



Working Capital

Investment Review as of September 30, 2019

UC INVESTMENTS

UC Working Capital

1. Asset Allocation
2. Performance
3. Asset Classes
4. Risk

INVESTMENT OBJECTIVES

Total Return Investment Pool

- Generate a rate of return, after all costs and fees, in excess of the policy benchmark, and consistent with liquidity, cash flow requirements, and risk budget

Short Term Investment Pool

- Maximize returns consistent with safety of principal, liquidity, and cash-flow requirements

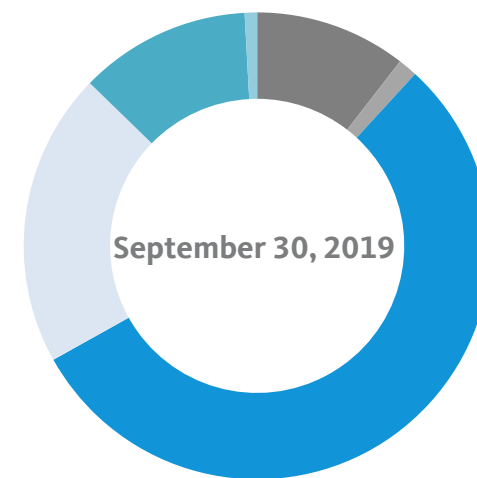
UC Investments

MISSION: Growing Portfolios. Building Partnerships. Delivering value through values.

INVESTMENT PRODUCTS

- Investing Endowment assets since 1933 (87 years)
- Investing Blue & Gold assets since 2019 (1 years)
- Investing Pension assets since 1961 (59 years)
- Investing Retirement Savings assets since 1967 (52 years)
- Investing Working Capital since 1976 (44 years)
- Investing Fiat Lux Insurance assets since 2016 (3 years)

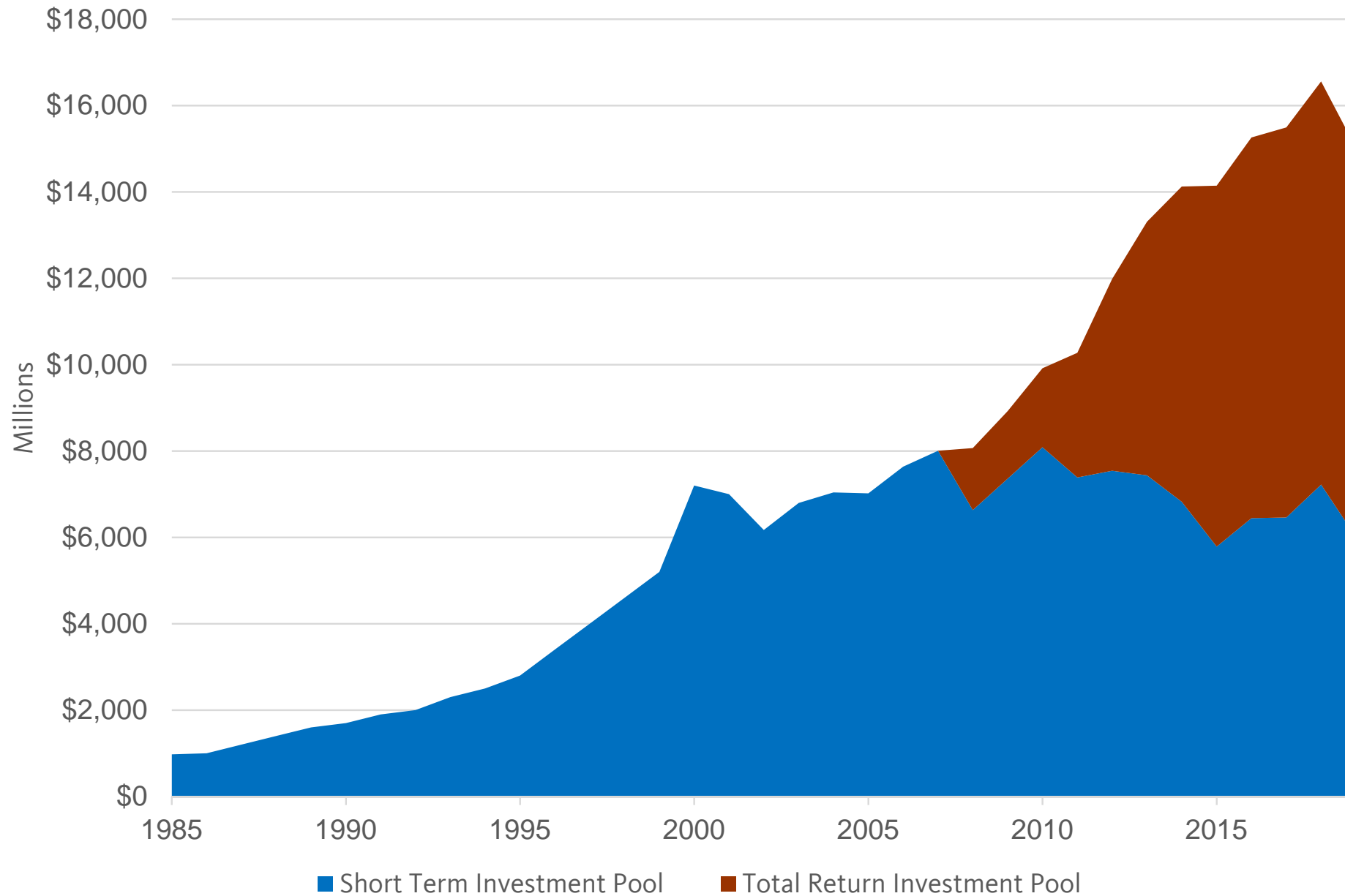
\$126.6 BILLION ACROSS 7 PRODUCTS



● Endowment:.....	\$13.3B (10%)
● Blue & Gold:.....	\$1.7B, (1%)
● Pension:.....	\$69.7B, (55%)
● Retirement Savings:.....	\$25.8B, (20%)
● Working Capital:.....	\$15.0B, (12%)
<i>Total Return:.....\$9.0B</i>	
<i>Short Term:.....\$6.0B</i>	
● Fiat Lux Insurance:.....	\$1.1B, (1%)

