NEW JERSEY DIVISION OF INVESTMENT

Director's Report

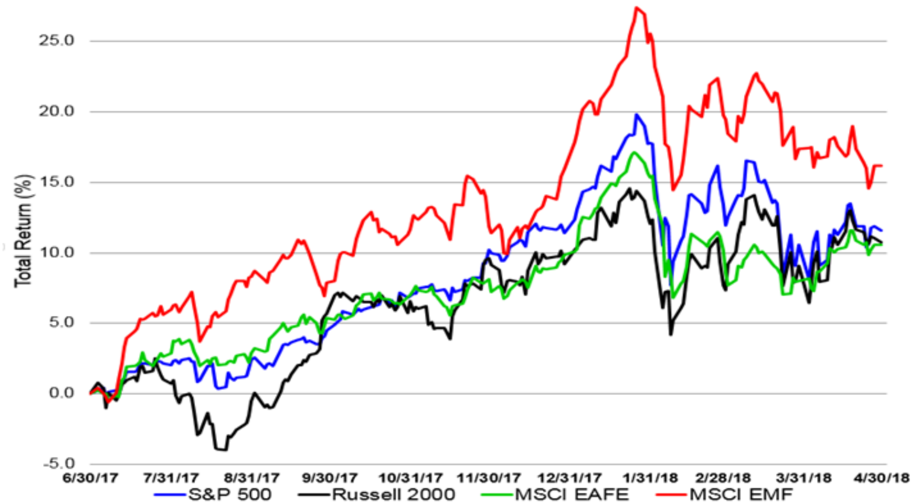
May 23, 2018

State Investment Council Meeting

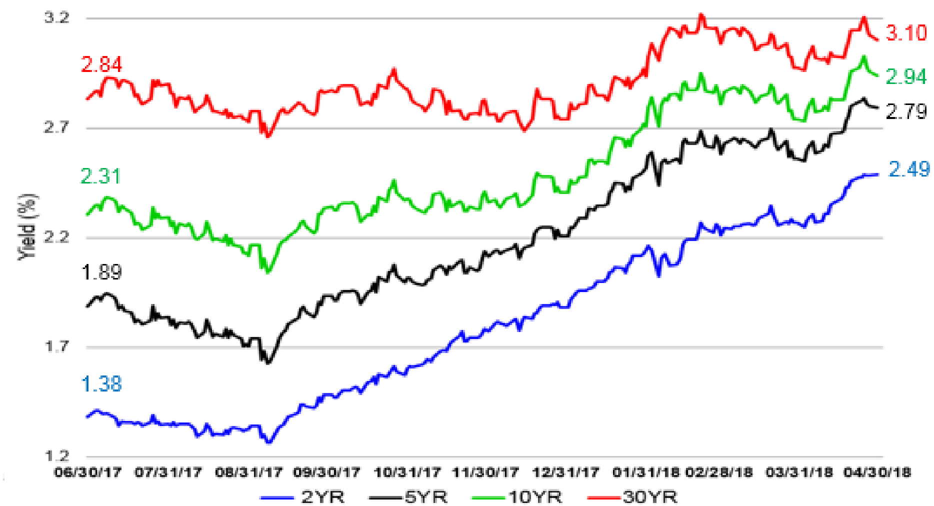
"The mission of the New Jersey Division of Investment is to achieve the best possible return at an acceptable level of risk using the highest fiduciary standards."

Capital Markets Update (through April 30, 2018)

Fiscal Year 2018 Equity Market Returns



Fiscal Year 2018 U.S. Treasury Yields



	April 30, 2018	MTD %	CYTD %	FYTD %	1 Yr %	3 Yrs %	5 Yrs %	10 Yrs %	
Domestic Equity	S&P 500	0.38	-0.38	10.99	13.26	10.56	12.95	9.01	1
	Russell 2000	0.86	0.79	10.05	11.53	9.63	11.74	9.47	2
International Equity	MSCI EAFE	2.28	0.72	10.65	14.51	4.94	5.90	2.43	3
	MSCI EMF	-0.44	0.97	17.04	21.71	6.00	4.74	2.17	4
Bond	Barclays Agg	-0.74	-2.19	-0.98	-0.32	1.07	1.47	3.57	5
	Barclays HY	0.65	-0.21	2.24	3.26	4.98	4.75	7.88	6
	Barclays US Tips	-0.06	-0.85	1.27	0.27	1.04	-0.12	3.14	7
Commodity	Bloomberg	2.42	1.62	8.46	6.64	-4.77	-7.68	-8.10	8
Real Estate	Bloomberg REIT	0.50	-6.13	-2.82	-0.99	5.32	5.68	6.50	9
Hedge Funds	HFRI Composite Index*	0.38	0.39	5.25	5.77	3.27	4.14	3.46	10

Source: Bloomberg

*Preliminary

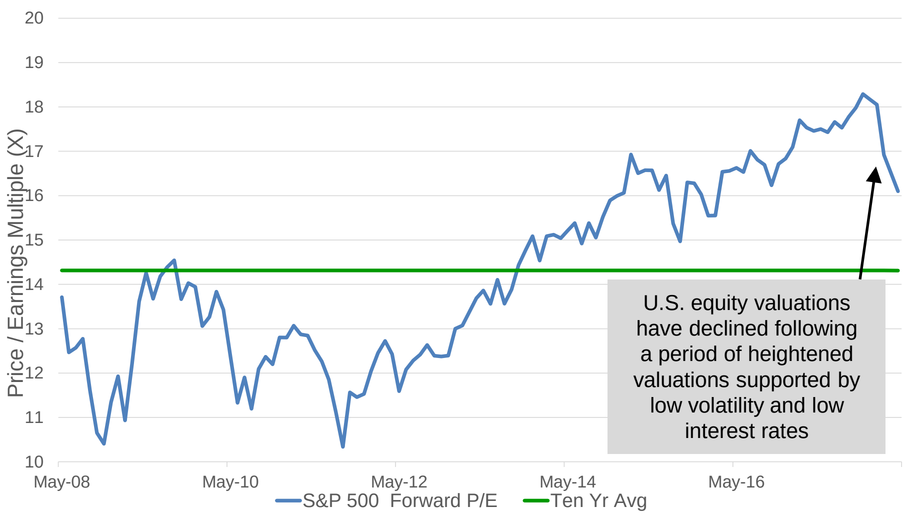
Valuations for U.S. Equites Move Lower On Strong Earnings and Flat Returns

The Earnings Outlook For U.S. Equities Is Strong

Year-over-year earnings growth for the S&P 500 is up 25%, marking the strongest growth in at least a decade, with approximately ¾ of companies reporting first quarter 2018 earnings above consensus estimates. For 2018 and 2019, earnings are projected to grow at an annualized rate of 15%. While corporate tax reform has played a meaningful role in the growth in earnings, revenue growth above 8% has also exceeded expectations, as corporations have beaten revenue growth forecasts at the highest rate in at least that past decade as well, implying favorable organic growth in corporate earnings.

Equity Market Valuations Have Moved Towards Longer-Term Averages

Throughout calendar year 2017, strong equity returns were supported by robust earnings growth with only a modest change in valuations. Despite the continuing trend in favorable earnings, U.S. stock returns have declined by more than 5% since reaching all-time highs in late January, leaving returns essentially flat calendar year-to-date through April. The recent decline in market prices lead to more normalized valuations versus longer-term historical averages.

