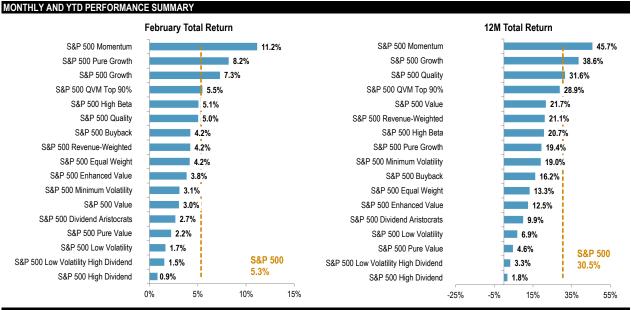
IndexInvestmentStrategy@spglobal.com

Index Dashboard: S&P 500® Factor Indices

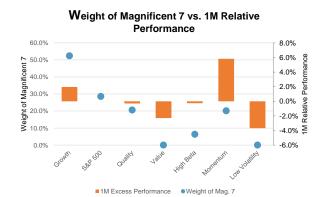
February 2024



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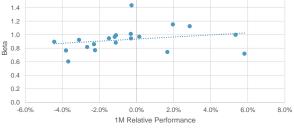
#### COMMENTARY

In a leap-year February 2024, the S&P 500 rose 5.3%, logging its fourth consecutive month of positive performance. All 17 of our featured factor indices exhibited positive performance, and four of them outperformed the S&P 500 for the month. Momentum remained as the top performer in February, notably surpassing the S&P 500 by more than 5% while holding only two of the Magnificent 7 stocks, while close behind, S&P 500 Pure Growth outperformed by nearly 3% and held all seven. On the other end of the spectrum, S&P 500 High Dividend and S&P 500 Low Volatility High Dividend indices each trailed the S&P 500 by 4%. Our first chart underscores the mildly positive relationship between beta and relative return for the month of February.



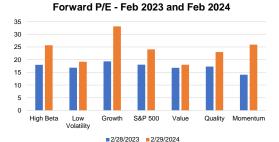
As performance across factor indices varied in February, so too did valuations. Our third chart illustrates the forward price-toearnings ratios of a select group of factor indices at the end of February 2023 and again 12-months later at the end of February 2024. Notable shifts included significant multiple expansion in Growth from 19.3 to 33.1 and Momentum from 14.1 to 25.9 while High Beta valuations also increased.

# February 2024



Relative Performance vs. Beta

Continuing to examine the impact of the Magnificent 7, we find that the strong relationship between an index's exposure to these particular stocks and its relative performance remained important in February, but was not the sole determinant of a factor's performance. Our second chart shows the collective weight of the Magnificent 7 stocks in a selection of factor indices at the end of January, 2024, and the subsequent performance of each factor relative to the S&P 500 during the subsequent month of February, 2024. The relationship between weight of these select mega-cap stocks and relative performance diminished slightly over the second month of the year when compared to 2023, as a greater number of stocks contributed to positive performance in the S&P



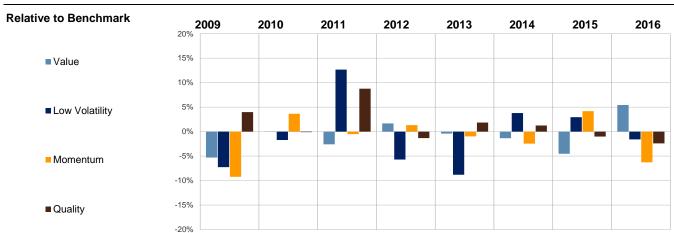
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#### ANNUAL PERFORMANCE

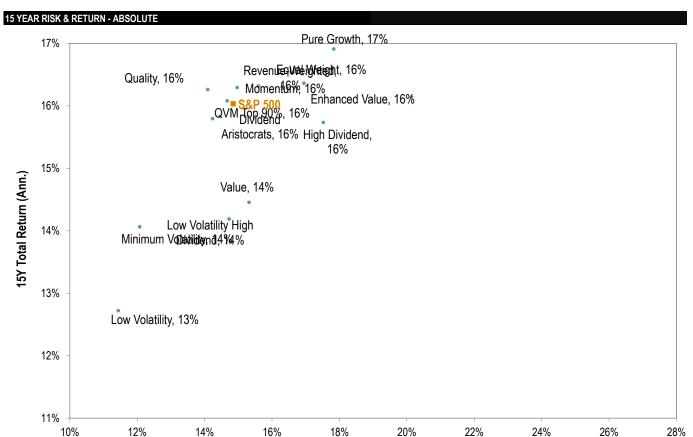
Core factor performance by calendar year, 2009-present:

Total Return	2009	2010	2011	2012	2013	2014	2015	2016
Value	21.18%	15.10%	-0.48%	17.68%	31.99%	12.36%	-3.13%	17.40%
Low Volatility	19.22%	13.36%	14.78%	10.30%	23.59%	17.49%	4.34%	10.37%
Momentum	17.24%	18.72%	1.60%	17.33%	31.42%	11.23%	5.56%	5.70%
Quality	30.46%	14.95%	10.89%	14.68%	34.24%	14.95%	0.38%	9.56%
S&P 500	26.46%	15.06%	2.11%	16.00%	32.39%	13.69%	1.38%	11.96%



Total Return	2017	2018	2019	2020	2021	2022	2023	2024
Value	15.36%	-8.95%	31.93%	1.36%	24.90%	-5.22%	22.23%	3.35%
Low Volatility	17.41%	0.27%	28.26%	-1.11%	24.42%	-4.59%	0.72%	2.67%
Momentum	28.27%	-0.04%	26.25%	28.32%	22.79%	-10.51%	17.78%	17.65%
Quality	19.51%	-6.79%	33.91%	17.55%	28.16%	-15.62%	24.97%	8.20%
S&P 500	21.83%	-4.38%	31.49%	18.40%	28.71%	-18.11%	26.29%	7.11%



