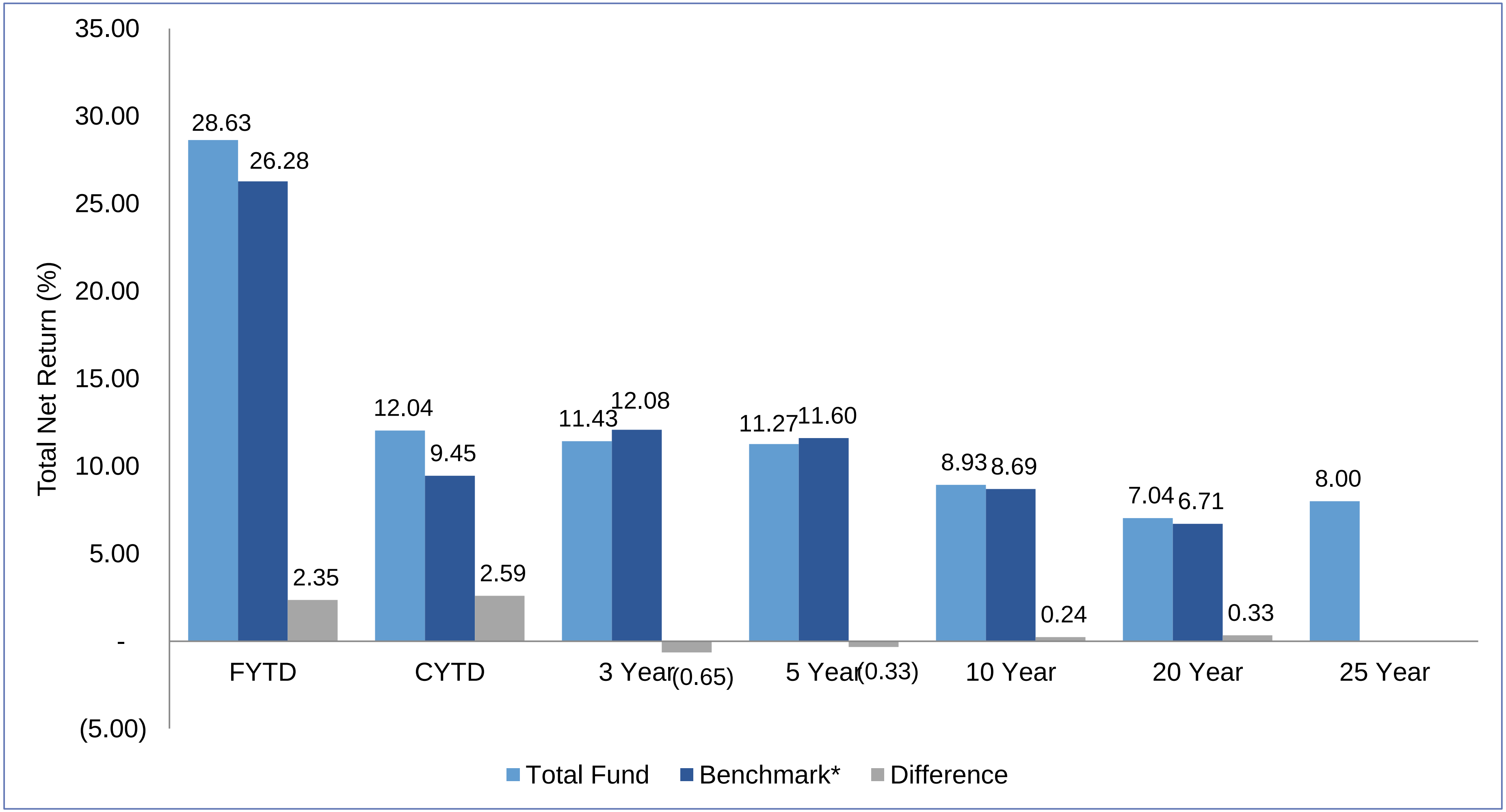
NJ DIVISION OF INVESTMENT

Director's Report

State Investment Council
September 29, 2021

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

Pension Fund Net Returns[1] for Periods Ending June 30, 2021



(1) Returns are preliminary, unaudited, net of all fees, and exclude Police and Fire Mortgage Program. Benchmark returns for certain private market asset classes are calculated on a lagged basis. This results in performance comparisons that may be less meaningful.

* Benchmark return not available for 25-Year period

Asset Allocation and Net Returns by Asset Class June 30, 2021

	ASSET ALLOCATION As of June 30, 2021				PERFORMANCE (for periods ending June 30, 2021)[1]							
					FY21		Trailing Five Years		Trailing Seven Years		Trailing Ten Years	
Asset Class	**Mkt Value**	**Actual (%)**	**Target (%)**	**Difference**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**
GLOBAL GROWTH												
US Equity	26,100	27.64%	27.00%	0.64%	44.31%	44.43%	17.39%	17.97%	13.04%	14.25%	14.15%	14.91%
Non-US Dev Market Eq	12,663	13.41%	13.50%	-0.09%	34.13%	33.33%	10.88%	10.30%	5.53%	4.93%	5.74%	5.74%
Emerging Market Eq	5,588	5.92%	5.50%	0.42%	43.55%	40.98%	12.62%	13.16%				
Private Equity	11,478	12.15%	13.00%	-0.85%	47.89%	48.42%	16.95%	18.50%	15.67%	15.04%	15.45%	14.91%
TOTAL GLOBAL GROWTH	**55,842**	**59.13%**	**59.00%**	**0.13%**	**42.83%**	**43.41%**	**15.37%**	**16.34%**	**10.93%**	**11.79%**	**11.04%**	**11.25%**
REAL RETURN												
Real Assets	2,101	2.22%	3.00%	-0.78%	29.97%	18.79%	4.51%	4.20%	1.06%	-1.86%	0.52%	-0.53%
Real Estate	5,376	5.69%	8.00%	-2.31%	21.21%	1.47%	9.28%	5.26%	10.45%	7.28%	11.04%	8.63%
TOTAL REAL RETURN	**7,477**	**7.92%**	**11.00%**	**-3.08%**	**23.55%**	**6.19%**	**7.91%**	**5.24%**	**7.26%**	**4.20%**	**7.77%**	**5.65%**
INCOME												
Investment Grade Credit	7,472	7.91%	8.00%	-0.09%	0.67%	0.99%	4.12%	4.02%	4.20%	4.07%	5.15%	4.37%
High Yield	2,122	2.25%	2.00%	0.25%	15.84%	15.34%	7.20%	7.47%				
Private Credit	6,154	6.52%	8.00%	-1.48%	23.53%	16.09%	9.93%	8.46%	8.21%		9.57%	
TOTAL INCOME	**15,748**	**16.68%**	**18.00%**	**-1.32%**	**10.95%**	**7.94%**	**6.53%**	**6.39%**	**5.59%**	**5.04%**	**6.71%**	**5.68%**
DEFENSIVE												
Cash Equivalents	5,986	6.34%	4.00%	2.34%	0.25%	0.09%	1.63%	1.17%	1.42%	0.87%	1.49%	0.63%
U.S. Treasuries	5,837	6.18%	5.00%	1.18%	-3.43%	-3.22%	1.95%	2.23%	1.86%	2.42%	3.14%	2.68%
Risk Mitigation Strategies	2,745	2.91%	3.00%	-0.09%	13.26%	3.14%	5.39%	4.25%	4.20%	3.94%	3.94%	3.68%
TOTAL DEFENSIVE	**14,568**	**15.43%**	**12.00%**	**3.43%**	**1.33%**	**-0.49%**	**2.64%**	**1.83%**				
OTHER												
OPPORTUNISTIC PE	582	0.62%			37.51%	48.42%	12.99%	18.50%	10.67%	15.04%		
OTHER	222	0.24%										
TOTAL FUND [2]	**94,441**	**100.00%**			**28.63%**	**26.28%**	**11.27%**	**11.60%**	**8.40%**	**8.63%**	**8.93%**	**8.69%**

(1) Returns are preliminary, unaudited, and net of all fees

(2) Total Pension Fund excludes Police and Fire Mortgage Program

Notes: Sum of components may not equal totals due to rounding. Certain asset class returns, including private equity, real assets, real estate, and private credit do not include up-to-date valuations and benchmark returns for these asset classes are presented on a lagged basis. This results in performance comparisons that may be less meaningful.

FY21 Public Market Update: Asset Allocation and Net Returns (August 31, 2021)

	ASSET ALLOCATION As of August 31, 2021			FYTD through August 31, 2021	
Asset Class	**Mkt Value (in $ millions)**	**Actual (%)**	**Target (%)**	**NJ**	**Benchmark**
GLOBAL GROWTH					
US Equity	27,898	27.84	27.00	4.74	4.77
Non-US Dev Market Eq	13,099	13.07	13.50	2.57	2.23
Emerging Market Eq	5,593	5.58	5.50	-3.11	-4.32
INCOME					
Investment Grade Credit	8,182	8.16	8.00	0.96	0.99
High Yield	1,921	1.92	2.00	0.90	0.90
DEFENSIVE					
Cash Equivalents	9,536	9.51	4.00	0.02	0.01
U.S. Treasuries	5,748	5.74	5.00	1.13	1.18

Capital Markets Update (through August 31, 2021)

	Fiscal YTD	Calendar YTD	One Year	Three Years (Annualized)	Five Years (Annualized)
Global Equity Indices					
MSCI ALL Country World Index	3.21	15.91	28.64	14.32	14.29
US Equity Indices					
Russell 3000	4.59	20.38	33.03	17.82	17.94
Russell 1000	5.03	20.73	32.24	18.39	18.22
Russell 2000	-1.46	15.82	47.05	10.71	14.35
Russell Growth	6.54	20.08	28.80	23.68	23.78
Russell Value	2.54	20.64	37.75	11.18	11.65
Non-US Equity Indices					
MSCI EAFE	2.53	11.58	26.12	8.99	9.72
MSCI Emerging Markets	-4.29	2.84	21.12	9.86	10.40
Fixed Income Indices					
Bloomberg Barclays U.S. Aggregate	0.93	-0.69	-0.08	5.43	3.11
Bloomberg Barclays U.S. Treasury	1.18	-1.43	-2.11	4.94	2.42
Bloomberg Barclays U.S. Credit	1.06	-0.23	2.26	7.35	4.54
Bloomberg Barclays U.S. High Yield	0.90	4.55	10.14	7.11	6.66
Commodities					
Bloomberg Commodities Index	1.53	22.97	30.92	4.65	3.00
Real Estate					
Bloomberg U.S. REIT Index	6.49	28.97	35.77	12.55	9.17

Source: Bloomberg

Notification: Modification to BlackRock Separate Accounts

Background: In 2007, the Division committed $200 million to SONJ Private Opportunities II, L.P. ("SONJ II") , a separately managed investment vehicle managed by BlackRock Private Equity Partners ("BlackRock"). This commitment was subsequently increased in 2011, 2013 and 2016, and the Pension Fund currently has $1.3 billion committed to SONJ II. SONJ II currently pursues both co-investments and primary fund investments. As of July 31, 2021, SONJ II had a market value of approximately $1.7 billion. During the September 2020 Council meeting, the Division presented an investment of up to an additional $250 million in a new separately managed investment vehicle ("SONJ III") to be managed by BlackRock to also pursue co-investments and primary funds. SONJ III is currently pending legal closing.

