

Common Investment Meeting (POLICE)

POLICE

Schedule	Wednesday, September 16, 2020 9:30 AM — 3:00 PM EDT
Venue	Virtual Meeting
Organizer	Kim Boston

Agenda

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9:30 AM	Quarterly Fund Performance Review:	2
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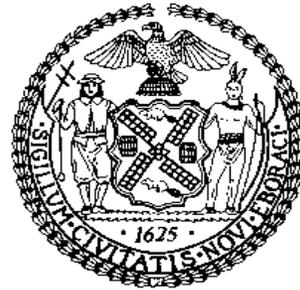
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PUBLIC SESSION:

Quarterly Fund Performance Review:



COMMON INVESTMENT MEETING – PUBLIC SESSION



THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER

September 16, 2020

MARKET UPDATE

2nd Quarter 2020



Market Returns: Q2-2020

Asset Class	Index	Q2-2020	1 Year	3 Year	5 Year	Expected*
Equities - U.S.	Russell 3000	22.03%	6.53%	10.04%	10.03%	5.80%
Equities - Developed Intl	MSCI World ex USA IMI Net	16.21%	-5.11%	0.80%	2.22%	6.80%
Equities - Emerging Intl	MSCI EMERGING MARKETS	18.08%	-3.39%	1.90%	2.86%	8.30%
Debt - US Govt Long Duration	FTSE Treasury 10+	0.51%	25.45%	12.06%	9.30%	2.65%
Debt - US Government	NYC Treas/Agency +5	0.74%	17.08%	8.58%	6.46%	2.60%
Debt - Investment Grade	NYC IG Credit	8.28%	9.26%	6.11%	5.48%	3.60%
Debt - High Yield	FTSE BB & B	9.31%	-0.39%	3.29%	4.37%	4.80%

*Average of consultant long-term arithmetic expected market returns, as of 2019

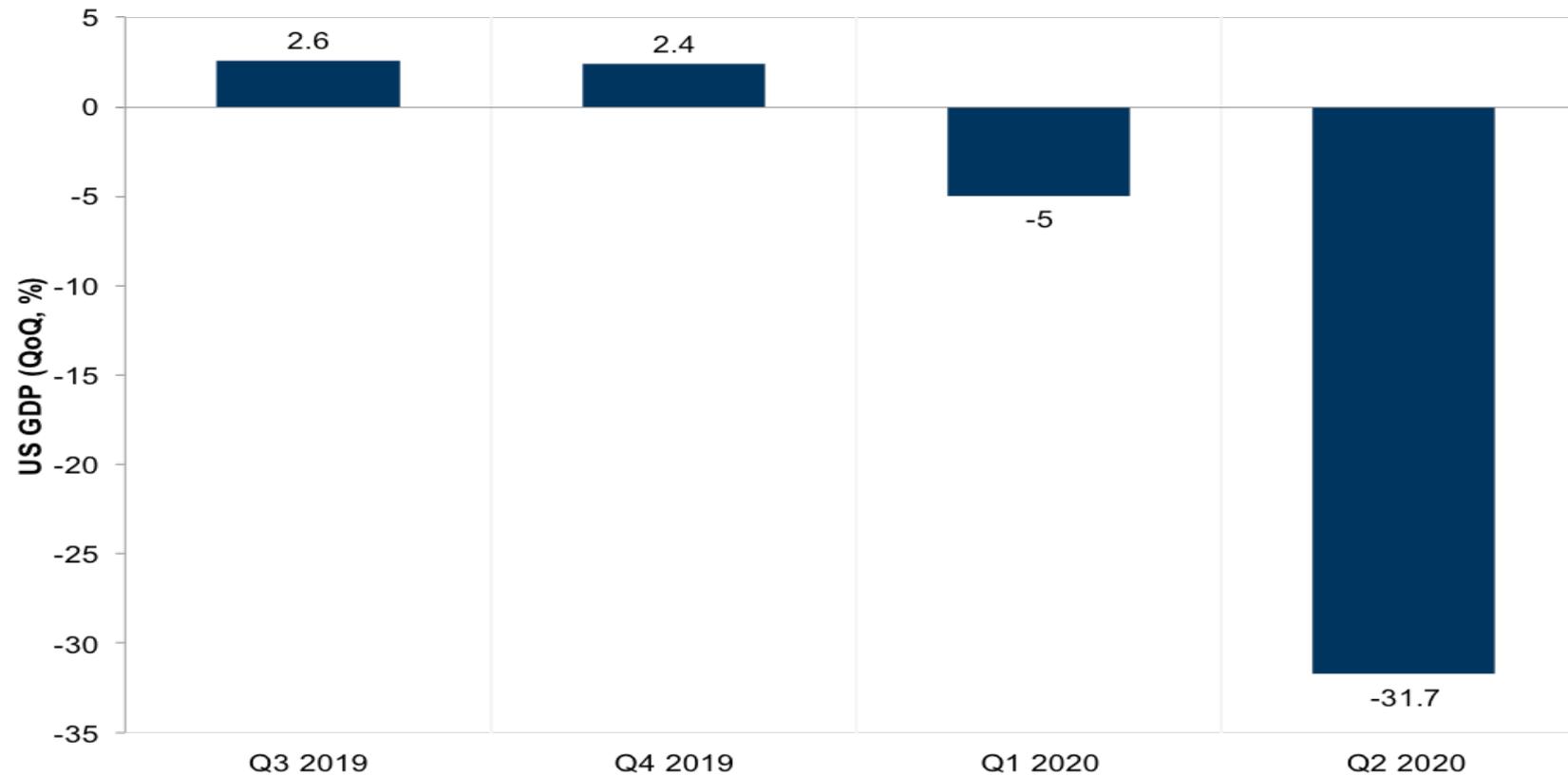
Source: State Street



Market Returns: Q2-2020

- Historic Economic Collapse vs. Massive Policy Response
- Economic collapse – Q2 GDP contracted at 31.7% (annualized) with decreases in employment

US GDP

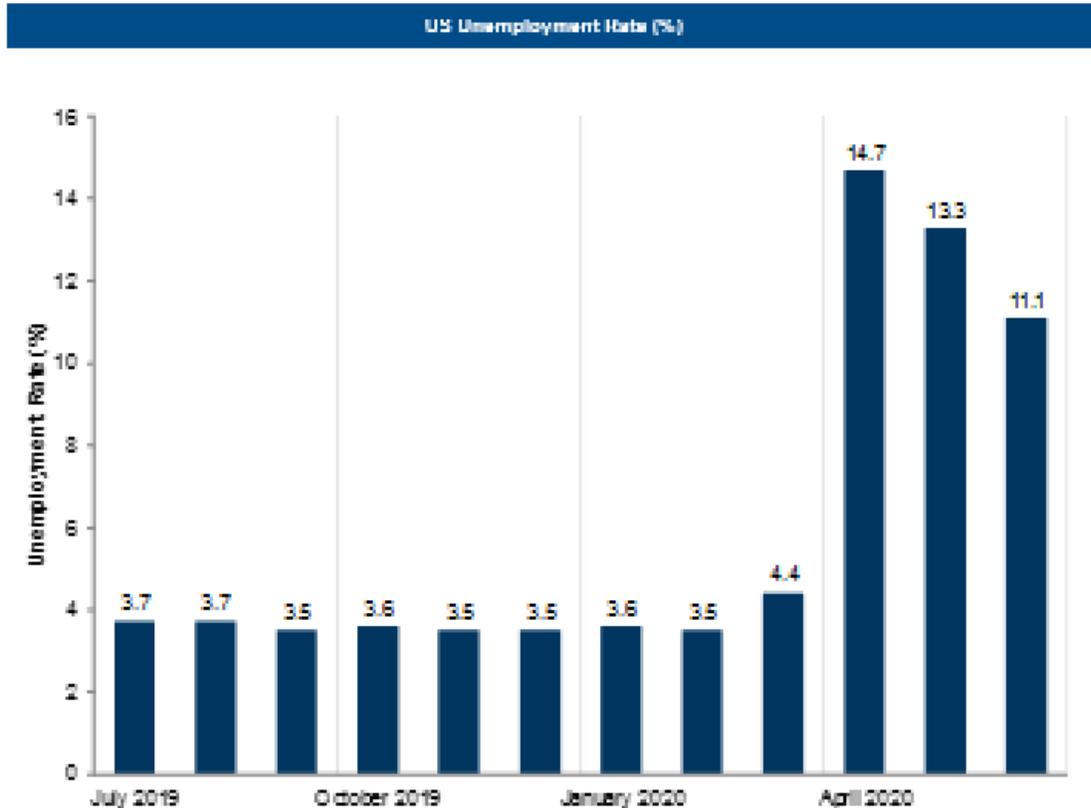


Source GSAM



Employment Trends

Monthly Employment



Month	Job Gains/Losses
January	214,000
February	251,000
March	(1,373,000)
April	(20,787,000)
May	2,725,000
June	4,791,000

Source: U.S. Bureau of Labor Statistics



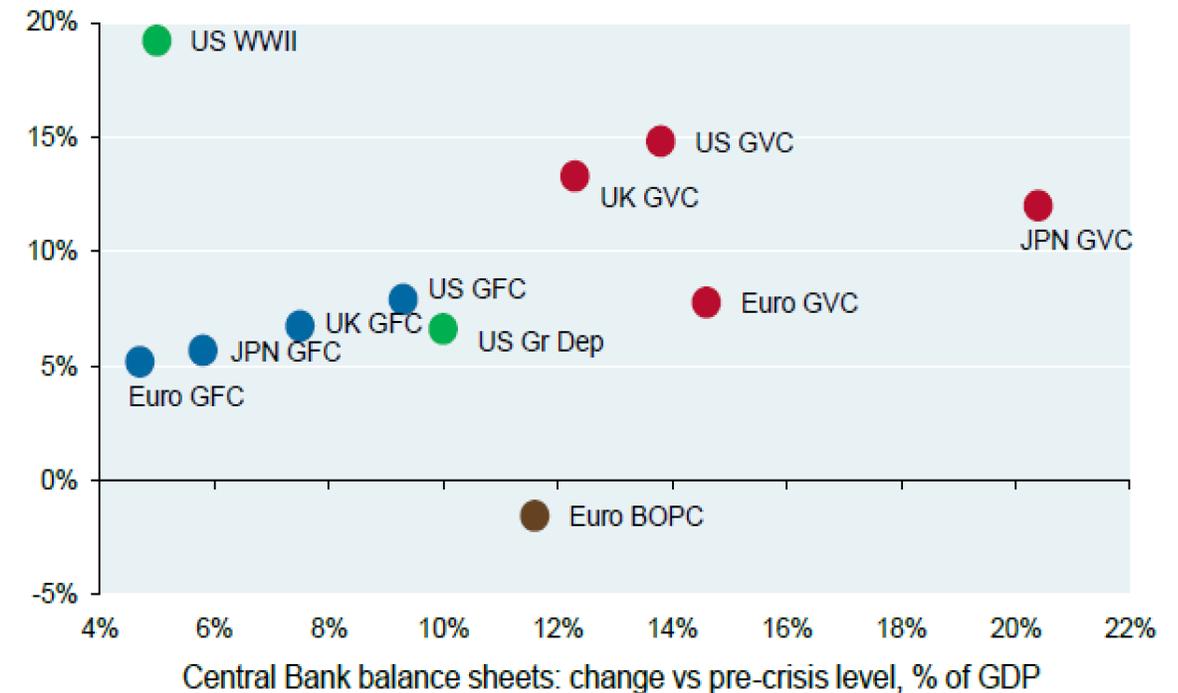
Market Returns: Q2-2020

Policy Response

- Monetary Policy Response – policy rate reduced from 1.75% - 2% to 0% to .25%, unlimited QE for US Treasuries and MBS (totaling \$1.8T of UST and \$1T of MBS from 3/20 through 8/20), multiple liquidity programs implemented supporting credit and municipal markets.
- Fiscal Policy – four fiscal programs passed, totaling \$3.3T

Quantitative Easing and Fiscal Policy Expansion

Government fiscal deficits: change vs pre-crisis level, % of GDP



Source: Central bank sources, OMB, St Louis Fed, JP Morgan Global Economic Research, JPMAM. 2020. GVC: 2020 Global Virus Crisis, GFC: 2008/2009 Global Financial Crisis, BOPC: 2012 Balance of Payments Crisis, GrDep: 1930's Great Depression (through 1937). Euro = Eurozone area.



Global Macro Issues

- COVID-19, containment and potential second wave; vaccine development ("Covid-19 is most critical driver of the path of the economy " --Jay Powell)
- Pace of economic recovery
- Federal Reserve Policy and US Interest Rates
- US – China relations
- US Equity market valuations
- US Presidential & Congressional Elections, Nov 3, 2020



Global Macro Issues

Federal Reserve Policy and US Interest Rates

Monetary Policy Framework Review (announced at Jackson Hole Conference on August 27th)

- Inflation – goal of policy is “to achieve inflation that averages 2% over time” (AIT)
- Employment – set policy according to “assessments of the shortfalls of employment from the maximum level”
- Takeaways – Fed is going to maintain extraordinarily accommodative policy for a long time, with goal of increasing inflation while the federal deficit is largest since WWII.

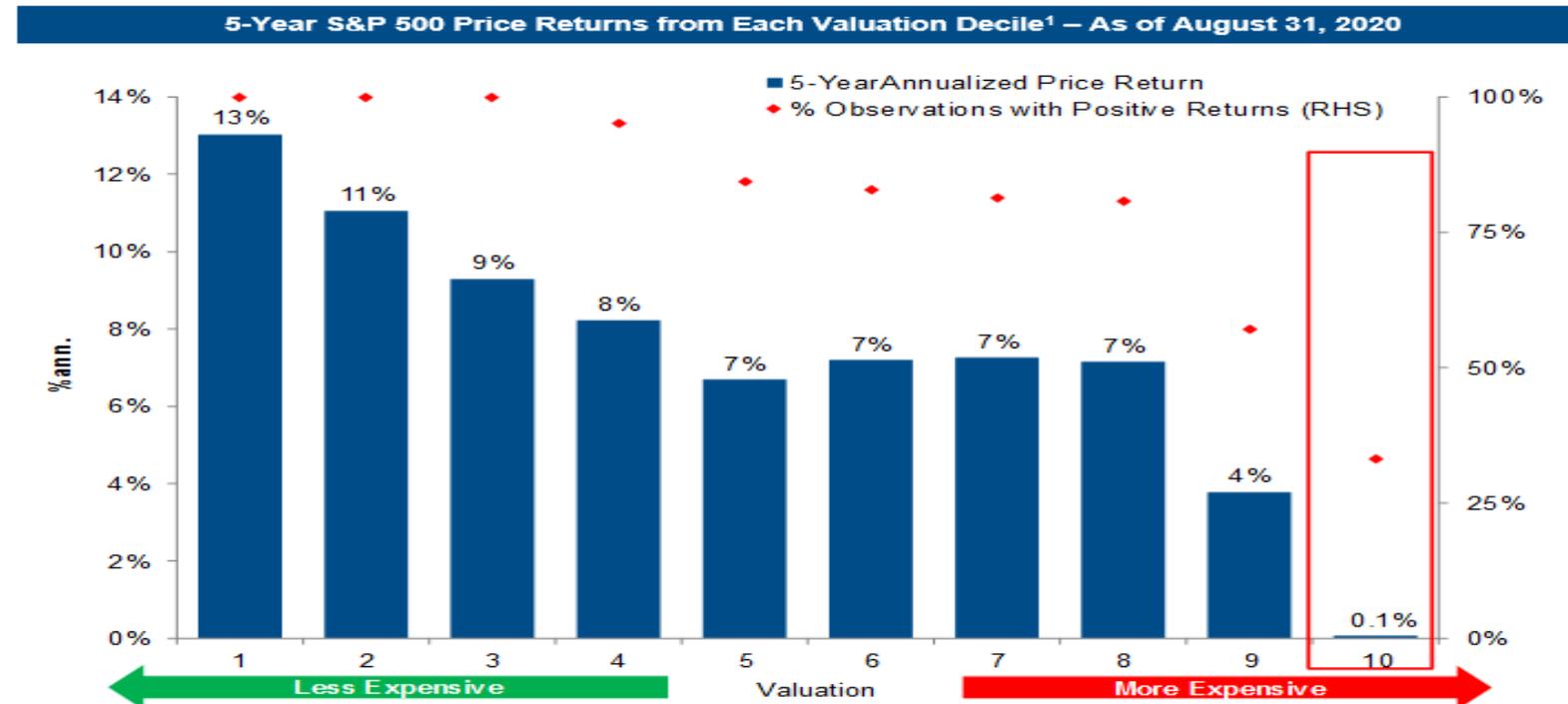


Global Macro Issues

- **US Equity Market** – Valuations are historically expensive, mega cap tech and social media stocks continue to outperform, but these mega caps stocks are highly profitable

The S&P 500 is currently in its 10th decile.

This valuation decile has preceded positive price returns over the subsequent five years 33% of the time since 1945, with an average return of 0.1%.



(1) Based on five valuation metrics for the S&P 500, beginning in September 1945: price-to-trend earnings, price-to-peak earnings, price-to-trailing 12m earnings, Shiller cyclically adjusted price-to-earnings ratio (CAPE) and price-to-10-year average earnings. These metrics are ranked from least expensive to most expensive and divided into 10 buckets based on monthly observations ("deciles"). The subsequent realized, annualized five-year price return is then calculated for each observation and averaged within each decile. Past performance is not indicative of future results.

Source: Goldman Sachs Investment Strategy Group, Bloomberg, Datastream, Robert Shiller.

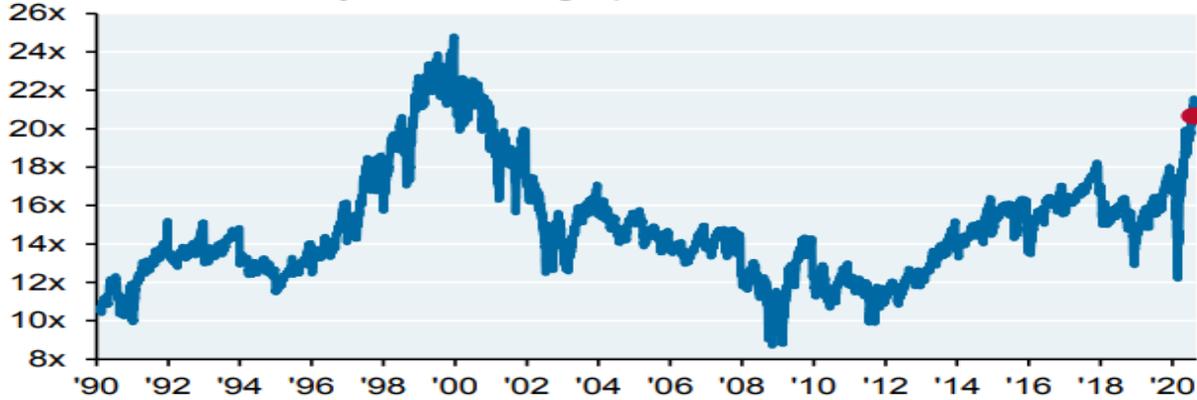


Global Macro Issues

- US Equity Market – valuations and profitability**

S&P 500 price/earnings

Price / forward 2 year earnings per share



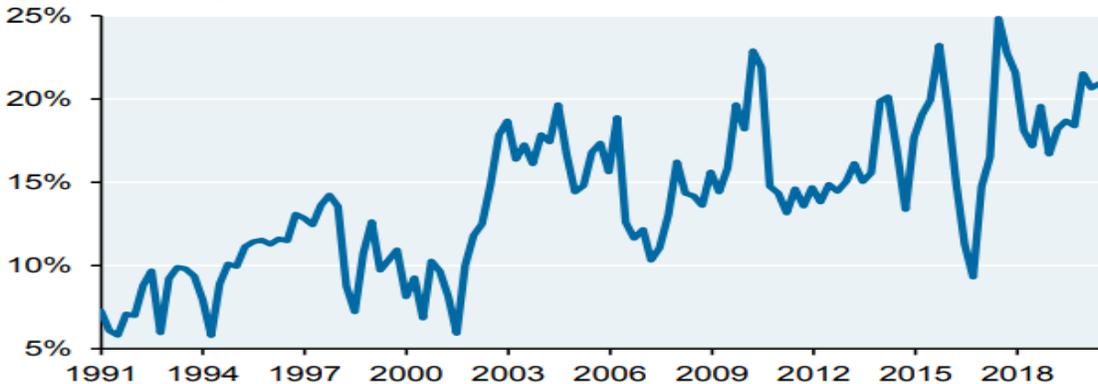
Source: Bloomberg, J.P. Morgan. September 04, 2020.

Contribution of top firms to overall US market cap



Source: Bloomberg. September 4, 2020.

Median free cash flow margin for 10 largest stocks within S&P 500 by market cap, Trailing 12 month free cash flow margin



Source: Factset. Q2 2020.

S&P 500 ex-financials and REITs net profit margins

%, 3 month smoothing



Source: Empirical Research Partners. August 2020.

Global Macro Issues

US Presidential and Congressional Elections

- Possible policy differences amongst Biden vs. Trump vs. divided government
- Election outcome possible source of high uncertainty and market volatility



Global Macro Issues

POLICY DIFFERENCES AMONGST BIDEN VS. TRUMP VS. DIVIDED GOVERNMENT

Trump Victory

- Similar agenda, but with large infrastructure program

Biden victory

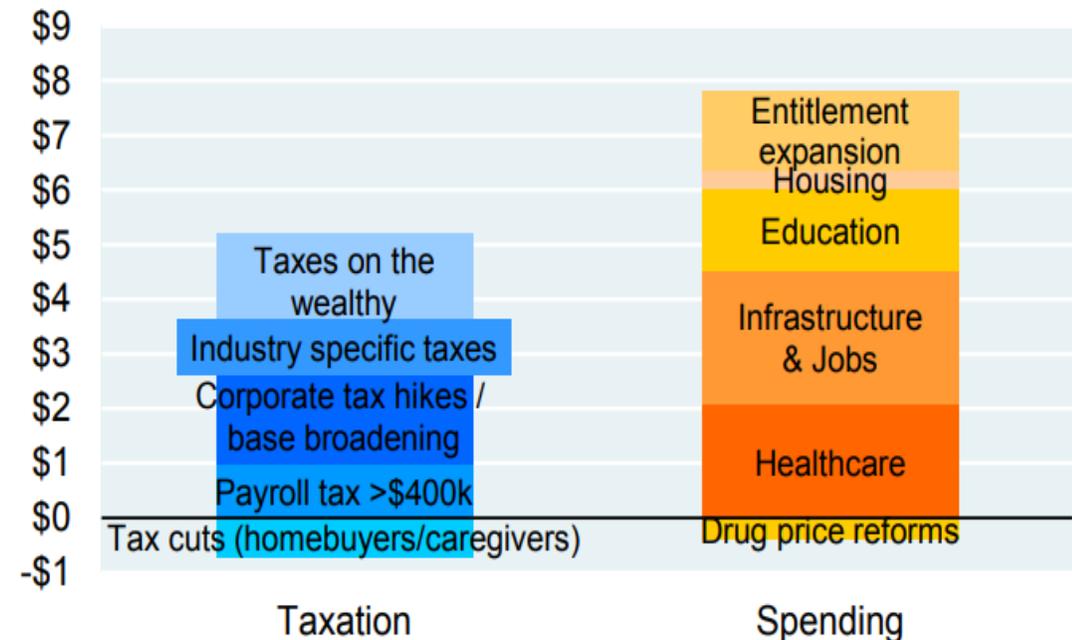
- Democrats hold house and win majority in Senate
- Tax policy: Raise \$4T-\$5T in revenue over 10-years, both increases in corporate and individual taxes
- Spending policy: Massive expenditures on Environment (clean energy), Healthcare (create Medicare option, expand Obamacare), Labor Relations (policies that favor labor over capital)

Congressional elections

- Senate – currently 53-47 in favor of Republicans, but 23 Republican and 12 Democratic seats up for reelection
- Divided government – markets usually benefit from divided government

The Biden Agenda

\$, trillions over 10 years



Source: Cornerstone, JPMAM. 2020.



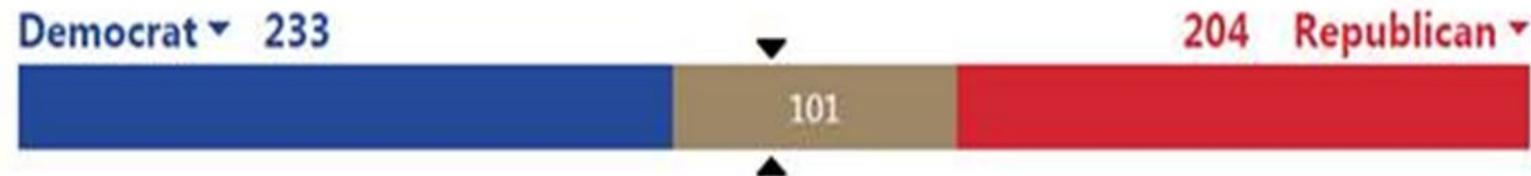
Global Macro Issues

Election outcome possible source of high uncertainty and market volatility

Schedule:

Presidential Debate	Sept. 29
VP Debate	Oct. 7
Presidential Debate	Oct. 15
Presidential Debate	Oct. 22
Election	Nov. 3

Electoral College Votes



Key Battleground states (101 electoral college votes)

Florida

• 29 votes

Arizona

• 11 votes

Michigan

• 16 votes

N. Carolina

• 15 votes

Pennsylvania

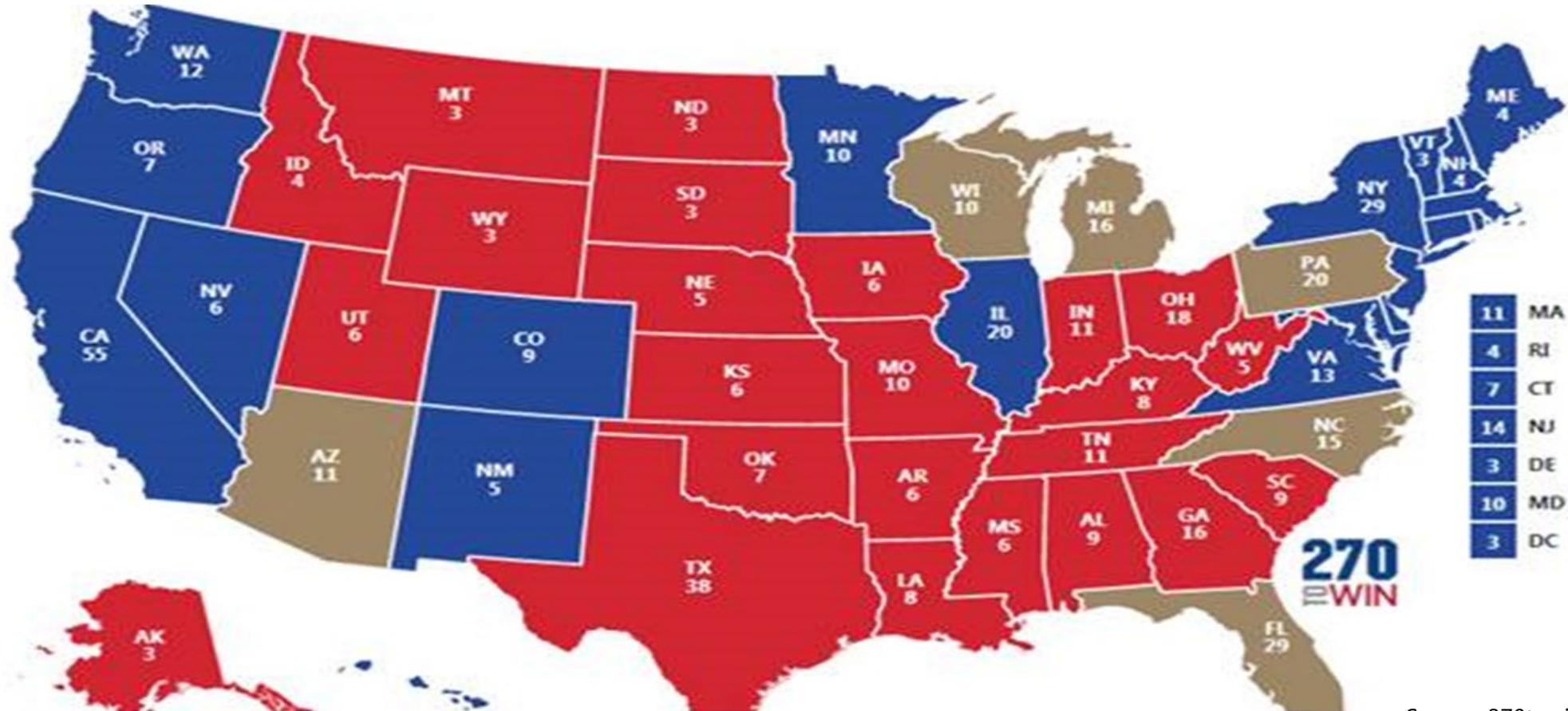
• 20 votes

Wisconsin

• 10 votes



Global Macro Issues



Source: 270twin.com

Global Macro Issues

If Biden Wins Florida

Safe Democratic electoral votes	187
States HRC won (CO, ME, MN, NH, NV, VA)	46
Subtotal safe Dem states + HRC	233
Assume Biden wins Florida	29
Total safe + HRC states + Florida	262
Net needed after Florida win	8
States Biden needs to win to get to 270	1 of 5: AZ, MI, NC, PA, WI

If Trump Wins Florida

Safe Republican electoral votes	180
States Trump is Polling Ahead (IA, OH)	24
Subtotal safe Rep states + States Trump polling ahead	204
Assume Trump wins Florida	29
Total safe + Trump polling ahead + Florida	233
Net needed after Florida win	37
States Trump needs to win to get to 270	3 of 5: AZ, MI, NC, PA, WI

If Biden Does Not Win Florida

Safe Democratic electoral votes	187
States HRC won (CO, ME, MN, NH, NV, VA)	46
Subtotal safe Dem states + HRC	233
Assume Biden wins Florida	0
Total safe + HRC states + Florida	233
Net needed after Florida win	37
States Biden needs to win to get to 270	3 of 5: AZ, MI, NC, PA, WI

If Trump Does Not Win Florida

Safe Republican electoral votes	180
States Trump is Polling Ahead (IA, OH)	24
Subtotal safe Rep states + States Trump polling ahead	204
Assume Trump wins Florida	0
Total safe + Trump polling ahead + Florida	204
Net needed after Florida win	66
States Trump needs to win to get to 270	5 of 5: AZ, MI, NC, PA, WI



Global Macro Issues

COMPLEX SCHEDULE:

Election

- Nov. 3

Safe Harbor period

- Nov. 3 to Dec. 8 (count mail in ballots, handle legal disputes)

Electoral college delegates meet

- Dec. 14 (state electors meet “in their respective states,” potential Congressional objections)

Electoral College disbanded

- Dec 14 (whether or not 270 votes threshold for winner is met)

New 117th Congress meets

- Contingent election Jan. 6 – Jan 20 (New 117th Congress holds contingent election if Electoral College is unable to declare a winner)

Inauguration Day

- Jan 20, 2021 (if President still not selected, no path for current President to remain in office)



Q2 – Asset Allocation Review

- Q2 Rebalancing Activity

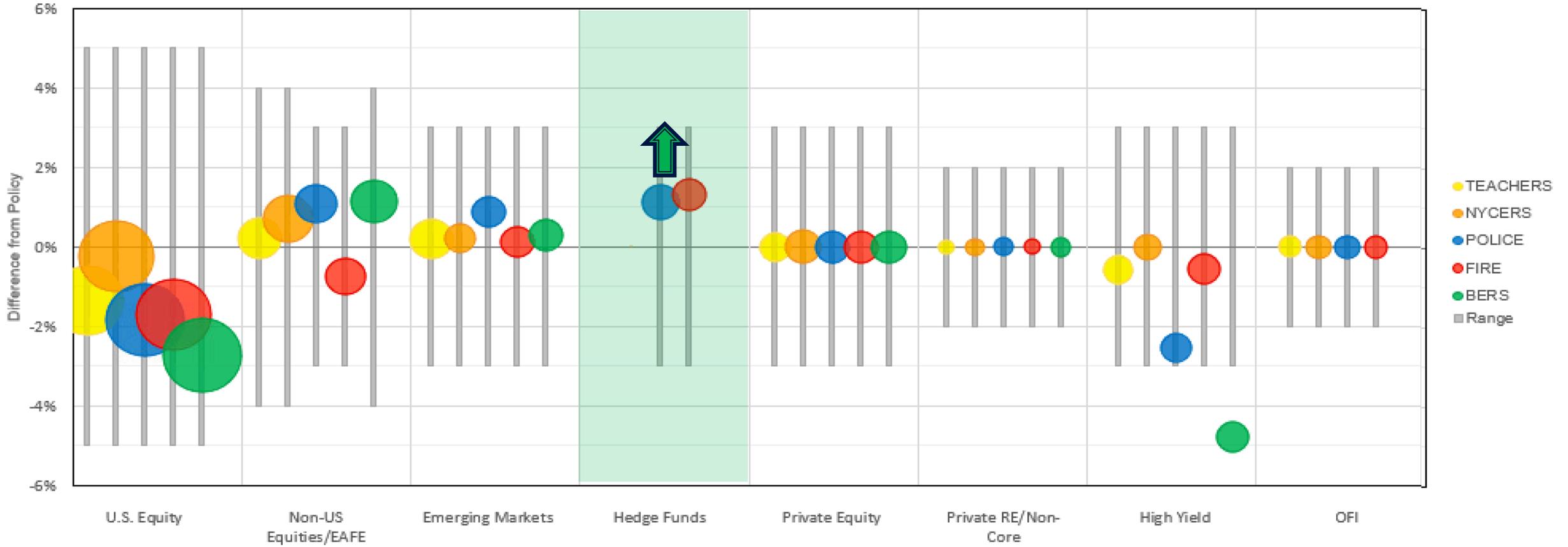
	From	Amount (\$M)	To	Amount (\$M)
TRS	Equity	350	Cash Desk	570
	Short Duration	100	Equity	450
	LI Duration	1,295	IG Credit	835
	TIPS	380	Mortgage	270
NYCERS	Equity	200	Cash Desk	760
	LI Duration	1,560	IG Credit	560
	TIPS	500	Mortgage	940
POLICE	LI Duration	1,425	Cash Desk	650
	Long Duration	125	Equity	350
	TIPS	250	IG Credit	500
			Mortgage	300
FIRE	LI Duration	335	Cash Desk	35
			Equity	140
			IG Credit	70
			Mortgage	90
BERS	LI Duration	45	Cash Desk	85
	TIPS	40		
Total Outflow		6,605	Total Inflow	6,605
	Equity	550	Cash Desk	2,100
	Short Duration	100	Equity	940
	LI Duration	4,660	IG Credit	1,965
	Long Duration	125	Mortgage	1,600
	TIPS	1,170		



Q2 – Asset Allocation Review - Growth

Relative Mix to Adjusted New Policy Weights

Policy vs Actual Asset Allocation - Growth

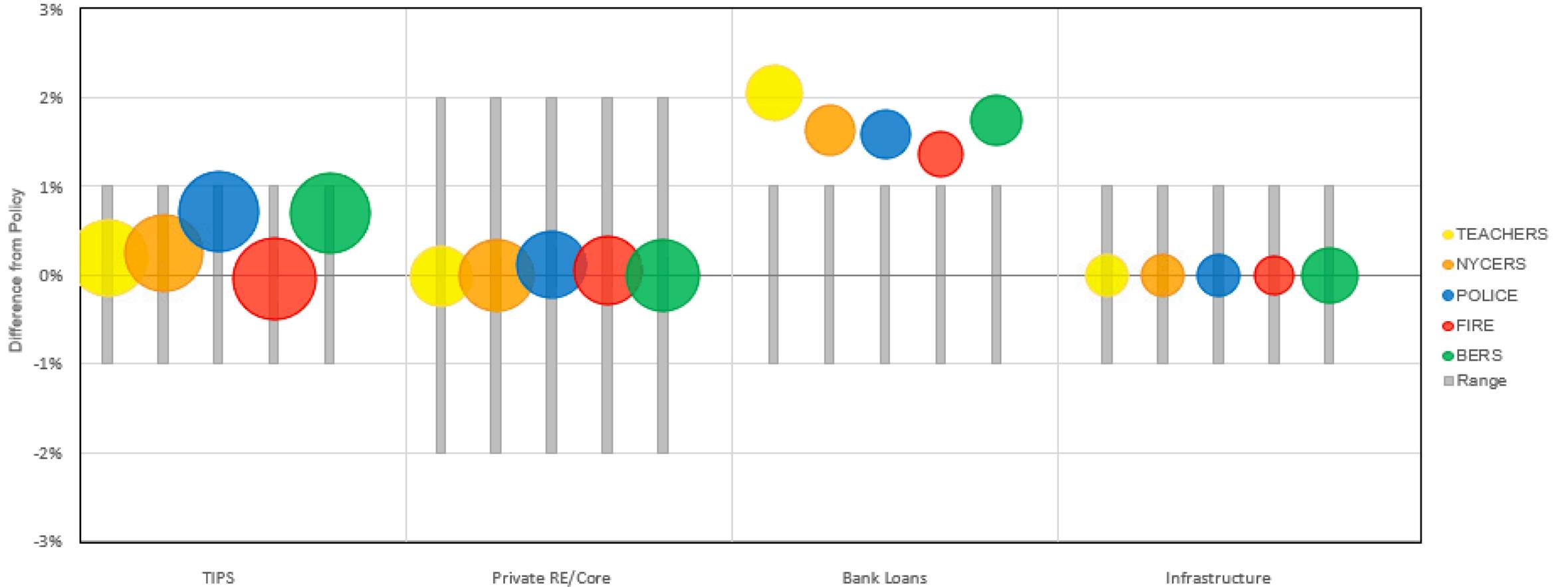


Source: State Street

Q2 – Asset Allocation Review – Inflation Protection

Relative Mix to Adjusted New Policy Weights

Policy vs Actual Asset Allocation - Inflation Protection

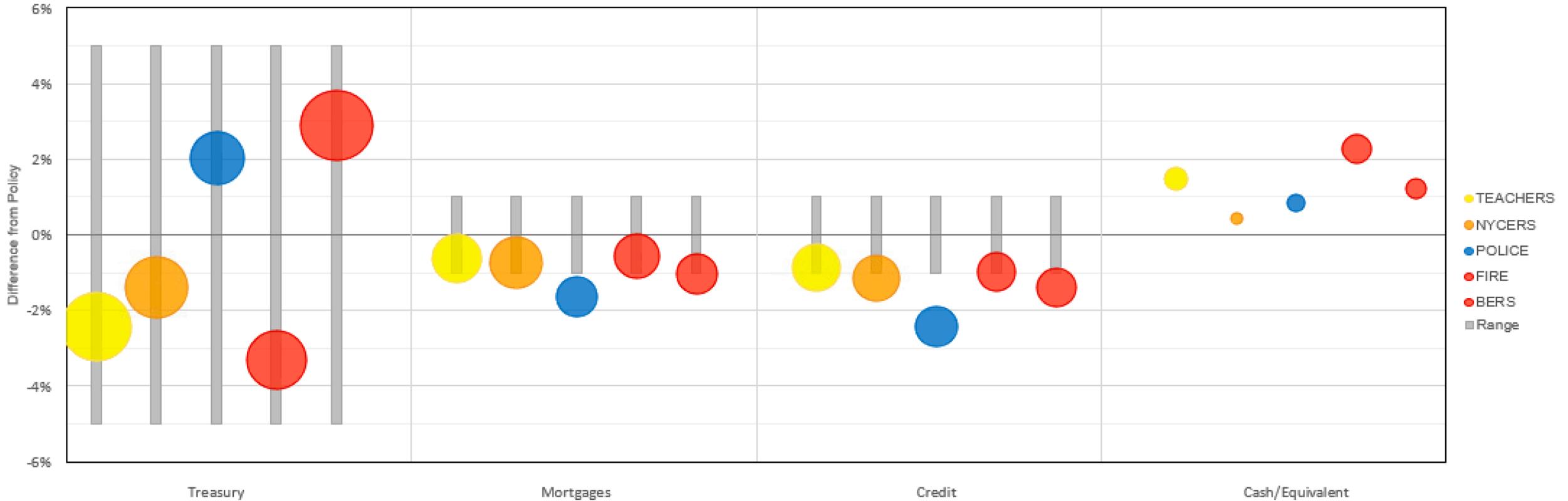


Source: State Street

Q2 – Asset Allocation Review - Deflation Protection

Relative Mix to Adjusted New Policy Weights

Policy vs Actual Asset Allocation - Deflation Protection



Source: State Street

Q2- Asset Allocation Review

- Core Bond Portfolio Duration, Actual Vs. Target (as of 06/30/2020)

	TRS	NYCERS	Police	Fire	BERS
Previous Duration Target	11.93	8.63	12.24	12.15	8.56
New Duration Target	8.10	6.04	9.44	8.38	6.04
Duration as of 03/31/2020	8.77	7.19	11.48	9.15	9.13
Duration as of 06/30/20	8.53	6.40	10.12	8.50	7.52

Source: State Street



QUESTIONS?

If you would like to ask a question



When you're done, hit mute again



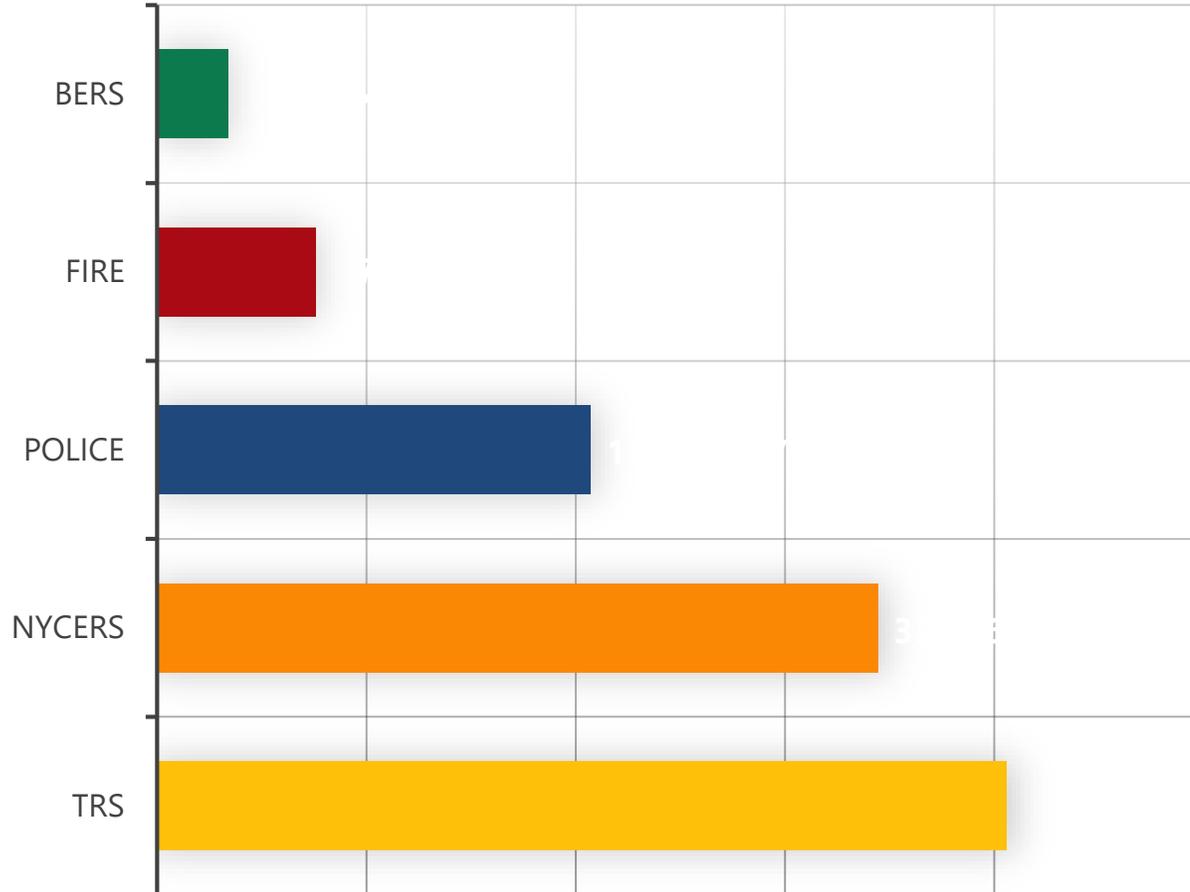
PERFORMANCE REPORTING

2nd Quarter 2020



NYC Retirement Systems AUM (% , in millions)

\$213,577m Total AUM for all 5 Systems as of June 30, 2020



Assets (in millions)



Source: State Street

Total NYC Pension Fund Net Performance as of 06/30/2020

NYC Pension System	Portfolio Std Dev - 1 yr.	3 Month	Fiscal YTD	Three Year Trailing	Five Year Trailing
NYCERS	11.64	10.00%	3.58%	6.40%	6.68%
BERS	11.61	11.11%	5.72%	7.68%	7.60%
TRS	11.28	10.31%	4.89%	6.84%	6.91%
FIRE	10.92	9.94%	4.81%	7.06%	7.02%
POLICE	10.91	9.81%	4.67%	6.99%	7.01%
Public Mkt Equiv 65/35		13.60%	5.21%	6.69%	6.54%
Median Fund - TUCS		7.94%	3.26%	6.23%	6.63%

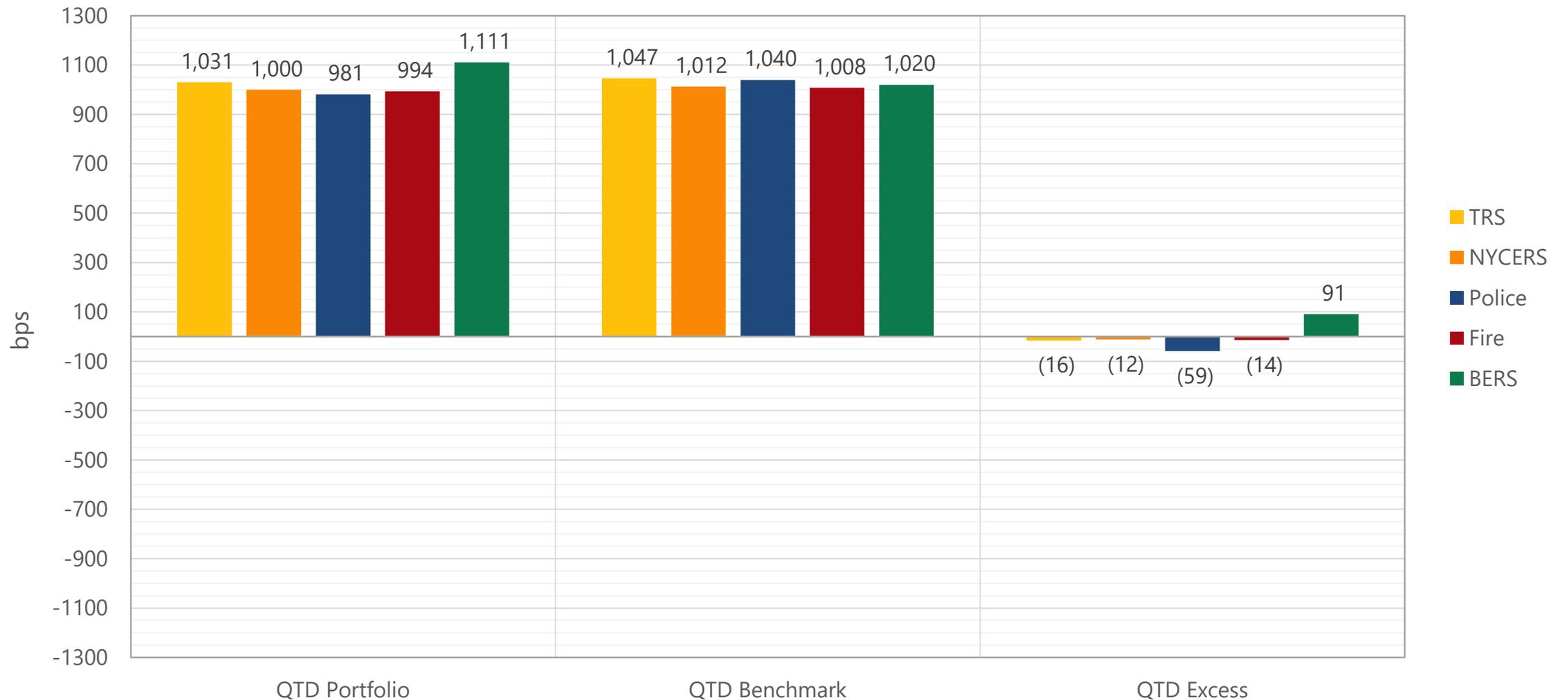
Net of mgr. fees in public asset classes are recorded on an accrual basis. Private markets data is reported on a lagged basis.

Source: State Street



Quarter to Date Return as of 06/30/2020 – Total Portfolio

Basis Points of Excess Return (SSB **T, N**, p.14; **F** p.16 ; **P** p.17; **B** p.19)

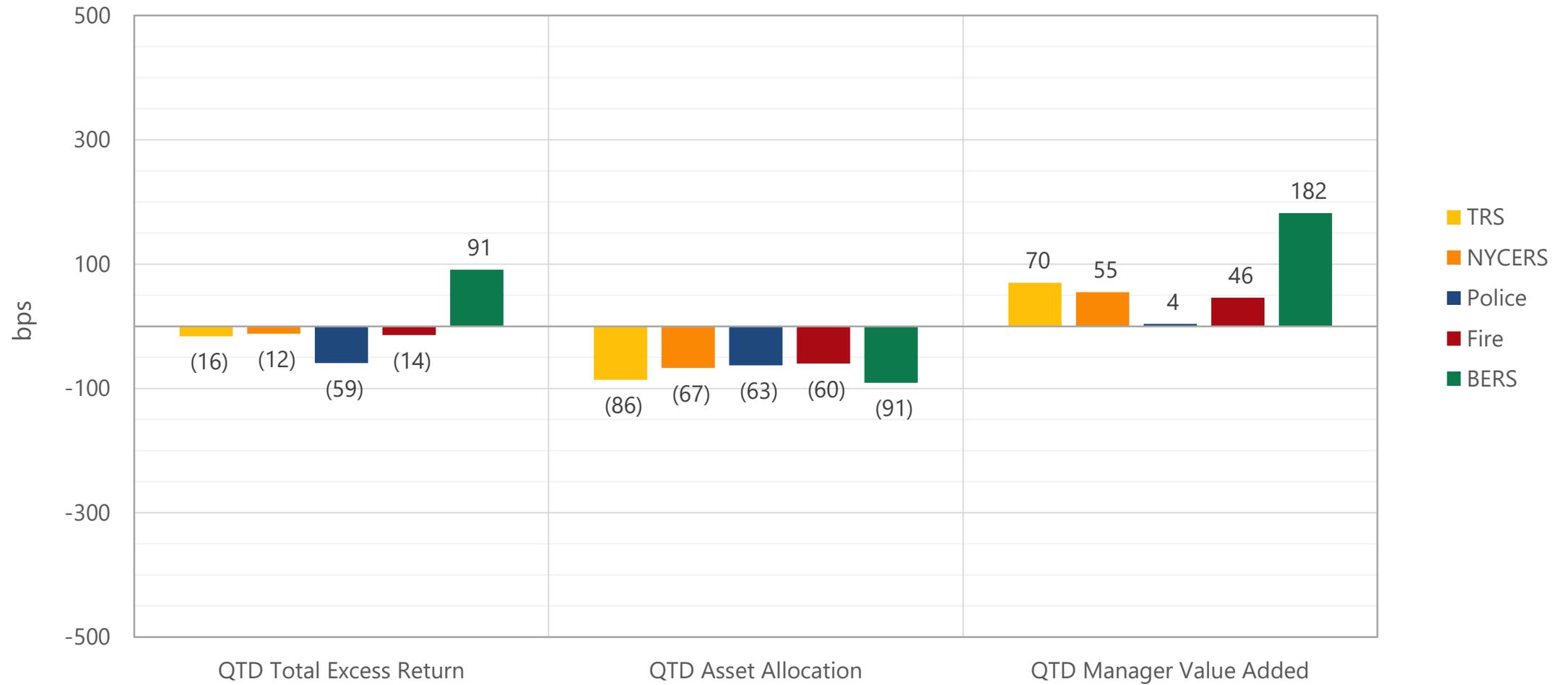


Source: State Street



Quarter to Date as of 06/30/2020 Excess Return – Total Portfolio

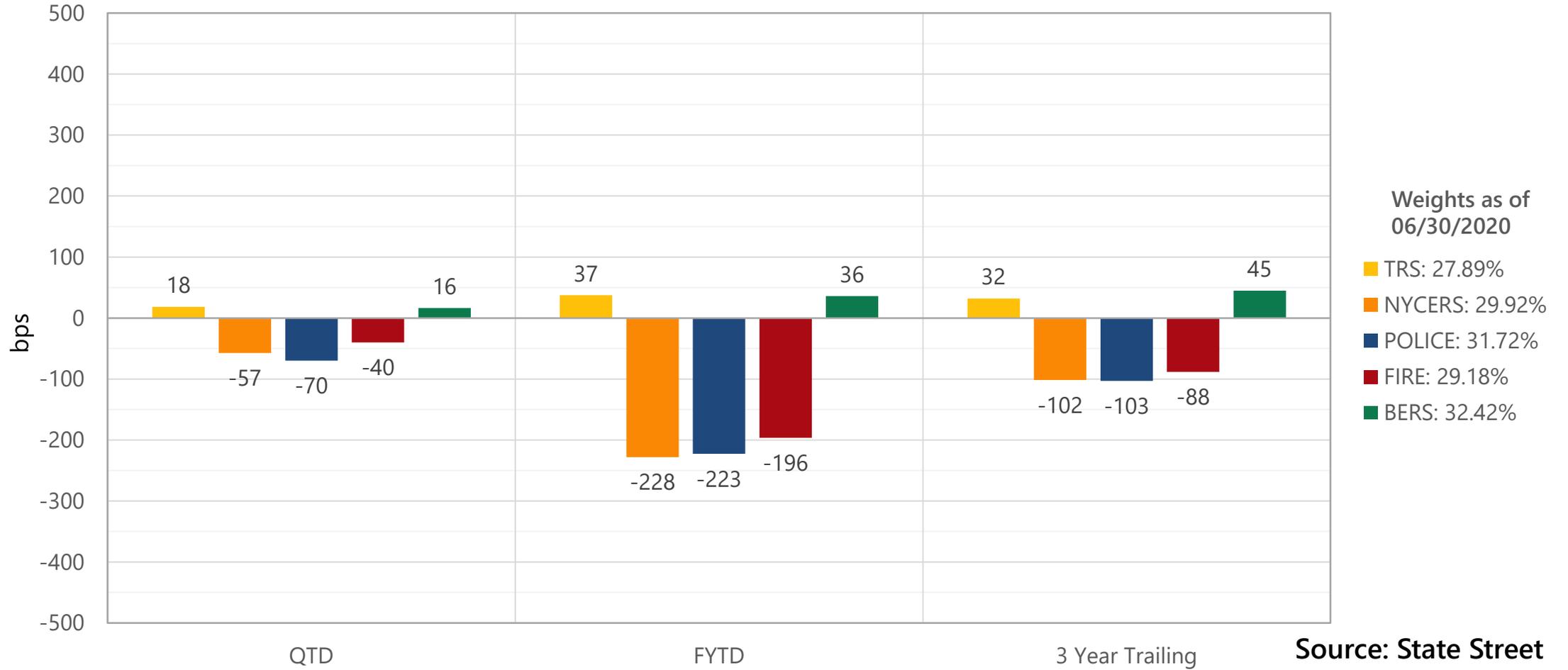
Basis Points of Excess Return (SSB **T, N**, p.14; **F** p.16 ; **P** p.17; **B** p.19)



Source: State Street

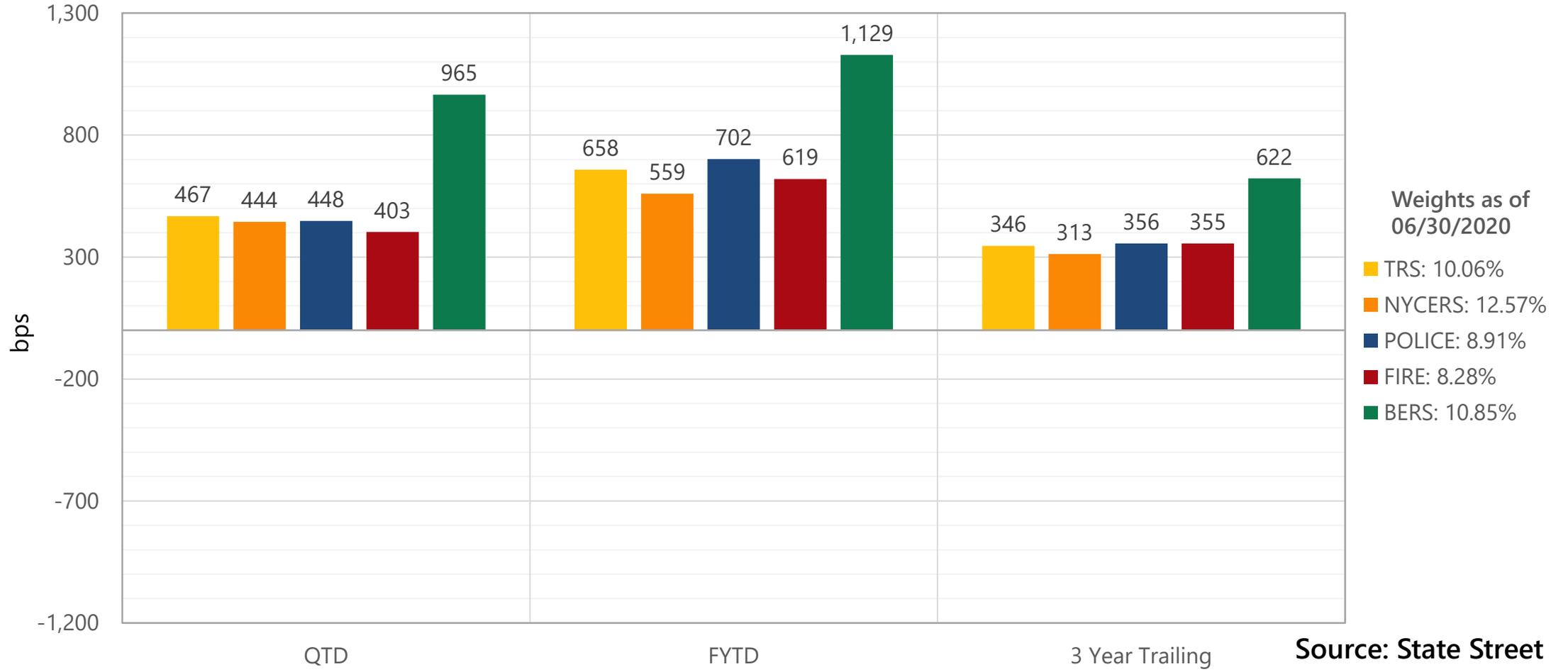
Value Added – Total Domestic Equity

Basis Points of Excess Return (SSB **T, N** p.30; **F** p.32; **P** p.33; **B** p.35)



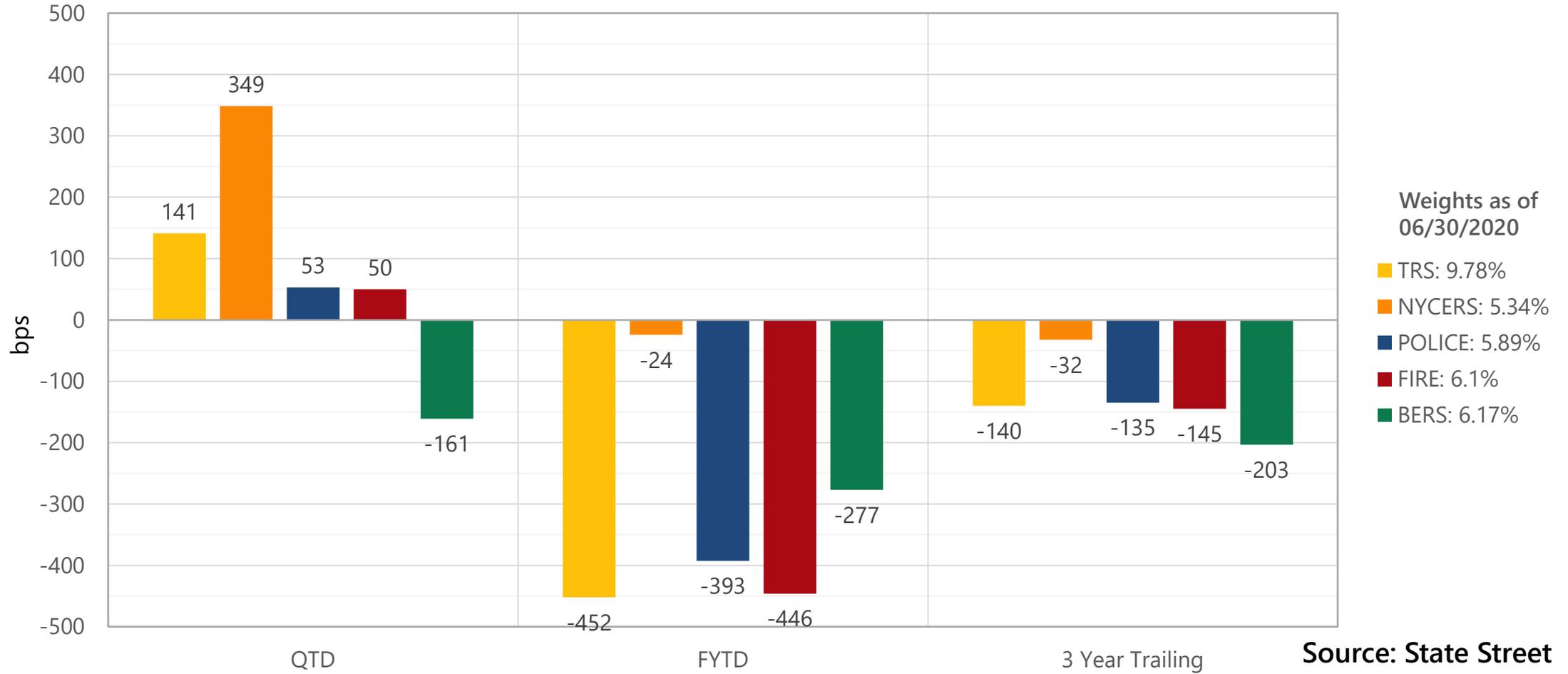
Value Added – Total World Ex-USA

Basis Points of Excess Return (SSB **T**, **N** p.31; **F** p.34; **P** p.35; **B** p.36)



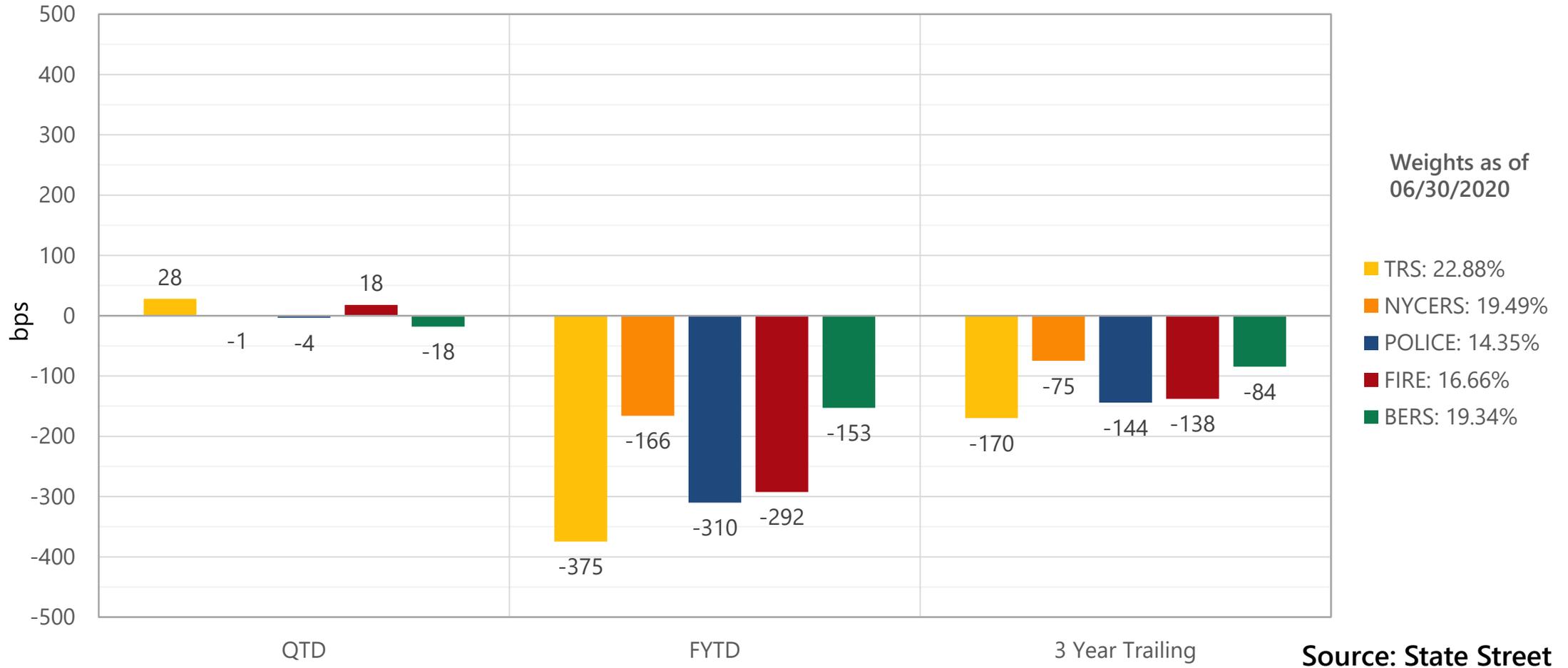
Value Added – Total Emerging Markets

Basis Points of Excess Return (SSB T, N p.32; F p.35; P, B p.36)



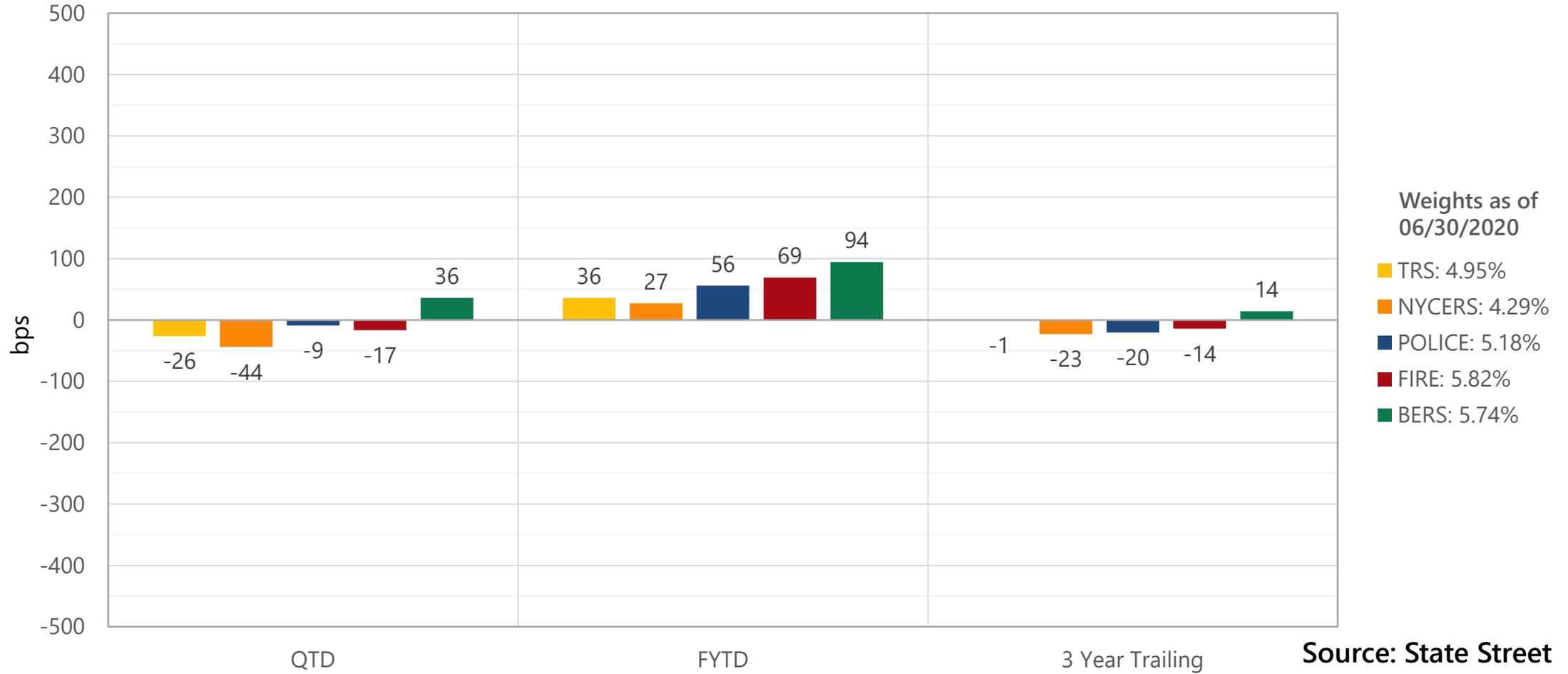
Value Added – Total Structured Fixed Income

Basis Points of Excess Return (SSB T p.34; N p.35; F, B p.38 ; P p.39)



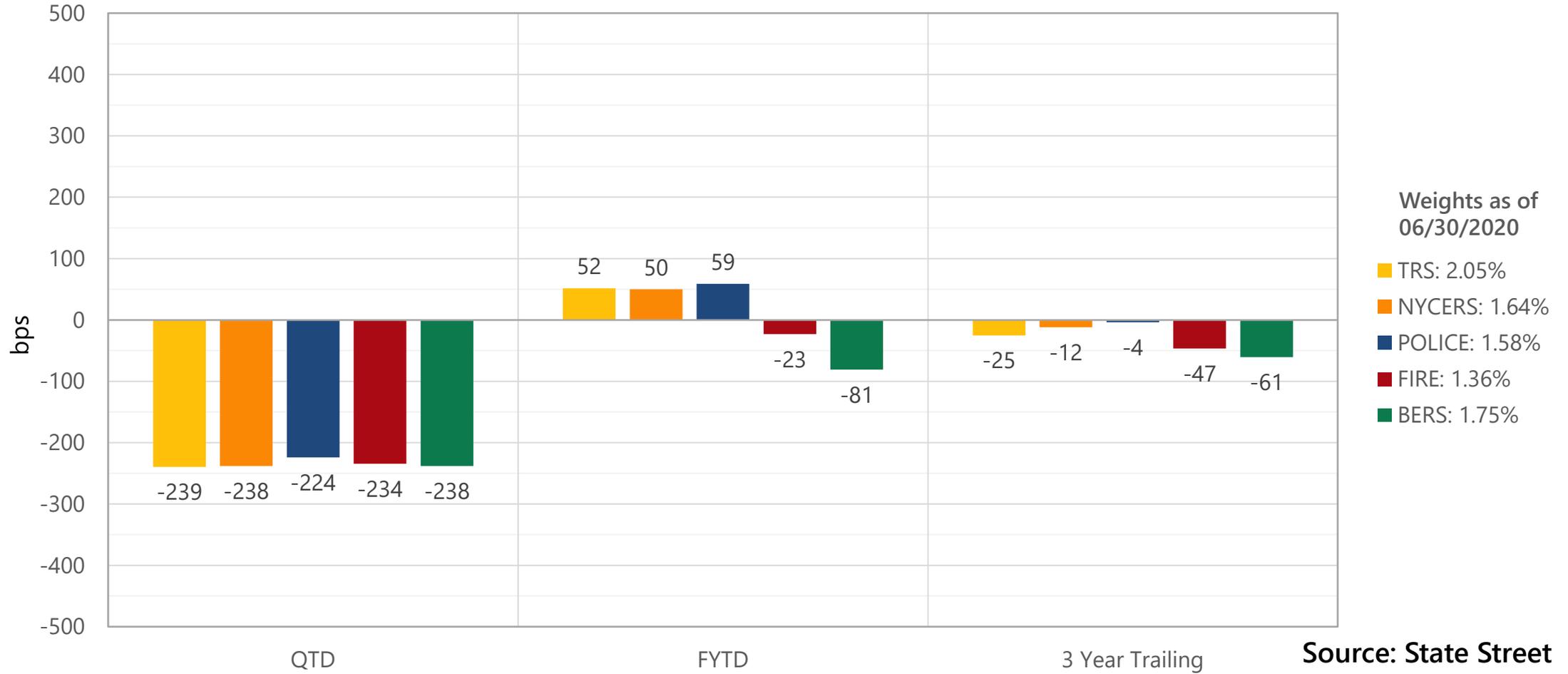
Value Added – High Yield

Basis Points of Excess Return (SSB **T** p.36; **N** p.37; **B**, p.39; **F**, p.40; **P** p.41)



Value Added – Bank Loans

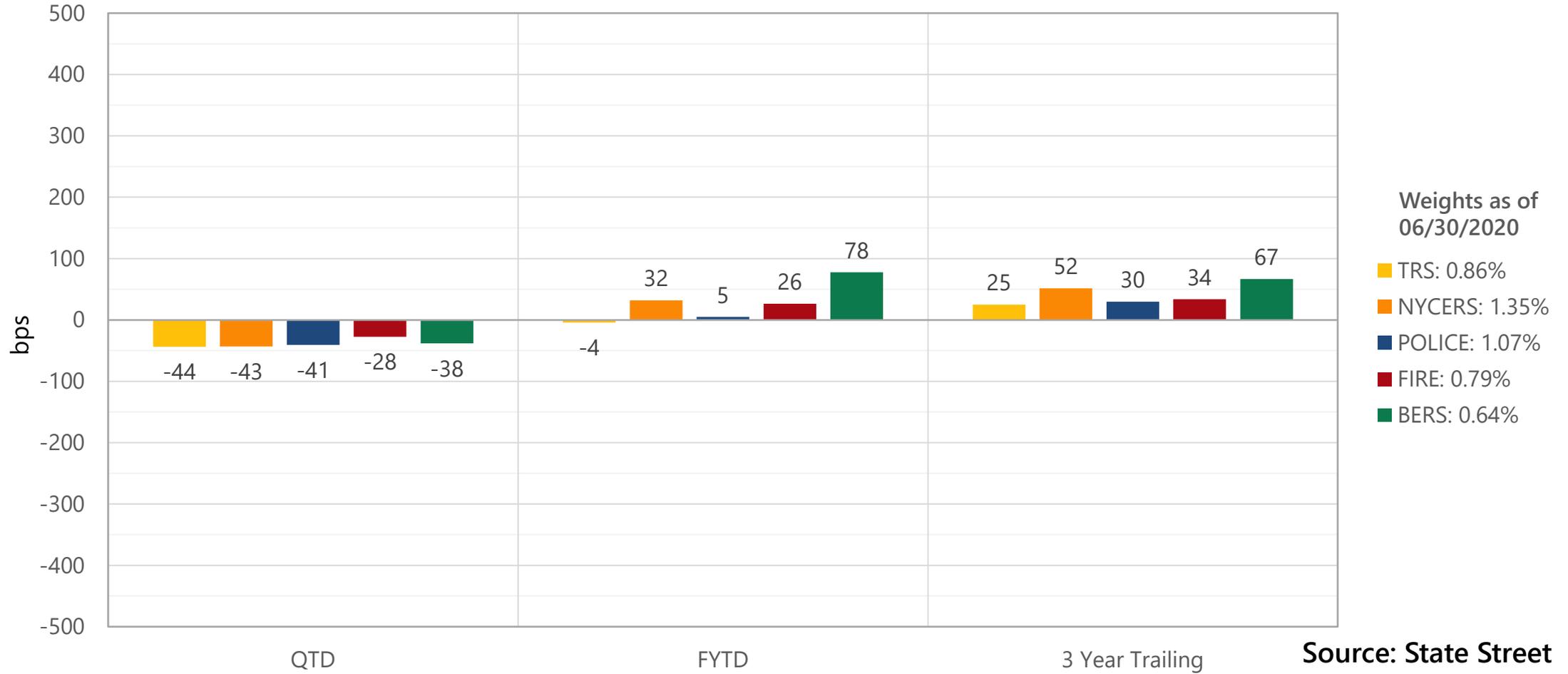
Basis Points of Excess Return (SSB **T** p.36; **N** p.37; **B**, p.39; **F**, p.40; **P** p.41)



Source: State Street

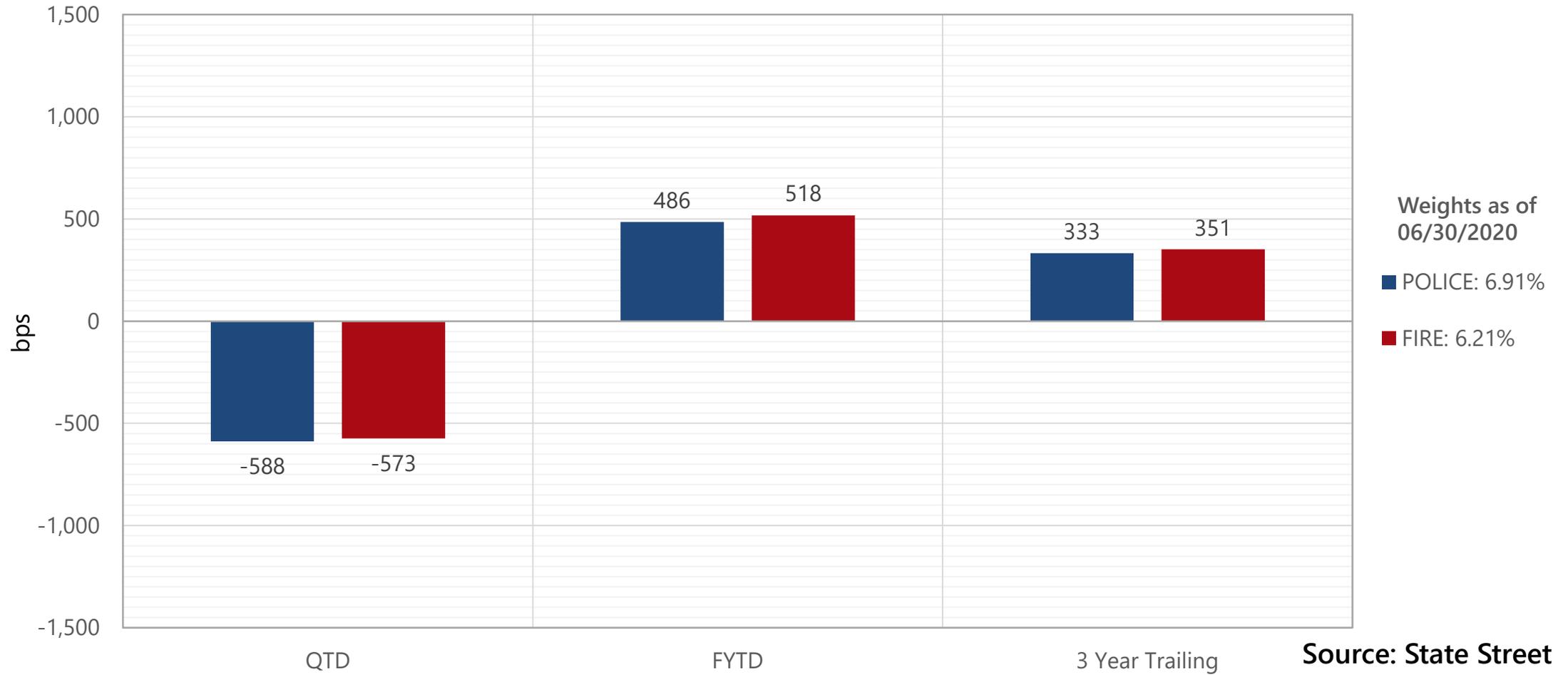
Value Added – Economically Targeted Investments

Basis Points of Excess Return (SSB **T** p.35; **N** p.36; **B**, p.38; **F** p.39; **P** p.40)



Value Added - Hedge Funds

Basis Points of Excess Return



Hedge Fund Performance Less Tactical Trade

	Q2 2020	FYTD	T3Y
FIRE	3.55%	5.84%	6.71%
POLICE	3.38%	5.48%	6.47%
HFRI+ 100 bps	8.20%	1.53%	3.28%

Police and Fire returns are shown net of fees

Source: Aksia



Tactical Trade Performance

Tactical Portfolio (Combined)			
	Q2 2020	YTD	FYTD
Police & Fire Tactical Hedge Fund Trade	-6.05%	22.25%	13.21%
RUSSELL 3000	22.03%	-3.48%	6.53%
Outperformance	-28.08%	25.73%	6.68%

Police and Fire Tactical Hedge Fund Trade returns are shown net of fees

Source: Aksia

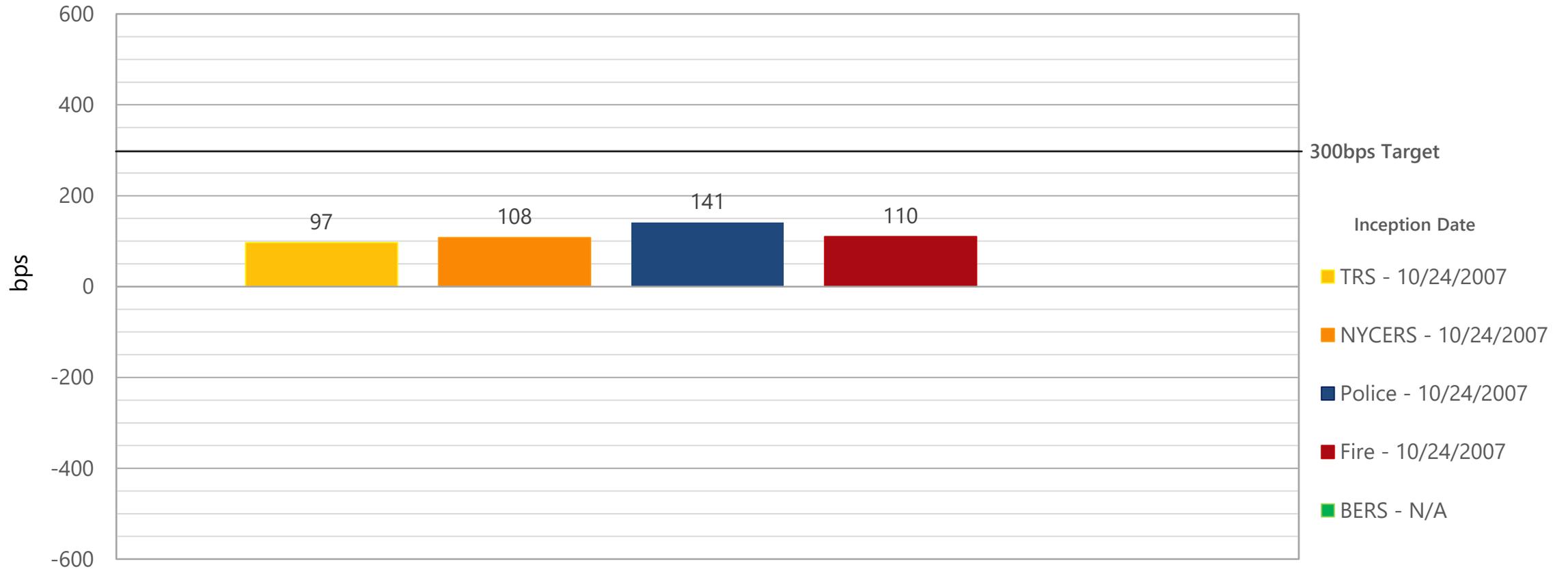


PRIVATE MARKET DATA



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 06/30/20

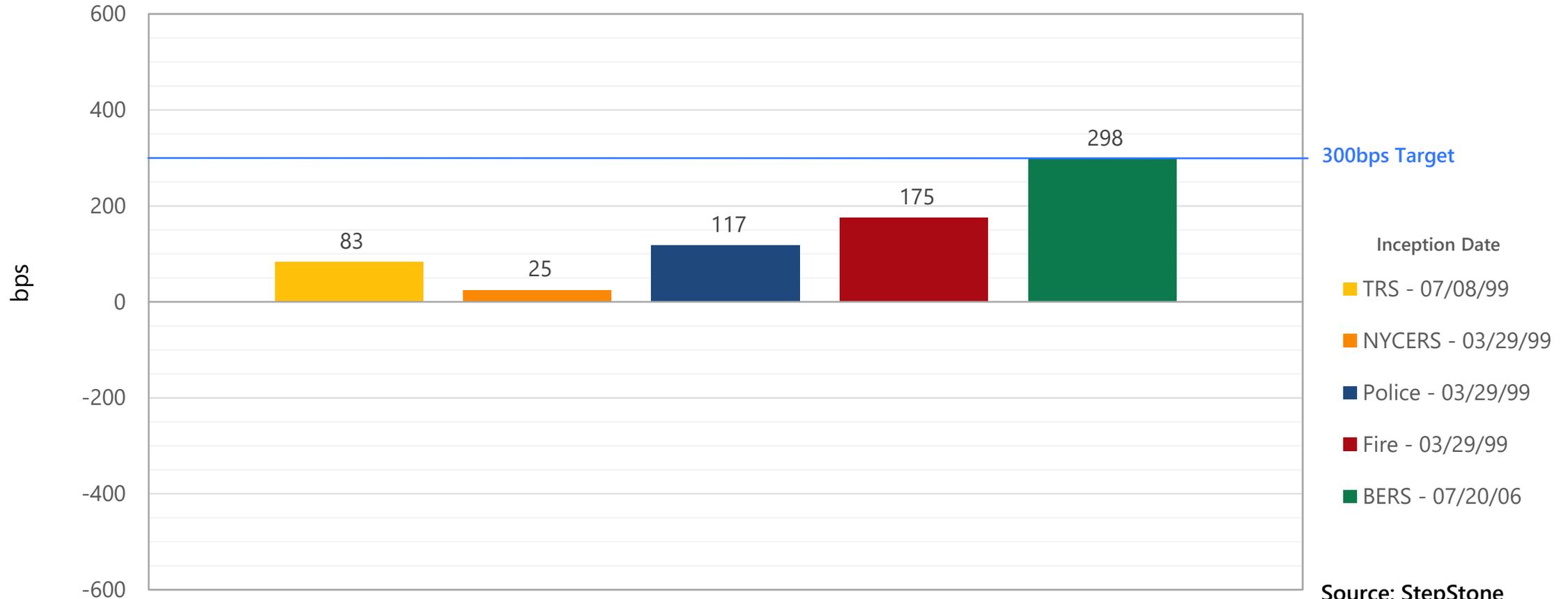
Source: State Street

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



Value Added - Private Equity

Basis Points of Cumulative IRR above Public Market Equivalent



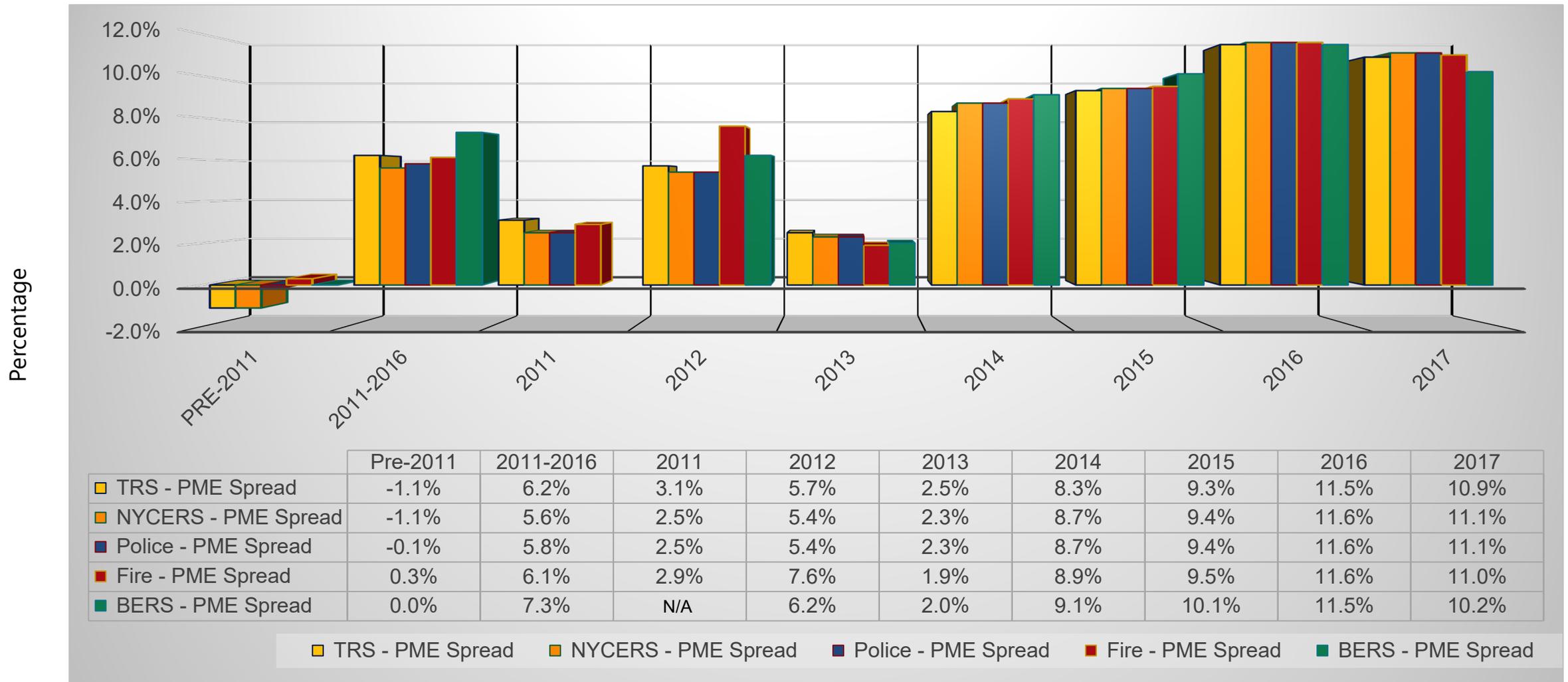
Excess Return Since Inception; The PE Benchmark is the Russell 3000 + 300 bps as of 3/31/20

Source: StepStone Group & Hamilton Lane

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



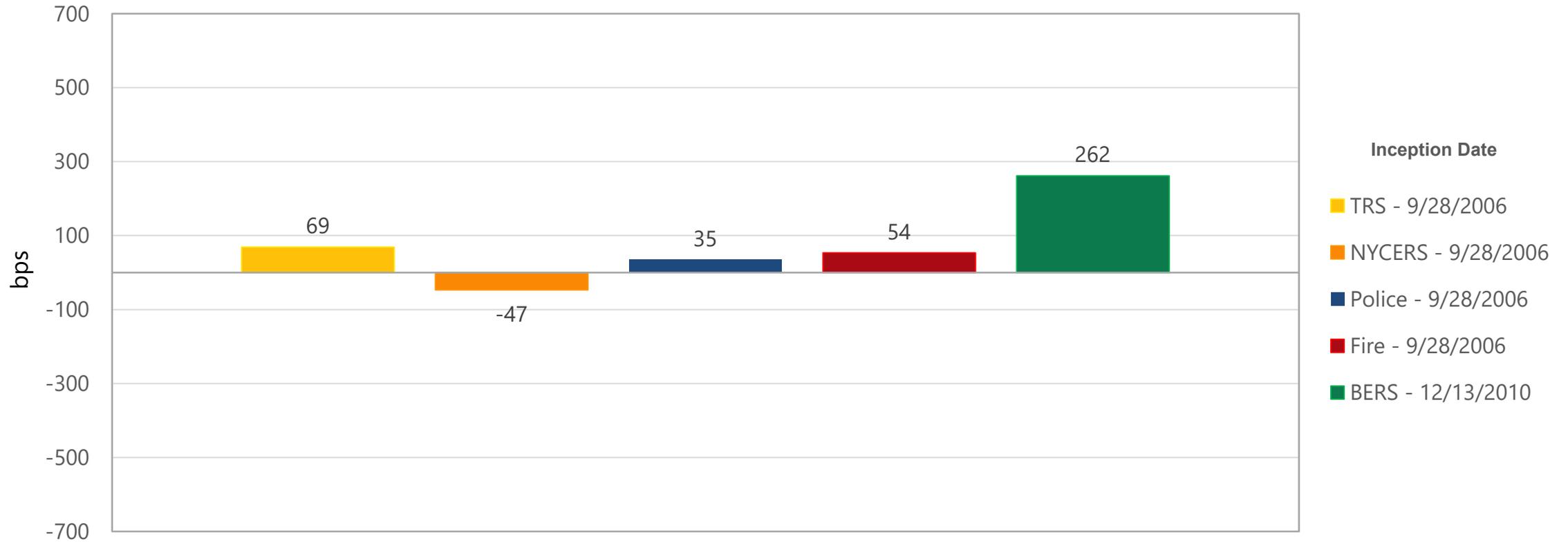
Private Equity Value Added – PME Spread By Vintage Year as of 3/31/20



Source: BAM, StepStone Group, & Hamilton Lane

Value Added - Private Real Estate - Core

Basis Points of Cumulative IRR above Public Market Equivalent



Excess Return Since Inception; Core PME = 40% Russell 3000 & 60% Barclay Agg. as of 3/31/20

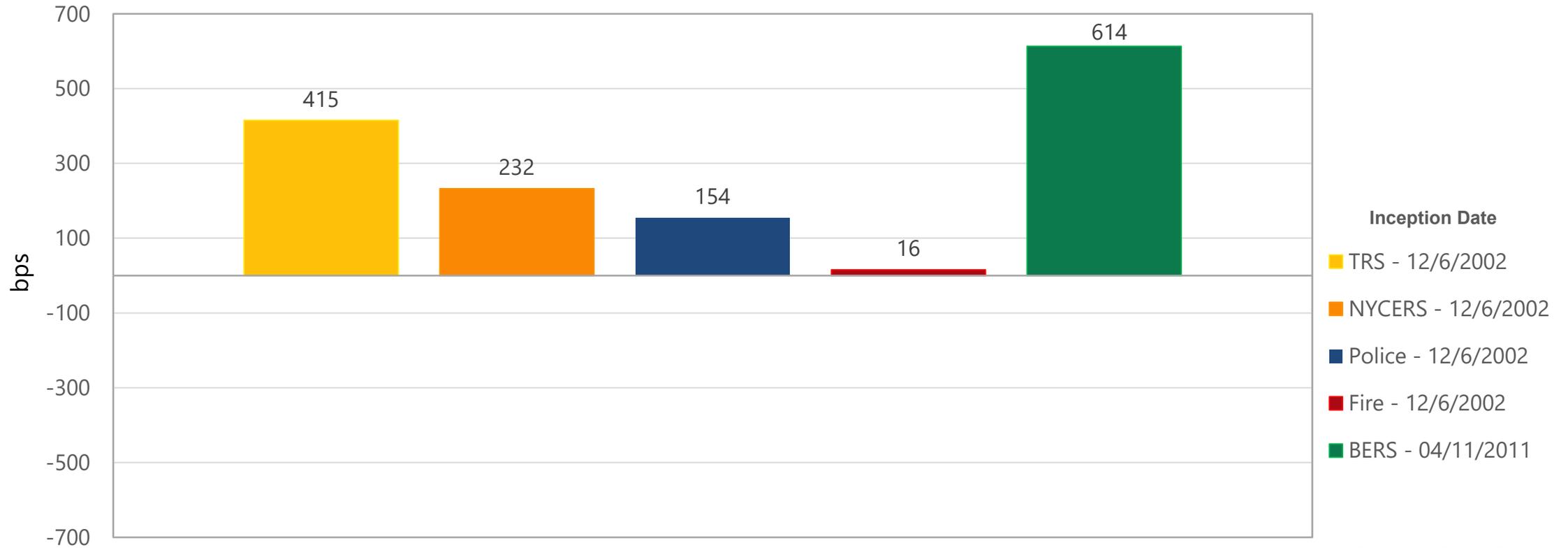
Source: State Street

The PME Spread is the difference between the IRR and the Core PME Return.



Value Added - Private Real Estate – Non-Core

Basis Points of Cumulative IRR above Public Market Equivalent



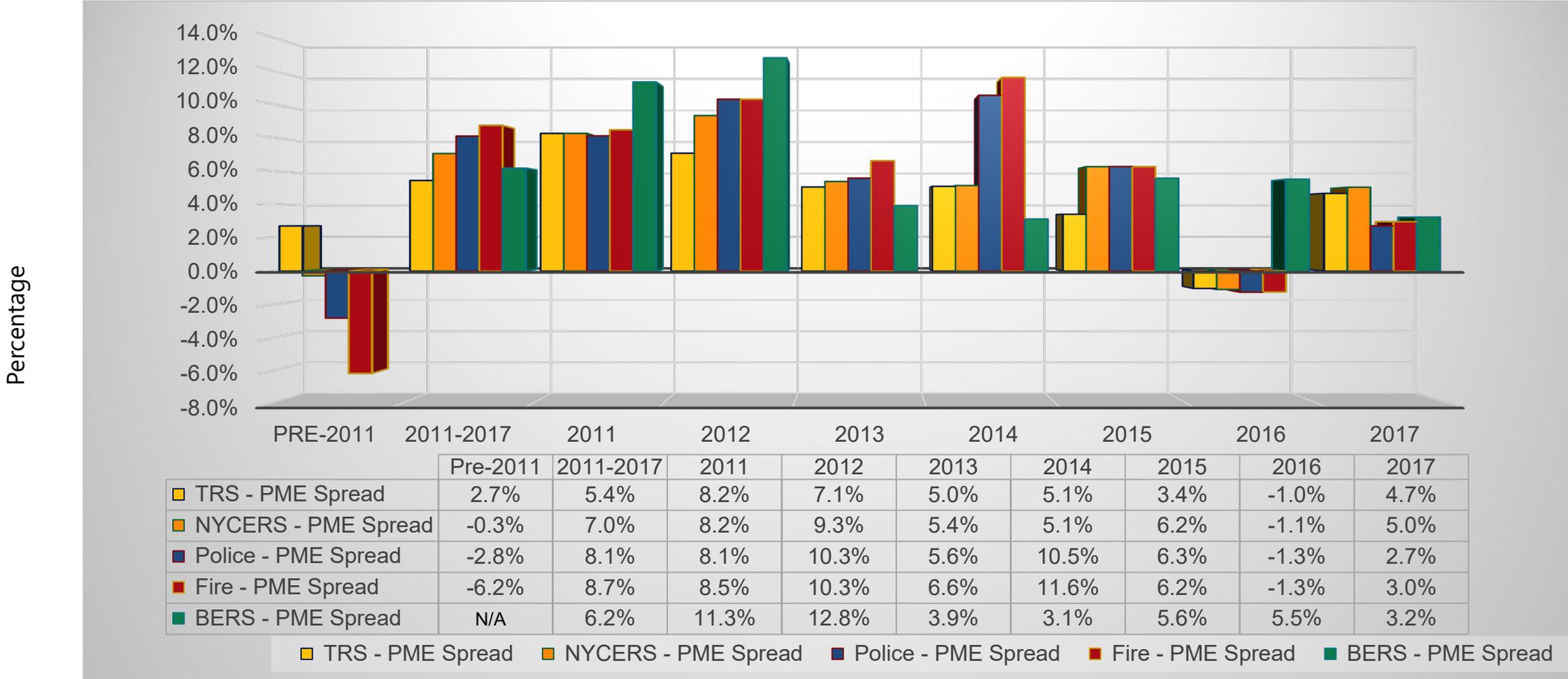
Excess Return Since Inception; Non-core PME = 60% Russell 3000 & 40% Barclay Agg. as of 3/31/20

Source: State Street

The PME Spread is the difference between the IRR and the Non-core PME Return.



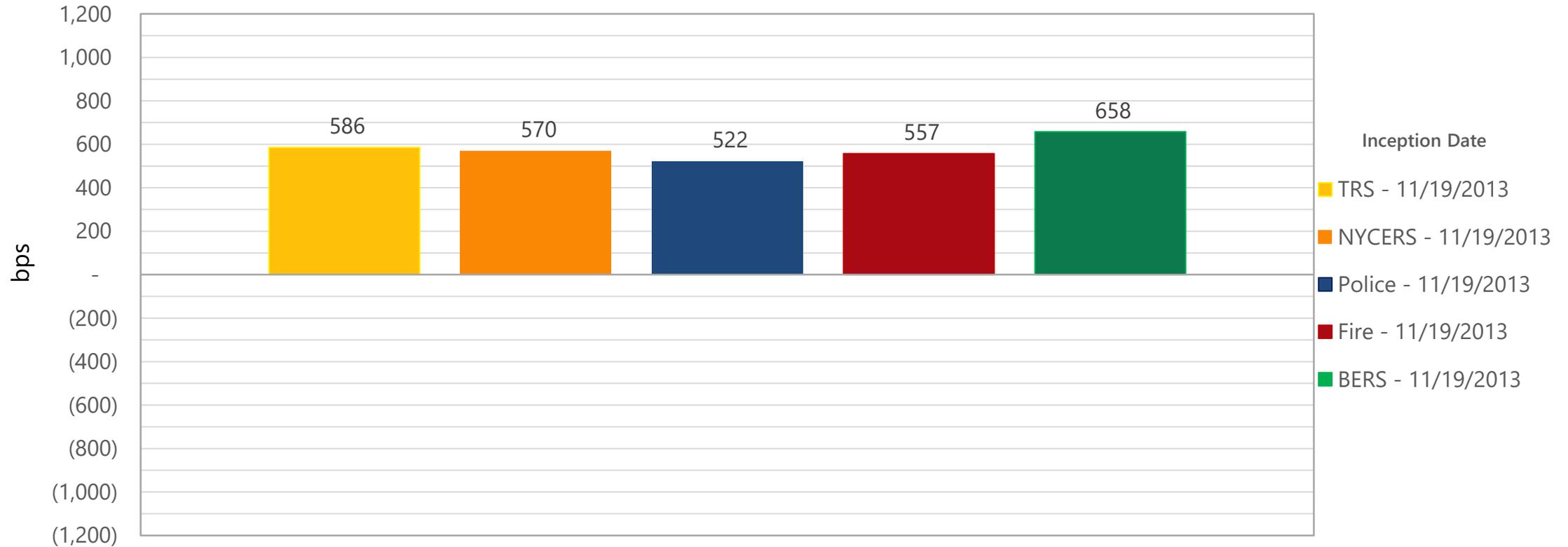
Private Real Estate (Non-Core) Value Added - PME Spread By Vintage Year as of 3/31/20



Source: State Street

Value Added - Infrastructure

Basis Points of Cumulative IRR above Public Market Equivalent

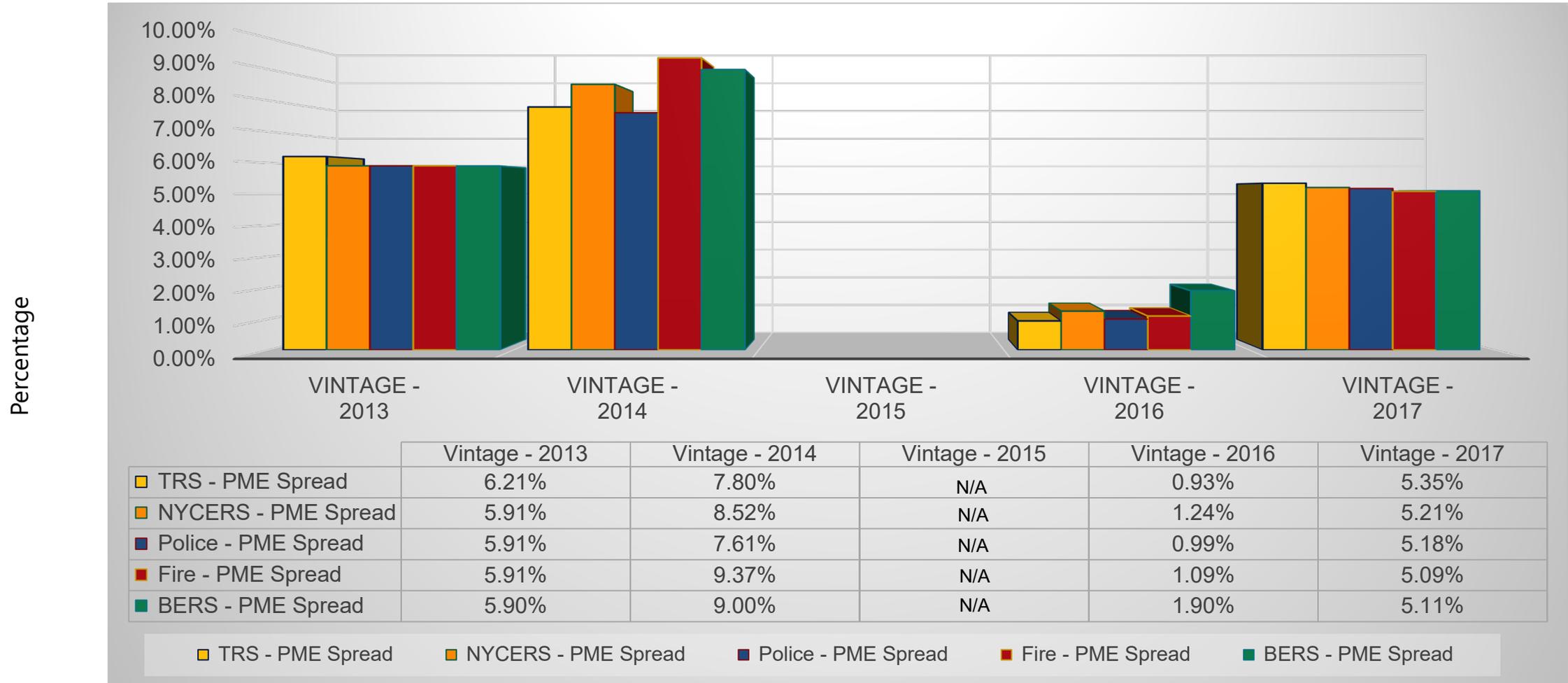


Excess Return Since Inception; PME: 50% R3000 & 50% Barclays Agg. as of 3/31/20

Source: StepStone Group

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

Infrastructure Value Added – PME Spread By Vintage Year as of 3/31/20



Source: StepStone Group



QUESTIONS?

