

NORTH CAROLINA
DEPARTMENT OF STATE TREASURER



Dale R. Folwell, CPA
STATE TREASURER OF NORTH CAROLINA
DALE R. FOLWELL, CPA

INVESTMENT MANAGEMENT DIVISION

Public Equity – IAC Presentation

Presented by:

Rhonda Smith, Director

Greg Taylor, Portfolio Manager

Nolan McKeown, Investment Analyst

August 28, 2024



Public Equity Team

Rhonda M Smith

Director

21 years with IMD

29+ Years Industry Experience

Greg Taylor

Portfolio Manager

Trader

7+ years with IMD

10+ Years Industry Experience

VACANT

Portfolio Manager

Trader

Nolan McKeown

Investment Analyst

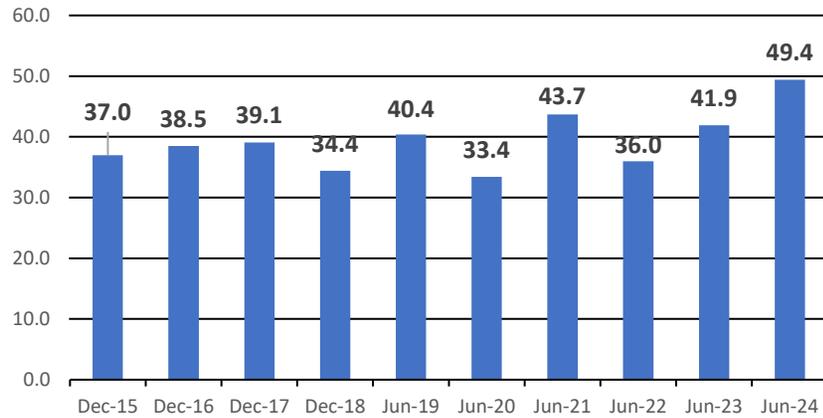
>1 year with IMD

8+ Years Industry Experience

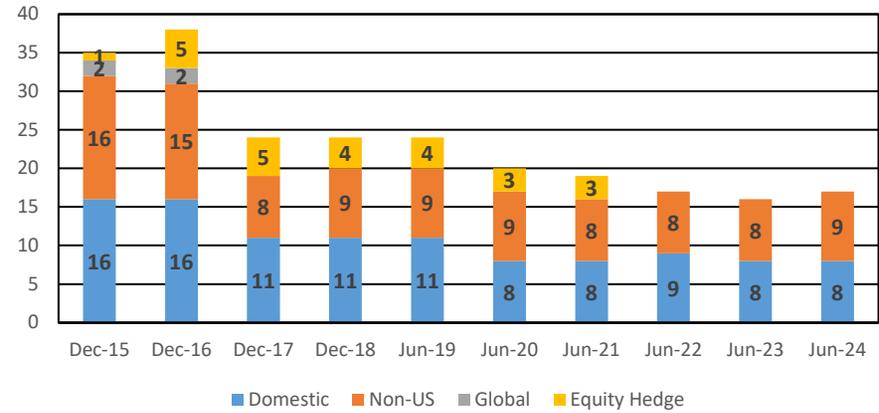


Snapshot of Total Public Equity

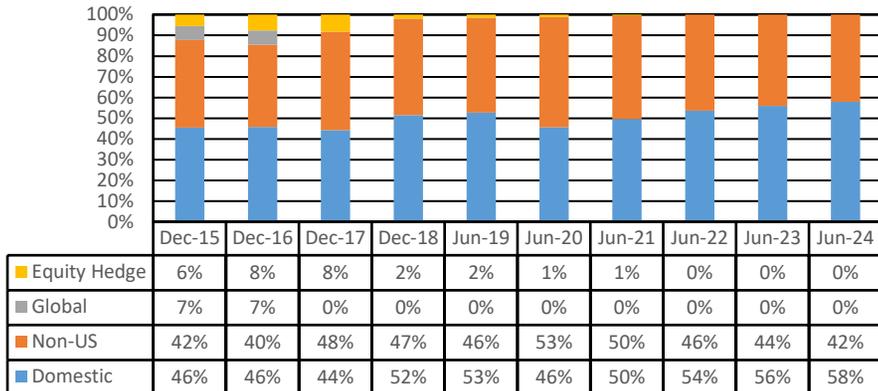
Equity Assets (\$B)



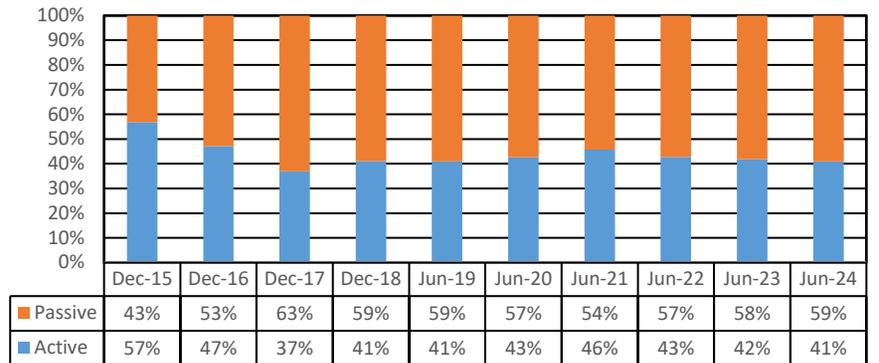
Number of Mandates



Asset Allocation



Active vs Passive



Excludes cash and transition
Excluded Hedged Equity until 2016



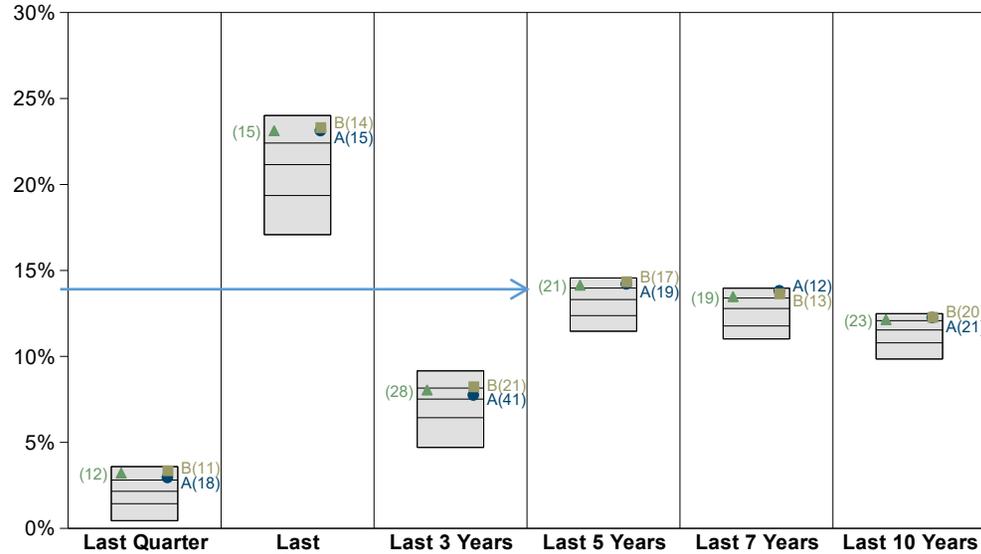
NCRS Public Equity Net Performance – June 30, 2024

	Market Value (M)	3 Month	1 Yr.	3 Yr.	5 Yr.	10 Yr.	15 Yr.	20 Yr.
As of June 30, 2024								
Public Equity	\$49,367.40	2.34	17.66	3.11	10.30	8.37	10.77	7.74
Benchmark		2.38	18.40	4.70	10.31	8.00	10.23	7.26
US Portfolio	\$28,873.95	2.90	23.06	7.71	14.16	12.13	14.58	10.25
Russell 3000		3.22	23.13	8.05	14.14	12.15	14.49	10.17
Non-US Portfolio	\$20,490.59	1.58	10.77	(2.11)	5.91	4.65	6.83	6.14
Custom Benchmark		0.92	11.57	0.19	5.62	3.92	6.12	5.19



NCRS Domestic Equity Portfolio – Public Fund Peer Comparison

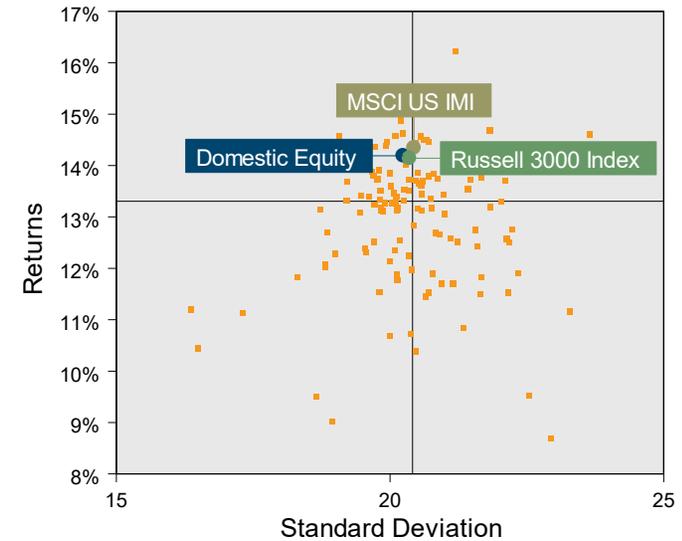
Performance vs Public Fund - Domestic Equity (Gross)



