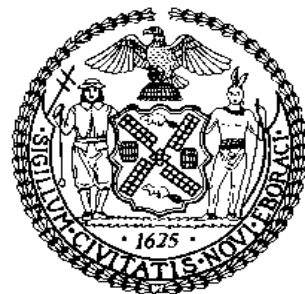




# COMMON INVESTMENT MEETING

## Public Session



THE CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER

December 11, 2017

# **PERFORMANCE REPORTING**

## **Third Quarter 2017**

# Market Returns: Q3-2017

Asset Class	Index	Third Quarter 2017	Fiscal Year End 6/30/17	3 Year	5 Year	Expected*
Equities - U.S.	Russell 3000	4.6%	18.5%	10.7%	14.2%	7.8%
Equities - Developed Intl	MSCI EAFE	5.4%	20.3%	5.0%	8.4%	8.9%
Equities - Emerging Intl	MSCI EMF	7.9%	23.8%	4.9%	4.0%	11.0%
Debt - US Govt Long Duration	Citigroup Treasury 10+	0.6%	-7.4%	4.9%	2.9%	
Debt - US Government	NYC Treas/Agency +5	0.5%	-4.6%	3.5%	1.9%	2.8%
Debt - Investment Grade	NYC IG Credit	1.2%	1.9%	3.8%	3.2%	3.4%
Debt - High Yield	Citigroup BB & B	2.0%	11.5%	5.3%	5.8%	6.1%

\*Average of consultant long-term arithmetic expected returns, as of 2016

Source: State Street



# Market Returns: Q3-2017

- The drivers of continued strong market returns include:
  - 1) Strong equity earnings growth

	2Q 2017	1Q 2017
Russell 3000	10.6	9.18
MSCI EAFE	12.51	8.55
MSCI EMF	7.81	7.81



# Market Returns: Q3-2017

## 2) Combination of low inflation, low yields and global quantitative easing

	US	Europe	Japan
Inflation:			
Q2	1.4%	1.3%	0.4%
Q3	1.7%	1.5%	0.7%
30 Year Yields:			
Q2	2.84	1.24*	0.85
Q3	2.86	1.29*	0.86
QE:			
Q2	0	€180B (\$200B)	¥16.8T (\$146B)
Q3	0	€180B (\$200B)	¥13.3T (\$125B)

\*German yields

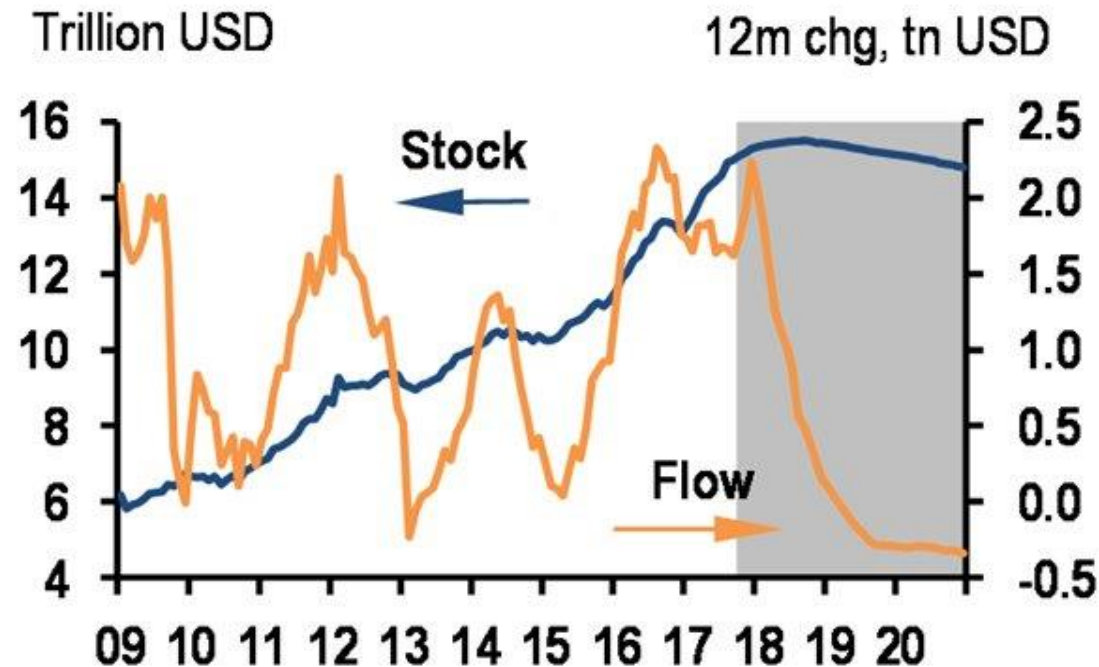
US QE – reinvestment only, both Q2 and Q3



# Market Returns: Q3-2017

- Aggregate Global Quantitative Easing

**Figure 1: G-4 central bank balance sheet**



Source: Fed, ECB, BoJ, BoE, J.P. Morgan.

# Market Returns: Q3-2017

3) Geopolitical concerns, but limited impact on economic growth and in financial markets

- North Korea, continued concerns.
- German election – 9/24, Merkel re-elected, AfD influence.
- China economic and political concerns – 19<sup>th</sup> Party Congress concluded with President Xi with unprecedented control.

Deleveraging continues.

- Washington DC/Trump/Republicans – tax plan negotiations ongoing.
- Brexit – negotiations ongoing, EU Summit planned for 12/14-12/15.
- Oil – prices stable to higher on back of OPEC/Russia production cuts.



# Update on Potential Regime Shift in Interest Rates

- Change in Global QE
  - Fed announced on 9/21 beginning of balance sheet normalization.
  - ECB announced on 10/26 reduction of QE program, reducing monthly purchases from €60B to €30B, beginning 1/1/18 through 9/30/18. No decision on QE post this time period.
- Policy Rate Increases
  - Fed – raised rates 25bp on 9/21, expected to raise another 25bp on 12/13 FOMC meeting
  - Bank of Canada – raised rates 25bp in both July and September
  - Bank of England – raised rates 25bp in November

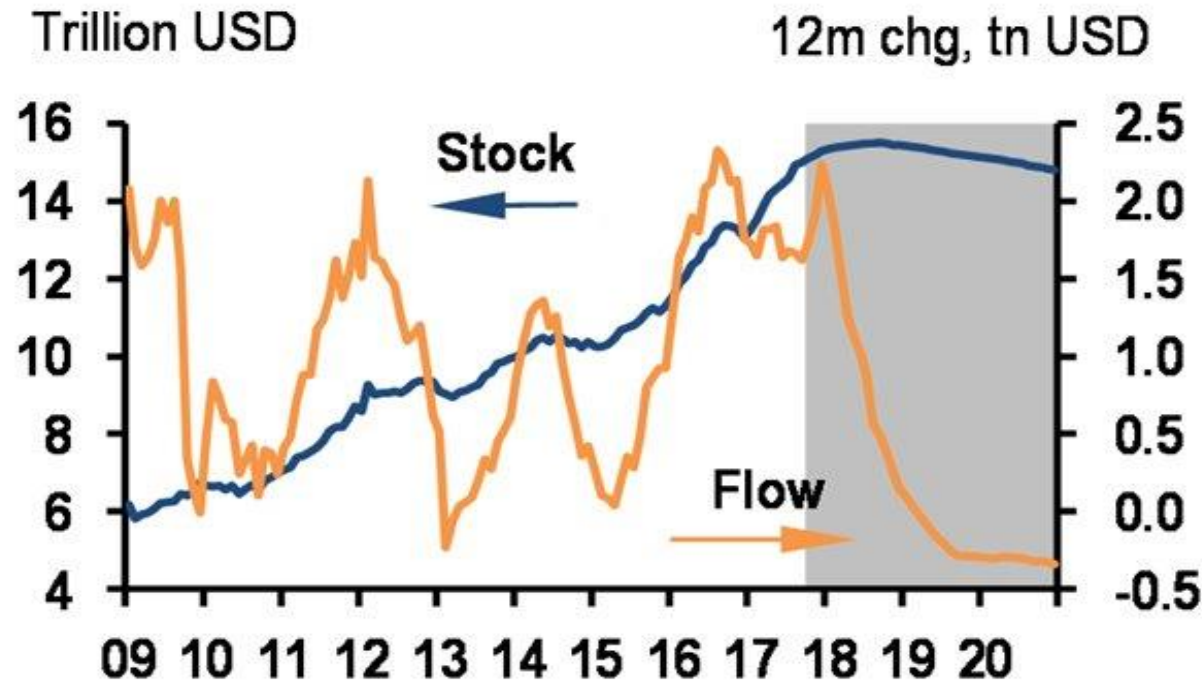




# Update on Potential Regime Shift in Interest Rates

- Change in amount of Global Quantitative Easing

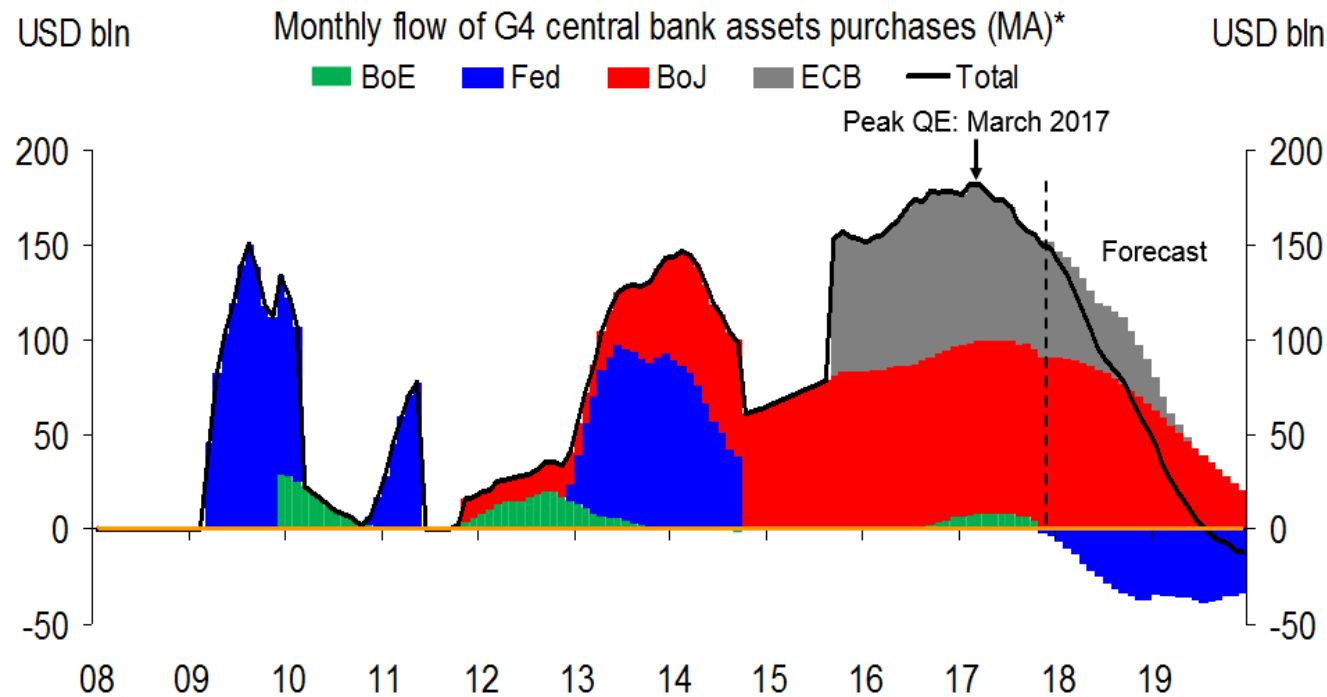
**Figure 1: G-4 central bank balance sheet**



Source: Fed, ECB, BoJ, BoE, J.P. Morgan.