Working Capital Asset Growth

Working Capital ASSETS 1985 – 2019



5 YEAR GROWTH

September 30, 2019

Today	Change
\$15.0 billion	
1 Year Ago \$16.6 billion	-\$1.6 billion
5 Years Ago \$14.1 billion	+\$0.9 billion

Assets Under Management

	Total Return Market Value (\$B)	Short Term Market Value (\$B)	Total Market Value (\$B)
June 30, 2019	9.2	5.6	14.7
Market Gains	0.1	0.0	0.1
Value Added	(0.0)	0.0	0.0
Net Cash Flow	(0.3)	0.4	0.1
September 30, 2019	9.0	6.0	15.0

Total Return Investment Pool

Total Return: Assets Under Management

	Market Value (\$B)
June 30, 2019	9.2
Market Gains	0.1
Value Added	(0.0)
Net Cash Flow	(0.3)
September 30, 2019	9.0

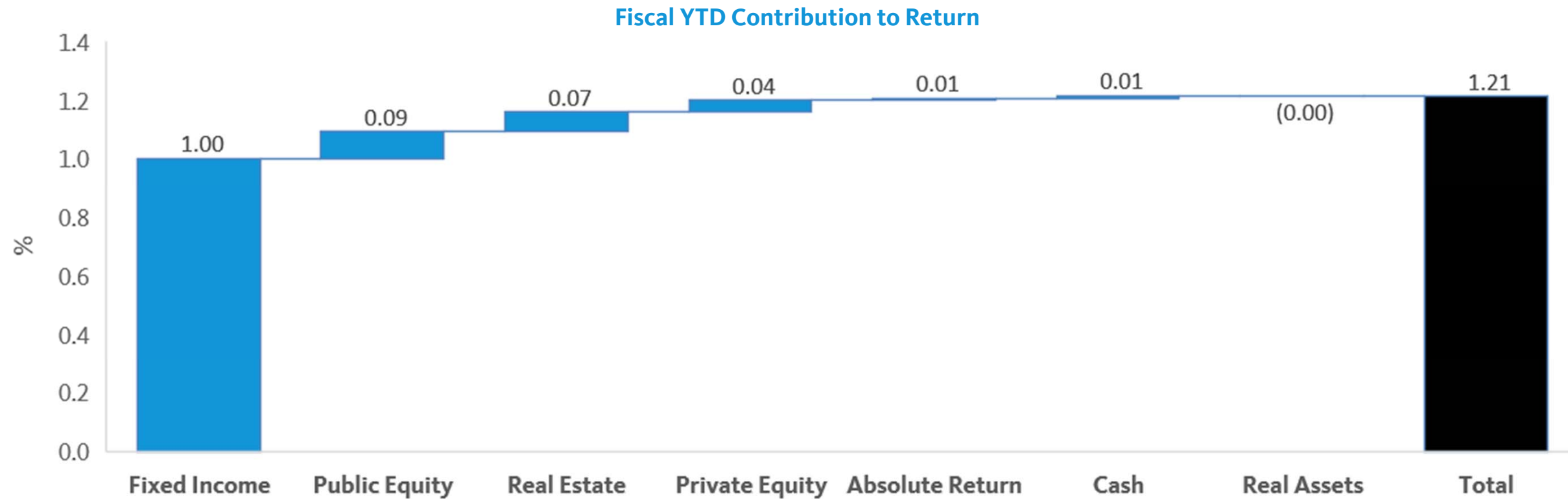
Total Return: Asset Allocation

As of September 30, 2019	Market Value (\$B)	Weight (%)	Over/Underweight to Interim Policy (%)	Interim Policy (%)	Long-Term Target (%)
Growth	3.0	32.9	(2.1)	35	35
Public Growth	2.9	31.8	31.8	-	-
Private Growth	0.1	1.1	1.1	-	-
Income	4.5	50.0	(0.0)	50	50
Public Income	4.1	45.7	45.7	-	-
Private Income	0.4	4.3	4.3	-	-
Absolute Return	1.2	13.6	(1.4)	15	15
Cash	0.3	3.5	3.5	-	-
Total	\$9.0B	100.0%		100.0%	100%

Total Return: Performance

As of September 30, 2019 Net Returns (%)	Market Value (\$B)	Weight (%)	Annualized Returns					
			Fiscal YTD	1 Year	3 Year	5 Year	10 Year	20 Year
Total Return	9.0	100	1.2	5.5	5.7	4.8	6.8	0.0
Policy Benchmark*			1.3	5.8	5.2	4.4	6.4	0.0
<i>Value Added</i>			(0.1)	(0.4)	0.5	0.4	0.3	0.0

* Policy benchmark as of July 1, 2015 is 50% Barclays US Aggregate Index + 35% MSCI All Country World Investible Markets Index + 15% HFRX Absolute Return Index. Prior is a weighted average composite of the historical policy benchmarks and targets.



Total Return: Attribution – Fiscal Year to Date

As of September 30, 2019	Portfolio Return	Benchmark Return	Allocation Attribution	Selection Attribution	Total Attribution
Equity	0.1	-0.2	0.0	0.1	0.1
Public Growth	0.1	-0.2	0.0	0.1	0.1
Private Growth	-0.5	-0.2	0.0	0.0	0.0
Income	2.0	2.3	0.0	-0.1	-0.1
Public Income	2.2	2.3	0.0	0.0	0.0
Private Income	0.2	2.3	0.0	-0.1	-0.1
Absolute Return	1.2	1.1	0.0	0.0	0.0
Absolute Return	1.2	1.1	0.0	0.0	0.0
Cash	-0.6	-	0.0	0.0	0.0
Total	1.2	1.3	0.0	0.0	-0.1

