UNIVERSITY OF CALIFORNIA

Pension & Savings Program

December 31, 2022

UC INVESTMENTS

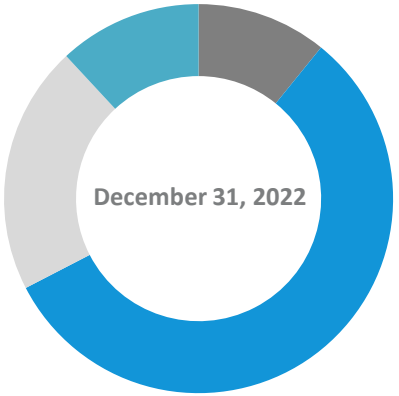
UC Investments Way

UC Retirement System: $111.2 Billion

INVESTMENT PRODUCTS

- Investing **Endowment** assets since 1933 (90 years)
- Investing **Blue & Gold** assets since 2019 (4 years)
- Investing **Pension** assets since 1961 (62 years)
- Investing **Retirement Savings** assets since 1967 (56 years)
- Investing **Working Capital** since 1976 (47 years)
  - Investing Total Return since 2008 (13 years)
  - Investing Short Term since 1976 (47 years)

$153,218 MILLION ACROSS 6 PRODUCTS

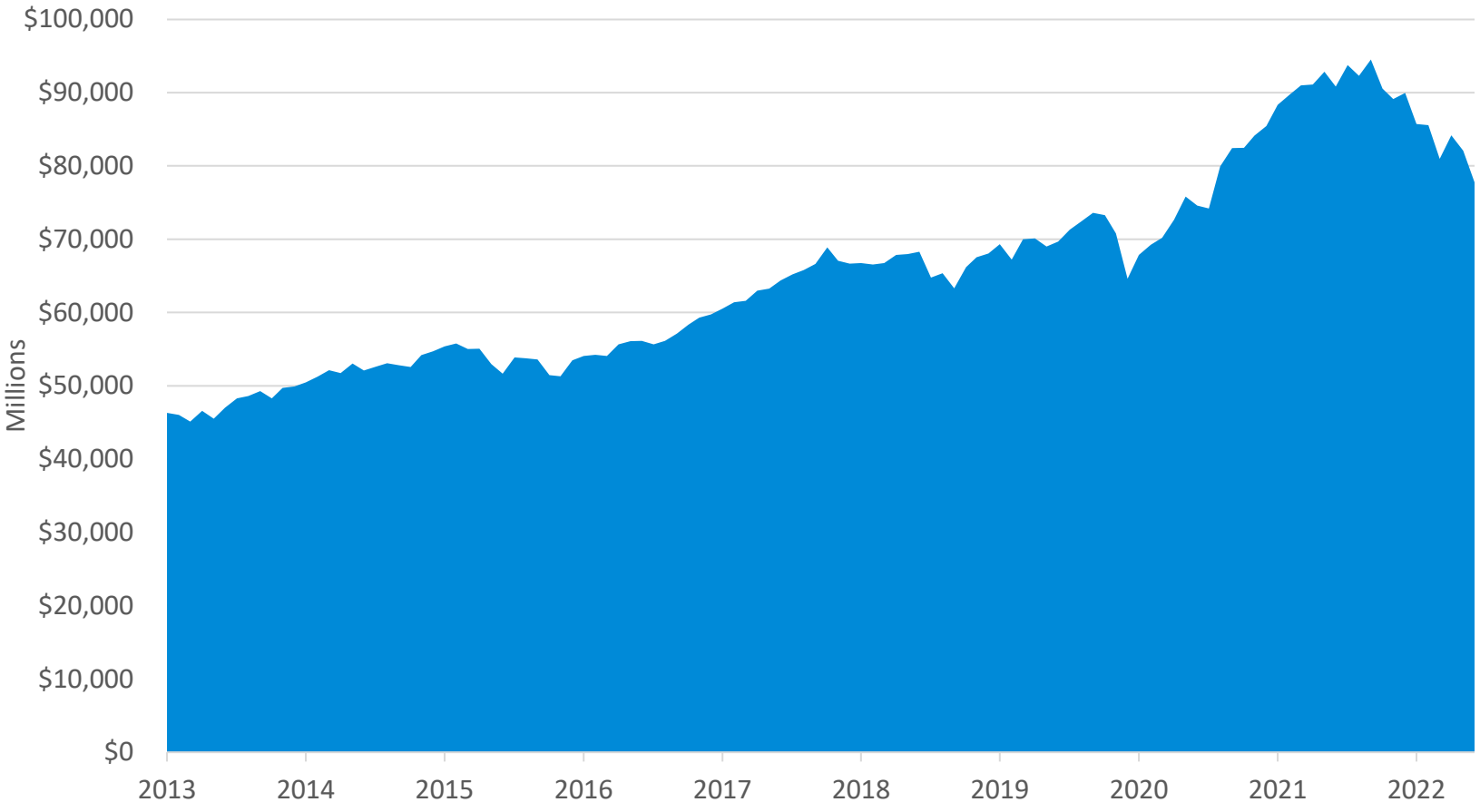


	$ Million	(%)
Endowment	19,606	13
Blue & Gold	2,431	2
Pension	81,175	53
Retirement Savings	30,024	20
Working Capital	19,981	13
TRIP	12,106	8
STIP	7,875	5

Pension

Pension Assets Growth

PENSION ASSETS 2013 – 2022



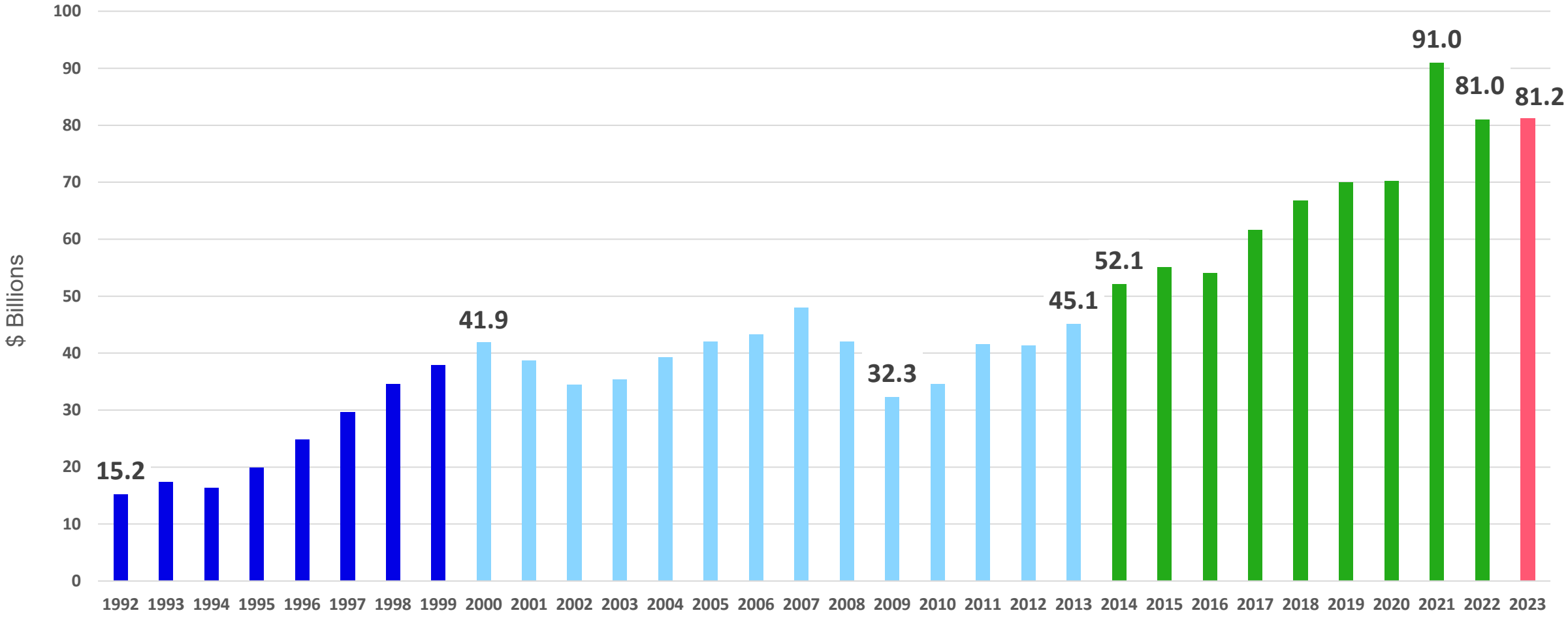
ASSET GROWTH

December 31, 2022

Today	$81,175M	Δ Change
1 Year Ago	$94,525M	-$13,349M
5 Years Ago	$66,624M	+$14,552M
9 Years Ago	$49,270M	+$31,906M
10 Years Ago	$43,815M	+$37,360M

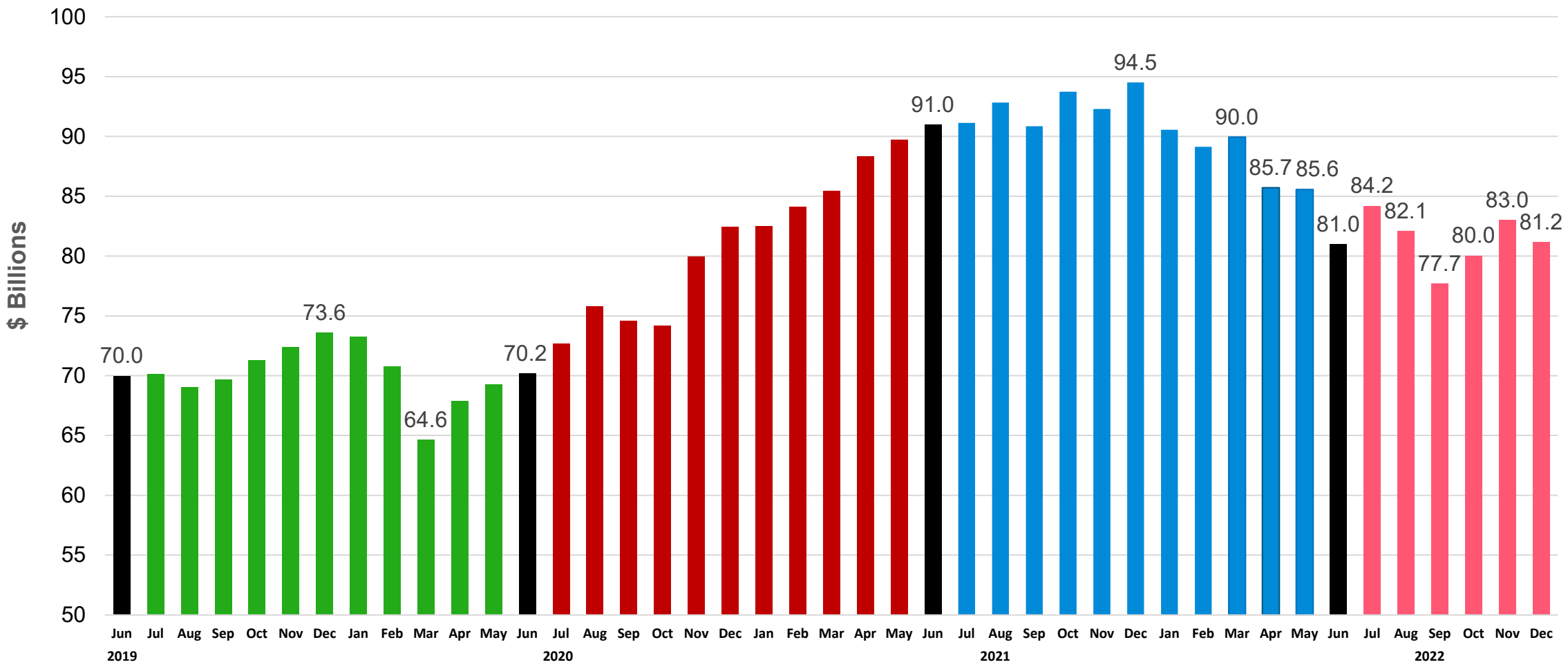
Pension Assets Growth: Market Dips Bring Rebound

30 Years (1992 – 2022)



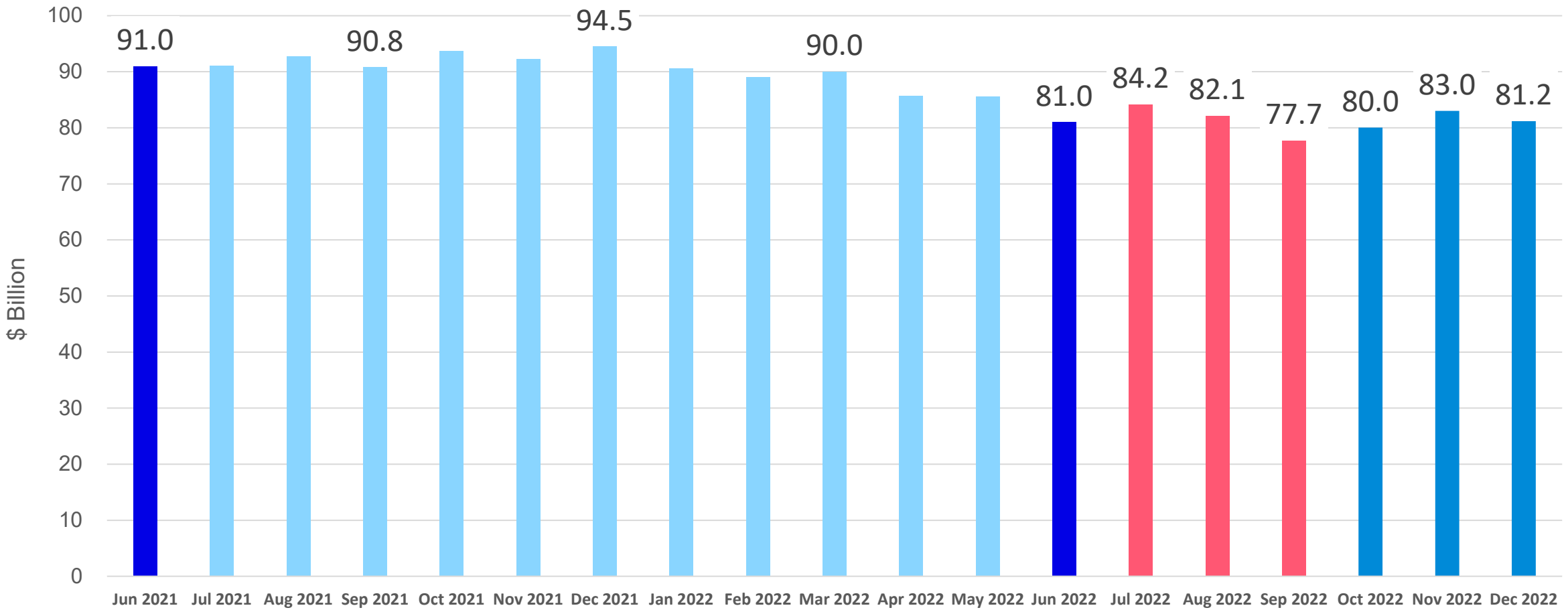
Pension Assets Growth: Market Dips Bring Rebound

3 Years (2019 – 2022)



Pension Assets Growth: Market Dips Bring Rebound

1 Years (2021 – 2022)



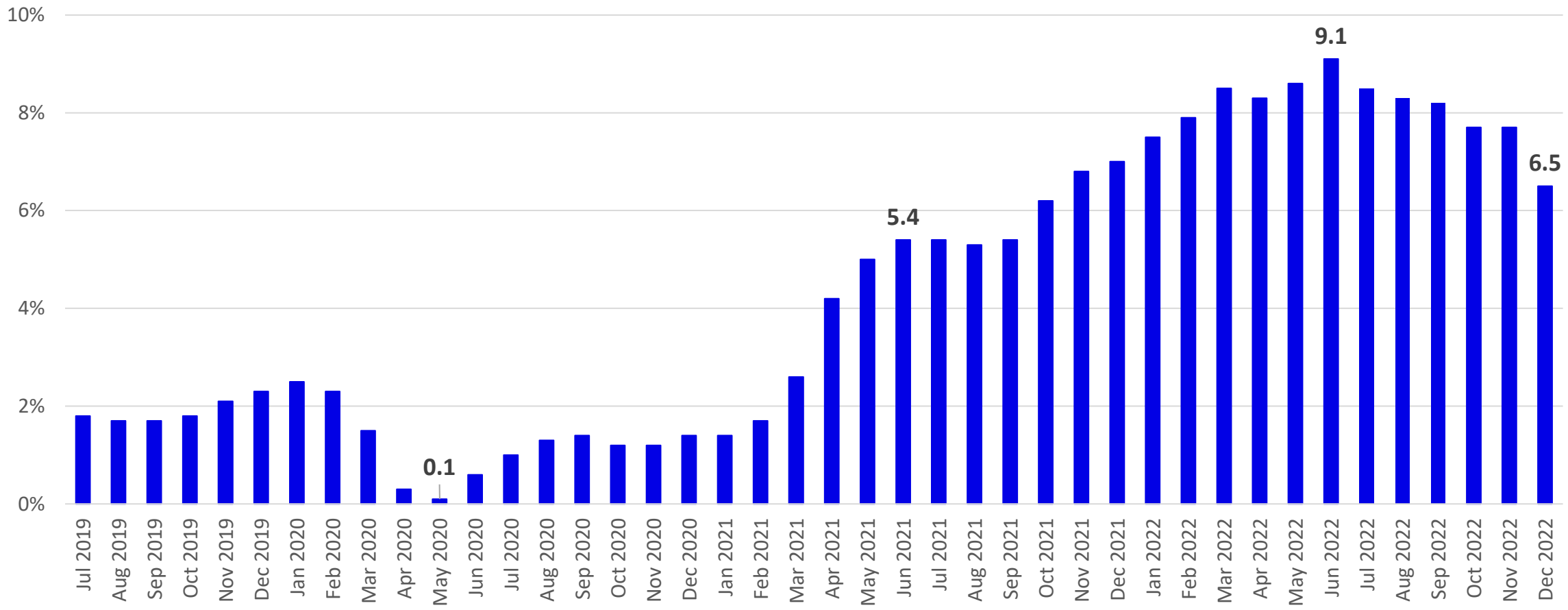
Assets Under Management

Fiscal Year To Date (6 Months)	Market Value ($M)
June 30, 2022	80,984
Market Gains	1,346
Value Added	(232)
Net Cash Flow	(923)
December 31, 2022	81,175

