

Global Public Equity Annual Program Review

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September 18, 2023

Contents



Program Overview



Market Environment



Portfolio Performance and Risk Analysis



Operational Updates and Key Initiatives



Program Overview

Role

- Efficiently capture the equity risk premium, with total returns driven by price appreciation and cash yields
- Cap Weighted Segment provides exposure to economic growth and offers a reliable source of liquidity
- Factor Weighted Segment provides exposure to economic growth with reduced overall volatility and some diversification of equity risk
- Overall: provides capital appreciation over the long-term and is a source of liquidity for cashflow needs

Key Metrics¹

- Total AUM: \$209B (73% Cap Weighted, 27% Factor Weighted)
- 84% of assets classified as index-oriented, 16% of assets classified as active
- 94% of assets are internally-managed, 6% of assets externally-managed

Investment Beliefs

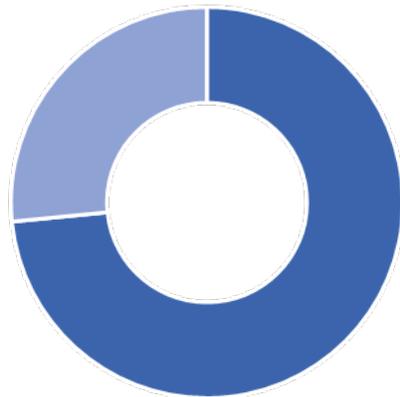
- A long investment horizon is a responsibility and an advantage. *(IB 2)*
- Long-term value creation requires effective management of three forms of capital: financial, physical, and human. *(IB 4)*
- CalPERS will take risk only where we have a strong belief we will be rewarded for it. *(IB 7)*
- Costs matter and need to be effectively managed. *(IB 8)*
- Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives. *(IB 10)*

¹ Key metrics as of June 30, 2023



Strategy and Portfolio Positioning

AUM (\$B) as of June 30, 2023



Total Market Value: \$208.8B

- Cap Weighted | 73.4% | \$153.3B
- Factor Weighted | 26.6% | \$55.4B

Total Fund Allocation (%) as of June 30, 2023

| | % of Total Fund Actual | % of Total Fund Target |
|-----------------|------------------------|------------------------|
| Public Equity | 45.1 | 42 (+/- 7) |
| Cap Weighted | 33.1 | 30 |
| Factor Weighted | 12.0 | 12 |

- Global Public Equity is the principal asset class providing growth exposure in the strategic asset allocation. Its goal is to provide equity beta exposure plus risk-managed systematic and opportunistic alpha
- Program thoughtfully delivers multiple equity betas with low active risk and an efficient cost structure
- 94% of the total portfolio is invested in cost-efficient, internally-managed strategies



Market Environment

Current Concerns

- Recession fears are slowly dissipating although they still linger in the background
- Inflation has decelerated significantly compared to a year ago, but remains above the Fed's 2% target
- A handful of mega cap names have been driving equity markets, mostly in the technology sector (related to AI)
- Market segments with high valuations are vulnerable to corrections
- Narrow market leadership may present short-term headwinds for active management relative performance
- **Risks we are monitoring:** lagged impact of higher interest rates on economic activity, geopolitical uncertainty, elevated valuations in some segments of the markets, global growth, depletion of consumer excess savings

Investment Themes

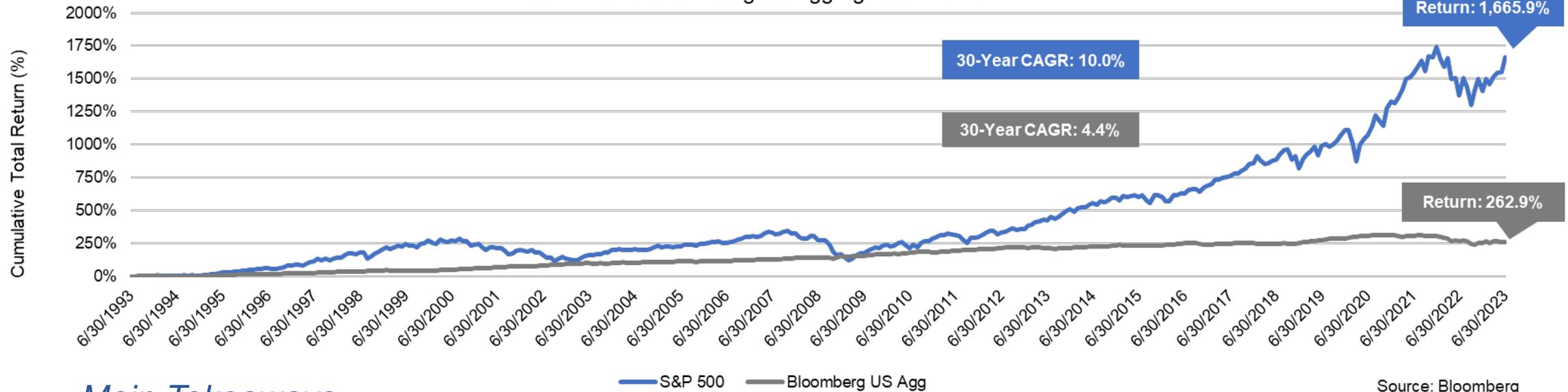
- Long-term investment horizon gives us the ability to withstand short-term market volatility, while prudently increasing active risk to seek to add value
- Examine regional market efficiency disparities and prioritize active management in less efficient markets



Market Dynamics: Equity Risk Premium

Over the long-term, the equity risk premium has been rewarded

S&P 500 vs Bloomberg US Aggregate Bond Index



Source: Bloomberg

Main Takeaways

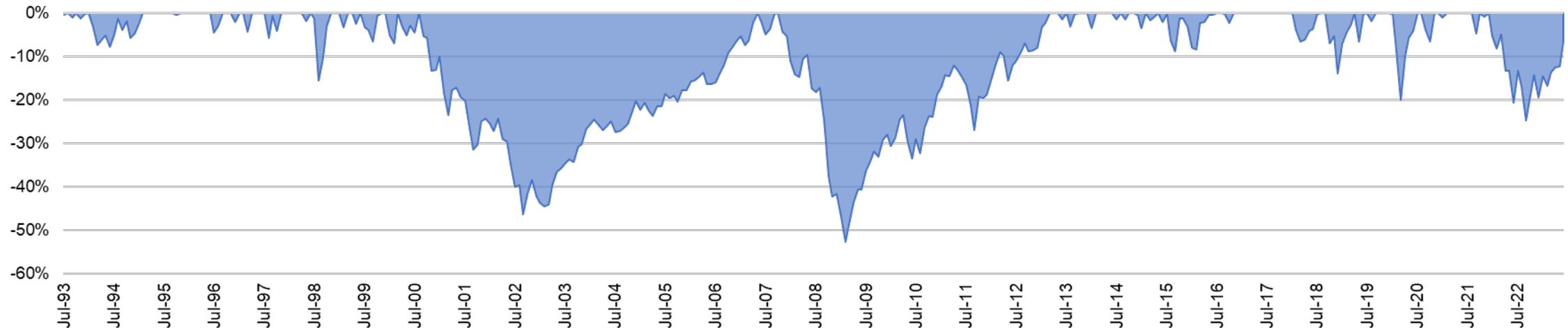
- Over the long-term, equities deliver capital appreciation and have generated positive absolute returns despite periods of intermediate drawdowns
- Long-term investment horizons strengthen ability to prudently increase active risk and add value



Market Dynamics: Equity Volatility & Drawdowns

Volatility and Drawdowns are regular features of equity markets

S&P 500 Historical Drawdown



Main Takeaways

Source: FactSet

- Equity markets undergo periods of heightened volatility and drawdowns
- Despite delivering strong annualized returns of 10% per year over the 30-year period (shown on prior slide), the S&P 500 index suffered significant drawdowns of 20 – 50% during the period
- A short-term focus will likely lead to suboptimal decisions and limit ability to add value
- Market volatility presents favorable entry points for long-term investors like CalPERS and richer opportunities for active strategies