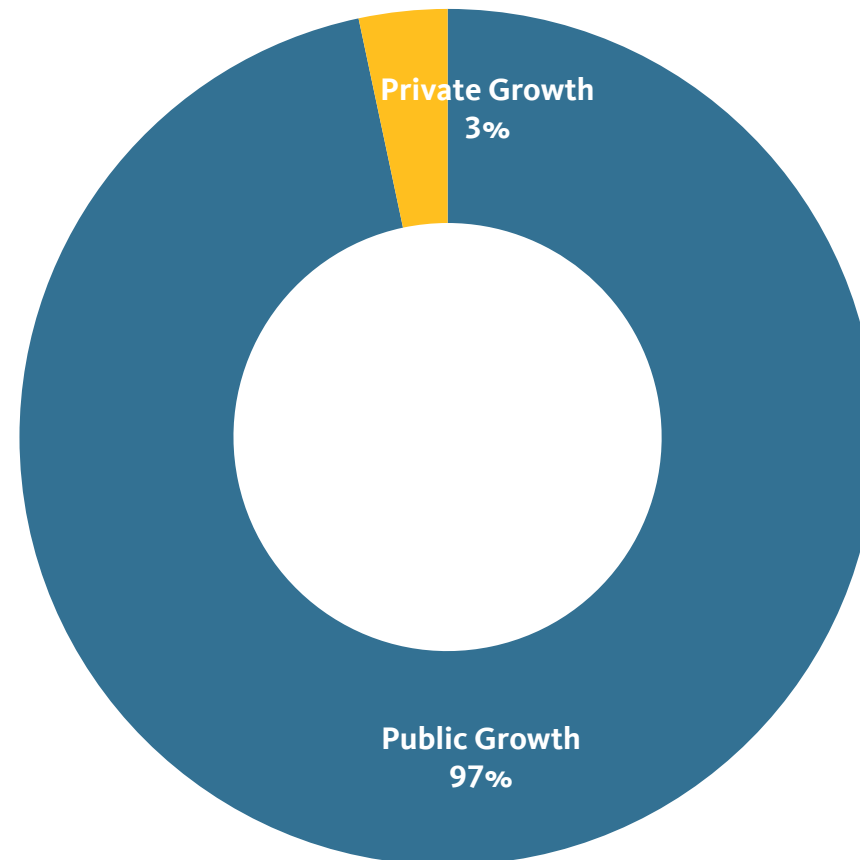
Total Return: Policy Benchmark

Asset Class	Policy Benchmark Component	Target	Allowable Ranges	
			Min	Max
Total Equity (Growth)	MSCI All Country World Index Net IMI Tobacco Free	35.0%	30.0%	40.0%
Total Income	Barclays US Aggregate Bond Index	50.0%	45.0%	55.0%
Absolute Return	HFRX Absolute Return Index	15.0%	5.0%	25.0%

Total Return: Growth

As of September 30, 2019 Net Returns (%)	Market Value (\$B)	Weight (%)	Annualized Returns					
			Fiscal YTD	1 Year	3 Year	5 Year	10 Year	20 Year
Growth	3.0	100	0.1	1.7	10.4	7.1	9.7	-
Policy Benchmark*			(0.2)	0.6	9.6	6.7	8.4	-
<i>Value Added</i>			0.3	1.1	0.8	0.4	1.3	-
Public Growth	2.9	97	0.1	1.3	10.0	6.8	9.5	-
Private Growth	0.1	3	(0.5)	17.7	23.1	-	-	-

* Policy benchmark as of July 1, 2015 is MCSI ACWI IMI TF. Prior to that, policy would be a weighted average composite of the historical policy benchmarks and targets. Inception date for Public Growth is August 1, 2008; inception date for Private Growth November 1, 2015.



Total Return: Income and Cash

As of September 30, 2019 Net Returns (%)	Market Value (\$B)	Weight (%)	Fiscal YTD	Annualized Returns				
				1 Year	3 Year	5 Year	10 Year	20 Year
Income	4.5	100	2.0	9.7	3.7	3.9	5.2	0.0
Policy Benchmark*			2.3	10.3	2.9	3.4	3.7	5.0
<i>Value Added</i>			(0.3)	(0.6)	0.8	0.5	1.5	(5.0)
Public Income	4.2	91	2.2	10.0	3.5	3.9	5.2	-
Private Income	0.4	9	0.2	7.2	5.7	-	-	-

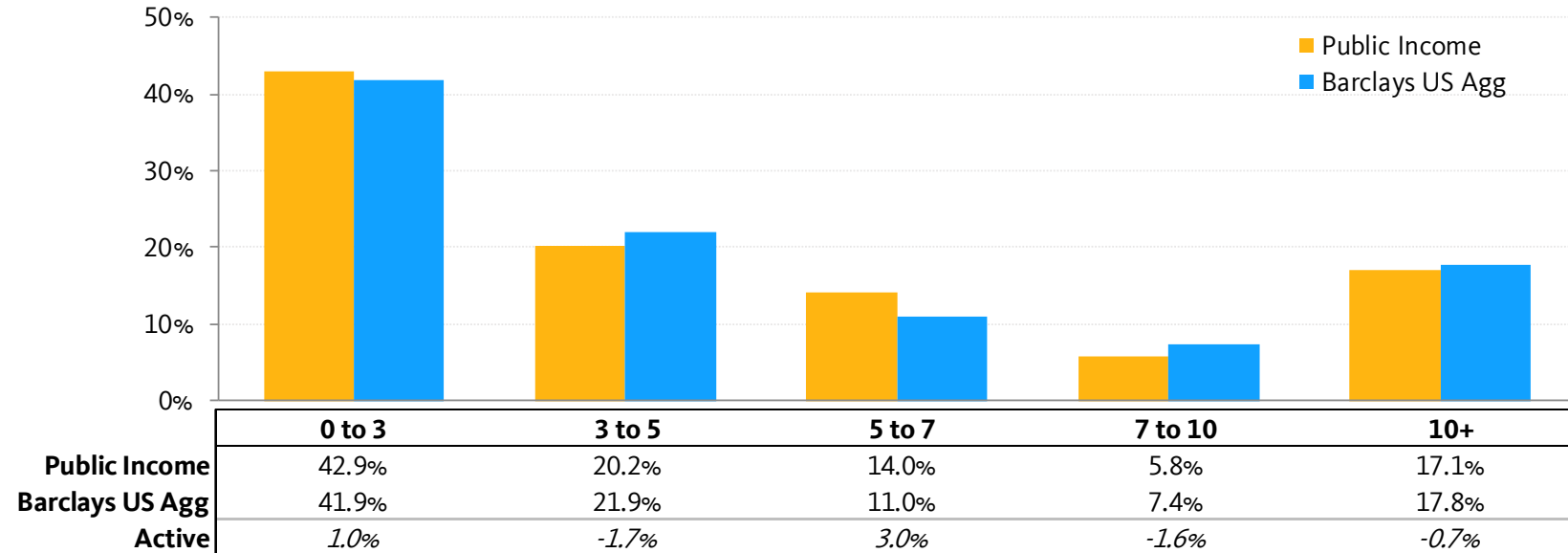
* Policy benchmark as of July 1, 2015 is Barclays U.S. Aggregate Index and is shown for all periods. There was no total TRIP income performance composite and total income policy benchmark did not exist prior to July 1, 2015. Inception date is August 1, 2008 for Public Income, and November 1, 2015 for Private Income.

