

# **RAFI™ Multi-Factor Climate Transition Index Series Attribution Summary: Q1 2024**

## Developed

Performance Analysis	QTD Return	QTD Excess Return	YTD Return	1-Year Return	Carbon Intensity (CF/EVIC)
RAFI Multi-Factor Climate Transition Developed Index	10.98%	2.03%	10.98%	23.85%	196.1
RAFI Multi-Factor ex Size Developed	10.00%	1.05%	10.00%	21.98%	928.6
<i>Solactive GBS Dev Markets Large/Mid Cap Index</i>	8.96%	---	8.96%	25.74%	521.6
Factor Attribution	QTD Return	QTD Excess Return	YTD Return	1-Year Return	Carbon Intensity (CF/EVIC)
RAFI Value Factor Developed	10.85%	1.9%	10.9%	24.07%	2179.8
RAFI Low Volatility Factor Developed	5.63%	-3.3%	5.6%	10.96%	393.8
RAFI Quality Factor Developed	7.43%	-1.5%	7.4%	19.78%	724.2
RA Momentum Factor Developed	14.20%	5.2%	14.2%	29.38%	607.7

The RAFI Multi-Factor Climate Transition Developed Index beat its cap-weight benchmark by 2.03% in Q1. The American economy continues to surprise to the upside, posting persistently stronger than expected employment and growth numbers. Downstream, American markets have broadened with the S&P EW index going on a surging run from November setting a new peak in the new year. Meanwhile, there has been increased dispersion among the Magnificent 7, as Nvidia and Meta charge ahead while Tesla and Apple lag the group and the broader market. As we have [warned](#), the last mile of inflation will be challenging for central banks to handle, driven organically by services and expectations as well as the simple mechanical process of how housing is captured by inflation measures. Internationally, market conditions are more mixed though surprisingly robust given geopolitical risks. European central banks look closer to easing while on the back of solid growth and strong governance reforms, Japan looks close to its first hikes in more than a decade. The speculative AI goldrush, valuations and geopolitical risk remain key themes to watch as the year develops.

The broadening of markets has played out in the strong performance in the momentum and value factor sleeves. Momentum posted strong excess returns, running ahead of the cap-weight benchmark by 524 bps. The value sleeve added 189 bps to excess return. This is notably in contrast to the MSCI World Value Index which lagged its Growth counterpart by 259 bps for the quarter. Low Volatility has continued to struggle to keep pace in this volatile and momentum-lead market, lagging the reference benchmark by 333 bps for the quarter. Quality trailed by 153 bps for the quarter.

The climate transition strategy outperformed a comparable unconstrained strategy by 98 bps in Q1 2024. The constrained strategy benefitted from significantly larger positions in Nvidia and Meta platforms relative to the unconstrained strategy. Nvidia and Meta contributed 89 bps and 81 bps, in excess returns relative to the unconstrained strategy. This was largely driven by their favorable

carbon profiles though the potential AI revolution may become more carbon intensive as it is realized. This has predictable consequences for relative positioning between strategies with a 6.35% overweight to the US relative to the unconstrained strategy and corresponding relative tilts into Communications and Technology.

## Stock Analysis

### Top Five/Bottom Five Contributors to Excess Return

	Total Weight	Active Weight	Q1 2024 Return	Excess Return Contribution	Value	Initial Factor Sleeve Weights		
						Low Volatility	Quality	Momentum
<b>Top Five Contributors to Return</b>								
Meta Platforms	4.91%	3.30%	37.33%	0.80%	—	—	0.71%	0.76%
Eli Lilly	3.21%	2.22%	33.69%	0.48%	—	0.47%	0.46%	0.62%
Apple	2.38%	-2.10%	-10.82%	0.46%	—	—	0.64%	0.50%
Tesla	0.00%	-0.90%	-29.25%	0.45%	—	—	—	—
Novo Nordisk	2.21%	1.59%	24.24%	0.26%	—	0.31%	0.29%	0.24%
<b>Bottom Five Contributors to Return</b>								
Amazon	0.00%	-2.48%	18.72%	-0.23%	—	—	—	0.68%
Nvidia	2.55%	-0.26%	82.46%	-0.18%	—	—	—	0.83%
Microsoft	0.10%	-4.81%	12.09%	-0.16%	—	—	—	0.10%
Gilead Sciences	0.83%	0.67%	-8.64%	-0.13%	0.10%	0.35%	0.38%	—
Toyota	0.00%	-0.41%	38.12%	-0.11%	—	—	0.15%	0.17%

Note: RAFI Multi-Factor Climate Transition Index dynamically tilts securities weights as a function of carbon intensity. Sleeve weights may not perfectly map to the final portfolio weight.