Existing terms of the LPA for SONJ II permit certain limited recycling. While the terms of the LPA for SONJ III have not been finalized, the Division previously informed the IPC that recycling principal, but not gains, would be permitted for SONJ III.

Modification: The Division intends to modify the recycling provisions for SONJ II and SONJ III to permit the Division to periodically elect to either (i) fully recycle principal and/or gains, (ii) partially recycle principal and/or gains or (iii) fully distribute principal and/or gains. More specifically, subject to the Division's aforementioned elections, the modification would allow:

- SONJ II to recycle both principal and gains into either SONJ II or SONJ III. Capital from primary fund investments would generally be recycled into SONJ II, while capital from co-investments would generally be recycled into SONJ III.
- SONJ III to recycle both principal and gains into SONJ III

Impact on Pension Fund: In the short term, these modifications would allow the Division to address the Pension Fund's underweight allocation to Private Equity by more quickly deploying capital through the recycling of gains. This is especially important for SONJ II, which is running low on dry powder. More broadly, the modification provides the Division with more flexibility and control over the ongoing timing of capital deployment within the Private Equity portfolio. These changes will also eventually allow co-investments to be segregated from primary funds for accounting and reporting purposes by funneling capital for primary fund investments into SONJ II, and co-investments into SONJ III. This modification would have no impact on any other material terms for SONJ II or SONJ III.

The Director is notifying the SIC of this modification in accordance with the Alternative Investment Modification Procedures

Notification: Modification to Neuberger Berman / New Jersey Custom Investment Fund III LP

Background: In 2018, the Division committed $200 million to Neuberger Berman / New Jersey Custom Investment Fund III LP (“NB/NJ III”), an investment vehicle managed by Neuberger Berman to pursue private-equity co-investments. In July 2021, the Division committed up to an additional $350 million to NB/NJ III. As of July 31, 2021, NB/NJ III had not yet drawn any of the newly committed capital and had a market value of approximately $230 million. Existing terms of the LPA for NB/NJ III permit certain limited recycling of gains and/or principal.

Modification: The Division intends to modify the recycling provisions for NB/NJ III to permit the Division to periodically elect to either (i) fully recycle principal and/or gains, (ii) partially recycle principal and/or gains or (iii) fully distribute principal and/or gains.

Impact on Pension Fund: In the short term, this modification would allow the Division to address the Pension Fund’s current underweight allocation to Private Equity by more quickly deploying capital through the recycling of principal and/or gains. More broadly, the modification would provide the Division with more flexibility and control over the ongoing timing of capital deployment within the Private Equity portfolio. The modification would have no impact on any other material terms for NB/NJ III.

The Director is notifying the SIC of this modification in accordance with the Alternative Investment Modification Procedures

STATE INVESTMENT COUNCIL MEETING

Fiscal Year 2021 Performance Review

September 29, 2021

Global Equity Portfolio
Review and Outlook

Melanie Lomas
Todd Rowohlt

	ASSET ALLOCATION			PERFORMANCE (for periods ending June 30, 2021)							
	As of June 30, 2021			FY21		Trailing 5 Years		Trailing 7 Years		Trailing 10 Years	
Asset Class	**Mkt Value ($ millions)**	**Actual (%)**	**Target (%)**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**
US Equities	26,100	27.88%	27.00%	44.31%	44.43%	17.39%	17.97%	13.04%	14.25%	14.15%	14.92%
Non-US Dev Market Equities	12,662	13.53%	13.50%	34.13%	33.34%	10.88%	10.30%	5.53%	4.94%	5.74%	5.74
Emerging Market Equities	5,588	5.97%	5.50%	43.55%	40.98%	12.62%	13.17%				

FY21 U.S. Equity Portfolio Review and Outlook

- **During FY21, the U.S. Equity Portfolio returned +44.31% versus +44.43% for the benchmark:**
  - For the fiscal year, the strong absolute returns of the passively-managed Portfolio reflect a risk-on market sentiment, fueled by re-opening expectations, global economic progress and the massive fiscal and monetary response to the pandemic.
  - Such a backdrop revealed the force of the retail investor, an event heralded in the early months of 2021 by the rise of the meme-stock* phenomenon and the major market dislocations that followed. This turbulent period was the source of the Portfolio's underperformance, as certain unintentional exposures, driven by our passive model optimizer (e.g., an overweight to large cap securities), in the Portfolio were adversely affected by the sudden change in market dynamics.
  - By the end of March, volatility had eased, and the Portfolio was once again aligned with the benchmark, performing as expected for the remainder of the fiscal year.
- **Looking ahead into FY22, uncertainty regarding monetary policy and economic growth will be major risk factors for the market:**
  - Resolving the transient/intransient question of inflation may result in a policy reaction from the Federal Reserve that fosters a rise in adverse market conditions.
  - The evolution of the COVID-19 virus will likely remain an unknown variable in the pace of economic recovery.
  - Despite the potential for an increasingly volatile investment environment, the passively-managed U.S. Equity portfolio is expected to remain aligned with the risk/return profile of the MSCI USA IMI benchmark.

*A select group of small cap stocks (in this case) that experienced extreme price appreciation driven by social media promotion rather than fundamentals/normal market forces.

FY21 U.S. Equity Portfolio Review and Outlook

Sector and Security Returns %

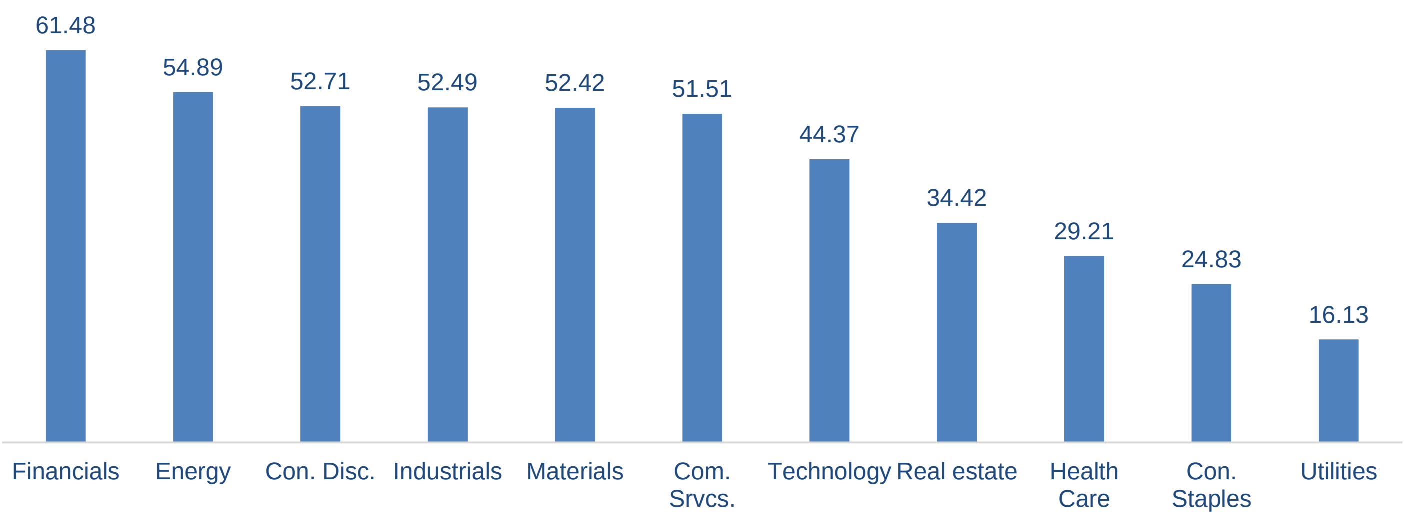
FY21: Largest Contributors to Portfolio Returns

Name	Avg. Weight	Portfolio Return	Contrib. to Return
Apple Inc.	5.61	51.19	2.93
Alphabet Inc. Class C	2.96	77.30	2.00
Microsoft Corp.	4.38	34.41	1.48
Tesla Inc.	1.11	214.73	1.29
Amazon.com Inc.	3.67	24.70	1.06

FY21: Largest Detractors from Portfolio Returns

Name	Avg. Weight	Portfolio Return	Contrib. to Return
Vertex Pharmaceuticals	0.17	-30..55	-0.08
Intel Corporation	0.61	-3.70	-0.08
Gilead Sciences	0..22	-6.54	-0.05
BioMarin Pharmaceuticals	0.04	-32.35	-0.03
Regeneron Pharmaceuticals	0.15	-10.44	-0.03

Sector – FY21 Returns



Source: FactSet

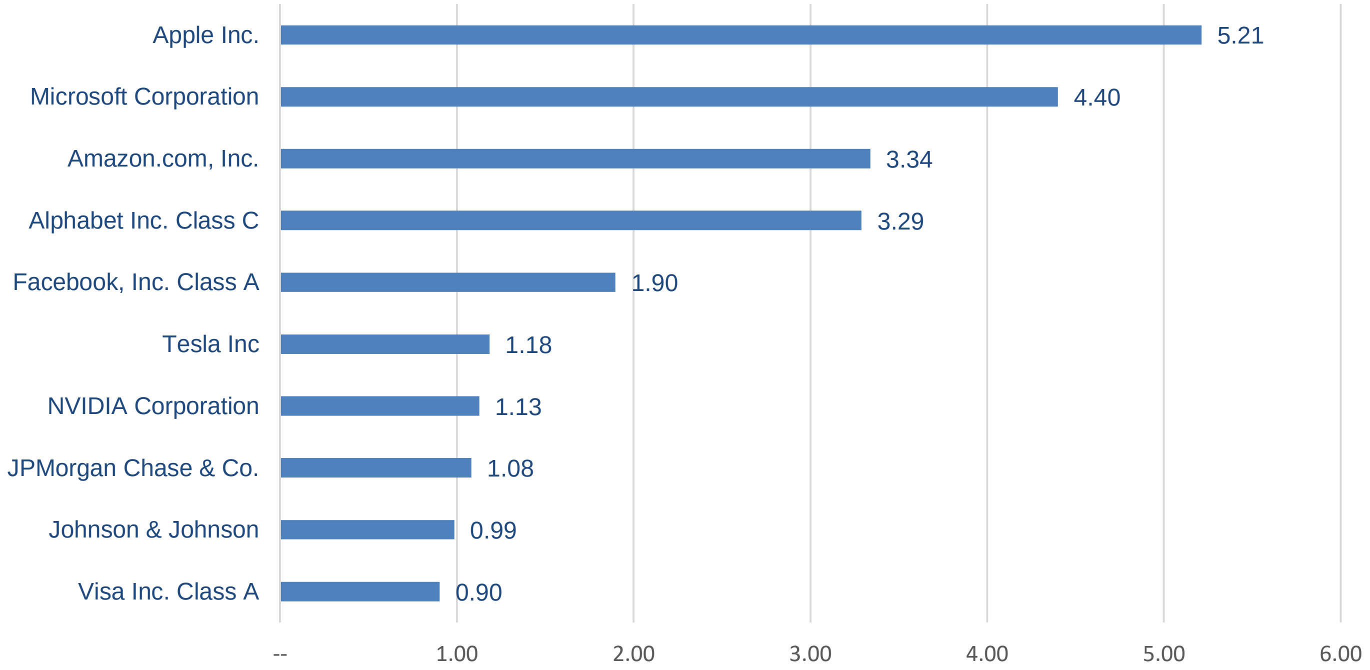
FY21 U.S. Equity Portfolio Review and Outlook