As of September 30, 2019 Net Returns (%)	Market Value (\$B)	Weight (%)	Fiscal YTD	Annualized Returns				
				1 Year	3 Year	5 Year	10 Year	20 Year
Cash*	0.3	100	(0.6)	2.4	1.9	1.6	-	-

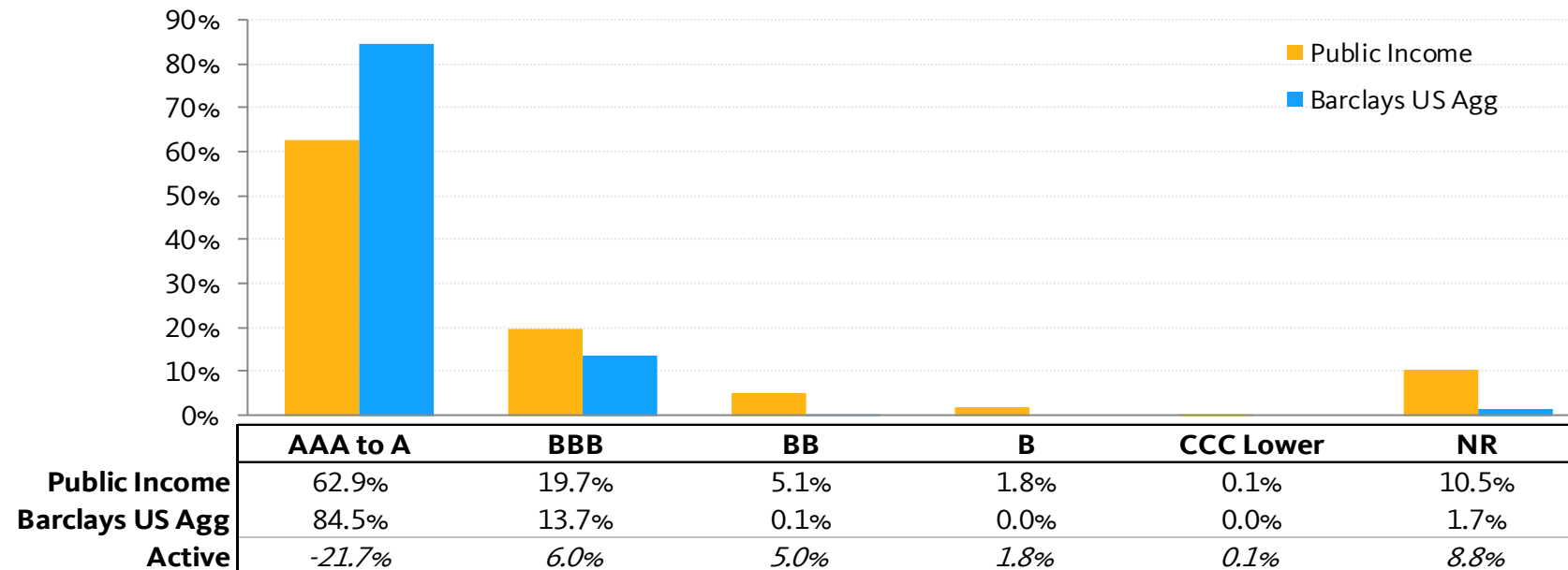
* Does not include income received from participation in securities lending.