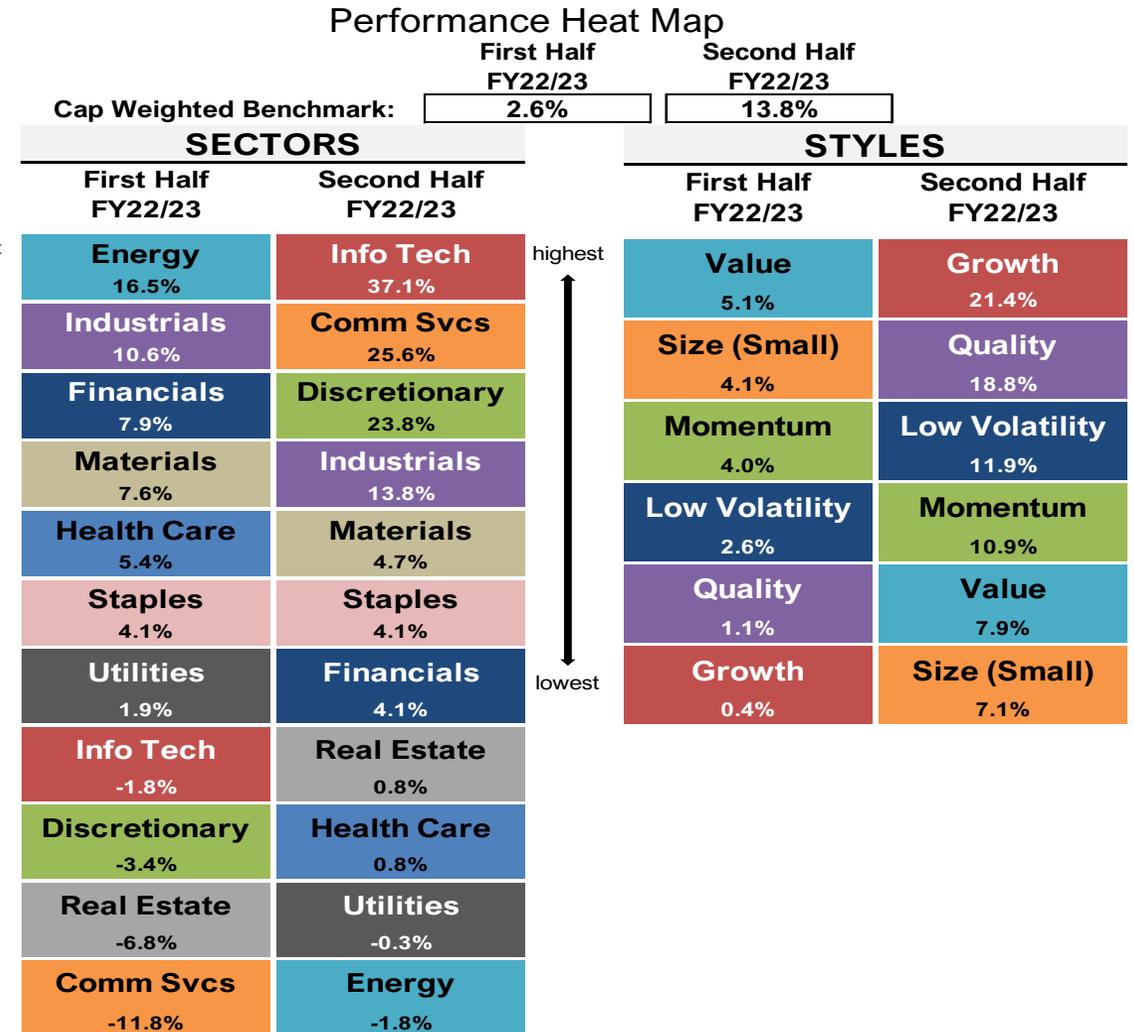


Market Environment: FY 2022-23 was a tale of two halves

FY 2022-23 was characterized by sharp reversals and narrow market breadth

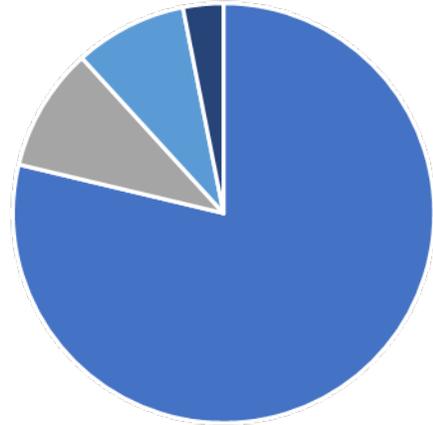
- Many of the themes that worked in the first half of the fiscal year sharply reversed in the second half
- Narrow market leadership during the second half of the fiscal year was driven by a handful of mega cap stocks

| | Absolute Returns (%) | | | Excess Returns (Bps) | | |
|----------------------------|----------------------|-------------------|----------|----------------------|-------------------|----------|
| | 1st Half FY22/23 | 2nd Half FY 22/23 | FY 22/23 | 1st Half FY22/23 | 2nd Half FY 22/23 | FY 22/23 |
| Public Equity Cap Weighted | 2.68 | 13.61 | 16.66 | 11 | (22) | (11) |
| Index Oriented ex Enhanced | 2.61 | 13.53 | 16.49 | 3 | 3 | 6 |
| US Enhanced | 2.61 | 16.22 | 19.26 | 30 | (54) | (20) |
| Traditional Active | 3.87 | 12.49 | 16.84 | 123 | (102) | 34 |
| Multi Factor | 3.74 | 10.68 | 14.81 | 116 | (316) | (196) |



Cap Weighted Segment (as of June 30, 2023)

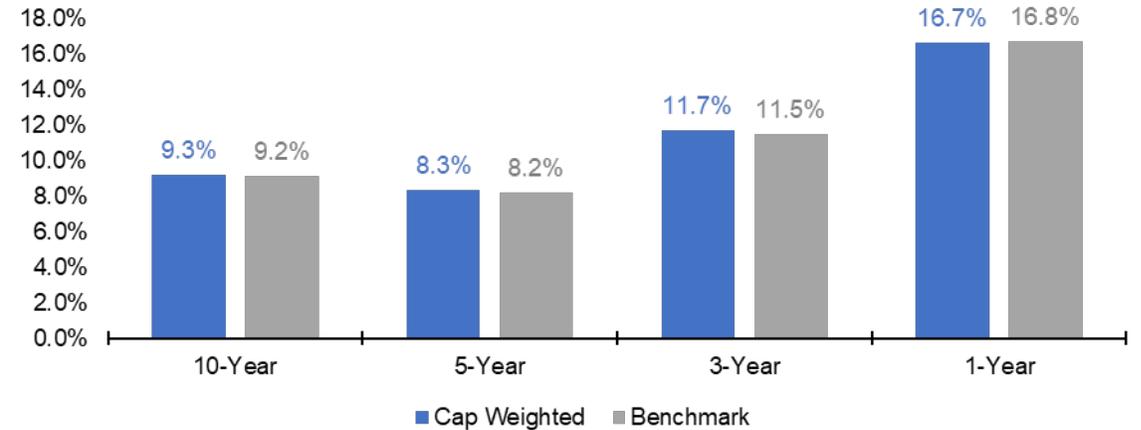
Strategy Allocation (\$ Bil)