As of June 30, 2021

U.S. Equity Portfolio – Key Metrics

	12M Forward P/E	P/CF	P/Book
U.S. Equity Portfolio	22.1x	17.9x	4.1x
MSCI USA IMI	22.1x	17.9x	4.1x

Top Holdings
End Weight (%)



Source: FactSet

FY21 International Equity Portfolio Review and Outlook

- **During FY21, the International Equity portfolio returned +37.54% versus +36.07% for the benchmark:**
  - The Non-U.S. Developed Markets (DM) portfolio outperformed its benchmark by 79 basis points (+34.13% vs. +33.34%).
  - The Emerging Market (EM) portfolio outperformed its benchmark index by more than +2.5% returning (+43.55% vs 40.98%).

- **Security selection within Emerging Markets and allocation to Small Cap strategies were the key drivers of favorable relative returns:**
  - Within the EM portfolio, strong relative performance (+2.58%) resulted from positive security selection across all style strategies.
  - The DM portfolio includes an allocation to out-of-benchmark small cap equities as part of a long-term strategic allocation.
  - Small Cap absolute returns (+40.93%) significantly outperformed large cap DM (+33.55%)

- **Looking ahead into FY22, the global pandemic, geopolitical, monetary and fiscal risks persist:**
  - The pace of global economic recovery should continue to gain momentum as COVID-19 vaccinations trend higher, but new COVID-19 variants may disrupt normalization.
  - The geopolitical impact of trade protectionism on the global economy remains uncertain.
  - Accommodative central banks and large fiscal stimulus packages have created a supportive landscape for economic growth; however, pro-growth policies, elevated commodity and material prices, and bottleneck supply chains are fueling inflation.
  - The rising inflationary pressures have already caused certain EM central banks to proactively raise short-term interest rates. Despite these more hawkish developments, the overall stance of DM central banks in aggregate is likely to remain accommodative.

FY21 International Equity Portfolio Review and Outlook

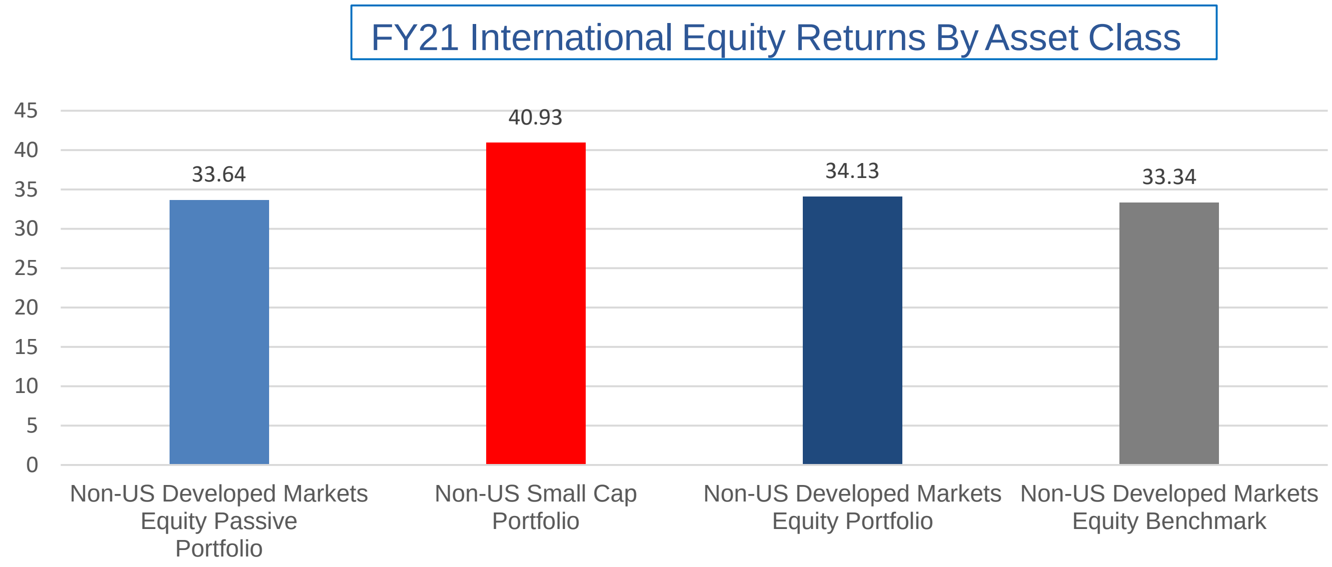
FY21 International Equity Returns By Asset Class

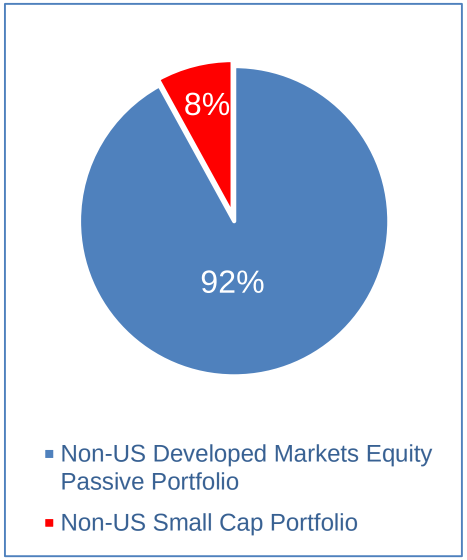
Portfolio (Total Return in %)	Quarter Ended									
	9/30/2020		12/31/2020		3/31/2021		6/30/2021		Fiscal Year 2021	
	NJDOI	Benchmark	NJDOI	Benchmark	NJDOI	Benchmark	NJDOI	Benchmark	NJDOI	Benchmark
Non-US Developed Markets	5.41	4.80	15.63	15.84	3.78	3.83	6.04	5.78	34.13	33.34
Emerging Markets	9.67	9.71	21.57	19.72	3.45	2.19	4.07	5.04	43.55	40.98
Total International Equity	6.87	6.52	17.70	16.99	3.71	3.41	5.43	5.60	**37.54**	**36.07**

During FY21, the International Equity Portfolio outperformed its benchmark by 147 basis points +37.54% vs. +36.07%), driven by favorable relative returns within both the Non-US Developed Markets Portfolio and the Emerging Markets Equity Portfolio.

Source: State Street

FY21 International Equity Portfolio Review: Non-US Developed Markets Equity Portfolio





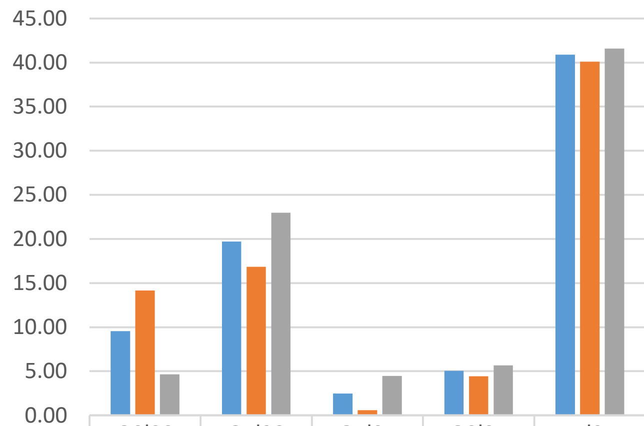
- For FY21, the Non-US Developed Markets Equity Portfolio returned +34.13% versus +33.34% for the benchmark index, an outperformance of 79 basis points.
- The Portfolio is comprised primarily of a passively-managed large/mid cap Non-US Developed Markets cohort that utilizes an optimization strategy to achieve a tracking error within a targeted range. The Non-US Developed Markets Equity Passive Portfolio returned +33.64% versus +33.34% for the benchmark index, an outperformance of 30 basis points.
- The 8% non-benchmark allocation to the other major cohort - Small Cap – delivered a strong absolute return of +40.93%, exceeding the +33.64% return of the Passive Portfolio. On a relative basis, the Small Cap portfolio proved to be beneficial to the Non-US Developed Markets Equity Portfolio returns.

Source: State Street

FY21 International Equity Portfolio Review: Emerging Markets (EM) Portfolio

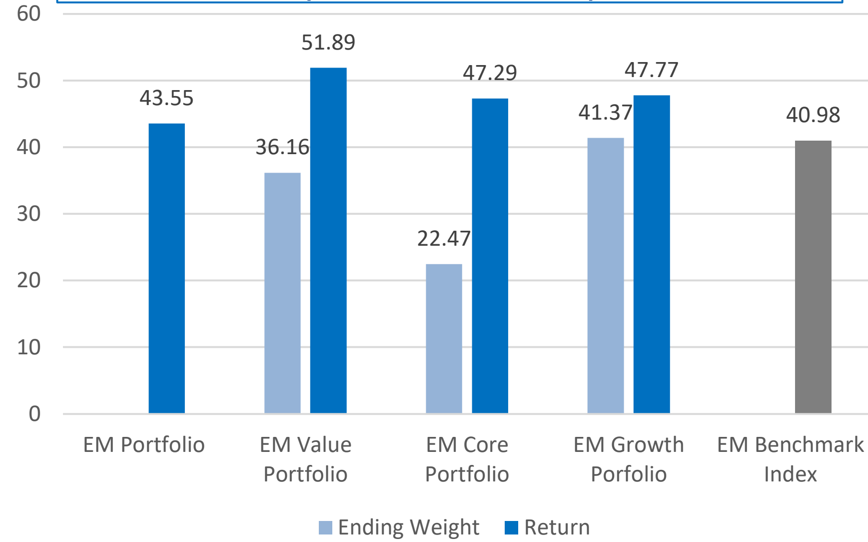
The EM equity portfolio outperformed the benchmark index by 2.57% (+43.55% vs +40.98%) for the fiscal year. Style diversification and security selection were the primary drivers of relative returns as each style portfolio outperformed both its respective style benchmark and the broader benchmark index.