Pension Asset Allocation

As of December 31, 2022	Market Value ($M)	Weight (%)	Over/Underweight to Interim Policy (%)	Long-Term Target (%)
Public Equity	**40,346**	**49.7**	**(3.3)**	**53**
Active – Public Equity	8,924	11.0		
Passive – Public Equity	31,409	38.7		
Fixed Income	**12,689**	**15.6**	**(1.4)**	**17**
Private Markets	**22,797**	**28.1**	**(1.9)**	**30**
Private Equity	8,805	10.8	(1.2)	12
Absolute Return	2,870	3.5	0.0	3.5
Private Credit	2,421	3.0	(0.5)	3.5
Real Estate	5,102	6.3	(0.7)	7
Real Assets	3,599	4.4	0.4	4
Cash	**5,344**	**6.6**	**6.6**	**0**
Total	**$81,175M**	**100.0%**		**100.0%**

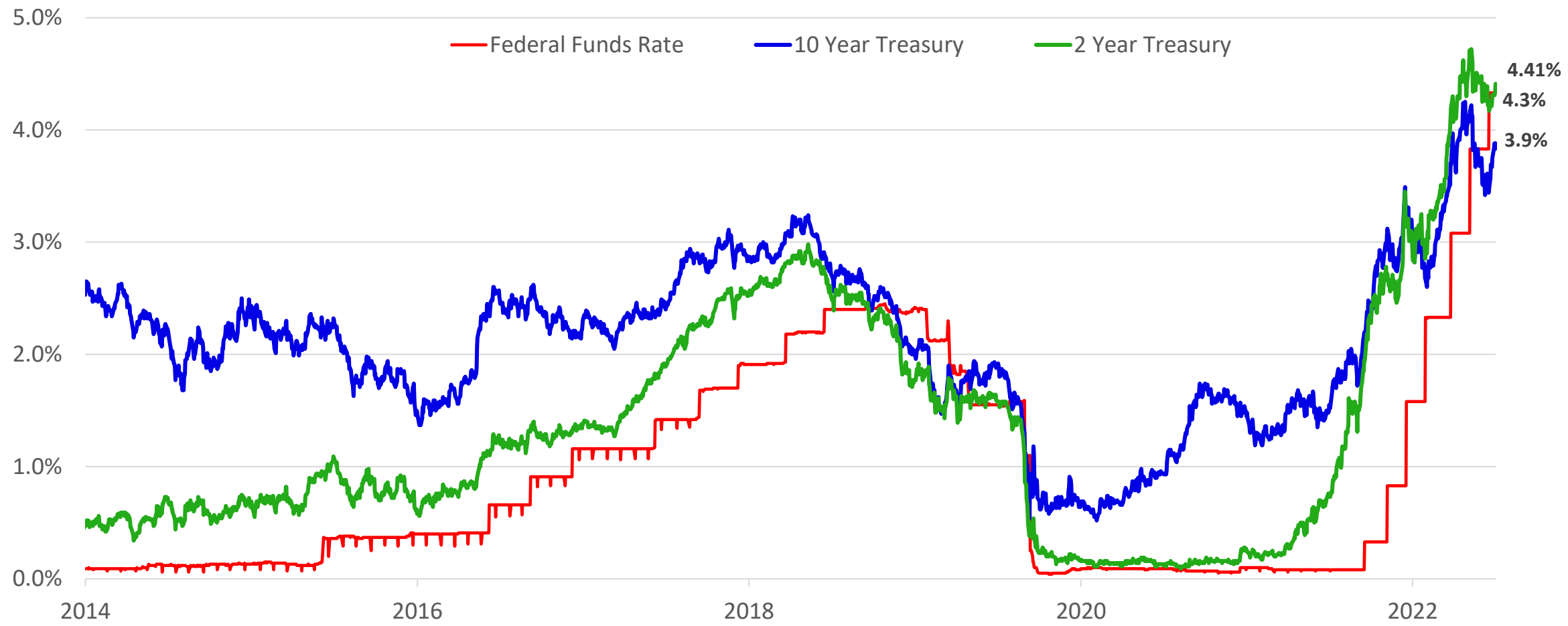
CORE INFLATION COULD FALL TO 3% IN 2023



Source: Bloomberg

FED GUIDING RATE TO 5% IN 2023

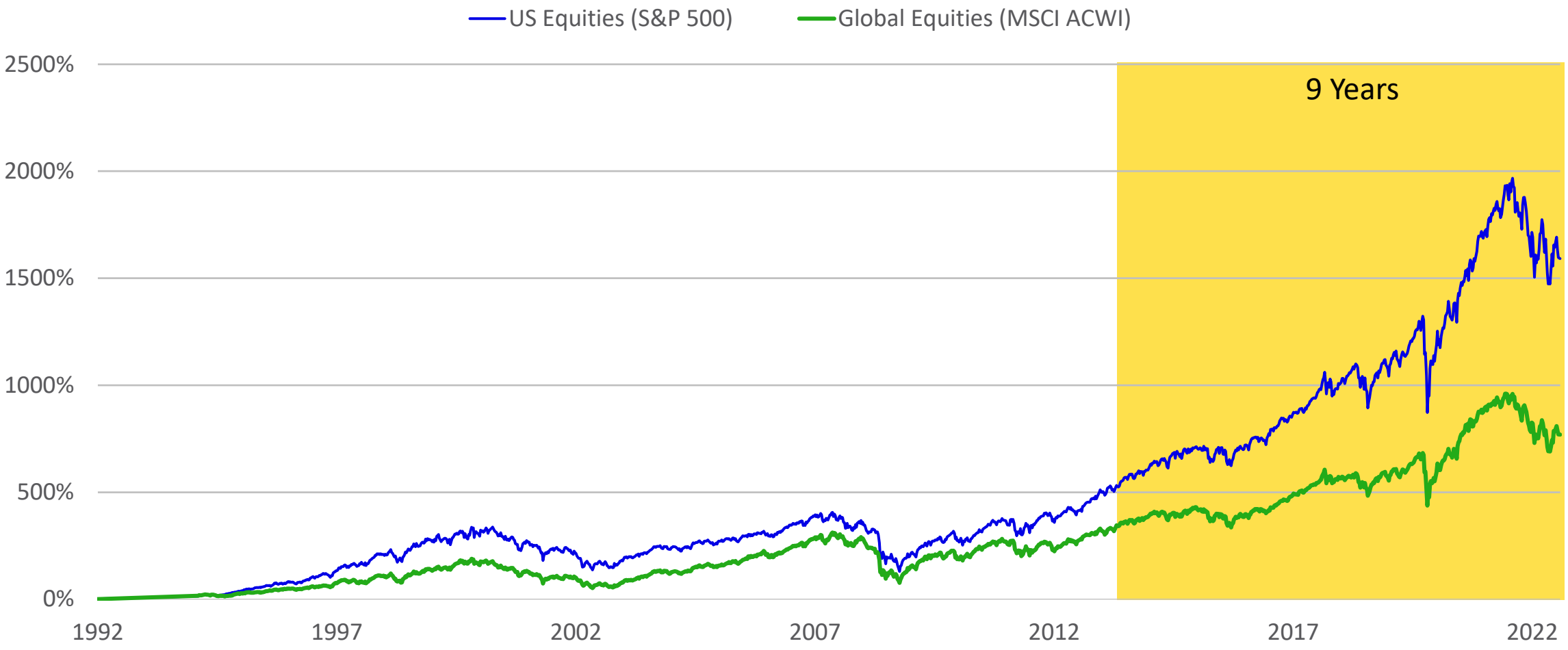
As of December 31, 2022



Source: Board of Governors of the Federal Reserve System (US)

