

Investment Performance Review and Strategy

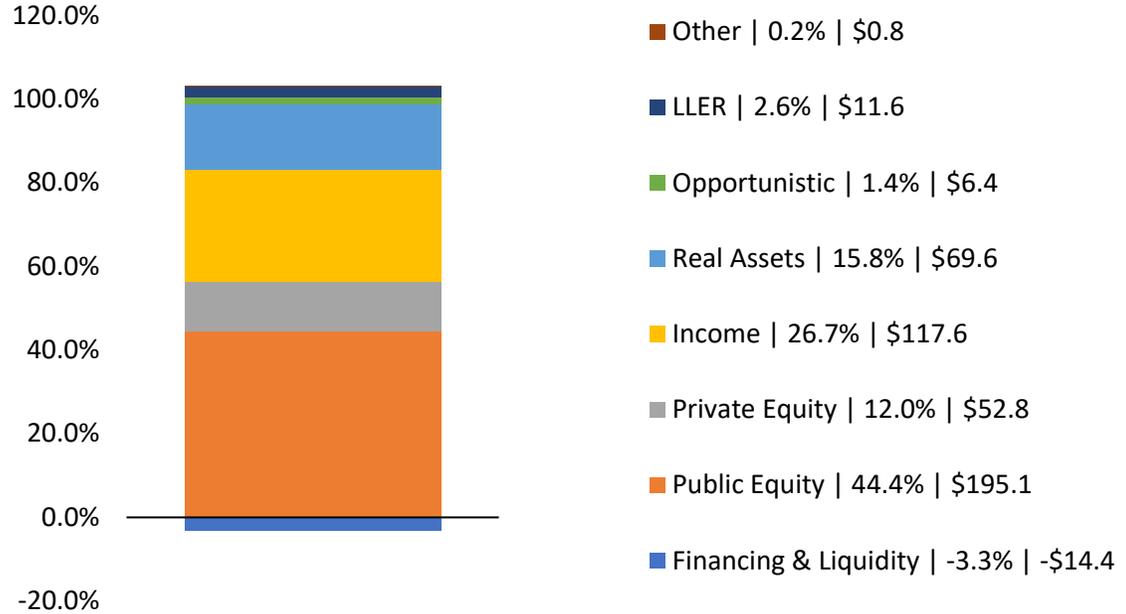
Investment Committee
September 19, 2022

Today's Agenda

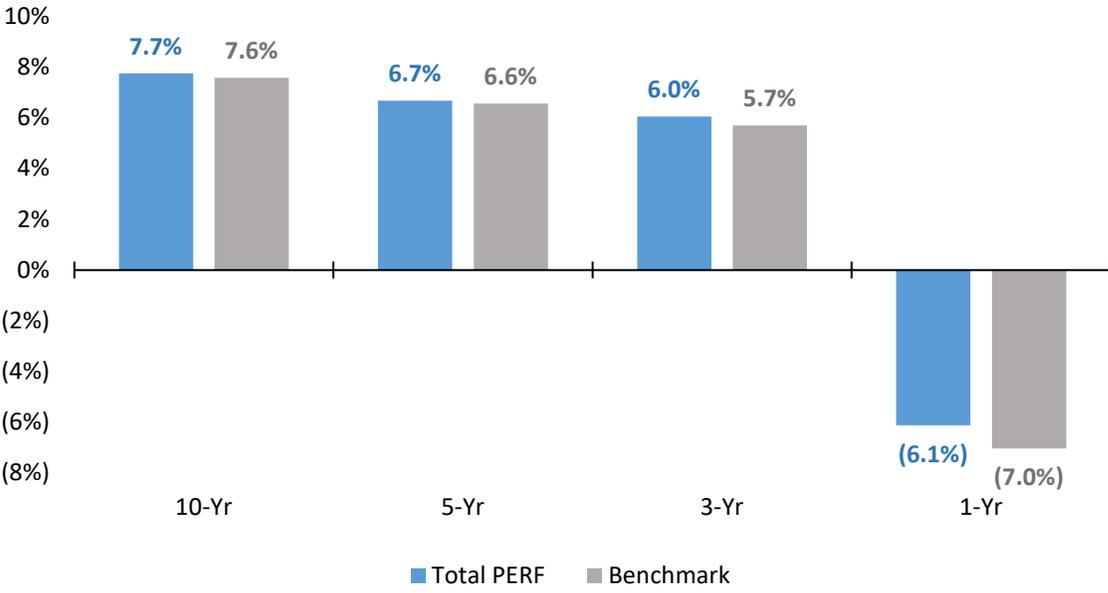
1. PERF Performance and Risk Snapshot
2. Review of 10-Yr Performance
 - Relative to Expectations
 - Relative to Peers
 - By Asset Class / Program
3. Lessons Learned
4. Path Forward

PERF Performance and Risk Snapshot (as of June 30, 2022)

Asset Allocation (\$Bil)