Emerging Market Style Returns (%)



	Q3'20	Q4'20	Q1'21	Q2'21	FY'21
MSCI EM Index	9.56	19.70	2.46	5.05	40.90
MSCI EM Growth Index	14.15	16.83	0.59	4.42	40.08
MSCI EM Value Index	4.66	22.98	4.48	5.67	41.60

DOI EM Portfolio Style Returns & Weights (%) (as of 06/30/2021)



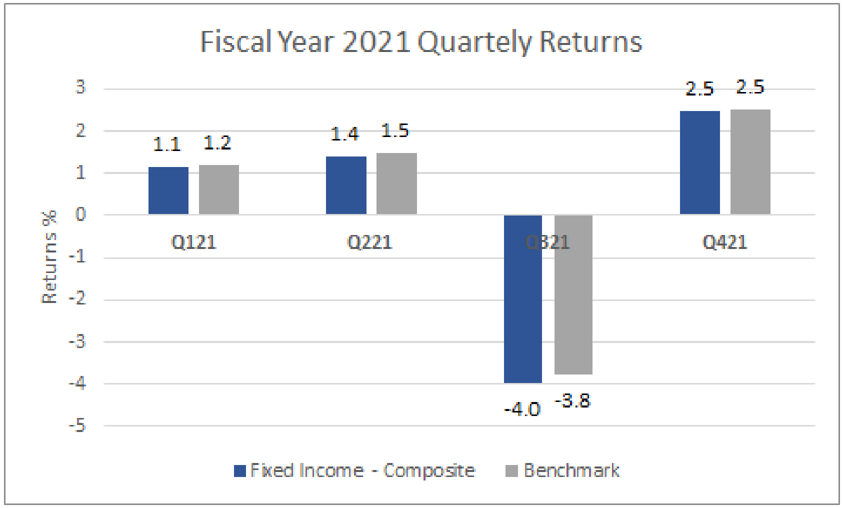
As the COVID-19 pandemic ebbed and flowed with lock-downs, recovery, and variants, and macro geopolitical pressures arose, Emerging Markets experienced significant style volatility and rotation.

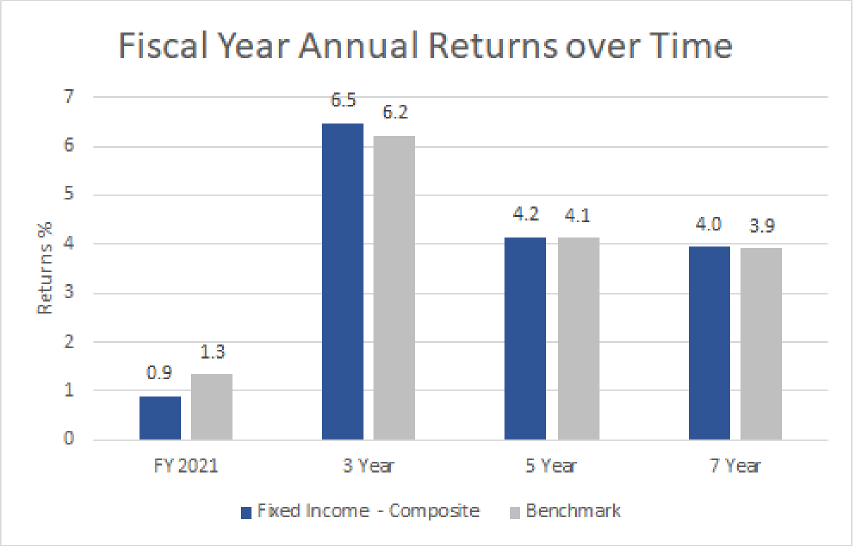
The EM Portfolio benefited from its diversified, style-balanced structure, while superior security selection resulted in outsized relative and absolute returns.

Source: State Street, Bloomberg

Fixed Income Portfolio
Review and Outlook

Bill Connors | Phil Pagliaro | Kevin McGrath



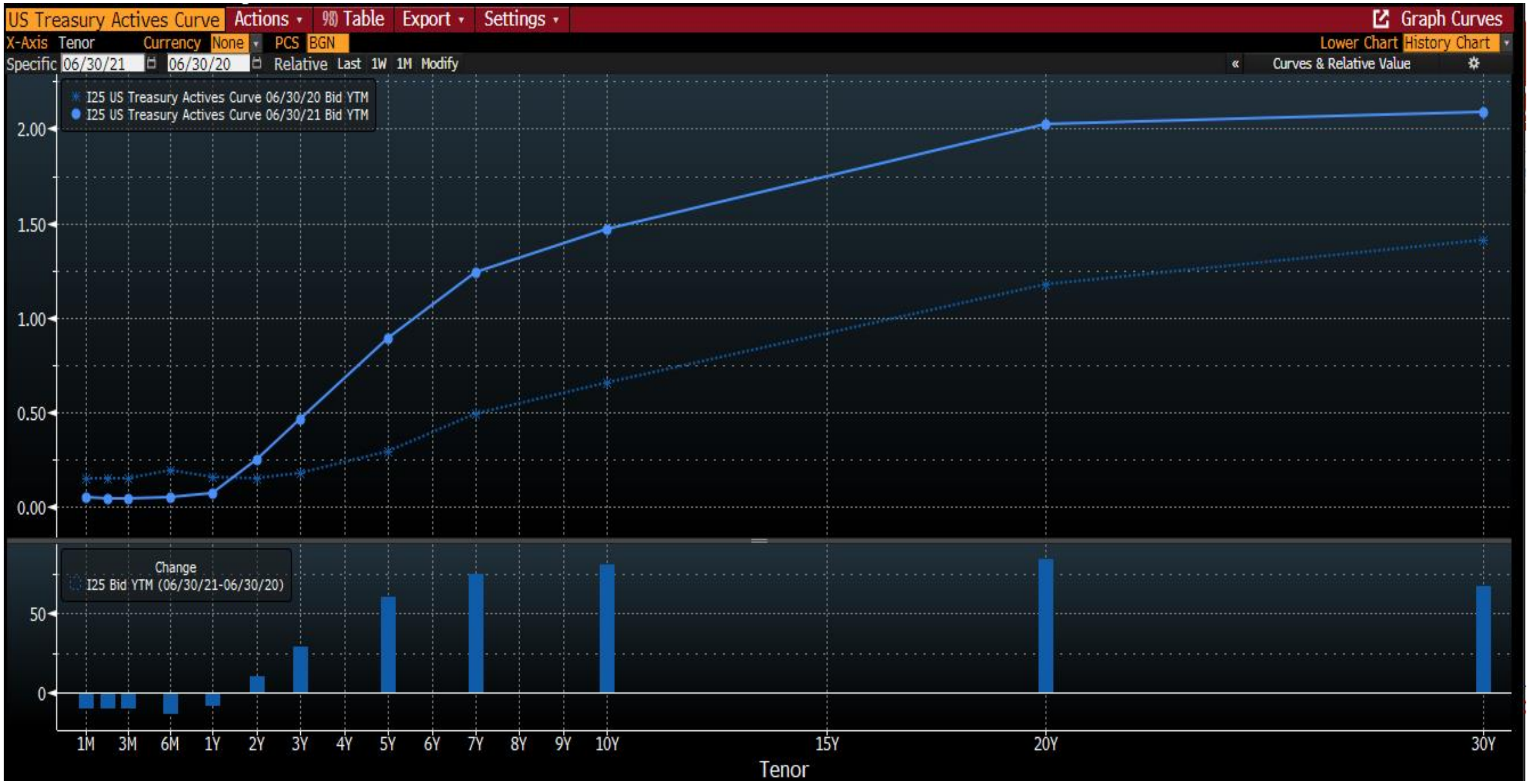


Fixed Income Portfolio
Review and Outlook

	ASSET ALLOCATION			PERFORMANCE (for periods ending June 30, 2021)							
	As of June 30, 2021			FY21		Trailing 5 Years		Trailing 7 Years		Trailing 10 Years	
Asset Class	Mkt Value ($ millions)	Actual (%)	Target (%)	NJ	Bench	NJ	Bench	NJ	Bench	NJ	Bench
U.S. Government	5,836	6.2%	5.0%	-3.4%	-3.2%	2.0%	2.2%	1.9%	2.4%	3.1%	2.7%
Investment Grade Credit	7,472	7.9%	8.0%	0.7%	1.0%	4.1%	4.0%	4.2%	4.1%	5.1%	4.4%
High Yield	2,123	2.3%	2.0%	15.8%	15.3%	7.2%	7.5%	5.4%	5.5%	6.6%	6.6%

FY21 Changes to the U.S. Treasury Yield Curve

U.S. Treasury Yield Curve Change from June 30, 2020 versus June 30, 2021



The U.S. Treasury yield curve steepened in the belly and shifted significantly in the long end of the curve in the third quarter of the fiscal year. The UST and IG portfolios were both positioned long duration which hurt performance due to the pronounced shift of the Treasury curve that began in earnest in January 2021.

Source: Bloomberg GC125 and State Street

FY21 Fixed Income Portfolio Review and Outlook

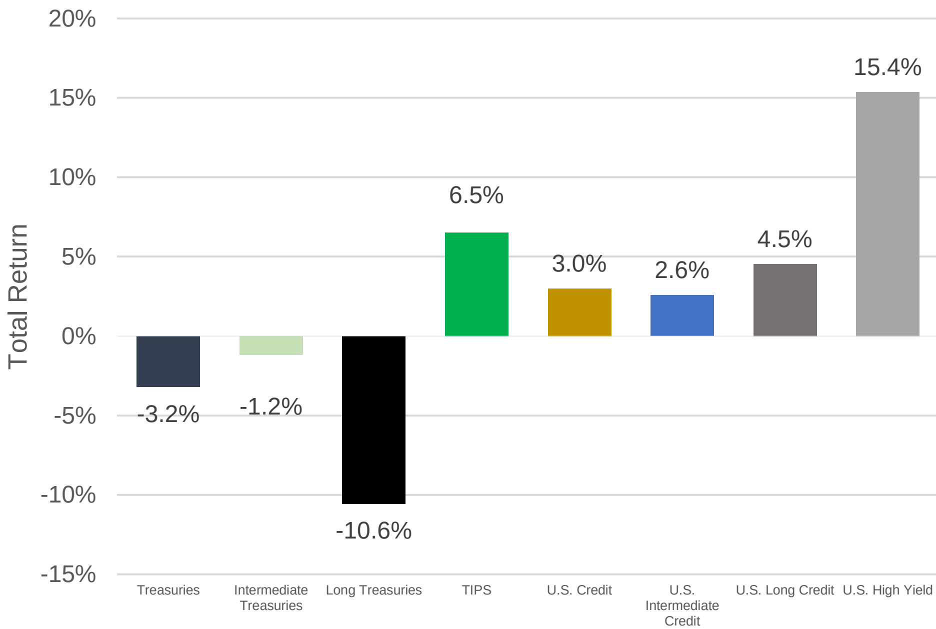
- **During FY21 the Fixed Income Portfolio returned +0.89% versus +1.34% for the benchmark**
  - The key driver of relative returns was the performance of the Investment Grade (IG) portfolio, which underperformed the benchmark by approximately 30 basis points and the U.S.Treasury (UST) portfolio, which underperformed its benchmark by 21 basis points
  - Both the IG portfolio and the UST portfolio, which collectively represents approximately 85% of the total Fixed Income portfolio, were primarily impacted being long duration in a rising rate environment through the first three quarters of the fiscal year
  - The High Yield (HY) portfolio enjoyed strong absolute and relative performance, outperforming its benchmark by 50 basis points
- **Within the Fixed Income portfolio:**
  - The HY portfolio benefited from a diversified portfolio and increased internal exposure to the overall market
  - The UST portfolio underperformance can be explained by a duration mismatch during a period when the 10 year treasury went from 0.65% to 1.75% in early 2021.
  - The IG portfolio also suffered from a duration mismatch as well as some minor sector underperformance

Looking ahead to FY22, a cautious approach is warranted amid low bond yields and historically tight spreads, increasing debt issuance, tapering of monetary stimulus and inflationary pressures which or may not be transitory.