Performance of domestic equity composite ranks in the top quartile for 5-, 7-, and 10-year time frames.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	3.59	24.01	9.16	14.56	13.97	12.49
25th Percentile	2.81	22.41	8.16	13.97	13.39	12.08
Median	2.16	21.15	7.52	13.31	12.79	11.54
75th Percentile	1.44	19.36	6.44	12.37	11.77	10.79
90th Percentile	0.45	17.08	4.71	11.47	11.02	9.85
Domestic Equity ● A	2.93	23.10	7.73	14.19	13.79	12.23
MSCI US IMI ■ B	3.35	23.31	8.23	14.34	13.64	12.27
Russell 3000 Index ▲	3.22	23.13	8.05	14.14	13.48	12.15

Public Fund - Domestic Equity (Gross)
Annualized Five Year Risk vs Return



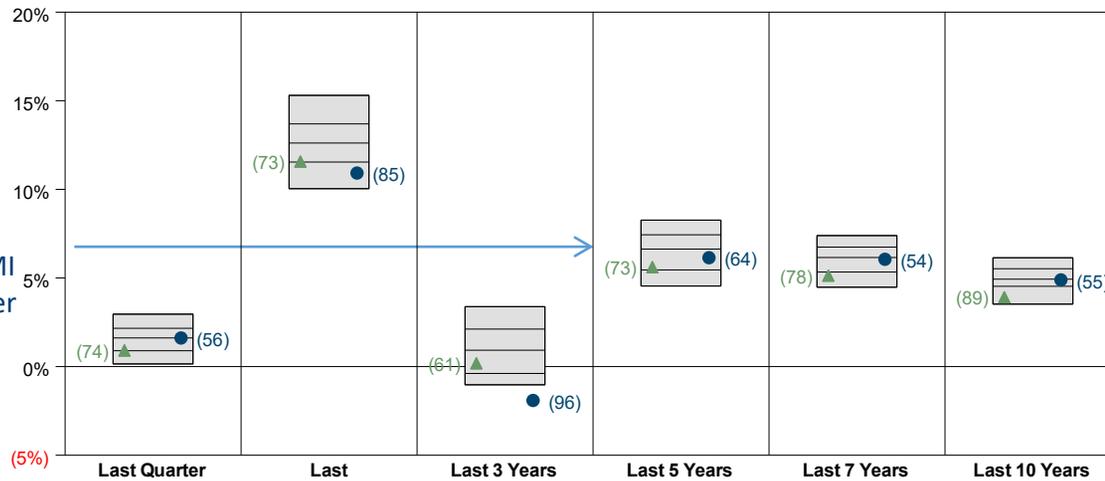
- Long term performance (>3 years) of domestic equity composite is ahead of Russell 3000 broad market index
- Over 75% of domestic equity is passively implemented to replicate the large/mid cap components of the benchmark

Peers are represented by the domestic equity composites of approximately 160 public funds ranging from approximately \$10 million to \$32 billion



NCRS International Equity Portfolio – Public Fund Peer Comparison

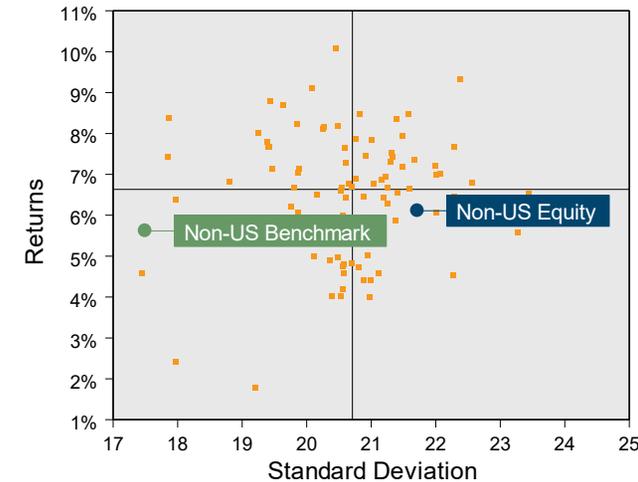
Performance vs Public Fund - International Equity (Gross)



Long term performance (>3 years) is ahead of broad MSCI ex-US IMI index, but below peer median.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	2.96	15.30	3.39	8.27	7.39	6.14
25th Percentile	2.16	13.70	2.12	7.44	6.74	5.52
Median	1.62	12.62	0.93	6.63	6.15	4.94
75th Percentile	0.89	11.54	(0.38)	5.46	5.34	4.53
90th Percentile	0.15	10.04	(1.03)	4.55	4.48	3.53
Non-US Equity ●	1.58	10.89	(1.94)	6.11	6.02	4.86
Non-US Benchmark ▲	0.92	11.57	0.19	5.62	5.13	3.92

Public Fund - International Equity (Gross)
Annualized Five Year Risk vs Return



- Performance challenges over 3-year period largely driven by exposures to growth style managers (e.g. Baillie Gifford) as growth underperformed value in 2H2021 and 2022 (note that Baillie Gifford was ahead of benchmark/peers by over 60% in CY2020)
- Higher risk profile over five-year time frame has, on the margin, been rewarded with higher relative return

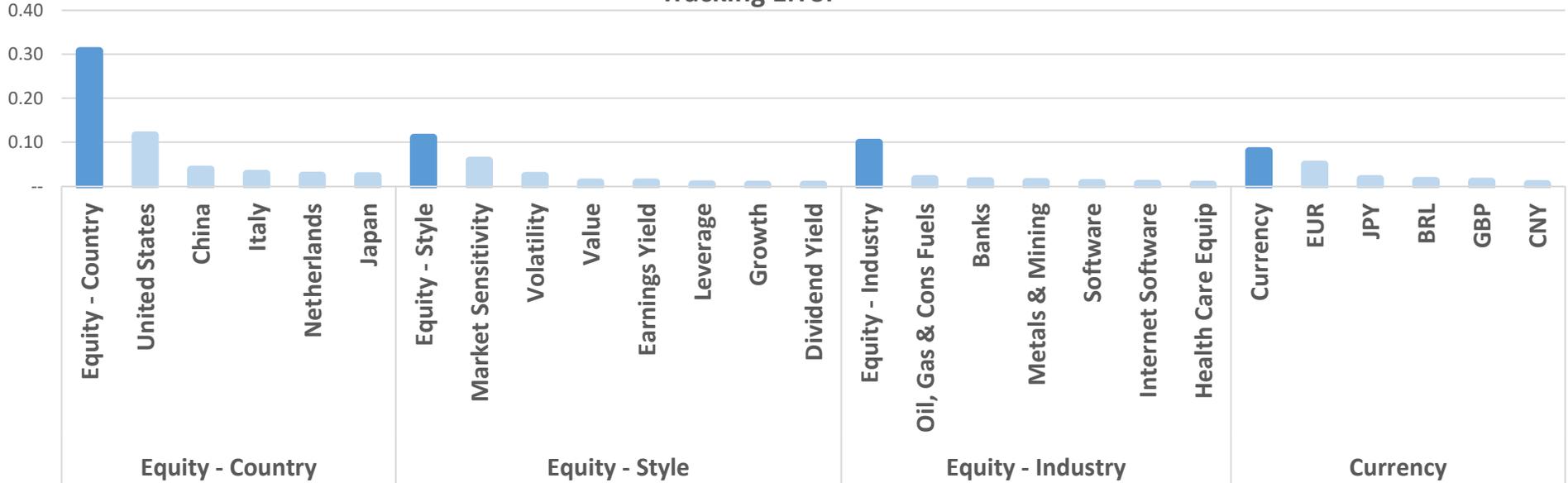
Peers are represented by the international equity composites of approximately 160 public funds ranging from approximately \$10million to \$32 billion