Performance



Ending Market Value
\$439.6 Billion

Realized 10-Yr Sharpe Ratio
1.0

Realized 5-Yr Information Ratio
0.1

Leverage
8.9%

30-Day Liquidity Coverage
2.2x

Forecasted Volatility
12.9%

Forecasted Actionable Tracking Error
10 bps



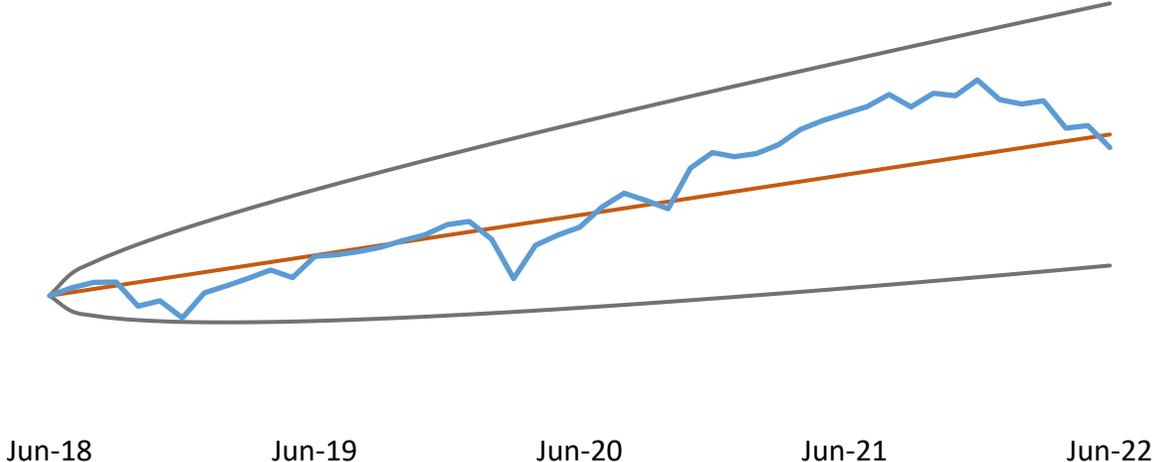
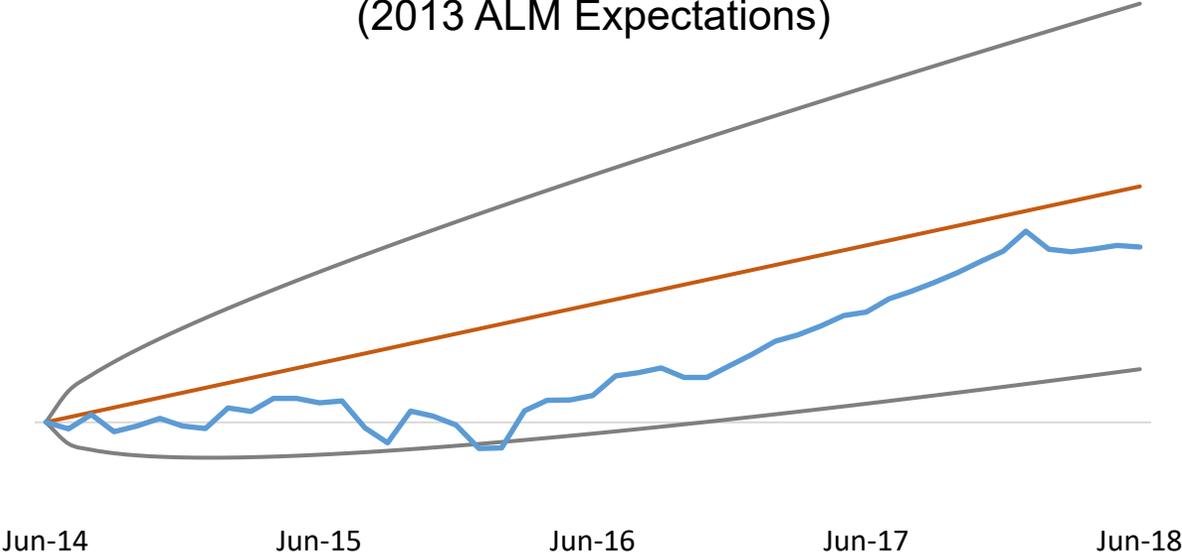
*All performance reported net of investment expenses and annualized. Public Equity benchmarks are net of taxes.
**Risk measures are calculated using monthly returns.

Returns Lower than Expectations

— Realized Cumulative Return
 — Expected Cumulative Return
 — Expected Range of Outcomes (+/- 1 Std Dev)

July 1, 2014 – June 30, 2018
 (2013 ALM Expectations)

July 1, 2018 – June 30, 2022
 (2017 ALM Expectations)



	Expected	Realized	Difference
Annualized Return	7.6%	5.6%	(2.0%)
Volatility	11.7%	5.5%	(6.2%)