Total Return: Public Income Composition

Maturity Profile



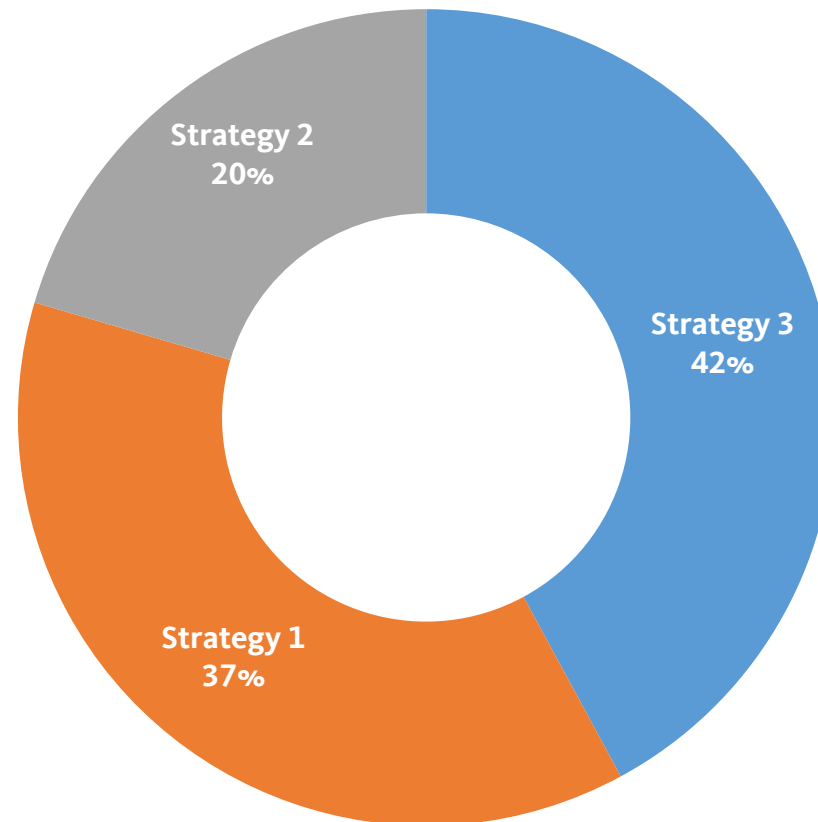
Rating Distribution



Total Return: Absolute Return

As of September 30, 2019 Net Returns (%)	Market Value (\$B)	Weight (%)	Fiscal YTD	Annualized Returns				
				1 Year	3 Year	5 Year	10 Year	20 Year
Absolute Return	1.2	100	1.2	0.1	0.9	0.5	-	-
Policy Benchmark*			1.1	1.2	1.7	1.7	-	-
<i>Value Added</i>			0.1	(1.1)	(0.8)	(1.2)	-	-

* Prior to July 1, 2015, the portfolio benchmark was 50% HFRX Absolute Return + 50% HFRX Market Directional. Thereafter the benchmark has been the HFRX Absolute Return. Since inception date of Absolute Return is August 2013.



Risk 1.0 : Risk Measurement

Portfolio volatility drops on the quarter from decreasing weight to Growth (from over to underweight) and increasing cash levels.

Tracking Error also decreases on the quarter.

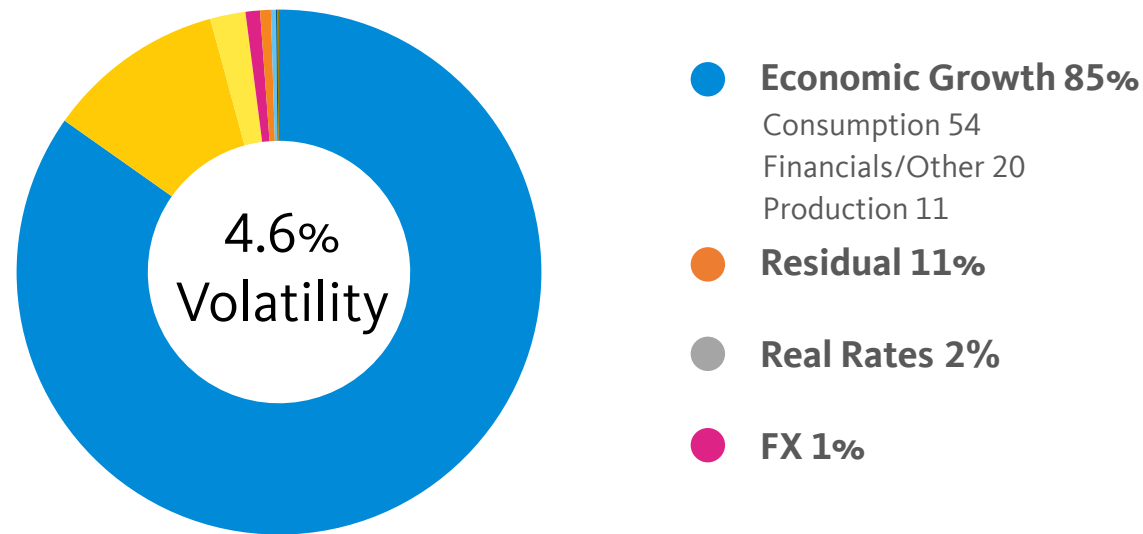
Portfolio	Benchmark	Weight (%)	Portfolio Risk (%)		Benchmark Risk (%)		Active Risk (%)	
			Standalone Volatility	QoQ Change	Standalone Volatility	QoQ Change	Tracking Error	QoQ Change
TRIP	Policy (Blend)	100	4.6	(0.6)	4.3	(0.1)	0.6	(0.5)
Income	Barclay's Aggregate	50	3.2	0.8	3.5	0.9	1.0	(0.0)
Growth	MSCI ACWI ex Tobacco	33	12.8	0.4	12.7	0.5	0.3	(0.2)
Absolute Return	HFRXARUCR	14	2.8	(1.6)	1.6	(0.2)	2.7	(1.4)
Cash	N/A	4	0.1	(0.3)	0.0	0.0	0.1	(0.3)

Macroeconomic Risk Factors

Portfolio systematic risk generally dominated by “Economic Growth” risk. Within Economic Growth, “Consumption” dominates.

Endowment

Portfolio Standalone Risk Factor Decomposition



Factor Name	Factor Description
Economic Growth	Proxied by broad, developed market equity index returns
Real Rates	Inflation-linked bond returns
Inflation	Return of long nominal bonds, short inflation-linked bonds portfolio
Credit	Return of long corporate bonds, short nominal bonds portfolio
Commodity	Weighted GSCI Commodity index returns
Emerging Markets (EM)	Equally weighted basket of EM Assets