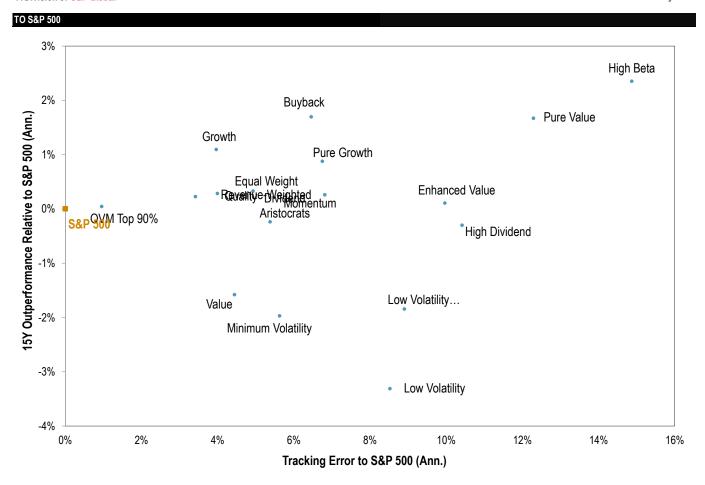


Volatility (Ann.)

TOTAL RETURN	1M	3M	12M	3Y	5Y	10Y	15Y
S&P 500 High Beta	5.1%	15.7%	20.7%	9.3%	17.2%	12.3%	18.4%
S&P 500 Buyback	4.2%	11.7%	16.2%	10.5%	12.6%	11.4%	17.7%
S&P 500 Pure Value	2.2%	9.5%	4.6%	9.0%	8.1%	7.9%	17.7%
S&P 500 Growth	7.3%	14.5%	38.6%	10.4%	15.9%	14.2%	17.1%
S&P 500 Pure Growth	8.2%	15.7%	19.4%	3.9%	10.7%	10.2%	16.9%
S&P 500 Equal Weight	4.2%	10.4%	13.3%	8.7%	11.6%	10.5%	16.4%
S&P 500 Revenue-Weighted	4.2%	10.6%	21.1%	13.6%	14.1%	11.8%	16.3%
S&P 500 Momentum	11.2%	25.4%	45.7%	15.7%	16.8%	14.5%	16.3%
S&P 500 Quality	5.0%	13.0%	31.6%	13.0%	15.4%	12.4%	16.3%
S&P 500 Enhanced Value	3.8%	12.4%	12.5%	10.8%	9.4%	9.3%	16.1%
S&P 500 QVM Top 90%	5.5%	12.9%	28.9%	12.6%	15.1%	12.9%	16.1%
S&P 500 Dividend Aristocrats	2.7%	7.6%	9.9%	9.1%	10.5%	10.9%	15.8%
S&P 500 High Dividend	0.9%	7.4%	1.8%	6.6%	5.6%	8.6%	15.7%
S&P 500 Value	3.0%	9.1%	21.7%	12.8%	12.5%	10.4%	14.5%
S&P 500 Low Volatility High Dividend	1.5%	5.4%	3.3%	7.1%	5.0%	8.6%	14.2%
S&P 500 Minimum Volatility	3.1%	8.8%	19.0%	10.1%	11.0%	11.1%	14.1%
S&P 500 Low Volatility	1.7%	5.1%	6.9%	8.1%	7.0%	9.4%	12.7%
S&P 500	5.3%	12.0%	30.5%	11.9%	14.8%	12.7%	16.0%
F	erformance figu	ires for	more th	an one	year a	re annu	alized.

VOLATILITY (ANN.)	12M	3Y	5Y	10Y	15Y
S&P 500 High Beta	26.3%	26.6%	31.0%	25.4%	26.5%
S&P 500 Buyback	16.7%	18.6%	21.9%	18.1%	17.6%
S&P 500 Pure Value	20.5%	20.6%	25.8%	20.8%	22.2%
S&P 500 Growth	13.4%	20.4%	19.9%	16.4%	15.5%
S&P 500 Pure Growth	14.7%	21.7%	21.8%	17.9%	17.8%
S&P 500 Equal Weight	16.5%	18.1%	20.2%	16.5%	16.9%
S&P 500 Revenue-Weighted	12.2%	16.5%	18.4%	15.4%	15.6%
S&P 500 Momentum	16.1%	18.8%	17.9%	15.3%	15.0%
S&P 500 Quality	11.9%	16.7%	17.2%	14.5%	14.1%
S&P 500 Enhanced Value	17.2%	19.9%	24.6%	19.9%	20.1%
S&P 500 QVM Top 90%	12.8%	17.0%	17.9%	14.9%	14.7%
S&P 500 Dividend Aristocrats	15.2%	16.9%	17.7%	14.5%	14.2%
S&P 500 High Dividend	19.2%	18.5%	22.9%	17.8%	17.5%
S&P 500 Value	14.0%	16.4%	18.3%	15.2%	15.3%
S&P 500 Low Volatility High Dividend	14.3%	16.5%	19.1%	15.3%	14.7%
S&P 500 Minimum Volatility	11.5%	14.9%	15.7%	13.0%	12.1%
S&P 500 Low Volatility	10.6%	14.0%	14.6%	12.3%	11.4%
S&P 500	13.1%	17.4%	18.2%	15.1%	14.8%