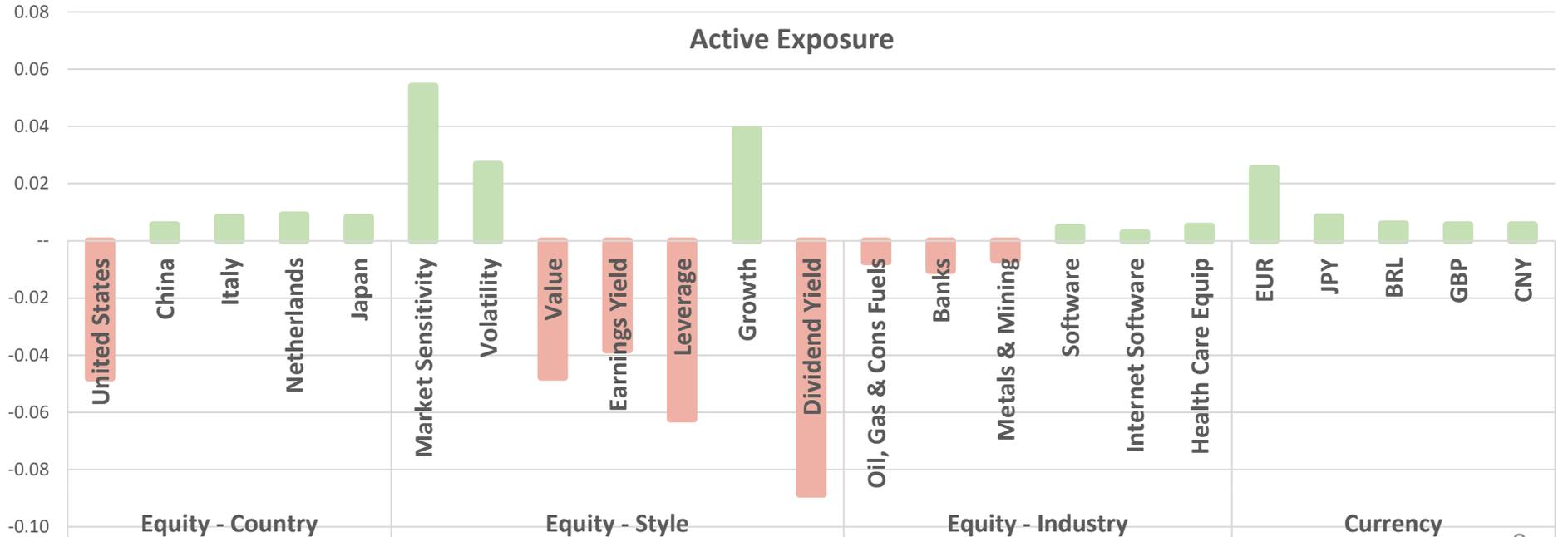
PUBLIC EQUITY – NCRS PORTFOLIO EXPOSURE



Tracking Error



Active Exposure



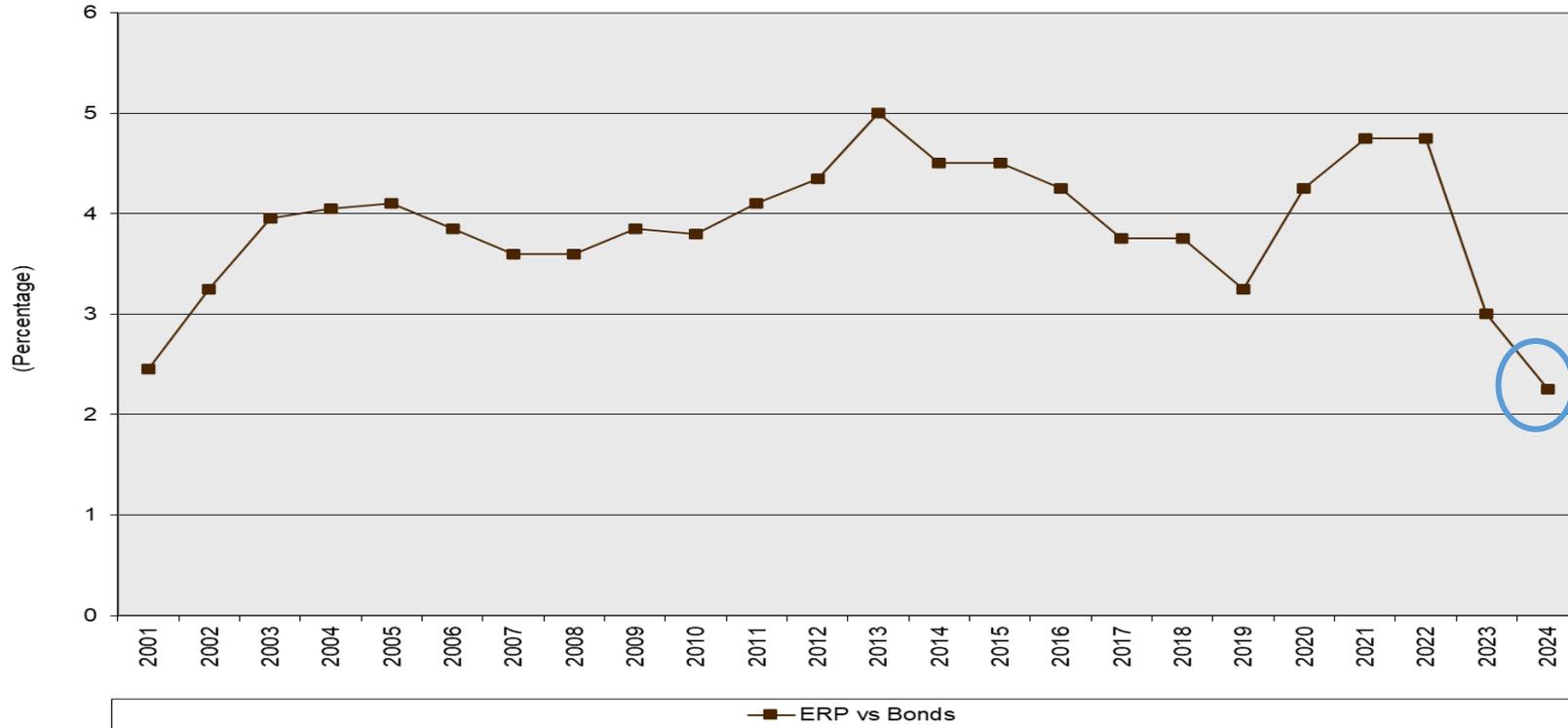


PUBLIC EQUITY– EQUITY BROAD MARKET REVIEW



Equity Risk Premia Forecast Over Time

Forecasted Equity Risk Premium vs Bonds

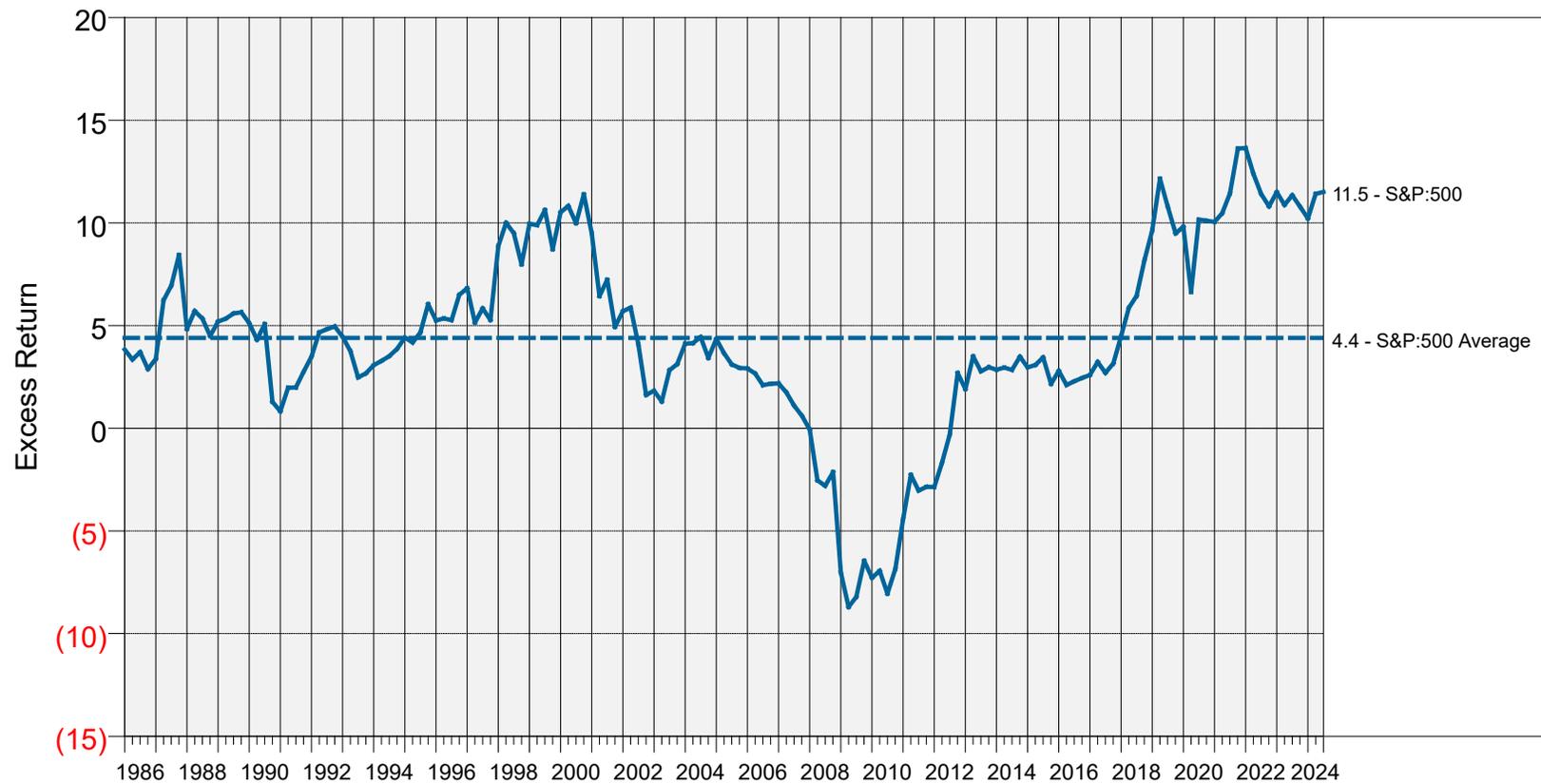


- Callan’s forecasted return spread between the S&P 500 and the Bloomberg Aggregate is the narrowest since 2000.