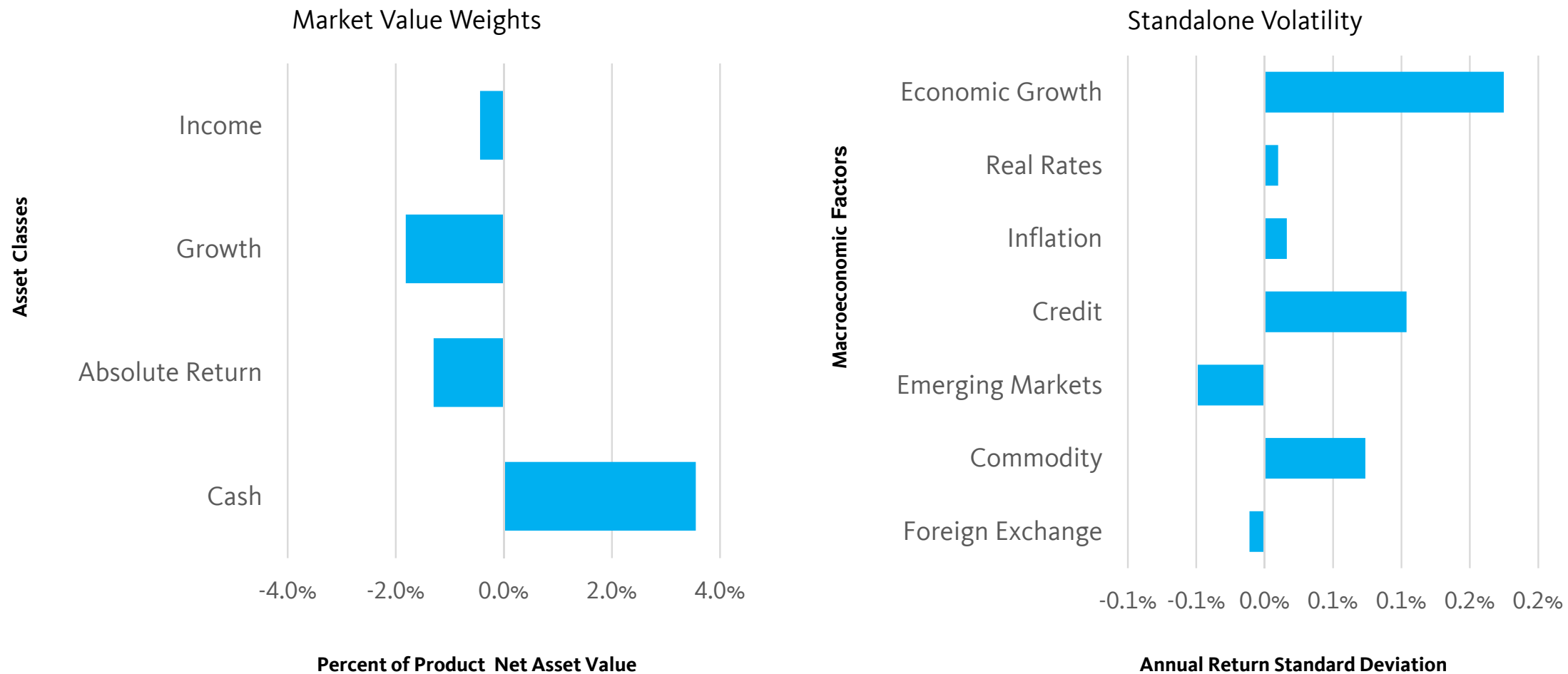
Risk 1.0: Two Views of Risk

Asset Classes versus Macroeconomic Factors

Portfolio underweight all asset classes and overweight cash. In factor space, Economic Growth, Credit and Commodities are actively overweight, while EM is underweight.