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RELATIVE RETURN AND TRACKING	ERROR											
PERFORMANCE v S&P 500	1M	3M	1YR	3YR	5YR	10YR	15YR	TRACKING ERROR v S&P 500 (ANN.)	1YR	3YR	5YR	10Y
S&P 500 High Beta	-0.3%	3.7%	-9.8%	-2.6%	2.5%	-0.4%	2.4%	S&P 500 High Beta	15.9%	13.8%	17.0%	14.0
S&P 500 Buyback	-1.1%	-0.3%	-14.3%	-1.4%	-2.2%	-1.3%	1.7%	S&P 500 Buyback	9.3%	7.6%	8.7%	6.9
S&P 500 Pure Value	-3.1%	-2.5%	-25.8%	-2.9%	-6.6%	-4.8%	1.7%	S&P 500 Pure Value	13.0%	13.1%	14.7%	11.2
S&P 500 Growth	2.0%	2.5%	8.1%	-1.5%	1.1%	1.5%	1.1%	S&P 500 Growth	3.6%	6.2%	5.6%	4.5
S&P 500 Pure Growth	2.9%	3.7%	-11.0%	-8.0%	-4.1%	-2.5%	0.9%	S&P 500 Pure Growth	8.4%	10.0%	8.5%	6.9
S&P 500 Equal Weight	-1.2%	-1.6%	-17.2%	-3.2%	-3.2%	-2.2%	0.3%	S&P 500 Equal Weight	6.7%	5.8%	6.0%	4.7
S&P 500 Revenue-Weighted	-1.1%	-1.4%	-9.3%	1.7%	-0.7%	-0.8%	0.3%	S&P 500 Revenue-Weighted	4.9%	5.9%	5.6%	4.3
S&P 500 Momentum	5.8%	13.4%	15.3%	3.8%	2.1%	1.8%	0.3%	S&P 500 Momentum	10.7%	9.5%	8.8%	7.2
S&P 500 Quality	-0.3%	1.0%	1.1%	1.1%	0.6%	-0.3%	0.2%	S&P 500 Quality	3.9%	4.4%	4.1%	3.4
S&P 500 Enhanced Value	-1.5%	0.4%	-18.0%	-1.1%	-5.3%	-3.3%	0.1%	S&P 500 Enhanced Value	12.1%	11.7%	13.1%	10.3
S&P 500 QVM Top 90%	0.1%	1.0%	-1.6%	0.7%	0.4%	0.2%	0.0%	S&P 500 QVM Top 90%	2.1%	1.7%	1.4%	1.1
S&P 500 Dividend Aristocrats	-2.7%	-4.4%	-20.5%	-2.8%	-4.2%	-1.8%	-0.2%	S&P 500 Dividend Aristocrats	6.9%	7.5%	6.6%	5.6
S&P 500 High Dividend	-4.4%	-4.6%	-28.6%	-5.3%	-9.2%	-4.1%	-0.3%	S&P 500 High Dividend	12.0%	12.0%	13.2%	10.6
S&P 500 Value	-2.3%	-2.9%	-8.8%	0.9%	-2.3%	-2.3%	-1.6%	S&P 500 Value	4.1%	6.6%	6.3%	5.1
S&P 500 Low Volatility High Dividend	-3.8%	-6.6%	-27.2%	-4.8%	-9.8%	-4.1%	-1.8%	S&P 500 Low Volatility High Dividend	7.8%	11.3%	10.6%	9.2
S&P 500 Minimum Volatility	-2.2%	-3.1%	-11.4%	-1.8%	-3.8%	-1.6%	-2.0%	S&P 500 Minimum Volatility	5.5%	6.0%	5.6%	5.2
S&P 500 Low Volatility	-3.7%	-6.9%	-23.6%	-3.8%	-7.8%	-3.3%	-3.3%	S&P 500 Low Volatility	7.3%	9.7%	9.8%	8.4
Perfor	mance figu	ıres for	more th	an one	year a	re annu	alized.					

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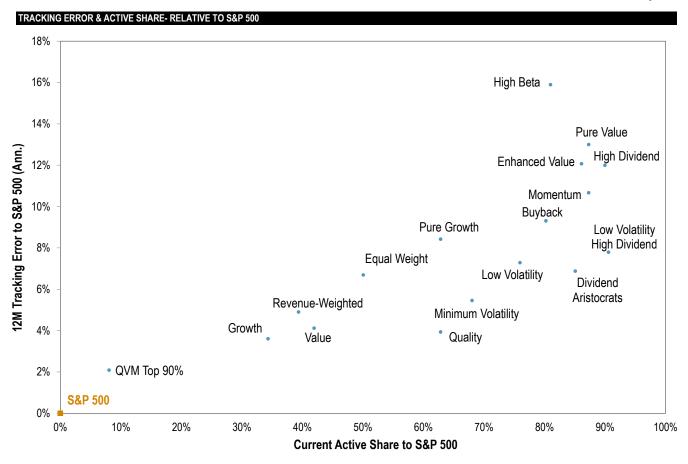
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S&P 500 Momentum	100%	34%	29%	26%	12%	16%	27%	8%	2%	2%	20%	17%	21%	4%	15%	11%	12%	26%
S&P 500 Growth	34%	100%	36%	35%	13%	25%	64%	7%	3%	3%	34%	24%	30%	3%	15%	3%	19%	66%
S&P 500 Quality	29%	36%	100%	18%	19%	22%	41%	18%	7%	5%	26%	28%	20%	7%	21%	12%	14%	37%
S&P 500 Pure Growth	26%	35%	18%	100%	5%	20%	26%	5%	4%	4%	17%	5%	17%	5%	25%	7%	29%	28%
S&P 500 Low Volatility	12%	13%	19%	5%	100%	25%	24%	31%	17%	17%	22%	32%	22%	10%	18%	8%	4%	24%
S&P 500 Minimum Volatility	16%	25%	22%	20%	25%	100%	30%	14%	14%	10%	25%	25%	16%	10%	11%	8%	12%	32%
S&P 500 QVM Top 90%	27%	64%	41%	26%	24%	30%	100%	15%	9%	9%	58%	56%	47%	13%	20%	15%	17%	92%
S&P 500 Dividend Aristocrats	8%	7%	18%	5%	31%	14%	15%	100%	18%	14%	18%	24%	15%	9%	13%	9%	8%	15%
S&P 500 Low Volatility High Dividend	2%	3%	7%	4%	17%	14%	9%	18%	100%	54%	13%	17%	12%	15%	8%	13%	4%	9%
S&P 500 High Dividend	2%	3%	5%	4%	17%	10%	9%	14%	54%	100%	15%	19%	17%	30%	8%	19%	21%	10%
S&P 500 Revenue-Weighted	20%	34%	26%	17%	22%	25%	58%	18%	13%	15%	100%	62%	51%	36%	28%	36%	17%	61%
S&P 500 Value	17%	24%	28%	5%	32%	25%	56%	24%	17%	19%	62%	100%	56%	23%	20%	27%	12%	58%
S&P 500 Equal Weight	21%	30%	20%	17%	22%	16%	47%	15%	12%	17%	51%	56%	100%	22%	23%	21%	24%	50%
S&P 500 Pure Value	4%	3%	7%	5%	10%	10%	13%	9%	15%	30%	36%	23%	22%	100%	23%	50%	25%	13%
S&P 500 Buyback	15%	15%	21%	25%	18%	11%	20%	13%	8%	8%	28%	20%	23%	23%	100%	27%	21%	20%
S&P 500 Enhanced Value	11%	3%	12%	7%	8%	8%	15%	9%	13%	19%	36%	27%	21%	50%	27%	100%	15%	14%
S&P 500 High Beta	12%	19%	14%	29%	4%	12%	17%	8%	4%	21%	17%	12%	24%	25%	21%	15%	100%	19%