If you would like to ask a question



When you're done, hit mute again



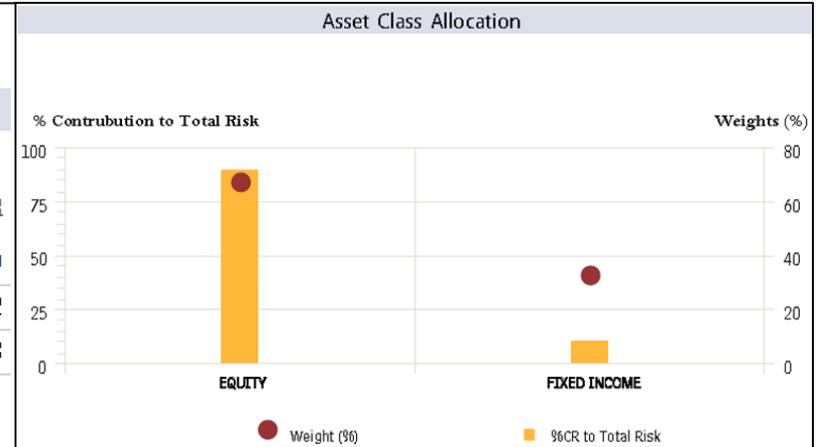
Risk Update

2nd Quarter 2020

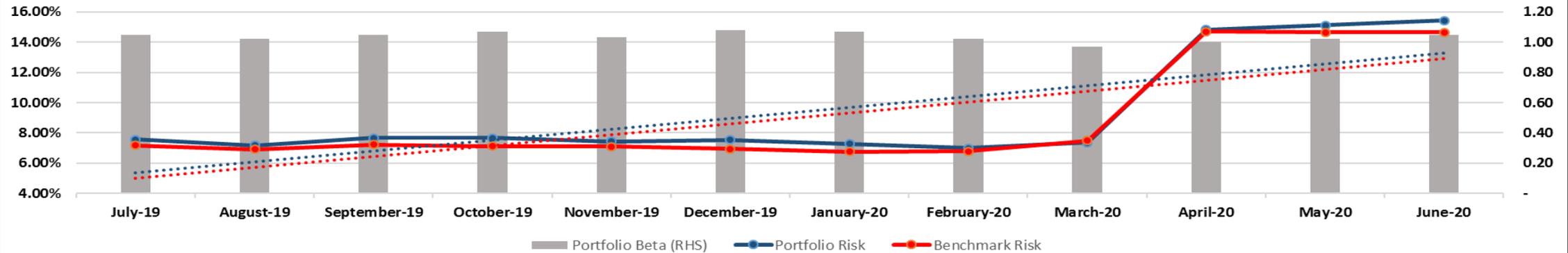
Total Plan Summary

BarraOne Total Plan Summary

Risk Summary		Asset Class Contribution to Risk				
Statistic	Value	Asset Class	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	15.44	Total	100.00	15.44	15.44	100.00
Benchmark Risk	14.65	EQUITY	67.17	20.69	13.79	89.32
Active Risk	1.87	FIXED INCOME	32.83	7.17	1.65	10.68
Portfolio Beta	1.05					
Effective Duration	2.64					



Portfolio Risk Summary 1-Year Trailing



Source: MSCI



Total Plan Summary

The risk shown here is attributed to factors, which can be represented in multiple asset classes.



Source: MSCI



COVID Scenario Analysis

V-Shaped Recovery	U-Shaped Recovery
<ul style="list-style-type: none"> • Pandemic Fades in 2H 2020 • Relatively speedy market recovery—no long-term growth shock • Easing financial conditions, rising treasury rates in 2H 2020 • FX rates converge to pre-COVID levels 	<ul style="list-style-type: none"> • Pandemic mostly fades in 2H 2020, threat of new outbreaks managed • Somewhat slower market recovery—limited long-term consequences • FX rates remain at current levels • Treasury rates slowly increase
Swoosh-Shaped Recovery	L-Shaped Recovery
<ul style="list-style-type: none"> • Recurring outbreaks continue this year or significant outbreak in 2021 • Slower market recovery resulting in W or Swoosh shape • Elevated Equity Risk Premium (ERP) due to uncertainty • Increasing sovereign spreads on peripheral European countries 	<ul style="list-style-type: none"> • Recurring outbreaks continue this year and significant outbreak in 2021 • Slowest market recovery with positive GDP growth only from 2022 • Uncertainty keeps ERP at inflated level • U.S. and German rates stay low, peripheral sovereign rates increase sharply



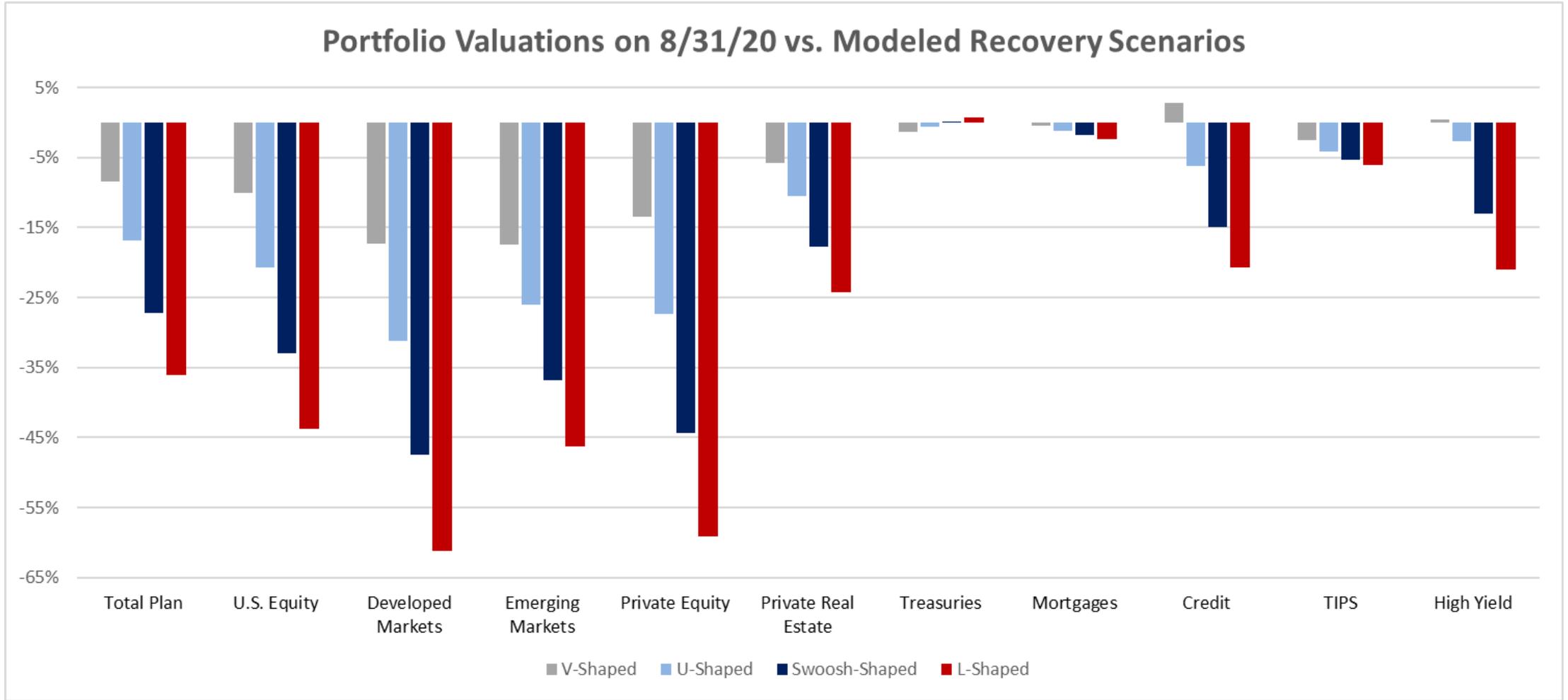
COVID Scenario Analysis

Scenario	V-Shaped	U-Shaped	Swoosh-Shaped	L-Shaped
Annualized two-year growth shock	-2.15%	-3.15%	-4.55%	-6.25%
Annualized long-term growth shock	+0.00%	-0.40%	-1.00%	-1.60%
Equity Risk Premium (ERP) shock	+0.50%	+1.00%	+1.75%	+2.50%
10-year Treasury real rate	-0.55%	-0.65%	-0.75%	-0.85%
Implied US equity returns (%)	-5%	-15%	-28%	-40%
<i>EU equity returns (%)</i>	<i>-11%</i>	<i>-22%</i>	<i>-35%</i>	<i>-46%</i>
<i>10-year Treasury yield (level)1</i>	<i>0.80%</i>	<i>0.70%</i>	<i>0.60%</i>	<i>0.50%</i>
<i>10-year Bund yield (level)</i>	<i>-0.40%</i>	<i>-0.50%</i>	<i>-0.60%</i>	<i>-0.70%</i>
<i>10-year Italian sovereign yield (level)</i>	<i>1.10%</i>	<i>1.30%</i>	<i>1.70%</i>	<i>2.50%</i>
<i>US IG bond spread shock (bps)</i>	<i>+45bps</i>	<i>+140bps</i>	<i>+265bps</i>	<i>+375bps</i>
<i>US HY bond spread shock (bps)</i>	<i>+190bps</i>	<i>+310bps</i>	<i>+580bps</i>	<i>+820bps</i>
<i>EU IG bond spread shock (bps)</i>	<i>+55bps</i>	<i>+105bps</i>	<i>+170bps</i>	<i>+230bps</i>
<i>EU HY bond spread shock (bps)</i>	<i>+175bps</i>	<i>+340bps</i>	<i>+550bps</i>	<i>+730bps</i>
<i>EM Asia IG bond spread shock (bps)</i>	<i>+30bps</i>	<i>+100bps</i>	<i>+185bps</i>	<i>+260bps</i>
<i>EM Asia HY bond spread shock (bps)</i>	<i>+65bps</i>	<i>+205bps</i>	<i>+380bps</i>	<i>+535bps</i>
<i>Oil Price(level)</i>	<i>\$45</i>	<i>\$35</i>	<i>\$25</i>	<i>\$20</i>
<i>EURUSD(level)</i>	<i>1.12</i>	<i>1.09</i>	<i>1.05</i>	<i>1.00</i>
Implied inflation (level)	1.35%	1.35%	1.35%	1.35%

Note: Shock levels relative to February 19, 2020 market peak.



COVID Scenario Analysis



QUESTIONS?

If you would like to ask a question



When you're done, hit mute again



**SUPPLEMENTAL MATERIAL -
PERFORMANCE REPORTING (Public):**

Quarterly Fund Performance Overview (Public):



New York City
Police Pension Fund, Subchapter Two
Performance Overview as of June 30, 2020

Total Fund Overview



New York City Police Pension Fund, Subchapter Two

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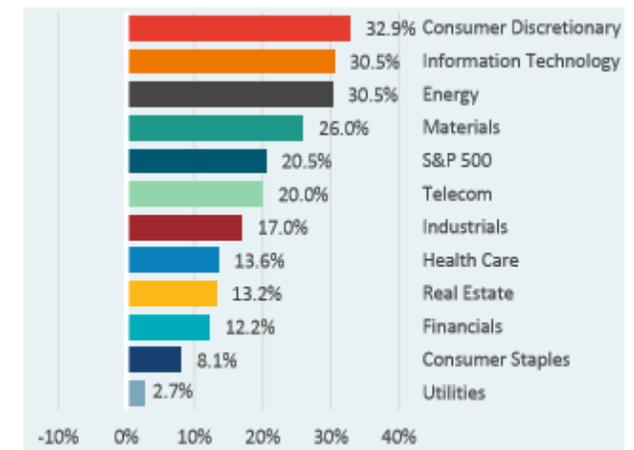
Through June 30, 2020

2Q20 Capital Markets Commentary



- US Equity** – US equities delivered an incredible comeback, following the sudden sell-off in March. The S&P 500 rallied by 20.5% in Q2, bringing year-to-date performance to almost a positive return and positive 7.5% over the past twelve months. International developed equities lagged the domestic market. Moves in the CBOE VIX Index moderated in June. The long-term average of the index is near 19. It has remained above that level since February, reaching a high point of 85.0 on Marc 18th, and closing June at 30.4. Growth stocks beat value stocks for the ninth consecutive month. The Russell 1000 Growth Index (27.8%) outperformed the Russell 1000 Value Index (14.3%). Sector performance disparity continues to impact the behavior of value. While energy delivered outsized returns relative to the overall index, other value-tilted sectors such as utilities and financials delivered poor performance.

Q2 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 6/30/20

- International Equity** – Equity markets around the world delivered a surprisingly strong recovery in the second quarter, rising between 12% to 20%. UK equities have lagged, only rising 7.8% over the quarter and remained down 23.3% over the year-to-date. Eurozone equities were among the top performers (MSCI Euro 19.6%). Earnings have fallen materially while equity prices recovered much of their losses. These two effects have led to a significant jump in equity valuations. This dynamic is not uncommon in environments where investors “look to the other side” of a crisis and generally expect tough conditions to be short-lived. With that said, if earnings do not recover to prior levels in a timely manner, investors may begin to question elevated multiples.

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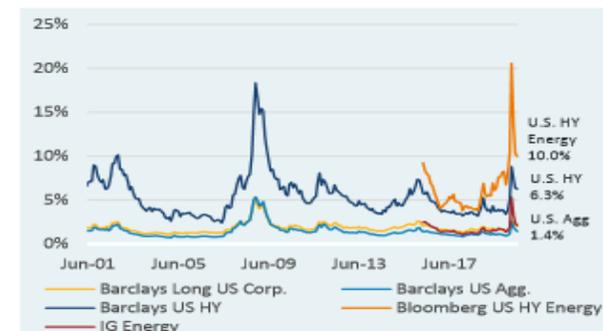
Through June 30, 2020

2Q20 Capital Markets Commentary



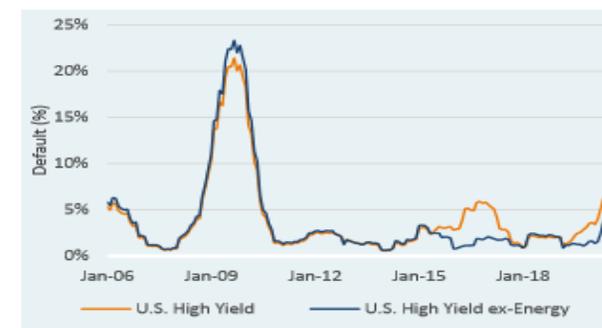
- Fixed Income** –The Federal Reserve continued to roll out the litany of support programs it announced in the first quarter. The Fed’s balance sheet grew from \$5.3 trillion to \$7.1 trillion over the second quarter. It appears the Federal Reserve may implement a yield curve control policy as a component of its policy toolkit. At the June Fed meeting, officials acknowledged that while setting intermediate-term yield caps may help strengthen short-term rate guidance, they remained concerned about several potential implications of beginning down that path. Real yields continued to decline around the globe as nominal sovereign bond yields were largely unchanged and longer-term inflation expectations recovered. Credit spreads tightened across in the quarter as US corporate investment grade tightened to 150 basis points from 272 basis points at the end of last quarter. High yield spreads moved from 880 basis points to 626.
- Through the first half of 2020, 60 companies defaulted which pushed the par-weighted US high yield default to a 10-year high of 6.2%. The default rate of bank loans rose to 4.0% from 1.9% from last quarter, remaining at a lower level than high yield largely due to less representation from the energy sector.
- The energy sector continues to experience the greatest pain year-to-date, with 18 defaults/distressed transactions comprising 30% of the \$106 billion total.

SPREADS



Source: Barclays, Bloomberg, as of 6/30/20

HY DEFAULT RATE (ROLLING 1-YEAR)



Source: BofA Merrill Lynch, as of 6/30/20

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2Q20 Capital Markets Commentary



- **Real Estate** – Encouraging rent data and resilient fundamentals helped global real estate securities generate a double-digit return during the second quarter. Investor sentiment alternated between optimism and pessimism. Investors were encouraged by data which showed that REITs in most property sectors collected more than 90% of rents in April (a trend that extended into June), with the notable exceptions of hotels, retail and certain office companies.
- **Infrastructure** – Listed infrastructure stocks advanced in the second quarter as markets lifted on optimism around virus containment and economic resumption. Transportation infrastructure, heavily impacted by the economic shutdown, outperformed in anticipation of a recovery in activity. Toll roads (19.4% total return), marine ports (18.0%), airports (16.7%) and railways (12.6%) outperformed, benefiting from government movement toward relaxing activity restrictions and travel bans.
- **Private Equity** – U.S. private equity transactions fell nearly 20% in deal value to \$326.7 billion on 2,173 deals in the first six months of 2020 from the year-ago period, according a PitchBook report. U.S. private equity exits also dropped by 70% to 392 transactions worth a combined \$134.8 billion. PE firms marked down portfolio companies and chose to hold investments rather than sell them, the report said.
- **Hedge Funds** – The HFM global composite index recovered from a dismal first quarter to achieve a near-term record gain in second quarter, up 8.4% as global stock markets rebounded and end-of-quarter macro data indicated a faster than expected global recovery. However, with the global benchmark trailing the S&P 500 by almost 12 percentage points – the biggest quarterly lag to date – there was cause for only restrained celebration.

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Through June 30, 2020

2Q20 Performance Commentary



- **Total Plan** – For the second quarter of 2020 (2Q20), the Total Fund returned 9.8% on a net-of-fee basis which underperformed the policy benchmark return of 10.3%. In the trailing 12 months, the Total Fund returned 4.7%, underperforming the policy benchmark return of 4.9%. According to the Wilshire TUCS Universe of public plans over \$5 billion, the median return over the same period was 5.1%, placing the Total Fund slightly below the median public plan.
 - Over the trailing three-, five- and ten-year periods, the Total Fund returned 7.0%, 7.0%, and 9.3% respectively, closely matching the policy benchmark returns of 7.0%, 7.1%, and 9.5% respectively.
- **Total Domestic Equity Composite** – The Total Fund has \$13.2 billion, or 31.7% invested in domestic equity. The allocation increased with the market's appreciation from 28.5% to 31.7%. The composite remains predominately passively invested with approximately 70% of the composite invested passively across market cap segments.
 - For 2Q20, the Domestic Equity Composite returned 21.3%, underperforming the Russell 3000 index return of 22.0%.
 - In the active segments: Small-Cap Active outperformed its index while the Large-Cap Active underperformed its indexes. The Emerging Manager segment also slightly underperformed its benchmark.
 - The composite was restructured and the funded was completed during the second quarter with the change in the small cap managers. Ceredex and PIMCO RAFI US Small Cap were defunded with William Blair, Cooke & Bieler, and Pzena on boarded.

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Through June 30, 2020

2Q20 Performance Commentary



- **Total World ex-USA Composite** – The Total Fund has \$3.7 billion, or 8.9% invested in developed international equities. The composite allocation is 73.6% Large & Mid active, 7.7% Small Cap Active, and 18.7% passive.
 - For 2Q20, the Total World ex-USA Composite outperformed its index. The Composite returned a 20.7% versus the index return of 16.2%. Security selection was rewarded as the managers were invested in cyclical securities. The growth and value segments both outperformed their indexes.
- **Total Emerging Markets Composite** – The Total Fund has \$2.4 billion or 5.9% invested in emerging markets. The composite allocation is 74% active and 26% passive. For the quarter, the Emerging Markets Composite outperformed its policy return. The composite returned 18.6% versus the policy return of 18.1%.
- **Hedge Funds** - The Total Fund has \$3.0 billion or 7.1% invested in direct hedge funds. The composite is allocated to direct hedge funds. The composite returned 2.3% and underperformed its policy benchmark of 2.5%. In the direct segment, Voloridge Trading had a stellar quarter and returned 11.3%.

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Through June 30, 2020

2Q20 Performance Commentary



- **Fixed Income Composite** – The Total Fund has \$11.9 billion invested in fixed income securities outside of the opportunistic and ETI segments. The fund has \$6.0 billion invested in structured products, \$0.2 billion in total core developing managers, \$1.8 billion invested in TIPS, and \$2.1 billion invested in high yield.
 - For 2Q20, the Fixed Income Composite returned 4.5%. Relative to their respective benchmarks, high yield, bank loans, and convertible bonds underperformed.



Through June 30, 2020

Wilshire Consulting



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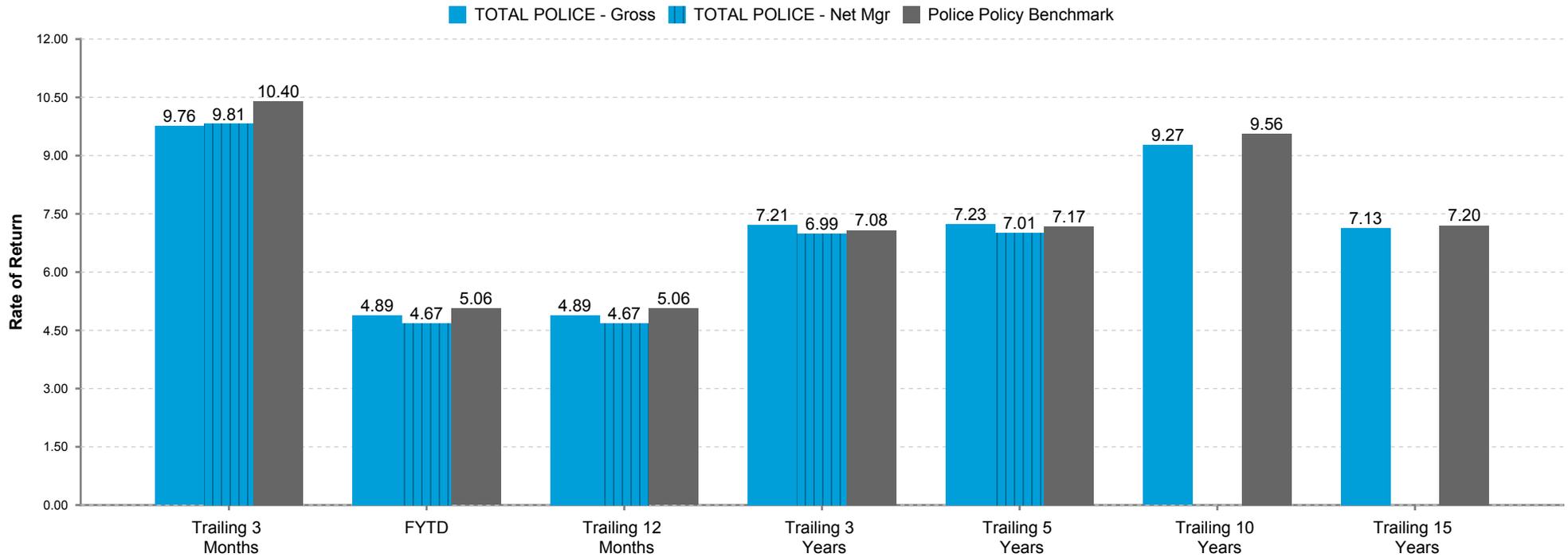
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Market Value (Billions)

TOTAL POLICE

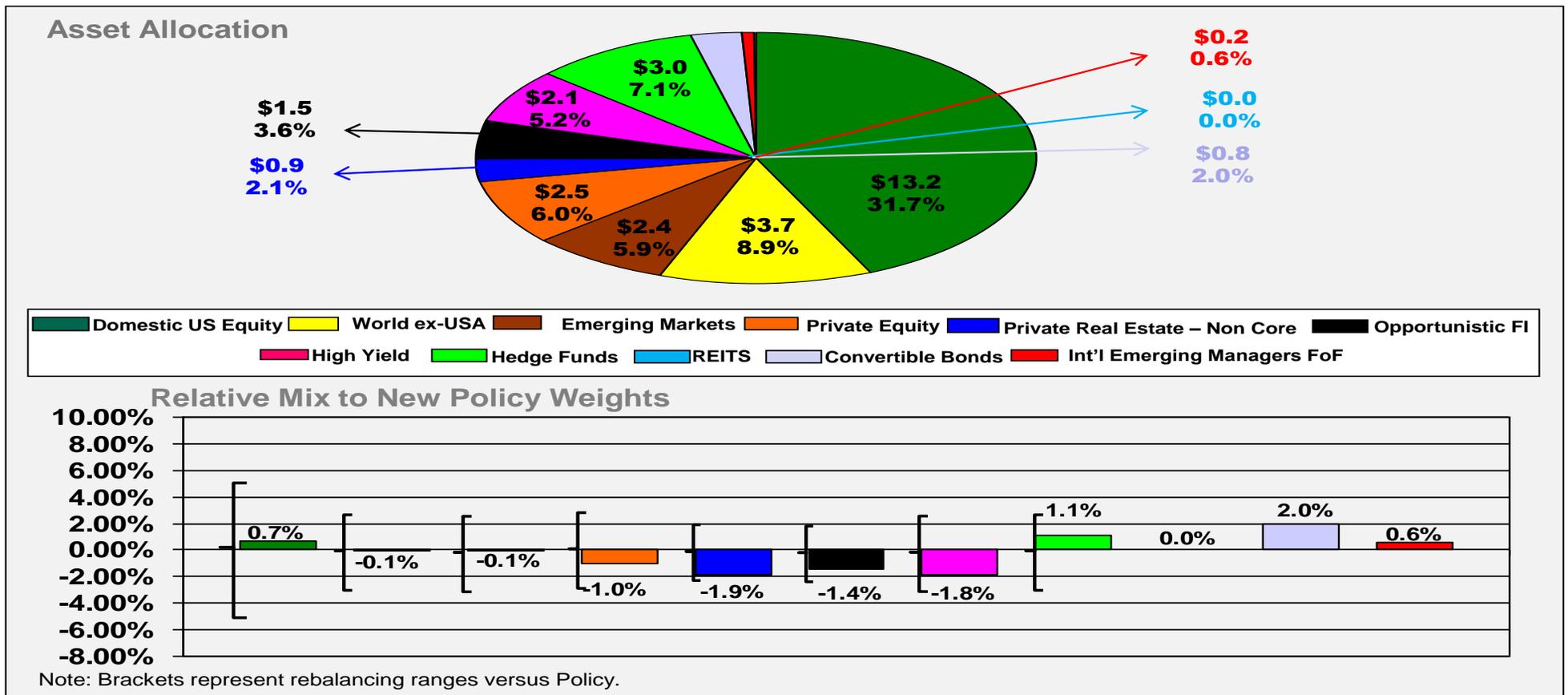
\$41.5



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation						
TOTAL POLICE	8.2	9.0	7.2	8.0	7.6	8.1

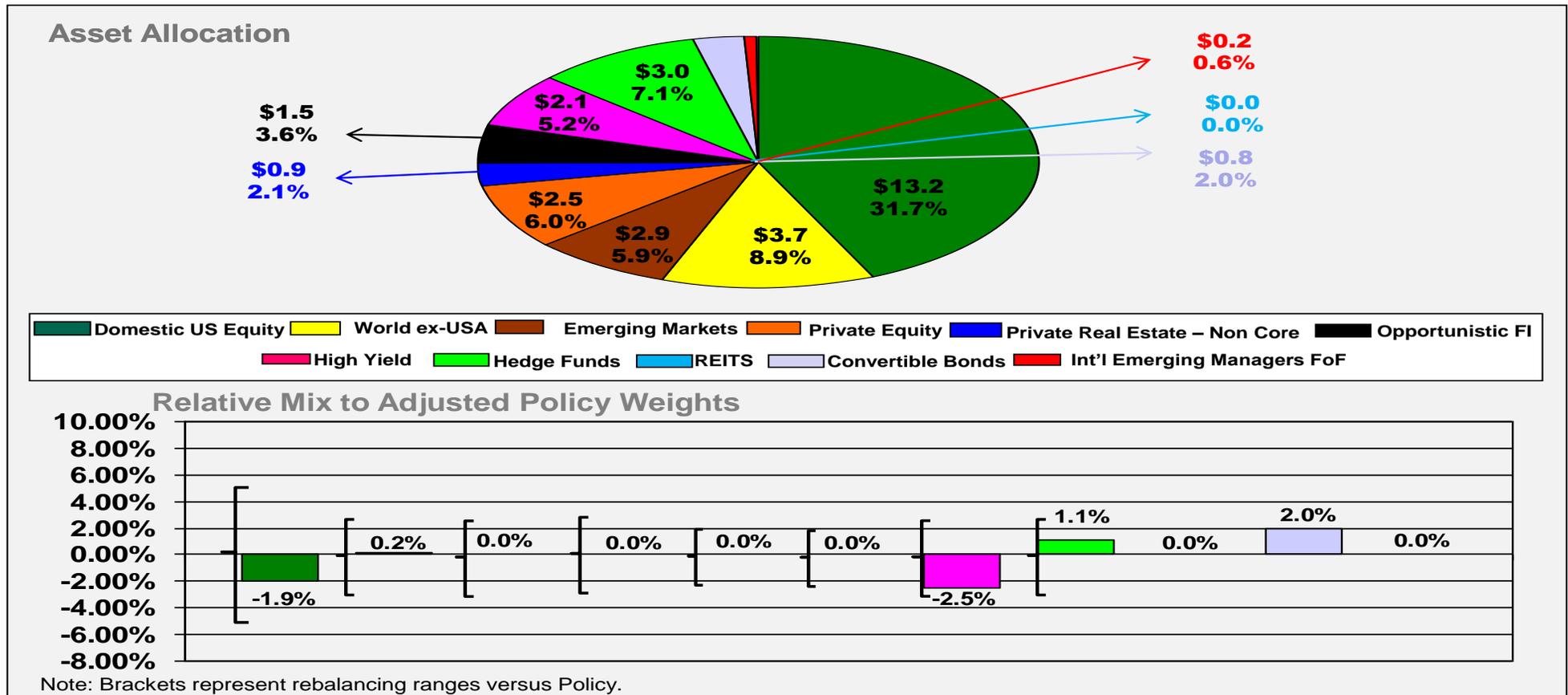


Portfolio Asset Allocation – Growth





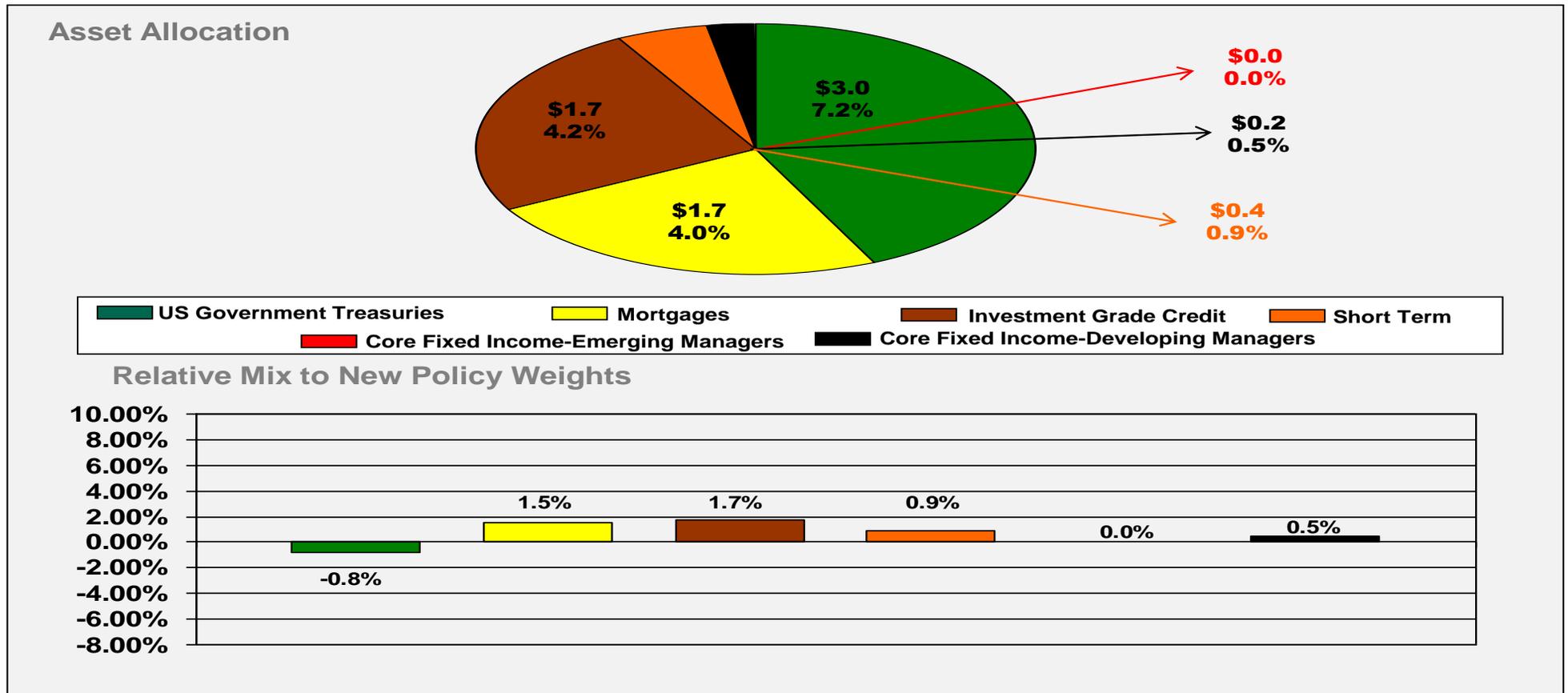
Portfolio Asset Allocation – Growth



Note: On June 30, 2020 Police's combined Fixed Income and Cash portfolios have a duration of 7.6 years. The duration of the Barclays US Aggregate Index was 6 years on that date.

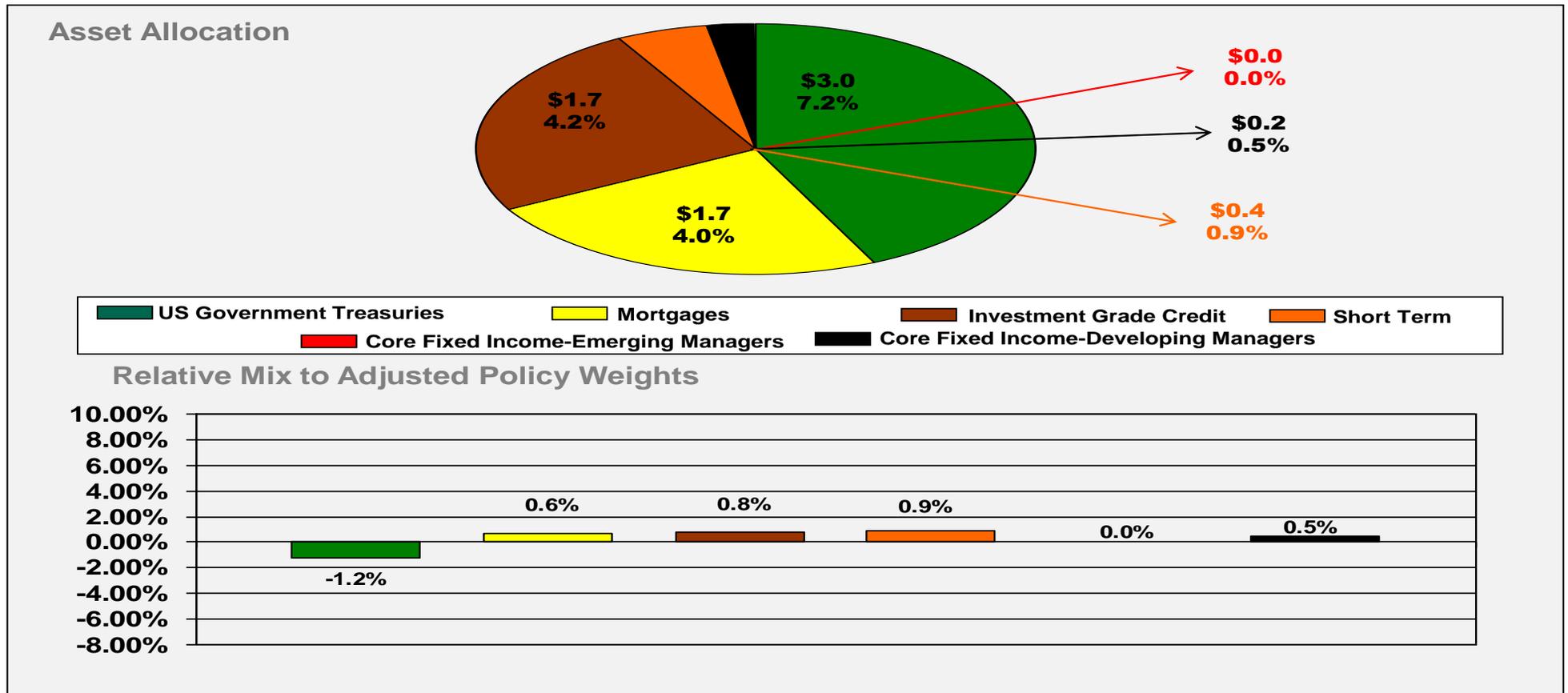


Portfolio Asset Allocation – Deflation Protection





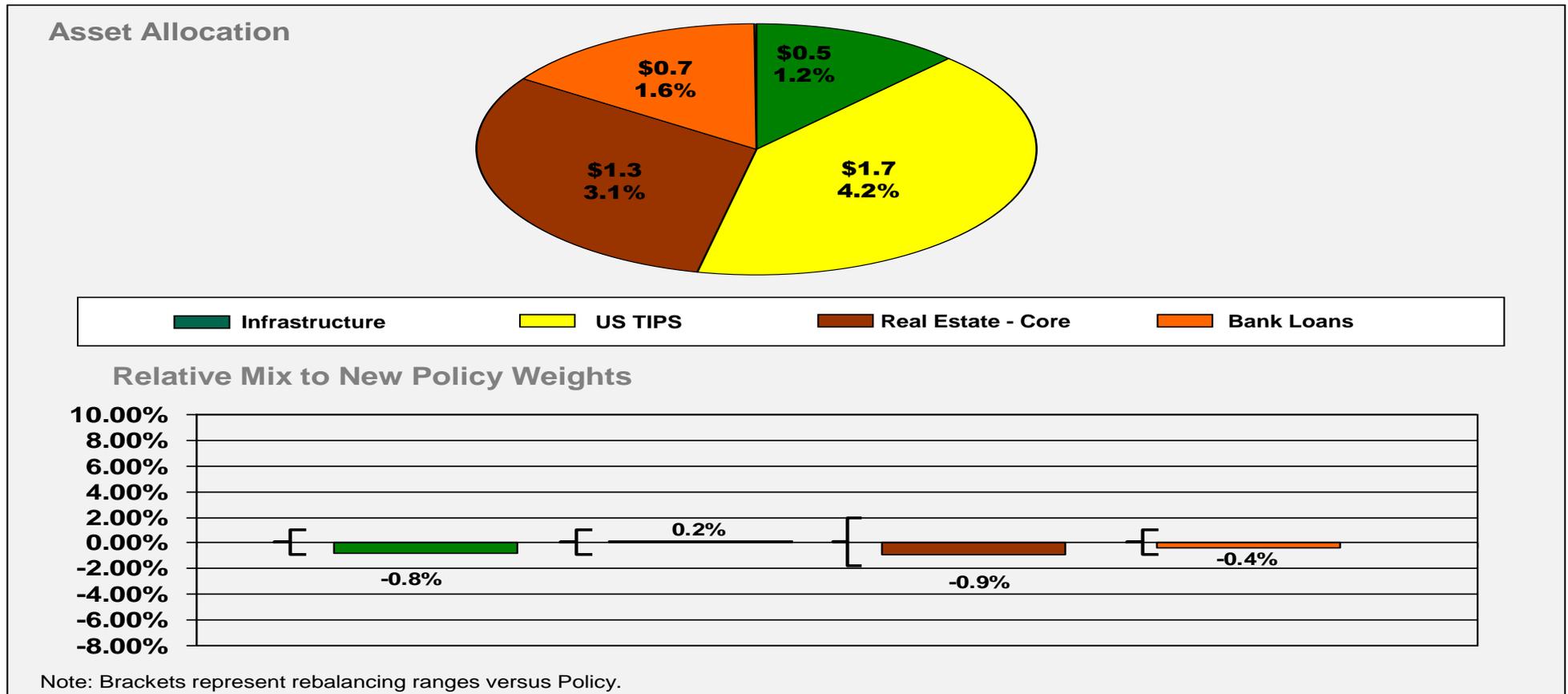
Portfolio Asset Allocation – Deflation Protection



Note: On June 30, 2020 Police's combined Fixed Income and Cash portfolios have a duration of 7.6 years. The duration of the Barclays US Aggregate Index was 6 years on that date.

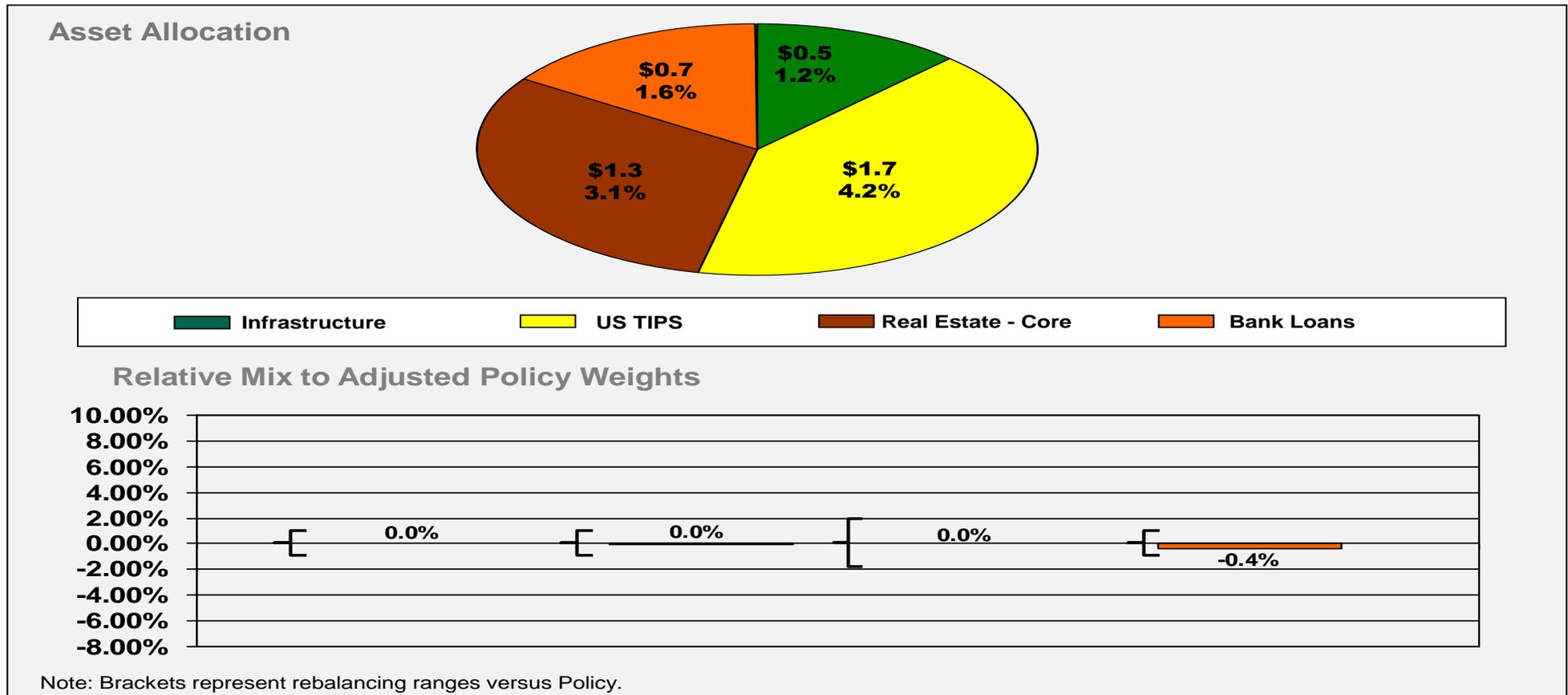


Portfolio Asset Allocation – Inflation Protection

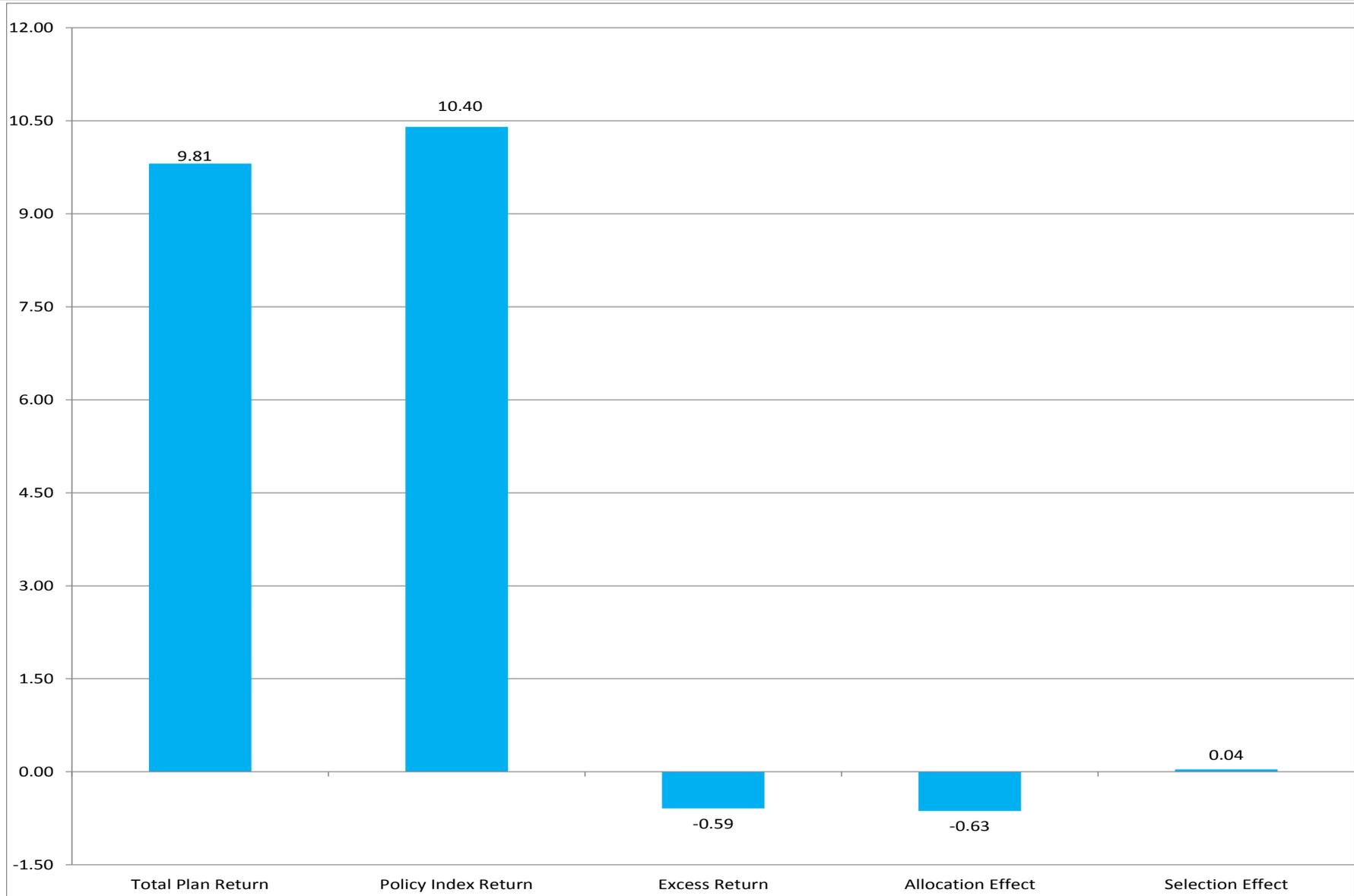


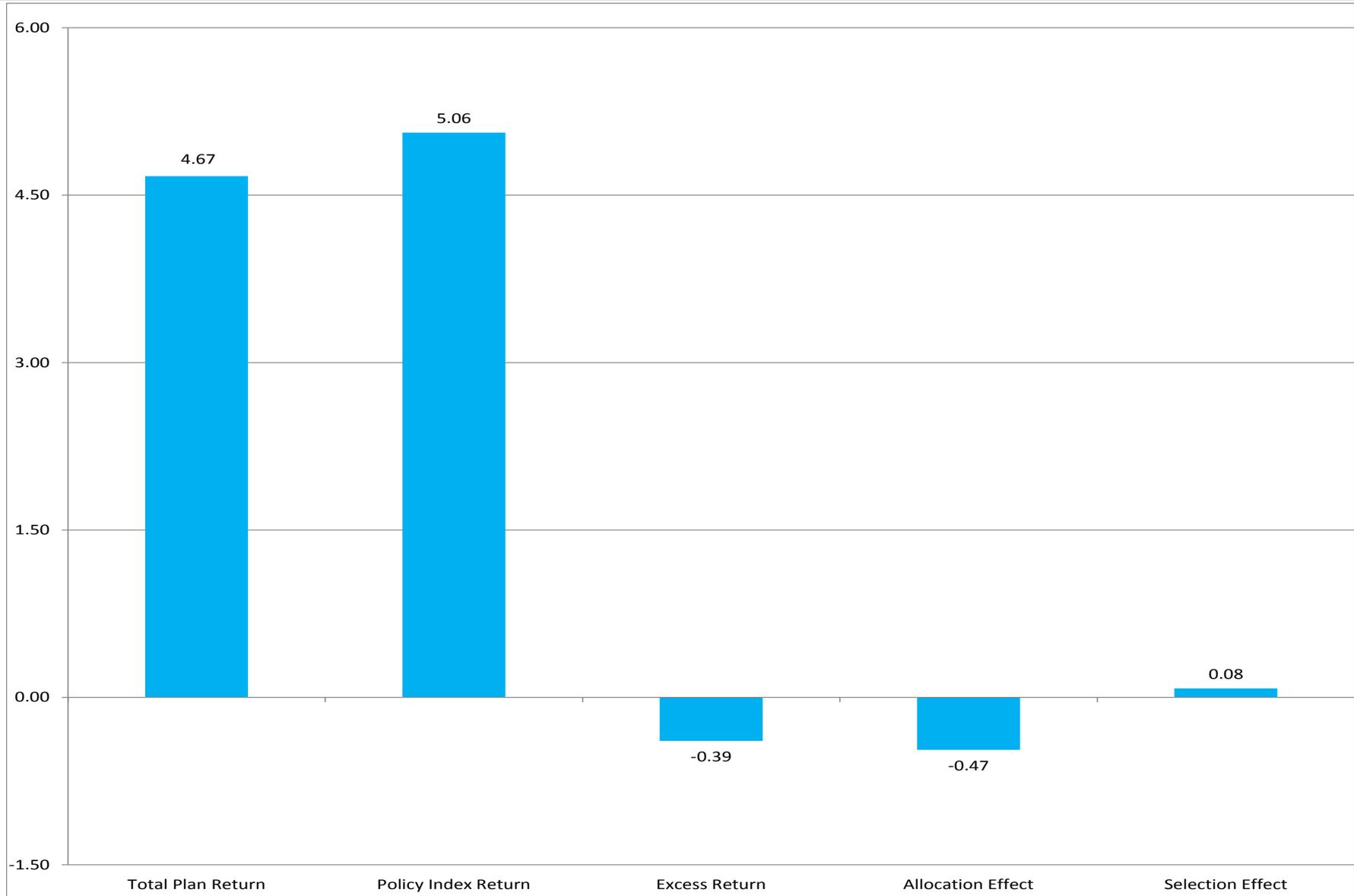


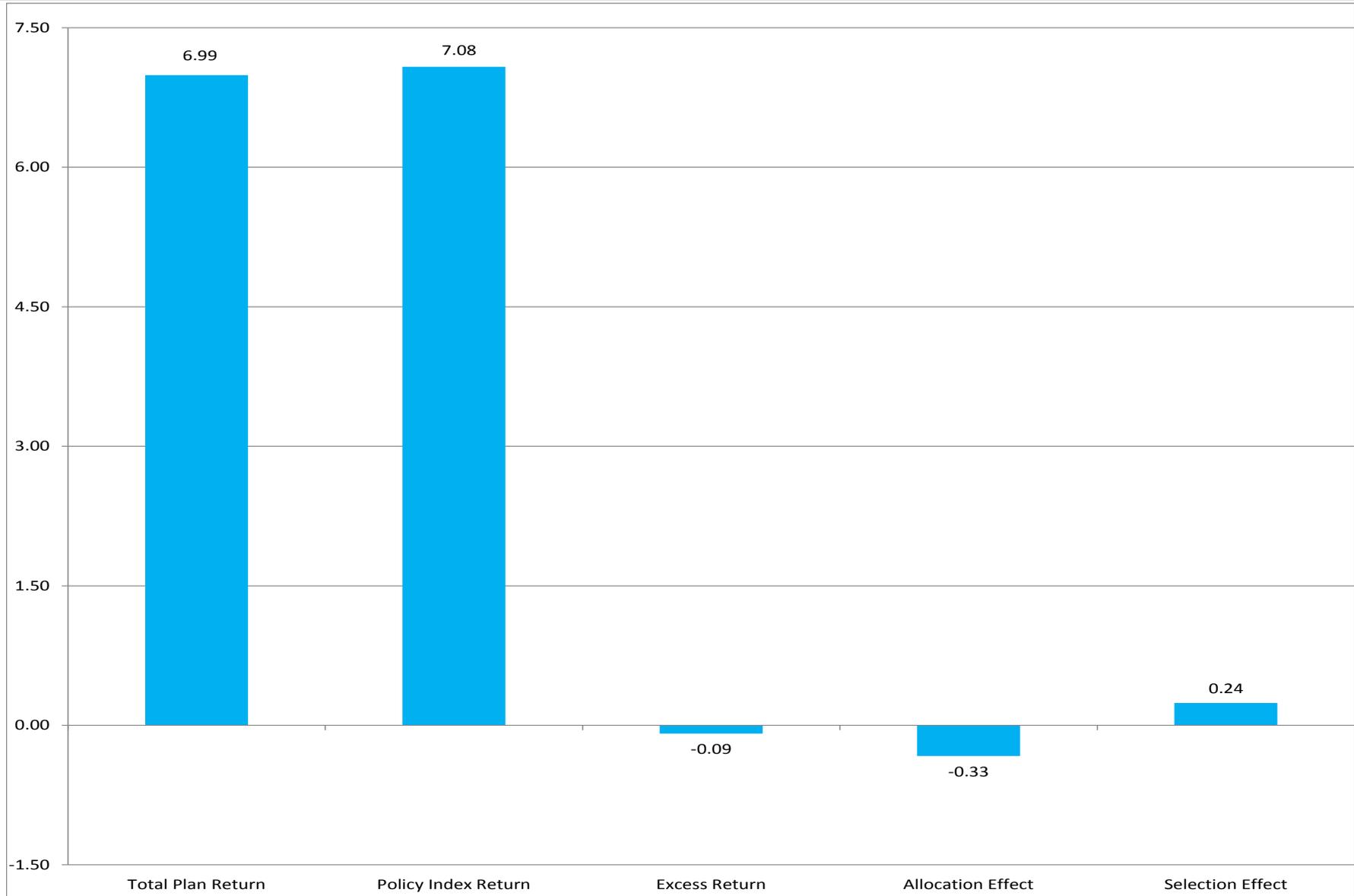
Portfolio Asset Allocation – Inflation Protection



Note: On June 30, 2020 Police's combined Fixed Income and Cash portfolios have a duration of 7.6 years. The duration of the Barclays US Aggregate Index was 6 years on that date.









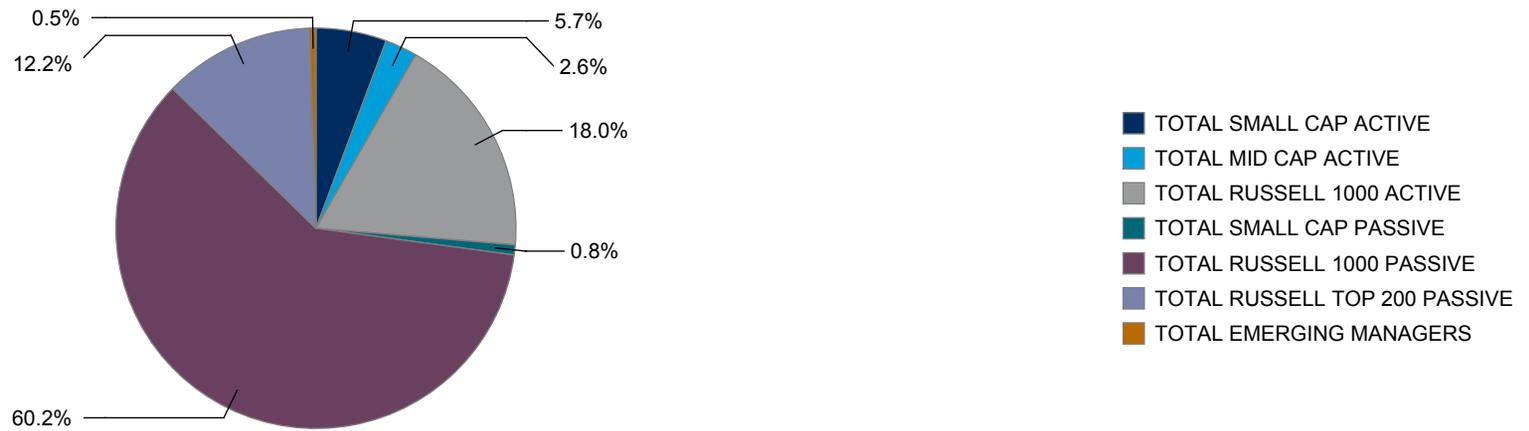
Allocation Effect - Asset Class Breakdown				
	Quarter	FYTD	3 Years	Benchmark
TOTAL POLICE	-0.63	-0.47	-0.33	Police Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.36	-0.28	-0.17	RUSSELL 3000
TOTAL WORLD ex-USA	-0.02	-0.01	-0.02	MSCI World Ex USA IMI Net
TOTAL EMERGING MARKETS	-0.04	-0.01	-0.02	MSCI Emerging Markets
TOTAL INTERNATIONAL FOF	0.00	0.00	0.00	MSCI ACWI Ex US IMI Net
TOTAL HEDGE FUNDS	-0.01	-0.03	-0.02	HFRI Fund of Funds Composite Index plus 1%
TOTAL REAL ESTATE SECURITIES				Dow Jones US Select Securities Index
TOTAL PRIVATE EQUITY	-0.02	-0.13	-0.06	Russell 3K + 300bps
TOTAL PRIVATE REAL ESTATE - CORE	0.01	-0.01	0.00	NCREIF ODCE net
TOTAL PRIVATE REAL ESTATE - NON CORE	0.01	-0.01	0.00	NCREIF ODCE net + 200bps
TOTAL INFRASTRUCTURE	0.01	0.00	0.00	CPI + 4%
TOTAL US TREASURY SHORT TERM	-0.04	-0.04	0.00	FTSE USBIG Treasury 1-3 Y Index
TOTAL US TREASURY INTERMEDIATE	0.00	0.00	-0.01	FTSE USBIG Treasury/Agency 1-10 y
TOTAL ACTIVE GOVERNMENT	-0.54	0.81	0.17	NYC - Treasury Agency Plus Five
TOTAL US TREASURY LONG DURATION	0.36	-1.06	-0.31	FTSE Treasury 10+
TOTAL INVESTMENT GRADE CREDIT	0.00	-0.03	-0.05	NYC - Investment Grade Credit
TOTAL MORTGAGES	-0.04	-0.03	0.00	FTSE MORTGAGE INDEX
TOTAL ETI	0.00	0.00	0.00	ETI Custom Benchmark
TOTAL CORE FI- DEVELOPING MGRS	-0.02	0.00	0.00	BBG BARC Agg
TOTAL CORE FI- EMERGING MGRS	-0.01	0.01	0.00	BBG BARC Agg
TOTAL HIGH YIELD	0.00	0.12	0.11	High Yield Custom Benchmark
TOTAL BANK LOANS	0.00	0.03	0.02	Credit Suisse Lev Loan Index
TOTAL TIPS MANAGERS	-0.03	0.02	0.00	BBG BARC Gbl Inf-Lk: US TIPS (Dly)
TOTAL CONVERTIBLE BONDS	0.29	0.25	0.12	ICE BofA All US Conv Ex Mandatory
TOTAL OPPORTUNISTIC FIXED	0.00	0.01	0.00	OFI - JPMGHY / CSFB 50/50 Blend Plus 300
TOTAL CASH	-0.17	-0.08	-0.07	

Selection Effect - Asset Class Breakdown				
	Quarter	FYTD	3 Years	Benchmark
TOTAL POLICE	0.04	0.08	0.24	Police Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.20	-0.71	-0.32	RUSSELL 3000
TOTAL WORLD ex-USA	0.36	0.64	0.34	MSCI World Ex USA IMI Net
TOTAL EMERGING MARKETS	0.02	-0.24	-0.08	MSCI Emerging Markets
TOTAL INTERNATIONAL FOF	0.01	0.03	0.01	MSCI ACWI Ex US IMI Net
TOTAL HEDGE FUNDS	0.19	0.49	0.24	HFRI Fund of Funds Composite Index plus 1%
TOTAL REAL ESTATE SECURITIES				Dow Jones US Select Securities Index
TOTAL PRIVATE EQUITY	0.79	0.29	0.15	Russell 3K + 300bps
TOTAL PRIVATE REAL ESTATE - CORE	0.05	0.02	0.04	NCREIF ODCE net
TOTAL PRIVATE REAL ESTATE - NON CORE	-0.17	-0.05	0.03	NCREIF ODCE net + 200bps
TOTAL INFRASTRUCTURE	-0.06	-0.02	0.03	CPI + 4%
TOTAL US TREASURY SHORT TERM	0.00	0.00	0.01	FTSE USBIG Treasury 1-3 Y Index
TOTAL US TREASURY INTERMEDIATE	0.00	0.00	0.01	FTSE USBIG Treasury/Agency 1-10 y
TOTAL ACTIVE GOVERNMENT	-0.02	0.00	0.00	NYC - Treasury Agency Plus Five
TOTAL US TREASURY LONG DURATION	-0.07	0.00	0.00	FTSE Treasury 10+
TOTAL INVESTMENT GRADE CREDIT	0.04	0.00	0.01	NYC - Investment Grade Credit
TOTAL MORTGAGES	0.03	-0.01	0.00	FTSE MORTGAGE INDEX
TOTAL ETI	-0.01	0.00	0.00	ETI Custom Benchmark
TOTAL CORE FI- DEVELOPING MGRS	0.01	0.00	0.00	BBG BARC Agg
TOTAL CORE FI- EMERGING MGRS	0.00	0.00	0.00	BBG BARC Agg
TOTAL HIGH YIELD	0.00	0.03	-0.01	High Yield Custom Benchmark
TOTAL BANK LOANS	-0.04	0.01	0.00	Credit Suisse Lev Loan Index
TOTAL TIPS MANAGERS	0.00	0.01	0.00	BBG BARC Gbl Inf-Lk: US TIPS (Dly)
TOTAL CONVERTIBLE BONDS	-0.25	-0.27	-0.13	ICE BofA All US Conv Ex Mandatory
TOTAL OPPORTUNISTIC FIXED	-0.65	-0.15	-0.09	OFI - JPMGHY / CSFB 50/50 Blend Plus 300
TOTAL CASH	0.00	0.01	0.01	

Total Domestic Equity Asset Allocations: June 30, 2020



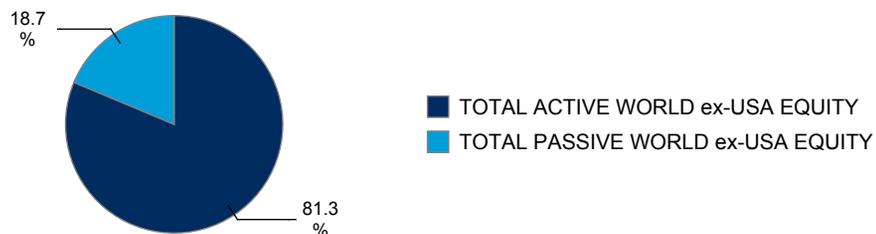
	<u>Market Value (Billions)</u>	<u>% of plan</u>
TOTAL DOMESTIC EQUITY	\$13.2	31.7



	<u>Policy Weight</u>	<u>Actual Weight</u>	<u>Under/Over Weight</u>	<u>Quarterly Returns</u>		
				<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL ACTIVE SMALL CAP	5.5	5.7	0.2	28.4	25.4	2.9
TOTAL ACTIVE MID CAP	2.5	2.6	0.1	24.6	24.6	0.0
TOTAL RUSSELL 1000 ACTIVE	18.0	18.0	(0.0)	17.5	21.8	(4.4)
TOTAL SMALL CAP PASSIVE	1.0	0.8	(0.1)	23.7	25.4	(1.7)
TOTAL RUSSELL 1000 PASSIVE	59.1	60.1	1.0	21.8	21.8	(0.0)
TOTAL RUSSELL TOP 200 PASSIVE	13.4	12.2	(1.2)	20.9	20.9	(0.0)
TOTAL EMERGING MANAGERS	0.6	0.5	(0.1)	25.0	25.4	(0.5)



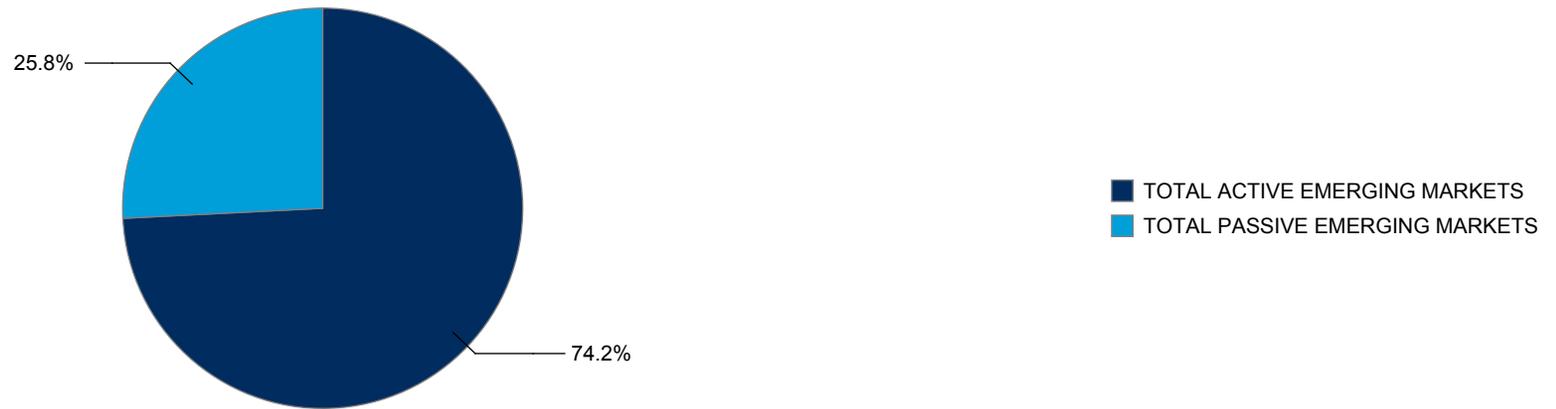
	<u>Market Value (Billions)</u>	<u>% of plan</u>
TOTAL WORLD ex-USA	\$3.7	8.9



	<u>Asset Weight</u>	<u>Quarterly Returns</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL WORLD ex-USA LARGE & MID ACTIVE	73.58	21.69	15.34	6.35
TOTAL WORLD ex-USA SMALL CAP ACTIVE	7.74	19.58	20.83	(1.26)
TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE	12.50	15.38	15.34	0.04
TOTAL WORLD ex-USA SMALL CAP PASSIVE	6.17	21.62	21.66	(0.05)
TOTAL WORLD ex-USA	100.00	20.69	16.21	4.48



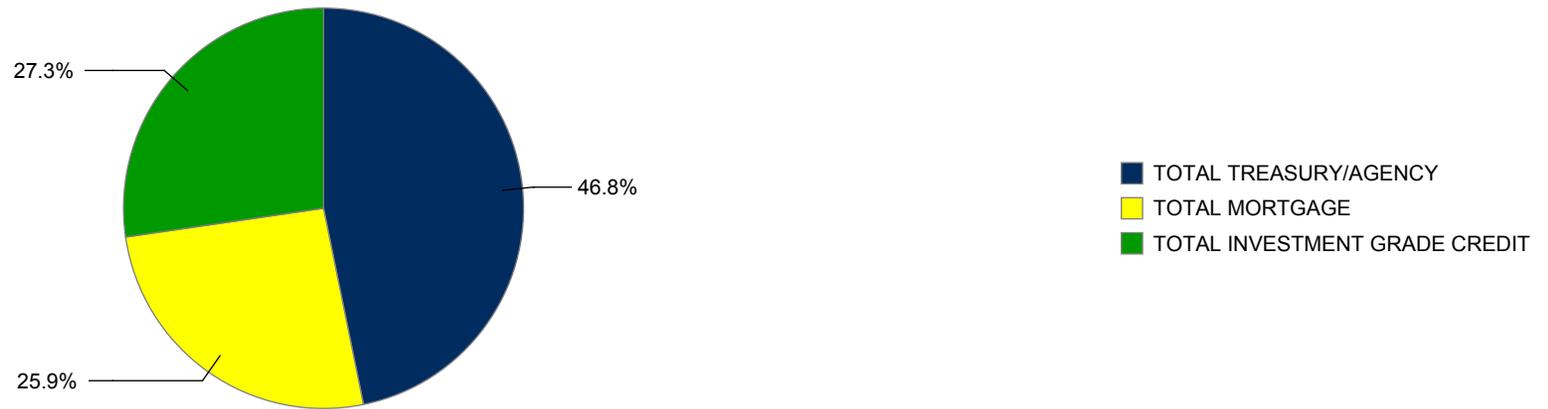
	<u>Market Value (Billions)</u>	<u>% of plan</u>
TOTAL EMERGING MARKETS	\$2.4	5.9



	<u>Asset Weight</u>	<u>Quarterly Returns</u>		
		<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL ACTIVE EMERGING MARKETS	74.20	19.19	18.08	1.11
TOTAL PASSIVE EMERGING MARKETS	25.80	17.64	18.08	(0.44)
TOTAL EMERGING MARKETS	100.00	18.61	18.08	0.53



	<u>Market Value (Billions)</u>	<u>% of plan</u>
TOTAL STRUCTURED + ETI	\$6.4	15.4



	<u>Policy Weight</u>	<u>Actual Weight</u>	<u>Under/Over Weight</u>	<u>Quarterly Returns</u>		
				<u>Fund</u>	<u>Benchmark</u>	<u>Excess</u>
TOTAL TREASURY/AGENCY	61.54	46.78	(14.76)	(0.18)	0.51	(0.69)
TOTAL MORTGAGE	19.23	25.95	6.72	1.29	0.32	0.97
TOTAL INVESTMENT GRADE CREDIT	19.23	27.27	8.04	9.61	8.28	1.33

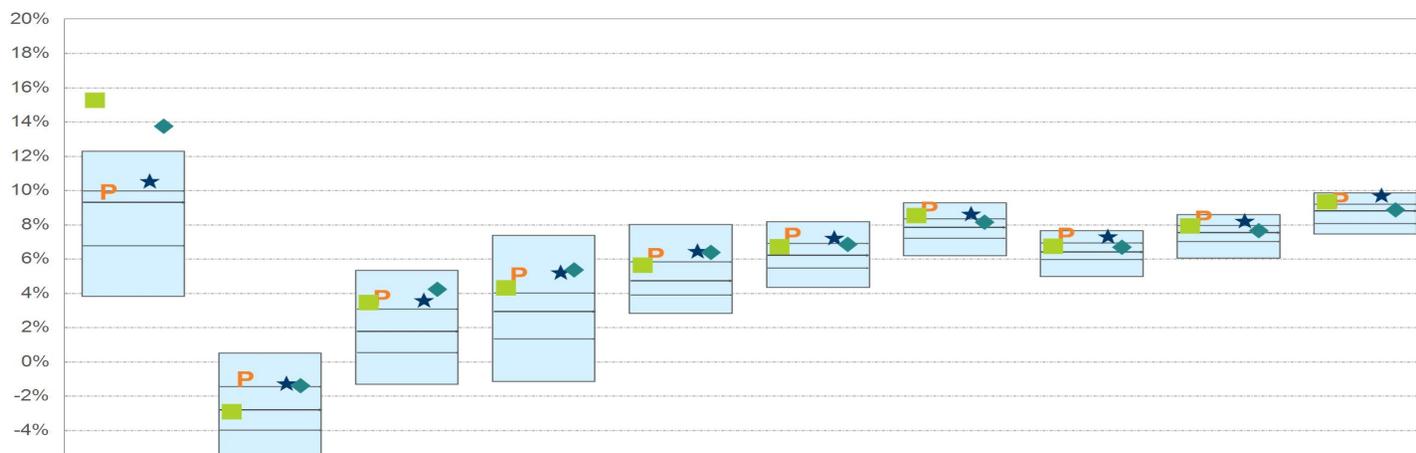


Through June 30, 2020



City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion
Cumulative Periods Ending : June 30, 2020



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	12.29	0.52	5.35	7.39	8.02	8.18	9.28	7.66	8.60	9.87
25th	9.98	-1.44	3.09	4.01	5.84	6.91	8.34	6.95	7.96	9.21
50th	9.31	-2.80	1.79	2.95	4.73	6.23	7.85	6.43	7.54	8.83
75th	6.77	-3.99	0.55	1.35	3.92	5.48	7.22	5.97	7.04	8.08
95th	3.84	-5.64	-1.32	-1.14	2.84	4.35	6.21	4.98	6.06	7.46
No. Of Obs	50	50	50	48	47	47	47	47	47	45
P Total System - Police	9.76 (37)	-1.16 (19)	3.59 (17)	4.89 (19)	6.03 (21)	7.21 (15)	8.73 (13)	7.23 (19)	8.22 (19)	9.27 (23)
★ Police Policy Benchmark	10.40 (15)	-1.42 (21)	3.44 (17)	5.06 (15)	6.31 (13)	7.08 (17)	8.49 (17)	7.17 (19)	8.09 (21)	9.56 (9)
■ Public Mkt Equiv 25	15.12 (1)	-3.07 (54)	3.30 (19)	4.17 (23)	5.48 (33)	6.55 (43)	8.38 (23)	6.59 (47)	7.76 (43)	9.19 (25)
◆ Public Mkt Equiv 35	13.60 (1)	-1.56 (25)	4.07 (11)	5.21 (13)	6.22 (13)	6.69 (35)	8.00 (37)	6.54 (47)	7.49 (54)	8.71 (59)

Wilshire Trust Universe Comparison Service® (TUCS®)

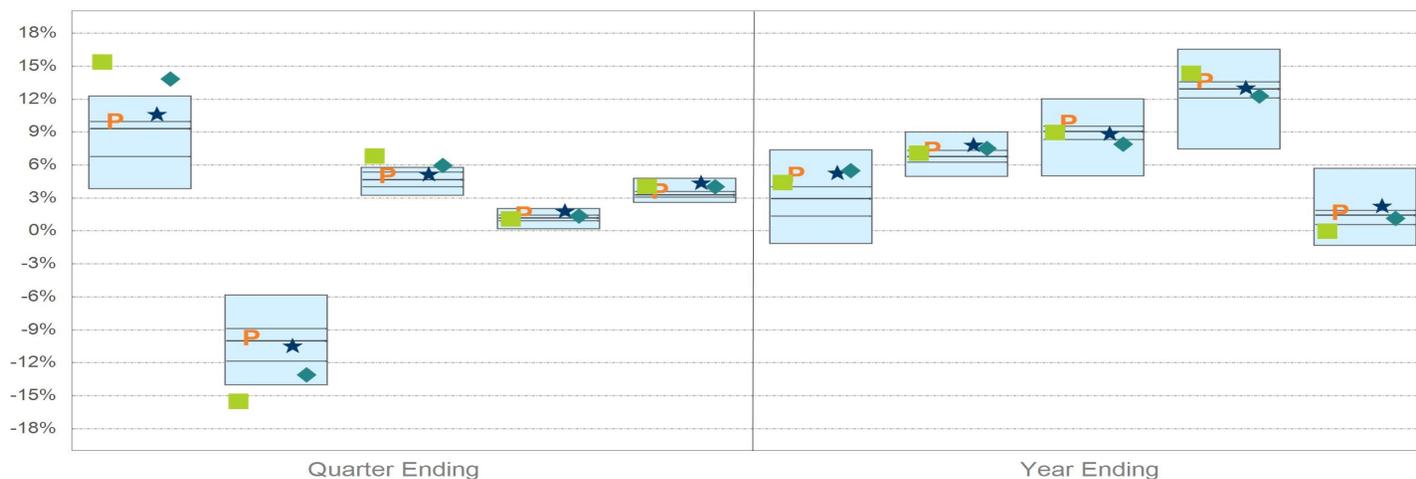


Through June 30, 2020



City of New York Performance Comparison

Total Returns of Master Trusts - Public : Plans > \$10 Billion
Consecutive Time Periods: June 30, 2020



Percentile Rankings	Jun 20	Mar 20	Dec 19	Sep 19	Jun 19	Jun 20	Jun 19	Jun 18	Jun 17	Jun 16
5th	12.29	-5.85	5.81	2.06	4.82	7.39	9.00	12.02	16.54	5.71
25th	9.98	-8.87	5.34	1.44	3.61	4.01	7.36	9.52	13.58	1.86
50th	9.31	-10.00	4.67	1.17	3.28	2.95	6.77	9.05	12.96	1.44
75th	6.77	-11.87	4.03	0.91	3.08	1.35	6.25	8.33	12.13	0.56
95th	3.84	-14.00	3.26	0.21	2.62	-1.14	4.98	5.00	7.49	-1.32
No. Of Obs	50	50	50	48	48	48	48	49	49	49
P Total System - Police	9.76 (37)	-9.95 (45)	4.80 (45)	1.25 (35)	3.37 (45)	4.89 (19)	7.18 (31)	9.62 (23)	13.42 (29)	1.44 (52)
★ Police Policy Benchmark	10.40 (15)	-10.70 (56)	4.93 (39)	1.56 (17)	4.14 (7)	5.06 (15)	7.58 (19)	8.63 (62)	12.82 (54)	2.06 (21)
■ Public Mkt Equiv 25	15.12 (1)	-15.79 (99)	6.57 (1)	0.84 (81)	3.83 (13)	4.17 (23)	6.81 (45)	8.70 (58)	14.09 (14)	-0.30 (83)
◆ Public Mkt Equiv 35	13.60 (1)	-13.35 (87)	5.72 (9)	1.09 (60)	3.77 (15)	5.21 (13)	7.25 (27)	7.64 (85)	12.03 (77)	0.89 (62)

Wilshire Trust Universe Comparison Service® (TUCS®)



**POLICE RETIREMENT SYSTEM
INVESTMENT FEES INCURRED FOR FISCAL YEAR ENDED JUNE 30, 2019**

INVESTMENT STYLE (EQUITIES)	Avg. Market Value FY 2019 (\$MM)	Base Mgr. Fees (\$M)	Partnership Expenses (\$M)	Base Mgr. Fees & Partnership	Performance / Carry Fees in (\$M)	Performance / Carry Fees in BPS	Total Net All Investment Mgr. Expenses in (\$M)	Total Net All in BPS
Total US Equities	12,600.62	9,048.52	-	7.18	1,999.34	1.59	11,047.86	8.77
Small Cap Active:								
Small Cap Growth	803.38	4,544.31	-	56.56	-	-	4,544.31	56.56
Small Cap Value	209.02	2,071.27	-	99.09	-	-	2,071.27	99.09
Small Cap Core	291.22	1,608.70	-	55.24	-	-	1,608.70	55.24
Small Cap Fundamental Index	157.53	552.45	-	35.07	-	-	552.45	35.07
	145.60	311.90	-	21.42	-	-	311.90	21.42
Mid Cap Active:								
Mid Cap Growth	566.20	2,370.55	-	41.87	1,999.34	35.31	4,369.89	-
Mid Cap Value	-	-	-	-	-	-	-	-
Mid Cap Core	244.87	1,412.74	-	57.69	-	-	1,412.74	57.69
	321.33	957.82	-	29.81	1,999.34	62.22	2,957.15	92.03
Russell 1000 Fundamental	1,896.61	1,546.01	-	8.15	-	-	1,546.01	8.15
Legato (Emerging Manager- Equity)	69.82	347.20	-	49.73	-	-	347.20	49.73
U.S. Environmental Managers	-	-	-	-	-	-	-	-
Total US Active Equities	3,336.00	8,808.07	-	26.40	1,999.34	5.99	10,807.41	32.40
Small Cap Passive:								
Small Cap Passive	97.89	4.13	-	0.42	-	-	4.13	0.42
Mid Cap Passive:								
Mid Cap Passive	-	-	-	-	-	-	-	-
Russell / S&P Passive:								
Russell 1000 Growth Passive	-	-	-	-	-	-	-	-
Russell 1000 Value Passive	-	-	-	-	-	-	-	-
Russell 1000 Core Passive	7,592.25	150.52	-	0.20	-	-	150.52	0.20
Passive Russell 3000	-	-	-	-	-	-	-	-
Passive S&P 500	-	-	-	-	-	-	-	-
Passive Russell Top 200	1,574.48	85.80	-	0.54	-	-	85.80	0.54
Total US Passive Equities	9,264.62	240.45	-	0.26	-	-	240.45	0.26



**POLICE RETIREMENT SYSTEM
INVESTMENT FEES INCURRED FOR FISCAL YEAR ENDED JUNE 30, 2019**

	Avg. Market Value FY 2019 (\$MM)	Base Mgr. Fees (\$M)	Partnership Expenses (\$M)	Base Mgr. Fees & Partnership	Performance / Carry Fees in (\$M)	Performance / Carry Fees in BPS	Total Net All Investment Mgr. Expenses in (\$M)	Total Net All in BPS
Total International Equities	6,099.91	15,861.89	-	26.00	-	-	15,861.89	26.00
Global Equity	-	-	-	-	-	-	-	-
Active Total Global Equities	-	-	-	-	-	-	-	-
Active Total World Ex USA:	2,811.67	8,296.24	-	29.51	-	-	8,296.24	29.51
World Ex-USA Large & Mid Active	2,390.53	6,624.96	-	27.71	-	-	6,624.96	27.71
World Ex-USA Small Cap Active	420.81	1,671.28	-	39.72	-	-	1,671.28	39.72
Total World Ex USA	0.33	-	-	-	-	-	-	-
Total Progress Intl.	-	-	-	-	-	-	-	-
NON-U.S. Activist	-	-	-	-	-	-	-	-
NON-U.S. Environmental Managers	-	-	-	-	-	-	-	-
Active Emerging Markets	1,531.08	6,079.50	-	39.71	-	-	6,079.50	39.71
International Fund of Funds	237.87	1,012.92	-	42.58	-	-	1,012.92	42.58
Total Active International Equities	4,580.61	15,388.67	-	33.60	-	-	15,388.67	33.60
Int'l Passive Equities:								
World Ex-USA Small Cap Passive	108.41	53.96	-	4.98	-	-	53.96	4.98
World Ex-USA Large & Mid Cap Passive	586.88	67.72	-	1.15	-	-	67.72	1.15
Passive Global	-	-	-	-	-	-	-	-
Passive Emerging Markets	824.01	225.29	-	2.73	-	-	225.29	2.73
Total Int'l Passive Equities	1,519.30	346.98	-	2.28	-	-	346.98	2.28
REITS Active Equities	-	-	-	-	-	-	-	-
Total Equities	18,700.53	24,910.42	-	13.32	1,999.34	1.07	26,909.75	14.39



**POLICE RETIREMENT SYSTEM
INVESTMENT FEES INCURRED FOR FISCAL YEAR ENDED JUNE 30, 2019**

	Avg. Market Value FY 2019 (\$MM)	Base Mgr. Fees (\$M)	Partnership Expenses (\$M)	Base Mgr. Fees & Partnership	Performance / Carry Fees in (\$M)	Performance / Carry Fees in BPS	Total Net All Investment Mgr. Expenses in (\$M)	Total Net All in BPS
INVESTMENT STYLE (FIXED INCOME)								
Total Fixed Income	13,662.99	14,829.34	-	10.85	7.50	0.01	14,836.83	10.86
Structured Program:	6,741.13	2,608.25	-	3.87	7.50	0.01	2,615.75	3.88
Government Treas/Agency Sector	3,286.99	870.63	-	2.65	7.50	0.02	878.13	2.67
Long Duration Treasury	1,395.05	138.47	-	0.99	-	-	138.47	0.99
Mortgage Sector	854.88	386.65	-	4.52	-	-	386.65	4.52
Investment Grade Credit Sector	1,204.21	1,212.50	-	10.07	-	-	1,212.50	10.07
Developing Managers	74.83	148.43	-	19.84	-	-	148.43	19.84
Emerging Managers	80.26	273.50	-	34.07	-	-	273.50	34.07
TIPS:	2,481.70	307.20	-	1.24	-	-	307.20	1.24
Active TIPS Managers	438.86	241.84	-	5.51	-	-	241.84	5.51
Passive TIPS Managers	2,042.84	65.37	-	0.32	-	-	65.37	0.32
High Yield	1,981.41	6,037.32	-	30.47	-	-	6,037.32	30.47
Bank Loans	755.12	1,887.11	-	24.99	-	-	1,887.11	24.99
Convertible Bonds	750.49	2,792.99	-	37.22	-	-	2,792.99	37.22
ETI - Access - RBC	84.45	154.61	-	18.31	-	-	154.61	18.31
ETI - AFL-CIO HIT	159.78	619.94	-	38.80	-	-	619.94	38.80
Other ETI Programs	157.17	-	-	-	-	-	-	-
Short Term (Internal)	396.65	-	-	-	-	-	-	-
Total Public Markets	32,363.51	39,739.75	-	12.28	2,006.84	0.62	41,746.59	12.90



**POLICE RETIREMENT SYSTEM
INVESTMENT FEES INCURRED FOR FISCAL YEAR ENDED JUNE 30, 2019**

INVESTMENT STYLE (PRIVATE MARKETS)	Avg. Market Value FY 2019 (\$MM)	Base Mgr. Fees (\$M)	Partnership Expenses (\$M)	Base Mgr. Fees & Partnership	Performance / Carry Fees in (\$M)	Performance / Carry Fees in BPS	Total Net All Investment Mgr. Expenses in (\$M)	Total Net All in BPS
Hedge Funds	2,766.45	21,192.75	1,024.64	80.31	9,944.04	35.95	32,161.44	116.26
Private Equity	2,532.50	34,622.41	8,835.30	171.60	53,208.38	210.10	96,666.09	381.70
Private Real Estate	1,920.00	18,580.45	8,064.54	138.78	17,716.21	92.27	44,361.19	231.05
Infrastructure	357.08	6,564.07	1,514.34	93.51	1,446.18	40.50	9,524.59	110.25
Opportunistic Fixed Income	1,237.69	11,492.57	4,797.18	131.61	2,008.81	16.23	18,298.56	147.84
Total Private Markets	8,813.71	92,452.24	24,236.01	132.39	84,323.61	95.67	201,011.86	228.07
Total Overall	41,177.23	132,192.00	24,236.01	37.99	86,330.45	20.97	242,758.45	58.95

The overall carried interest and incentive fees paid by POLICE in Fiscal Year : 20.97 BPS

General Footnotes:

- 1) Private Markets expense data is restricted to the partnerships that have provided expense templates. In the event where there is no expense data, financial statements are prorated for each of the participants of the LP and/or adjusted for cash flows as reported by our custodian bank for carried interest realized.
- 2) Infrastructure's expense data is based off the total committed amounts rather than current market value due to its early fund life juncture.



**NYC POLICE DEPARTMENT PENSION FUND
SECURITIES LENDING INCOME
June 30, 2020**

	U. S. FIXED INCOME	U. S. EQUITY	INTERNATIONAL EQUITY	TOTAL
1989	254,000	-	-	254,000
1990	288,000	-	-	288,000
1991	464,000	-	-	464,000
1992	996,000	138,000	126,000	1,260,000
1993	1,852,000	434,000	203,000	2,489,000
1994	1,846,000	815,000	317,000	2,978,000
1995	1,465,000	888,000	224,000	2,577,000
1996	1,465,000	1,051,000	379,000	2,895,000
1997	1,632,000	1,793,000	599,000	4,024,000
1998	2,770,000	2,517,000	1,006,000	6,293,000
1999	2,681,000	2,713,000	1,184,000	6,578,000
2000	2,697,000	2,899,000	1,520,000	7,116,000
2001	3,947,000	3,595,000	1,980,000	9,522,000
2002	2,646,000	3,401,000	1,725,000	7,772,000
2003	1,238,000	2,257,000	1,859,000	5,354,000
2004	1,515,000	2,306,000	2,097,000	5,918,000
2005	2,333,000	3,172,000	2,503,000	8,008,000
2006	2,104,000	5,043,000	2,243,000	9,390,000
2007	4,582,000	8,425,000	2,727,000	15,734,000
2008	13,856,000	16,383,000	3,872,000	34,111,000
2009	5,163,000	9,110,000	2,695,000	16,968,000
2010	2,405,000	5,813,000	1,979,000	10,197,000
2011	3,060,000	8,287,000	3,253,000	14,600,000
2012	4,213,000	10,047,000	2,545,000	16,805,000
2013	2,980,000	11,363,000	2,255,000	16,598,000
2014	3,478,000	6,803,000	5,786,000	16,067,000
2015	3,692,000	7,281,000	7,489,000	18,462,000
2016	4,070,000	11,406,000	6,506,000	21,982,000
2017	5,912,000	8,631,000	4,480,000	19,023,000
2018	7,031,949	6,808,922	3,412,832	17,253,704
2019	4,489,228	5,671,849	2,523,145	12,684,222
2020 (6 months)	2,333,699	2,051,708	936,642	5,322,049
Since Inception	<u>99,458,876</u>	<u>151,103,479</u>	<u>68,424,620</u>	<u>318,986,975</u>



**New York City
Police Pension Fund, Subchapter Two**

Appendix A

Consolidated Performance Report

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
SYSTEM RETURN SUMMARY																
5	POLICE-TOTAL PORTFOLIO - GROSS	41,474	100.00	9.76	4.89	(1.16)	7.18	17.68	(2.15)	16.80	4.89	7.21	7.23	9.27	8.50	07/01/1987
	POLICE - ESTIMATED INVESTMENT FEES			0.06	(0.22)	(0.09)	(0.22)	(0.26)	(0.18)	(0.24)	(0.22)	(0.22)	(0.22)			
	EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(0.03)	(0.11)	(0.05)	(0.10)	(0.11)	(0.10)	(0.11)	(0.11)	(0.11)	(0.11)			
	EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH)			0.09	(0.11)	(0.04)	(0.12)	(0.15)	(0.08)	(0.13)	(0.11)	(0.11)	(0.11)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POLICE-TOTAL PORTFOLIO - NET MGR			9.81	4.67	(1.25)	6.95	17.41	(2.33)	16.56	4.67	6.99	7.01			
	POLICE POLICY BENCHMARK			10.40	5.06	(1.42)	7.58	18.89	(2.67)	16.04	5.06	7.08	7.17	9.56		
	EXCESS RETURN			(0.58)	(0.39)	0.17	(0.63)	(1.48)	0.35	0.52	(0.39)	(0.09)	(0.16)	(0.29)		
EQUITY RETURN DETAIL																
18	POLICE-TOTAL EQUITY (INCLUDES ALTERNATIVES & REITS) - GROSS	27,688	66.76	13.55	2.95	(4.31)	6.74	21.58	(3.54)	22.30	2.95	7.65	8.04	11.11	7.83	04/01/2004
	ESTIMATED INVESTMENT FEES			0.11	(0.25)	(0.09)	(0.28)	(0.33)	(0.21)	(0.30)	(0.25)	(0.26)	(0.27)			
	EST MANAGEMENT FEES			0.11	(0.25)	(0.09)	(0.28)	(0.33)	(0.21)	(0.30)	(0.25)	(0.26)	(0.27)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POLICE-TOTAL EQUITY (INCLUDES ALTERNATIVES & REITS) - NET MGR			13.67	2.70	(4.40)	6.47	21.24	(3.75)	22.00	2.70	7.39	7.78			
26	POLICE-TOTAL EQUITY - GROSS	19,540	47.11	20.99	2.53	(6.04)	5.83	27.51	(8.67)	24.71	2.53	7.09	7.65	11.02	8.63	08/01/1993
	ESTIMATED INVESTMENT FEES			(0.05)	(0.14)	(0.07)	(0.16)	(0.18)	(0.12)	(0.17)	(0.14)	(0.15)	(0.16)			
	EST MANAGEMENT FEES			(0.05)	(0.14)	(0.07)	(0.16)	(0.18)	(0.12)	(0.17)	(0.14)	(0.15)	(0.16)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POLICE-TOTAL EQUITY - NET MGR			20.94	2.38	(6.11)	5.68	27.33	(8.80)	24.54	2.38	6.94	7.50			
34	POLICE-TOTAL DOMESTIC EQUITY - GROSS	13,157	31.72	21.37	4.39	(5.04)	8.28	30.01	(5.47)	20.57	4.39	9.10	9.21	13.32	10.91	12/01/1984
	ESTIMATED INVESTMENT FEES			(0.04)	(0.09)	(0.05)	(0.10)	(0.11)	(0.07)	(0.08)	(0.09)	(0.09)	(0.09)			
	POLICE-TOTAL DOMESTIC EQUITY - NET MGR			21.33	4.30	(5.09)	8.19	29.91	(5.54)	20.49	4.30	9.01	9.11			
	RUSSELL 3000 (DAILY)			22.03	6.53	(3.48)	8.98	31.02	(5.24)	21.13	6.53	10.04	10.03	13.72	11.07	
	EXCESS RETURN			(0.70)	(2.23)	(1.61)	(0.80)	(1.11)	(0.30)	(0.64)	(2.23)	(1.03)	(0.92)	(0.40)	(0.15)	
44	POLICE-TOTAL SMALL CAP ACTIVE - GROSS	750	1.81	28.59	(2.83)	(7.76)	(0.93)	23.89	(9.61)	14.39	(2.83)	4.38	6.61	11.74	8.00	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.23)	(0.61)	(0.32)	(0.55)	(0.70)	(0.50)	(0.62)	(0.61)	(0.60)	(0.62)			
	POLICE-TOTAL SMALL CAP ACTIVE - NET MGR			28.36	(3.44)	(8.07)	(1.49)	23.19	(10.11)	13.76	(3.44)	3.78	6.00			
	RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	(3.31)	25.52	(11.01)	14.65	(6.63)	2.01	4.29	10.50	7.08	
	EXCESS RETURN			2.94	3.18	4.91	1.82	(2.34)	0.90	(0.88)	3.18	1.77	1.71	1.24	0.92	

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN DETAIL															
56	POLICE-TOTAL SMALL CAP PASSIVE - GROSS	111	0.27	23.73	(10.58)	(16.02)	(0.65)	28.07	(9.65)	16.88	(10.58)	2.32	4.18	6.05	10/01/2013
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		
	POLICE-TOTAL SMALL CAP PASSIVE - NET MGR			23.72	(10.58)	(16.02)	(0.65)	28.06	(9.66)	16.87	(10.58)	2.31	4.17		
	RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	(3.31)	25.52	(11.01)	14.65	(6.63)	2.01	4.29	5.91	
	EXCESS RETURN			(1.69)	(3.96)	(3.05)	2.66	2.54	1.36	2.22	(3.96)	0.30	(0.11)	0.14	
66	POLICE-TOTAL MIDCAP - GROSS	345	0.83	25.50	0.78	(4.72)	1.69	30.17	(14.95)	23.25	0.78	5.13	6.77	12.48	8.05
	ESTIMATED INVESTMENT FEES			(0.90)	(0.95)	(0.75)	(0.85)	(1.01)	(0.36)	(0.45)	(0.95)	(0.77)	(0.63)		
	POLICE-TOTAL MIDCAP - NET MGR			24.61	(0.17)	(5.47)	0.84	29.16	(15.30)	22.80	(0.17)	4.35	6.14		
	RUSSELL MIDCAP (DAILY)			24.61	(2.24)	(9.13)	7.83	30.54	(9.06)	18.52	(2.24)	5.79	6.76	12.35	8.98
	EXCESS RETURN			0.00	2.07	3.65	(6.99)	(1.38)	(6.25)	4.28	2.07	(1.44)	(0.62)	0.13	(0.93)
86	POLICE-TOTAL RUSSELL 1000 ACTIVE - GROSS	2,367	5.71	17.50	(5.57)	(13.52)	4.53	23.96	(6.85)	17.41	(5.57)	3.84	5.60	11.57	7.46
	ESTIMATED INVESTMENT FEES			(0.03)	(0.09)	(0.05)	(0.12)	(0.11)	(0.11)	(0.18)	(0.09)	(0.11)	(0.12)		
	POLICE-TOTAL RUSSELL 1000 ACTIVE - NET MGR			17.47	(5.66)	(13.57)	4.42	23.84	(6.96)	17.23	(5.66)	3.72	5.48		
	RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	10.02	31.43	(4.78)	21.69	7.48	10.64	10.47	13.97	8.80
	EXCESS RETURN			(4.36)	(13.15)	(10.76)	(5.60)	(7.58)	(2.17)	(4.46)	(13.15)	(6.92)	(5.00)	(2.40)	(1.34)
96	POLICE-TOTAL RUSSELL 1000 PASSIVE - GROSS	7,909	19.07	21.78	7.69	(2.60)	10.24	31.48		7.69				9.71	04/01/2018
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		(0.00)				(0.00)	
	POLICE-TOTAL RUSSELL 1000 PASSIVE - NET MGR			21.78	7.69	(2.60)	10.24	31.48		7.69				9.71	
	RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	10.02	31.43		7.48				9.43	
	EXCESS RETURN			(0.04)	0.21	0.21	0.22	0.05		0.21				0.28	
106	POLICE-TOTAL RUSSELL TOP 200 PASSIVE - GROSS	1,610	3.88	20.89	11.24	(0.43)	10.97	31.75		11.24				11.87	05/01/2018
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.00)		(0.01)				(0.01)	
	POLICE-TOTAL RUSSELL TOP 200 PASSIVE - NET MGR			20.89	11.24	(0.43)	10.97	31.74		11.24				11.86	
	RUSSELL TOP 200 INDEX (DAILY)			20.91	11.20	(0.49)	10.89	31.75		11.20				11.82	
	EXCESS RETURN			(0.02)	0.04	0.06	0.08	(0.01)		0.04				0.04	
116	POLICE-TOTAL FUND OF FUNDS - GROSS	65	0.16	25.10	(7.74)	(13.01)	0.44	23.95	(7.81)		(7.74)	2.19		2.28	05/01/2017
	ESTIMATED INVESTMENT FEES			(0.15)	(0.46)	(0.21)	(0.50)	(0.62)	(0.46)		(0.46)	(0.51)		(0.52)	
	POLICE-TOTAL FUND OF FUNDS - NET MGR			24.95	(8.20)	(13.22)	(0.06)	23.33	(8.27)		(8.20)	1.68		1.76	
	RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	(3.31)	25.52	(11.01)		(6.63)	2.01		2.33	
	EXCESS RETURN			(0.47)	(1.57)	(0.24)	3.25	(2.19)	2.74		(1.57)	(0.32)		(0.57)	

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EQUITY RETURN DETAIL																
128	POLICE-TOTAL WORLD ex-USA - GROSS	3,695	8.91	20.75	2.15	(5.67)	0.23	25.50	(14.42)	31.18	2.15	4.63	5.48	7.58	5.90	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.06)	(0.23)	(0.10)	(0.25)	(0.30)	(0.21)	(0.36)	(0.23)	(0.25)	(0.27)			
	EST MANAGEMENT FEES			(0.06)	(0.23)	(0.10)	(0.25)	(0.30)	(0.21)	(0.36)	(0.23)	(0.25)	(0.27)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POLICE-TOTAL WORLD ex-USA - NET MGR			20.69	1.91	(5.78)	(0.02)	25.20	(14.63)	30.82	1.91	4.38	5.21			
	WORLD EX-USA CUSTOM BM			16.21	(5.11)	(11.68)	0.16	22.91	(14.68)	26.40	(5.11)	0.82	2.32	6.03	4.87	
	EXCESS RETURN			4.48	7.02	5.91	(0.18)	2.30	0.05	4.42	7.02	3.56	2.89	1.54	1.03	
138	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID ACTIVE - GROSS	2,719	6.56	21.77	4.45	(3.59)	1.31	26.54	(13.50)	31.96	4.45	6.29	6.19	4.93	11/01/2013	
	ESTIMATED INVESTMENT FEES			(0.08)	(0.28)	(0.13)	(0.28)	(0.35)	(0.24)	(0.35)	(0.28)	(0.29)	(0.29)	(0.29)		
	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID ACTIVE - NET MGR			21.69	4.16	(3.72)	1.03	26.19	(13.74)	31.61	4.16	6.00	5.90	4.64		
	NYC CUSTOM WORLD EX-USA LG & MID ACT INDEX			15.34	(5.42)	(11.49)	1.29	22.49	(14.09)	25.18	(5.42)	0.81	2.05	1.93		
	EXCESS RETURN			6.35	9.59	7.77	(0.26)	3.70	0.35	6.42	9.59	5.19	3.84	2.71		
148	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP ACTIVE - GROSS	286	0.69	19.67	(1.09)	(9.06)	(6.36)	22.73	(18.37)	35.53	(1.09)	1.34	5.05	6.38	05/01/2013	
	ESTIMATED INVESTMENT FEES			(0.09)	(0.35)	(0.12)	(0.45)	(0.55)	(0.40)	(0.62)	(0.35)	(0.44)	(0.48)			
	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP ACTIVE - NET MGR			19.58	(1.44)	(9.18)	(6.81)	22.18	(18.76)	34.90	(1.44)	0.90	4.57			
	S&P EPAC SMALL CAP USD NET			20.83	(4.00)	(12.67)	(6.38)	23.71	(18.58)	33.47	(4.00)	0.00	3.21	5.14		
	EXCESS RETURN			(1.26)	2.56	3.49	(0.44)	(1.53)	(0.18)	1.44	2.56	0.89	1.36	1.23		
158	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP PASSIVE - GROSS	228	0.55	21.63	(2.72)	(12.59)	(5.95)	25.70	(17.95)	33.51	(2.72)	1.01	4.27	4.41	02/01/2014	
	ESTIMATED INVESTMENT FEES			(0.01)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.08)	(0.03)	(0.03)	(0.03)	(0.03)		
	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP PASSIVE - NET MGR			21.62	(2.75)	(12.60)	(5.98)	25.67	(17.97)	33.44	(2.75)	0.97	4.24	4.38		
	WORLD EX USA SC PASSIVE CUSTOM BM			21.66	(3.20)	(12.87)	(6.17)	25.41	(18.07)	33.31	(3.20)	0.74	3.94	4.05		
	EXCESS RETURN			(0.05)	0.45	0.27	0.19	0.26	0.10	0.12	0.45	0.23	0.30	0.32		
168	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE - GROSS	462	1.11	15.39	(5.09)	(11.21)	1.44	22.76	(14.04)	24.59	(5.09)	1.07	2.14	3.63	02/01/2011	
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)			
	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE - NET MGR			15.38	(5.11)	(11.22)	1.43	22.75	(14.05)	24.58	(5.11)	1.06	2.13			
	NYC CUSTOM WORLD EX US INDEX			15.34	(5.42)	(11.49)	1.29	22.49	(14.09)	24.12	(5.42)	0.84	1.88	3.33		
	EXCESS RETURN			0.04	0.32	0.27	0.14	0.26	0.04	0.47	0.32	0.22	0.25	0.29		

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EQUITY RETURN DETAIL																
180	POLICE-EMERGING MARKETS - GROSS	2,442	5.89	18.70	(7.05)	(12.51)	2.40	18.09	(14.52)	38.77	(7.05)	0.83	2.68	3.33	6.54	11/01/1996
	ESTIMATED INVESTMENT FEES			(0.09)	(0.26)	(0.13)	(0.27)	(0.32)	(0.22)	(0.42)	(0.26)	(0.28)	(0.29)			
	POLICE-EMERGING MARKETS - NET MGR			18.61	(7.32)	(12.64)	2.12	17.77	(14.74)	38.36	(7.32)	0.55	2.39			
	MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	1.21	18.42	(14.57)	37.28	(3.39)	1.90	2.86	3.27		
	EXCESS RETURN			0.53	(3.93)	(2.85)	0.92	(0.65)	(0.17)	1.07	(3.93)	(1.35)	(0.47)	0.06		
190	POLICE-EMERGING MARKETS ACTIVE - GROSS	1,812	4.37	19.31	(8.80)	(13.80)	2.97	17.78	(14.52)	39.79	(8.80)	0.33	2.69	3.35	7.44	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.13)	(0.38)	(0.19)	(0.41)	(0.47)	(0.34)	(0.61)	(0.38)	(0.41)	(0.44)			
	POLICE-EMERGING MARKETS ACTIVE - NET MGR			19.19	(9.17)	(13.98)	2.56	17.32	(14.86)	39.18	(9.17)	(0.08)	2.25			
	MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	1.21	18.42	(14.57)	37.28	(3.39)	1.90	2.86	3.27	7.10	
	EXCESS RETURN			1.11	(5.79)	(4.20)	1.36	(1.11)	(0.29)	1.89	(5.79)	(1.97)	(0.61)	0.08	0.33	
200	POLICE-EMERGING MARKETS PASSIVE - GROSS	630	1.52	17.65	(3.70)	(10.16)	1.44	18.79	(14.46)	37.41	(3.70)	1.84	2.85	0.74	04/01/2011	
	ESTIMATED INVESTMENT FEES			(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	0.00	(0.15)	(0.02)	(0.04)	(0.04)			
	POLICE-EMERGING MARKETS PASSIVE - NET MGR			17.64	(3.72)	(10.16)	1.42	18.76	(14.45)	37.26	(3.72)	1.80	2.81			
	MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	1.21	18.42	(14.57)	37.28	(3.39)	1.90	2.86	0.71		
	EXCESS RETURN			(0.44)	(0.34)	(0.38)	0.21	0.34	0.11	(0.02)	(0.34)	(0.10)	(0.05)	0.03		
210	POLICE-TOTAL INTERNATIONAL FUND OF FUND - GROSS	246	0.59	19.38	(0.02)	(7.35)	0.60	25.71	(14.63)		(0.02)	3.83		4.75	05/01/2017	
	ESTIMATED INVESTMENT FEES			(0.22)	(0.55)	(0.28)	(0.48)	(0.62)	(0.42)		(0.55)	(0.53)		(0.53)		
	POLICE-TOTAL INTERNATIONAL FUND OF FUND - NET MGR			19.16	(0.57)	(7.63)	0.12	25.10	(15.05)		(0.57)	3.30		4.22		
	MSCI ACWI EX USA IMI NET			16.96	(4.74)	(11.24)	0.26	21.63	(14.76)		(4.74)	0.96		2.01		
	EXCESS RETURN			2.20	4.17	3.61	(0.14)	3.47	(0.29)		4.17	2.34		2.20		

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ALTERNATIVE EQUITY RETURN DETAIL															
228	POLICE-TOTAL HEDGE FUNDS* - NET MGR	2,864	6.91	2.29	6.36	6.82	4.54	5.49	2.12	9.66	6.36	6.61	4.69	4.38	07/01/2011
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			8.17	1.50	(1.08)	2.16	9.47	(3.06)	8.84	1.50	3.28	2.51	3.39	
	EXCESS RETURN			(5.87)	4.86	7.90	2.38	(3.98)	5.17	0.82	4.86	3.33	2.18	0.99	
238	POLICE-TOTAL DIRECT HEDGE FUNDS* - NET MGR	2,827	6.82	2.33	6.92	7.55	4.80	5.46	2.31	10.38	6.92	7.00	5.01	5.36	01/01/2012
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			8.17	1.50	(1.08)	2.16	9.47	(3.06)	8.84	1.50	3.28	2.51	4.22	
	EXCESS RETURN			(5.84)	5.42	8.64	2.64	(4.01)	5.36	1.54	5.42	3.72	2.50	1.15	
248	POLICE-TOTAL PERMAL HEDGE FUNDS* - NET MGR	37	0.09	2.48	(7.97)	(10.22)	0.06	5.97	(0.71)	2.18	(7.97)	(1.22)	(0.70)	1.05	07/01/2011
	HFRI FUND OF FUNDS COMPOSITE INDEX + 1%			8.17	1.50	(1.08)	2.16	9.47	(3.06)	8.84	1.50	3.28	2.51	3.39	
	EXCESS RETURN			(5.68)	(9.47)	(9.14)	(2.10)	(3.49)	2.35	(6.66)	(9.47)	(4.49)	(3.21)	(2.35)	

*Information provided by Alpha Frontier.