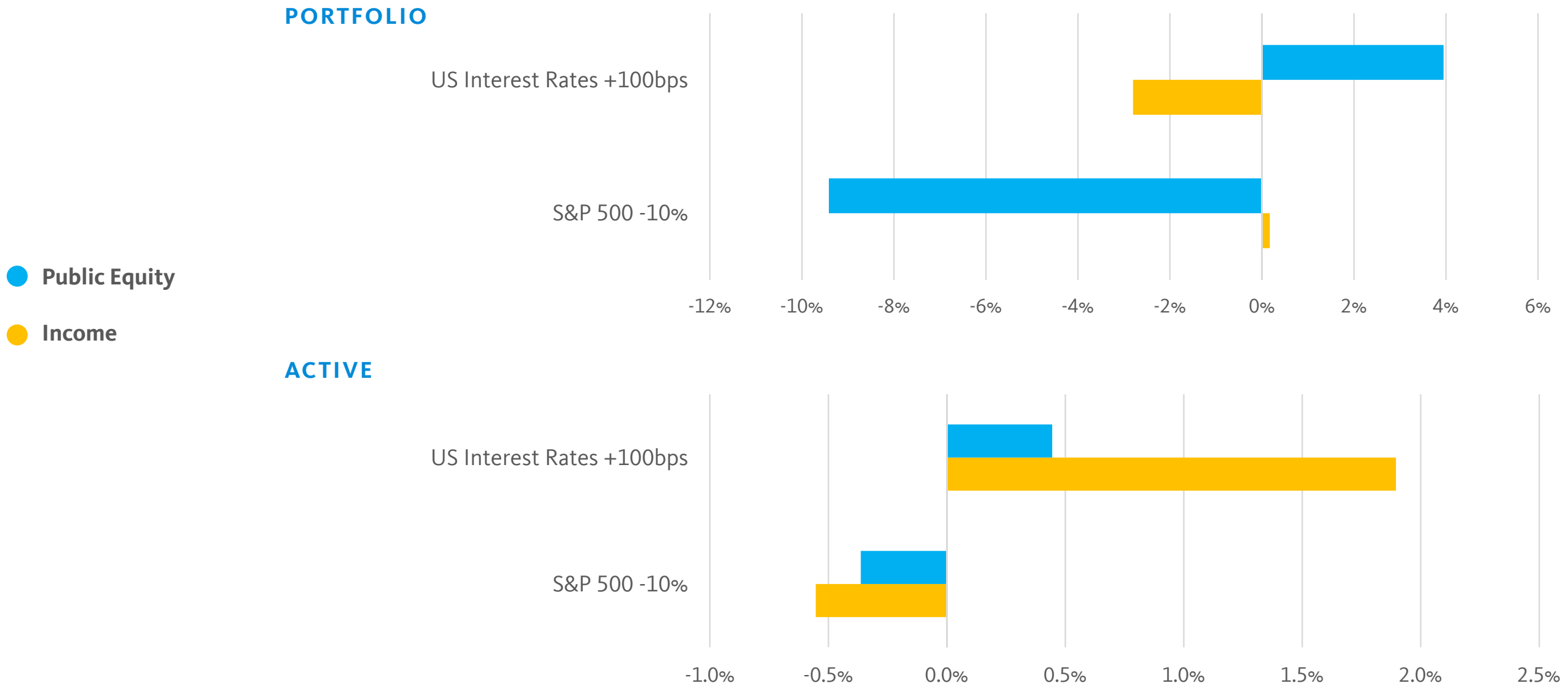
Working Capital Active Exposures

Reference scale: active risk (tracking error) : 0.6%



Risk 2.0: Stress Tests

Indicative stressed P&L for public markets investments



Risk 3.0: Scenario Analysis

US Scenarios

Federal Reserve Rate Regimes
Fiscal Policy Stance
Tax Reform

European Scenarios

Brexit Negotiations
Europe Fragmentation/Breakup
Eurozone Populist Elections

Emerging Markets /Asia Scenarios

US-China Trade Relations
Abenomics- Helicopter Money
North Korea Tensions

Global Scenarios

Central Bank Policy
Peak Oil
Gulf Tensions

Interest Rate Scenarios

US Rates Paradigm Shift
Reflation – Deflation
Rising Inflation – Global Rate Hikes

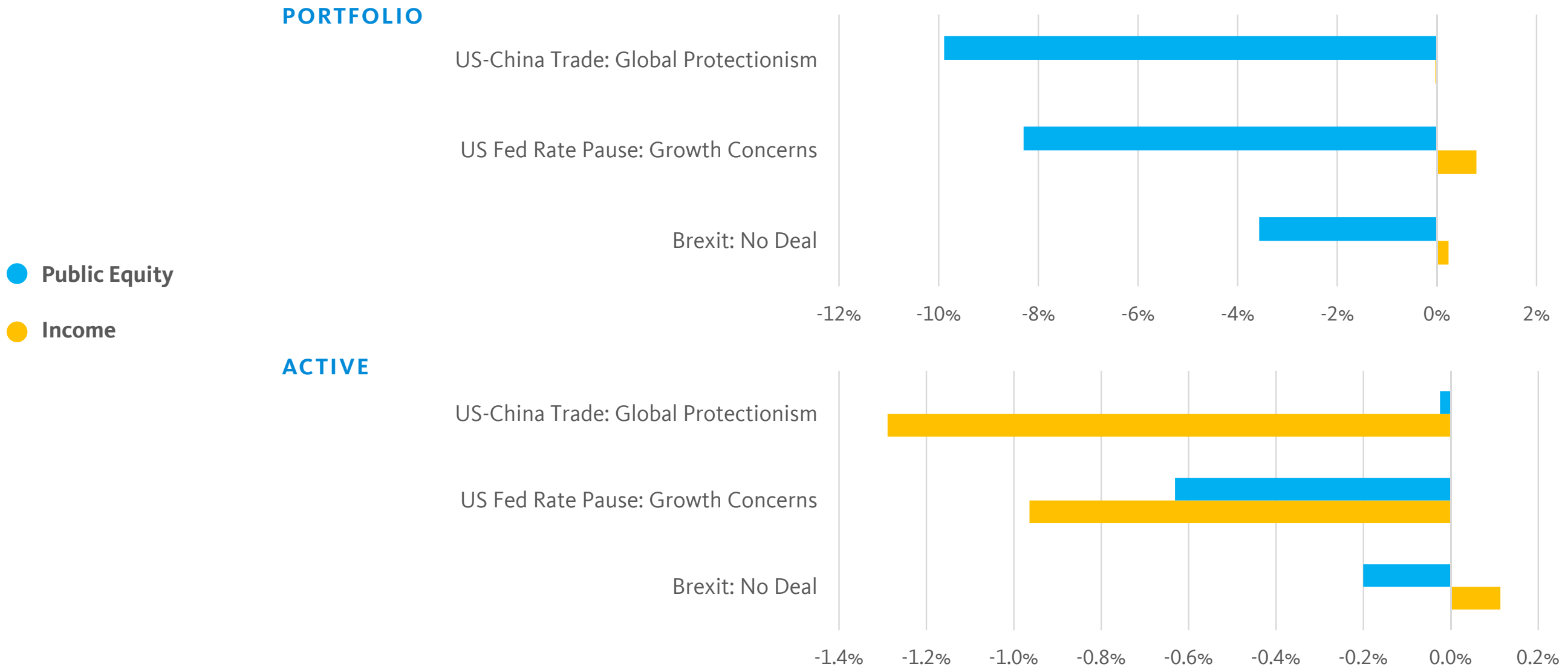
Market Technical Scenarios

Volatility Regime Change
Tech Calamity
Value Reversal

Source: BlackRock

Risk 3.0: Scenario Analysis

Indicative stressed P&L for public markets investments



As of September, 2019 Reference scale: volatility = 4.6%, tracking error 0.6%

Short Term Investment Pool

Short Term: Assets Under Management

	Market Value (\$B)
June 30, 2019	5.6
Market Gains	0.0
Value Added	0.0
Net Cash Flow	0.4
September 30, 2019	6.0

	Market Value (\$B)	Portfolio (%)	Duration	Rating
Governments & Agencies	1.8	31	0.89	AA+
Commercial Paper	2.5	41	0.05	A
Corporates	1.7	28	1.36	A-
Total	\$6.0B	100%	0.68	A+

*STIP Assets exclude:

- (a) approximately \$3.4 billion internal receivable from campuses and medical centers for funds transferred to the Retirement Plan,
- (b) approximately \$2.1 billion held on behalf of the Retirement Plan,
- (c) approximately \$371.4 million held on behalf of the General Endowment Pool,
- (d) approximately \$372.1 million held on behalf of the UC Retirement Savings Program,
- (e) approximately \$839.3 million receivable from certain eligible University employees who have received loans under the University's Mortgage Origination Program, and
- (f) approximately \$52.2 million held on behalf of the Total Return Investment Pool.