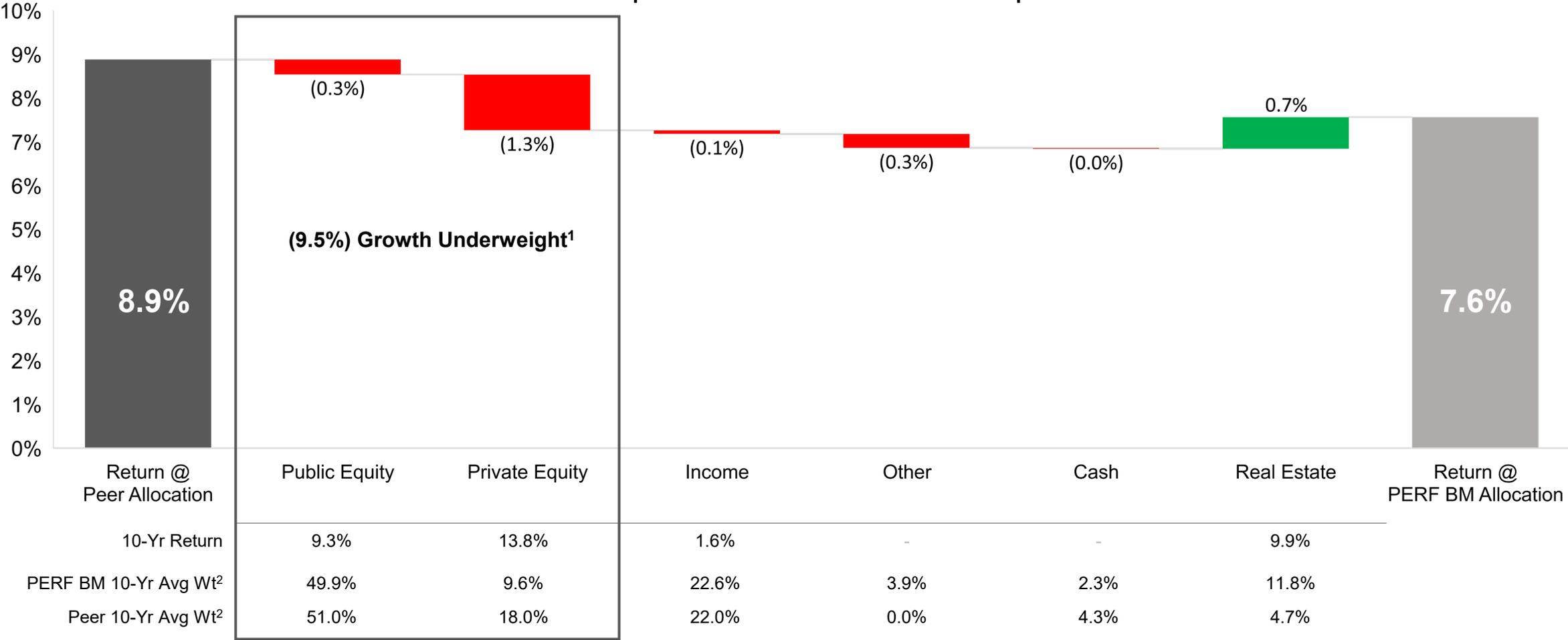
	Expected	Realized	Difference
Annualized Return	7.0%	6.2%	(0.8%)
Volatility	11.4%	9.0%	(2.4%)



*All performance reported net of investment expenses and annualized unless noted otherwise. Public Equity benchmarks are net of taxes.
 **Risk measures are calculated using monthly returns.

