

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

August 23, 2023



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

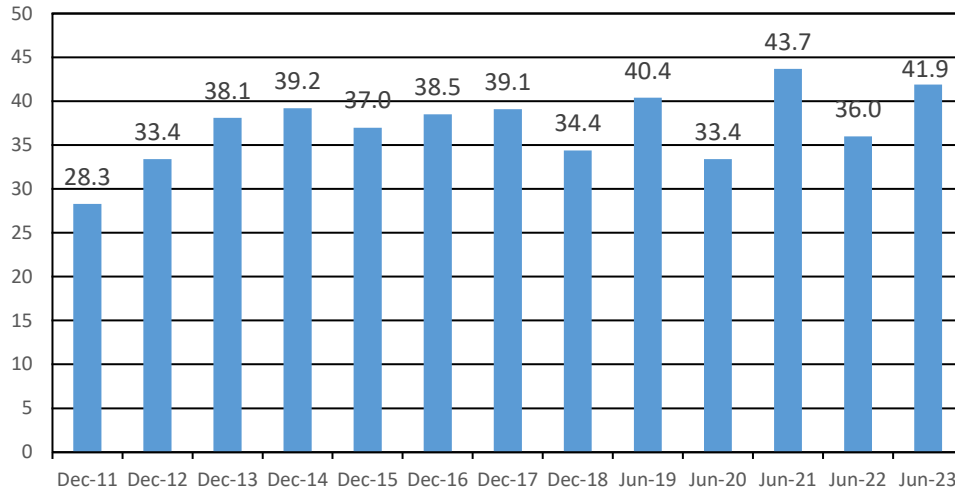
VACANT

Investment Analyst

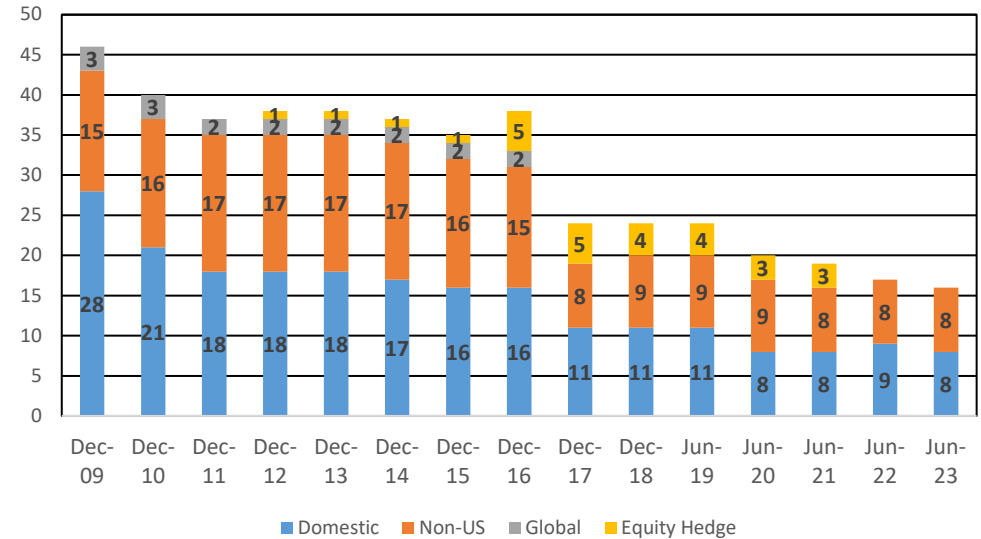


Snapshot of Total Public Equity

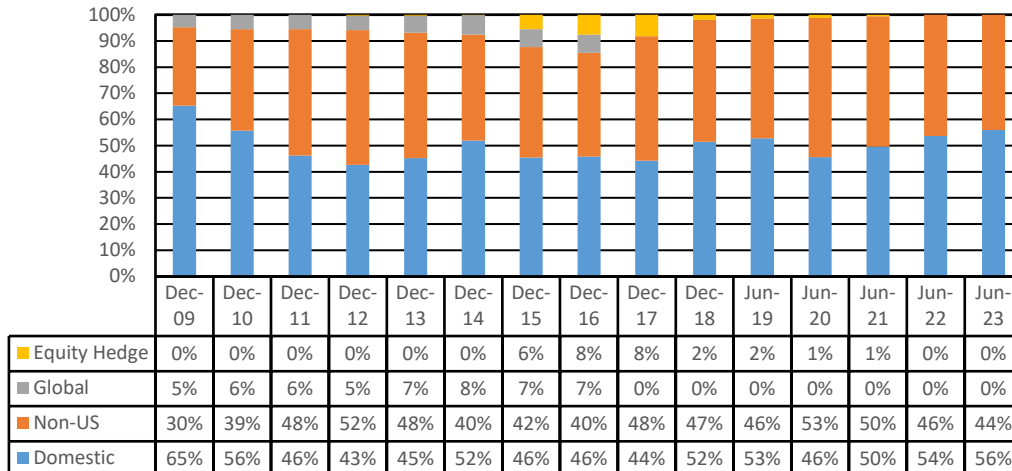
Equity Assets (\$B)