# Update on Potential Regime Shift in Interest Rates

- Monthly change in Global Quantitative Easing



\*Note and assumptions: ECB & Fed data is 6m MA, others are 12m MA. Between Apr-2013 to October 2014 BoJ purchase of JGBs assumed to be around 7-7.5 trln Yen per month and Post November 2014, BoJs monthly purchase of JGBs assumed to be 10 trln Yen per month. Assumptions: Fed will redeem maturing assets as per the announced cap during the September decision. ECB will cut buying to EUR 30 billion per month from January 2018 and reduce to EUR 10 billion for October, November and December 2018 and eventually cut to zero in 2019. BoE assumed to remain the same as the Asset Purchase Facility to end in February 2017. BoJ to cut buying by Yen 3.79 trillion from January 2018.

Source: Fed, BoJ, ECB, BoE, Haver Analytics, DB Global Markets Research



# US Fiscal Stimulus

*CY 2018 Estimates (Bil \$)*

	Stimulus	Multiplier (%) <sup>1/</sup>	GDP Impact
House Tax Bill	170	0.7	116
Senate Tax Bill <sup>2/</sup>	53	0.9	48
Hurricane Relief <sup>3/</sup>	80	0.8	64
<u>Discretionary Spending Increase <sup>4/</sup></u>	<u>80</u>	<u>1.0</u>	<u>80</u>
<b>Total (using average of House &amp; Senate)</b>	<b>272</b>	<b>0.8</b>	<b>226 (or 1.1 pct pts of GDP)</b>

*Note: Does not include potential infrastructure spending program starting in late-2018*

- Probable impact on growth and markets include
  - Stronger GDP growth in 2018 and 2019
  - Higher inflation in '18 and '19, given economy currently growing above trend and full employment
  - Larger budget deficit and increase in UST issuance
  - Higher interest rates
  - Higher earnings, particularly for companies who currently pay high tax rates (banks, retailers, domestic-based manufacturers)

Source: Morgan Stanley



# Total NYC Pension Fund Net Performance as of 9/30/2017

(SSB **N**, p.7; **T, F** p.8; **P** p.9; **B** p.10)

NYC Pension System	Portfolio Std Dev - 1 yr.	Fiscal YTD	One Year Trailing	Three Year Trailing
BERS	3.3%	4.5%	15.2%	8.2%
TRS	3.1%	3.6%	12.5%	7.2%
FIRE	2.9%	3.9%	12.9%	7.4%
POLICE	2.8%	3.9%	13.2%	7.7%
NYCERS	2.8%	3.7%	12.9%	7.4%
Public Mkt Equiv 35 (43/22/35 index)		3.4%	12.0%	6.8%
Median Fund - TUCS		3.6%	12.8%	7.3%

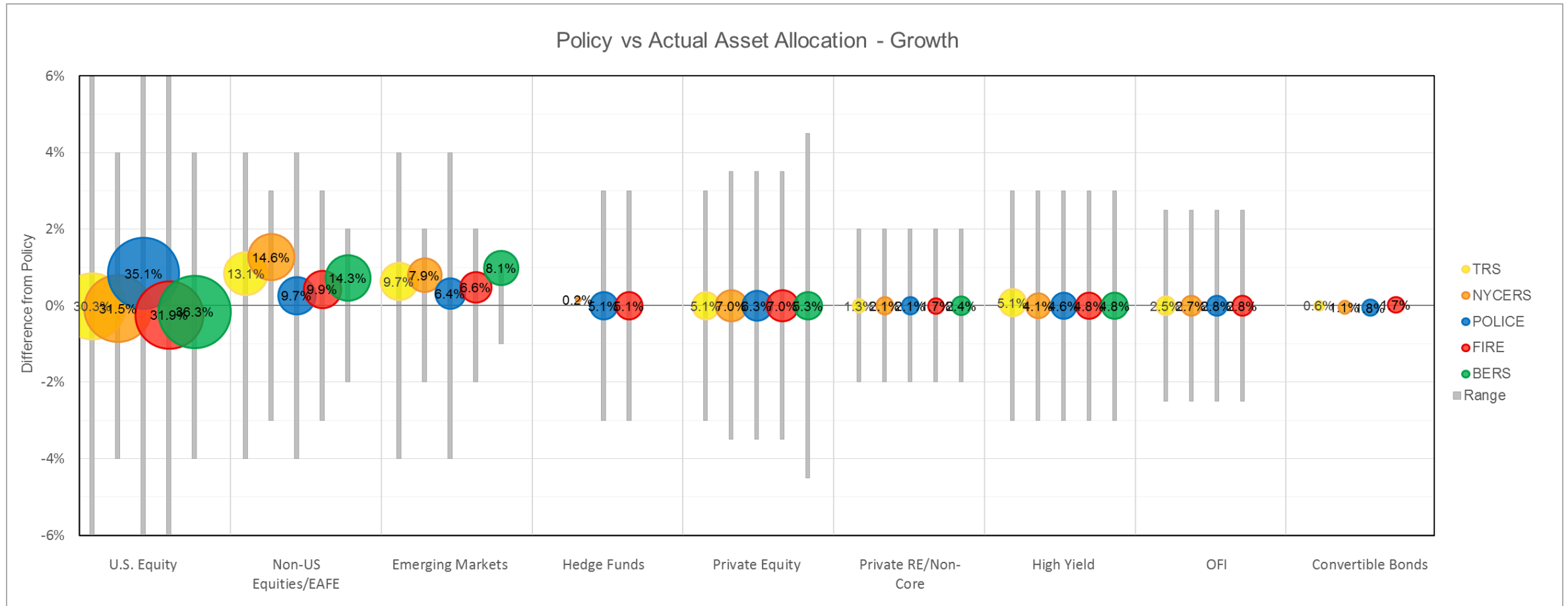
Net of fees in public asset classes are recorded on an accrual basis.  
Private markets data is reported on a lagged basis with fees recorded on a cash basis.