<sup>&</sup>quot;Portfolio Overlap" is percentage of index weights held in common between any two indices.

RELATIVE RETURN CORRELATIONS																	
		S&P 500	Sasson	Skraniy	S&P SOOM	S&P 500 LOANING	S&P 500 C.	S&P 300.	S&P 500,	S&P SOUTH HIGH DIVIS	S&P 500 5	S&P SQU L	5.8p. 500 E	Sap 300 c	S&P 300 E	Skr Snr E	S&P 50 High Pess
S&P 500 Momentum	1.00	0.21	0.37	0.34	0.16	0.10	0.12	-0.30	-0.30	-0.38	-0.22	-0.29	-0.38	-0.37	-0.31	-0.35	-0.54
S&P 500 Growth	0.21	1.00	-0.10	0.47	-0.52	-0.43	-0.38	-0.81	-0.86	-0.82	-0.86	-0.98	-0.75	-0.78	-0.63	-0.76	-0.32
S&P 500 Quality	0.37	-0.10	1.00	0.03	-0.02	0.07	0.04	0.03	-0.15	-0.20	0.03	0.06	-0.15	-0.18	-0.12	-0.15	-0.29
S&P 500 Pure Growth	0.34	0.47	0.03	1.00	-0.31	-0.26	0.08	-0.44	-0.41	-0.27	-0.42	-0.46	-0.03	-0.20	0.06	-0.16	0.15
S&P 500 Low Volatility	0.16	-0.52	-0.02	-0.31	1.00	0.82	0.38	0.60	0.60	0.37	0.34	0.48	0.24	0.16	0.15	0.18	-0.36
S&P 500 Minimum Volatility	0.10	-0.43	0.07	-0.26	0.82	1.00	0.29	0.54	0.50	0.25	0.28	0.40	0.16	0.05	0.03	0.06	-0.38
S&P 500 QVM Top 90%	0.12	-0.38	0.04	0.08	0.38	0.29	1.00	0.32	0.45	0.44	0.23	0.36	0.45	0.43	0.52	0.46	0.17
S&P 500 Dividend Aristocrats	-0.30	-0.81	0.03	-0.44	0.60	0.54	0.32	1.00	0.82	0.70	0.76	0.83	0.69	0.59	0.54	0.59	0.22
S&P 500 Low Volatility High Dividend	-0.30	-0.86	-0.15	-0.41	0.60	0.50	0.45	0.82	1.00	0.92	0.79	0.88	0.79	0.78	0.69	0.78	0.36
S&P 500 High Dividend	-0.38	-0.82	-0.20	-0.27	0.37	0.25	0.44	0.70	0.92	1.00	0.79	0.86	0.88	0.92	0.81	0.91	0.60
S&P 500 Revenue-Weighted	-0.22	-0.86	0.03	-0.42	0.34	0.28	0.23	0.76	0.79	0.79	1.00	0.88	0.73	0.79	0.64	0.80	0.40
S&P 500 Value	-0.29	-0.98	0.06	-0.46	0.48	0.40	0.36	0.83	0.88	0.86	0.88	1.00	0.81	0.81	0.67	0.80	0.41
S&P 500 Equal Weight	-0.38	-0.75	-0.15	-0.03	0.24	0.16	0.45	0.69	0.79	0.88	0.73	0.81	1.00	0.90	0.91	0.89	0.75
S&P 500 Pure Value	-0.37	-0.78	-0.18	-0.20	0.16	0.05	0.43	0.59	0.78	0.92	0.79	0.81	0.90	1.00	0.87	0.96	0.73
S&P 500 Buyback	-0.31	-0.63	-0.12	0.06	0.15	0.03	0.52	0.54	0.69	0.81	0.64	0.67	0.91	0.87	1.00	0.89	0.72
S&P 500 Enhanced Value	-0.35	-0.76	-0.15	-0.16	0.18	0.06	0.46	0.59	0.78	0.91	0.80	0.80	0.89	0.96	0.89	1.00	0.71
S&P 500 High Beta	-0.54	-0.32	-0.29	0.15	-0.36	-0.38	0.17	0.22	0.36	0.60	0.40	0.41	0.75	0.73	0.72	0.71	1.00
Correlation of weekly excess total re	turns (ve	rsus S&I	9 500), la	ast three	years												