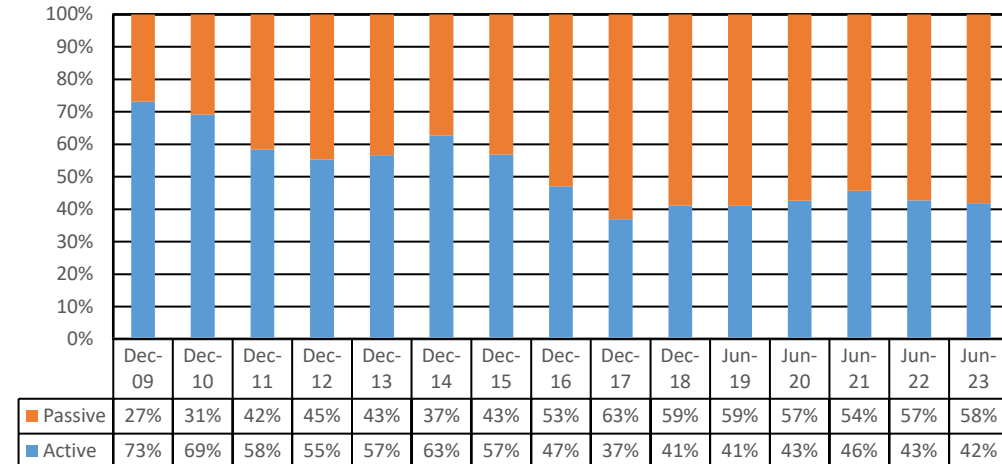
Number of Mandates



Asset Allocation



Active vs Passive





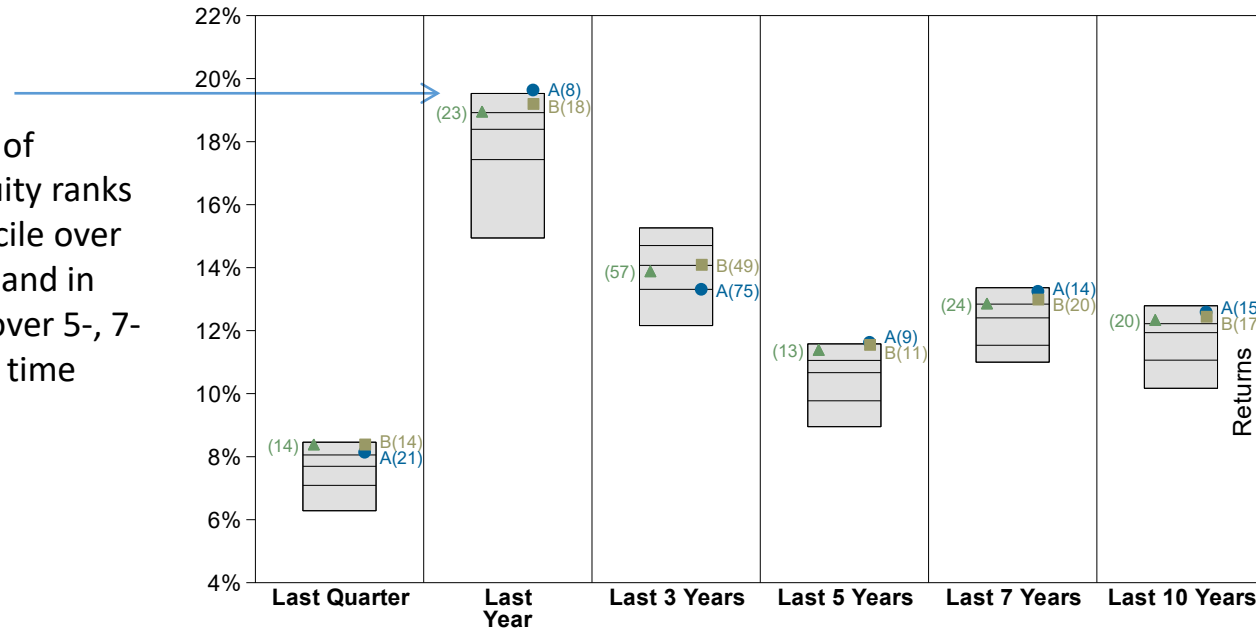
NCRS Public Equity Net Performance – June 30, 2023

	Market Value (M)	3 Month	1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
As of June 30, 2023								
Public Equity	\$41,901.14	5.39	16.77	9.75	7.84	9.00	7.23	8.01
Benchmark		5.89	16.14	10.89	7.58	8.44	6.65	7.42
US Portfolio	\$23,465.75	8.08	19.54	13.26	11.58	12.45	10.70	10.23
Russell 3000		8.39	18.95	13.89	11.39	12.34	10.61	10.05
Non-US Portfolio	\$18,432.34	2.16	13.45	5.94	3.91	5.80	3.54	7.00
Custom Benchmark		2.38	12.47	7.33	3.38	4.88	2.78	6.09



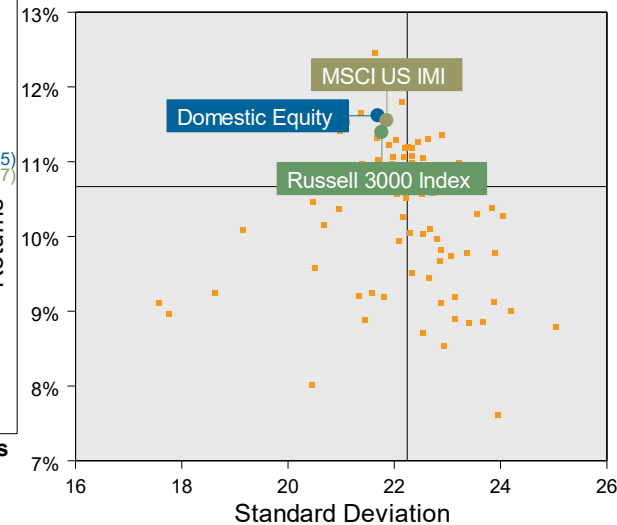
NCRS Domestic Equity Portfolio – Public Fund Universe Comparison

Performance vs Public Fund - Domestic Equity (Gross)



10th Percentile	8.46	19.53	15.26	11.58	13.36	12.79
25th Percentile	8.05	18.92	14.70	11.06	12.84	12.22
Median	7.69	18.39	14.07	10.67	12.41	11.94
75th Percentile	7.09	17.43	13.31	9.77	11.54	11.06
90th Percentile	6.28	14.94	12.16	8.95	11.00	10.17
Domestic Equity ● A	8.12	19.62	13.29	11.61	13.23	12.57
MSCI US IMI ■ B	8.39	19.20	14.09	11.55	12.99	12.44
Russell 3000 Index ▲	8.39	18.95	13.89	11.39	12.86	12.34

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



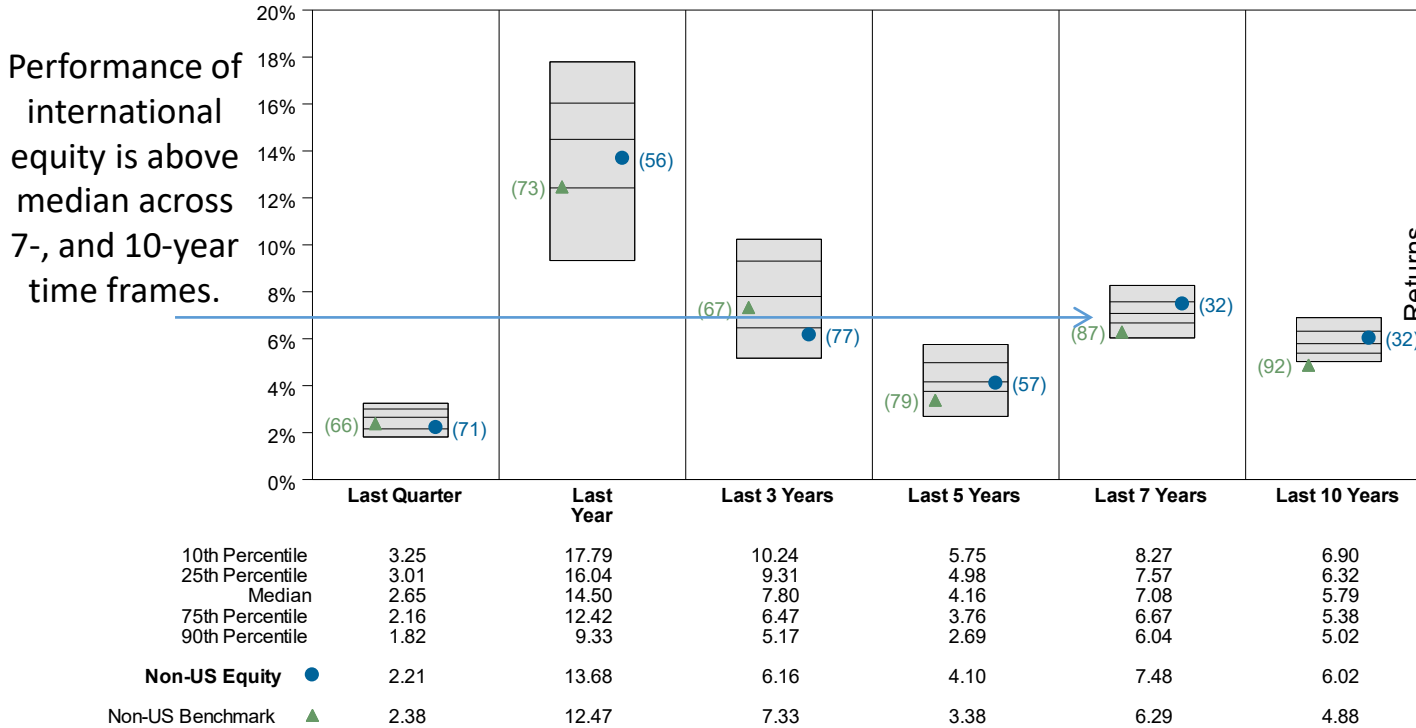
- The domestic equity composite was ahead of benchmarks for the year.
- The portfolio also ranks in the top quartile of Public Fund peers across 5-, 7-, and 10-year time frames.
- Modest outperformance over 5-years has been achieved with similar risk profile (standard deviation) to the Russell 3000 and MSCI US IMI Indices.
- Over 75% of domestic equity is passively implemented to replicate the large/mid cap components of the benchmark.