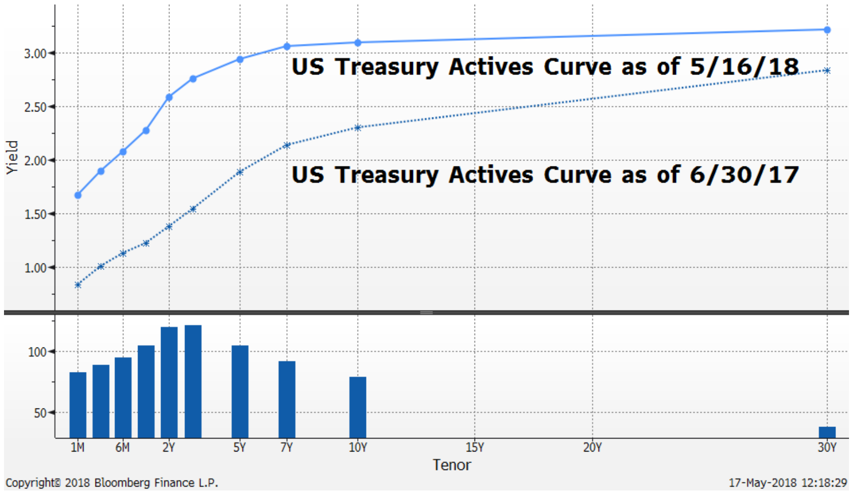


While earnings and revenue growth have been favorable, U.S. equity market returns have been flat on a CYTD basis as valuations have declined

Source: FactSet

Global Growth Prospects Continue To Improve And The Yield Curve Is Higher And Flatter

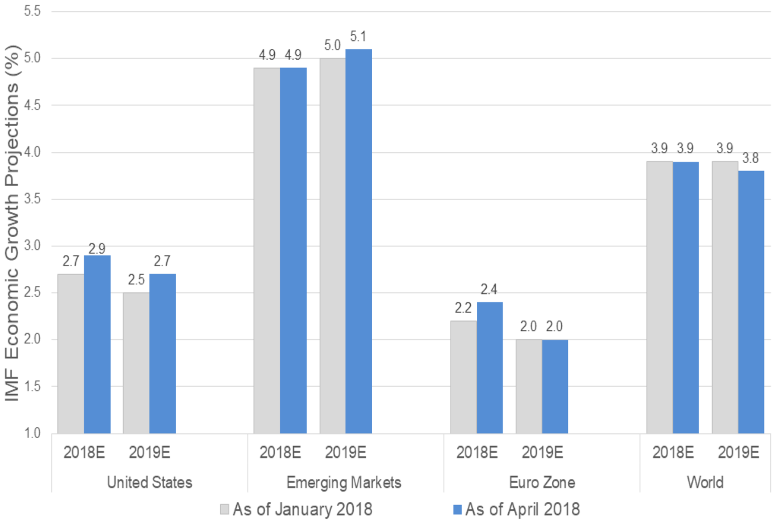
Yields Have Increased Across the Curve and the Curve Has Flattened



While a flattening curve may provide some evidence of an economic slowdown, the flattening has resulted entirely from a faster move to higher rates on the short end of the curve that is consistent with the normalization of monetary policy. In fact, yields have moved higher across the entire curve, in line with expectations for expanding economic activity. In its most recent economic growth projections, the IMF increased the near-term outlook for global growth, driven importantly by higher U.S. economic growth.

The IMF is projecting 3.9% global growth in 2018 and 3.8% for 2019. The most recent projections released in April include increased growth expectations for the U.S. for 2018 and 2019, an increase for the Eurozone for 2018 and a small increase for Emerging Markets for 2019. Both the U.S. and the Eurozone have experienced significant increases in growth expectations over the last six months. The IMF attributes a significant portion of increased growth expectations for the U.S. to temporary fiscal stimulus. The IMF notes future growth expectations are likely to be negatively impacted by demographic trends in developed countries as well as historically high private and public debt levels.

IMF Growth Projections Have Increased for the U.S.

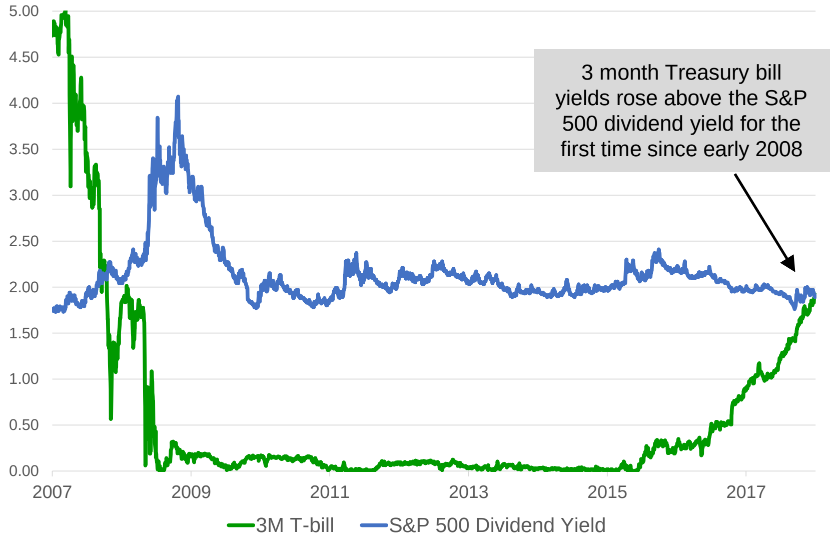


Higher interest rates across the curve are consistent with normalized monetary policy and an improved outlook for global growth

Source: Bloomberg and IMF

Higher Short Rates Could Be A Headwind For Equities Despite Strong Demand From Corporations

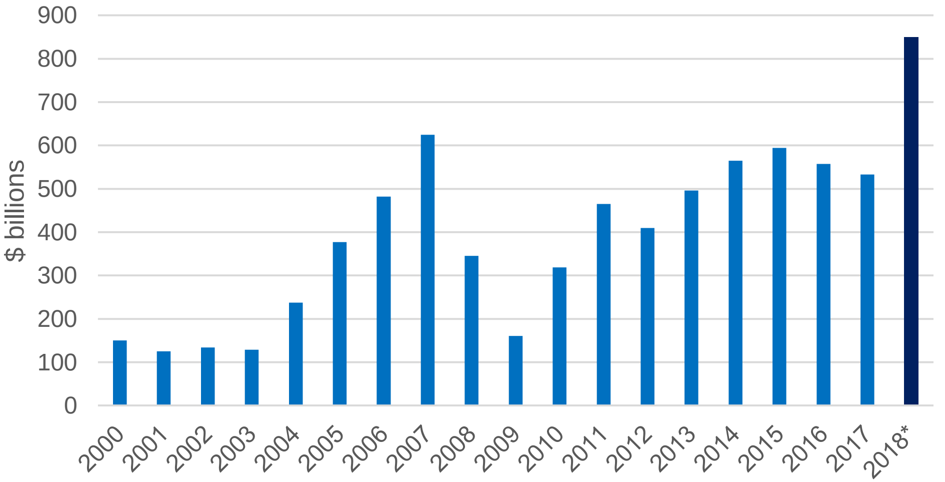
Dividend Yields Are Now Below T-Bills



The shift in valuations has also coincided with tighter monetary policy, increased volatility, higher Treasury yields and a flatter yield curve. The ten-year Treasury yield has reached its highest yield since 2011, while the 2/30 curve is at its flattest point since 2007. A sharp move higher in short-term borrowing costs has also moved Treasury bill yields above the dividend yield on the S&P 500 for the first time in more than a decade, raising some concerns that valuations supported by extraordinary monetary policy have come to an end as cash and short term investment begin to look more attractive.

Corporations have been increasingly returning capital via share buybacks, possibly providing support to equity valuations going forward. 2018 estimates for stock buybacks for S&P 500 companies are as high as $800-$900 billion, up $280 billion from 2017. Repatriation of overseas cash is a key driver of higher share buybacks.