GLOBAL EQUITIES HAD WORST YEAR SINCE 2008

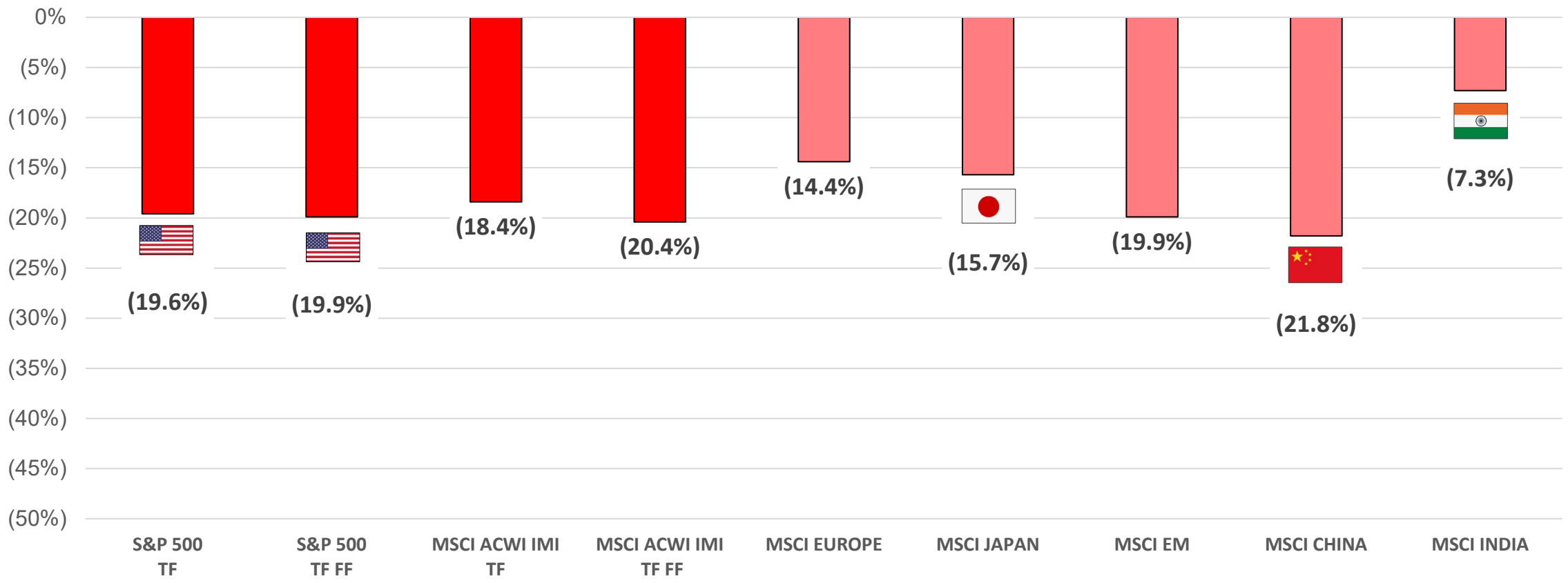
As of December 31, 2023



Source: Bloomberg

GLOBAL EQUITIES DOWN 20% IN 2022

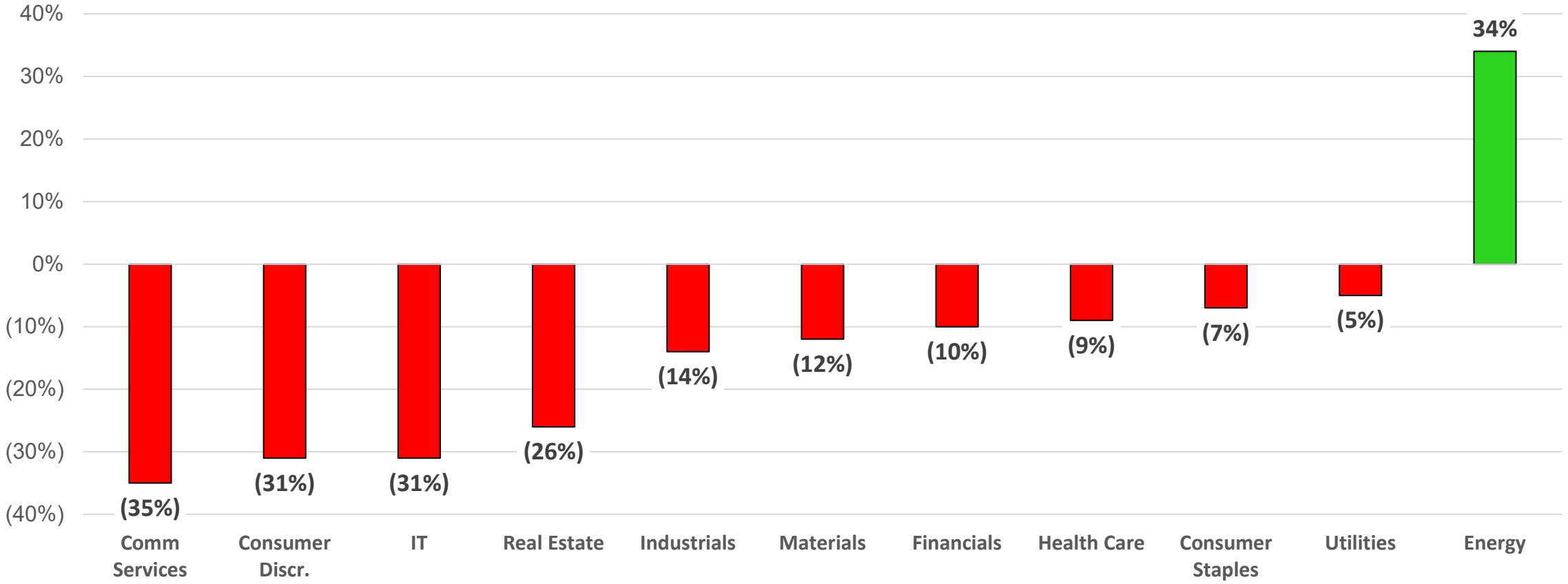
As of December 31, 2022



TF: Tobacco Free, FF: Fossil Fuel Free
De-nominated in USD
Source: Bloomberg

GLOBAL ENERGY MARKET CLEAR WINNER AT 34%

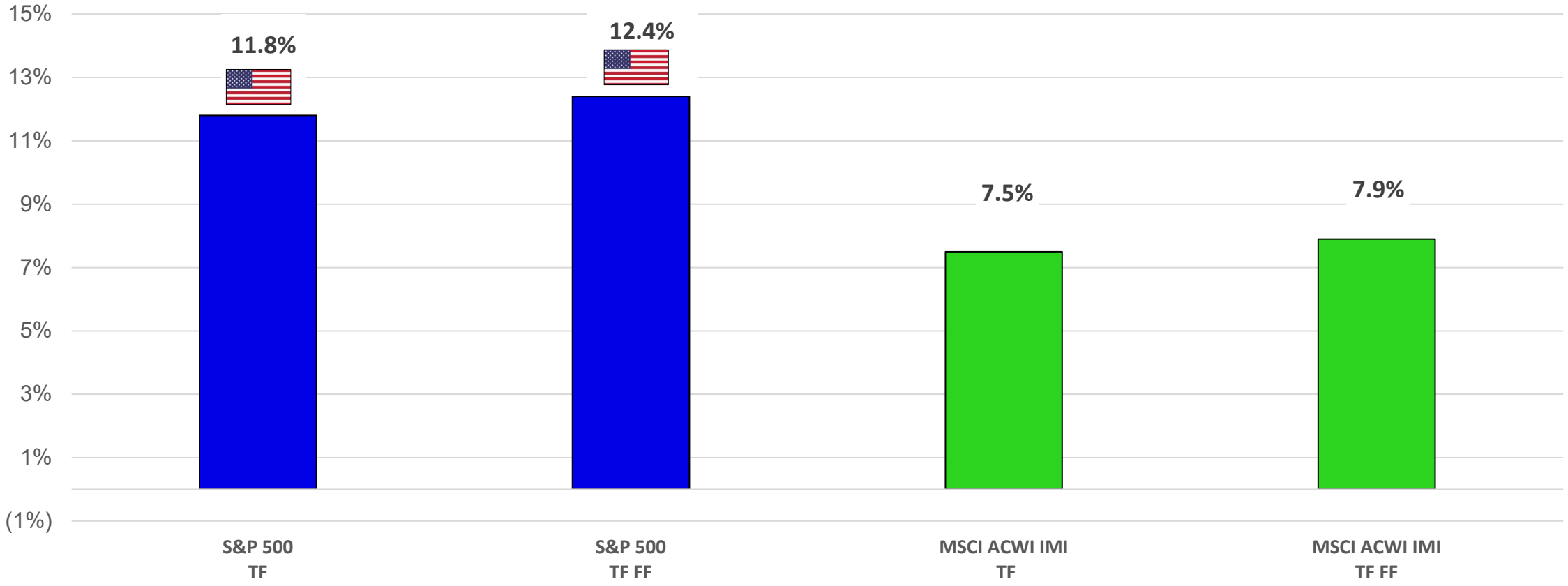
As of December 31, 2022



Source: Bloomberg

10-YEAR FOSSIL-FREE OUTPERFORMS MARKET

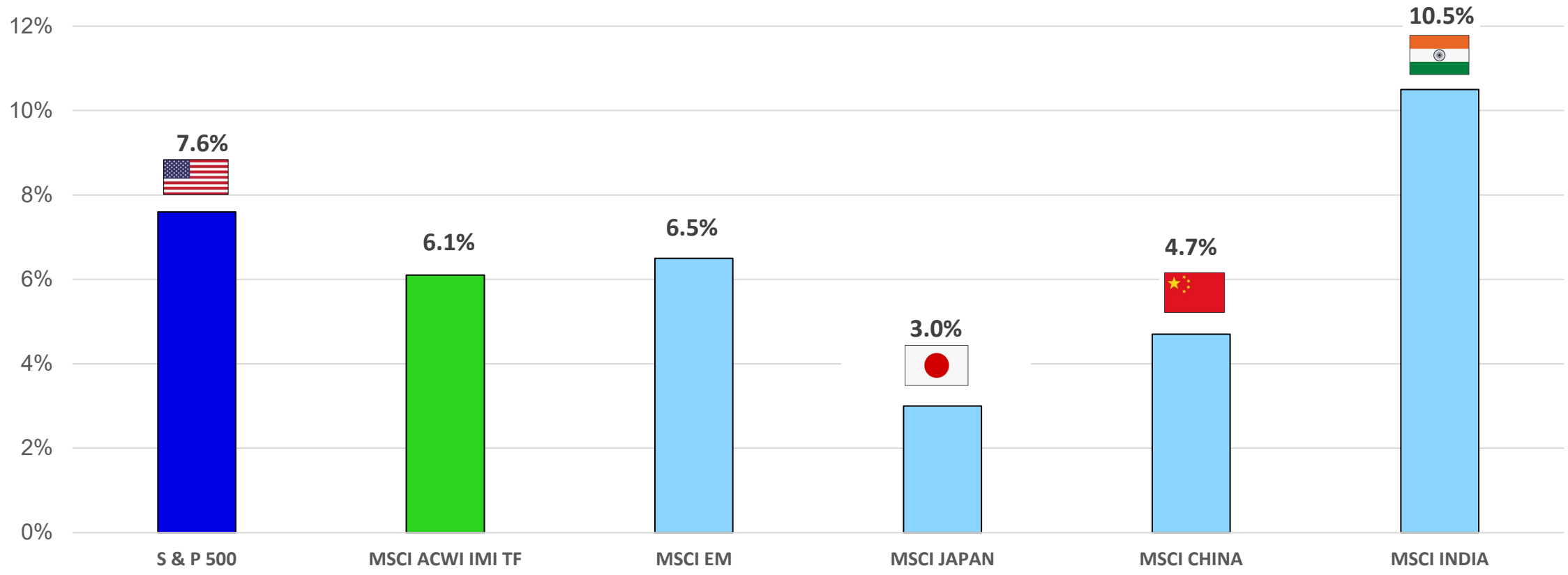
As of December 31, 2022



TF: Tobacco Free, FF: Fossil Fuel Free
De-nominated in USD
Source: Bloomberg

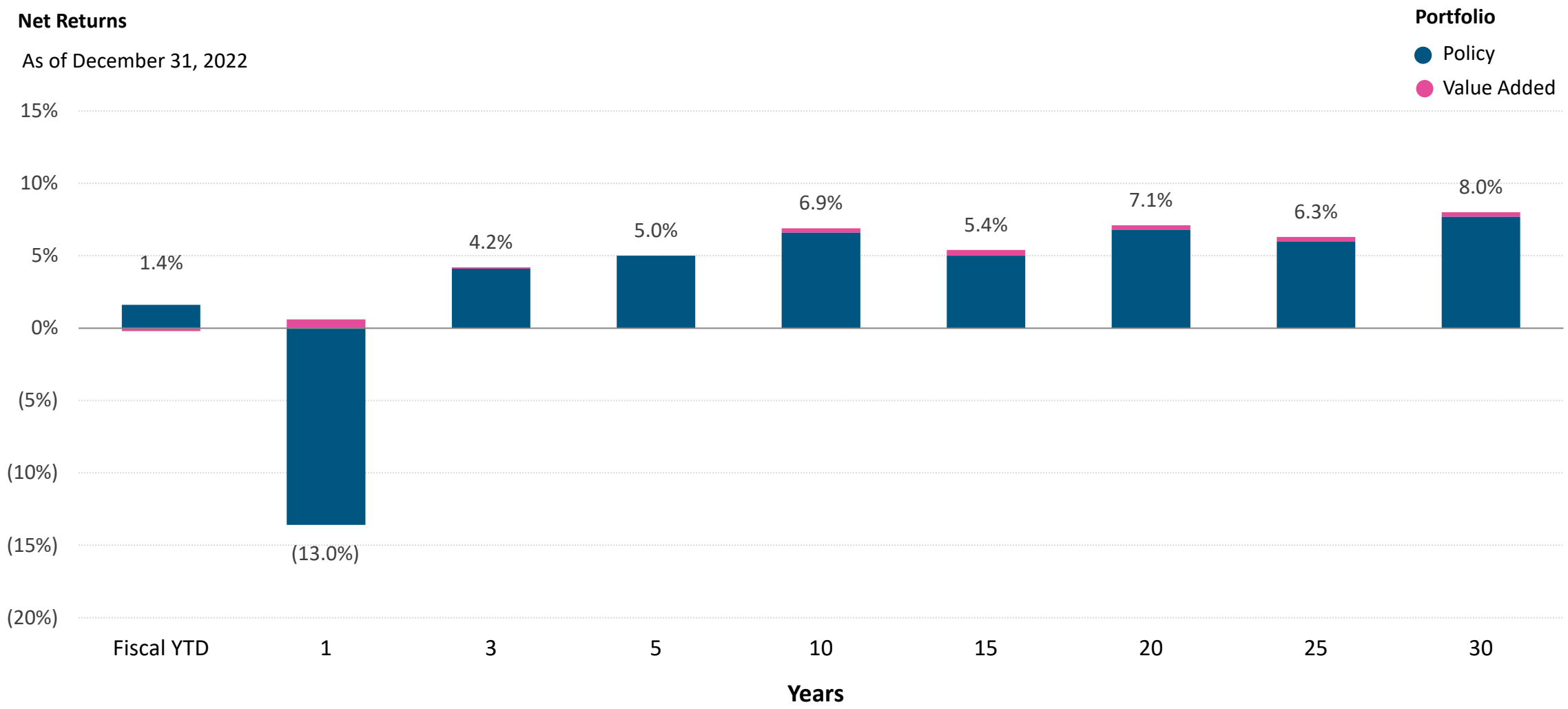
INDIA OUTPERFORMS WORLD OVER 25 YEARS

As of December 31, 2022



TF: Tobacco Free
De-nominated in USD
Source: Bloomberg

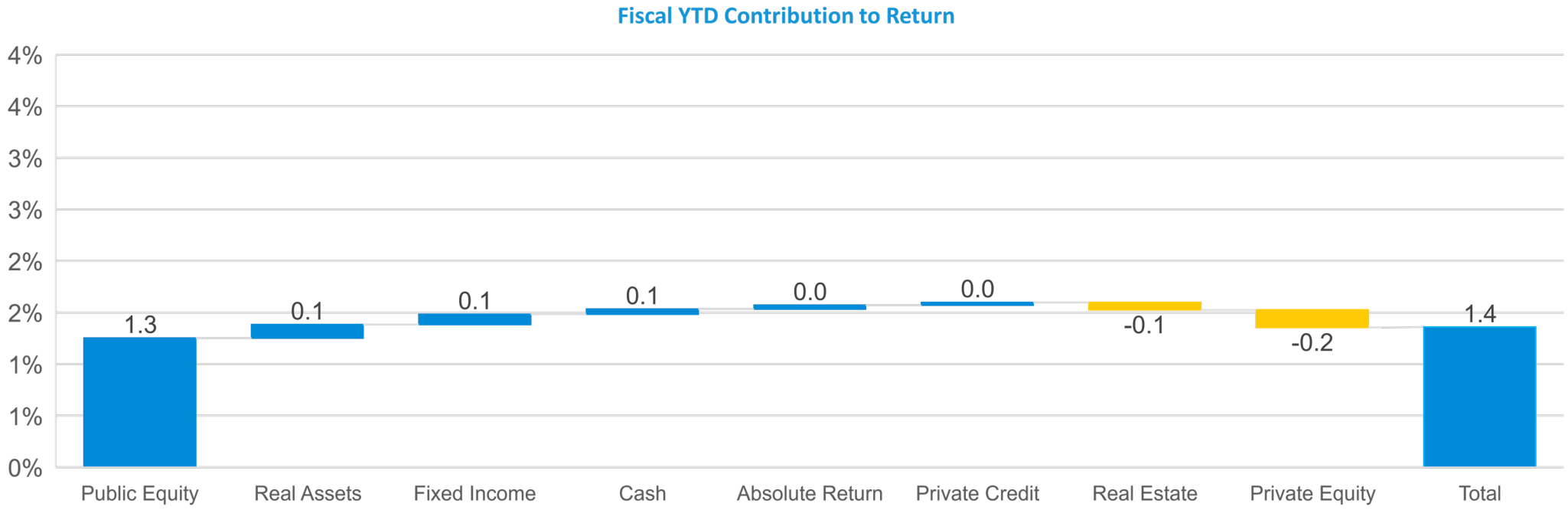
Pension Performance



Pension Performance

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year	15 Year	20 Year	25 Year	30 Year
UC Pension	81,175	1.4	(13.0)	4.2	5.0	6.9	5.4	7.1	6.3	8.0
Policy Benchmark*		1.6	(13.6)	4.1	5.0	6.6	5.0	6.8	6.0	7.7
Value Added		(0.2)	0.6	0.1	0.0	0.3	0.4	0.3	0.3	0.3

*The Policy Benchmark is a weighted average of investment policy targets.



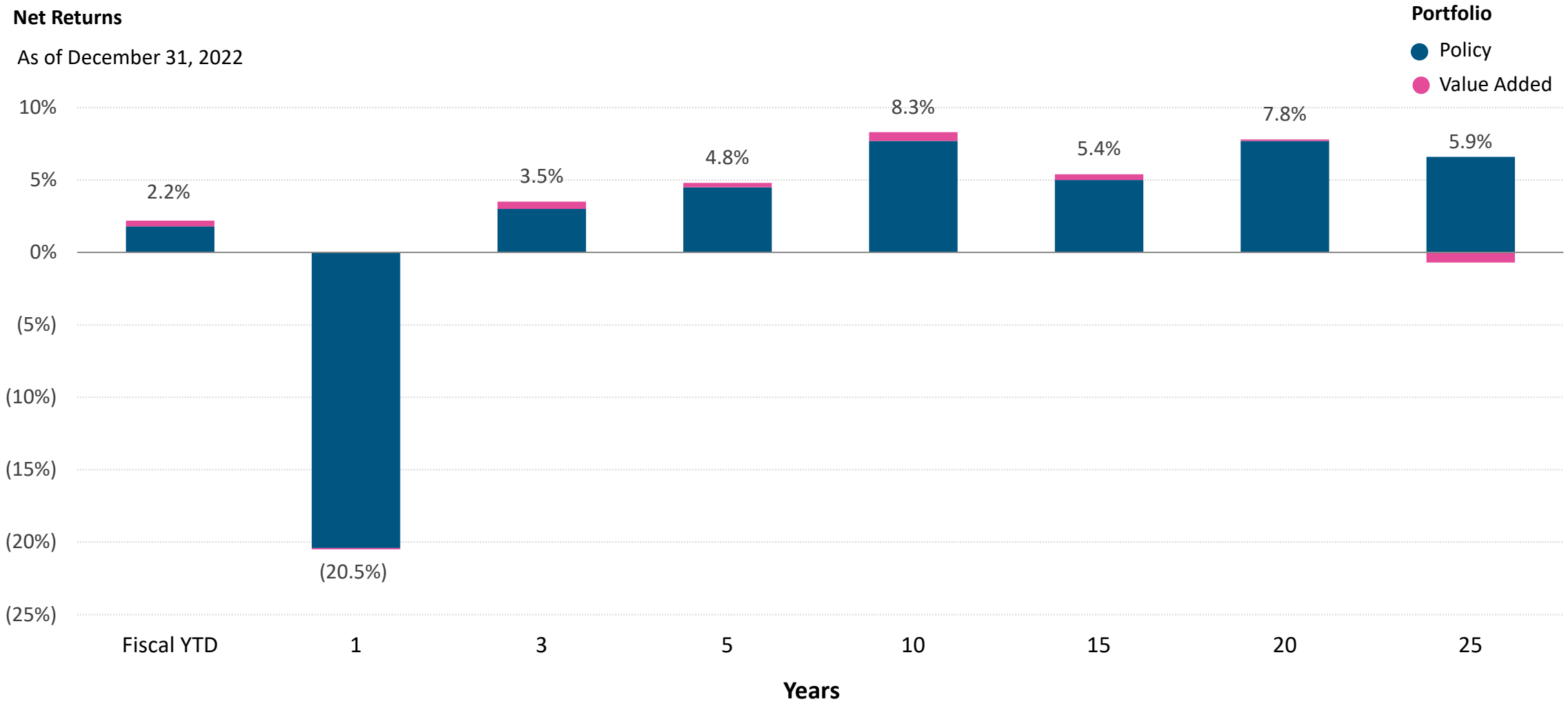
Pension Policy Benchmark

Asset Class	Policy Benchmark Component	Policy (%)	Allowable Ranges Min (%)	Allowable Ranges Max (%)
Public Equity	MSCI All Country World Index (ACWI) Investable Market Index (IMI) Tobacco and Fossil Fuel Free - Net Dividends	53.0	43.0	63.0
Total Fixed Income				
Core Fixed Income	Bloomberg Barclays 1-5 Year US Government/Credit Index	13.0	10.0	16.0
High Yield Fixed Income	Merrill Lynch High Yield Cash Pay Index Fossil Free	2.5	0.0	5.0
Emerging Market Fixed Income	JP Morgan Emerging Markets Bond Index Global Diversified FF	1.5	0.0	3.0
Private Assets				
Private Equity		12.0	7.0	17.0
Active Private Equity	Russell 3000 Index + 3%			
Passive Private Equity	Russell 3000 Tobacco and Fossil Fuel Free			
Absolute Return	HFRI Fund of Funds Composite	3.5	0.0	5.5
Real Estate	NCREIF ODCE Index	7.0	2.0	12.0
Real Assets	Actual Real Asset Portfolio Returns	4.0	0.0	8.0
Private Credit	75% Credit Suisse Leveraged Loan Total Return FF / 25% BofA/ML BB-B US High Yield Constrained Index FF + 1.5%	3.5	0.0	7.0
Cash	Bank of America 3-Month US Treasury Bill Index	0.0	0.0	5.0

Pension Attribution – Fiscal Year to Date

As of December 31, 2022	Contribution To Return	Portfolio Return	Benchmark Return	Allocation Attribution	Selection Attribution	Total Attribution
Public Equity	**1.3**	**2.2**	**1.8**	**(0.1)**	**0.2**	**0.1**
Fixed Income	**0.1**	**0.8**	**0.0**	**0.1**	**0.0**	**0.1**
Private Markets	**0.0**	**(0.2)**	**1.8**	**0.0**	**(0.5)**	**(0.6)**
Private Equity	(0.2)	(1.5)	4.0	0.0	(0.7)	(0.7)
Absolute Return	0.0	1.1	1.4	0.0	0.0	0.0
Real Estate	(0.1)	(1.1)	(4.9)	0.0	0.2	0.3
Real Assets	0.1	3.0	3.0	0.0	0.0	0.0
Private Credit	0.0	0.9	4.4	0.0	(01)	(0.1)
Cash	**0.1**	**1.0**	**1.5**	**0.0**	**0.0**	**0.0**
Total	**1.4**	**1.4**	**1.6**	**0.0**	**(0.3)**	**(0.3)**

Public Equity



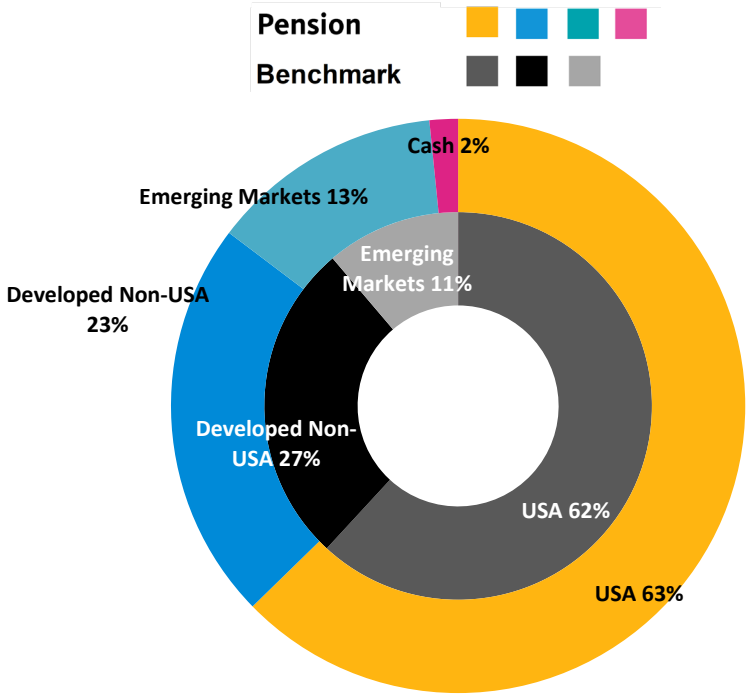
Public Equity

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year	15 Year	20 Year	25 Year
Public Equity	40,346	100	2.2	(20.5)	3.5	4.8	8.3	5.4	7.8	5.9
Policy Benchmark*			1.8	(20.4)	3.0	4.5	7.7	5.0	7.7	6.6
Value Added			0.4	(0.1)	0.5	0.3	0.6	0.4	0.1	(0.7)
Active	8,925	28	2.9	(21.4)	3.2	4.5	-	-	-	-
Passive	31,409	72	1.9	(20.0)	3.6	4.8	-	-	-	-

* From July 1, 2020 the public equity benchmark is the MSCI ACWI IMI Tobacco and Fossil Fuel Free Index.
From July 1, 2016 to June 30, 2020 the total public equity benchmark the MSCI ACWI IMI Tobacco Free Index.
Prior to July 1, 2016, the total public equity benchmark was an aggregate of benchmarks for underlying equity portfolios.