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

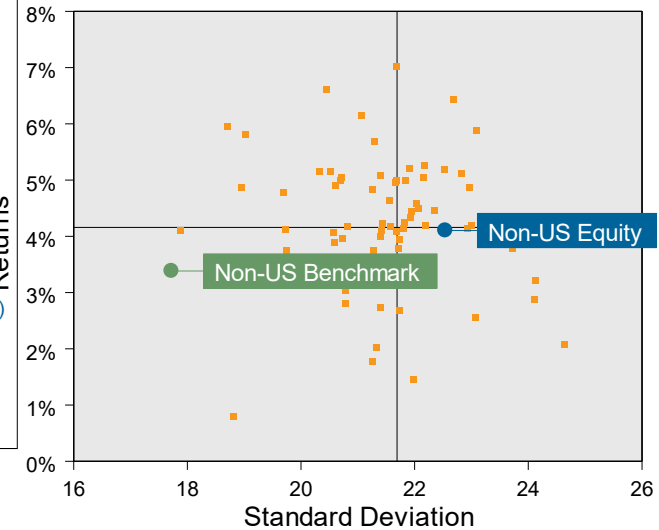


NCRS International Equity Portfolio – Public Fund Universe Comparison

Performance vs Public Fund - International Equity (Gross)



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



- The international equity composite outperformed the index over the one year time frame as the growth style rebounded and active manager results improved.
- Long term results remain ahead of the index and rank competitively vs peers.
- The NCRS international equity risk profile is higher than the index but in line with peers.

Peers represent the international equity composites of approximately 150 public funds ranging from approximately \$10million to \$24 billion



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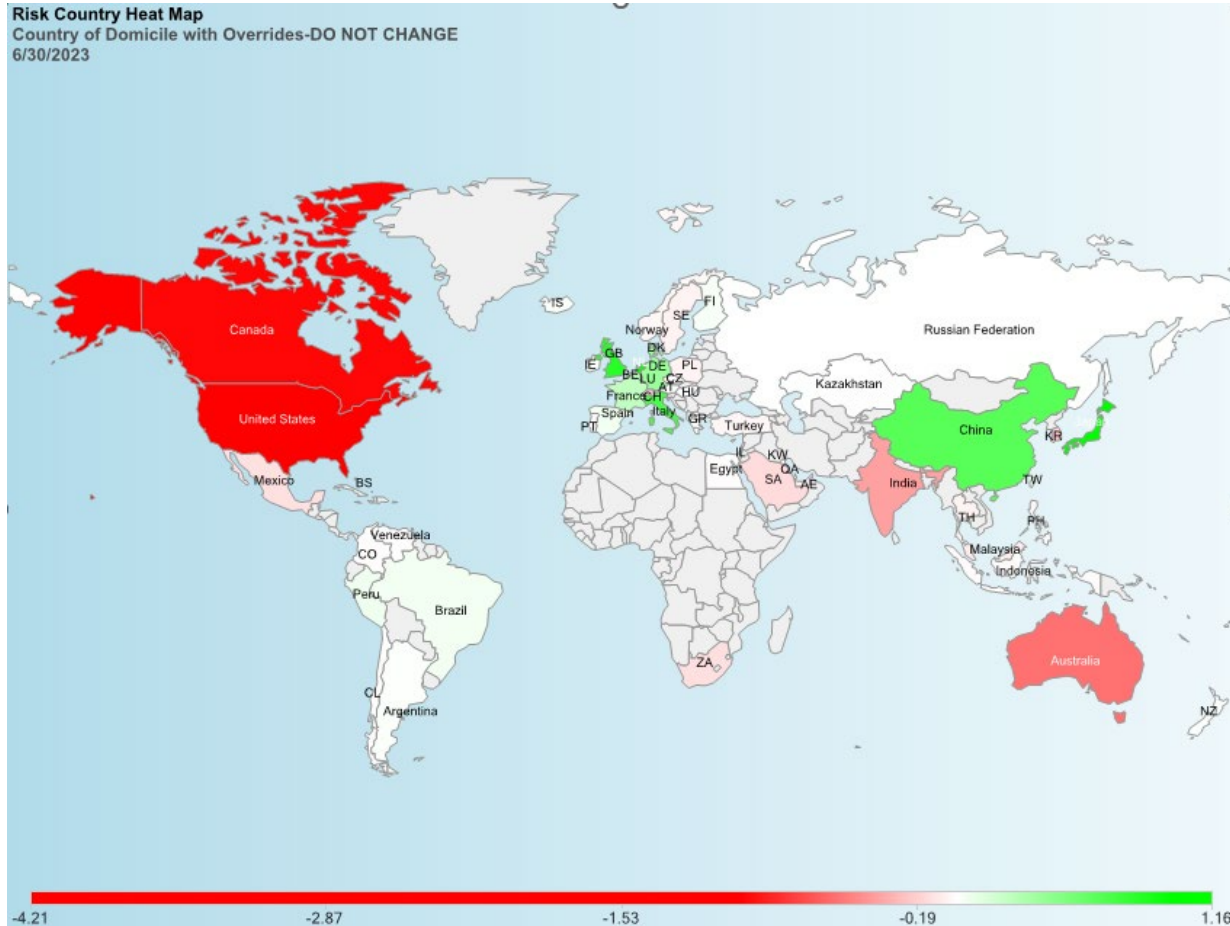
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PUBLIC EQUITY - PORTFOLIO STRUCTURE ANALYSIS



Public Equity Portfolio Structure



Country	Port. Weight	Bench. Weight	Active Weight
Netherlands	2.24	1.09	1.16
Japan	7.05	5.99	1.06
United Kingdom	4.56	3.73	0.83
Italy	1.38	0.68	0.70
China	3.53	2.89	0.64
United States	56.72	60.94	-4.21
Canada	1.98	2.94	-0.96
Australia	1.39	1.94	-0.55
India	1.37	1.73	-0.36
Korea	1.19	1.37	-0.18

Portfolio remains underweight US & overweight developed International & China



Portfolio Relative Risk Exposure

Sources of Active Risk	Tracking Error	% of Tracking Error
Total Factor	0.82	74.28
Equity - Country	0.41	36.95
Equity - Style	0.16	14.90
Currency	0.14	12.74
Equity - Industry	0.11	9.92
Stock Specific	0.28	25.45
Total Portfolio	1.10	100.00

- Country: Underweight US market
- Style: Overweight Growth and Beta (Market Sensitivity)
- Style: Underweight Value and Yield (Dividend and Earnings)
- Stock specific exposure through manager stock selection



