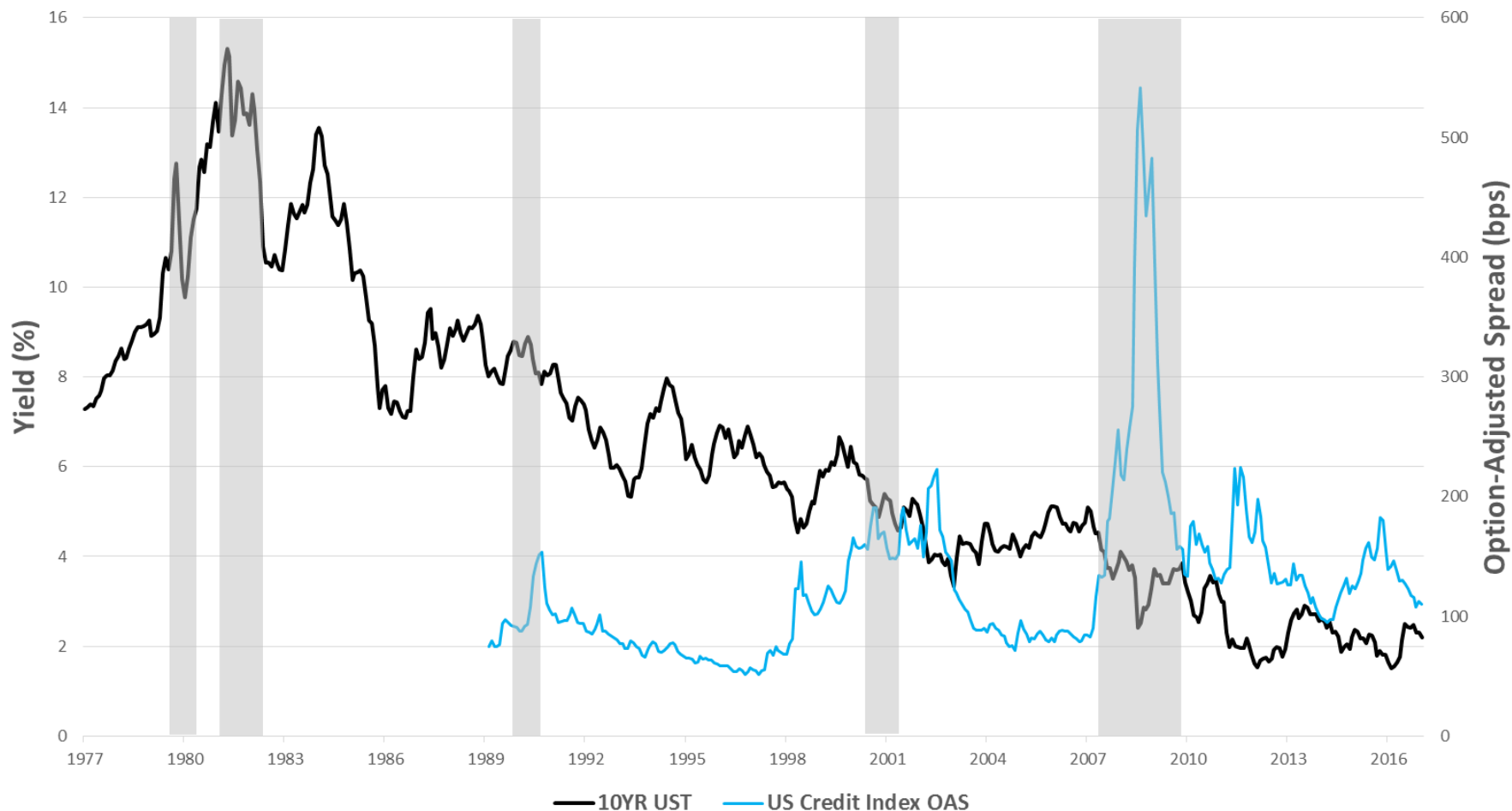
Relative Valuations for non-U.S. Equities Appear Reasonable



Within the U.S., higher valuations may be supported by favorable earnings growth, low interest rates, and improving global economic growth, with corporate tax reform and deregulation representing prospects for further upside returns potential

Relative valuations for non-U.S. equities are more attractive following an extended period of underperformance, particularly in light of favorable economic and earnings prospects. Key challenges to this outlook include the uncertainty surrounding the impact of Brexit, rising geopolitical risks, a strengthening Yen, and China's ability to maintain favorable economic growth.

A Historic Review of Ten Year U.S. Treasury Yield and Investment Grade Credit Spreads



While Treasury yields are higher versus a year ago, yields remain low in an historical context. At the same time, IG credit spreads are near their tightest point since the Great Recession, resulting in a less favorable risk-adjusted profile for Investment Grade corporates.

U.S. Fixed Income Market Valuations and Fundamentals

U.S. Treasury Yields Have Risen Over the Past Year

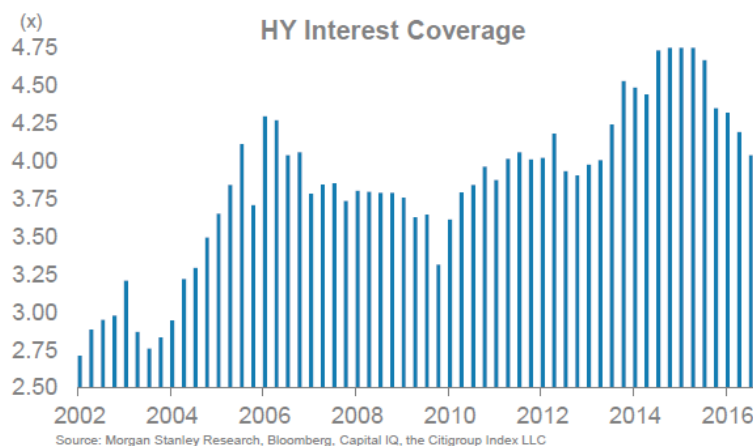


Credit Spreads Have Narrowed Over the Past Year



Treasury yields have moved higher at the same time investment grade (IG) and high yield (HY) credit spreads have tightened sharply. There appears to be limited upside for high yield as spreads compressed by 250 bps over the past fifteen months, particularly in light of less protections afforded to investors in terms of both interest coverage and bond covenants.

Credit Fundamentals Have Weakened in Recent Years



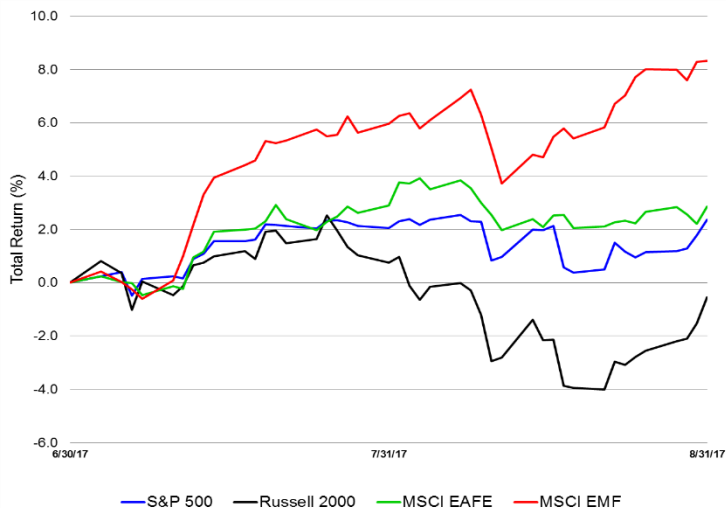
Source: Morgan Stanley Research, Bloomberg, Capital IQ, the Citigroup Index LLC

The safety of Treasuries and higher yields suggest a more constructive outlook for the sector, while a further narrowing of credit spreads is consistent with a tilt toward a lower allocation to HY.