Following a precipitous decline in 2022, Meta Platforms has bounced back on the impetus of a 'year of efficiency'. A capable open-source AI program, stronger advertising conditions than expected and uncertainty surrounding rival Tiktok, all contributed to a stellar 2023 and the continued surging run in 2024, up 37.3% in Q1. The strategy took on exposure to Meta through the quality and momentum sleeves with the carbon tilt process leaning into Meta. The 3.3% overweight to Meta added 80 bps to excess returns. Eli Lilly enjoyed a strong Q1 up 33.69%, with bullish expectations for its Ozempic weight-loss competitor. The strategy took on exposure through the low volatility, quality and momentum sleeves with a strong increase in weighting driven by favorable carbon characteristics. The strategy's 2.22% overweight to Eli Lilly added 48 bps to performance. American mega-caps Apple (-2.10% active weight) and Tesla (-0.90% active weight) each contributed to performance through a systematic underweight, adding 46 bps and 45 bps, respectively to performance, as Apple stumbled and Tesla toppled over in Q1.

Detractors were relatively diffuse and limited in size, with the portfolio largely underweighting mega-cap AI themes. Amazon has seen a moderate boom this year, benefiting from flows into the cloud infrastructure that would support an AI revolution. The -2.48% underweight to Amazon detracted 23 bps from performance. Notably relative to the unconstrained version, the RAFI Multi-Factor Climate

Transition Index's carbon tilt resulted in a larger allocation and consequently smaller 0.26% underweight to Nvidia. Nvidia left the rest of the Magnificent 7 in the dust, running up 82.46% this quarter, removing 18 bps from performance. Nvidia enters the portfolio through the momentum sleeve.

## Sector Analysis

12/29/2023 to 3/28/2024	RAFI Multi-Factor Climate Transition Developed Index		Solactive GBS Developed Markets Large & Mid Cap Index		Attribution Analysis		
	Port. Average Weight	Port. Total Return	Bench. Average Weight	Bench. Total Return	Allocation Effect	Selection + Interaction	Total Effect
<b>Total</b>	<b>100.00</b>	<b>10.79</b>	<b>100.00</b>	<b>8.90</b>	<b>-0.13</b>	<b>2.02</b>	<b>1.89</b>
<b>Basic Materials</b>	4.09	4.28	4.06	3.71	-0.00	0.02	0.02
<b>Communications</b>	10.68	20.71	7.95	13.15	0.05	0.68	0.74
<b>Consumer Cyclical</b>	10.23	7.45	10.43	7.13	0.01	0.03	0.04
<b>Consumer Non-Cyclical</b>	9.53	3.77	7.07	4.06	-0.12	-0.03	-0.15
<b>Energy</b>	1.91	6.78	4.33	9.39	-0.02	-0.05	-0.07
<b>Financials</b>	11.58	11.38	13.46	10.52	-0.05	0.10	0.05
<b>Healthcare</b>	19.69	11.56	12.28	7.77	-0.09	0.75	0.65
<b>Industrial</b>	9.23	6.98	10.01	8.85	-0.00	-0.18	-0.18
<b>Real Estate</b>	0.79	5.33	2.11	-0.01	0.12	0.04	0.16
<b>Technology</b>	21.12	15.33	25.86	11.92	-0.14	0.71	0.58
<b>Utilities</b>	1.16	-3.75	2.43	0.72	0.11	-0.06	0.06