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	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
ALTERNATIVE EQUITY RETURN DETAIL																
266	POLICE-TOTAL PRIVATE EQUITY (TIME WEIGHTED) - GROSS	2,502	6.03	(8.89)	1.50	(5.61)	14.29	11.94	18.79	21.49	1.50	11.75	11.58	12.46	12.75	04/01/2004
	ESTIMATED INVESTMENT FEES			(0.18)	(0.99)	(0.37)	(1.13)	(1.21)	(0.83)	(1.04)	(0.99)	(0.98)	(0.98)			
	POLICE-TOTAL PRIVATE EQUITY (TIME WEIGHTED) - NET MGR			(9.07)	0.51	(5.99)	13.16	10.72	17.96	20.45	0.51	10.77	10.59			
	NYC R3000 +3% LAGGED			(20.26)	(6.37)	(12.38)	12.01	6.00	21.06	22.22	(6.37)	7.12	8.93	13.70	11.72	
	EXCESS RETURN			11.20	6.88	6.40	1.15	4.72	(3.10)	(1.77)	6.88	3.65	1.67	(1.24)	1.02	
276	POLICE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED) - GROSS	2,185	5.27	(4.97)	2.67	(0.88)	8.47	7.20	11.19	12.77	2.67	7.94	9.83	13.51	8.17	04/01/2004
	ESTIMATED INVESTMENT FEES			1.61	(0.70)	(0.33)	(0.54)	(0.69)	(0.62)	(0.70)	(0.70)	(0.66)	(0.68)			
	POLICE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED) - NET MGR			(3.36)	1.97	(1.21)	7.93	6.51	10.58	12.07	1.97	7.28	9.15			
	NCREIF NFI-ODCE NET + 100 BP			(1.51)	2.34	(0.52)	6.51	5.43	8.43	7.72	2.34	5.76	7.40			
	EXCESS RETURN			(1.85)	(0.37)	(0.69)	1.42	1.08	2.15	4.34	(0.37)	1.52	1.74			
286	POLICE-TOTAL INFRASTRUCTURE (TIME WEIGHTED) - GROSS	506	1.22	(3.33)	5.45	(1.90)	13.56	13.99	16.11	20.56	5.45	12.48	12.71	14.20	12/01/2013	
	ESTIMATED INVESTMENT FEES			(0.39)	(1.63)	(0.75)	(1.45)	(1.48)	(1.50)	(3.15)	(1.63)	(1.83)	(1.73)	(2.67)		
	POLICE-TOTAL INFRASTRUCTURE (TIME WEIGHTED) - NET MGR			(3.73)	3.82	(2.65)	12.11	12.51	14.61	17.41	3.82	10.66	10.99	11.52		
	CPI + 4%			0.70	4.74	1.50	5.75	6.38	6.02	6.20	4.74	5.82	5.66	5.50		
	EXCESS RETURN			(4.43)	(0.92)	(4.14)	6.36	6.12	8.59	11.21	(0.92)	4.84	5.33	6.02		

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FIXED INCOME RETURN DETAIL																
298	POLICE-TOTAL FIXED INCOME - GROSS	13,785	33.24	3.26	8.34	5.02	7.61	10.57	(0.23)	5.56	8.34	5.89	5.06	5.15	8.09	02/01/1980
	ESTIMATED INVESTMENT FEES			(0.03)	(0.14)	(0.07)	(0.13)	(0.14)	(0.12)	(0.13)	(0.14)	(0.13)	(0.13)			
	EST MANAGEMENT FEES			(0.03)	(0.14)	(0.07)	(0.13)	(0.14)	(0.12)	(0.13)	(0.14)	(0.13)	(0.13)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POLICE-TOTAL FIXED INCOME - NET MGR			3.23	8.20	4.96	7.48	10.42	(0.35)	5.43	8.20	5.76	4.93			
306	POLICE-TOTAL FIXED INCOME (ex ALTERNATIVE CREDIT & CASH) - GROSS	9,128	22.01	3.21	12.85	9.57	8.47	10.79	(0.71)	4.78	12.85	7.22	5.63	5.12	11/01/2013	
	ESTIMATED INVESTMENT FEES			(0.02)	(0.08)	(0.04)	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)	(0.09)	(0.09)		
	EST MANAGEMENT FEES			(0.02)	(0.08)	(0.04)	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)	(0.09)	(0.09)		
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POLICE-TOTAL FIXED INCOME (ex ALTERNATIVE CREDIT & CASH) - NET MGR			3.19	12.77	9.53	8.39	10.71	(0.79)	4.70	12.77	7.14	5.54	5.04		
314	POLICE-TOTAL STRUCTURED FIXED INCOME - GROSS	5,952	14.35	1.90	15.64	12.51	9.51	10.80	(0.85)	5.16	15.64	8.13	6.24	5.38	7.73	01/01/1985
	ESTIMATED INVESTMENT FEES			(0.01)	(0.05)	(0.02)	(0.04)	(0.05)	(0.04)	(0.06)	(0.05)	(0.05)	(0.06)			
	POLICE-TOTAL STRUCTURED FIXED INCOME - NET MGR			1.89	15.59	12.49	9.47	10.75	(0.89)	5.10	15.59	8.08	6.18			
	NYC CUSTOM STRUCTURED INDEX-POLICE			1.93	18.69	14.73	10.80	13.17	(1.29)	6.95	18.69	9.52				
	EXCESS RETURN			(0.04)	(3.10)	(2.24)	(1.34)	(2.42)	0.39	(1.84)	(3.10)	(1.44)				
324	POLICE-TOTAL GOVERNMENT - GROSS	2,991	7.21	(0.17)	19.24	16.45	9.77	10.48	(0.99)	4.82	19.24	9.26	6.59	5.57	7.50	02/01/1987
	ESTIMATED INVESTMENT FEES			(0.01)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.04)	(0.03)	(0.03)	(0.04)			
	POLICE-TOTAL GOVERNMENT - NET MGR			(0.18)	19.21	16.44	9.75	10.45	(1.02)	4.79	19.21	9.23	6.55			
	FTSE TREASURY 10+			0.51	25.45	21.24	12.24	14.89	(1.89)	8.60	25.45	12.06	9.30	7.79	8.25	
	EXCESS RETURN			(0.69)	(6.24)	(4.80)	(2.49)	(4.44)	0.87	(3.82)	(6.24)	(2.83)	(2.76)	(2.22)	(0.74)	
334	POLICE-TOTAL MORTGAGE - GROSS	1,217	2.93	1.38	5.84	3.62	6.66	6.87	1.00	2.61	5.84	4.16	3.35	3.46	6.31	02/01/1987
	ESTIMATED INVESTMENT FEES			(0.01)	(0.05)	(0.02)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)			
	POLICE-TOTAL MORTGAGE - NET MGR			1.37	5.79	3.60	6.61	6.83	0.95	2.55	5.79	4.12	3.30			
	FTSE MORTGAGE INDEX			0.32	5.96	3.60	6.39	6.68	1.01	2.47	5.96	4.11	3.29	3.09	6.13	
	EXCESS RETURN			1.05	(0.17)	(0.00)	0.23	0.15	(0.06)	0.08	(0.17)	0.00	0.00	0.36	0.18	
344	POLICE-TOTAL INVESTMENT GRADE CREDIT - GROSS	1,744	4.20	9.63	9.30	4.63	10.56	14.56	(2.19)	6.74	9.30	6.36	5.80	5.72	7.14	01/01/1987
	ESTIMATED INVESTMENT FEES			(0.03)	(0.11)	(0.05)	(0.11)	(0.11)	(0.09)	(0.10)	(0.11)	(0.10)	(0.10)			
	POLICE-TOTAL INVESTMENT GRADE CREDIT - NET MGR			9.61	9.19	4.58	10.45	14.44	(2.28)	6.65	9.19	6.26	5.70			
	NYC - INVESTMENT GRADE CREDIT			8.28	9.26	5.02	10.13	13.40	(1.90)	6.04	9.26	6.11	5.48	5.16		
	EXCESS RETURN			1.33	(0.07)	(0.44)	0.32	1.05	(0.38)	0.61	(0.07)	0.15	0.22	0.56		

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
FIXED INCOME RETURN DETAIL																
356	POLICE-TOTAL CORE FI- DEVELOPING MGRS - GROSS	191	0.46	5.21	8.75	5.81	7.97	10.01	(0.99)	4.18	8.75	5.31	4.63	4.49	5.25	05/01/2009
	ESTIMATED INVESTMENT FEES			(0.05)	(0.21)	(0.10)	(0.22)	(0.22)	(0.20)	(0.20)	(0.21)	(0.21)	(0.21)			
	POLICE-TOTAL CORE FI- DEVELOPING MGRS - NET MGR			5.17	8.54	5.71	7.75	9.79	(1.19)	3.98	8.54	5.10	4.42			
	BBG BARC AGG (DLY)			2.90	8.74	6.14	7.87	8.72	0.01	3.54	8.74	5.32	4.30	3.82	4.38	
	EXCESS RETURN			2.27	(0.20)	(0.43)	(0.12)	1.08	(1.20)	0.43	(0.20)	(0.22)	0.12	0.66	0.87	
366	POLICE-TOTAL CORE FI- EMERGING MGRS - GROSS	-	-				8.22	9.25	0.29	4.51					06/01/2012	
	ESTIMATED INVESTMENT FEES						(0.37)	(0.37)	(0.34)	(0.48)						
	POLICE-TOTAL CORE FI- EMERGING MGRS - NET MGR						7.85	8.88	(0.05)	4.02						
	BBG BARC AGG (DLY)						7.87	8.72	0.01	3.54						
	EXCESS RETURN						(0.02)	0.16	(0.06)	0.48						
376	POLICE-TOTAL TIPS - GROSS	1,727	4.16	4.32	8.45	6.18	4.84	8.46	(1.25)	3.10	8.45	5.13	3.80	3.58	4.14	06/01/2005
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)			
	POLICE-TOTAL TIPS - NET MGR			4.31	8.43	6.17	4.82	8.44	(1.27)	3.09	8.43	5.11	3.78			
	BBG BARC GBL INF-LK: US TIPS (DLY)			4.24	8.28	6.01	4.84	8.43	(1.26)	3.01	8.28	5.05	3.75	3.52	4.01	
	EXCESS RETURN			0.07	0.15	0.16	(0.02)	0.01	(0.00)	0.08	0.15	0.06	0.04	0.06	0.13	
386	POLICE-TOTAL CONVERTIBLE BONDS - GROSS	816	1.97	12.62	4.85	(1.99)	7.25	17.38	(0.17)	14.74	4.85	6.93	6.56	8.38	7.07	07/01/2008
	ESTIMATED INVESTMENT FEES			(0.10)	(0.39)	(0.18)	(0.40)	(0.44)	(0.38)	(0.43)	(0.39)	(0.40)	(0.41)			
	POLICE-TOTAL CONVERTIBLE BONDS - NET MGR			12.52	4.47	(2.17)	6.85	16.94	(0.55)	14.31	4.47	6.53	6.15			
	ICE BOFA ALL US CONV EX MANDATORY			25.92	17.79	9.64	8.00	22.89	0.65	15.70	17.79	12.99	10.45	11.65	9.75	
	EXCESS RETURN			(13.40)	(13.32)	(11.81)	(1.15)	(5.95)	(1.19)	(1.39)	(13.32)	(6.46)	(4.30)	(3.27)	(2.68)	
396	POLICE-TOTAL TARGETED INVESTMENTS (NO CASH) - GROSS	442	1.07	1.14	7.62	5.34	9.52	8.85	1.03	3.83	7.62	5.37	5.27	5.07	7.99	12/01/1984
	ESTIMATED INVESTMENT FEES			(0.04)	(0.17)	(0.08)	(0.21)	(0.19)	(0.21)	(0.21)	(0.17)	(0.19)	(0.21)	(0.21)	(0.10)	
	POLICE-TOTAL TARGETED INVESTMENTS (NO CASH) - NET MGR			1.10	7.45	5.25	9.31	8.67	0.82	3.62	7.45	5.18	5.06	4.85	7.89	
	POLICE CUSTOM BENCHMARK (NO CASH)			1.50	7.40	4.91	7.19	7.60	0.96	3.08	7.40	4.88	3.99	3.69		
	EXCESS RETURN			(0.41)	0.05	0.35	2.12	1.07	(0.15)	0.54	0.05	0.30	1.07	1.17		

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
ALTERNATIVE CREDIT INCOME RETURN DETAIL																
408	POLICE-TOTAL HIGH YIELD - GROSS	2,147	5.18	10.13	0.87	(3.37)	7.39	14.99	(2.82)	6.93	0.87	3.37	4.43	6.58	7.39	10/01/1994
	ESTIMATED INVESTMENT FEES			(0.09)	(0.32)	(0.15)	(0.33)	(0.36)	(0.30)	(0.34)	(0.32)	(0.33)	(0.34)			
	POLICE-TOTAL HIGH YIELD - NET MGR			10.05	0.55	(3.52)	7.07	14.63	(3.12)	6.59	0.55	3.05	4.09			
	HIGH YIELD CUSTOM BENCHMARK			10.14	(0.00)	(3.83)	7.48	14.32	(2.34)	7.03	(0.00)	3.25	4.35	6.34	6.63	
	EXCESS RETURN			(0.09)	0.56	0.31	(0.41)	0.31	(0.78)	(0.44)	0.56	(0.20)	(0.26)	0.24	0.76	
418	POLICE- TOTAL BANK LOANS - GROSS	657	1.58	7.55	(1.40)	(4.51)	3.79	8.33	1.13	4.72	(1.40)	2.39	3.23		3.91	12/01/2012
	ESTIMATED INVESTMENT FEES			(0.07)	(0.28)	(0.13)	(0.31)	(0.32)	(0.30)	(0.31)	(0.28)	(0.30)	(0.31)			
	POLICE-TOTAL BANK LOANS - NET MGR			7.47	(1.68)	(4.64)	3.49	8.02	0.82	4.41	(1.68)	2.09	2.93			
	CSFB LEVERAGED LOAN INDEX			9.71	(2.27)	(4.76)	4.15	8.17	1.14	4.25	(2.27)	2.13	2.94		3.50	
	EXCESS RETURN			(2.24)	0.59	0.11	(0.66)	(0.16)	(0.32)	0.17	0.59	(0.04)	(0.01)		0.41	
428	POLICE-TOTAL OPPORTUNISTIC FIXED INCOME - GROSS	1,492	3.60	(4.67)	(1.87)	(4.21)	5.30	5.47	6.41	7.93	(1.87)	3.46	3.97	7.48	7.15	10/01/2007
	ESTIMATED INVESTMENT FEES			(0.03)	(0.18)	(0.09)	(0.15)	(0.18)	(0.17)	(0.10)	(0.18)	(0.18)	(0.17)			
	POLICE-TOTAL OPPORTUNISTIC FIXED INCOME - NET MGR			(4.70)	(2.05)	(4.29)	5.15	5.29	6.23	7.83	(2.05)	3.29	3.80			
	OPPORTUNISTIC FIXED INCOME JPMGHY / CSFB 50/50 BLEND PLUS 300			11.06	0.88	(3.82)	9.26	14.66	2.36	9.42	0.88	5.56	6.89	8.66	8.49	
	EXCESS RETURN			(15.76)	(2.94)	(0.48)	(4.11)	(9.37)	3.87	(1.59)	(2.94)	(2.28)	(3.09)	(1.18)	(1.34)	
CASH SUMMARY																
440	Short Term - POLICE - GROSS	362	0.87	0.04	1.50	0.51	2.34	2.25	1.96	1.13	1.50	1.79	1.36	0.87		04/01/1982
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Short Term - POLICE - NET MGR			0.04	1.50	0.51	2.34	2.25	1.96	1.13	1.50	1.79	1.36	0.87		
444	Cash Account	0	-													
446	Securities Lending	0	-													
448	KKR Cash Account	0	-													



**New York City
Police Pension Fund, Subchapter Two**

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
EQUITY SUMMARY										
US EQUITY										
BlackRock US SCG R2000	46	0.11	30.67	3.50	(2.99)	28.39	(9.14)	22.26	11.29	(1.30)
RUSSELL 2000 GROWTH DAILY			30.58	3.48	(3.06)	28.48	(9.31)	22.17	11.32	(1.38)
Excess			0.08	0.02	0.07	(0.09)	0.17	0.09	(0.02)	0.08
BlackRock US SCV R2000	65	0.16							31.71	(7.38)
RUSSELL 2000 VALUE DAILY									31.74	(7.47)
Excess									(0.03)	0.09
Brown Asset Mgmt US SCG	264	0.64	36.71	17.13	15.53	29.71	0.98	28.92	10.23	8.62
RUSSELL 2000 GROWTH DAILY			30.58	3.48	(3.06)	28.48	(9.31)	22.17	11.32	(1.38)
Excess			6.13	13.65	18.59	1.23	10.29	6.75	(1.09)	10.00
William Blair-US SCG	118	0.29	29.85		(2.13)					
RUSSELL 2000 GROWTH DAILY			30.58		(3.06)					
Excess			(0.74)		0.93					
Ceredex US SCV	0	0.00					(11.72)	10.61	29.38	(4.74)
RUSSELL 2000 VALUE DAILY							(12.86)	7.84	31.74	(7.47)
Excess							1.15	2.77	(2.36)	2.73
Cooke and Bieler-US SCV	46	0.11	30.09		(16.32)					
RUSSELL 2000 VALUE DAILY			18.91		(23.50)					
Excess			11.19		7.18					
Pzena-US SCV	60	0.15	25.90		(28.42)					
RUSSELL 2000 VALUE DAILY			18.91		(23.50)					
Excess			7.00		(4.92)					

1 Name changed from SSGA MSCI EAFE Small Cap Index 12.2017
2 Assets were in transition from 9/29/17 to 11/30/17
3 Assets were in transition from 9/29/17 to 2/11/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
Dalton US SCV	121	0.29	17.13	(16.60)	(23.84)	24.83	(17.30)	8.38	25.01	(3.32)
RUSSELL 2000 VALUE DAILY			18.91	(17.48)	(23.50)	22.39	(12.86)	7.84	31.74	(7.47)
Excess			(1.78)	0.88	(0.35)	2.44	(4.43)	0.55	(6.73)	4.15
DFA US SCC	139	0.34	23.74	(11.34)	(16.61)	21.78	(12.54)	11.53	25.08	(3.86)
RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	25.52	(11.01)	14.65	21.31	(4.41)
Excess			(1.68)	(4.71)	(3.64)	(3.74)	(1.52)	(3.12)	3.77	0.56
RAFI US SCE	0	0.00					(11.57)	9.74	27.83	(6.65)
RUSSELL 2000 (DAILY)							(11.01)	14.65	21.31	(4.41)
Excess							(0.56)	(4.91)	6.52	(2.23)
Iridian US MCC	0	0.00					(23.30)	23.36	4.19	(3.71)
RUSSELL MIDCAP (DAILY)							(9.06)	18.52	13.80	(2.44)
Excess							(14.24)	4.84	(9.60)	(1.27)
Wellington US MCC	345	0.83	24.61	(0.14)	(5.48)	32.70	(7.35)	25.05	12.30	1.76
S&P 400 MIDCAP INDEX (DAILY)			24.07	(6.70)	(12.78)	26.20	(11.08)	16.24	20.74	(2.18)
Excess			0.53	6.56	7.30	6.50	3.73	8.80	(8.44)	3.93
BlackRock US LMC R1000 Core	7,909	19.07	21.78	7.69	(2.60)	31.48				
RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	31.43				
Excess			(0.04)	0.21	0.21	0.06				
SSGA US LMC Top 200 Core	1,610	3.88	20.89	11.24	(0.43)	31.74				
RUSSELL TOP 200 INDEX (DAILY)			20.91	11.20	(0.49)	31.75				
Excess			(0.02)	0.04	0.06	(0.01)				
PIMCO RAFI US LMCE	1,270	3.06	16.43	(7.56)	(15.85)	25.42	(6.92)	16.84	15.73	(3.09)
RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	31.43	(4.78)	21.69	12.05	0.92
Excess			(5.39)	(15.04)	(13.04)	(6.01)	(2.13)	(4.84)	3.68	(4.01)

1 Name changed from SSGA MSCI EAFE Small Cap Index 12.2017

2 Assets were in transition from 9/29/17 to 11/30/17

3 Assets were in transition from 9/29/17 to 2/1/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
Legal General US LMCE	1,098	2.65	18.69	(3.38)	(10.79)					
RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)					
Excess			(3.14)	(10.86)	(7.98)					
FUND OF FUNDS										
POLICE-FUND OF FUNDS	65	0.16	24.95	(8.20)	(13.22)	23.33	(8.27)			
RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	25.52	(11.01)			
Excess			(0.47)	(1.57)	(0.24)	(2.19)	2.74			
POLICE-TOTAL LEGATO	65	0.16	24.95	(8.20)	(13.22)	23.33	(8.20)			
RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	25.52	(11.01)			
Excess			(0.47)	(1.57)	(0.24)	(2.19)	2.82			
NON - US EQUITY										
Baillie Gifford WorldxUS LMCC	879	2.12	38.13	31.75	19.01	37.00	(15.37)	44.17	0.70	(3.81)
NYC Developed Growth Benchmark			15.34	(5.42)	(11.49)	22.49	(14.09)	27.77	(3.04)	4.09
Excess			22.79	37.17	30.50	14.51	(1.28)	16.40	3.74	(7.90)
Walter Scott WorldxUS LMCC	733	1.77	14.98	6.21	(2.50)	28.51	(7.68)	28.04	5.03	0.28
NYC Developed Growth Benchmark			15.34	(5.42)	(11.49)	22.49	(14.09)	27.77	(3.04)	4.09
Excess			(0.36)	11.63	8.99	6.02	6.41	0.27	8.07	(3.81)
Causeway WorldxUS LMCV	483	1.16	19.22	(10.12)	(17.68)	21.35	(18.34)	28.22	0.52	(2.39)
NYC Developed Value Benchmark			15.34	(5.42)	(11.49)	22.49	(14.09)	22.77	5.02	(5.68)
Excess			3.88	(4.70)	(6.19)	(1.14)	(4.25)	5.45	(4.51)	3.29
Sprucegrove WorldxUS LMCC	616	1.49	11.92	(16.97)	(20.07)	17.62	(13.67)	27.15	11.10	(9.44)
NYC Developed Value Benchmark			15.34	(5.42)	(11.49)	22.49	(14.09)	22.77	5.02	(5.68)
Excess			(3.42)	(11.54)	(8.59)	(4.87)	0.42	4.38	6.08	(3.75)
Acadian WorldxUS SCC	235	0.57	20.89	(2.52)	(9.94)	21.82	(19.22)	38.38	6.41	8.68
S&P EPAC Small Cap USD NET			20.83	(4.00)	(12.67)	23.71	(18.58)	33.47	1.34	8.58
Excess			0.06	1.48	2.73	(1.89)	(0.65)	4.91	5.07	0.09

1 Name changed from SSGA MSCI EAFE Small Cap Index 12.2017

2 Assets were in transition from 9/29/17 to 11/30/17

3 Assets were in transition from 9/29/17 to 2/1/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
Fidelity WorldxUS SCC	2	0.00					(18.22)	31.34	(0.91)	11.97
S&P EPAC Small Cap USD NET							(18.58)	33.47	1.34	8.58
Excess							0.36	(2.13)	(2.24)	3.38
Alger EAFE SCC	50	0.12	21.95	(4.51)	(12.99)					
MSCI EAFE SMALL CAP NET (DAILY)			19.88	(3.52)	(13.11)					
Excess			2.07	(0.99)	0.11					
SSGA WorldxUS LMC NYC Custom IDX	462	1.11	15.38	(5.11)	(11.22)	22.75	(14.05)	24.58	1.30	(0.54)
NYC Custom World ex US Index			15.34	(5.42)	(11.49)	22.49	(14.09)	24.12	1.00	(0.81)
Excess			0.04	0.32	0.27	0.26	0.04	0.47	0.30	0.27
SSGA WorldxUS SC Custom IDX ¹	228	0.55	21.62	(2.75)	(12.60)	25.67	(17.97)	33.43	2.77	9.86
World ex USA SC PASSIVE CUSTOM BM			21.66	(3.20)	(12.87)	25.41	(18.07)	33.31	2.18	9.59
Excess			(0.05)	0.45	0.27	0.26	0.10	0.12	0.59	0.27
EMERGING MARKETS										
DFA EM	305	0.73	17.45	(18.07)	(19.83)	9.73	(12.06)	33.64	17.39	(19.39)
MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	18.42	(14.57)	37.28	11.19	(14.92)
Excess			(0.63)	(14.68)	(10.05)	(8.69)	2.50	(3.64)	6.20	(4.48)
Baillie Gifford EM	439	1.06	23.32	(0.37)	(8.82)	28.50	(15.37)	54.14	2.78	(8.00)
MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	18.42	(14.57)	37.28	11.19	(14.92)
Excess			5.24	3.02	0.97	10.08	(0.80)	16.86	(8.41)	6.92
Parametric EM	271	0.65	17.10	(14.85)	(18.10)	14.20	(14.33)	29.65	13.87	(15.72)
MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	18.42	(14.57)	37.28	11.19	(14.92)
Excess			(0.98)	(11.46)	(8.32)	(4.22)	0.24	(7.63)	2.68	(0.80)
Pzena-EM ACV	163	0.39								
MSCI EMERGING MARKETS										
Excess										

¹ Name changed from SSGA MSCI EAFE Small Cap Index 12.2017

² Assets were in transition from 9/29/17 to 11/30/17

³ Assets were in transition from 9/29/17 to 2/11/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
UBS-EM ACC	272	0.65								
MSCI EMERGING MARKETS										
Excess										
Acadian EM	363	0.88	15.96	(7.21)	(12.44)	15.71	(17.27)	40.45	12.65	(15.05)
MSCI EMERGING MARKETS										
Excess			(2.12)	(3.82)	(2.66)	(2.71)	(2.70)	3.16	1.46	(0.13)
BlackRock MSCI EM Core	630	1.52	17.64	(3.72)	(10.16)	18.76	(14.44)	37.26	11.17	(14.91)
MSCI EMERGING MARKETS										
Excess			(0.44)	(0.34)	(0.38)	0.34	0.13	(0.02)	(0.02)	0.01
INTERNATIONAL FOF										
POLICE-TOTAL INTERNATIONAL FOF	246	0.59	19.16	(0.57)	(7.63)	25.10	(15.05)			
MSCI ACWI ex USA IMI Net										
Excess			2.20	4.17	3.61	3.47	(0.29)			
POLICE-TOTAL INTERNATIONAL FIS	118	0.28	18.11	(2.42)	(8.58)	22.55	(14.14)			
MSCI ACWI ex USA IMI Net										
Excess			1.15	2.31	2.66	0.92	0.62			
POLICE-TOTAL INTERNATIONAL LEADING EDGE	128	0.31	20.15	1.21	(6.73)	27.61	(16.50)			
MSCI ACWI ex USA IMI Net										
Excess			3.19	5.95	4.51	5.97	(1.74)			
FIXED INCOME SUMMARY										
STRUCTURED FIXED INCOME										
BlackRock Mortgages	1,117	2.69	1.43	5.80	3.60	6.89	0.97	2.56	2.29	1.81
FTSE MORTGAGE INDEX										
Excess			1.11	(0.16)	(0.00)	0.21	(0.04)	0.10	0.71	0.25

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3 Assets were in transition from 9/29/17 to 2/1/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
Neuberger Berman Mortgages	101	0.24	0.61	5.41	3.29	6.35	0.78	2.39	1.52	1.42
FTSE MORTGAGE INDEX			0.32	5.96	3.60	6.68	1.01	2.47	1.59	1.56
Excess			0.29	(0.55)	(0.31)	(0.33)	(0.23)	(0.07)	(0.07)	(0.15)
T Rowe Price Credit	989	2.38	9.75	8.61	3.79	14.56	(2.39)	6.89	6.04	0.02
NYC - Investment Grade Credit			8.28	9.26	5.02	13.40	(1.90)	6.04	5.56	(0.65)
Excess			1.47	(0.66)	(1.23)	1.17	(0.48)	0.85	0.48	0.67
BlackRock Credit	234	0.57	9.18	10.10	5.70	14.09	(1.96)	6.44	5.48	(0.57)
NYC - Investment Grade Credit			8.28	9.26	5.02	13.40	(1.90)	6.04	5.56	(0.65)
Excess			0.90	0.83	0.68	0.69	(0.05)	0.40	(0.07)	0.07
Taplin Credit	110	0.26	9.85	9.69	4.80	15.66	(3.47)	7.61	9.54	(3.98)
NYC - Investment Grade Credit			8.28	9.26	5.02	13.40	(1.90)	6.04	5.56	(0.65)
Excess			1.57	0.42	(0.22)	2.26	(1.56)	1.58	3.98	(3.34)
Prudential Credit	280	0.68	9.14	9.09	4.64	13.91	(1.93)	6.35	6.05	(0.32)
NYC - Investment Grade Credit			8.28	9.26	5.02	13.40	(1.90)	6.04	5.56	(0.65)
Excess			0.86	(0.18)	(0.38)	0.51	(0.02)	0.32	0.50	0.33
Fidelity Credit	131	0.32	10.58	9.53	5.14	14.79	(2.26)	6.28	5.80	(0.09)
NYC - Investment Grade Credit			8.28	9.26	5.02	13.40	(1.90)	6.04	5.56	(0.65)
Excess			2.30	0.26	0.12	1.40	(0.35)	0.25	0.24	0.56
SSGA LI Treasury	389	0.94	0.50	17.22	14.55	10.66	(0.21)	5.01	1.62	0.49
NYC - Treasury Agency Plus Five			0.74	17.08	14.63	10.40	(0.05)	4.66	1.21	0.72
Excess			(0.25)	0.14	(0.08)	0.26	(0.16)	0.36	0.41	(0.24)
BlackRock LI Treasury	635	1.53	0.22	16.62	14.11	10.49	(0.18)	4.79	1.21	0.66
NYC - Treasury Agency Plus Five			0.74	17.08	14.63	10.40	(0.05)	4.66	1.21	0.72
Excess			(0.52)	(0.46)	(0.53)	0.10	(0.13)	0.14	(0.00)	(0.06)

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Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
SSGA ST Treasury 1-3Y ²	156	0.38	0.13	4.10	2.94	3.60	1.50	3.08		
FTSE USBIG Treasury 1-3 Y Index			0.27	4.06	2.94	3.56	1.56	0.42		
Excess			(0.14)	0.04	(0.01)	0.04	(0.06)	2.66		
SSGA IT Treasury 1-10Y ³	7	0.02	0.43	7.02	5.75	5.08	2.04			
FTSE USBIG Treasury/Agency 1-10 y			0.58	6.99	5.74	5.18	1.42			
Excess			(0.15)	0.03	0.01	(0.09)	0.62			
SSGA LT Treasury 10Y Plus	1,804	4.35	(0.71)	25.33	21.10	14.89	(1.84)	8.54		
FTSE Treasury 10+			0.51	25.45	21.24	14.89	(1.89)	8.60		
Excess			(1.22)	(0.12)	(0.14)	(0.01)	0.05	(0.07)		
CORE FI-EMERGING MANAGERS										
Optimum Quantvest-Core	0	0.00				7.93	0.33	2.64	2.61	0.61
BBG BARC Agg (Dly)						8.72	0.01	3.54	2.65	0.55
Excess						(0.79)	0.32	(0.90)	(0.03)	0.06
Integrity-Core	0	0.00				8.56	(0.03)	3.93		
BBG BARC Agg (Dly)						8.72	0.01	3.54		
Excess						(0.16)	(0.04)	0.39		
Ramirez-Core	0	0.00				9.67	0.07	4.47	3.64	1.12
BBG BARC Agg (Dly)						8.72	0.01	3.54	2.65	0.55
Excess						0.95	0.06	0.93	0.99	0.57
New Century-Core Plus	0	0.00				8.52	0.12	4.04	2.37	(0.30)
BBG BARC Agg (Dly)						8.72	0.01	3.54	2.65	0.55
Excess						(0.19)	0.11	0.50	(0.28)	(0.85)
Pugh-Core Plus	0	0.00				8.92	(0.42)	4.12	3.48	0.79
BBG BARC Agg (Dly)						8.72	0.01	3.54	2.65	0.55
Excess						0.21	(0.43)	0.58	0.83	0.24

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³ Assets were in transition from 9/29/17 to 2/11/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
HIGH YIELD										
Brigade High Yield	200	0.48	9.07	(2.16)	(6.08)	15.23				
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32				
Excess			(1.07)	(2.16)	(2.25)	0.91				
Eaton Vance High Yield	107	0.26	9.37	(0.33)	(4.45)	14.62				
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32				
Excess			(0.76)	(0.33)	(0.62)	0.30				
Mackay Shields High Yield	131	0.32	10.78	2.38	(1.82)	14.40				
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32				
Excess			0.65	2.38	2.01	0.08				
Neuberger Berman High Yield	311	0.75	9.59	(0.41)	(4.56)	14.18	(1.99)	5.77	14.72	(4.00)
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32	(2.08)	7.50	17.13	(4.43)
Excess			(0.55)	(0.41)	(0.73)	(0.14)	0.09	(1.74)	(2.41)	0.44
Nomura High Yield	202	0.49	9.97	(1.24)	(4.92)	13.89				
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32				
Excess			(0.17)	(1.23)	(1.08)	(0.43)				
Oaktree High Yield	226	0.54	9.76	0.49	(3.42)	13.99	(3.42)	5.87	14.91	(4.75)
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32	(2.08)	7.50	17.13	(4.43)
Excess			(0.38)	0.49	0.42	(0.32)	(1.34)	(1.63)	(2.22)	(0.31)
Stone Harbor High Yield	13	0.03				14.12	(2.63)	5.86	13.01	(4.47)
BBG BARC US HY - 2% Issr Cap						14.32	(2.08)	7.50	17.13	(4.43)
Excess						(0.20)	(0.54)	(1.64)	(4.11)	(0.04)
T Rowe Price High Yield	642	1.55	10.11	0.78	(3.70)	15.60	(2.36)	6.79	12.36	(1.13)
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32	(2.08)	7.50	17.13	(4.43)
Excess			(0.03)	0.78	0.14	1.28	(0.28)	(0.71)	(4.76)	3.31

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Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
Shenkman High Yield	315	0.76	9.19	0.85	(3.27)	14.29	(5.95)	6.86	11.72	(2.65)
BBG BARC US HY - 2% Issr Cap			10.14	(0.00)	(3.83)	14.32	(2.08)	7.50	17.13	(4.43)
Excess			(0.95)	0.86	0.57	(0.03)	(3.86)	(0.64)	(5.40)	1.79
BANK LOANS										
Barings Bank Loans	253	0.61	7.33	(3.08)	(5.83)	7.82	0.38	4.47	8.44	0.12
CSFB LEVERAGED LOAN INDEX			9.71	(2.27)	(4.76)	8.17	1.14	4.25	9.88	(0.38)
Excess			(2.38)	(0.81)	(1.07)	(0.36)	(0.76)	0.22	(1.43)	0.50
Credit Suisse Bank Loans	270	0.65	7.42	(0.96)	(4.00)	8.31	1.04	4.66	8.94	2.57
CSFB LEVERAGED LOAN INDEX			9.71	(2.27)	(4.76)	8.17	1.14	4.25	9.88	(0.38)
Excess			(2.29)	1.31	0.75	0.13	(0.10)	0.41	(0.93)	2.96
Guggenheim Bank Loans	2	0.01					1.24	3.82	7.84	2.07
CSFB LEVERAGED LOAN INDEX							1.14	4.25	9.88	(0.38)
Excess							0.10	(0.43)	(2.03)	2.45
Pinebridge Bank Loans	131	0.32	8.01	(0.47)	(3.71)					
CSFB LEVERAGED LOAN INDEX			9.71	(2.27)	(4.76)					
Excess			(1.71)	1.80	1.04					
TIPS										
SSGA TIPS	1,231	2.97	4.32	8.43	6.17	8.44	(1.30)	3.06	4.68	(1.35)
BBG BARC Gbl Inf-Lk: US TIPS (Dly)			4.24	8.28	6.01	8.43	(1.26)	3.01	4.68	(1.44)
Excess			0.08	0.15	0.16	0.02	(0.03)	0.05	(0.00)	0.09
BlackRock TIPS	496	1.20	4.25	8.40	6.13	8.43	(1.18)	2.98	4.66	(1.24)
BBG BARC Gbl Inf-Lk: US TIPS (Dly)			4.24	8.28	6.01	8.43	(1.26)	3.01	4.68	(1.44)
Excess			0.01	0.12	0.12	0.00	0.09	(0.02)	(0.02)	0.20

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Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
CONVERTIBLE BONDS										
Advent Convertible Bonds	371	0.90	13.12	4.24	0.20	12.79	(1.92)	7.93	7.15	(1.38)
ICE BofA US Convertibles - Yield Alter			12.47	2.92	(3.06)	15.40	(0.42)	9.45	9.96	(8.77)
Excess			0.64	1.32	3.27	(2.61)	(1.50)	(1.52)	(2.81)	7.40
Victory Convertible Bonds	445	1.07	12.02	4.66	(4.06)	20.49	0.66	20.63	6.46	(0.24)
ICE BofA All IG US Convertibles			8.35	1.15	(6.78)	20.88	3.35	20.99	14.23	1.68
Excess			3.67	3.51	2.72	(0.39)	(2.69)	(0.36)	(7.77)	(1.92)
CORE FI-DEVELOPING MANAGERS										
LM Capital-Core Plus	72	0.17	3.68	8.17	5.40	9.75	(1.40)	3.92	3.38	1.02
BBG BARC Agg (Dly)			2.90	8.74	6.14	8.72	0.01	3.54	2.65	0.55
Excess			0.78	(0.56)	(0.74)	1.03	(1.41)	0.38	0.74	0.47
Pugh-CorePlus	46	0.11								
BBG BARC Agg (Dly)										
Excess										
GIA-Core Plus	73	0.18	5.15	7.38	4.54	9.84	(0.98)	4.03	3.93	
BBG BARC Agg (Dly)			2.90	8.74	6.14	8.72	0.01	3.54	2.65	
Excess			2.25	(1.36)	(1.60)	1.12	(1.00)	0.49	1.29	
ECONOMICALLY TARGETED INVESTMENTS										
AFL-CIO Housing Investment Trust	180	0.43	1.80	7.03	5.29	7.78	0.16	3.17	1.94	1.13
BBG BARC Agg (Dly)			2.90	8.74	6.14	8.72	0.01	3.54	2.65	0.55
Excess			(1.10)	(1.70)	(0.85)	(0.94)	0.15	(0.38)	(0.71)	0.58
RBC Access MBS	90	0.22	2.04	7.55	5.19	7.21	0.49	2.64	1.61	1.83
Access RBC Benchmark			0.65	6.29	4.45	6.05	1.17	1.96	1.52	1.40
Excess			1.39	1.26	0.74	1.16	(0.69)	0.69	0.09	0.43

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Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
CPC Construction Facility	6	0.01	0.71	3.49	0.30	5.36	4.14	6.07	(3.95)	12.90
CPC CONST BENCHMARK			0.65	3.44	1.49	4.09	3.99	3.34	3.03	2.90
Excess			0.06	0.05	(1.19)	1.27	0.15	2.73	(6.99)	10.01
BOA PPAR FNMA	7	0.02	(1.18)	9.05	4.93	13.54	2.33	5.21	4.07	42.03
FNMA Plus 85bps			0.67	7.21	4.15	7.80	1.86	3.61	2.38	2.50
Excess			(1.86)	1.85	0.78	5.74	0.47	1.60	1.69	39.53
BOA PPAR GNMA	6	0.02	0.51	6.70	5.55	8.44	2.42	4.08	3.13	8.04
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			0.15	0.70	1.77	1.70	0.79	1.56	0.85	6.03
Citibank PPAR FNMA	7	0.02	(0.40)	15.33	5.73	19.71	2.63	5.26	3.71	6.69
FNMA Plus 85bps			0.67	7.21	4.15	7.80	1.86	3.61	2.38	2.50
Excess			(1.07)	8.12	1.58	11.91	0.77	1.65	1.33	4.20
Citibank PPAR GNMA	3	0.01	0.79	5.89	5.89	5.33	1.90	3.10	2.78	5.08
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			0.43	(0.10)	2.11	(1.41)	0.27	0.57	0.50	3.06
CFSB PPAR GNMA	1	0.00	0.81	5.97	5.63	5.91	0.99	3.83	3.21	5.90
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			0.45	(0.03)	1.85	(0.82)	(0.65)	1.30	0.93	3.88
CPC PPAR FNMA	51	0.12	(1.17)	7.80	4.72	13.18	2.31	5.06	6.15	8.96
FNMA Plus 85bps			0.67	7.21	4.15	7.80	1.86	3.61	2.38	2.50
Excess			(1.84)	0.60	0.57	5.38	0.45	1.45	3.77	6.46
POLICE-CPC PPAR GNMA	50	0.12	0.86	5.67	5.63	4.95	0.63	2.29	2.21	5.24
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			0.50	(0.33)	1.85	(1.78)	(1.00)	(0.24)	(0.07)	3.23

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Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
ECLF PPAR FNMA	1	0.00								
FNMA Plus 85bps										
Excess										
JPMC PPAR FNMA	27	0.07	0.16	10.58	6.31	14.68	1.68	9.96	7.94	6.18
FNMA Plus 85bps			0.67	7.21	4.15	7.80	1.86	3.61	2.38	2.50
Excess			(0.51)	3.37	2.16	6.88	(0.18)	6.35	5.56	3.68
LIIF PPAR FNMA	8	0.02	(1.11)	11.85	5.04	16.35	2.27	9.55	5.03	6.29
FNMA Plus 85bps			0.67	7.21	4.15	7.80	1.86	3.61	2.38	2.50
Excess			(1.78)	4.64	0.89	8.55	0.41	5.94	2.65	3.79
LIIF PPAR GNMA	1	0.00	0.85	5.68	4.50	5.54	2.53	2.52	3.88	3.92
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			0.49	(0.32)	0.72	(1.19)	0.89	(0.01)	1.61	1.91
LISC PPAR FNMA	1	0.00	(1.42)	14.27	9.13	14.95				
FNMA Plus 85bps			0.67	7.21	4.15	7.80				
Excess			(2.09)	7.06	4.98	7.15				
NCBCI PPAR FNMA	0	0.00	1.14	6.88	5.87	4.08	2.00	1.75	3.46	4.97
FNMA Plus 85bps			0.67	7.21	4.15	7.80	1.86	3.61	2.38	2.50
Excess			0.47	(0.33)	1.71	(3.72)	0.15	(1.86)	1.07	2.47
NCBCI PPAR GNMA	1	0.00	1.16	5.39	5.61	3.69	1.23	3.01	3.51	5.53
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			0.80	(0.61)	1.83	(3.04)	(0.41)	0.48	1.23	3.52
NHS PPAR GNMA	0	0.00	0.15	3.60	4.46	2.90	0.54	(2.93)	3.58	4.90
GNMA Plus 65bps			0.36	6.00	3.78	6.73	1.63	2.53	2.28	2.02
Excess			(0.21)	(2.40)	0.69	(3.84)	(1.09)	(5.46)	1.30	2.89

1 Name changed from SSGA MSCI EAFE Small Cap Index 12.2017

2 Assets were in transition from 9/29/17 to 11/30/17

3 Assets were in transition from 9/29/17 to 2/11/19

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
Wells Fargo PPAR FNMA	1	0.00	(1.42)	9.39	4.59	21.71				
FNMA Plus 85bps			0.67	7.21	4.15	7.80				
Excess			(2.09)	2.18	0.44	13.91				
CASH										
Short Term POLICE	362	0.87	0.04	1.50	0.51	2.25	1.96	1.13	0.89	0.47
ICE BofA US 3-Month Treasury Bill			0.02	1.63	0.60	2.28	1.87	0.86	0.33	0.05
Excess			0.01	(0.12)	(0.09)	(0.04)	0.08	0.27	0.56	0.41
Cash Account	0	0.00								
Securities Lending	0	0.00								

1 Name changed from SSGA MSCI EAFE Small Cap Index 12.2017
2 Assets were in transition from 9/29/17 to 11/30/17
3 Assets were in transition from 9/29/17 to 2/1/19



**New York City
Police Pension Fund, Subchapter Two**

Appendix C

Alternative Assets Manager Performance Detail

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
TOTAL PRIVATE EQUITY		7,036,110,056	5,667,047,220	5,611,737,326	2,463,599,492	1.42	10.1%
TOTAL LIQUIDATED		684,479,456	737,152,294	941,889,759	55,150	1.28	6.5%
TOTAL ACTIVE		6,351,630,600	4,929,894,926	4,669,847,567	2,463,544,342	1.45	10.9%
TOTAL ACTIVE							
Cypress Merchant Banking Partners II, L.P.	1999	45,172,972	53,944,269	50,584,154	24,183	0.94	-1.2%
Lincolnshire Equity Fund II, L.P.	1999	11,038,409	11,556,880	22,653,206	203,634	1.98	24.6%
SCP Private Equity Partners II, L.P.	2000	25,000,000	28,057,160	10,857,159	2,640,535	0.48	-8.1%
Solera Partners, L.P.	2000	9,999,888	13,369,506	20,817,577	77,895	1.56	7.4%
Apollo Investment Fund V, L.P.	2001	35,000,000	54,551,027	107,618,495	301,504	1.98	38.8%
CVC European Equity Partners III, L.P.	2001	25,000,000	29,700,915	74,439,614	1,699,553	2.56	41.0%
Ares Corporate Opportunities Fund, L.P.	2003	35,000,000	41,988,154	62,593,160	90,416	1.49	13.1%
Blackstone Capital Partners IV, L.P.	2003	46,253,267	57,243,283	139,513,063	1,227,199	2.46	36.3%
FS Equity Partners V, L.P.	2003	15,000,000	12,851,976	25,116,883	869,380	2.02	15.3%
FdG Capital Partners II LP	2004	25,000,000	26,938,873	31,142,933	1,461,999	1.21	3.7%
Lincolnshire Equity Fund III, L.P.	2004	15,000,000	15,001,893	21,339,880	5,614,585	1.80	28.0%
Markstone Capital Partners, LP	2004	10,000,000	11,724,772	4,955,651	68,054	0.43	-38.4%
Medica III Investments (International) L.P.	2004	10,000,000	10,000,000	4,237,089	2,406,000	0.66	-7.3%
Yucaipa American Alliance Fund I, LP	2004	20,000,000	29,967,488	35,202,784	1,385,384	1.22	4.6%
Arlington Capital Partners II, L.P.	2005	20,000,000	20,236,733	35,601,071	44,648	1.76	11.3%
Blackstone Mezzanine Partners II, L.P.	2005	11,954,147	13,356,475	17,778,894	149,089	1.34	7.8%
FirstMark Capital I, L.P. (fka FirstMark IV)	2005	10,000,000	10,927,097	37,049,724	27,088,010	5.87	31.4%
JP Morgan Fleming (Tranche A)	2005	40,000,000	39,989,461	42,524,359	8,746,684	1.28	4.6%
New Mountain Partners II, L.P.	2005	7,741,935	7,011,896	13,507,602	120,648	1.94	13.6%
Palladium Equity Partners III, L.P.	2005	25,000,000	27,049,705	49,494,473	445,657	1.85	14.4%
Psilos Group Partners III, L.P.	2005	12,500,000	13,287,792	6,410,270	11,761,489	1.37	4.2%
Snow Phipps Group, L.P.	2005	10,000,000	11,913,742	10,457,308	3,196,347	1.15	3.1%
USPF II Institutional Fund, L.P.	2005	20,000,000	26,379,750	30,753,066	2,802,217	1.27	4.0%
Aisling Capital II, LP	2006	2,500,000	2,945,044	2,852,895	102,836	1.00	0.1%
Apollo Investment Fund VI, L.P.	2006	45,000,000	57,919,123	86,669,134	909,948	1.51	8.7%
Ares Corporate Opportunities Fund II, L.P.	2006	15,000,000	16,428,261	27,406,387	25,925	1.67	13.1%
Arsenal Capital Partners II, LP	2006	10,000,000	12,195,086	23,606,075	86,172	1.94	12.1%
Atlantic Equity Partners IV, L.P.	2006	25,124,928	24,381,913	4,274,904	14,124,844	0.75	-3.1%

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Avista Capital Partners, L.P.	2006	20,000,000	26,295,958	32,016,285	284,196	1.23	4.4%
Blackstone Capital Partners V, L.P.	2006	42,087,697	44,813,997	71,190,251	1,211,636	0.39	-20.8%
Capital Partners Private Equity Income Fund, L.P.	2006	15,000,000	14,476,277	33,181,704	340,812	2.32	21.1%
Catterton Partners VI, L.P.	2006	20,000,000	22,775,054	35,761,963	6,159,431	1.84	11.3%
Coller International Partners V, L.P.	2006	10,000,000	8,744,365	11,598,430	600,664	1.40	7.8%
Euro Choice III L.P.	2006	26,713,564	26,875,176	30,076,667	1,034,562	1.16	2.9%
Falconhead Capital Partners II, L.P.	2006	15,000,000	16,846,651	16,818,185	3,463,512	1.20	3.5%
First Reserve Fund XI, L.P.	2006	20,000,000	21,253,053	13,841,146	23,058	0.65	-10.2%
GF Capital Private Equity Fund, L.P.	2006	10,000,000	10,488,825	13,672,386	4,397,376	1.72	11.4%
InterMedia Partners VII, L.P.	2006	12,500,000	14,614,611	14,795,867	(15,513)	1.01	0.2%
Landmark Equity Partners XIII, L.P.	2006	10,000,000	9,611,868	12,206,606	503,979	1.32	5.4%
MidOcean Partners III, L.P.	2006	38,823,185	46,380,826	91,070,482	4,926,342	2.07	12.9%
NB Co-Investment Partners LP	2006	60,000,000	60,616,170	85,745,060	3,373,950	1.47	8.8%
Permira IV, L.P.	2006	16,155,954	17,593,382	25,416,279	1,820,490	1.55	8.5%
RRE Ventures IV, L.P.	2006	15,000,000	19,065,446	13,817,742	11,978,324	1.35	4.2%
Terra Firma Capital Partners III, L.P.	2006	15,527,882	15,742,445	6,102,718	996,659	0.45	-9.5%
The Fourth Cinven Fund	2006	13,543,760	14,218,068	20,526,269	(8,513)	1.44	7.3%
Thomas, McNerney & Partners II, L.P.	2006	10,000,000	10,139,667	22,044,274	925,631	2.27	16.7%
Carlyle Partners V, L.P.	2007	50,000,000	51,532,052	85,213,809	6,142,132	1.77	13.6%
Comvest Investment Partners III, L.P.	2007	15,000,000	19,429,668	26,719,980	72,191	1.38	7.5%
Constellation Venture Capital III, L.P.	2007	15,000,000	17,295,938	8,712,259	4,457,285	0.76	-4.2%
FTVentures III, LP	2007	7,500,000	8,231,525	16,022,587	2,129,235	2.21	15.6%
Gleacher Mezzanine Fund II, L.P.	2007	10,000,000	9,197,768	12,187,028	74,678	1.33	10.6%
GSO Capital Opportunities Fund LP	2007	17,500,000	26,202,290	37,188,395	178,853	1.43	17.3%
Highland Consumer Fund I LP	2007	10,000,000	10,016,060	6,120,655	1,992,710	0.81	-2.8%
Montreux Equity Partners IV, L.P.	2007	10,000,000	10,000,000	5,522,350	7,787,573	1.33	4.1%
New Mountain Partners III, L.P.	2007	35,000,000	35,653,120	47,462,355	24,249,569	2.01	12.8%
Olympus Capital Asia III, L.P.	2007	20,000,000	23,404,664	11,953,414	3,147,955	0.65	-10.5%
PCG Clean Energy & Technology Fund (East), LLC	2007	40,000,000	36,190,929	9,315,169	3,993,015	0.37	-13.4%
Pegasus Partners IV, L.P.	2007	15,000,000	18,225,016	13,800,466	3,076,309	0.93	-1.4%
Pine Brook Capital Partners, L.P.	2007	15,000,000	17,034,149	21,219,552	634,114	1.28	6.8%
Quaker BioVentures II, L.P.	2007	15,000,000	14,444,055	12,870,505	1,982,711	1.03	0.6%
SCP Vitalife Partners II Fund	2007	15,000,000	15,074,774	1,184	5,904,258	0.39	-10.1%

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Trilantic Capital Partners IV L.P.	2007	45,856,523	47,868,579	70,629,425	3,763,307	1.55	13.3%
United States Power Fund III, L.P.	2007	15,000,000	17,746,993	18,308,108	3,238,719	1.21	3.5%
Vista Equity Partners Fund III, L.P.	2007	20,000,000	21,474,237	51,079,934	1,592,137	2.45	26.9%
Aisling Capital III, LP	2008	7,000,000	7,895,658	18,100,409	353,260	2.34	25.9%
Apollo Investment Fund VII, L.P.	2008	50,000,000	61,303,962	97,117,244	4,497,324	1.66	22.2%
Ares Corporate Opportunities Fund III, L.P.	2008	25,000,000	30,533,959	60,665,762	3,589,700	2.10	20.1%
Avista Capital Partners II, L.P.	2008	35,000,000	46,027,792	72,128,865	2,662,903	1.62	14.4%
Blue Wolf Capital Fund II, L.P.	2008	15,000,000	16,300,742	18,854,994	6,069,364	1.53	9.2%
Bridgepoint Europe IV	2008	13,325,527	13,523,775	18,263,849	1,905,730	1.49	9.5%
Crestview Partners II, L.P.	2008	22,500,000	26,177,948	33,800,196	7,789,985	1.59	11.8%
CVC European Equity Partners V, L.P.	2008	34,301,735	36,990,385	68,154,134	2,916,200	1.92	16.2%
Euro Choice IV L.P.	2008	19,327,947	17,913,130	18,290,429	6,418,935	1.38	6.4%
First Reserve Fund XII, L.P.	2008	20,000,000	22,216,378	11,104,060	2,202,873	0.60	-12.0%
GCM Grosvenor NYCPPF Emerging Manager Fund, L.P.	2008	59,909,091	75,229,791	70,256,132	37,611,656	1.43	9.9%
GI Partners Fund III L.P.	2008	17,500,000	18,907,003	29,485,670	180,802	1.57	13.0%
Landmark Equity Partners XIV, L.P.	2008	27,250,000	26,541,159	30,671,034	4,311,975	1.32	9.5%
Levine Leichtman Capital Partners IV, L.P.	2008	10,000,000	10,707,203	16,955,081	844,163	1.66	18.0%
Milestone Partners III, L.P.	2008	15,000,000	16,394,499	13,980,609	1,596,231	0.95	-1.0%
NGN BioMed Opportunity II, L.P.	2008	10,000,000	9,575,911	6,673,105	5,257,311	1.25	3.2%
Onex Partners III LP	2008	15,000,000	16,404,302	21,830,176	3,233,538	1.53	10.6%
Paladin III (NY City), L.P.	2008	30,000,000	41,065,348	29,908,122	50,923,415	1.97	12.0%
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	2008	15,000,000	17,376,833	16,613,219	1,410,166	1.04	1.0%
Yucaipa American Alliance Fund II, LP	2008	50,000,000	68,624,624	66,020,091	43,855,818	1.60	8.5%
Yucaipa Corporate Initiatives Fund II, LP	2008	14,030,930	13,778,130	8,227,223	2,855,294	0.80	-3.2%
FS Equity Partners VI, L.P.	2009	20,000,000	20,114,794	47,435,328	9,821,575	2.85	22.9%
Lexington Capital Partners VII, L.P.	2009	20,000,000	17,846,217	23,780,898	4,143,429	1.56	13.7%
Lincolnshire Equity Fund IV, L.P.	2009	7,500,000	8,041,435	9,263,709	2,976,307	1.52	10.0%
NorthBound Emerging Manager Custom Fund LP	2009	20,000,000	17,467,088	24,187,323	2,820,015	1.55	11.5%
Scale Venture Partners III, LP	2009	10,000,000	9,894,906	25,501,764	2,141,345	2.79	22.8%
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	22,500,000	22,500,000	29,300,730	6,510,013	1.59	11.4%
Comvest Investment Partners IV, L.P.	2010	45,000,000	46,167,934	74,289,503	5,048,743	1.72	27.8%
Snow Phipps II, L.P.	2010	17,500,000	20,936,998	18,920,184	9,450,240	1.36	8.8%
Trident V, L.P.	2010	40,000,000	46,665,301	52,727,074	22,519,314	1.61	10.7%

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
American Securities Partners VI, L.P.	2011	50,000,000	53,692,799	80,636,521	22,033,571	1.91	20.7%
Ampersand 2011	2011	12,500,000	12,500,000	23,058,933	15,207,773	3.06	21.7%
AXA Secondary Fund V B L.P.	2011	80,000,000	65,913,485	104,739,650	983,095	1.60	15.5%
BC European Capital IX	2011	66,004,929	73,037,466	69,138,490	41,383,191	1.51	11.3%
BDCM Opportunity Fund III, L.P.	2011	20,000,000	29,280,625	14,349,802	26,912,189	1.41	8.4%
Blackstone Capital Partners VI, L.P.	2011	35,000,000	37,334,470	33,290,407	19,209,082	1.41	9.2%
EQT VI, L.P.	2011	48,805,819	51,293,881	71,024,929	14,402,802	1.67	13.3%
Pegasus Partners V, L.P.	2011	14,552,940	18,099,810	15,791,884	12,493,865	1.56	11.1%
Vista Equity Partners Fund IV, L.P.	2011	70,000,000	71,782,785	91,762,767	42,075,082	1.86	16.1%
Wellspring Capital Partners V, L.P.	2011	22,500,000	23,638,255	26,593,730	9,033,856	1.51	14.1%
Ares Corporate Opportunities Fund IV, L.P.	2012	50,000,000	52,900,422	48,327,272	31,442,717	1.51	11.8%
Green Equity Investors VI, L.P.	2012	55,000,000	59,336,892	42,536,293	54,650,239	1.64	13.7%
Neuberger Berman Strategic Co-Investment II LP	2012	60,000,000	57,069,637	55,631,239	20,940,973	1.34	10.1%
<u>NYCPPF - 2012 Emerging Manager Program</u>	<u>2012</u>	<u>45,000,000</u>	<u>45,738,101</u>	<u>24,677,704</u>	<u>44,425,194</u>	<u>1.51</u>	<u>13.1%</u>
Palladium Equity Partners IV, L.P.	2012	35,000,000	33,026,715	17,048,528	23,594,200	1.23	6.8%
Platinum Equity Capital Partners III, L.P.	2012	50,000,000	43,677,356	62,922,161	19,275,182	1.88	34.9%
Summit Partners Growth Equity Fund VIII-A, L.P.	2012	75,000,000	84,977,685	143,371,446	34,431,099	2.09	25.4%
Trilantic Capital Partners V L.P.	2012	50,000,000	54,776,908	52,733,232	26,865,979	1.45	15.2%
Warburg Pincus Private Equity XI, L.P.	2012	80,000,000	85,115,264	87,558,201	42,142,460	1.52	11.6%
Apollo Investment Fund VIII, L.P.	2013	100,000,000	92,431,624	44,919,135	68,582,619	1.23	7.2%
Carlyle Partners VI, L.P.	2013	60,000,000	63,425,223	27,268,870	52,929,527	1.26	8.0%
Crestview Partners III (Co-Investment B), L.P.	2013	15,000,000	15,533,155	740,414	13,005,295	0.88	-4.5%
Crestview Partners III, L.P.	2013	45,000,000	31,687,447	19,201,973	20,223,810	1.24	9.1%
Landmark - NYC Fund I, L.P.	2013	23,000,000	20,442,090	15,286,973	13,449,332	1.41	13.6%
Landmark Equity Partners XV, L.P.	2013	67,000,000	50,698,737	38,435,534	27,737,634	1.31	12.5%
ASF VI B L.P.	2014	60,000,000	48,456,737	51,875,261	15,022,191	1.38	11.5%
ASF VI B NYC Co-Invest L.P.	2014	20,000,000	16,050,653	15,864,268	6,604,501	1.40	11.8%
Carlyle Partners VI, L.P. (Side Car)	2014	6,600,000	4,798,851	276,667	4,035,063	0.90	-2.7%
CVC Capital Partners VI, L.P.	2014	88,089,135	88,684,097	43,045,870	89,549,993	1.50	15.2%
Lexington Capital Partners VIII, L.P.	2014	80,000,000	71,753,621	38,438,951	54,716,990	1.30	15.1%
Olympus Growth Fund VI, L.P.	2014	35,000,000	33,265,197	17,275,130	24,685,821	1.26	10.2%
Vista Equity Partners Fund V, L.P.	2014	85,000,000	103,675,072	101,988,111	84,178,974	1.80	20.3%
American Securities Partners VII, L.P.	2015	37,000,000	31,751,138	4,785,199	20,012,642	0.78	-12.0%

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
ASF VII B L.P.	2015	44,500,000	25,155,045	4,860,881	25,708,918	1.22	13.0%
ASF VII B NYC Co-Invest L.P.	2015	22,000,000	12,750,758	3,437,042	17,186,467	1.62	26.9%
Bridgepoint Europe V Co-Invest	2015	8,132,758	7,563,632	3,321,506	9,603,544	1.71	24.6%
Bridgepoint Europe V L.P.	2015	29,678,207	29,117,067	10,450,353	25,805,825	1.25	10.1%
Centerbridge Capital Partners III, L.P.	2015	11,100,000	9,076,935	3,882,766	8,279,918	1.34	14.1%
EQT VII, L.P.	2015	76,970,046	75,209,937	34,940,237	64,653,167	1.32	13.5%
<i><u>NYCPPF - 2015 Emerging Manager Program</u></i>	<i><u>2015</u></i>	<i><u>59,750,000</u></i>	<i><u>33,027,911</u></i>	<i><u>5,563,862</u></i>	<i><u>33,608,812</u></i>	<i><u>1.19</u></i>	<i><u>13.3%</u></i>
Siris Partners III, L.P.	2015	15,000,000	15,483,517	7,180,367	12,359,169	1.26	12.2%
Warburg Pincus Private Equity XII, L.P.	2015	97,000,000	92,866,389	9,154,697	104,144,260	1.22	10.1%
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	37,000,000	32,596,834	18,671,615	31,846,659	1.55	21.4%
Apax IX USD, L.P.	2016	60,000,000	55,411,184	1,577,762	66,928,127	1.24	15.2%
Platinum Equity Capital Partners IV, L.P.	2016	52,500,000	46,041,837	13,559,111	36,097,816	1.08	5.4%
Vista Equity Partners Fund VI, L.P.	2016	75,000,000	82,516,476	18,719,365	90,907,803	1.33	13.2%
Ares Corporate Opportunities Fund V, L.P.	2017	44,000,000	37,903,229	4,717,081	33,344,833	1.00	0.3%
BC European Capital X	2017	41,818,178	35,798,544	699,510	35,227,982	1.00	0.3%
BCEC X Co-Investment	2017	16,956,899	15,669,976	106,762	17,274,184	1.11	7.0%
Green Equity Investors VII, L.P.	2017	44,000,000	34,146,411	394,137	38,568,868	1.14	8.3%
KKR Americas Fund XII, L.P.	2017	75,000,000	35,926,600	494,426	37,962,923	1.07	4.8%
Palladium Equity Partners V, L.P.	2017	23,333,333	7,794,096	77,805	6,248,707	0.81	NM
Warburg Pincus Financial Sector, L.P.	2017	62,000,000	34,205,612	3,162,000	32,531,735	1.04	4.0%
Apollo Investment Fund IX, L.P.	2018	154,000,000	27,920,986	224,949	25,213,745	0.91	NM
Bridgepoint Europe VI	2018	81,968,211	16,152,508	-	14,243,455	0.88	NM
Bridgepoint Europe VI Co-Invest	2018	20,546,691	4,843,958	-	4,064,161	0.84	NM
CVC Capital Partners VII, L.P.	2018	90,811,804	45,741,141	641,739	44,583,735	0.99	NM
EQT VIII Co-Investment	2018	27,589,540	15,276,541	-	16,232,750	1.06	NM
EQT VIII, L.P.	2018	75,766,102	33,963,609	944,475	35,777,893	1.08	NM
Platinum Equity Capital Partners IV Co-Investment, L.P.	2018	7,500,000	5,260,213	1,046,583	3,713,602	0.90	NM
Platinum Equity Small Cap Fund, L.P.	2018	28,500,000	6,403,391	-	2,264,116	0.35	NM
Siris Partners IV, L.P.	2018	62,000,000	28,515,549	-	23,414,590	0.82	NM
Vista Equity Partners Fund VII, L.P.	2018	124,500,000	31,424,557	95,857	29,221,626	0.93	NM
Apax X USD L.P.	2019	66,500,000	-	-	(1,142,972)	-	N/A
ASF VIII B L.P.	2019	111,000,000	26,342,448	325	28,402,113	1.08	NM
ASF VIII B NYC Co-Invest L.P.	2019	55,500,000	2,712,200	-	4,418,411	1.63	NM

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year (Cash Flow)	Commitments	Contributions	Distributions	Market Value	Investment Multiple	ITD IRR%
Blackstone Capital Partners VIII L.P.	2019	69,500,000	-	-	(103,493)	-	N/A
Crestview Partners IV (Co-Investment), L.P.	2019	16,666,667	-	-	27,004	-	NM
Crestview Partners IV, L.P.	2019	50,000,000	-	-	12,763	-	NM
KKR European Fund V (USD)	2019	50,150,000	5,709,137	-	3,552,884	0.62	NM
Lexington Capital Partners IX	2019	74,625,000	5,284,943	941,606	7,723,460	1.64	NM
Lexington IX Co-Invest	2019	24,875,000	-	-	(23,984)	-	N/A
Lindsay Goldberg V	2019	55,500,000	-	-	-	-	N/A
<i>NYCPPF - 2019 Emerging Manager Program</i>	<i>2019</i>	<i>75,250,000</i>	<i>3,654,163</i>	<i>202,137</i>	<i>3,701,435</i>	<i>1.07</i>	<i>NM</i>
Platinum Equity Capital Partners V, L.P.	2019	119,000,000	13,576,594	-	10,207,476	0.75	NM
Trilantic Capital Partners VI (North America) L.P.	2019	40,000,000	9,885,095	8,850	7,088,411	0.72	NM
Warburg Pincus Global Growth, L.P.	2019	80,000,000	15,027,068	-	13,886,421	0.92	NM
Welsh, Carson, Anderson & Stowe XIII, L.P.	2019	62,000,000	3,877,500	-	1,941,891	0.50	NM
Clearlake Capital Partners VI, L.P.	2020	30,000,000	-	-	-	-	N/A
FTV VI	2020	7,500,000	600,000	-	570,387	0.95	NM
Green Equity Investors VIII Coinvest N, L.P.	2020	23,200,000	-	-	-	-	N/A
Green Equity Investors VIII, L.P.	2020	69,500,000	-	-	-	-	N/A
Platinum Equity Capital Partners V Co-Investment, L.P.	2020	29,750,000	-	-	-	-	N/A

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year	Style Sector	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL PRIVATE REAL ESTATE			3,559,678,294	2,936,998,622	1,980,355,836	2,065,743,623	1.37	8.1%
TOTAL PRIVATE REAL ESTATE								
PRISA SA	2006	Core Portfolio	21,000,000	22,590,656	9,583,413	30,426,175	1.77	4.9%
Prologis Targeted U.S. Logistics Fund	2006	Core Portfolio	10,000,000	13,594,865	5,105,587	21,092,006	1.93	6.3%
RREEF America REIT II	2006	Core Portfolio	21,000,000	27,724,347	15,551,846	30,922,455	1.68	5.3%
UBS Trumbull Property Fund	2006	Core Portfolio	61,000,000	94,104,519	98,038,366	45,982,515	1.53	6.3%
Colony Realty Partners II	2007	Core Portfolio	20,000,000	21,420,211	5,540,084	-	0.26	-13.4%
Heitman HART	2007	Core Portfolio	28,000,000	46,863,695	18,863,695	61,412,935	1.71	7.1%
JP Morgan Special Situation Property Fund	2007	Core Portfolio	15,000,000	17,613,742	6,667,726	22,295,450	1.64	4.7%
JP Morgan Strategic Property Fund	2007	Core Portfolio	56,000,000	62,422,616	41,989,416	91,989,771	2.14	7.6%
PRISA II	2007	Core Portfolio	60,278,867	63,729,327	23,532,751	93,368,846	1.83	5.9%
LaSalle Property Fund	2010	Core Portfolio	115,000,000	100,973,168	22,135,109	124,225,211	1.45	9.5%
Almanac Realty Securities VI	2012	Core Portfolio	50,000,000	33,444,956	36,587,072	6,298,430	1.28	0.10
Almanac Realty Securities VI (Sidecar II)	2012	Core Portfolio	15,000,000	5,829,583	5,302,452	2,277,677	1.30	0.09
NYC Asset Investor #2 LLC	2013	Core Portfolio	60,000,000	60,259,071	25,136,824	44,407,146	1.15	3.6%
MetLife Core Property Fund	2014	Core Portfolio	99,000,000	94,954,499	12,101,935	107,007,183	1.25	9.3%
Almanac Realty Securities VII	2015	Core Portfolio	50,000,000	39,601,872	32,223,414	20,470,747	1.33	12.8%
Almanac Realty Securities VII (Sidecar II)	2016	Core Portfolio	20,000,000	10,142,088	9,312,491	5,874,157	1.50	17.0%
Exeter Industrial Core Club Fund II	2016	Core Portfolio	19,000,000	18,259,000	2,871,000	19,003,938	1.20	9.7%
Jamestown Premier Property Fund	2016	Core Portfolio	26,000,000	34,480,605	13,844,255	27,242,884	1.19	7.3%
NYCRS Artemis Co-Investment (SEM)	2016	Core Portfolio	35,000,000	40,163,907	15,806,204	33,308,804	1.22	0.14
USAA Eagle Real Estate Fund	2016	Core Portfolio	75,000,000	75,000,000	-	88,589,069	1.18	0.07
Brookfield Premier Real Estate Partners	2017	Core Portfolio	61,000,000	69,224,169	9,090,292	84,187,279	1.35	11.1%
Carlyle Property Investors	2017	Core Portfolio	61,000,000	67,378,327	7,193,015	71,896,806	1.17	7.3%
Lion Industrial Trust - 2007	2017	Core Portfolio	110,000,000	98,380,949	7,342,742	120,811,584	1.30	14.9%
Almanac Realty Securities VIII	2019	Core Portfolio	42,000,000	4,934,732	72,351	3,755,109	0.78	-39.9%
Almanac Realty Securities VIII (Sidecar II)	2019	Core Portfolio	28,000,000	3,248,484	80,174	2,958,548	0.94	-11.7%
Artemis Real Estate Partners Income and Growth Fund	2019	Core Portfolio	18,000,000	3,547,617	-	3,244,736	0.91	N/A
Harrison Street Core Property Fund, L.P.	2019	Core Portfolio	20,000,000	20,282,842	513,663	20,648,828	1.04	N/A
Heitman Core Real Estate Debt Income Trust	2019	Core Portfolio	28,000,000	30,064,520	2,064,520	30,353,239	1.08	6.6%
HSRE-Centre Street Core Co-Investment, L.P.	2019	Core Portfolio	10,000,000	6,310,680	163,548	6,566,468	1.07	8.3%
Exeter Industrial Core Fund III, LP	2020	Core Portfolio	63,600,000	7,314,000	-	6,221,514	0.85	N/A
Blackstone Fund IV	2004	Non-Core Portfolio	15,000,000	19,220,353	26,647,725	438,282	1.41	10.2%
The City Investment Fund I	2004	Non-Core Portfolio	70,000,000	69,030,360	69,808,600	111,076	1.01	0.3%
Canyon Johnson Urban Fund II	2005	Non-Core Portfolio	20,000,000	17,977,405	7,949,305	66,559	0.45	-10.4%
AREA Real Estate Investment Fund V, LP	2006	Non-Core Portfolio	5,000,000	5,000,004	5,650,999	103,451	1.15	1.7%
Blackstone Real Estate Partners VI	2007	Non-Core Portfolio	40,000,000	44,681,307	86,974,853	2,047,836	1.99	13.2%
Carlyle Realty Partners V	2007	Non-Core Portfolio	20,000,000	25,370,126	33,315,914	3,666,451	1.46	8.6%
Colony Investors VIII	2007	Non-Core Portfolio	20,000,000	21,249,679	9,077,487	388,118	0.45	-11.5%
Metropolitan Workforce Housing Fund (SEM)	2007	Non-Core Portfolio	7,000,000	7,006,513	8,372,246	131,378	1.21	3.9%

Information provided by the New York City Retirement Systems Consultants. Interim returns are subject to change and may differ due to differences in accounting and performance methodologies.

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year	Style Sector	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
AG Realty Fund VII	2008	Non-Core Portfolio	25,000,000	23,454,500	35,015,911	394,151	1.51	12.6%
American Value Partners Fund I (SEM)	2008	Non-Core Portfolio	15,000,000	11,355,858	10,239,833	1,131,042	1.00	0.0%
Ares European Real Estate Fund III, LP	2008	Non-Core Portfolio	30,000,000	30,487,500	33,437,499	324,552	1.11	2.6%
PRISA III	2008	Non-Core Portfolio	30,000,000	35,657,776	-	106,934,368	3.00	11.8%
Silverpeak Legacy Partners III	2008	Non-Core Portfolio	30,000,000	13,301,089	2,649,052	1,789,779	0.33	-11.2%
Stockbridge Real Estate Fund III	2008	Non-Core Portfolio	27,000,000	26,998,145	16,829,753	14,723,830	1.17	2.2%
Westbrook Real Estate Fund VII	2008	Non-Core Portfolio	10,000,000	11,224,408	10,557,579	2,461,794	1.16	0.03
Thor Urban Property Fund II	2009	Non-Core Portfolio	20,000,000	27,398,054	27,390,625	5,861,990	1.21	5.6%
Walton Street Real Estate Fund VI	2009	Non-Core Portfolio	30,000,000	26,594,360	30,436,207	9,402,021	1.50	8.0%
Blackstone Real Estate Partners Europe III (USD Vehicle)	2010	Non-Core Portfolio	35,000,000	36,521,815	49,806,837	4,432,818	1.49	10.8%
Westbrook Real Estate Fund VIII	2010	Non-Core Portfolio	35,000,000	41,783,133	48,229,691	5,606,937	1.29	0.10
Carlyle Realty Partners VI	2011	Non-Core Portfolio	40,000,000	38,497,439	62,388,890	3,465,946	1.71	24.8%
H/2 Special Opportunities Fund II	2011	Non-Core Portfolio	25,000,000	25,000,000	36,405,622	653,624	1.48	13.4%
Blackstone Real Estate Partners VII	2012	Non-Core Portfolio	100,000,000	124,026,596	160,550,591	41,748,165	1.63	16.2%
Brookfield Strategic Real Estate Partners	2012	Non-Core Portfolio	60,000,000	68,339,131	102,562,814	32,473,373	1.98	19.9%
Divco West Fund III	2012	Non-Core Portfolio	70,000,000	68,667,971	118,691,523	122,870	1.73	23.9%
Taconic New York City Investment Fund LP	2012	Non-Core Portfolio	40,000,000	16,727,272	27,092,715	2,721,631	1.78	15.8%
NYC Asset Investor #1 LLC	2013	Non-Core Portfolio	30,000,000	33,074,280	15,278,554	23,976,062	1.19	4.1%
NYC Asset Investor #3 LLC	2013	Non-Core Portfolio	40,000,000	26,364,808	4,631,128	31,758,455	1.38	9.3%
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2014	Non-Core Portfolio	97,500,000	94,737,740	108,561,612	33,673,290	1.50	14.0%
Carlyle Realty Partners VII	2014	Non-Core Portfolio	60,000,000	54,103,875	52,413,790	25,137,741	1.43	15.0%
Divco West Fund IV	2014	Non-Core Portfolio	70,000,000	69,301,157	105,751,116	9,453,990	1.66	25.2%
Lone Star Real Estate Fund III	2014	Non-Core Portfolio	75,000,000	70,306,161	87,157,249	7,292,448	1.34	14.1%
Avanath Affordable Housing Fund II (SEM)	2015	Non-Core Portfolio	5,000,000	4,861,193	1,395,019	6,619,734	1.65	12.1%
Blackstone Real Estate Partners VIII	2015	Non-Core Portfolio	101,000,000	106,275,765	41,658,169	94,235,203	1.28	12.6%
H/2 Special Opportunities Fund III	2015	Non-Core Portfolio	40,000,000	40,000,000	35,283,115	10,685,289	1.15	5.6%
European Property Investors Special Opportunities IV (EPISO IV)	2016	Non-Core Portfolio	32,413,099	27,278,970	3,519,043	27,847,171	1.15	6.8%
PW Real Estate Fund III LP	2016	Non-Core Portfolio	30,811,730	21,983,917	9,037,365	27,934,228	1.68	27.4%
Westbrook Real Estate Fund X	2016	Non-Core Portfolio	24,000,000	20,693,642	10,484,210	13,324,733	1.15	0.11
Divco West Fund V	2017	Non-Core Portfolio	40,000,000	21,973,839	(744,714)	25,640,881	1.20	6.0%
DRA Growth and Income Fund IX	2017	Non-Core Portfolio	27,000,000	26,308,307	6,720,358	24,978,320	1.20	14.6%
Exeter Industrial Value Fund IV	2017	Non-Core Portfolio	16,000,000	13,600,000	-	14,490,735	1.07	4.6%
H/2 Special Opportunities Fund IV	2017	Non-Core Portfolio	61,000,000	39,186,091	-	23,121,229	0.59	-63.0%
KKR CMBS B-Piece SMA	2017	Non-Core Portfolio	81,000,000	72,294,174	11,603,256	67,611,889	1.12	6.7%
Lone Star Real Estate Fund V	2017	Non-Core Portfolio	92,700,000	24,205,221	8,983,488	11,144,185	0.83	-17.8%
Pramerica Real Estate Capital VI (PRECap VI)	2017	Non-Core Portfolio	32,630,522	28,532,919	14,539,010	18,184,212	1.15	14.0%
Basis Investment Group Fund I (SEM)	2018	Non-Core Portfolio	9,500,000	5,604,812	1,087,108	5,366,024	1.15	11.6%
KKR Real Estate Partners Americas II	2018	Non-Core Portfolio	65,850,000	43,871,241	15,556,050	37,207,656	1.23	25.0%
AERMONT Real Estate Fund IV	2019	Non-Core Portfolio	19,401,963	3,219,225	-	1,115,838	0.35	-85.5%
Blackstone Real Estate Partners IX	2019	Non-Core Portfolio	101,000,000	18,205,759	637,094	16,920,661	0.96	-5.0%
Brookfield Strategic Real Estate Partners III	2019	Non-Core Portfolio	95,000,000	30,819,088	7,600	30,404,295	0.99	-1.7%

Information provided by the New York City Retirement Systems Consultants. Interim returns are subject to change and may differ due to differences in accounting and performance methodologies.

Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year	Style Sector	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
Blackstone Real Estate Partners Europe VI (EURO Vehicle)	2020	Non-Core Portfolio	69,992,113	5,205,544	-	4,702,883	0.90	N/A
Divco West Fund VI	2020	Non-Core Portfolio	50,000,000	-	-	(271,027)	N/A	N/A
DRA Growth & Income Fund X	2020	Non-Core Portfolio	36,000,000	5,561,053	-	5,709,356	1.03	N/A
GreenOak Asia III (USD Vehicle)	2020	Non-Core Portfolio	40,000,000	-	-	(267,410)	N/A	N/A

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Alternative Assets Manager Performance Detail



Through March 31, 2020

	Vintage Year	Original Commitment	Total Contributions	Total Distributions	Market Value	Total Value Multiple	Net IRR%
TOTAL INFRASTRUCTURE		873,539,946	515,213,797	118,128,386	495,921,752	1.19	9.4%
TOTAL INFRASTRUCTURE INVESTMENTS							
Brookfield Infrastructure Fund II, L.P.	2013	60,000,000	50,172,310	20,635,170	57,737,457	1.56	11.5%
Global Energy & Power Infrastructure Fund II	2014	40,000,000	40,411,897	30,802,829	25,139,209	1.38	25.9%
IFM Global Infrastructure Fund	2014	60,000,000	80,109,292	29,685,136	86,938,908	1.46	10.6%
Actis Energy 4	2016	39,600,000	26,245,988	3,760,146	28,288,000	1.22	13.2%
Brookfield Infrastructure Fund III, L.P.	2016	61,000,000	36,853,755	7,834,298	34,852,057	1.16	8.3%
Global Infrastructure Partners III-A/B, L.P.	2016	71,000,000	58,592,979	7,876,489	50,771,886	1.00	0.0%
ASF VII Infrastructure L.P.	2017	42,000,000	18,301,443	1,845,925	19,128,440	1.15	15.3%
Axiom Infrastructure North America	2017	42,662,239	43,385,853	4,999,593	41,469,034	1.07	5.3%
EQT Infrastructure III (No.2) SCSp	2017	34,590,642	35,275,528	5,372,920	35,901,947	1.17	11.3%
NYCRS EIG Energy Partners, L.P.	2017	42,350,000	11,886,813	1,525,739	11,179,957	1.07	6.0%
Cardinal NR Sidecar Holdings L.P.	2018	6,560,000	6,600,399	706,623	7,108,155	NM	NM
Global Energy & Power Infrastructure Fund III, L.P.	2018	54,700,000	12,196,052	694,825	9,860,056	NM	NM
KKR Global Infrastructure Investors III L.P.	2018	54,700,000	20,164,249	404,096	19,093,603	0.97	-5.5%
NYCRS EIG Energy Partners Co-Investment, L.P.	2018	10,590,000	-	-	-		0.0%
Ardian Infrastructure Fund V B	2019	45,087,065	8,875,508	221,312	8,246,417	NM	NM
Brookfield Infrastructure Fund IV (BIF IV): Co-invest	2019	6,000,000	6,000,000	-	6,184,366	NM	NM
Brookfield Infrastructure Fund IV, L.P.	2019	62,000,000	23,708,700	260,715	21,971,061	NM	NM
EQT Infrastructure IV (No.2) USD SCSp	2019	63,500,000	30,045,499	1,502,570	26,957,147	NM	NM
EQT Infrastructure IV Co-Investment (Saber)	2019	5,100,000	5,139,231	-	5,100,000	NM	NM
Global Infrastructure Partners IV-A/B, L.P.	2019	72,100,000	1,248,300	-	(5,948)	NM	NM

Information provided by the New York City Police Retirement Systems Consultants

Alternative Assets Manager Performance Detail



Through June 30, 2020

	Vintage Year	Commitment - Closing (Base)	Contributions Cumulative (Local)	Distributions Cumulative	Final Market Value	3 Month Base%	Inception IRR%
TOTAL OPPORTUNISTIC FIXED INCOME		1,795,911,692	2,089,728,089	1,015,768,065	1,531,492,153	5.50%	6.31%
Avenue Special Situations Fund V, L.P.	2007	20,209,326	20,520,314	26,826,898	-		NM
Avenue Europe Special Sit. Fund, L.P.	2008	15,301,476	13,775,563	26,870,440	-		NM
PIMCO DiSCO Fund, L.P.	2008	63,000,000	63,179,655	85,872,192	-		11.23%
Alliance Bernstein PPIP Fund, L.P.	2009	27,775,890	27,775,890	38,205,542	-		15.57%
Torchlight Debt Opportunity Fund III, LLC	2009	35,000,000	37,314,271	55,514,899	-		13.36%
AG GECC PPIP Fund, L.P.	2010	27,000,000	27,052,129	41,724,862	-		20.19%
Avenue Special Situations Fund VI (A), L.P.	2011	45,000,000	46,135,636	45,817,894	3,088,816	0.81%	1.34%
GoldenTree Managed Account	2011	88,000,000	88,552,006	-	138,165,181	10.08%	6.13%
Marathon Centre Street Partnership, L.P. - Asset Class	2011	140,625,000	228,375,000	108,000,000	188,006,226	6.83%	5.82%
AG Centre Street Partnership, L.P. - CC Asset Class	2012	105,000,000	111,300,000	27,781,909	105,845,396	4.83%	3.84%
Apollo Centre Street Partnership, L.P.	2012	162,500,000	322,819,795	175,051,114	195,737,740	5.23%	5.37%
FCO MA Centre Street L.P.	2012	90,000,000	174,583,482	119,312,772	93,137,372	5.74%	7.27%
OHA Centre Street Partnership, L.P.	2012	112,500,000	157,471,294	44,971,294	166,618,390	10.63%	6.70%
Contrarian Centre Street Partnership, L.P. - Asset Class	2013	55,000,000	55,000,000	-	49,234,377	3.56%	-2.08%
Lone Star Fund VIII (U.S.), L.P.	2013	70,000,000	68,907,286	65,246,888	16,289,770	4.12%	9.35%
Oaktree Opportunities Fund IX, L.P.	2013	70,000,000	70,000,000	33,526,801	44,391,252	10.50%	2.12%
Ares Centre Street Partnership, L.P.	2014	90,000,000	90,000,000	-	129,879,265	3.14%	8.49%
Brightwood Capital Fund III, L.P.	2015	22,000,000	17,853,821	9,084,668	11,747,092	2.11%	4.06%
Torchlight Debt Opportunity Fund V, LP	2015	46,000,000	36,800,000	33,971,314	12,479,944	-0.26%	10.72%
Brightwood Capital Fund IV, LP	2016	55,000,000	52,250,000	4,913,660	46,573,970	-0.72%	-0.97%
ICG Centre Street Partnership, L.P.	2017	80,000,000	93,504,056	53,515,445	48,674,856	1.08%	8.26%
KKR OFI SMA	2017	171,000,000	130,889,618	16,278,858	127,092,597	5.68%	8.43%
Maranon Centre Street Partnership, L.P.	2018	64,000,000	55,033,778	1,841,119	50,029,866	-5.50%	-5.42%
FCO MA Centre Street II (PF) LP	2019	90,000,000	48,195,000	-	54,035,036	7.95%	49.23%
Torchlight Debt Fund VI, LP	2019	51,000,000	52,439,494	1,439,494	50,465,008	0.00%	-2.21%

Information provided by Alpha Frontier
Above data is not final and subject to change

Alternative Assets Manager Performance Detail



Through June 30, 2020

	Market Value	MTD Return%	3 Month Return%	FYTD Return%	YTD Return%	1 Year Return%	3 Year Return%	ITD Return%	ITD Cumulative Return%	
TOTAL HEDGE FUNDS	2,864,194,836	-0.85%	2.29%	6.36%	6.82%	6.36%	6.61%	4.42%	47.62%	
TOTAL DIRECT HEDGE FUNDS	2,827,041,355	-0.89%	2.33%	6.92%	7.55%	6.92%	7.00%	5.31%	55.90%	
FUND OF FUNDS HEDGE FUNDS	37,153,480	2.17%	2.48%	-7.97%	-10.22%	-7.97%	-1.22%	1.05%	9.81%	
TOTAL DIRECT HEDGE FUNDS										
Caspian Select Credit Fund, L.P.	206,043,423	3.10%	8.58%	-2.98%	-4.59%	-2.98%	1.47%	3.02%	27.53%	
D.E. Shaw Composite Fund, L.L.C.	252,273,085	2.91%	7.97%	15.61%	10.26%	15.61%	12.90%	13.20%	186.91%	
Jefferies Structured Alpha Fund B, LLC	71,828,849	1.13%	6.16%	-3.35%	-2.72%	-3.35%		-3.19%	-4.23%	
Voloridge Fund, LP	108,404,412	5.78%	5.80%	20.95%	4.84%	20.95%		31.82%	44.54%	
Voloridge Sustainability Fund, LP	40,747,119	3.54%		4.48%	4.48%			4.48%	4.48%	
Voloridge Trading Aggressive Fund, LP	41,888,549	6.66%	11.30%	31.54%	17.84%	31.54%		31.71%	44.37%	
Relative Value	721,185,437	3.45%	7.53%	11.58%	5.37%	11.58%	10.92%	9.84%	122.11%	
AlphaQuest Original LLC	186,203,299	-0.47%	-5.09%	14.11%	11.48%	14.11%	7.22%	6.70%	22.15%	
Brevan Howard AH Fund, L.P.	318,382,711	-12.75%	-12.75%	55.66%	104.64%	55.66%	28.84%	24.32%	99.26%	
Florin Court Capital Fund	117,368,262	-2.35%	-3.34%	2.62%	-1.32%	2.62%		8.15%	16.21%	
GreshamQuant - ACAR Fund, LLC	56,326,913	-4.72%	-6.59%	2.41%	3.79%	2.41%		2.41%	2.41%	
GSA Trend Fund LP	175,889,206	-1.34%	-5.12%	-1.29%	-1.37%	-1.29%	-0.13%	-2.26%	-6.98%	
Key Square Partners LP	166,941,512	1.71%	6.71%	-15.86%	-9.68%	-15.86%	-4.49%	-4.81%	-14.11%	
Pharo Gaia Fund, LTD.	189,431,381	1.36%	12.86%	-0.94%	-0.39%	-0.94%	6.07%	10.80%	59.99%	
Pharo Macro Fund, Ltd.	111,150,538	0.63%	7.93%	-2.08%	0.48%	-2.08%	4.14%	7.56%	66.57%	
Tactical Trading	1,321,693,823	-3.60%	-2.49%	8.49%	13.96%	8.49%	7.55%	3.91%	38.96%	
DL Partners Opportunities Fund LP	120,281,742	2.57%	10.20%	-0.66%	-0.11%	-0.66%		-0.11%	-0.18%	
Fir Tree Value Fund, L.P.	835,465	-0.06%	-3.55%	-63.10%	-64.24%	-63.10%	-30.32%	-13.05%	-64.55%	
Luxor Capital Partners Liquidating SPV, LLC.	2,195,105	7.30%	4.98%	-34.41%	-23.50%	-34.41%		-11.12%	-18.65%	
Luxor Capital Partners, LP	195,959,807	3.95%	19.93%	23.80%	18.66%	23.80%	16.06%	5.92%	41.91%	
Perry Partners L.P.	1,548,071	2.73%	2.73%	-20.68%	-16.23%	-20.68%	-5.47%	-4.14%	-25.87%	
Standard General Fund II L.P.	39,536,639	2.38%	5.89%	-23.09%	-15.75%	-23.09%	-3.12%	-2.50%	-8.27%	
Event Driven	360,356,829	3.32%	14.64%	6.38%	6.11%	6.38%	6.04%	3.05%	24.94%	
Altimeter Partners Fund LP	55,079,482	1.21%	9.89%	-12.72%	-13.15%	-12.72%	6.89%	8.92%	44.82%	
Gotham Targeted Neutral, LP	35,123,471	0.00%	-1.79%	-7.64%	-8.73%	-7.64%	-2.03%	-1.91%	-9.94%	
Lansdowne European Absolute Opportunities Fund, L.P.	76,985,394	3.84%	5.76%	-12.45%	-9.14%	-12.45%		-12.53%	-13.50%	
SRS Partners US, LP	137,683,531	-8.96%	-9.47%	-6.34%	-10.41%	-6.34%	5.43%	5.43%	33.78%	
Turiya Fund LP	118,933,388	-1.26%	7.66%	10.50%	4.40%	10.50%	0.35%	0.50%	2.54%	
Long/Short Equity	423,805,266	-2.66%	0.61%	-4.48%	-6.70%	-4.48%	1.96%	3.28%	25.36%	
FUND OF FUNDS HEDGE FUNDS										
Fund of Funds Hedge Funds	37,153,480	2.17%	2.48%	-7.97%	-10.22%	-7.97%	-1.22%	1.05%	9.81%	

Information provided by Alpha Frontier



**New York City
Police Pension Fund, Subchapter Two**

Appendix D

Footnotes



Through June 30, 2020

- The Barclays Capital Aggregate (then known as the Lehman Brothers Aggregate) was used prior to 1/1/89. Effective 1/1/89, in the Government Sector, maturities of less than 5 years were dropped from the Salomon and Lehman indices. From that date until 7/1/99 the benchmark was the NYC Core + 5, from Lehman.
- Effective 7/1/94, the NYC Core + 5 Index includes BBB rated securities.
- Effective 7/1/99, the basis of the NYC Index was changed from Lehman Brothers to Salomon. Also effective 7/1/99, only Salomon indices have been used to compare all fixed income managers.
- Effective 4/1/03, the name of the benchmark provider was changed from Salomon to Citigroup.
- Effective 7/1/03, the “NYC-Loomis” benchmark index for the Loomis Sayles Enhanced Yield portfolio reflects a change from the Citigroup BB&B Index to the more appropriate Merrill Lynch High Yield Master II Index.
- Effective 7/1/09, the Core+5 program was restructured.
- The U.S. Gov’t sector benchmark Index was changed from the Citigroup Core+5 Treasury/Gov’t Sponsored Index to the Citigroup Core+5 Treasury/Agency Index.
- The Corporate and Yankee sectors were combined to form the new Investment Grade Credit sector. The benchmark for the new combined sector is the customized Citigroup Credit Index. For historical performance purposes, the old Corporate sector Index is linked to the new Credit sector Index.
- There were no changes to the Mortgage sector Index.
- Private market investment performance and valuations are generally reported with a quarter lag so data contained in this report does not reflect any impact from the COVID-19 outbreak.



Through June 30, 2020

General Notes

- Estimated management fees for public market investments are calculated on an accrual basis without adjustment for management fee caps. Alternative investment (Private Market) fees are recorded on a cash basis and are not inclusive of carried interest paid. Since not all alternative managers currently provide detailed fee disclosure, the alternative investment fees noted here are not comprehensive.
- Public Market returns are Net of Manager Fees for periods after January 2014 and Gross of investment advisory fees for other periods unless otherwise indicated.
- Public market excess returns for periods prior to 2014 are based on Gross performance.
- Private market investment performance and valuations are generally reported with a quarter lag so data contained in this report does not reflect any impact from the COVID-19 outbreak.

Page Specific

Pages 11 - 16 - Portfolio Asset Allocation

- **Rebalancing Ranges:** the minimum and maximum weights that actual Asset Allocation may reach before rebalancing between Asset Classes is necessary.

Pages 17 - 19 - Performance Attribution: Total Plan

- **Plan Return at Policy Weights:** the return of the Total Plan assuming actual Asset Class results were maintained at target (Adjusted Policy) weights. *Figure = (Return of Asset Class 1 * Target Weight) plus (Return Of Asset Class 2 * Target Weight) plus (.....)*
- **Allocation Effect** = Total Plan Return minus Plan Return At Adjusted Policy Weights. Allocation is the Contribution to Performance resulting from an overweight or underweight to an asset class. E.g. an underweight to an Asset Class that under-performs results in a positive Allocation Effect and vice versa.
- **Selection Effect** = Equal to the Custom Benchmark (Adjusted Policy Index) Return minus Plan Return at Adjusted Policy Weights. This illustrates how the Managers have added or removed value based on their Security Selection decisions, e.g., *If the manager's Actual Returns are higher than the Implied Return there will be a positive Selection Effect.*
- **Policy Index = Custom Benchmark**
The "policy index" is a custom benchmark representing the weighted average return of the weighted benchmark indexes for each major investment program. Weights may reflect an adjustment of actual policy for outstanding commitments for new or revised programs, such as for private market programs, which are invested gradually, or for any new or updated program requiring the completion of RFPs



Through June 30, 2020

and contracts. The policy index/custom benchmark is calculated monthly based on adjusted policy weights at the beginning of each month.

The indexes and most recent policy weights are as follows:

U.S. Equity: Russell 3000 * 33.57%

International Developed (EAFE) Markets: MSCI World Ex USA IMI Net * 8.74%

Emerging Markets: MSCI Emerging Markets * 5.87%

International Emerging Managers FOF: MSCI ACWI Ex US IMI Net * 0.57%

REITs: Dow Jones Real Estate Securities * 0.00%

Private Equity: Russell 3000 + 300 b.p. per annum * 6.10%

Private Real Estate - Core: NFI - ODCE Net * 3.14%

Private Real Estate – Non Core: NFI - ODCE Net + 200bps * 2.14%

Infrastructure: CPI + 4% * 1.22%

Hedge Funds: HFRI Fund of Funds Composite Index plus 1% * 6.00%

US Treasury Short Term: FTSE USBIG Treasury 1-3Y * 0.00%

US Treasury Intermediate: FTSE USBIG Treasury/Agency 1-10Y * 0.00%

Total Active Government: NYC Treasury Agency + 5 * 0.00%

US Treasury Long Duration: FTSE Treasury 10+ * 8.43%

Core FI- Developing Mgrs: BBG Barc Agg * 0.00%

Core FI-Emerging Mgrs: BBG Barc Agg * 0.00%

Mortgage: FTSE Mortgage Index * 2.27%



Through June 30, 2020

*ETI: ETI Custom Benchmark * 1.09%*

*Investment Grade Credit: NYC – Investment Grade Credit * 3.36%*

*High Yield: BBG BARC US High Yield 2% Issuer Capped * 7.70%*

*Bank Loans: Credit Suisse Leveraged Loan * 2.00%*

*TIPS: BBG BARC Gbl Inf-Lk: US TIPS (Dly) * 4.20%*

*Convertible Bonds: ICE BofA All US Conv Ex Mandatory * 0.00%*

*Opportunistic Fixed: OFI - JPMGHY / CSFB 50/50 Blend Plus 300 b.p. per annum * 3.60%*

Page 20 – Allocation and Selection Effects - Asset Class Breakdown

- This chart aims to break down the Allocation and Selection Effects shown on the Performance Attribution pages. The aim of the Page is to show the asset classes where Managers are either out performing or underperforming their benchmark and to show the basis point effect that this is having on Plan performance.