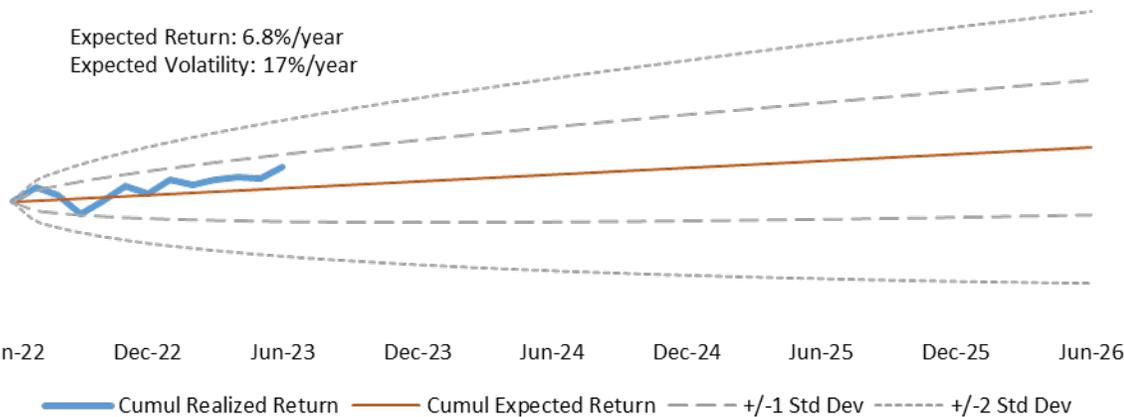
Total Market Exposure: \$153.3

- Index-Oriented (ex. Enhanced) | 78.7% | \$120.7
- Enhanced Index | 9.5% | \$14.6
- Traditional Active | 8.6% | \$13.3
- Multi-Factor¹ | 3.1% | \$4.8

Total Return



Cumulative Return vs 2021 SAA Expectations

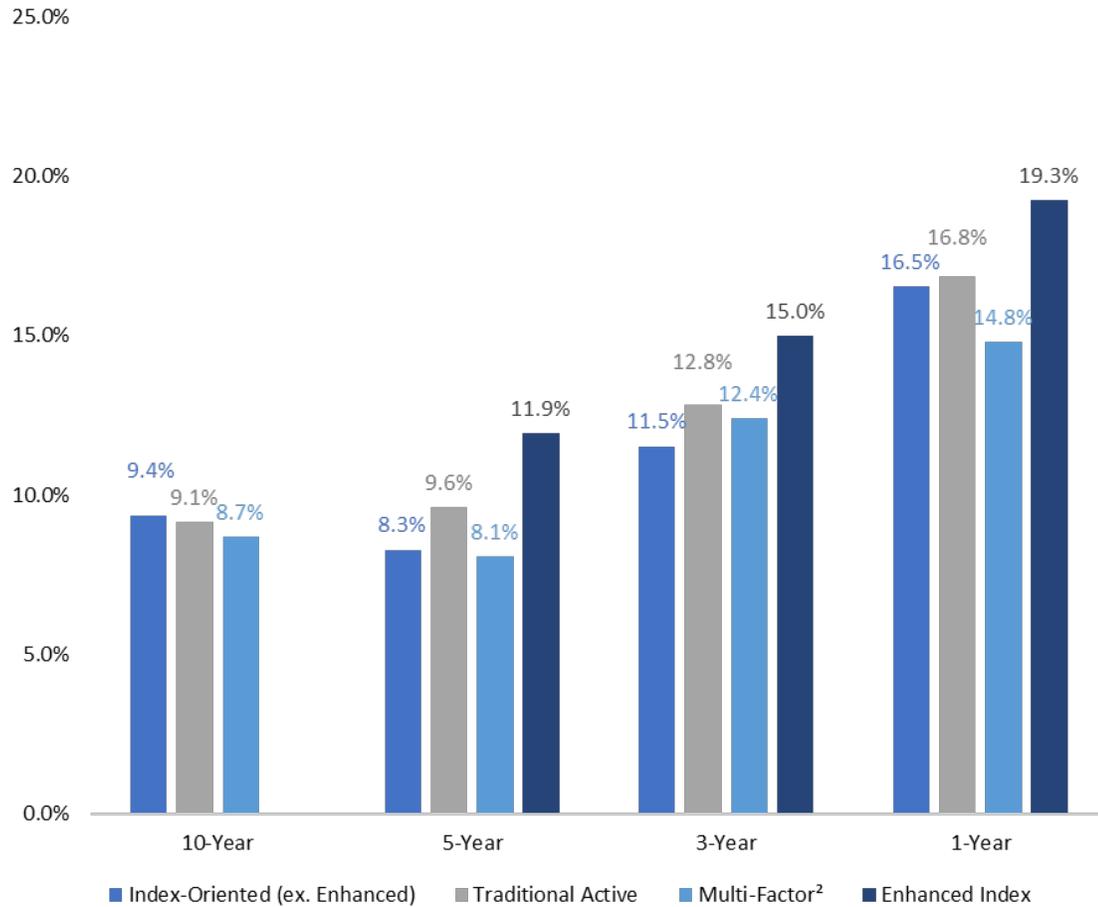


Key Metrics

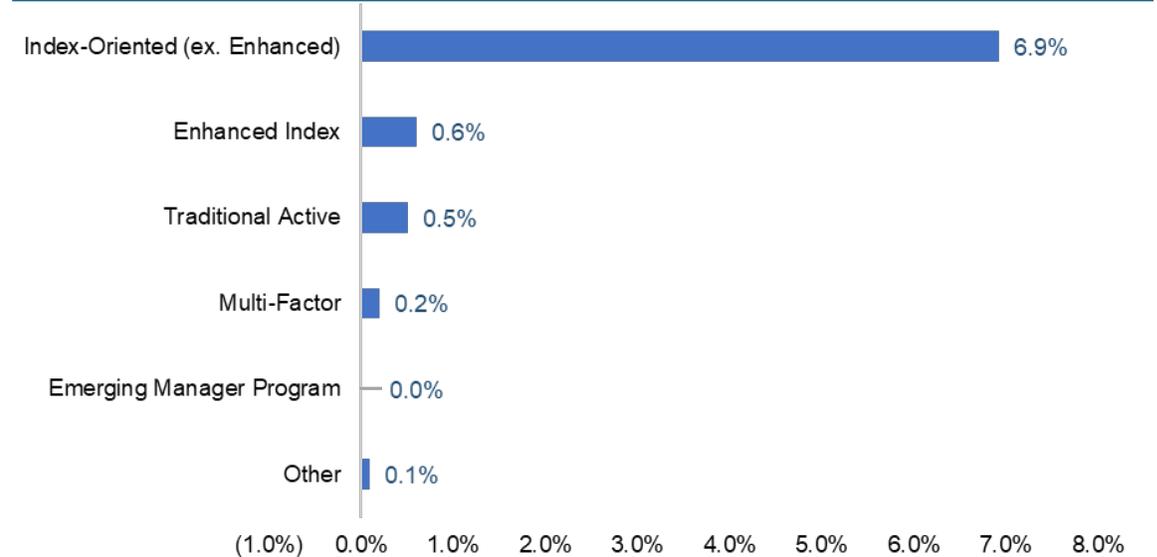


Portfolio Performance | Cap Weighted Total Return by Strategy (as of June 30, 2023)