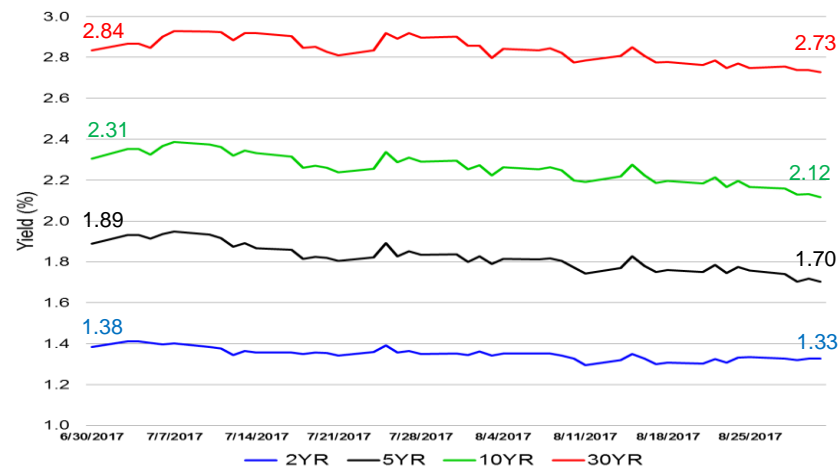
Capital Markets and Portfolio Update

Capital Markets Update (through August 31, 2017)

Fiscal Year 2018 Equity Market Returns



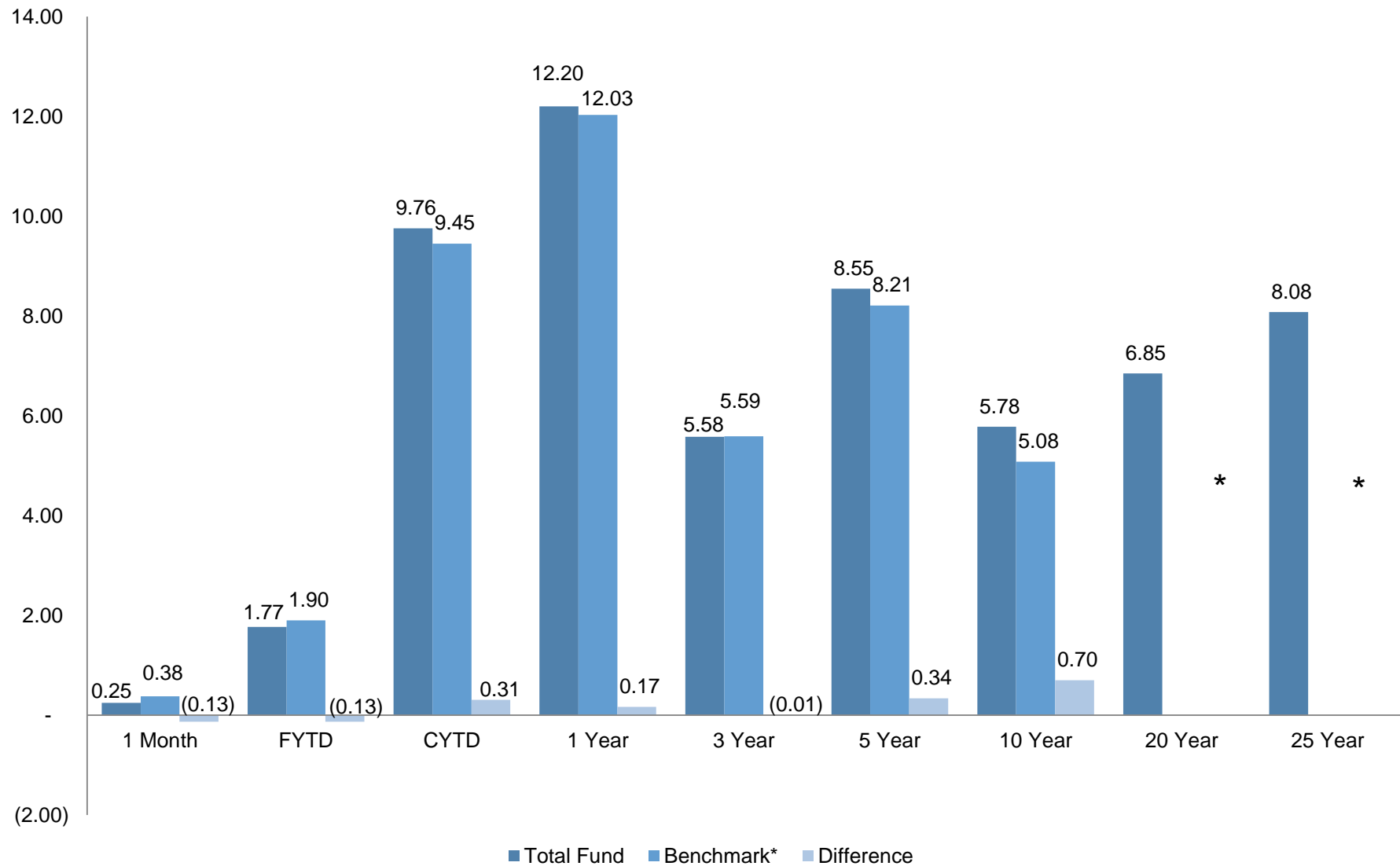
Fiscal Year 2018 U.S. Treasury Yields



	August 31, 2017	MTD %	FYTD %	CYTD %	1 Yr %	3 Yrs %	5 Yrs %	10 Yrs %	
Domestic Equity	S&P 500	0.31	2.37	11.93	16.23	9.54	14.33	7.61	1
	Russell 2000	-1.27	-0.54	4.42	14.89	7.66	13.15	7.36	2
International Equity	MSCI EAFE	-0.04	2.85	17.05	17.64	2.83	8.48	1.62	3
	MSCI EMF	2.23	8.32	28.29	24.53	2.38	5.30	2.43	4
Bond	Barclays Agg	0.90	1.33	3.63	0.49	2.64	2.19	4.40	5
	Barclays HY	-0.04	1.07	6.05	8.63	4.77	6.47	8.02	6
	Barclays US Tips	1.06	1.51	2.38	0.46	0.98	0.25	4.11	7
Commodity	Bloomberg	0.31	2.49	-3.27	2.28	-12.55	-10.33	-6.49	8
Real Estate	Bloomberg REIT	0.55	1.76	7.16	2.66	8.77	9.98	6.73	9
Hedge Funds	HFRI Composite Index*	0.80	1.08	4.68	6.59	2.69	4.91	3.32	10