New York City
Police Officers' Variable Supplements Fund
Performance Overview as of June 30, 2020

Total Fund Overview



New York City Police Officers' Variable Supplements Fund

Table of Contents:

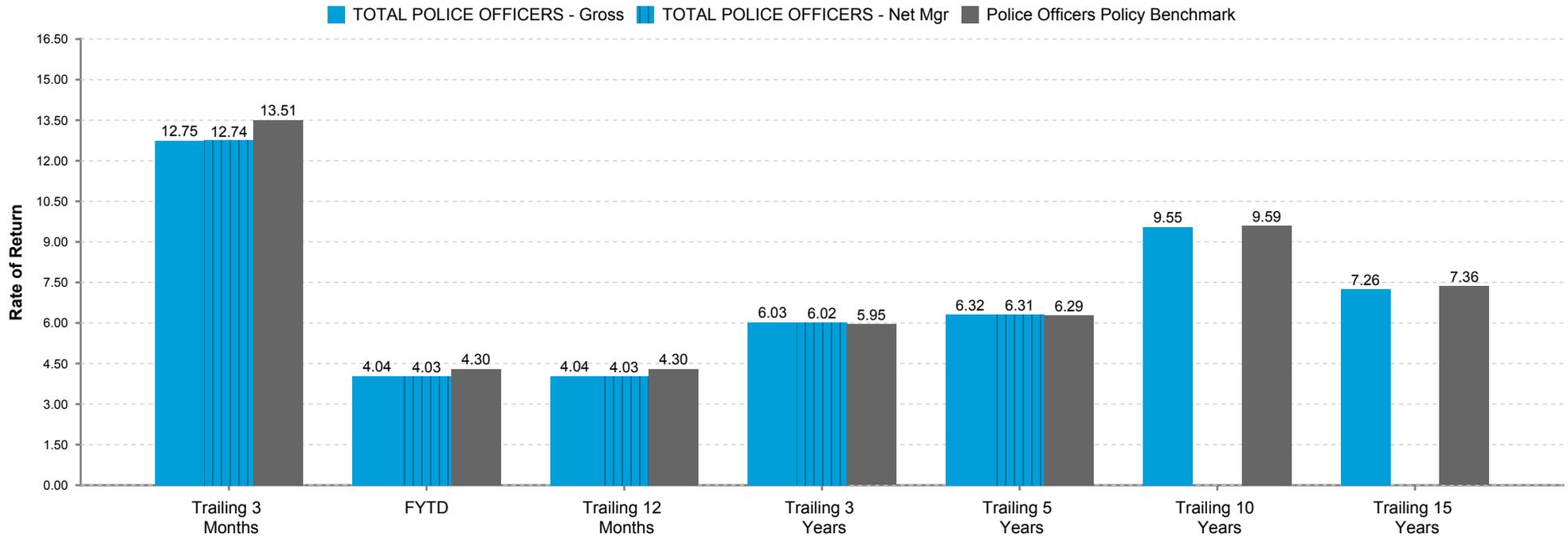
Performance Charts	p.3
Appendix A - Consolidated Performance Report	p.9
Appendix B - Public Markets Manager Performance Detail	p.13
Appendix C - Footnotes	p.16



Market Value (Billions)

TOTAL POLICE OFFICERS

\$1.8



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 7 Years	Benchmark 7 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation								
TOTAL POLICE OFFICERS	10.6	10.8	6.3	10.0	9.0	9.2	9.3	9.6

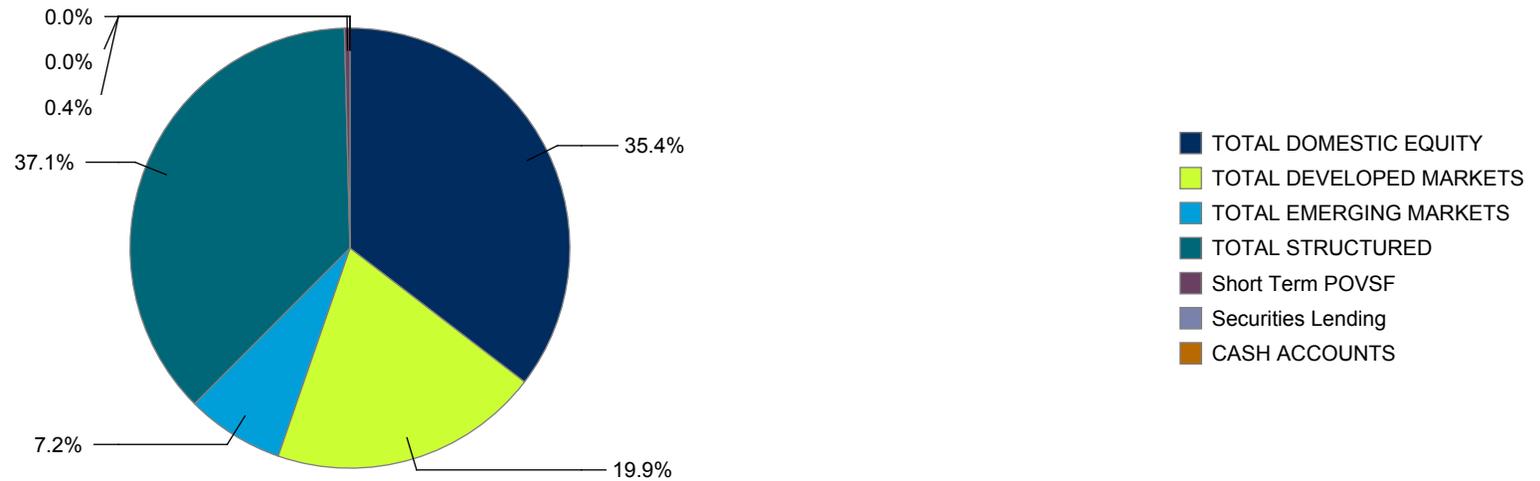


TOTAL POLICE OFFICERS

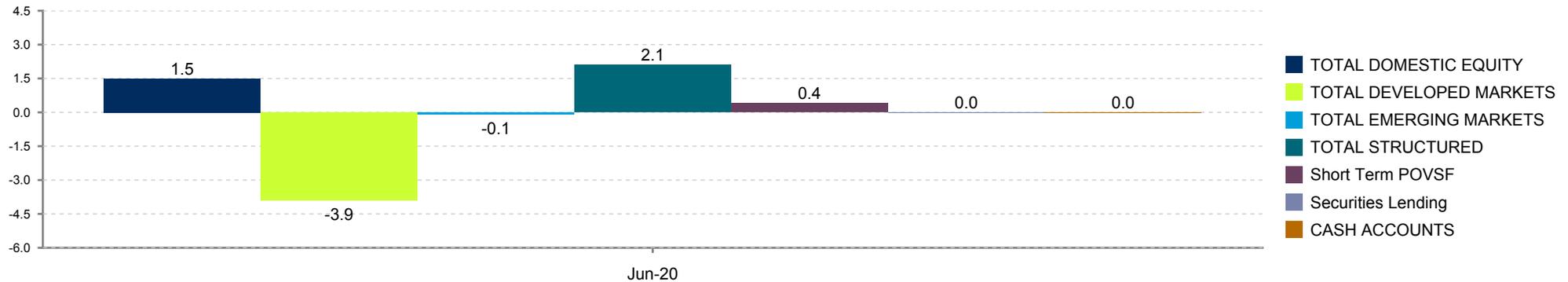
Market Value (Billions)

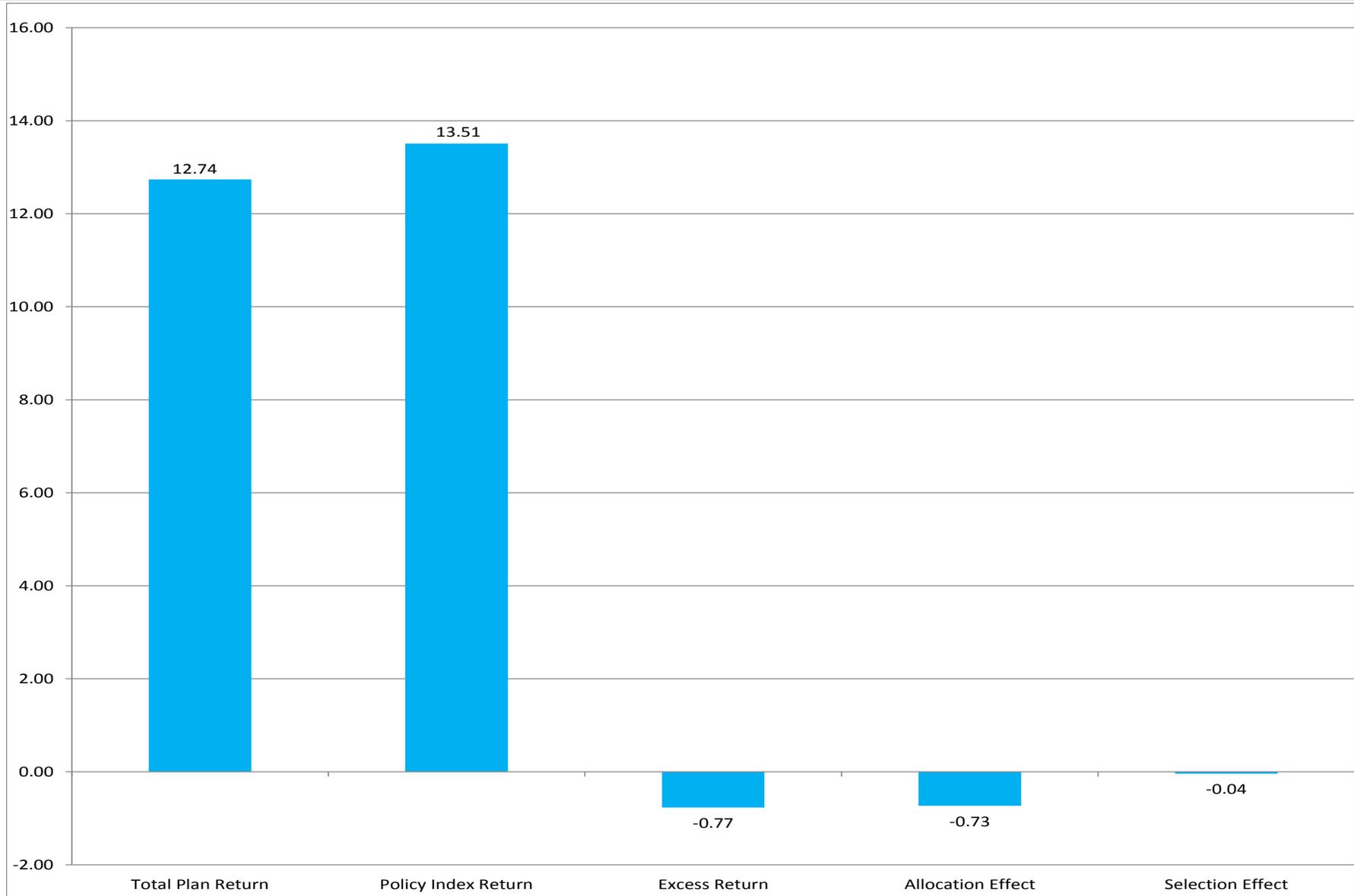
\$1.8

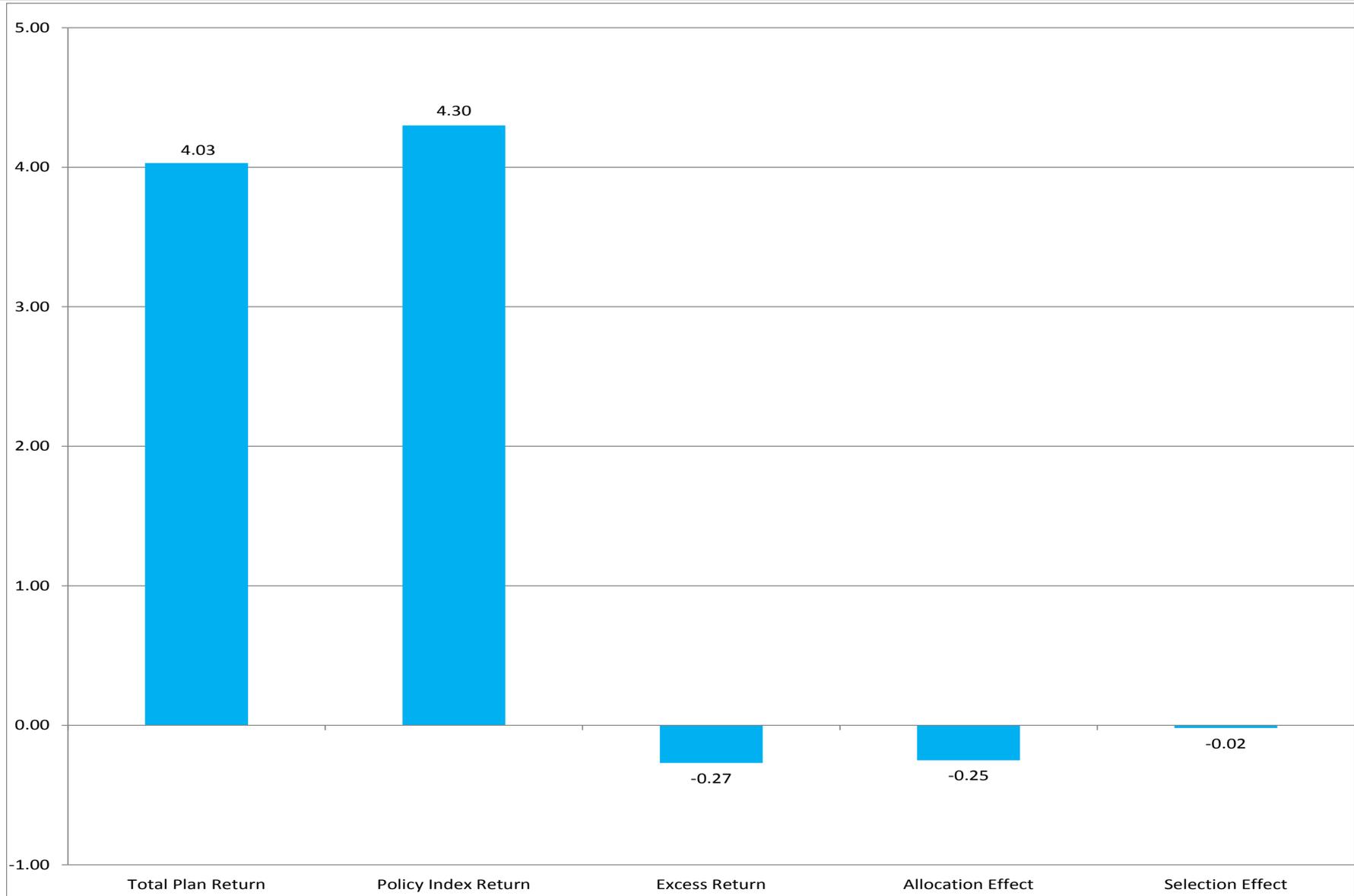
Asset Allocation



Relative Mix to Asset Weights









Allocation Effect - Asset Class Breakdown			
	<u>Quarter</u>	<u>FYTD</u>	<u>Benchmark</u>
TOTAL POLICE OFFICERS	-0.73	-0.25	Police Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	-0.05	-0.08	RUSSELL 3000
TOTAL WORLD ex-USA	-0.12	0.21	MSCI World ex USA IMI Net
TOTAL EMERGING MARKETS	-0.03	-0.06	MSCI Emerging Markets
TOTAL STRUCTURED	-0.54	-0.31	Barclays Aggregate

Selection Effect - Asset Class Breakdown			
	<u>Quarter</u>	<u>FYTD</u>	<u>Benchmark</u>
TOTAL POLICE OFFICERS	-0.04	-0.02	Police Officers Policy Benchmark
TOTAL DOMESTIC EQUITY	0.00	-0.11	RUSSELL 3000
TOTAL WORLD ex-USA	0.02	0.06	MSCI World ex USA IMI Net
TOTAL EMERGING MARKETS	-0.03	-0.03	MSCI Emerging Markets
TOTAL STRUCTURED	-0.03	0.06	Barclays Aggregate

Securities Lending Income



Through June 30, 2020

NYC POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND
SECURITIES LENDING INCOME
June 30, 2020

	<u>U. S.</u> <u>FIXED INCOME</u>	<u>U. S.</u> <u>EQUITY</u>	<u>INTERNATIONAL</u> <u>EQUITY</u>	<u>TOTAL</u>
2001	252,000	116,000	81,000	449,000
2002	139,000	72,000	82,000	293,000
2003	51,000	77,000	131,000	259,000
2004	91,000	115,000	126,000	332,000
2005	198,000	228,000	179,000	605,000
2006	169,000	305,000	180,000	654,000
2007	333,000	495,000	165,000	993,000
2008	873,000	881,000	201,000	1,955,000
2009	276,000	581,000	125,000	982,000
2010	85,000	243,000	80,000	408,000
2011	80,000	255,000	91,000	426,000
2012	38,000	271,000	47,000	356,000
2013	160,000	247,000	14,000	421,000
2014	20,000	33,000	140,000	193,000
2015	28,000	51,000	662,000	741,000
2016	40,000	422,000	527,000	989,000
2017	54,000	222,000	365,000	641,000
2018	31,184	159,754	513,412	704,349
2019	42,181	112,685	344,166	499,031
2020 (6 months)	26,900	47,248	159,743	233,891
Since Inception	<u>2,987,264</u>	<u>4,933,687</u>	<u>4,213,321</u>	<u>12,134,272</u>



**New York City
Police Officers' Variable Supplements Fund**

Appendix A

Consolidated Performance Report

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
SYSTEM RETURN SUMMARY																
5	POVSF-TOTAL PORTFOLIO - GROSS	1,804	100.00	12.75	4.04	(2.44)	6.22	20.10	(5.75)	17.07	4.04	6.03	6.32	9.55	8.37	01/01/1988
	POVSF - ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST MANAGEMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POVSF-TOTAL PORTFOLIO - NET MGR			12.74	4.03	(2.44)	6.21	20.09	(5.75)	17.05	4.03	6.02	6.31			
	POLICE OFFICERS POLICY BENCHMARK			13.51	4.30	(2.26)	6.29	20.32	(6.22)	17.25	4.30	5.95	6.29	9.59		
	EXCESS RETURN			(0.77)	(0.26)	(0.18)	(0.08)	(0.24)	0.46	(0.20)	(0.26)	0.07	0.01	(0.04)		
EQUITY RETURN SUMMARY																
17	POVSF-TOTAL EQUITY - GROSS	1,127	62.50	19.64	1.31	(7.02)	5.15	26.82	(9.49)	23.16	1.31	5.99	6.68	11.62	9.22	08/01/1993
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST MANAGEMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POVSF-TOTAL EQUITY - NET MGR			19.64	1.31	(7.03)	5.14	26.81	(9.50)	23.15	1.31	5.98	6.67			
25	POVSF-TOTAL DOMESTIC EQUITY - GROSS	639	35.41	22.04	6.20	(3.63)	8.90	30.77	(5.08)	21.13	6.20	9.98	10.06	13.72	9.81	07/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
	POVSF-TOTAL DOMESTIC EQUITY - NET MGR			22.04	6.20	(3.63)	8.89	30.77	(5.09)	21.13	6.20	9.97	10.06			
	RUSSELL 3000 (DAILY)			22.03	6.53	(3.48)	8.98	31.02	(5.24)	21.13	6.53	10.04	10.03	13.72	9.90	
	EXCESS RETURN			0.02	(0.33)	(0.15)	(0.09)	(0.25)	0.16	(0.00)	(0.33)	(0.07)	0.03	0.00	(0.09)	
35	POVSF-TOTAL SMALL CAP PASSIVE - GROSS	47	2.60	25.53	(6.45)	(12.84)	(3.28)	25.51	(10.96)	14.65	(6.45)	2.09	4.38		6.04	10/01/2013
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
	POVSF-TOTAL SMALL CAP PASSIVE - NET MGR			25.53	(6.45)	(12.84)	(3.28)	25.51	(10.96)	14.65	(6.45)	2.09	4.37			
	RUSSELL 2000 (DAILY)			25.42	(6.63)	(12.98)	(3.31)	25.52	(11.01)	14.65	(6.63)	2.01	4.29		5.91	
	EXCESS RETURN			0.12	0.18	0.14	0.02	(0.02)	0.05	0.00	0.18	0.08	0.09		0.12	
45	POVSF-TOTAL RUSSELL 1000 - GROSS	592	32.81	21.78	7.37	(2.81)	10.04	31.26			7.37				9.38	04/01/2018
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			(0.00)				(0.00)	
	POVSF-TOTAL RUSSELL 1000 - NET MGR			21.78	7.37	(2.81)	10.04	31.26			7.37				9.38	
	RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	10.02	31.43			7.48				9.43	
	EXCESS RETURN			(0.05)	(0.11)	(0.00)	0.02	(0.17)			(0.11)				(0.05)	

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN SUMMARY															
57	POVSF-TOTAL WORLD ex-USA - GROSS	359	19.93	16.30	(4.82)	(11.44)	0.74	23.15	(14.27)	25.22	(4.82)	1.18	2.20	3.00	02/01/2015
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	
	POVSF-TOTAL WORLD ex-USA - NET MGR			16.30	(4.83)	(11.45)	0.72	23.14	(14.28)	25.21	(4.83)	1.17	2.19	2.99	
	WORLD EX-USA CUSTOM BM			16.21	(5.11)	(11.68)	0.16	22.91	(14.68)	26.40	(5.11)	0.82	2.32	3.18	
	EXCESS RETURN			0.09	0.27	0.23	0.56	0.23	0.40	(1.19)	0.27	0.35	(0.13)	(0.19)	
67	POVSF-TOTAL EMERGING MARKETS - GROSS	129	7.16	17.65	(3.70)	(10.16)	1.44	18.79	(14.44)		(3.70)	1.84		1.84	07/01/2017
	ESTIMATED INVESTMENT FEES			(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	0.00		(0.02)	(0.03)		(0.03)	
	POVSF-TOTAL EMERGING MARKETS - NET MGR			17.64	(3.72)	(10.16)	1.42	18.76	(14.44)		(3.72)	1.81		1.81	
	MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	1.21	18.42	(14.57)		(3.39)	1.90		1.90	
	EXCESS RETURN			(0.44)	(0.34)	(0.38)	0.21	0.34	0.13		(0.34)	(0.09)		(0.09)	

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
FIXED INCOME RETURN SUMMARY																
79	POVSF-TOTAL FIXED INCOME - GROSS	676	37.50	2.81	8.86	6.28	7.93	8.73	(0.20)	3.58	8.86	5.27	4.44	4.19	6.18	04/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	EST MANAGEMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	POVSF-TOTAL FIXED INCOME - NET MGR			2.81	8.84	6.27	7.92	8.72	(0.22)	3.55	8.84	5.26	4.41			
87	POVSF-TOTAL STRUCTURED FIXED INCOME - GROSS	669	37.10	2.83	8.88	6.32	8.00	8.77	(0.24)	3.66	8.88	5.29	4.49	4.35	5.32	08/01/2000
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	POVSF-TOTAL STRUCTURED FIXED INCOME - NET MGR			2.83	8.86	6.32	7.99	8.75	(0.25)	3.63	8.86	5.28	4.46			
	BBG BARC AGG (DLY)			2.90	8.74	6.14	7.87	8.72	0.01	3.54	8.74	5.32	4.30	3.82	5.11	
	EXCESS RETURN			(0.07)	0.12	0.18	0.12	0.04	(0.26)	0.09	0.12	(0.05)	0.16	0.52	0.21	
CASH SUMMARY																
99	Short Term - POVSF - GROSS	7	0.40	0.03	1.31	0.39	2.28	2.10	1.66	0.58	1.31					01/01/1988
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
	Short Term - POVSF - NET MGR			0.03	1.31	0.39	2.28	2.10	1.66	0.58	1.31					
103	Cash Account	0	-													
105	Securities Lending	0	-													



**New York City
Police Officers' Variable Supplements Fund**

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
EQUITY SUMMARY										
US EQUITY										
BlackRock US SCG R2000	27	1.49	30.67	3.50	(2.99)	28.39	(9.14)	22.26	11.29	(1.30)
RUSSELL 2000 GROWTH DAILY			30.58	3.48	(3.06)	28.48	(9.31)	22.17	11.32	(1.38)
Excess			0.08	0.02	0.07	(0.09)	0.17	0.09	(0.02)	0.08
BlackRock US SCV R2000	20	1.11	19.13	(17.27)	(23.43)	22.60	(12.79)	7.34	31.71	(7.38)
RUSSELL 2000 VALUE DAILY			18.91	(17.48)	(23.50)	22.39	(12.86)	7.84	31.74	(7.47)
Excess			0.22	0.21	0.07	0.20	0.08	(0.49)	(0.03)	0.09
BlackRock US LMC R1000 Core	592	32.81	21.78	7.37	(2.81)	31.26				
RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	31.43				
Excess			(0.05)	(0.11)	(0.00)	(0.16)				
NON - US EQUITY										
SSGA WorldxUS LMC NYC Custom IDX	303	16.82	15.38	(5.11)	(11.22)	22.75	(13.64)	24.58	1.31	
NYC Custom World ex US Index			15.34	(5.42)	(11.49)	22.49	(14.09)	24.12	1.00	
Excess			0.04	0.32	0.27	0.26	0.45	0.47	0.31	
SSGA WorldxUS SC Custom IDX ¹	56	3.11	21.62	(2.75)	(12.60)	25.67	(17.97)			
World ex USA SC PASSIVE CUSTOM BM			21.66	(3.20)	(12.87)	25.41	(18.07)			
Excess			(0.05)	0.45	0.27	0.26	0.10			
EMERGING MARKETS										
BlackRock MSCI EM Core	129	7.16	17.64	(3.72)	(10.16)	18.76	(14.44)			
MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	18.42	(14.57)			
Excess			(0.44)	(0.34)	(0.38)	0.34	0.13			

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
FIXED INCOME SUMMARY										
STRUCTURED FIXED INCOME										
SSGA-Core US Agg	669	37.10	2.83	8.86	6.32	8.75	(0.25)			
BBG BARC Agg (Dly)			2.90	8.74	6.14	8.72	0.01			
Excess			(0.07)	0.12	0.18	0.04	(0.26)			
CASH										
Short Term POVSF	7	0.40	0.03	1.31	0.39	2.10	1.66		0.60	0.12
ICE BofA US 3-Month Treasury Bill			0.02	1.63	0.60	2.28	1.87		0.33	0.05
Excess			0.01	(0.31)	(0.20)	(0.18)	(0.21)		0.28	0.07
Cash Account	0	0.00								
Securities Lending	0	0.00								



**New York City
Police Officers' Variable Supplements Fund**

Appendix C

Footnotes



Through June 30, 2020

- Effective 4/1/03, the name of the Core +5 benchmark index provider was changed from Salomon to Citigroup.
- Effective 7/1/03, the “NYC-Loomis” benchmark index for the Loomis Sayles Enhanced Yield portfolio reflects a change from the Citigroup BB&B Index to the more appropriate Merrill Lynch High Yield Master II Index.
- Effective 7/1/09, the Core+5 program was restructured.
- The U.S. Gov’t sector benchmark Index was changed from the Citigroup Core+5 Treasury/Gov’t Sponsored Index to the Citigroup Core+5 Treasury/Agency Index.
- The Corporate and Yankee sectors were combined to form the new Investment Grade Credit sector. The benchmark for the new combined sector is the customized Citigroup Credit Index. For historical performance purposes, the old Corporate sector Index is linked to the new Credit sector Index.
- There were no changes to the Mortgage sector Index.
- The total Core+5 results and benchmark returns combine the three sectors. Historical total Core+5 returns continue to include the old Corporate and Yankee sector returns.



Through June 30, 2020

General Notes

- Returns are Net of Manager Fees for periods after January 2014 and Gross of investment advisory fees for other periods unless otherwise indicated.

Page Specific

Page 4 - Portfolio Asset Allocation

- Rebalancing Ranges: the minimum and maximum weights that actual Asset Allocation may reach before rebalancing between Asset Classes is necessary.

Pages 5 - 6 - Performance Attribution: Total Plan

- Plan Return at Policy Weights: the return of the Total Plan assuming actual Asset Class results were maintained at target (Adjusted Policy) weights. *Figure = (Return of Asset Class 1 * Target Weight) plus (Return Of Asset Class 2 * Target Weight) plus (.....)*
- **Allocation Effect** = Total Plan Return minus Plan Return At Adjusted Policy Weights. Allocation is the Contribution to Performance resulting from an overweight or underweight to an asset class. E.g. an underweight to an Asset Class that under-performs results in a positive Allocation Effect and vice versa.
- **Selection Effect** = Equal to the Custom Benchmark (Adjusted Policy Index) Return minus Plan Return at Adjusted Policy Weights. This illustrates how the Managers have added or removed value based on their Security Selection decisions, e.g., *If the manager's Actual Returns are higher than the Implied Return there will be a positive Selection Effect.*
- **Policy Index = Custom Benchmark**
The "policy index" is a custom benchmark representing the weighted average return of the weighted benchmark indexes for each major investment program. Weights may reflect an adjustment of actual policy for outstanding commitments for new or revised programs, such as for private market programs, which are invested gradually, or for any new or updated program requiring the completion of RFPs and contracts. The policy index/custom benchmark is calculated monthly based on adjusted policy weights at the beginning of each month.



Through June 30, 2020

The indexes and most recent policy weights are as follows:

*U.S. Equity: Russell 3000 * 33.90%*

*International Developed (EAFE) Markets: MSCI World ex USA IMI Net * 23.80%*

*Emerging Markets: MSCI Emerging Markets * 7.30%*

*Domestic Fixed Income: Barclays Aggregate * 35.00%*

Page 7 – Allocation and Selection Effects - Asset Class Breakdown

- This chart aims to break down the Allocation and Selection Effects shown on the Performance Attribution pages. The aim of the Page is to show the asset classes where Managers are either out performing or under performing their benchmark and to show the basis point effect that this is having on Plan performance.



New York City
Police Superior Officers' Variable Supplements Fund
Performance Overview as of June 30, 2020

Total Fund Overview



**New York City
Police Superior Officers' Variable Supplements Fund**

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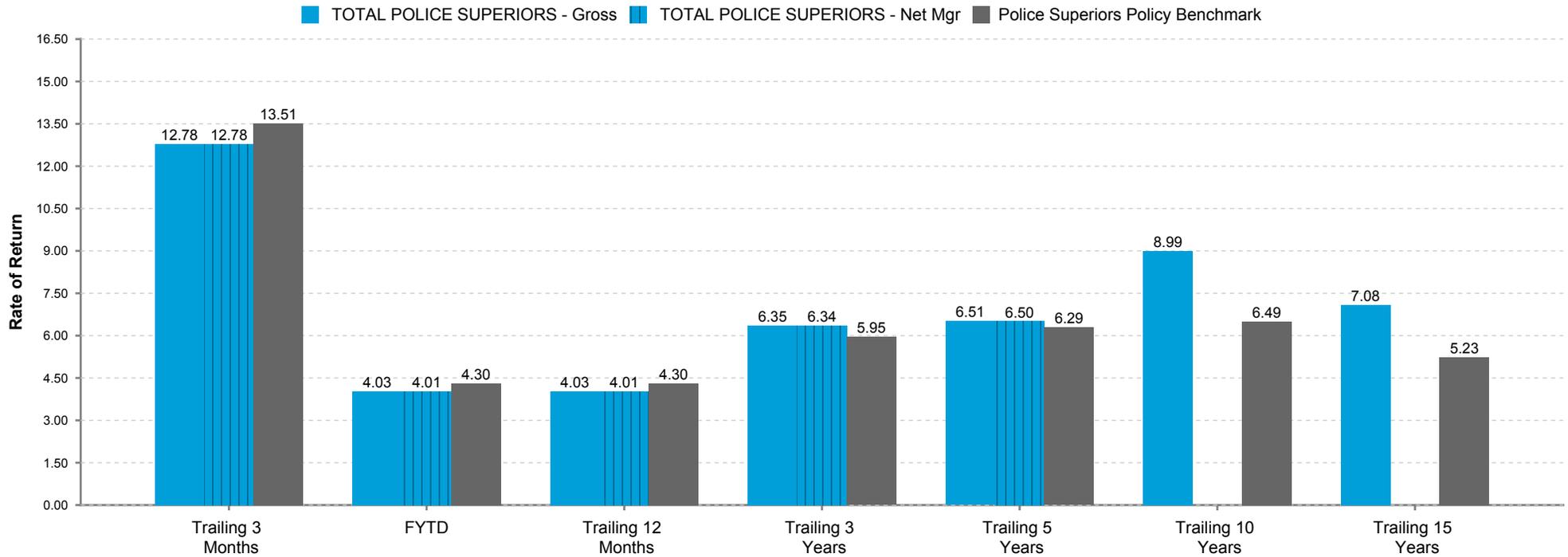
Performance Charts	p.3
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Appendix B - Public Markets Manager Performance Detail	p.9
Appendix C - Footnotes	p.12



Market Value (Billions)

TOTAL POLICE SUPERIORS

\$3.0



	Plan 3 Years	Benchmark 3 Years	Plan 5 Years	Benchmark 5 Years	Plan 7 Years	Benchmark 7 Years	Plan 10 Years	Benchmark 10 Years
Standard Deviation								
TOTAL POLICE SUPERIORS	10.7	10.8	6.5	10.0	8.9	8.6	8.9	8.8



Through June 30, 2020

**NYC POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND
SECURITIES LENDING INCOME
June 30, 2020**

	<u>U. S. FIXED INCOME</u>	<u>U. S. EQUITY</u>	<u>INTERNATIONAL EQUITY</u>	<u>TOTAL</u>
2001	54,000	119,000	11,000	184,000
2002	36,000	68,000	39,000	143,000
2003	32,000	87,000	120,000	239,000
2004	74,000	120,000	122,000	316,000
2005	204,000	244,000	126,000	574,000
2006	184,000	319,000	159,000	662,000
2007	358,000	503,000	138,000	999,000
2008	961,000	852,000	199,000	2,012,000
2009	271,000	515,000	96,000	882,000
2010	62,000	179,000	55,000	296,000
2011	46,000	178,000	8,000	232,000
2012	4,900	90,000	-	94,900
2013	-	21,000	-	21,000
2014	-	-	18,000	18,000
2015	9,500	30,000	304,000	343,500
2016	13,000	161,000	192,000	366,000
2017	11,000	65,000	117,000	193,000
2018	25,231	124,703	421,442	571,377
2019	59,821	177,189	476,530	713,539
2020 (6 months)	41,393	76,625	247,388	365,407
Since Inception	<u>2,446,845</u>	<u>3,929,518</u>	<u>2,849,360</u>	<u>9,225,723</u>



**New York City
Police Superior Officers' Variable Supplements Fund**

Appendix A

Consolidated Performance Report

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
SYSTEM RETURN SUMMARY																
5	PSOVSF-TOTAL PORTFOLIO - GROSS	3,044	100.00	12.78	4.03	(2.41)	6.29	20.08	(4.88)	17.07	4.03	6.35	6.51	8.99	8.31	01/01/1988
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST MANAGEMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	PSOVSF-TOTAL PORTFOLIO - NET MGR			12.78	4.01	(2.42)	6.28	20.07	(4.89)	17.06	4.01	6.34	6.50			
	POLICE SUPERIORS POLICY BENCHMARK			13.51	4.30	(2.26)	6.29	20.32	(6.22)	17.25	4.30	5.95	6.29	6.49		
	EXCESS RETURN			(0.73)	(0.28)	(0.16)	(0.01)	(0.25)	1.33	(0.19)	(0.28)	0.39	0.21	2.50		
EQUITY RETURN SUMMARY																
17	PSOVSF-TOTAL EQUITY - GROSS	1,964	64.53	19.74	1.47	(6.86)	5.24	26.79	(9.11)	21.99	1.47	5.88	6.63			08/01/2001
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)			
	EST MANAGEMENT FEES			(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	PSOVSF-TOTAL EQUITY - NET MGR			19.73	1.47	(6.86)	5.23	26.78	(9.11)	21.97	1.47	5.87	6.62			
25	PSOVSF-TOTAL DOMESTIC EQUITY - GROSS	1,072	35.21	22.21	6.49	(3.36)	8.91	30.76	(4.87)	19.19	6.49	9.61	9.81	9.27		01/01/2015
	ESTIMATED INVESTMENT FEES			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		
	PSOVSF-TOTAL DOMESTIC EQUITY - NET MGR			22.21	6.49	(3.36)	8.91	30.75	(4.88)	19.18	6.49	9.61	9.80	9.26		
	RUSSELL 3000 (DAILY)			22.03	6.53	(3.48)	8.98	31.02	(5.24)	21.13	6.53	10.04	10.03	9.47		
	EXCESS RETURN			0.18	(0.04)	0.12	(0.07)	(0.27)	0.37	(1.95)	(0.04)	(0.44)	(0.23)	(0.21)		

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
EQUITY RETURN SUMMARY															
37	PSOVSF-TOTAL WORLD ex-USA - GROSS	649	21.32	16.25	(4.78)	(11.42)	0.74	23.16	(14.27)	25.23	(4.78)	1.19	2.21		01/01/2015
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)		
	PSOVSF-TOTAL WORLD ex-USA - NET MGR			16.25	(4.79)	(11.42)	0.72	23.15	(14.28)	25.21	(4.79)	1.18	2.19		
	WORLD EX-USA CUSTOM BM			16.21	(5.11)	(11.68)	0.16	22.91	(14.68)	26.40	(5.11)	0.82	2.32		
	EXCESS RETURN			0.04	0.31	0.26	0.56	0.24	0.40	(1.19)	0.31	0.36	(0.12)		
47	PSOVSF-TOTAL WORLD ex-USA - GROSS	649	21.32	16.25	(4.78)	(11.42)	0.74	23.16	(14.27)	25.23	(4.78)	1.19	2.21		01/01/2015
	ESTIMATED INVESTMENT FEES			(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)		
	PSOVSF-TOTAL WORLD ex-USA - NET MGR			16.25	(4.79)	(11.42)	0.72	23.15	(14.28)	25.21	(4.79)	1.18	2.19		
	WORLD EX USA CUSTOM BM			16.21	(5.11)	(11.68)	0.16	22.91	(14.68)	26.40	(5.11)	0.82	2.32		
	EXCESS RETURN			0.04	0.31	0.26	0.56	0.24	0.40	(1.19)	0.31	0.36	(0.12)		
57	PSOVSF-TOTAL EMERGING MARKETS - GROSS	244	8.01	17.65	(3.70)	(10.16)	1.44	18.79	(14.44)		(3.70)	1.84		1.84	07/01/2017
	ESTIMATED INVESTMENT FEES			(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	0.01		(0.02)	(0.03)		(0.03)	
	PSOVSF-TOTAL EMERGING MARKETS - NET MGR			17.64	(3.72)	(10.16)	1.42	18.76	(14.44)		(3.72)	1.80		1.80	
	MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	1.21	18.42	(14.57)		(3.39)	1.90		1.90	
	EXCESS RETURN			(0.44)	(0.34)	(0.38)	0.21	0.34	0.13		(0.34)	(0.09)		(0.09)	

Consolidated Performance Report



Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2019	2019	2018	2017	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date	
FIXED INCOME RETURN SUMMARY																
69	PSOVSF-TOTAL FIXED INCOME - GROSS	1,080	35.47	2.81	8.86	6.28	7.94	8.74	0.27	3.56	8.86	5.42	4.47	3.65	6.00	04/01/1991
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	EST MANAGEMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)			
	EST INCENTIVE FEES															
	EST OTHER FEES															
	EST FEE OFFSETS															
	PSOVSF-TOTAL FIXED INCOME - NET MGR			2.80	8.85	6.28	7.92	8.73	0.26	3.53	8.85	5.41	4.44			
77	PSOVSF-TOTAL STRUCTURED FIXED INCOME - GROSS	1,077	35.40	2.83	8.88	6.32	8.00	8.78	(0.24)	3.98	8.88	5.29	4.52	3.69	02/01/2015	
	ESTIMATED INVESTMENT FEES			(0.00)	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)		
	PSOVSF-TOTAL STRUCTURED FIXED INCOME - NET MGR			2.82	8.87	6.31	7.99	8.76	(0.25)	3.95	8.87	5.27	4.50	3.66		
	BBG BARC AGG (DLY)			2.90	8.74	6.14	7.87	8.72	0.01	3.54	8.74	5.32	4.30	3.55		
	EXCESS RETURN			(0.07)	0.13	0.18	0.12	0.05	(0.26)	0.40	0.13	(0.05)	0.19	0.11		
CASH SUMMARY																
89	Short Term - PSOVSF - GROSS	2	0.07	0.03	1.32	0.40	2.25	2.10	1.32	0.58	1.32				01/01/1999	
	ESTIMATED INVESTMENT FEES			0.00	0.00	0.00	0.00	0.00		0.00						
	Short Term - PSOVSF - NET MGR			0.03	1.32	0.40	2.25	2.10		1.32						
93	Securities Lending	0	-													



**New York City
Police Superior Officers' Variable Supplements Fund**

Appendix B

Public Markets Manager Performance Detail

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
EQUITY SUMMARY										
US EQUITY										
BlackRock US SCG R2000	38	1.26	30.66	3.49	(3.00)	28.39	(9.14)	22.26	11.29	(1.30)
RUSSELL 2000 GROWTH DAILY			30.58	3.48	(3.06)	28.48	(9.31)	22.17	11.32	(1.38)
Excess			0.07	0.01	0.06	(0.09)	0.17	0.09	(0.02)	0.08
BlackRock US SCV R2000	38	1.24	19.13	(17.27)	(23.43)	22.60	(12.79)	7.34	31.71	(7.38)
RUSSELL 2000 VALUE DAILY			18.91	(17.48)	(23.50)	22.39	(12.86)	7.84	31.74	(7.47)
Excess			0.22	0.21	0.07	0.20	0.08	(0.49)	(0.03)	0.09
BlackRock US LMC R1000 Core	996	32.71	22.00	7.52	(2.63)	31.19				
RUSSELL 1000 (DAILY)			21.82	7.48	(2.81)	31.43				
Excess			0.17	0.04	0.18	(0.23)				
NON - US EQUITY										
SSGA WorldxUS LMC NYC Custom IDX	556	18.28	15.38	(5.10)	(11.22)	22.75	(13.64)	24.58	1.31	
NYC Custom World ex US Index			15.34	(5.42)	(11.49)	22.49	(14.09)	24.12	1.00	
Excess			0.04	0.32	0.27	0.26	0.45	0.47	0.31	
SSGA WorldxUS SC Custom IDX ¹	93	3.04	21.62	(2.74)	(12.60)	25.68	(17.97)			
World ex USA SC PASSIVE CUSTOM BM			21.66	(3.20)	(12.87)	25.41	(18.07)			
Excess			(0.05)	0.46	0.27	0.27	0.10			
EMERGING MARKETS										
BlackRock MSCI EM Core	244	8.01	17.64	(3.72)	(10.16)	18.76	(14.44)			
MSCI EMERGING MARKETS			18.08	(3.39)	(9.78)	18.42	(14.57)			
Excess			(0.44)	(0.34)	(0.38)	0.34	0.13			

Public Markets Manager Performance Detail



Net Returns Through June 30, 2020

	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	2019	2018	2017	2016	2015
FIXED INCOME SUMMARY										
STRUCTURED FIXED INCOME										
SSGA-Core US Agg	1,077	35.40	2.82	8.87	6.31	8.76	(0.25)			
BBG BARC Agg (Dly)			2.90	8.74	6.14	8.72	0.01			
Excess			(0.07)	0.13	0.18	0.05	(0.26)			
CASH										
Short Term PSOVSF	2	0.07	0.03	1.32	0.40	2.10			0.90	0.24
ICE BofA US 3-Month Treasury Bill			0.02	1.63	0.60	2.28			0.33	0.05
Excess			0.01	(0.31)	(0.20)	(0.18)			0.57	0.19
Securities Lending	0	0.00								



**New York City
Police Superior Officers' Variable Supplements Fund**

Appendix C

Footnotes



Through June 30, 2020

- Effective 4/1/03, the name of the Core +5 benchmark index provider was changed from Salomon to Citigroup.
- Effective 7/1/03, the “NYC-Loomis” benchmark index for the Loomis Sayles Enhanced Yield portfolio reflects a change from the Citigroup BB&B Index to the more appropriate Merrill Lynch High Yield Master II Index.
- Effective 7/1/09, the Core+5 program was restructured.
- The U.S. Gov’t sector benchmark Index was changed from the Citigroup Core+5 Treasury/Gov’t Sponsored Index to the Citigroup Core+5 Treasury/Agency Index.
- The Corporate and Yankee sectors were combined to form the new Investment Grade Credit sector. The benchmark for the new combined sector is the customized Citigroup Credit Index. For historical performance purposes, the old Corporate sector Index is linked to the new Credit sector Index.
- There were no changes to the Mortgage sector Index.
- The total Core+5 results and benchmark returns combine the three sectors. Historical total Core+5 returns continue to include the old Corporate and Yankee sector returns.



Through June 30, 2020

General Notes

- Returns are Net of Manager Fees for periods after January 2014 and Gross of investment advisory fees for other periods unless otherwise indicated.

Page Specific

Page 3 – Total Plan vs Policy Benchmark

- **Policy Index = Custom Benchmark**

The “policy index” is a custom benchmark representing the weighted average return of the weighted benchmark indexes for each major investment program. Weights may reflect an adjustment of actual policy for outstanding commitments for new or revised programs, such as for private market programs, which are invested gradually, or for any new or updated program requiring the completion of RFPs and contracts. The policy index/custom benchmark is calculated monthly based on adjusted policy weights at the beginning of each month.

The indexes and most recent policy weights are as follows:

*U.S. Equity: Russell 3000 * 33.90%*

International Developed (EAFE) Markets: MSCI World ex USA IMI Net 23.80%*

*Emerging Markets: MSCI Emerging Markets * 7.30%*

*Domestic Fixed Income: Barclays Aggregate * 35.00%*

*Cash: 91 Day T-Bill * 0.00%*

ETI Quarterly Report (Public):

Police Pension Fund - Economically Targeted Investments Quarterly Report

Public/Private Apartment Rehabilitation Program (PPAR)

Lenders*	BOA		CCD		CFSB		CPC		JPM		LIIF		NCBCI		NHS		WF		LISC		BE		HDC			
Contractual Commitment ¹	\$25.00		\$10.00		\$4.00		\$160.00		\$40.00		\$15.00		\$4.00		\$2.00		\$5.00		\$5.00		\$5.00		\$6.00			
Current Market Value ¹	\$13.50		\$9.67		\$1.20		\$101.66		\$26.96		\$9.19		\$0.83		\$0.21		\$0.71		\$0.62		\$1.19		\$0.00			
	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units	Dollars	Units		
Commitments Q2 (included in total)																										
Bronx	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.72	30	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0
Brooklyn	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Manhattan	0.00	0	0.00	0	0.00	0	0.00	0	0.26	28	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Queens	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Staten Island	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Outside of NYC	0.00	0	0.00	0	0.00	0	1.27	70	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Total	\$0.00	0	\$0.00	0	\$0.00	0	\$1.27	70	\$0.98	58	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0
Delivered Q2 (included in total)																										
Bronx	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$1.31	63	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0
Brooklyn	0.00	0	0.28	68	0.00	0	0.00	0	0.73	89	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.02	360	0.00	0
Manhattan	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Queens	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Staten Island	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Outside of NYC	0.00	0	0.00	0	0.00	0	1.08	66	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Total	\$0.00	0	\$0.28	68	\$0.00	0	\$1.08	66	\$2.04	152	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$1.02	360	\$0.00	0
Total Commitments																										
Bronx	\$0.00	0	\$0.00	0	\$0.00	0	\$25.07	1,385	\$4.45	281	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.53	101	\$0.00	0
Brooklyn	0.00	0	0.34	0	0.00	0	9.39	1,093	0.42	67	0.66	95	0.00	0	0.00	0	0.62	130	1.18	156	0.00	0	0.00	0	0.00	0
Manhattan	0.00	0	0.00	0	0.21	39	8.60	423	0.26	28	1.65	174	0.00	0	0.00	0	0.97	103	1.15	65	0.99	83	0.00	0	0.00	0
Queens	0.00	0	0.00	0	0.00	0	2.82	152	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Staten Island	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Outside of NYC	0.00	0	0.00	0	0.00	0	4.52	333	0.98	74	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Total	\$0.00	0	\$0.34	0	\$0.21	39	\$50.41	3,386	\$6.11	450	\$2.31	269	\$0.00	0	\$0.00	0	\$1.59	233	\$2.34	221	\$1.51	184	\$0.00	0	\$0.00	0
Historical Investments																										
Bronx	\$6.84	1,276	\$3.81	802	\$0.00	0	\$91.77	7,493	\$17.37	1,520	\$1.85	178	\$0.00	0	\$0.00	0	\$0.28	90	\$0.52	48	\$0.00	0	\$0.00	0	\$0.00	0
Brooklyn	2.25	142	2.74	481	0.00	0	90.57	4,994	2.23	226	3.22	401	0.00	0	0.33	7	0.00	0	0.00	0	1.02	360	0.00	0	0.00	0
Manhattan	2.27	148	1.53	283	1.53	197	76.26	4,910	2.18	333	4.11	407	0.87	123	0.25	15	0.24	100	0.00	0	0.00	0	0.00	0	0.00	0
Queens	4.50	293	0.38	54	0.00	0	21.35	1,280	1.82	164	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Staten Island	0.00	0	0.00	0	0.00	0	2.86	111	0.00	0	0.00	0	0.00	0	0.00	0	0.09	67	0.00	0	0.00	0	0.00	0	0.00	0
Outside of NYC	0.48	39	0.53	41	0.00	0	10.14	527	1.54	123	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Total	\$16.32	1,898	\$8.98	1,661	\$1.53	197	\$292.95	19,315	\$25.15	2,366	\$9.18	986	\$0.87	123	\$0.58	22	\$0.61	257	\$0.52	48	\$1.02	360	\$0.00	0	\$0.00	0

*Lenders : Bank of America, Citi Community Development, Carver Federal Savings Bank, The Community Preservation Corp, JP Morgan Chase, Low Income Investment Fund, NCB Capital Impact, Neighborhood Housing Service, Wells Fargo, Local Initiatives Support Corp, Bellwether Enterprise, NYC HDC

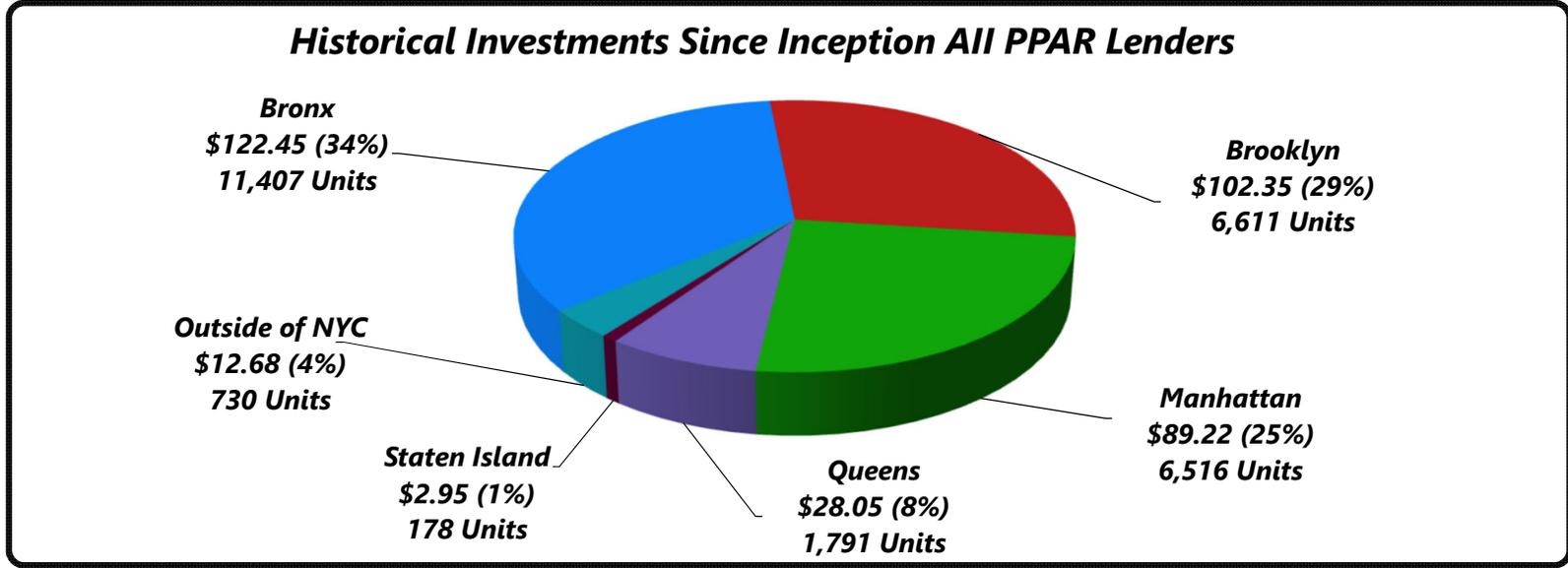
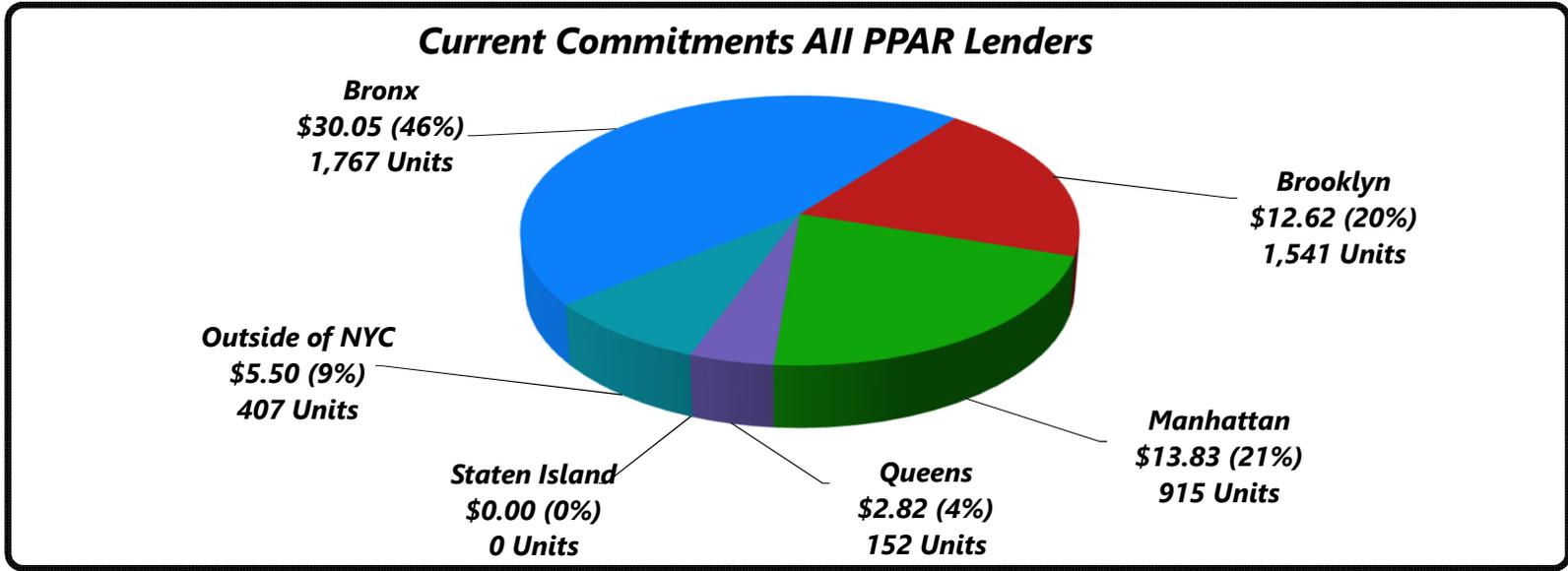
¹ Dollar amount listed in millions

Police Pension Fund - Economically Targeted Investments Quarterly Report

Public/Private Apartment Rehabilitation Program (PPAR)

Lenders*	All Lender Totals	
Contractual Commitment ¹	\$281.00	
Current Market Value ¹	\$165.75	
	Dollars	Units
Commitments Q2 (included in total)		
Bronx	\$0.72	30
Brooklyn	0.00	0
Manhattan	0.26	28
Queens	0.00	0
Staten Island	0.00	0
Outside of NYC	1.27	70
Total	\$2.25	128
Delivered Q2 (included in total)		
Bronx	\$1.31	63
Brooklyn	2.03	517
Manhattan	0.00	0
Queens	0.00	0
Staten Island	0.00	0
Outside of NYC	1.08	66
Total	\$4.42	646
Total Commitments		
Bronx	\$30.05	1,767
Brooklyn	12.62	1,541
Manhattan	13.83	915
Queens	2.82	152
Staten Island	0.00	0
Outside of NYC	5.50	407
Total	\$64.82	4,782
Historical Investments		
Bronx	\$122.45	11,407
Brooklyn	102.35	6,611
Manhattan	89.22	6,516
Queens	28.05	1,791
Staten Island	2.95	178
Outside of NYC	12.68	730
Total	\$357.71	27,233

¹ Dollar amount listed in millions

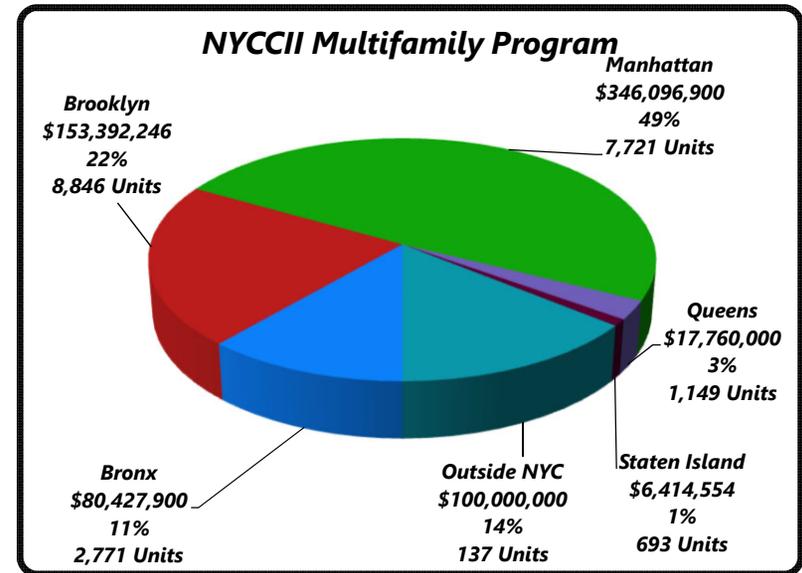


Police Pension Fund - Economically Targeted Investments Quarterly Report

AFL-CIO Housing Investment Trust (HIT)
Market Value \$180.05 million¹

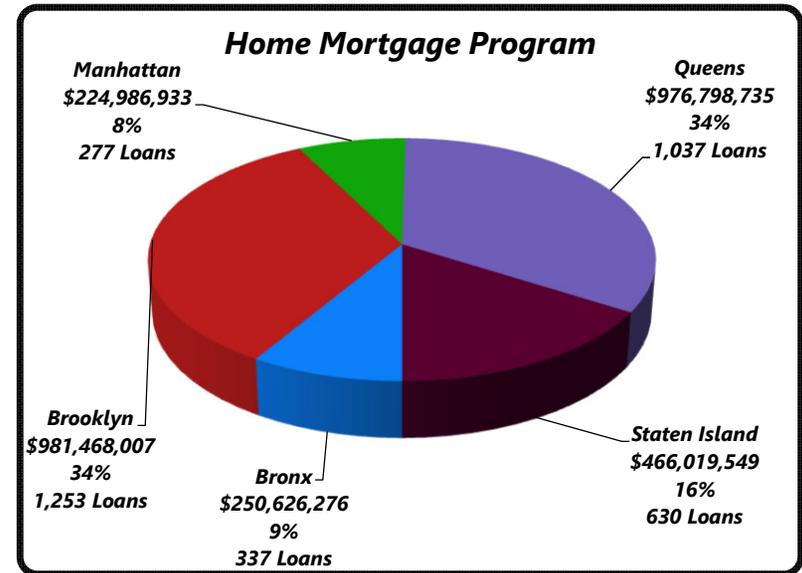
NYC Community Investment Initiative (NYCCII)

Borough	NYCCII Phase I: 2002 - 2005		NYCCII Phase II: 2006 - 2013		Grand Total	
	Investments	Units ²	Investments	Units ²	Investments	Units ²
Bronx	\$27,600,000	2,010	\$52,827,900	761	\$80,427,900	2,771
Brooklyn	49,501,800	3,230	103,890,446	5,616	153,392,246	8,846
Manhattan	172,021,700	6,908	174,075,200	813	346,096,900	7,721
Queens	0	0	17,760,000	1,149	17,760,000	1,149
Staten Island	0	0	6,414,554	693	6,414,554	693
Outside NYC	0	0	100,000,000	137	100,000,000	137
Total	\$249,123,500	12,148	\$454,968,100	9,169	\$704,091,600	21,317



HIT Home Mortgage Program

Borough	NYCCII Phase I: 2002 - 2005		NYCCII Phase II: 2006 - 2013		Grand Total	
	\$ Amount	Loans	\$ Amount	Loans	\$ Amount	Loans
Bronx	\$32,544,168	41	\$218,082,108	296	\$250,626,276	337
Brooklyn	116,575,736	138	864,892,271	1,115	981,468,007	1,253
Manhattan	10,742,253	12	214,244,680	265	224,986,933	277
Queens	82,399,317	64	894,399,418	973	976,798,735	1,037
Staten Island	106,039,089	191	359,980,460	439	466,019,549	630
Total	\$348,300,563	446	\$2,551,598,937	3,088	\$2,899,899,500	3,534

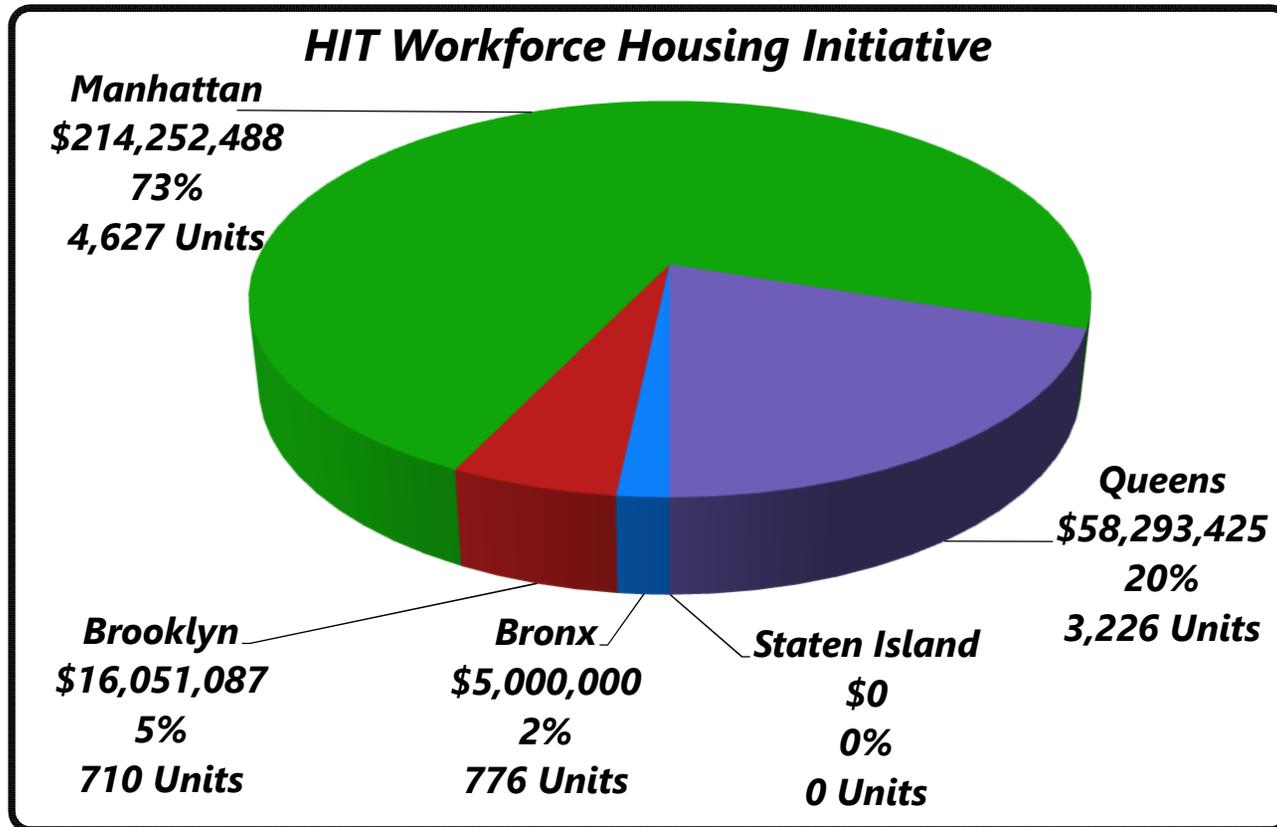


POLICE Loans	Phase I:	Phase II:	Total:
	131	140	271

¹Interest is reinvested
²Low/Moderate Income Units

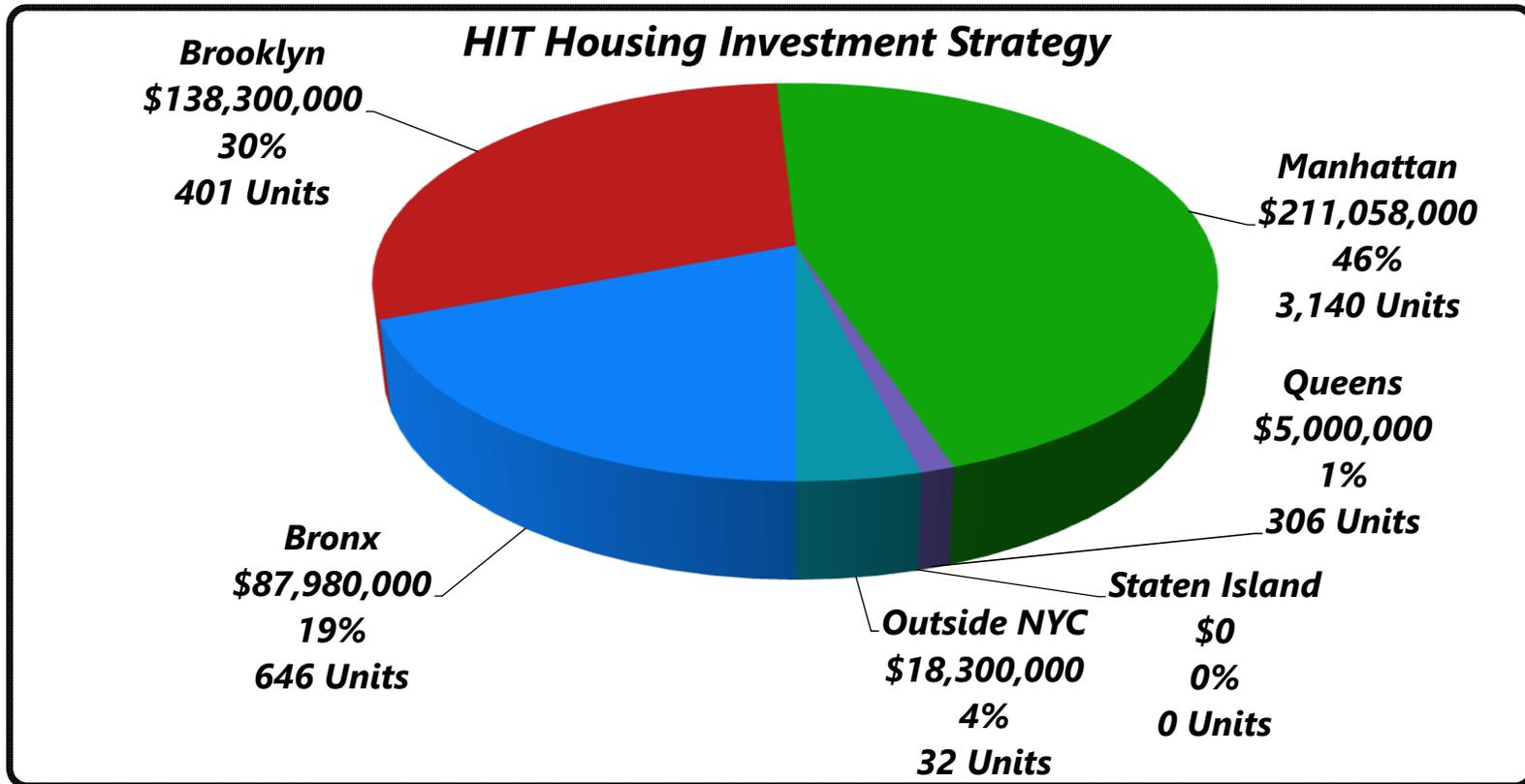
Police Pension Fund - Economically Targeted Investments Quarterly Report

AFL-CIO Housing Investment Trust (HIT) NYC Workforce Housing Initiative: 2009 - 2015		
<u>Borough</u>	<u>Investments</u>	<u>LMI Units</u>
	<u>Since Inception</u>	<u>Since Inception</u>
Bronx	\$5,000,000	776
Brooklyn	16,051,087	710
Manhattan	214,252,488	4,627
Queens	58,293,425	3,226
Staten Island	0	0
Total	\$293,597,000	9,339



Police Pension Fund - Economically Targeted Investments Quarterly Report

AFL-CIO Housing Investment Trust (HIT)					
HIT Housing Investment Strategy: 2015 - Q2 2020					
<u>Borough</u>	<u>Q2 Investments</u>	<u>Investments</u>		<u>LMI Units</u>	
		<u>Since Inception</u>	<u>Q2 LMI Units</u>	<u>Since Inception</u>	
Bronx	\$0	\$87,980,000	0	646	
Brooklyn	0	138,300,000	0	401	
Manhattan	0	211,058,000	0	3,140	
Queens	0	5,000,000	0	306	
Staten Island	0	0	0	0	
Outside NYC	0	18,300,000	0	32	
Total	\$0	\$460,638,000	0	4,525	



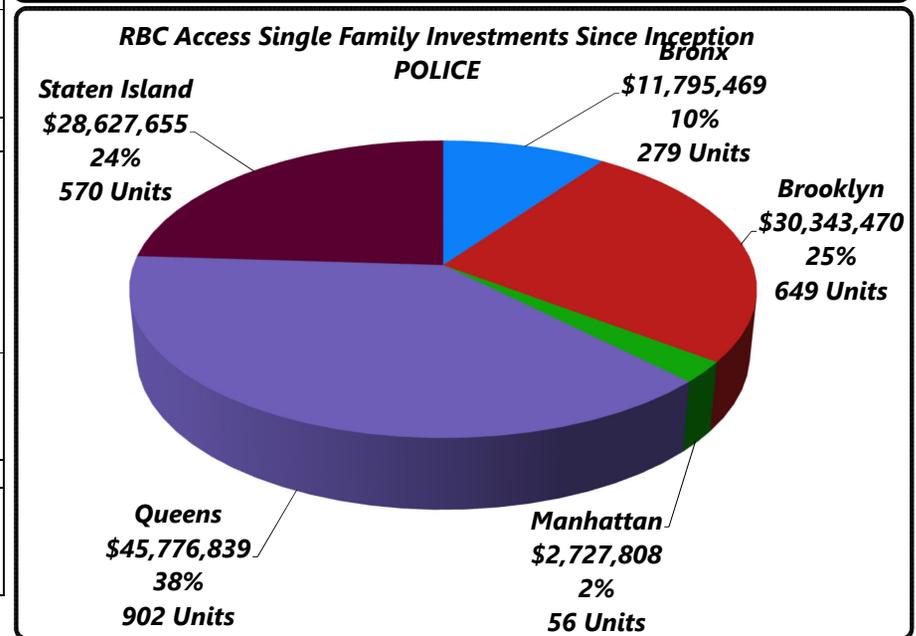
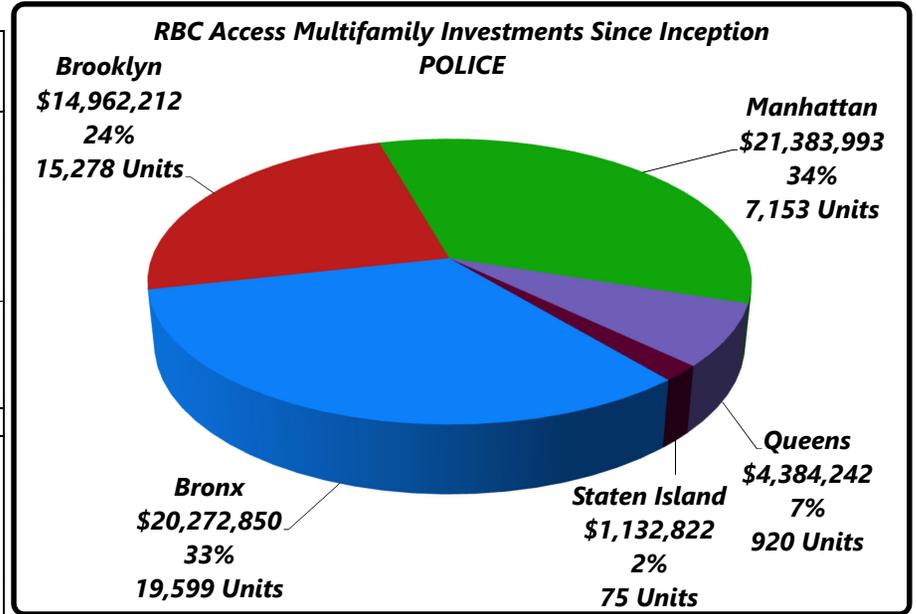
Police Pension Fund - Economically Targeted Investments Quarterly Report

RBC ACCESS CAPITAL STRATEGIES (Since Inception 2/1/07)

\$91.5 million Allocated (20.33% of total account)				
Market Value \$90.17 million				
Multifamily Investments Detail	\$ Invested ¹		Units ²	
	Q2	Total	Q2	Total
Bronx	\$0	\$20,272,850	0	19,599
Brooklyn	0	14,962,212	0	15,278
Manhattan	0	21,383,993	0	7,153
Queens	0	4,384,242	0	920
Staten Island	0	1,132,822	0	75
Total POLICE Multifamily Investments	\$0	\$62,136,118	0	43,025
Multifamily Total All Systems	\$0	\$305,637,572	0	43,025
Single Family Investments Detail	\$ Invested		Units	
	Q2	Total	Q2	Total
Bronx	\$230,552	\$11,795,469	3	279
Brooklyn	683,862	30,343,470	8	649
Manhattan	0	2,727,808	0	56
Queens	235,930	45,776,839	3	902
Staten Island	572,960	28,627,655	8	570
Total POLICE Single Family Investments	\$1,723,304	\$119,271,242	22	2,456
Single Family Total All Systems	\$8,476,655	\$586,676,054	22	2,456
Other Investments Detail	\$ Invested		Loans	
	Q2	Total	Q2	Total
Bronx	\$0	\$137,228	0	1
Brooklyn	0	1,095,869	0	8
Manhattan	0	494,610	0	5
Queens	0	110,480	0	3
Staten Island	0	0	0	0
Total POLICE Other Investments	\$0	\$1,838,186	0	17
Other Investments Total All Systems	\$0	\$9,041,740	0	17
Grand Total POLICE	\$1,723,304	\$183,245,546		
Grand Total All Systems	\$8,476,655	\$901,355,365		

¹ Certain bond investment amounts are allocated pro rata across boroughs based upon unit count.

² If not indicated otherwise, superintendent units are allocated based on building size.



Police Pension Fund - Economically Targeted Investments Quarterly Report

Equity Investments

Total Market Value \$100.66 million

Hudson Market Value \$32.28 million

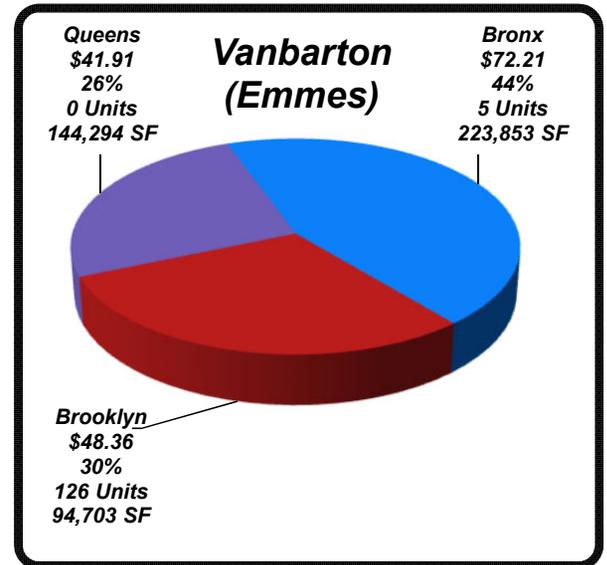
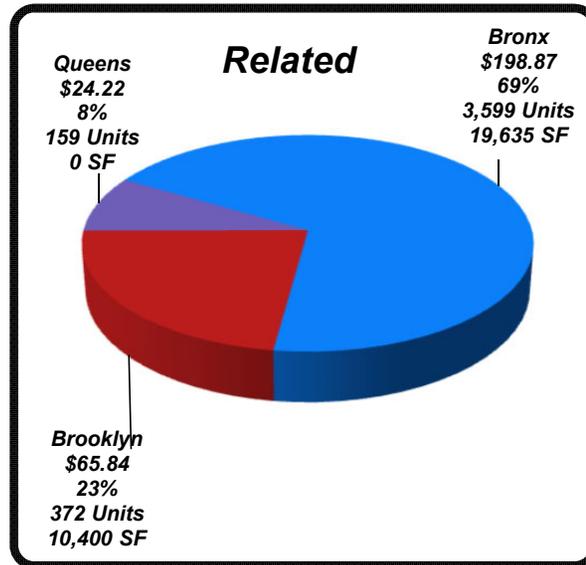
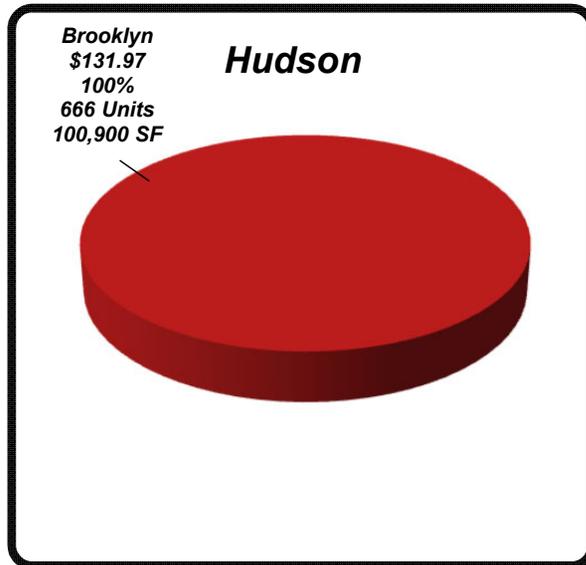
Borough	Gross			
	Capital Invested	Total Units	Workforce Units	Comm. SF
Bronx	\$0.00	0	0	0
Brooklyn	131.97	666	666	100,900
Manhattan	0.00	0	0	0
Queens	0.00	0	0	0
Staten Island	0.00	0	0	0
Outside NYC	0.00	0	0	0
Totals	\$131.97	666	666	100,900

Related Market Value \$44.41 million

Borough	Gross			
	Capital Invested	Total Units	Workforce Units	Comm. SF
Bronx	\$198.87	3,599	3,356	19,635
Brooklyn	65.84	372	212	10,400
Manhattan	0.00	0	0	0
Queens	24.22	159	151	0
Staten Island	0.00	0	0	0
Outside NYC	0.00	0	0	0
Totals	\$288.93	4,130	3,719	30,035

Vanbarton (Emmes) Market Value \$23.98 million

Borough	Gross			
	Capital Invested	Total Units	Workforce Units	Comm. SF
Bronx	\$72.21	5	2	223,853
Brooklyn	48.36	126	61	94,703
Manhattan	0.00	0	0	0
Queens	41.91	0	0	144,294
Staten Island	0.00	0	0	0
Outside NYC	0.00	0	0	0
Totals	\$162.48	131	63	462,850



*All information is derived from quarterly reports submitted by individual managers. Performance has not been reviewed by consultants or custodial bank.

**Dollar amount listed in millions

Private Equity Quarterly Report (Public):



Private Equity Monitoring Report

For the period ended March 31, 2020

Report Prepared For:

New York City Police Pension Fund, Subchapter 2

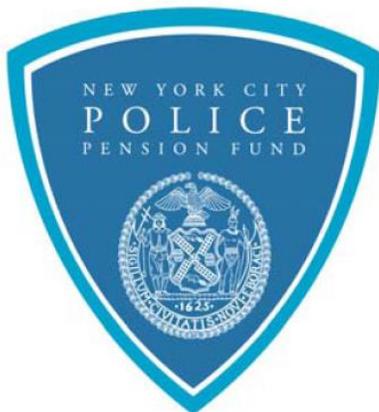


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All valuations are based on current values calculated in accordance with StepStone's Valuation Policies and may include both realized and unrealized investments. Due to the inherent uncertainty of valuation, the stated value may differ significantly from the value that would have been used had a ready market existed for all of the portfolio investments, and the difference could be material. The long-term value of these investments may be lesser or greater than the valuations provided.

StepStone Group LP, its affiliates and employees are not in the business of providing tax, legal or accounting advice. Any tax-related statements contained in these materials are provided for illustration purposes only and cannot be relied upon for the purpose of avoiding tax penalties. Any taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

Prospective investors should inform themselves and take appropriate advice as to any applicable legal requirements and any applicable taxation and exchange control regulations in the countries of their citizenship, residence or domicile which might be relevant to the subscription, purchase, holding, exchange, redemption or disposal of any investments. Each prospective investor is urged to discuss any prospective investment with its legal, tax and regulatory advisors in order to make an independent determination of the suitability and consequences of such an investment.

An investment involves a number of risks and there are conflicts of interest.

Each of StepStone Group LP, StepStone Group Real Assets LP, StepStone Group Real Estate LP and StepStone Conversus LLC is an investment adviser registered with the Securities and Exchange Commission ("SEC"). StepStone Group Europe LLP is authorized and regulated by the Financial Conduct Authority, firm reference number 551580. Swiss Capital Invest Holding (Dublin) Ltd ("SCHIDL") is an SEC Registered Investment Advisor and Swiss Capital Alternative Investments AG ("SCAI" and together with SCHIDL, "Swiss Cap") is an SEC Exempt Reporting Adviser. Such registrations do not imply a certain level of skill or training and no inference to the contrary should be made.

All data is as of March 31, 2020 unless otherwise noted.

None of StepStone Group LP or any of its affiliates (collectively, "StepStone") is undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with any investor's continued engagement of StepStone.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. ACTUAL PERFORMANCE MAY VARY.

I. Executive Summary

The New York City Police Pension Fund, Subchapter 2 (“NYCPPF”) established the Alternative Investment Program (the “Program”) on January 1, 1997 on behalf of its beneficiaries to participate in attractive long-term investment opportunities and to provide diversification to its overall pension investment portfolio.

StepStone Group LP (“StepStone”) was engaged by NYCPPF on February 1, 2012 to provide private equity advisory services for prospective investment opportunities and monitoring and reporting services for existing and new investments.

Since inception through March 31, 2020, the Program has committed US\$7.0 billion to 241 partnership investments (the “Portfolio”). This quarterly monitoring report covers the performance of the Portfolio as of March 31, 2020 as well as significant activity that occurred during the first quarter of 2020.

Performance Summary

<i>US\$ in millions</i>	March 31, 2020	December 31, 2019	March 31, 2019	Quarterly Change	Yearly Change
Number of Managers	122	121	118	1	4
Number of Investments	241	239	227	2	14
Committed Capital ¹	\$6,975.9	\$6,942.6	\$6,431.2	\$33.3	\$544.6
Contributed Capital	\$5,667.0	\$5,564.2	\$5,185.6	\$102.9	\$481.4
Distributed Capital	\$5,611.7	\$5,519.5	\$5,070.4	\$92.2	\$541.4
Market Value	\$2,463.6	\$2,733.0	\$2,550.5	(\$269.4)	(\$86.9)
Total Value	\$8,075.3	\$8,252.5	\$7,620.9	(\$177.1)	\$454.4
Total Gain/(Loss)	\$2,408.3	\$2,688.3	\$2,435.3	(\$280.0)	(\$27.0)
Unfunded Commitment ²	\$2,020.1	\$2,095.7	\$1,956.1	(\$75.7)	\$64.0
Total Exposure ³	\$4,483.7	\$4,828.7	\$4,506.6	(\$345.1)	(\$22.9)
DPI ⁴	0.99x	0.99x	0.98x	0.00x	0.01x
TVM ⁵	1.42x	1.48x	1.47x	-0.06x	-0.04x
IRR ⁶	10.1%	10.8%	10.7%	-76 bps	-65 bps
TVM Net of StepStone Fees ⁷	1.42x	1.48x	1.47x	-0.06x	-0.05x
IRR Net of StepStone Fees ⁷	10.1%	10.8%	10.7%	-77 bps	-65 bps

¹ Committed Capital is presented net of any commitment releases or expirations and reflects foreign currency exchange rate fluctuations.

² Unfunded Commitment represents the aggregate remaining commitments to partnership investments.

³ Total Exposure represents the sum of Market Value and Unfunded Commitment.

⁴ DPI, or Distributed to Paid-In Multiple, is a performance metric that measures distributions received relative to capital invested. DPI is calculated as Distributed Capital divided by Contributed Capital.

⁵ TVM, or Total Value Multiple, is a performance metric that measures total value created by the Portfolio relative to capital invested, without consideration for time. TVM is calculated as Total Value, which is comprised of Market Value plus Distributed Capital, divided by Contributed Capital.

⁶ IRR, or Internal Rate is Return, is a performance metric that is calculated based on the Portfolio’s daily cash flows and market value as of quarter-end. IRR is net of fund manager’s fees, expenses and carried interest.

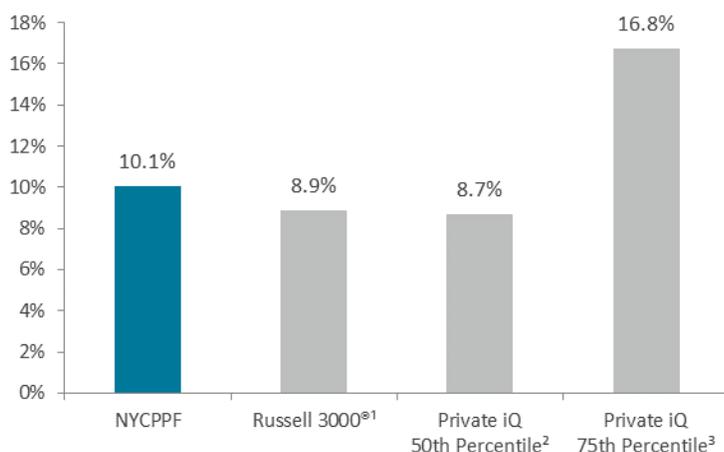
⁷ TVM and IRR Net of StepStone fees represent TVM and IRR net of fees paid by NYCPPF to StepStone. IRR and TVM for certain vehicles may have been impacted by Stepstone’s or the underlying GPs’ use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.

Portfolio Performance vs. Benchmarks

The Portfolio's performance is measured against a dollar-weighted public benchmark, which produced the return that would have been earned if NYCPPF's private equity cash flows were invested in the Russell 3000® Index¹.

The following graph illustrates Portfolio IRR performance versus benchmarks as of March 31, 2020.



¹Return is a dollar-weighted PME+ calculation of daily changes in the Russell 3000® Index. Russell Investment Group is the source and owner of the trademark, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

²Private iQ benchmark reflects Equity (all sub-sectors), Mezzanine, Distressed, Oil & Gas Assets asset classes, 50th percentile, or median, IRR at March 31, 2020 for funds with vintage years from 1998 through 2020. The benchmark is a weighted average of the primary and secondary 50th percentile returns based on the Portfolio's market value as of March 31, 2020. Note: Data may be subject to change.

³Private iQ benchmark reflects Equity (all sub-sectors), Mezzanine, Distressed, Oil & Gas Assets asset classes, 50th percentile, or median, IRR at March 31, 2020 for funds with vintage years from 1998 through 2020. The benchmark is a weighted average of the primary and secondary 75th percentile returns based on the Portfolio's market value as of March 31, 2020. Note: Data may be subject to change.

The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Portfolio Diversification

By Strategy

As of March 31, 2020 (US\$ in millions)	Market Value		Unfunded Commitment		Total Exposure	
	\$	% of Total	\$	% of Total	\$	% of Total
Buyout	\$1,518.4	61.6%	\$1,210.6	59.9%	\$2,729.0	60.9%
Growth Equity	303.8	12.3%	151.1	7.5%	454.9	10.1%
Special Situations	175.9	7.1%	209.3	10.4%	385.2	8.6%
Energy	13.7	0.6%	4.8	0.2%	18.4	0.4%
Secondaries	169.9	6.9%	227.7	11.3%	397.6	8.9%
Co-Investment	135.1	5.5%	209.6	10.4%	344.7	7.7%
Other	146.9	6.0%	6.9	0.3%	153.8	3.4%
Total	\$2,463.6	100.0%	\$2,020.1	100.0%	\$4,483.7	100.0%

By Fund Geographic Focus

As of March 31, 2020 (US\$ in millions)	Market Value		Unfunded Commitment		Total Exposure	
	\$	% of Total	\$	% of Total	\$	% of Total
North America	\$1,560.6	63.3%	\$1,189.6	58.9%	\$2,750.1	61.3%
Global	460.2	18.7%	552.9	27.4%	1,013.1	22.6%
Western Europe	431.3	17.5%	276.0	13.7%	707.3	15.8%
Rest of World	11.5	0.5%	1.6	0.1%	13.1	0.3%
Total	\$2,463.6	100.0%	\$2,020.1	100.0%	\$4,483.7	100.0%

Fund Geographic Focus is based on a number of factors, including the GP-stated geographic focus, the number of investments within each region, invested capital by region, the location of the firm's offices and investment professionals, and the underlying fund currency.

II. Market Overview

Executive Summary

The spread of COVID-19 had a profound impact on global economies and markets during the first quarter of 2020. Equities and bond yields suffered both steep declines not seen since the Global Financial Crisis and record volatility, as the global pandemic forced countries into lockdowns in order to contain the outbreak. While the COVID-19 pandemic continues to cause significant disruption in nearly every aspect of the world economy, several countries have begun to ease quarantines and social distancing guidelines in an effort to restore economic activity. However, there remains hesitancy in a return to normalcy due to fear of a potential “second wave” of infections.

Uncertainty regarding the pandemic’s economic impact sent the Chicago Board Option Exchange’s Volatility Index (“VIX”) to an all-time high and countries across the world approve massive stimulus packages to help combat the global economic shutdown. Oil prices also plunged during the quarter, as talks between OPEC and other oil producers failed to reach an agreement on extensions to production cuts coinciding with, and exacerbated by, weaker demand due to the virus. While the stock markets have seen a V-shape recovery in recent months, it remains to be seen how long it will take for economies around the world to fully recover. As of this writing, the U.S. unemployment rate is at its highest level since the Great Depression.

All global equity indices declined in Q1 2020, led by the MSCI Europe Index declining 24.8%, as the virus shutdown an economy that was already struggling with economic growth. The MSCI Emerging Markets Index followed suit, falling 23.9%, as COVID-19 became a pandemic and the prospect of a global recession loomed. Meanwhile, the S&P 500 Total Return Index tumbled 19.6%, as confirmed U.S. cases rose to over 100,000 and jobless claims soared above three million in the last week of March. In response, the Federal Reserve cut interest rates to 0% and announced unlimited quantitative easing. The U.S. Congress also passed a historic US\$2.2 trillion stimulus package that included US\$250.0 billion for households, US\$500.0 billion for loans to distressed companies and US\$350.0 billion for small business loans.

Given the significant and rapid decline in the public markets, StepStone conducted proprietary analyses¹ utilizing its extensive database of private market funds and incorporated into its assessments, previous historic public market downturns, including the Global Financial Crisis (“GFC”). Results showed that private equity returns compared to the S&P 500 Total Return Index were roughly 60% of the down-capture² during the GFC. Historically, StepStone notes that general partners were not forced to sell ‘at the bottom,’ and therefore valuations would not capture all the volatility in a market in turmoil.

Nonetheless, during extreme periods of market dislocation and volatility, capital activity and liquidity in the private markets is severely impacted. Using data from Stepstone’s Data and Risk Operations Group, the ratio of distribution activity relative to contributions decreased significantly from pre-COVID outbreak in the U.S. from a ratio of over 1.0 in February 2020 to 0.3 in April 2020. During this same period, StepStone analyzed the capital calls from funds and saw a large uptick in general partners calling capital to pay off or reduce their line of credit (“LOC”).

In private debt market, U.S. leveraged buyout (“LBO”) debt volume decreased 3.8% quarter-over-quarter and 37.8% year-over-year to US\$22.8 billion but was still 10.0% higher than the 10-year quarterly average of US\$20.7 billion. According to data from S&P, purchase price multiples for U.S. LBOs were 11.2x EBITDA in the first quarter, down from 11.3x EBITDA in the prior quarter, but above the 10-year average of 9.7x EBITDA. Average debt multiples of large corporate U.S. LBO loans decreased to 5.3x from 5.9x over the quarter, which is below the 10-year average of 5.5x. Equity contributions for U.S. LBOs

¹ Source: StepStone Portfolio Analytics & Reporting (“SPAR”) as of April 2020. SPAR data are updated continuously; values are subject to change.

² Down-capture is ratio of decline in private markets relative to an index, measured peak to trough

decreased to 46.7%, down from the recent high of 50.6% at year-end 2019, but above the 10-year average of 41.7%.³ Global private equity fundraising totaled US\$147.9 billion in the first quarter, representing a decline of 16.5% quarter-over-quarter but flat compared to the first quarter of 2019. U.S.-focused funds represented 65.0% of total dollar amount raised during the quarter, above the 10-year average of 60.3%. Funds raised in Europe, Asia, and the Rest of World made up 6.4%, 10.6% and 18.0%, respectively, of global fundraising for the quarter. Dollars invested by private equity funds fell 3.4% quarter-over-quarter but was up 8.7% year-over-year, however the average investment per company increased 10.7% quarter-over-quarter to US\$24.3 million. Companies operating in the Information Technology sector continue to account for a significant portion of the invested capital, with over 48.5% of the capital deployed in the first quarter.

Private equity-backed IPO transaction volume increased in the first quarter by 18.0% compared to the prior quarter and by 39.9% compared to the first quarter of 2019, with US\$5.3 billion raised in 16 IPOs. The largest IPOs of the first quarter were completed by Pharmaceutical Product Development, LLC (NASDAQ: PPD), which raised US\$1.8 billion, and GFL Environmental Inc (NYSE: GFL), which raised US\$1.4 billion. Together these deals represented 61.6% of the total value for all IPOs during the quarter. M&A activity increased 13.9% quarter-over-quarter to US\$117.8 billion but was down 40.1% compared to the first quarter of 2019. The largest M&A deals of the quarter were the US\$12.9 billion purchase of Liberty Property Trust by Prologis, L.P. and the US\$9.1 billion purchase of InterXion Holding N.V. by Digital Realty Trust, Inc. (NYSE: DLR). Together these deals represented 18.7% of the total value for all deals during the quarter⁴.

³ S&P U.S. LBO Review, Q1 2020

⁴ Capital IQ Transaction Screening Report as of June 9, 2020

Capital Markets Overview

Public Equity Markets

After a historic fourth quarter, global public markets suffered steep declines in the latter half of the first quarter as COVID-19 spread throughout the world and forced global economies to shut down. The uncertainty of the pandemic's lasting economic impact sent the Chicago Board Option Exchange's Volatility Index ("VIX") to an all-time high in the first quarter and had countries across the world approve massive stimulus packages to help combat the global economic shutdown.



The following table shows the returns of four major MSCI indices, as well as the S&P 500 and the S&P 500 Total Return Index, over various time horizons through March 31, 2020. Returns for time periods greater than one year are annualized. All indices decreased during the quarter, led by MSCI Europe declining 24.8%.

Regional Indices

	3 Mo	1 Yr	3 Yr	5 Yr	10 Yr
MSCI Asia	(18.2%)	(12.8%)	(1.2%)	(0.6%)	1.6%
MSCI Europe	(24.8%)	(18.0%)	(5.1%)	(4.1%)	(0.5%)
MSCI EM	(23.9%)	(19.8%)	(4.0%)	(2.7%)	(1.7%)
MSCI ACWI	(21.7%)	(13.0%)	(0.5%)	0.8%	3.7%
S&P 500	(20.0%)	(8.8%)	3.0%	4.6%	8.3%
S&P 500 Total Return*	(19.6%)	(7.0%)	5.1%	6.7%	10.5%

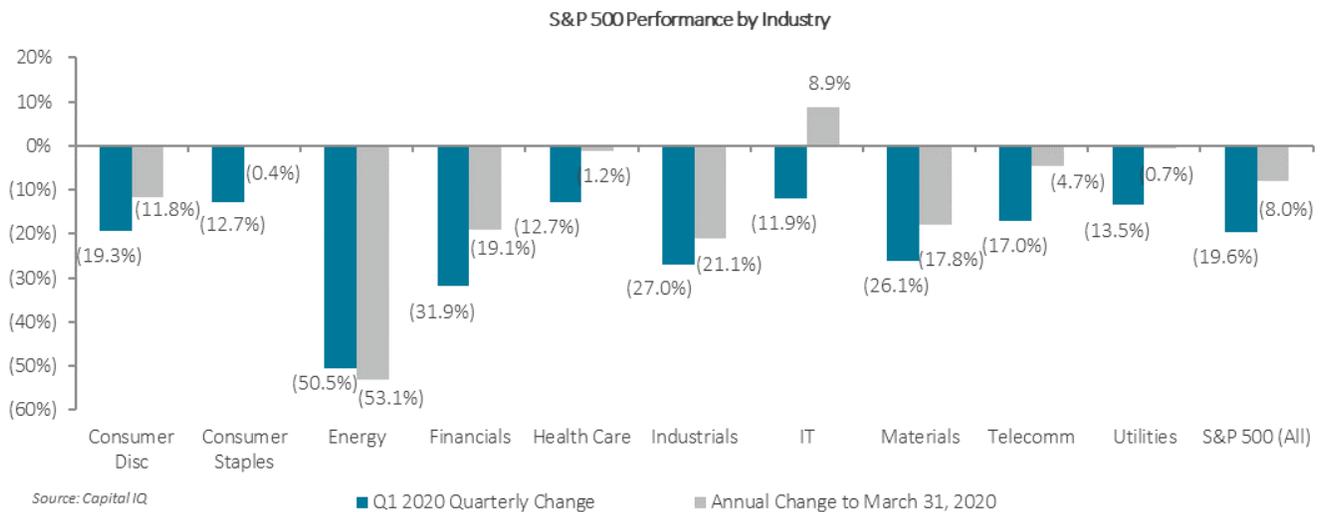
For the period ended March 31, 2020

*Includes reinvestment of dividends.

Source: Capital IQ

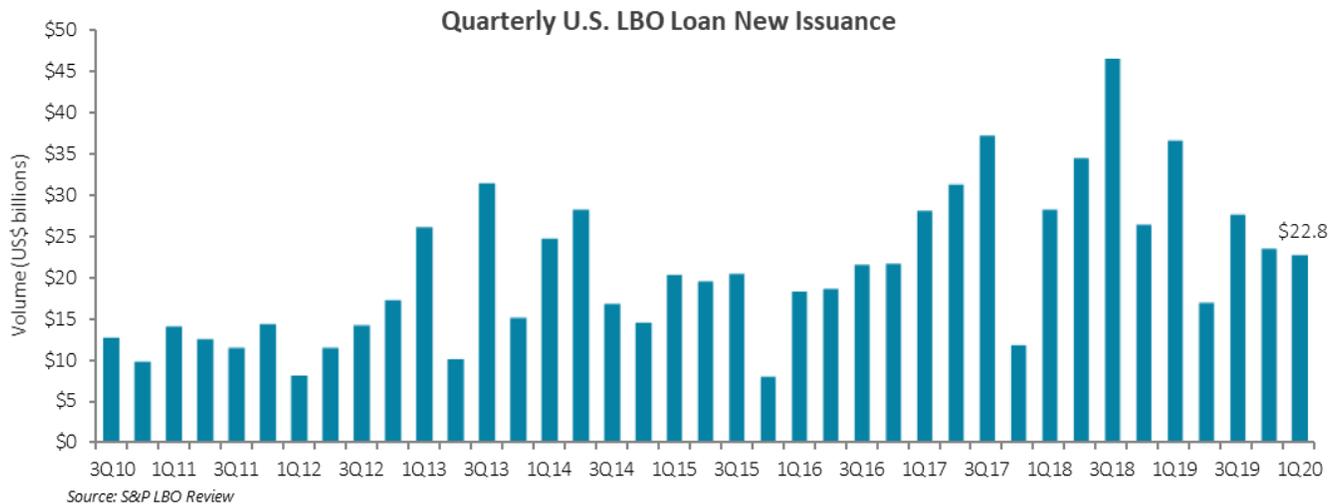
The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

The following table shows the quarterly and annual returns of the S&P 500 Total Return and each GIC sector for the period ending March 31, 2020. The S&P 500 Total Return saw its worst quarterly drop since 2008, declining 19.6%, as investors experienced the fastest bear market ever. Cyclical sectors Energy, Financials, and Industrials were hit the hardest during the quarter as each sector saw declines of 50.5%, 31.9%, and 27.0%, respectively. Information Technology, Health Care, and Consumer Staples were the top performing sectors during the quarter, declining 11.9%, 12.7%, and 12.7%, respectively, as demand for essential items spiked in response to a nationwide economic shutdown.

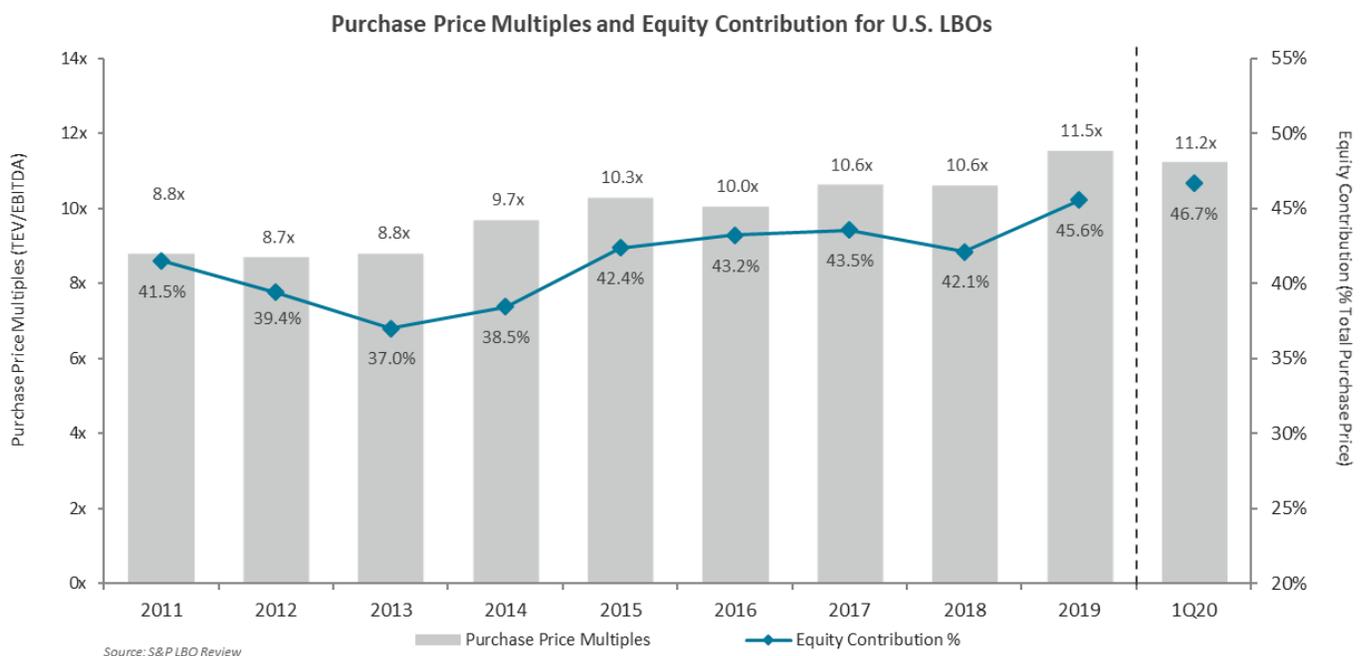


Debt Markets

During the first quarter of 2020, U.S. LBO new loan issuance totaled US\$22.8 billion, representing a decrease of 3.8% from the prior quarter and a decrease of 37.8% from the first quarter of 2019 but was still 10.0% higher than the 10-year quarterly average of US\$20.7 billion. The following chart shows the quarterly volume of U.S. LBO new loan issuance for the past ten years.



The weighted average purchase price multiple for U.S. LBO deals decreased marginally to 11.2x total enterprise value (“TEV”) to EBITDA in the first quarter from 11.3x EBITDA in the prior quarter and from an average of 11.5x during 2019, but still above the 10-year average of 9.7x. The average debt multiple of large corporate U.S. LBO loans decreased during the quarter to 5.3x EBITDA, while equity contributions for U.S. LBOs also declined from 50.6% to 46.7%. The following chart compares purchase price multiples and equity contribution percentages for U.S. LBO deals.