Total Return by Strategy



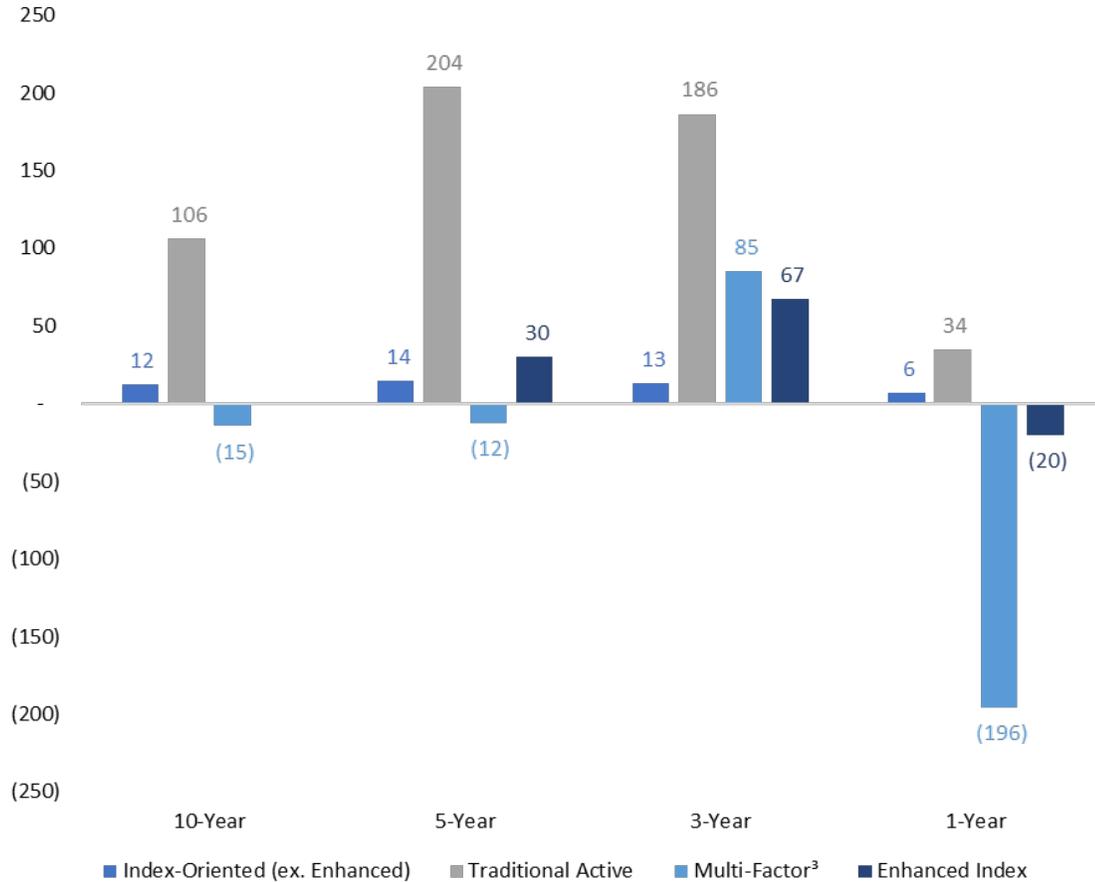
Contribution to Cap Weighted 5 Year Total Return



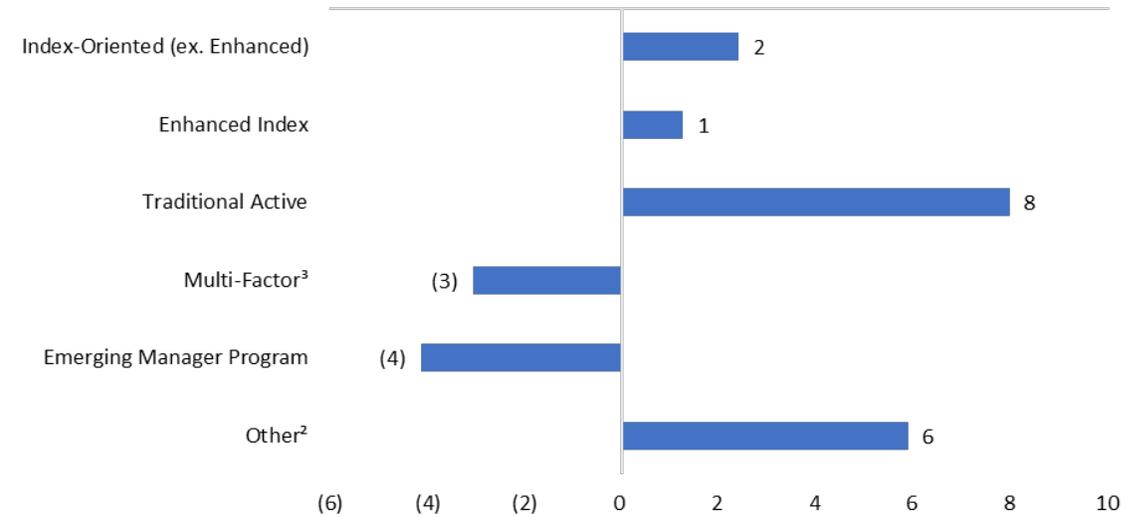
| | Average Allocation | Return | Contribution to Return |
|-------------------------------|--------------------|--------|------------------------|
| Cap Weighted | | 8.3% | 8.3% |
| Index-Oriented (ex. Enhanced) | 80.1% | 8.3% | 6.9% |
| Enhanced Index | 5.0% | 11.9% | 0.6% |
| Traditional Active | 8.2% | 9.6% | 0.5% |
| Multi-Factor ² | 4.6% | 8.1% | 0.2% |
| Emerging Manager Program | 0.9% | - | - |
| Other ¹ | 1.3% | - | 0.1% |

Portfolio Performance | Cap Weighted Excess Return by Strategy (as of June 30, 2023)

Excess Return by Strategy (bps)



Contribution to Cap Weighted 5Y Excess Return¹ (bps)



| | Avg Weight | Return | BM Return | Excess (bps) | Contribution to Excess |
|-------------------------------|------------|--------|-----------|--------------|------------------------|
| Cap Weighted | | 8.3% | 8.2% | 10 | 10 |
| Index-Oriented (ex. Enhanced) | 80.1% | 8.3% | 8.1% | 14 | 2 |
| Enhanced Index | 5.0% | 11.9% | 11.6% | 30 | 1 |
| Traditional Active | 8.2% | 9.6% | 7.6% | 204 | 8 |
| Multi-Factor ³ | 4.6% | 8.1% | 8.2% | (12) | (3) |
| Emerging Manager Program | 0.9% | | | | (4) |
| Other ² | 1.3% | | | | 6 |

Note: All performance reported net of investment expenses and annualized. Public Equity benchmarks are net of taxes.

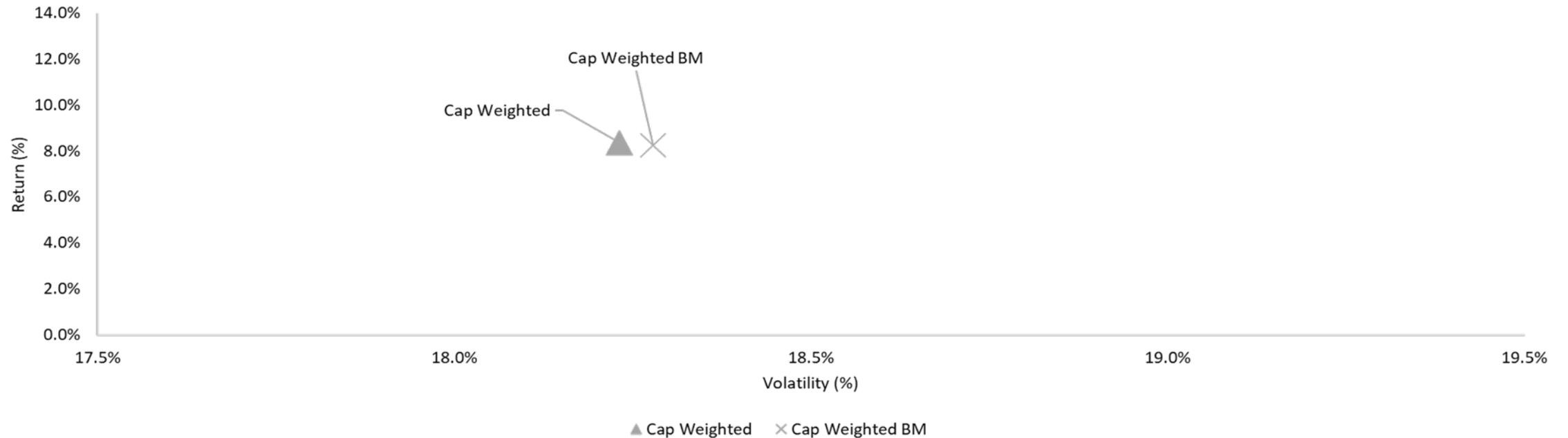
¹ Strategy contribution to excess excludes the impact of income from securities lending, which is reflected in "Other."