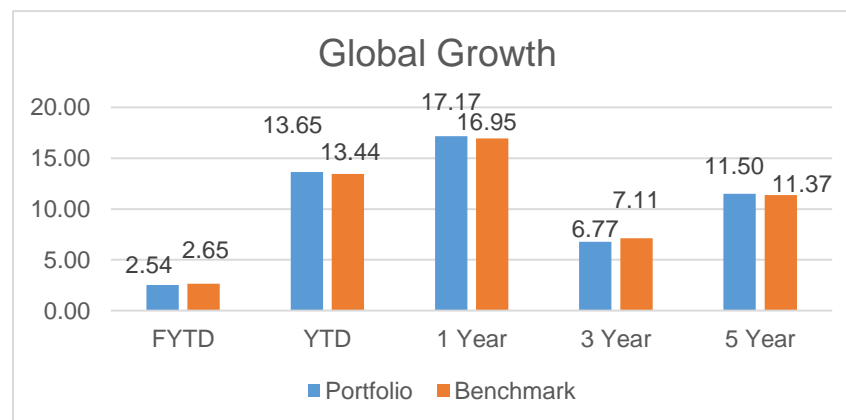
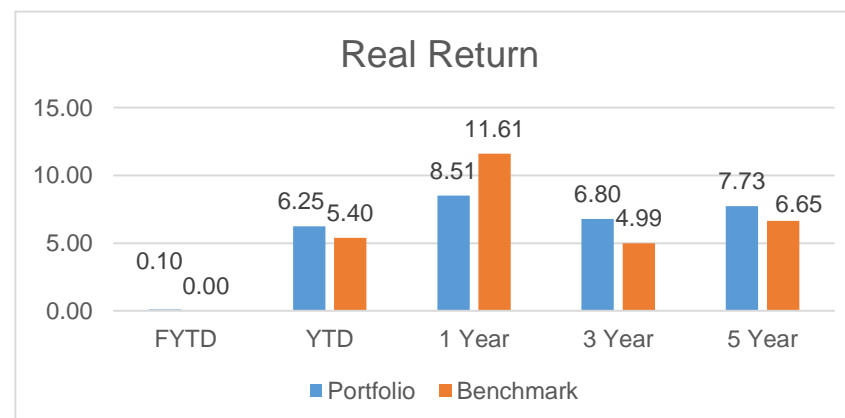
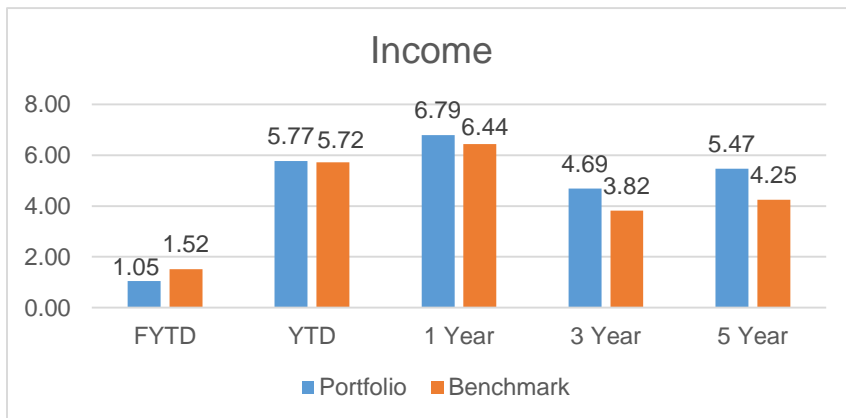
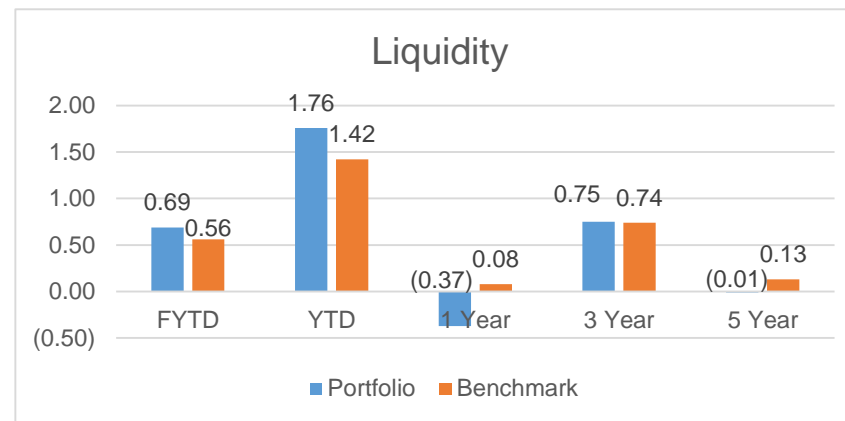
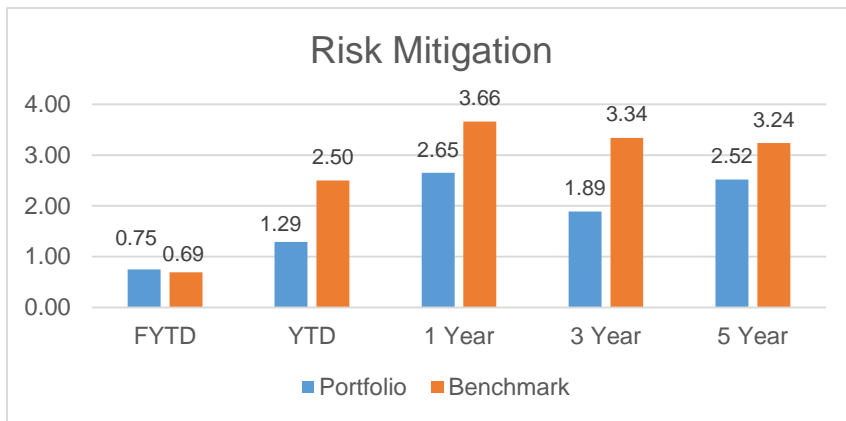
*Preliminary

Total Fund⁽¹⁾ Performance as of August 31, 2017



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

⁽¹⁾Returns are unaudited. Excluding Police and Fire Mortgage Program



*Returns are unaudited.