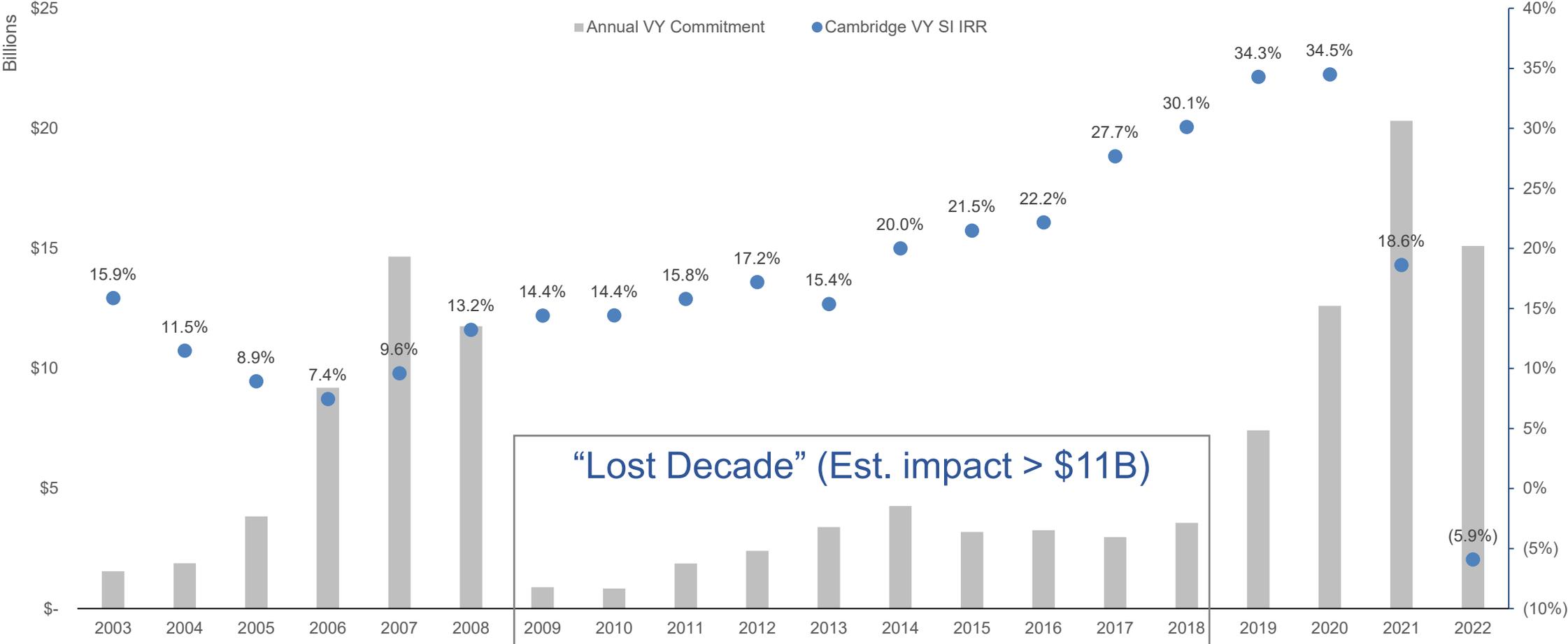
Returns Lower than Peers

10-Yr Underperformance vs. PEER³ Explained

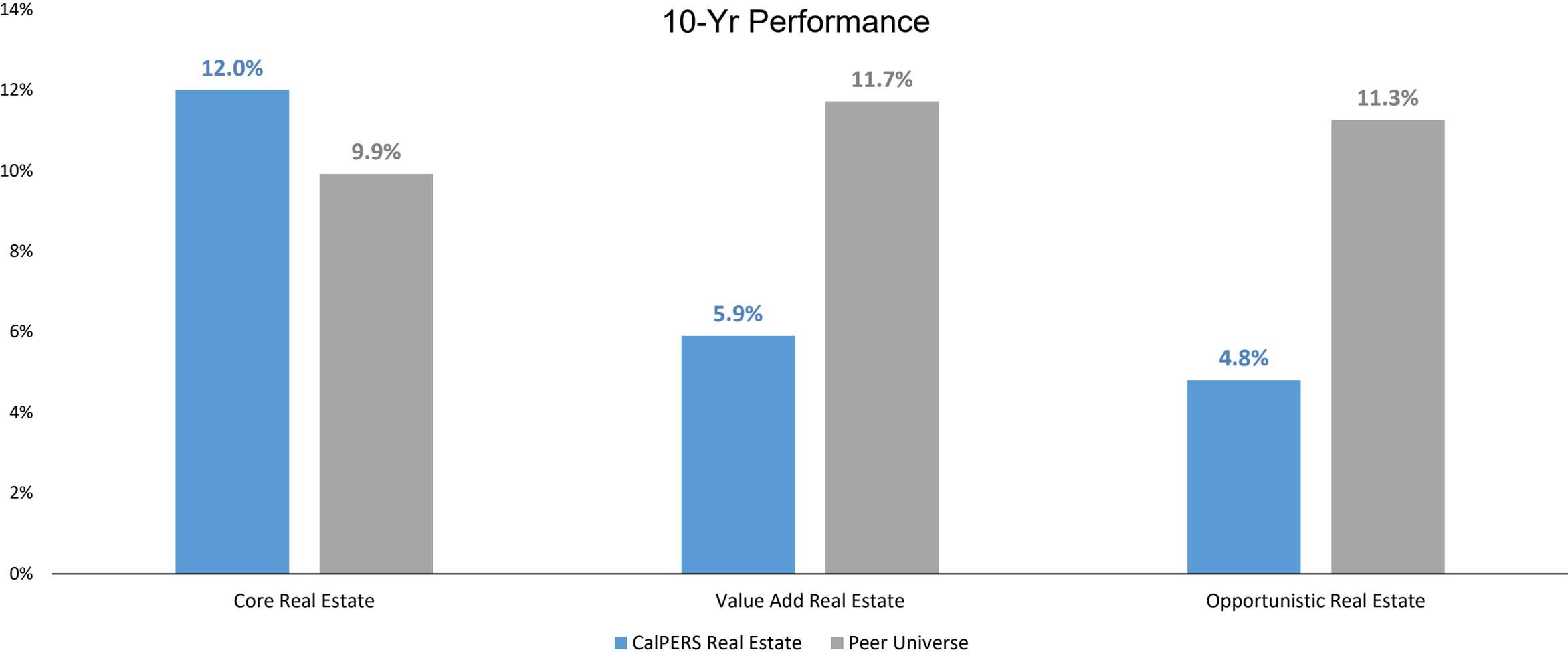


* PERF asset class benchmark returns were used for all calculations.
¹ Underweight is based on the 10-Yr average weights shown in the table.
² 10-Yr average weights represent the average monthly weights used for Peer Allocation and PERF BM Allocation return calculations.
³ "Peer" is a hypothetical portfolio informed by Wilshire Peer Universe data for US pension plans > \$10B