² Other includes impact from allocations to defunded strategies, income from securities lending, and allocation management.

³ The Multi-Factor strategy transitioned from Alternative Beta in 2019.



5 Year Cap Weighted Risk-Return (as of June 30, 2023)



| | Return | Volatility | Sharp Ratio | Tracking Error (bps) | Information Ratio |
|-------------------------------|-------------|--------------|-------------|----------------------|-------------------|
| Cap Weighted | 8.3% | 18.2% | 0.37 | 25 | 0.40 |
| Index-Oriented (ex. Enhanced) | 8.3% | 18.1% | 0.37 | 10 | 1.43 |
| Enhanced Index | 11.9% | 19.3% | 0.54 | 69 | 0.43 |
| Traditional Active | 9.6% | 17.8% | 0.45 | 249 | 0.82 |
| Multi-Factor ¹ | 8.1% | 17.6% | 0.37 | 186 | (0.07) |



Cap Weighted Risk Summary (as of June 30, 2023)

Segment Risk Statistics (Forecasted)

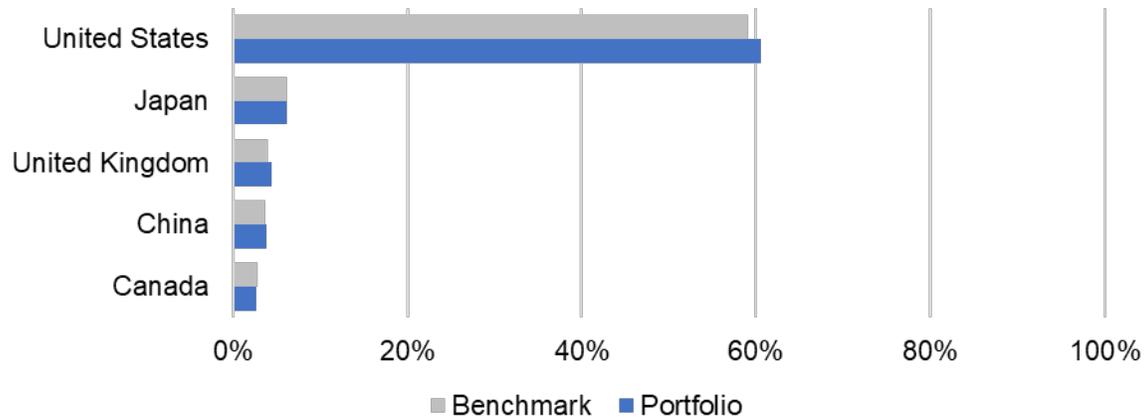
| | |
|-------------------------|-------|
| Forecasted Volatility | 18.8% |
| Benchmark Volatility | 18.9% |
| Tracking Error | 0.32% |
| Portfolio Beta (to Bmk) | 1.0 |

Risk Decomposition (Forecasted)

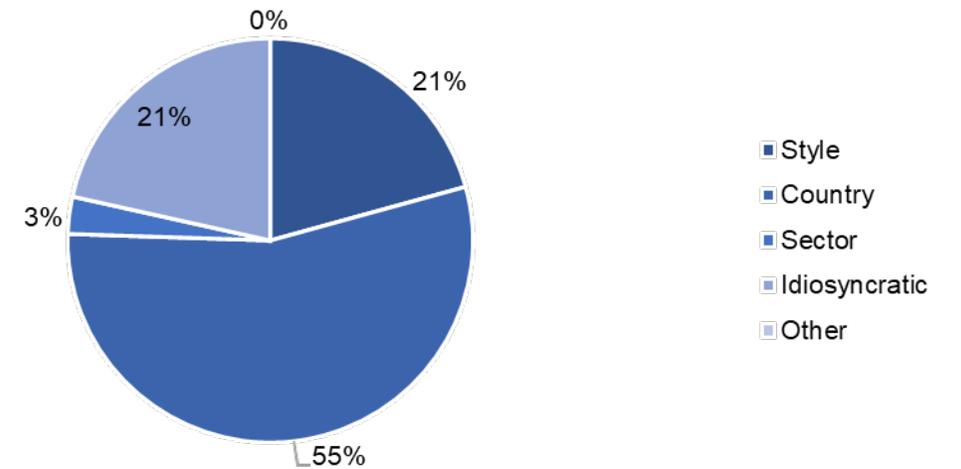
| | Portfolio Risk Contribution | % Risk | Active Risk Contribution | % Risk |
|---------------------------|-----------------------------|---------------|--------------------------|---------------|
| Total Segment Risk | 18.8% | 100.0% | 0.32% | 100.0% |
| Equity | 17.7% | 94.5% | 0.29% | 90.1% |
| Foreign Exchange | 1.0% | 5.6% | 0.03% | 9.5% |
| Rates | 0.0% | 0.0% | 0.00% | 0.2% |
| Spreads | 0.0% | 0.0% | 0.00% | 0.0% |

Segment Allocation by Country (Top 5)

Segment Allocation by Country (Top 5)

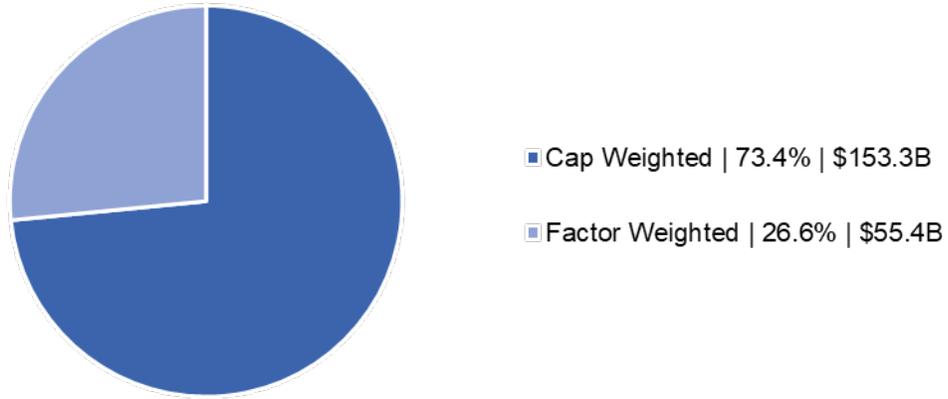


Active Risk from Equity Factor

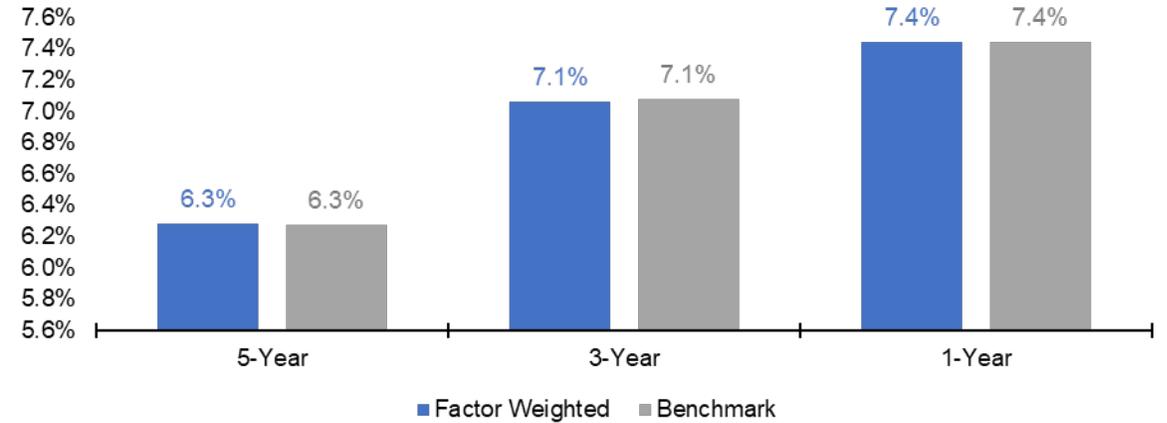


Factor Weighted Segment (as of June 30, 2023)