S&P 500 Buybacks Are Expected to Be Historically High



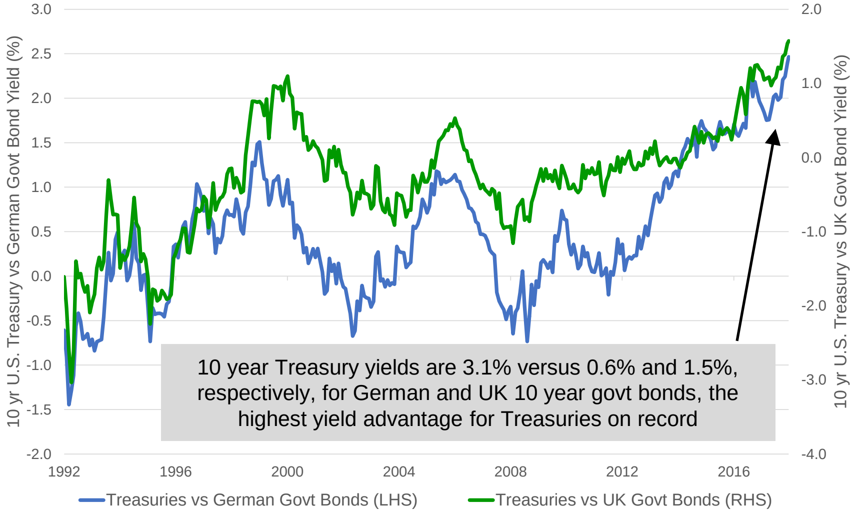
* Projected

While stock buybacks are expected to be at record levels in 2018, cash and short term investments are becoming a more viable option for investors as rates move higher

Source: Bloomberg and Citi

Global Equity Valuations May Be Impacted By Yields, Economic Fundamentals, and the Dollar

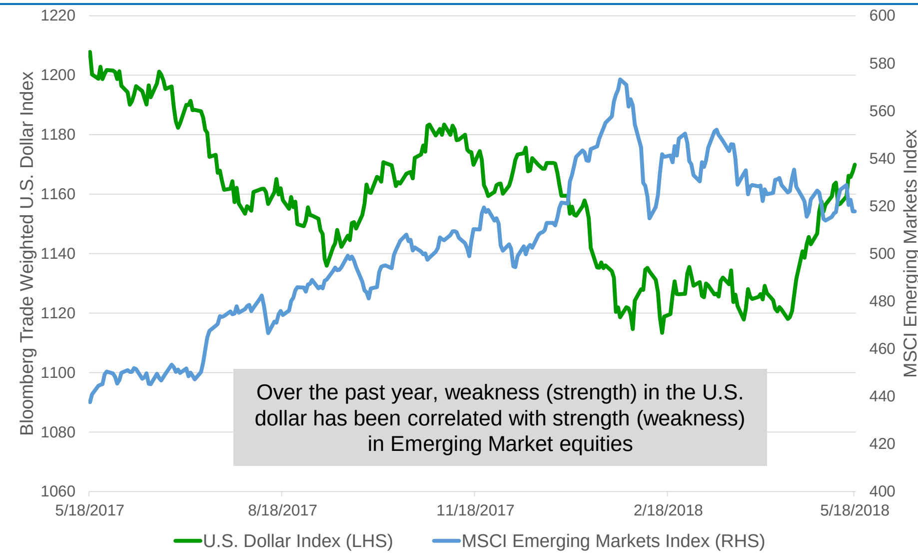
10 Yr Yields Are High Relative to Other Sovereign Rates



Higher U.S. interest rates have helped strengthen the U.S. dollar. A stronger dollar also appears to be partially attributable to more favorable relative economic growth prospects and further progress towards monetary policy normalization versus non-U.S. developed markets. Notwithstanding expectations for significantly higher Treasury issuance to finance a growing federal deficit, the shift to higher Treasury yields has already left U.S. borrowing costs at some of their highest levels relative to other sovereign rates, suggesting yields may be somewhat anchored in the near-term following a sharp move higher.

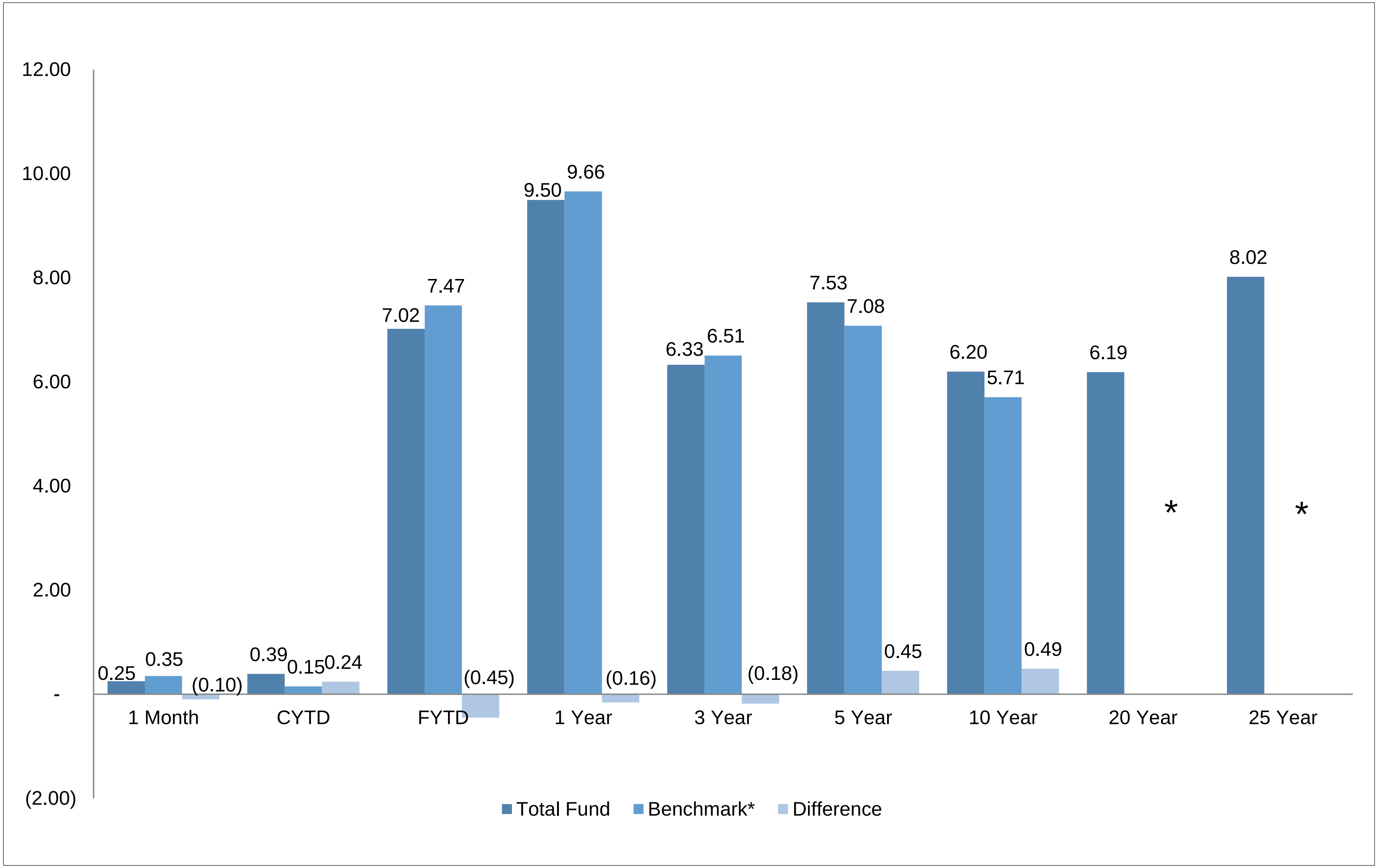
If a stronger dollar persists, U.S. multinationals could be adversely impacted via slowing international demand for products, particularly if adverse trade policies take hold. Still, the economic backdrop appears favorable for strong domestic demand. The U.S. unemployment rate dropped below 4% for the first time since 2000 and consumer confidence remains near an eighteen year high. The recent sharp increase in oil may temper otherwise favorable fundamentals for final demand. In the meantime, global equities have realized negative returns over the past two months, with emerging markets underperforming in the wake of tightening Fed policy, a stronger U.S. dollar, and higher oil prices.