Inconsistent Pacing Impacted Private Equity Return



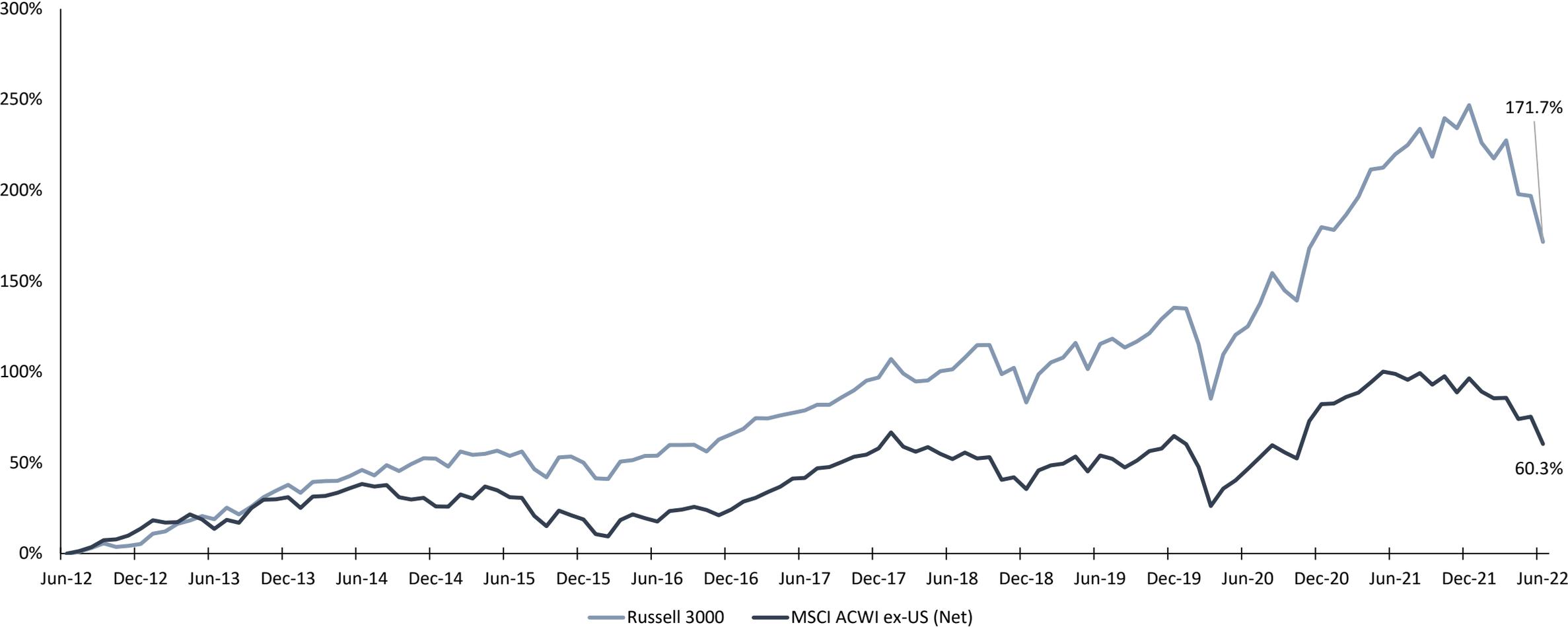
Value Add and Opportunistic Real Estate Underperformed



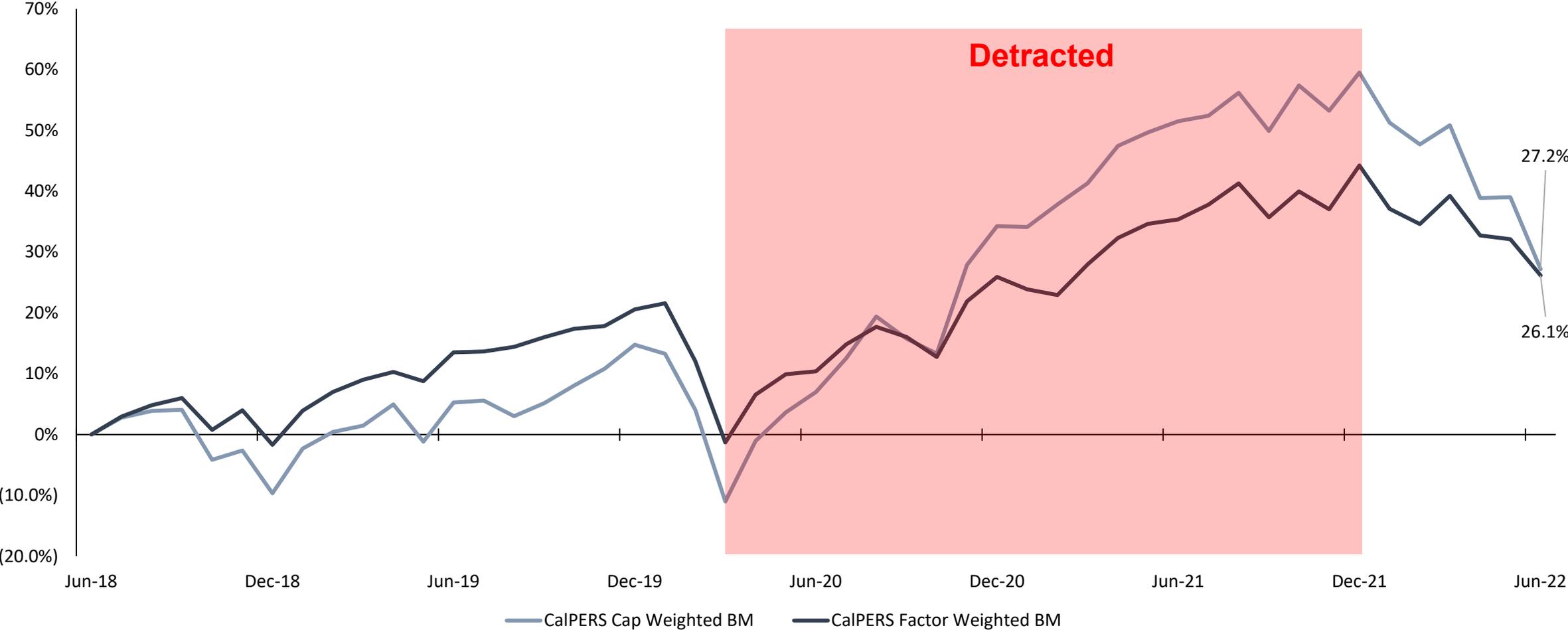
* Returns are as of 3/31/2022. Peer universe for Core RE is the NCREIF ODCE. Peer universe for Value Add and Opportunistic RE is Cambridge Associates.