Source: State Street



# Asset Allocation 9/30/2017- Growth

## Relative Mix to Adjusted New Policy Weights

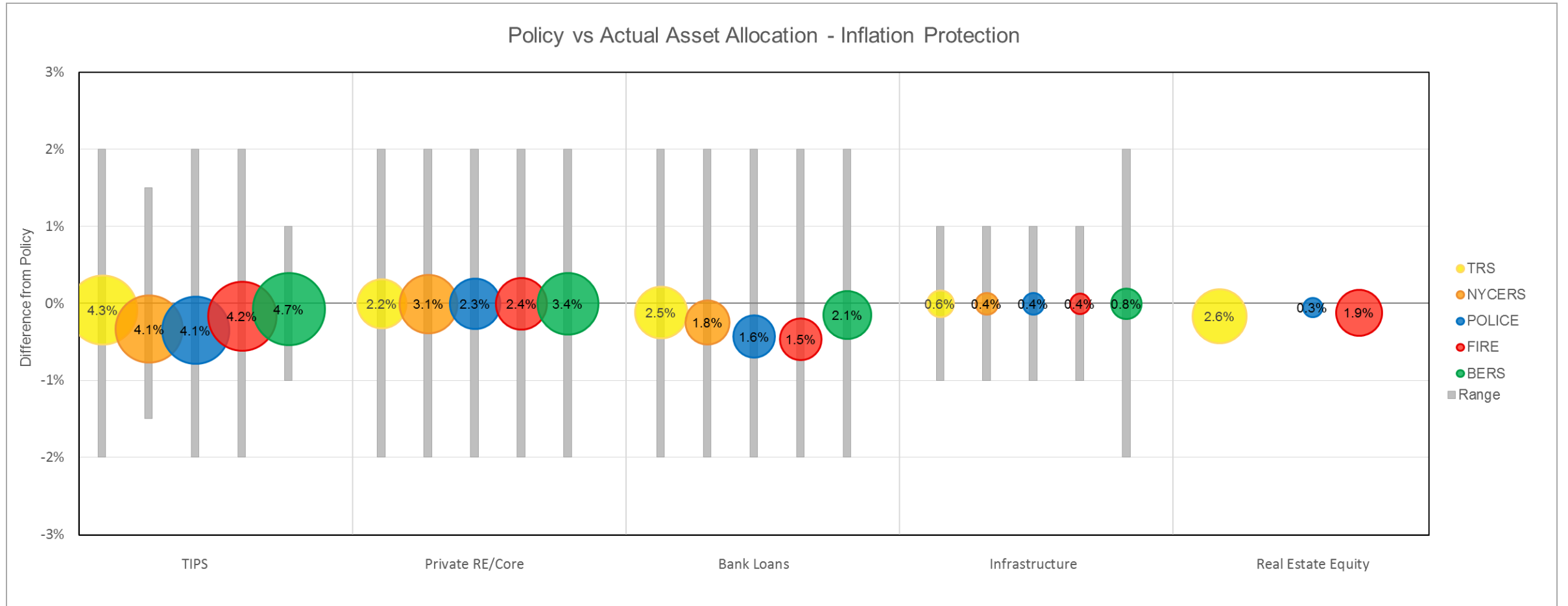


Source: State Street



# Asset Allocation 9/30/2017– Inflation Protection

## Relative Mix to Adjusted New Policy Weights

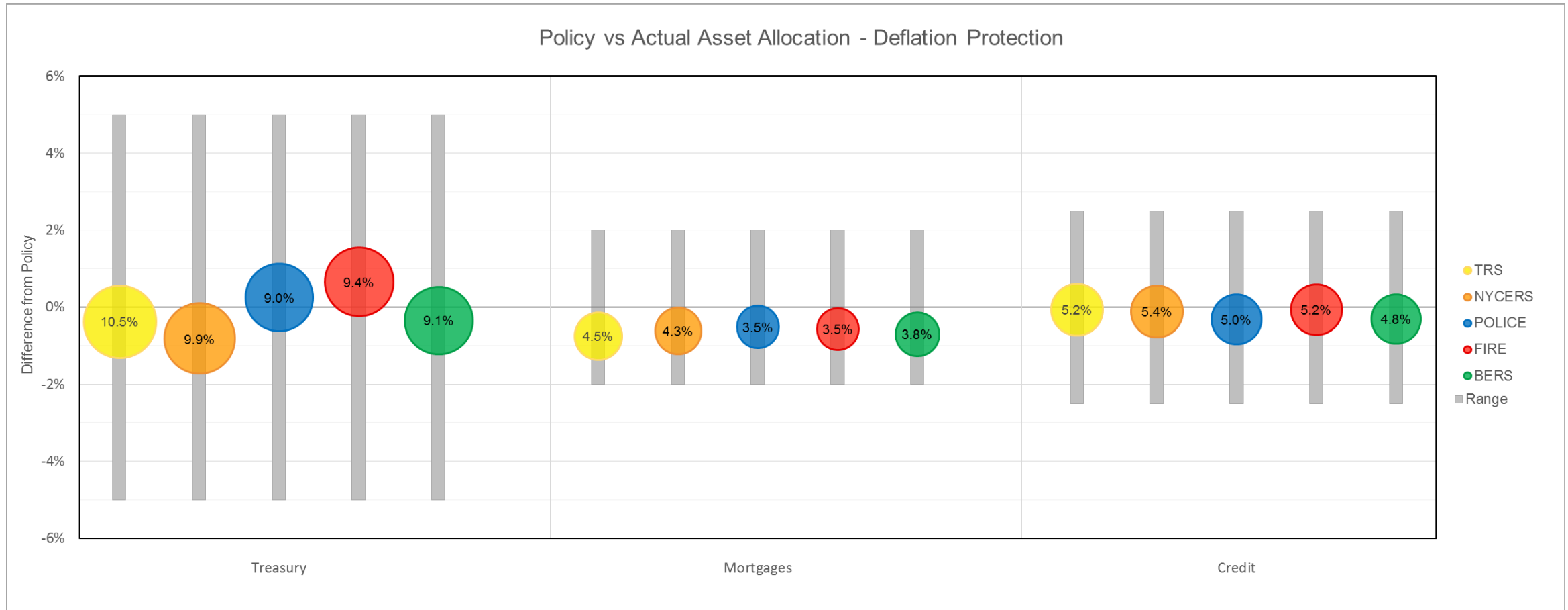


Source: State Street



# Asset Allocation 9/30/2017- Deflation Protection

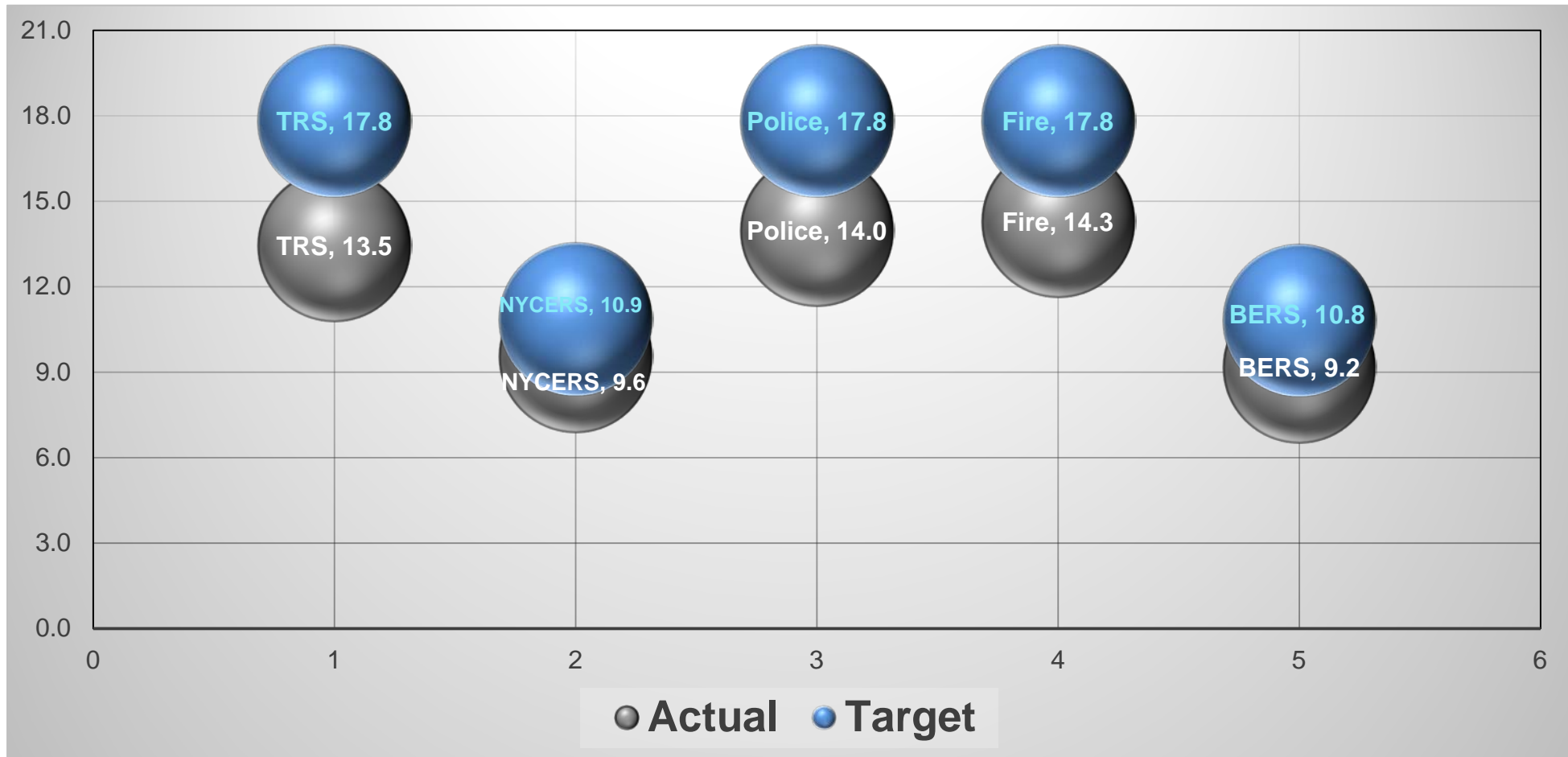
## Relative Mix to Adjusted New Policy Weights