Historical Equity Risk Premium Over Bonds

Rolling 40 Quarter Excess Return Relative To Blmbg:Aggregate for 38 1/2 Years Ended June 30, 2024

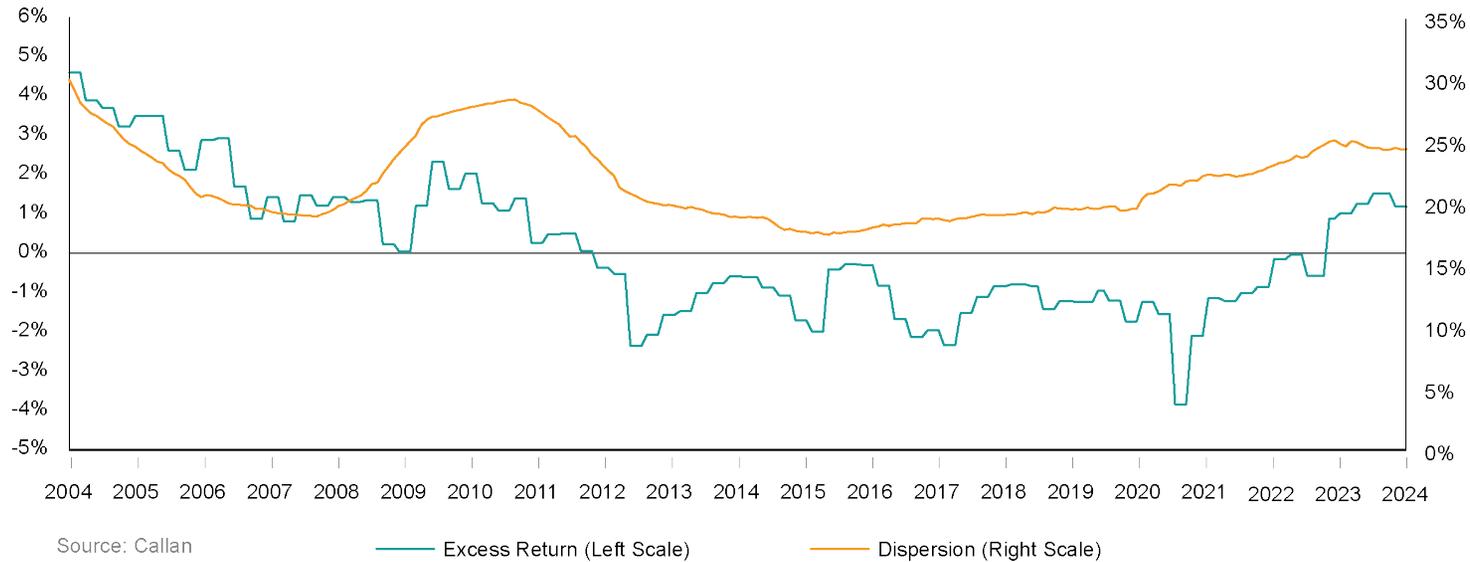


- Realized 10-year return premium over bonds far exceeds historical average.



Is This a Time for Active Managers to Shine?

Rolling Three-Year Excess Return of Callan All Cap Broad Peer Group vs. Russell 3000
2004-2024

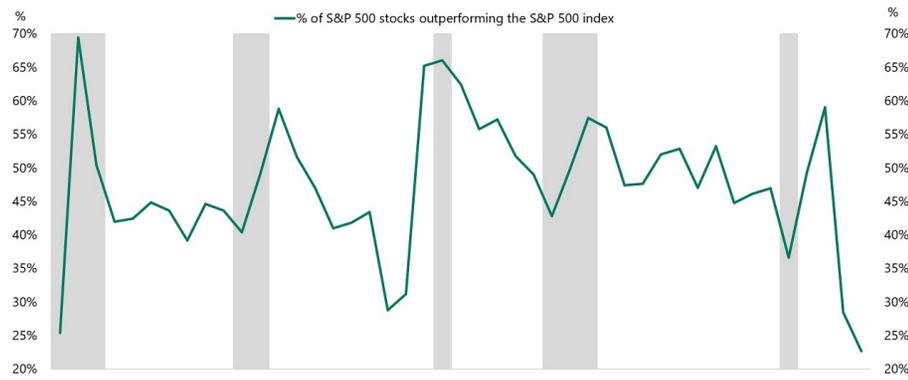


- Dispersion measures spread around the average.
- Higher dispersion considered a more favorable environment for active management.
- The period from 2012 through 2020 saw dispersion below 20% and negative excess return from active management.
- Despite concentration issues, as dispersion in equity increased in 2020, active management results also improved.



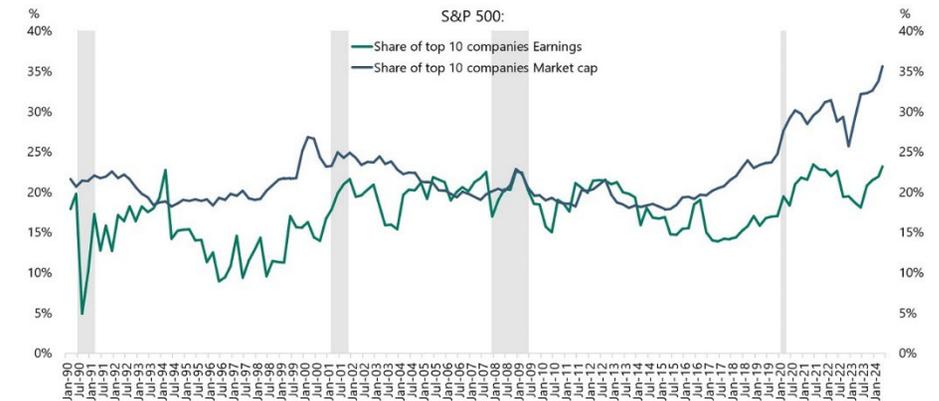
Concentration and Valuation

Record-low percentage of stocks outperforming the S&P 500 index



Note: Annual data is from January 1 to December 31 for each year. The 2024 data is as of July 2, 2024 (year-to-date).

S&P 500: Record-high bullishness on future earnings



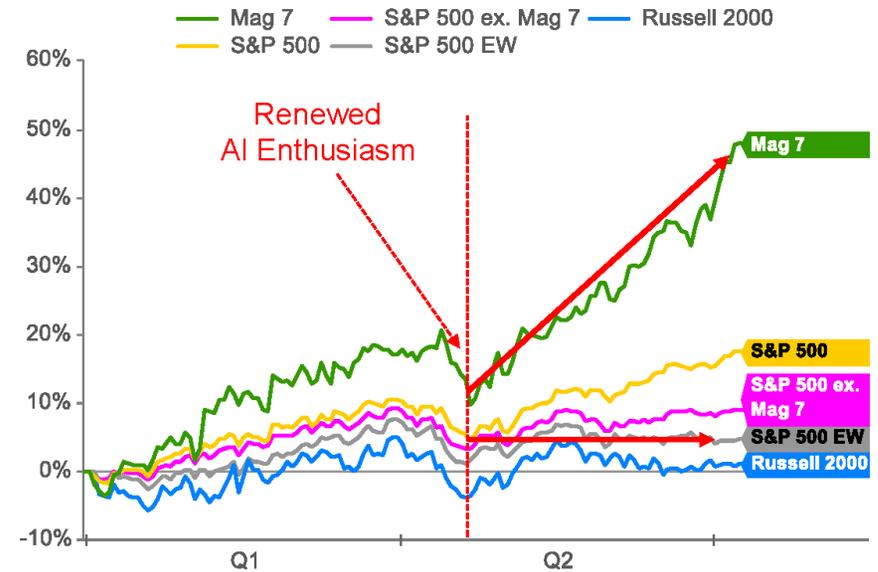
- The chart above illustrates how the performance of the index is being driven by a select few names.
- In large cap US equity, diversifying holdings beyond technology has been a drag on performance relative to the index.

- The top 10 companies in the S&P make up for 35% of the market cap but only 23% of the earnings.
- This divergence has never been bigger, suggesting the market is more optimistic on future earnings than has ever been.
- Problem is not limited to concentration, but also record-high bullishness from a small group of companies.



Magnificent 7 Continues to Drive Divergence Across Cap and Style

- The “Magnificent Seven” stocks pushed large cap indices to record highs while the rest of the market traded sideways. Magnificent Seven stocks accounted for 116% of S&P 500 total return in 2Q24.
- YTD 2024, the bucket of Magnificent Seven stocks handily outperformed the equal weight S&P 500 Index and small cap Russell 2000 Index returns.
- Magnificent Seven returns over the trailing 3.5 years (dating back to 2021) are driving a large contribution to total index returns relative to the remaining ~493 stocks in the S&P 500.



Returns	2021	2022	2023	YTD 2024
Magnificent Seven	40%	-40%	76%	33%
—Share of returns	33%	56%	63%	61%
S&P 500 ex-Mag Seven	17%	-8%	8%	5%
—Share of returns	67%	44%	37%	39%

--Share of returns represent how much each group contributed to the overall return. Numbers are always positive despite negative performance in 2022.