Active Managers	# of funds	Weight
Global Generalist	4	12.7%
USA	5	7.7%
Developed Non-USA	2	1.4%
Global Sector Specialist	1	1.2%
Emerging Markets	6	4.3%
	18	**27.3%**

Geographic Exposure



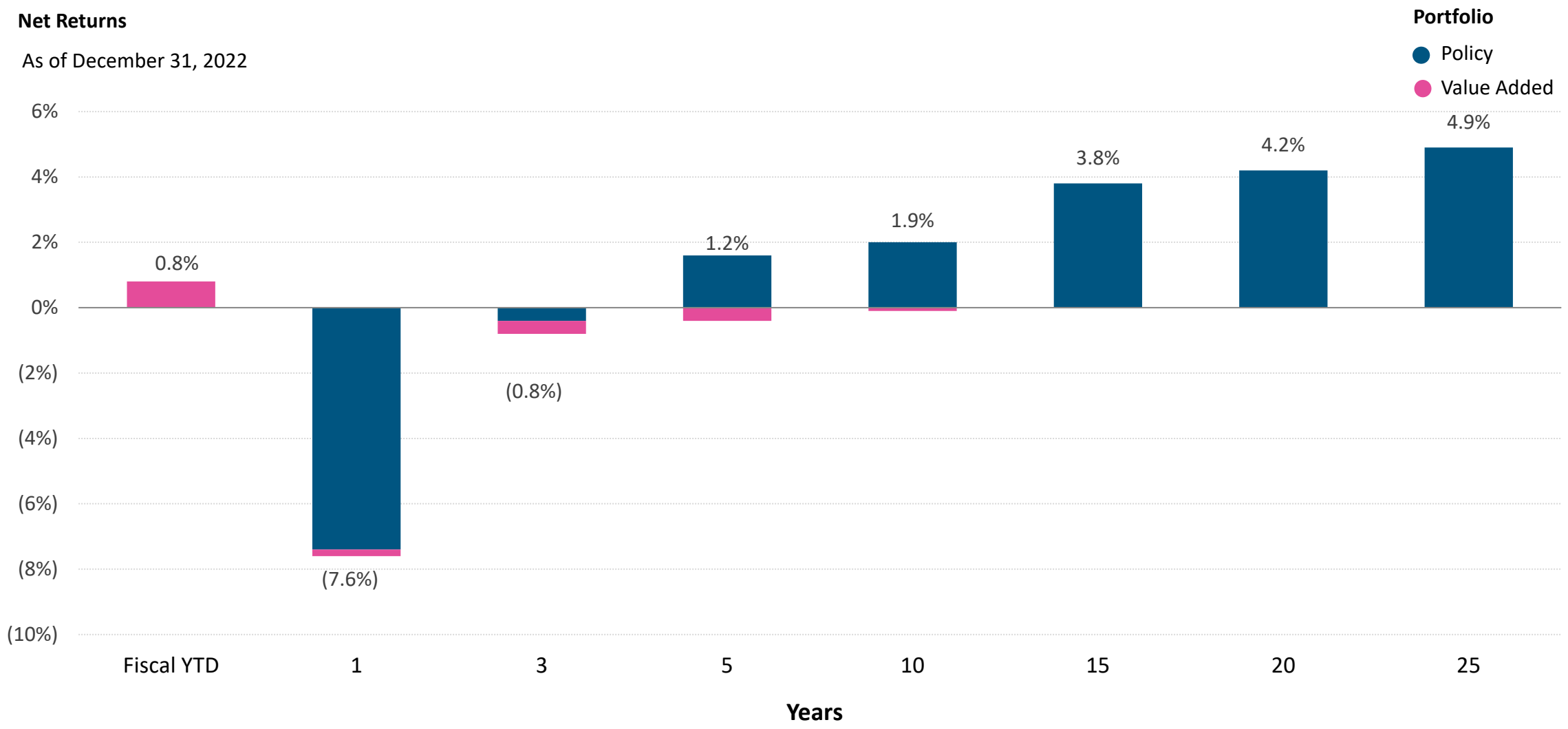
Public Equity

Attribution:
UCRP relative performance FYTD 2022/23 helped by positive allocation effects, particularly an overweight to India.

Top 3 Absolute Performers FYTD	FYTD return	Weight
1. Emerging Markets	8.3%	0.5%
2. Emerging Markets	4.9%	0.7%
3. Global Generalist	-2.9%	2.0%
Bottom 3 Absolute Performers FYTD	**FYTD return**	**Weight**
1. Emerging Markets	-20.4%	1.0%
2. Emerging Markets	-20.2%	0.4%
3. USA	-11.0%	0.7%
UCRP Benchmark (MSCI ACWI IMI TF FF)	-6.9%	

Geographic Exposures	Portfolio	Benchmark
US Equity	62.7%	61.8%
Developed Non-US Equity	22.6%	26.9%
Emerging Market Equity	13.1%	11.2%
Cash	1.6%	0.0%

Fixed Income

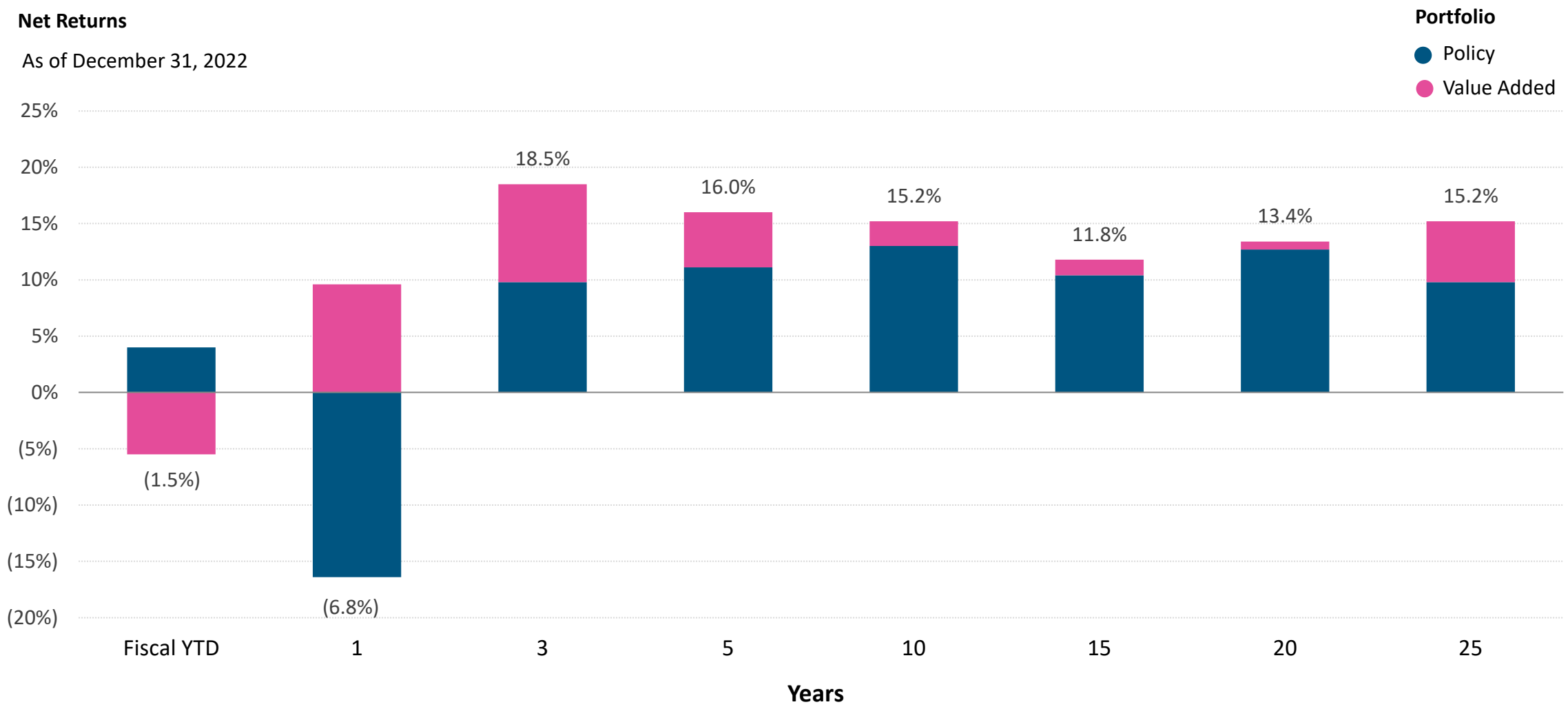


Fixed Income

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year	15 Year	20 Year	25 Year
Fixed Income	12,689	100	0.8	(7.6)	(0.8)	1.2	1.9	3.8	4.2	4.9
Policy Benchmark*			0.0	(7.4)	(0.4)	1.6	2.0	3.8	4.2	4.9
Value Added			0.8	(0.2)	(0.4)	(0.4)	(0.1)	-	-	-
Core Fixed Income	9,215	73	(0.7)	(5.3)	(0.5)	1.3	1.9	3.3	3.8	4.6
Policy Benchmark			(1.0)	(5.5)	-	1.7	1.9	3.3	3.8	4.6
Value Added			0.3	(0.2)	(0.5)	(0.4)	-	-	-	-
High Yield	2,482	20	4.0	(10.7)	(0.2)	2.1	4.1	5.9	-	-
Policy Benchmark			3.3	(11.3)	(0.5)	1.9	3.8	5.8	-	-
Value Added			0.7	0.6	0.3	0.2	0.3	0.1	-	-
Emerging Market Debt	991	8	3.1	(17.5)	(5.1)	(1.3)	0.7	3.7	-	-
Policy Benchmark**			3.2	(17.8)	(5.3)	(1.3)	1.6	4.3	-	-
Value Added			(0.1)	0.3	0.2	-	(0.9)	(0.6)	-	-

* Total fixed income policy benchmark is an aggregate of underlying portfolio benchmarks.
** Emerging Market Debt: Passive Since May 2017.

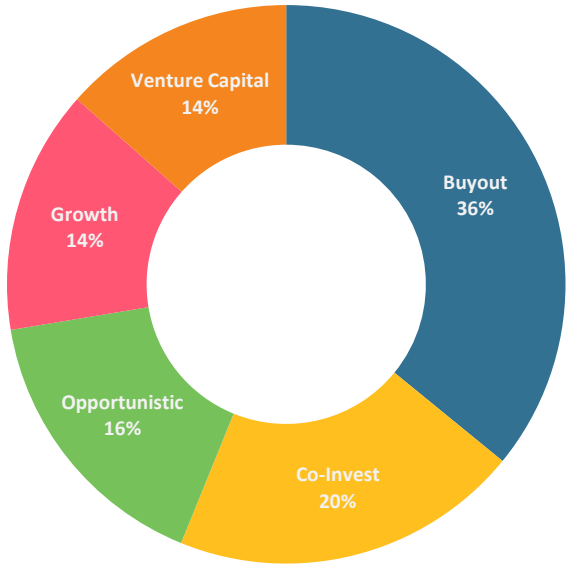
Private Equity



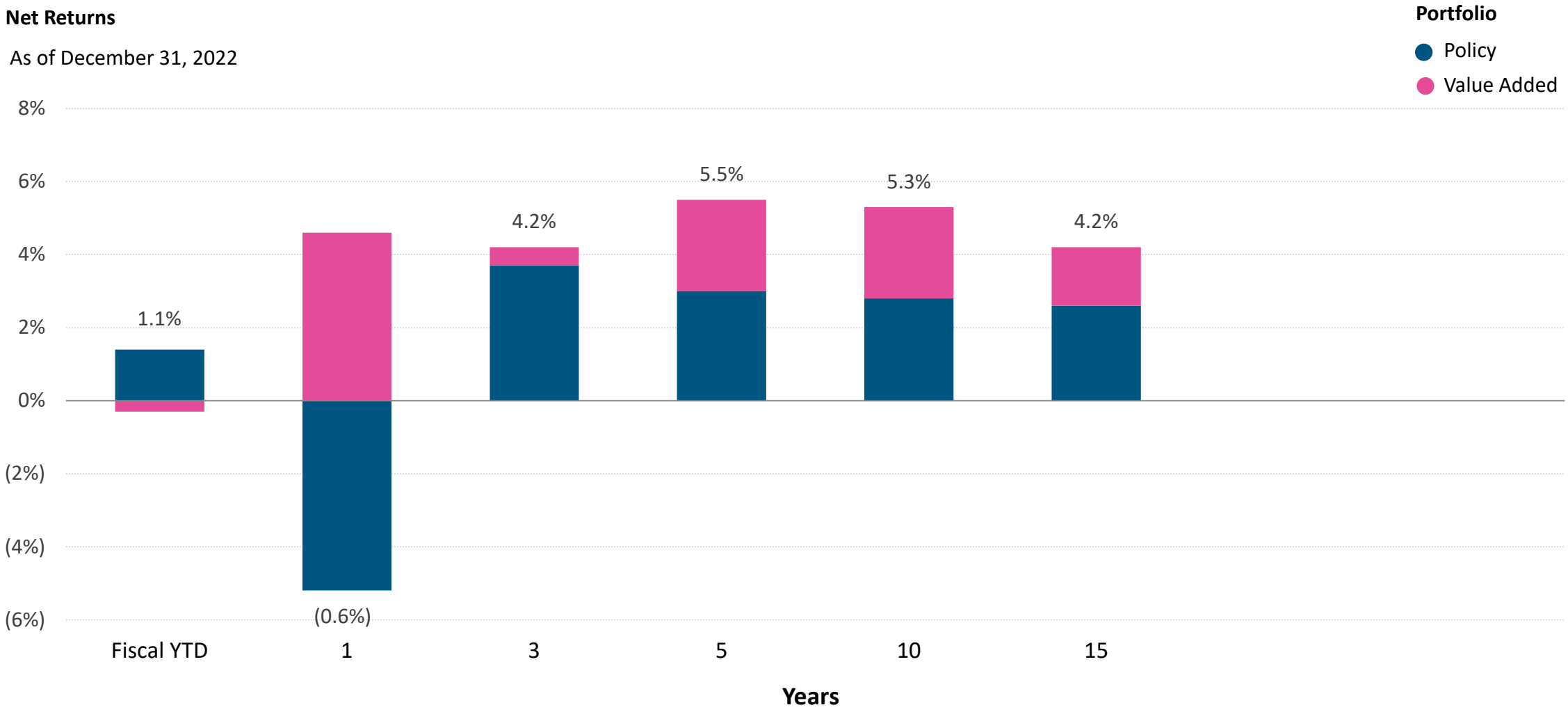
Private Equity

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year	15 Year	20 Year	25 Year
Active Private Equity	8,805	100	(1.5)	(6.8)	18.5	16.0	15.2	11.8	13.4	15.2
Policy Benchmark*			4.0	(16.4)	9.8	11.1	13.0	10.4	12.7	9.8
Value Added			(5.5)	9.6	8.7	4.9	2.2	1.4	0.7	5.4
Buyout	3,158	36	(1.0)	2.3	20.2	14.6	14.7	11.2	12.1	-
Co-Invest	1,781	20	(5.0)	(13.7)	21.0	23.7	30.4	-	-	-
Opportunistic	1,429	16	0.1	(7.8)	15.9	14.4	16.2	12.3	13.1	10.1
Growth	1,244	14	3.3	1.5	15.5	12.4	10.9	9.6	0.5	(3.0)
Venture Capital	1,185	14	(4.7)	(10.9)	21.3	18.0	17.0	12.2	16.7	-

* As of July 1, 2021, the Private Equity policy benchmark is the Russell 3000 Index +3%.
From July 1, 2020 to June 30, 2021, the Private Equity policy benchmark is the Russell 3000 Index +2.5%.
From July 1, 2019 to June 30, 2020, the Private Equity policy benchmark was the Russell 3000 Index +2.0%.
From July 1, 2017 to June 30, 2019, the Private Equity policy benchmark was the Russell 3000 Index +1.5%.
From March 2005 to June 2017, the Private Equity benchmark was the actual private equity return.
From January 2001 to February 2005, the Private Equity benchmark was Russell 3000 Index + 3% lagged one quarter.
Prior to that, it was the S&P 500 Index + 5% lagged by a quarter.