At the sector level, security selection rather than allocation decisions drove the bulk of performance, accounting for 202 bps of the total 189 bps in excess returns. Communications (2.73% active weight) was the greatest source of returns, adding 74 bps to performance, driven predominantly by positioning in Meta. Healthcare was the next greatest segment with a 7.41% overweight translating to 65 bps in excess returns. Selection effects explained 75 bps of the total 65 bps in excess returns as the sector as a whole lagged the broader index. Within Healthcare, obesity drug innovators Eli Lilly (2.22% active weight) and Novo Nordisk (1.59% active weight) added 48 bps and 26 bps, respectively. Both have been boosted by expectations that public insurance in the US will cover their new obesity drugs. Technology contributed 58 bps to performance from a -4.74% underweight. The -2.10% underweight to apple added 46 bps to excess returns.

## Geographic Analysis

12/29/2023 to 3/28/2024	RAFI Multi-Factor Climate Transition Developed Index		Solactive GBS Developed Markets Large & Mid Cap Index		Attribution Analysis		
	Port. Average Weight	Port. Total Return	Bench. Average Weight	Bench. Total Return	Allocation Effect	Selection + Interaction	Total Effect
<b>Total</b>	<b>100.00</b>	<b>10.79</b>	<b>100.00</b>	<b>8.90</b>	<b>-0.11</b>	<b>2.00</b>	<b>1.89</b>
<b>Developed Asia Pacific x JP</b>	2.25	0.57	3.11	-2.40	0.10	0.07	0.17
<b>Europe - Non-EU</b>	7.39	7.76	4.51	3.49	-0.15	0.34	0.18
<b>European Union</b>	10.53	8.00	9.10	8.30	-0.01	-0.03	-0.04
<b>Japan</b>	8.94	7.77	6.98	10.42	0.05	-0.24	-0.19
<b>United Kingdom</b>	4.76	4.41	3.84	3.06	-0.06	0.07	0.01
<b>United States</b>	63.04	13.55	68.51	10.44	-0.09	1.89	1.81
<b>Other Developed</b>	3.09	0.45	3.58	3.56	0.03	-0.10	-0.08
<b>Other</b>	--	--	0.17	-0.58	0.02	--	0.02
<b>[Unassigned]</b>	--	--	0.20	3.50	0.01	--	0.01

Breaking out performance by region, performance was once again largely driven by security selection rather than allocation effects (selection effects accounted for 200 bps of the total 189 bps in excess return.) The strategy saw its largest contribution to excess return from the US (-5.47% active weight) with the segment accounting for 181 bps in excess return. Positioning in Eli Lilly and American mega-cap technology firms such as Meta, Apple and Tesla, drove performance in the region. The strategy also saw a contribution of 18bps to excess return from non-EU Europe (2.88% active weight). The overweight to Novo Nordisk accounted the bulk of excess performance within the region. The strategy lagged in Japan (1.96% active weight) with security selection detracting -24 bps of a total -19 bps deduction from performance from the country. Performance in Japan was driven by a -0.41% underweight to Toyota Motors, which detracted 11 bps from performance. The strategy leaned out of Toyota Motors due to its ESG constraints.

## Rebalance Analysis

The following table lists the top five largest stocks by cap-weight that failed to make it into the index at the 3/15/2024 rebalance due to their factor scores or carbon tilting. Cumulative-weight rank represents each stock's position by weight within each factor sleeve prior to selection; value, low volatility, and quality select the top 25% of stocks by RAFI weight, and momentum selects the top 50% of stocks by market capitalization. Exxon Mobil and Berkshire Hathaway notably qualify for our standard RAFI Multi-Factor strategy but are excluded from the CTI index due to their carbon intensity.

Company	Region	Cap-Weight (3/31/2024)	Cumulative Weight Rank			
			Value	Low Volatility	Quality	Momentum
Amazon	US	2.57%	92.5%	46.4%	95.9%	13.5%
Berkshire Hathaway	US	0.86%	56.2%	23.5%	84.4%	25.1%
Tesla, Inc.	US	0.76%	99.4%	95.4%	97.3%	76.4%
Exxon Mobil	US	0.74%	15.9%	85.1%	49.4%	94.0%
UnitedHealth	US	0.73%	65.6%	28.2%	78.6%	71.9%

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