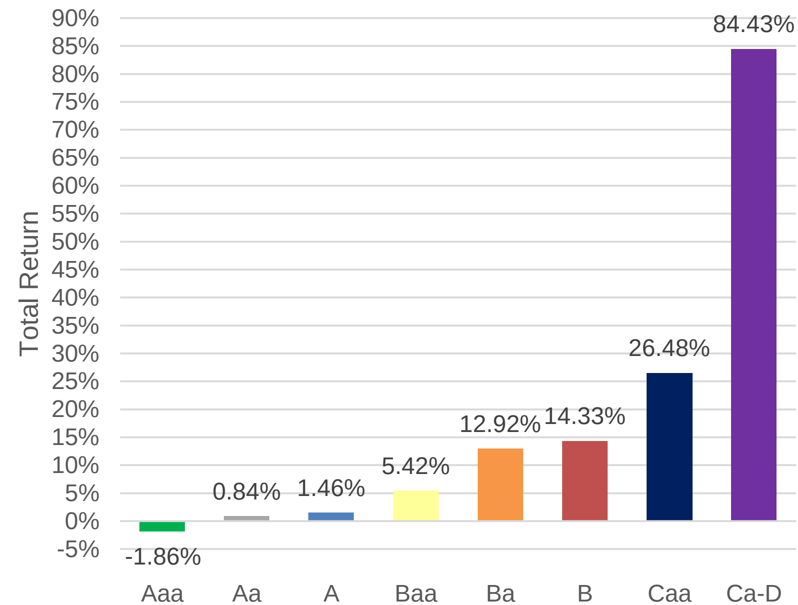
FY21 Fixed Income Portfolio Review and Outlook

Sector, Quality and Yield Curve Returns

FY21 Select Maturity and Asset Class Returns



FY21 Select Quality Returns



During FY21, weak returns in the government and high quality credit markets due to duration exposure and inflation concerns were offset by stand out performance in high yield as lower quality asset classes performed quite well.

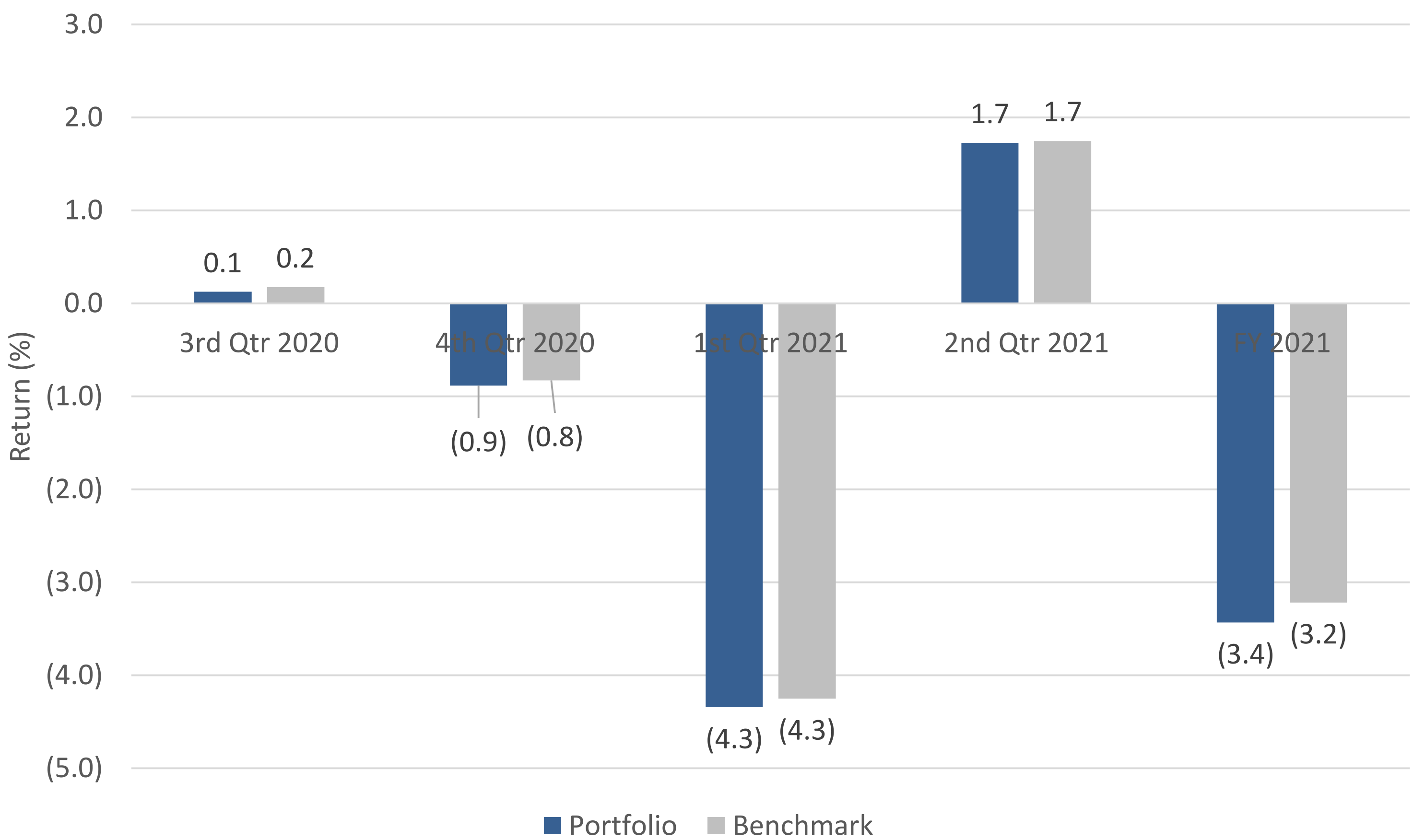
During FY21, taking credit risk was rewarded highlighted by 80% returns in the lowest quality bucket of high yield. This return profile is a near exact opposite of the market performance in FY20.

High Yield and TIPS were the top performing sectors in FY21, driven by extraordinary monetary relief which caused a sharp decline in spreads and a significant decline in real rates.

Source: Bloomberg

FY21 U.S. Treasury Portfolio Review and Outlook

For the fiscal year, the U.S. Treasury Portfolio returned -3.43%, underperforming the benchmark return of -3.22% by 21bps

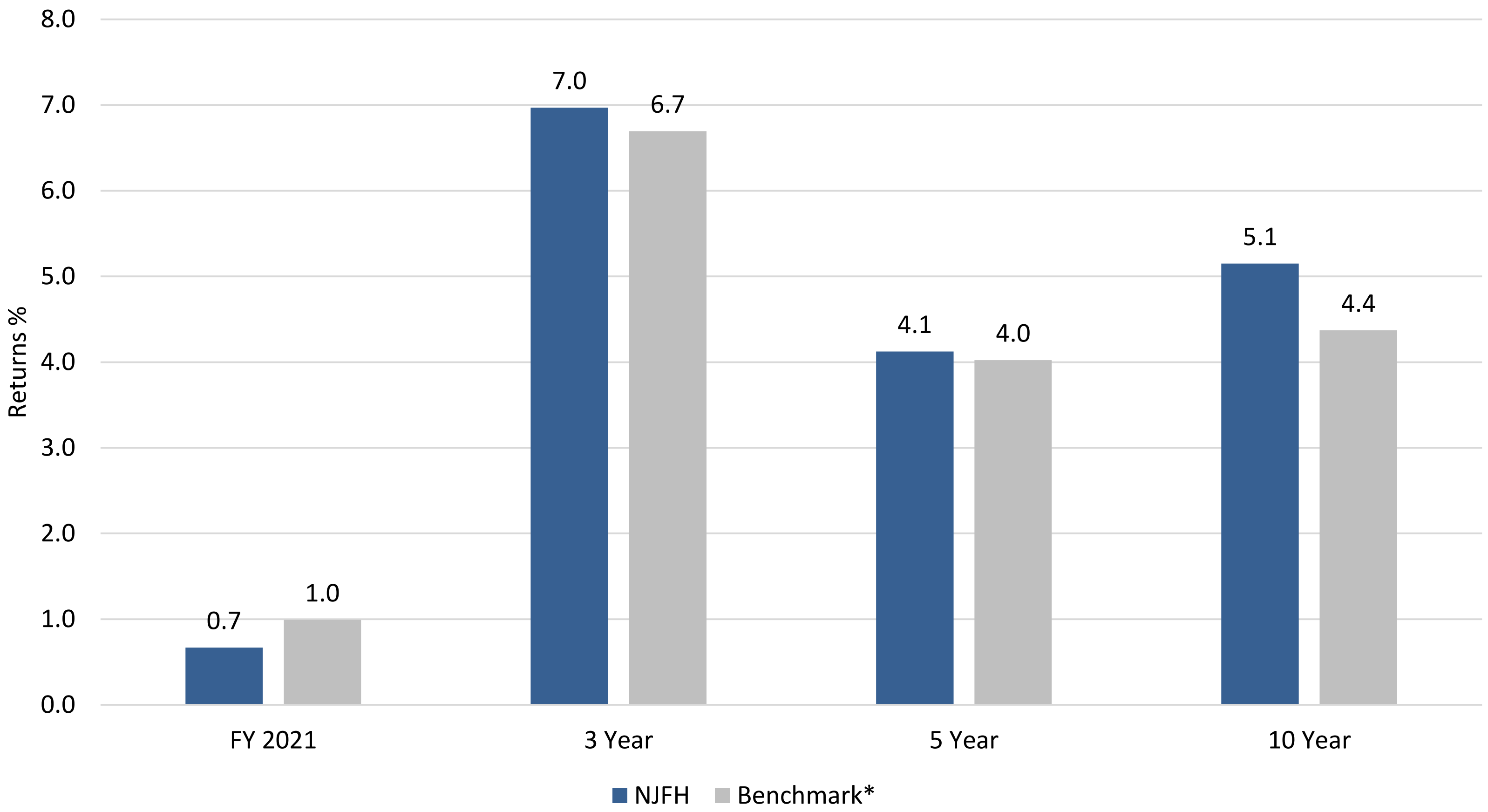


Interest rates rose sharply during FY21 which led to negative returns for the treasury portfolio.