Index Dashboard: S&P 500® Factor Indices

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INDEX	PAGE No.	LOW VOLATILITY	MOMENTUM	VALUE	HIGH BETA	DIVIDEND	QUALITY	SMALL SIZE
S&P 500 Low Volatility	7	66.0%	-28.8%	25.4%	-57.2%	41.4%	0.4%	38.4%
S&P 500 Minimum Volatility	7	10.8%	-19.2%	7.7%	-29.6%	25.5%	-13.2%	17.9%
S&P 500 Low Volatility High Dividend	8	25.2%	-73.2%	60.9%	-43.2%	91.3%	-35.2%	60.0%
S&P 500 High Dividend	8	-11.7%	-71.3%	64.1%	0.9%	91.0%	-42.8%	70.3%
S&P 500 Quality	9	8.1%	2.9%	-3.1%	-2.1%	3.5%	36.1%	7.2%
S&P 500 Dividend Aristocrats	9	25.2%	-42.7%	28.9%	-20.9%	50.2%	-9.2%	49.1%
S&P 500 Momentum	10	-29.6%	49.2%	-7.5%	8.7%	-16.0%	-2.8%	13.4%
S&P 500 Revenue-Weighted	10	3.3%	-21.9%	62.9%	-20.9%	28.9%	-13.7%	17.9%
S&P 500 QVM Top 90%	11	1.9%	3.8%	2.8%	-2.1%	-0.7%	1.2%	-5.4%
S&P 500 Growth	11	-22.9%	35.3%	-26.1%	14.5%	-25.1%	10.8%	-40.8%
S&P 500 Value	12	14.6%	-42.7%	46.8%	-19.1%	43.0%	-15.7%	30.9%
S&P 500 Pure Growth	12	-53.3%	25.2%	-11.0%	47.0%	-33.7%	-1.8%	21.7%
S&P 500 Pure Value	13	-38.9%	-56.4%	90.5%	0.9%	58.4%	-33.8%	58.9%
S&P 500 Buyback	13	-8.8%	-21.8%	57.9%	0.2%	3.5%	2.0%	50.2%
S&P 500 High Beta	14	-81.5%	-42.7%	40.9%	79.1%	11.3%	-31.9%	42.1%
S&P 500 Enhanced Value	14	-10.1%	-46.8%	89.7%	-8.2%	58.2%	-37.8%	32.2%
S&P 500 Equal Weight	15	-13.6%	-42.7%	37.0%	2.3%	28.3%	-13.2%	49.1%

Index Dashboard: S&P 500® Factor Indices

Low Volatility

February 2024

Momentum

Value

Benchmark

#### S&P 500 Low Volatility

#### Description

The S&P 500 Low Volatility is designed to measure the performance of the 100 stocks in the S&P 500 with the lowest volatility, measured on a 1-year trailing basis. The weighting of each stock is in inverse proportion to its volatility. As of February 29, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	1.7%	5.1%	2.7%	6.9%	8.1%	7.0%	9.4%	12.7%
Relative to Benchmark	-3.7%	-6.9%	-4.4%	-23.6%	-3.8%	-7.8%	-3.3%	-3.3%
Index Volatility				10.6%	14.0%	14.6%	12.3%	11.4%
Tracking Error				7.3%	9.7%	9.8%	8.4%	8.5%

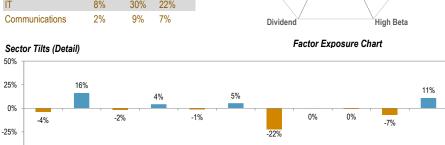
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.6

Portfolio Statistics	Index	Bmark
Active Share (Stock)	76%	0%
Active Share (Sector)	37%	0%
Concentration (HH Index)	99.2	169.3
Correlation (stock)	0.52	0.43
Ann. Turnover (last 10 yr)	0.64	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	18%	26%
12M - 1M price return	10%	37%
Book/Price	0.25	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.44	0.36
Stock Beta	0.61	1.02
Yield (12M trailing)	2.3%	1.4%
R.O.E.	31%	35%
Market Cap (U.S. \$ bn)	133.1	755.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Difference
Cons. Staples	22%	6%	16%
Utilities	13%	2%	11%
IT	8%	30%	22%
Communications	2%	9%	7%



Small Size

Quality

#### **S&P 500 Minimum Volatility**

#### Description

The S&P 500 Minimum Volatility uses an optimization process to find the portfolio of S&P 500 stocks, and weights, that would have demonstrated the lowest volatility on a historical basis, subject to constraints maintaining limiting sector and factor exposures. As of February 29, 2024 the index comprised 75 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	3.1%	8.8%	6.1%	19.0%	10.1%	11.0%	11.1%	14.1%
Relative to Benchmark	-2.2%	-3.1%	-1.0%	-11.4%	-1.8%	-3.8%	-1.6%	-2.0%
Index Volatility				11.5%	14.9%	15.7%	13.0%	12.1%
Tracking Error				5.5%	6.0%	5.6%	5.2%	5.6%

-50%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.77

Portfolio Statistics	Index	Bmark
Active Share (Stock)	68%	0%
Active Share (Sector)	21%	0%
Concentration (HH Index)	187.4	169.3
Correlation (stock)	0.35	0.43
Ann. Turnover (last 10 yr)	0.30	0.04