A Strong Dollar Has Impacted Emerging Markets



While earnings are expected to remain strong, global equity valuations may be impacted by a wide range of factors including interest rates, economic fundamentals, volatility, and U.S. dollar

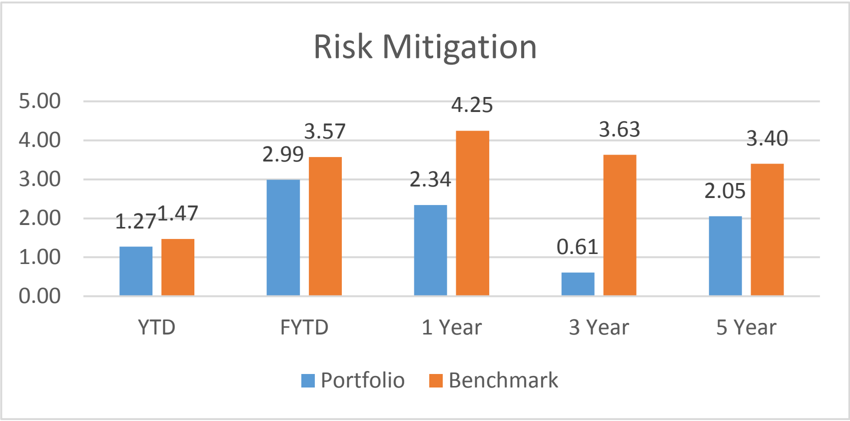
Source: Bloomberg

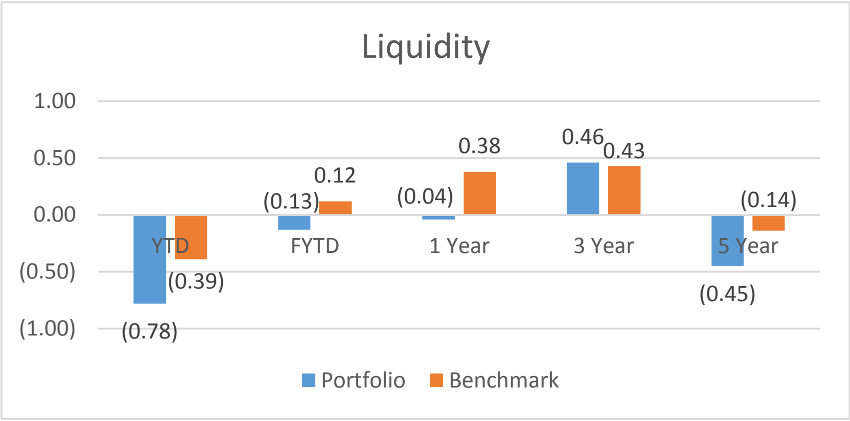


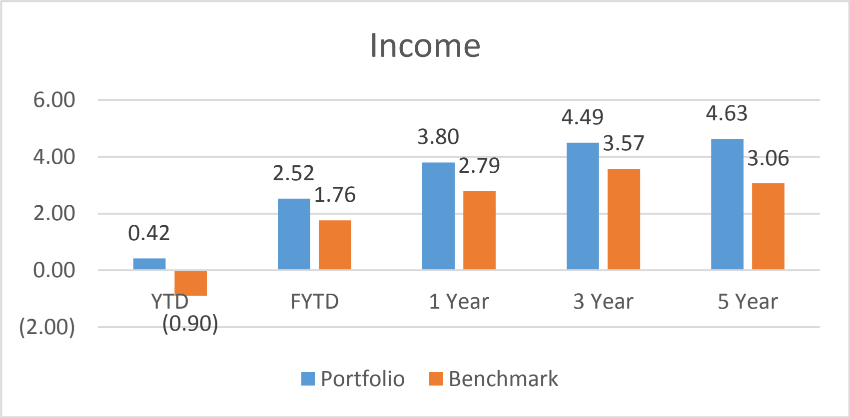
(1) Pension Fund return excludes Police and Fire Mortgage Program

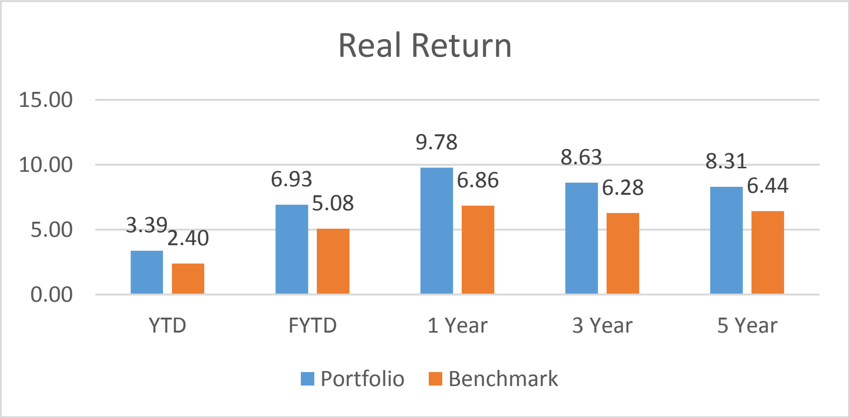
*Benchmark return not available for 20 and 25-Year period

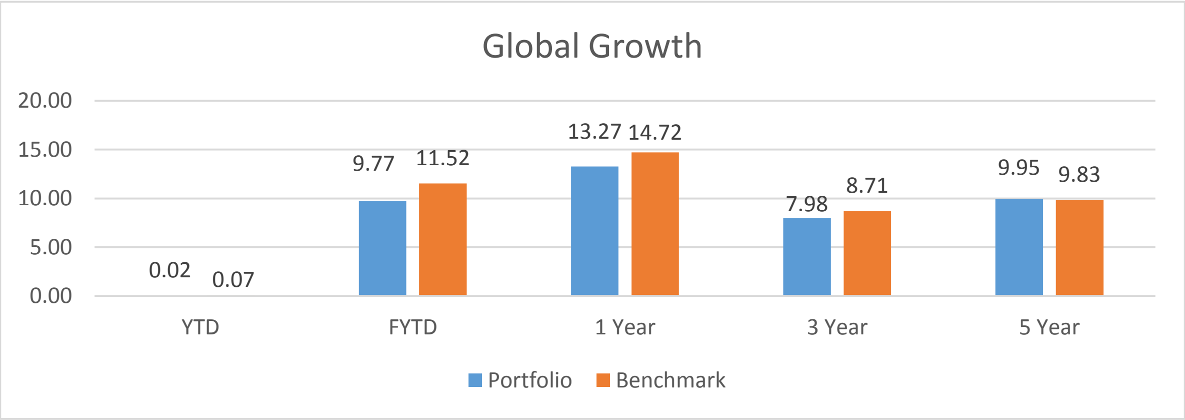
Asset Class Returns through April 30, 2018