Stock	2Q Total Return	S&P 500 Contribution
NVIDIA	36.7%	44%
Apple	23.0%	31%
Alphabet	20.8%	19%
Microsoft	6.4%	10%
Amazon.com	7.1%	6%
Tesla	12.6%	3%
Meta Platforms	3.9%	2%
S&P 500	4.3%	



Small Cap vs. Large Cap Performance History

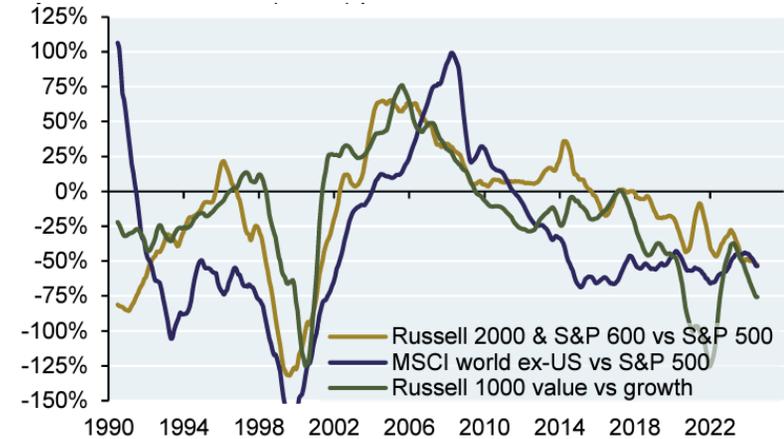
U.S. small cap continued to underperform large cap

- Since 2010, small cap has been one of the big three underperforming portfolio strategies alongside value vs. growth and non-U.S. stocks vs. U.S.

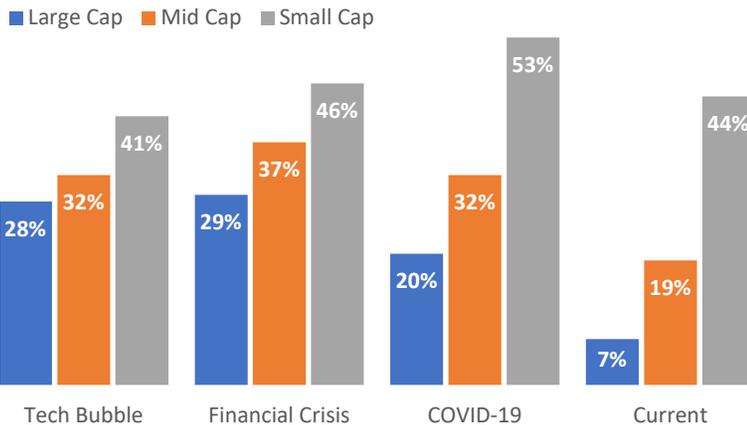
Why has small cap underperformed broadly?

- **Lower quality:** Small cap (R2000) continues to have a higher proportion of unprofitable companies and lower earnings growth.
- **Tech underperformance:** Large cap tech stocks have tripled the performance of small cap tech since YE 2010, with most of that excess performance occurring post-2019.
- **Non-Tech underperformance:** No small cap sector meaningfully outperformed large cap since 2010.

Five Year Cumulative Out-/Under-Performance (as of July 2024)



Percent of Unprofitable Companies (as of July 2024)



Large Cap vs Small Cap Tech Sector Performance (as of July 2024)

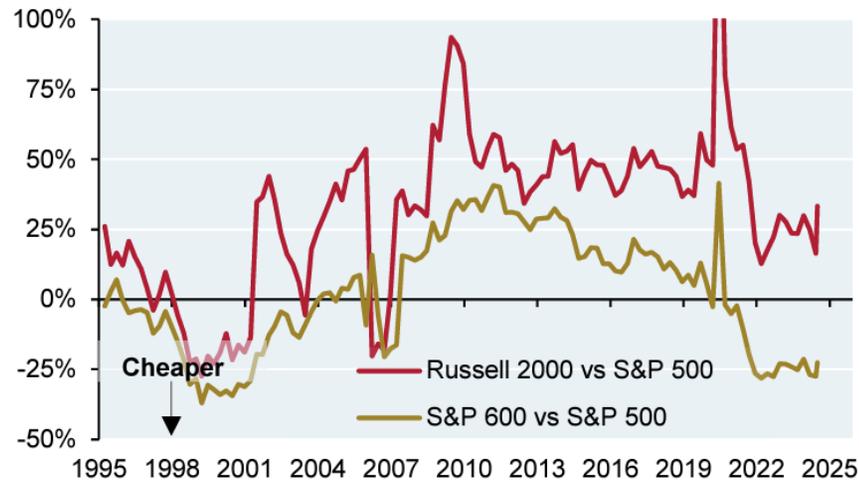


*cumulative return indexed to 100 beginning January 1, 2011

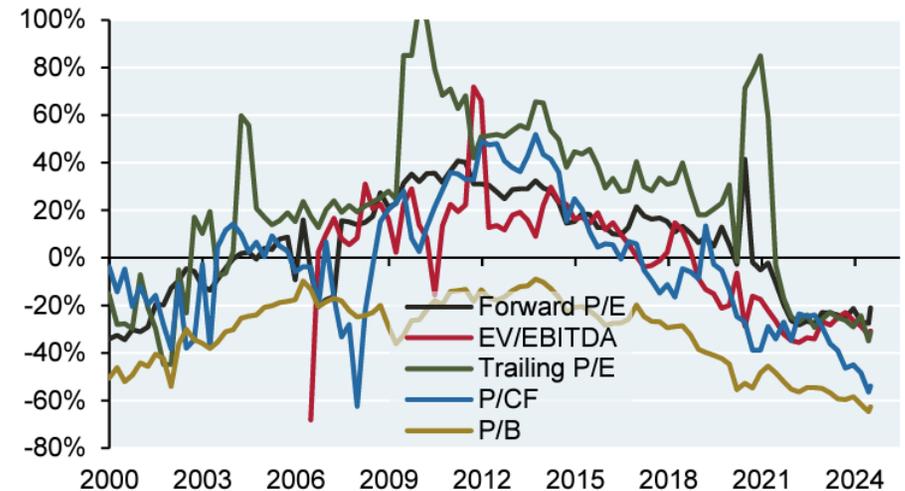


Small Cap Valuations

Relative Forward P/E Premium or Discount (as of July 2024)



Premium or Discount of S&P 600 vs S&P 500 (as of July 2024)



Small cap relative valuations are historically low across numerous forward and trailing valuation multiples. This may be indicative of an attractive entry point for increased allocation.



Emerging Markets Allocations Changing

China experiences significant decline

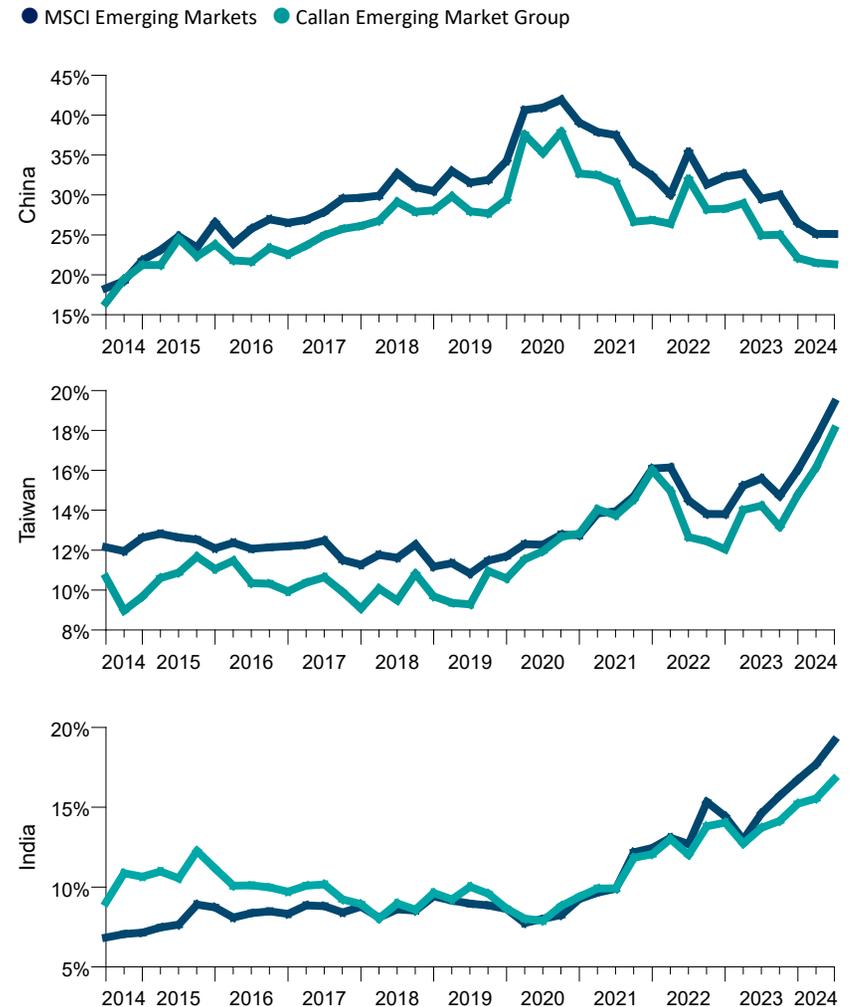
- Mainland China's allocation within the MSCI EM Index and active EM equity strategies has steadily declined since peaking in 2020. Sluggish growth with weak home sales and deflationary pressures combined with heightened geopolitical risks have been contributors.

Taiwan increases with chipmaker's strength

- Despite Taiwan's related geopolitical concerns to mainland China, Taiwan has seen increasing allocations in the index and across managers. The largest stock in the MSCI Taiwan Index, Taiwan Semiconductor (TSMC), which accounts for ~50% of the index, continues to exhibit robust growth as the global leader in semiconductor manufacturing.

India continues rapid growth

- Benefiting from positive demographics with a large growing working population, India has experienced one of the highest real GDP growth rates globally in recent years when compared to other major countries/regions.
- India's growth within the MSCI EM Index and manager allocations has been nearly the mirror image to China's allocations since 2020.