Source: State Street



# Treasury Duration Actual Vs. Target as of 9/30/17

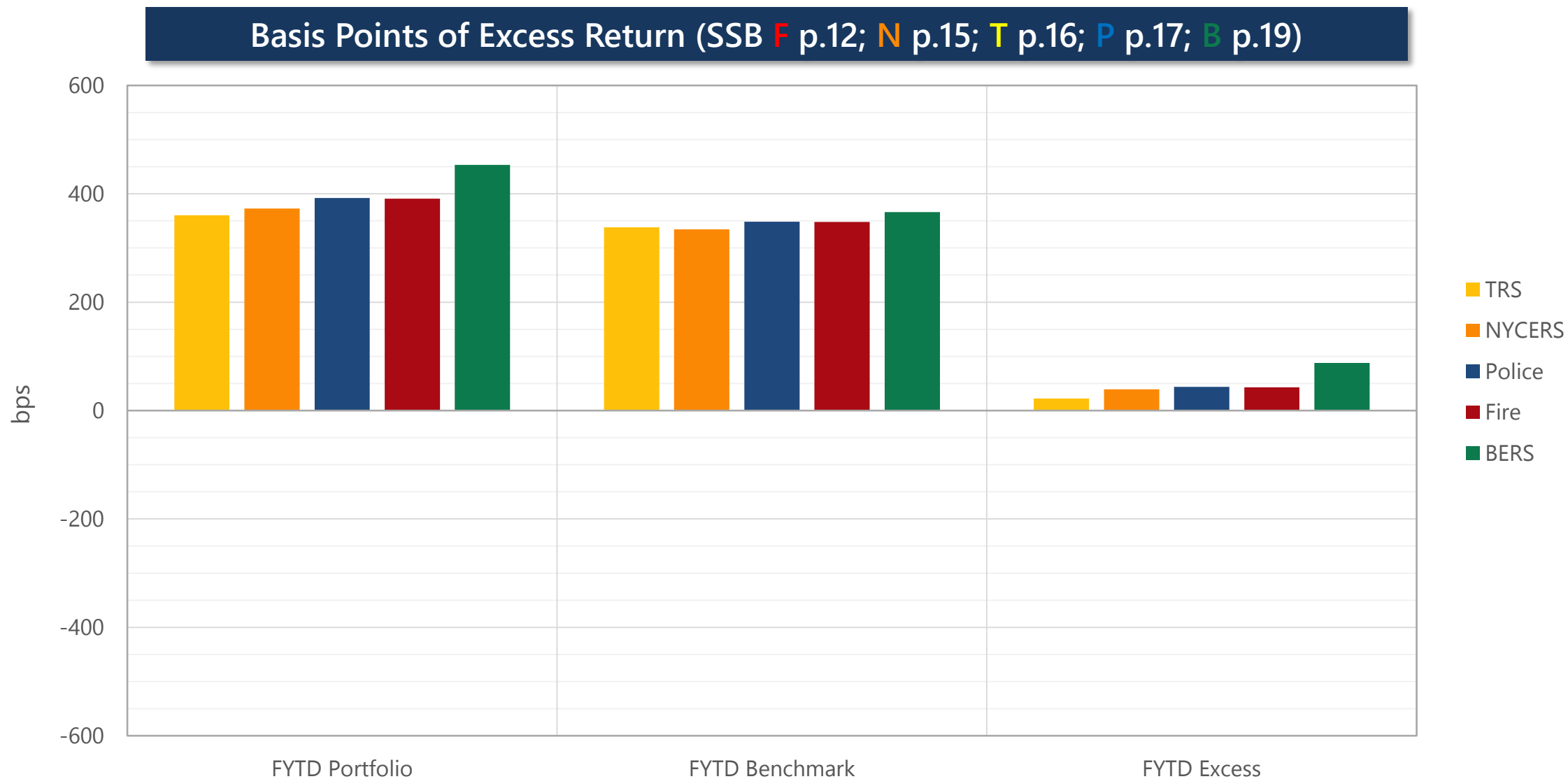


Source: State Street





# Fiscal Year to Date Return as of 9/30/17 – Total Portfolio

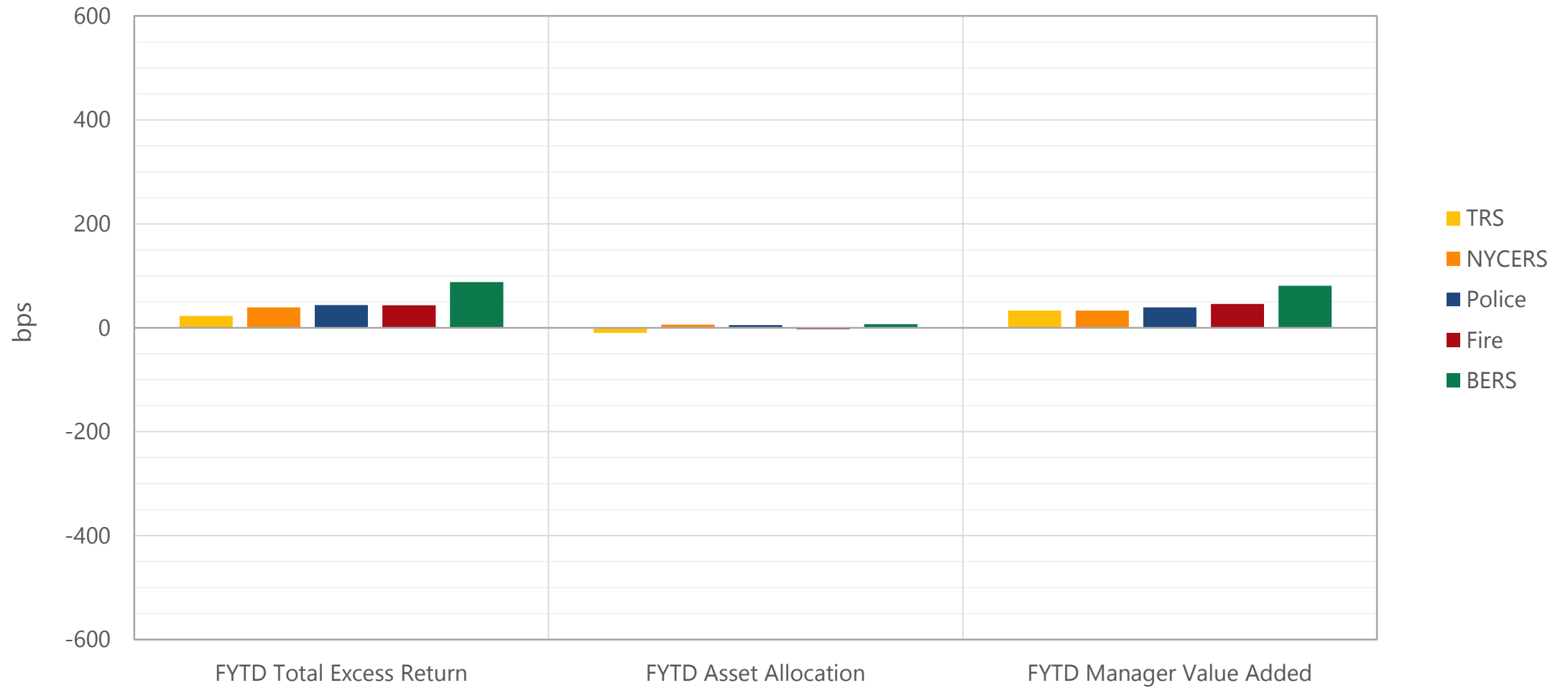


Source: State Street



# Fiscal Year to Date as of 9/30/17 Excess Return – Total Portfolio

Basis Points of Excess Return (SSB **F** p.12; **N** p.15; **T** p.16; **P** p.17; **B** p.19)

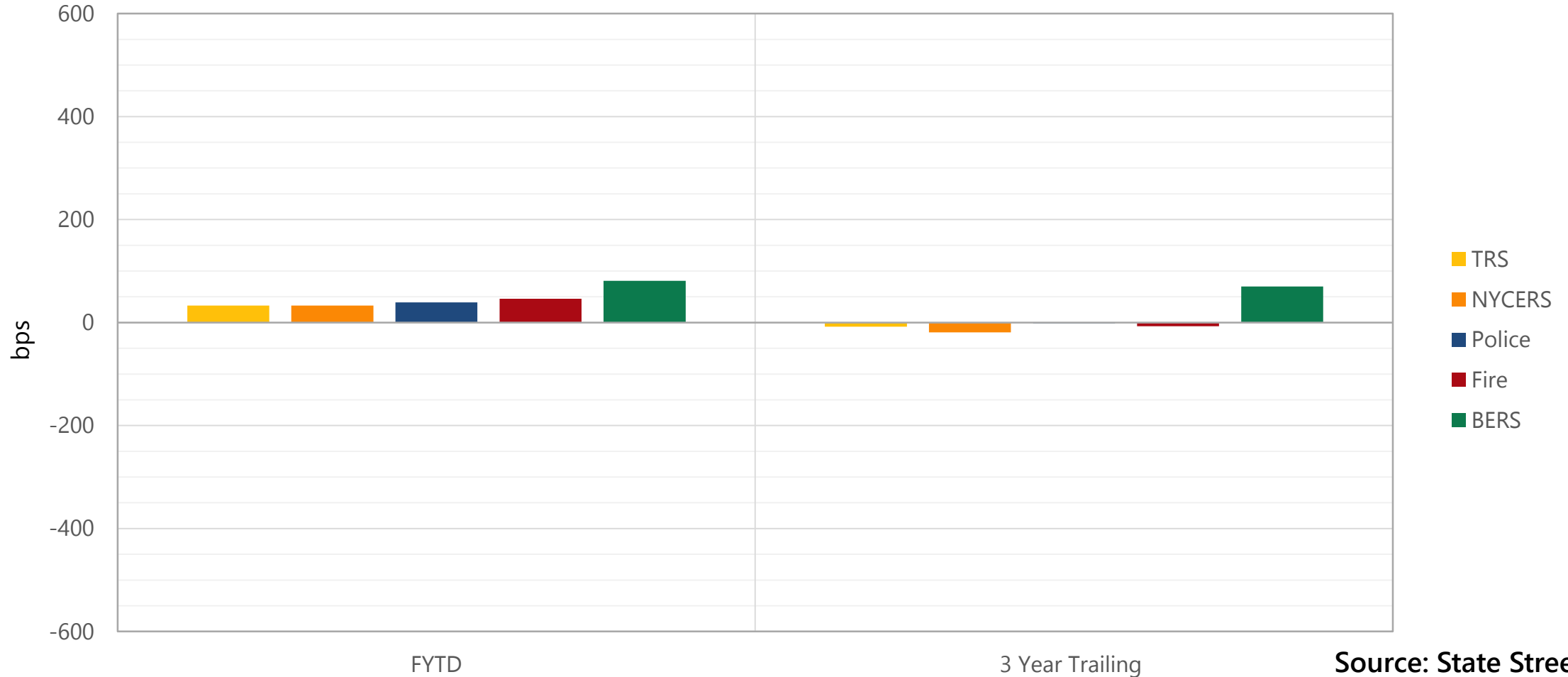


Source: State Street



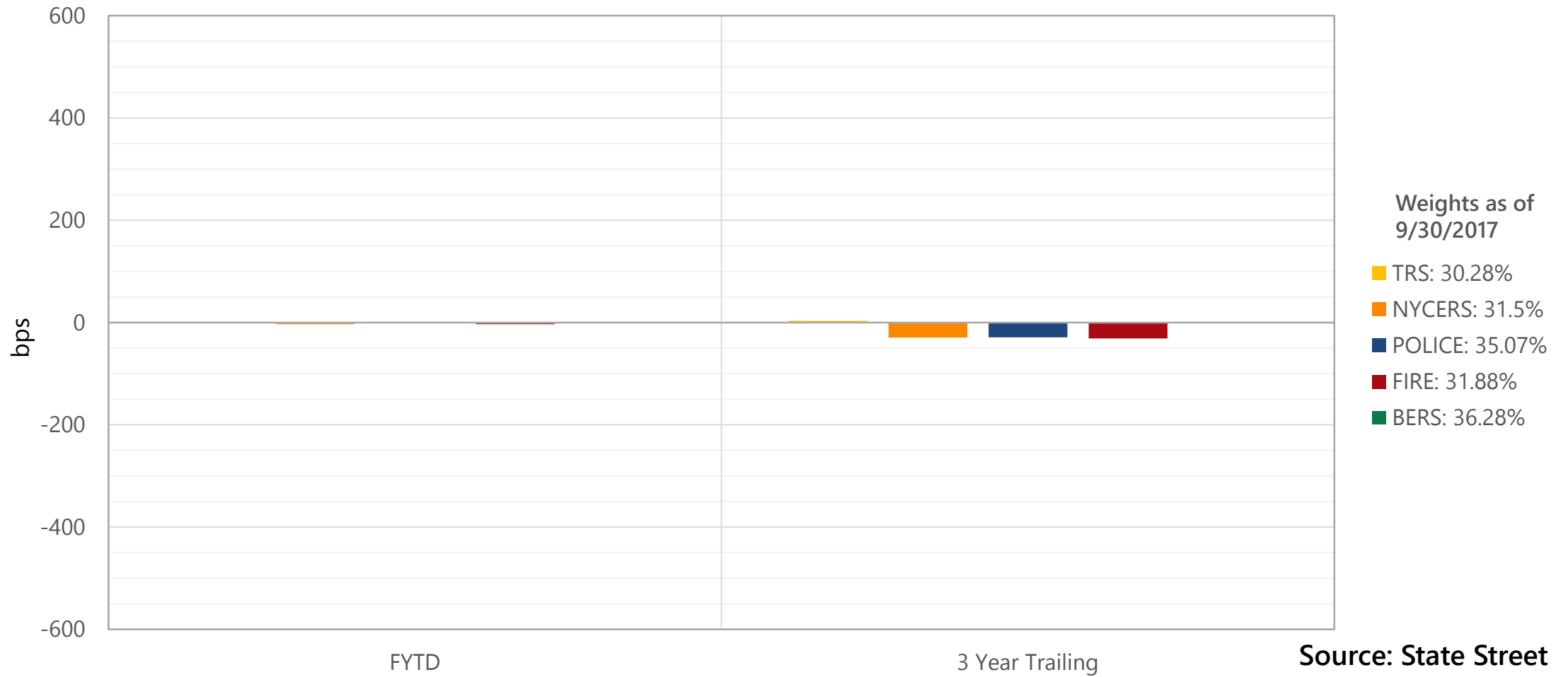
# Fiscal Year to Date as of 9/30/17 Manager Value Added - Total Portfolio