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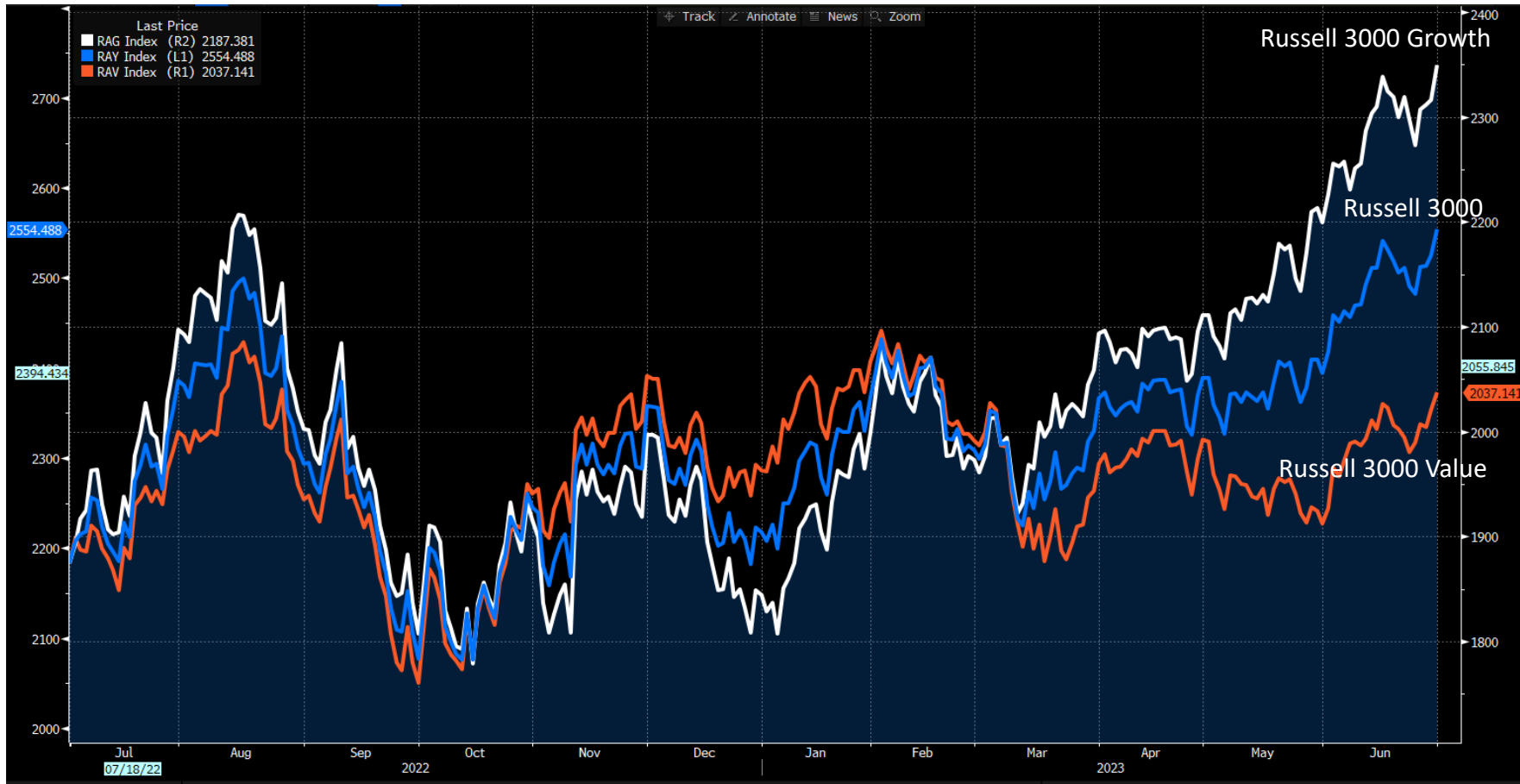
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PUBLIC EQUITY— US MARKET RETURNS



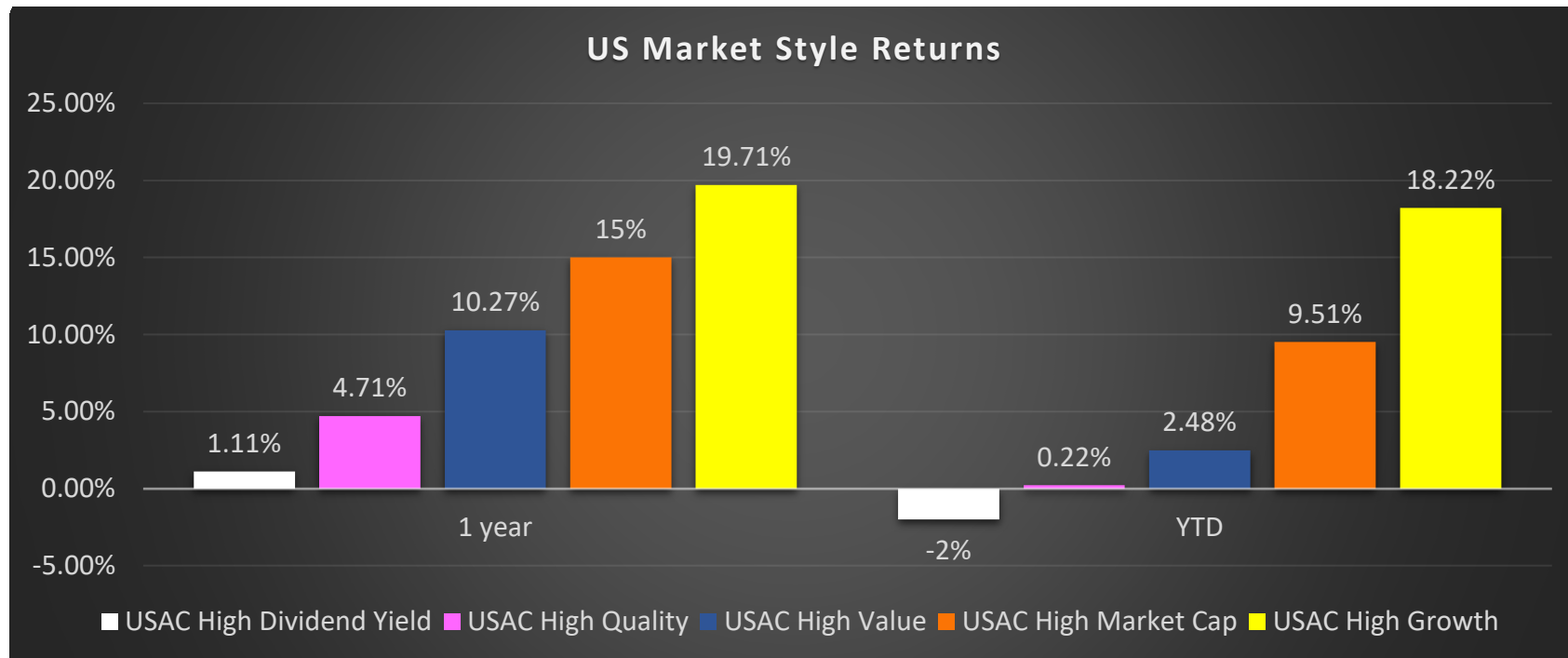
Equity Return Dispersion



Returns	Russell 3000 Growth	Russell 3000	Russell 3000 Value
YTD	26.59%	18.93%	11.18%
1 Year	28.05%	16.16%	4.95%



US Market Factor View: 1 Year



- Year to date the US market performance has been driven by mega cap and growth stocks.
- Big Tech (Apple, Microsoft, Nvidia, Amazon, Meta, Tesla and Alphabet) have accounted for 65% of the Russell 3000's return YTD.