	ASSET ALLOCATION [1] As of April 30, 2018				PRELIMINARY PERFORMANCE (for periods ending April 30, 2018) [2] Calendar YTD		FYTD		Trailing Twelve Months		Trailing Three Years		
Asset Class	**Mkt Value**	**Actual (%)**	**Target (%)**	**Difference**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**Long Term CMA**
RISK MITIGATION													
RISK MITIGATION STRATEGIES	**3,371**	**4.36%**	**5.00%**	**-0.64%**	**1.27%**	**1.47%**	**2.99%**	**3.57%**	**2.34%**	**4.25%**	**0.61%**	**3.63%**	
LIQUIDITY													
Cash Eqv & Short Term	3,954	5.11%	5.50%	-0.39%	0.70%	0.49%	1.48%	1.04%	1.65%	1.17%	1.24%	0.57%	1.00%
U.S. Government	1,589	2.06%	3.00%	-0.94%	-2.14%	-1.98%	-1.59%	-1.55%	-1.42%	-1.07%	-0.28%	0.07%	1.73%
TOTAL LIQUIDITY	**5,543**	**7.17%**	**8.50%**	**-1.33%**	**-0.78%**	**-0.39%**	**-0.13%**	**0.12%**	**-0.04%**	**0.38%**	**0.46%**	**0.43%**	
INCOME													
Investment Grade Credit	7,639	9.88%	10.00%	-0.12%	-2.35%	-2.93%	-1.11%	-0.96%	-0.57%	0.22%	1.56%	1.68%	3.54%
Public High Yield	1,294	1.67%	2.50%	-0.83%	-0.11%	-0.21%	2.87%	2.24%	3.69%	3.26%	5.30%	4.98%	6.49%
Global Diversified Credit	4,462	5.77%	5.00%	0.77%	3.29%	-0.21%	6.52%	2.24%	9.44%	3.26%	9.12%	4.98%	6.80%
Credit-Oriented HFs	866	1.12%	1.00%	0.12%	3.03%	1.97%	4.91%	4.24%	4.33%	4.73%	4.98%	4.13%	6.38%
Debt-Related PE	908	1.17%	2.00%	-0.83%	5.34%	2.06%	9.54%	7.94%	14.64%	9.84%	9.46%	9.56%	9.29%
Debt Related Real Estate	406	0.53%	1.00%	-0.47%	2.62%	3.21%	5.13%	8.43%	9.66%	7.53%	4.35%	4.44%	6.00%
TOTAL INCOME	**15,575**	**20.14%**	**21.50%**	**-1.36%**	**0.42%**	**-0.90%**	**2.52%**	**1.76%**	**3.80%**	**2.79%**	**4.49%**	**3.57%**	
REAL RETURN													
Real Assets	2,354	3.04%	2.50%	0.54%	3.34%	3.79%	4.84%	5.15%	3.36%	7.43%	3.18%	0.37%	9.56%
Equity Related Real Estate	4,353	5.63%	6.25%	-0.62%	3.42%	1.85%	8.07%	5.04%	13.26%	6.66%	11.48%	9.42%	8.09%
TOTAL REAL RETURN	**6,707**	**8.67%**	**8.75%**	**-0.08%**	**3.39%**	**2.40%**	**6.93%**	**5.08%**	**9.78%**	**6.86%**	**8.63%**	**6.28%**	
GLOBAL GROWTH													
US Equity	22,963	29.69%	30.00%	-0.31%	-1.59%	-0.36%	9.04%	10.85%	11.06%	13.00%	8.79%	10.53%	6.80%
Non-US Dev Market Eq	9,279	12.00%	11.50%	0.50%	0.56%	0.04%	10.99%	10.09%	14.95%	13.96%	4.92%	4.54%	7.28%
Emerging Market Eq	5,476	7.08%	6.50%	0.58%	0.00%	0.81%	14.80%	16.92%	18.62%	21.87%	5.76%	6.20%	8.60%
Buyouts/Venture Cap	7,078	9.15%	8.25%	0.90%	4.86%	0.00%	8.41%	10.84%	15.74%	15.60%	12.79%	10.14%	10.08%
Equity-Oriented HFs	653	0.84%	0.00%	0.84%	-0.06%	0.10%	1.07%	4.16%	5.04%	5.37%	1.44%	4.41%	7.79%
TOTAL GLOBAL GROWTH	**45,449**	**58.76%**	**56.25%**	**2.51%**	**0.02%**	**0.07%**	**9.77%**	**11.52%**	**13.27%**	**14.72%**	**7.98%**	**8.71%**	
OTHER													
OPPORTUNISTIC PE	409	0.53%			1.15%		4.72%		14.22%		9.36%		
OTHER	285	0.37%											
TOTAL FUND [3]	**77,341**	**100.00%**			**0.39%**	**0.15%**	**7.02%**	**7.47%**	**9.50%**	**9.66%**	**6.33%**	**6.51%**	

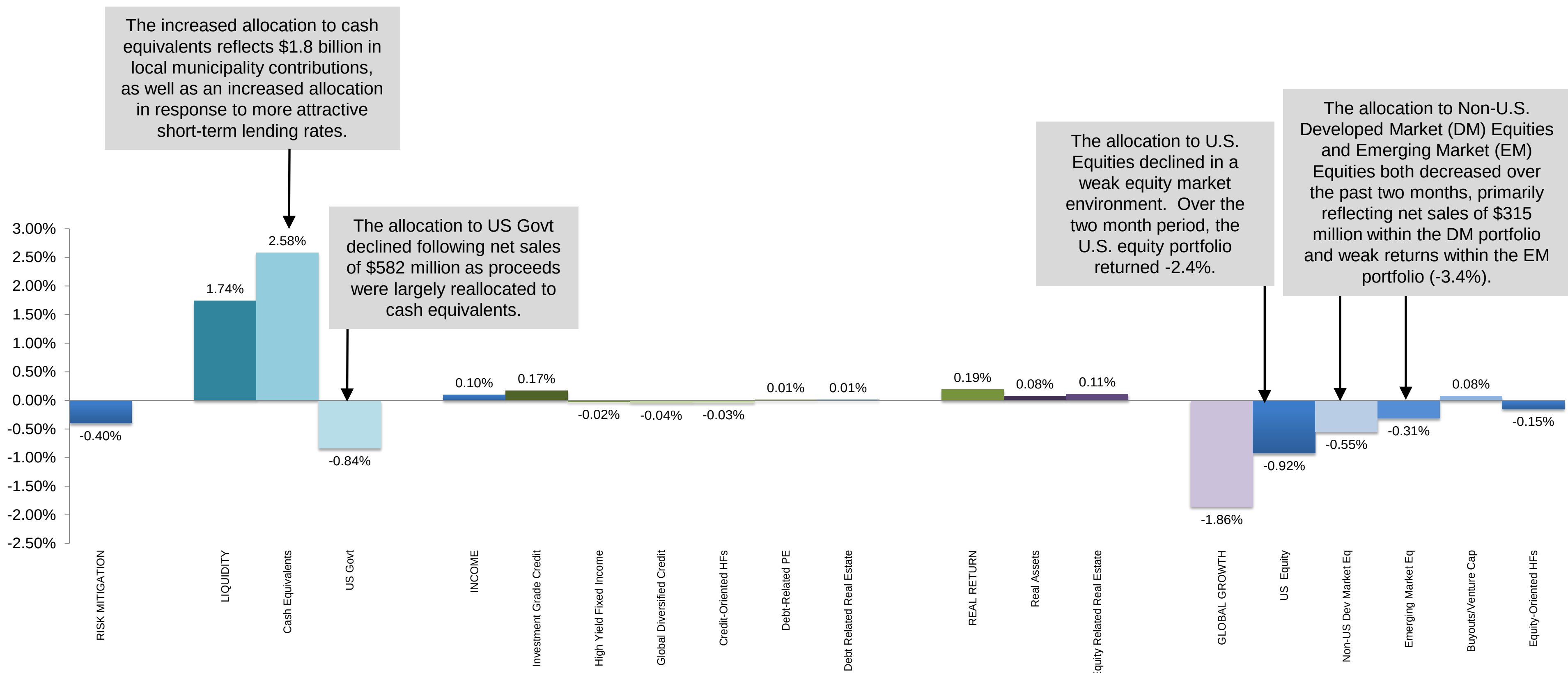
	Calendar YTD	FYTD	Trailing Twelve Months	Trailing Three Years
S&P 500	-0.38%	10.99%	13.26%	10.56%
Russell 2000	0.79%	10.05%	11.53%	9.63%
MSCI EAFE	0.72%	10.65%	14.51%	4.94%
MSCI EMF	0.97%	17.04%	21.71%	6.00%
Barclays Agg	-2.19%	-0.98%	-0.32%	1.07%
Barclays HY	-0.21%	2.24%	3.26%	4.98%
Bloomberg Commodities	1.62%	8.46%	6.64%	-4.77%
Bloomberg REIT	-6.13%	-2.82%	-0.99%	5.32%
HFRI	0.38%	5.25%	5.77%	3.27%

1 Current assets do no include receivables of $3 million 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 February 28, 2018– April 30, 2018



Risk Mitigation

Allocation to Absolute Return HF remains below target (4.4% vs 5.0%).