Source: State Street

FY21 Investment Grade (IG) Credit Portfolio Review and Outlook

For the fiscal year, the U.S. Investment Grade Portfolio returned 0.67% vs. 0.99% for the benchmark

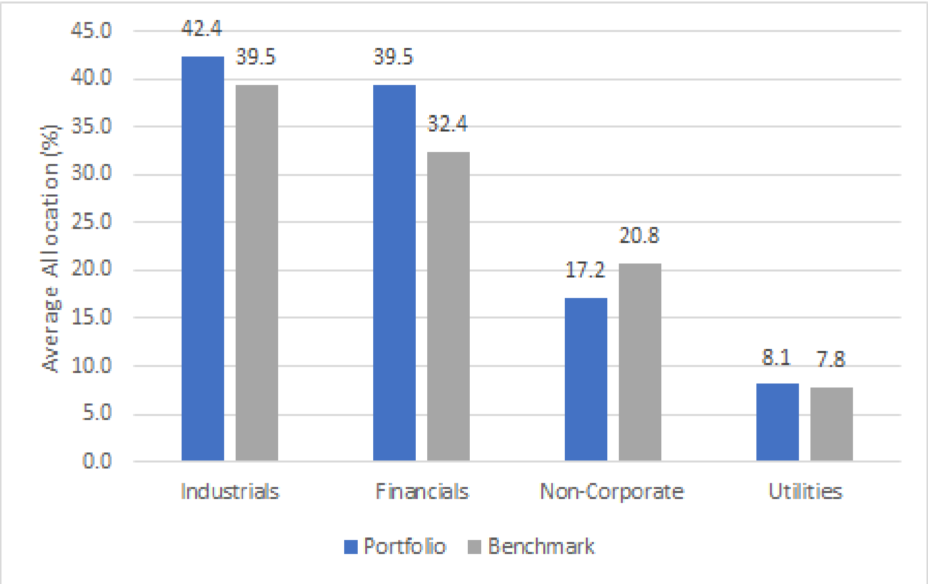


The -32 basis points of IG Credit underperformance is attributed to negative security selection in the financial sector, contributing –22 basis points of underperformance and –10bps from the industrial sector.

Source: State Street, Bloomberg PORT. *The graph shows the current custom investment grade credit benchmark. In FY 2010 the benchmark was the Barclays Long Government/Credit Index and in FY 2015 the benchmark was the Barclays Credit Index.

FY21 Investment Grade (IG) Credit Portfolio Review and Outlook

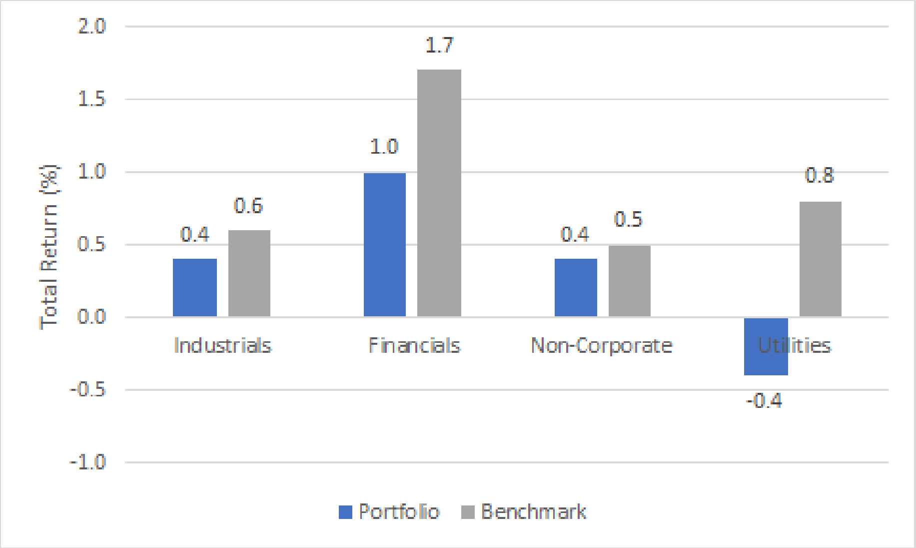
FY21 IG Credit Portfolio Sector Allocation vs. Benchmark



The IG Credit portfolio was slightly overweight the Industrial, Financial and Utility sectors and underweight the Non-Corporate sector.

FY21 IG Credit Portfolio Sector Returns vs. Benchmark

The Industrial, Financial, Non-corporate and Utility sectors underperformed during FY21.

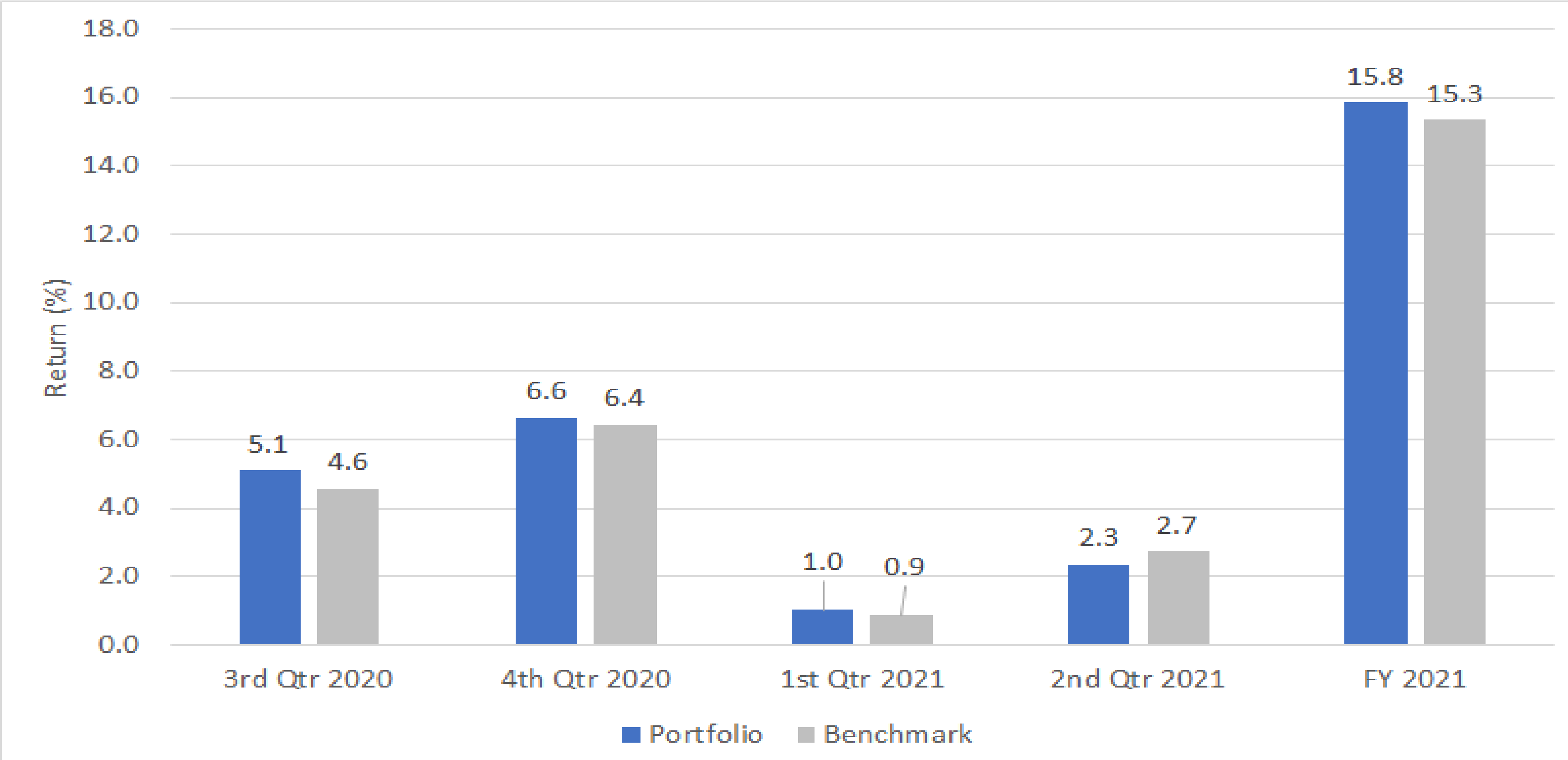


Security Selection was a drag on the IG Credit portfolio during the fiscal year

Source: FactSet

FY21 High Yield Portfolio Review and Outlook

For the fiscal year, the High Yield Portfolio returned 15.84% vs. the 15.34% benchmark return

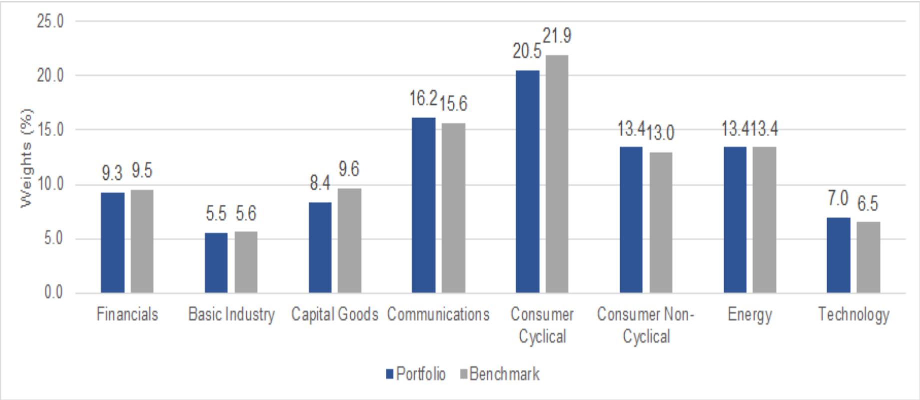


The key driver of relative returns for the High Yield portfolio during FY21 was the outperformance during the first half. Higher quality rallied first, post Covid and the HY portofolio benefited. As lower quality started to outperform in the back half of FY21, the HY portfolio lagged modestly, but not enough to offset the strong first half outperformance.