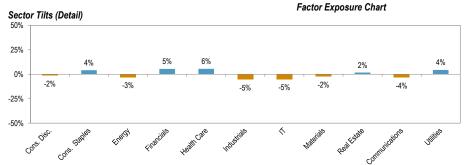
Index-Weighted Avg.	Index	Bmark
Stock Volatility	24%	26%
12M - 1M price return	24%	37%
Book/Price	0.24	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.33	0.36
Stock Beta	0.80	1.02
Yield (12M trailing)	1.9%	1.4%
R.O.E.	31%	35%
Market Cap (U.S. \$ bn)	406.2	755.6

#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Differenc
Health Care	18%	13%	6%
Financials	18%	13%	5%
Industrials	3%	9%	5%
IT	25%	30%	5%



Low Volatility



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Index Dashboard: S&P 500® Factor Indices

February 2024

#### S&P 500 Low Volatility High Dividend

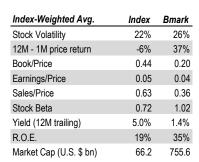
#### Description

The S&P 500 Low Volatility High Dividend measures the performance of the 50 least-volatile high dividend-yielding stocks in the S&P 500. Each component is weighted proportionally to its dividend yield, subject to single stock and sector constraints. As of February 29, 2024 the index comprised 50 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	1.5%	5.4%	0.6%	3.3%	7.1%	5.0%	8.6%	14.2%
Relative to Benchmark	-3.8%	-6.6%	-6.5%	-27.2%	-4.8%	-9.8%	-4.1%	-1.8%
Index Volatility				14.3%	16.5%	19.1%	15.3%	14.7%
Tracking Error				7.8%	11.3%	10.6%	9.2%	8.9%

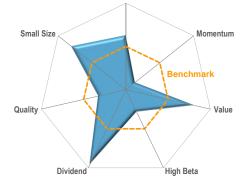
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.77

Portfolio Statistics	Index	Bmark
Active Share (Stock)	91%	0%
Active Share (Sector)	53%	0%
Concentration (HH Index)	204.1	169.3
Correlation (stock)	0.52	0.43
Ann Turnover (last 10 vr)	0.67	0.04



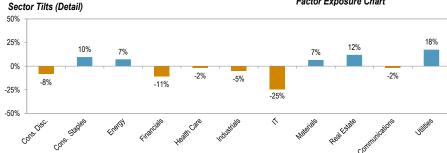
#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Utilities	20%	2%	18%	
Real Estate	14%	2%	12%	
IT	5%	30%	25%	
Financials	2%	13%	11%	



Low Volatility

### Factor Exposure Chart



#### S&P 500 High Dividend

#### Description

The S&P 500 High Dividend is constructed from the 80 constituents of the S&P 500 with the highest indicated dividend yield. The index is equal weighted. As of February 29, 2024 the index comprised 80 constituents.

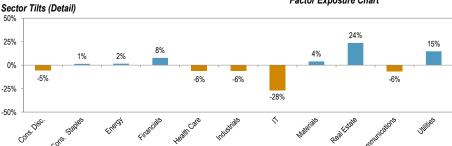
Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	0.9%	7.4%	-0.8%	1.8%	6.6%	5.6%	8.6%	15.7%
Relative to Benchmark	-4.4%	-4.6%	-7.9%	-28.6%	-5.3%	-9.2%	-4.1%	-0.3%
Index Volatility				19.2%	18.5%	22.9%	17.8%	17.5%
Tracking Error				12.0%	12.0%	13.2%	10.6%	10.4%

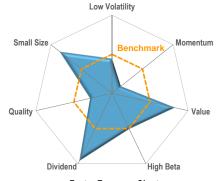
1 Yr trailing beta to benchmark = 0.9 Benchmark: S&P 500.

Portfolio Statistics	Index	Bmark
Active Share (Stock)	90%	0%
Active Share (Sector)	53%	0%
Concentration (HH Index)	123.8	169.3
Correlation (stock)	0.44	0.43
Ann. Turnover (last 10 yr)	1.14	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	27%	26%
12M - 1M price return	-7%	37%
Book/Price	0.55	0.20
Earnings/Price	0.05	0.04
Sales/Price	0.64	0.36
Stock Beta	1.03	1.02
Yield (12M trailing)	4.9%	1.4%
R.O.E.	15%	35%
Market Cap (U.S. \$ bn)	47.3	755.6

Sector	Index	Bmark	Diff.			
Real Estate	26%	2%	24%			
Utilities	17%	2%	15%			
IT	1%	30%	28%			
Communications	2%	9%	6%			





Factor Exposure Chart

A Division of S&P Global

Index Dashboard: S&P 500® Factor Indices

February 2024

#### S&P 500 Quality

#### Description

The S&P 500 Quality is designed to track the 100 stocks in the S&P 500 with the highest quality score, which is calculated based on return on equity, accruals ratio and financial leverage ratio. The weighting is proportional to both the quality score, and the market capitalization, of each component, subject to single stock and sector constraints. As of February 29, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	5.0%	13.0%	8.2%	31.6%	13.0%	15.4%	12.4%	16.3%
Relative to Benchmark	-0.3%	1.0%	1.1%	1.1%	1.1%	0.6%	-0.3%	0.2%
Index Volatility				11.9%	16.7%	17.2%	14.5%	14.1%
Tracking Error				3.9%	4.4%	4.1%	3.4%	3.4%

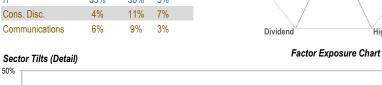
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.95

Portfolio Statistics	Index	Bmark
Active Share (Stock)	63%	0%
Active Share (Sector)	16%	0%
Concentration (HH Index)	295.6	169.3
Correlation (stock)	0.41	0.43
Ann. Turnover (last 10 vr)	0.59	0.04

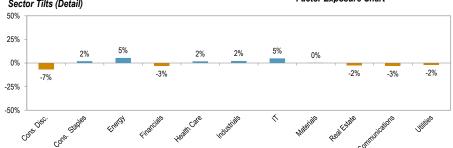


#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Energy	9%	4%	5%	
IT	35%	30%	5%	
Cons. Disc.	4%	11%	7%	
Communications	6%	9%	3%	