Basis Points of Excess Return (SSB **F** p.13; **N** p.16; **T** p.17; **P** p.18; **B** p.20)



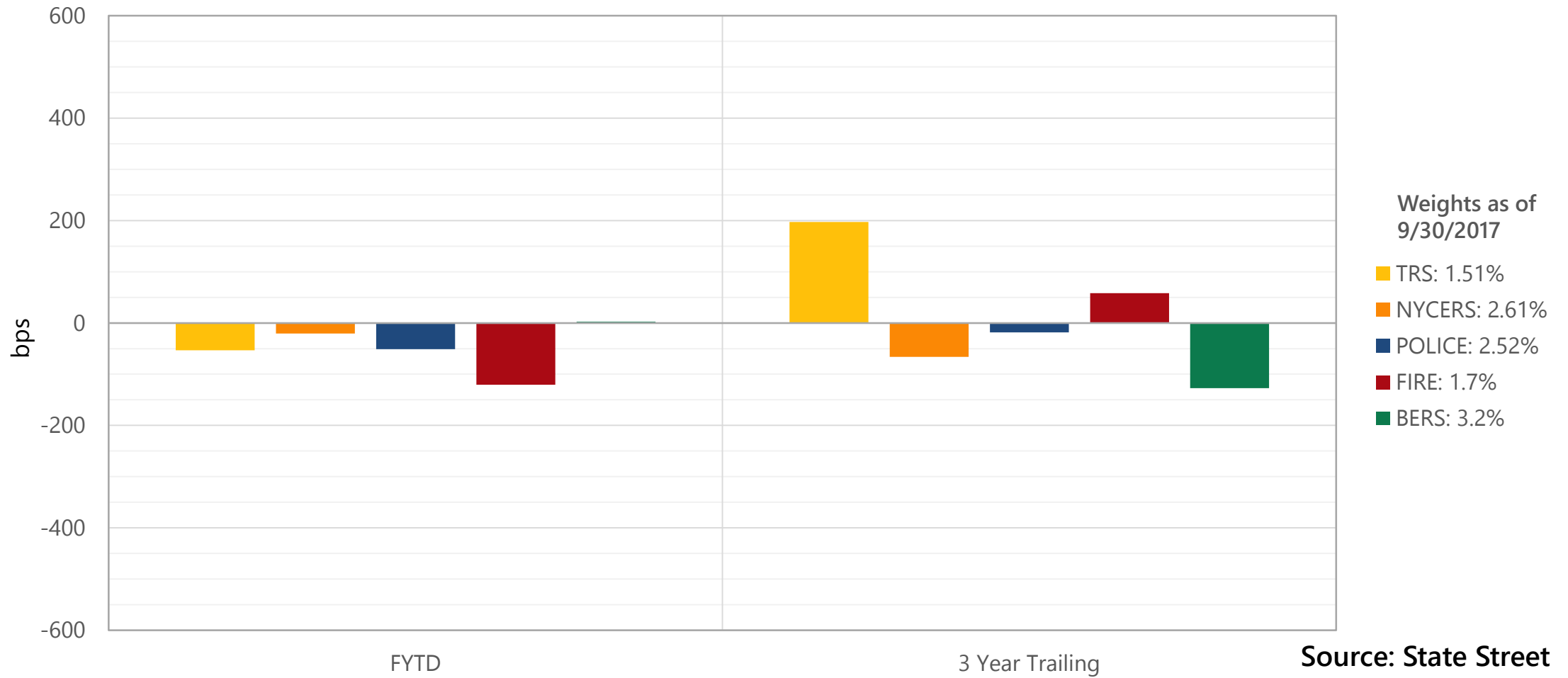
# Value Added – Total U.S. Equities

Basis Points of Excess Return (SSB **F** p.24; **N** p.27; **T** p.28; **P** p.29; **B** p.31)



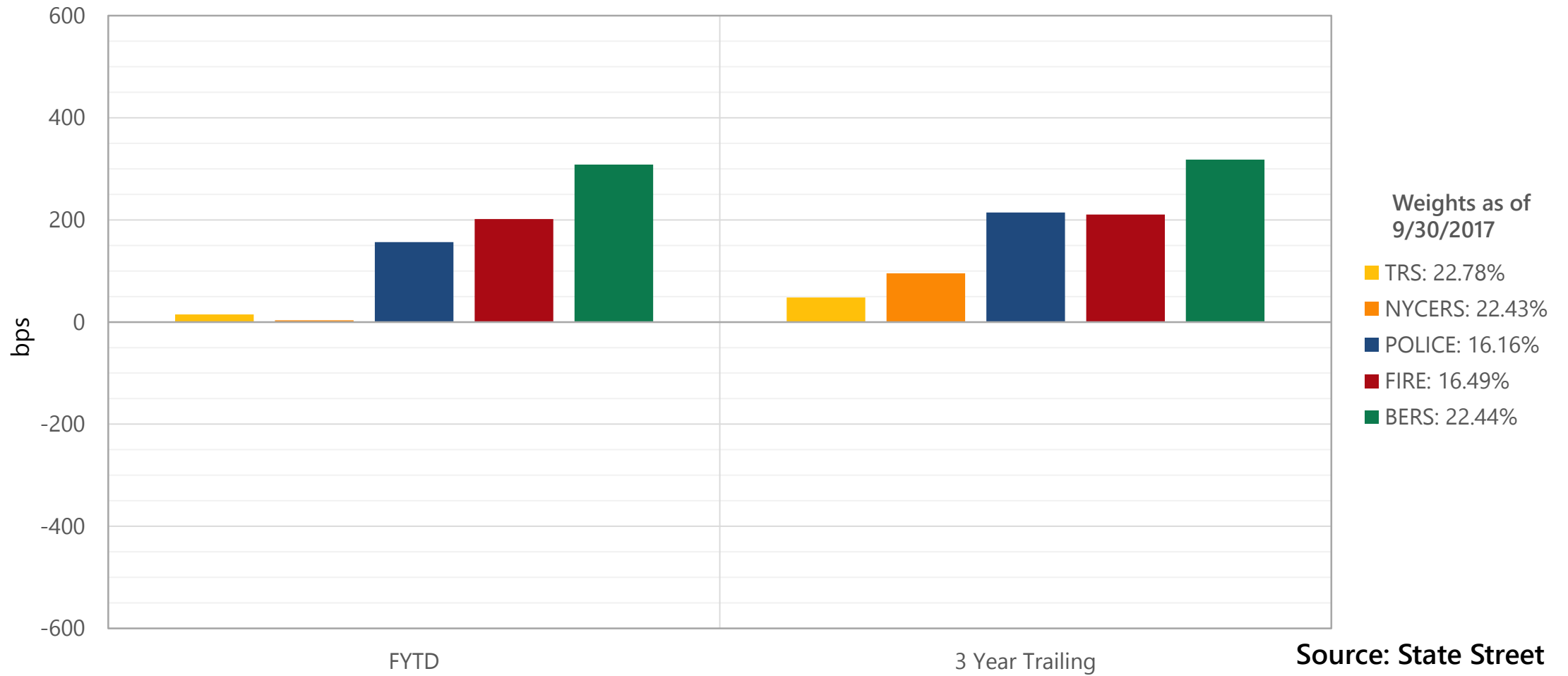
# Value Added – Total Small Cap

Basis Points of Excess Return (SSB **F** p.24; **N** p.27; **T** p.28; **P** p.29; **B** p.31)



# Value Added – Total International Equities

Basis Points of Excess Return (SSB **F** p.26; **N** p.29; **T** p.30; **P** p.31; **B** p.33)



# International Equities Manager Level; Excess in Basis Points

<b>Manager Name</b>	<b>Investment Mandate</b>	<b>Benchmark</b>	<b>Strategy</b>	<b>Q3 2017 Excess in Bps:</b>				
				<b>TRS</b>	<b>NYCERS</b>	<b>Police</b>	<b>Fire</b>	<b>Board of Ed</b>
ACADIAN	Developed Small Cap	S&P EPAC Small Cap USD NET	Active	<b>180</b>	<b>297</b>	<b>335</b>	<b>335</b>	<b>335</b>
Baillie Gifford	Developed Growth	MSCI EMERGING MARKETS	Active	<b>541</b>	<b>429</b>	<b>731</b>	<b>731</b>	<b>731</b>
Sprucegrove MTA	Developed Value	NYC Developed Value Benchmark	Active	<b>244</b>		<b>202</b>		
PYRAMIS	Developed Small Cap	S&P EPAC Small Cap USD NET	Active	<b>(179)</b>	<b>(177)</b>	<b>(167)</b>	<b>(172)</b>	<b>-</b>