Growth and Value Emerging Markets Exposure Diverges

Total EM allocations

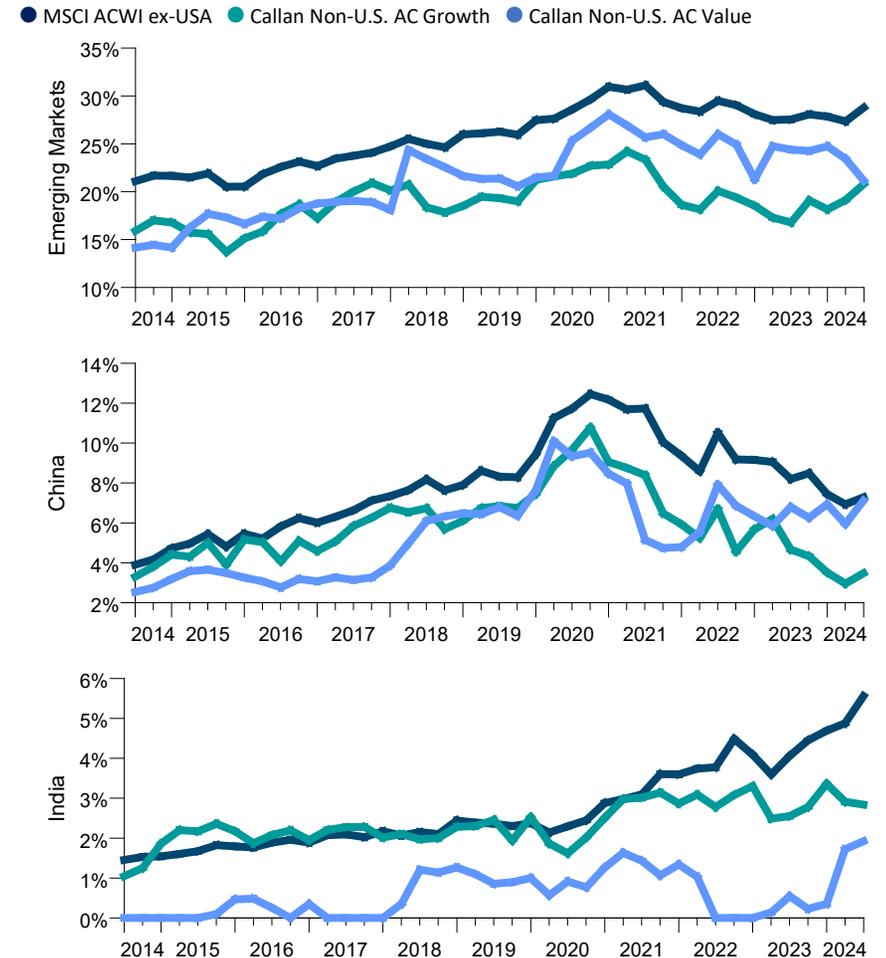
- EM allocations between value and growth managers saw increasing divergences from early 2020 until mid-2023 but have been narrowing the gap since, largely due to TSMC.
- Generally, EM allocations for both value and growth global ex-U.S. managers have been below the MSCI ACWI ex-USA Index weight for EM.

China

- China's weight within the benchmark has decreased since 2020. During this time, growth managers have been decreasing their overall and relative exposure, while value managers have been increasing their relative exposure since 2021 as they find more attractive valuation opportunities in the market drawdown.

India

- High valuations have historically kept value manager exposures in India low while growth managers found the higher growth environment more attractive.
- However, since 2020, growth manager exposure has failed to keep up with India's steady increase within the benchmark. And value managers are reentering the market more recently.





PUBLIC EQUITY— INTERNALLY MANAGED EQUITY PORTFOLIOS



Performance (as of 6/30/2024)

Internal Equity Portfolios	Market Value (M)	1 year	Since Inception	Inception Date
Russell 1000 Internal	\$21,800	23.92%	21.62%	June 2022
Russell 1000 Benchmark		23.88%	21.60%	
Excess Return		0.04%	0.02%	
Internal TOBAM Max Div US*	\$577	13.89%	6.56%	September 2018
TOBAM US Benchmark		13.91%	6.49%	
Excess Return		-0.02%	0.07%	
Internal US Core Factor	\$1,217	22.90%	10.20%	February 2022
Russell 1000 Benchmark		23.88%	9.27%	
Excess Return		-0.97%	0.94%	

Performance (as of 7/31/2024)

Internal Equity Portfolios	Market Value (M)	1 year	Since Inception	Inception Date
Russell 1000 Internal	\$22,117	21.54%	21.51%	June 2022
Russell 1000 Benchmark		21.50%	21.49%	
Excess Return		0.04%	0.02%	
Internal TOBAM Max Div US*	\$584	12.69%	6.68%	September 2018
TOBAM US Benchmark		12.71%	6.60%	
Excess Return		-0.02%	0.07%	
Internal US Core Factor	\$1,253	22.64%	11.13%	February 2022
Russell 1000 Benchmark		21.50%	9.57%	
Excess Return		1.14%	1.55%	

- \$500m transferred from Russell 1000 portfolio to Core Factor in June 2024



Fiscal Year Trading & Portfolio Activity

NCRS Account	Gross Value of Trade	No of Shares Traded	No of Orders
Russell 1000	\$1,900,286,345	18,677,628	14,460
TOBAM US	\$400,083,221	4,824,170	4,191
CORE Factor	\$837,461,820	8,908,026	5,245
Total	\$ 3,137,831,386	32,409,824	23,896

- **32MM** shares traded across 3 accounts
- Gross value of **\$3.1B** across **24k** orders

Russell Indices Annual Reconstitution (June 2024)

NCRS Account	No of Shares Held	No of Shares Traded	Turnover (%)
Russell 1000	532,950,873	8,351,484	4.47%

- **1,037** names traded; gross market value of **\$533MM**.
- Negotiated very competitive broker commission rates < **0.05c** per share.



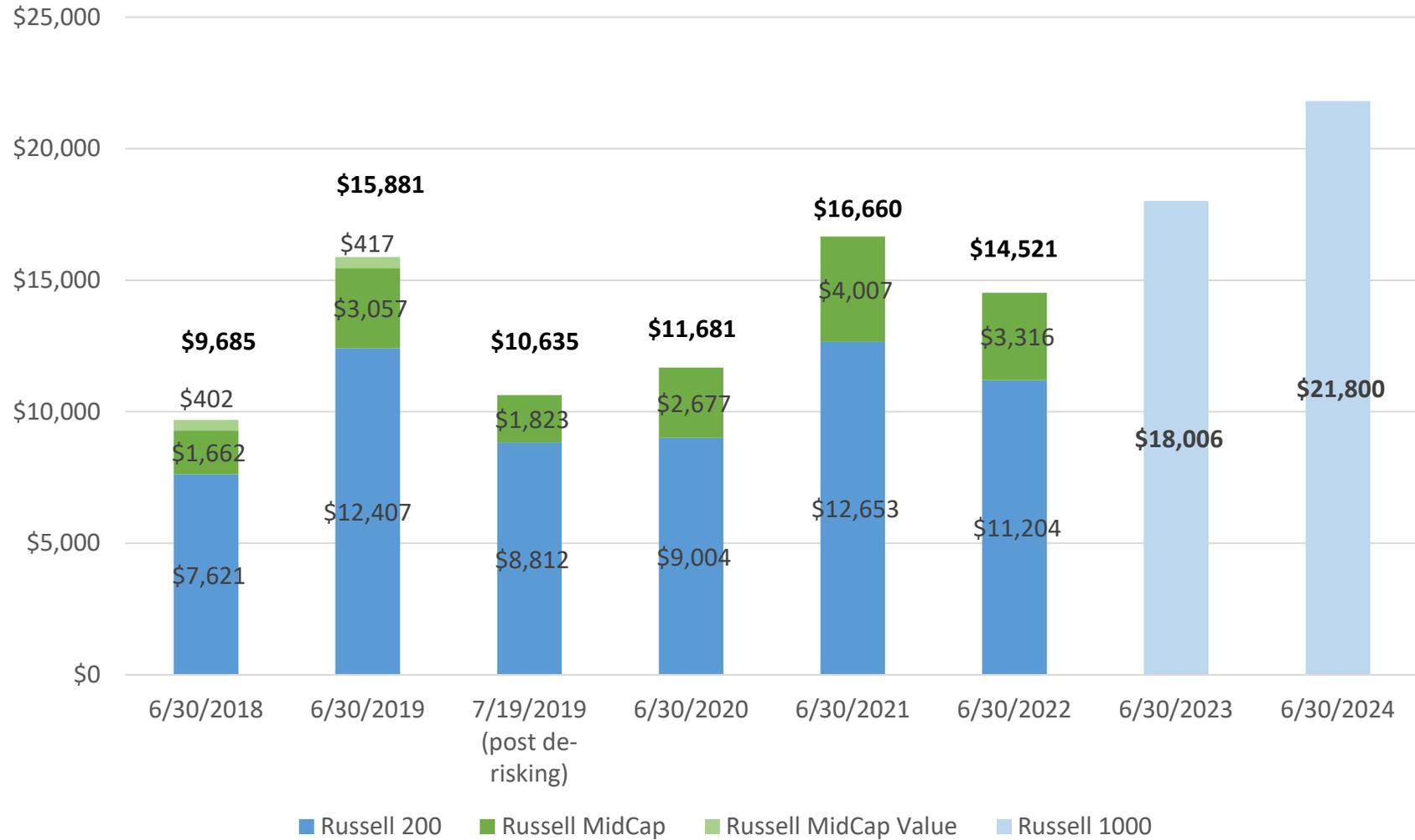
Fiscal Year Trade Cost Analysis



Name	Actual		Expected		Difference	
	Cps	USD Total	Cps	USD Total	Cps	USD Total
Total Cost	-2.58	\$(355,290)	3.22	\$562,373	-5.80	\$(917,664)
Market Impact - VWAP	-2.81	\$(396,819)	0.58	\$101,879	-3.31	\$(498,698)
Equity Fees & Commissions	0.22	\$41,529	2.64	\$460,494	-2.41	\$(418,966)