Private Equity Market Overview

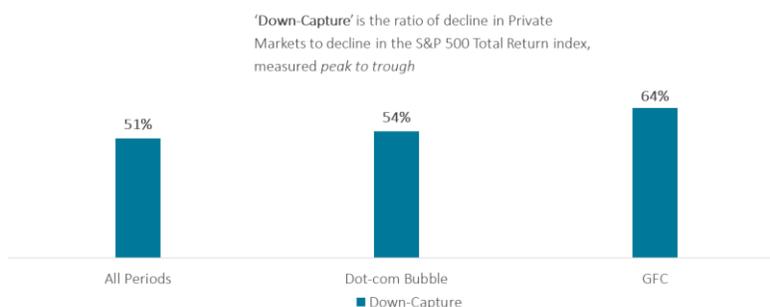
All Private Equity

COVID-19 Impact

Given the current volatility and dislocation in the markets due to COVID-19, StepStone has shared white papers and analysis with our clients detailing the potential impact on the private markets with respect to asset classes, sectors, geographies, investment/exit activity, liquidity concerns, etc. Below are two excerpts from this analysis.

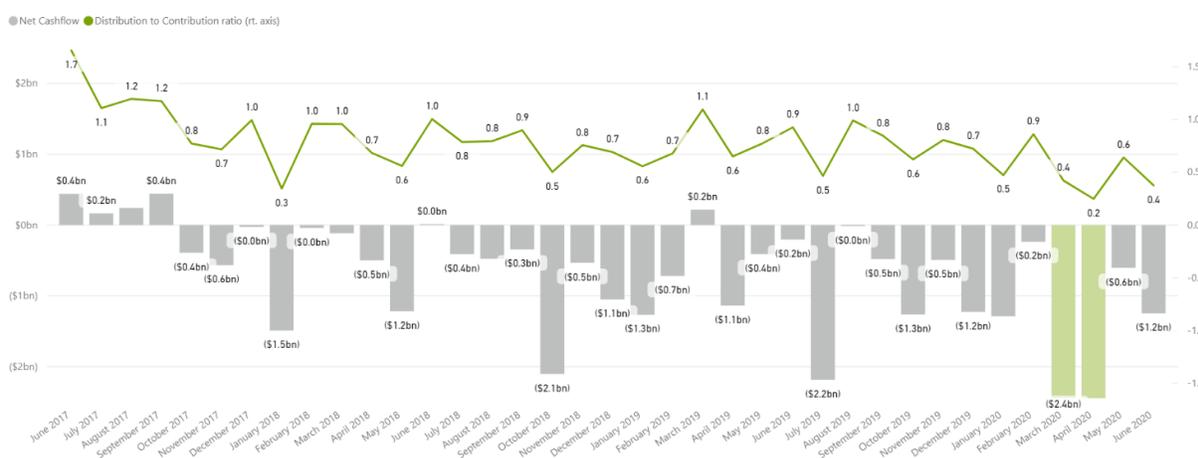
Private equity market capture vs S&P 500 Total Return

StepStone through its proprietary analysis⁵ and extensive database of private market funds compared private equity returns to all periods, found that private equity returns compared to the S&P 500 Total Return Index captured roughly 50% of the down-capture on average in all periods and a slightly higher percentage during significant declines as evidenced by the GFC.



Cash Flows Trends

During extreme periods of market dislocation and volatility, capital activity and liquidity in the private markets is severely impacted. Using data from Stepstone's Data and Risk Operations Group, the ratio of distribution activity relative to contributions decreased significantly from pre-COVID outbreak in the U.S. from a ratio of over 1.0 in February 2020 to 0.2 in April 2020, as seen in the chart below with capital activity over the last three years. During this same period, StepStone analyzed the capital calls from funds and saw a large uptick in general partners calling capital to pay off or reduce their line of credit ("LOC").



⁵ Source: StepStone Portfolio Analytics & Reporting ("SPAR") as of June 2020. SPAR data are updated continuously; values are subject to change.

Private Equity Performance

The table below shows the pooled Internal Rate of Return (“IRR”) performance of global private equity investments by sector over various investment horizons through March 31, 2020. Although private equity returns were down roughly 7% during first quarter of 2020, the quarterly returns fared better than the public markets and better than some early estimates of where private equity returns may end up in Q1. Venture capital and growth equity funds, which tend to have larger focus on technology and healthcare companies, fared better than buyout and special situations funds.

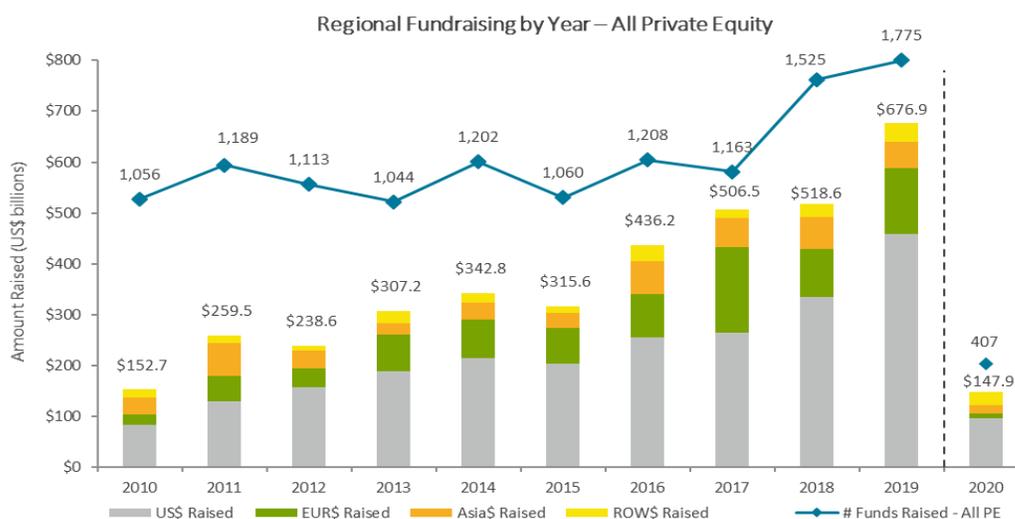
Pooled IRRs Ending March 31, 2020

Sector	Quarter	1 - Year IRR	3 - Year IRR	5 - Year IRR	10 - Year IRR
Buyout	(7.9%)	1.7%	12.0%	12.2%	13.4%
Venture Capital	(2.8%)	7.1%	11.9%	8.8%	11.5%
Growth Equity	(2.7%)	11.0%	15.0%	13.6%	13.9%
Special Situations	(9.3%)	(5.1%)	3.3%	5.0%	9.4%
Total PE	(7.1%)	2.6%	11.7%	11.5%	13.0%

Source: StepStone Portfolio Analytics & Reporting (“SPAR”). SPAR data are updated continuously; values are subject to change.

Fundraising

Global private equity fundraising totaled US\$147.9 billion in the first quarter, representing a decline of 16.5% quarter-over-quarter but flat compared to the first quarter of 2019. Buyout fundraising, which represented 62.2% of the total amount raised for the quarter, totaled US\$92.1 billion, a decrease of 32.0% from the prior quarter and a decrease of 5.4% compared to the prior year period. Venture Capital raised US\$24.8 billion in the first quarter, a decrease of 2.6% quarter-over-quarter and an increase of 2.8% compared to the first quarter of 2019. Geographically, the U.S. represented 65.0% of total funds raised in the quarter, above its 10-year average of 60.3%. Funds raised in Europe, Asia, and the Rest of World made up 6.4%, 10.6% and 18.0% of global fundraising for the quarter, respectively. The chart below shows annual private equity fundraising activity across all sectors.

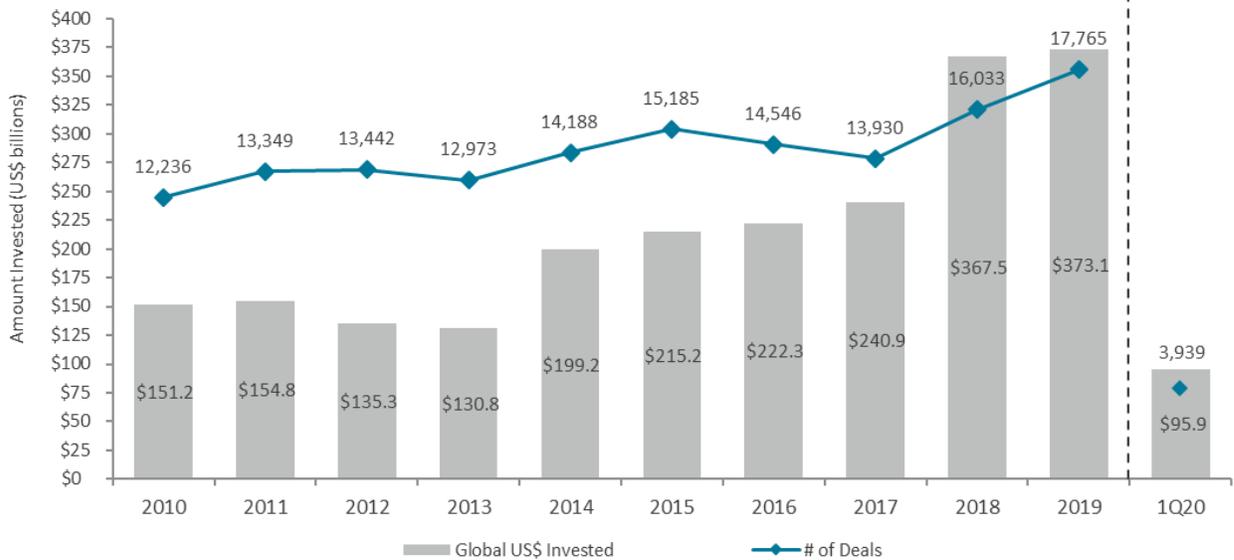


Investment Activity

Private equity funds invested US\$95.9 billion globally during the first quarter, representing a quarter-over-quarter decrease of 1.9% and an increase of 8.7% from the first quarter of 2019. The average investment size during the quarter was US\$24.3 million, an increase of 10.7% compared to the average investment size of US\$22.0 million in the fourth quarter of 2019.

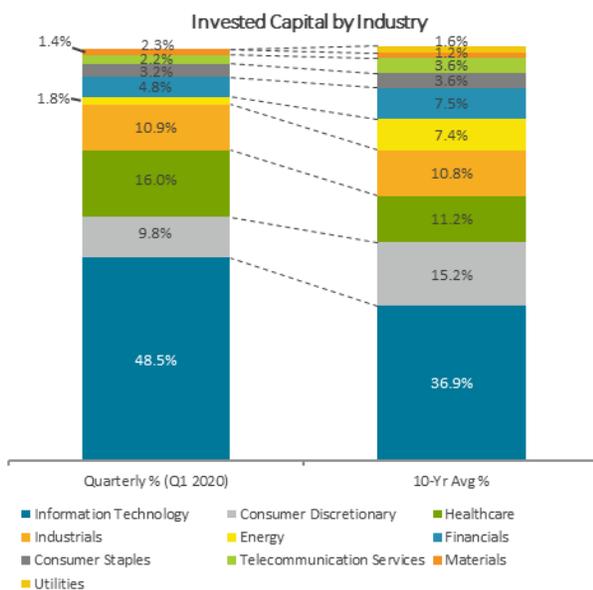
Investment Activity - All Private Equity

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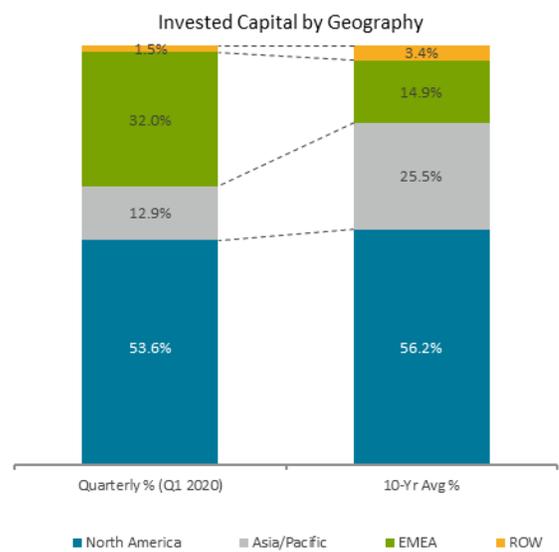


Source: Thomson ONE

graphs below depict the percentage of invested capital by industry and geography for the first quarter of 2020 and over the last ten years. Companies operating in the Information Technology sector continue to account for a significant portion of the invested capital, with over 48.5% of the capital deployed in the first quarter. Geographically, investment activity in North America was below its 10-year average, comprising 53.6% of total capital invested in the first quarter.



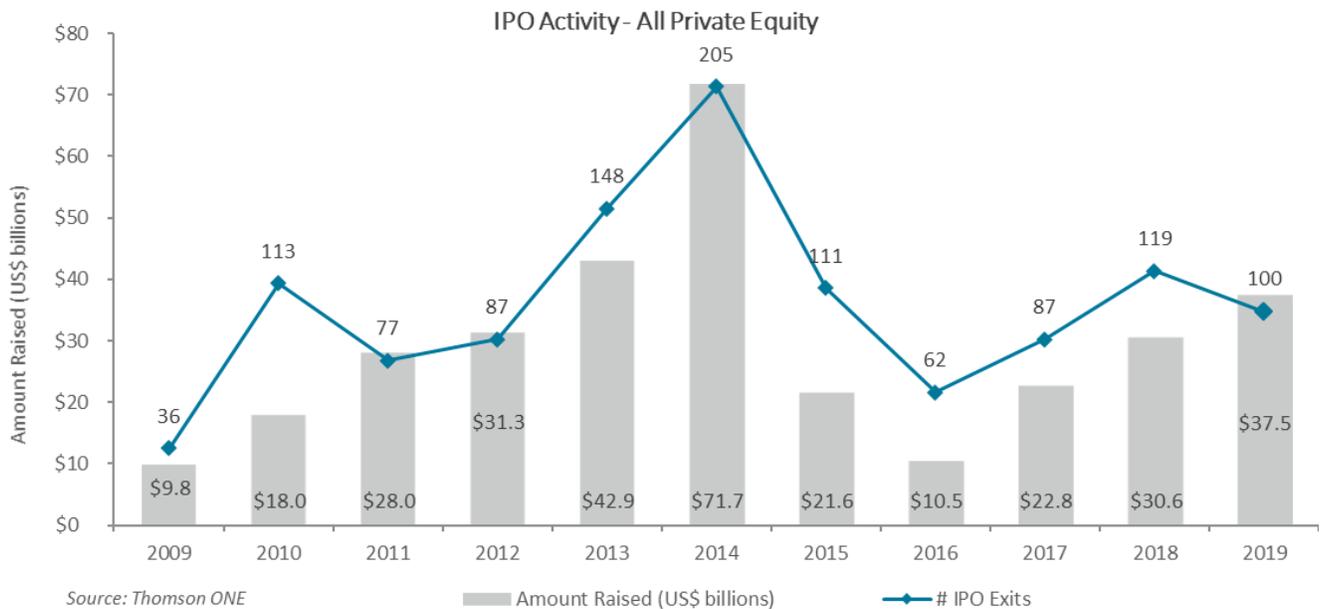
Source: Thomson ONE



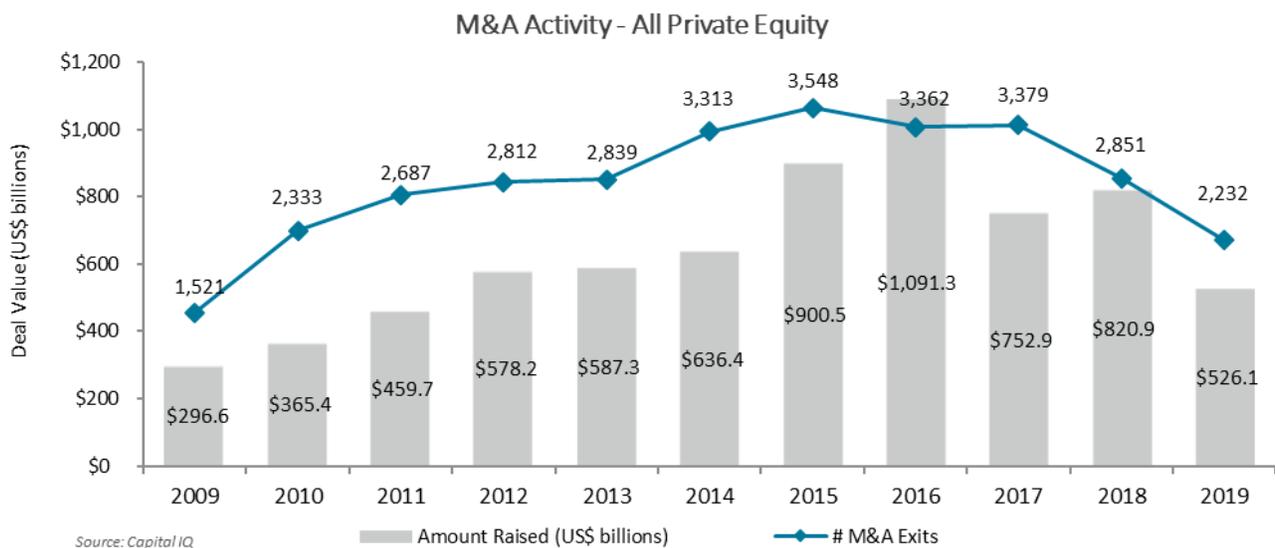
Source: Thomson ONE

Deal Environment

The graphs below depict the percentage of invested capital by industry and geography for the first quarter of 2020 and over the last ten years. Companies operating in the Information Technology sector continue to account for a significant portion of the invested capital, with over 48.5% of the capital deployed in the first quarter. Geographically, investment activity in North America was below its 10-year average, comprising 53.6% of total capital invested in the first quarter.



The number of private equity-backed Mergers and Acquisitions (“M&A”) decreased 19.7%, and the total value of M&A deals decreased 35.9% compared to the prior year. In the fourth quarter, there were 584 private equity backed M&A deals totaling US\$101.2 billion. The largest M&A deals of the quarter were the US\$7.0 billion purchase of Versum Materials, Inc. by Merck Kommanditgesellschaft auf Aktien (XTRA: MRK) and the US\$5.7 billion purchase of CIR III-1 REIT and ColFin Cobalt REIT, Inc. by The Blackstone Group Inc. (NYSE: BX). Together these deals represent 12.5% of the total value for all deals in the quarter. The graph below shows the deal value and the number of M&A deals.



III. Portfolio Review

Quarterly Highlights

- Cash Flow Activity** – During the first quarter of 2020, the Portfolio made US\$102.9 million of contributions and received US\$92.2 million of distributions, for a net cash outflow of US\$10.6 million, compared to a net cash inflow of US\$24.2 million during the prior quarter and a net cash inflow of US\$3.3 million during the first quarter of 2019. Contributions decreased 34.0% from the prior quarter and decreased 8.7% from the first quarter of 2020. The most recent four quarter average of the Program’s contributions is US\$120.4 million. Distributions decreased 48.8% from the prior quarter and decreased 20.4% from the first quarter of 2020. The most recent four quarter average of the Program’s distributions is US\$135.3 million.
- Recent Portfolio Activity** – During the first quarter of 2020, net of cash flow activity, the valuation of the Portfolio decreased by US\$280.0 million, or 10.2%, from the prior quarter. The increase in Portfolio value is primarily attributable to a weak performance of Large Buyout funds during the quarter, which generated a US\$68.1 million decrease in valuation from the prior quarter-end. During the last twelve months, net of cash flow activity, the valuation of the Portfolio decreased by US\$27.0 million, or 1.1%, from the quarter ended March 31, 2019.
- New Investment Commitment** – The Program closed on two investment commitments during the first quarter of 2020, totaling US\$37.5 million.

<i>As of March 31, 2020 (US\$ in millions)</i>				
	Month Closed	Strategy	Geographic Focus	Committed Capital
FTV VI	February 2020	Growth Equity	North America	\$ 7.5
Clearlake Capital Partners VI, L.P.	March 2020	Buyout	North America	30.0
Total				\$ 37.5

- Subsequent Investment Commitments** – Subsequent to quarter-end through August 7, 2020, the Program has closed on seven new investment commitments, totaling US\$369.8 million.

<i>As of August 7, 2020 (US\$ in millions)</i>				
	Month Closed	Strategy	Geographic Focus	Committed Capital
Hg Genesis 9	April 2020	Buyout	Western Europe	\$ 34.0
One Rock Capital Partners III	May 2020	Buyout	North America	27.5
Stellix Capital Partners II	June 2020	Special Situations	North America	33.0
CVC Capital Partners VIII	June 2020	Buyout	Global	116.0
BC Partners XI	July 2020	Buyout	Western Europe	69.3
BC Partners XI Metro Co-Invest	July 2020	Co-Investment	Western Europe	31.5
EQT IX	July 2020	Buyout	Western Europe	58.5
Total				\$ 369.8

Investment Performance

Since Inception Performance

<i>US\$ in millions</i>	March 31, 2020	December 31, 2019	March 31, 2019	Quarterly Change	Yearly Change
Active Investments					
Number of Managers	100	99	102	1	(2)
Number of Investments	199	199	196	-	3
Committed Capital ¹	\$6,291.4	\$6,338.1	\$5,948.4	(\$46.7)	\$343.0
Contributed Capital	\$4,929.9	\$4,907.1	\$4,659.8	\$22.8	\$270.1
Distributed Capital	\$4,669.8	\$4,723.7	\$4,406.6	(\$53.9)	\$263.2
Market Value	\$2,463.5	\$2,733.0	\$2,550.5	(\$269.4)	(\$87.0)
Total Value	\$7,133.4	\$7,456.7	\$6,957.1	(\$323.3)	\$176.3
Total Gain/(Loss)	\$2,203.5	\$2,549.6	\$2,297.3	(\$346.1)	(\$93.9)
Unfunded Commitment ²	\$2,020.1	\$2,095.7	\$1,956.1	(\$75.7)	\$64.0
Total Exposure ³	\$4,483.6	\$4,828.7	\$4,506.6	(\$345.1)	(\$23.0)
DPI ⁴	0.95x	0.96x	0.95x	-0.02x	0.00x
TVM ⁵	1.45x	1.52x	1.49x	-0.07x	-0.05x
IRR ⁶	10.9%	12.0%	11.3%	-103 bps	-42 bps
Exited Investments					
Number of Managers	36	35	27	1	9
Number of Investments	42	40	31	2	11
Committed Capital ¹	\$684.5	\$604.5	\$482.9	\$80.0	\$201.6
Contributed Capital	\$737.2	\$657.1	\$525.8	\$80.1	\$211.3
Distributed Capital	\$941.9	\$795.8	\$663.7	\$146.1	\$278.1
Total Value	\$941.9	\$795.8	\$663.7	\$146.2	\$278.2
Total Gain/(Loss)	\$204.8	\$138.7	\$137.9	\$66.1	\$66.9
Unfunded Commitment ²	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
DPI ⁴	1.28x	1.21x	1.26x	0.07x	0.02x
TVM ⁵	1.28x	1.21x	1.26x	0.07x	0.02x
IRR ⁶	6.5%	5.1%	6.7%	+ 136 bps	- 24 bps
Total Portfolio					
Number of Managers	122	121	118	1	4
Number of Investments	241	239	227	2	14
Committed Capital ¹	\$6,975.9	\$6,942.6	\$6,431.2	\$33.3	\$544.6
Contributed Capital	\$5,667.0	\$5,564.2	\$5,185.6	\$102.9	\$481.4
Distributed Capital	\$5,611.7	\$5,519.5	\$5,070.4	\$92.2	\$541.4
Market Value	\$2,463.6	\$2,733.0	\$2,550.5	(\$269.4)	(\$86.9)
Total Value	\$8,075.3	\$8,252.5	\$7,620.9	(\$177.1)	\$454.4
Total Gain/(Loss)	\$2,408.3	\$2,688.3	\$2,435.3	(\$280.0)	(\$27.0)
Unfunded Commitment ²	\$2,020.1	\$2,095.7	\$1,956.1	(\$75.7)	\$64.0
Total Exposure ³	\$4,483.7	\$4,828.7	\$4,506.6	(\$345.1)	(\$22.9)
DPI ⁴	0.99x	0.99x	0.98x	0.00x	0.01x
TVM ⁵	1.42x	1.48x	1.47x	-0.06x	-0.04x
IRR ⁶	10.1%	10.8%	10.7%	-76 bps	-65 bps
TVM Net of StepStone Fees ⁷	1.42x	1.48x	1.47x	-0.06x	-0.05x
IRR Net of StepStone Fees ⁷	10.1%	10.8%	10.7%	-77 bps	-65 bps

¹ Committed Capital is presented net of any commitment releases or expirations and reflects foreign currency exchange rate fluctuations. Total committed includes underlying fund commitments to the EM 2012, 2015, and 2019 Programs.

² Unfunded Commitment represents the aggregate remaining commitments to partnership investments.

³ Total Exposure represents the sum of Market Value and Unfunded Commitment.

⁴ DPI, or Distributed to Paid-In Multiple, is a performance metric that measures distributions received relative to capital invested. DPI is calculated as Distributed Capital divided by Contributed Capital.

⁵ TVM, or Total Value Multiple, is a performance metric that measures total value created by the Portfolio relative to capital invested, without consideration for time. TVM is calculated as Total Value, which is comprised of Market Value plus Distributed Capital, divided by Contributed Capital.

⁶ IRR, or Internal Rate of Return, is a performance metric that is calculated based on the Portfolio's daily cash flows and market value as of quarter-end. IRR is net of fund manager's fees, expenses and carried interest.

⁷ TVM and IRR Net of StepStone fees represent TVM and IRR net of fees paid by NYCPFF to StepStone. IRR and TVM for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.

Performance by Vintage Year

The following table and chart illustrate the Portfolio's since inception investment performance by vintage year as of March 31, 2020 relative to the median quartile U.S. All Private Equity TVM and IRR benchmarks as provided by Burgiss Private iQ. Performance of funds that are less than two years old is not meaningful. Note that Burgiss Private iQ data is continuously updated and is therefore subject to change.

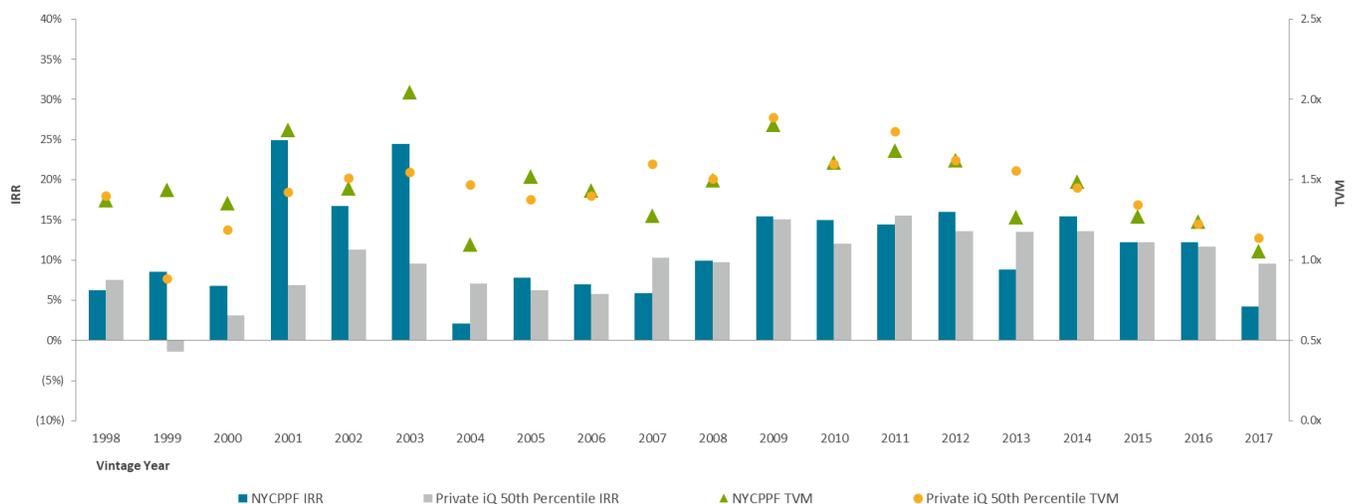
As of March 31, 2020 (US\$ in millions)

Vintage Year	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Unfunded Commitment	Total Exposure	TVM	IRR	PME Return ¹	PME Spread ²	Private iQ U.S. All PE 50th Percentile TVM	Private iQ U.S. All PE 50th Percentile IRR
1998	\$20.0	\$20.1	\$27.6	\$0.0	\$0.0	\$0.0	1.37x	6.3%	3.4%	2.9%	1.40x	7.5%
1999	106.2	123.2	177.2	0.2	-	0.2	1.44x	8.5%	6.5%	2.1%	0.89x	(1.4%)
2000	58.0	69.7	91.7	2.7	3.7	6.4	1.35x	6.8%	6.1%	0.7%	1.19x	3.2%
2001	98.6	122.1	219.1	2.0	2.8	4.8	1.81x	24.9%	8.5%	16.4%	1.43x	6.8%
2002	56.1	55.3	80.1	-	-	-	1.45x	16.7%	7.3%	9.4%	1.51x	11.3%
2003	96.3	112.1	227.2	2.2	5.4	7.6	2.05x	24.4%	7.5%	16.9%	1.55x	9.5%
2004	185.6	203.1	211.9	10.9	4.3	15.2	1.10x	2.1%	6.5%	-4.4%	1.47x	7.1%
2005	327.4	352.8	481.8	54.4	6.5	60.8	1.52x	7.8%	6.9%	0.9%	1.38x	6.2%
2006	545.2	600.7	804.0	57.3	20.0	77.3	1.43x	7.0%	8.5%	-1.5%	1.40x	5.7%
2007	427.0	461.5	514.5	74.4	31.7	106.2	1.28x	5.9%	10.7%	-4.9%	1.60x	10.3%
2008	577.7	672.4	817.0	190.5	33.9	224.4	1.50x	9.9%	12.9%	-3.0%	1.51x	9.8%
2009	113.2	111.7	177.6	28.4	6.1	34.5	1.84x	15.5%	13.9%	1.6%	1.89x	15.1%
2010	102.5	113.8	145.9	37.0	16.1	53.1	1.61x	15.0%	11.9%	3.1%	1.60x	12.1%
2011	419.4	436.6	530.4	203.7	39.3	243.1	1.68x	14.4%	11.6%	2.9%	1.80x	15.5%
2012	461.8	478.2	518.8	256.7	51.6	308.3	1.62x	16.0%	9.6%	6.4%	1.62x	13.6%
2013	334.1	299.3	160.3	219.8	67.3	287.1	1.27x	8.8%	6.8%	2.0%	1.56x	13.5%
2014	390.6	382.3	272.7	296.1	78.4	374.5	1.49x	15.5%	6.6%	8.8%	1.45x	13.6%
2015	386.9	337.8	105.9	323.9	63.3	387.3	1.27x	12.2%	2.9%	9.3%	1.35x	12.2%
2016	187.5	184.0	33.9	193.9	27.4	221.4	1.24x	12.2%	0.6%	11.6%	1.23x	11.7%
2017	332.1	220.8	9.8	223.7	120.3	343.9	1.06x	4.2%	-6.0%	10.2%	1.14x	9.6%
2018	699.4	222.9	3.2	205.5	477.1	682.6	NM	NM	NM	NM	NM	NM
2019	884.3	86.0	1.2	79.7	799.5	879.2	NM	NM	NM	NM	NM	NM
2020	166.0	0.6	-	0.6	165.3	165.9	NM	NM	NM	NM	NM	NM
Total	\$6,975.9	\$5,667.0	\$5,611.7	\$2,463.6	\$2,020.1	\$4,483.7	1.42x	10.1%	8.9%	1.2%	1.32x	8.7%

¹ Russell 3000 PME+

² PME Spread is calculated as IRR minus PME Return.

As of March 31, 2020



Portfolio Periodic Returns vs. Russell 3000® Index

As of March 31, 2020	3 Month	1 Year	3 Year	5 Year	10 Year	Since Inception
NYCPPF IRR	-10.2%	-1.1%	9.3%	9.0%	10.9%	10.1%
Russell 3000® ¹	-21.5%	0.0%	4.3%	6.2%	11.1%	8.9%
Russell 3000® + 300 bps ²	-18.5%	3.0%	7.3%	9.2%	14.1%	11.9%
NYCPPF Outperformance/(Underperformance)						
vs. Russell 3000® + 300 bps ²	8.3%	(4.1%)	2.0%	(0.1%)	(3.2%)	(1.8%)

¹Return is a dollar-weighted PME+ calculation of daily changes in the Russell 3000® Index. Russell Investment Group is the source and owner of the trademark, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Russell Investment Group.

²Benchmark is a dollar-weighted PME+ calculation of daily changes in the Russell 3000® Index plus a 300 basis point illiquidity premium (the Opportunity Cost Benchmark).

Note: The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Performance by Strategy / Sub-Strategy

The following table and charts illustrate the Portfolio's since inception investment performance by strategy and sub-strategy as of March 31, 2020.

As of March 31, 2020 (US\$ in millions)

Strategy / Sub-Strategy	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Unfunded Commitment	Total Exposure	TVM	IRR
Buyout	\$4,282.1	\$3,586.4	\$3,747.5	\$1,518.4	\$1,210.6	\$2,729.0	1.47x	11.4%
Mega Buyout	1,529.8	1,001.7	729.0	650.9	645.3	1,296.3	1.38x	11.4%
Large Buyout	1,089.0	1,008.2	1,199.8	481.5	248.4	729.9	1.67x	21.9%
Middle-Market Buyout	934.7	807.3	917.2	228.5	253.1	481.6	1.42x	8.5%
Small Buyout	728.6	769.2	901.5	157.5	63.8	221.2	1.38x	7.6%
Growth Equity	565.1	482.5	440.0	303.8	151.1	454.9	1.54x	14.5%
Special Situations	526.4	377.5	352.1	175.9	209.3	385.2	1.40x	12.6%
Energy	130.0	141.2	99.9	13.7	4.8	18.4	0.80x	-4.1%
Secondaries	640.5	411.6	397.6	169.9	227.7	397.6	1.38x	13.7%
Co-Investment	449.6	249.8	193.8	135.1	209.6	344.7	1.32x	9.0%
Other	382.3	418.0	380.7	146.9	6.9	153.8	1.26x	3.7%
Venture Capital	342.8	369.3	313.5	146.4	4.6	151.1	1.25x	3.2%
Mezzanine	39.5	48.8	67.2	0.4	2.3	2.7	1.39x	12.2%
Total	\$6,975.9	\$5,667.0	\$5,611.7	\$2,463.6	\$2,020.1	\$4,483.7	1.42x	10.1%

Performance by Strategy

As of March 31, 2020



Performance by Sub-Strategy

As of March 31, 2020



Portfolio Diversification

The following tables illustrate the Portfolio's diversification by strategy and fund geographic focus as of March 31, 2020.

By Strategy/Sub-Strategy

As of March 31, 2020 (US\$ in millions)	Market Value		Unfunded Commitment		Total Exposure	
	\$	% of Total	\$	% of Total	\$	% of Total
Buyout	\$1,518.4	61.6%	\$1,210.6	59.9%	\$2,729.0	60.9%
Mega Buyout	650.9	26.4%	645.3	31.9%	1,296.3	28.9%
Large Buyout	481.5	19.5%	248.4	12.3%	729.9	16.3%
Middle-Market Buyout	228.5	9.3%	253.1	12.5%	481.6	10.7%
Small Buyout	157.5	6.4%	63.8	3.2%	221.2	4.9%
Growth Equity	303.8	12.3%	151.1	7.5%	454.9	10.1%
Special Situations	175.9	7.1%	209.3	10.4%	385.2	8.6%
Energy	13.7	0.6%	4.8	0.2%	18.4	0.4%
Secondaries	169.9	6.9%	227.7	11.3%	397.6	8.9%
Co-Investment	135.1	5.5%	209.6	10.4%	344.7	7.7%
Other	146.9	6.0%	6.9	0.3%	153.8	3.4%
Venture Capital	146.4	5.9%	4.6	0.2%	151.1	3.4%
Mezzanine	0.4	0.0%	2.3	0.1%	2.7	0.1%
Total	\$2,463.6	100.0%	\$2,020.1	100.0%	\$4,483.7	100.0%

By Fund Geographic Focus

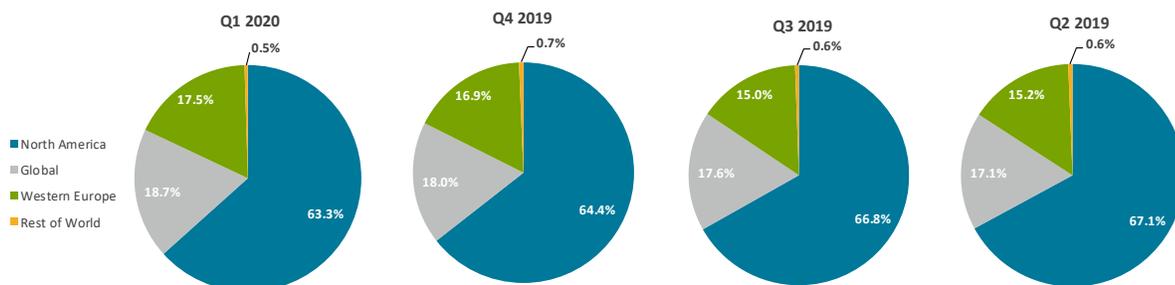
As of March 31, 2020 (US\$ in millions)	Market Value		Unfunded Commitment		Total Exposure	
	\$	% of Total	\$	% of Total	\$	% of Total
North America	\$1,560.6	63.3%	\$1,189.6	58.9%	\$2,750.1	61.3%
Global	460.2	18.7%	552.9	27.4%	1,013.1	22.6%
Western Europe	431.3	17.5%	276.0	13.7%	707.3	15.8%
Rest of World	11.5	0.5%	1.6	0.1%	13.1	0.3%
Total	\$2,463.6	100.0%	\$2,020.1	100.0%	\$4,483.7	100.0%

Fund Geographic Focus is based on a number of factors, including the GP-stated geographic focus, the number of investments within each region, invested capital by region, the location of the firm's offices and investment professionals, and the underlying fund currency.

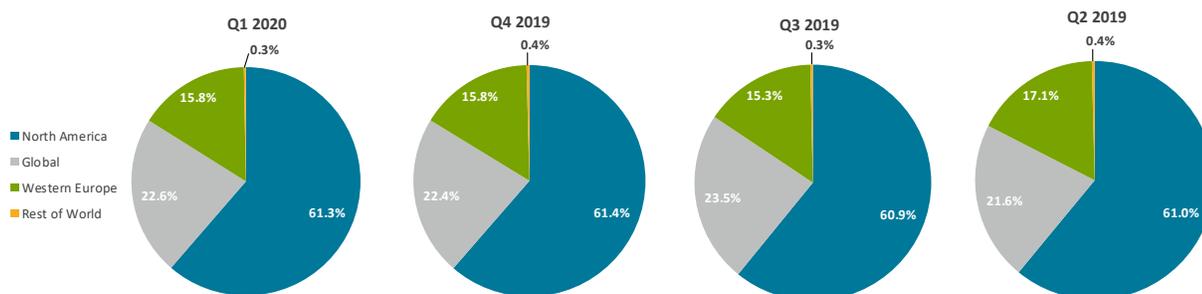
By Fund Geographic Focus

The following charts illustrate the Portfolio’s diversification by fund geographic focus for the most recent four quarters as of March 31, 2020.

Geographic Exposure by Market Value



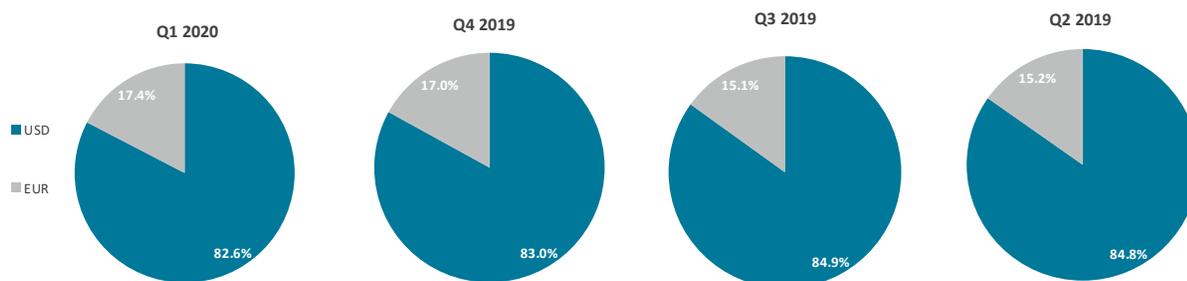
Geographic Exposure by Market Value + Unfunded



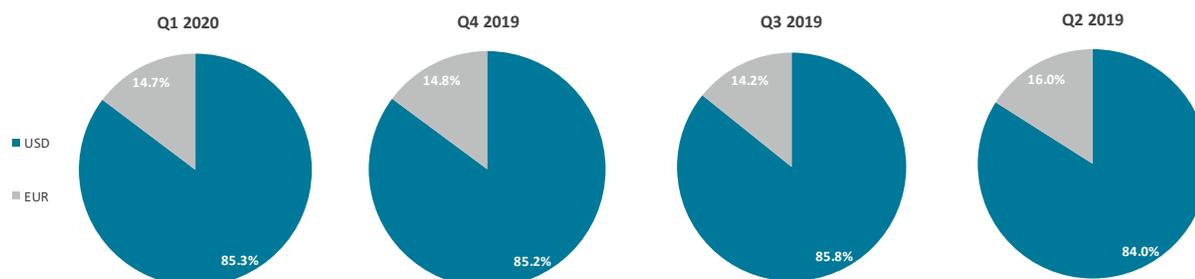
By Fund Currency

The following charts illustrate the Portfolio’s diversification by fund currency for the most recent four quarters as of March 31, 2020.

Fund Currency Exposure by Market Value



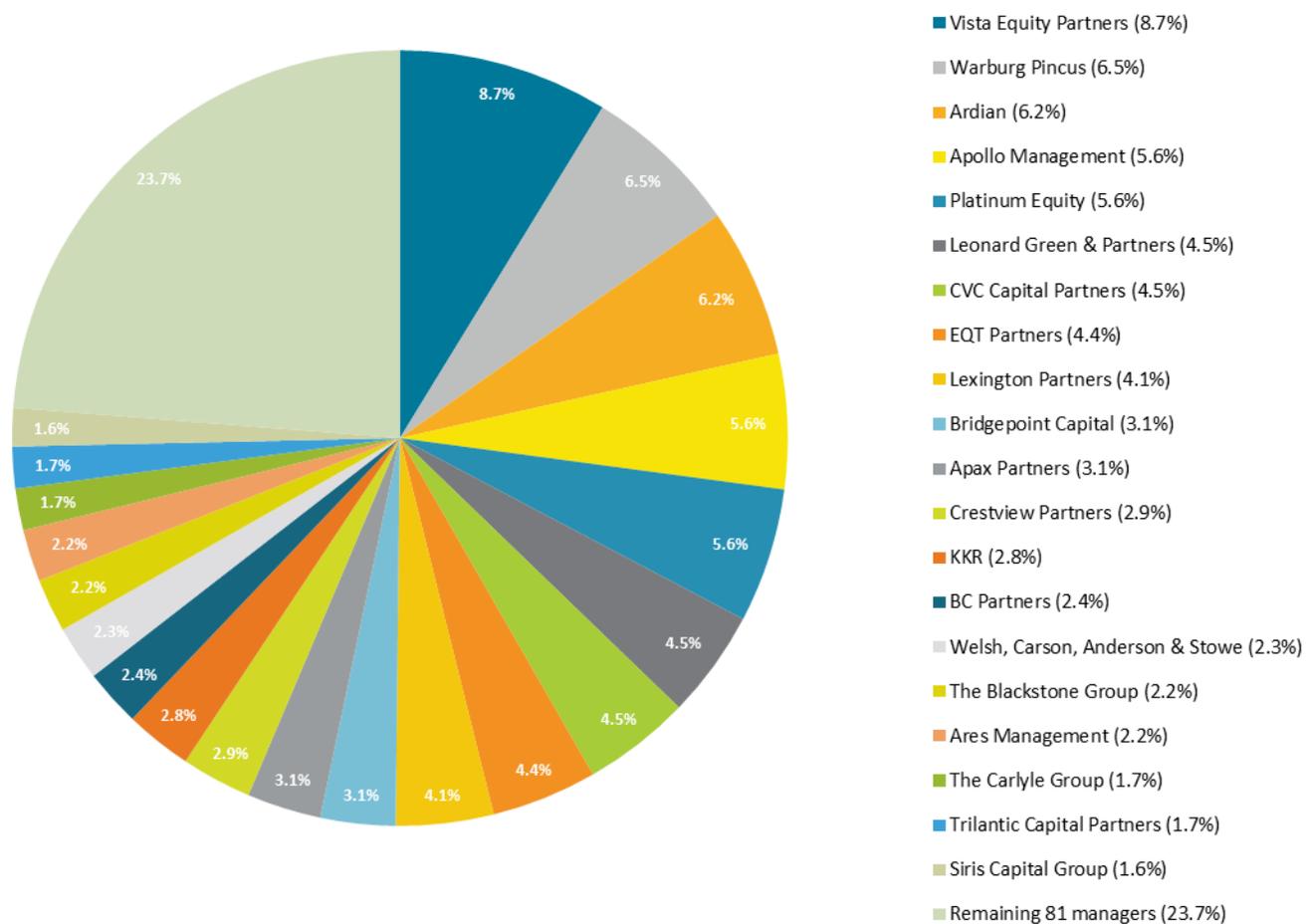
Fund Currency Exposure by Market Value + Unfunded



By Investment Manager

As of March 31, 2020, the Portfolio was highly diversified by investment manager, with 20 managers comprising US\$3.4 billion, or 76.3% of total exposure. The remaining 81 managers comprised 23.7% of total exposure as of quarter-end.

Portfolio Total Exposure by Investment Manager
As of March 31, 2020

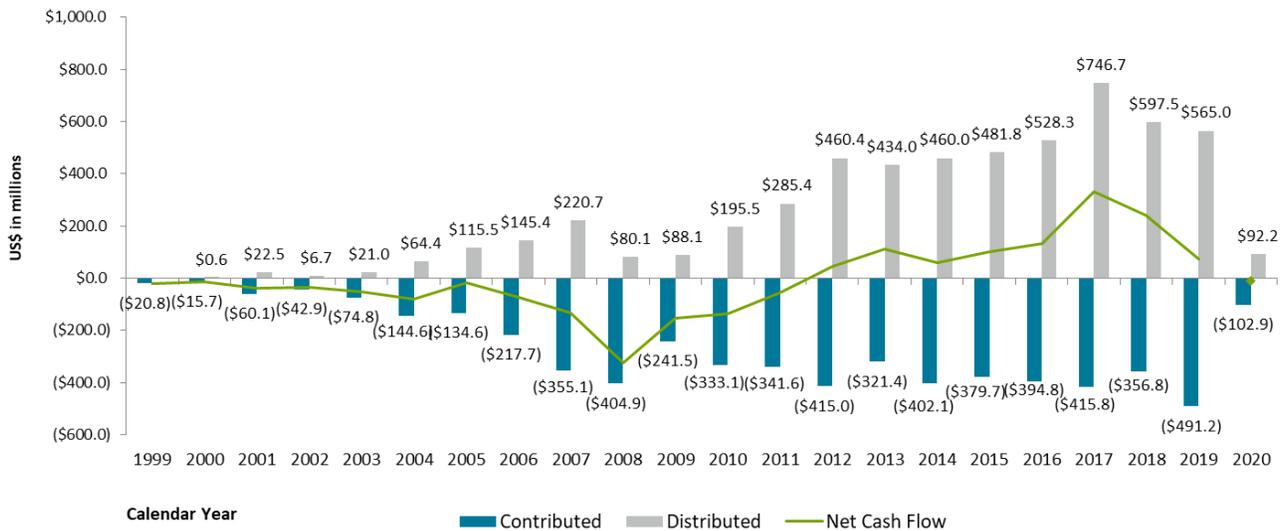


Portfolio Cash Flow Analysis

The following yearly and quarterly cash flow analysis is based on actual Portfolio cash flows during those time periods.

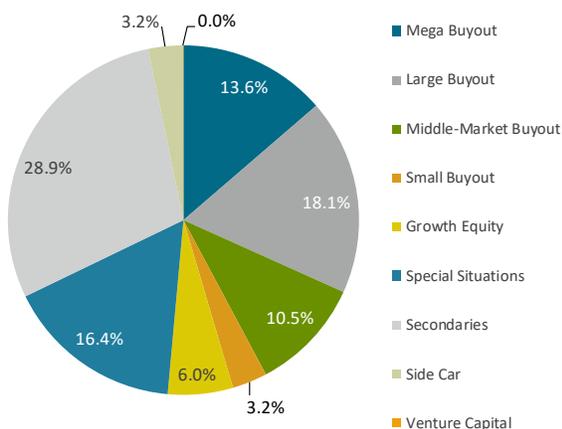
Year to Date Cash Flow Activity

During the three months ended March 31, 2020, the Portfolio made US\$102.9 million of contributions and received US\$92.2 million of distributions, for a net cash outflow of US\$10.6 million, compared to a net cash inflow of US\$3.3 million during the same period in the prior year. The graph below illustrates cash flow activity since inception by calendar year.

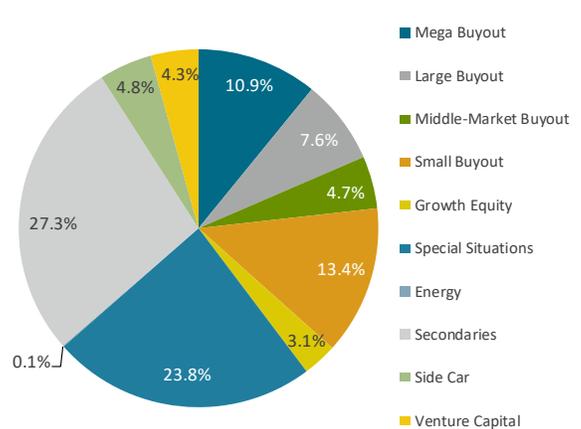


Buyout funds were the most active in terms of cash flow activity during 2020. Buyout funds drew down US\$46.8 million, or 45.5% of total contributions during 2020, and distributed US\$33.8 million, or 36.7% of total distributions during 2020.

2020 Total Contributed by Sub-Strategy

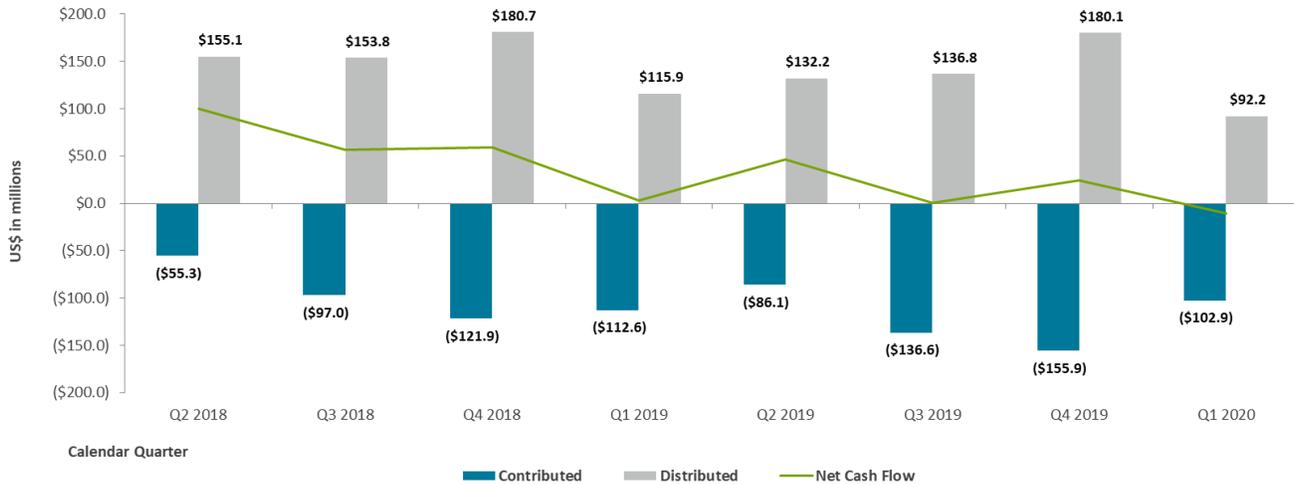


2020 Total Distributed by Sub-Strategy



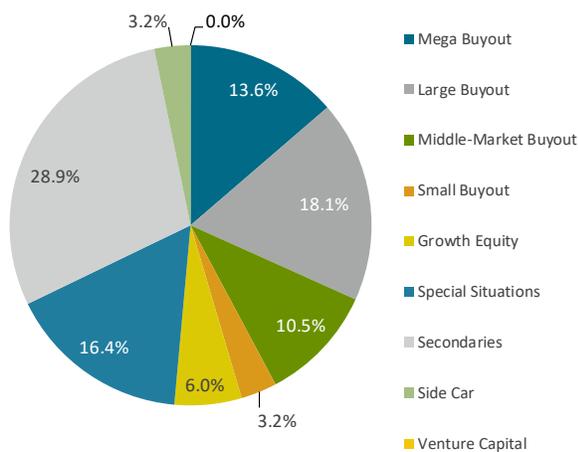
Quarterly Cash Flow Activity

During the first quarter of 2020, the Portfolio made US\$102.9 million of contributions and received US\$92.2 million of distributions, for a net cash outflow of US\$10.6 million. The graph below illustrates recent cash flow activity by quarter.

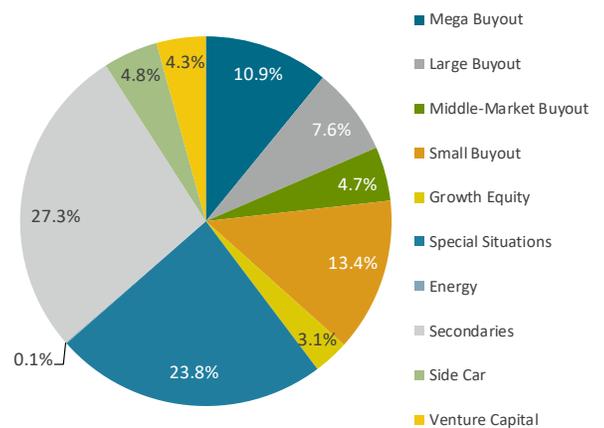


Buyout funds were the most active in terms of cash flow activity during the first quarter of 2020. Buyout funds drew down US\$46.8 million, or 45.5% of total contributions during the quarter, and distributed US\$33.8 million, or 36.7% of total distributions during the quarter.

Q1 2020 Contributed by Sub-Strategy

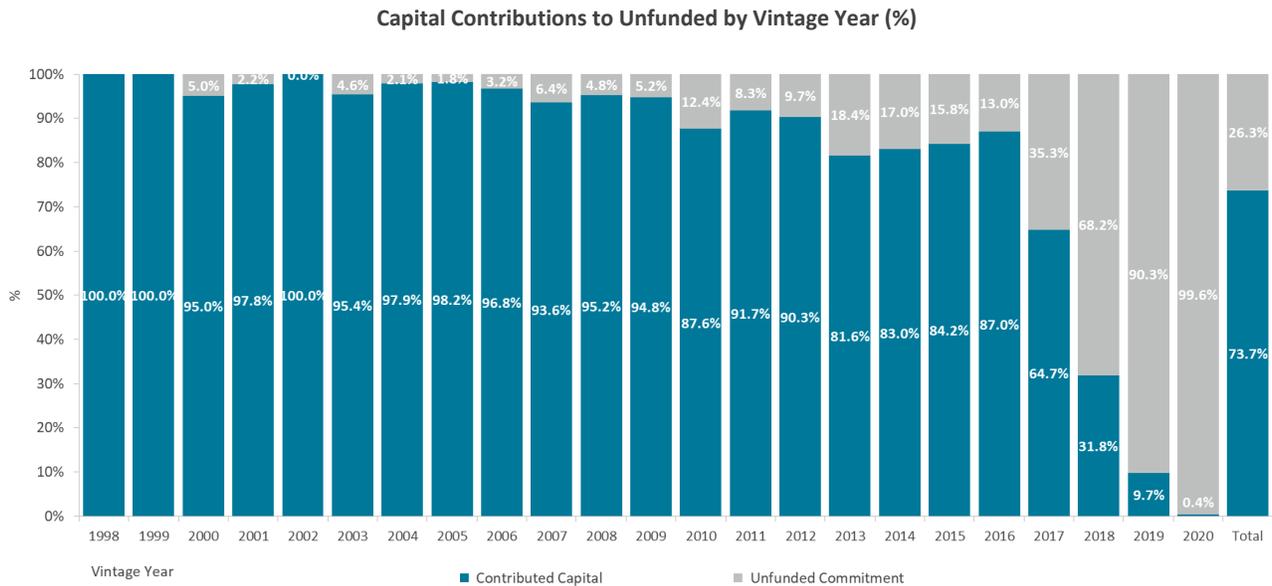


Q1 2020 Distributed by Sub-Strategy

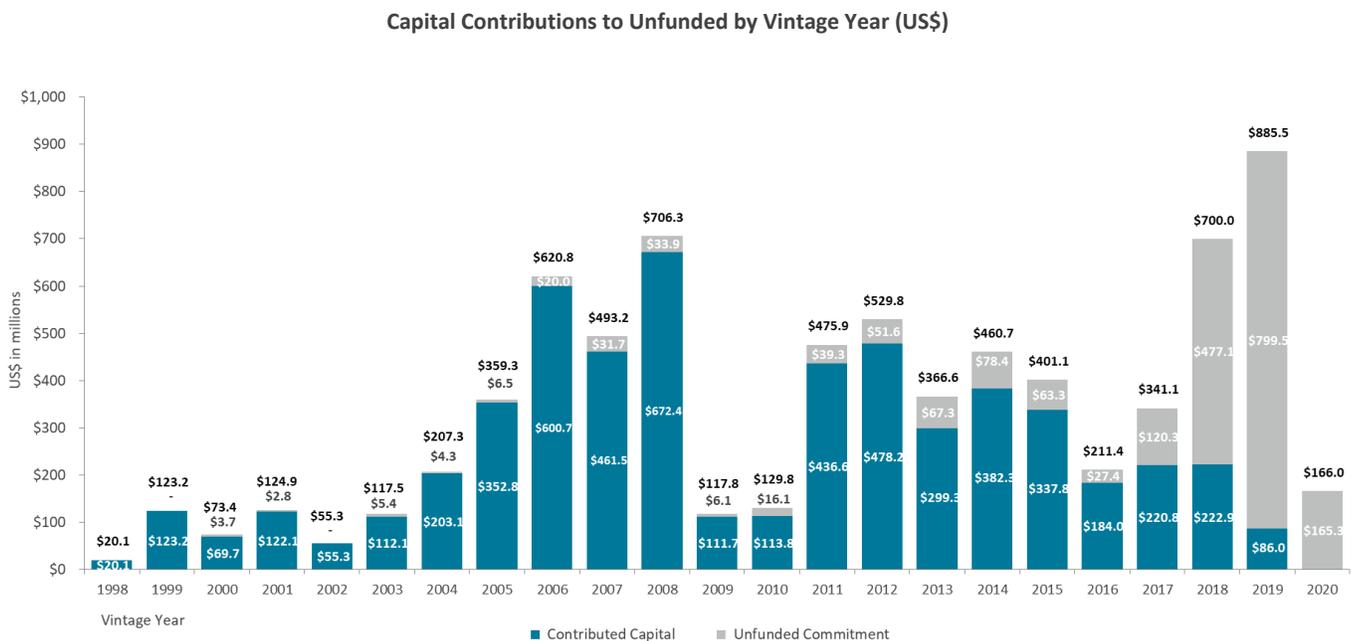


Invested Capital by Vintage Year

The following chart illustrates cumulative capital contributions as a percentage of total capital commitments, by fund vintage year, as of March 31, 2020.



The following chart illustrates cumulative capital contributions relative to unfunded commitment, by fund vintage year, as of March 31, 2020.



Portfolio Company-Level Analysis

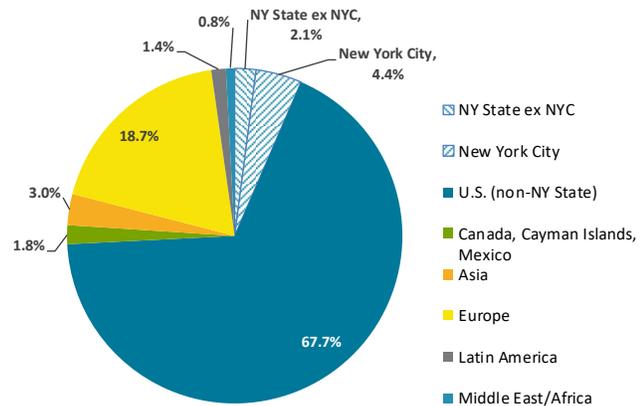
Geographic Exposure

The following charts illustrate the Portfolio's total investment cost and current market value exposure by geography at the portfolio company level as of March 31, 2020. Please note that the geography is based upon the corporate headquarters of each portfolio company.

Geographic Exposure by Total Cost

As of March 31, 2020 (US\$ in millions)

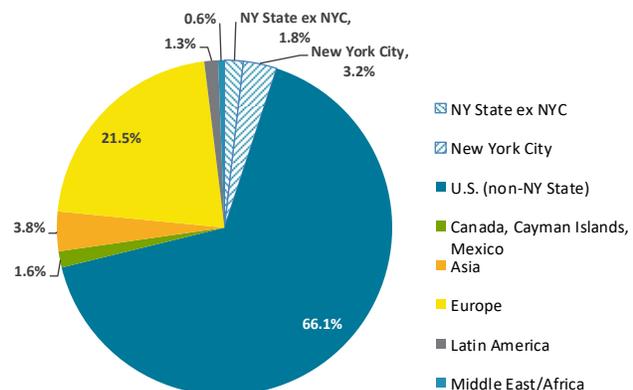
	Sum of Total Cost	% of Total
North America	\$3,797.9	76.0%
New York	323.9	6.5%
NY State ex NYC	102.4	2.1%
New York City	221.5	4.4%
U.S. (non-NY State)	3,383.0	67.7%
Canada, Cayman Islands, Mexico	91.0	1.8%
Asia	150.1	3.0%
Europe	935.6	18.7%
Latin America	70.3	1.4%
Middle East/Africa	41.7	0.8%
Total	\$4,995.6	100.0%



Geographic Exposure by Current Market Value

As of March 31, 2020 (US\$ in millions)

	Sum of Current Market Value	% of Total
North America	\$2,070.5	72.7%
New York	143.7	5.0%
NY State ex NYC	51.6	1.8%
New York City	92.1	3.2%
U.S. (non-NY State)	1,882.3	66.1%
Canada, Cayman Islands, Mexico	44.6	1.6%
Asia	108.7	3.8%
Europe	612.4	21.5%
Latin America	37.7	1.3%
Middle East/Africa	17.3	0.6%
Total*	\$2,846.7	100.0%

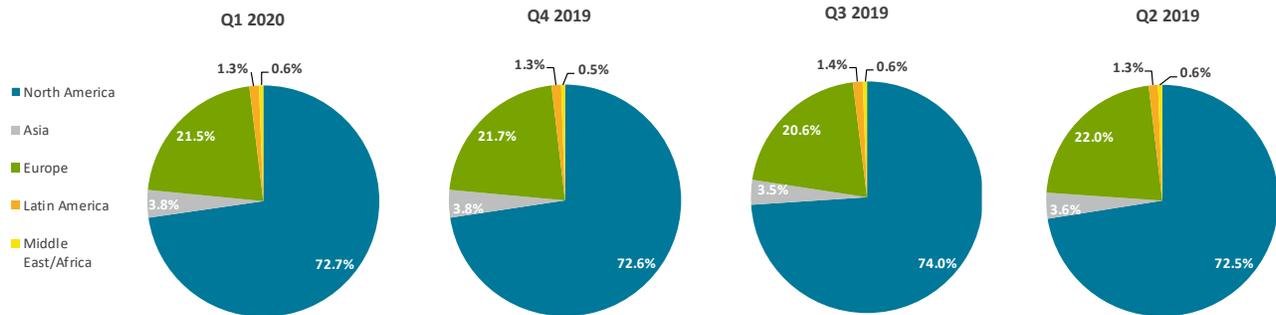


* Total portfolio company market value will not equal the Portfolio's market value due to a fund's cash holding and rounding estimates.

Geographic Exposure

The following charts illustrate the Portfolio's current exposure by geography at the portfolio company level for the most recent four quarters. Please note that the geography is based upon the corporate headquarters of each portfolio company.

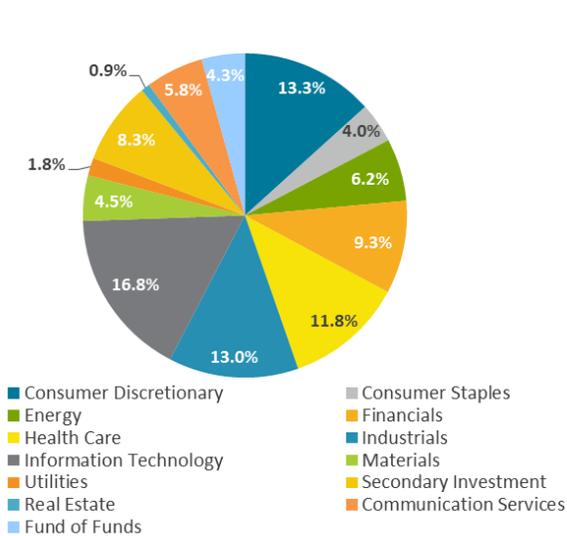
Geographic Exposure by Current Market Value



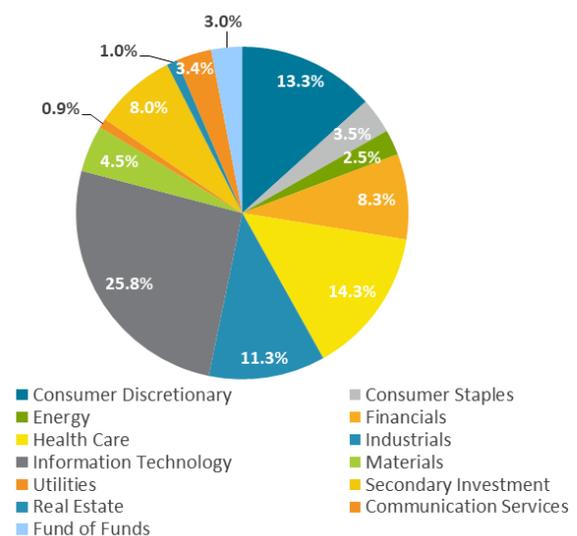
Industry Exposure

The following charts illustrate the Portfolio's total investment cost and current market value exposure by industry at the portfolio company level as of March 31, 2020. Please note that the Financials category includes investments in various debt securities.

Industry Exposure by Total Cost



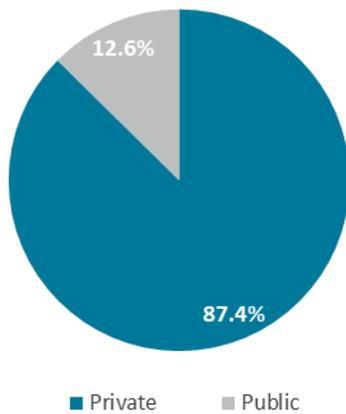
Industry Exposure by Current Market Value



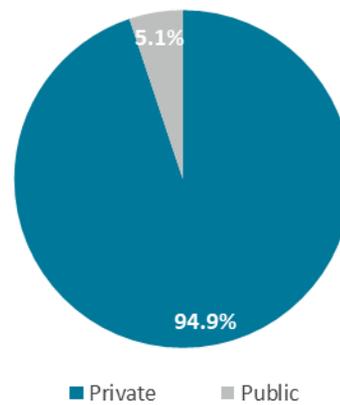
Public Market Exposure

As of quarter-end, publicly traded investments comprised 12.6% of the Portfolio's total investment cost and 5.1% of the Portfolio's exposed market value. The following charts illustrate the current public market exposure at the portfolio company level.

Public Market Exposure by Total Cost



Public Market Exposure Current Market Value



IV. Appendix



New York City Police Pension Fund, Subchapter 2
Private Equity Portfolio
As of March 31, 2020 (in USD)

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR ¹	PME Return ²	PME Spread ³
Active Investments										
1999	Cypress Merchant Banking Partners II, L.P.	3/29/1999	\$ 45,172,972	\$ 53,944,269	\$ 50,584,154	\$ 24,183	0.94x	(1.2%)	5.5%	(6.7%)
1999	Lincolnshire Equity Fund II, L.P.	10/20/1999	11,038,409	11,556,880	22,653,206	203,634	1.98x	24.6%	6.9%	17.6%
2000	Solera Partners, L.P.	5/26/2000	9,999,888	13,369,506	20,817,577	77,895	1.56x	7.4%	6.1%	1.3%
2000	SCP Private Equity Partners II, L.P.	6/15/2000	25,000,000	28,057,160	10,857,159	2,640,535	0.48x	(8.1%)	5.6%	(13.7%)
2001	Apollo Investment Fund V, L.P.	4/13/2001	35,000,000	54,551,027	107,618,495	301,504	1.98x	38.8%	8.3%	30.5%
2001	CVC European Equity Partners III, L.P.	9/4/2001	25,000,000	29,700,915	74,439,614	1,699,553	2.56x	41.0%	10.7%	30.3%
2003	FS Equity Partners V, L.P.	1/20/2003	15,000,000	12,851,976	25,116,883	869,380	2.02x	15.3%	4.8%	10.5%
2003	Blackstone Capital Partners IV, L.P.	2/26/2003	46,253,267	57,243,283	139,513,063	1,227,199	2.46x	36.3%	8.5%	27.9%
2003	Ares Corporate Opportunities Fund, L.P.	4/1/2003	35,000,000	41,988,154	62,593,160	90,416	1.49x	13.1%	7.4%	5.7%
2004	Markstone Capital Partners, LP	1/30/2004	10,000,000	11,724,772	4,955,651	68,054	0.43x	(38.4%)	10.3%	(48.6%)
2004	FdG Capital Partners II LP	8/30/2004	25,000,000	26,938,873	31,142,933	1,461,999	1.21x	3.7%	6.6%	(3.0%)
2004	Lincolnshire Equity Fund III, L.P.	10/1/2004	15,000,000	15,001,893	21,339,880	5,614,585	1.80x	28.0%	10.2%	17.9%
2004	Yucaipa American Alliance Fund I, LP	10/1/2004	20,000,000	29,967,488	35,202,784	1,385,384	1.22x	4.6%	10.5%	(5.8%)
2004	Medica III Investments (International) L.P.	12/1/2004	10,000,000	10,000,000	4,237,089	2,406,000	0.66x	(7.3%)	(5.3%)	(2.0%)
2005	Palladium Equity Partners III, L.P.	11/12/2004	25,000,000	27,049,705	49,494,473	445,657	1.85x	14.4%	10.9%	3.4%
2005	New Mountain Partners II, L.P.	1/12/2005	7,741,935	7,011,896	13,507,602	120,648	1.94x	13.6%	4.4%	9.2%
2005	Arlington Capital Partners II, L.P.	7/29/2005	20,000,000	20,236,733	35,601,071	44,648	1.76x	11.3%	6.7%	4.6%
2005	Snow Phipps Group, L.P.	9/7/2005	10,000,000	11,913,742	10,457,308	3,196,347	1.15x	3.1%	10.2%	(7.1%)
2005	Blackstone Mezzanine Partners II, L.P.	10/10/2005	11,954,147	13,356,475	17,778,894	149,089	1.34x	7.8%	3.7%	4.2%
2005	Psilos Group Partners III, L.P.	10/24/2005	12,500,000	13,287,792	6,410,270	11,761,489	1.37x	4.2%	7.0%	(2.8%)
2005	FirstMark Capital I, L.P. (fka FirstMark IV)	11/21/2005	10,000,000	10,927,097	37,049,724	27,088,010	5.87x	31.4%	8.4%	23.0%
2005	USPF II Institutional Fund, L.P.	11/23/2005	20,000,000	26,379,750	30,753,066	2,802,217	1.27x	4.0%	7.6%	(3.5%)
2005	JP Morgan Fleming (Tranche A)	12/21/2005	40,000,000	39,989,461	42,524,359	8,746,684	1.28x	4.6%	10.3%	(5.8%)
2006	Aisling Capital II, LP	1/12/2006	2,500,000	2,945,044	2,852,895	102,836	1.00x	0.1%	7.6%	(7.6%)
2006	InterMedia Partners VII, L.P.	1/20/2006	12,500,000	14,614,611	14,795,867	(15,513)	1.01x	0.2%	9.7%	(9.5%)
2006	Falconhead Capital Partners II, L.P.	1/24/2006	15,000,000	16,846,651	16,818,185	3,463,512	1.20x	3.5%	8.3%	(4.9%)
2006	Terra Firma Capital Partners III, L.P.	3/8/2006	15,527,882	15,744,445	6,102,718	996,659	0.45x	(9.5%)	9.8%	(19.3%)
2006	Blackstone Capital Partners IV, L.P.	4/13/2006	42,087,697	44,813,997	71,190,251	1,211,636	0.39x	(20.8%)	8.3%	(29.1%)
2006	Avista Capital Partners, L.P.	4/27/2006	20,000,000	26,295,958	32,016,285	284,196	1.23x	4.4%	6.2%	(1.9%)
2006	Apollo Investment Fund VI, L.P.	5/10/2006	45,000,000	57,919,123	86,669,134	909,948	1.51x	8.7%	7.6%	1.1%
2006	Landmark Equity Partners XIII, L.P.	5/11/2006	10,000,000	9,611,868	12,206,606	503,979	1.32x	5.4%	6.7%	(1.3%)
2006	Ares Corporate Opportunities Fund II, L.P.	5/23/2006	15,000,000	16,428,261	27,406,387	25,925	1.67x	13.1%	3.8%	9.3%
2006	Atlantic Equity Partners V, L.P.	7/12/2006	25,124,928	24,381,913	4,274,904	14,124,844	0.75x	(3.1%)	9.0%	(12.1%)
2006	Capital Partners Private Equity Income Fund, L.P.	8/23/2006	15,000,000	14,476,277	33,181,704	340,812	2.32x	21.1%	11.1%	10.0%
2006	NB Co-Investment Partners LP	9/28/2006	60,000,000	60,616,170	85,745,060	3,373,950	1.47x	8.8%	5.7%	3.1%
2006	Euro Choice III L.P.	11/21/2006	26,713,564	26,875,176	30,076,667	1,034,562	1.16x	2.9%	11.9%	(9.0%)
2006	Thomas, Mc Nerney & Partners II, L.P.	11/30/2006	10,000,000	10,139,667	22,044,274	925,631	2.27x	16.7%	11.4%	5.3%
2006	Catterton Partners VI, L.P.	12/14/2006	20,000,000	22,775,054	35,761,963	6,159,431	1.84x	11.3%	8.4%	2.9%
2006	First Reserve Fund XI, L.P.	12/14/2006	20,000,000	21,253,053	13,841,146	23,058	0.65x	(10.2%)	6.6%	(16.8%)
2006	Permira IV, L.P.	12/14/2006	16,155,954	17,593,382	25,416,279	1,820,490	1.55x	8.5%	9.2%	(0.7%)
2006	Arsenal Capital Partners II, LP	12/19/2006	10,000,000	12,195,086	23,606,075	86,172	1.94x	12.1%	12.0%	0.1%
2006	RRE Ventures IV, L.P.	12/19/2006	15,000,000	19,065,446	13,817,742	11,978,324	1.35x	4.2%	9.6%	(5.4%)
2006	Coller International Partners V, L.P.	12/21/2006	10,000,000	8,744,365	11,598,430	600,664	1.40x	7.8%	10.5%	(2.7%)
2006	MidOcean Partners III, L.P.	12/21/2006	38,823,185	46,380,826	91,070,482	4,926,342	2.07x	12.9%	9.6%	3.3%
2006	GF Capital Private Equity Fund, L.P.	12/22/2006	10,000,000	10,488,825	13,672,386	4,397,376	1.72x	11.4%	11.1%	0.3%
2006	The Fourth Civen Fund	1/22/2007	13,543,760	14,218,068	20,526,269	(8,513)	1.44x	7.3%	7.5%	(0.2%)
2007	Pegasus Partners IV, L.P.	1/29/2007	15,000,000	18,225,016	13,800,466	3,076,309	0.93x	(1.4%)	10.8%	(12.2%)
2007	Olympus Capital Asia III, L.P.	1/31/2007	20,000,000	23,404,664	11,953,414	3,147,955	0.65x	(10.5%)	10.4%	(20.9%)
2007	FTVentures III, LP	3/1/2007	7,500,000	8,231,525	16,022,587	2,129,235	2.21x	15.6%	9.8%	5.7%
2007	Highland Consumer Fund I LP	3/16/2007	10,000,000	10,016,060	6,120,655	1,992,710	0.81x	(2.8%)	10.5%	(13.3%)
2007	Montreux Equity Partners IV, L.P.	3/27/2007	10,000,000	10,000,000	5,522,350	7,787,573	1.33x	4.1%	9.1%	(4.9%)
2007	Gleacher Mezzanine Fund II, L.P.	3/30/2007	10,000,000	9,197,768	12,187,028	74,678	1.33x	10.6%	11.7%	(1.1%)
2007	Quaker BioVentures II, L.P.	3/30/2007	15,000,000	14,444,055	12,870,505	1,982,711	1.03x	0.6%	12.3%	(11.7%)
2007	SCP Vitalife Partners II Fund	4/13/2007	15,000,000	15,074,774	1,184	5,904,258	0.39x	(10.1%)	4.9%	(15.0%)
2007	Comvest Investment Partners III, L.P.	5/15/2007	15,000,000	19,429,668	26,719,980	72,191	1.38x	7.5%	11.4%	(3.9%)
2007	Constellation Venture Capital III, L.P.	5/22/2007	15,000,000	17,295,938	8,712,259	4,457,285	0.76x	(4.2%)	14.8%	(19.0%)
2007	United States Power Fund III, L.P.	6/28/2007	15,000,000	17,746,993	18,308,108	3,238,719	1.21x	3.5%	9.1%	(5.6%)
2007	Carlyle Partners V, L.P.	7/6/2007	50,000,000	51,532,052	85,213,809	6,142,132	1.77x	13.6%	10.7%	2.8%
2007	PCG Clean Energy & Technology Fund (East), LLC	7/6/2007	40,000,000	36,190,929	9,315,169	3,993,015	0.37x	(13.4%)	12.8%	(26.2%)
2007	GSO Capital Opportunities Fund LP	7/16/2007	17,500,000	26,202,290	37,188,395	178,853	1.43x	17.3%	10.1%	7.2%
2007	New Mountain Partners III, L.P.	8/9/2007	35,000,000	35,653,120	47,462,355	24,249,569	2.01x	12.8%	11.4%	1.4%



New York City Police Pension Fund, Subchapter 2
Private Equity Portfolio
As of March 31, 2020 (in USD)

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR ¹	PME Return ²	PME Spread ³
2007	Vista Equity Partners Fund III, L.P.	10/3/2007	20,000,000	21,474,237	51,079,934	1,592,137	2.45x	26.9%	9.7%	17.2%
2007	Trilantic Capital Partners IV L.P.	10/22/2007	45,856,523	47,868,579	70,629,425	3,763,307	1.55x	13.3%	10.8%	2.5%
2007	Pine Brook Capital Partners, L.P.	1/11/2008	15,000,000	17,034,149	21,219,552	634,114	1.28x	6.8%	11.9%	(5.1%)
2008	Paladin III (NY City), L.P.	1/8/2008	30,000,000	41,065,348	29,908,122	50,923,415	1.97x	12.0%	9.9%	2.1%
2008	Apollo Investment Fund VII, L.P.	1/28/2008	50,000,000	61,303,962	97,117,244	4,497,324	1.66x	22.2%	13.4%	8.8%
2008	NGN BioMed Opportunity II, L.P.	2/11/2008	10,000,000	9,575,911	6,673,105	5,257,311	1.25x	3.2%	14.0%	(10.8%)
2008	Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	3/3/2008	15,000,000	17,376,833	16,613,219	1,410,166	1.04x	1.0%	13.6%	(12.6%)
2008	Yucaipa American Alliance Fund II, LP	3/28/2008	50,000,000	68,624,624	66,020,091	43,855,818	1.60x	8.5%	11.0%	(2.6%)
2008	Milestone Partners III, L.P.	4/7/2008	15,000,000	16,394,499	13,980,609	1,596,231	0.95x	(1.0%)	12.3%	(13.3%)
2008	Levine Leichtman Capital Partners IV, L.P.	4/8/2008	10,000,000	10,707,203	16,955,081	844,163	1.66x	18.0%	14.0%	4.0%
2008	Yucaipa Corporate Initiatives Fund II, LP	6/23/2008	14,030,930	13,778,130	8,227,223	2,855,294	0.80x	(3.2%)	11.7%	(15.0%)
2008	CVC European Equity Partners V, L.P.	7/21/2008	34,301,735	36,990,385	68,154,134	2,916,200	1.92x	16.2%	12.5%	3.7%
2008	GI Partners Fund III L.P.	7/29/2008	17,500,000	18,907,003	29,485,670	180,802	1.57x	13.0%	15.3%	(2.3%)
2008	Ares Corporate Opportunities Fund III, L.P.	7/30/2008	25,000,000	30,533,959	60,665,762	3,589,700	2.10x	20.1%	11.8%	8.3%
2008	GCM Grosvenor NYCPEP Emerging Manager Fund, L.P.	8/22/2008	59,909,091	75,229,791	70,256,132	37,611,656	1.43x	9.9%	11.6%	(1.7%)
2008	First Reserve Fund XII, L.P.	8/25/2008	20,000,000	22,216,378	11,104,060	11,104,060	1.60x	(12.0%)	16.6%	(28.6%)
2008	Landmark Equity Partners XIV, L.P.	9/19/2008	27,250,000	26,541,159	30,671,034	4,311,975	1.32x	9.5%	13.8%	(4.3%)
2008	Crestview Partners II, L.P.	10/1/2008	22,500,000	26,177,948	33,800,196	7,789,985	1.59x	11.8%	13.8%	(2.0%)
2008	Euro Choice IV L.P.	10/22/2008	19,327,947	17,913,130	18,290,429	6,418,935	1.38x	6.4%	12.4%	(5.9%)
2008	Avista Capital Partners II, L.P.	11/5/2008	35,000,000	46,027,792	72,128,865	2,662,903	1.62x	14.4%	14.6%	(0.2%)
2008	Blue Wolf Capital Fund II, L.P.	11/14/2008	15,000,000	16,300,742	18,854,994	6,069,364	1.53x	9.2%	14.5%	(5.3%)
2008	Bridgepoint Europe IV	11/14/2008	13,325,527	13,523,775	18,263,849	1,905,730	1.49x	9.5%	14.4%	(5.0%)
2008	Aisling Capital III, LP	11/20/2008	7,000,000	7,895,658	18,100,409	353,260	2.34x	25.9%	14.1%	11.8%
2008	Onex Partners III LP	12/10/2008	15,000,000	16,404,302	21,830,176	3,233,538	1.53x	10.6%	14.5%	(3.8%)
2009	NorthBound Emerging Manager Custom Fund LP	1/29/2009	20,000,000	17,467,088	24,187,323	2,820,015	1.55x	11.5%	14.1%	(2.6%)
2009	Welsh, Carson, Anderson & Stowe XI, L.P.	2/10/2009	22,500,000	22,500,000	29,300,730	6,510,013	1.59x	11.4%	14.0%	(2.6%)
2009	Scale Venture Partners III, LP	5/1/2009	10,000,000	9,894,906	25,501,764	2,141,345	2.79x	22.8%	13.3%	9.5%
2009	FS Equity Partners VI, L.P.	7/27/2009	20,000,000	20,114,794	47,435,328	9,821,575	2.85x	22.9%	13.9%	9.1%
2009	Lincolnshire Equity Fund IV, L.P.	8/5/2009	7,500,000	8,041,435	9,263,709	2,976,307	1.52x	10.0%	12.3%	(2.4%)
2009	Lexington Capital Partners VII, L.P.	12/3/2009	20,000,000	17,846,217	23,780,898	4,143,429	1.56x	13.7%	13.5%	0.2%
2010	Snow Phipps II, L.P.	1/8/2010	17,500,000	20,936,998	18,920,184	9,450,240	1.36x	8.8%	11.8%	(3.0%)
2010	Trident V, L.P.	4/29/2010	40,000,000	46,665,301	52,727,074	22,519,314	1.61x	10.7%	11.2%	(0.5%)
2010	Comvest Investment Partners IV, L.P.	10/21/2010	45,000,000	46,167,934	74,289,503	5,048,743	1.72x	27.8%	13.7%	14.2%
2011	Blackstone Capital Partners VI, L.P.	1/24/2011	35,000,000	37,334,470	33,290,407	19,209,082	1.41x	9.2%	10.3%	(1.2%)
2011	Ampersand 2011	3/11/2011	12,500,000	12,500,000	23,058,933	15,207,773	3.06x	21.7%	10.4%	11.3%
2011	BDCM Opportunity Fund III, L.P.	4/8/2011	20,000,000	29,280,625	14,349,802	26,912,189	1.41x	8.4%	9.1%	(0.7%)
2011	AXA Secondary Fund V B L.P.	6/16/2011	80,000,000	65,913,485	104,739,650	983,095	1.60x	15.5%	14.7%	0.7%
2011	Wellspring Capital Partners V, L.P.	7/1/2011	22,500,000	23,638,255	26,593,730	9,033,856	1.51x	14.1%	10.5%	3.6%
2011	EQT VI, L.P.	8/1/2011	48,805,819	51,293,881	71,024,929	14,402,802	1.67x	13.3%	11.3%	2.0%
2011	Pegasus Partners V, L.P.	8/16/2011	14,552,940	18,099,810	15,791,884	12,493,865	1.56x	11.1%	11.8%	(0.7%)
2011	BC European Capital IX	9/19/2011	66,004,929	73,037,466	69,138,490	41,383,191	1.51x	11.3%	11.2%	0.1%
2011	American Securities Partners VI, L.P.	11/18/2011	50,000,000	53,692,799	80,636,521	22,033,571	1.91x	20.7%	11.5%	9.2%
2011	Vista Equity Partners Fund IV, L.P.	11/30/2011	70,000,000	71,782,785	91,762,767	42,075,082	1.86x	16.1%	11.8%	4.3%
2012	Warburg Pincus Private Equity XI, L.P.	5/24/2012	80,000,000	85,115,264	87,558,201	42,142,460	1.52x	11.6%	10.6%	1.0%
2012	Summit Partners Growth Equity Fund VIII-A, L.P.	6/14/2012	75,000,000	84,977,685	143,371,446	34,431,099	2.09x	25.4%	10.2%	15.2%
2012	NYCPEP - 2012 Emerging Manager Program ⁴	6/21/2012	45,000,000	45,738,101	24,677,704	44,425,194	1.51x	13.1%	6.8%	6.3%
2012	Trilantic Capital Partners V L.P.	9/20/2012	50,000,000	54,776,908	52,733,232	26,865,979	1.45x	15.2%	9.3%	5.9%
2012	Palladium Equity Partners IV, L.P.	10/10/2012	35,000,000	33,026,715	17,048,528	23,594,200	1.23x	6.8%	9.4%	(2.5%)
2012	Ares Corporate Opportunities Fund IV, L.P.	11/5/2012	50,000,000	52,900,422	48,327,272	31,442,717	1.51x	11.8%	8.6%	3.2%
2012	Green Equity Investors VI, L.P.	11/30/2012	55,000,000	59,336,892	42,536,293	54,650,239	1.64x	13.7%	8.4%	5.3%
2012	Platinum Equity Capital Partners III, L.P.	1/14/2013	50,000,000	43,677,356	62,922,161	19,275,182	1.88x	34.9%	10.0%	24.9%
2012	Neuberger Berman Strategic Co-Investment II LP	3/20/2013	60,000,000	57,069,637	55,631,239	20,940,973	1.34x	10.1%	9.8%	0.3%
2013	Carlyle Partners VI, L.P.	7/3/2013	60,000,000	63,425,223	27,268,870	52,929,527	1.26x	8.0%	6.4%	1.6%
2014	Carlyle Partners VI, L.P. (Side Car)	9/23/2014	6,600,000	4,798,851	276,667	4,035,063	0.90x	(2.7%)	7.3%	(10.0%)
2013	Landmark Equity Partners XV, L.P.	10/30/2013	67,000,000	50,698,737	38,435,534	27,737,634	1.31x	12.5%	7.1%	5.4%
2013	Landmark - NYC Fund I, L.P.	12/24/2013	23,000,000	20,442,090	15,286,973	13,449,332	1.41x	13.6%	5.5%	8.0%
2013	Apollo Investment Fund VIII, L.P.	12/11/2013	100,000,000	92,431,624	44,919,135	68,582,619	1.23x	7.2%	7.3%	(0.1%)
2014	CVC Capital Partners VI, L.P.	2/18/2014	88,089,135	88,684,097	43,045,870	89,549,993	1.50x	15.2%	5.2%	10.0%
2013	Crestview Partners III, L.P.	3/3/2015	45,000,000	31,687,447	19,201,973	20,223,810	1.24x	9.1%	7.2%	1.9%
2013	Crestview Partners III (Co-Investment B), L.P.	12/17/2015	15,000,000	15,533,155	740,414	13,005,295	0.88x	(4.5%)	5.6%	(10.1%)



**New York City Police Pension Fund, Subchapter 2
Private Equity Portfolio
As of March 31, 2020 (in USD)**

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR ¹	PME Return ²	PME Spread ³
2014	Olympus Growth Fund VI, L.P.	1/21/2014	35,000,000	33,265,197	17,275,130	24,685,821	1.26x	10.2%	6.6%	3.5%
2014	ASF VI B L.P.	5/9/2014	60,000,000	48,456,737	51,875,261	15,022,191	1.38x	11.5%	10.3%	1.2%
2014	ASF VI B NYC Co-Invest L.P.	5/9/2014	20,000,000	16,050,653	15,864,268	6,604,501	1.40x	11.8%	7.0%	4.8%
2014	Vista Equity Partners Fund V, L.P.	9/8/2014	85,000,000	103,675,072	101,988,111	84,178,974	1.80x	20.3%	7.2%	13.1%
2014	Lexington Capital Partners VIII, L.P.	1/8/2015	80,000,000	71,753,621	38,438,951	54,716,990	1.30x	15.1%	4.4%	10.7%
2015	Siris Partners III, L.P.	5/4/2015	15,000,000	15,483,517	7,180,367	12,359,169	1.26x	12.2%	3.8%	8.4%
2015	Centerbridge Capital Partners III, L.P.	5/21/2015	11,100,000	9,076,935	3,882,766	8,279,919	1.34x	14.1%	3.4%	10.7%
2015	Welsh, Carson, Anderson & Stowe XII, L.P.	8/26/2015	37,000,000	32,596,834	18,671,615	31,846,658	1.55x	21.4%	4.2%	17.2%
2015	Warburg Pincus Private Equity XII, L.P.	12/21/2015	97,000,000	92,866,389	9,154,697	104,144,260	1.22x	10.1%	0.6%	9.6%
2015	ASF VII B L.P.	12/29/2015	44,500,000	25,155,045	4,860,881	25,708,918	1.22x	13.0%	0.6%	12.4%
2015	ASF VII B NYC Co-Invest L.P.	12/29/2015	22,000,000	12,750,758	3,437,042	17,186,467	1.62x	26.9%	(2.5%)	29.4%
2015	EQT VII, L.P.	1/8/2016	76,970,046	75,209,937	34,940,237	64,653,167	1.32x	13.5%	4.2%	9.3%
2015	American Securities Partners VII, L.P.	1/19/2016	37,000,000	31,751,138	4,785,199	20,012,642	0.78x	(12.0%)	5.2%	(17.2%)
2015	Bridgepoint Europe V L.P.	2/8/2016	29,678,207	29,117,067	10,450,353	25,805,825	1.25x	10.1%	4.5%	5.7%
2015	Bridgepoint Europe V Co-Invest	8/16/2016	8,132,758	7,563,632	3,321,506	9,603,544	1.17x	24.6%	0.7%	23.9%
2015	NYCPCF - 2015 Emerging Manager Program ⁵	2/22/2016	59,750,000	33,027,911	5,563,862	33,608,812	1.19x	13.3%	(4.1%)	17.4%
2016	Vista Equity Partners Fund VI, L.P.	6/28/2016	75,000,000	82,516,476	18,719,365	90,907,803	1.33x	13.2%	3.4%	9.8%
2016	Platinum Equity Capital Partners IV, L.P.	3/21/2017	52,500,000	46,041,837	13,559,111	36,097,816	1.08x	5.4%	(1.1%)	6.5%
2018	Platinum Equity Capital Partners IV Co-Investment, L.P.	9/7/2018	7,500,000	5,260,213	1,046,583	3,713,602	0.90x	NM	NM	N/A
2016	Apax IX USD, L.P.	5/12/2017	60,000,000	55,411,184	1,577,762	66,928,127	1.24x	15.2%	(4.7%)	19.9%
2017	Green Equity Investors VII, L.P.	5/12/2017	44,000,000	34,146,411	394,137	38,568,868	1.14x	8.3%	(3.8%)	12.1%
2017	Ares Corporate Opportunities Fund V, L.P.	6/22/2017	44,000,000	37,903,229	4,717,081	33,344,833	1.00x	0.3%	(4.7%)	5.0%
2017	KKR Americas Fund XII, L.P.	10/31/2017	75,000,000	35,926,600	494,426	37,962,923	1.07x	4.8%	(4.7%)	9.5%
2017	BC European Capital X	12/14/2017	41,818,178	35,798,544	699,510	35,227,982	1.00x	0.3%	(8.8%)	9.1%
2017	BCECX Co-Investment	3/24/2017	16,956,899	15,669,976	106,762	17,274,184	1.11x	7.0%	(7.1%)	14.1%
2017	Warburg Pincus Financial Sector, L.P.	1/5/2018	62,000,000	34,205,612	3,162,000	32,531,735	1.04x	4.0%	(7.0%)	11.0%
2018	Platinum Equity Small Cap Fund, L.P.	6/27/2018	28,500,000	6,403,391	-	2,264,116	0.35x	NM	NM	N/A
2018	EQT VIII, L.P.	8/10/2018	75,766,102	33,963,609	944,475	35,777,893	1.08x	NM	NM	N/A
2018	EQT VIII Co-Investment	11/2/2018	27,589,540	15,276,541	-	16,232,750	1.06x	NM	NM	N/A
2018	CVC Capital Partners VII, L.P.	12/4/2018	90,811,804	45,741,141	641,739	44,583,735	0.99x	NM	NM	N/A
2017	Palladium Equity Partners V, L.P.	2/11/2019	23,333,333	7,794,096	77,805	6,248,707	0.81x	NM	NM	N/A
2018	Vista Equity Partners Fund VII, L.P.	2/13/2019	124,500,000	31,424,557	95,857	29,221,626	0.93x	NM	NM	N/A
2019	Welsh, Carson, Anderson & Stowe XIII, L.P.	3/14/2019	62,000,000	3,877,500	-	1,941,891	0.50x	NM	NM	N/A
2018	Siris Partners IV, L.P.	3/15/2019	62,000,000	28,515,549	-	23,414,590	0.82x	NM	NM	N/A
2018	Apollo Investment Fund IX, L.P.	3/15/2019	154,000,000	27,920,986	224,949	25,213,745	0.91x	NM	NM	N/A
2019	ASF VIII B L.P.	3/15/2019	111,000,000	26,342,448	325	28,402,113	1.08x	NM	NM	N/A
2019	ASF VIII B NYC Co-Invest L.P.	3/15/2019	55,500,000	2,712,200	-	4,418,411	1.63x	NM	NM	N/A
2019	Warburg Pincus Global Growth, L.P.	3/26/2019	80,000,000	15,027,068	-	13,886,421	0.92x	NM	NM	N/A
2018	Bridgepoint Europe VI	4/1/2019	81,968,211	16,152,508	-	14,243,455	0.88x	NM	NM	N/A
2018	Bridgepoint Europe VI Co-Invest	5/7/2019	20,546,691	4,843,958	-	4,064,161	0.84x	NM	NM	N/A
2019	Trilantic Capital Partners VI (North America) L.P.	8/8/2019	40,000,000	9,885,095	8,850	7,088,411	0.72x	NM	NM	N/A
2019	NYCPCF - 2019 Emerging Manager Program ⁶	9/25/2019	75,250,000	3,654,163	202,137	3,701,435	1.07x	NM	NM	N/A
2019	Lexington Capital Partners IX	12/20/2019	74,625,000	5,284,943	941,606	7,723,460	1.64x	NM	NM	N/A
2019	Platinum Equity Capital Partners V, L.P.	12/27/2019	119,000,000	13,576,594	-	10,207,476	0.75x	NM	NM	N/A
2019	KKR European Fund V (USD)	1/15/2020	50,150,000	5,709,137	-	3,552,884	0.62x	NM	NM	N/A
2020	FTV VI	3/18/2020	7,500,000	600,000	-	570,387	0.95x	NM	NM	N/A
2019	Apax X USD L.P.	N/A	66,500,000	-	-	(1,142,972)	-	N/A	N/A	N/A
2019	Blackstone Capital Partners VIII L.P.	N/A	69,500,000	-	-	(103,493)	-	N/A	N/A	N/A
2019	Crestview Partners IV, L.P.	N/A	50,000,000	-	-	12,763	-	NM	NM	N/A
2019	Crestview Partners IV (Co-Investment), L.P.	N/A	16,666,667	-	-	27,004	-	NM	NM	N/A
2019	Lexington IX Co-Invest	N/A	24,875,000	-	-	(23,984)	-	N/A	N/A	N/A
2019	Lindsay Goldberg V	N/A	55,500,000	-	-	-	-	N/A	N/A	N/A
2020	Clearlake Capital Partners VI, L.P.	N/A	30,000,000	-	-	-	-	N/A	N/A	N/A
2020	Green Equity Investors VIII, L.P.	N/A	69,500,000	-	-	-	-	N/A	N/A	N/A
2020	Green Equity Investors VIII Coinvest N, L.P.	N/A	23,200,000	-	-	-	-	N/A	N/A	N/A
2020	Platinum Equity Capital Partners V Co-Investment, L.P.	N/A	29,750,000	-	-	-	-	N/A	N/A	N/A
Total Portfolio⁷			\$ 7,036,110,056	\$ 5,667,047,220	\$ 5,611,737,326	\$ 2,463,599,492	1.42x	10.1%	8.9%	1.2%

¹ Performance for funds with less than eight (8) quarters of activity is not meaningful.

² Russell 3000 PME+ or Long-Nickels PME for investments with no distributed capital as of quarter-end.

³ PME Spread is calculated as IRR minus PME Return.

⁴ NYCPCF - 2012 Emerging Manager Program includes the total commitment amount of \$47.0 million. The Program's original commitment amount of \$50.0 million was subsequently revised to \$47.0 million, all of which has been committed as of March 31, 2020. The remaining \$3.0 million was reallocated to the NYCPCF - 2015 Emerging Manager Program.

⁵ NYCPCF - 2015 Emerging Manager Program includes the total commitment amount of \$63.0 million. The Program's original commitment amount of \$63.0 million, which included the original \$60.0 million commitment and the \$3.0 million reallocation from the NYCPCF - 2012 Emerging Manager Program, was subsequently revised to \$59.8 million. As of March 31, 2020, all \$59.8 million has been committed, and the remaining \$3.3 million was reallocated to the NYCPCF - 2019 Emerging Manager Program.

⁶ NYCPCF - 2019 Emerging Manager Program commitment amount totals \$75.3 million, which includes the Program's original \$72.0 million commitment and the \$3.3 million reallocation from the NYCPCF - 2015 Emerging Manager Program. As of March 31, 2020, \$15.0 million has been committed.

⁷ Total Portfolio includes liquidated investments.

Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.

The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Note: IRRs presented are interim estimates and may not be indicative of the ultimate performance of fund investments due to a number of factors, such as the lack of industry valuation standards and the differences in the investment pace and strategy of various funds. Until a fund is liquidated, typically over 10 to 12 years, the IRR is only an interim estimated return. The IRR calculated in early years of a fund is not meaningful given the J-curve effect. The actual IRR performance of any fund is not known until all capital contributed and earnings have been distributed to the investor. The IRRs contained in this report are calculated by StepStone Group LP ("StepStone"), a consultant to the New York City Police Pension Fund, Subchapter 2, based on information provided by the general partners (e.g. cash flows and valuations). The IRR calculations and other information contained in this report have not been reviewed or confirmed by the general partners. The result of the IRR calculation may differ from that generated by the general partner or other limited partners. Differences in IRR calculations can be affected by cash-flow timing, the accounting treatment of carried interest, fund management fees, advisory fees, organizational fees, other fund expenses, sale of distributed stock, and valuations. IRR and TVPI for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.