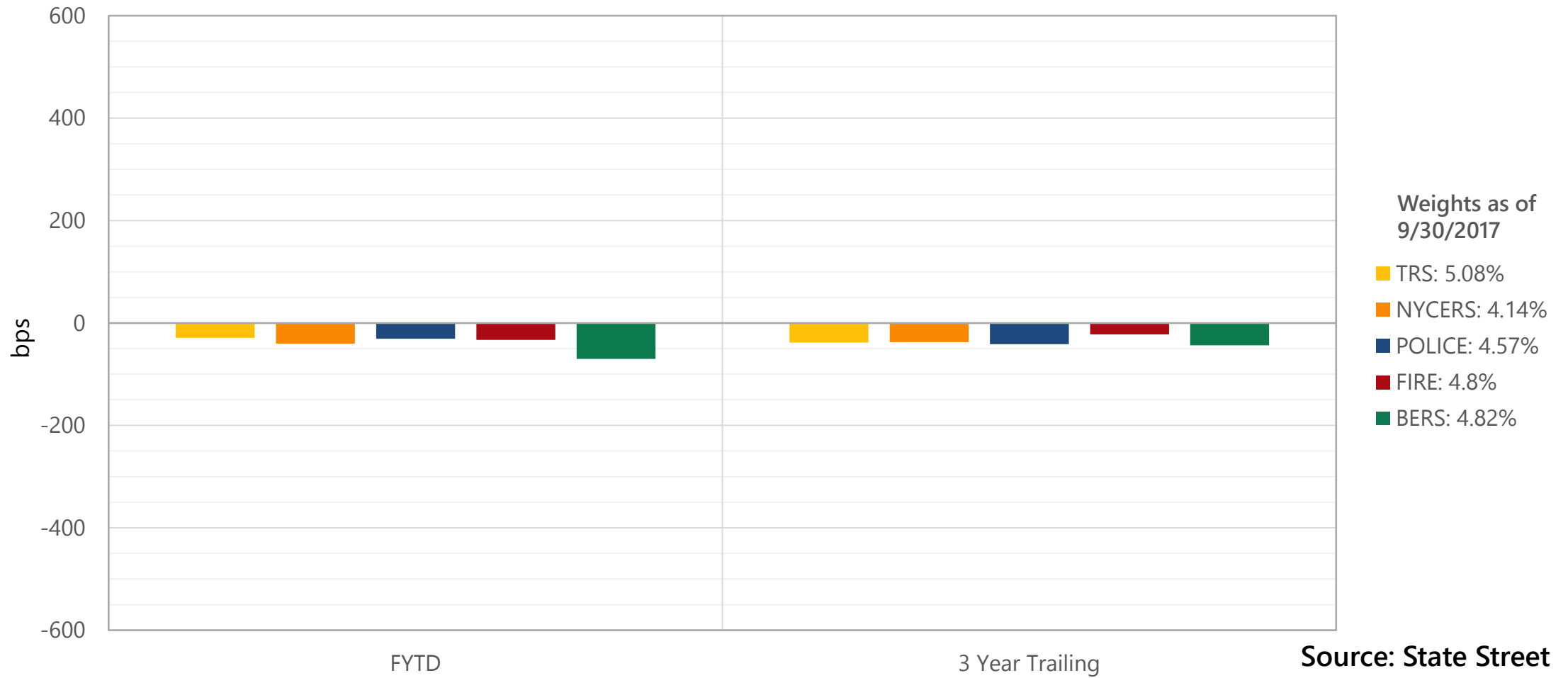
For further details on Manger performance please refer to: Overview Appendix B Public Markets Manager Performance Detail.

Source: State Street



# Value Added – High Yield

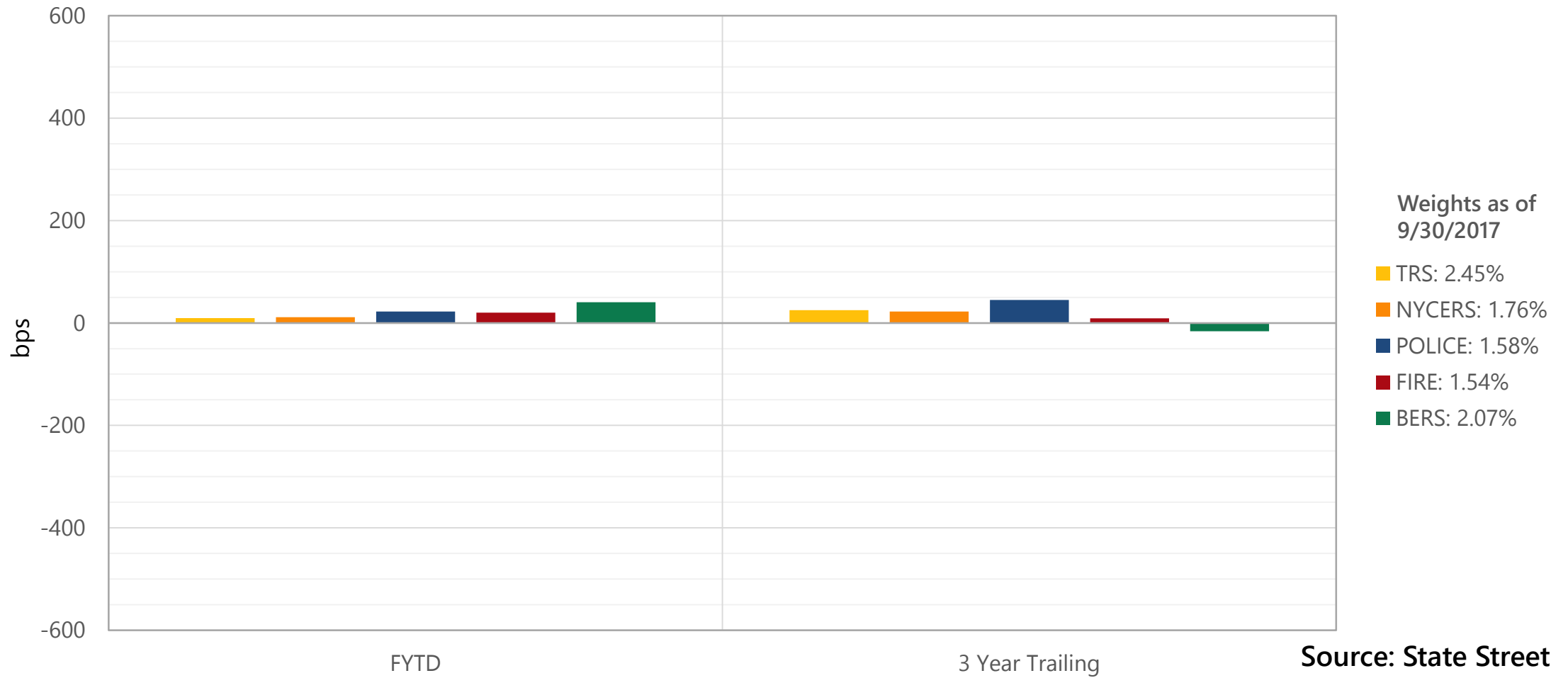
Basis Points of Excess Return (SSB **F** p.30; **N, T** p.33; **P, B** p.35)





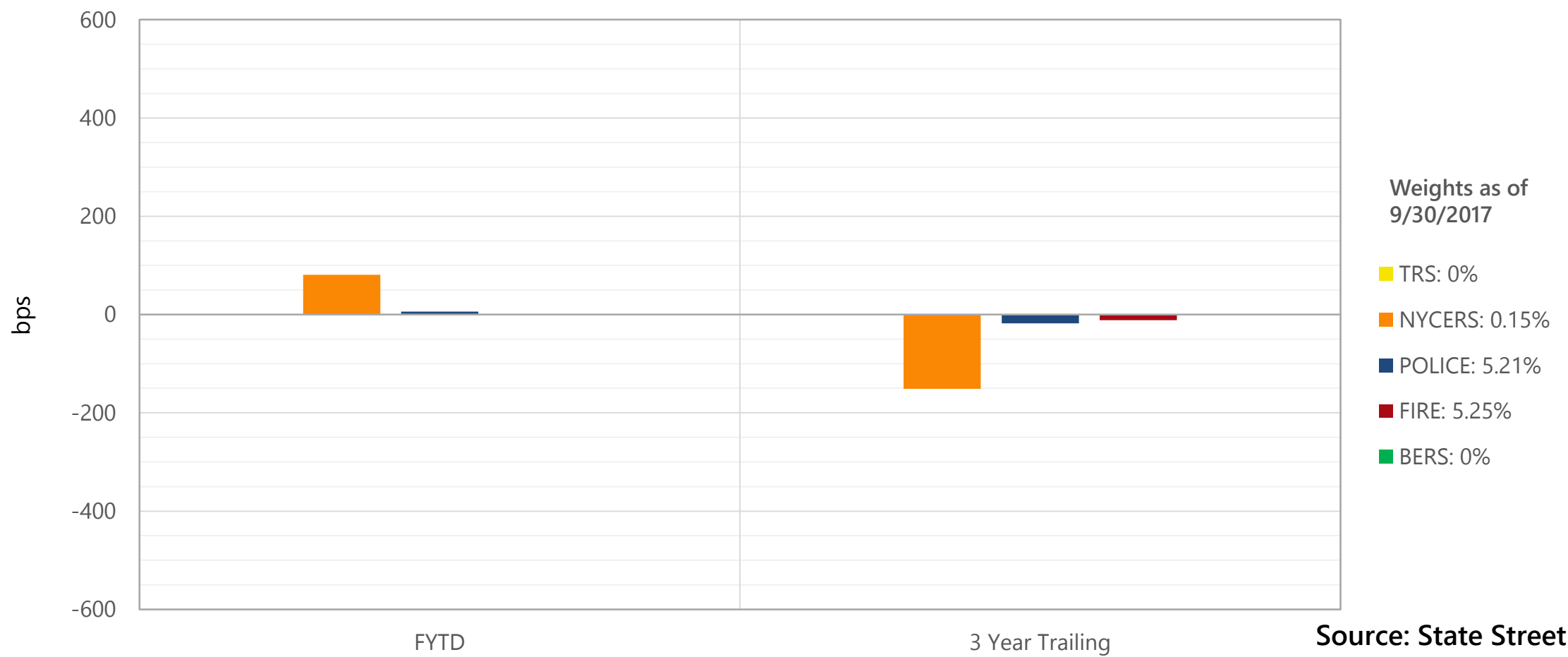
# Value Added – Bank Loans

Basis Points of Excess Return (SSB **F** p.31; **N, T** p.33; **B** p.35; **P** p.36)



# Value Added - Hedge Funds

Basis Points of Excess Return (SSB **F** p.55; **N** p.56; **P** p.58)