Liquidity

Allocation to Liquidity is below targeted allocation (7.2% vs 8.5%). Increased allocation to cash resulting from pension contributions was partially offset by reduced allocation to U.S. Govt.

Income

Allocation to Income is below targeted allocation (20.1% vs 21.5%) following little changes in underlying allocations.

Real Return

Allocation to Real Return (8.67% vs 8.75%) is more in line with the targeted allocation, partly as a result of an increased allocation to Real Assets.

Global Growth

Decline in allocation to global equities reduced overweight allocation to the broader Global Growth (58.8% vs 56.25%)

Inflows from local municipalities and a reallocation out of Government securities lead to a higher allocation to cash equivalents. Weak equity market returns and a modest redistribution out of Developed Equities led to lower allocation to both DM and EM equities

Noteworthy Developments

<u>S5</u>– S5, which would transfer investment authority over PFRS assets from the Division to the PFRS Board of Trustees, was conditionally vetoed by Governor Murphy on May 10. The conditional veto (CV), if subsequently enacted into law, would result in a change in PFRS oversight from the SIC to the PFRS Board of Trustees, requires the new Board to accept the Rate of Return set by the Treasurer, and eliminates the transfer of $26 billion of pension assets from the Division of Investment.

<u>Staffing:</u> The Division has begun the initial interviews for the head of Alternative Investment role. The Division has posted advertisements and is collecting resumes for a Senior Fixed Income Portfolio Manager (in anticipation of the Retirement of Tim Patton at the end of June) and for 2 Investment Analyst Trainees (to add depth to the organization). In addition, the Division is working with HR on position descriptions and advertisements for a Corporate Governance Officer and a Performance Analyst.

<u>Cash flows:</u> Lottery transferred $92 million and $78 million to Common Pension Fund L for the March and April payments, respectively. FYTD, $813 million has been transferred to Common Pension Fund L.

Local employers were billed $1.877 billion for the FY18 pension payment. Through April 30th, $1,857.4 billion had been received, in line with prior fiscal years for this point in the year.

<u>Request for Proposals:</u> The Division has issued an RFP for proxy research and voting, proxy voting policy review, and class action monitoring services. RFP responses are due May 30, 2018.

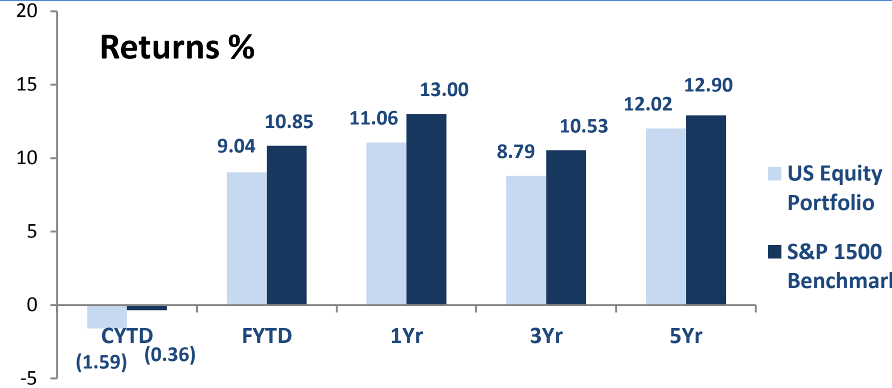
State Investment Council Membership Update

After the March meeting, Charles Dolan and Mitchell Shivers have resigned from the State Investment Council.

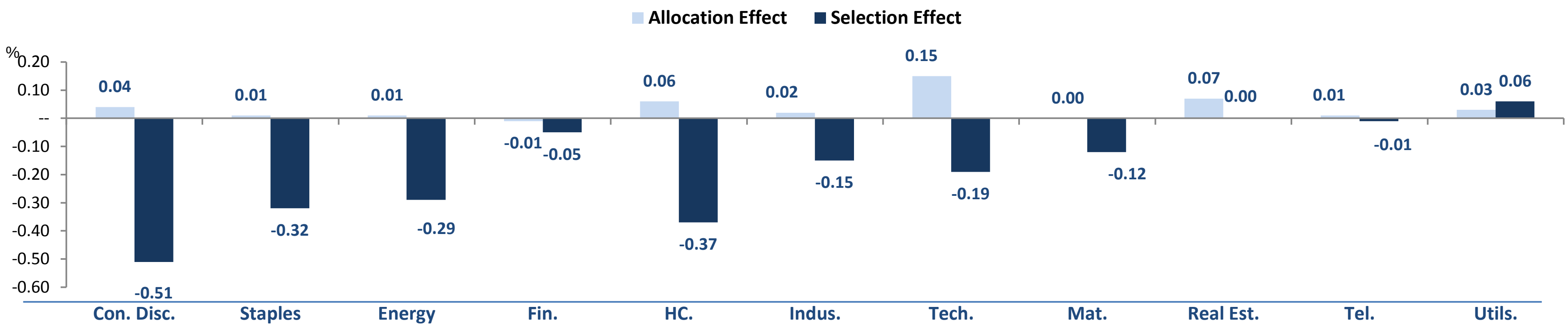
The Division of Investment would like to thank them, as well as Guy Haselmann and Jeff Oram, who resigned from the Council recently as well, for their numerous contributions over the past 7 years. The Division of Investment and the Pensions Systems are better today thanks to their willingness to share their insights and expertise.