New York City Police Pension Fund, Subchapter 2
Private Equity Portfolio
As of March 31, 2020 (in USD)

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR ¹	PME Return ²	PME Spread ³
2014	Olympus Growth Fund VI, L.P.	1/21/2014	35,000,000	33,265,197	17,275,130	24,685,821	1.26x	10.2%	6.6%	3.5%
2014	ASF VI B L.P.	5/9/2014	60,000,000	48,456,737	51,875,261	15,022,191	1.38x	11.5%	10.3%	1.2%
2014	ASF VI B NYC Co-Invest L.P.	5/9/2014	20,000,000	16,050,653	15,864,268	6,604,501	1.40x	11.8%	7.0%	4.8%
2014	Vista Equity Partners Fund V, L.P.	9/8/2014	85,000,000	103,675,072	101,988,111	84,178,974	1.80x	20.3%	7.2%	13.1%
2014	Lexington Capital Partners VIII, L.P.	1/8/2015	80,000,000	71,753,621	38,438,951	54,716,990	1.30x	15.1%	4.4%	10.7%
2015	Siris Partners III, L.P.	5/4/2015	15,000,000	15,483,517	7,180,367	12,359,169	1.26x	12.2%	3.8%	8.4%
2015	Centerbridge Capital Partners III, L.P.	5/21/2015	11,100,000	9,076,935	3,882,766	8,279,918	1.34x	14.1%	3.4%	10.7%
2015	Welsh, Carson, Anderson & Stowe XII, L.P.	8/26/2015	37,000,000	32,596,834	18,671,615	31,846,659	1.55x	21.4%	4.2%	17.2%
2015	Warburg Pincus Private Equity XII, L.P.	12/21/2015	97,000,000	92,866,389	9,154,697	104,144,260	1.22x	10.1%	0.6%	9.6%
2015	ASF VIII B L.P.	12/29/2015	44,500,000	25,155,045	4,860,881	25,708,918	1.22x	13.0%	0.6%	12.4%
2015	ASF VIII B NYC Co-Invest L.P.	12/29/2015	22,000,000	12,750,758	3,437,042	17,186,467	1.62x	26.9%	(2.5%)	29.4%
2015	EQT VII, L.P.	1/8/2016	76,970,046	75,209,937	34,940,237	64,653,167	1.32x	13.5%	4.2%	9.3%
2015	American Securities Partners VII, L.P.	1/19/2016	37,000,000	31,751,138	4,785,199	20,012,642	0.78x	(12.0%)	5.2%	(17.2%)
2015	Bridgepoint Europe V L.P.	2/8/2016	29,678,207	29,117,067	10,450,353	25,805,825	1.25x	10.1%	4.5%	5.7%
2015	Bridgepoint Europe V Co-Invest	8/16/2016	8,132,758	7,563,632	3,321,506	9,603,544	1.17x	24.6%	0.7%	23.9%
2015	NYCPFF - 2015 Emerging Manager Program ⁵	2/22/2016	59,750,000	33,027,911	5,563,862	33,608,812	1.19x	13.3%	(4.1%)	17.4%
2016	Vista Equity Partners Fund VI, L.P.	6/28/2016	75,000,000	82,516,476	18,719,365	90,907,803	1.33x	13.2%	3.4%	9.8%
2016	Platinum Equity Capital Partners IV, L.P.	3/21/2017	52,500,000	46,041,837	13,559,111	36,097,816	1.08x	5.4%	(1.1%)	6.5%
2018	Platinum Equity Capital Partners IV Co-Investment, L.P.	9/7/2018	7,500,000	5,260,213	1,046,583	3,713,602	0.90x	NM	NM	N/A
2016	Apax IX USD, L.P.	5/12/2017	60,000,000	55,411,184	1,577,762	66,928,127	1.24x	15.2%	(4.7%)	19.9%
2017	Green Equity Investors VII, L.P.	5/12/2017	44,000,000	34,146,411	394,137	38,568,868	1.14x	8.3%	(3.8%)	12.1%
2017	Ares Corporate Opportunities Fund V, L.P.	6/22/2017	44,000,000	37,903,229	4,717,081	33,344,833	1.00x	0.3%	(4.7%)	5.0%
2017	KKR Americas Fund XII, L.P.	10/31/2017	75,000,000	35,926,600	494,426	37,962,923	1.07x	4.8%	(4.7%)	9.5%
2017	BC European Capital X	12/14/2017	41,818,178	35,798,544	699,510	35,227,982	1.00x	0.3%	(8.8%)	9.1%
2017	BCECX Co-Investment	3/24/2017	16,956,899	15,669,976	106,762	17,274,184	1.11x	7.0%	(7.1%)	14.1%
2017	Warburg Pincus Financial Sector, L.P.	1/5/2018	62,000,000	34,205,612	3,162,000	32,531,735	1.04x	4.0%	(7.0%)	11.0%
2018	Platinum Equity Small Cap Fund, L.P.	6/27/2018	28,500,000	6,403,391	-	2,264,116	0.35x	NM	NM	N/A
2018	EQT VIII, L.P.	8/10/2018	75,766,102	33,963,609	944,475	35,777,893	1.08x	NM	NM	N/A
2018	EQT VIII Co-Investment	11/2/2018	27,589,540	15,276,541	-	16,232,750	1.06x	NM	NM	N/A
2018	CVC Capital Partners VII, L.P.	12/4/2018	90,811,804	45,741,141	641,739	44,583,735	0.99x	NM	NM	N/A
2017	Palladium Equity Partners V, L.P.	2/11/2019	23,333,333	7,794,096	77,805	6,248,707	0.81x	NM	NM	N/A
2018	Vista Equity Partners Fund VII, L.P.	2/13/2019	124,500,000	31,424,557	95,857	29,221,626	0.93x	NM	NM	N/A
2019	Welsh, Carson, Anderson & Stowe XIII, L.P.	3/14/2019	62,000,000	3,877,500	-	1,941,891	0.50x	NM	NM	N/A
2018	Siris Partners IV, L.P.	3/15/2019	62,000,000	28,515,549	-	23,414,590	0.82x	NM	NM	N/A
2018	Apollo Investment Fund IX, L.P.	3/15/2019	154,000,000	27,920,986	224,949	25,213,745	0.91x	NM	NM	N/A
2019	ASF VIII B L.P.	3/15/2019	111,000,000	26,342,448	325	28,402,113	1.08x	NM	NM	N/A
2019	ASF VIII B NYC Co-Invest L.P.	3/15/2019	55,500,000	2,712,200	-	4,418,411	1.63x	NM	NM	N/A
2019	Warburg Pincus Global Growth, L.P.	3/26/2019	80,000,000	15,027,068	-	13,886,421	0.92x	NM	NM	N/A
2018	Bridgepoint Europe VI	4/1/2019	81,968,211	16,152,508	-	14,243,455	0.88x	NM	NM	N/A
2018	Bridgepoint Europe VI Co-Invest	5/7/2019	20,546,691	4,843,958	-	4,064,161	0.84x	NM	NM	N/A
2019	Trilantic Capital Partners VI (North America) L.P.	8/8/2019	40,000,000	9,885,095	8,850	7,088,411	0.72x	NM	NM	N/A
2019	NYCPFF - 2019 Emerging Manager Program ⁶	9/25/2019	75,250,000	3,654,163	202,137	3,701,435	1.07x	NM	NM	N/A
2019	Lexington Capital Partners IX	12/20/2019	74,625,000	5,284,943	941,606	7,723,460	1.64x	NM	NM	N/A
2019	Platinum Equity Capital Partners V, L.P.	12/27/2019	119,000,000	13,576,594	-	10,207,476	0.75x	NM	NM	N/A
2019	KKR European Fund V (USD)	1/15/2020	50,150,000	5,709,137	-	3,552,884	0.62x	NM	NM	N/A
2020	FTV VI	3/18/2020	7,500,000	600,000	-	570,387	0.95x	NM	NM	N/A
2019	Apax X USD L.P.	N/A	66,500,000	-	-	(1,142,972)	-	N/A	N/A	N/A
2019	Blackstone Capital Partners VIII L.P.	N/A	69,500,000	-	-	(103,493)	-	N/A	N/A	N/A
2019	Crestview Partners IV, L.P.	N/A	50,000,000	-	-	12,763	-	NM	NM	N/A
2019	Crestview Partners IV (Co-Investment), L.P.	N/A	16,666,667	-	-	27,004	-	NM	NM	N/A
2019	Lexington IX Co-Invest	N/A	24,875,000	-	-	(23,984)	-	N/A	N/A	N/A
2019	Lindsay Goldberg V	N/A	55,500,000	-	-	-	-	N/A	N/A	N/A
2020	Clearlake Capital Partners VI, L.P.	N/A	30,000,000	-	-	-	-	N/A	N/A	N/A
2020	Green Equity Investors VIII, L.P.	N/A	69,500,000	-	-	-	-	N/A	N/A	N/A
2020	Green Equity Investors VIII Coinvest N, L.P.	N/A	23,200,000	-	-	-	-	N/A	N/A	N/A
2020	Platinum Equity Capital Partners V Co-Investment, L.P.	N/A	29,750,000	-	-	-	-	N/A	N/A	N/A
Total Portfolio⁷			\$ 7,028,610,056	\$ 5,667,047,220	\$ 5,611,737,326	\$ 2,463,599,492	1.42x	10.1%	8.9%	1.2%

¹ Performance for funds with less than eight (8) quarters of activity is not meaningful.

² Russell 3000 PME+ or Long-Nickels PME for investments with no distributed capital as of quarter-end.

³ PME Spread is calculated as IRR minus PME Return.

⁴ NYCPFF - 2012 Emerging Manager Program includes the total commitment amount of \$47.0 million. The Program's original commitment amount of \$50.0 million was subsequently revised to \$47.0 million, all of which has been committed as of March 31, 2020. The remaining \$3.0 million was reallocated to the NYCPFF - 2015 Emerging Manager Program.

⁵ NYCPFF - 2015 Emerging Manager Program includes the total commitment amount of \$63.0 million. The Program's original commitment amount of \$63.0 million, which included the original \$60.0 million commitment and the \$3.0 million reallocation from the NYCPFF - 2012 Emerging Manager Program, was subsequently revised to \$59.8 million. As of March 31, 2020, all \$59.8 million has been committed, and the remaining \$3.3 million was reallocated to the NYCPFF - 2019 Emerging Manager Program.

⁶ NYCPFF - 2019 Emerging Manager Program commitment amount totals \$75.3 million, which includes the Program's original \$72.0 million commitment and the \$3.3 million reallocation from the NYCPFF - 2015 Emerging Manager Program. As of March 31, 2020, \$15.0 million has been committed.

⁷ Total Portfolio includes liquidated investments.

Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.

The referenced indices are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Note: IRRs presented are interim estimates and may not be indicative of the ultimate performance of fund investments due to a number of factors, such as the lack of industry valuation standards and the differences in the investment pace and strategy of various funds. Until a fund is liquidated, typically over 10 to 12 years, the IRR is only an interim estimated return. The IRR calculated in early years of a fund is not meaningful given the J-curve effect. The actual IRR performance of any fund is not known until all capital contributed and earnings have been distributed to the investor. The IRRs contained in this report are calculated by StepStone Group LP ("StepStone"), a consultant to the New York City Police Pension Fund, Subchapter 2, based on information provided by the general partners (e.g. cash flows and valuations). The IRR calculations and other information contained in this report have not been reviewed or confirmed by the general partners. The result of the IRR calculation may differ from that generated by the general partner or other limited partners. Differences in IRR calculations can be affected by cash-flow timing, the accounting treatment of carried interest, fund management fees, advisory fees, organizational fees, other fund expenses, sale of distributed stock, and valuations. IRR and TVPI for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

New York City Police Pension Fund, Subchapter 2
 Subsequent Commitments
 As of March 31, 2020 (in USD)

Vintage Year	Investment	First Drawdown	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Multiple	IRR ¹	PME Return ²	PME Spread ³
Commitments Closed Subsequent to as of Date										
2020	Hg Genesis 9	N/A	\$ 33,980,462	\$ -	\$ -	\$ -	N/A	N/A	N/A	N/A
2020	One Rock Capital Partners III	N/A	27,500,000	-	-	-	N/A	N/A	N/A	N/A
2020	Stellex Capital Partners II	N/A	33,000,000	-	-	-	N/A	N/A	N/A	N/A
2020	CVC Capital Partners VIII	N/A	116,030,845	-	-	-	N/A	N/A	N/A	N/A
2020	BC Partners XI	N/A	69,300,000	-	-	-	N/A	N/A	N/A	N/A
2020	BC Partners XI Metro Co-Invest	N/A	31,500,000	-	-	-	N/A	N/A	N/A	N/A
2020	EQT IX	N/A	58,535,500	-	-	-	N/A	N/A	N/A	N/A
Total Commitments Closed Subsequent to as of Date			\$ 369,846,807	\$ -	\$ -	\$ -	N/A	N/A	N/A	N/A

¹ Performance for funds with less than eight (8) quarters of activity is not meaningful.

² Russell 3000 PME+ or Long-Nickels PME for investments with no distributed capital as of quarter-end.

³ PME Spread is calculated as IRR minus PME Return.

Note: IRRs presented are interim estimates and may not be indicative of the ultimate performance of fund investments due to a number of factors, such as the lack of industry valuation standards and the differences in the investment pace and strategy of various funds. Until a fund is liquidated, typically over 10 to 12 years, the IRR is only an interim estimated return. The IRR calculated in early years of a fund is not meaningful given the J-curve effect. The actual IRR performance of any fund is not known until all capital contributed and earnings have been distributed to the investor. The IRRs contained in this report are calculated by StepStone Group LP ("StepStone"), a consultant to the New York City Police Pension Fund, Subchapter 2, based on information provided by the general partners (e.g. cash flows and valuations). The IRR calculations and other information contained in this report have not been reviewed or confirmed by the general partners. The result of the IRR calculation may differ from that generated by the general partner or other limited partners. Differences in IRR calculations can be affected by cash-flow timing, the accounting treatment of carried interest, fund management fees, advisory fees, organizational fees, other fund expenses, sale of distributed stock, and valuations. IRR and TVPI for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

Real Estate Quarterly Report (Public):

The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

Portfolio Profile

The New York City Police Pension Fund has allocated 7.0% (+/- 2%) of the total plan to Real Estate. The Real Estate Portfolio's objective is to generate a total net return that exceeds the NFI-ODCE+100 bps total net return measured over full market cycles.

Portfolio Statistics (March 31, 2020)

Total Plan Assets	\$38.0 billion
Target Real Estate Allocation (%)	7%
Target Real Estate Allocation (\$)	\$2.7 billion
Total Real Estate Market Value	\$2.1 billion
Real Estate Unfunded Commitments	\$949.7 million
Total Real Estate Exposure	\$3.0 billion
Number of Investments	83
Number of Managers	44

Net Returns (as of March 31, 2020)

1Q20 Time-Weighted Net Return:	(3.3%)
1 Year Time Weighted Net Return:	1.7%
3 Year Time Weighted Net Return:	7.1%
5 Year Time Weighted Net Return:	9.0%
Inception-to-Date (ITD) Time-Weighted:	7.3%
ITD Net IRR:	8.1%
ITD Net Equity Multiple:	1.4x

Investment Guidelines

Style Sector:	Target	•3% Core/Core Plus •4% Non-Core
Benchmark	NFI-ODCE Index +100 bps net over full market cycles	
Region Diversification	Maximum 25% Int'l	
Investment Diversification	Limit 15% to a single investment	
Manager Diversification	Limit 20% to a single manager	
Leverage	65%	

First Quarter Investment Activity

During the Quarter, the Board approved a \$120 million commitment to a Core-Plus U.S. industrial fund with a new manager, and \$60 million commitment to a Core-Plus multi-family fund with a new manager.

OVERVIEW

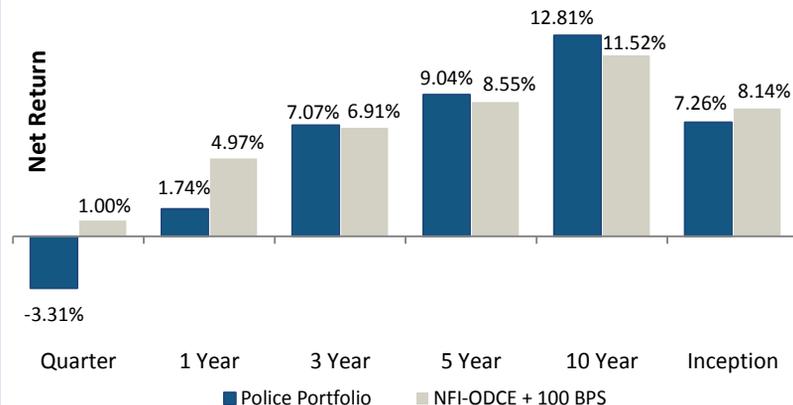
Global investment activity during the first quarter of 2020 was down relative to the same period in 2019. Broad geopolitical risk factors, such as Brexit and the Trade War, continue to have negatively influenced sentiment. A global slowdown was triggered by the COVID-19 pandemic (with full impact beginning in March), further dampening transaction volumes. In EMEA, Brexit continued to press UK investment volumes lower, a 1% decline from first quarter 2019. In the office sector, global leasing activity was healthy but moderated in the final quarter of 2019. In the office sector, global leasing activity began to see a decline as deals were cancelled or delayed. The U.S. office market saw net absorption decline, as well as an 8% YoY decline in leasing activity. Economic, geopolitical, and sectoral headwinds subdued leasing activity in the APAC region. The retail sector continued to face headwinds globally as e-commerce disrupts traditional consumer spending habits and the lockdowns to slow the spread of COVID-19 all but halted foot traffic. Across Europe, rents were broadly stable, while APAC markets rents were muted. The multifamily market in the U.S. has continued to see solid growth, with vacancy rates remaining low. Construction remains near peak levels, possibly presenting future supply headwinds. Rent control and low supply constrained activity in many European markets, but investment volume remains positive. Industrial properties demand continued to grow but at a slower pace. Uptake was robust globally driven by logistics and omnichannel distribution demand. New supply has been increasing rapidly, and there are signs of slowing demand in Asia while Europe recovered from a slow start earlier in the year.

Global Total Commercial Real Estate Volume - 2019 - 2020

\$ US Billions	Q1 2020	Q1 2019	% Change Q1 20 - Q1 19	Full Year Ending 1Q20	Full Year Ending 1Q19	% Change Full Year
Americas	116	99	17%	549	522	5%
EMEA	70	67	4%	377	349	8%
Asia Pacific	111	185	-40%	769	836	-8%
Total	296	351	-16%	1694	1707	-1%

Source: Real Capital Analytics, Inc., Q1' 20

The New York City Police Pension Fund ("Police") Real Estate Portfolio is, and has been, well positioned to take advantage of conditions in the real estate market place. In the period reflected in the rolling ten-year returns, Police performance exceeds the benchmark by 129 basis points. At the end of the First Quarter 2020, the Portfolio achieved a total gross return of (3.6%) which was comprised of 1.1% in income and (4.7%) in appreciation. The net return for the Quarter was (3.3%). Recent underperformance can be attributed to recent volatility in the markets related to Covid-19. The Portfolio exceeds the benchmark over the three-year, five-year and ten-year time periods on a net basis. A detailed analysis of the Portfolio's real estate performance is found later in this Executive Summary.



The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

FUNDING AND COMPOSITION

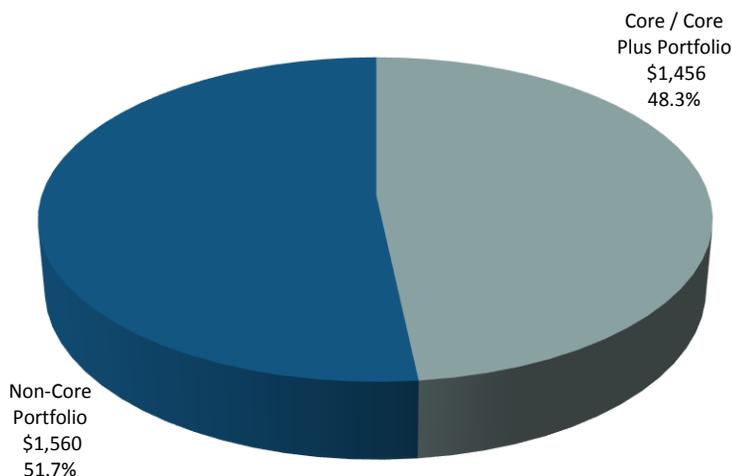
At the end of the First Quarter, the Portfolio was funded at \$2.1 billion, or 5.4% of total plan assets. A total of \$949.7 million in unfunded commitments are still outstanding. Unfunded commitments are up from \$932.0 million as of Fourth Quarter 2019.

New contributions for the Quarter totaled \$73.4 million, offset by approximately \$81.0 million in distributions and withdrawals. Total distributions were weighted to the Core / Core Plus sector.

Shown in the pie chart to the right is the current risk sector exposure calculated by Market Value + Unfunded Commitments. The Core / Core Plus component accounts for 48.3% of the Portfolio exposure during the Quarter. The Non-Core component accounts for 51.7% of the Portfolio exposure.

A more detailed break-down of the Portfolio Composition is shown in the table below. Attached as Exhibit A is a matrix which demonstrates compliance with various Investment Policy Statement guidelines.

Real Estate Exposure



New York City Police Pension Fund		
Total Plan Assets	3/31/2020	38,043
Real Estate Allocation (%)		7.0
Real Estate Allocation (\$)		2,663
Real Estate Core Allocation (%)		3.0
Real Estate Core Allocation (\$)		1,141
Real Estate Non-Core Allocation (%)		4.0
Real Estate Non-Core Allocation (\$)		1,522
Style Sector Allocation		
Funded (Market Value) Core/Core Plus Portfolio (\$)		1,227
Funded (Market Value) Non-Core Portfolio (\$)		839
Unfunded Core / Core Plus Portfolio		229
Unfunded Non-Core Portfolio		720
Funded (Market Value) and Committed Statistics		
Core / Core Plus Portfolio (%)		48.3
Non-Core Portfolio (%)		51.7
Core/Core Plus Committed (\$)		1,456
Non-Core Committed (\$)		1,560
\$ Committed		3,015
% Committed on Real Estate Allocation		113.2
% Committed on Total Plan Assets		7.9
Funded (Market Value) Statistics		
% Core/Core Plus Funded (Market Value) of Total Plan Assets		3.2
% Non-Core Funded (Market Value) of Total Plan Assets		2.2
% Funded (Market Value) of Total Plan Assets		5.4
% Funded (Market Value) of Total Real Estate Allocation		77.6

The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

PERFORMANCE

During the Quarter under review, the Police Real Estate Portfolio produced a (3.6%) total gross return. The total net return for the Quarter was (3.3%). On a rolling one-year basis, a total gross return of 2.4% was recorded. On a net basis, the total return was 1.7%. On a gross basis, the Police Portfolio exceeds the NFI-ODCE over the three, five, and ten-year time periods. The benchmark return contemplates a 100 bps premium over the ODCE net return over full market cycles. This benchmark is exceeded over the three, five, and ten-year time periods. The various components of the Portfolio returns are depicted in the chart below.

Core/Core Plus

As of March 31, 2020 the market value of the Core / Core Plus Portfolio was \$1.2 billion, or 59.4% on an invested basis. On a funded and committed basis, the Core/ Core Plus Portfolio totaled \$1.5 billion, or 48.3% of the total Portfolio. The Core / Core plus Portfolio generated a 0.2% total gross return for the Quarter comprised of 1.0% in income and (0.8%) in appreciation. The total net return for the Quarter was 0.0%.

A significant contributor to the Quarterly return in this sector was Lion Industrial Trust, which generated a 3.8% total net return. A significant detractor from the Core / Core Plus Portfolio was Heitman HART, which generated a (2.0%) total net return.

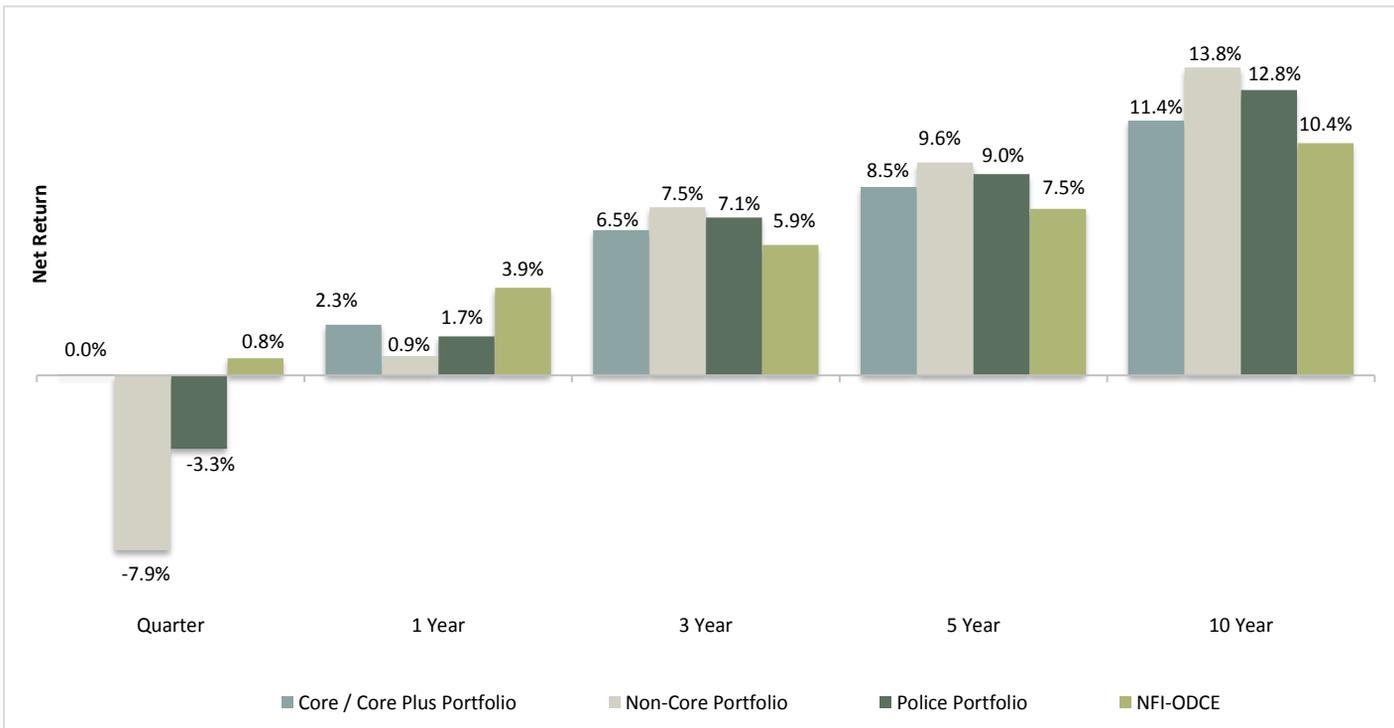
The Core / Core Plus Portfolio achieved an 6.5% net return over the three-year period ending in March 31, 2020. Within the Core / Core Plus Funds, Prologis Targeted U.S. Logistics Fund was a significant contributor, generating an 17.1% total net return. NYC Asset Investor #2 LLC (Related) Fund was a significant detractor, generating a (8.2%) total net return over the period.

Non-Core

As of March 31, 2020 the market value of the Non-Core Portfolio was \$839.2 million, or 40.6% on an invested basis. On a funded and committed basis, the Non-Core Portfolio totaled \$1.6 billion, or 51.7% of the total Portfolio. The Non-Core Portfolio generated a (8.8%) total gross return for the Quarter comprised of 1.2% in income and (10.0%) in appreciation. The total net return for the Quarter was (7.9%).

A significant contributor to the Quarterly return in this sector was PRISA III which generated a 3.3% total net return. A significant detractor from the Non-Core Portfolio was H/2 Special Opportunities Fund IV, which generated a (61.6%) total net return.

The Non-Core Portfolio generated a three-year net return of 7.5%. Within the Non-Core Portfolio, Blackstone Real Estate Partners VIII was a significant contributor, generated a 11.3% total net return. NYC Asset Investor #1 LLC (Vanbarton) was a significant detractor, generating a (3.2%) total net return over the period.



The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

PERFORMANCE

Portfolio Performance

At the end of the First Quarter 2020, the Portfolio had a cumulative market value of \$2.1 billion. Total market value plus unfunded commitments was \$3.1 billion, or 117.7% of the real estate allocation. During the Quarter, the Portfolio achieved a total gross return of (3.6%) which was comprised of 1.1% in income and (4.7%) in depreciation. The Portfolio achieved a total net return of (3.3%). Since inception, the Portfolio has a net IRR of 8.1% and an equity multiple of 1.4x. Note, attached as Exhibit B are performance metrics relating to investments within the Portfolio.

Brief reviews of select Funds are found below. Note, that attached as Exhibit C are charts relating to fund contributions to returns during different relevant periods.

Lion Industrial Trust (Clarion) Lion Industrial Trust generated a total net return of 3.8%. Over a trailing one-year period, the fund has generated a gross return of 16.4% and a net return of 14.4%. The fund's appreciation is being driven by the strong underlying U.S. industrial sector in combination with new acquisitions, continued leasing, and rental growth rate.

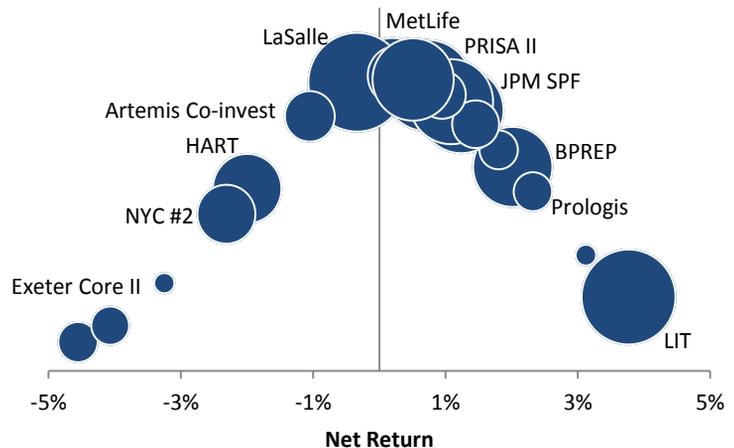
Jamestown Premier Property Fund. Jamestown generated a total gross return of (0.6%) comprised of 0.7% in income and (1.3%) in appreciation. The net return after fees was (0.8%). Performance was driven by the fund's property level debt valuation which decreased the appreciation return by 154 basis points. The volatility of the capital markets caused by the COVID-19 pandemic, triggered a sharp decline in interest rates at the end of the quarter, which also negatively impacted the property level debt valuation.

Prologis Targeted U.S. Logistics Fund. During the Quarter, Prologis had a total gross return of 2.5% comprised of 0.9% in income and 1.6% in appreciation. The net return after fees was 2.3%. Over a trailing one-year period, the fund has generated a gross return of 18.7% and a net return of 16.2%. Performance was driven by increased market rents across the portfolio and debt appreciation.

H/2 Special Opportunities Fund IV. During the Quarter, H/2 Special Opportunities Fund IV generated a total gross return of (61.4%) comprised of 0.8% in income and (62.2%) in appreciation. The net return after fees was (61.6%). Negative appreciation originated from large unrealized losses due to poor mark-to-market performance using independent and third-party, real-world marks.

Core/Core Plus	1-Year	3-Year	5-Year	S.I. IRR
Net Return	2.3%	6.5%	8.5%	6.4%

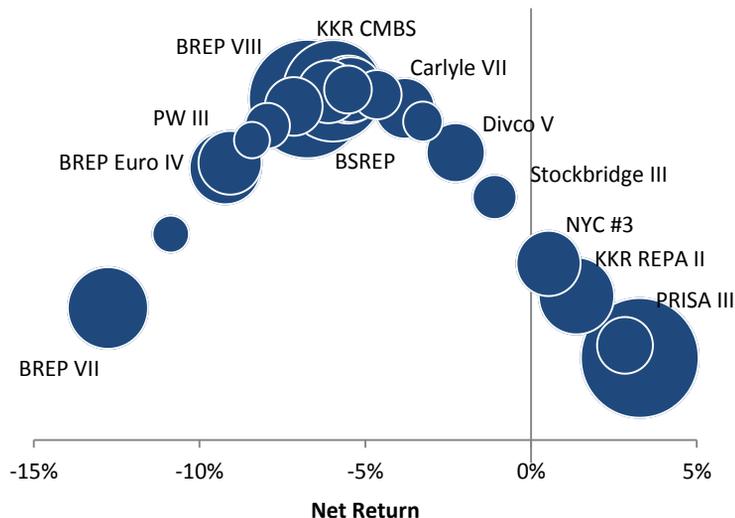
Core / Core Plus: Distribution of Quarterly Returns



Note: Bubble size based on Average Invested Capital. Due to scaling, the net returns for ARS VI, ARS VI SC2, ARS VIII, ARS VIII SC2, and Artemis of -29.1%, -36.9%, -17.9%, -13.5%, and -9.1% respectively are not shown in the chart.

Non-Core	1-Year	3-Year	5-Year	S.I. IRR
Net Return	0.9%	7.5%	9.6%	9.7%

Non-Core: Distribution of Quarterly Returns (Top 25 Positions by NAV)



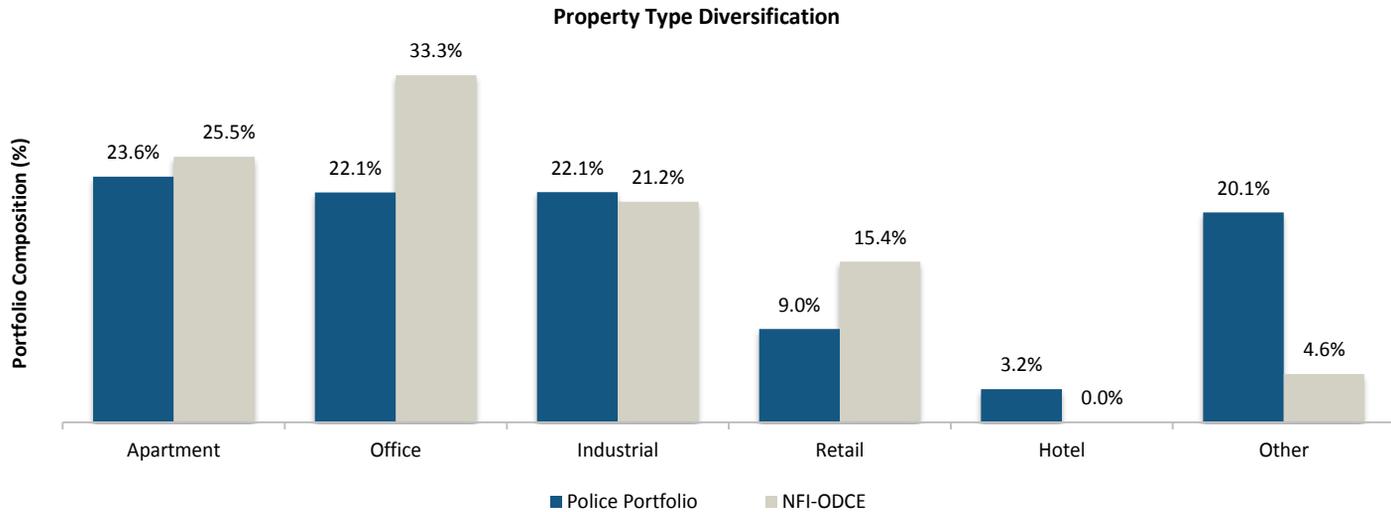
Note: Bubble size based on Average Invested Capital. Due to scaling, the net returns for H/2 SO IV, H/2 SO III, and Lone Star V of -61.6%, -38.8%, and -19.4% respectively are not shown in the chart.

The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

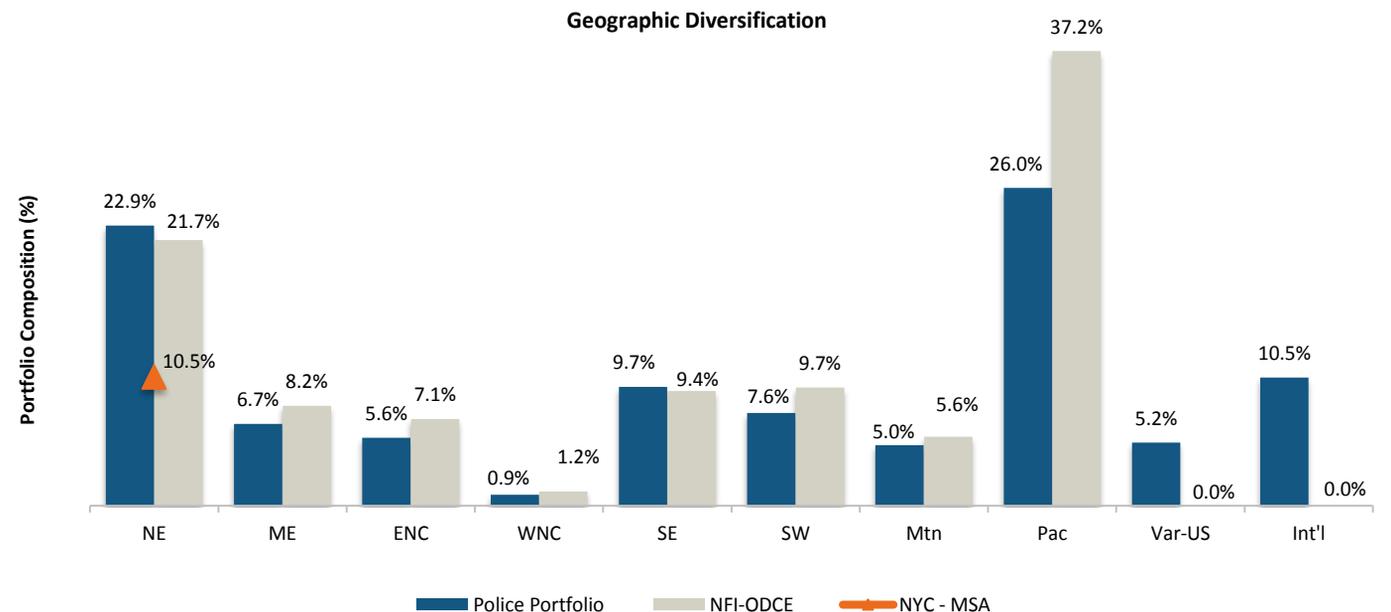
PROPERTY TYPE DIVERSIFICATION

The diversification of the current Portfolio by property type is shown below and compared to the diversification of the NCREIF-ODCE at the end of the Quarter. Relative to the ODCE, the Portfolio is underweight to multi-family, office and retail. The Portfolio is overweight to industrial, hotel and other property types which primarily includes debt-related investments and non-traditional property types such as for sale residential, self storage, land, data centers, senior living, healthcare, medical office and student housing.



GEOGRAPHIC DIVERSIFICATION

The diversification of the current funded Portfolio by geographic region is shown below and compared to the diversification of the NFI-ODCE at the end of the Quarter. The ODCE is a US-only index. The domestic portion of the Portfolio is well diversified relative to the ODCE. The 10.5% international exposure is appropriate for the risk and return profile of Police and consistent with the long-term target. Exposure to the NYC MSA is also included, which stands at 10.5% as of March 31, 2020.



The New York City Police Pension Fund

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MARKET UPDATE

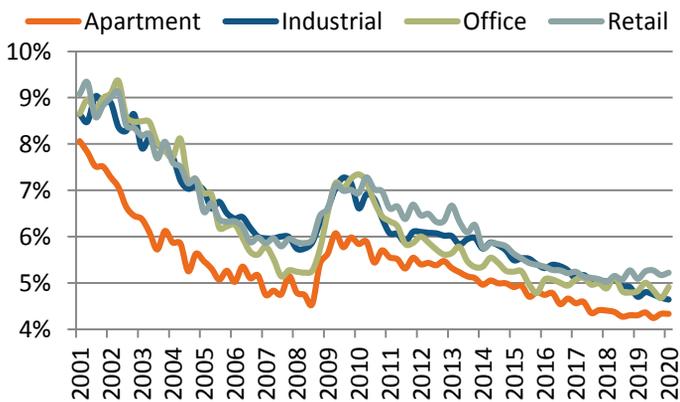
General

- On December 31, 2019, China reported an abnormal cluster of pneumonia cases to the World Health Organization. The cause of the pneumonia cluster, COVID-19, rapidly spread and produced a global pandemic, which led to a stark halt of economic growth. The pandemic resulted in quarantines and extended shelter in place orders. Equity markets reacted quickly, and the S&P 500 produced a gross total return of -19.6% during the quarter. The MSCI US REIT index produced a return of -27.0%. Globally, consumption, supply chains, and daily routines were disrupted.
- The U.S. entered a recession in February; GDP grew at an annualized rate of -4.8%. Initial jobless claims reached 10 million in March alone, while the unemployment rate peaked in April at 14.7%. The Federal Reserve has acted aggressively via quantitative easing and rate cuts, thus far financial markets have stabilized. In addition, the CARES Act provided \$1.5 trillion of stimulus to the economy.

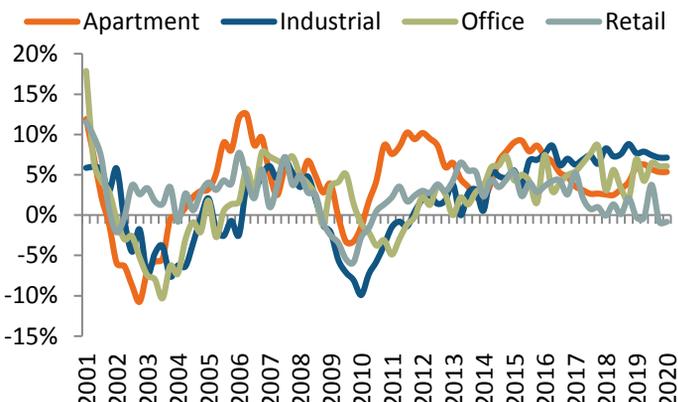
Commercial Real Estate

- Shelter in place orders and social distancing have restricted the ability to complete due diligence and acquire assets. Price discovery has been limited.
- Private real estate market carrying values remained flat over the quarter. Transaction cap rates (5.4%) expanded 4 bps during the quarter, while current valuation cap rates reacted differently across property sectors, industrial (-4 bps), apartments (0 bps), office (+24 bps), and retail (+5 bps).
- NOI growth continued to be positive across property sectors during the quarter. Retail NOI growth continues to struggle (-230 bps) in the face of e-commerce headwinds. NOI is expected to contract in the 2nd quarter. Subsequent to quarter-end, rent collections have remained strong in the Apartment, Industrial, and Office sectors. The Retail sector has seen rent collections of 30-50% vs. more than 85% in the other major sectors.
- In the first quarter of 2020, \$26 bn of aggregate capital was raised by real estate funds. There continues to be substantial dry powder, ~\$335 billion, seeking exposure to private real estate.
- 10-year treasury bond yields declined 122 bps to 0.70% during the quarter, as investors sought safety.

Current Value Cap Rates by Property Type



4 Qtr Rolling NOI Growth



Sources: Bureau of Economic Analysis, U.S. Census Bureau, Federal Reserve Board, NCREIF, Cushman and Wakefield, Real Capital Analytics, Bloomberg LP., Prequin, University of Michigan, Green Street

The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

EXHIBIT A: COMPLIANCE MATRIX

Category	Requirement	Portfolio Status
Benchmark	NFI-ODCE (net) +100 bps over full market cycles	<i>Portfolio returns outperform the benchmark over the three, five, and ten-year time periods.</i>
Portfolio Composition	Core/Core Plus (3% of RE Allocation)	<i>The portfolio is funded (market value) and committed at 113.2% of real estate allocation with a portfolio composition of 48.3% core/core plus and 51.7% non-core. Based on market value, the core/core plus portfolio is funded at 59.4% and the non-core portfolio is funded at 40.6%.</i>
	Non Core (4% of RE Allocation)	
Real Estate Allocation	Target of 7.0%	<i>Funded (market value) and committed dollars place the portfolio at 7.9% of total plan assets.</i>
	Currently Funded at 5.4%	
Property Type Diversification	Up to 40% Multifamily Up to 35% Industrial Up to 45% Office Up to 35% Retail Up to 25% Hotel Up to 20% Other Up to 15% Debt	<i>All property types are in compliance.</i>
Geographic Diversification	Diversified geographically Max 25% Ex-US	<i>All geographic type locations are in compliance based on market value.</i>
LTV	65%	<i>Portfolio is in compliance (46.0 %).</i>
Manager Exposure	20% of real estate allocation	<i>Manager exposure is in compliance based on market value.</i>

*While the IPS does not specify an allocation to debt-related investments, the annual plan targets a 15% exposure to debt.

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

EXHIBIT B: FIRST QUARTER 2020 FOIL

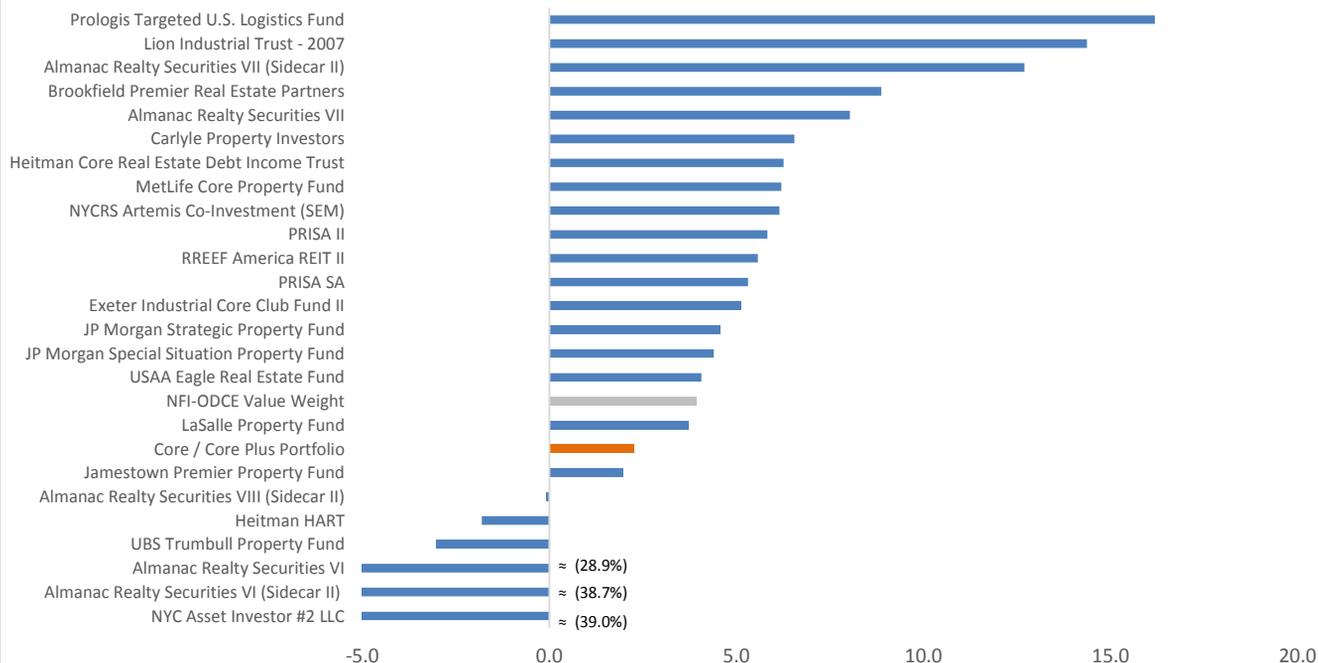
Vintage Year	Fund Name	Style Sector	Geographic Play	First Draw Down	Capital Committed	Contributions	Distributions	Market Value	Equity Multiple	Net IRR
2012	Almanac Realty Securities VI	Core / Core Plus Portfolio	Developed Americas	6/6/2012	50,000,000	33,444,956	-16,587,072	6,298,430	1.3	9.6
2012	Almanac Realty Securities VI (Sidecar II)	Core / Core Plus Portfolio	Developed Americas	7/31/2012	15,000,000	5,829,583	-5,302,452	2,277,677	1.3	8.9
2015	Almanac Realty Securities VII	Core / Core Plus Portfolio	Developed Americas	4/24/2015	50,000,000	39,601,872	-32,223,414	20,470,747	1.3	12.8
2016	Almanac Realty Securities VII (Sidecar II)	Core / Core Plus Portfolio	Developed Americas	12/29/2015	20,000,000	10,142,084	-9,324,491	5,874,157	1.5	17.0
2019	Almanac Realty Securities VIII	Core / Core Plus Portfolio	Developed Americas	12/21/2018	42,000,000	4,934,732	-72,351	3,975,109	0.8	-28.9
2019	Almanac Realty Securities VIII (Sidecar II)	Core / Core Plus Portfolio	Developed Americas	12/21/2018	28,000,000	3,248,484	-40,174	2,958,548	0.9	-11.7
2019	Antonis Real Estate Partners Income and Growth Fund	Core / Core Plus Portfolio	Developed Americas	10/18/2019	18,000,000	3,547,617	0	3,244,776	0.9	n/a
2017	Brookfield Premier Real Estate Partners	Core / Core Plus Portfolio	Developed Americas	11/22/2016	61,000,000	69,224,169	-9,090,292	84,187,279	1.3	11.1
2017	Carlyle Property Investors	Core / Core Plus Portfolio	Developed Americas	7/3/2017	61,000,000	67,378,327	-7,193,015	71,896,806	1.2	7.3
2007	Colony Realty Partners II	Core / Core Plus Portfolio	Developed Americas	2/10/2006	20,000,000	21,420,211	-5,540,084	0	0.3	-13.4
2016	Exeter Industrial Core Club Fund III, LP	Core / Core Plus Portfolio	Developed Americas	5/20/2016	19,000,000	18,259,000	-2,871,000	19,000,938	1.2	9.7
2020	Exeter Industrial Core Fund III, LP	Core / Core Plus Portfolio	Developed Americas	2/19/2020	63,600,000	7,314,000	0	6,221,514	0.9	n/a
2019	Harrison Street Core Property Fund, L.P.	Core / Core Plus Portfolio	Developed Americas	10/4/2019	20,000,000	20,282,842	-513,663	20,648,828	1.0	n/a
2019	Hettman Core Real Estate Debt Income Trust	Core / Core Plus Portfolio	Developed Americas	11/2/2018	28,000,000	30,064,520	-2,064,520	30,353,239	1.1	6.6
2007	Hettman HART	Core / Core Plus Portfolio	Developed Americas	3/29/2007	28,000,000	46,863,695	-18,863,695	61,412,935	1.7	7.1
2019	HSRE Centre Street Core Co-Investment, L.P.	Core / Core Plus Portfolio	Developed Americas	8/31/2019	10,000,000	6,310,680	-163,548	6,566,468	1.1	8.3
2016	Jamestown Premier Property Fund	Core / Core Plus Portfolio	Developed Americas	2/4/2016	26,000,000	34,840,605	-13,844,235	27,242,884	1.2	7.3
2007	JP Morgan Special Situation Property Fund	Core / Core Plus Portfolio	Developed Americas	1/2/2007	15,000,000	17,613,742	-6,667,726	22,295,450	1.6	4.7
2007	JP Morgan Strategic Property Fund	Core / Core Plus Portfolio	Developed Americas	12/4/2006	56,000,000	62,422,616	-41,989,416	91,693,771	2.1	7.6
2010	LaSalle Property Fund	Core / Core Plus Portfolio	Developed Americas	7/1/2010	115,000,000	100,973,168	-22,135,109	124,225,211	1.4	9.5
2017	Leon Industrial Trust - 2007	Core / Core Plus Portfolio	Developed Americas	3/1/2017	110,000,000	86,380,349	-7,342,742	120,811,568	1.3	14.9
2014	MedLife Core Property Fund	Core / Core Plus Portfolio	Developed Americas	7/1/2014	99,000,000	94,954,499	-12,101,835	107,007,183	1.3	9.3
2013	NVC Asset Investor #2 LLC	Core / Core Plus Portfolio	Developed Americas	7/9/2013	60,000,000	60,299,071	-25,136,804	44,407,146	1.2	3.6
2016	NVCIS Antisim Co-Investment (SEM)	Core / Core Plus Portfolio	Developed Americas	2/24/2016	35,200,000	40,163,907	-15,806,204	33,308,804	1.2	13.9
2007	PRISA II	Core / Core Plus Portfolio	Developed Americas	6/30/2007	60,278,867	63,729,327	-23,532,751	93,368,846	1.8	5.9
2006	PRISA SA	Core / Core Plus Portfolio	Developed Americas	9/29/2006	21,000,000	22,590,556	-9,583,413	30,426,175	1.8	4.9
2006	Prologis Targeted U.S. Logistics Fund	Core / Core Plus Portfolio	Developed Americas	10/1/2006	10,000,000	13,594,865	-5,105,587	21,092,006	1.9	6.3
2006	RREEF America RET II	Core / Core Plus Portfolio	Developed Americas	10/1/2006	21,000,000	27,724,347	-15,551,846	30,922,455	1.7	5.3
2006	UBS Trumbull Property Fund	Core / Core Plus Portfolio	Developed Americas	9/28/2006	61,000,000	94,104,519	-98,038,366	45,982,515	1.5	6.3
2016	USA Eagle Real Estate Fund	Core / Core Plus Portfolio	Developed Americas	12/1/2015	75,000,000	75,000,000	0	85,589,059	1.2	6.9
Core / Core Plus Portfolio					1,297,878,867	1,193,859,047	-426,713,945	1,226,543,510	1.4	6.4
2019	AERAMONT Real Estate Fund IV	Non-Core Portfolio	Developed Europe	4/18/2019	19,401,963	23,129,225	0	1,115,838	0.3	-85.5
2008	AG Realty Fund VII	Non-Core Portfolio	Developed Americas	2/20/2008	25,000,000	23,454,500	-35,015,911	394,151	1.5	12.6
2008	American Value Partners Fund I (SEM)	Non-Core Portfolio	Developed Americas	10/18/2007	15,000,000	11,355,588	-10,239,833	1,131,042	1.0	0.0
2006	AREA Real Estate Investment Fund V, LP	Non-Core Portfolio	Developed Americas	6/15/2006	5,000,000	5,000,004	-5,650,999	103,451	1.2	1.7
2008	Ares European Real Estate Fund III, LP	Non-Core Portfolio	Developed Europe	5/4/2008	30,000,000	30,487,500	-33,437,499	324,552	1.1	2.6
2015	Avanath Affordable Housing Fund II (SEM)	Non-Core Portfolio	Developed Americas	7/14/2015	5,000,000	4,861,193	-1,395,019	6,615,794	1.6	12.1
2018	Basis Investment Group Fund I (SEM)	Non-Core Portfolio	Developed Americas	11/6/2017	9,500,000	5,604,812	-1,087,108	3,366,024	1.2	11.6
2004	Blackstone Fund VI	Non-Core Portfolio	Developed Americas	9/20/2004	15,000,000	19,200,359	-26,407,725	438,262	1.4	10.9
2010	Blackstone Real Estate Partners Europe III (USD Vehicle)	Non-Core Portfolio	Developed Europe	10/20/2008	35,000,000	36,521,815	-49,056,837	4,432,818	1.5	10.8
2014	Blackstone Real Estate Partners Europe IV (USD Vehicle)	Non-Core Portfolio	Developed Europe	12/21/2013	97,500,000	94,305,740	-108,561,612	33,673,290	1.5	14.0
2020	Blackstone Real Estate Partners Europe VI (EURO Vehicle)	Non-Core Portfolio	Developed Europe	11/20/2019	69,992,113	5,255,544	0	4,702,883	0.9	n/a
2019	Blackstone Real Estate Partners IX	Non-Core Portfolio	Global	9/23/2019	101,000,000	18,205,759	-637,094	16,920,641	1.0	-5.0
2007	Blackstone Real Estate Partners VII	Non-Core Portfolio	Global	4/27/2007	40,000,000	44,681,307	-86,974,853	2,047,836	2.0	13.2
2012	Blackstone Real Estate Partners VIII	Non-Core Portfolio	Global	3/1/2012	100,000,000	124,026,596	-160,550,591	14,147,165	1.6	16.2
2015	Blackstone Real Estate Partners VII	Non-Core Portfolio	Global	8/14/2015	101,000,000	106,275,765	-41,658,169	94,233,203	1.3	12.6
2012	Brookfield Strategic Real Estate Partners	Non-Core Portfolio	Global	9/20/2012	60,000,000	68,339,131	-102,562,814	32,473,373	2.0	19.9
2019	Brookfield Strategic Real Estate Partners III	Non-Core Portfolio	Global	4/12/2019	95,000,000	10,891,088	-7,600	30,404,295	1.0	-1.7
2005	Canyon Johnson Urban Fund II	Non-Core Portfolio	Developed Americas	5/11/2005	20,000,000	17,977,405	-7,949,305	66,559	0.4	-10.4
2007	Carlyle Realty Partners V	Non-Core Portfolio	Developed Americas	8/27/2007	20,000,000	25,370,126	-33,315,914	3,666,451	1.5	8.6
2011	Carlyle Realty Partners VI	Non-Core Portfolio	Developed Americas	9/14/2011	40,000,000	38,497,439	-62,388,890	3,465,946	1.7	24.8
2014	Carlyle Realty Partners VII	Non-Core Portfolio	Developed Americas	6/30/2014	60,000,000	54,103,875	-52,413,790	25,137,741	1.4	15.0
2007	Colony Investors VIII	Non-Core Portfolio	Global	9/18/2007	20,000,000	21,489,679	-9,077,487	388,118	0.4	-11.5
2012	Dive West Fund III	Non-Core Portfolio	Developed Americas	12/30/2011	70,000,000	68,667,971	-118,691,523	122,870	1.7	23.9
2014	Dive West Fund IV	Non-Core Portfolio	Developed Americas	1/15/2014	70,000,000	69,301,157	-105,711,116	9,451,990	1.7	25.2
2017	Dive West Fund V	Non-Core Portfolio	Developed Americas	12/21/2016	40,000,000	21,973,839	74,734	25,646,981	1.2	6.0
2020	Dive West Fund VI	Non-Core Portfolio	Developed Americas	0	0	0	0	271,027	n/a	n/a
2020	DBA Growth & Income Fund X	Non-Core Portfolio	Developed Americas	3/25/2020	36,000,000	5,561,053	0	5,709,356	1.0	n/a
2017	DBA Growth and Income Fund IX	Non-Core Portfolio	Developed Americas	3/9/2017	27,000,000	26,308,307	-6,720,358	24,978,320	1.2	14.6
2016	European Property Investors Special Opportunities IV (EPISO IV)	Non-Core Portfolio	Developed Europe	12/18/2015	32,413,099	27,278,970	-35,019,043	27,847,171	1.1	6.8
2017	Exeter Industrial Value Fund IV	Non-Core Portfolio	Developed Americas	9/20/2017	16,000,000	13,600,000	0	14,490,735	1.1	4.6
2020	GreenOak Asia III (USD Vehicle)	Non-Core Portfolio	Global	0	0	0	0	267,410	n/a	n/a
2011	H/2 Special Opportunities Fund II	Non-Core Portfolio	Developed Americas	1/31/2011	25,000,000	25,000,000	-36,405,622	65,624	1.5	13.4
2015	H/2 Special Opportunities Fund III	Non-Core Portfolio	Developed Americas	12/29/2014	40,000,000	40,000,000	-35,283,115	10,685,289	1.1	5.6
2017	H/2 Special Opportunities Fund IV	Non-Core Portfolio	Developed Americas	11/15/2016	61,000,000	39,186,091	0	21,121,229	0.6	-63.0
2017	KKR CMBS B Piece SMA	Non-Core Portfolio	Developed Americas	9/27/2017	81,000,000	72,294,174	-11,603,256	6,611,889	1.1	6.7
2018	KKR Real Estate Partners Americas II	Non-Core Portfolio	Developed Americas	2/9/2018	65,850,000	43,871,241	-15,556,050	37,207,656	1.2	25.0
2014	Lone Star Real Estate Fund III	Non-Core Portfolio	Global	5/20/2014	75,000,000	70,306,161	-87,157,249	7,292,448	1.3	14.1
2017	Lone Star Real Estate Fund V	Non-Core Portfolio	Global	9/26/2017	92,700,000	24,205,221	-9,983,488	11,144,185	0.8	-17.8
2007	Metropolitan Workforce Housing Fund (SEM)	Non-Core Portfolio	Developed Americas	7/18/2007	7,000,000	7,006,513	-8,372,246	13,378	1.2	3.9
2013	NVC Asset Investor #3 LLC	Non-Core Portfolio	Developed Americas	3/25/2013	30,000,000	33,074,280	-15,278,554	23,976,062	1.2	4.1
2013	NVC Asset Investor #3 LLC	Non-Core Portfolio	Developed Americas	9/20/2013	40,000,000	26,364,808	-4,631,128	31,758,455	1.4	9.3
2017	Francisco Real Estate Capital VI (PRECap VI)	Non-Core Portfolio	Developed Europe	4/21/2017	32,830,522	28,520,522	-15,339,010	18,338,212	1.1	14.0
2008	PRISA III	Non-Core Portfolio	Developed Americas	9/30/2008	30,000,000	35,657,776	0	106,934,368	3.0	11.8
2016	PW Real Estate Fund III LP	Non-Core Portfolio	Developed Europe	10/17/2016	30,811,730	21,983,917	-9,037,365	27,934,238	1.7	27.4
2008	Shearson Legacy Partners III	Non-Core Portfolio	Global	5/28/2008	30,000,000	13,301,089	-2,649,052	1,789,779	0.3	-11.2
2008	Stockbridge Real Estate Fund III	Non-Core Portfolio	Developed Americas	9/9/2008	27,000,000	26,998,145	-16,829,753	14,721,830	1.2	2.2
2012	Taconic New York City Investment Fund LP	Non-Core Portfolio	Developed Americas	7/5/2012	40,000,000	17,627,272	-27,092,715	2,721,631	1.8	15.8
2004	The City Investment Fund I	Non-Core Portfolio	Developed Americas	3/16/2004	70,000,000	69,030,360	-69,808,600	111,076	1.0	0.3
2009	Thor Urban Property Fund II	Non-Core Portfolio	Developed Americas	10/30/2008	20,000,000	27,390,624	-27,390,624	5,861,990	1.2	5.6
2009	Walton Street Real Estate Fund VII	Non-Core Portfolio	Global	4/27/2009	30,000,000	26,594,360	-30,436,207	9,402,021	1.5	8.0
2008	Westbrook Real Estate Fund VII	Non-Core Portfolio	Global	12/3/2007	10,000,000	11,224,408	-10,557,579	2,461,794	1.2	2.5
2010	Westbrook Real Estate Fund VIII	Non-Core Portfolio	Global	12/28/2009	35,000,000	20,693,133	-48,229,691	5,606,937	1.3	10.4
2016	Westbrook Real Estate Fund X	Non-Core Portfolio	Global	7/18/2016	24,000,000	41,783,642	-10,684,120	11,324,733	1.2	11.0
Non-Core Portfolio					2,261,799,427	1,743,139,575	-1,553,641,891	839,200,113	1.4	9.7
Small Emerging Manager										

The New York City Police Pension Fund

Executive Summary: First Quarter 2020 Performance Measurement Report Real Estate

EXHIBIT C : CORE / CORE PLUS PERFORMANCE SUMMARY

Core / Core Plus One Year Net Time-Weighted Returns



Core / Core Plus Three Year Net Time-Weighted Returns

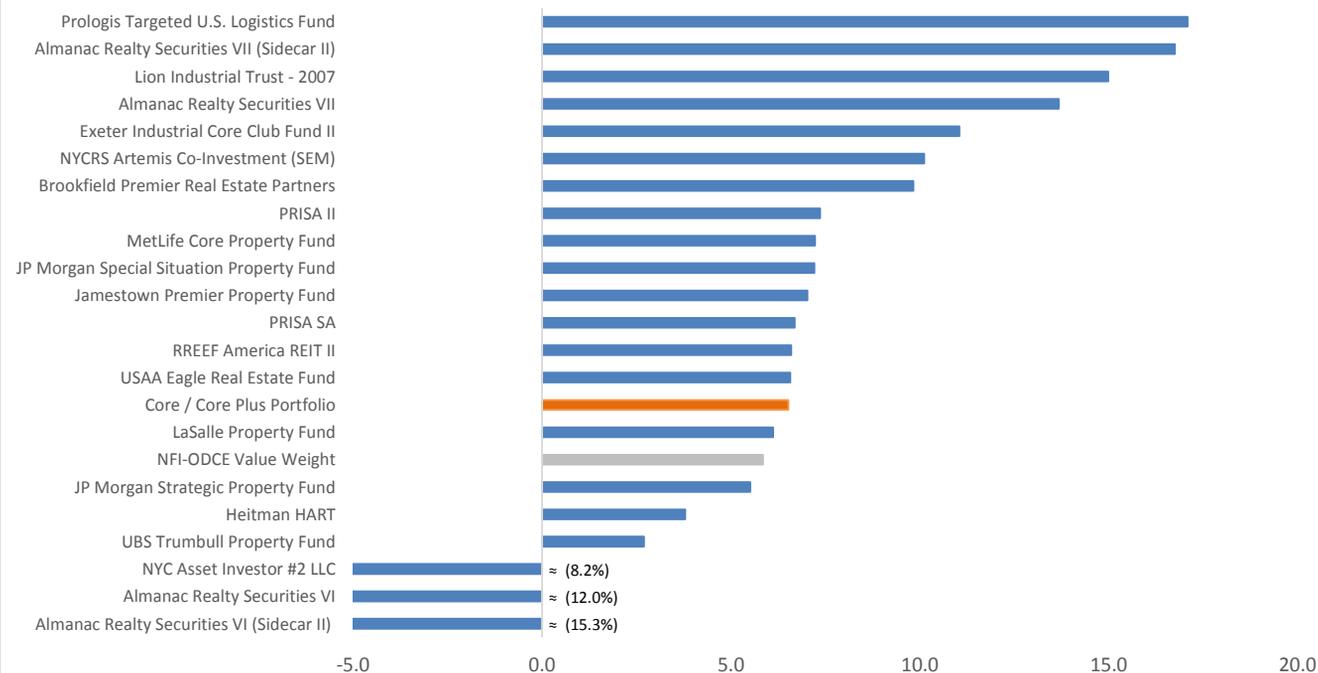


EXHIBIT C : NON-CORE PERFORMANCE SUMMARY

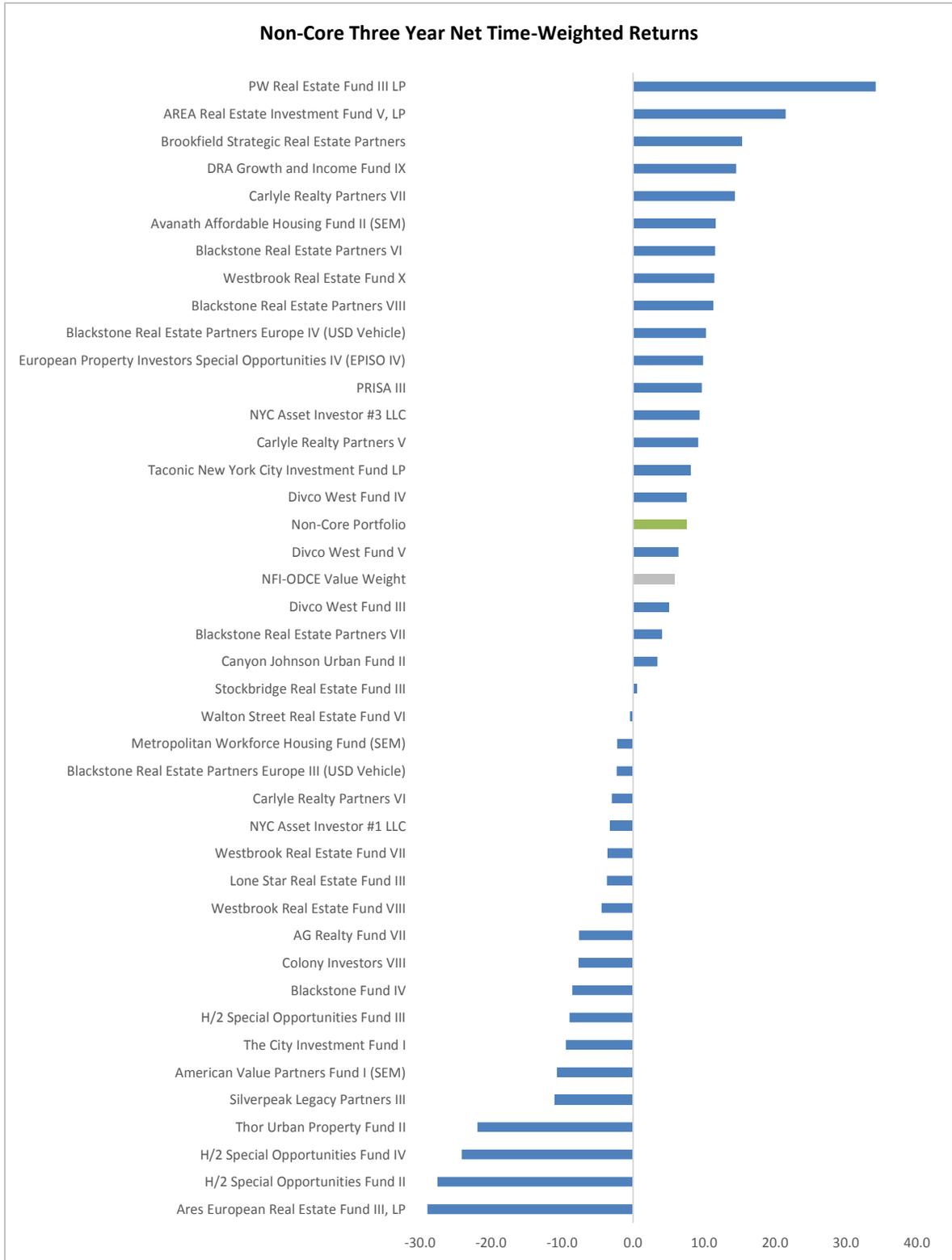
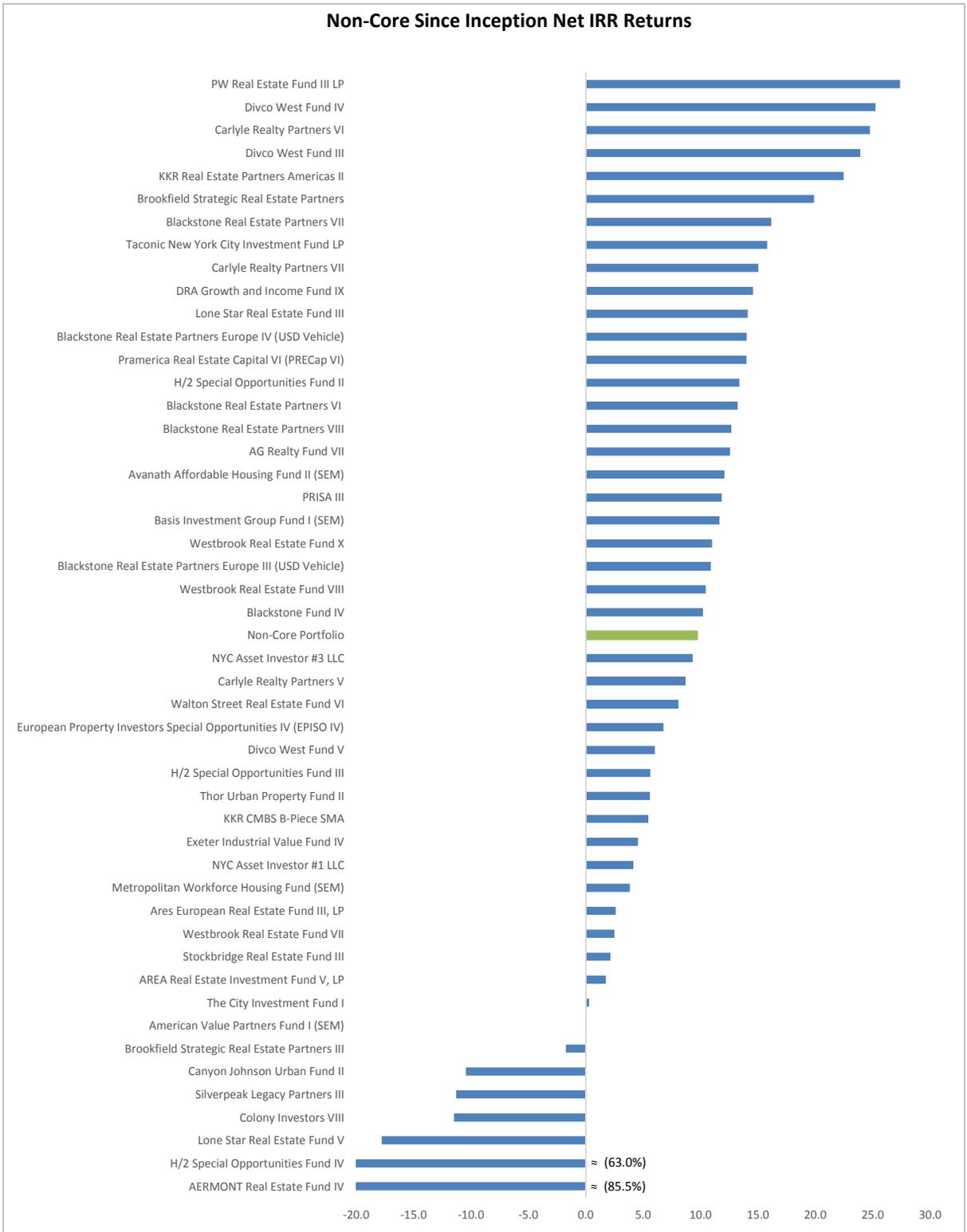


EXHIBIT C : NON-CORE PERFORMANCE SUMMARY





New York City Police Pension Fund

First Quarter 2020

Portfolio Composition (\$)							
Total Plan Assets	Allocation		Market Value		Unfunded Commitments		Remaining Allocation
38,043,000,000	2,663,010,000	7.0%	2,065,743,623	5.4%	949,743,652	2.5%	-352,477,275 -0.9%

Performance Summary	Quarter (%)		1 Year (%)		3 Year (%)		5 Year (%)	
	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
New York City Police Pension Fund	-3.6	-3.3	2.4	1.7	8.8	7.1	11.2	9.0
NFI-ODCE Value Weight + 100 BPS	1.2	1.0	5.9	5.0	7.9	6.9	9.5	8.6

Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Core / Core Plus Portfolio								
Almanac Realty Securities VI	2012	50,000,000	33,444,956	0	36,587,072	6,298,430	0.3	0.2
Almanac Realty Securities VI (Sidecar II)	2012	15,000,000	5,829,583	0	5,302,452	2,277,677	0.1	0.1
Almanac Realty Securities VII	2015	50,000,000	39,601,872	16,219,720	32,223,414	20,470,747	1.0	1.2
Almanac Realty Securities VII (Sidecar II)	2015	20,000,000	10,142,088	9,857,912	9,312,491	5,874,157	0.3	0.5
Almanac Realty Securities VIII	2018	42,000,000	4,934,732	37,065,268	72,351	3,755,109	0.2	1.4
Almanac Realty Securities VIII (Sidecar II)	2018	28,000,000	3,248,484	24,751,516	80,174	2,958,548	0.1	0.9
Artemis Real Estate Partners Income and Growth Fund	2019	18,000,000	3,547,617	14,452,383	0	3,244,736	0.2	0.6
Brookfield Premier Real Estate Partners	2016	61,000,000	69,224,169	0	9,090,292	84,187,279	4.1	2.8
Carlyle Property Investors	2017	61,000,000	67,378,327	0	7,193,015	71,896,806	3.5	2.4
Colony Realty Partners II	2006	20,000,000	21,420,211	0	5,540,084	0	0.0	0.0
Exeter Industrial Core Club Fund II	2016	19,000,000	18,259,000	741,000	2,871,000	19,003,938	0.9	0.7
Exeter Industrial Core Fund III, LP	2020	63,600,000	7,314,000	56,286,000	0	6,221,514	0.3	2.1
Harrison Street Core Property Fund, LP	2019	20,000,000	20,282,842	0	513,663	20,648,828	1.0	0.7
Heltman Core Real Estate Debt Income Trust	2018	28,000,000	30,064,520	0	2,064,520	30,353,239	1.5	1.0
Heltman HART	2007	28,000,000	46,863,695	0	18,863,695	61,412,935	3.0	2.0
HSRE-Centre Street Core Co-Investment, LP	2019	10,000,000	6,310,680	3,689,320	163,548	6,566,468	0.3	0.3
Jamestown Premier Property Fund	2016	26,000,000	34,480,605	3,237,402	13,844,255	27,242,884	1.3	1.0
JP Morgan Special Situation Property Fund	2007	15,000,000	17,613,742	0	6,667,726	22,295,450	1.1	0.7
JP Morgan Strategic Property Fund	2006	56,000,000	62,422,616	0	41,989,416	91,693,771	4.4	3.0
LaSalle Property Fund	2010	115,000,000	100,973,168	14,026,833	22,135,109	124,225,211	6.0	4.6
Lion Industrial Trust - 2007	2017	110,000,000	98,380,949	40,000,000	7,342,742	120,811,584	5.8	5.3
MetLife Core Property Fund	2014	99,000,000	94,954,499	4,045,501	12,101,935	107,007,183	5.2	3.7
NYC Asset Investor #2 LLC	2013	60,000,000	60,259,071	1,926,361	25,136,824	44,407,146	2.1	1.5
NYCRS Artemis Co-Investment (SEM)	2016	35,000,000	40,163,907	3,083,216	15,806,204	33,308,804	1.6	1.2
PRISA II	2007	60,278,867	63,729,327	0	23,532,751	93,368,846	4.5	3.1
PRISA SA	2006	21,000,000	22,590,656	0	9,583,413	30,426,175	1.5	1.0
Prologis Targeted U.S. Logistics Fund	2006	10,000,000	13,594,865	0	5,105,587	21,092,006	1.0	0.7
RREEF America REIT II	2006	21,000,000	27,724,347	0	15,551,846	30,922,455	1.5	1.0
UBS Trumbull Property Fund	2006	61,000,000	94,104,519	0	98,038,366	45,982,515	2.2	1.5
USAA Eagle Real Estate Fund	2015	75,000,000	75,000,000	0	0	88,589,069	4.3	2.9
Core / Core Plus Portfolio	2006	1,297,878,867	1,193,859,047	229,382,432	426,713,945	1,226,543,510	59.4	48.3
Non-Core Portfolio								
AERMONT Real Estate Fund IV	2019	19,401,963	3,219,225	15,572,896	0	1,115,838	0.1	0.6
AG Realty Fund VII	2008	25,000,000	23,454,500	4,932,056	35,015,911	394,151	0.0	0.2
American Value Partners Fund I (SEM)	2007	15,000,000	11,355,858	0	10,239,833	1,131,042	0.1	0.0
AREA Real Estate Investment Fund V, LP	2006	5,000,000	5,000,004	0	5,650,999	103,451	0.0	0.0
Ares European Real Estate Fund III, LP	2008	30,000,000	30,487,500	0	33,437,499	324,552	0.0	0.0
Avanath Affordable Housing Fund II (SEM)	2015	5,000,000	4,861,193	138,807	1,395,019	6,619,734	0.3	0.2
Basis Investment Group Fund I (SEM)	2017	9,500,000	5,604,812	4,373,112	1,087,108	5,366,024	0.3	0.3
Blackstone Fund IV	2004	15,000,000	19,220,353	0	26,647,725	438,282	0.0	0.0
Blackstone Real Estate Partners Europe III (USD Vehicle)	2008	35,000,000	36,521,815	4,630,846	49,806,837	4,432,818	0.2	0.3
Blackstone Real Estate Partners Europe IV (USD Vehicle)	2013	97,500,000	94,737,740	17,655,501	108,561,612	33,673,290	1.6	1.7
Blackstone Real Estate Partners Europe VI (EURO Vehicle)	2019	69,992,113	5,205,544	72,025,104	0	4,702,803	0.2	2.5
Blackstone Real Estate Partners IX	2019	101,000,000	18,205,759	83,450,754	637,094	16,920,661	0.8	3.3
Blackstone Real Estate Partners VI	2007	40,000,000	44,681,307	1,963,160	86,974,853	2,047,836	0.1	0.1
Blackstone Real Estate Partners VIII	2012	100,000,000	124,026,596	13,765,868	160,550,591	41,748,165	2.0	1.8
Blackstone Real Estate Partners VIII	2015	101,000,000	106,275,765	19,899,153	41,658,169	94,235,203	4.6	3.8
Brookfield Strategic Real Estate Partners	2012	60,000,000	68,339,131	7,578,978	102,562,814	32,473,373	1.6	1.3
Brookfield Strategic Real Estate Partners III	2019	95,000,000	30,819,088	63,813,738	7,600	30,404,295	1.5	3.1
Conroy Johnson Urban Fund II	2005	20,000,000	17,977,405	2,022,593	7,949,305	66,559	0.0	0.1
Carlyle Realty Partners V	2007	20,000,000	25,370,126	4,420,458	33,315,914	3,666,451	0.2	0.3
Carlyle Realty Partners VI	2011	40,000,000	38,497,439	13,157,260	62,388,890	3,465,946	0.2	0.6
Carlyle Realty Partners VII	2014	60,000,000	54,103,875	40,214,862	52,413,790	25,137,741	1.2	2.2
Colony Investors VIII	2007	20,000,000	21,249,679	750,321	9,077,487	988,118	0.0	0.0
Dicov West Fund III	2011	70,000,000	68,667,971	1,465,082	118,691,523	122,870	0.0	0.1
Dicov West Fund IV	2014	70,000,000	69,301,157	6,292,527	105,751,116	9,453,990	0.5	0.5
Dicov West Fund V	2016	40,000,000	21,973,839	13,363,065	-744,714	25,640,881	1.2	1.3
Dicov West Fund VI	2020	50,000,000	0	50,000,000	0	-271,027	0.0	1.6
DRA Growth & Income Fund X	2020	36,000,000	5,561,053	30,438,947	0	5,709,356	0.3	1.2
DRA Growth and Income Fund IX	2017	27,000,000	26,308,307	3,572,190	6,720,358	24,978,320	1.2	0.9
European Property Investors Special Opportunities IV (EPISO IV)	2015	32,413,099	27,278,970	6,682,970	3,519,043	27,847,171	1.3	1.1
Exeter Industrial Value Fund IV	2017	16,000,000	13,600,000	2,400,000	0	14,490,735	0.7	0.6
GreenOak Asia III (USD Vehicle)	2020	40,000,000	0	40,000,000	0	-267,410	0.0	1.3
H/2 Special Opportunities Fund II	2011	25,000,000	25,000,000	0	36,405,622	653,624	0.0	0.0
H/2 Special Opportunities Fund III	2014	40,000,000	40,000,000	0	35,283,115	10,685,289	0.5	0.4
H/2 Special Opportunities Fund IV	2016	61,000,000	39,186,091	21,813,909	0	23,121,229	1.1	1.5
KKR CMB5 B-Piece SMA	2017	81,000,000	72,294,174	8,756,779	11,603,256	67,181,889	3.3	2.5
KKR Real Estate Partners Americas II	2017	65,850,000	43,871,241	31,108,473	15,556,050	37,207,656	1.8	2.3
Lone Star Real Estate Fund III	2013	75,000,000	70,306,161	4,693,839	87,157,249	7,292,448	0.4	0.4
Lone Star Real Estate Fund V	2017	92,700,000	24,205,221	28,610,774	8,983,488	11,144,185	0.5	1.3
Metropolitan Workforce Housing Fund (SEM)	2007	7,000,000	7,006,513	0	8,372,246	131,378	0.0	0.0
NYC Asset Investor #1 LLC	2013	30,000,000	33,074,280	8,555,091	15,278,554	23,976,062	1.2	1.1
NYC Asset Investor #3 LLC	2013	40,000,000	26,364,808	13,640,461	4,631,128	31,758,455	1.5	1.5
Primerica Real Estate Capital VI (PRECap VI)	2017	32,630,522	28,532,919	11,446,606	14,539,010	18,184,212	0.9	1.0
PRISA III	2008	30,000,000	35,657,776	0	0	106,934,368	5.2	3.5
PW Real Estate Fund III LP	2016	30,811,730	21,983,917	10,635,818	9,037,365	27,934,228	1.4	1.3
Silverpeak Legacy Partners III	2008	30,000,000	13,301,089	15,874,277	2,649,052	1,789,779	0.1	0.6
Stockbridge Real Estate Fund III	2008	27,000,000	26,998,145	1,855	16,829,753	14,723,830	0.7	0.5
Taconic New York City Investment Fund LP	2012	40,000,000	16,727,272	23,272,727	27,092,715	2,721,631	0.1	0.9
The City Investment Fund I	2004	70,000,000	69,030,360	0	69,808,600	111,076	0.0	0.0
Thor Urban Property Fund II	2008	20,000,000	27,398,054	1,485,553	27,390,625	5,861,990	0.3	0.2
Walton Street Real Estate Fund VI	2009	30,000,000	26,594,360	4,662,475	30,436,207	9,402,021	0.5	0.5
Westbrook Real Estate Fund VII	2007	10,000,000	11,224,408	959,549	10,557,579	2,461,794	0.1	0.1
Westbrook Real Estate Fund VIII	2009	35,000,000	41,783,133	3,017,393	48,229,691	5,606,937	0.3	0.3
Westbrook Real Estate Fund X	2016	24,000,000	20,693,642	7,247,293	10,484,210	13,324,733	0.6	0.7
Non-Core Portfolio	2003	2,261,799,427	1,743,139,575	720,361,220	1,553,641,891	839,200,113	40.6	51.7
<i>Small Emerging Manager</i>	2007	71,500,000	68,992,283	7,595,135	36,900,410	46,556,982	2.3	1.8
Total Current Portfolio								
New York City Police Pension Fund	2003	3,559,678,294	2,936,998,622	949,743,652	1,980,355,836	2,065,743,623	100.0	100.0
Total Portfolio (including Current & Historical Activity)								
New York City Police Pension Fund	2003	3,754,678,294	3,043,042,940	951,695,930	2,115,270,372	2,065,743,623	100.0	100.0

*All the directors of the Bureau of Asset Management ("BAM"), all fees related to KKR CMB5 B-Piece SMA and KKR Real Estate Partners Americas II are input by TIG each quarter as the fees for the KKR funds are calculated at the strategic partnership level for the New York City Retirement Systems. Therefore, the fees are not input by the Manager, rather they are provided to TIG by the client.
 Note: Funds with expired investment periods that have unfunded commitments or reserves outstanding may not call the remaining commitments



New York City Police Pension Fund

Returns (%)	Market Value (\$)	Quarter				1 Year				3 Year				5 Year				10 Year				Net Quarter 2020					
		INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET	TWR Calculation Inception	Net IRR	Equity Multiple	
Core / Core Plus Portfolio																											
Almanac Realty Securities VI	6,298,430	1.9	-30.8	-28.9	-29.1	10.6	-35.8	-28.3	-28.9	8.7	-18.8	-11.3	-12.0	8.0	-7.3	0.4	-0.5					6.4	4.7	3012	9.6	1.3	
Almanac Realty Securities VI (Sidecar II)	2,277,677	1.9	-38.8	-36.9	-36.9	10.0	-45.0	-38.5	-38.7	8.2	-22.0	-15.1	-15.3	7.5	-4.7	2.7	2.5					8.1	7.9	4012	8.9	1.3	
Almanac Realty Securities VII	20,470,747	2.1	-6.4	-4.3	-4.6	9.6	-0.4	9.2	8.0	8.2	6.8	15.4	13.7									15.6	12.3	3015	12.8	1.3	
Almanac Realty Securities VII (Sidecar II)	5,874,157	2.2	-5.4	-3.2	-3.3	9.4	3.3	12.9	12.7	7.4	9.1	17.0	16.8									15.7	15.5	1016	17.0	1.5	
Almanac Realty Securities VIII	3,755,109	0.8	-15.3	-14.5	-17.9																	-5.9	-21.1	3019	-39.9	0.8	
Almanac Realty Securities VIII (Sidecar II)	2,958,548	1.0	-14.4	-13.4	-13.5	6.5	-5.8	0.4	-0.1													6.5	6.0	1019	-11.7	0.9	
Artemis Real Estate Partners Income and Growth Fund	3,244,736	-0.1	-8.2	-8.3	-9.1																	7.2	4.1	4019		0.9	
Brookfield Premier Real Estate Partners	84,187,279	0.6	1.8	2.4	2.0	3.0	7.5	10.7	8.9	2.6	9.0	11.8	9.8									11.9	9.9	1017	11.1	1.3	
Carlyle Property Investors	71,899,806	1.0	-1.6	-0.7	0.2	3.7	3.0	6.7	6.6													8.2	7.4	3017	7.3	1.2	
Colony Realty Partners II	19,003,938	2.2	-7.1	-4.9	-4.1	8.9	-3.3	5.3	5.1	9.2	2.9	12.3	11.0									12.8	11.4	3016	9.7	1.2	
Exeter Industrial Core Fund II, LP	6,221,514																									0.9	
Harrison Street Core Property Fund, L.P.	20,648,828	1.3	0.5	1.8	1.8																	4.5	4.5	4019		1.0	
Heltman Core Real Estate Debt Income Trust	30,353,239	1.6	-0.3	1.3	1.2	7.3	-0.3	7.0	6.3													7.3	6.6	1019	6.6	1.1	
Heltman HART	61,412,935	1.1	-3.0	-1.9	-2.0	4.7	-5.7	-1.2	-1.8	4.6	-0.1	4.4	3.8	4.6	2.5	7.2	6.7	5.2	5.5	10.8	10.3	6.1	5.6	2007	7.1	1.7	
HSRE Centre Street Core Co-Investment, L.P.	6,566,468	1.3	1.8	3.1	3.1																	7.7	7.7	3019	8.3	1.1	
Jamestown Premier Property Fund	27,242,884	0.7	-1.3	-0.6	-0.8	2.2	0.5	2.7	2.0	3.3	5.6	9.0	7.0									8.7	6.9	2016	7.3	1.2	
JP Morgan Special Situation Property Fund	22,295,450	0.7	0.7	1.4	1.0	2.2	3.8	6.1	4.4	1.9	6.9	8.9	7.2	2.2	8.7	11.0	9.2	3.3	11.3	14.9	13.1	6.3	4.6	2007	4.7	1.6	
JP Morgan Strategic Property Fund	91,693,771	1.0	0.5	1.5	1.2	3.9	1.6	5.5	4.6	4.0	2.3	6.4	5.5	4.3	3.7	8.1	7.1	4.9	6.2	11.3	10.3	6.5	5.5	1007	7.6	2.1	
Lusatic Property Fund	124,225,211	1.0	-1.2	-0.2	-0.3	4.4	-0.1	4.3	3.7	4.8	1.9	6.7	6.1	4.9	3.6	8.6	8.0					10.8	10.2	3010	9.5	1.4	
Lion Industrial Trust - 2007	120,811,584	1.3	3.0	4.3	3.8	5.3	10.7	16.4	14.4	5.3	11.5	17.2	15.0									17.0	14.8	1017	14.9	1.3	
MetLife Core Property Fund	107,007,183	1.1	-0.3	0.9	0.7	4.9	1.9	6.8	6.2	5.0	2.8	7.8	7.2	5.1	4.6	9.9	9.2					11.5	10.9	3014	9.3	1.3	
NYC Asset Investor #2 LLC	44,407,146	-0.1	-1.9	-2.1	-2.3	0.2	-46.8	-46.7	-39.0	0.4	-11.1	-10.8	-8.2	1.1	-1.1	0.0	0.4					2.8	2.5	4013	3.6	1.2	
NYORS Artemis Co-Investment (SEM)	33,308,804	0.9	-1.9	-1.0	-1.0	4.0	4.2	8.3	6.2	4.4	8.3	13.0	10.1									16.7	12.6	2016	13.9	1.2	
PRISA II	93,368,846	0.9	0.4	1.3	1.1	4.1	2.6	6.8	5.8	4.1	4.2	8.4	7.4	4.3	5.6	10.1	9.2	4.7	9.1	14.2	13.2	4.9	4.0	3007	5.9	1.8	
PRISA SA	30,426,175	1.0	0.7	1.7	1.5	4.3	1.8	6.2	5.3	4.4	3.1	7.6	6.7	4.5	4.3	9.0	8.1	5.0	7.0	12.3	11.4	6.1	5.3	4006	4.9	1.8	
Prologis Targeted U.S. Logistics Fund	21,092,006	0.9	1.6	2.5	2.3	4.4	13.9	18.7	16.2	4.9	14.5	19.9	17.1	5.3	13.2	19.0	16.4	6.2	12.2	18.9	16.6	8.6	6.5	4006	6.3	1.9	
RREF America REIT II	30,922,455	1.0	0.1	1.2	0.9	4.3	2.2	6.6	5.6	4.3	3.2	7.6	6.6	4.4	4.6	9.1	8.1	5.1	6.9	12.3	11.3	6.5	5.7	4006	5.3	1.7	
UBS Trumbull Property Fund	45,982,515	1.1	-0.6	0.4	0.3	4.7	-6.8	-2.3	-3.0	4.6	-1.2	3.4	2.7	4.7	0.9	5.6	4.8	5.1	3.8	9.1	8.2	5.6	4.8	4006	6.3	1.5	
USAA Eagle Real Estate Fund	88,580,069	0.8	-0.1	0.7	0.5	2.9	2.1	5.0	4.1	3.4	3.9	7.4	6.6									8.7	7.8	1016	6.9	1.2	
Core / Core Plus Portfolio	1,226,543,510	1.0	-0.8	0.2	0.0	4.3	-1.5	2.8	2.3	4.3	3.2	7.5	6.5	4.3	5.1	9.6	8.5	4.9	7.4	12.6	11.4	5.8	4.6	4006	6.4	1.4	
Non-Core Portfolio																											
AERMONT Real Estate Fund I	1,115,838	-0.5	-65.6	-66.1	-67.5	-2.5	-52.9	-54.4	-60.3													-54.4	-60.3	2019	-85.5	0.3	
AG Realty Fund VII	394,151	-1.7	-2.2	-3.8	-3.1	-0.1	-12.1	-12.2	-9.8	3.9	-13.4	-9.7	-7.6	12.0	-21.1	-10.8	-8.9	8.2	-2.8	5.6	4.0	6.3	4.0	3008	12.6	1.5	
American Value Partners Fund I (SEM)	1,131,042	0.6	-3.4	-2.7	-3.1	0.2	-16.7	-16.5	-17.6	3.5	-12.4	-9.0	-10.7	6.4	-9.4	-3.2	-5.0	6.1	-0.9	5.4	3.5	-24.8	-29.4	1008	0.0	1.0	
AREA Real Estate Investment Fund V, LP	103,451	0.3	7.0	7.3	6.8	1.1	17.2	18.4	16.7	8.7	13.5	23.0	21.5	8.9	8.7	18.2	16.8	6.2	9.4	16.2	14.6	8.0	5.8	3006	1.7	1.2	
Artes European Real Estate Fund III, LP	3,245,552	-0.8	-7.8	-8.5	-8.5	-0.3	-5.6	-6.2	-6.2	-0.1	-28.4	-28.6	-29.0	0.5	-18.6	-18.3	-19.1	1.2	-6.8	-5.7	-7.1	-6.8	-9.3	3008	2.6	1.1	
Avanath Affordable Housing Fund I (SEM)	6,619,734	0.9	0.4	1.3	1.1	12.1	-4.2	7.8	7.1	7.8	4.3	12.6	11.7									13.6	12.4	4015	12.1	1.6	
Basis Investment Group Fund I (SEM)	5,365,024	3.9	-3.1	0.8	0.9	12.9	-2.7	9.9	8.8													12.1	10.7	1018	11.6	1.2	
Blackstone Fund IV	438,282	0.0	-28.2	-28.2	-22.6	-19.4	-2.2	-15.8	-15.6	-6.6	-2.6	-9.6	-8.6	-3.2	-6.4	-9.6	-8.2	-1.0	5.4	4.2	2.7	5.6	4.2	3004	10.2	1.4	
Blackstone Real Estate Partners Europe III (USD Vehicle)	4,432,818	-0.1	1.4	1.3	0.1	0.1	2.6	2.4	-0.1	0.1	-1.4	-1.3	-2.3	1.0	1.0	2.0	0.5	1.1	14.3	15.5	8.7	15.6	13.7	1010	10.8	1.5	
Blackstone Real Estate Partners Europe IV (USD Vehicle)	33,673,290	0.0	-11.0	-11.0	-9.2	0.5	-4.9	-4.5	-4.4	0.7	13.0	13.7	10.3	1.6	16.1	17.8	13.1					15.4	10.2	1014	14.0	1.5	
Blackstone Real Estate Partners Europe V (EURO Vehicle)	4,702,883	-9.1	-4.8	-13.8	-13.8																	-13.8	-13.8	1020		0.9	
Blackstone Real Estate Partners IX	16,920,661	3.2	-7.6	-4.4	-5.5																	0.1	-2.0	4019	-5.0	1.0	
Blackstone Real Estate Partners VI	2,047,836	1.1	-21.4	-20.3	-16.3	2.0	4.7	7.1	6.3	1.0	13.7	14.9	11.6	1.3	9.0	10.4	7.9	1.1	23.2	24.5	19.7	12.2	7.8	4007	13.2	2.0	
Blackstone Real Estate Partners VII	41,748,165	1.3	-17.0	-15.7	-12.8	4.1	-12.1	8.3	-7.1	3.6	2.1	5.9	4.1	3.9	4.7	8.8	6.3					18.1	13.0	2012	16.2	1.6	
Blackstone Real Estate Partners VIII	94,235,203	0.2	-8.4	-8.2	-6.7	1.6	6.4	8.0	5.6	1.1	14.8	16.0	11.3									19.7	13.5	4015	12.6	1.3	
Brookfield Strategic Real Estate Partners	32,473,373	0.1	-6.3	-6.2	-5.5																	21.2	15.2	4012	19.9	2.0	
Brookfield Strategic Real Estate Partners III	30,404,295	-0.1	-4.9	-5.0	-5.4	14.1	-14.2	-1.2	-2.0	10.6	8.2	20.1	15.4	7.8	13.7	22.7	17.4					21.2	15.2	4012	19.9	2.0	
Canyon Johnson Urban Fund II	65,559	0.0	0.0	0.0	0.0	4.4	2.0	-2.4	-2.4	-2.7	6.2	3.4	3.4	-1.7	-4.3	-6.3	-6.7	0.2	-4.3	-4.3	-5.6	6.2	4.1	3005	-10.4	0.4	
Carlyle Realty Partners V	3,666,451	0.7	-1.1	-0.4	1.3	3.7	-21.2	20.6	17.2	14.1	-6.0	11.4	9.2	16.2	-3.3	15.0	10.3	14.6	0.5	16.9	13.5	12.2	8.9				



New York City Police Pension Fund

First Quarter 2020

Quarterly Cash Flow Activity (\$)	Beginning Market Value	Contributions	Distributions	Withdrawals	Gross Income	Manager Fees	Appreciation	Ending Market Value	LTV (%)
Core / Core Plus Portfolio									
Almanac Realty Securities VI	8,883,280	0	0	0	165,830	18,517	-2,732,163	6,298,430	0.0
Almanac Realty Securities VI (Sidecar II)	3,610,212	0	0	0	70,259	1,893	-1,400,901	2,277,677	0.0
Almanac Realty Securities VII	21,806,561	0	351,457	0	457,095	60,682	-1,380,770	20,470,747	0.0
Almanac Realty Securities VII (Sidecar II)	6,197,708	0	124,075	0	133,552	3,068	-329,960	5,874,157	0.0
Almanac Realty Securities VIII	3,568,335	880,592	0	0	31,285	130,533	-594,570	3,755,109	0.0
Almanac Realty Securities VIII (Sidecar II)	2,961,065	428,376	9,417	0	32,185	3,692	-449,969	2,958,548	0.0
Artemis Real Estate Partners Income and Growth Fund	2,985,110	574,619	0	0	-3,192	27,285	-284,516	3,244,736	55.3
Brookfield Premier Real Estate Partners	82,552,319	817,988	866,123	0	503,440	341,395	1,521,050	84,187,279	45.3
Carlyle Property Investors	71,808,238	757,604	814,689	0	699,343	-634,997	-1,188,686	71,896,806	53.0
Colony Realty Partners II	0	0	0	0	0	0	0	0	0.0
Exeter Industrial Core Club Fund II	20,171,981	0	356,400	0	431,787	-175,103	-1,418,533	19,003,938	54.6
Exeter Industrial Core Fund III, LP	-167,287	7,314,000	0	0	134,141	6,573	-1,052,767	6,221,514	63.1
Harrison Street Core Property Fund, L.P.	20,314,941	221,708	257,390	0	265,806	0	103,764	20,648,828	25.3
Heitman Core Real Estate Debt Income Trust	30,003,830	495,982	495,982	0	487,421	47,729	-90,283	30,353,239	54.3
Heitman HART	62,666,037	611,216	611,216	0	715,864	93,308	-1,875,658	61,412,935	25.6
HSRE-Centre Street Co-Investment, L.P.	6,440,759	0	75,463	0	83,830	0	117,342	6,566,468	50.0
Jamestown Premier Property Fund	24,237,125	3,284,615	62,251	0	191,894	45,739	-362,761	27,242,884	43.1
JP Morgan Special Situation Property Fund	22,205,238	0	132,407	0	147,653	88,408	163,375	22,395,450	46.4
JP Morgan Strategic Property Fund	130,701,000	0	1,017,702	39,160,880	937,997	262,615	495,971	91,693,771	23.7
LaSalle Property Fund	125,746,088	0	1,099,761	0	1,304,203	177,446	-1,547,872	124,225,211	21.7
Lion Industrial Trust - 2007	116,250,722	1,262,502	1,081,813	0	1,534,228	592,948	3,438,893	120,811,584	29.7
MetLife Core Property Fund	101,035,034	6,321,417	1,130,090	0	1,228,688	148,893	-298,973	107,007,183	22.7
NYC Asset Investor #2 LLC	45,458,368	0	0	0	-56,102	109,157	-885,962	44,407,146	61.2
NVCRS Artemis Co-Investment (SEM)	34,048,778	0	383,652	0	319,579	16,476	-659,425	33,308,804	40.6
PRISA II	93,162,292	0	806,333	0	881,752	219,751	350,887	93,368,846	37.7
PRISA SA	30,245,165	0	259,021	0	304,433	62,117	197,713	30,426,175	21.9
Prologis Targeted U.S. Logistics Fund	20,732,142	0	121,608	0	187,127	40,932	335,278	21,092,006	19.1
REEF America REIT II	30,879,528	0	249,896	0	323,542	73,642	42,923	30,922,455	16.3
URS Trumbull Property Fund	49,135,265	80,647	549,127	2,806,181	487,620	80,647	-285,063	45,982,151	18.6
USAA Eagle Real Estate Fund	83,673,089	4,469,114	0	0	724,581	202,179	-75,536	88,589,069	38.0
Core / Core Plus Portfolio	1,251,312,924	27,520,380	10,855,872	41,967,061	12,725,839	2,045,525	-10,147,174	1,226,543,510	35.6
Non-Core Portfolio									
AERMONT Real Estate Fund IV	3,428,360	0	0	0	-17,513	46,889	-2,248,120	1,115,838	25.0
AG Realty Fund VII	610,161	0	0	200,000	-8,713	-4,002	-11,299	394,151	0.0
American Value Partners Fund I (SEM)	1,167,107	0	0	0	7,567	4,260	-39,372	1,131,042	0.0
AREA Real Estate Investment Fund V, LP	339,190	0	250,018	0	636	977	14,620	103,451	0.0
Ares European Real Estate Fund III, LP	571,882	0	199,999	0	-4,214	0	-43,117	324,552	98.0
Avanath Affordable Housing Fund II (SEM)	6,578,297	0	29,738	0	60,449	15,589	26,315	6,619,734	47.5
Basis Investment Group Fund I (SEM)	4,534,270	930,128	145,940	0	197,130	-9,197	-158,762	5,366,024	45.0
Blackstone Fund IV	566,035	0	0	0	-234	-31,881	-159,401	438,282	93.5
Blackstone Real Estate Partners Europe III (USD Vehicle)	5,746,523	29,388	888,234	457,880	-4,843	65,368	73,232	4,432,181	72.3
Blackstone Real Estate Partners Europe IV (USD Vehicle)	39,348,513	94,433	925,138	1,273,975	11,149	-681,817	-4,263,509	33,673,290	63.6
Blackstone Real Estate Partners Europe VI (EURO Vehicle)	2,361,228	2,813,571	0	0	-309,594	0	-162,322	4,702,883	68.4
Blackstone Real Estate Partners IX	17,402,972	740,776	143,901	105,529	556,262	194,966	-1,334,952	16,920,661	76.9
Blackstone Real Estate Partners VI	3,075,066	0	284,843	269,090	31,220	-117,697	-62,213	2,047,836	24.9
Blackstone Real Estate Partners VIII	49,350,641	335,622	1,024,436	680,214	611,400	-1,446,994	-8,291,842	41,748,165	61.7
Blackstone Real Estate Partners VII	102,408,058	371,644	688,150	970,697	236,554	-1,467,584	-8,599,789	94,235,203	66.7
Brookfield Strategic Real Estate Partners	34,367,937	0	0	0	39,986	-219,462	-2,154,012	32,473,373	62.0
Brookfield Strategic Real Estate Partners III	24,644,553	7,477,356	0	0	-30,991	124,333	-1,562,290	30,404,295	60.0
Canyon Johnson Urban Fund II	66,584	0	0	0	-25	0	0	66,559	0.0
Carlyle Realty Partners V	3,899,475	6,667	89,617	199,466	26,531	-66,839	-43,978	3,666,451	0.0
Carlyle Realty Partners VI	4,026,438	17,094	26,655	0	-9,343	-130,598	-672,186	3,465,946	62.4
Carlyle Realty Partners VII	27,456,368	116,788	655,687	735,861	1,078,545	-226,572	-2,348,984	25,137,741	54.7
Colony Investors VIII	400,052	0	0	0	73	0	-12,007	388,118	0.0
Divco West Fund III	134,765	0	0	0	-14,537	-3,694	-1,052	122,870	0.0
Divco West Fund IV	10,323,414	0	0	0	55,335	-194,098	-1,118,857	9,453,990	58.3
Divco West Fund V	24,853,811	629,313	-744,714	0	293,152	19,466	-860,643	25,640,881	63.4
Divco West Fund VI	0	0	0	0	-53,330	157,624	-58,073	-271,027	64.2
DRA Growth & Income Fund X	0	5,561,053	0	0	175,477	27,174	0	5,709,356	0.8
DRA Growth and Income Fund IX	23,953,915	805,203	464,922	0	707,210	703,108	680,022	24,978,320	66.0
European Property Investors Special Opportunities IV (EPISO IV)	29,107,179	543,098	0	0	-146,208	84,261	-1,572,637	27,847,171	57.7
Exeter Industrial Value Fund IV	15,742,016	0	0	0	166,284	-356,840	-1,774,405	14,490,735	57.7
GreenOak Asia III (USD Vehicle)	-183,623	0	0	0	-11,009	99,454	26,676	-267,410	75.0
H/2 Special Opportunities Fund II	1,846,224	0	78,932	0	26,306	-893,613	-2,033,586	653,624	15.5
H/2 Special Opportunities Fund III	19,368,242	0	1,349,417	0	212,743	-1,799,679	-9,345,958	10,685,289	37.1
H/2 Special Opportunities Fund IV	28,656,839	13,315,662	0	0	252,654	70,309	-19,033,618	23,121,229	33.1
KKR CMBS B-Piece SMA	73,779,953	0	1,797,963	0	1,762,983	-3,102	-6,136,186	67,611,889	0.0
KKR Real Estate Partners Americas II	38,876,650	7,114,519	3,909,678	5,434,946	3,830,624	-1,288,214	-4,557,727	37,207,656	67.0
Lone Star Real Estate Fund III	9,228,109	0	0	376,358	84,054	-1,455,432	-3,098,789	7,292,448	27.5
Lone Star Real Estate Fund V	17,333,644	0	329,792	2,714,623	192,870	22,574	-3,315,340	11,144,185	76.8
Metropolitan Workforce Housing Fund (SEM)	131,372	0	0	0	6	0	0	131,378	0.0
NYC Asset Investor #1 LLC	25,775,759	46,497	0	0	254,530	46,497	-2,054,227	23,976,062	55.9
NYC Asset Investor #3 LLC	31,421,590	171,018	0	0	-2,889	68,910	237,646	31,758,455	46.6
Primerica Real Estate Capital VI (PRECap VI)	16,977,570	2,347,970	0	277,498	90,260	61,528	-892,562	18,184,212	0.0
PRISA III	103,536,226	0	0	0	456,305	540,445	3,482,281	106,934,368	43.6
PW Real Estate Fund III LP	30,938,442	626,688	630,879	230,389	-18,641	-545,690	-3,296,682	27,934,228	42.6
Silverpeak Legacy Partners III	2,089,660	0	0	0	-3,612	0	-296,269	1,789,779	26.1
Stockbridge Real Estate Fund III	14,887,666	0	0	0	2,843	11,118	-155,561	14,723,830	44.2
Taconic New York City Investment Fund LP	2,730,238	0	0	0	-5,556	3,051	0	2,721,631	0.0
The City Investment Fund I	112,405	0	0	0	-1,329	0	0	111,076	0.0
Thor Urban Property Fund II	6,152,577	0	0	0	-1,403	0	-289,184	5,861,990	76.0
Walton Street Real Estate Fund VI	10,548,565	0	0	0	116,178	27,367	-1,235,355	9,402,021	58.6
Westbrook Real Estate Fund VIII	2,671,747	7,194	0	0	2,083	7,194	-212,036	2,461,794	31.1
Westbrook Real Estate Fund VIII	6,492,391	16,187	0	0	7,826	16,187	-893,280	5,606,937	41.1
Westbrook Real Estate Fund X	13,050,426	1,731,608	623,090	429,543	40,580	47,397	-397,851	13,324,733	45.9
Non-Core Portfolio	892,887,482	45,849,477	13,792,315	14,356,069	10,941,821	-8,476,959	-90,800,211	839,200,113	56.2
<i>Small Emerging Manager</i>	46,459,824	930,128	559,330	0	584,731	27,128	-831,244	46,556,982	41.6
Total Portfolio									
New York City Police Pension Fund	2,144,200,406	73,369,857	24,648,187	56,323,130	23,667,660	-6,431,434	-100,954,415	2,065,743,623	46.0

*At the direction of the Bureau of Asset Management ("BAM"), all fees related to KKR CMBS B-Piece SMA and KKR Real Estate Partners Americas II are input by TTG each quarter as the fees for the KKR funds are calculated at the strategic partnership level for the New York City Retirement Systems. Therefore, the fees are not input by the Manager, rather they are provided to TTG by the client.