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PUBLIC EQUITY— INTERNALLY MANAGED EQUITY PORTFOLIOS



Performance

Internal Equity Portfolios	1 year	Since Inception	Inception Date
Russell 1000 Internal	19.37%	19.37%	June 2022
Russell 1000 Benchmark	19.36%	19.36%	
Excess Return	0.01%	0.01%	
Internal TOBAM Max Div US*	7.16%	5.03%	September 2018
TOBAM US Benchmark	7.26%	5.01%	
Excess Return	-0.10%	0.02%	
Internal US Core Factor	16.86%	2.04%	February 2022
Russell 1000 Benchmark	19.36%	-0.01%	
Excess Return	-2.50%	2.05%	

*Gross of 10bps license fee



Fiscal Year Trading & Portfolio Activity

NCRS Account	No of Shares Traded	Gross Value Traded	No of orders
Russell 1000	18,319,509	1,631,104,649	16,299
TOBAM US	8,093,781	524,861,075	5,505
CORE Factor	11,677,477	759,828,300	3,879
Total	38,090,767	2,915,794,024	25,683

- **38MM** shares traded across 3 accounts
- Gross value of **\$2.9B** across **25k** orders

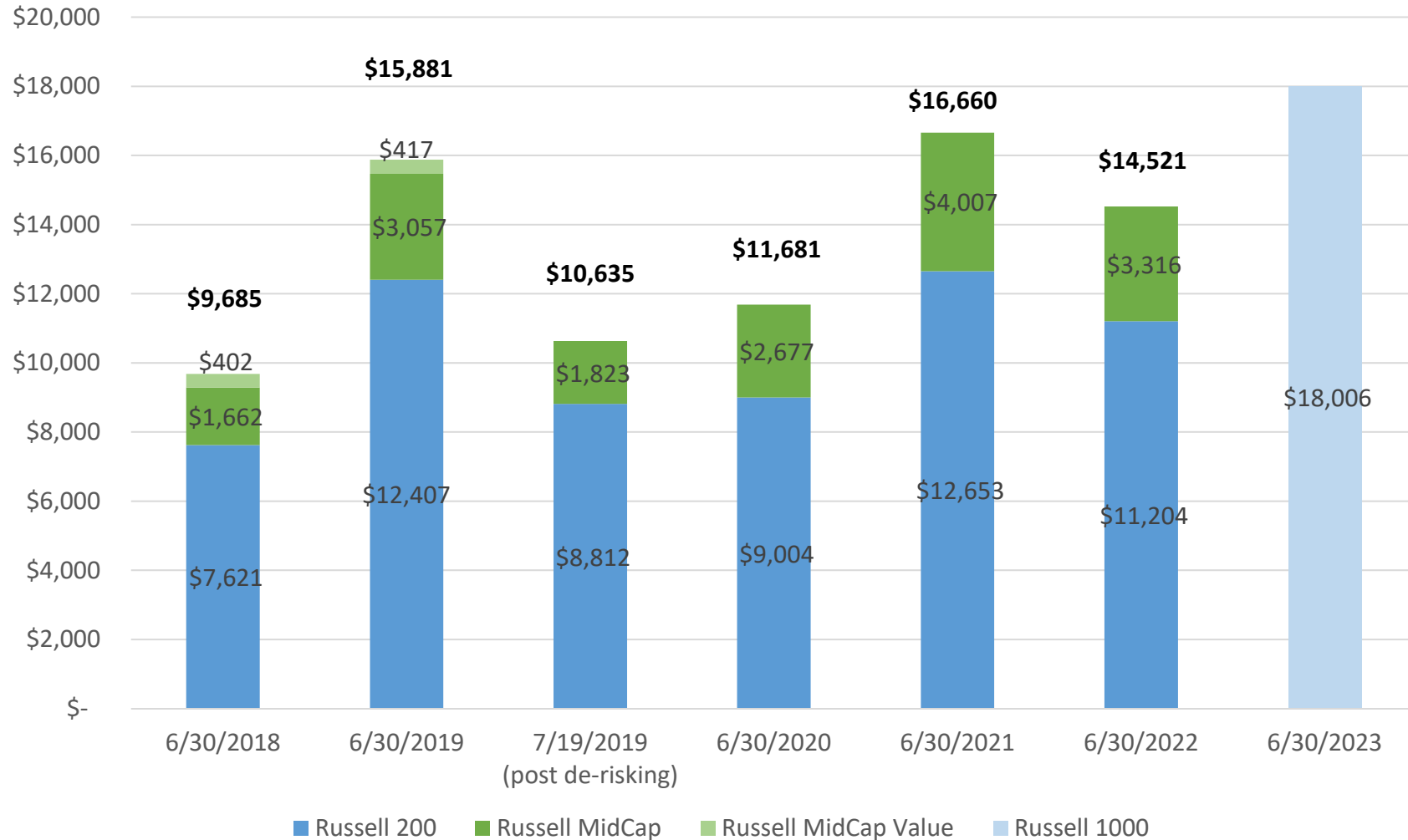
Russell Indices Annual Reconstitution (June 2023)

NCRS Account	No of shares Held	No of shares Traded	Turnover (%)
Russell 1000	174,300,107	8,703,078	4.99%

- **1,034** names traded; gross market value of **\$411MM**.
- Negotiated very competitive broker commission rates < **0.05c** per share.



Internal Passive Equity AUM (MM's)





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WRAP-UP



2023-2024 STRATEGIC GOALS

- Evaluate style mis-weights and factor exposures within both US and Non-US Portfolios.
- Assess Portfolio exposures driven by allocations to largest active managers.



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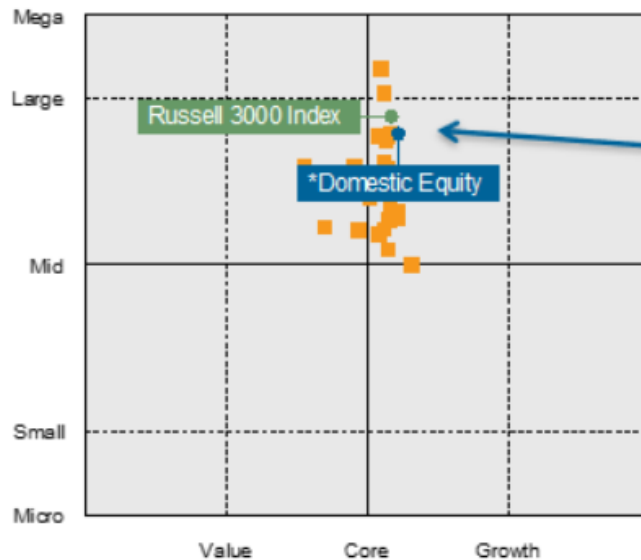
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APPENDIX



NCRS Domestic Equity Portfolio

Style Map vs Pub Pln- Dom Equity
Holdings as of June 30, 2023



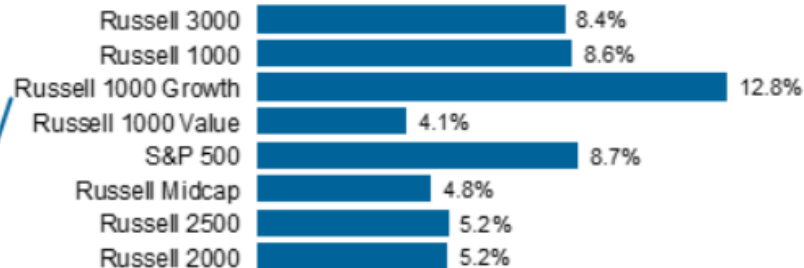
Domestic equity is similar to index capitalization, but larger capitalization relative to peers.