#### **S&P 500 Dividend Aristocrats**

#### Description

The S&P 500 Dividend Aristocrats measures the performance S&P 500 companies that have increased dividends every year for the last 25 consecutive years. The Index is equally weighted at each rebalance. As of February 29, 2024 the index comprised 67 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	2.7%	7.6%	2.3%	9.9%	9.1%	10.5%	10.9%	15.8%
Relative to Benchmark	-2.7%	-4.4%	-4.8%	-20.5%	-2.8%	-4.2%	-1.8%	-0.2%
Index Volatility				15.2%	16.9%	17.7%	14.5%	14.2%
Tracking Error				6.9%	7.5%	6.6%	5.6%	5.4%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.82

Portfolio Statistics	Index	Bmark
Active Share (Stock)	85%	0%
Active Share (Sector)	47%	0%
Concentration (HH Index)	148.0	169.3
Correlation (stock)	0.46	0.43
Ann. Turnover (last 10 yr)	0.19	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	22%	26%
12M - 1M price return	7%	37%
Book/Price	0.27	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.54	0.36
Stock Beta	0.86	1.02
Yield (12M trailing)	2.5%	1.4%
R.O.E.	27%	35%
Market Cap (U.S. \$ bn)	91.9	755.6

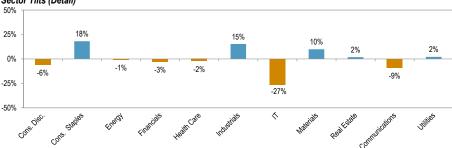
#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Cons. Staples	24%	6%	18%	
Industrials	24%	9%	15%	
IT	3%	30%	27%	
Communications	00/	Ω0/.	Ω0/.	

Sector Tilts (Detail)



Factor Exposure Chart



Index Dashboard: S&P 500® Factor Indices

February 2024

#### S&P 500 Momentum

#### Description

The S&P 500 Momentum comprises the top 100 stocks in the S&P 500 based on 12M prior risk-adjusted performance (excluding the most recent month at the rebalance). The weighting is inversely proportional to the trailing volatility of each component, subject to single stock and sector constraints. As of February 29, 2024 the index comprised 100 constituents.

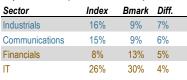
Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	11.2%	25.4%	17.7%	45.7%	15.7%	16.8%	14.5%	16.3%
Relative to Benchmark	5.8%	13.4%	10.5%	15.3%	3.8%	2.1%	1.8%	0.3%
Index Volatility				16.1%	18.8%	17.9%	15.3%	15.0%
Tracking Error				10.7%	9.5%	8.8%	7.2%	6.8%

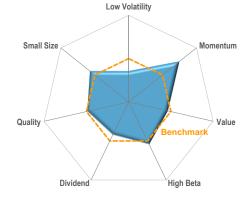
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.72

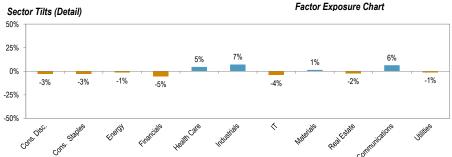
Portfolio Statistics	Index	Bmark
Active Share (Stock)	87%	0%
Active Share (Sector)	20%	0%
Concentration (HH Index)	139.9	169.3
Correlation (stock)	0.30	0.43
Ann. Turnover (last 10 yr)	1.12	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	29%	26%
12M - 1M price return	77%	37%
Book/Price	0.14	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.32	0.36
Stock Beta	1.11	1.02
Yield (12M trailing)	0.9%	1.4%
R.O.E.	37%	35%
Market Cap (U.S. \$ bn)	546.9	755.6

#### Top Sector Tilts (versus benchmark) Sector Index Bmark Diff. Industrials 16% 9% 7% Communications 15% 9% 6%







#### S&P 500 Revenue-Weighted

#### Description

The S&P 500 Revenue-Weighted comprises all the constituents of the S&P 500, weighted in proportion to revenues. As of February 29, 2024 the index comprised 503 constituents.

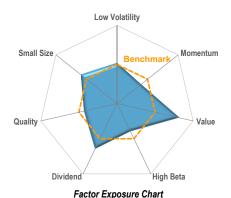
Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	4.2%	10.6%	5.4%	21.1%	13.6%	14.1%	11.8%	16.3%
Relative to Benchmark	-1.1%	-1.4%	-1.7%	-9.3%	1.7%	-0.7%	-0.8%	0.3%
Index Volatility				12.2%	16.5%	18.4%	15.4%	15.6%
Tracking Error				4.9%	5.9%	5.6%	4.3%	4.0%

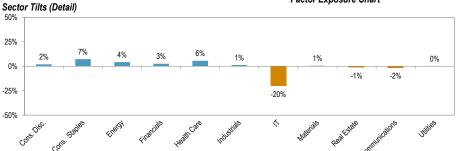
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.88

Portfolio Statistics	Index	Bmark
Active Share (Stock)	39%	0%
Active Share (Sector)	23%	0%
Concentration (HH Index)	94.5	169.3
Correlation (stock)	0.36	0.43
Ann. Turnover (last 10 yr)	0.19	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	25%	26%
12M - 1M price return	16%	37%
Book/Price	0.33	0.20
Earnings/Price	0.05	0.04
Sales/Price	1.05	0.36
Stock Beta	0.86	1.02
Yield (12M trailing)	2.0%	1.4%
R.O.E.	27%	35%
Market Cap (U.S. \$ bn)	347.5	755.6

Sector	Index	Bmark	Diff.
Cons. Staples	13%	6%	7%
Health Care	18%	13%	6%
IT	9%	30%	20%
Communications	7%	9%	2%