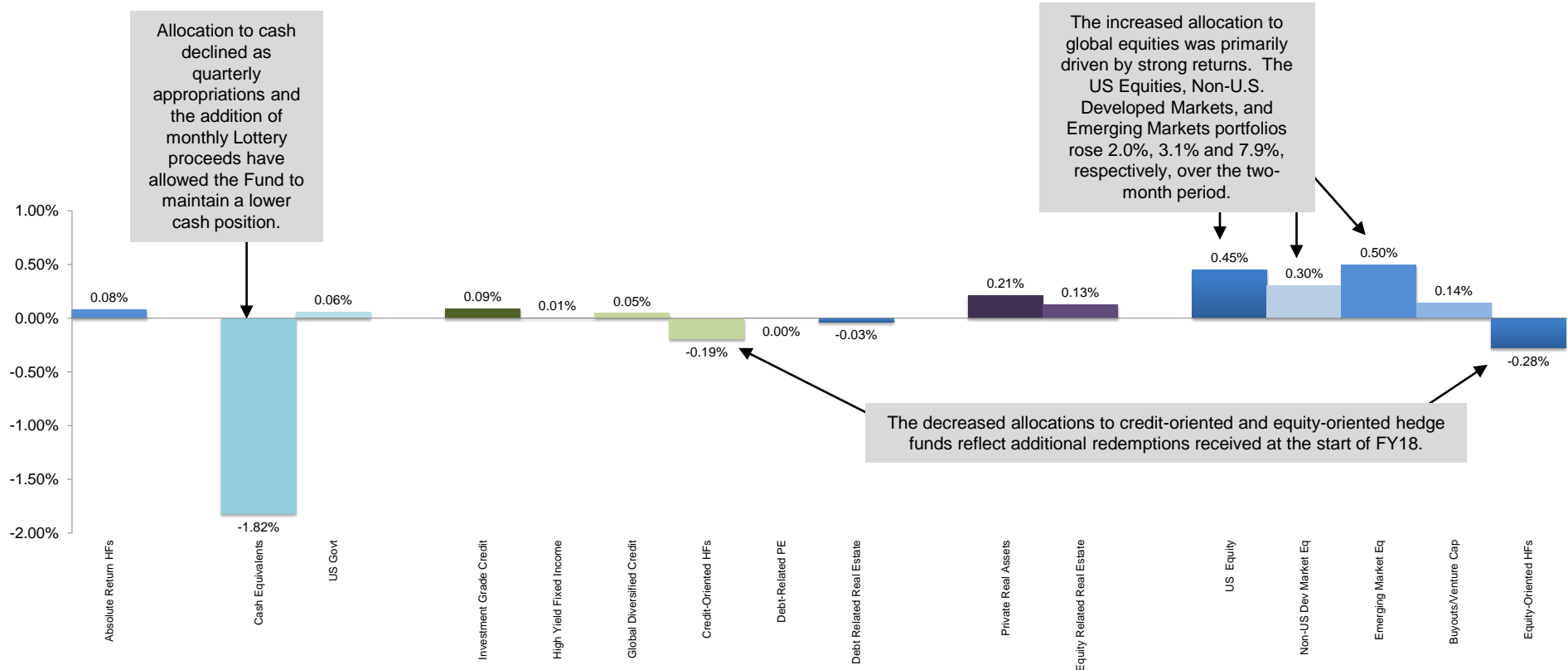
Asset Class	ASSET ALLOCATION ⁽¹⁾				PERFORMANCE (for periods ending August 31, 2017) ⁽²⁾								Long Term CMA	
	As of August 31, 2017				FYTD		Calendar YTD		Trailing Twelve Months		Trailing Three Years			
	Mkt Value	Actual (%)	Target (%)	Difference	NJ	Bench	NJ	Bench	NJ	Bench	NJ	Bench		
RISK MITIGATION														
RISK MITIGATION STRATEGIES	3,523	4.66%	5.00%	-0.34%	0.75%	0.69%	1.29%	2.50%	2.65%	3.66%	1.89%	3.34%		5.39%
LIQUIDITY														
Cash Eqv & Short Term	3,507	4.64%	5.50%	-0.86%	0.19%	0.18%	0.74%	0.48%	1.14%	0.62%				1.00%
U.S. Government	2,210	2.92%	3.00%	-0.08%	1.56%	1.25%	3.76%	3.15%	-1.24%	-0.95%				1.73%
TOTAL LIQUIDITY	5,717	7.56%	8.50%	-0.94%	0.69%	0.56%	1.76%	1.42%	-0.37%	0.08%	0.75%	0.74%		
INCOME														
Investment Grade Credit	7,249	9.59%	10.00%	-0.41%	1.46%	1.50%	4.19%	4.64%	1.37%	1.00%	3.19%	3.15%		3.54%
Public High Yield	1,469	1.94%	2.50%	-0.56%	1.26%	1.07%	6.23%	6.05%	8.83%	8.63%	4.98%	4.77%		6.49%
Global Diversified Credit	3,620	4.79%	5.00%	-0.21%	0.67%	1.07%	8.97%	6.05%	14.42%	8.63%	8.35%	4.77%		6.80%
Credit-Oriented HF's	1,736	2.30%	1.00%	1.30%	0.68%	1.17%	4.77%	6.33%	9.55%	11.64%	3.36%	2.25%		6.38%
Debt-Related PE	685	0.91%	2.00%	-1.09%	0.14%	2.55%	5.66%	8.76%	10.56%	17.01%	7.50%	7.91%		9.29%
Debt Related Real Estate	413	0.55%	1.00%	-0.45%	-0.22%	3.45%	6.76%	5.05%	4.73%	8.97%	4.12%	5.84%		6.00%
TOTAL INCOME	15,172	20.07%	21.50%	-1.43%	1.05%	1.52%	5.77%	5.72%	6.79%	6.44%	4.69%	3.82%		
REAL RETURN														
Private Real Assets	2,060	2.73%	2.50%	0.23%	-1.11%	0.00%	1.09%	10.28%	8.35%	22.73%	2.39%	-3.18%		9.56%
Commodities	141	0.19%	0.00%	0.19%	1.51%	2.67%	-1.67%	-2.72%	0.99%	2.99%	-10.14%	-12.27%		4.28%
Real Estate	4,117	5.45%	6.25%	-0.80%	0.66%	0.00%	9.04%	3.45%	8.98%	7.36%	11.95%	10.77%		8.09%
TOTAL REAL RETURN	6,318	8.36%	8.75%	-0.39%	0.10%	0.00%	6.25%	5.40%	8.51%	11.61%	6.80%	4.99%		
GLOBAL GROWTH														
US Equity	21,826	28.88%	30.00%	-1.12%	2.00%	2.03%	11.39%	11.08%	17.04%	15.87%	8.06%	9.43%		6.80%
Non-US Dev Market Eq	9,096	12.03%	11.50%	0.53%	3.05%	2.94%	17.11%	16.32%	16.99%	17.15%	2.69%	2.37%		7.28%
Emerging Market Eq	5,220	6.91%	6.50%	0.41%	7.86%	8.41%	27.19%	28.93%	23.51%	24.83%	1.61%	2.73%		8.60%
Buyouts/Venture Cap	7,028	9.30%	8.25%	1.05%	0.26%	0.00%	8.93%	7.00%	12.89%	14.10%	12.82%	9.14%		10.08%
Equity-Oriented HF's	860	1.14%	0.00%	1.14%	-0.06%	2.20%	9.30%	7.97%	15.03%	12.28%	3.81%	5.31%		7.79%
TOTAL GLOBAL GROWTH	44,030	58.25%	56.25%	2.00%	2.54%	2.65%	13.65%	13.44%	17.17%	16.95%	6.77%	7.11%		
OTHER														
OPPORTUNISTIC PE	367	0.49%			-0.09%		11.80%		15.15%		8.31%			
OTHER	460	0.61%												
TOTAL FUND⁽³⁾	75,587	100.00%			1.77%	1.90%	9.76%	9.45%	12.20%	12.03%	5.58%	5.59%		
				S&P 500	2.37%		11.93%		16.23%		9.54%			
				Russell 2000	-0.54%		4.42%		14.89%		7.66%			
				MSCI EAFE	2.85%		17.05%		17.64%		2.83%			
				MSCI EMF	8.32%		28.29%		24.53%		2.38%			
				Barclays Agg	1.33%		3.63%		0.49%		2.64%			
				Barclays HY	1.07%		6.05%		8.63%		4.77%			
				Bloomberg Commodities	2.49%		-3.27%		2.28%		-12.55%			
				Bloomberg REIT	1.76%		7.16%		2.66%		8.77%			
				HFRI	1.08%		4.68%		6.59%		2.69%			

¹ Current assets are based on preliminary values and do not include receivables of \$263 million primarily related to Real Estate secondary sale

² Unaudited and based on preliminary market values

³ Total Fund Performance excludes Police & Fire Mortgage Program

Pension Fund Update: Change in Sector Allocation from July 1, 2017 – August 31, 2017



Allocation to cash declined as quarterly appropriations and the addition of monthly Lottery proceeds have allowed the Fund to maintain a lower cash position.