New York City Police Pension Fund

First Quarter 2020

Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Core / Core Plus Portfolio						
Almanac Realty Securities VI	29.0	0.0	0.0	0.0	68.0	3.0
Almanac Realty Securities VI (Sidecar II)	31.7	0.0	0.0	0.0	65.0	3.3
Almanac Realty Securities VII	9.1	15.2	21.7	14.2	5.4	34.4
Almanac Realty Securities VII (Sidecar II)	14.0	23.5	33.6	1.1	8.3	19.5
Almanac Realty Securities VIII	0.0	5.2	40.7	7.3	24.0	22.8
Almanac Realty Securities VIII (Sidecar II)	0.0	5.3	40.1	6.4	28.2	20.0
Artemis Real Estate Partners Income and Growth Fund	10.2	76.3	0.0	0.0	13.4	0.0
Brookfield Premier Real Estate Partners	35.7	30.4	33.9	0.0	0.0	0.0
Carlyle Property Investors	41.0	0.0	2.2	0.0	0.0	56.8
Colony Realty Partners II	0.0	0.0	0.0	0.0	0.0	0.0
Exeter Industrial Core Club Fund II	0.0	0.0	100.0	0.0	0.0	0.0
Exeter Industrial Core Fund III, LP	0.0	0.0	100.0	0.0	0.0	0.0
Harrison Street Core Property Fund, L.P.	0.0	0.0	0.0	0.0	0.0	100.0
Heitman Core Real Estate Debt Income Trust	34.8	32.6	4.6	6.0	8.9	13.1
Heitman HART	24.1	27.9	15.8	12.8	0.0	19.5
HSRE-Centre Street Core Co-Investment, L.P.	0.0	0.0	0.0	0.0	0.0	100.0
Jamestown Premier Property Fund	0.0	68.3	0.0	24.0	0.0	7.8
JP Morgan Special Situation Property Fund	31.3	47.1	12.7	4.8	0.0	4.1
JP Morgan Strategic Property Fund	21.5	36.0	17.1	23.4	0.0	2.0
LaSalle Property Fund	29.7	22.5	19.8	13.0	0.0	15.1
Lion Industrial Trust - 2007	0.0	0.0	100.0	0.0	0.0	0.0
MetLife Core Property Fund	31.8	33.0	19.8	12.6	0.0	2.8
NYC Asset Investor #2 LLC	100.0	0.0	0.0	0.0	0.0	0.0
NYCRS Artemis Co-Investment (SEM)	25.0	4.9	6.1	0.0	27.6	36.5
PRISA II	26.2	37.9	3.2	19.4	0.0	13.4
PRISA SA	22.5	33.2	19.8	15.9	0.0	8.6
Prologis Targeted U.S. Logistics Fund	0.0	0.0	100.0	0.0	0.0	0.0
RREEF America REIT II	19.4	32.7	29.6	18.3	0.0	0.0
UBS Trumbull Property Fund	37.6	24.9	19.5	17.1	0.8	0.0
USAA Eagle Real Estate Fund	42.6	21.2	19.0	16.9	0.0	0.2
Core / Core Plus Portfolio	24.5	20.4	28.7	9.2	1.6	15.8
Non-Core Portfolio						
AERMONT Real Estate Fund IV	65.0	0.0	0.0	35.0	0.0	0.0
AG Realty Fund VII	0.0	0.0	0.0	30.0	0.0	70.0
American Value Partners Fund I (SEM)	0.0	0.0	8.4	0.0	46.2	45.3
AREA Real Estate Investment Fund V, LP	0.0	0.0	0.0	0.0	0.0	100.0
Ares European Real Estate Fund III, LP	21.9	0.0	0.0	0.0	0.0	78.1
Avanath Affordable Housing Fund II (SEM)	100.0	0.0	0.0	0.0	0.0	0.0
Basis Investment Group Fund I (SEM)	48.0	17.0	2.1	17.7	8.5	6.6
Blackstone Fund IV	0.0	0.0	0.0	0.0	22.9	77.1
Blackstone Real Estate Partners Europe III (USD Vehicle)	0.0	24.0	0.0	46.4	0.0	29.7
Blackstone Real Estate Partners Europe IV (USD Vehicle)	45.5	34.7	0.8	13.1	3.6	2.3
Blackstone Real Estate Partners Europe VI (EURO Vehicle)	4.6	63.4	32.0	0.0	0.0	0.0
Blackstone Real Estate Partners IX	3.6	6.1	81.5	0.0	8.8	0.0
Blackstone Real Estate Partners VI	8.7	73.6	0.0	0.0	15.8	2.0
Blackstone Real Estate Partners VII	12.6	31.8	2.8	5.3	45.9	1.5
Blackstone Real Estate Partners VIII	12.8	40.2	31.2	4.2	8.1	3.5
Brookfield Strategic Real Estate Partners	3.8	48.2	0.0	21.5	6.2	20.2
Brookfield Strategic Real Estate Partners III	0.2	4.1	1.4	7.3	10.9	76.1
Canyon Johnson Urban Fund II	0.0	0.0	0.0	100.0	0.0	0.0
Carlyle Realty Partners V	0.0	0.1	0.0	11.7	0.0	88.2
Carlyle Realty Partners VI	44.2	0.0	0.0	0.0	25.4	30.4
Carlyle Realty Partners VII	33.0	7.6	0.6	0.0	5.2	53.7
Colony Investors VIII	0.0	0.0	0.0	0.0	0.0	100.0
Divco West Fund III	0.0	100.0	0.0	0.0	0.0	0.0
Divco West Fund IV	0.0	30.3	0.0	0.0	0.0	69.7
Divco West Fund V	27.0	70.8	0.0	0.0	0.0	2.1
Divco West Fund VI	0.0	100.0	0.0	0.0	0.0	0.0
DRA Growth & Income Fund X	3.5	0.0	96.5	0.0	0.0	0.0
DRA Growth and Income Fund IX	19.2	36.1	25.9	18.8	0.0	0.0
European Property Investors Special Opportunities IV (EPISO IV)	11.2	49.2	3.8	22.9	1.5	11.4
Exeter Industrial Value Fund IV	0.0	4.8	95.2	0.0	0.0	0.0
GreenOak Asia III (USD Vehicle)	0.0	0.0	0.0	100.0	0.0	0.0
H/2 Special Opportunities Fund II	0.0	0.0	0.0	0.0	0.0	100.0
H/2 Special Opportunities Fund III	0.0	0.0	0.0	0.0	0.0	100.0
H/2 Special Opportunities Fund IV	0.0	0.0	0.0	0.0	0.0	100.0
KKR CMBS B-Piece SMA	0.0	0.0	0.0	0.0	0.0	100.0
KKR Real Estate Partners Americas II	16.6	26.1	26.2	0.0	0.0	31.1
Lone Star Real Estate Fund III	0.0	2.9	0.0	0.0	0.0	97.1
Lone Star Real Estate Fund V	0.0	35.8	7.4	14.0	1.6	41.3
Metropolitan Workforce Housing Fund (SEM)	0.0	0.0	0.0	0.0	0.0	0.0
NYC Asset Investor #1 LLC	0.0	42.4	0.0	57.6	0.0	0.0
NYC Asset Investor #3 LLC	100.0	0.0	0.0	0.0	0.0	0.0
Pramerica Real Estate Capital VI (PRECap VI)	7.0	31.0	40.0	3.0	12.0	7.0
PRISA III	57.0	11.3	8.7	7.3	0.0	15.7
PW Real Estate Fund III LP	8.3	13.6	0.0	1.9	0.3	75.9
Silverpeak Legacy Partners III	2.3	72.6	0.0	25.1	0.0	0.0
Stoekbridge Real Estate Fund III	0.0	88.2	0.0	8.6	3.2	0.0
Taconic New York City Investment Fund LP	0.0	0.0	0.0	0.0	0.0	100.0
The City Investment Fund I	0.0	0.0	0.0	0.0	0.0	0.0
Thor Urban Property Fund II	0.0	0.0	0.0	55.2	0.0	44.8
Walton Street Real Estate Fund VI*	3.1	5.0	0.0	-17.1	2.8	106.3
Westbrook Real Estate Fund VII	8.0	31.7	0.0	1.4	28.3	30.7
Westbrook Real Estate Fund VIII	0.0	0.0	5.0	0.0	60.2	34.8
Westbrook Real Estate Fund X	13.9	47.9	16.1	3.9	10.3	7.8
Non-Core Portfolio	22.1	24.9	11.1	8.6	5.9	27.4
<i>Small Emerging Manager</i>	39.7	5.5	4.6	2.3	21.0	26.8
Total Portfolio						
New York City Police Pension Fund	23.6	22.1	22.1	9.0	3.2	20.1
Indices						
NFI-ODCE Value Weight	25.5	33.3	21.2	15.4	0.0	4.6

Other property types include debt-related investments and alternative property types such as student housing, senior living, health care, mixed-use and land.

*Please note the diversification submitted by the Manager for Walton Street Real Estate Fund VI includes Fund-level line of credit. Without the line of credit allocation, the property type diversification as of 3Q20 according to their quarterly report is as follows: 6.5% for Apartment, 26.9% for Office, 8.2% for Industrial, 4.5% for Retail, 12.5% for Hotel, and 41.5% for other.



New York City Police Pension Fund

First Quarter 2020

Geographic Diversification (%)	North East	Mid East	East North Central	West North Central	South East	South West	Mountain	Pacific	Various-US	Ex-US
Core / Core Plus Portfolio										
Almanac Realty Securities VI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Almanac Realty Securities VI (Sidecar II)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Almanac Realty Securities VII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Almanac Realty Securities VII (Sidecar II)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Almanac Realty Securities VIII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Almanac Realty Securities VIII (Sidecar II)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Artemis Real Estate Partners Income and Growth Fund	39.0	13.4	0.0	0.0	10.2	0.0	0.0	0.0	37.3	0.0
Brookfield Premier Real Estate Partners	21.8	8.9	2.4	0.0	6.2	6.6	9.9	44.3	0.0	0.0
Carlyle Property Investors	26.0	3.3	4.2	0.5	21.9	12.7	11.1	20.2	0.0	0.0
Colony Realty Partners II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Exeter Industrial Core Club Fund II	16.2	9.7	22.1	2.9	21.0	6.5	8.0	13.6	0.0	0.0
Exeter Industrial Core Fund III, LP	0.0	0.0	47.1	0.0	0.0	17.2	0.0	35.6	0.0	0.0
Harrison Street Core Property Fund, LP	26.7	11.1	11.6	8.5	7.2	11.4	7.8	15.7	0.0	0.0
Heitman Core Real Estate Debt Income Trust	14.7	3.8	12.2	2.3	4.9	15.9	6.3	39.9	0.0	0.0
Heitman HART	19.8	3.7	16.5	1.7	13.5	12.2	8.8	23.7	0.0	0.0
HSRE-Centre Street Core Co-Investment, L.P.	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jamestown Premier Property Fund	30.3	30.0	0.0	0.0	4.3	0.0	0.0	35.5	0.0	0.0
JP Morgan Special Situation Property Fund	31.6	19.1	15.6	0.0	9.2	5.7	0.0	19.0	0.0	0.0
JP Morgan Strategic Property Fund	19.2	6.5	4.6	0.1	4.6	15.9	2.6	46.5	0.0	0.0
LaSalle Property Fund	16.8	5.1	6.3	3.5	9.7	7.8	9.2	41.7	0.0	0.0
Lion Industrial Trust - 2007	20.5	1.9	7.5	1.3	14.8	14.3	5.8	34.0	0.0	0.0
MetLife Core Property Fund	11.1	8.8	7.8	0.0	13.5	14.2	11.7	33.0	0.0	0.0
NYC Asset Investor #2 LLC	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYCRS Artemis Co-Investment (SEM)	13.7	30.2	0.3	0.0	20.9	17.7	3.5	13.6	0.0	0.0
PRISA II	28.4	13.7	2.2	0.3	17.9	4.9	0.9	31.6	0.0	0.0
PRISA SA	21.3	13.6	6.6	1.3	14.9	3.9	1.6	36.9	0.0	0.0
Prologis Targeted U.S. Logistics Fund	14.8	3.7	12.3	0.0	10.2	10.5	5.7	42.7	0.0	0.0
RREEF America REIT II	24.5	7.4	7.5	1.2	12.0	3.8	0.7	42.9	0.0	0.0
UBS Trumbull Property Fund	20.9	11.8	10.6	0.9	9.2	6.5	7.6	32.5	0.0	0.0
USAA Eagle Real Estate Fund	24.8	6.6	13.3	4.4	6.6	7.5	0.0	36.9	0.0	0.0
Core / Core Plus Portfolio	26.5	7.2	6.9	1.2	10.5	9.1	5.3	30.4	2.9	0.0
Non-Core Portfolio										
AERMONT Real Estate Fund IV	2.5	0.0	0.0	0.0	1.1	0.0	0.0	3.4	0.0	93.0
AG Realty Fund VII	0.0	0.0	0.0	0.0	30.9	0.0	39.1	0.0	0.0	30.0
American Value Partners Fund I (SEM)	11.5	81.2	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0
AREA Real Estate Investment Fund V, LP	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ares European Real Estate Fund III, LP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Avanath Affordable Housing Fund II (SEM)	11.6	4.8	0.0	0.0	19.7	0.0	0.0	63.8	0.0	0.0
Basis Investment Group Fund I (SEM)	21.1	20.5	23.6	0.5	15.7	12.8	4.2	1.5	0.0	0.0
Blackstone Fund IV	1.7	1.5	1.9	0.5	5.2	7.0	2.8	2.3	77.1	0.1
Blackstone Real Estate Partners Europe III (USD Vehicle)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Blackstone Real Estate Partners Europe IV (USD Vehicle)	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	98.6
Blackstone Real Estate Partners Europe VI (EURO Vehicle)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Blackstone Real Estate Partners IX	12.8	5.4	4.2	3.2	14.2	13.7	12.3	26.0	0.0	8.1
Blackstone Real Estate Partners VI	0.0	0.0	0.0	0.0	0.0	0.0	5.3	15.8	2.0	76.9
Blackstone Real Estate Partners VII	7.4	2.0	6.9	0.1	2.9	1.4	32.7	16.8	0.9	29.0
Blackstone Real Estate Partners VIII	15.8	4.6	3.7	0.8	6.8	3.4	4.6	34.1	0.0	26.2
Brookfield Strategic Real Estate Partners	7.7	2.9	2.3	1.4	6.7	4.2	2.4	4.4	0.0	68.0
Brookfield Strategic Real Estate Partners III	25.8	6.5	3.0	0.0	4.2	1.1	1.7	10.2	0.0	47.5
Canyon Johnson Urban Fund II	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carlyle Realty Partners V	21.3	36.9	0.0	0.0	0.6	11.5	0.0	29.8	0.0	0.0
Carlyle Realty Partners VI	23.9	0.0	0.0	2.7	48.3	16.2	7.3	1.7	0.0	0.0
Carlyle Realty Partners VII	17.1	8.7	2.3	0.8	21.6	15.1	5.9	28.5	0.0	0.0
Colony Investors VIII	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.3	0.0	5.7
Divco West Fund III	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Divco West Fund IV	0.0	0.0	0.0	0.0	0.0	16.2	0.0	83.8	0.0	0.0
Divco West Fund V	11.9	12.7	0.0	0.0	0.0	5.4	0.0	70.0	0.0	0.0
Divco West Fund VI	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
DRA Growth & Income Fund X	0.0	0.0	24.9	12.9	31.9	30.3	0.0	0.0	0.0	0.0
DRA Growth and Income Fund IX	22.9	2.8	25.5	7.1	14.0	6.5	3.7	17.5	0.0	0.0
European Property Investors Special Opportunities IV (EPISO IV)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Exeter Industrial Value Fund IV	10.4	13.2	10.3	3.8	24.8	16.4	5.8	14.1	0.0	1.2
GreenOak Asia III (USD Vehicle)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
H/2 Special Opportunities Fund II	5.8	6.4	9.1	4.3	7.5	10.8	2.4	6.5	47.2	0.0
H/2 Special Opportunities Fund III	16.6	5.4	9.2	2.8	9.8	7.1	3.9	9.4	35.8	0.0
H/2 Special Opportunities Fund IV	16.3	8.3	12.4	4.3	14.9	12.1	6.4	12.2	13.1	0.0
KKR CMBS B-Piece SMA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
KKR Real Estate Partners Americas II	9.6	0.0	0.0	0.0	55.9	5.5	0.0	17.9	11.2	0.0
Lone Star Real Estate Fund III	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	98.9
Lone Star Real Estate Fund V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Metropolitan Workforce Housing Fund (SEM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
NYC Asset Investor #1 LLC	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYC Asset Investor #3 LLC	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pramerica Real Estate Capital VI (PRECap VI)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
PRISA III	3.9	18.2	8.8	0.0	16.3	15.1	8.9	28.8	0.0	0.0
PW Real Estate Fund III LP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Silverpeak Legacy Partners III	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.1
Stockbridge Real Estate Fund III	8.6	0.0	0.0	0.0	0.0	0.0	0.0	91.4	0.0	0.0
Taconic New York City Investment Fund LP	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
The City Investment Fund I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Thor Urban Property Fund II	81.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6	0.0
Walton Street Real Estate Fund VI	101.1	1.8	1.6	-1.0	2.3	3.4	-20.5	5.7	0.0	5.7
Westbrook Real Estate Fund VII	51.4	30.7	0.0	0.0	4.9	0.0	0.0	13.0	0.0	0.0
Westbrook Real Estate Fund VIII	54.5	17.9	0.0	0.0	0.0	0.0	0.0	22.7	0.0	5.0
Westbrook Real Estate Fund X	8.6	20.5	0.0	0.0	0.0	0.0	0.0	31.8	0.0	39.1
Non-Core Portfolio	17.0	5.8	3.4	0.4	8.5	5.1	4.4	18.8	8.8	27.9
<i>Small Emerging Manager</i>	14.3	25.9	3.3	0.1	19.6	13.8	3.0	20.2	0.0	0.0
Total Portfolio										
New York City Police Pension Fund	22.9	6.7	5.6	0.9	9.7	7.6	5.0	26.0	5.2	10.5
Indices										
NFI-ODCE Value Weight	21.7	8.2	7.1	1.2	9.4	9.7	5.6	37.2	0.0	0.0

*The diversification submitted by the Manager for Walton Street Real Estate Fund VI includes Fund-level line of credit. Without the line of credit allocation, the geographic diversification as of 1Q20 according to their quarterly report is as follows: 9.2% for Northeast, 8.8% for Mid-East 25.9% for East North Central, 2.6% for West North Central, 13.4% for Southeast, 11.5% for Southwest, 4.7% for Mountain, 16.9% for Pacific, 1.4% for Various US, and 5.7% for Ex-US.



Advisory Disclosures and Definitions

Disclosure

Trade Secret and Confidential.

Past performance is not indicative of future results.

Investing involves risk, including the possible loss of principal.

Returns are presented on a time weighted basis and shown both gross and net of underlying third party fees and expenses and may include income, appreciation and/or other earnings. In addition, investment level Net IRR's and equity multiples are reported.

The Townsend Group, on behalf of its client base, collects quarterly limited partner/client level performance data based upon inputs from the underlying investment managers. Data collection is for purposes of calculating investment level performance as well as aggregating and reporting client level total portfolio performance. Quarterly limited partner/client level performance data is collected directly¹ from the investment managers via a secure data collection site.

¹In select instances where underlying investment managers have ceased reporting limited partner/client level performance data directly to The Townsend Group via a secure data collection site, The Townsend Group may choose to input performance data on behalf of its client based upon the investment managers quarterly capital account statements which are supplied to The Townsend Group and the client alike.

Benchmarks

The potential universe of available real asset benchmarks are infinite. Any one benchmark, or combination thereof, may be utilized on a gross or net of fees basis with or without basis point premiums attached. These benchmarks may also utilize a blended composition with varying weighting methodologies, including market weighted and static weighted approaches.

Infrastructure Quarterly Report (Public):



Infrastructure Monitoring Report

For the period ended March 31, 2020

Report Prepared For:

New York City Police Pension Fund, Subchapter 2



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All data is as of March 31, 2020 unless otherwise noted.

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. ACTUAL PERFORMANCE MAY VARY.

I. Executive Summary

New York City Police Pension Fund, Subchapter 2 (“NYCPPF”) established the Infrastructure Program (the “Program”) in December of 2012 on behalf of its beneficiaries to participate in attractive long-term investment opportunities and to provide diversification to its overall pension investment portfolio.

The inclusion of infrastructure in the NYCPPF pension portfolio allows for global investments in facilities or assets that provide core essential services critical to the operation and development of economies. Typically infrastructure investments have high barriers to entry due to significant capital expenditure requirements, exclusive long term contracts or regulatory requirements. Infrastructure investments are comprised of long useful-life assets with high tangible value and relatively low value erosion over time.

The Program seeks to invest in opportunities in a variety of infrastructure sectors, including but not limited to, transportation, energy, power, utilities, water, wastewater, communications and social infrastructure.

StepStone Group LP (“StepStone”) was engaged by NYCPPF on October 20, 2014 to provide infrastructure advisory services for prospective investment opportunities and monitoring and reporting services for existing and new investments.

Since inception through March 31, 2020, the Program has committed US\$873.5 million to 20 partnership investments (the “Portfolio”). This quarterly monitoring report covers the performance of the Portfolio as of March 31, 2020 as well as significant activity that occurred during the first quarter of 2020.

Allocation Summary

NYCPPF has an Infrastructure allocation target of 2% of total pension assets. As of March 31, 2020, the market value of NYCPPF Infrastructure Program represented approximately 1.3% of total pension assets, a 17-basis point increase from the prior quarter.

As the Program matures, the percentage of its market value relative to the total NYCPPF pension assets will continue to increase.

<i>US\$ in millions*</i>	March 31, 2020	December 31, 2019	March 31, 2019	Quarterly Change	Yearly Change
Total Pension Assets*	\$38,043.0	\$42,390.0	\$39,729.0	(\$4,347.0)	(\$1,686.0)
Total Infrastructure Assets	\$495.9	\$479.5	\$391.6	\$16.4	\$104.3
% Allocation to Infrastructure (Target of 2%)	1.3%	1.1%	1.0%	+17 bps	+32 bps

*NYCPPF total Pension Assets are as of quarter-end (or, if not yet available, the most recent month-end prior to quarter-end) as reported by The New York City Comptroller’s Office on www.comptroller.nyc.gov

Performance Summary

As of March 31, 2020, the Infrastructure Program has achieved a Total Value to Paid-In multiple of 1.2x invested capital and an IRR of 9.4%. Note that, given the relative immaturity of the Portfolio and underlying fund investments, the current performance to-date is not meaningful.

<i>US\$ in millions*</i>	March 31, 2020	December 31, 2019	March 31, 2019	Quarterly Change	Yearly Change
Number of Managers	10	10	10	0	0
Number of Investments	20	20	17	0	3
Committed Capital ¹	\$873.5	\$874.4	\$801.3	(\$0.9)	\$72.2
Contributed Capital	\$515.2	\$460.0	\$377.3	\$55.2	\$137.9
Distributed Capital	\$118.1	\$107.3	\$76.8	\$10.9	\$41.4
Market Value	\$495.9	\$479.5	\$391.6	\$16.4	\$104.3
Total Value	\$614.1	\$586.8	\$468.4	\$27.3	\$145.6
Total Gain/(Loss)	\$98.8	\$126.8	\$91.1	(\$28.0)	\$7.7
Unfunded Commitment	\$407.1	\$457.9	\$461.4	(\$50.8)	(\$54.3)
Exposure ²	\$903.0	\$937.4	\$853.0	(\$34.4)	\$49.9
DPI ³	0.2x	0.2x	0.2x	0.0x	0.0x
TVPI ⁴	1.2x	1.3x	1.2x	-0.1x	0.0x
IRR ⁵	9.4%	12.8%	13.3%	-3.4%	-3.9%
TVPI Net of StepStone Fees ⁶	1.2x	1.3x	1.2x	-0.1x	-0.1x
IRR Net of StepStone Fees ⁶	9.4%	12.8%	13.2%	-3.4%	-3.9%

* Note that amounts may not total due to rounding. **Past performance is not necessarily indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.**

¹ Committed Capital is presented net of any commitment releases or expirations and reflects foreign currency exchange rate fluctuations. Note that the Base/(US\$) committed capital for foreign currency-denominated investments as of respective quarter-end dates is calculated as follows: (total net amount funded in Base currency) + (unfunded commitment in Local currency * quarter-end exchange rate). StepStone utilizes S&P Capital IQ as the source for quarter-end exchange rates to calculate committed capital.

² Exposure represents the sum of Market Value and Unfunded Commitment.

³ DPI, or Distributed to Paid-In Multiple, is a performance metric that measures distributions received relative to capital invested. DPI is calculated as Distributed Capital divided by Contributed Capital.

⁴ TVPI, or Total Value to Paid-In Multiple, is a performance metric that measures total value created by the Portfolio relative to capital invested, without consideration for time. TVPI is calculated as Total Value, which is comprised of Market Value plus Distributed Capital, divided by Contributed Capital.

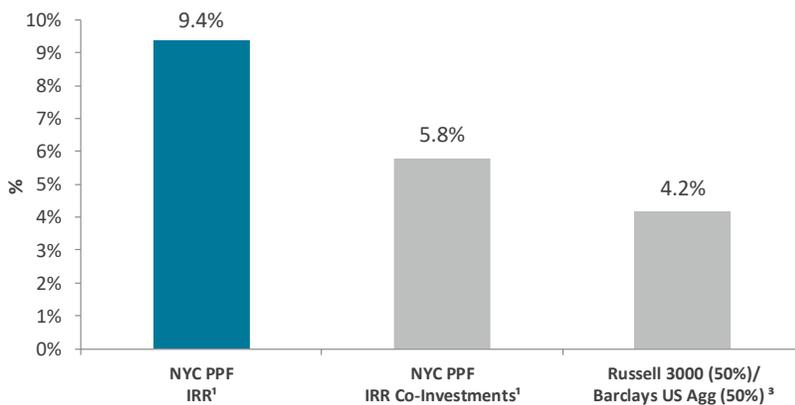
⁵ IRR, or Internal Rate of Return, is a performance metric that is calculated based on the Portfolio's daily cash flows and market value as of quarter-end. IRR is net of fund managers' fees, expenses and carried interest.

⁶ TVPI and IRR Net of StepStone fees represent TVPI and IRR net of fees paid by NYCPPF to StepStone through the quarter-end date. IRR and TVPI for certain vehicles may have been impacted by Stepstone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

Portfolio Performance vs. Benchmarks

The performance benchmark for the Infrastructure Portfolio is to meet or exceed the Consumer Price Index (“CPI”) plus 4% net of fees over a rolling 5-year period. The Infrastructure Portfolio’s performance is also measured against a dollar-weighted public benchmark, which produced the return that would have been earned if NYCPPF’s infrastructure cash flows were invested in an index of 50% Russell 3000® and 50% Barclays U.S. Aggregate®. The Infrastructure Portfolio is expected to generate a total return, net of investment management fees, of at least 6.5%.

The following graph illustrates Portfolio IRR performance versus benchmarks as of March 31, 2020.



¹NYCPPF since inception Internal Rate of Return (“IRR”) is calculated based on the Portfolio’s daily cash flows and market value as of quarter-end. IRR is net of fund managers’ fees, expenses and carried interest. **Past performance is not necessarily indicative of future results.**

²Consumer Price Index (“CPI”) benchmark represents the compound annual growth rate of the Consumer Price Index for All Urban Consumers and All Items, as provided by the U.S. Department of Labor: Bureau of Labor Statistics, calculated over a five-year rolling period plus a 4.0% premium.

³ Benchmark is a dollar-weighted PME+ calculation of daily changes in 50% of the Russell 3000® Index and 50% of the Barclays U.S. Aggregate® Index. These index comparisons are being provided solely for informational purposes as an indication of returns that could be earned by investors by making similar investments in the indexes and should not be relied upon for any purpose. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.

Portfolio Diversification

The Program’s objective is to build a Portfolio that is diversified by investment strategy, asset type, and geography. The target investment strategy ranges are as follows:

- Core Infrastructure Investments: 60% to 100%; and
- Non-Core Infrastructure Investments: 0% to 40%.

Actual percentages may differ substantially from these targets during the initial years of the Program. The following table illustrates the current diversification of the Portfolio by fund strategy, geography and industry focus.

	Market Value		Unfunded Commitment		Exposure	
	\$	% of Total	\$	% of Total	\$	% of Total
<i>As of March 31, 2020. (US\$ In millions)</i>						
By Strategy:						
Core	426.6	86.0%	385.7	94.8%	812.3	90.0%
Non-Core	69.3	14.0%	21.4	5.2%	90.7	10.0%
Total	495.9	100.0%	407.1	100.0%	903.0	100.0%
By Geographic Focus:						
Global	163.0	32.9%	59.7	14.7%	222.7	24.7%
North America	59.8	12.0%	42.6	10.5%	102.4	11.3%
OECD	273.2	55.1%	304.7	74.9%	577.9	64.0%
Total	495.9	100.0%	407.1	100.0%	903.0	100.0%
By Industry Focus:						
Communication	5.1	1.0%	-	0.0%	5.1	0.6%
Diversified	410.2	82.7%	301.7	74.1%	711.8	78.8%
Energy	74.5	15.0%	105.4	25.9%	179.9	19.9%
Transportation	6.2	1.2%	-	0.0%	6.2	0.7%
Total	495.9	100.0%	407.1	100.0%	903.0	100.0%

II. Infrastructure Market Overview

Market Update

North America

During the first quarter of 2020, the North American market faced increasing volatility, as the COVID-19 outbreak and oil price volatilities cast uncertainty on the outlook of the market and economy. The US equity market experienced significant declines, and North American Central Banks have implemented monetary and fiscal stimulus policies, including rate cuts and emergency funding programs.

Against this economic backdrop, M&A activity is experiencing varying levels of delays due to the market uncertainties and physical constraints on conducting asset due diligence. However, the telecom sector has benefited from the government-mandated work-from-home policies across regions, as internet traffic has surged. One telecom deal, the US\$14.3 billion take-private of Zayo by EQT Infrastructure and Digital Colony Partners, closed in early March, representing the majority of the US\$16.4 billion of telecom deals completed during the quarter.

In the energy and utility sectors, several transactions reached financial close during the quarter that were announced prior to recent market disruption. These included the development of the US\$3.6 billion Canada Kuwait Petrochemical Corp., a 50/50 joint venture between Pembina Pipeline Corp. and Petrochemical Industries Co. of Kuwait, WPX Energy's US\$2.5 billion acquisition of Felix Energy, an exploration & processing company founded by EnCap, and the completion of SteelRiver Infrastructure Partners' US\$4.3 billion agreed sale of People's Gas to Aqua America, creating one of the largest publicly-traded US water and gas firms.

The renewables sector also remained active in the quarter, with several announced transactions reaching financial close, such as CPPIB's US\$3.3 billion take-private of the Yieldco of renewable developer Pattern Development, and the reaching of the definitive merger agreement stage for Brookfield Renewable Partners' US\$1.4 billion acquisition of the remaining 38% of outstanding shares of TerraForm Power it doesn't already own.

The COVID-19 outbreak has muted the transportation sector due to significant revenue and volume declines in light of the travel bans imposed by governments across the globe. One major logistics-related asset that was transacted during the quarter was TRAC Intermodal, which owns and operates marine chassis worldwide and was sold to Stonepeak Infrastructure Partners for US\$900 million.

UK & Europe

M&A activity in the European telecom sector was robust during the first quarter of 2020. Cellnex agreed to buy Portuguese telecoms towers operator OMTEL from Altice, Morgan Stanley and Horizon Equity Partners for ~14.0x EBITDA, implying an enterprise value of ~€800 million. In addition, Cellnex and Bouygues Telecom have reached a strategic agreement through which they will deploy a national fibre optic network in France. Also in the fibre sub-sector, EQT has partnered with OMERS to acquire Deutsche Glasfaser in a deal valuing the German fibre company at ~€2.8 billion. Finally, Telecom Italia has selected KKR to be an exclusive partner to develop its ultra-broadband business in Italy.

In the energy sector, Pennon Group has agreed to sell UK waste management and energy company Viridor to KKR for an enterprise value of ~£4.2 billion or ~18.5x EBITDA. Also in the UK, an Asterion-led consortium that includes EDF Invest and Swiss Life, has agreed to buy utility metering and connections company Energy Assets Group from Alinda and Hermes. In the energy sector, F2i and Asterion have agreed to buy Italian energy group Sorgenia from a group of banks for ~€1 billion, or

~5.5x EBITDA. In addition, Macquarie has signed an agreement with joint investor Wren House to acquire its 40% stake in Spanish electricity company Viesgo. Finally, Naturgy has agreed to sell a ~25% stake in Medgaz, a natural gas pipeline between Spain and Algeria, to BlackRock.

In the renewables sector, Macquarie-backed Bruc Iberia Energy Investment Partners has acquired two 50 MW, under-construction Spanish PV plants from developer Solarpack. In Sweden, BlackRock has sold a 46 MW operational wind farm to Equitix. Also in Sweden, Brookfield-backed CEE Group has made its first investment in the country with the all-equity acquisition of a 53 MW onshore wind farm from European Energy.

In the transportation sector, activity suffered a halt due to the COVID-19 situation and no major transactions were announced during the quarter in Europe.

Australia

The number of transactions that occurred across various sectors in Australia was notably lower during the quarter, likely attributed to the COVID-19 outbreak generating economic uncertainty and an associated decrease in investor confidence. Certain GP's also decided to withdraw from confirmed transactions such as EQT Infrastructure's cancellation of its NZ\$1.5 billion acquisition of New Zealand aged care business Metlifecare, triggering a "material adverse change" clause under the terms of the scheme implementation agreement.

In telecommunications, a consortium led by Macquarie Infrastructure and Real Assets ("MIRA") reached financial close on the purchase of an 88% share in hyperscale data centre business AirTrunk, with the transaction valuing the business at more than A\$3 billion and a ~33x EBITDA multiple. Further, Pacific Equity Partners signed an agreement to acquire Zenith Energy Pty Ltd ("Zenith"), a listed energy provider for remote mine sites across Australia. The transaction values Zenith at an enterprise value of A\$260 million and a multiple of 8.4x EBITDA. In social infrastructure, AMP Capital agreed to raise its stake in Auckland South Corrections Facility to 70% (from an initial 40%), purchasing an additional 30% from UK infrastructure investor John Laing as a result of a bilateral negotiation process.

Outside of transactions, the APA Group, Marubeni and Osaka Gas closed a A\$693 million refinance of their Energy Infrastructure Investments ("EII") business comprising three tranches with tenors of five years each. EII holds 10 electricity and gas assets including the Murraylink and Directlink electricity interconnectors, the Wickham Point Pipeline as well as various remote gas power stations and processing facilities. The loan margin has not been disclosed, however lenders agreed to keep pricing as set before current market dislocation.

III. Portfolio Review

Quarterly Highlights

- **New Investment Commitment** – During the first quarter of 2020, the Program did not close on any new investments.
- **Subsequent Investment Commitments** – Subsequent to quarter-end, the Program closed on one new investment commitment totaling US\$8.8 million. This is shown on the table below.

US\$ in millions

Investment	Month and Year Closed	Vintage Year	Strategy	Geographic Focus	Industry Focus	Committed Capital
EQT Infrastructure IV Co-Investment (G) SCSp (Lightspeed)	May 2020	2020	Infrastructure	OECD	Telecommunications	\$8.8
Total						\$8.8

- **Cash Outflow Increased** – During the first quarter of 2020, the Program made US\$55.2 million of contributions and received US\$10.9 million of distributions, for a net cash outflow of US\$44.4 million. This compared to a net cash outflow of US\$17.5 million during the prior quarter.
- **Valuation Decreased** – During the first quarter of 2020, net of cash flow activity, the valuation of the Portfolio decreased by approximately US\$28.0 million, or 5.3%, from the prior quarter. The valuation decrease primarily reflects the decrease in value of underlying investments in Global Energy & Power Infrastructure Fund III, L.P.
- **New Underlying Fund Investments** – During the first quarter of 2020, five investment positions were added to the Portfolio.

US\$ in millions

Company	Fund(s)	Investment Date	Stage	Industry	Country	Exposed Invested Capital	Exposed Market Value	TVM
Kellas Midstream Limited	Global Energy & Power Infrastructure Fund III, L.P.	Jan-20	Private	Midstream	United Kingdom	5.3	5.0	1.0x
Axiom Wind II L.P.	Axiom Infrastructure Canada II (Intl) Limited Partnership	Jan-20	Private	Renewables	Canada	3.1	3.6	1.2x
Toehold and Other Investments (Brookfield Infra IV)	Brookfield Infrastructure Fund IV, L.P.	Feb-20	Private	Other	United States	1.1	1.1	1.0x
MRP West Power Holdings II, LLC	NYCRS EIG Energy Partners, L.P.	Jan-20	Private	Conventional Power	United States	0.6	0.6	1.0x
MRP CalPeak Holdings, LLC	NYCRS EIG Energy Partners, L.P.	Jan-20	Private	Conventional Power	United States	0.6	0.6	1.0x

- **Company Exits** – During the first quarter of 2020, no investment positions exited the Portfolio.

Performance by Vintage Year

The following table illustrates the Portfolio's since-inception investment performance by vintage year as of March 31, 2020. Note that the performance of funds that are less than two years old is not meaningful.

As of March 31, 2020 (US\$ in millions)

Vintage Year	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Total Value	Total Gain/(Loss)	Unfunded Commitment	Exposure	DPI	TVPI	IRR
2013	\$60.0	\$50.2	\$20.6	\$57.7	\$78.4	\$28.2	\$13.6	\$71.3	0.4x	1.6x	11.5%
2014	100.0	120.5	60.5	112.1	172.6	52.0	3.2	115.2	0.5x	1.4x	12.7%
2016	171.6	121.7	19.5	113.9	133.4	11.7	59.9	173.8	0.2x	1.1x	5.0%
2017	161.6	108.8	13.7	107.7	121.4	12.6	61.2	168.8	0.1x	1.1x	8.8%
2018	126.6	39.0	1.8	36.1	37.9	-	88.1	124.1	NM	NM	NM
2019	253.8	75.0	2.0	68.5	70.4	-	181.2	249.6	NM	NM	NM
Total	\$873.5	\$515.2	\$118.1	\$495.9	\$614.1	\$98.8	\$407.1	\$903.0	0.2x	1.2x	9.4%

Performance by Strategy and Industry Focus

The following table illustrates the Portfolio's since-inception investment performance by strategy and industry focus as of March 31, 2020.

As of March 31, 2020 (US\$ in millions)

Strategy/Industry	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Total Value	Total Gain/(Loss)	Unfunded Commitment	Exposure	DPI	TVPI	IRR
Core	\$794.2	\$448.6	\$109.0	\$426.6	\$535.6	\$87.1	\$385.7	\$812.3	0.2x	1.2x	9.1%
Diversified	640.6	378.1	76.0	374.3	450.2	72.2	297.4	671.7	0.2x	1.2x	8.3%
Energy	147.6	64.5	33.0	46.2	79.2	14.7	88.3	134.5	0.5x	1.2x	19.9%
Transportation	6.0	6.0	-	6.2	6.2	0.2	-	6.2	NM	1.0x	9.8%
Non-Core	\$79.3	\$66.7	\$9.1	\$69.3	\$78.4	\$11.8	\$21.4	\$90.7	0.1x	1.2x	12.1%
Communication	5.1	5.1	-	5.1	5.1	-	-	5.1	NM	NM	NM
Diversified	34.6	35.3	5.4	35.9	41.3	6.0	4.3	40.2	0.2x	1.1x	11.3%
Energy	39.6	26.2	3.8	28.3	32.0	5.8	17.1	45.4	0.1x	1.2x	13.2%
Total	\$873.5	\$515.2	\$118.1	\$495.9	\$614.1	\$98.8	\$407.1	\$903.0	0.2x	1.2x	9.4%

Performance by Geographic Focus

The following table and charts illustrate the Portfolio's since-inception investment performance by geographic focus as of March 31, 2020.

As of March 31, 2020 (US\$ in millions)

Geographic Focus	Committed Capital	Contributed Capital	Distributed Capital	Market Value	Total Value	Total Gain/(Loss)	Unfunded Commitment	Exposure	DPI	TVPI	IRR
Global	\$201.2	\$154.5	\$37.6	\$163.0	\$200.6	\$46.0	\$59.7	\$222.7	0.2x	1.3x	11.1%
North America	102.2	61.9	7.2	59.8	67.0	5.1	42.6	102.4	0.1x	1.1x	6.3%
OECD	570.2	298.8	73.3	273.2	346.5	47.7	304.7	577.9	0.2x	1.2x	8.5%
Total	\$873.5	\$515.2	\$118.1	\$495.9	\$614.1	\$98.8	\$407.1	\$903.0	0.2x	1.2x	9.4%

*Past performance is not necessarily indicative of future results and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.

Portfolio Diversification

By Strategy, Geography and Industry Focus

The Program's objective is to build a Portfolio that is diversified by investment strategy, asset type, and geography. The target investment strategy ranges are as follows:

- Core Infrastructure Investments: 60% to 100%; and
- Non-Core Infrastructure Investments: 0% to 40%.

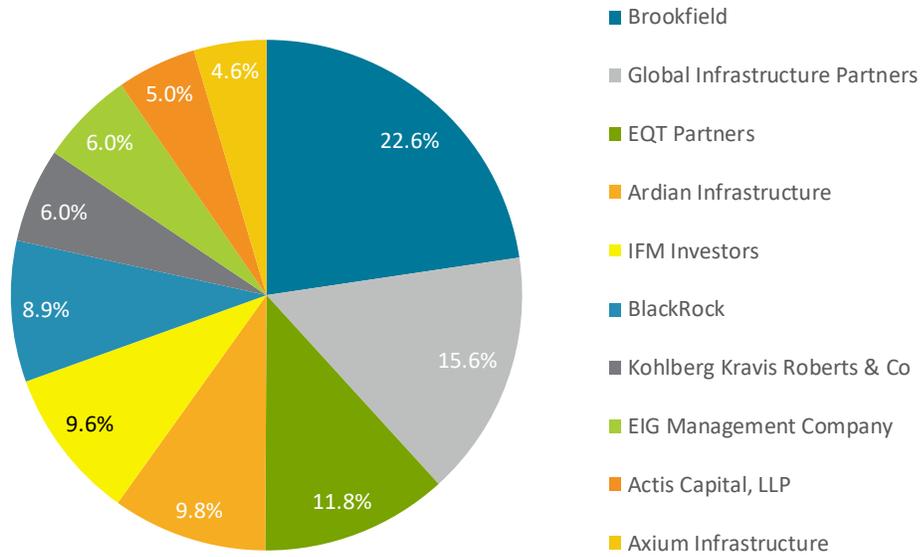
Actual percentages may differ substantially from these targets during the initial years of the Program. The following table illustrates the current diversification of the Portfolio by fund strategy, geography and industry focus.

As of March 31, 2020. (US\$ In millions)

	Market Value		Unfunded Commitment		Exposure	
	\$	% of Total	\$	% of Total	\$	% of Total
By Strategy:						
Core	426.6	86.0%	385.7	94.8%	812.3	90.0%
Non-Core	69.3	14.0%	21.4	5.2%	90.7	10.0%
Total	495.9	100.0%	407.1	100.0%	903.0	100.0%
By Geographic Focus:						
Global	163.0	32.9%	59.7	14.7%	222.7	24.7%
North America	59.8	12.0%	42.6	10.5%	102.4	11.3%
OECD	273.2	55.1%	304.7	74.9%	577.9	64.0%
Total	495.9	100.0%	407.1	100.0%	903.0	100.0%
By Industry Focus:						
Communication	5.1	1.0%	-	0.0%	5.1	0.6%
Diversified	410.2	82.7%	301.7	74.1%	711.8	78.8%
Energy	74.5	15.0%	105.4	25.9%	179.9	19.9%
Transportation	6.2	1.2%	-	0.0%	6.2	0.7%
Total	495.9	100.0%	407.1	100.0%	903.0	100.0%

By Investment Manager

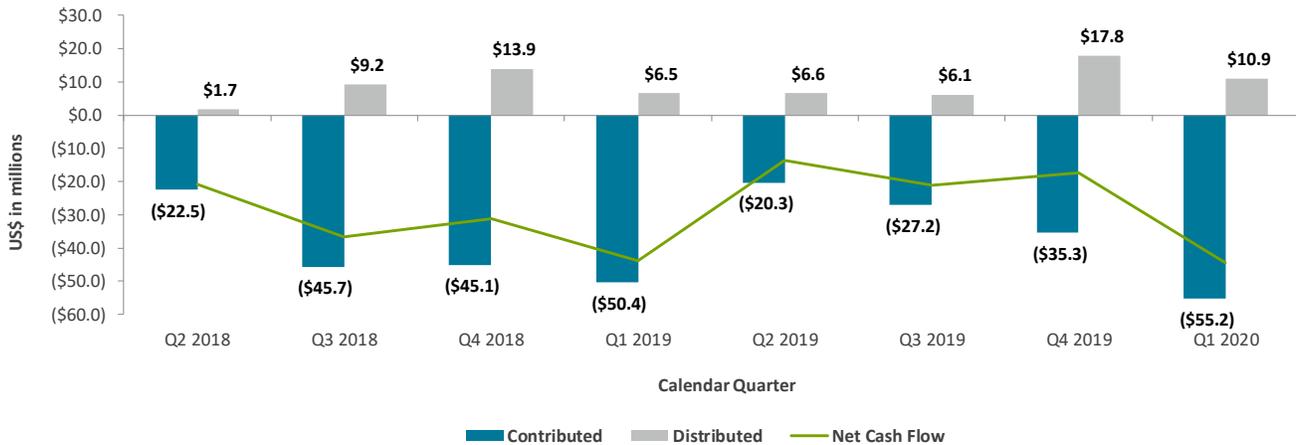
As of March 31, 2020, the Program had made 20 investment commitments to ten managers. NYCPPF seeks to limit its exposure to any single manager to no more than 20% of the total Real Assets Program when fully invested. As the Program matures and closes on additional commitments, the single manager exposure is expected to decline significantly. Below is the Portfolio's current exposure by manager.



Portfolio Cash Flow Analysis

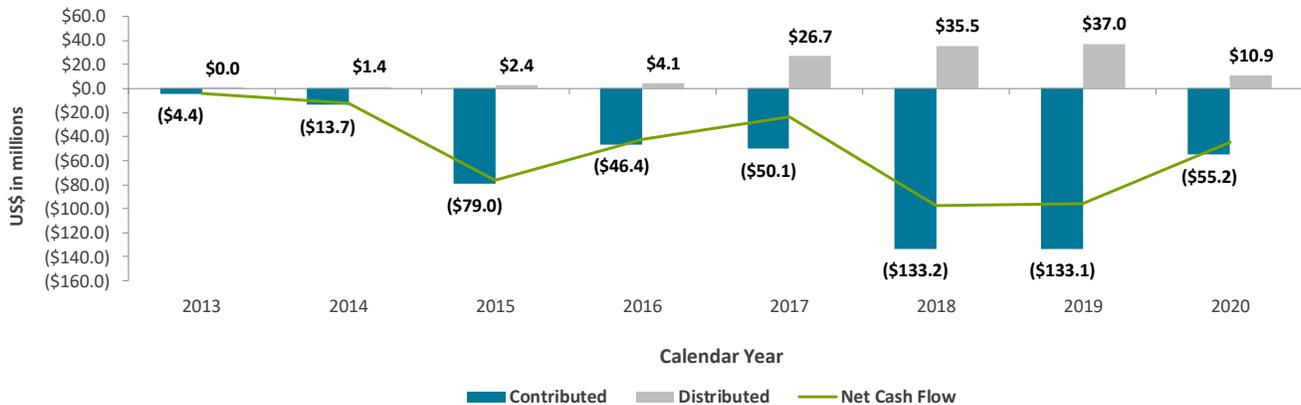
Quarterly Cash Flow Activity

During the first quarter of 2020, the Program made US\$55.2 million of contributions and received US\$10.9 million of distributions, for a net cash outflow of US\$44.4 million. As of March 31, 2020, 18 fund investments in the Portfolio had cash flow activity. As the Program's commitment and investment activity increases, net cash outflow is expected to increase. The graph below illustrates cash flow activity since inception by calendar quarter.



Annual Cash Flow Activity

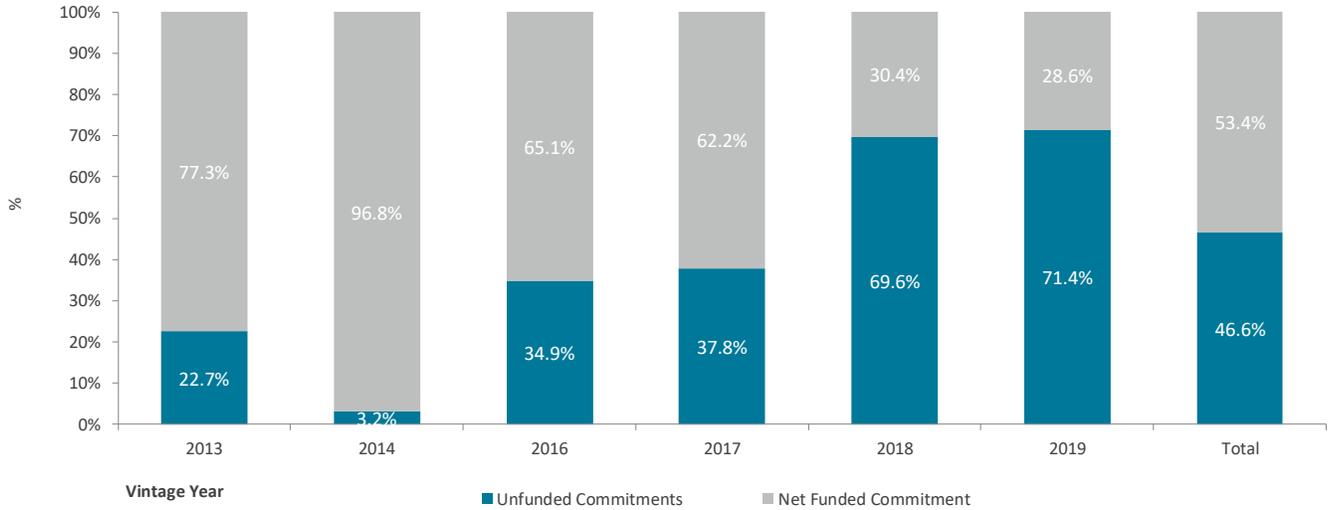
During the first quarter of 2020, the Program made US\$55.2 million of contributions and received US\$10.9 million of distributions, for a net cash outflow of US\$44.4 million. The graph below illustrates cash flow activity since inception by calendar year.



Net Funded and Unfunded Commitments by Vintage Year

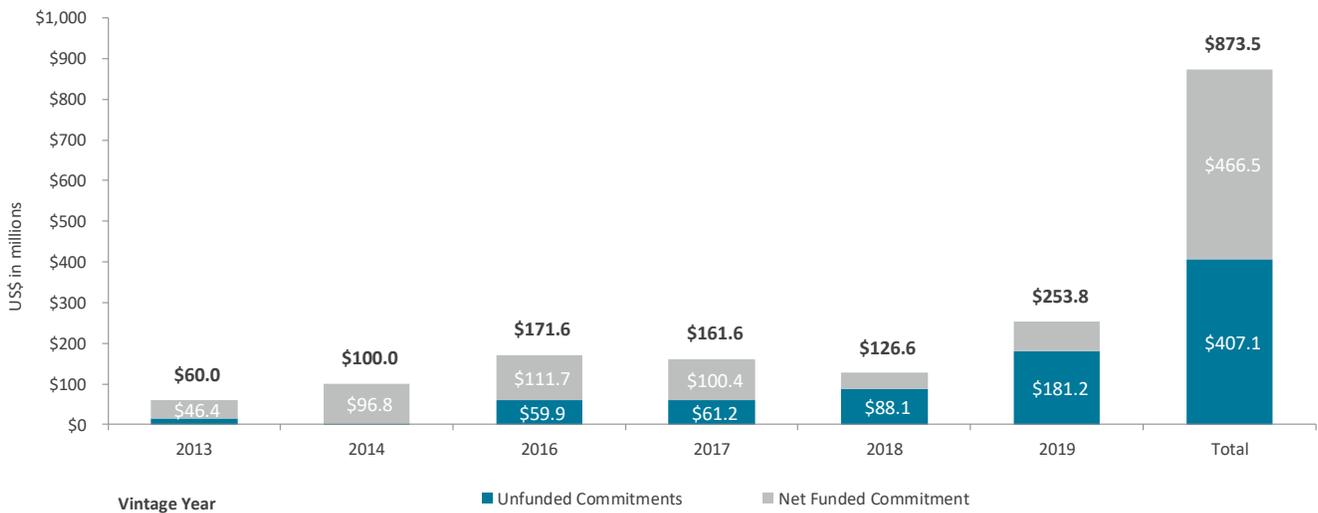
The following chart illustrates the Portfolio’s net funded commitments (defined as total contributions inside commitment less any returns of excess capital and recallable distributions) as a percentage of total capital commitments, by fund vintage year, as of March 31, 2020. Overall, the Portfolio was 46.6% unfunded as of quarter-end.

Net Funded and Unfunded Commitment by Vintage Year (%)



The following chart illustrates the Portfolio’s net funded commitments relative to total capital commitments, by fund vintage year, as of March 31, 2020. Overall, the Portfolio had US\$407.1 million of unfunded commitments as of quarter-end.

Net Funded and Unfunded Commitment by Vintage Year (US\$ millions)

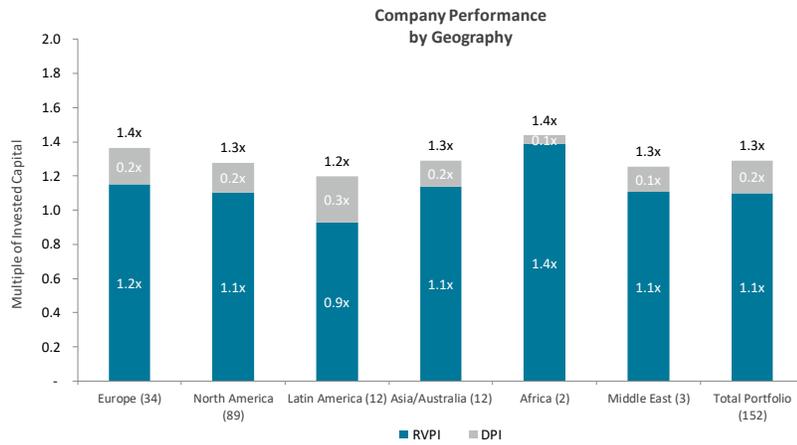
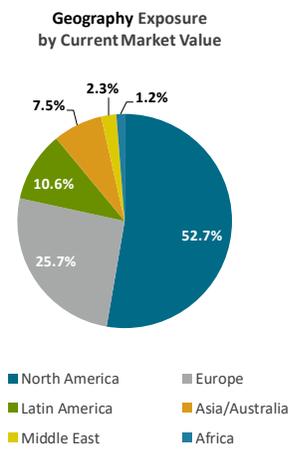


Portfolio Company-Level Analysis

As of quarter-end, the Portfolio had exposure to 152 unique unrealized portfolio companies/investment positions. As the Portfolio matures, the number of unique portfolio companies/investment positions is expected to increase significantly. On the individual fund level, all current investments are within the single investment limitation of 15% of total fund size. The Program's individual portfolio investment exposure is relatively concentrated as a result of the relative immaturity of the Program.

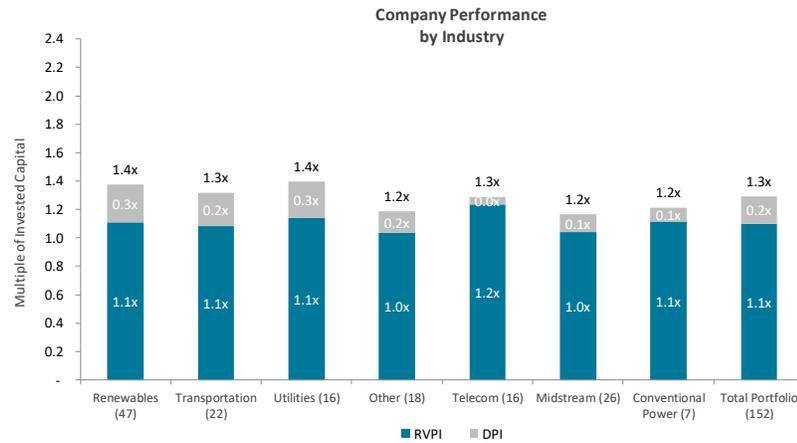
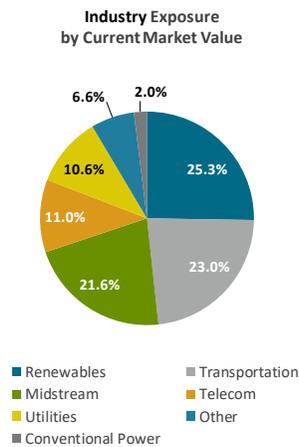
Geographic Exposure and Performance

The following charts illustrate the Portfolio's current exposure and performance by geographic region at the portfolio company level.



Industry Exposure and Performance

The following charts illustrate the Portfolio's current exposure and performance by industry at the portfolio company level.

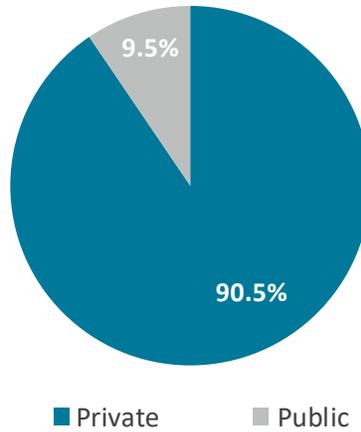


*Multiples may not add to total multiple due to rounding.

Public Market Exposure

As of quarter-end, publicly traded investments comprised 9.5% of the Portfolio's exposed market value. The following chart illustrates the current public market exposure at the portfolio company level.

Public Market Exposure Current Market Value



IV. Risk Management Matrix

Category	Requirement	Status	Status Notes
Allocation	NYCPPF has an Infrastructure allocation target of 2% of total pension assets.	✓	The market value of NYCPPF Infrastructure Program represents approximately 1.3% of total pension assets.
Performance vs. Benchmarks	<p>The performance benchmark for the Infrastructure Portfolio is to meet or exceed: (i) The Consumer Price Index (“CPI”) plus 4% net of fees over a rolling 5-year period and (ii) A dollar-weighted PME+ (“PME”) calculation of daily changes in 50% of the Russell 3000® Index and 50% of the Barclays U.S. Aggregate® Index.</p> <p>The Infrastructure Portfolio is expected to generate a total return, net of investment management fees, of at least 6.5%.</p>	✓	As of March 31, 2020, the Portfolio outperformed the CPI and PME benchmark by 3.6% and 5.2%, respectively.
Strategy Diversification	<p>Core Infrastructure Investments: 60-100% Non-Core Infrastructure Investments: 0-40%</p> <p>Actual percentages may differ substantially from these targets during the initial years of the Program.</p>	✓	The Program is in compliance with the Core/Non-Core allocation ranges. Currently the Program has 90.0% exposure to Core investments and 10.0% exposure to Non-Core investments.
Asset Type & Location Diversification	The Program will seek diversification by asset type, revenue drivers, and geography. The portfolio may include a variety of assets including but not limited to electricity transmission, pipelines, airports, toll roads, communication towers and electric generators, windmills etc. to vary the sources of revenue to the portfolio.	✓	<p>Given the relative immaturity of the Portfolio, it is not yet diversified by asset type.</p> <p>The asset types and geographic location of current Portfolio investments are in compliance with the Program’s Investment Policy Statement and Permissible Markets.</p>
Leverage	The average leverage of all investments in the Program is to be no higher than 65%.	✓	The Program is in compliance with the average leverage limitation. The current leverage level is 42.5% ¹ .
Single Investment Size & Manager Diversification	<p>The maximum commitment to a single investment is limited to no more than 15% of the aggregate committed capital of each fund.</p> <p>The maximum commitment to a single manager is limited to 20% of the total Real Assets Program allocation when fully invested.</p>	✓	<p>On the individual fund level, all current investments are in compliance with the single investment limitation of 15% of total fund size.</p> <p>The Program is in compliance with the single manager limitation of 20% of the total Infrastructure Program.</p>

¹The Program’s leverage level is calculated by using a weighted average of each underlying investment’s leverage and Net Asset Value as of March 31, 2020.

Risk Quarterly Report (Public):

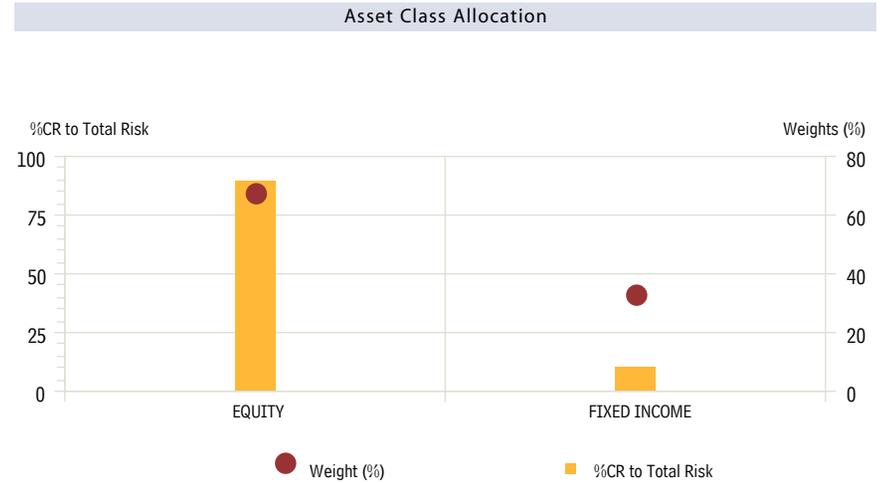
BarraOne Total Plan Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: POLICE_Total Plan
 BENCHMARK: POLICE_Policy
 POSITIONS: 16,302

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 40,696,642,749
 ACCEPTED: 16,103

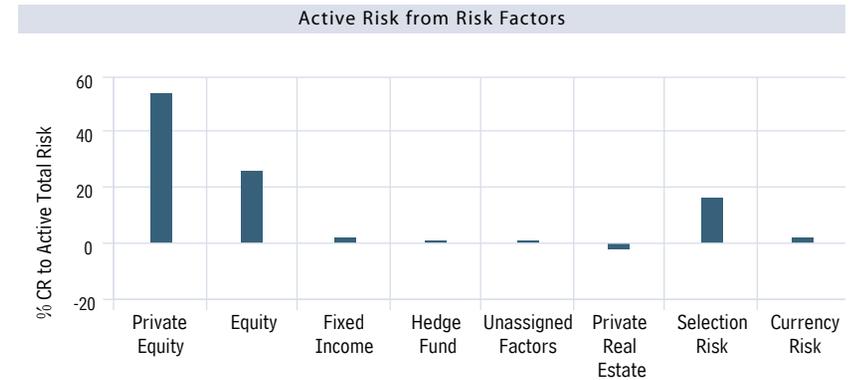
Total Plan Summary

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	15.44	Total	40,696,642,749	100.00	15.44	15.44	100.00
Benchmark Risk	14.65	EQUITY	27,334,252,174	67.17	20.69	13.79	89.32
Active Risk	1.87	FIXED INCOME	13,362,390,575	32.83	7.17	1.65	10.68
Portfolio Beta	1.05						
Effective Duration	2.64						



Risk Factor Breakdown

Risk Source	Risk Decomposition			Risk Decomposition		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	15.44	100.00	1.00	1.87	100.00	1.00
Local Market Risk	15.08	97.66	1.00	1.83	97.76	1.00
Common Factor Risk	15.02	97.29	1.00	1.53	81.50	0.91
Equity	12.95	83.84	0.98	0.48	25.69	0.50
Fixed Income	1.28	8.28	0.58	0.03	1.85	0.15
Hedge Fund	0.00	0.00	0.01	0.02	1.19	0.11
Private Real Estate	0.67	4.36	0.74	-0.03	-1.48	-0.10
Private Equity	0.12	0.80	0.09	1.02	54.21	0.74
Selection Risk	0.06	0.38	0.06	0.30	16.27	0.40
Currency Risk	0.36	2.34	0.45	0.04	2.24	0.24



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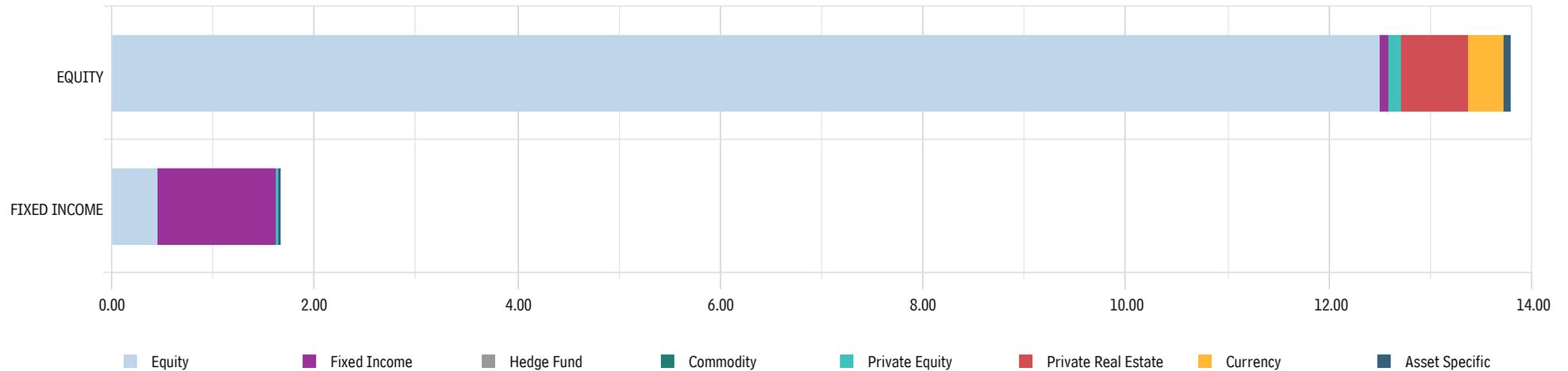
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Risk Contribution Breakdown by Risk Type

Asset Name	Mkt Value	Weight (%)	Eff Weight (%)	Total Risk	%CR to Total Risk	Port Risk Contribution	Risk Contribution								
							Equity	Fixed Income	Hedge Fund	Commodity	Private Real Estate	Private Equity	Currency	Asset Specific	
Total	40,696,642,749	100.00	100.00	15.44	100.00	15.44	12.95	1.28	0.00	0.00	0.00	0.67	0.12	0.36	0.06
EQUITY	27,334,252,174	67.17	67.17	20.69	89.32	13.79	12.50	0.10	0.00	0.00	0.00	0.67	0.11	0.35	0.06
FIXED INCOME	13,362,390,575	32.83	32.83	7.17	10.68	1.65	0.45	1.18	0.00	0.00	0.00	0.00	0.01	0.01	0.00



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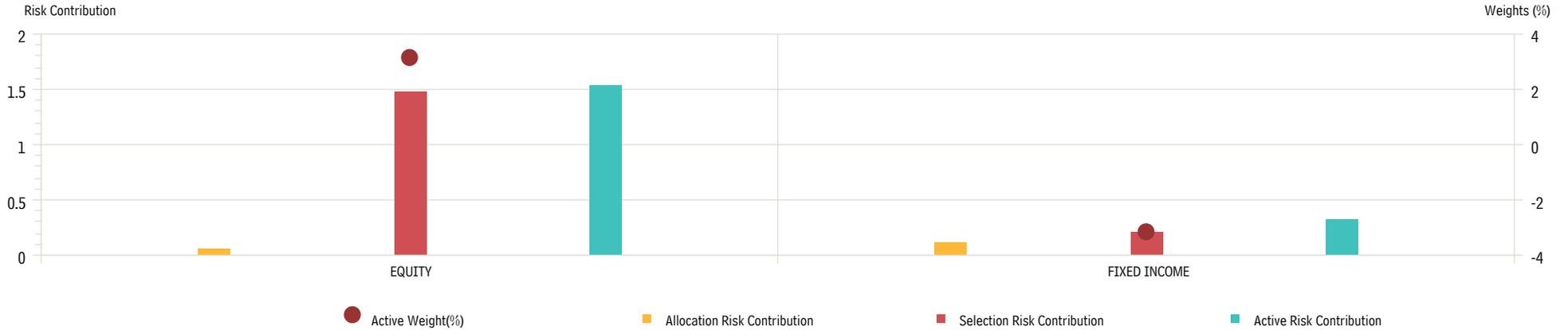
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Allocation Selection

Asset Class	Active Weight(%)	Allocation			Selection			Active
		Volatility	Correlation	Risk Contribution	Volatility	Correlation	Risk Contribution	Risk Contribution
Active Total Risk				0.18			1.69	1.87
EQUITY	3.17	6.31	0.32	0.06	2.42	0.91	1.48	1.54
FIXED INCOME	-3.17	11.23	-0.32	0.12	1.32	0.50	0.22	0.33



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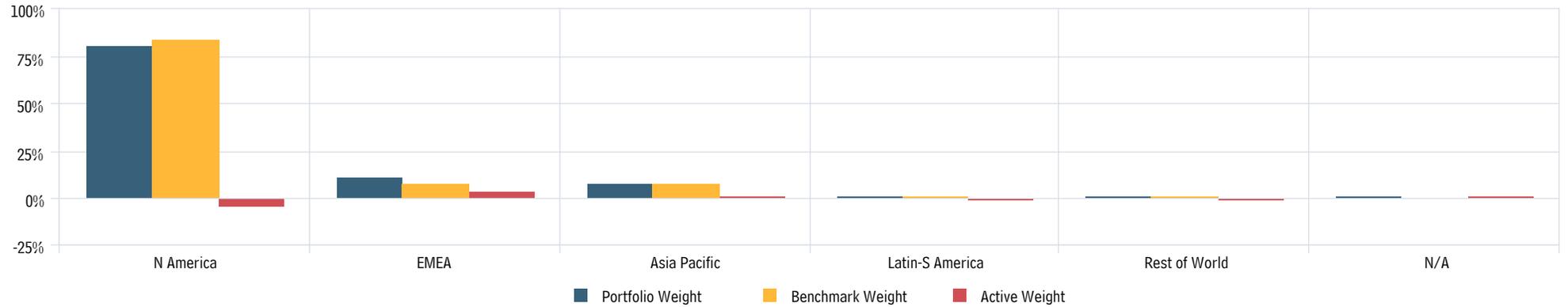
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Portfolio Allocation by Region

Region	Weight (%)			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	15.44	1.87	100.00	0.02
N America	79.95	84.07	-4.12	14.99	1.37	72.82	-0.01
EMEA	11.11	7.30	3.81	20.47	0.48	25.36	0.06
Asia Pacific	7.75	7.55	0.20	19.13	0.03	1.63	0.02
Latin-S America	0.53	0.64	-0.11	33.75	-0.00	-0.08	0.07
Rest of World	0.37	0.44	-0.06	7.78	0.00	0.18	-0.03
N/A	0.29	0.00	0.29	14.64	0.00	0.10	0.01



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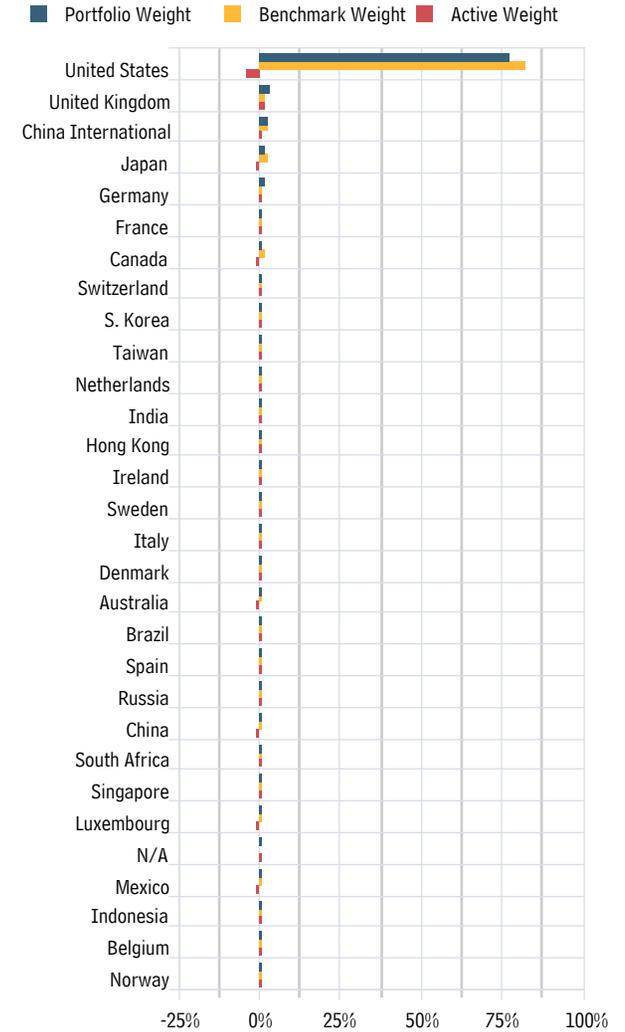
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Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	15.44	1.87	100.00	0.02
United States	77.71	81.85	-4.14	14.88	1.33	71.18	-0.01
United Kingdom	3.33	1.50	1.83	27.63	0.31	16.62	0.11
China International	2.37	2.17	0.19	22.75	0.01	0.55	0.02
Japan	1.93	2.18	-0.25	17.66	0.00	0.19	-0.00
Germany	1.37	0.87	0.50	23.01	0.03	1.61	0.04
France	1.01	1.00	0.01	23.03	-0.00	-0.03	0.05
Canada	0.97	1.45	-0.48	19.30	-0.01	-0.43	0.04
Switzerland	0.96	0.90	0.06	18.84	0.02	0.96	0.03
S. Korea	0.85	0.71	0.14	29.69	0.01	0.61	0.04
Taiwan	0.77	0.74	0.04	21.01	0.00	0.10	0.02
Netherlands	0.76	0.57	0.19	22.20	0.02	1.26	0.03
India	0.70	0.49	0.21	31.98	0.01	0.73	0.06
Hong Kong	0.65	0.28	0.37	16.06	-0.01	-0.31	-0.00
Ireland	0.58	0.14	0.44	6.82	-0.02	-0.91	-0.02
Sweden	0.51	0.28	0.23	28.55	0.03	1.35	0.07
Italy	0.50	0.26	0.24	25.62	0.02	1.15	0.06
Denmark	0.47	0.20	0.27	21.77	0.01	0.68	0.04
Australia	0.44	0.61	-0.18	26.19	-0.01	-0.61	0.05
Brazil	0.40	0.33	0.07	49.15	0.02	0.88	0.12
Spain	0.39	0.22	0.17	22.87	0.01	0.35	0.03
Russia	0.27	0.24	0.03	34.99	0.01	0.38	0.06
China	0.25	0.44	-0.19	23.64	0.00	0.11	-0.02
South Africa	0.23	0.23	0.00	36.20	-0.00	-0.03	0.07
Singapore	0.21	0.18	0.03	24.55	0.01	0.27	0.02
Luxembourg	0.21	0.22	-0.01	12.69	-0.00	-0.07	-0.01
N/A	0.19	0.00	0.19	22.01	0.01	0.37	0.04
Mexico	0.17	0.18	-0.00	29.70	0.00	0.14	0.04
Indonesia	0.15	0.13	0.03	35.00	0.01	0.28	0.04
Belgium	0.15	0.12	0.03	23.49	0.00	0.14	0.04
Norway	0.13	0.07	0.07	30.99	0.01	0.46	0.06



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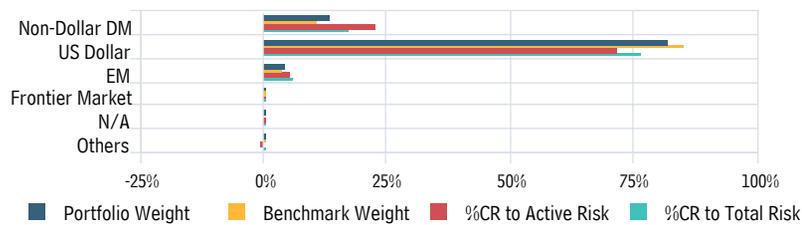
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Portfolio Allocation by Currency

Exposure by Market



Developed Market Currency

Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	33,423,993,294.78	81.02	76.35
Euro	1,692,820,715.74	5.68	5.71
Hong Kong Dollar	988,231,227.41	0.50	2.56
British Pound Sterling	826,469,424.63	7.05	3.61
Japanese Yen	770,843,325.97	0.03	1.64

Emerging Market Currency

Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
Korean Won	327,348,583.97	0.49	1.25
New Taiwan Dollar	314,515,401.91	0.10	0.79
Indian Rupee	280,768,035.64	0.71	1.01
Brazilian Real	159,129,036.60	0.89	0.88
Chinese Yuan	98,632,815.13	0.08	0.19

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)								
	Portfolio	Benchmark	Active	Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)	
Total	100.00	100.00	0.00	15.44	15.44	100.00	1.87	100.00	
US Dollar	82.13	85.31	-3.18	14.46	11.79	76.35	1.52	81.02	
Euro	4.16	2.63	1.53	24.08	0.88	5.71	0.11	5.68	
Hong Kong Dollar	2.43	2.20	0.22	21.70	0.40	2.56	0.01	0.50	
British Pound Sterling	2.03	1.15	0.88	31.08	0.56	3.61	0.13	7.05	
Japanese Yen	1.89	2.08	-0.18	17.92	0.25	1.64	0.00	0.03	
Swiss Franc	0.89	0.84	0.04	19.53	0.14	0.91	0.02	1.03	
Korean Won	0.80	0.70	0.11	29.95	0.19	1.25	0.01	0.49	
New Taiwan Dollar	0.77	0.74	0.04	21.01	0.12	0.79	0.00	0.10	
Indian Rupee	0.69	0.48	0.21	32.14	0.16	1.01	0.01	0.71	
Danish Krone	0.47	0.19	0.28	21.79	0.06	0.42	0.01	0.68	
Canadian Dollar	0.45	0.82	-0.37	28.16	0.11	0.74	-0.01	-0.64	
Brazilian Real	0.39	0.31	0.08	50.50	0.14	0.88	0.02	0.89	
Australian Dollar	0.39	0.55	-0.16	27.55	0.09	0.60	-0.01	-0.68	
Swedish Krona	0.37	0.25	0.12	30.21	0.09	0.60	0.02	1.13	
Chinese Yuan	0.24	0.28	-0.04	24.01	0.03	0.19	0.00	0.08	



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BarraOne Total Plan Macro Summary

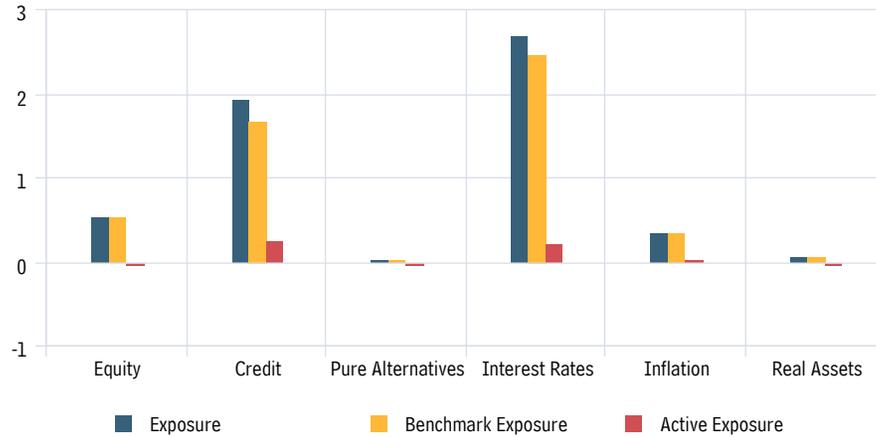
Macro factor models attribute the risk of the Barra Integrated Model to a far smaller set of factors. At the highest level, we use just six factors, representing the primary drivers of total risk and return for a global, multi-asset class portfolio that reduces the number of factors in an integrated factor model by aggregating selected groups of factors into single factors. Tier I is the highest level of the Macro Factor Scheme which has 6 factors.

COMPANY: NYCRS - POLICE
 PORTFOLIO: POLICE_Total Plan
 BENCHMARK: POLICE_Policy
 POSITIONS: 16,302

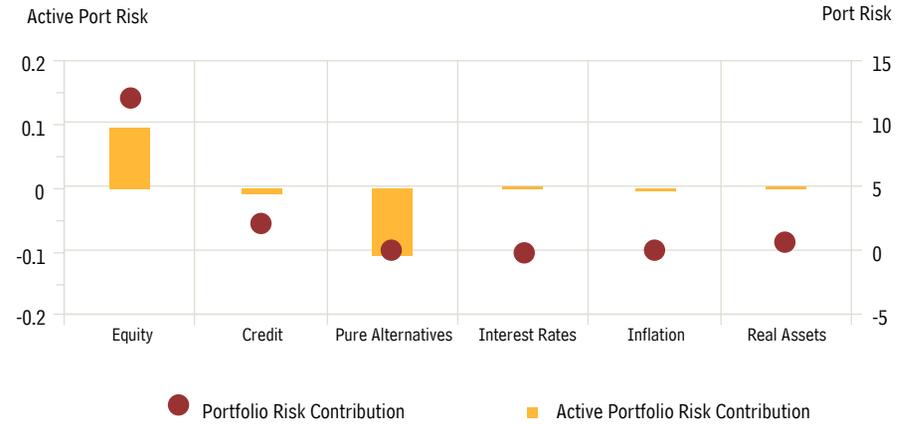
CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 40,585,218,253
 ACCEPTED: 16,093

MODEL: BIM303L (Tier 1 Macro Factors)

Macro Factor Exposures



Macro Factor Risk Contribution



Risk Decomposition

Risk Source	Exposure			Contribution			
	Exposure	Benchmark Exposure	Active Exposure	Portfolio Risk Contribution	% Portfolio Risk	Active Portfolio Risk Contribution	% Active Risk
Total Risk	-	-	-	14.41	100.00	1.22	100.00
Local Market Risk	-	-	-	14.07	97.65	1.20	98.50
Common Factor Risk	-	-	-	14.01	97.18	0.66	54.08
Equity	0.52	0.55	-0.02	11.96	82.98	0.10	8.09
Credit	1.92	1.68	0.24	2.09	14.52	-0.01	-0.79
Pure Alternatives	0.02	0.05	-0.03	0.01	0.04	-0.11	-8.66
Interest Rates	2.71	2.48	0.23	-0.22	-1.55	0.00	0.12
Inflation	0.37	0.35	0.01	0.10	0.67	-0.00	-0.03
Real Assets	0.05	0.06	-0.01	0.56	3.91	0.00	0.15
Factor Residual Risk	-	-	-	-0.49	-3.40	0.67	55.20
Selection Risk	-	-	-	0.07	0.47	0.54	44.42
Currency Risk	-	-	-	0.34	2.35	0.02	1.50

Tier 1 Macro Factor Scheme has six factors

Factor	Exposure Type	Description
Equity	Membership (weights)	Global Public and Private Equity
Credit	Sensitivities (durations)	Sensitivity to global credit spreads
Pure Alternatives	Membership (weights)	Investment strategy return of Private Equity and Hedge Funds net of public factor returns
Interest Rates	Sensitivities (durations)	Sensitivity to global interest rates
Inflation	Sensitivities (durations)	Sensitivity to breakeven inflation
Real Assets	Membership (weights)	Real Estate and Commodities

Factor Residual Risk

Risk Source	Portfolio Risk Contribution	% Portfolio Risk	Active Portfolio Risk Contribution	% Active Risk
Commodities	0.00	0.00	0.00	0.00
Equity	0.05	0.34	0.22	17.74
Fixed Income	-0.66	-4.59	0.04	3.62
Hedge Fund	0.00	0.03	0.26	21.07
Private Equity	0.01	0.04	0.07	6.07
Private Real Estate	0.11	0.80	0.08	6.67
Unassigned Factors	-0.00	-0.01	0.00	0.04



BarraOne Total Plan Summary

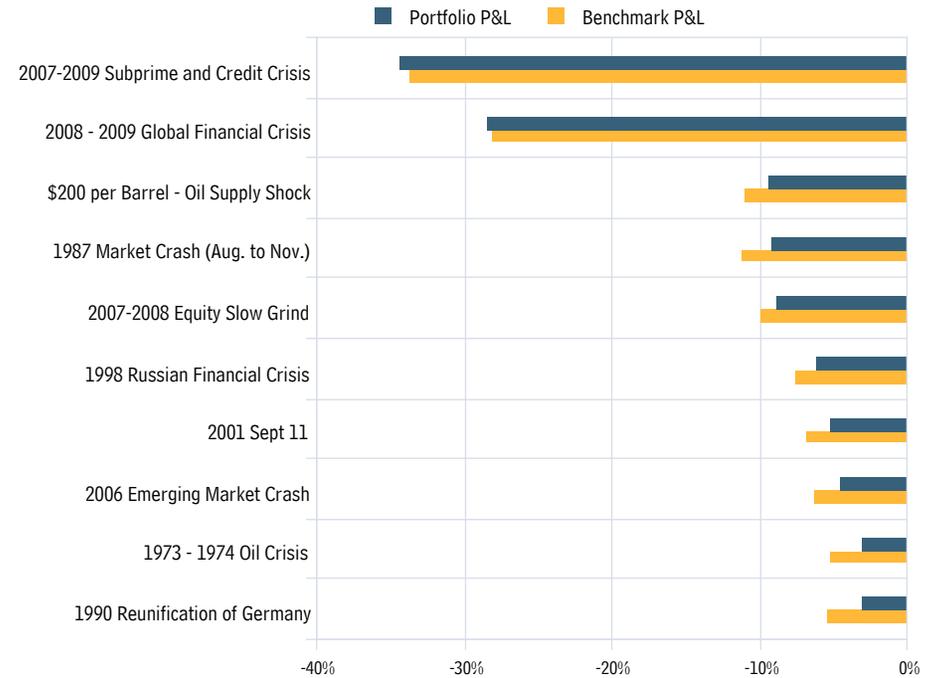
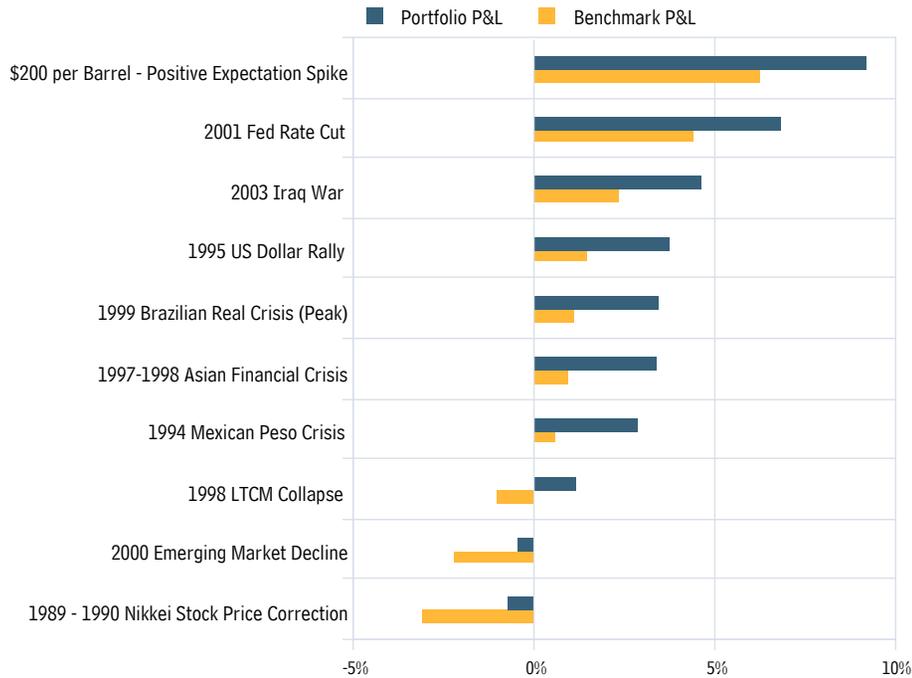
COMPANY: NYCRS - POLICE
 PORTFOLIO: POLICE_Total Plan
 BENCHMARK: POLICE_Policy
 POSITIONS: 16,302
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 40,696,642,749
 ACCEPTED: 16,103

Stress Scenarios

Top 10 Best Scenarios			
Scenario	Portfolio P&L	Benchmark P&L	Market Change (\$)
\$200 per Barrel - Positive Expectation S	9.16	6.28	3,727,010,264
2001 Fed Rate Cut	6.84	4.44	2,782,400,290
2003 Iraq War	4.60	2.34	1,871,886,937
1995 US Dollar Rally	3.77	1.46	1,535,150,164
1999 Brazilian Real Crisis (Peak)	3.47	1.10	1,410,434,186
1997-1998 Asian Financial Crisis	3.41	0.94	1,386,326,498
1994 Mexican Peso Crisis	2.88	0.59	1,171,142,753
1998 LTCM Collapse	1.14	-1.05	464,893,264
2000 Emerging Market Decline	-0.46	-2.19	-186,362,940
1989 - 1990 Nikkei Stock Price Correctio	-0.72	-3.12	-293,907,793

Top 10 Worst Scenarios			
Scenario	Portfolio P&L	Benchmark P&L	Market Change (\$)
2007-2009 Subprime and Credit Crisis	-34.37	-33.69	-13,988,822,910
2008 - 2009 Global Financial Crisis	-28.44	-28.19	-11,572,713,821
\$200 per Barrel - Oil Supply Shock	-9.32	-10.99	-3,793,602,382
1987 Market Crash (Aug. to Nov.)	-9.22	-11.13	-3,752,798,164
2007-2008 Equity Slow Grind	-8.79	-9.86	-3,576,647,756
1998 Russian Financial Crisis	-6.15	-7.49	-2,501,013,442
2001 Sept 11	-5.19	-6.80	-2,112,130,392
2006 Emerging Market Crash	-4.45	-6.23	-1,811,127,755
1973 - 1974 Oil Crisis	-3.14	-5.28	-1,279,273,976
1990 Reunification of Germany	-3.13	-5.33	-1,272,003,047



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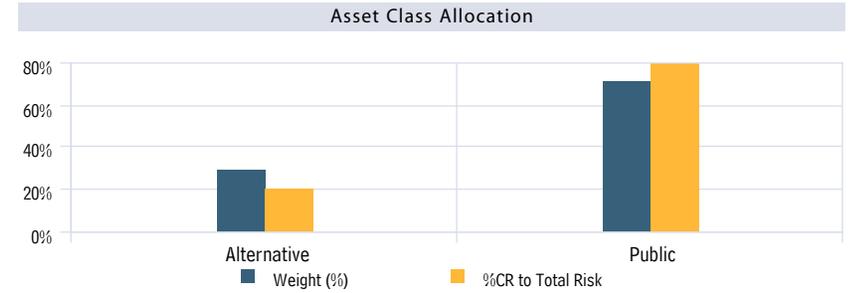
BarraOne Equity Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: EQUITY
 BENCHMARK: EQUITY
 POSITIONS: 6,965
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 27,334,252,174
 ACCEPTED: 6,831

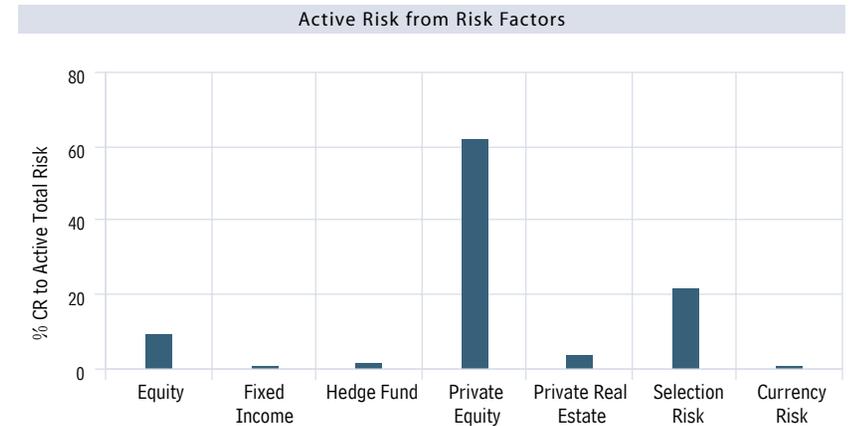
Total Plan Summary

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	20.69	Total	27,334,252,174	100.00	20.69	20.69	100.00
Benchmark Risk	20.57	Alternative	7,816,437,576	28.60	16.34	4.25	20.56
Active Risk	2.42	Public	19,517,814,597	71.40	23.17	16.43	79.44
Portfolio Beta	1.00						



Risk Factor Breakdown

Risk Source	Portfolio			Active		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	20.69	100.00	1.00	2.42	100.00	1.00
Local Market Risk	20.19	97.59	1.00	2.40	99.05	1.00
Common Factor Risk	20.09	97.14	1.00	1.88	77.56	0.88
Equity	18.80	90.89	0.99	0.23	9.54	0.33
Style	0.41	1.96	0.69	0.12	5.05	0.19
Industry	18.40	88.93	0.99	0.11	4.49	0.22
Fixed Income	0.13	0.64	0.69	0.02	0.81	0.12
Nominal Rates	-0.03	-0.13	-0.33	-0.00	-0.19	-0.06
Credit	0.16	0.76	0.76	0.03	1.10	0.13
Hedge Fund	0.00	0.00	0.01	0.04	1.68	0.13
Private Real Estate	0.98	4.74	0.73	0.08	3.30	0.15
Private Equity	0.18	0.85	0.09	1.51	62.22	0.79
Selection Risk	0.09	0.45	0.07	0.52	21.49	0.46
Currency Risk	0.50	2.41	0.43	0.02	0.95	0.12



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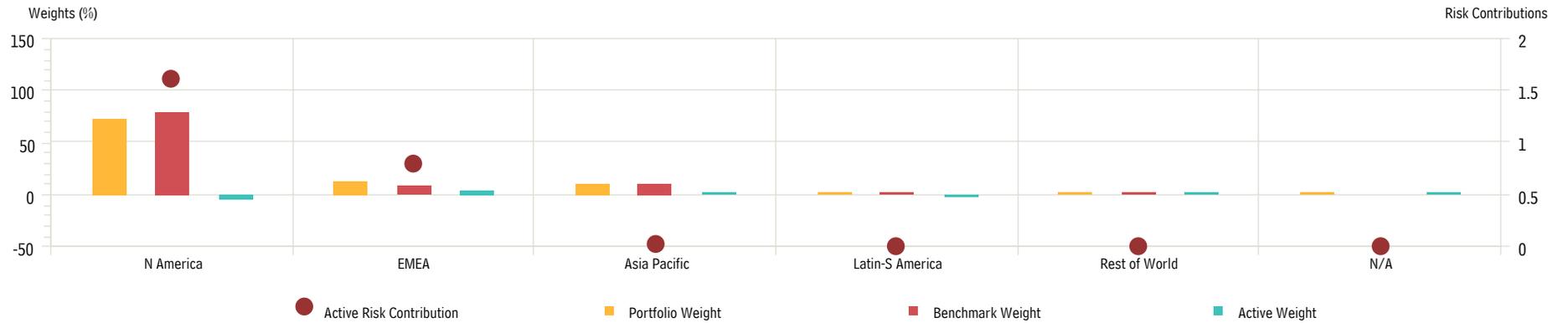
BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: EQUITY
 BENCHMARK: EQUITY
 POSITIONS: 6,965
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 27,334,252,174
 ACCEPTED: 6,831

Portfolio Allocation by Region

Region	Weight (%)			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total	100.00	100.00	-0.00	20.69	2.42	100.00	0.02
Asia Pacific	11.38	10.99	0.39	19.32	0.02	0.94	0.02
EMEA	13.90	9.07	4.84	23.28	0.79	32.47	0.07
Latin-S America	0.64	0.72	-0.08	39.20	0.01	0.22	0.06
N America	73.75	79.10	-5.34	21.41	1.60	66.23	0.01
N/A	0.16	0.00	0.16	4.78	0.00	0.04	0.01
Rest of World	0.16	0.13	0.04	17.39	0.00	0.10	0.03



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BarraOne Equity Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: EQUITY
 BENCHMARK: EQUITY
 POSITIONS: 6,965
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 27,334,252,174
 ACCEPTED: 6,831

Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	-0.00	20.69	2.42	100.00	0.02
United States	71.18	76.62	-5.44	21.43	1.57	64.82	0.01
United Kingdom	4.26	1.80	2.46	31.34	0.55	22.65	0.13
China International	3.52	3.39	0.13	22.75	0.01	0.31	0.02
Japan	2.82	3.25	-0.43	17.94	-0.00	-0.01	0.01
Germany	1.91	1.18	0.73	24.18	0.04	1.81	0.04
France	1.33	1.39	-0.06	24.94	0.01	0.50	0.04
Switzerland	1.33	1.32	0.01	19.49	0.02	0.96	0.03
S. Korea	1.26	1.09	0.17	30.03	0.01	0.24	0.02
Taiwan	1.15	1.15	0.00	21.01	0.00	0.05	0.02
India	1.03	0.75	0.28	32.14	0.01	0.43	0.03
Hong Kong	0.96	0.42	0.55	16.11	0.00	0.18	0.01
Netherlands	0.88	0.55	0.33	27.14	0.02	0.96	0.04
Sweden	0.74	0.39	0.35	29.03	0.03	1.36	0.05
Canada	0.70	1.28	-0.58	27.68	0.00	0.19	0.03
Italy	0.69	0.29	0.40	26.87	0.03	1.15	0.05
Denmark	0.67	0.30	0.37	22.33	0.02	1.01	0.04
Australia	0.61	0.86	-0.25	27.25	-0.01	-0.27	0.02
Brazil	0.58	0.48	0.10	50.32	0.02	0.63	0.07
Spain	0.53	0.31	0.22	24.59	0.01	0.48	0.03
Russia	0.40	0.30	0.10	34.99	0.00	0.15	0.03
China	0.37	0.44	-0.08	23.72	-0.00	-0.02	0.01
South Africa	0.33	0.35	-0.02	36.74	-0.00	-0.04	0.03
Singapore	0.31	0.16	0.15	24.58	0.00	0.15	0.02
Indonesia	0.20	0.14	0.06	38.81	0.00	0.13	0.04
Mexico	0.19	0.16	0.03	36.65	0.00	0.09	0.03
Belgium	0.19	0.12	0.07	26.35	0.01	0.23	0.04
Poland	0.19	0.07	0.12	29.97	0.01	0.40	0.07
Thailand	0.18	0.23	-0.04	31.14	-0.00	-0.01	0.02
Norway	0.17	0.07	0.11	34.00	0.01	0.29	0.05
Finland	0.16	0.13	0.03	26.65	0.00	0.17	0.04



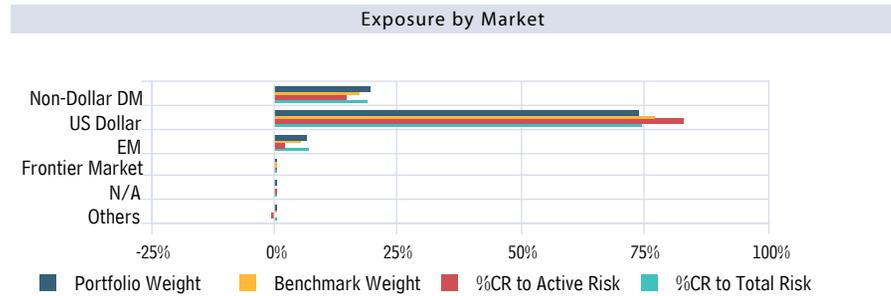
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BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: EQUITY
 BENCHMARK: EQUITY
 POSITIONS: 6,965
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 27,334,252,174
 ACCEPTED: 6,831

Portfolio Allocation by Currency



Developed Market Currency				Emerging Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)	Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	20,239,057,811.89	82.89	74.11	Korean Won	327,348,102.47	0.19	1.40
Euro	1,564,220,985.10	5.71	6.06	New Taiwan Dollar	314,515,360.80	0.05	0.88
Hong Kong Dollar	988,231,227.41	0.31	2.87	Indian Rupee	280,768,035.64	0.42	1.10
British Pound Sterling	795,675,354.08	5.34	3.97	Brazilian Real	159,129,036.60	0.63	0.98
Japanese Yen	769,530,984.87	-0.01	1.83	Chinese Yuan	98,505,552.24	-0.02	0.22

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)			Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)
	Portfolio	Benchmark	Active					
Total	100.00	100.00	-0.00	20.69	20.69	100.00	2.42	100.00
US Dollar	74.04	77.05	-3.00	20.90	15.33	74.11	2.01	82.89
Euro	5.72	4.10	1.62	24.81	1.25	6.06	0.14	5.71
Hong Kong Dollar	3.62	3.44	0.17	21.70	0.59	2.87	0.01	0.31
British Pound Sterling	2.91	1.80	1.11	31.80	0.82	3.97	0.13	5.34
Japanese Yen	2.82	3.25	-0.43	17.94	0.38	1.83	-0.00	-0.01
Swiss Franc	1.32	1.32	0.00	19.53	0.21	1.02	0.02	0.96
Korean Won	1.20	1.09	0.11	29.95	0.29	1.40	0.00	0.19
New Taiwan Dollar	1.15	1.15	0.00	21.01	0.18	0.88	0.00	0.05
Indian Rupee	1.03	0.75	0.28	32.14	0.23	1.10	0.01	0.42
Danish Krone	0.67	0.30	0.37	22.35	0.09	0.45	0.02	1.01
Canadian Dollar	0.64	1.28	-0.63	28.05	0.16	0.78	0.00	0.14
Brazilian Real	0.58	0.48	0.10	50.50	0.20	0.98	0.02	0.63
Australian Dollar	0.58	0.86	-0.28	27.56	0.14	0.66	-0.01	-0.28
Swedish Krona	0.54	0.39	0.15	30.45	0.14	0.67	0.03	1.12
Chinese Yuan	0.36	0.44	-0.08	24.04	0.05	0.22	-0.00	-0.02