Style Exposure Matrix Holdings as of June 30, 2023

Large	16.5% (90)	19.2% (99)	41.1% (115)	76.8% (304)
	18.4% (90)	19.8% (98)	41.3% (108)	79.6% (296)
Mid	4.2% (158)	7.2% (213)	6.4% (198)	17.8% (569)
	4.4% (159)	5.2% (219)	5.0% (215)	14.5% (593)
Small	1.1% (70)	2.1% (108)	2.1% (94)	5.3% (272)
	1.3% (288)	2.2% (525)	1.8% (372)	5.3% (1185)
Micro	0.0% (3)	0.0% (3)	0.0% (1)	0.1% (7)
	0.2% (312)	0.3% (425)	0.1% (152)	0.6% (889)
Total	21.8% (321)	28.5% (423)	49.7% (408)	100.0% (1152)
	24.3% (849)	27.4% (1267)	48.3% (847)	100.0% (2963)
	Value	Core	Growth	Total

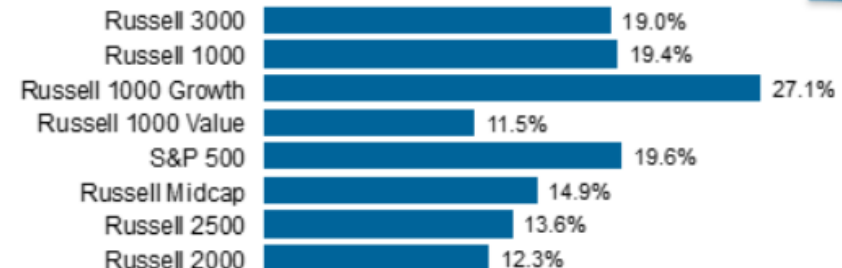
Longer duration growth companies are no longer showing sensitivity to higher inflation and interest rates.

U.S. Equity: Quarter Ended 6/30/23



Growth stocks continue to bounce back in 2023

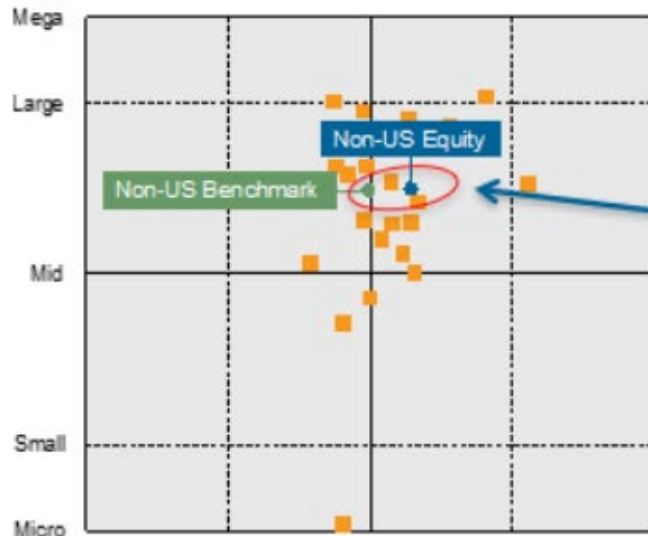
U.S. Equity: One-Year Returns Ended 6/30/23



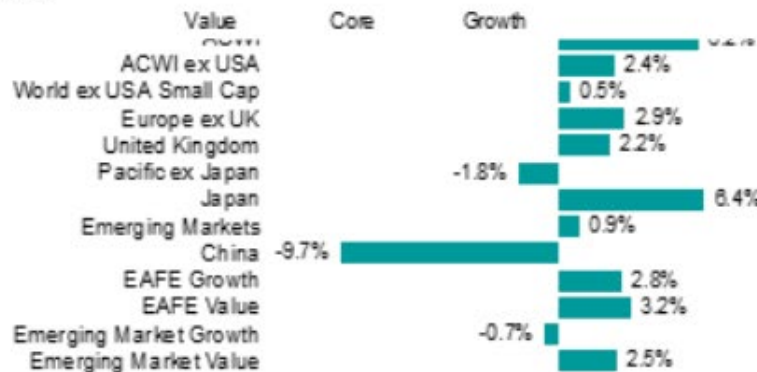


NCRS International Equity Portfolio

Style Map vs Pub Pln- Intl E equity
Holdings as of June 30, 2023

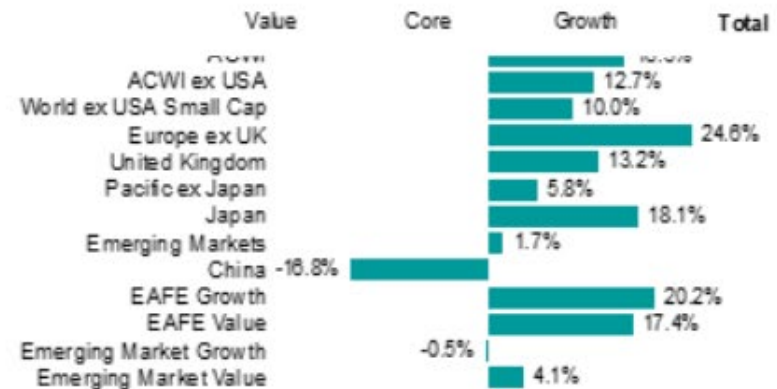


Non-US equity has
modest growth tilt,
driven largely by
Baillie Gifford



Style Exposure Matrix
Holdings as of June 30, 2023

Europe/ Mid East	11.2% (486)	11.7% (530)	21.2% (485)	44.0% (1501)
	11.1% (482)	14.1% (522)	15.5% (484)	40.7% (1488)
N.America	1.5% (95)	1.8% (137)	5.2% (102)	8.3% (334)
	2.6% (94)	2.3% (131)	2.7% (95)	7.5% (320)
Pacific	5.6% (524)	6.8% (537)	9.9% (488)	22.3% (1549)
	7.6% (524)	8.0% (536)	8.4% (488)	24.0% (1547)
Emerging	6.3% (1032)	8.0% (1143)	11.0% (1061)	25.3% (3236)
	7.5% (1024)	9.3% (1136)	11.0% (1065)	27.8% (3215)
Total	24.5% (2137)	28.1% (2347)	47.3% (2136)	100.0% (6620)
	28.8% (2124)	33.6% (2324)	37.5% (2122)	100.0% (6570)





U.S. Equity Overview

Index concentration continues to be a theme

The top chart illustrates the top five S&P 500 Index contributors through 2Q.

- 10 stocks within the S&P 500 Index contributed 80% of the 16.9% return; average appreciation is 82% and an average forward price/earnings ratio of 36x. They account for 32% of the index's market capitalization.
- 2Q return for the S&P 500 Index was 8.7%; the equal weight S&P 500 Index returned 4%.
- The YTD return difference is nearly 10%; if this gap holds through year-end, it would be the largest since 1998.