The increased allocation to global equities was primarily driven by strong returns. The US Equities, Non-U.S. Developed Markets, and Emerging Markets portfolios rose 2.0%, 3.1% and 7.9%, respectively, over the two-month period.

The decreased allocations to credit-oriented and equity-oriented hedge funds reflect additional redemptions received at the start of FY18.

Risk Mitigation

Underweight allocation to Absolute Return HF (4.7% vs 5.0%)

Liquidity

Underweight allocation to Liquidity (7.6% vs 8.5%) reflects lower cash position

Income

Underweight allocation to Income (20.1% vs 21.5%) partly reflects below target allocation to High Yield as valuations appear stretched

Real Return

Underweight (8.4% vs 8.75%) allocation to Real Return; Expected to move in line with target over time as capital is committed

Global Growth

Overweight (58.3% vs 56.25%) allocation to Global Growth; the four best performing asset classes of FY17 were within Global Growth and equity markets have been strong at the start of FY18

During the start of FY18, changes to sector allocations were modest and generally reflected asset class relative returns. The allocation to cash moved lower as a portion of the State's June 2017 \$1.86 billion pension appropriation was used to pay benefits.

Noteworthy Developments

Monthly Lottery Enterprise Contributions: Lottery transferred \$79 million and \$102 million to Common Pension Fund L for the July and August payments, respectively.

Quarterly Pension Payment: The State transferred \$377 million to the Pension Funds on September 27, 2017 for the first quarterly pension contribution of FY18.

II Award Nomination: New Jersey received two nominations for Partnership of the Year as part of Institutional Investor's first annual Allocator's Choice Awards. One of the nominations is for the investment with Owl Rock and the other is for the FAIR Program partnership with Blackrock.

As a reminder, Owl Rock is a direct lending strategy structured as a private BDC. New Jersey made a sizeable investment early in their fund raise. In exchange, in addition to receiving attractive terms, NJ is entitled to a share of the firm's revenues. Owl Rock is off to a very strong start from both a fund raising and investment perspective.

The Fund Alignment and Incentive Reform (FAIR) partnership with Blackrock seeks to identify and invest in Risk Mitigating investment strategies at well below typical market terms. Specifically we are targeting a fee structure of 1% management fee and 10% incentive fee with a hurdle where possible.

The winners will be announced November 28th.

Alternative Investment Notification: Fairview Capstone Partners, L.P. and Fairview Capstone Partners II, L.P.

Background: In January 2007, the Division presented an investment of \$100 million in Fairview Capstone Partners, L.P. (“Fairview I”), a separate account investing in small and emerging buyout and venture capital funds. In June 2008, the Division presented an additional \$100 million in Fairview Capstone Partners II, L.P. (“Fairview II”), which has a similar investment strategy. At the time of these presentations, Staff reported that Fairview I and Fairview II would be classified as “buyout investments” under N.J.A.C. 17:16-90.1, despite the fact that the funds were also expected to invest in venture capital funds and special situation funds.

Modification: After an internal audit and review of the Division’s alternative investment funds, Division staff has determined that it would be more accurate to reclassify Fairview I and Fairview II as “venture capital investments” under N.J.A.C. 17:16-90.1, rather than “buyout investments” under that regulation.

Impact on New Jersey: The change in classification does not affect the investment strategies of the two funds. Nor does the change in classification affect performance reporting, since buyout investments and venture capital investments are aggregated for performance purposes.

Alternative Investment Notification: Dyal III NJ Investors LP

Background: In September 2015, the Division presented an investment of up to \$200 million in Dyal III US Investors LP and up to \$100 million in a related co-investment separate account, both to be managed by Dyal Capital Partners (“Dyal”). Staff reported that the GP commitment to Dyal III US Investors would be 1% and the GP commitment to Dyal III NJ Investors would be \$5 million. While the commitment to Dyal Capital Partners III closed shortly thereafter in December 2015, the Division only recently closed on its commitment to the co-investment separate account, Dyal III NJ Investors LP, in August 2017.

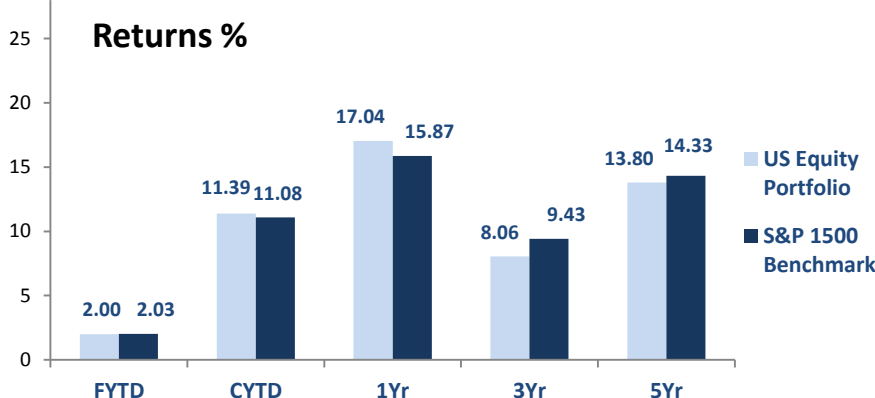
Modification: During the negotiation of final documents for Dyal III NJ Investors LP, Dyal objected to committing \$5 million to the \$100 million co-investment separate account. Such a commitment would constitute 5% of the fund, and would be in addition to Dyal’s commitments to the underlying investments through the commingled fund and other co-investment vehicles. Consistent with the commingled flagship fund, Dyal III US Investors, the GP instead agreed to a 1% GP commitment to Dyal III NJ Investors LP. In aggregate, it is expected that Dyal’s commitment to its various co-investment vehicles will be \$5 million.

Impact on New Jersey: The change in the stated GP commitment is not expected to have a material impact on the investment, because the overall Dyal commitment to each underlying investment (including through the commingled fund and the various co-investment vehicles) remains sufficient to create an alignment of interest between Dyal and the Division.