Strategy Allocation (\$ Bil)

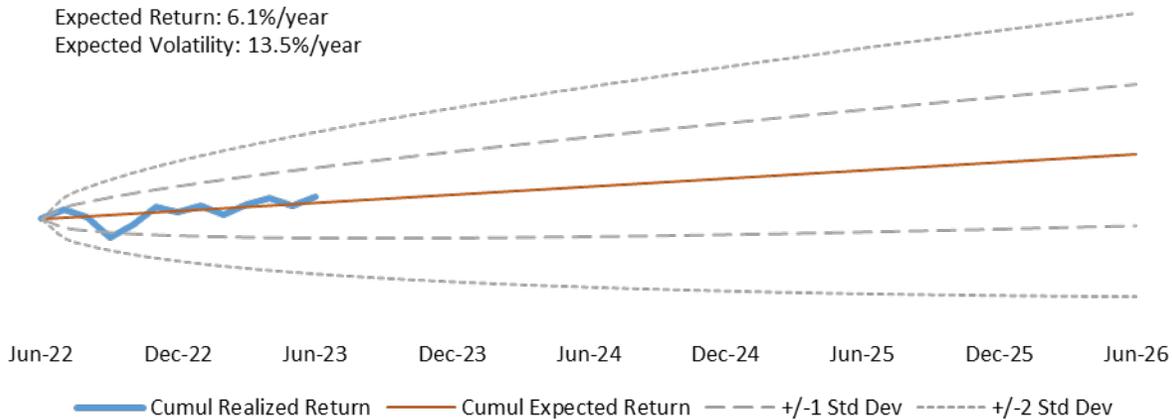


Total Return



Cumulative Return vs 2021 SAA Expectations

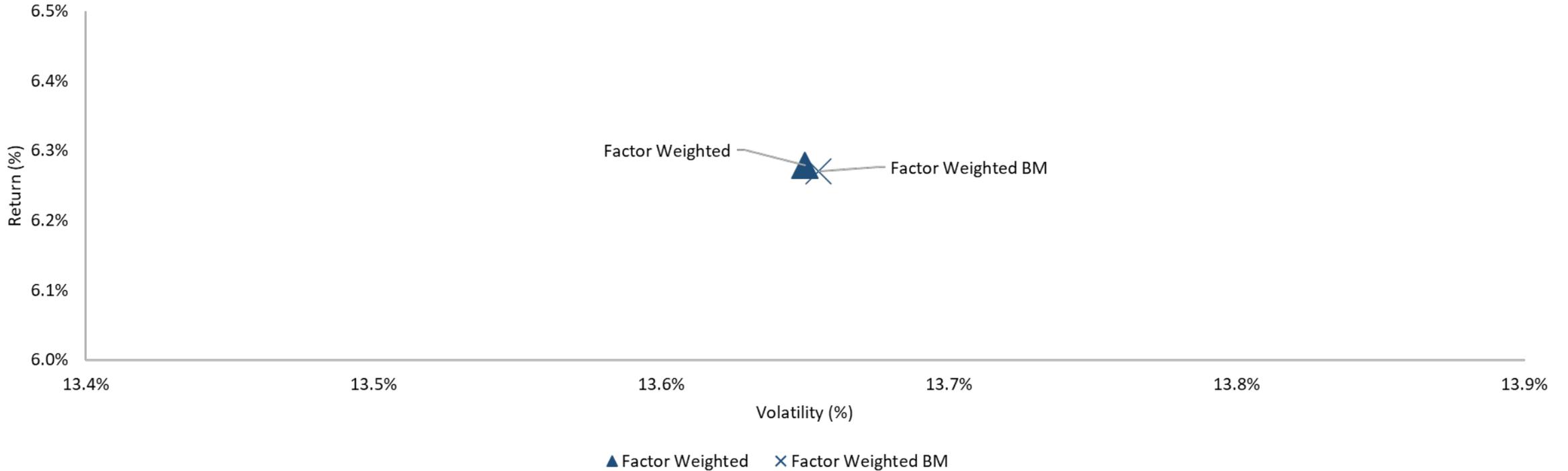
Expected Return: 6.1%/year
Expected Volatility: 13.5%/year



Key Metrics



5 Year Factor Weighted Risk-Return (as of June 30, 2023)



| | Return | Volatility | Sharp Ratio | Tracking Error (bps) | Information Ratio |
|------------------------|-------------|--------------|-------------|----------------------|-------------------|
| Factor Weighted | 6.3% | 13.7% | 0.35 | 10 | 0.08 |



Factor Weighted Risk Summary (as of June 30, 2023)

Segment Risk Statistics (Forecasted)

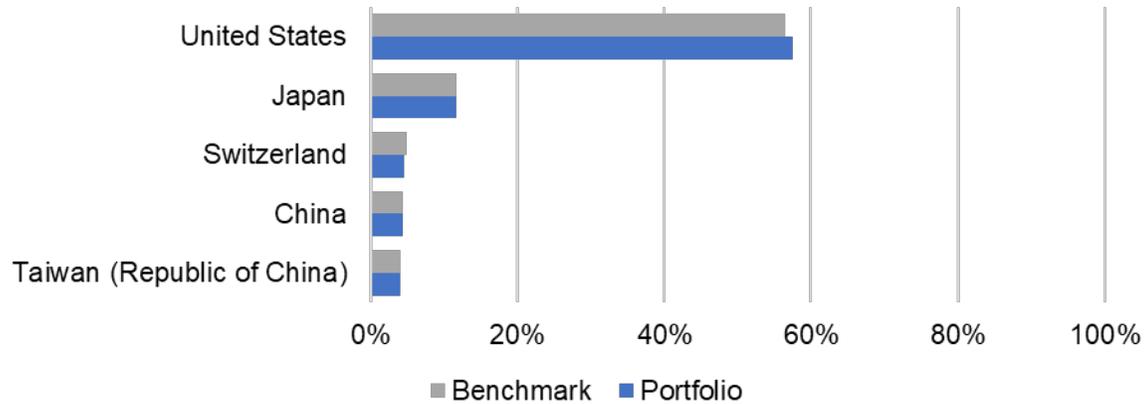
| | |
|-------------------------|-------|
| Forecasted Volatility | 14.1% |
| Benchmark Volatility | 14.2% |
| Tracking Error | 0.04% |
| Portfolio Beta (to Bmk) | 1.0 |

Risk Decomposition (Forecasted)

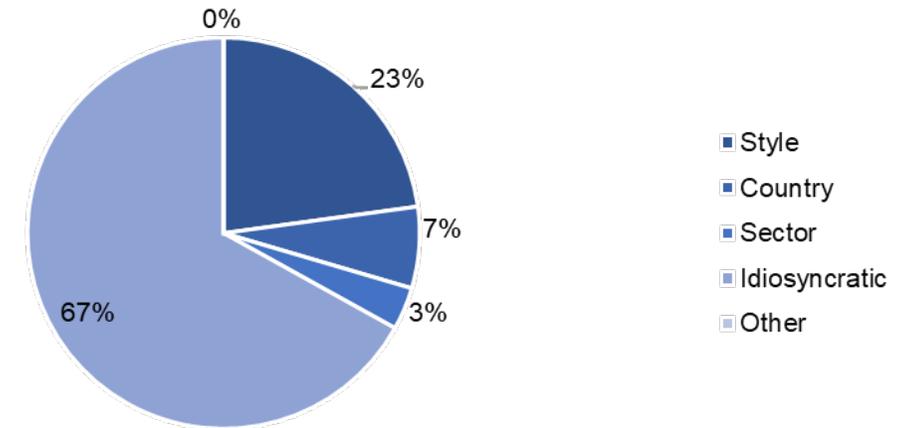
| | Portfolio Risk Contribution | % Risk | Active Risk Contribution | % Risk |
|---------------------------|-----------------------------|---------------|--------------------------|---------------|
| Total Segment Risk | 14.1% | 100.0% | 0.04% | 100.0% |
| Equity | 13.6% | 96.3% | 0.04% | 101.4% |
| Foreign Exchange | 0.5% | 3.7% | 0.00% | -1.4% |
| Rates | 0.0% | 0.0% | 0.00% | 0.0% |
| Spreads | 0.0% | 0.0% | 0.00% | 0.0% |