Total Returns (indexed %)



S&P 500 2023 YTD Return Contribution

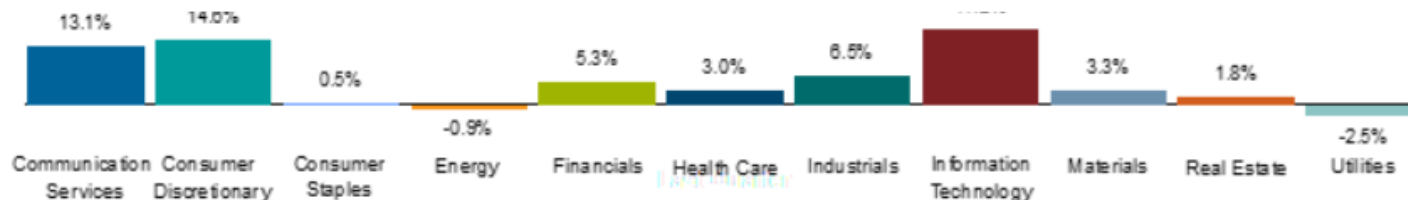




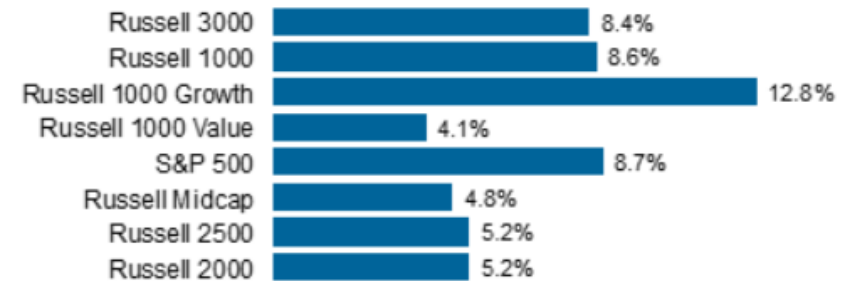
U.S. Equity Performance: 2Q23 Commentary

Large cap growth stocks lead broad indices higher; small cap indices continue to lag large caps

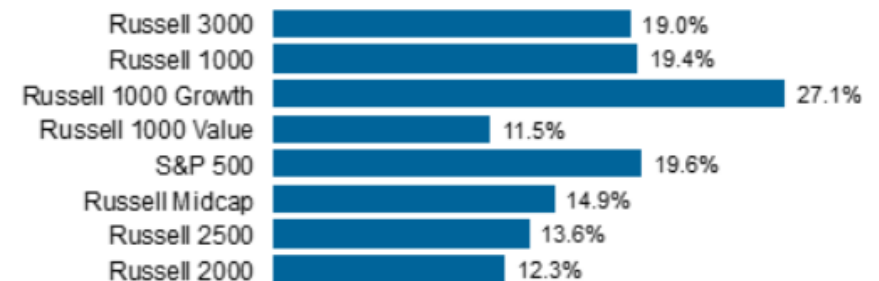
- The S&P 500 posted a second straight quarter of positive performance, gaining 8.7%; large cap growth led all styles, advancing 12.8%. All U.S. equity indices produced absolute positive returns; small value and low volatility produced the lowest 2Q returns.
- Nine of the 11 S&P 500 Index sectors produced a positive 2Q return. Information Technology (17.2%), Consumer Discretionary (14.6%), and Communication Services (13.1%) drove the overall index return; all other sectors underperformed the index.
- Similar to the first quarter, small caps (Russell 2000) underperformed large caps (Russell 1000) and growth outperformed value during the quarter, a reversal of trend from 2022. Financials (-1.1%) detracted returns for the Russell 2000 (5.2%) while Health Care was the only small cap sector to produce double digit returns (11.2%) within the small cap index.



U.S. Equity: Quarter Ended 6/30/23



U.S. Equity: One-Year Returns Ended 6/30/23



Sources: FTSE Russell, S&P Dow Jones Indices



U.S. Equity Key Theme

AI and the 'Magnificent 7' a key trend for 2023

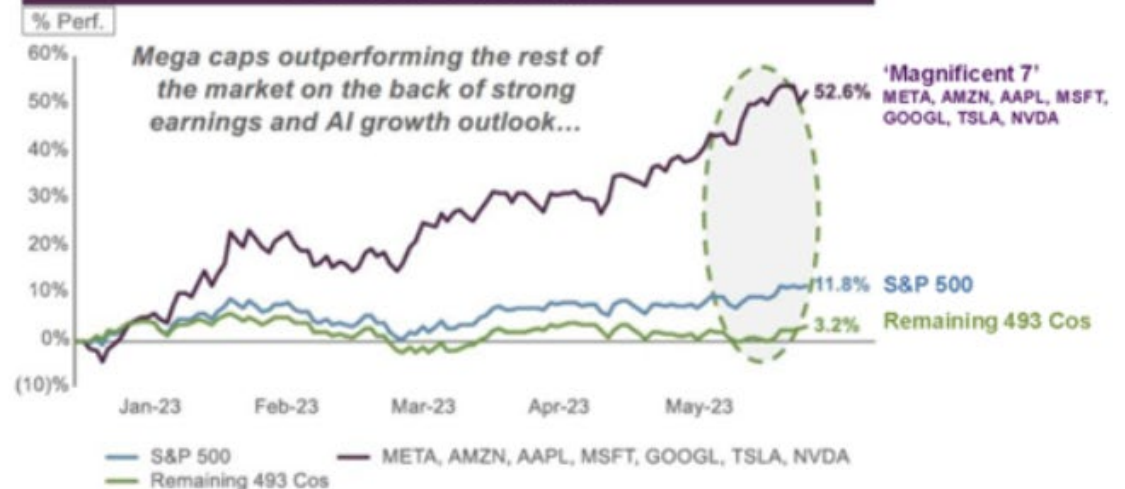
The 2Q top contributors, coined the "Magnificent Seven," were Nvidia (52%), Meta (35%), Amazon (26%), Tesla (26%), Apple (18%), Microsoft (18%), and Alphabet (15%).

- The index is now the most concentrated that it has been since the 1970s with those stocks accounting for about 25% of the S&P 500, 33% of the Russell 1000 Growth and nearly 50% of the Nasdaq.
- AI market-related focus disproportionately benefitting this group of stocks.
- \$1 in every \$6 of global market cap (MSCI ACWI) concentrated in these names

Proportion of Market Held by Top 10% of Stocks (by Mkt Value)



YTD Indexed Performance



Sources: Guggenheim as of 6/11/23



Global/Global ex-U.S. Equity Performance: 2Q23 Commentary

Continued market rally

2Q23 continued global and global ex-U.S. equity markets positive performance from the prior quarter.