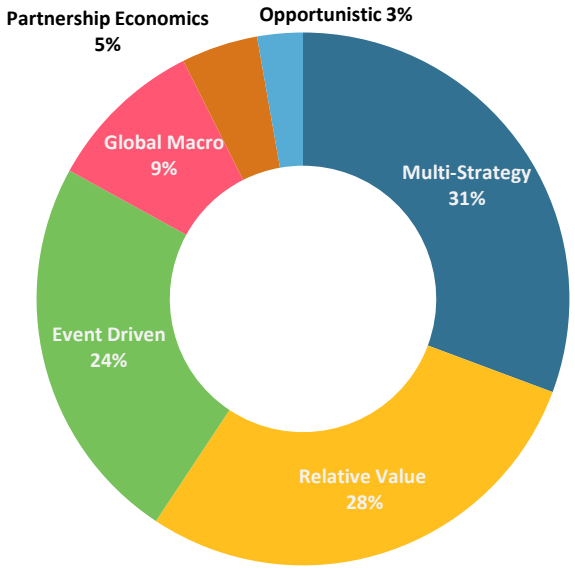
Absolute Return



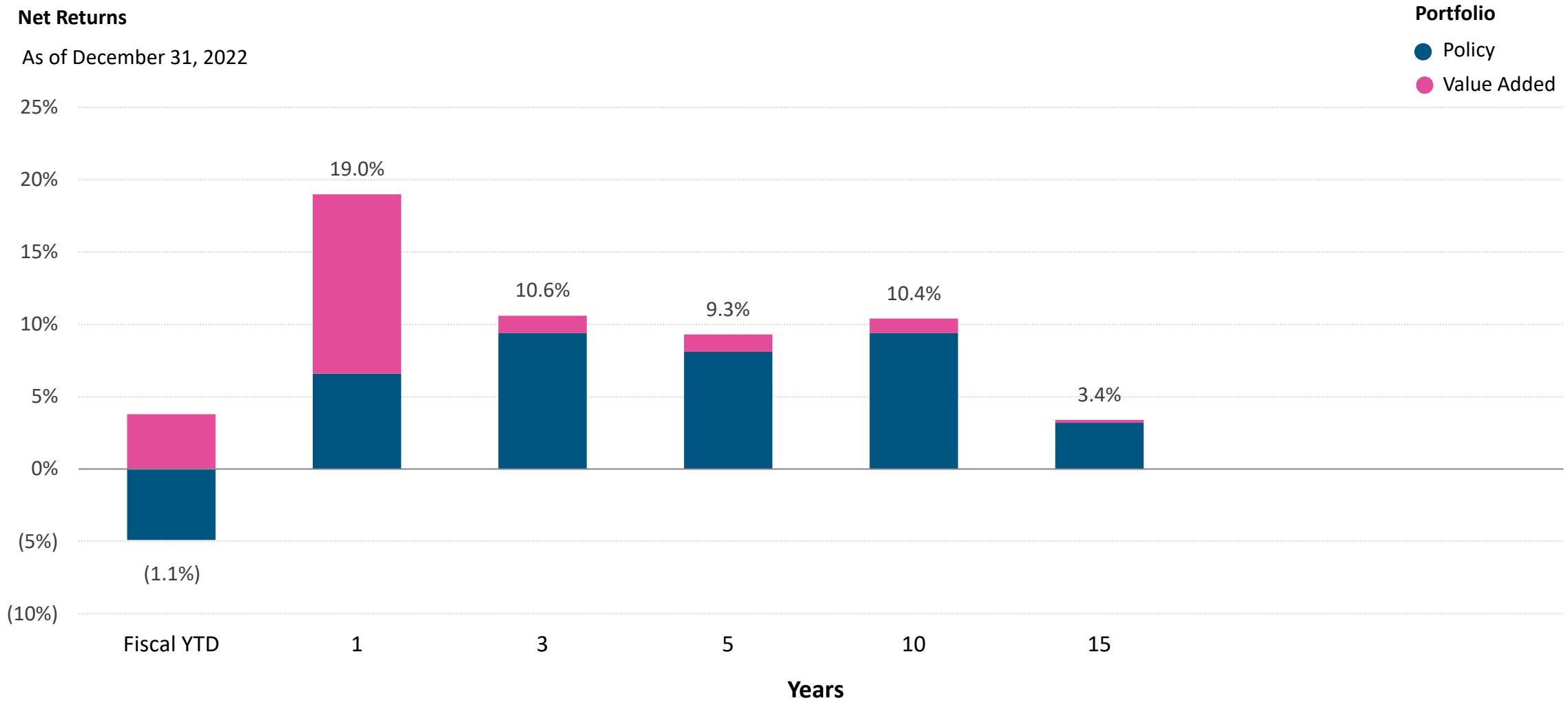
Absolute Return

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year	15 Year
Absolute Return	2,870	100	1.1	(0.6)	4.2	5.5	5.3	4.2
Policy Benchmark*			1.4	(5.2)	3.7	3.0	2.8	2.6
Value Added			(0.3)	4.6	0.5	2.5	2.5	1.6
Multi-Strategy	877	31	5.8	(2.0)	(2.3)	1.1	-	-
Relative Value	818	28	(6.7)	(3.5)	4.1	4.8	5.9	5.5
Event Driven	677	24	3.1	3.3	11.9	10.1	8.3	6.5
Global Macro	274	9	9.6	11.5	1.2	2.3	0.8	-
Partnership Economics	133	5	5.4	(7.1)	48.1	82.0	-	-
Opportunistic	79	3	(10.5)	(11.2)	(11.5)	(3.2)	-	-
Fund of Funds	9	0	(0.5)	9.6	8.8	6.5	4.4	1.7

* As of July 1, 2017, the benchmark is HFRI Fund of Funds Composite.
From March 1, 2016 to June 1, 2017, the benchmark was the HFRX Absolute Return.
From April 1, 2009 to February 1, 2016, the benchmark was 50% HFRX Absolute Return/50% HFRX Market Directional.
Prior to that, benchmark was 1 Month T-Bill+4.5%.



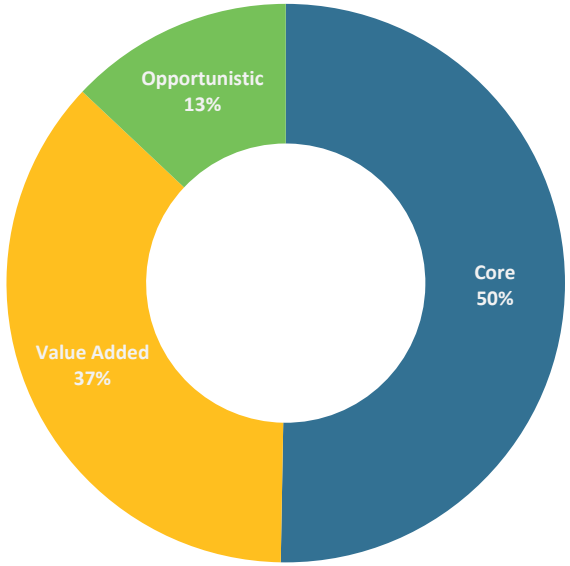
Real Estate


Net Returns
As of December 31, 2022
Portfolio
Policy
Value Added
25%
20%
15%
10%
5%
0%
(5%)
(10%)
(1.1%)
19.0%
10.6%
9.3%
10.4%
3.4%
Fiscal YTD
1
3
5
10
15
Years

Real Estate

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year	15 Year
Real Estate	5,102	100	(1.1)	19.0	10.6	9.3	10.4	3.4
Policy Benchmark*			(4.9)	6.6	9.4	8.1	9.4	3.2
Value Added			3.8	12.4	1.2	1.2	1.0	0.2
Core	2,565	50	(0.9)	19.7	14.2	11.9	11.3	-
Value Added	1,874	37	(1.5)	20.8	7.7	7.3	8.8	(1.1)
Opportunistic	662	13	(0.4)	12.2	7.1	6.3	8.3	-

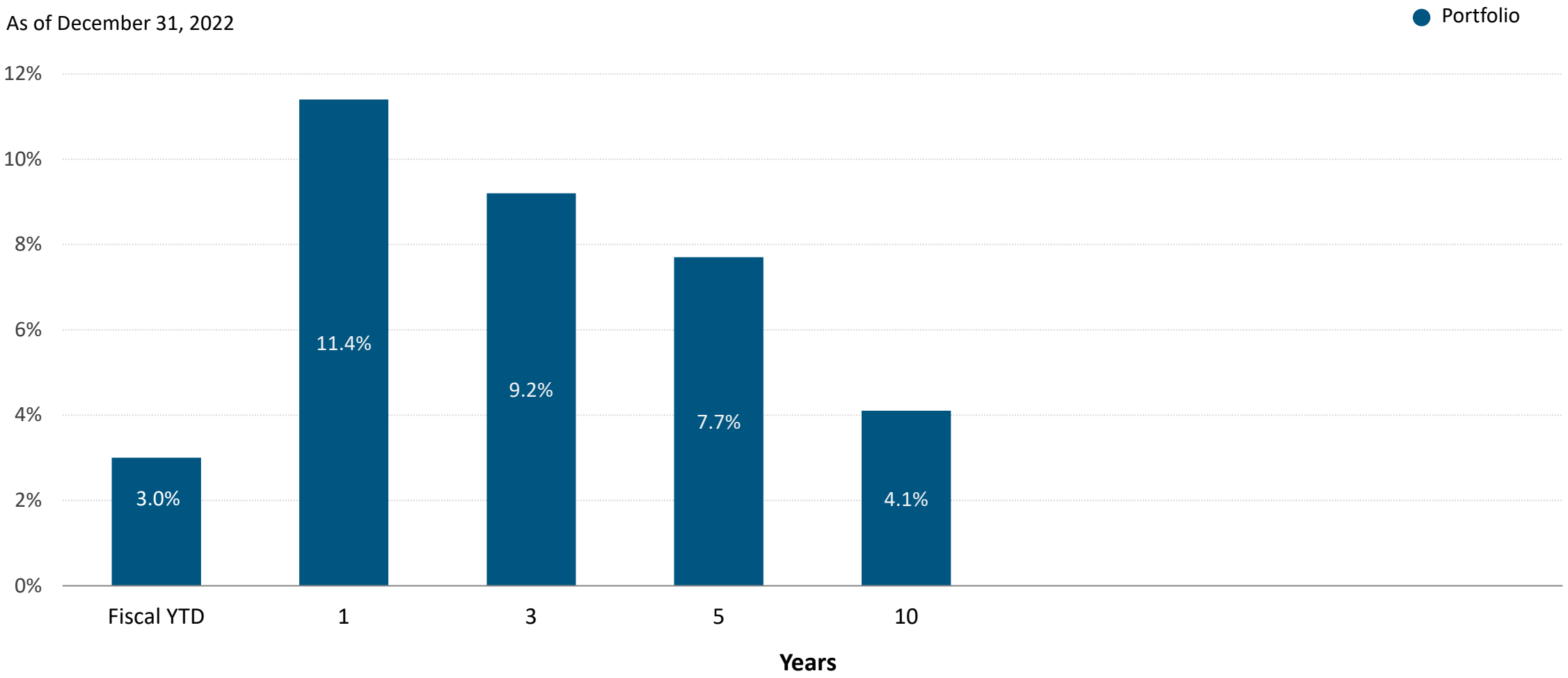
* As of July 1, 2020, the Real Estate policy benchmark is the NCREIF ODCE Index (unlagged 3 months).
From April 1, 2011 to June 30, 2020, the Real Estate policy benchmark was the NCREIF ODCE Index (lagged 3 months).



Real Assets

Net Returns

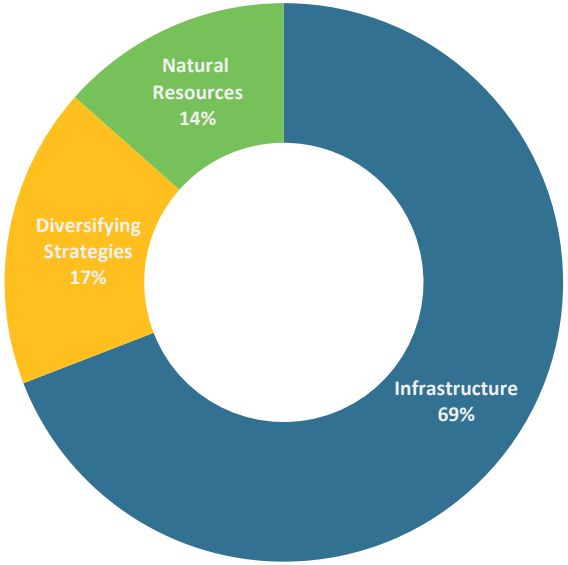
As of December 31, 2022



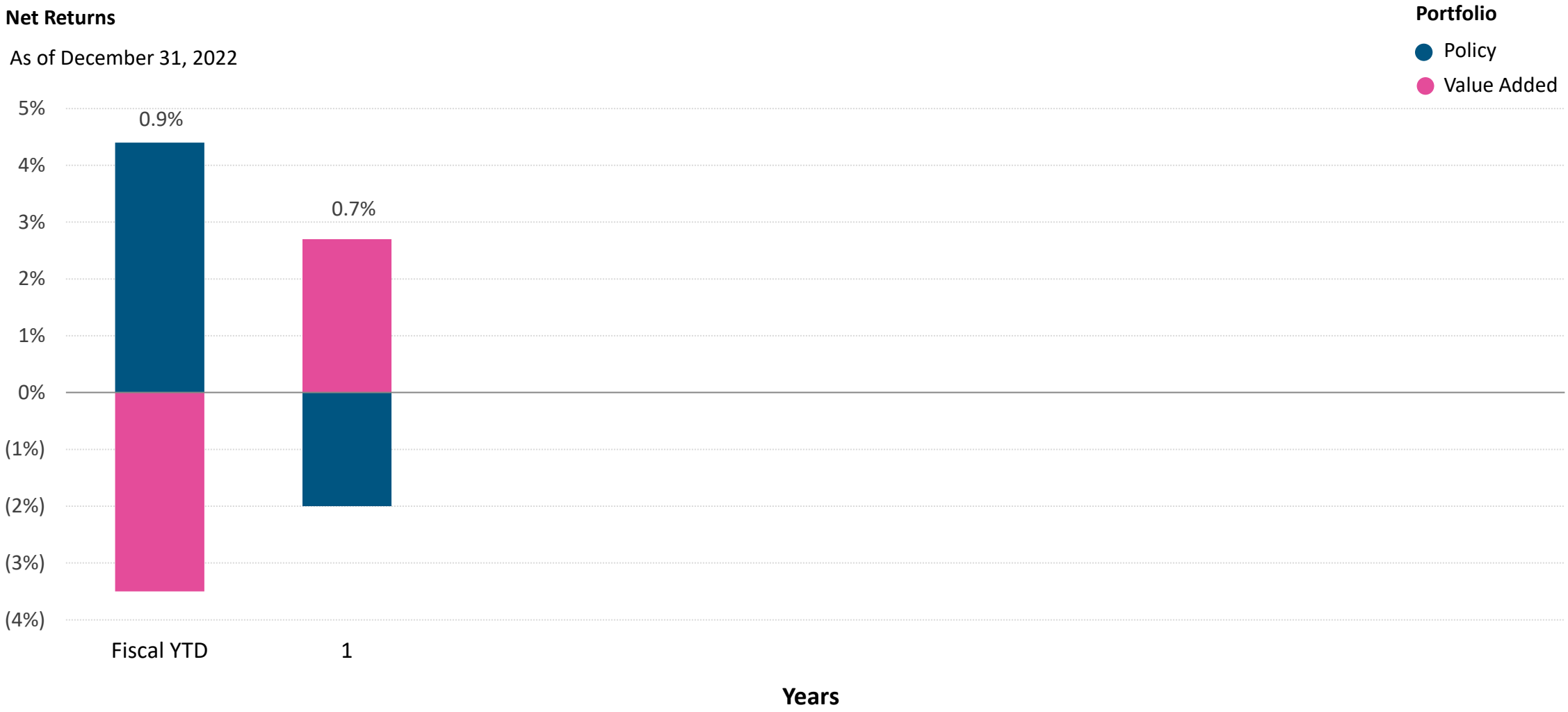
Real Assets

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 6 Months	Annualized Returns 1 Year	3 Year	5 Year	10 Year
Real Assets	3,599	100	3.0	11.4	9.2	7.7	4.1
Infrastructure	2,487	69	3.5	12.1	12.2	11.1	13.8
Diversifying Strategies	627	17	4.6	15.0	10.4	10.7	6.8
Natural Resources	484	14	(1.0)	3.8	(0.7)	(1.5)	(3.3)

* Inception date for Real Assets is April 1, 2010.
The Real Assets policy benchmark is itself, the Real Assets portfolio.



Private Credit



Private Credit

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 3 Months	1 Year
Private Credit	2,421	100	0.9	0.7
Policy Benchmark			4.4	(2.0)
Value Added			(3.5)	2.7

* Inception date for Private Credit is July 1, 2020.