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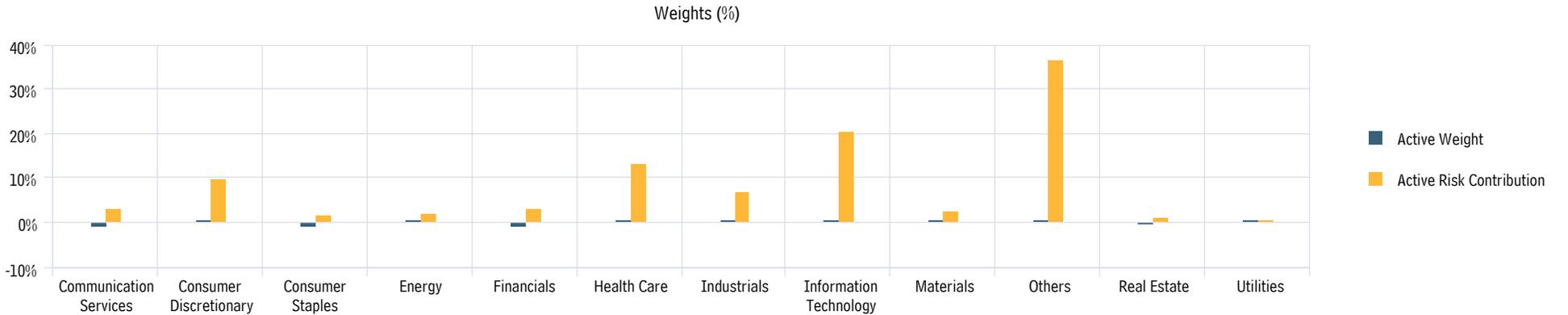
BarraOne Equity Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: EQUITY
 BENCHMARK: EQUITY
 POSITIONS: 6,965
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 27,334,252,174
 ACCEPTED: 6,831

Portfolio Allocation by GICS Sector

GICS Sector	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	-0.00	20.69	2.42	100.00	0.02
Communication Services	6.64	7.66	-1.03	20.50	0.07	2.94	0.01
Consumer Discretionary	10.27	9.66	0.61	26.77	0.24	9.87	0.04
Consumer Staples	4.96	5.82	-0.86	17.63	0.04	1.51	0.02
Energy	2.73	2.68	0.04	41.65	0.05	2.10	0.06
Financials	9.32	10.37	-1.05	30.67	0.08	3.11	0.03
Health Care	11.34	10.88	0.47	21.17	0.32	13.24	0.04
Industrials	8.19	7.48	0.71	27.86	0.17	6.88	0.04
Information Technology	18.61	18.16	0.45	23.80	0.49	20.21	0.04
Materials	3.63	3.31	0.32	25.28	0.06	2.36	0.03
Others	19.29	18.75	0.54	11.20	0.89	36.57	0.01
Real Estate	2.48	2.74	-0.26	28.41	0.02	0.81	0.02
Utilities	2.54	2.49	0.05	21.59	0.01	0.41	0.01



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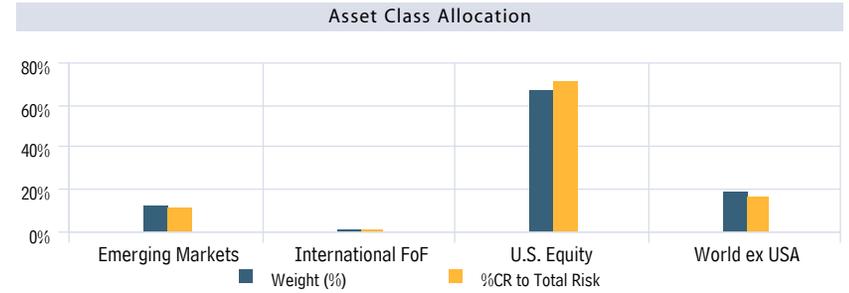
BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Public Equity
 BENCHMARK: Public
 POSITIONS: 6,597
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 19,517,814,597
 ACCEPTED: 6,469

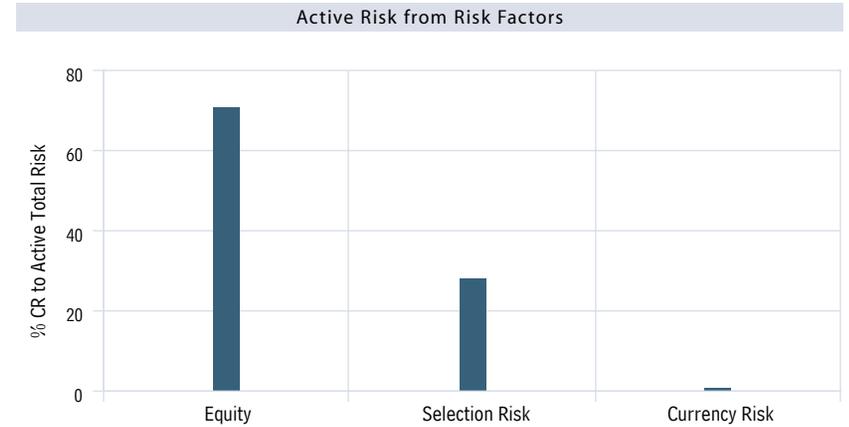
Total Plan Summary

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	23.17	Total	19,517,814,597	100.00	23.17	23.17	100.00
Benchmark Risk	22.85	Emerging Markets	2,433,441,199	12.47	23.10	2.58	11.12
Active Risk	0.77	International FoF	244,701,992	1.25	20.89	0.25	1.06
Portfolio Beta	1.01	U.S. Equity	13,150,536,908	67.38	24.79	16.52	71.28
		World ex USA	3,689,134,498	18.90	21.62	3.83	16.54



Risk Factor Breakdown

Risk Source	Portfolio			Active		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	23.17	100.00	1.00	0.77	100.00	1.00
Local Market Risk	22.57	97.39	1.00	0.77	99.16	0.99
Common Factor Risk	22.49	97.06	1.00	0.55	70.96	0.84
Equity	22.49	97.05	1.00	0.55	70.74	0.84
Style	0.39	1.67	0.65	0.41	52.33	0.72
Industry	22.10	95.38	1.00	0.14	18.41	0.44
Selection Risk	0.08	0.34	0.06	0.22	28.20	0.53
Currency Risk	0.60	2.61	0.44	0.01	0.84	0.07



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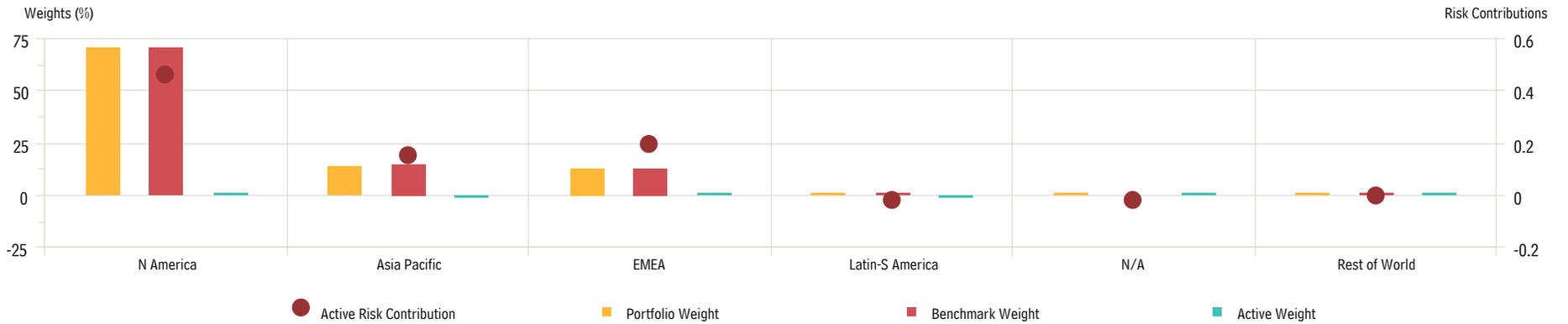
BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Public Equity
 BENCHMARK: Public
 POSITIONS: 6,597
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 19,517,814,597
 ACCEPTED: 6,469

Portfolio Allocation by Region

Region	Weight (%)			Active	Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active					
Total	100.00	100.00	-0.00		23.17	0.77	100.00	0.01
Asia Pacific	14.45	15.29	-0.84		20.17	0.15	19.47	-0.02
EMEA	12.86	12.61	0.24		24.57	0.19	25.09	0.01
Latin-S America	0.82	1.00	-0.18		40.67	-0.01	-1.79	0.08
N America	71.45	70.92	0.53		24.49	0.46	59.55	0.03
N/A	0.22	0.00	0.22		4.69	-0.02	-2.38	-0.08
Rest of World	0.21	0.18	0.03		17.05	0.00	0.07	-0.03



BarraOne Equity Summary

COMPANY: NYCRC - POLICE
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 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
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 ACCEPTED: 6,469

Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	-0.00	23.17	0.77	100.00	0.01
United States	68.13	67.48	0.65	24.67	0.39	49.82	0.13
China International	4.91	4.72	0.19	22.74	0.02	2.97	0.09
Japan	3.71	4.52	-0.81	18.56	0.08	9.77	0.04
United Kingdom	2.53	2.50	0.03	31.09	0.08	10.60	0.13
Germany	1.98	1.65	0.33	26.71	0.02	2.76	0.11
S. Korea	1.72	1.51	0.21	30.25	0.02	2.24	0.11
Taiwan	1.61	1.60	0.01	21.01	0.01	0.81	0.08
Switzerland	1.54	1.83	-0.29	19.15	0.04	4.88	0.07
France	1.46	1.94	-0.48	26.05	-0.02	-2.37	0.11
India	1.27	1.04	0.22	32.29	0.02	2.07	0.14
Netherlands	1.00	0.77	0.23	28.88	0.03	3.90	0.10
Brazil	0.75	0.67	0.08	52.60	0.02	2.12	0.20
Denmark	0.73	0.42	0.31	21.63	-0.01	-1.13	0.07
Hong Kong	0.73	0.58	0.15	24.06	0.00	0.16	0.09
Canada	0.72	1.78	-1.06	28.69	0.00	0.60	0.10
Australia	0.69	1.20	-0.51	28.52	-0.01	-1.02	0.11
Sweden	0.68	0.54	0.14	29.35	0.01	1.05	0.12
Italy	0.60	0.41	0.20	30.99	0.02	2.01	0.11
Russia	0.55	0.42	0.13	35.07	0.01	0.77	0.12
South Africa	0.46	0.49	-0.03	37.07	-0.00	-0.17	0.13
Spain	0.42	0.43	-0.01	30.41	0.01	0.94	0.09
Singapore	0.40	0.23	0.18	25.19	0.00	0.26	0.11
China	0.33	0.61	-0.28	34.41	0.02	2.63	0.05
Indonesia	0.27	0.19	0.08	39.66	0.01	1.03	0.16
Mexico	0.26	0.23	0.04	37.02	0.01	0.95	0.14
Thailand	0.25	0.32	-0.06	31.24	0.00	0.56	0.11
CNH	0.22	0.00	0.22	4.69	-0.02	-2.38	0.01
Norway	0.19	0.09	0.10	35.49	0.01	0.90	0.13
Finland	0.19	0.18	0.01	26.66	0.00	0.23	0.10
Belgium	0.19	0.16	0.02	28.79	-0.00	-0.34	0.09



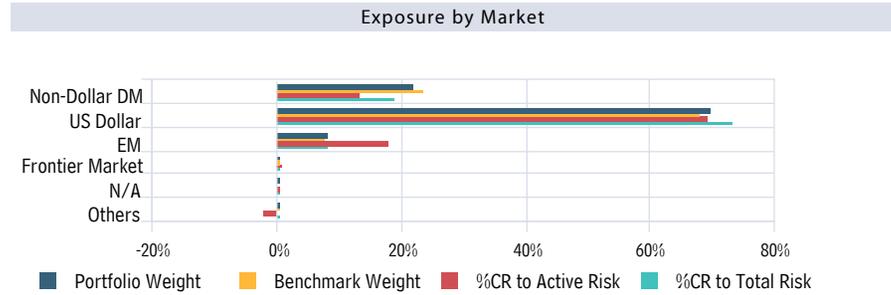
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BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Public Equity
 BENCHMARK: Public
 POSITIONS: 6,597
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 19,517,814,597
 ACCEPTED: 6,469

Portfolio Allocation by Currency



Developed Market Currency				Emerging Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)	Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	13,563,726,015.94	52.12	72.95	Korean Won	320,220,954.05	2.00	1.74
Euro	1,185,233,610.06	7.94	5.98	New Taiwan Dollar	314,515,360.80	0.81	1.11
Hong Kong Dollar	985,242,322.43	2.48	3.63	Indian Rupee	245,527,883.34	2.03	1.20
Japanese Yen	724,939,810.89	9.77	2.25	Brazilian Real	146,601,457.26	2.12	1.16
British Pound Sterling	493,866,216.10	10.61	3.06	South African Rand	89,329,807.51	-0.17	0.55

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)			Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)
	Portfolio	Benchmark	Active					
Total	100.00	100.00	-0.00	23.17	23.17	100.00	0.77	100.00
US Dollar	69.49	68.06	1.43	24.56	16.90	72.95	0.40	52.12
Euro	6.07	5.71	0.36	25.66	1.39	5.98	0.06	7.94
Hong Kong Dollar	5.05	4.79	0.26	21.71	0.84	3.63	0.02	2.48
Japanese Yen	3.71	4.52	-0.81	18.56	0.52	2.25	0.08	9.77
British Pound Sterling	2.53	2.51	0.02	31.08	0.71	3.06	0.08	10.61
Korean Won	1.64	1.51	0.13	30.17	0.40	1.74	0.02	2.00
New Taiwan Dollar	1.61	1.60	0.01	21.01	0.26	1.11	0.01	0.81
Swiss Franc	1.54	1.83	-0.29	19.15	0.24	1.04	0.04	4.88
Indian Rupee	1.26	1.04	0.21	32.28	0.28	1.20	0.02	2.03
Brazilian Real	0.75	0.67	0.08	52.60	0.27	1.16	0.02	2.12
Danish Krone	0.73	0.42	0.31	21.65	0.08	0.36	-0.01	-1.12
Canadian Dollar	0.68	1.78	-1.10	28.30	0.17	0.73	0.00	0.37
Australian Dollar	0.65	1.20	-0.55	28.94	0.16	0.69	-0.01	-0.92
South African Rand	0.46	0.49	-0.03	37.04	0.13	0.55	-0.00	-0.17
Russian Ruble	0.41	0.38	0.03	36.36	0.11	0.48	0.00	0.49



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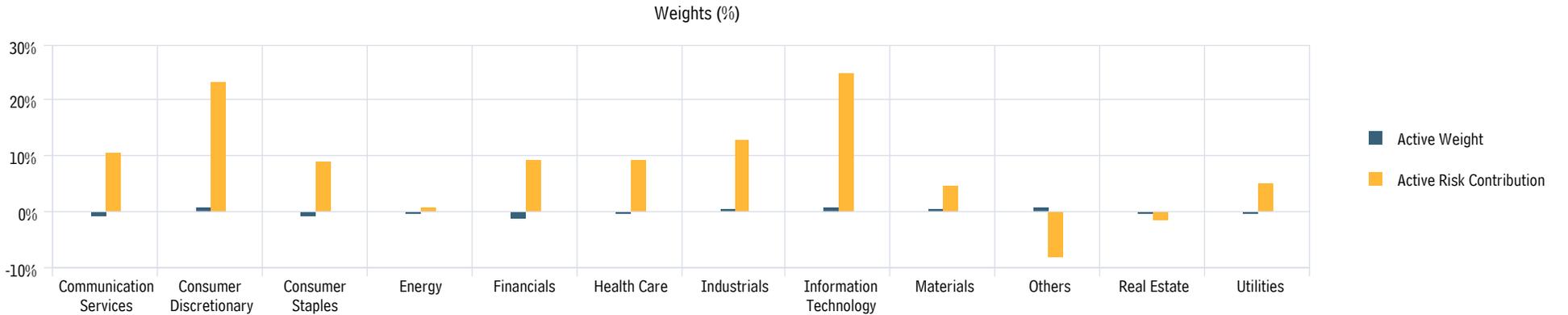
BarraOne Equity Summary

COMPANY: NYCERS - POLICE
 PORTFOLIO: Public Equity
 BENCHMARK: Public
 POSITIONS: 6,597
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 19,517,814,597
 ACCEPTED: 6,469

Portfolio Allocation by GICS Sector

GICS Sector	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	-0.00	23.17	0.77	100.00	0.01
Communication Services	8.66	9.38	-0.72	20.20	0.08	10.56	0.07
Consumer Discretionary	12.70	11.96	0.74	26.18	0.18	23.36	0.12
Consumer Staples	6.60	7.29	-0.69	17.37	0.07	8.88	0.06
Energy	3.19	3.39	-0.20	41.95	0.01	0.82	0.16
Financials	12.05	13.05	-1.00	31.16	0.07	9.50	0.14
Health Care	13.03	13.19	-0.16	20.26	0.07	9.39	0.07
Industrials	9.77	9.27	0.50	28.43	0.10	12.76	0.13
Information Technology	22.74	21.80	0.95	23.22	0.19	24.68	0.10
Materials	4.65	4.25	0.39	25.39	0.04	4.62	0.11
Others	0.68	0.00	0.68	0.93	-0.06	-8.08	0.00
Real Estate	3.05	3.34	-0.29	29.98	-0.01	-1.44	0.13
Utilities	2.88	3.07	-0.19	25.27	0.04	4.95	0.08



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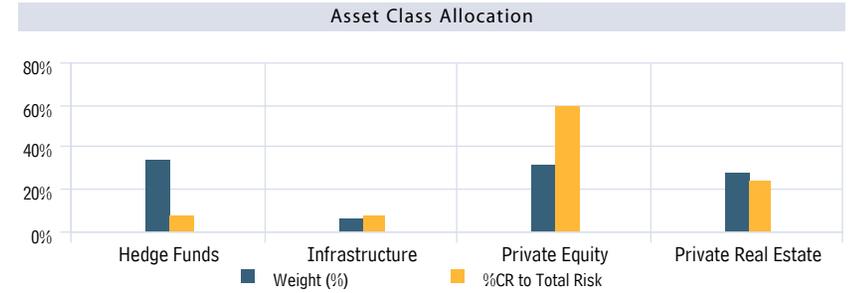
BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Alternative
 BENCHMARK: Alternative
 POSITIONS: 368
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 7,816,437,576
 ACCEPTED: 362

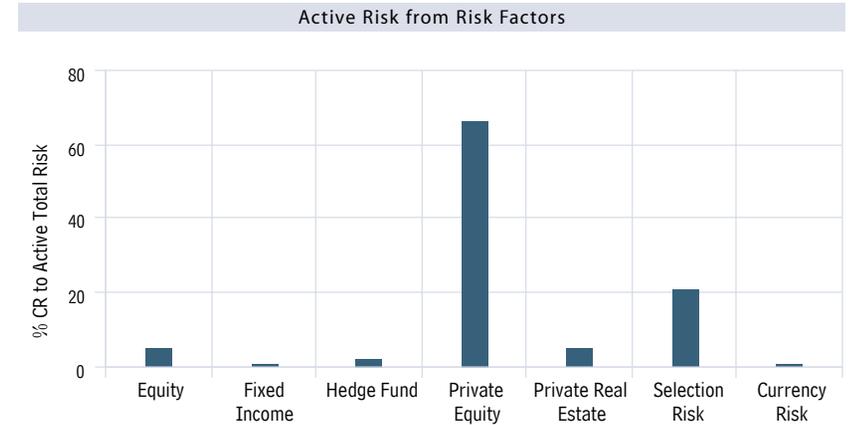
Total Plan Summary

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	16.34	Total	7,816,437,576	100.00	16.34	16.34	100.00
Benchmark Risk	15.51	Hedge Funds	2,640,635,170	33.78	10.65	1.20	7.37
Active Risk	8.19	Infrastructure	505,775,802	6.47	22.74	1.34	8.17
Portfolio Beta	0.92	Private Equity	2,484,996,156	31.79	33.02	9.85	60.26
		Private Real Estate	2,185,030,447	27.95	18.10	3.96	24.20



Risk Factor Breakdown

Risk Source	Portfolio			Active		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	16.34	100.00	1.00	8.19	100.00	1.00
Local Market Risk	16.12	98.65	1.00	8.13	99.35	1.00
Common Factor Risk	15.36	93.97	0.98	6.44	78.72	0.89
Equity	8.64	52.85	0.86	0.41	5.05	0.26
Style	0.40	2.45	0.61	0.04	0.52	0.05
Industry	8.24	50.40	0.86	0.37	4.53	0.24
Fixed Income	0.43	2.64	0.65	0.02	0.27	0.04
Nominal Rates	-0.07	-0.40	-0.24	-0.00	-0.02	-0.01
Credit	0.50	3.04	0.69	0.03	0.32	0.04
Hedge Fund	0.02	0.10	0.03	0.15	1.84	0.14
Private Real Estate	3.54	21.68	0.75	0.40	4.94	0.21
Private Equity	2.73	16.71	0.41	5.45	66.61	0.82
Selection Risk	0.76	4.68	0.22	1.69	20.63	0.45
Currency Risk	0.22	1.35	0.31	0.05	0.65	0.08



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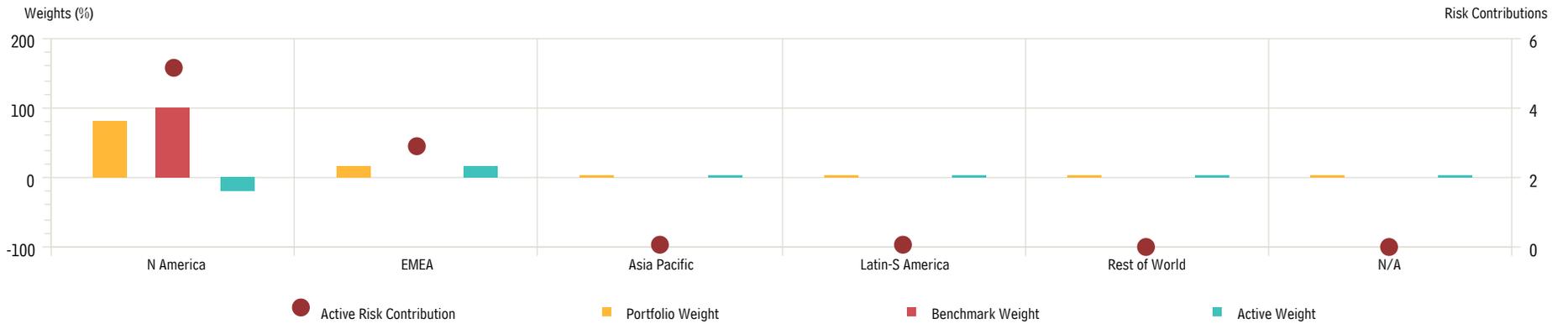
BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Alternative
 BENCHMARK: Alternative
 POSITIONS: 368
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
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 ACCEPTED: 362

Portfolio Allocation by Region

Region	Weight (%)			Total Risk	Active Risk CR	% of Active TR	MC to Total Tracking Error
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	16.34	8.19	100.00	0.08
Asia Pacific	3.71	0.00	3.71	12.78	0.09	1.10	0.02
EMEA	16.52	0.00	16.52	29.79	2.89	35.29	0.16
Latin-S America	0.20	0.00	0.20	40.97	0.04	0.51	0.21
N America	79.51	100.00	-20.49	16.42	5.16	63.03	0.03
N/A	0.01	0.00	0.01	28.27	0.00	0.00	0.02
Rest of World	0.05	0.00	0.05	33.84	0.01	0.08	0.12



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BarraOne Equity Summary

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 POSITIONS: 368
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 ACCEPTED: 362

Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	16.34	8.19	100.00	0.08
United States	78.81	100.00	-21.19	16.36	5.09	62.23	0.00
United Kingdom	8.59	0.00	8.59	43.59	2.05	25.07	0.21
Germany	1.73	0.00	1.73	21.20	0.14	1.76	0.06
Hong Kong	1.55	0.00	1.55	10.71	0.03	0.42	-0.00
France	1.02	0.00	1.02	26.77	0.09	1.15	0.07
Italy	0.90	0.00	0.90	25.00	0.09	1.06	0.07
Sweden	0.89	0.00	0.89	37.22	0.11	1.28	0.09
Spain	0.80	0.00	0.80	20.95	0.05	0.57	0.03
Switzerland	0.79	0.00	0.79	29.35	0.09	1.06	0.09
Canada	0.66	0.00	0.66	27.46	0.06	0.78	0.07
Netherlands	0.59	0.00	0.59	28.29	0.06	0.77	0.08
Japan	0.57	0.00	0.57	17.81	0.02	0.19	0.00
Denmark	0.53	0.00	0.53	38.12	0.07	0.90	0.11
China	0.46	0.00	0.46	11.25	0.01	0.14	0.00
India	0.45	0.00	0.45	36.11	0.01	0.15	0.00
Australia	0.42	0.00	0.42	26.99	0.01	0.10	-0.00
Poland	0.29	0.00	0.29	36.92	0.03	0.41	0.09
Israel	0.20	0.00	0.20	35.85	0.02	0.30	0.10
Ireland	0.20	0.00	0.20	22.58	0.01	0.16	0.04
Belgium	0.19	0.00	0.19	31.03	0.02	0.26	0.09
Brazil	0.17	0.00	0.17	46.57	0.04	0.49	0.22
Norway	0.13	0.00	0.13	35.55	0.01	0.16	0.08
Portugal	0.11	0.00	0.11	24.42	0.01	0.14	0.08
Finland	0.11	0.00	0.11	39.70	0.01	0.18	0.11
S. Korea	0.09	0.00	0.09	25.06	0.00	0.03	0.01
Singapore	0.08	0.00	0.08	25.02	0.00	0.03	0.00
Greece	0.08	0.00	0.08	47.65	0.01	0.13	0.11
Austria	0.05	0.00	0.05	25.33	0.00	0.05	0.05
China International	0.05	0.00	0.05	32.24	0.00	0.02	0.00
Czech Rep	0.04	0.00	0.04	26.58	0.00	0.04	0.07



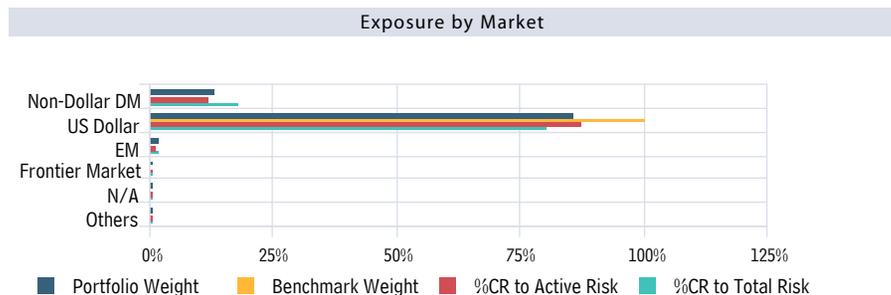
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BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Alternative
 BENCHMARK: Alternative
 POSITIONS: 368
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 7,816,437,576
 ACCEPTED: 362

Portfolio Allocation by Currency



Developed Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	6,675,331,795.95	82.83	80.39
Euro	378,987,375.04	5.91	5.95
British Pound Sterling	301,809,137.98	4.99	6.69
Swedish Krona	69,513,277.06	1.28	1.44
Swiss Franc	60,597,100.12	1.05	0.90

Emerging Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
Indian Rupee	35,240,152.30	0.15	0.55
Chinese Yuan	34,378,029.94	0.14	0.07
Polish Zloty	22,531,216.95	0.41	0.35
Brazilian Real	12,527,579.34	0.49	0.29
Korean Won	7,127,148.42	0.03	0.08

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)			Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	16.34	16.34	100.00	8.19	100.00
US Dollar	85.40	100.00	-14.60	15.63	13.14	80.39	6.78	82.83
Euro	4.85	0.00	4.85	26.79	0.97	5.95	0.48	5.91
British Pound Sterling	3.86	0.00	3.86	36.67	1.09	6.69	0.41	4.99
Swedish Krona	0.89	0.00	0.89	37.22	0.24	1.44	0.11	1.28
Swiss Franc	0.78	0.00	0.78	29.78	0.15	0.90	0.09	1.05
Japanese Yen	0.57	0.00	0.57	17.81	0.03	0.19	0.02	0.19
Canadian Dollar	0.56	0.00	0.56	30.33	0.15	0.89	0.06	0.75
Danish Krone	0.53	0.00	0.53	38.12	0.13	0.78	0.07	0.90
Indian Rupee	0.45	0.00	0.45	36.11	0.09	0.55	0.01	0.15
Chinese Yuan	0.44	0.00	0.44	11.68	0.01	0.07	0.01	0.14
Australian Dollar	0.42	0.00	0.42	26.99	0.07	0.46	0.01	0.10
Polish Zloty	0.29	0.00	0.29	36.92	0.06	0.35	0.03	0.41
New Israeli Sheqel	0.20	0.00	0.20	35.85	0.05	0.30	0.02	0.30
Brazilian Real	0.16	0.00	0.16	48.78	0.05	0.29	0.04	0.49
Norwegian Krone	0.12	0.00	0.12	38.87	0.03	0.20	0.01	0.16



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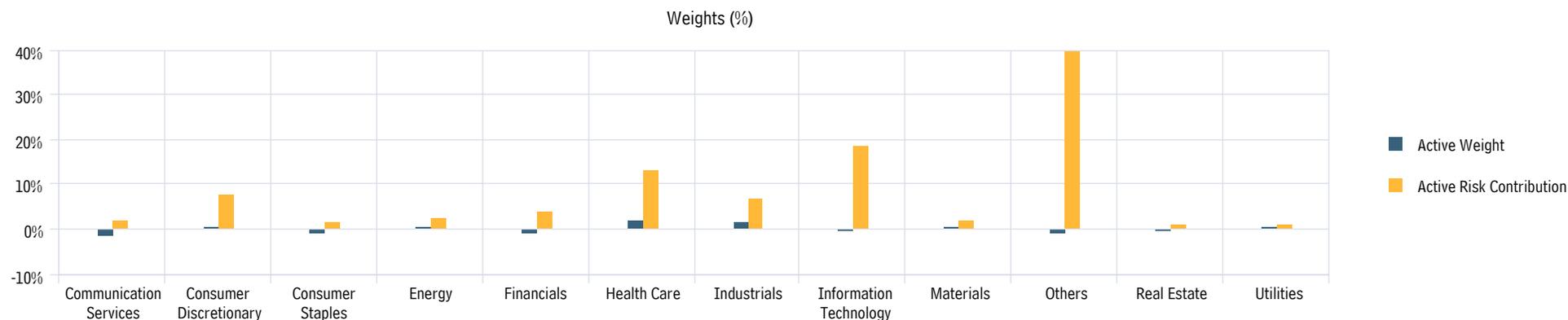
BarraOne Equity Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Alternative
 BENCHMARK: Alternative
 POSITIONS: 368
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 7,816,437,576
 ACCEPTED: 362

Portfolio Allocation by GICS Sector

GICS Sector	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	16.34	8.19	100.00	0.08
Communication Services	1.59	3.27	-1.68	30.10	0.17	2.04	0.01
Consumer Discretionary	4.19	3.77	0.42	36.55	0.65	7.93	0.06
Consumer Staples	0.88	2.09	-1.21	30.03	0.13	1.60	0.02
Energy	1.57	0.87	0.70	45.32	0.19	2.37	0.07
Financials	2.48	3.51	-1.02	29.78	0.34	4.12	0.03
Health Care	7.14	4.97	2.17	31.03	1.09	13.33	0.06
Industrials	4.26	2.92	1.34	28.55	0.54	6.66	0.05
Information Technology	8.29	8.86	-0.57	34.86	1.51	18.41	0.06
Materials	1.08	0.90	0.18	30.43	0.16	2.00	0.06
Others	65.77	66.67	-0.90	11.49	3.25	39.72	0.00
Real Estate	1.06	1.20	-0.14	22.07	0.08	0.99	0.00
Utilities	1.68	0.99	0.69	10.20	0.07	0.83	0.00



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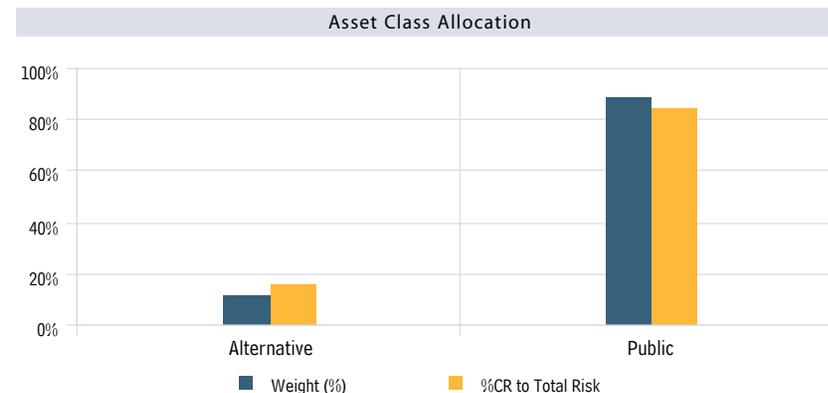
BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: FIXED INCOME
 BENCHMARK: Fixed Income
 POSITIONS: 9,337
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 13,362,390,575
 ACCEPTED: 9,272

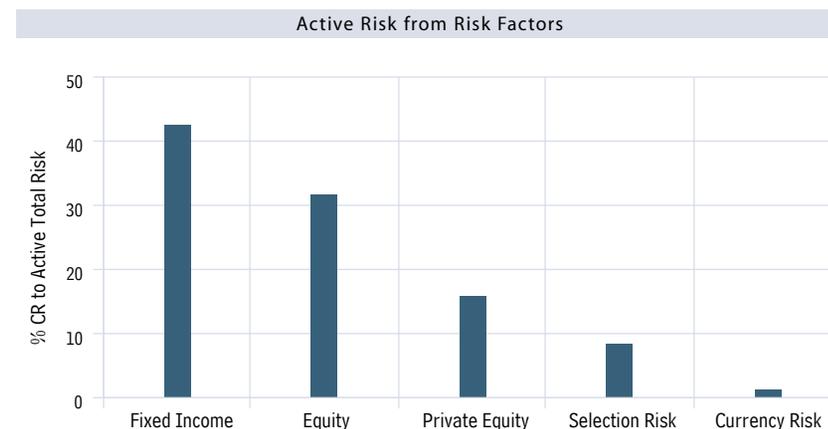
Total Plan Summary

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	7.17	Total	13,362,390,575	100.00	7.17	7.17	100.00
Benchmark Risk	6.41	Alternative	1,491,807,285	11.16	13.41	1.14	15.94
Active Risk	1.32	Public	11,870,583,290	88.84	6.87	6.03	84.06
Portfolio Beta	1.10						
Cont. to Eff. Duration	7.96						
Convexity	0.05						
Yield to Worst (%)	3.04						
OAS to Swap (bp)	200.87						



Risk Factor Breakdown

Risk Source	Portfolio			Active		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	7.17	100.00	1.00	1.32	100.00	1.00
Local Market Risk	7.15	99.69	1.00	1.31	98.90	1.00
Common Factor Risk	7.13	99.47	1.00	1.20	90.43	0.96
Equity	0.84	11.68	0.58	0.42	31.71	0.56
Style	0.17	2.39	0.37	0.29	22.30	0.49
Industry	0.67	9.29	0.58	0.12	9.41	0.39
Fixed Income	6.25	87.19	0.98	0.56	42.48	0.65
Nominal Rates	1.79	24.91	0.35	0.05	3.86	0.08
Real Rates	0.65	9.04	0.75	0.05	3.63	0.32
Credit	3.82	53.23	0.66	0.46	34.99	0.56
Private Equity	0.04	0.54	0.07	0.21	16.02	0.40
Selection Risk	0.02	0.22	0.05	0.11	8.47	0.29
Currency Risk	0.02	0.31	0.34	0.01	1.10	0.23



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BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: FIXED INCOME
 BENCHMARK: Fixed Income
 POSITIONS: 9,337
 MODEL: BIM303L

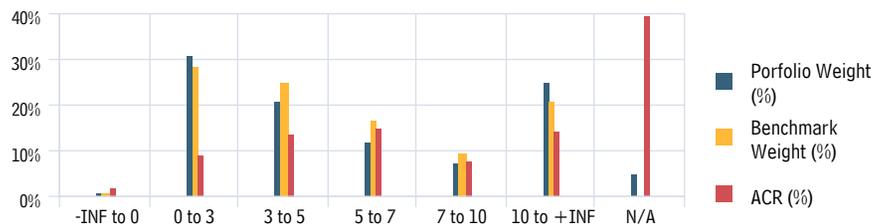
CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 13,362,390,575
 ACCEPTED: 9,272

Portfolio by Factor Breakdowns

Spread Factor	Top 10 Spread Factor									
	Volatility	Exposure (Residual)				MCAR	Correlation		Contribution (Residual)	
		Portfolio	Benchmark	Active	Active Port		to TR	to AR	to AR%	
US Swap Shift	0.24	6.49	3.38	3.11	0.00	0.26	-0.26	0.20	14.81	
US Swap Twist	0.17	-0.84	0.48	-1.31	-0.00	-0.36	0.08	0.08	6.16	
US Financials BBB	1.68	0.21	0.10	0.11	0.01	0.40	0.24	0.07	5.67	
US Consumer Discretionary CCC	7.27	0.04	0.02	0.02	0.03	0.40	0.17	0.04	3.32	
US Energy B	11.45	0.04	0.03	0.01	0.04	0.36	0.26	0.03	2.51	
US Financials Real Estate BBB	1.28	0.05	0.02	0.03	0.00	0.37	0.04	0.02	1.18	
US CCC	8.50	0.01	0.01	0.00	0.03	0.38	0.07	0.02	1.14	
US Industrials CCC	7.48	0.02	0.01	0.01	0.03	0.35	0.09	0.01	1.11	
US Swap Butterfly	0.10	-2.01	-0.92	-1.09	-0.00	-0.13	0.03	0.01	1.03	
US Energy BBB	2.75	0.06	0.04	0.01	0.01	0.36	0.11	0.01	0.96	

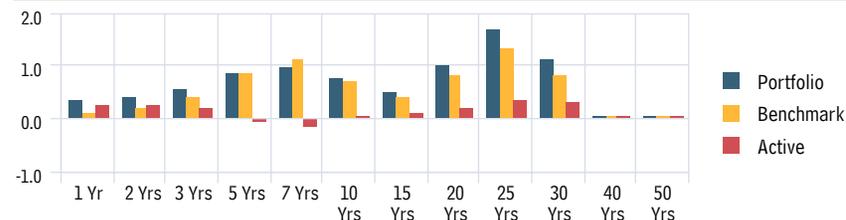
Term Structure	Top 10 Term Structure									
	Volatility	Exposure (Residual)				MCAR	Correlation		Contribution (Residual)	
		Portfolio	Benchmark	Active	Active Port		to TR	to AR	to AR%	
US Shift	0.72	6.85	5.89	0.96	0.00	0.10	1.46	0.07	5.26	
US Inflation-protected	0.83	1.11	0.93	0.18	0.00	0.33	0.70	0.05	3.74	
EUR Shift	0.52	0.03	0.00	0.03	0.00	0.17	0.01	0.00	0.21	
US Municipal Shift	1.32	0.01	0.00	0.00	0.00	0.33	0.01	0.00	0.14	
GB Shift	0.55	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.01	
EUR Butterfly	0.10	-0.01	0.00	-0.01	-0.00	-0.09	0.00	0.00	0.01	
EUR Implied Volatility	22.46	-0.00	0.00	-0.00	-0.06	-0.25	0.00	0.00	0.00	
ES Shift	0.62	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	
SE Shift	0.41	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	
CA Shift	0.63	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	

%CR to Active Risk by Duration Buckets



Key Rate Duration

	Cont. To Eff. Dur	Key Rate Duration										
		1 Yr	2 Yrs	5 Yrs	7 Yrs	10 Yrs	15 Yrs	20 Yrs	25 Yrs	30 Yrs	40 Yrs	50 Yrs
Portfolio	7.89	0.36	0.43	0.84	0.96	0.74	0.49	1.01	1.68	1.11	0.03	0.04
Benchmark	6.82	0.12	0.18	0.86	1.12	0.73	0.40	0.84	1.34	0.82	0.02	0.01
Active	1.07	0.24	0.24	-0.02	-0.16	0.01	0.09	0.18	0.34	0.29	0.01	0.03



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BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: FIXED INCOME
 BENCHMARK: Fixed Income
 POSITIONS: 9,337
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 13,362,390,575
 ACCEPTED: 9,272

Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	7.17	1.32	100.00	0.01
United States	91.06	91.14	-0.08	7.16	1.31	99.09	0.04
Canada	1.51	1.76	-0.25	13.40	0.00	0.25	0.06
Ireland	1.45	0.25	1.20	2.55	-0.03	-2.59	0.01
United Kingdom	1.42	0.97	0.44	9.52	0.01	0.64	0.05
Luxembourg	0.63	0.61	0.02	12.72	-0.00	-0.17	0.05
N/A	0.58	0.00	0.58	21.96	0.02	1.87	0.08
Netherlands	0.51	0.59	-0.08	7.39	-0.00	-0.37	0.04
Jersey	0.39	0.02	0.37	0.56	-0.01	-0.95	0.00
France	0.34	0.29	0.05	12.49	0.01	0.41	0.06
Germany	0.26	0.31	-0.05	9.76	0.01	0.50	0.03
Caymans	0.21	0.10	0.11	13.22	0.00	0.23	0.06
Switzerland	0.20	0.15	0.05	18.11	-0.00	-0.13	0.07
Mexico	0.14	0.21	-0.06	15.08	-0.00	-0.35	0.07
Japan	0.12	0.29	-0.17	10.91	0.00	0.30	0.03
Italy	0.11	0.21	-0.10	21.56	-0.00	-0.16	0.09
Bermuda	0.11	0.07	0.04	16.96	0.00	0.08	0.07
Spain	0.10	0.07	0.03	8.22	-0.00	-0.12	0.05
Australia	0.08	0.17	-0.10	13.86	-0.00	-0.01	0.04
Belgium	0.07	0.13	-0.06	18.50	-0.00	-0.16	0.07
Greece	0.06	0.00	0.06	27.09	0.00	0.33	0.11
Norway	0.06	0.07	-0.01	21.46	0.00	0.22	0.05
Indonesia	0.06	0.11	-0.05	14.89	-0.00	-0.01	0.04
Israel	0.06	0.08	-0.02	17.93	-0.00	-0.01	0.05
Denmark	0.05	0.01	0.04	28.67	0.00	0.25	0.11
Colombia	0.04	0.07	-0.03	11.36	-0.00	-0.17	0.06
Sweden	0.04	0.08	-0.04	22.75	0.00	0.15	0.03
United Arab Emirates	0.03	0.05	-0.02	8.39	-0.00	-0.09	0.04
Chile	0.03	0.03	0.00	9.30	-0.00	-0.07	0.05
Brazil	0.03	0.06	-0.03	18.51	-0.00	-0.07	0.06
Austria	0.03	0.02	0.01	47.86	0.00	0.24	0.08



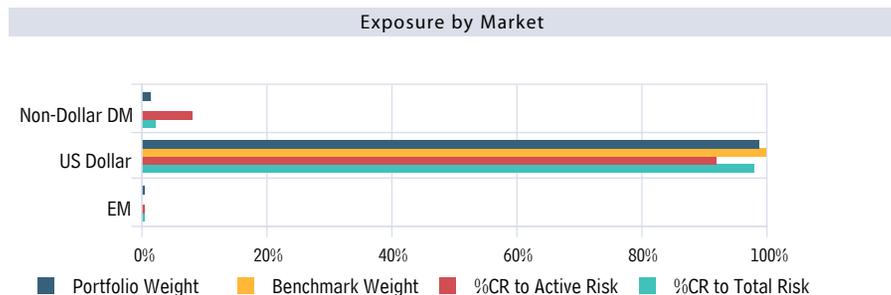
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BarraOne Fixed Income Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: FIXED INCOME
 BENCHMARK: Fixed Income
 POSITIONS: 9,337
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 13,362,390,575
 ACCEPTED: 9,272

Portfolio Allocation by Currency



Developed Market Currency				Emerging Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)	Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	13,184,935,482.89	95.27	98.06	South African Rand	828,759.46	0.05	0.01
Euro	128,599,730.64	2.71	1.36	Chinese Yuan	127,262.89	0.00	0.00
British Pound Sterling	30,794,070.55	1.08	0.30	Korean Won	481.50	-0.00	0.00
Canadian Dollar	7,019,970.69	0.52	0.16	New Taiwan Dollar	41.11	-0.00	0.00
Danish Krone	6,329,831.94	0.29	0.06	Mexican Peso	0.02	0.00	0.00

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)								
	Portfolio	Benchmark	Active	Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)	
Total	100.00	100.00	0.00	7.17	7.17	100.00	1.32	100.00	
US Dollar	98.67	100.00	-1.33	7.13	7.03	98.06	1.26	95.27	
Euro	0.96	0.00	0.96	16.30	0.10	1.36	0.04	2.71	
British Pound Sterling	0.23	0.00	0.23	21.36	0.02	0.30	0.01	1.08	
Canadian Dollar	0.05	0.00	0.05	38.04	0.01	0.16	0.01	0.52	
Danish Krone	0.05	0.00	0.05	28.67	0.00	0.06	0.00	0.29	
Swedish Krona	0.01	0.00	0.01	10.93	0.00	0.00	-0.00	-0.01	
Japanese Yen	0.01	0.00	0.01	21.06	0.00	0.01	0.00	0.03	
Norwegian Krone	0.01	0.00	0.01	72.52	0.00	0.02	0.00	0.06	
South African Rand	0.01	0.00	0.01	35.25	0.00	0.01	0.00	0.05	
Chinese Yuan	0.00	0.00	0.00	20.31	0.00	0.00	0.00	0.00	
Australian Dollar	0.00	0.00	0.00	13.78	0.00	0.00	0.00	0.00	
Korean Won	0.00	0.00	0.00	7.95	0.00	0.00	-0.00	-0.00	
Singapore Dollar	0.00	0.00	0.00	4.51	0.00	0.00	-0.00	-0.00	
New Taiwan Dollar	0.00	0.00	0.00	3.56	0.00	0.00	-0.00	-0.00	
Mexican Peso	0.00	0.00	0.00	17.06	0.00	0.00	0.00	0.00	



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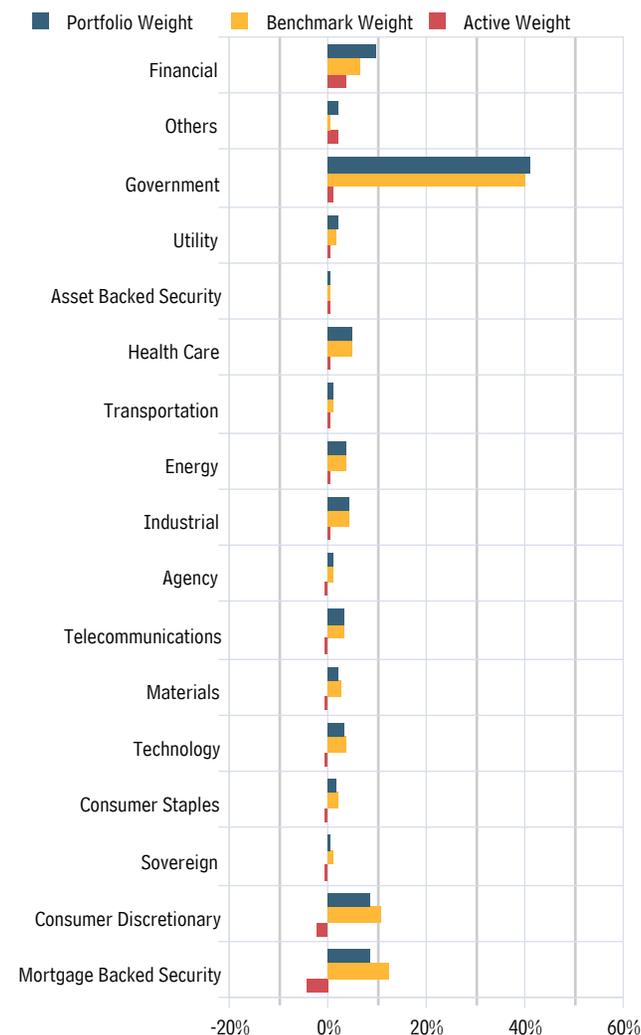
BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: FIXED INCOME
 BENCHMARK: Fixed Income
 POSITIONS: 9,337
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 13,362,390,575
 ACCEPTED: 9,272

Portfolio Allocation by Bond Sector

Sector	Weight (%)			Cont. To Eff. Dur	Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	7.89	7.17	1.32	100.00	0.01
Government	41.10	40.00	1.10	4.53	8.15	0.04	3.12	0.01
Financial	9.98	6.46	3.52	0.42	9.48	0.07	5.63	0.05
Consumer Discretionary	8.83	10.84	-2.01	0.31	11.70	0.03	2.27	0.05
Mortgage Backed Security	8.47	12.60	-4.13	0.28	3.39	0.10	7.24	0.01
Health Care	5.01	4.65	0.37	0.24	10.49	0.04	2.94	0.05
Industrial	4.13	4.08	0.05	0.13	10.97	0.02	1.67	0.05
Energy	3.85	3.74	0.11	0.20	26.32	0.00	0.26	0.10
Technology	3.34	3.94	-0.60	0.16	12.52	0.03	2.53	0.05
Telecommunications	3.05	3.36	-0.31	0.13	10.04	-0.00	-0.02	0.05
Materials	2.41	2.72	-0.31	0.09	13.56	-0.00	-0.27	0.06
Utility	2.38	1.60	0.78	0.11	16.46	0.10	7.57	0.08
Others	2.15	0.01	2.14	0.03	49.26	0.65	48.90	0.05
Consumer Staples	1.56	2.20	-0.64	0.10	11.19	-0.01	-0.62	0.05
Transportation	1.10	0.88	0.21	0.05	14.86	0.01	0.55	0.06
Agency	1.09	1.18	-0.09	0.09	6.86	0.00	0.16	0.01
Asset Backed Security	0.75	0.08	0.66	0.03	7.26	-0.01	-0.54	0.02
Commercial Mortgage Backed	0.33	0.07	0.26	0.01	6.18	-0.00	-0.17	0.02
Local/Provincial	0.22	0.22	-0.00	0.02	14.14	0.01	0.39	0.03
Sovereign	0.18	0.93	-0.75	0.01	11.38	-0.01	-0.95	0.05
Collateralized Loan Obligat	0.07	0.00	0.07	0.92	1,098.79	0.25	18.73	3.78
Collateralized Debt Obligat	0.01	0.00	0.01	0.00	31.75	-0.00	-0.00	0.03



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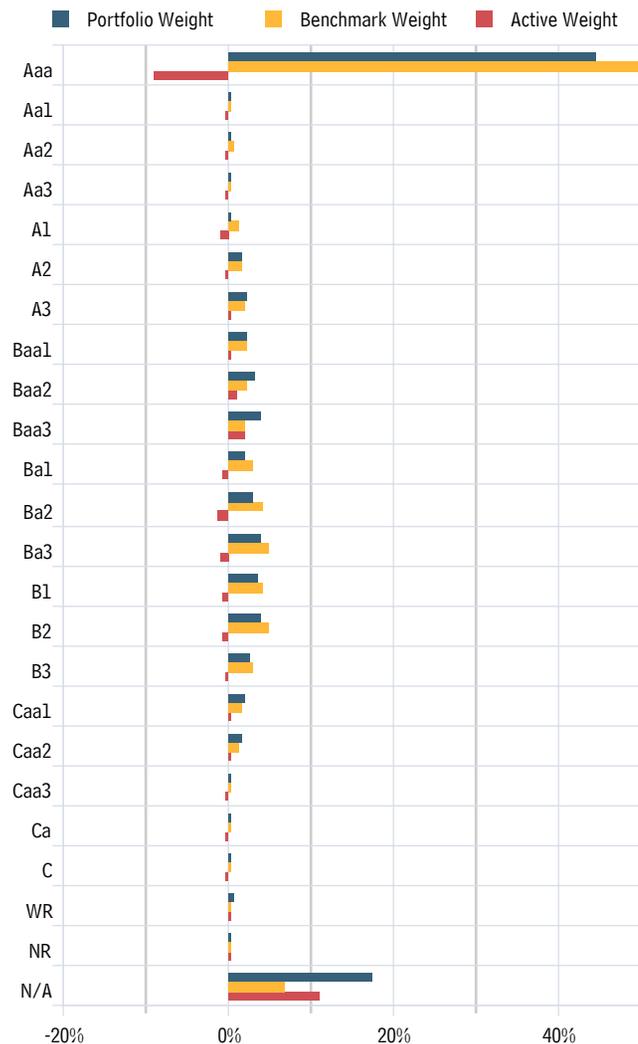
BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: FIXED INCOME
 BENCHMARK: Fixed Income
 POSITIONS: 9,337
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 13,362,390,575
 ACCEPTED: 9,272

Portfolio Allocation by Moody's Rating

Rating	Weight (%)			Cont. To Eff. Dur	Spread Duration	Total Risk	Active Risk CR	%CR to Active TR
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	7.89	7.75	7.17	1.32	100.00
Aaa	44.58	53.55	-8.97	4.70	10.89	7.63	0.32	24.00
Aa1	0.28	0.28	-0.00	0.02	8.17	10.95	0.00	0.32
Aa2	0.20	0.53	-0.34	0.02	12.38	13.21	0.00	0.32
Aa3	0.34	0.48	-0.14	0.04	12.25	13.11	0.01	0.40
A1	0.41	1.28	-0.87	0.05	11.08	11.48	0.00	0.16
A2	1.62	1.68	-0.06	0.13	8.22	9.75	0.01	1.11
A3	2.15	1.90	0.25	0.19	8.90	10.58	0.01	1.05
Baa1	2.10	2.10	0.00	0.15	7.30	11.04	-0.01	-0.79
Baa2	3.25	2.39	0.86	0.28	8.78	12.41	0.05	3.43
Baa3	3.91	1.93	1.97	0.23	6.37	12.24	0.07	5.59
Ba1	2.09	2.77	-0.68	0.10	5.19	14.13	-0.01	-1.01
Ba2	2.85	4.04	-1.18	0.11	4.22	13.51	-0.04	-3.23
Ba3	3.88	4.81	-0.93	0.13	3.82	11.01	0.00	0.35
B1	3.57	4.15	-0.58	0.11	3.78	15.13	-0.00	-0.09
B2	4.03	4.82	-0.79	0.10	3.22	12.52	0.01	0.57
B3	2.66	2.79	-0.13	0.07	3.10	13.90	-0.00	-0.13
Caa1	1.80	1.54	0.26	0.05	3.20	23.54	0.04	3.07
Caa2	1.52	1.24	0.28	0.04	3.10	24.44	0.03	2.59
Caa3	0.28	0.38	-0.10	0.01	2.32	16.46	-0.01	-0.60
Ca	0.14	0.15	-0.01	0.00	2.22	19.19	-0.00	-0.01
C	0.01	0.03	-0.01	0.00	6.14	20.08	-0.00	-0.07
WR	0.68	0.46	0.21	0.02	2.59	7.17	0.00	0.36
NR	0.11	0.02	0.09	0.92	92.95	630.96	0.25	18.69
Not Rated	17.55	6.67	10.88	0.41	3.33	9.96	0.58	43.92



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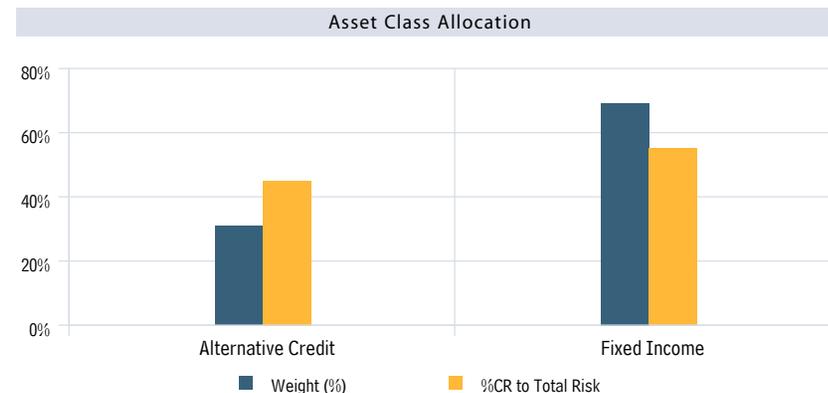
BarraOne Fixed Income Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Public
 BENCHMARK: Fixed Income
 POSITIONS: 9,317
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 11,870,583,290
 ACCEPTED: 9,252

Total Plan Summary

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	6.87	Total	11,870,583,290	100.00	6.87	6.87	100.00
Benchmark Risk	6.41	Alternative Credit	3,650,231,533	30.75	13.94	3.08	44.76
Active Risk	0.93	Fixed Income	8,220,351,757	69.25	6.97	3.80	55.24
Portfolio Beta	1.06						
Cont. to Eff. Duration	7.67						
Convexity	1.03						
Yield to Worst (%)	1.74						
OAS to Swap (bp)	162.63						



Risk Factor Breakdown

Risk Source	Portfolio			Active		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	6.87	100.00	1.00	0.93	100.00	1.00
Local Market Risk	6.87	100.00	1.00	0.93	100.00	1.00
Common Factor Risk	6.86	99.79	1.00	0.80	85.55	0.92
Equity	0.56	8.19	0.53	0.19	20.38	0.41
Style	0.07	1.02	0.38	0.11	12.10	0.29
Industry	0.49	7.16	0.53	0.08	8.28	0.39
Fixed Income	6.30	91.61	0.99	0.61	65.17	0.78
Nominal Rates	2.25	32.76	0.45	0.39	42.01	0.71
Real Rates	0.78	11.35	0.80	0.14	15.10	0.54
Credit	3.26	47.50	0.62	0.08	8.06	0.38
Selection Risk	0.01	0.20	0.05	0.13	14.45	0.38



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BarraOne Fixed Income Summary

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 PORTFOLIO: Public
 BENCHMARK: Fixed Income
 POSITIONS: 9,317
 MODEL: BIM303L

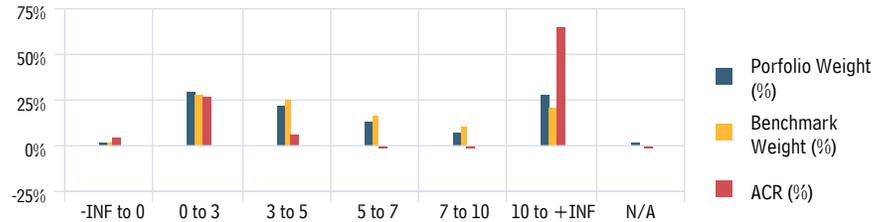
CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 11,870,583,290
 ACCEPTED: 9,252

Portfolio by Factor Breakdowns

Top 10 Spread Factor									
Spread Factor	Volatility	Exposure (Residual)				Correlation	Contribution (Residual)		
		Portfolio	Benchmark	Active	MCAR		Active Port	to TR	to AR
US Financials BBB	1.68	0.23	0.10	0.14	0.00	0.10	0.25	0.02	2.44
US Health Care BBB	1.23	0.11	0.06	0.04	0.00	0.15	0.09	0.01	0.87
US Consumer Discretionary B	4.04	0.10	0.12	-0.02	-0.00	-0.08	0.22	0.01	0.67
US Utilities BBB	1.23	0.06	0.03	0.03	0.00	0.15	0.05	0.00	0.50
US Agency	0.33	0.10	0.06	0.04	0.00	0.34	0.02	0.00	0.48
US Energy BBB	2.75	0.06	0.04	0.02	0.00	0.08	0.12	0.00	0.45
US Technology BBB	1.77	0.04	0.02	0.02	0.00	0.11	0.05	0.00	0.39
US Health Care A	0.97	0.06	0.04	0.02	0.00	0.18	0.04	0.00	0.37
US Financials Real Estate BBB	1.28	0.05	0.02	0.04	0.00	0.07	0.04	0.00	0.37
US Consumer Discretionary A	1.18	0.06	0.05	0.02	0.00	0.17	0.05	0.00	0.37

Top 10 Term Structure									
Term Structure	Volatility	Exposure (Residual)				Correlation	Contribution (Residual)		
		Portfolio	Benchmark	Active	MCAR		Active Port	to TR	to AR
US Shift	0.72	6.43	5.89	0.53	0.00	0.60	1.71	0.23	24.60
US Twist	0.24	3.90	2.76	1.14	0.00	0.61	0.53	0.17	17.92
US Inflation-protected	0.83	1.25	0.93	0.32	0.00	0.49	0.82	0.13	14.11
US Inflation-protected	0.51	0.43	0.37	0.06	0.00	0.20	-0.05	0.01	0.67
US Inflation-protected	0.19	-0.30	-0.17	-0.13	-0.00	-0.12	0.01	0.00	0.32
US Municipal Shift	1.32	0.01	0.00	0.01	0.01	0.40	0.01	0.00	0.29
US Municipal Twist	0.38	0.01	0.00	0.00	0.00	0.34	0.00	0.00	0.06
US Municipal Butterfly	0.22	-0.00	-0.00	-0.00	0.00	0.04	-0.00	-0.00	-0.00
US Implied Volatility	26.22	-0.00	-0.00	0.00	-0.01	-0.06	0.04	-0.00	-0.11
US Butterfly	0.13	1.43	0.00	1.43	-0.00	-0.04	-0.04	-0.01	-0.76

%CR to Active Risk by Duration Buckets



Key Rate Duration



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BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: Public
 BENCHMARK: Fixed Income
 POSITIONS: 9,317
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 11,870,583,290
 ACCEPTED: 9,252

Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	6.87	0.93	100.00	0.01
United States	92.18	91.14	1.04	6.92	0.92	97.99	0.02
Ireland	1.60	0.25	1.35	2.26	-0.03	-3.72	0.00
Canada	1.49	1.76	-0.27	12.29	-0.00	-0.04	0.01
United Kingdom	1.24	0.97	0.26	8.51	-0.00	-0.33	0.02
Luxembourg	0.55	0.61	-0.06	14.88	0.00	0.13	0.00
Netherlands	0.44	0.59	-0.15	7.90	-0.00	-0.16	0.01
Jersey	0.42	0.02	0.41	0.00	-0.01	-1.21	-0.00
France	0.31	0.29	0.03	13.19	0.01	0.55	0.03
Germany	0.26	0.31	-0.05	9.68	0.00	0.17	0.01
Switzerland	0.19	0.15	0.04	17.05	-0.00	-0.05	0.02
Mexico	0.16	0.21	-0.04	15.08	-0.00	-0.02	0.03
Japan	0.12	0.29	-0.16	11.00	0.00	0.45	0.03
Caymans	0.12	0.10	0.02	15.17	-0.00	-0.11	0.00
Bermuda	0.11	0.07	0.05	16.25	-0.00	-0.18	0.01
Spain	0.10	0.07	0.03	8.15	-0.00	-0.06	0.03
Australia	0.08	0.17	-0.10	14.35	0.00	0.04	0.01
Belgium	0.08	0.13	-0.06	18.50	-0.00	-0.20	0.07
Indonesia	0.06	0.11	-0.04	15.09	0.00	0.04	0.03
Italy	0.06	0.21	-0.16	23.05	0.00	0.07	0.03
Norway	0.06	0.07	-0.01	20.15	0.00	0.34	0.06
Colombia	0.05	0.07	-0.02	11.36	-0.00	-0.09	0.03
Israel	0.04	0.08	-0.04	13.62	0.00	0.25	-0.00
Chile	0.04	0.03	0.01	9.30	-0.00	-0.08	0.03
S. Korea	0.03	0.05	-0.01	4.65	-0.00	-0.00	0.02
United Arab Emirates	0.03	0.05	-0.02	7.59	-0.00	-0.08	0.02
Panama	0.03	0.06	-0.03	9.77	0.00	0.01	0.02
New Zealand	0.02	0.04	-0.02	7.13	0.00	0.06	-0.00
India	0.02	0.02	-0.00	26.09	-0.00	-0.01	0.01
Macao	0.02	0.07	-0.05	16.85	0.00	0.09	0.01
Venezuela	0.01	0.00	0.01	22.08	-0.00	-0.04	0.01



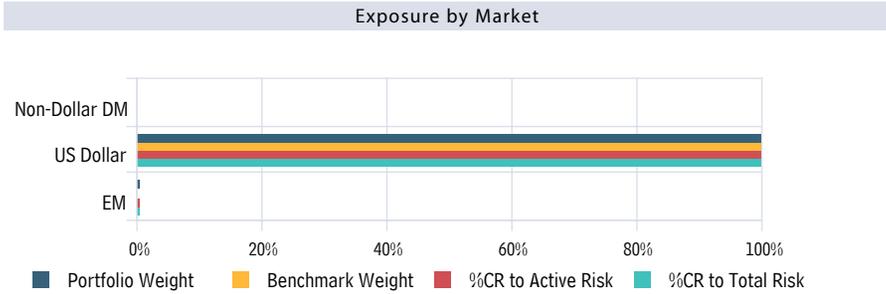
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BarraOne Fixed Income Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Public
 BENCHMARK: Fixed Income
 POSITIONS: 9,317
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 11,870,583,290
 ACCEPTED: 9,252

Portfolio Allocation by Currency



Developed Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	11,870,582,767.36	100.00	100.00
Swiss Franc	0.00	0.00	0.00
Danish Krone	0.00	0.00	0.00
Euro	0.00	0.00	0.00

Emerging Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
Korean Won	481.50	-0.00	0.00
New Taiwan Dollar	41.11	-0.00	0.00

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)			Active	Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)
	Portfolio	Benchmark	Active						
Total	100.00	100.00	0.00	6.87	6.87	100.00	0.93	100.00	
US Dollar	100.00	100.00	-0.00	6.87	6.87	100.00	0.93	100.00	
Korean Won	0.00	0.00	0.00	7.95	0.00	0.00	-0.00	-0.00	
New Taiwan Dollar	0.00	0.00	0.00	3.56	0.00	0.00	-0.00	-0.00	
Swiss Franc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Danish Krone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Euro	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	



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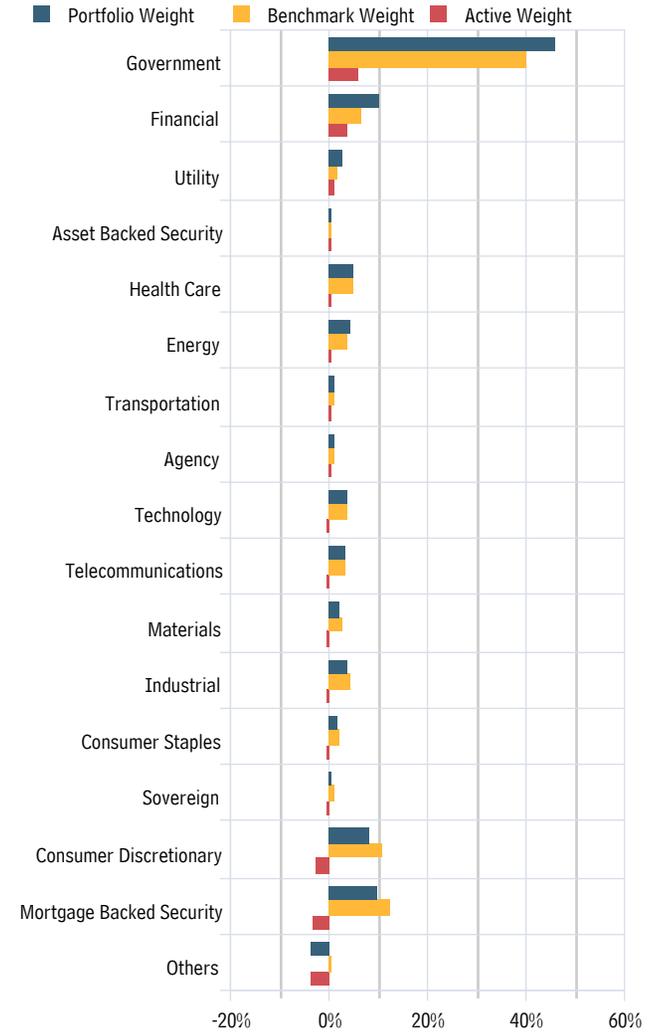
BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE
 PORTFOLIO: Public
 BENCHMARK: Fixed Income
 POSITIONS: 9,317
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 11,870,583,290
 ACCEPTED: 9,252

Portfolio Allocation by Bond Sector

Sector	Weight (%)			Cont. To Eff. Dur	Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	7.67	6.87	0.93	100.00	0.01
Government	46.18	40.00	6.18	5.10	8.16	0.29	31.15	0.04
Financial	10.25	6.46	3.79	0.46	9.63	0.01	0.58	0.03
Mortgage Backed Security	9.51	12.60	-3.10	0.31	3.39	0.05	5.88	0.01
Consumer Discretionary	8.18	10.84	-2.66	0.32	11.86	0.25	26.31	-0.00
Health Care	5.11	4.65	0.46	0.26	10.80	0.05	5.58	0.02
Energy	4.08	3.74	0.34	0.22	26.07	0.01	1.44	0.03
Technology	3.68	3.94	-0.26	0.18	12.44	0.08	8.76	0.00
Industrial	3.60	4.08	-0.48	0.12	11.29	0.01	0.89	0.01
Telecommunications	3.03	3.36	-0.33	0.13	10.49	0.02	1.61	0.02
Utility	2.53	1.60	0.93	0.12	17.28	0.05	5.55	0.06
Materials	2.39	2.72	-0.33	0.09	13.90	0.01	0.66	0.01
Consumer Staples	1.61	2.20	-0.59	0.11	11.56	0.01	1.06	0.03
Agency	1.23	1.18	0.05	0.10	6.87	0.01	1.50	0.03
Transportation	1.11	0.88	0.22	0.06	15.73	0.00	0.29	0.03
Asset Backed Security	0.79	0.08	0.71	0.03	7.10	-0.02	-2.60	-0.00
Commercial Mortgage Backed	0.32	0.07	0.25	0.01	6.00	-0.01	-0.73	0.00
Local/Provincial	0.23	0.22	0.01	0.02	14.50	-0.00	-0.01	0.03
Sovereign	0.19	0.93	-0.73	0.02	11.12	-0.00	-0.20	0.03
Others	-4.02	0.01	-4.02	0.00	0.06	0.11	12.29	0.00



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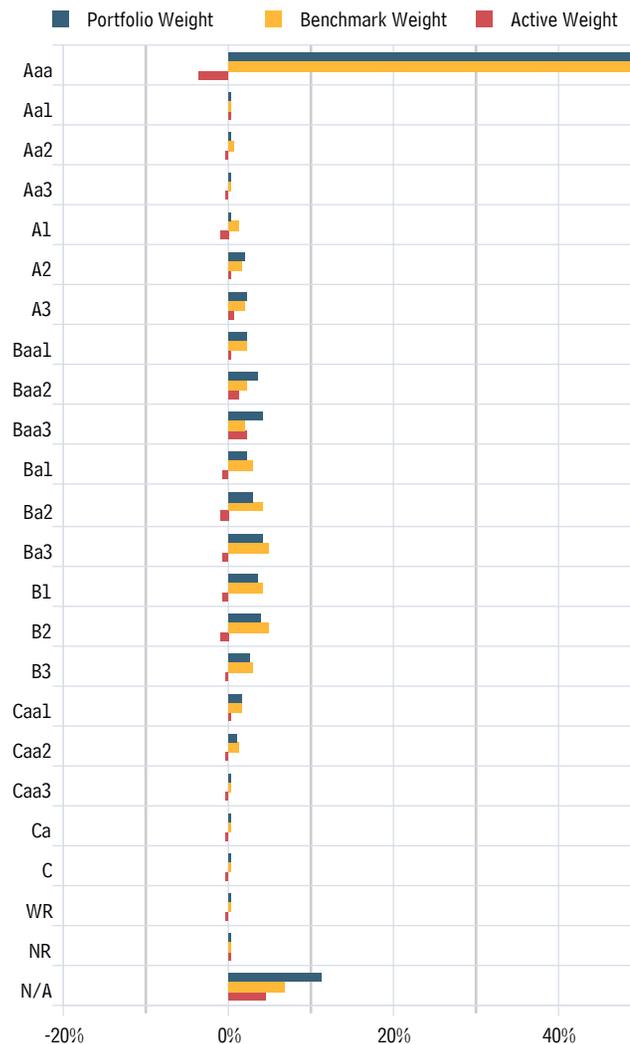
BarraOne Fixed Income Summary

COMPANY: NYCRC - POLICE
 PORTFOLIO: Public
 BENCHMARK: Fixed Income
 POSITIONS: 9,317
 MODEL: BIM303L

CURRENCY: USD
 ANALYSIS DATE: June 30, 2020
 MARKET VALUE: 11,870,583,290
 ACCEPTED: 9,252

Portfolio Allocation by Moody's Rating

Rating	Weight (%)			Cont. To Eff. Dur	Spread Duration	Total Risk	Active Risk CR	%CR to Active TR
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	7.67	8.01	6.87	0.93	100.00
Aaa	50.15	53.55	-3.41	5.29	10.90	7.64	0.46	49.35
Aa1	0.31	0.28	0.03	0.03	8.18	10.96	0.00	0.36
Aa2	0.22	0.53	-0.31	0.03	12.42	13.28	0.00	0.23
Aa3	0.38	0.48	-0.10	0.05	12.28	13.16	0.01	1.05
A1	0.47	1.28	-0.81	0.05	11.08	11.48	0.00	0.03
A2	1.82	1.68	0.14	0.15	8.22	9.75	0.01	0.58
A3	2.39	1.90	0.49	0.21	8.82	10.56	0.02	1.64
Baa1	2.36	2.10	0.27	0.17	7.30	11.04	-0.02	-1.86
Baa2	3.64	2.39	1.25	0.32	8.79	12.43	0.04	4.73
Baa3	4.25	1.93	2.32	0.25	6.38	12.32	0.04	4.37
Ba1	2.22	2.77	-0.55	0.10	5.23	14.20	0.02	1.72
Ba2	2.91	4.04	-1.12	0.11	4.23	13.32	0.03	2.80
Ba3	4.14	4.81	-0.67	0.14	3.80	10.86	0.02	2.26
B1	3.57	4.15	-0.59	0.11	3.83	15.22	0.02	2.07
B2	4.00	4.82	-0.82	0.11	3.30	12.92	0.03	3.21
B3	2.69	2.79	-0.10	0.07	3.11	14.22	0.00	0.31
Caa1	1.62	1.54	0.08	0.05	3.27	24.65	0.00	0.18
Caa2	0.98	1.24	-0.26	0.03	3.09	26.50	0.01	1.43
Caa3	0.21	0.38	-0.17	0.01	2.47	19.37	0.01	0.63
Ca	0.03	0.15	-0.12	0.00	2.02	16.16	0.00	0.45
C	0.00	0.03	-0.02	0.00	1.18	14.13	0.00	0.10
WR	0.40	0.46	-0.06	0.01	2.51	6.25	0.00	0.18
NR	0.07	0.02	0.05	0.00	2.63	12.84	-0.00	-0.24
Not Rated	11.16	6.67	4.50	0.39	3.75	7.87	0.23	24.43



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BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE

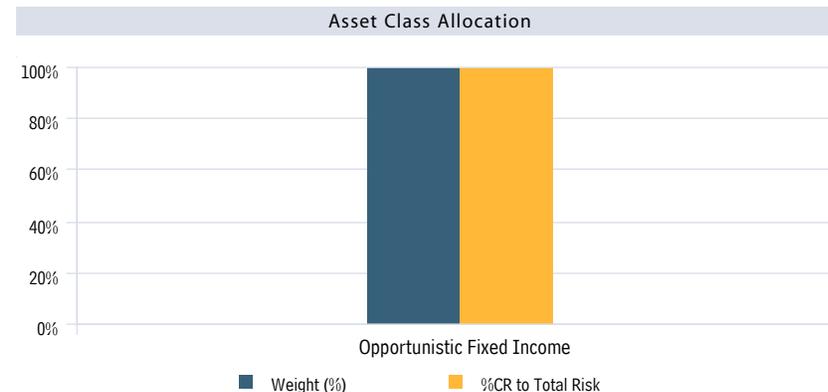
CURRENCY: USD

Total Plan Summary

POSITIONS: 20
MODEL: BIM303L

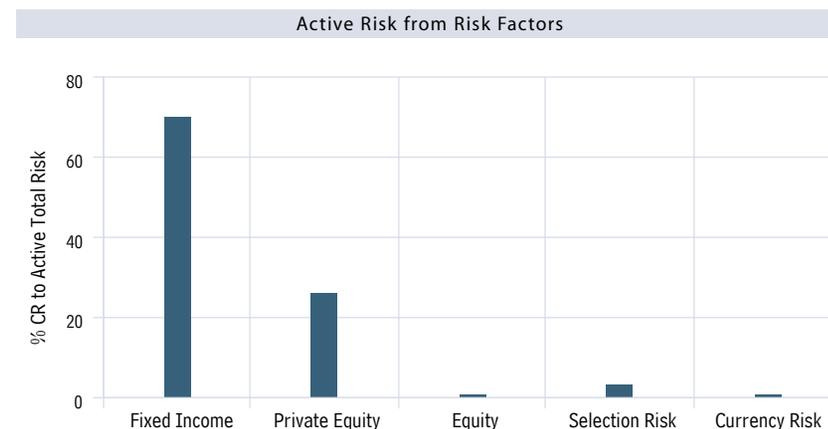
ACCEPTED: 20

Risk Summary		Asset Class Contribution to Risk					
Statistic	Value	Asset Class	Mkt Value	Weight (%)	Total Risk	Risk Contribution	%CR to TR
Total Risk	13.41	Total	1,491,807,285	100.00	13.41	13.41	100.00
Benchmark Risk	11.86	Opportunistic Fixed Income	1,491,807,285	100.00	13.41	13.41	100.00
Active Risk	9.29						
Portfolio Beta	0.83						
Cont. to Eff. Duration	10.28						
Convexity	-9.14						
Yield to Worst (%)	10.49						
OAS to Swap (bp)	951.40						



Risk Factor Breakdown

Risk Source	Portfolio			Active		
	Risk Contribution	% Risk	Correlation	Risk Contribution	% Risk	Correlation
Total Risk	13.41	100.00	1.00	9.29	100.00	1.00
Local Market Risk	13.23	98.64	1.00	9.28	99.84	1.00
Common Factor Risk	13.03	97.15	0.99	8.97	96.54	0.98
Equity	3.24	24.13	0.66	0.04	0.42	0.01
Style	1.36	10.17	0.47	0.25	2.70	0.09
Industry	1.87	13.96	0.61	-0.21	-2.27	-0.07
Fixed Income	8.08	60.27	0.86	6.51	70.10	0.70
Nominal Rates	-0.92	-6.82	-0.13	1.91	20.52	0.37
Credit	9.00	67.10	0.80	4.61	49.58	0.64
Private Real Estate	0.03	0.25	0.50	0.00	0.00	0.01
Private Equity	1.68	12.49	0.35	2.42	26.02	0.51
Selection Risk	0.20	1.49	0.12	0.31	3.29	0.18
Currency Risk	0.18	1.36	0.31	0.02	0.16	0.03



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BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE

CURRENCY: USD

POSITIONS: 20
MODEL: BIM303L

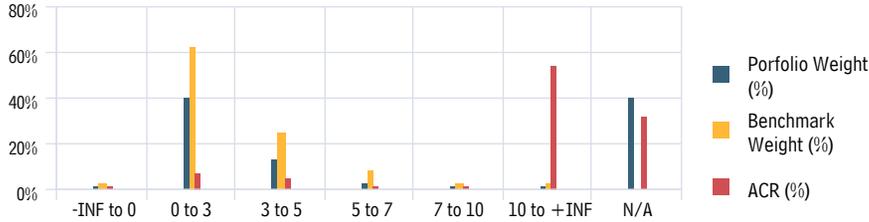
ACCEPTED: 20

Portfolio by Factor Breakdowns

Spread Factor	Volatility	Top 10 Spread Factor								
		Exposure (Residual)				Correlation	Contribution (Residual)			
		Portfolio	Benchmark	Active	MCAR	Active Port	to TR	to AR	to AR%	
US Swap Shift	0.24	29.93	3.14	26.79	0.00	0.56	2.12	3.61	38.83	
US Consumer Discretionary B	4.04	0.21	0.45	-0.23	-0.01	-0.27	0.57	0.26	2.78	
US Energy BB	4.62	0.10	0.22	-0.12	-0.01	-0.25	0.31	0.14	1.48	
US Materials B	5.21	0.05	0.12	-0.07	-0.01	-0.27	0.15	0.10	1.12	
US Industrials B	3.65	0.11	0.20	-0.09	-0.01	-0.30	0.25	0.10	1.12	
US Consumer Discretionary BB	2.83	0.09	0.21	-0.12	-0.01	-0.27	0.17	0.09	0.97	
US Financials B	4.73	0.08	0.17	-0.09	-0.01	-0.21	0.24	0.09	0.92	
US Telecom BB	2.63	0.08	0.19	-0.12	-0.01	-0.26	0.13	0.08	0.86	
US Industrials BB	3.00	0.04	0.13	-0.09	-0.01	-0.29	0.08	0.08	0.81	
US Health Care B	3.75	0.07	0.14	-0.07	-0.01	-0.28	0.15	0.07	0.78	

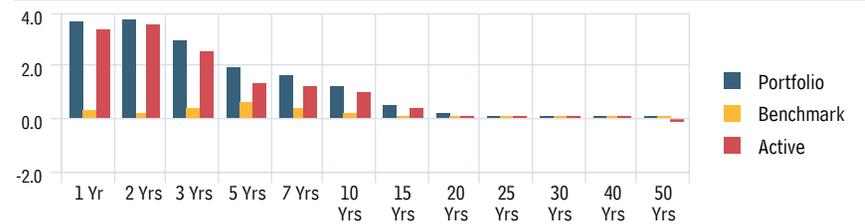
Term Structure	Volatility	Top 10 Term Structure								
		Exposure (Residual)				Correlation	Contribution (Residual)			
		Portfolio	Benchmark	Active	MCAR	Active Port	to TR	to AR	to AR%	
US Shift	0.72	10.26	2.45	7.80	0.00	0.34	-0.71	1.92	20.63	
EUR Shift	0.52	0.28	0.00	0.28	0.00	0.20	0.00	0.03	0.32	
GB Shift	0.55	0.01	0.00	0.01	0.00	0.18	-0.00	0.00	0.01	
CA Shift	0.63	0.00	0.00	0.00	0.00	0.30	-0.00	0.00	0.00	
EUR Butterfly	0.10	-0.07	0.00	-0.07	-0.00	-0.05	0.00	0.00	0.00	
GB Twist	0.24	-0.01	0.00	-0.01	-0.00	-0.04	-0.00	0.00	0.00	
SE Shift	0.41	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	
ES Shift	0.62	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	
US Municipal Shift	1.32	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	
EUR Implied Volatility	22.46	-0.00	0.00	-0.00	-0.00	-0.02	0.00	0.00	0.00	

%CR to Active Risk by Duration Buckets



Key Rate Duration

	Cont. To Eff. Dur	Key Rate Duration										
		1 Yr	2 Yrs	5 Yrs	7 Yrs	10 Yrs	15 Yrs	20 Yrs	25 Yrs	30 Yrs	40 Yrs	50 Yrs
Portfolio	9.60	3.67	3.80	1.95	1.66	1.24	0.47	0.17	0.11	0.14	0.00	0.00
Benchmark	2.45	0.29	0.22	0.61	0.45	0.21	0.08	0.07	0.06	0.02	0.00	0.00
Active	7.16	3.38	3.59	1.34	1.21	1.02	0.39	0.10	0.05	0.12	0.00	-0.00



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BarraOne Fixed Income Summary

COMPANY: NYCRC - POLICE

POSITIONS: 20
MODEL: BIM303L

Top 30 Countries by Weight%

Country of Exposure	Weight (%)			Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active				
Total	100.00	100.00	0.00	13.41	9.29	100.00	0.09
United States	82.17	86.00	-3.83	14.06	8.83	95.03	0.03
N/A	5.18	0.00	5.18	21.96	0.03	0.28	-0.02
United Kingdom	2.84	1.62	1.23	17.47	0.12	1.29	0.00
Canada	1.72	4.10	-2.38	23.57	-0.00	-0.01	-0.03
Luxembourg	1.25	2.36	-1.11	8.76	0.03	0.28	-0.01
Netherlands	1.06	1.49	-0.43	11.18	0.02	0.18	-0.01
Caymans	0.94	0.30	0.64	18.76	0.08	0.88	0.04
France	0.58	0.61	-0.03	13.72	0.00	0.03	-0.01
Italy	0.56	0.49	0.07	29.49	0.05	0.50	0.02
Greece	0.51	0.00	0.51	27.09	0.04	0.38	0.04
Denmark	0.42	0.03	0.40	28.67	0.04	0.41	0.06
Ireland	0.30	0.53	-0.24	26.07	0.01	0.15	-0.01
Germany	0.27	0.42	-0.14	18.92	0.01	0.10	0.00
Austria	0.26	0.02	0.24	52.34	-0.00	-0.02	-0.03
Sweden	0.25	0.07	0.17	29.03	0.00	0.00	-0.02
Euro. Monetary Union	0.24	0.00	0.24	39.57	0.02	0.20	0.01
Switzerland	0.24	0.22	0.02	32.62	0.01	0.07	-0.08
Brazil	0.23	0.09	0.15	20.53	0.01	0.08	0.00
Israel	0.18	0.02	0.16	26.03	0.00	0.01	-0.02
Puerto Rico	0.16	0.00	0.16	30.85	0.03	0.33	0.16
Jersey	0.11	0.05	0.06	16.86	-0.00	-0.01	0.00
Japan	0.09	0.00	0.09	21.06	0.00	0.05	0.02
Australia	0.07	0.40	-0.32	14.09	-0.00	-0.01	-0.02
Spain	0.07	0.06	0.01	25.74	0.00	0.02	-0.02
Norway	0.06	0.05	0.01	75.08	-0.00	-0.02	-0.03
South Africa	0.06	0.00	0.06	35.25	0.00	0.05	0.05
Bermuda	0.05	0.06	-0.01	45.62	0.00	0.01	-0.08
United Arab Emirates	0.05	0.00	0.05	14.04	0.00	0.01	0.00
Argentina	0.04	0.00	0.04	46.69	-0.00	-0.02	-0.08
Indonesia	0.01	0.00	0.01	12.81	0.00	0.00	-0.02



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BarraOne Fixed Income Summary

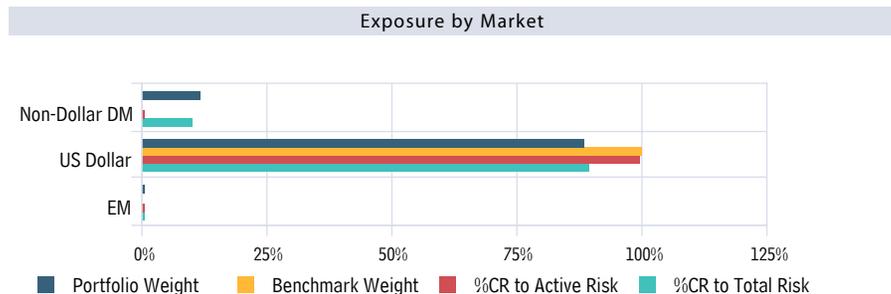
COMPANY: NYCRS - POLICE

CURRENCY: USD

POSITIONS: 20
MODEL: BIM303L

ACCEPTED: 20

Portfolio Allocation by Currency



Developed Market Currency				Emerging Market Currency			
Top Five	Exposure \$	CR to AR (%)	CR to TR (%)	Top Five	Exposure \$	CR to AR (%)	CR to TR (%)
US Dollar	1,314,352,715.53	96.18	89.60	South African Rand	828,759.46	0.05	0.07
Euro	128,599,730.64	2.04	6.96	Chinese Yuan	127,262.89	0.00	0.01
British Pound Sterling	30,794,070.55	1.16	1.89	Mexican Peso	0.02	0.00	0.00
Canadian Dollar	7,019,970.69	0.10	0.84				
Danish Krone	6,329,831.94	0.40	0.42				

Top 15 Currencies by Weight%

Currency of Exposure	Weight (%)			Total Risk	CR to TR	CR to TR (%)	CR to AR	CR to AR (%)
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	13.41	13.41	100.00	9.29	100.00
US Dollar	88.10	100.00	-11.90	13.74	12.02	89.60	8.94	96.18
Euro	8.62	0.00	8.62	16.30	0.93	6.96	0.19	2.04
British Pound Sterling	2.06	0.00	2.06	21.36	0.25	1.89	0.11	1.16
Canadian Dollar	0.47	0.00	0.47	38.04	0.11	0.84	0.01	0.10
Danish Krone	0.42	0.00	0.42	28.67	0.06	0.42	0.04	0.40
Swedish Krona	0.10	0.00	0.10	10.93	0.00	0.02	0.00	0.03
Japanese Yen	0.09	0.00	0.09	21.06	0.01	0.06	0.00	0.05
Norwegian Krone	0.06	0.00	0.06	72.52	0.01	0.10	-0.00	-0.01
South African Rand	0.06	0.00	0.06	35.25	0.01	0.07	0.00	0.05
Chinese Yuan	0.01	0.00	0.01	20.31	0.00	0.01	0.00	0.00
Australian Dollar	0.00	0.00	0.00	13.78	0.00	0.00	0.00	0.00
Singapore Dollar	0.00	0.00	0.00	4.51	0.00	0.00	0.00	0.00
Mexican Peso	0.00	0.00	0.00	17.06	0.00	0.00	0.00	0.00
Swiss Franc	-0.00	0.00	-0.00	6.89	-0.00	-0.00	-0.00	-0.00



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BarraOne Fixed Income Summary

COMPANY: NYCRS - POLICE

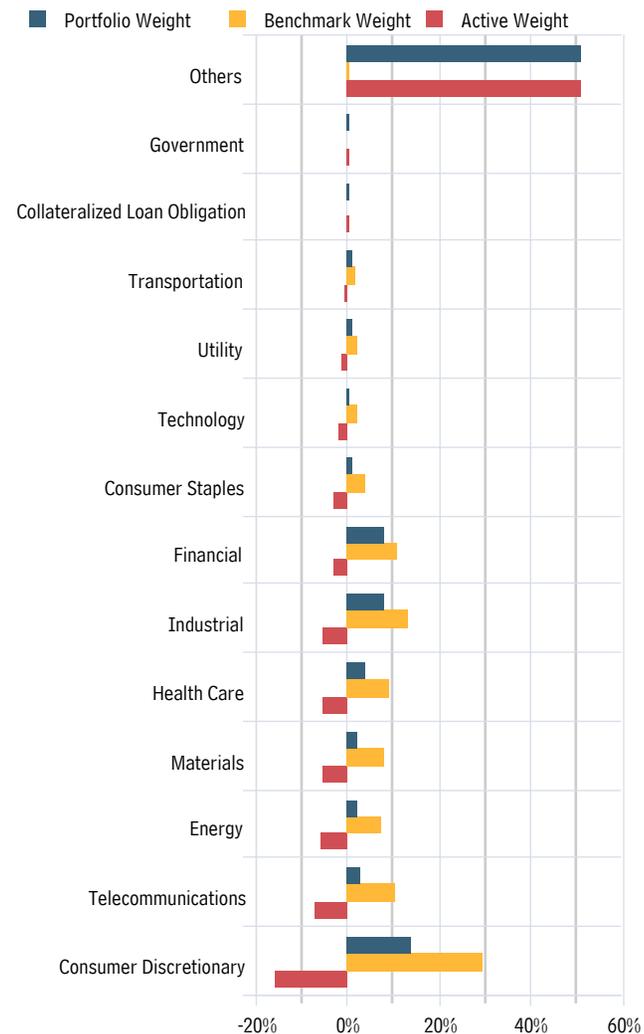
CURRENCY: USD

POSITIONS: 20
MODEL: BIM303L

ACCEPTED: 20

Portfolio Allocation by Bond Sector

Sector	Weight (%)			Cont. To Eff. Dur	Total Risk	Active Risk CR	%CR to Active TR	MC to Active TR
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	9.60	13.41	9.29	100.00	0.09
Others	51.22	0.04	51.18	0.21	18.53	3.36	36.15	0.03
Consumer Discretionary	13.98	29.59	-15.60	0.26	11.63	0.05	0.58	-0.02
Industrial	8.31	13.26	-4.96	0.18	10.99	0.15	1.57	-0.02
Financial	7.87	11.04	-3.17	0.12	15.24	0.30	3.28	-0.00
Health Care	4.24	9.54	-5.31	0.09	9.08	0.04	0.40	-0.02
Telecommunications	3.16	10.26	-7.10	0.08	9.35	0.06	0.62	-0.01
Materials	2.56	7.98	-5.42	0.07	13.11	0.04	0.40	-0.02
Energy	2.04	7.57	-5.53	0.08	31.62	0.20	2.14	-0.06
Utility	1.18	2.24	-1.06	0.07	7.49	0.05	0.50	-0.00
Consumer Staples	1.16	3.95	-2.79	0.03	8.63	0.01	0.08	-0.02
Transportation	1.01	1.88	-0.86	0.02	10.89	0.05	0.50	-0.02
Government	0.72	0.00	0.72	0.02	2.74	0.03	0.27	0.02
Technology	0.61	2.50	-1.89	0.02	20.95	-0.01	-0.11	-0.02
Collateralized Loan Obligat	0.59	0.00	0.59	8.28	1,098.79	4.88	52.51	8.22
Commercial Mortgage Backed	0.45	0.00	0.45	0.02	8.38	0.03	0.37	0.05
Asset Backed Security	0.36	0.01	0.36	0.01	10.20	0.03	0.34	0.06
Mortgage Backed Security	0.24	0.00	0.24	0.01	3.46	0.01	0.10	0.01
Local/Provincial	0.17	0.11	0.06	0.02	29.07	0.02	0.22	0.12
Collateralized Debt Obligat	0.08	0.00	0.08	0.01	31.75	0.01	0.10	0.10
Sovereign	0.03	0.01	0.02	0.00	50.35	-0.00	-0.02	-0.08



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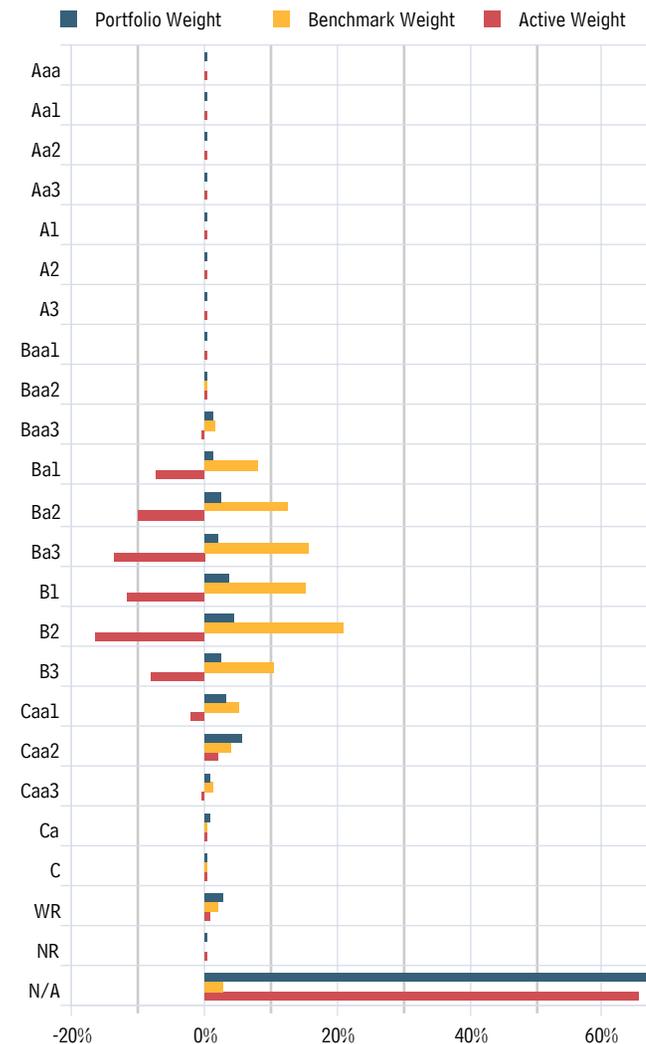
BarraOne Fixed Income Summary

COMPANY: NYCRC - POLICE

POSITIONS: 20
MODEL: BIM303L

Portfolio Allocation by Moody's Rating

Rating	Weight (%)			Cont. To Eff. Dur	Spread Duration	Total Risk	Active Risk CR	%CR to Active TR
	Portfolio	Benchmark	Active					
Total	100.00	100.00	0.00	9.60	4.26	13.41	9.29	100.00
Aaa	0.30	0.00	0.30	0.00	2.00	5.29	0.02	0.16
Aa1	0.00	0.00	0.00	0.00	4.22	6.59	0.00	0.00
Aa2	0.01	0.00	0.01	0.00	5.38	8.18	0.00	0.01
Aa3	0.01	0.00	0.01	0.00	5.01	7.98	0.00	0.01
A1	0.00	0.00	0.00	0.00	4.72	8.41	0.00	0.00
A2	0.00	0.00	0.00	0.00	3.85	8.99	0.00	0.00
A3	0.26	0.00	0.26	0.04	14.52	18.62	0.01	0.13
Baa1	0.00	0.00	0.00	0.00	3.49	8.63	0.00	0.00
Baa2	0.18	0.06	0.13	0.01	6.83	10.94	0.00	0.04
Baa3	1.18	1.67	-0.49	0.07	5.92	10.84	0.03	0.33
Ba1	1.06	8.18	-7.11	0.05	4.56	15.86	-0.00	-0.04
Ba2	2.39	12.37	-9.99	0.09	4.18	16.09	0.00	0.01
Ba3	1.82	15.59	-13.77	0.06	4.19	14.72	-0.08	-0.88
B1	3.60	15.08	-11.48	0.10	3.37	14.64	0.04	0.46
B2	4.28	20.79	-16.51	0.07	2.58	9.77	0.03	0.30
B3	2.41	10.46	-8.05	0.06	2.96	11.74	0.03	0.38
Caa1	3.24	5.13	-1.89	0.07	2.93	22.43	0.03	0.32
Caa2	5.75	3.94	1.82	0.11	3.12	23.03	-0.05	-0.57
Caa3	0.81	1.30	-0.49	0.02	2.02	15.77	0.01	0.12
Ca	1.00	0.51	0.49	0.01	2.27	21.05	0.01	0.07
C	0.09	0.07	0.02	0.01	7.67	26.46	0.01	0.11
WR	2.84	2.05	0.79	0.08	2.69	9.73	0.14	1.54
NR	0.43	0.00	0.43	8.26	216.68	1,496.80	4.84	52.11
Not Rated	68.33	2.79	65.54	0.52	1.98	14.50	4.22	45.38



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APPENDICES:

Basket Limit	25.00%
Basket Consumed	22.72%
Remaining Capacity	2.28%

	Basket-Eligible Assets*			Basket Assets	Total
	Non-Basket Assets	Non-Contributing	Contributing		
FIXED INCOME	28.76%	4.20%	0.02%	5.65%	38.63%
U.S. Fixed	15.25%	3.60%	0.02%	5.52%	24.41%
Cash/Equivalent	7.74%	---	---	0.00%	7.74%
TIPS	3.84%	---	---	---	3.84%
Convertible Bonds	1.70%	0.03%	0.02%	0.06%	1.81%
OFI	0.04%	0.13%	0.00%	3.15%	3.33%
High Yield	0.50%	3.40%	0.00%	0.92%	4.81%
Bank Loans	0.08%	0.02%	---	1.37%	1.47%
ETI Investments	0.96%	---	---	0.02%	0.98%
Core/Core Plus	0.40%	0.03%	---	0.01%	0.43%
U.S. Structured	13.50%	0.60%	---	0.13%	14.23%
Credit	3.28%	0.60%	---	0.03%	3.91%
Mortgages	3.57%	---	---	0.10%	3.67%
ST Treasury	0.36%	---	---	---	0.36%
Treasury/Agency	2.28%	---	---	---	2.28%
MT Treasury	0.02%	---	---	---	0.02%
LT Treasury	4.00%	---	---	---	4.00%
EQUITY	28.41%	15.92%	4.93%	12.11%	61.37%
Public Equity	28.36%	9.95%	4.93%	0.05%	43.30%
U.S. Equity	28.08%	0.75%	0.37%	0.00%	29.19%
EAFE	0.18%	5.64%	2.80%	0.02%	8.64%
Emerging Markets	0.11%	3.57%	1.77%	0.02%	5.47%
Alternative Investments	0.05%	5.96%	---	12.06%	18.07%
Hedge Funds	---	---	---	6.56%	6.56%
Infrastructure	0.00%	1.12%	---	0.00%	1.12%
Private RE/Core	0.00%	2.87%	---	---	2.87%
Private RE/Non-Core	0.00%	1.97%	---	0.00%	1.98%
Private Equity	0.04%	---	---	5.50%	5.54%
TOTAL ASSETS	57.17%	20.12%	4.96%	17.76%	100.00%
	Non-Basket:	77.28%	Basket:	22.72%	

*Basket amounts are estimates



AUM as of June 30, 2020

	Current MV	Liquid Assets		
		Today	1 Year	2 Years
PUBLIC EQUITY	\$19,540	\$19,540	\$19,540	\$19,540
U.S.	13,157	13,157	13,157	13,157
EAFE Equity	3,695	3,695	3,695	3,695
Emerging Markets	2,688	2,688	2,688	2,688
PUBLIC FIXED INCOME	\$12,294	\$11,942	\$12,122	\$12,122
Short Term Securities	362	362	362	362
U.S. Government	2,991	2,991	2,991	2,991
Long Duration Treasury	0	0	0	0
Mortgages				
Core Mortgages	1,217	1,217	1,217	1,217
ETI	442	90	271	271
Credit - Investment Grade	2,751	2,751	2,751	2,751
Corporate - High Yield	2,147	2,147	2,147	2,147
Corporate - Bank Loans	657	657	657	657
UST - Inflation Protected	1,727	1,727	1,727	1,727
ALTERNATIVE ASSETS	\$9,640	\$1,588	\$3,083	\$3,345
Private Equity	2,502	0	0	0
Private Real Estate	2,185	0	0	0
Infrastructure	506	0	0	0
Opportunistic Fixed Income	1,492	1,119	1,492	1,492
Hedge Funds	2,955	469	1,591	1,854
Total Assets	\$41,474	\$33,069	\$34,744	\$35,007
Total Illiquid \$		\$8,404	\$6,729	\$6,466
Total Illiquid %		20.3%	16.2%	15.6%
Unfunded OFI Commitments	\$227			
Unfunded INF Commitments	\$465			
Unfunded PE Commitments	\$2,252			
Unfunded RE Commitments	\$1,192			
Total commitments \$	\$4,136			
Total commitments %	10.0%			



Police Liquidity Profile - Static Analysis

AUM as of June 30, 2020

Denominator Effect - Decrease AUM by One-Third

Total Illiquid \$	\$8,404	\$6,729	\$6,466
Total Illiquid %	30.4%	24.3%	23.4%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

	Current MV	Liquid Assets		
		Today	1 Year	2 Years
Total Assets	\$41,474	\$33,069	\$34,744	\$35,007

Private Equity, Real Estate, Infrastructure and Opportunistic Fixed Income Stress Case

Unfunded OFI Commitments	\$45	\$91
Unfunded INF Commitments	\$93	\$186
Unfunded PE Commitments Drawn	\$450	\$901
Unfunded RE Commitments Drawn	\$238	\$477
Total commitments \$	\$827	\$1,654
Total commitments %	2.0%	4.0%
Total Illiquid \$	\$7,556	\$8,121
Total Illiquid %	18.2%	19.6%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

See Assumptions Page for Full Details

Denominator Effect - Decrease AUM by One-Third

Total Illiquid \$	\$8,404	\$7,556	\$8,121
Total Illiquid %	30.4%	27.3%	29.4%

Note: Assumes zero realizations, no new commitments and a five-year investment period; funded out of liquids