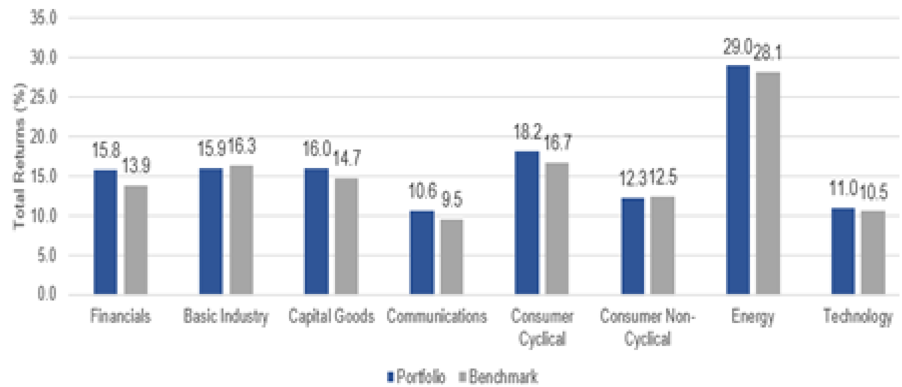
Source: State Street

FY21 High Yield Portfolio Review and Outlook

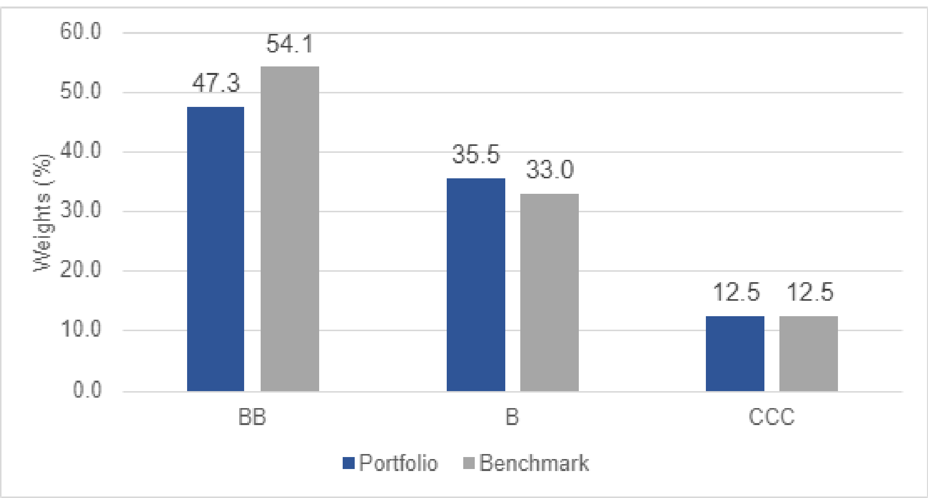
FY21 High Yield vs. Benchmark Sector Weights



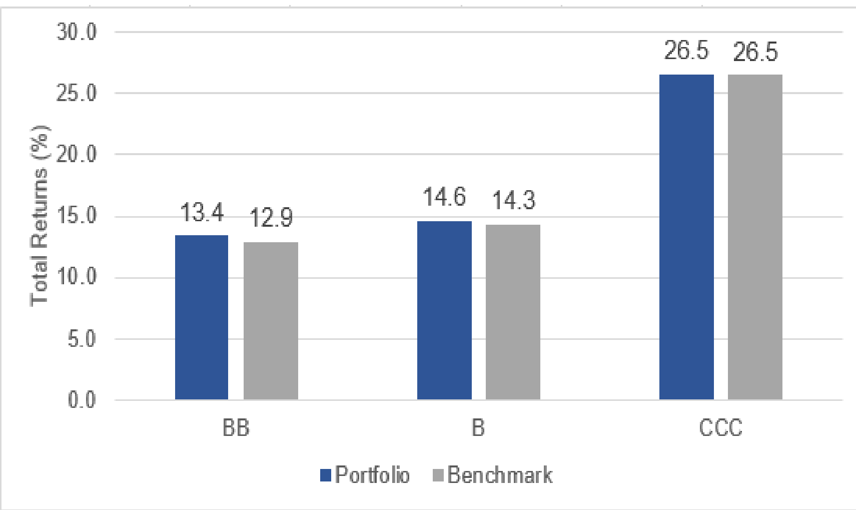
FY21 High Yield vs. Benchmark Sector Returns



FY21 High Yield vs. Benchmark Ratings Weights



FY21 High Yield vs. Benchmark Ratings Returns



Security Selection within the BB bucket & an overweight to the single B rated issuers benefited the HY portfolio. Risk outperformed as the market recovered strongly from the prior year sell off.

Source: State Street, Bloomberg PORT

Private Equity and Private Credit Portfolio
Review and Outlook

Jared Speicher

	ASSET ALLOCATION			PERFORMANCE (for periods ending June 30, 2021)							
	As of June 30, 2021			FY21		Trailing 5 Years		Trailing 7 Years		Trailing 10 Years	
Asset Class	Mkt Value ($ millions)	Actual (%)	Target (%)	NJ	Bench	NJ	Bench	NJ	Bench	NJ	Bench
Private Equity	11,478	12.15%	13.00%	47.89%	48.43%	16.95%	18.50%	15.67%	15.04%	15.45%	14.91%
Private Credit	6,154	6.52%	8.00%	23.53%	16.10%	9.93%	8.46%	8.21%	n/a	9.57%	n/a

Notes: (1) Source: Private Equity data taken from State Street code NJDOI100 on 13-Sep-2021. Private Credit data taken from State Street code NJDOI102 on 13-Sep-2021. (2) Private Equity benchmark equals: from 8/1/2005 to 8/31/2016 the Cambridge PE + Subordinated Capital & PE Energy 1Q Lag, from 9/1/2016 to 5/31/2019 the DISC Cambridge Global Buyout & Growth Equity 1Q Lag, from 6/1/2019 to 2/29/2020 the Cambridge Global PE 1Q Lag, and from 3/1/2020 to present 90% Cambridge Global PE + 7% Cambridge Private Credit + 3% Cambridge Distressed Securities. (3) The Private Credit benchmark equals the Bloomberg Barclays U.S. Corporate High Yield Index + 100 bps compounded monthly on a one-month lag. (4) As of October 1, 2019, the legacy Credit HF portfolio became part of Private Credit.

FY21 Private Equity Portfolio Review and Outlook

- **For FY21, the Private Equity Portfolio returned +47.89% vs. +48.43% for the Custom Cambridge Blend**
  - The Private Equity Portfolio (the "PE Portfolio") was overweight Distressed
    - The PE Portfolio has an 11.2% weight to Distressed vs. a 3% weight in the Custom Cambridge Blend
    - The Distressed component of the Custom Cambridge Blend was up +33.04% during FY21, underperforming the overall +48.43% return of the Custom Cambridge Blend
  - The PE Portfolio was underweight healthcare and information technology ("IT")
    - The PE Portfolio has an 11% weight to healthcare vs. 18% for the Cambridge Associates Private Equity benchmark (the "Benchmark"), which accounts for 90% of the Custom Cambridge Blend
    - The PE Portfolio has a 28% weight to IT vs. 30% for the Benchmark
    - Healthcare and IT were the best performing sectors within the Benchmark during FY21, with certain sub-sectors up between +75% and +116%, vastly outperforming the overall +51.28% return of the Benchmark
    - In recent years, the Division has been actively working to reduce the underweight to healthcare, including recent commitments to healthcare specialist funds like Altaris and Excellere, as well as diversified funds with healthcare verticals, such as Hellman & Friedman, CVC, TPG Growth, and JLL Partners
  - The PE Portfolio was underweight the top performing vintage years during FY21
    - The top 3 performing vintage years for the Benchmark during FY21 were:
      - 2000 (+71.61%) a 1.71% weight in the Benchmark vs. a 0% weight in the PE Portfolio
      - 2004 (+104.72%) a 2.42% weight in the Benchmark vs. a 0% weight in the PE Portfolio
      - 2009 (+67.03%) a 1.20% weight in the Benchmark vs. less than a 0.1% weight in the PE Portfolio
    - This is due to the fact that (i) the Private Equity Portfolio didn't exist prior to 2005, whereas the benchmark has exposure to vintage years as far back as 1994, and (ii) the Pension Fund only committed less than $10 million in total between 2009 and 2010 (less than 0.1% of total commitments) in the aftermath of the Global Financial Crisis ("GFC"), and those two years proved to be good vintage years that both outperformed the Benchmark during FY21

FY21 Private Equity Portfolio Review and Outlook (continued)

- **For FY21, the Private Equity Portfolio returned +47.89% vs. +48.43% for the Custom Cambridge Blend**

  - The PE Portfolio was overweight the 2020 vintage year, which was the second worst performing vintage year during FY21 for the Benchmark
      - 2020 (-3.84%) a 0.33% weight in the Benchmark vs. a 2.26% weight in the PE Portfolio
    - This is due to the fact that (i) the PE Portfolio is underweight in the face of increasing target allocations such that the Division is deploying capital, and (ii) funds tend to deliver negative performance in early years
  - Over longer periods, the PE portfolio outperforms the Custom Cambridge Blend
  - Timing and methodology differences between the PE Portfolio and Custom Cambridge Blend cloud the meaningfulness of return comparisons between the two
    - The benchmark is presented with a three-month lag
    - State Street calculates the PE Portfolio's returns by compounding them daily using a time-weighted methodology, whereas Cambridge Associates measures its index returns on a quarterly basis using a dollar-weighted methodology
    - Approximately one-third of the funds in the PE Portfolio had yet to report final Q2 2021 numbers at the time FY21 performance was finalized

- **Going forward, concerns exist around the levels of fundraising activity and speed of capital deployment**

  - Per Preqin, global buyout volume is up 135% H1 2021 over H1 2020 and calendar year 2021 is on pace to break pre-GFC levels; as a result, many PE funds are returning to market faster than expected
  - 2021 is on pace to set a fundraising record, with dry powder also reaching record levels
  - Distributions outpaced expectations as the markets rebounded quickly post-COVID and exit activity reached historic levels (according to Preqin, H1 2021 exit activity was up 250% vs. H1 2020, while Q2 2021 marked the highest quarterly level of exits on record)
  - Despite concerns, the private equity model continues to benefit from certain structural advantages
    - Multi-year investment periods and long fund lives provide optionality around entry and exit timing
    - The private equity model is equipped to drive long-term value creation through strong governance and alignment between management and owners

FY21 Private Credit Portfolio Review and Outlook

- **For FY21, the Private Credit Portfolio returned +23.53% versus +16.10% for its Benchmark**