Cash

As of December 31, 2022 Net Returns (%)	Market Value ($M)	Weight (%)	Fiscal YTD 3 Months	1 Year
Cash	5,344	100	1.0	1.7
Policy Benchmark*			1.3	1.5
Value Added			(0.3)	0.2

* As of July 1, 2020, the Cash policy benchmark is the Bank of America 3-Month US Treasury Bill Index. Table showing cash returns since establishment of the formal policy benchmark.

Risk 1.0: Risk Measurement

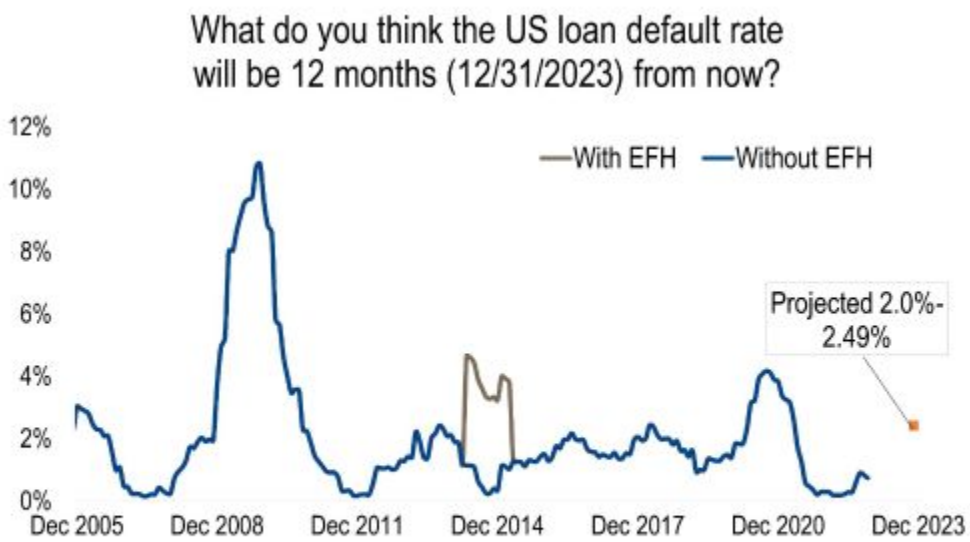
Portfolio and benchmark volatility decrease despite selloff as drawdown has been orderly and public equity allocation has decreased. Tracking error decreases as well as overweight to public equity has been reduced.

			Portfolio Risk (%)		Benchmark Risk (%)		Active Risk (%)	
Portfolio	Benchmark	Weight (%)	Standalone Volatility	QoQ Change	Standalone Volatility	QoQ Change	Tracking Error	QoQ Change
Pension	Policy (Blend)	100	15.5	0.4	15.7	0.5	1.1	(0.1)
Public Equity	MSCI ACWI IMI TF FF	50	20.4	1.1	20.4	1.0	0.7	0.0
Fixed Income	Policy (Blend)	16	4.0	(0.0)	3.7	0.0	0.6	(0.0)
Absolute Return	HFRI FOF	4	6.0	(0.3)	4.9	(0.5)	5.8	(0.1)
Private Equity	Russell 3000	11	28.2	(0.1)	23.0	0.7	9.6	(0.8)
Real Estate	NFI-ODCE	6	15.7	(0.3)	12.6	(0.1)	4.6	(0.1)
Real Assets	Real Assets	4	24.5	(0.4)	24.5	(0.5)	0.0	0.0
Private Credit	CS LL / ML HY BB-B	3	5.5	(0.0)	4.4	(1.3)	2.8	0.4
Cash	BofA 3mo Treasury Bill	7	0.1	0.1	0.2	0.0	0.2	0.0

Risk Outlook: Credit

Credit markets are pricing in a slight increase in risk – the market is expecting a soft landing. In a hard-landing recession, credit markets could deteriorate.

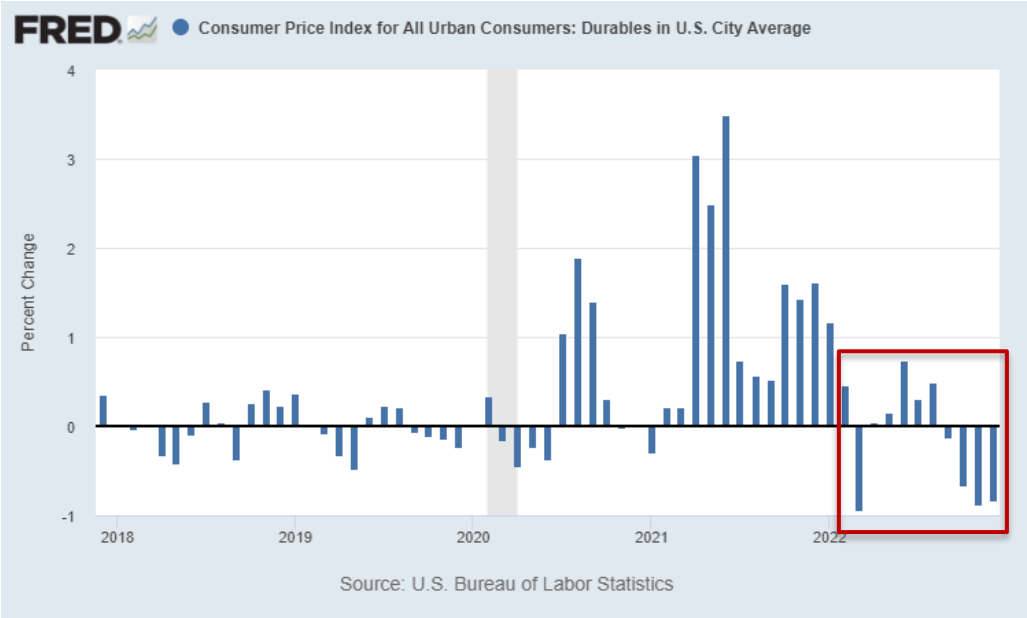
- Leveraged loans had a record-low default rate in 2022. Analysts expect the default rate to pick up slightly in 2023.
- High yield bond spreads are only slightly above where they were before COVID.

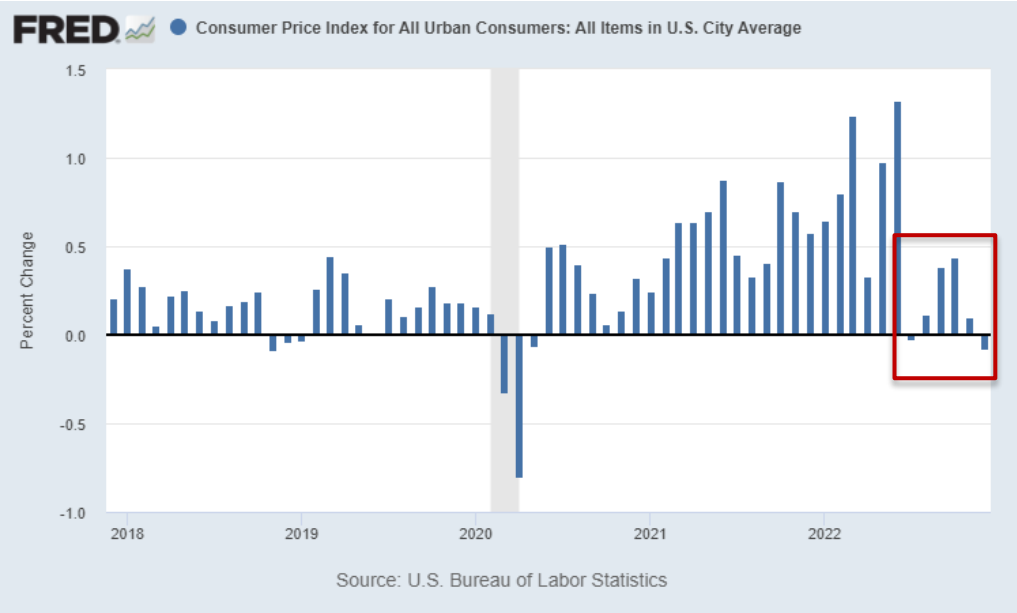


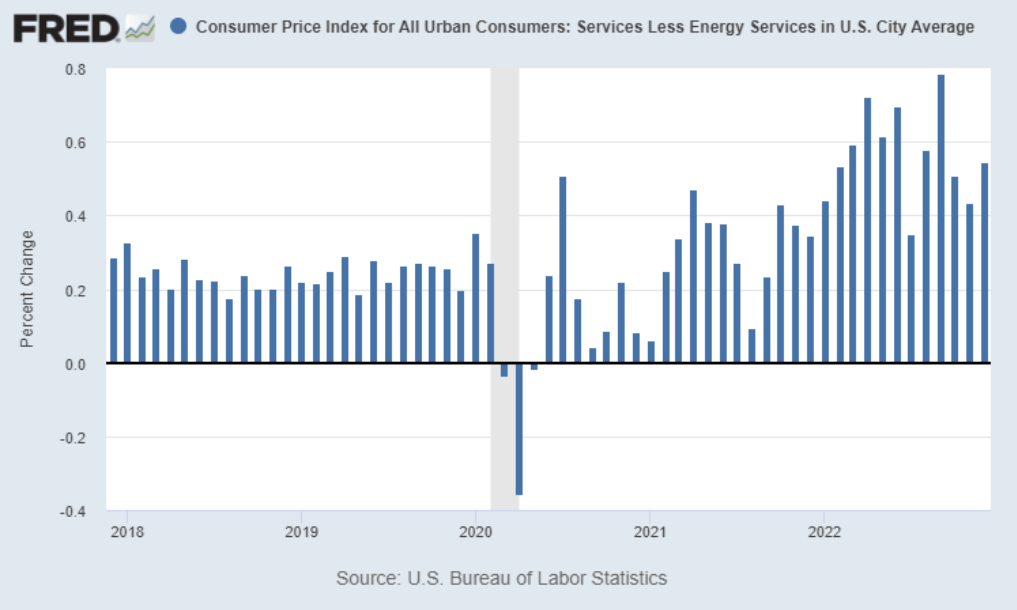
Data as of Dec. 9, 2022.
Chart shows historical and projected default rates by dollar amount. EFH = Energy Future Holdings.
Sources: Leveraged Commentary & Data (LCD); Morningstar LSTA US Leveraged Loan Index

Risk Outlook: Inflation

- Inflation has started to recede as the month-over-month increases in CPI have decreased significantly or been negative.
- Durables inflation has started to reverse the elevated levels from 2021. In particular, the widely-publicized run-up in used car prices have started to decline.
- However, spending has shifted from goods to services hence services inflation remains elevated.

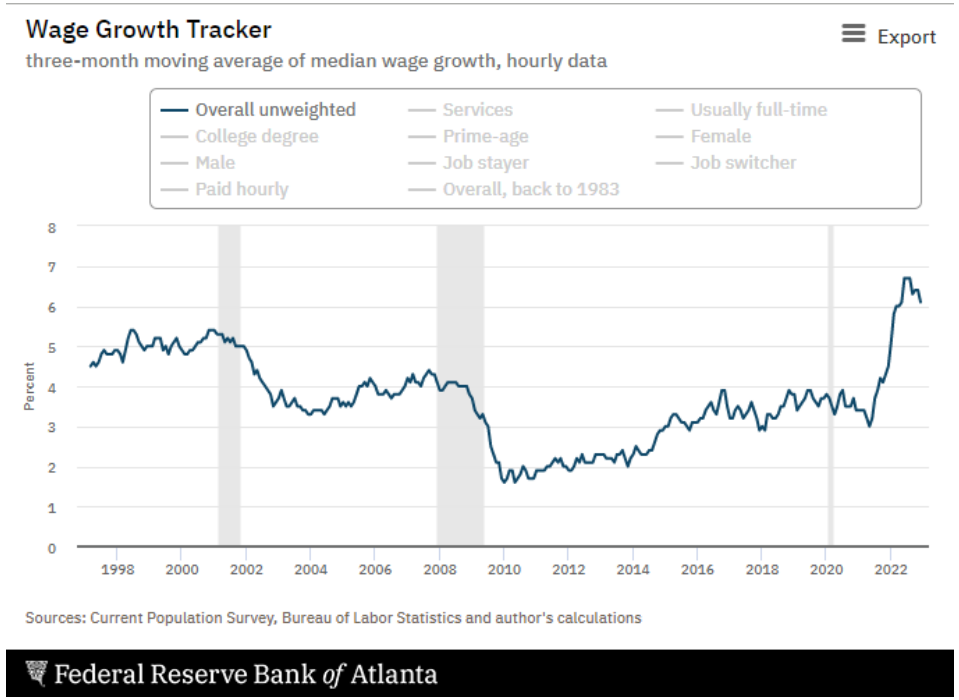


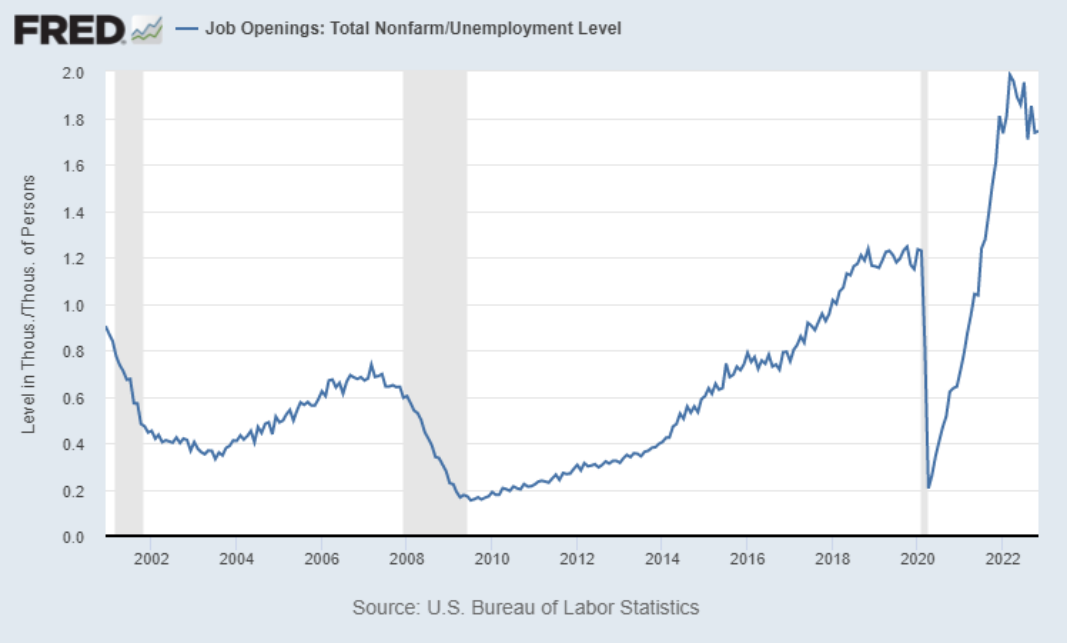




Risk Outlook: Employment

- The labor market remains tight at historically low levels of unemployment, 3.5%.
- Wage growth is elevated from labor market tightness (low unemployment, low labor force participation rate) but it has slightly backed off from its prior peak.
- Demand for workers is elevated relative to the # of unemployed – nearly two job openings per unemployed person.
- FOMC will keep rates 'restrictive' until wage growth is in-line with the growth rate of the economy.