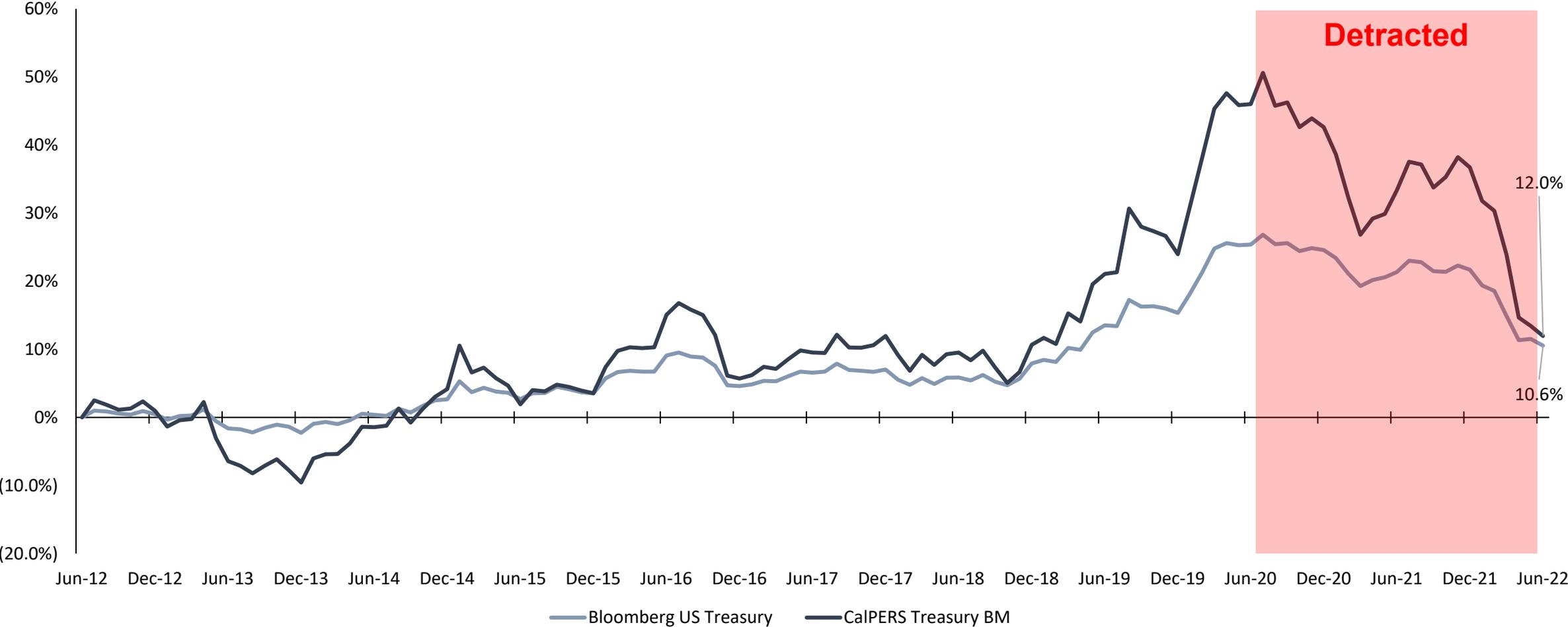
Larger Allocation to International Generated Lower Public Equity Returns