Segment Allocation by Country (Top 5)

Segment Allocation by Country (Top 5)



Active Risk from Equity Factor



Program Evaluation

What Worked



- Efficiently implemented Strategic Asset Allocation (SAA) targets, deployed additional capital to active strategies, and reweighted the multi-factor strategies in a risk-controlled manner
- Delivered strong absolute (total) returns for the 1-, 3-, 5-, and 10-year horizons
- Delivered strong relative returns (positive excess returns) for the 3-, 5-, and 10-year horizons

Areas for Refinement



- Continue to refine the strategy search process to improve the opportunistic deployment of capital
- Collaborate with TFPM in the assessment of the continued utility of the factor weighted segment as part of the Mid-Cycle Strategic Asset Allocation review

Key Initiatives | Fiscal Year 2023-24

- Deploy capital to further diversify active equity strategies and efficiently capture the equity risk premium
- Continue to refine the strategy search process to improve the opportunistic deployment of capital
- Collaborate with Sustainable Investments to develop INVO's Net Zero by 2050 Strategy
- Collaborate across Capital Markets teams to implement Strategic Alliance work
- Participate in the evaluation and selection of analytical systems aimed to improve Capital Markets' and Total Fund's base capabilities



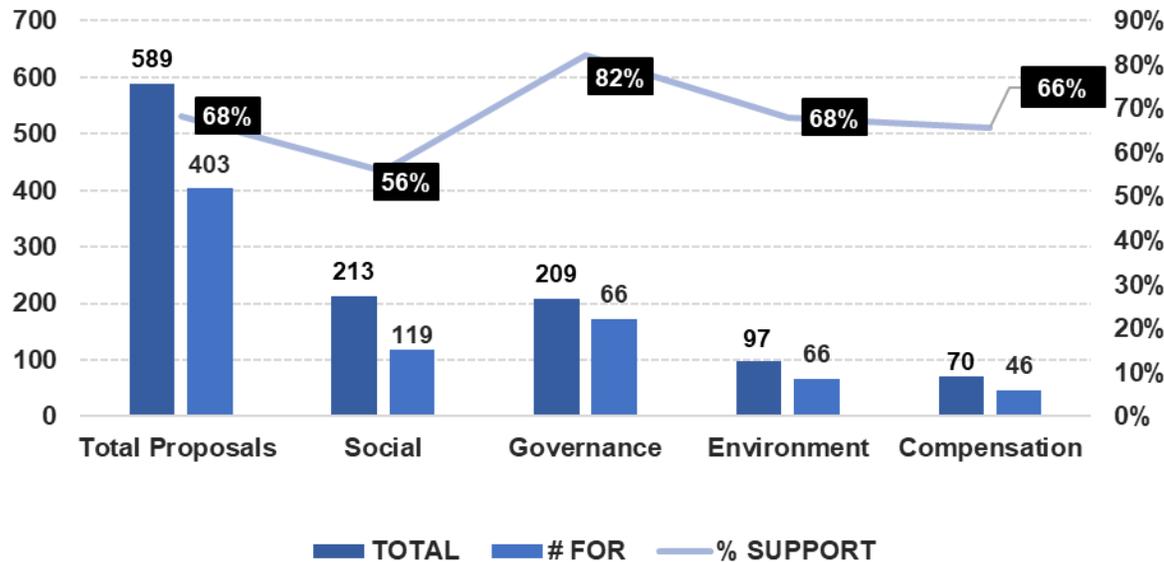
Integration of Governance and Sustainability

| | |
|---------------------|---|
| <p>Proxy Voting</p> | <ul style="list-style-type: none"> • Votes all public company proxies in a manner consistent with CalPERS' Governance & Sustainability Principles and CalPERS Investment Beliefs |
| <p>Engagement</p> | <ul style="list-style-type: none"> • Actively engages portfolio companies on compensation, corporate board diversity, climate change, human capital management, other governance and sustainability considerations to promote long-term value creation |
| <p>Partnerships</p> | <ul style="list-style-type: none"> • Use external and internal partnerships to actively engage global asset owners and managers, companies, data providers, regulators, and standards-setting bodies |
| <p>Research</p> | <ul style="list-style-type: none"> • Continuous research, development, and integration of best practices, proxy voting enhancements, and evolution of Governance & Sustainability Principles |