Internal Passive Equity AUM (MM's)





WRAP-UP



PUBLIC EQUITY

2024-2025 STRATEGIC OBJECTIVES

- Evaluate expanding internal management capabilities and continued trade efficiency opportunities.
- Conduct a total equity portfolio structural review against average long-term risk/return expectations.
- Assess the impact and/or adoption of current AI-driven research and reporting initiatives within the industry and how it affects institutional portfolio management and oversight.
- Review all Public Equity external vendors/service providers

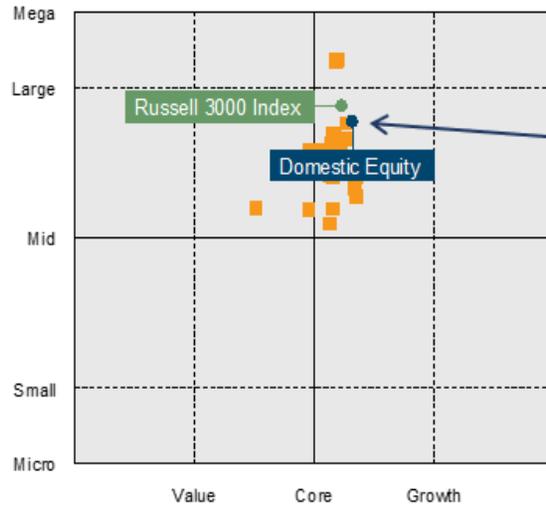


APPENDIX



NCRS Domestic Equity Portfolio

Style Map vs Pub Pln- Dom Equity Holdings as of June 30, 2024

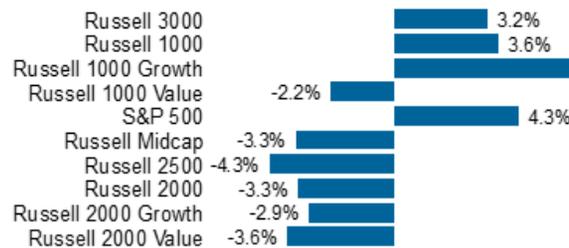


Domestic equity is similar to index capitalization, but larger capitalization relative to peers.

Style Exposure Matrix Holdings as of June 30, 2024

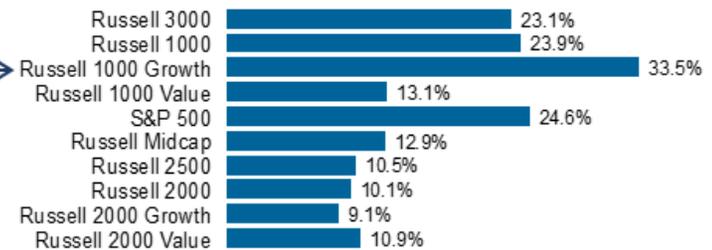
	Value	Core	Growth	Total
Large	14.5% (101)	17.9% (98)	46.4% (100)	78.7% (297)
Mid	4.5% (185)	5.2% (191)	6.8% (192)	16.5% (548)
Small	0.7% (70)	1.7% (131)	2.3% (97)	4.7% (298)
Micro	0.0% (3)	0.0% (4)	0.0% (8)	0.1% (13)
Total	19.7% (339)	24.8% (422)	55.5% (395)	100.0% (1156)
	22.1% (853)	26.1% (1171)	51.8% (850)	100.0% (2874)

U.S. Equity: Quarter Ended 6/30/24



Large cap growth stocks the clear winner in first half of 2024 driven largely by Mag 7 stocks and renewed enthusiasm around AI

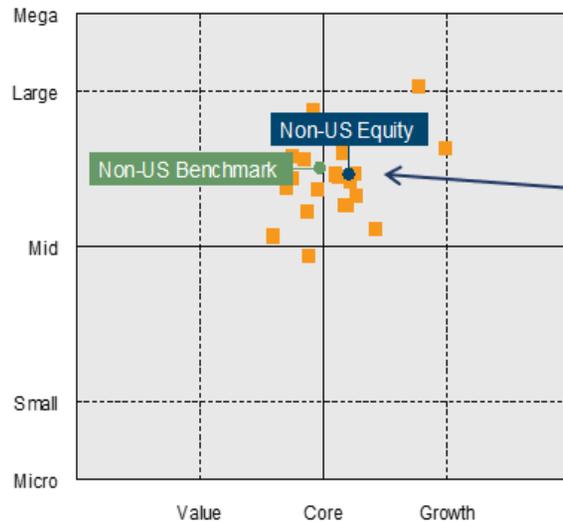
U.S. Equity: One Year Ended 6/30/24





NCRS International Equity Portfolio

Style Map vs Pub Pln- Intl Equity Holdings as of June 30, 2024

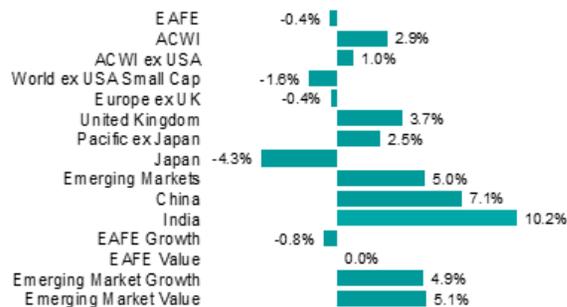


Non-US equity has a modest growth tilt, driven largely by Baillie Gifford.

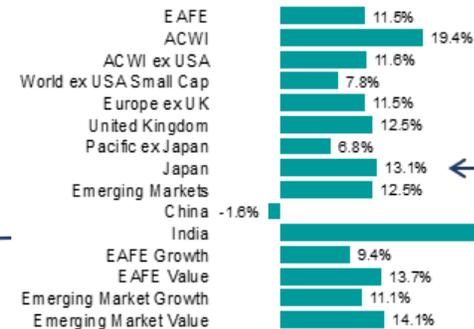
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/Mid East	11.8% (442) 10.7% (436)	11.2% (518) 12.4% (514)	19.2% (427) 16.5% (425)	42.2% (1387) 39.6% (1375)
N. America	1.3% (92) 2.4% (91)	1.4% (103) 1.9% (102)	3.6% (112) 3.2% (105)	6.3% (307) 7.5% (298)
Pacific	6.1% (532) 8.3% (530)	6.2% (487) 6.6% (486)	9.8% (452) 8.5% (449)	22.1% (1471) 23.5% (1465)
Emerging/FM	5.8% (1020) 7.6% (1015)	9.7% (1170) 10.3% (1157)	13.9% (1094) 11.5% (1090)	29.4% (3284) 29.5% (3262)
Total	25.0% (2086) 29.1% (2072)	28.5% (2278) 31.2% (2259)	46.5% (2085) 39.7% (2069)	100.0% (6449) 100.0% (6400)

Global Equity Returns: Quarter Ended 6/30/24



Global Equity Returns: One Year Ended 6/30/24



Modest growth tilt was a drag on performance as value stocks outside US edged out growth stocks

While most of relative performance was driven by stock selection, underweights to Japan and India detracted from 1-year returns



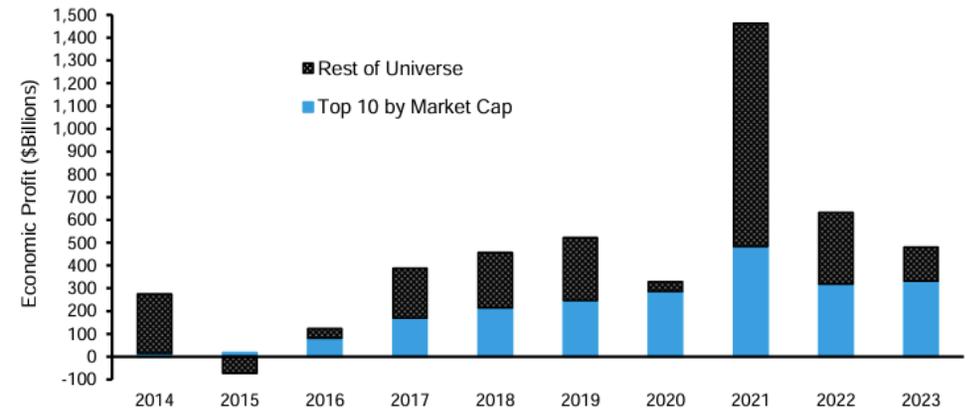
Historical context for market concentration in U.S. equity indices

- Magnificent Seven stock returns drove increased concentration of the top 10 stocks in the S&P 500 to 37% as of 2Q24, an increase from the low point of ~17% in 2016.
- Market concentration has reached its highest level since 1972. The top 10 stocks have broken away from stocks #11 - #500 to an even greater degree than during the tech bubble in 2000-01.
- The largest and most successful stocks were generating more earnings, earnings growth, and cash relative to the smaller stocks in the index. Price appreciation for the largest stocks is supported by strong earnings growth and large economic profits.*
 - In the 10 years through 2023, the top 10 stocks averaged 19% of the market capitalization while the companies averaged 47% of the economic profit.
 - In 2023: top 10 stocks at YE 2023 were 27% of the market capitalization and the companies earned 69% of the economic profit.