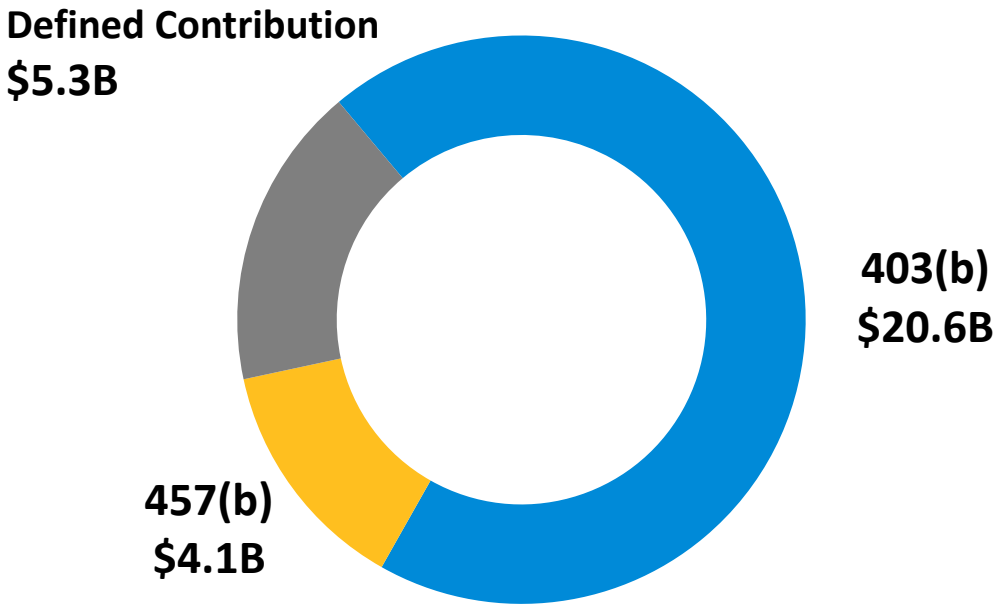


Savings Program

UC Retirement Savings

As of December 31, 2022

3 PLANS $30.0B



INVESTMENT STRUCTURE

TARGET DATE FUND $12.5B	13 CORE OPTIONS $15.5B	BROKERAGE WINDOW $2.0B
TIER I	TIER II	TIER III

0.05% INVESTMENT MANAGEMENT FEE

UC Retirement Savings Program

2nd largest public Defined Contribution plan in the United States (USA)

- Established in 1967
- Over 320,000 participants
- 3 Plans: 403(b), 457(b), DC Plan
- Largest 403(b) plan in the US
- Target Date Fund (Pathway) default since 2014
- $12.5 billion in Target Date Funds

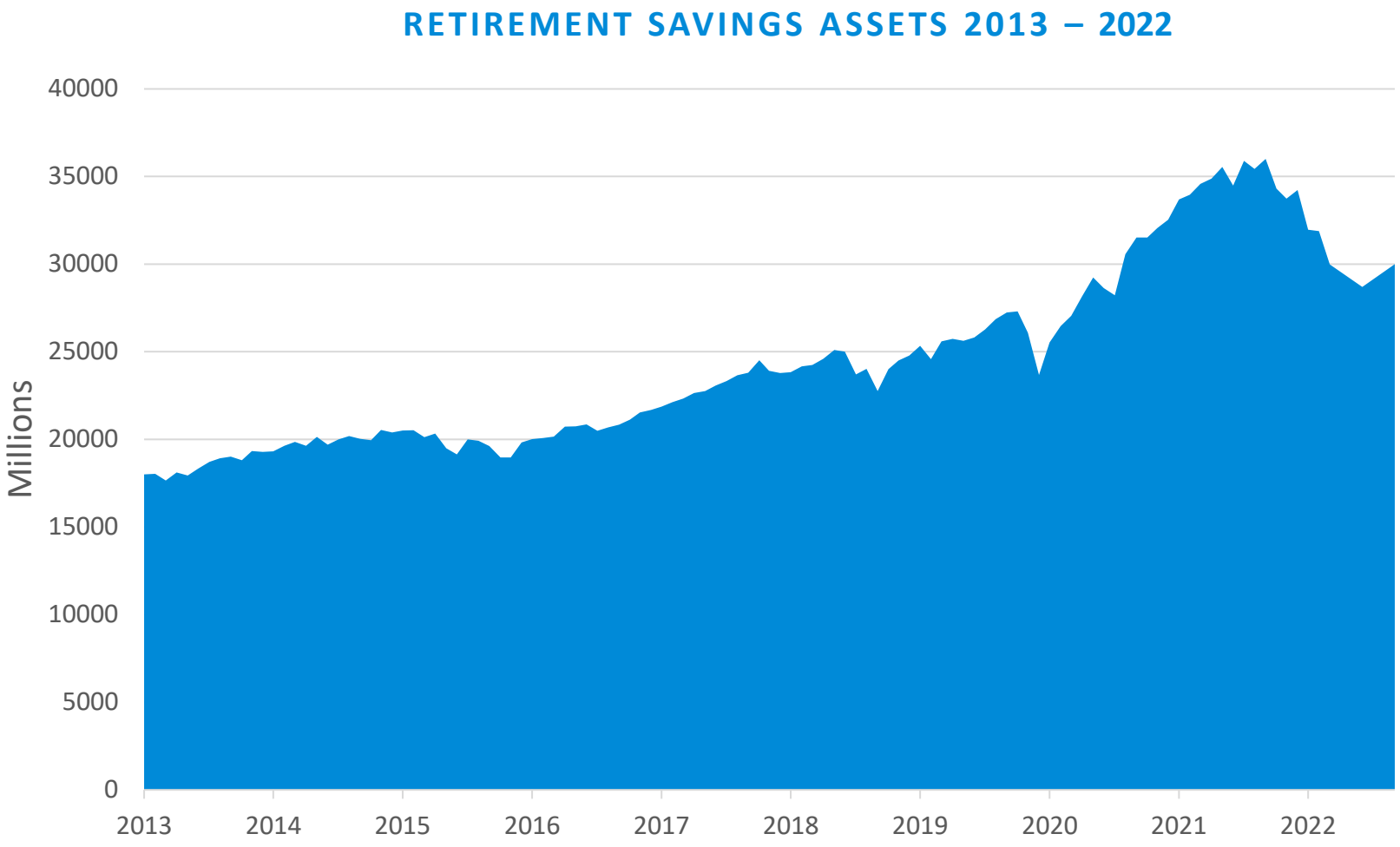
Highlights

As of December 31, 2022

	2014	2022
Participants	301,000	339,000
Assets	$19.8B	$30.0B
Default	UC Savings Fund	UC Pathway
Target Date Assets	$3.1B	$12.5B
Investment Choices	75	14
Management Fee	0.14%	0.05%
Management Fee	$26M	$15M

UC Retirement Savings

$30.0 Billion in Assets as of December 31, 2022



7 YEAR EVOLUTION

2022

Moved UCRSP Fossil Fuel Free

2021

Launched Deferred Lifetime Income

Launched UC Global ex Fossil Fuel Fund

2020

Moved 4 fixed income funds to passive

2019

Launched of Pathway 2065

2018

3rd Party manager for Pathway

2017

White labeled Funds

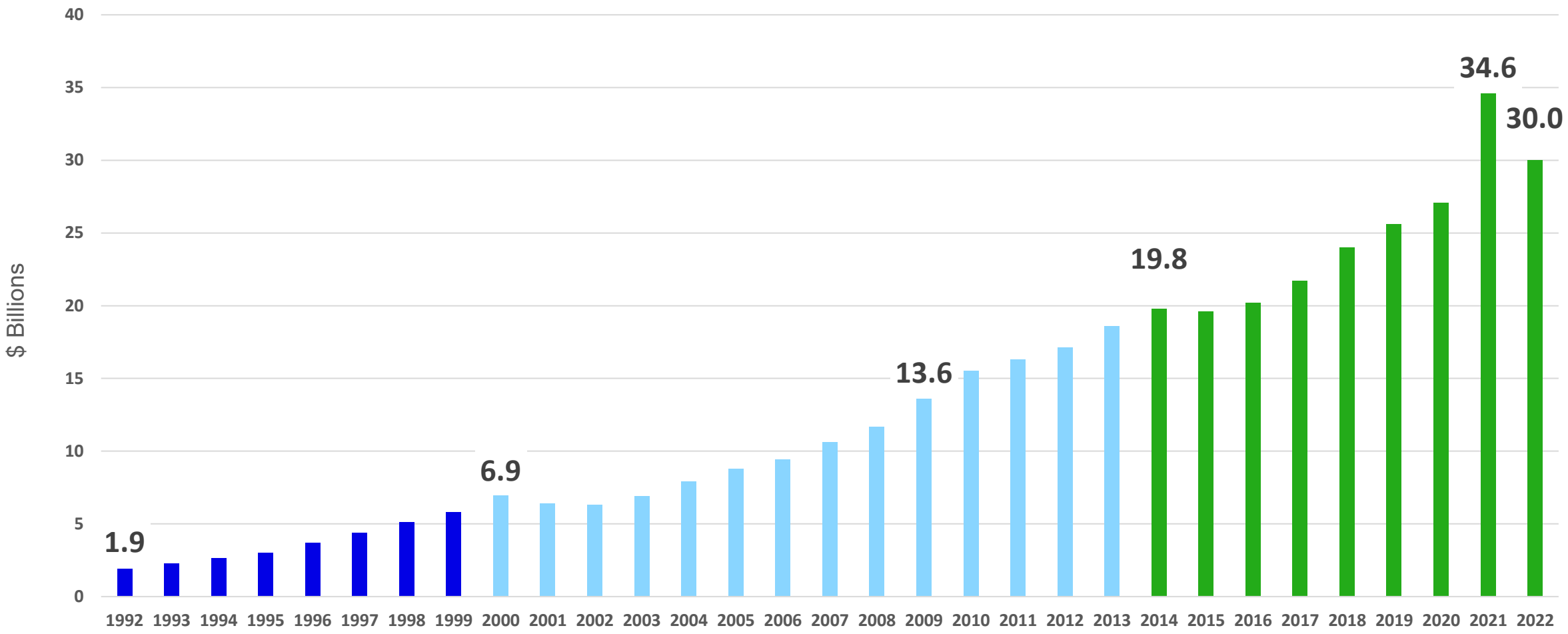
Moved to Institutional Vehicles

2015

Reduced funds from 64 to 16

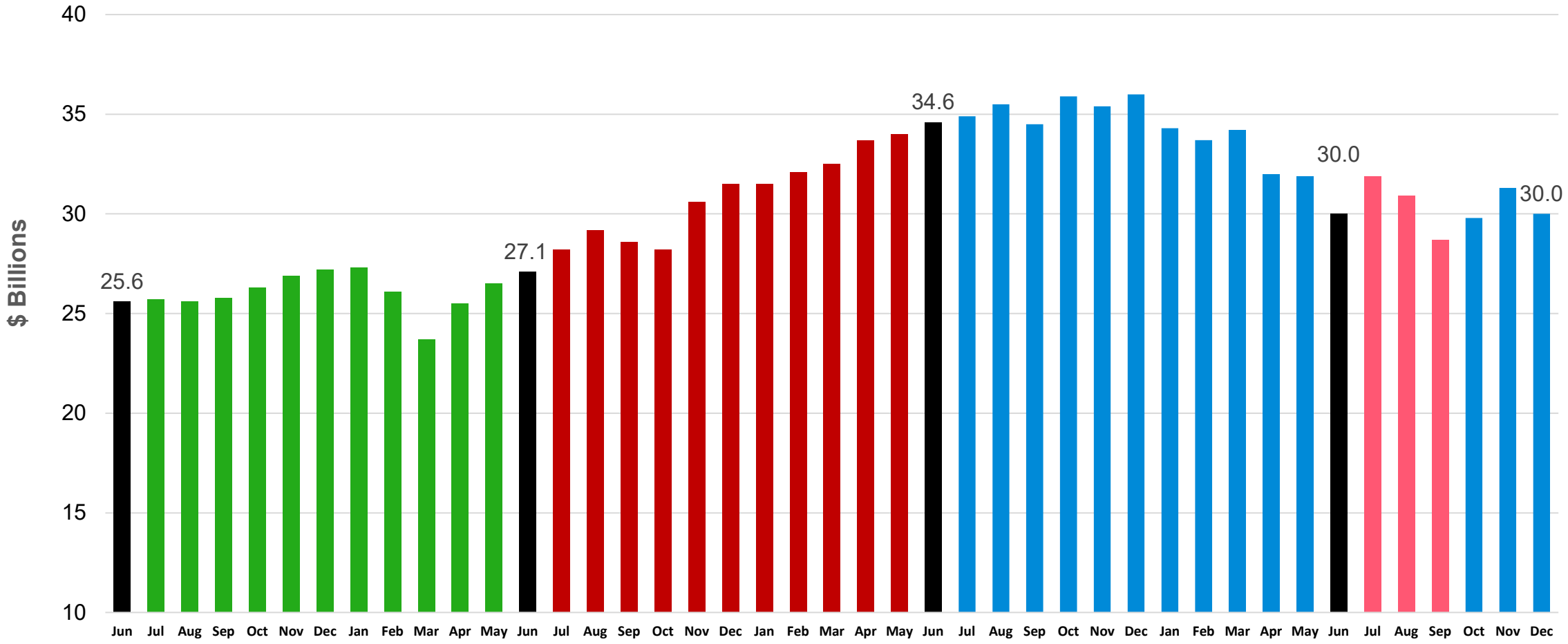
UC RETIREMENT SAVINGS: STAYING COURSE PAYS OFF

30 Years (1992 – 2022)



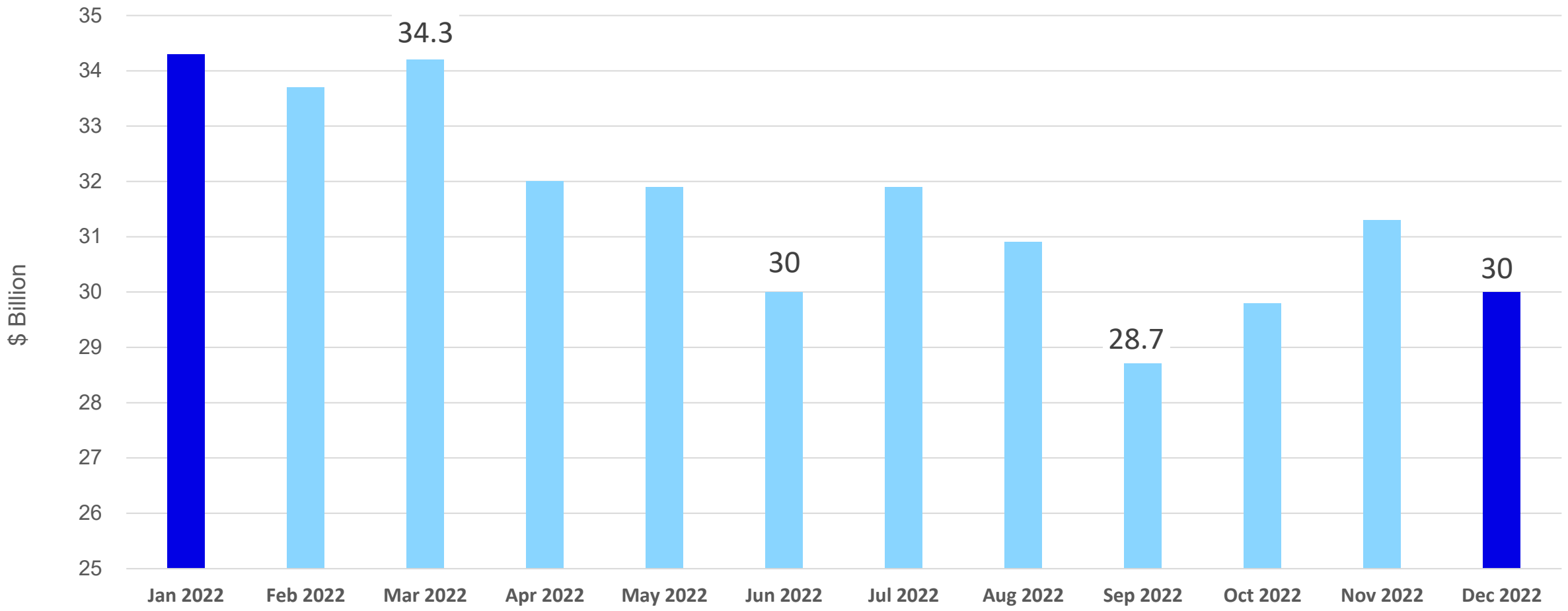
UC RETIREMENT SAVINGS: STAYING COURSE PAYS OFF

3 Years (2019 – 2022)



UC RETIREMENT SAVINGS: STAYING COURSE PAYS OFF

1 Years (2021 – 2022)



Investment Options at a Glance

TARGET DATE FUNDS - $12.5 billion

UC Pathway Funds

UC Pathway Income Fund	UC Pathway Fund 2035	UC Pathway Fund 2055
UC Pathway Fund 2020	UC Pathway Fund 2040	UC Pathway Fund 2060
UC Pathway Fund 2025	UC Pathway Fund 2045	UC Pathway Fund 2065
UC Pathway Fund 2030	UC Pathway Fund 2050	

CORE FUNDS - $15.5 billion

Bond and Stock Investments

Bond Investments	Domestic Stock	Foreign Stock
Short-Term	*Large Cap*	*Developed Markets*
UC Savings Fund	UC Growth Company Fund	UC International Equity Index Fund
		UC Diversified International Fund
Intermediate-Term	*Small Cap*	*Emerging Markets*
UC Bond Fund	UC Domestic Small Cap Equity Fund	UC Emerging Markets Equity Fund
Inflation-Protected	*Broad Cap*	*Global Markets*
UC Short Term TIPS Fund	UC Domestic Equity Index Fund	UC Global Equity Fund
UC TIPS Fund		
		Specialty Stock
		UC Real Estate Fund
		UC Social Equity Fund

BROKERAGE WINDOW - $2.0 billion

Fidelity BROKERAGELINK®

Core Funds Assets

CORE FUNDS - $15.5 Billion

Bond and Stock Investments

Bond Investments - $5,230

Short-Term

UC Savings Fund - $3,650

Intermediate-Term

UC Bond Fund - $1,107

Inflation-Protected

UC Short Term TIPS Fund - $149

UC TIPS Fund - $324

Domestic Stock - $8,065

Large Cap

UC Growth Company Fund - $1,659

Small Cap

UC Domestic Small Cap Equity Fund - $537

Broad Cap

UC Domestic Equity Index Fund - $5,869

Foreign/Global Stock - $1,284

Developed Markets

UC International Equity Index Fund - $922

UC Diversified International Fund - $158

Emerging Markets

UC Emerging Markets Equity Fund - $204

Specialty Stock - $876

UC Real Estate Fund - $270

UC Social Equity Fund - $593

UC Global Equity ex Fossil Fuel Fund – 13

Target Date Funds (Pathway) Performance

Three-month performance – October 31, 2022 to December 31, 2022

Net of fee returns (%)

	Pathway Income	Pathway 2020	Pathway 2025	Pathway 2030	Pathway 2035	Pathway 2040	Pathway 2045	Pathway 2050	Pathway 2055	Pathway 2060	Pathway 2065
Fund Return	4.64	5.17	6.36	7.25	7.77	8.17	8.55	8.73	8.73	8.73	8.73
Policy Benchmark Return	4.83	5.31	6.41	7.28	7.80	8.19	8.57	8.76	8.76	8.76	8.76
Value Added	**-0.19**	**-0.14**	**-0.05**	**-0.03**	**-0.03**	**-0.02**	**-0.02**	**-0.03**	**-0.03**	**-0.03**	**-0.03**