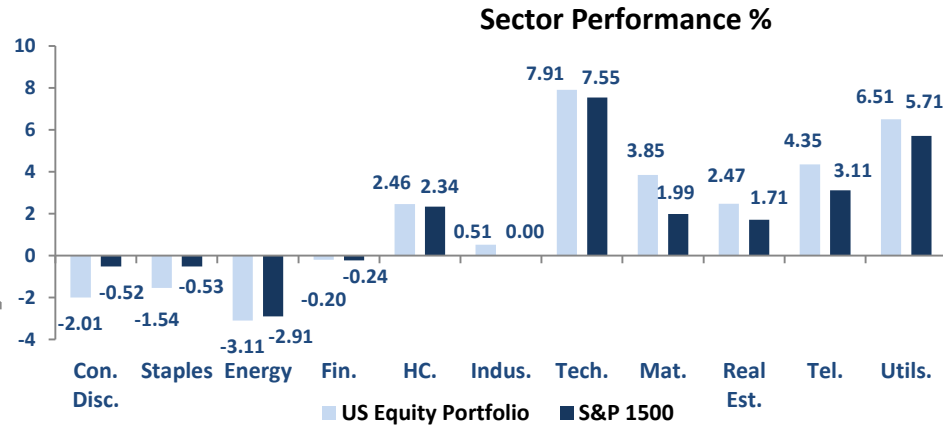
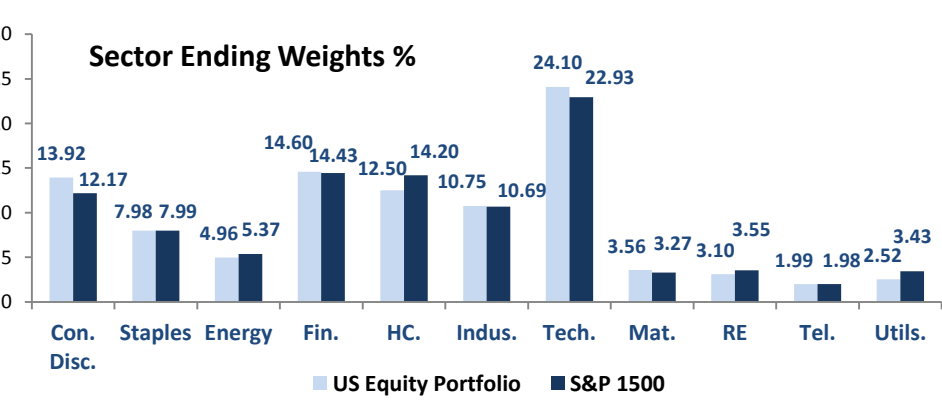
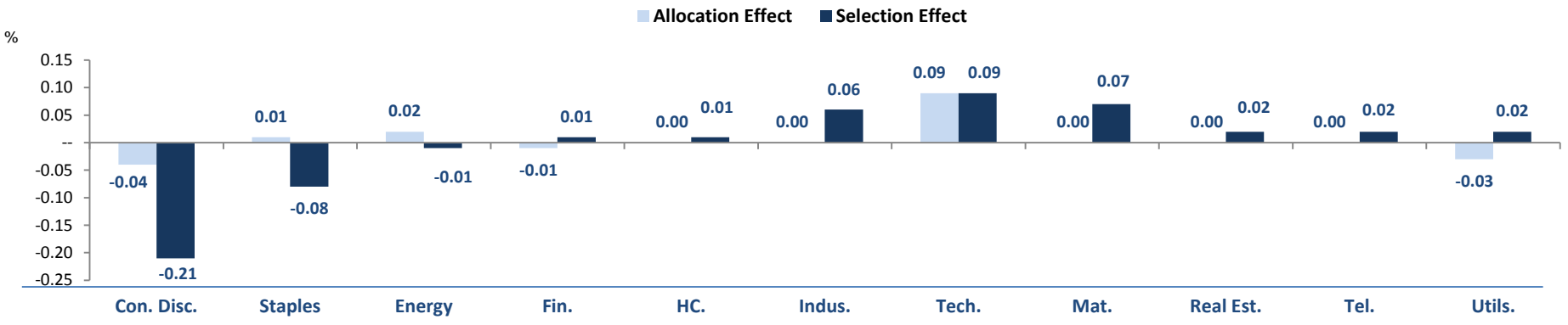
Purpose of Notifications: The Division is notifying the SIC of these modifications under its Modification Procedures.

Performance Appendix

FY18 year-to-date through August 31, 2017, the U.S. equities portfolio (+2.00%) performed in line with the S&P 1500 benchmark. Political risk seeped into US markets as the standoff over North Korean missile testing was digested by investors. Hurricane Harvey created additional economic uncertainty, potentially creating a drag on economic growth over the next couple of quarters. Finally, no significant progress was made on corporate tax reform, deregulation, and increased infrastructure spending. However, the favorable earnings backdrop remained in place. Second quarter corporate earnings came in better than expected, posting 10% year-over-year growth, its 4th consecutive quarter of positive earnings growth. Information technology was the best performing sector, increasing 7.55% fiscal year-to-date, followed by utilities' return of 5.71%. Energy, consumer staples, and consumer discretionary were the laggards.



Portfolio Return:	+2.00%	Benchmark Return:	+2.03%	Excess Return:	-0.03%
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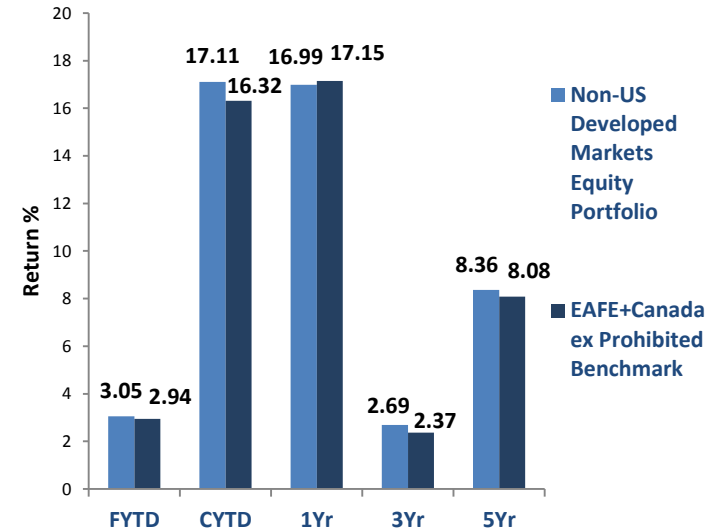


Source: State Street, Factset

FY18 year-to-date through August 31, 2017, the Non-US Developed Markets Equity Portfolio returned 3.05% versus the Benchmark return of 2.94%. During this period, the international equity markets – as represented by the ACWI ex US Index – rose 4.30%, adding to the impressive gain of 19.37% year-to-date. A supportive environment of strengthening economic data, largely accommodative monetary policy, and a weaker US dollar (down 9% YTD) has proved constructive for the developed ex US and emerging markets. This background also allowed the markets to be resilient in the face of the increase in geopolitical risk from US-North Korea tensions and the terrorist attacks in Spain that occurred in August.