  - The Private Credit Portfolio outperformed as credit markets rebounded after COVID-induced losses
  - Opportunistic credit managers did particularly well
    - They acted as a source of liquidity to the markets by deploying dry powder into the COVID-induced credit dislocation
    - And ultimately benefited as spreads tightened
  - Another notable contributor to performance was the GP equity stake in Owl Rock Capital Group (“ORCG”), which was marked up over $79 million as a result of the Blue Owl transaction
    - ORCG has a cost basis of zero and as of June 30, 2021, was worth over $150 million
  - Despite net distributions to the Pension Fund from the Private Credit Portfolio in excess of $675 million during FY21 (driven by the ongoing restructuring of private credit through reductions in Sculptor, the ongoing receipt of redemption proceeds from legacy Credit HFs, and continued liquidations of public BDCs), the Private Credit Portfolio nonetheless grew by over $465 million
  - There is a timing difference between the Private Credit Portfolio and the Benchmark
    - The benchmark is presented with a one-month lag
    - If adjustments are made for the timing difference, the outperformance vs. the Benchmark would reduce from +7.43% to +7.00%

- **The outlook for private credit remains favorable as credit conditions returned to pre-COVID levels**

  - The structural advantages of private credit remain in the form of illiquidity premiums, speed/certainty premiums, and complexity premiums
  - Private credit provides strong loan documents, lender protections, and credit underwriting and origination
  - Low global public fixed income yields suggest private credit will offer a more attractive risk/return profile
  - Opportunities within private credit are expected to continue to arise as banking regulations evolve

Real Estate Portfolio
Review and Outlook

Kevin Higgins

	ASSET ALLOCATION			PERFORMANCE (for periods ending June 30, 2021)							
	As of June 30, 2021			FY21		Trailing 5 Years		Trailing 7 Years		Trailing 10 Years	
Asset Class	**Mkt Value ($ millions)**	**Actual (%)**	**Target (%)**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**
Real Estate	5,376	5.69%	8.00%	21.21%	1.47%	9.28%	5.26%	10.45%	7.28%	11.04%	8.63%

FY21 Real Estate Portfolio Review and Outlook

- **During FY21, the Real Estate Portfolio returned +21.21% versus +1.47% for the Benchmark**
  - The real estate portfolio is predominately comprised of private real estate funds, including both open-end core and closed-end non-core funds, with a concentration in non-core strategies. The benchmark index (NCREIF ODCE) is exclusively comprised of core, open-end funds.
  - Private real estate funds have outperformed the benchmark over the 1, 3, 5, and 10-year time horizons.
  - Within the private real estate portfolio, the key driver of FY21 returns was the allocation to non-core strategies, which materially outperformed the benchmark by approximately 1,200 bps.
    - While the ODCE benchmark is primarily comprised of office, industrial, multifamily and retail properties, the Division's portfolio contains approximately 32% of alternative property types, including medical office, self storage, hotel/leisure, and senior housing.
    - Hotel/leisure and senior housing assets were particularly impacted by the pandemic and were a significant detractor in FY20. These sectors benefited from some stability and early recovery, and in FY21 these assets were again a positive contributor to performance.
    - Industrial assets continued their outperformance as e-commerce and last-mile logistics drive demand.
    - Multifamily and other residential property types maintained their strength during the pandemic.
  - Public REITs comprise 24% of the total real estate portfolio.
    - While REITs detracted from performance in FY20, public markets provided the opportunity to be tactical during market dislocation and REITs contributed to real estate outperformance in FY21.
  - The real estate portfolio has been cash flow positive each fiscal year since 2013. During FY21 real estate generated net cash flow of $430 million despite the impact of the pandemic.

- **Looking ahead to FY22 and beyond**
  - Recent vintage funds have ample dry powder to capitalize on market dislocations
  - The Division will continue to execute the following strategies:
    - Diversify the Real Estate portfolio with assets that focus on long term demographic and secular trends, and reduce correlation to economic cycles.
    - Increase exposure to strategies that produce meaningful current yield as a key component of total return.
  - Target assets include: data centers, life science/research, medical office, industrial/distribution, and multifamily.

Real Assets Portfolio
Review and Outlook

Niraj Agarwal

	ASSET ALLOCATION			PERFORMANCE (for periods ending June 30, 2021)							
	As of June 30, 2021			FY21		Trailing 5 Years		Trailing 7 Years		Trailing 10 Years	
Asset Class	**Mkt Value ($ millions)**	**Actual (%)**	**Target (%)**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**
Real Assets	2,101	2.22	3.00%	29.96%	18.79%	4.51%	4.19%	1.05%	-1.85%	0.52%	-0.53%

Note:
1) Source: State Street
2) Real Assets Market Value $ million, Actual % and Performance above includes $205.71 million / 10% of publicly listed conventional energy Master Limited Partnerships (MLPs).
3) Real Assets Target % does not include publicly listed investments such as MLPs.
4) Benchmark is a custom blend of Cambridge Associates private asset class benchmarks primarily comprised of upstream conventional energy, metals & mining and conventional energy and mining royalties.

FY21 Real Assets Portfolio Review and Outlook

- **During FY21 the Real Assets Portfolio delivered +29.96% versus +18.79% for the benchmark**
  - The Real Assets Portfolio outperformed the custom Cambridge benchmark over all time horizons, most notably by 11.2% during the 1-year period.
    - Publicly listed conventional energy MLPs ("MLPs") outperformed the benchmark by 5% in FY21
  - Performance was primarily driven by
    - Recovery in conventional energy and metal spot prices
    - Opportunistic exits of conventional energy investments by existing funds given the recovery in spot prices
    - Outperformance by existing infrastructure funds
  - Incepted in 2006, the portfolio is comprised of closed-end private commingled funds, co-investment vehicles and separate accounts as well as MLPs.
  - Real Assets continues to be underweight its target allocation of 3%, especially excluding MLPs given Real Assets is private.
  - The portfolio continues to be anchored with legacy oil & gas -focused upstream energy funds and upstream metals & mining investments, which will be the primary driver of returns for the foreseeable future.
  - Lack of consistent pacing and outsized commitments to upstream conventional energy funds in certain vintage years, specifically 2012 and 2015, will be an outsized influencer of returns.
    - These two vintage years combined account for approximately 68% of FMV and 64% of total exposure.
  - The portfolio delivered net cash flow (distributions less contributions) of c. $78 million in FY21 (excluding publicly listed MLPs) primarily as a result of exits of conventional energy investments by underlying funds.

- **Future outlook comprises of optimizing the existing, largely legacy portfolio and deploying meaningful capital in attractive areas such as infrastructure**
  - Starting calendar year 2021, Staff began taking an active management approach not only towards the existing legacy portfolio as well as new capital deployment initiatives, but will take time to become a meaningful contributor to overall Real Asset portfolio performance.
  - Given the materially deteriorated attractiveness of the conventional energy and metals & mining areas of Real Assets, in recent years the portfolio has been trying to diversify by building out exposures to infrastructure and agriculture.
  - Infrastructure will be a key area of focus to help continue the "crowding out" of underperforming and legacy investments as well as the buildout of long term, less volatile returns .
  - Target areas of infrastructure: renewables/sustainability, digital and other sector-focused strategies to complement diversified global and region-focused strategies
  - Target areas of agriculture: permanent crops, row crops, agriculture and food companies, agri-tech, water to complement diversified global and region-focused strategies

FY21 Real Assets Portfolio Review and Outlook

Sub-Sector	Tailwinds	Headwinds
Oil & Gas	• Capital scarcity • Natural Gas as a transition energy source • Future Supply crunch	• Energy price volatility • Long-term COVID-19 impact • Regulatory impact
Power	• Switching from coal and nuclear to natural gas generation • Renewable penetration / cost competitiveness • Battery Storage, Grid 2.0	• Increased investor demand for renewables compressing returns • Raw material supply constraints for renewable energy equipment
Infrastructure	• Critical need to upgrade/replace existing infrastructure in developed world • Transitions occurring in energy, communications, logistics • Build out in emerging economies	• High levels of dry powder • Core-end of the market highly competitive • Prolonged low interest rate environment further driving up asset values
Metals & Mining	• Valuations hovering around all-time lows • Future supply constraint dynamic • Increase in technology components and electrification growth	• Dearth of development capital • Slower global economic growth
Timber & Agriculture	• Urbanization and demographic shift resulting in demand for higher protein and better-for-you foods • Secondary uses of real estate	• Limited institutional manager landscape • Investment structure economics • Excess supply of timber in U.S. South
Water	• Scarce and precious resource with historically outdated infrastructure	• Limited credible private market participants with demonstrable track records • Limited historical transactions

Risk Mitigation Strategies Portfolio
Review and Outlook

Jessie Choi

	ASSET ALLOCATION			PERFORMANCE (for periods ending June 30, 2021)[1]							
	As of June 30, 2021			FY21		Trailing 5 Years		Trailing 7 Years		Trailing 10 Years	
Asset Class	**Mkt Value ($ millions)**	**Actual (%)**	**Target**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**	**NJ**	**Bench**
Risk Mitigation Strategies	2,745	2.91%	3.00%	13.27%	3.15%	5.39%	4.25%	4.20%	3.94%	3.94%	3.68%

FY21 Risk Mitigation Portfolio Review and Outlook

During FY21, the Risk Mitigation Strategies (RMS) portfolio returned +13.27% versus +3.15% for the Benchmark (T-Bill +300 basis points)

- The RMS portfolio's strong performance was reflected across all strategies as dislocations resulting from the COVID-19 pandemic led to enhanced alpha opportunities.
- The RMS portfolio delivered high alpha during the fiscal year of approximately 4.70% which is above long-term expectations but in line with other post dislocation periods.
- Key factors impacting relative returns included:
  - Extremely strong returns from one of the market neutral managers who capitalized in their volatility focused strategies, discretionary macro strategy (short bonds) and event strategies.
  - Very strong returns from one of the macro-systematic funds which was able to capitalize on sustained trends in equities and commodities.
  - Strong returns from several of the higher equity beta funds in the FAIR portfolios
  - Funds which had lower returns also outperformed the benchmark, although their contribution to relative performance was more muted.
- Timing and calculation methodology differences had minor impact on reported relative returns as there were few cash flows during the fiscal year.

Looking ahead to FY22 and beyond

- Promising outlook for continued above average alpha
- High level of uncertainty due to:
  - Slow global COVID-19 vaccine rollout and uneven vaccine uptake, coupled with uncertainty over potential impact of variants.
  - Divergence in the speed of economic recovery across countries.
  - Inflationary pressures, sustained or transient.
- High uncertainty should lead to continued bouts of volatility, greater dispersion and better opportunities for price discovery.
- We expect that Market Neutral and Macro strategies will continue to benefit from higher sustained volatility and dispersion.
- The Division intends to implement a new RMS Portfolio structure beginning in the first half of 2022 which is designed to improve downside protection, enhance liquidity and ability to access capital over short periods, and lead to a reduction in fees.