One-year performance

Net of fee returns (%) - 12/31/2021-12/31/2022

	Pathway Income	Pathway 2020	Pathway 2025	Pathway 2030	Pathway 2035	Pathway 2040	Pathway 2045	Pathway 2050	Pathway 2055	Pathway 2060	Pathway 2065
Fund Return	-9.77	-11.21	-15.08	-17.08	-17.71	-18.30	-18.62	-18.98	-18.98	-18.98	-18.98
Policy Benchmark Return	-9.59	-11.16	-15.26	-17.29	-17.89	-18.43	-18.75	-19.12	-19.12	-19.12	-19.12
Value Added	**-0.18**	**-0.05**	**0.18**	**0.21**	**0.18**	**0.13**	**0.13**	**0.14**	**0.14**	**0.14**	**0.14**

Target Date Funds (Pathway) Performance

Three-year performance

Net of fee returns (%)

	Pathway Income	Pathway 2020	Pathway 2025	Pathway 2030	Pathway 2035	Pathway 2040	Pathway 2045	Pathway 2050	Pathway 2055	Pathway 2060	Pathway 2065
Fund Return	2.08	2.62	2.43	2.44	2.63	2.84	3.06	3.17	3.17	3.17	3.21
Policy Benchmark Return	2.25	2.80	2.51	2.46	2.64	2.85	3.06	3.16	3.16	3.16	3.16
Value Added	**-0.17**	**-0.18**	**-0.08**	**-0.02**	**-0.01**	**-0.01**	**0.00**	**0.01**	**0.01**	**0.01**	**0.05**

Five-year performance

Net of fee returns (%)

	Pathway Income	Pathway 2020	Pathway 2025	Pathway 2030	Pathway 2035	Pathway 2040	Pathway 2045	Pathway 2050	Pathway 2055	Pathway 2060	Pathway 2065
Fund Return	3.15	3.77	3.86	3.99	4.16	4.32	4.47	4.56	4.57	4.57	n/a
Policy Benchmark Return	3.30	3.89	3.94	4.05	4.22	4.38	4.52	4.61	4.62	4.62	n/a
Value Added	**-0.15**	**-0.12**	**-0.08**	**-0.06**	**-0.06**	**-0.06**	**-0.05**	**-0.05**	**-0.05**	**-0.05**	**n/a**

Core Funds Performance – Equities

			Annualized Total Return (%)				
US Large Equity	**Market Value ($M)**	**% of Program**	**3 Months**	**One Year**	**Three Year**	**Five Year**	**Ten Year**
UC Domestic Equity Index Fund	$5,869	19.55%	6.48	-20.04	6.80	8.79	12.18
Russell 3000 ex Fossil Fuels ex Tobacco			6.45	-20.12	6.72	8.66	12.06
Value Added			0.03	0.08	0.08	0.13	0.12
UC Social Index Fund	$593	1.98%	5.16	-24.03	6.03	9.07	13.02
FTSE4Good US Select Index			5.19	-24.12	6.02	9.09	13.10
Value Added			-0.03	0.09	0.01	-0.02	-0.08
US Small/Mid Cap Equity							
UC Domestic Small Cap Index Fund	$537	1.79%	6.09	-20.60	3.20	4.22	9.22
Russell 2000 ex Fossil Fuels ex Tobacco			6.01	-20.77	2.96	3.95	9.06
Value Added			0.08	0.17	0.24	0.27	0.16
Global/World ex-US Equity							
UC International Equity Index Fund	$922	3.07%	15.76	-15.94	1.02	1.82	4.76
MSCI World ex-US IMI ex Fossil Fuels ex Tobacco			15.78	-15.91	0.82	1.53	4.46
Value Added			-0.02	-0.03	0.20	0.29	0.30

Core Funds Performance – Equities

			Annualized Total Return (%)				
Growth Large Equity	**Market Value ($M)**	**% of Program**	**3 Months**	**One Year**	**Three Year**	**Five Year**	**Ten Year**
UC Growth Company Fund	$1,659	5.53%	3.21	-32.87	11.71	13.20	16.51
Russell 3000 Growth			2.31	-28.97	7.32	10.45	13.75
Value Added			0.90	-3.90	4.39	2.75	2.76
World ex-US Equity							
UC Diversified Intl. Fund	$158	0.53%	14.80	-23.27	1.35	2.78	5.82
MSCI EAFE			17.34	-14.45	0.87	1.54	4.76
Value Added			-2.54	-8.82	0.48	1.24	1.06
UC Emerging Markets Fund	$204	0.68%	9.42	-19.03	-3.18	-1.86	1.12
MSCI Emerging Markets IMI ex Fossil Fuels ex Tobacco			9.82	-19.85	-2.60	-1.34	1.47
Value Added			-0.40	0.82	-0.58	-0.52	-0.35
Global Equity							
UC Global Equity Fund	$13	0.04%	9.45	-19.98	-	-	-
MSCI ACWI IMI ex Fossil Fuels ex Tobacco			9.33	-20.42	-	-	-
Value Added			0.12	0.44	-	-	-
Real Estate							
UC Real Estate Fund	$270	0.90%	5.24	-24.43	0.06	3.46	6.32
MSCI US REIT			5.22	-24.51	-0.06	3.35	6.30
Value Added			0.02	0.08	0.12	0.11	0.02

Core Funds Performance – Fixed Income

			Annualized Total Return (%)				
Capital Preservation	**Market Value ($M)**	**% of Program**	**3 Months**	**One Year**	**Three Year**	**Five Year**	**Ten Year**
UC Savings Fund	$3,650	12.16%	0.16	0.61	0.78	1.14	1.15
Two-Year U.S. Treasury Notes Income Return			1.11	2.77	1.17	1.60	1.13
Value Added			-0.95	-2.16	-0.39	-0.46	0.02
Inflation Sensitive							
UC Short Term TIPS Fund	$149	0.49%	1.03	-1.68	2.59	2.64	-
Barclays 1-3 Year U.S. TIPS Index			1.02	-1.79	2.46	2.52	-
Value Added			0.01	0.11	0.13	0.12	
UC TIPS Fund	$324	1.08%	2.14	-11.77	1.24	2.21	1.30
Barclays US TIPS Index			2.04	-11.85	1.21	2.11	1.12
Value Added			0.10	0.08	0.03	0.10	0.18
Diversified Fixed Income							
UC Bond Fund	$1,107	3.69%	1.81	-12.98	-2.82	-0.01	1.21
Bloomberg MSCI US Aggregate ex Fossil Fuels ex Tobacco			1.83	-13.04	-2.72	0.02	1.05
Value Added			-0.02	0.06	-0.10	-0.03	0.16

Plan Highlights

Key plan observations and 1-year growth:

- Total assets: $30.0 billion (-$6.0 billion)
- Assets in Target Date Fund: $11.7 billion (-$1.9 billion)
- Assets in UC Savings: $3.7 billion (no change)

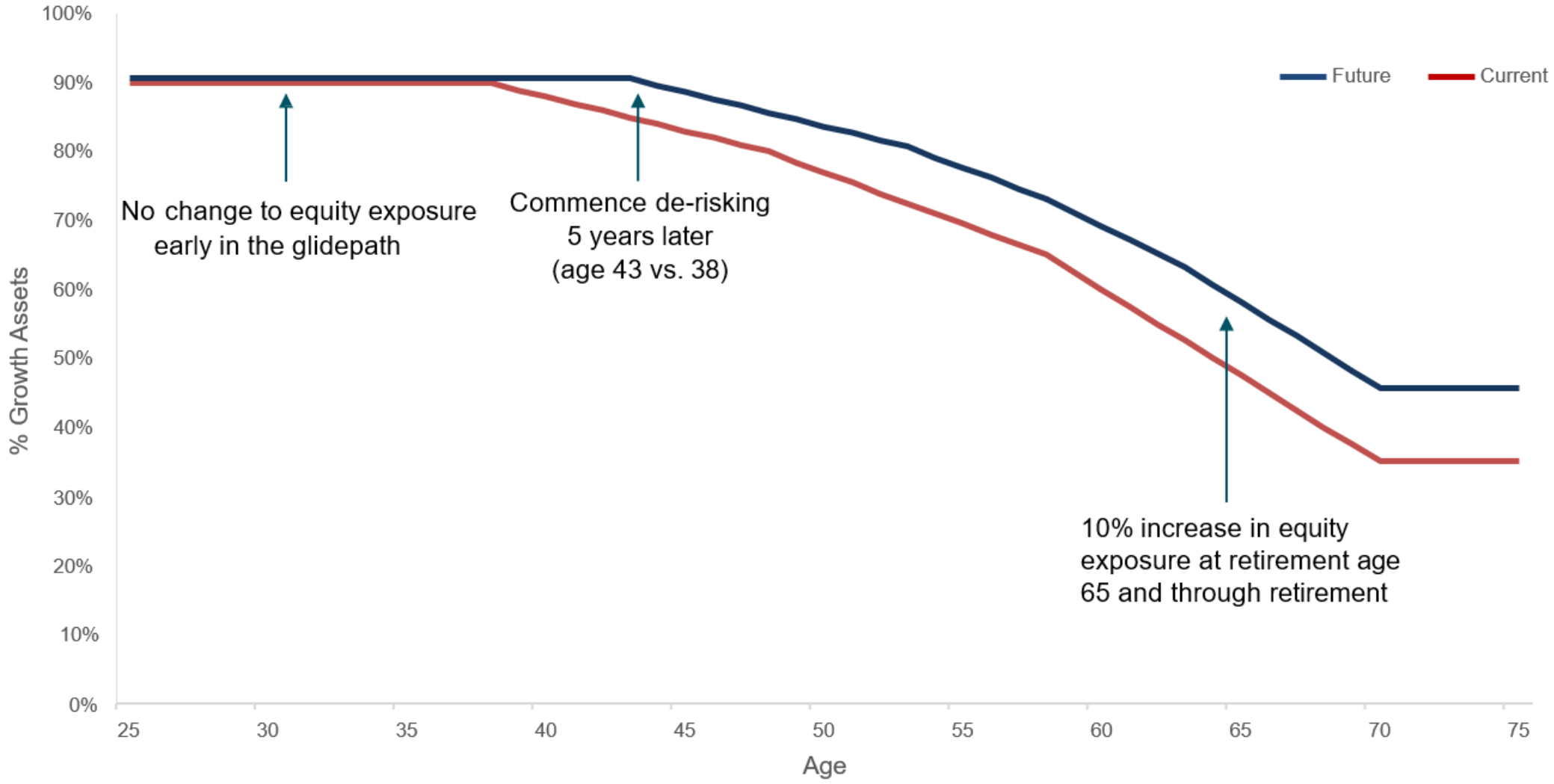
Performance review

- Target Date Fund Pathway vintages track the benchmark for quarter and one year
- UC Growth Company, UC Diversified International and Savings Funds outperformed over the long term
- Index Funds tracked their benchmark tightly

Product Enhancements

- Add TIAA Guaranteed Funding Agreement to Pathway Target Date Fund by 9/30/23
- 10% increase in equity allocation of Pathway implemented in 4 quarterly tranches with completion on 6/30/23
- Sold Fossil Fuel names from all UCRSP funds, selling $1.15 billion in assets on 6/30/22
- Deferred Lifetime Income launched, and second window successfully executed on 9/30/22
    - Won P&I Innovation Award for QLAC implementation and communication
- Launched UC Global Equity ex Fossil Fuel Fund, assets at $11 million as of 9/30/22

Pathway Glidepath: adding $1 billion in equities over the next year



Moved Savings Program to Fossil Fuel Free as of 6/30/22

Trading: $1.15 billion of fossil fuel equites and fixed income sold

- $700 million in US equities, $420 million in international equities and $30 million in US high yield

Communication: Successful collaboration with Fidelity HR team

- Over 300,000 emails and 20,000 letters sent to participants
- FAQs, updated website pages on myucretirement.com and netbenefits
- Dozens of socialization initiatives across the UC: Regents, UCRS Advisory Board, OGC, Academic Senate, RSPAC
- 24 new fund descriptions went live online on July 1, 2022
- 24 new fact sheets to be posted with the 3rd quarter rollout
- Working on an impact disclosure factsheet to highlight the carbon footprint reduction of the fossil fuel free portfolio

Operations and Legal: Successful operational implementation without any operating errors

- Obtained outside legal opinion around fiduciary risk from Groom Law
- Created 7 new benchmarks with Bloomberg, FTSE Russell and MSCI
- Close to 10 contracts needed to get legally vetted and executed

Launched Global Equity ex Fossil Fuels Fund

Assets: $11 million

Exposure: US, Developed and Emerging Market Equities (Large, Mid and Small Cap)

Benchmark: MSCI ACWI IMI ex Fossil Fuel ex Tobacco

Constituents: 8,300 companies covering 99% of global market cap

Implementation Approach: Indexed

Manger: SSGA

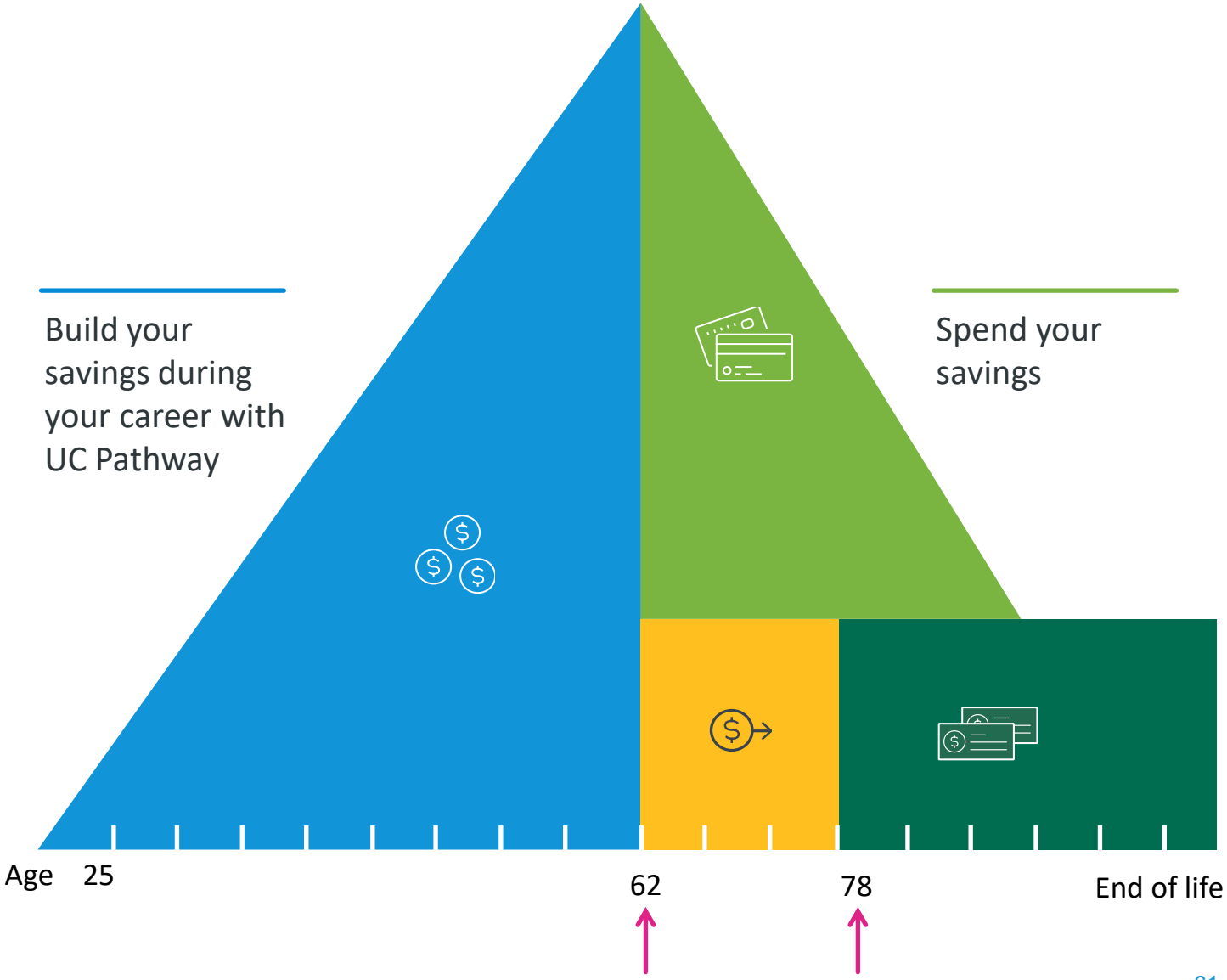
Launch Date: 3/31/2021

Cost: 0.01%

Implemented Deferred Lifetime Income

- $8 million in total QLACs written
- 2nd election window was open September 2022
- Held live webinar
- Sent educational brochure to over 18,000 participants
- Created and launched custom educational web module and calculator
- Created and launched custom election site

Introducing the Pathway Lifetime Income Option

Imbed a lifetime income stream

- Option to purchase Lifetime Income option (QLAC) using up to 25% of account balance introduced at age 62 for all participants including active, retired and former employees
- Payments start at age 78 and continue through participant's lifetime
- Includes pre-selected features such as spousal option, death benefit, Cost-of-Living Adjustment