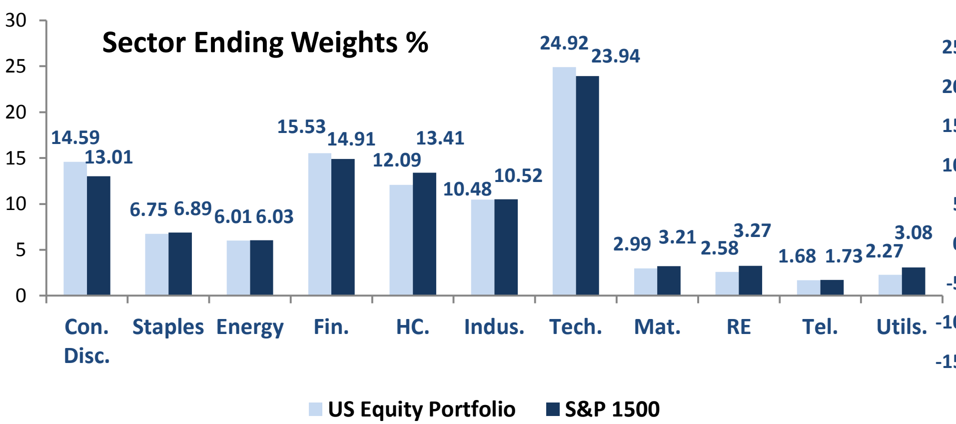
Performance Appendix

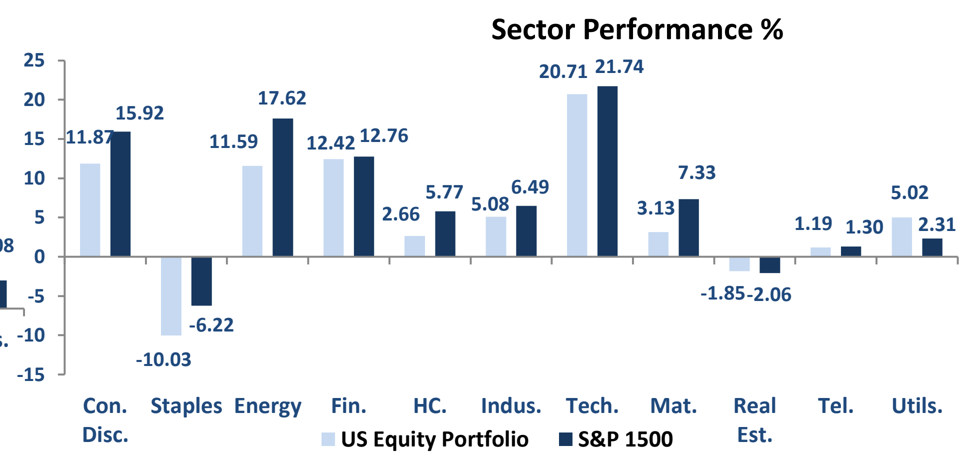
During the fiscal 2018 year-to-date time period, the U.S. equity portfolio gained 9.04 percent, while the S&P 1500 benchmark gained 10.85%. Domestic equity markets remained volatile as investors grappled with the threat of a potential trade war's impact on global economic growth following the imposition of tariffs on steel and aluminum manufacturers and China trade rhetoric. Meanwhile, the U.S. earnings backdrop remains robust, with first quarter earnings increasing 25% year-over-year, its 7th consecutive quarter of positive earnings growth. The recent tax change has added approximately 7 points to the first quarter growth rate. Information technology was the best performing sector, increasing 21.74% fiscal year-to-date, followed by energy's return of 17.62%, and consumer discretionary's 15.92%. Consumer staples, real estate, and telecommunication services were the laggards.



Portfolio Sector Attribution FYTD% - Breakdown of Excess Return:	Portfolio Return:	+9.04%	Benchmark Return:	+10.85%	Excess Return:	-1.81%





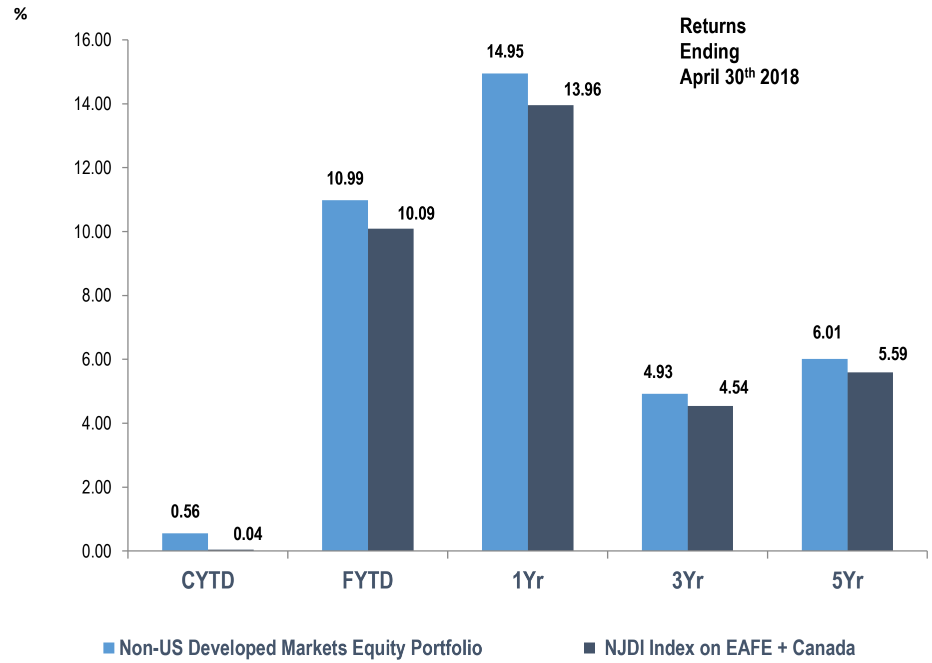


Source: State Street, Factset

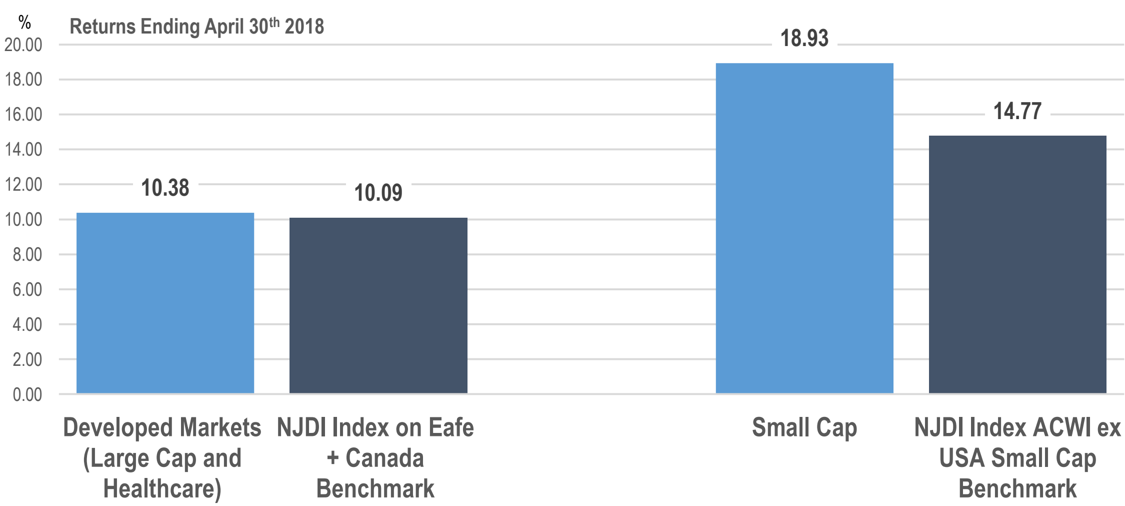
The fiscal year period through April 30th the Non-US Developed Markets Equity Portfolio returned 10.99% vs the benchmark return of 10.09% during a period marked by an unexpected rise in volatility and dislocations across financial markets.

Within the Portfolio, the strong performance of the Small Cap allocation was the largest contributor to the outperformance as the portfolio proved resilient through the market turbulence, returning 18.93% which outperformed both its respective benchmark return of 14.77% and the Portfolio Benchmark return of 10.09%. Within the broader Developed Markets portfolio, performance was a positive 10.38% return against 10.09% for the benchmark. Adding value specifically was Developed Markets Large Cap, which is managed to closely track its benchmark return. Having achieved an 11.15% return versus 10.92% for its respective benchmark, the 23 basis points outperformance from Developed Markets Large Cap was in accordance with the predicted tracking error.

Detracting from the Portfolio excess return was Developed Markets Healthcare, a benchmark-weight component with the objective of achieving alpha through security selection. Healthcare had a slight negative impact on the Portfolio excess return for the fiscal year ending April 30th.



Non-US Developed Markets Equity Portfolio FYTD Attribution As of April 30, 2018



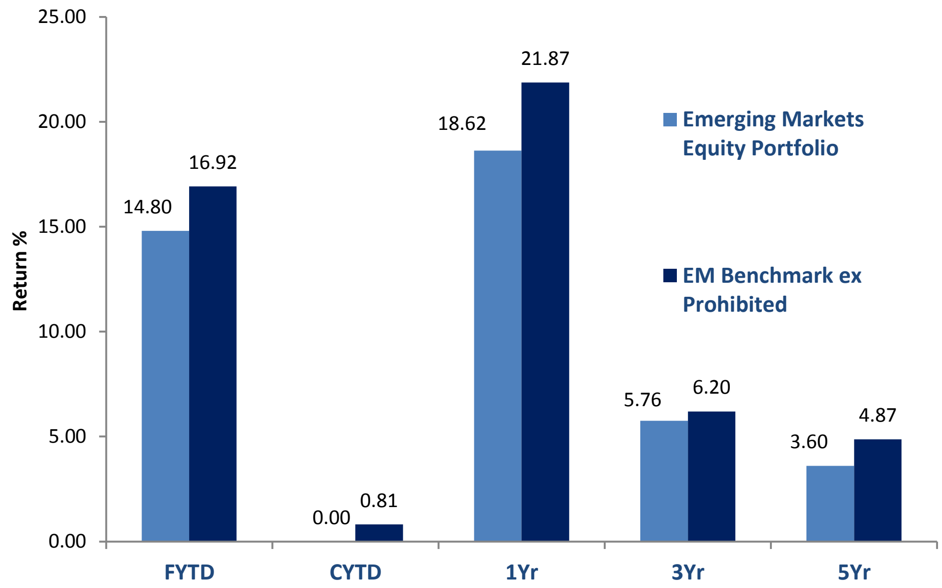
The chart shows that the commitment to the Small allocation was the key driver of the Portfolio excess return of 0.90% for the fiscal year.