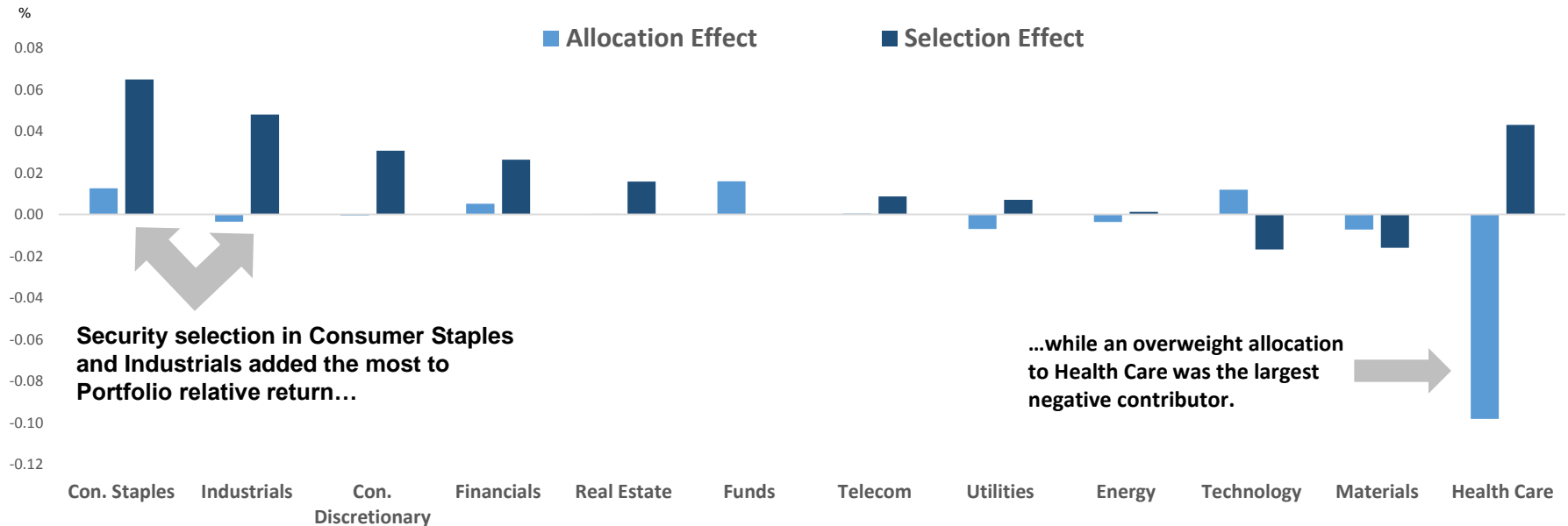
International Small Cap stocks in particular were the beneficiary of the improvement in investor sentiment toward riskier assets that has prevailed since the end of last year. The ACWI ex US Small Cap Index is up 4.70% for the period and 21.23% year-to-date, led by the strong return of the Emerging Markets. Relative to the year-to-date 13.93% return of the Developed Markets (including US), the Emerging Markets advanced 28.59%.

The Portfolio includes an out-of-benchmark allocation to International Small Cap, which was the largest contributor to performance with a total return of 4.64% vs 2.94% for Non-US Developed Equity. From a sector perspective, adding the greatest value to relative returns was security selection in Consumer Staples and Industrials. Detracting the most from Portfolio performance was an overweight allocation to Healthcare.



Portfolio Sector Attribution FYTD% - Breakdown of Excess Return:	Portfolio Return:	+3.05%	Benchmark Return:	+2.94%	Excess Return:	+0.11%
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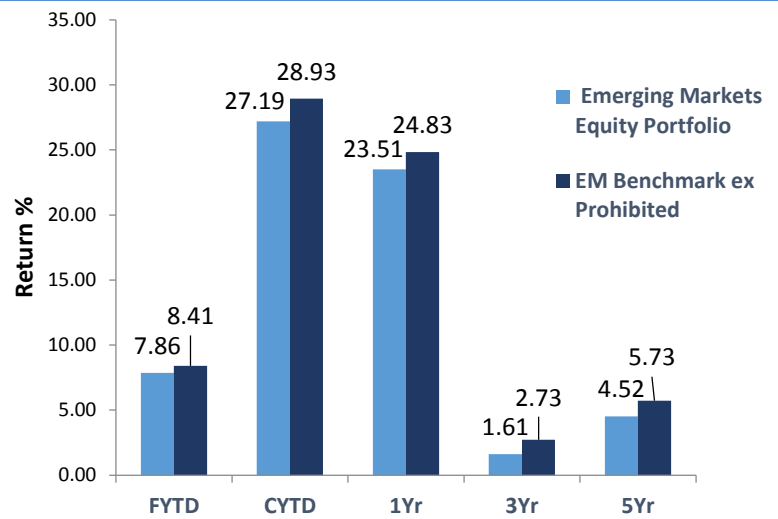
Sector Attribution:



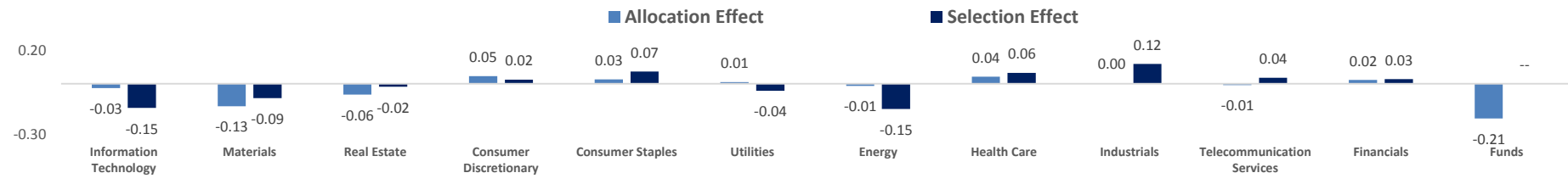
Source: State Street, Factset, Bloomberg.

FY18 year-to-date through August 31, 2017, Emerging Markets (EM) continued to realize strong returns, as August marked the ninth consecutive month of positive returns. CYTD EM outperformed Developed markets by more than 12.5%. The change in the macro backdrop that is contributing to rising interest rates (albeit gradual) and softness in the US dollar has proved favorable for Emerging Market equities, as rising rates suggest global growth is improving, and the weaker dollar indicates investors are willing to take risk and venture outside the US.

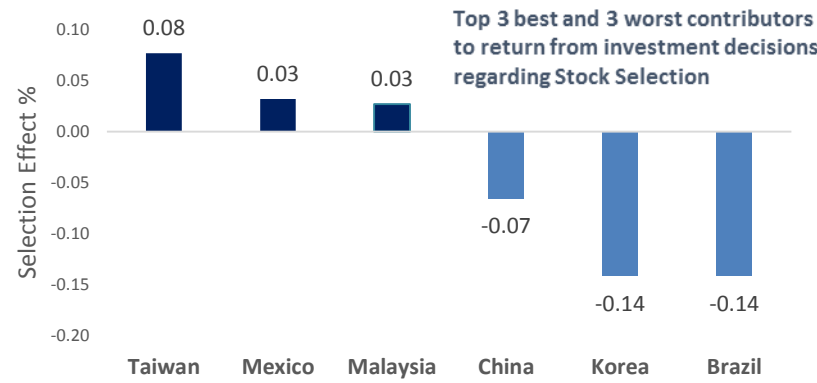
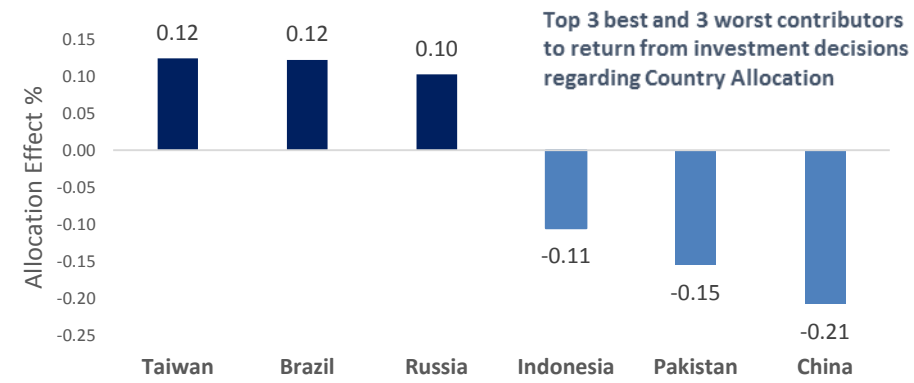
The Emerging Market Equity Portfolio returned 2.19% in August pushing the FYTD returns to 7.86% versus the Benchmark return of 8.41%. While Chinese equities advanced by almost 14% since July, allocation had an adverse impact on returns. The portfolio continues to be positioned defensively as Chinese debt levels are of increasing concern and economic indicators have begun to decelerate, suggesting growth has begun to taper in the first half of 2017. An overweight in Brazil aided returns as Brazilian equities surged 6% in August to their highest levels in six years on renewed confidence in policy reforms. Above benchmark allocation, also benefited the portfolio in Russia as currency strength and economic growth fueled a 9% rally in August. From a sector perspective, selection in Information Technology and Energy detracted from performance, while selection aided performance in Industrials and Consumer staples. With regard to allocation, most notable was the under-weight to Materials which detracted from relative performance.