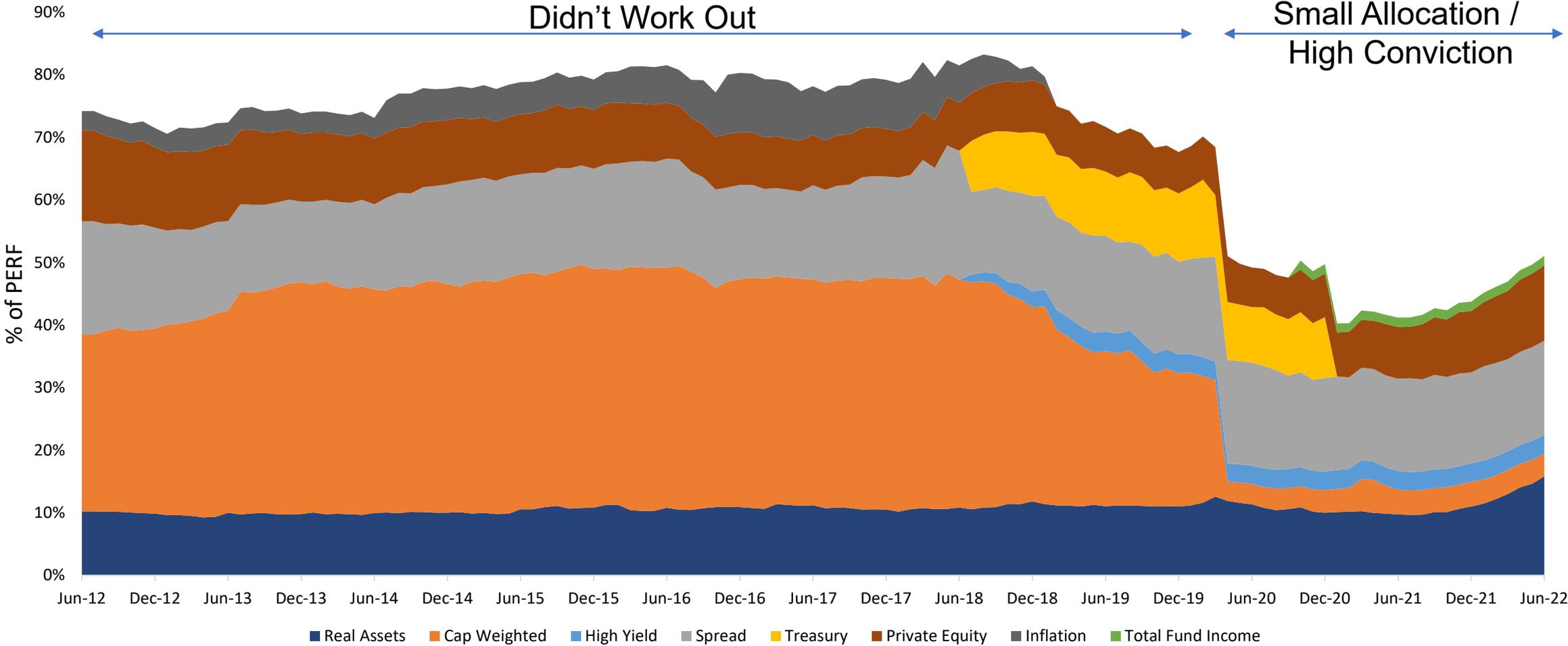
Factor Weighted Marginally Detracted with Lower Volatility