Weight of Top 10 Stocks in the S&P 500 as of 2Q24



Economic Profit of Top 10 by Market Cap for U.S. – 2014 thru 2023

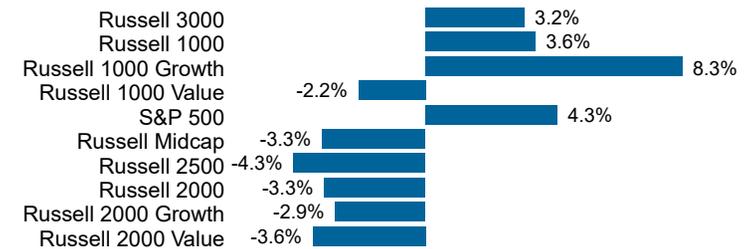


US Equity Performance: 2Q24

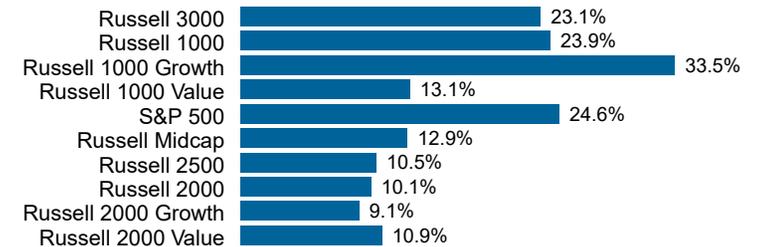
Broad indices exhibited a strong first half of 2024, but performance was uneven

- The U.S. equity market had an exceptional start with the S&P 500 hitting 31 record highs over the first six months of 2024 and gaining 15.3%.
- Index returns continued to be driven by a handful of stocks, especially the “Magnificent Seven,” which comprised 33% of the S&P 500 as of quarter-end. As a group, the cohort gained 33% in the first six months of the year, far exceeding the S&P 493 gain of only 5%.
- 2Q returns for the broad S&P 500 Index were modest at 4.3%, but sector performance was quite mixed, ranging from -4.5% (Materials) to +13.8% (Information Technology), with 6 of the 11 S&P 500 sectors posting negative returns during the period.
- During 2Q, value (R1000V: -2.2%) continued to underperform growth (R1000G: +8.3%) and small cap (R2000: -3.3%) continued to underperform large cap (R1000: +3.6%).
- In the first half of 2024, the 12.5% performance difference in small cap (Russell 2000) versus large cap (Russell 1000) was the widest since 1973.

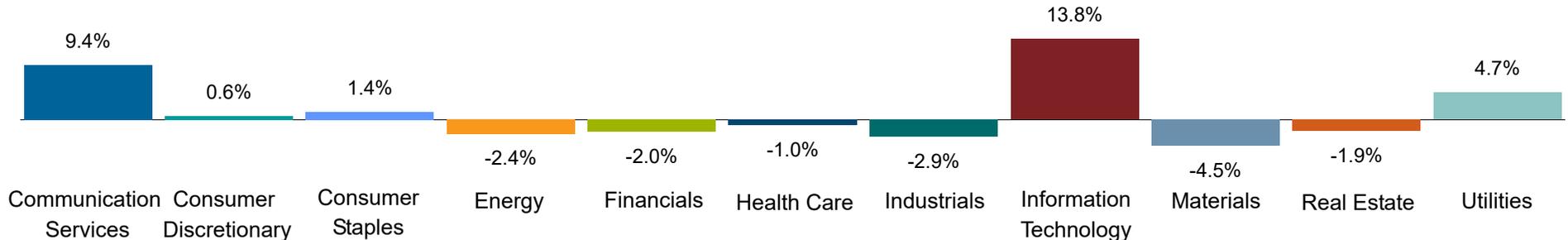
U.S. Equity: Quarter Ended 6/30/24



U.S. Equity: One Year Ended 6/30/24



Industry Sector Quarterly Performance (S&P 500) as of 6/30/24





Why global equities are (still) attractive

Diversification

- Unlike the U.S., where the weight of the top 10 stocks in the S&P 500 was 37% ended 2Q24, global ex-U.S. provides a larger and more diverse opportunity set; the top 10 constituents of the MSCI ACWI ex-US Index was 11.02%.

Dollar

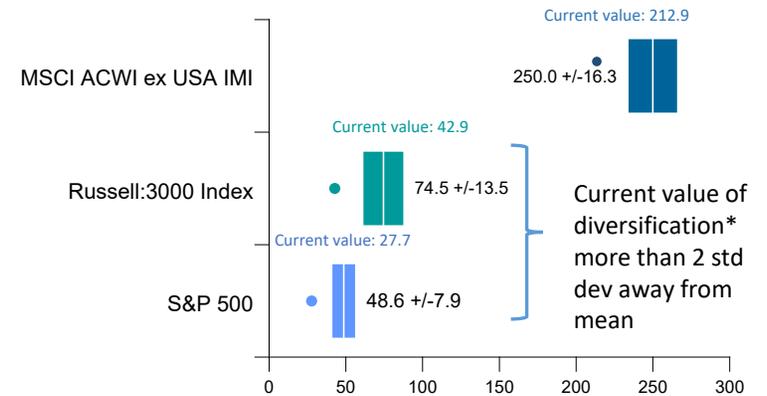
- Currency returns have been cyclical, but most of the last ten years have favored the dollar relative to other currencies.
- Despite being relatively flat over 2024, using real exchange rates, the U.S. dollar remains expensive versus most currencies, particularly the yen.

Valuation

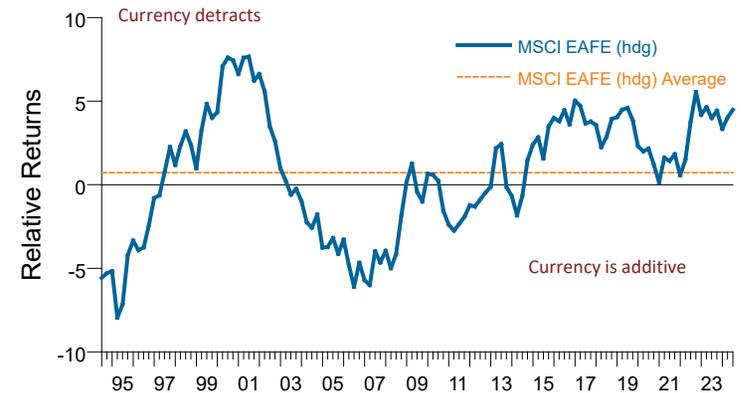
- Global ex-U.S. forecasted price-to-earnings ratios are at a discount relative to the U.S and fairly valued relative to history.
 - ACWI ex-USA: current 13.4x vs. 20-year average 13.0x
 - S&P 500: current 21.1x vs. 20-year average 15.9x
- Global ex-U.S. also offers larger capital returns to shareholders; next 12 months dividend yield differential was 1.7% as of 2Q24.

*Issue Diversification represents by count the number of holdings that account for half of the portfolio's market value

Issue Diversification for 10 Years Ended 6/30/24



Rolling Five-Year Returns Relative to MSCI EAFE





Global/Global ex-US Equity Performance: 2Q24

Reversal as China snaps back and Japan lags; India continues to outperform

Broad market

- The U.S. continued its lead over developed non-U.S. markets resulting in a positive ACWI return.
- Developed non-U.S. markets struggled with growing uncertainty on future economic growth, political instability, and divergent central bank policies.
- Small caps once again trailed large caps in a higher interest rate environment and amid exchange rate volatility.

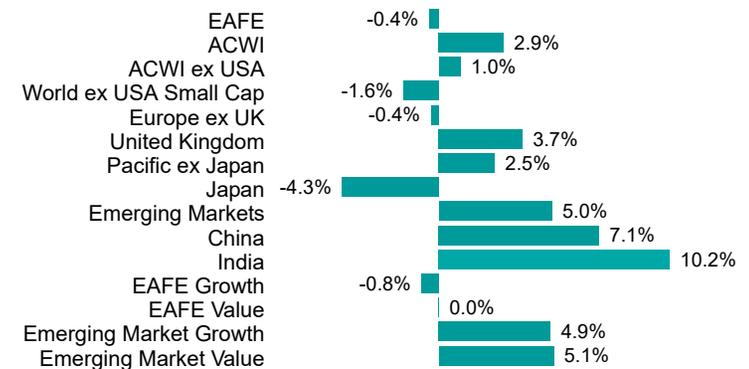
Emerging Markets

- Emerging markets rebounded, snapping a two-quarter losing streak relative to developed markets as both China and India produced strong returns.
- China's GDP growth exceeded expectations with a rebound in industrial production, manufacturing, and exports. Further, the Chinese government implemented several measures to support capital markets.

US Dollar Strength

- The U.S. Dollar Index (DXY), was relatively flat in 2Q due to a balancing act of increased global uncertainty but a more likely 2024 U.S. central bank rate cut.

Global Equity Returns: Quarter Ended 6/30/24



Global Equity Returns: One Year Ended 6/30/24