# Hedge Fund Partnership Snapshot; FYTD 9/30/17 Excess in Basis Points

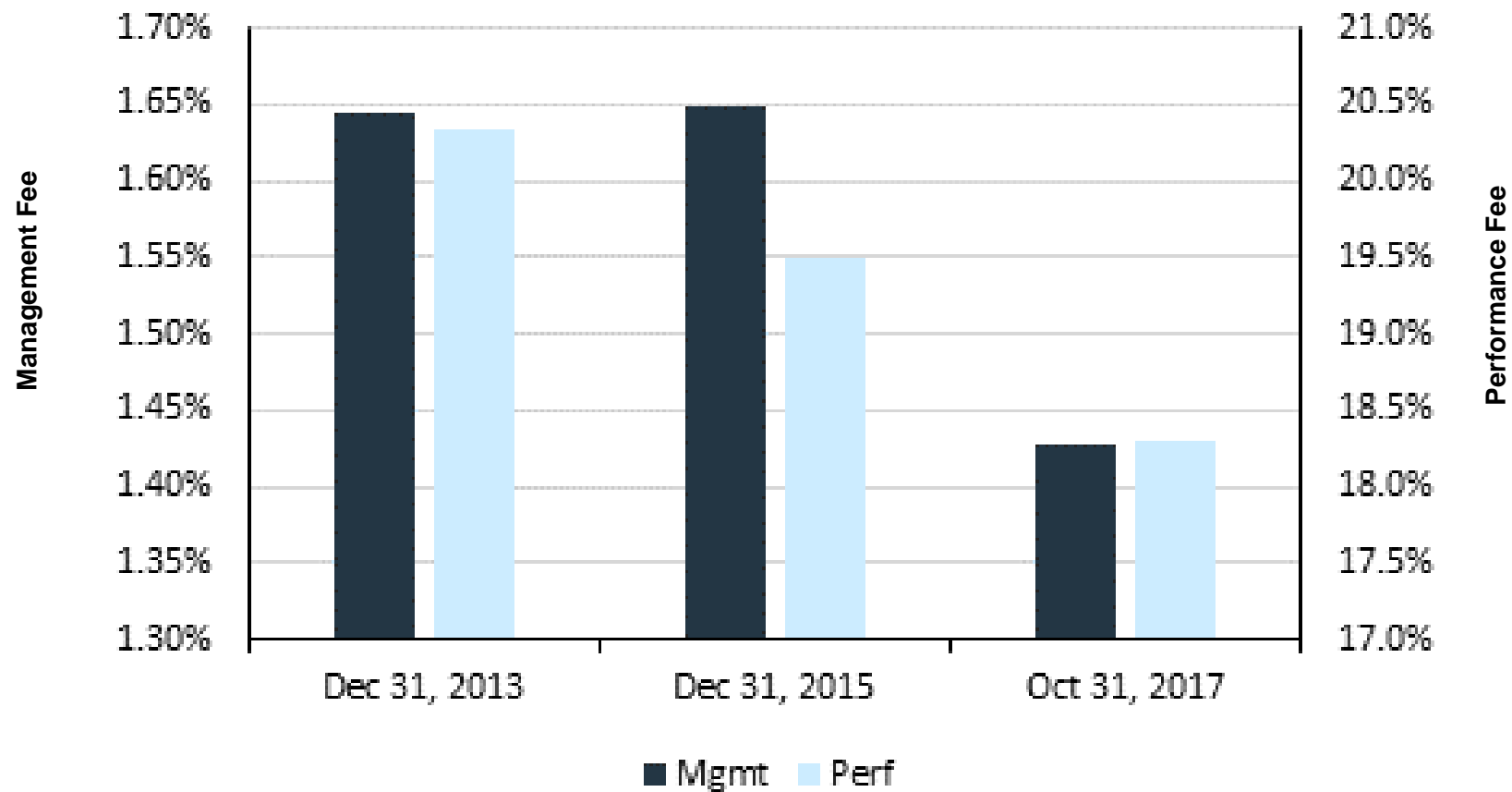
Portfolio	Fund Name	Strategy	3 Month	3 Month HFRI FOF Composite Index + 1%	3 Month Excess amount	3 month Excess in Bps
NYC FIRE/POLICE	CCP Quantitative Fund LP	Tactical Trading	11.40%	2.52%	8.88%	888
NYC FIRE/POLICE	SRS Partners US, LP - Class B - 1	Long/Short Equity	10.46%	2.52%	7.94%	794
NYC FIRE/POLICE	Pharo Gaia Fund, LTD.	Tactical Trading	7.29%	2.52%	4.78%	478
NYC FIRE/POLICE	AlphaQuest Original LLC	Tactical Trading	-4.09%	2.52%	-6.60%	(660)
NYC FIRE/POLICE	Key Square Partners LP	Tactical Trading	-1.86%	2.52%	-4.38%	(438)
NYC FIRE/POLICE	Altimeter Partners Fund LP	Long/Short Equity	-1.74%	2.52%	-4.26%	(426)

Source: State Street



# Fees Compression Chart

## Asset Weighted Performance and Management Fees



Source: Aksia

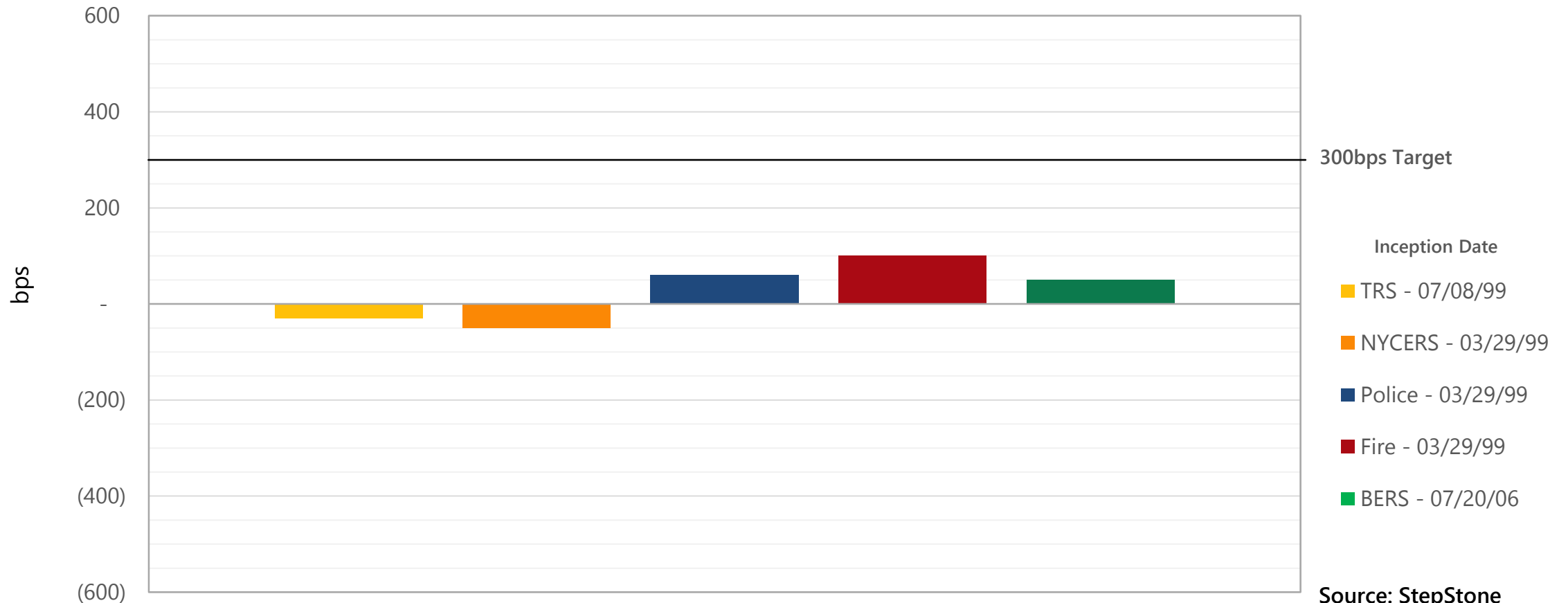


# PRIVATE MARKET DATA



# Value Added – Private Equity

## Basis Points of Cumulative IRR above Public Market Equivalent



Excess Return Since Inception; The PE Benchmark is the Russell 3000 + 300 bps as of 6/30/17

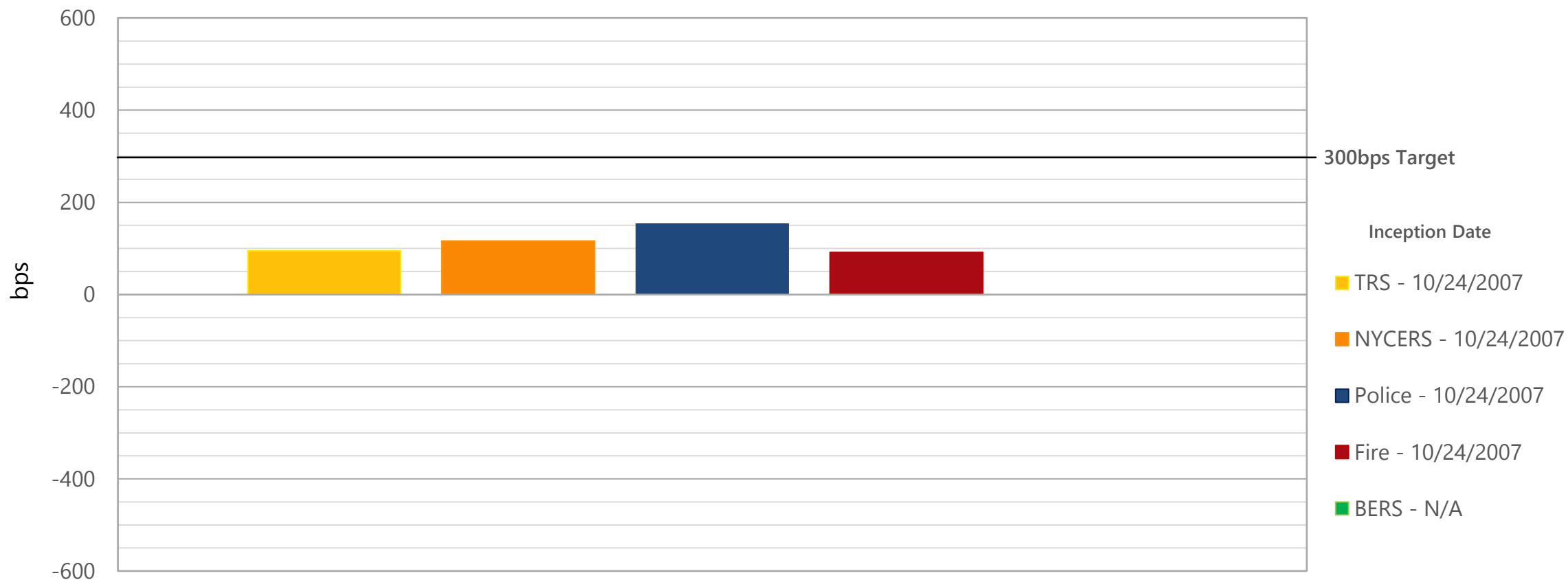
Source: StepStone Group & Hamilton Lane

**The PME Spread is the difference between the IRR and the PME Benchmark.**



# Value Added – Opportunistic Fixed Income (OFI)

## Basis Points of Cumulative IRR above Public Market Equivalent



Excess Return Since Inception; PME Benchmark: 50% JP Morgan Global High Yield 50% CS Leveraged Loans as of 9/30/17