Security selection within the Developed Markets Healthcare partly offset returns of the Non-US Developed Markets Equity Portfolio for the fiscal period ending April 30th.

Source: State Street, MSCI, Bloomberg

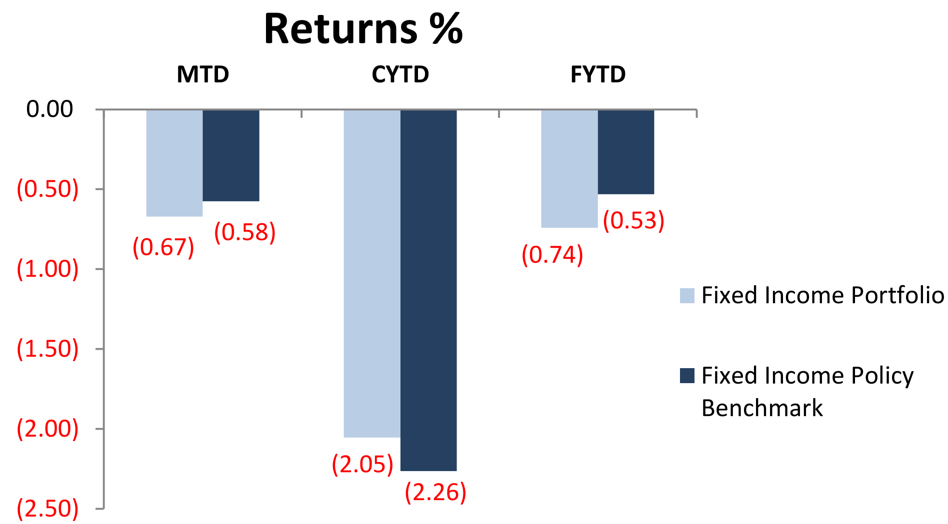
Fiscal Year-to-Date, Emerging Markets Equities (+16.92%) has been the best performing asset class within global equities, outperforming U.S. Equities (+10.85%) and Non-U.S. Developed Markets (+10.09%) by 395 and 471 basis points, respectively. More recently, Emerging Markets Equities (EM) have underperformed. Specifically, over the past two months that coincided with higher U.S. Treasury yields, a stronger U.S. dollar, an escalation of trade tensions, new Russian sanctions, and expectations for less accommodative Federal Reserve policy, EM has returned -2.3%.

In this environment, the EM portfolio has realized strong absolute returns (+14.80%), but has underperformed the benchmark index. A key driver of relative returns was the portfolio's overweight allocation to value relative to growth. In the strong return environment, growth has outperformed value by +274 basis points (+18.26% vs. +15.52%). In particular, the portfolio's below benchmark exposure to growth-oriented technology companies adversely impact returns as Technology returned +18.89%. The portfolio's underweight allocation to Energy also impacted returns as Energy (+20.3%) outperformed.

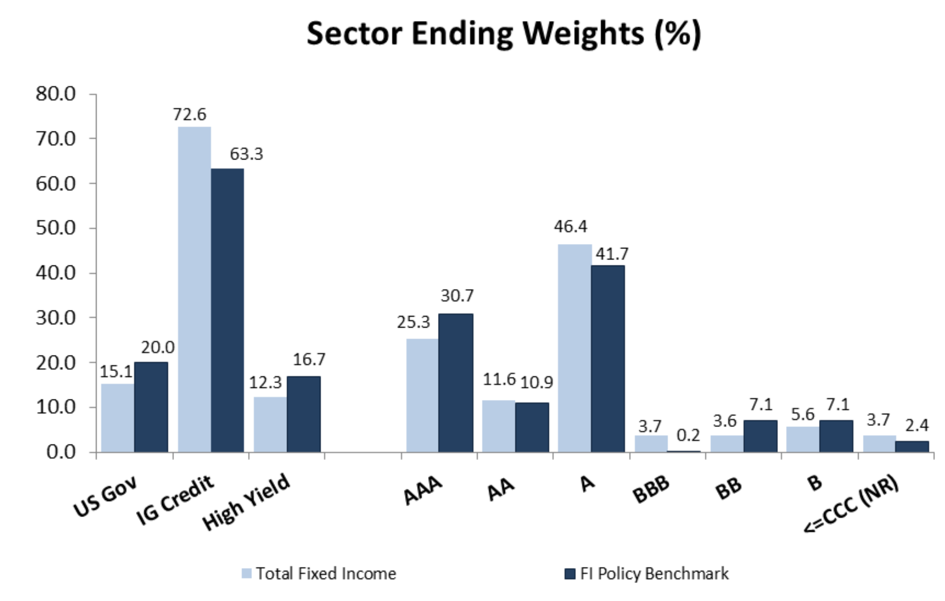


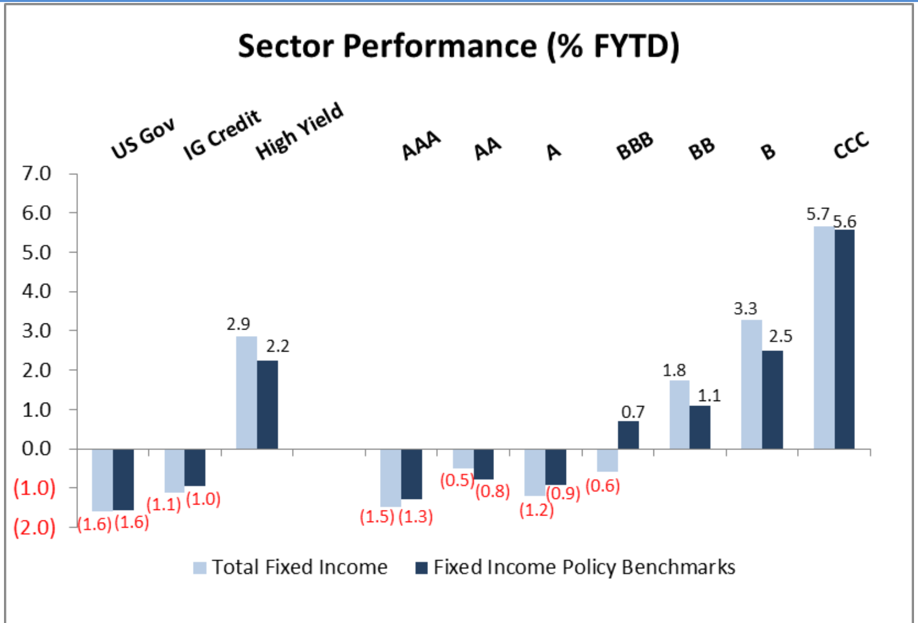
Source: State Street, Factset

For FY18-to-date performance, the US Fixed Income portfolio returned -0.74% versus the benchmark return of -0.53%. Relative returns were negatively impacted by an underweight allocation to High Yield and a bias toward high quality short-dated securities within Investment Grade Credit. Through April 30th, the Barclays High Yield, Custom IG Credit and US Government Benchmarks returned 2.24%, -0.96% and -1.55%, respectively. With the Treasury curve flattening and credit spreads essentially unchanged, long credit has outperformed. Within the US Government portfolio, a modest allocation to TIPS, which have outperformed Treasuries, has helped offset underperformance versus the nominal Treasury benchmark. The High Yield Portfolio has outperformed its benchmark by 63 basis points fiscal year-to-date as quality selection has been the main driver of positive relative returns.



Portfolio Sector Attribution – Weights and Performance





Source: State Street and FactSet