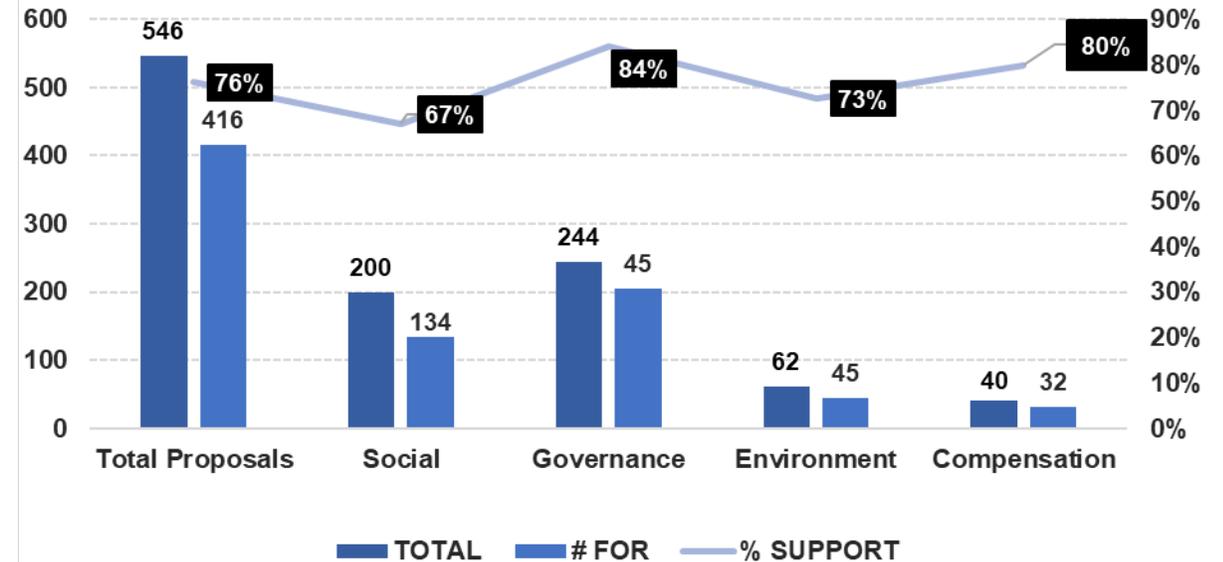


Governance & Sustainability | Proxy Voting & Corporate Engagement

CalPERS' Support Level at U.S. Shareowner Proposals: FY 2022-23



CalPERS' Support Level at U.S. Shareowner Proposals: FY 2021-22

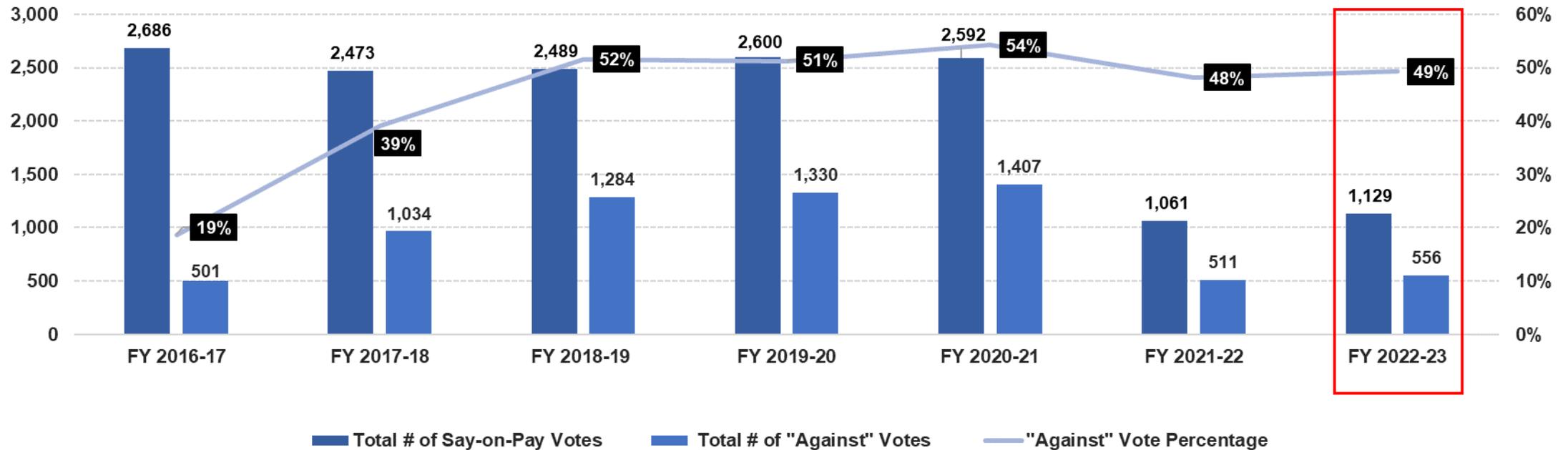


- During FY 22-23 voted 9,054 meetings covering 88,983 individual voting/ballot items
- Voted “against” 768 directors globally (Nominating/Governance Committee Members) at companies where staff identified diversity concerns related to board composition (voted “against” 133 directors in FY 21-22)
- Engaged 400+ companies on executive compensation, corporate board diversity, climate change, investor rights, human capital management
- Continued to support shareholder proposals that are aligned with CalPERS' Governance & Sustainability Principles (GSPs)



Governance & Sustainability | U.S. Executive Compensation Votes

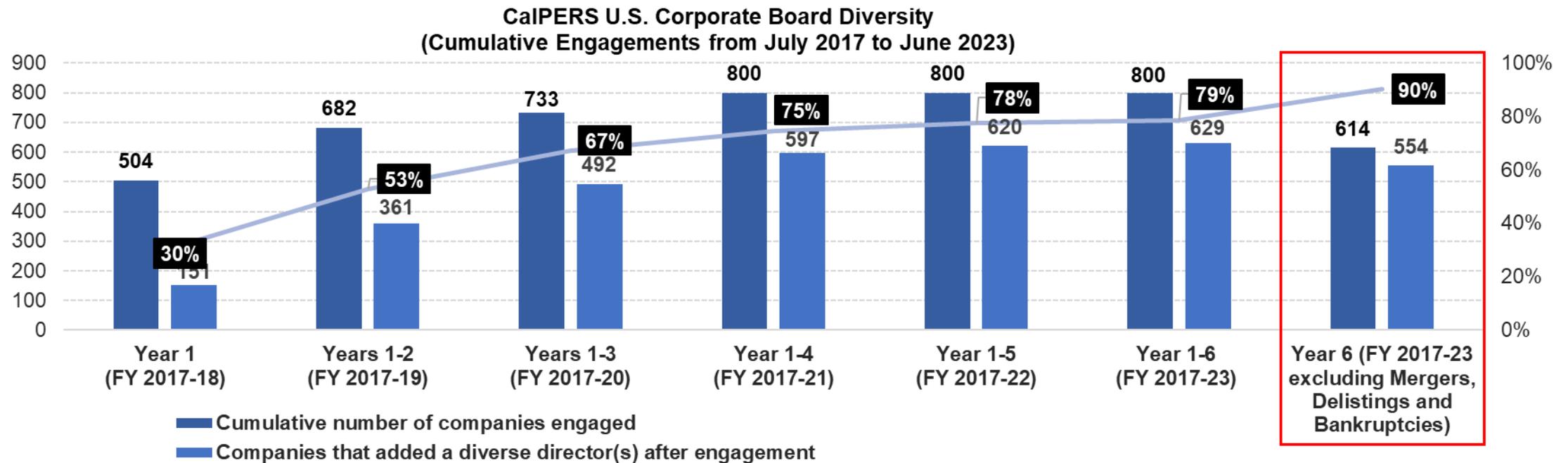
CalPERS' U.S. Executive Compensation Votes: FY 2016-17 to FY 2022-23



- In addition to voting against 49% of say-on-pay proposals in FY 22-23, CalPERS voted “against” 1,392 compensation committee members, holding them accountable for poor pay-for-performance alignment (voted “against” 1,342 directors in FY 21-22)



Governance & Sustainability | Corporate Board Diversity Cohorts



- 79% of companies engaged since July 2017 have since added at least one diverse director to their boards. Excluding delisted, acquired, and bankrupt companies, 90% of companies engaged have added at least one diverse director to their boards



Governance & Sustainability | Climate Risk Oversight

Climate Action 100+ Initiative

- The Initiative has over 700 signatories with more than \$68 trillion in assets engaging 171 of the world's largest GHG emitters
- CalPERS continues to lead engagement at 20 of the 171 focus companies, plus leadership responsibilities for the Initiative
- CalPERS filed/co-filed 2 shareowner proposals at CA100+ companies (1 withdrawn, 1 achieved 27% support)
- Over 75% of CA100+ companies have now set a net zero by 2050 target or ambition
- Over 90% of CA100+ companies have taken steps to align reporting with Taskforce on Climate related Financial Disclosure (TCFD) recommendations

Climate Action 100+ Engagement Goals

- Investor signatories are requesting the boards and senior management of companies to:
 - Improve the governance of climate-related risks and opportunities
 - Curb greenhouse gas (GHG) emissions across the value chain to be consistent with net-zero by 2050
 - Strengthen climate-related financial disclosures in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Proxy Voting at High Greenhouse Gas (GHG) Emitting Portfolio Companies

- New for 2023, CalPERS enhanced its proxy voting approach to consider specific climate-related criteria to hold directors accountable at our top 350 emitting companies in the portfolio
 - These 350 companies account for more than 85% of total portfolio Scope 1&2 emissions and over 50% of Scope 3 emissions
 - As a result, CalPERS voted “against” 289 directors at 97 companies (of the 350 companies)
 - CalPERS staff will seek to engage with the 97 companies in second-half 2023





Governance & Sustainability | Event Driven Engagements: Human Capital Management

Staff systematically monitors the market for emerging issues which may affect portfolio companies' ability to create value, and initiates engagements as appropriate in alignment with CalPERS' Governance & Sustainability Principles.

Child Labor Issues

- Staff contacted 12 portfolio companies (represented market value of \$9.5 billion) with recent allegations of child labor issues
- The companies noted that violations were tied to “third-party” vendors in company supply chain
- Staff emphasized to companies the need for improved oversight of their supply chains
- Staff will continue to monitor the companies leading into the 2024 proxy season and will consider voting against board members in cases where there is no discernable progress

Freedom of Association

- Staff engaged 10 companies on freedom of association/labor related issues with pending shareowner proposals
- In 2023, staff voted on 11 freedom of association/labor related shareowner proposals
 - CalPERS supported all 11 proposals which were aligned with our Governance & Sustainability Principles
 - Engaged 10 of the 11 companies
 - One proposal passed with 52% support (Starbucks)