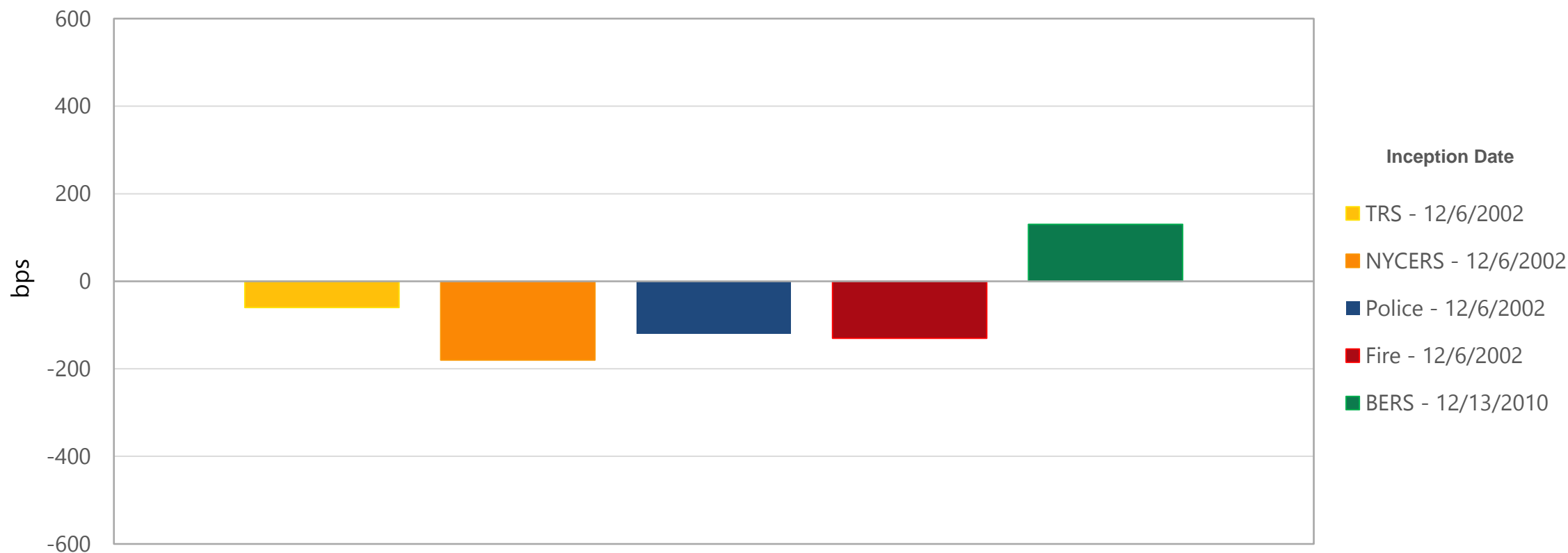
Source: State Street

**The PME Spread is the difference between the IRR and the PME Benchmark.**



# Value Added – Private Real Estate - Core

## Basis Points of Cumulative IRR above Public Market Equivalent



Excess Return Since Inception; Core = 40% Equities- Russell 3000 /60% BarcAgg as of 6/30/17

Source: State Street

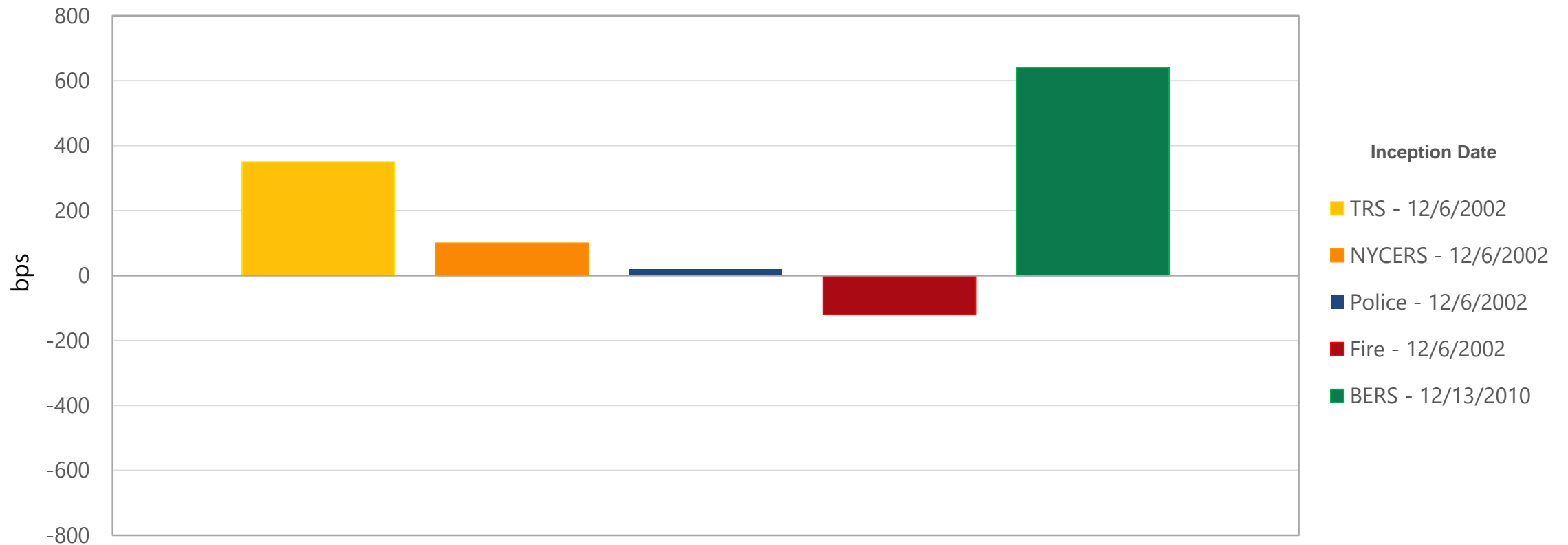
**The PME Spread is the difference between the IRR and the PME Benchmark.**





# Value Added – Private Real Estate – Non-Core

## Basis Points of Cumulative IRR above Public Market Equivalent



Excess Return Since Inception; Non-core = 60% Equities- Russell 3000/40% BarcAgg as of 6/30/17

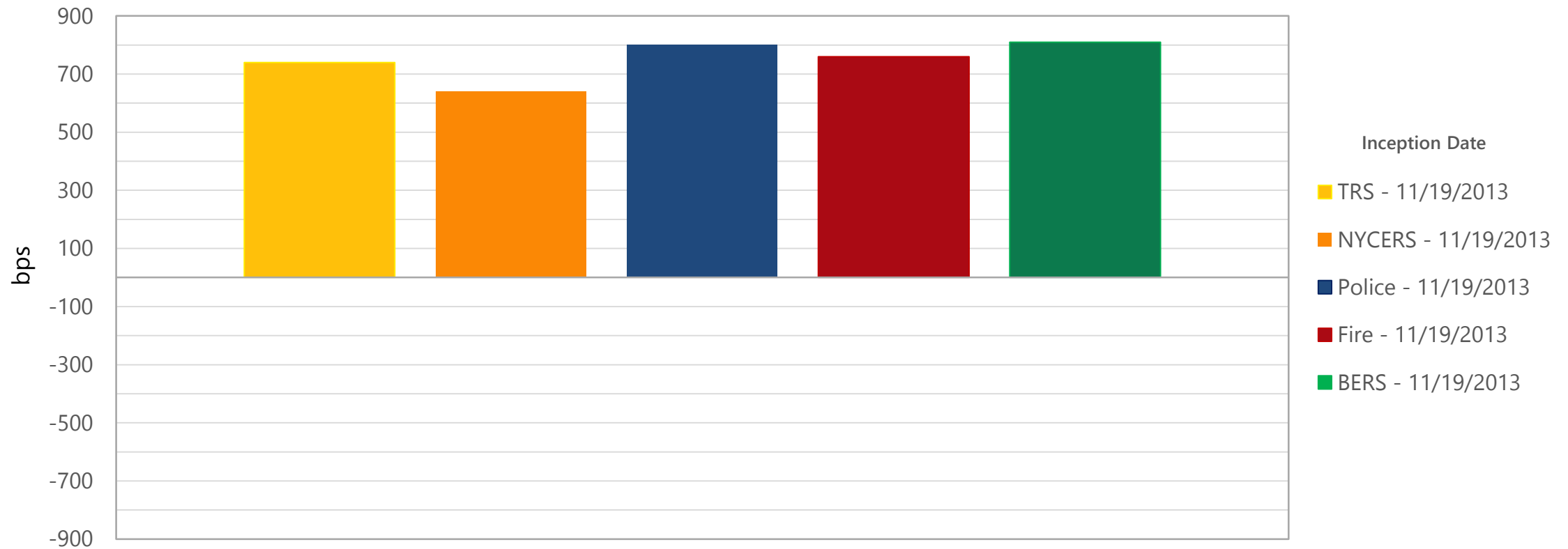
Source: State Street

**The PME Spread is the difference between the IRR and the PME Benchmark.**



# Value Added - Infrastructure

## Basis Points of Cumulative IRR above Public Market Equivalent



Excess Return Since Inception; PME Benchmark: 50% R3000 & 50% Barclays Agg. as of 6/30/17

Source: StepStone Group

**The PME Spread is the difference between the IRR and the PME Benchmark.**



**QUESTIONS?**