Portfolio Sector Attribution FYTD% - Breakdown of Excess Return:	Portfolio Return:	+7.86%	Benchmark Return:	+8.41%	Excess Return:	(0.55%)
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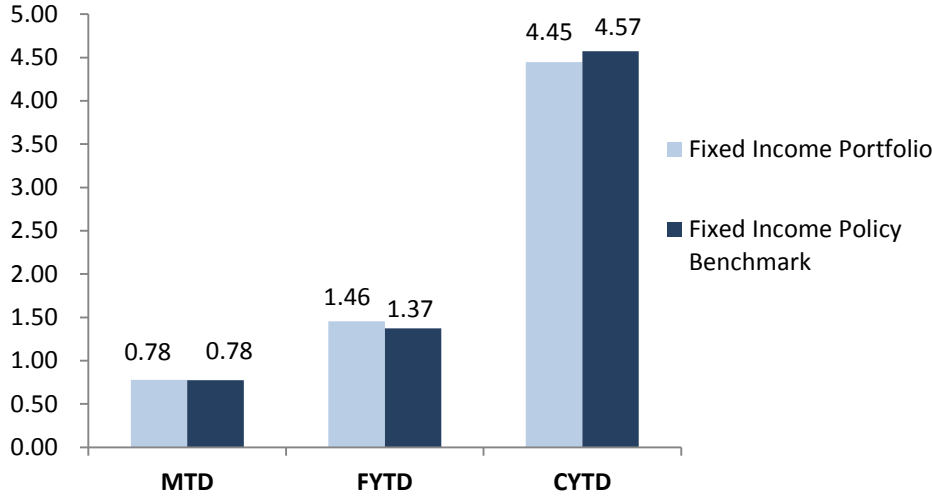
Portfolio Country Attribution FYTD% - Breakdown of Excess Return:	Portfolio Return:	+7.86%	Benchmark Return:	+8.41%	Excess Return:	(0.55%)
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Source: State Street, Factset

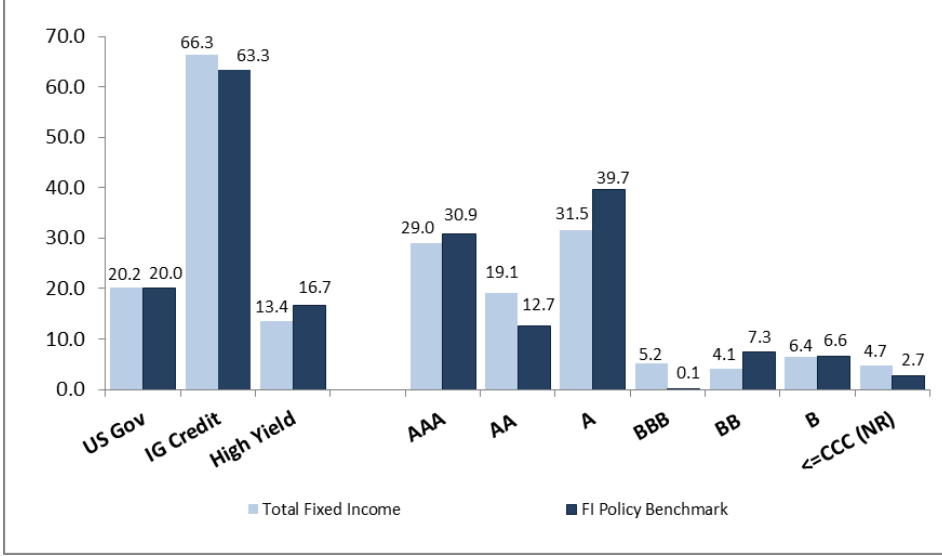
FY18 year-to-date through August 31, 2017, the US Fixed Income portfolio returned 1.46% versus the benchmark return of 1.37%. Relative returns were positively impacted by an overweight allocation to Investment Grade Credit and relative outperformance of the High Yield portfolio versus its benchmark. Through August 31st, the Custom IG Credit, US Government and Barclays High Yield Benchmarks returned 1.50%, 1.25% and 1.07%, respectively. With credit spreads largely unchanged since the beginning of the fiscal year the decline in interest rates has been the primary driver of fixed income returns. Within the US Government portfolio, a long duration bias led to relative outperformance, but this was mostly offset by the short duration positioning within the US Credit portfolio. The High Yield Portfolio has outperformed its benchmark by 19 basis points fiscal year-to-date largely due to positive industry selection.

Returns %

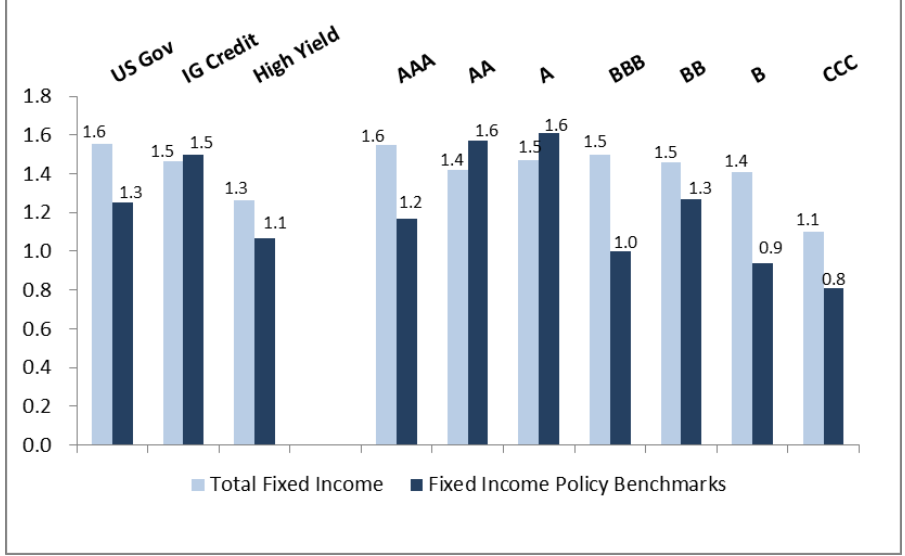


Portfolio Sector Attribution – Weights and Performance

Sector Ending Weights (%)



Sector Performance (% FYTD)



Source: State Street and FactSet