Technology stocks lead markets higher

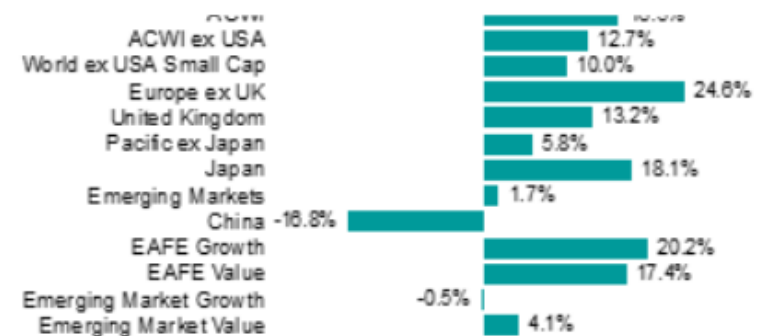
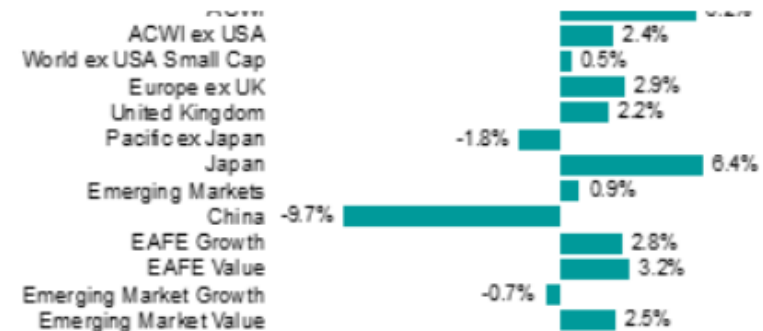
- The second quarter of the year saw global markets led higher by mega cap technology stocks, in part due to increased optimism around artificial intelligence advancements.
- Market expectations of a recession decreased as inflation showed signs of abating while the Fed kept rates unchanged in June.
- Japan outperformed other regions in local currency as valuations continued to be attractive alongside the Bank of Japan's easy monetary policy.

Developed vs. emerging markets

- Developed markets outperformed emerging markets as China weighed on EM indices.

Growth vs. value

- Mega cap technology companies, which are primarily U.S.-based, led markets higher and resulted in large dispersions between U.S. growth and value indices. Outside of the U.S., growth and value index returns were relatively balanced.



Source: MSCI



Global/Global ex-U.S. Equity Key Themes

India and Japan are outshining China

India vs. China

► Economics

- Chinese geopolitical tensions have, in part, driven outside investment elsewhere contrasted to India with Prime Minister Modi's visit to the U.S. highlighting its place in the world economy.
- China's New Espionage Law (effect. July 2023) likely contributing to less foreign investment; \$20 billion ended 1Q23 versus \$100 billion ended 1Q22.

► Asset flows

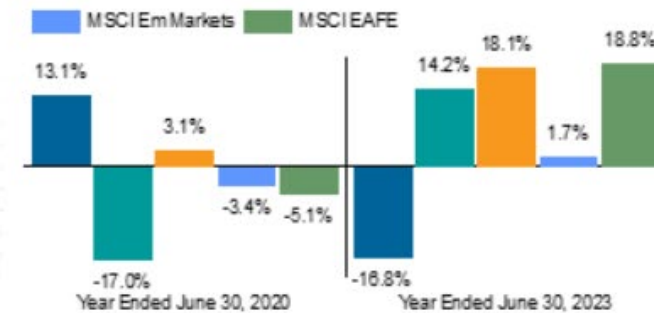
- India's equity market has more than doubled since 2010.

► Growth

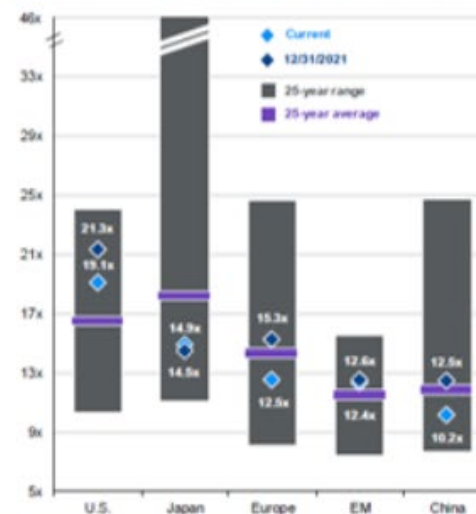
- India surpassing China with % of population in the middle class in 2030 and from 2023 to 2030 will contribute twice as much growth from this group than China in the Asia Pacific region.

Japan's turn

- Valuation below historical levels.
- Economic recovery; in the first quarter Japan transitioned out of a recession as GDP grew 2.7%.
- Next 12 months consensus earnings estimates show Japan outpacing China, EM, Europe and only trailing the U.S.



Global Valuations (current and 25-year next 12 months price-to-earnings ratio)



Sources: Wall Street Journal, J.P. Morgan, Capital Group



Global/Global ex-U.S. Equity Key Themes

Why global ex-U.S. equities are (still) attractive

Diversification

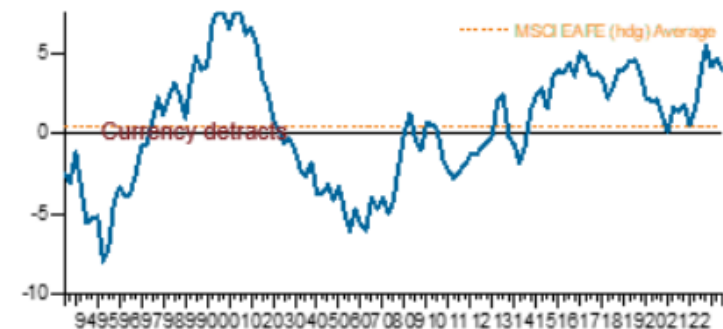
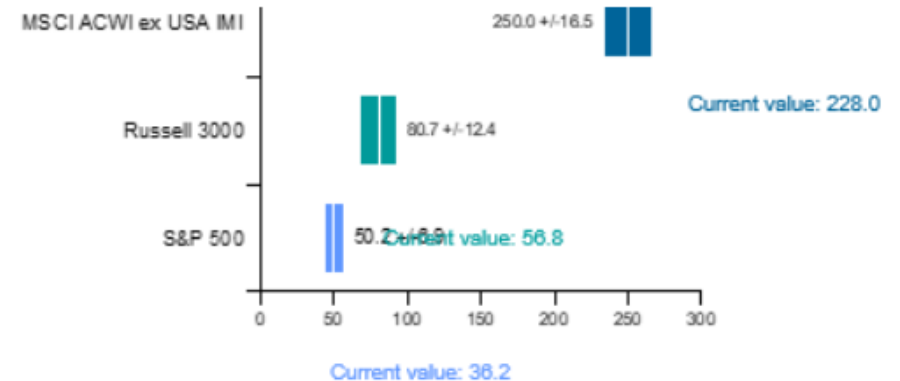
- Unlike the U.S., where the weight of the top 10 stocks in the S&P 500 was 31.7% ended 2Q23, global ex-U.S. provides a larger and more diverse opportunity set; the top 10 constituents of the MSCI ACWI ex-US Index was 11.52%.

Dollar

- Currency returns have been cyclical but starting in September 2022 we observed a dip in the dollar, which supported a rotation from U.S. outperformance to global ex-U.S. outperformance.
- Despite a small gain in 2Q23, using real exchange rates, the U.S. dollar remains expensive versus most currencies, particularly the yen.

Valuation

- Global ex-U.S. price-to-earnings ratios are at a discount relative to history as well as to the U.S.
 - ACWI ex-USA: current 12.9x vs. 20-year average 13.1x .
 - S&P 500: current 19.1x vs. 20-year average 16.4x
- Global ex-U.S. also offers larger capital returns to shareholders; next 12 months dividend yield differential was 1.7% as of 2Q23.



Sources: Goldman Sachs Global Investment Research, I/B/E/S, IMF, MSCI

Currency is additive