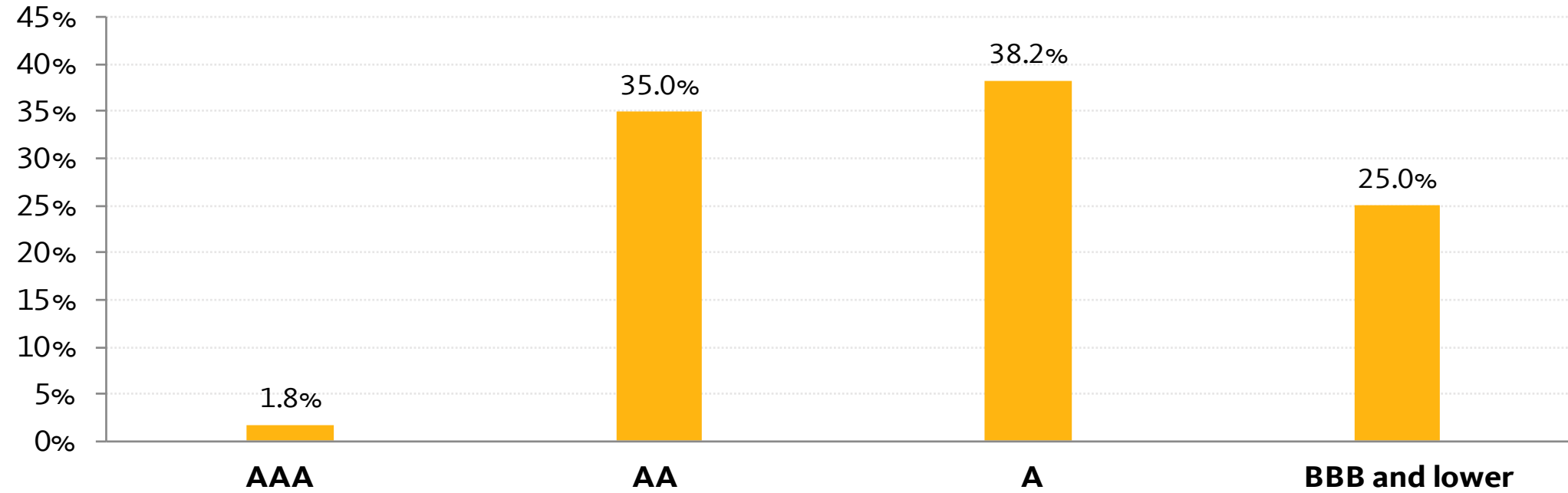
Short Term: Performance

As of September 30, 2019 Net Returns (%)	Market Value (\$B)	Weight (%)	Fiscal YTD	Annualized Returns				
				1 Year	3 Year	5 Year	10 Year	20 Year
Short Term	6.0	100	0.6	2.4	1.9	1.6	1.9	3.2
Policy Benchmark*			0.5	2.4	1.7	1.2	0.8	2.1
<i>Value Added</i>			0.1	0.0	0.2	0.4	1.1	1.1

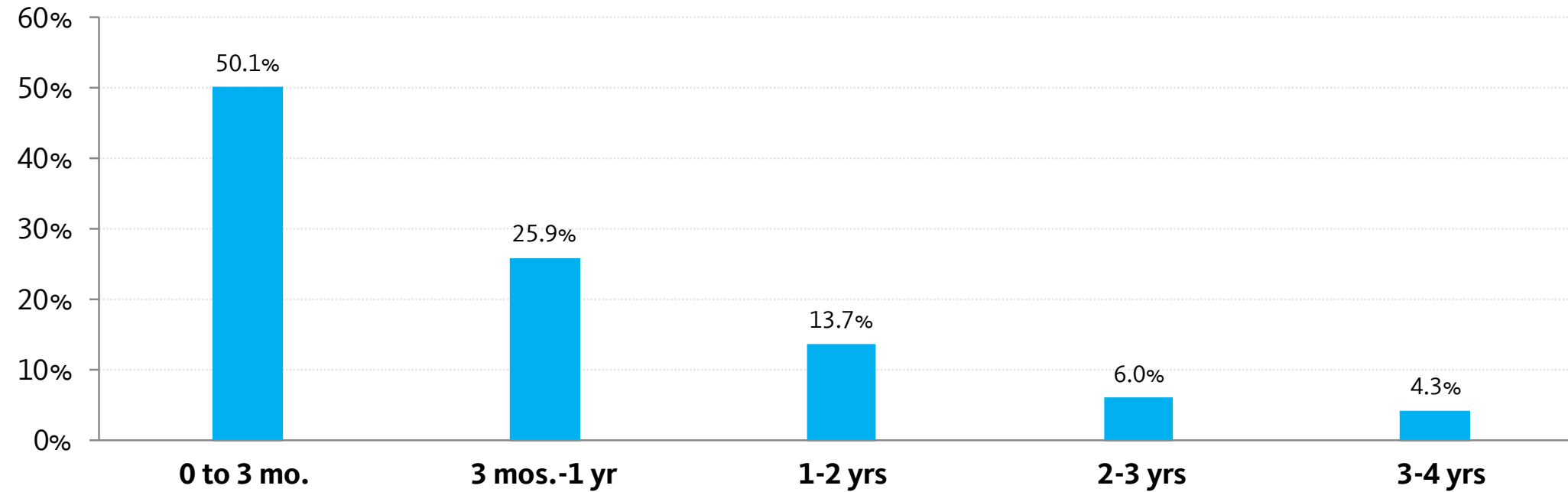
* STIP Policy Benchmark is based on a weighted average of the 2 Year Treasury Income Note + 30-Day Treasury Bill

Short Term: Portfolio Composition

Rating Profile



Maturity Distribution



Short Term: Policy Benchmark

Asset Class	Policy Benchmark Component
Short Term	Weighted Average of Income Return on a Constant Maturity Two-Year U.S. Treasury Note and the Return on U.S. 30-Day Treasury Bills