Long Duration Detracted More Recently

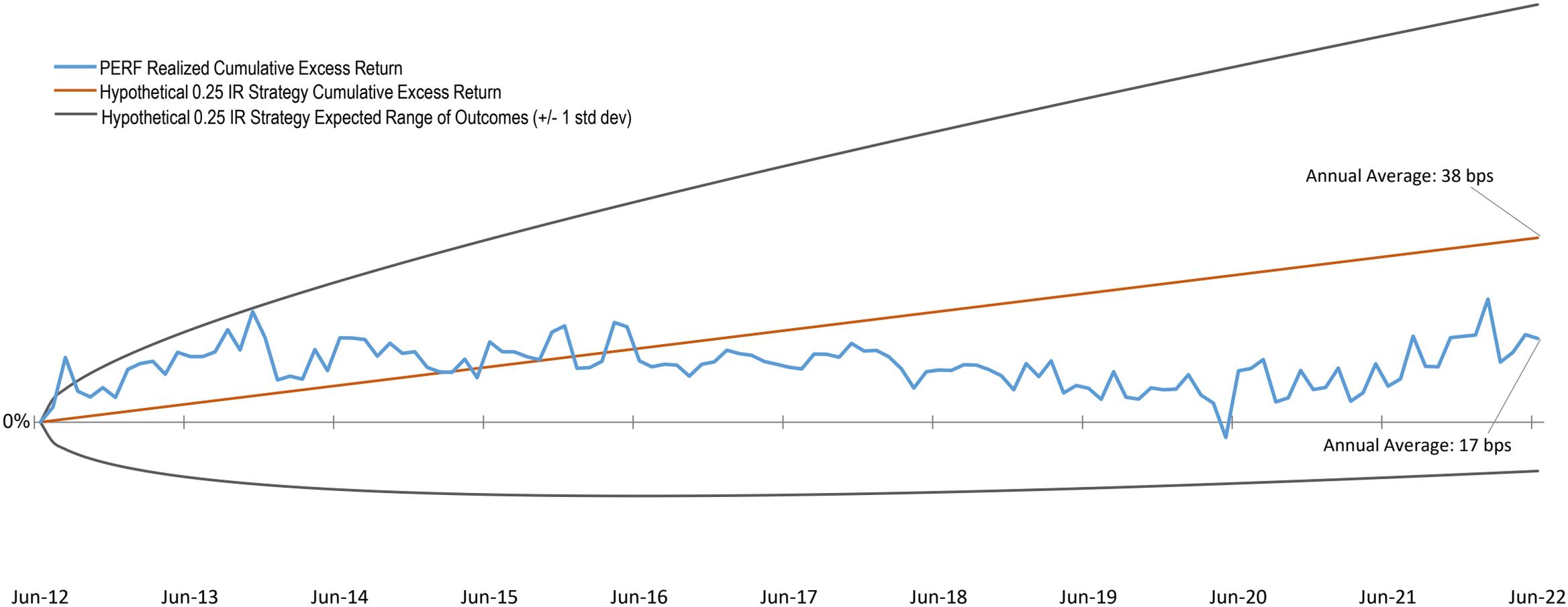


Deployment of Capital to Active Strategies Reduced in 2019 But Was Not Replaced



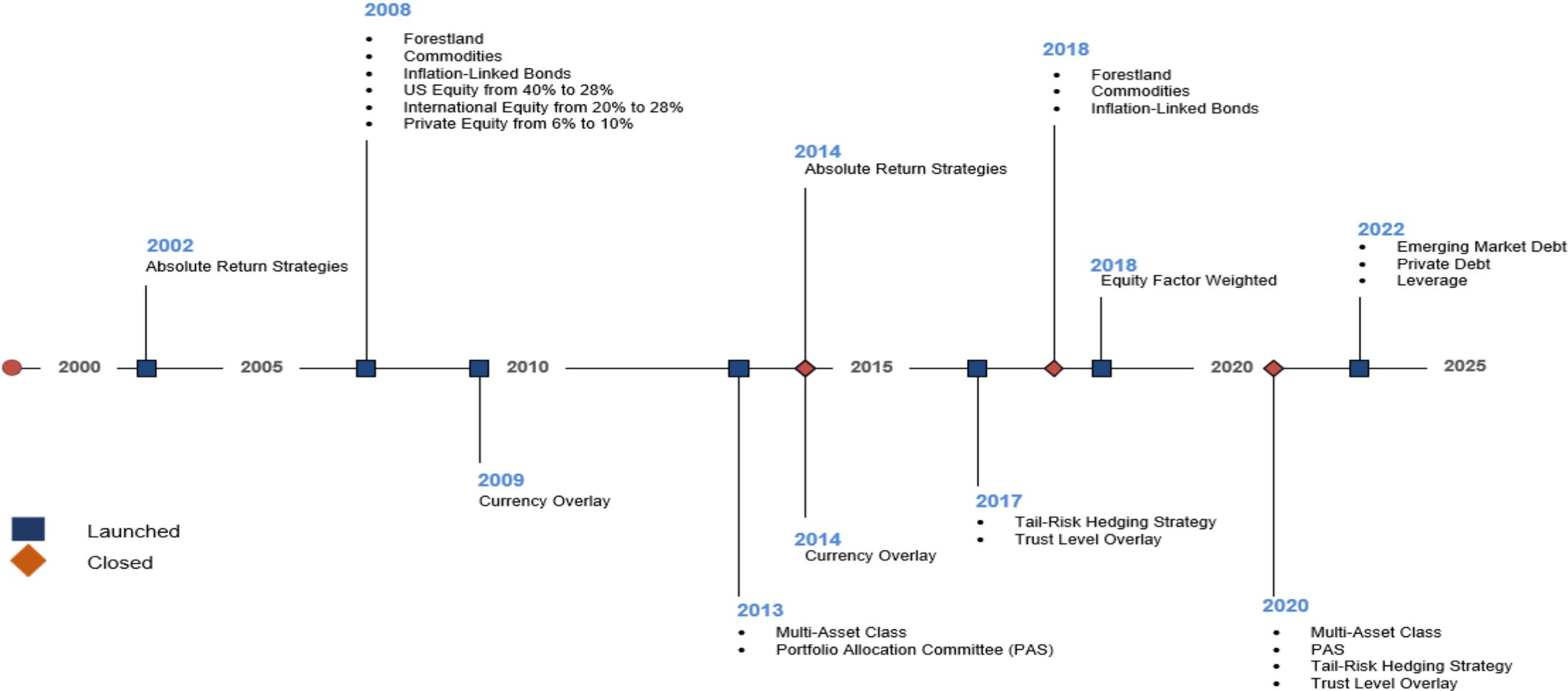
Active Management Did Not Consistently Add Value

PERF Realized Excess vs. a Hypothetical 0.25 Information Ratio Strategy with 150 bps Expected Tracking Error



*All performance reported net of investment expenses.

Frequent Changes in Strategies Detracted from Return



Summary of 10-Year Analysis

- Returns Have Been Lower Than Expectations Over the Last Two ALM Cycles
- Performance Has Underperformed Peers
- Inconsistent Pacing Impacted Private Equity Returns
- Value Add and Opportunistic Real Estate Underperformed Both the Core Universe and Peers
- The Decision to Increase Allocation to International Equities Generated Lower Returns
- Public Equity Factor-Weighted Segment Marginally Detracted Value
- Long Duration Fixed Income Generally Performed Well But More Recently Detracted Value
- Deployment of Capital to Active Strategies Did Not Consistently Add Value

Lessons Learned Will Serve to Build Path Forward



Path Forward