Index Dashboard: S&P 500® Factor Indices

February 2024

## A Division of S&P Global S&P 500 QVM Top 90%

#### Description

The S&P 500 Quality, Value & Momentum Top 90% Multi-factor Index is designed to measure the performance of 90% of the stocks within the S&P 500, after excluding those with the lowest quality, value, and momentum as determined by a multi-factor score. As of February 29, 2024 the index comprised 450 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	5.5%	12.9%	8.1%	28.9%	12.6%	15.1%	12.9%	16.1%
Relative to Benchmark	0.1%	1.0%	1.0%	-1.6%	0.7%	0.4%	0.2%	0.0%
Index Volatility				12.8%	17.0%	17.9%	14.9%	14.7%
Tracking Error				2.1%	1.7%	1.4%	1.1%	1.0%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.97

Portfolio Statistics	Index	Bmark
Active Share (Stock)	8%	0%
Active Share (Sector)	3%	0%
Concentration (HH Index)	199.9	169.3
Correlation (stock)	0.39	0.43
Ann. Turnover (last 10 yr)	0.19	0.04

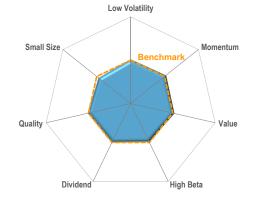
Index-Weighted Avg.	Index	Bmark
Stock Volatility	25%	26%
12M - 1M price return	40%	37%
Book/Price	0.21	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.36	0.36
Stock Beta	1.01	1.02
Yield (12M trailing)	1.4%	1.4%
R.O.E.	35%	35%
Market Cap (U.S. \$ bn)	797.4	755.6

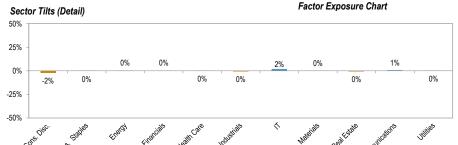
# Top Sector Tilts (versus benchmark) Sector Index Bmark Diff. IT 32% 30% 2%

 Communications
 10%
 9%
 1%

 Cons. Disc.
 9%
 11%
 2%

 Real Estate
 2%
 2%
 0%





#### S&P 500 Growth

#### Description

The S&P 500 Growth is comprises S&P 500 stocks with above-average combinations of the ratio of earnings growth to price, sales growth, and momentum. The weighting is by capitalization, although the weight of some stocks is divided between the Value and Growth indices. As of February 29, 2024 the index comprised 225 constituents.

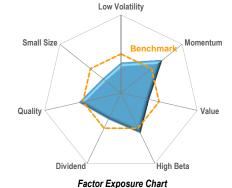
Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	7.3%	14.5%	10.4%	38.6%	10.4%	15.9%	14.2%	17.1%
Relative to Benchmark	2.0%	2.5%	3.3%	8.1%	-1.5%	1.1%	1.5%	1.1%
Index Volatility				13.4%	20.4%	19.9%	16.4%	15.5%
Tracking Error				3.6%	6.2%	5.6%	4.5%	4.0%

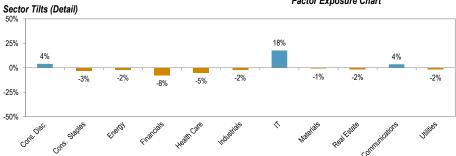
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.15

Portfolio Statistics	Index	Bmark
Active Share (Stock)	34%	0%
Active Share (Sector)	25%	0%
Concentration (HH Index)	492.2	169.3
Correlation (stock)	0.52	0.43
Ann. Turnover (last 10 yr)	0.25	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	28%	26%
12M - 1M price return	62%	37%
Book/Price	0.09	0.20
Earnings/Price	0.03	0.04
Sales/Price	0.18	0.36
Stock Beta	1.15	1.02
Yield (12M trailing)	0.7%	1.4%
R.O.E.	44%	35%
Market Cap (U.S. \$ bn)	1225.6	755.6

Sector	Index	Bmark	Diff.	
IT	47%	30%	18%	
Cons. Disc.	15%	11%	4%	
Financials	5%	13%	8%	
Health Care	7%	13%	5%	





#### Index Dashboard: S&P 500® Factor Indices February 2024

Momentum

Low Volatility

#### S&P 500 Value

#### Description

The S&P 500 Value comprises S&P 500 stocks with above-average combinations of book value-to-price, earnings-to-price, and sales-to-price. The weighting is by capitalization, although the weight of some stocks is divided between the Value and Growth indices. As of February 29, 2024 the index comprised 444 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	3.0%	9.1%	3.4%	21.7%	12.8%	12.5%	10.4%	14.5%
Relative to Benchmark	-2.3%	-2.9%	-3.8%	-8.8%	0.9%	-2.3%	-2.3%	-1.6%
Index Volatility				14.0%	16.4%	18.3%	15.2%	15.3%
Tracking Error				4.1%	6.6%	6.3%	5.1%	4.4%

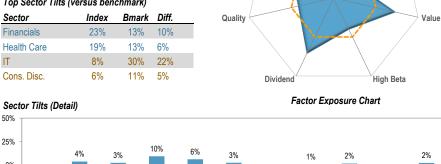
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.86

Portfolio Statistics	Index	Bmark
Active Share (Stock)	42%	0%
Active Share (Sector)	31%	0%
Concentration (HH Index)	74.5	169.3
Correlation (stock)	0.41	0.43
Ann. Turnover (last 10 yr)	0.27	0.04

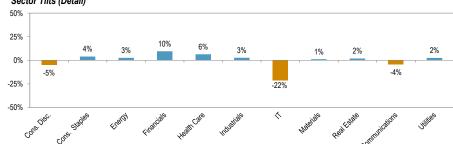
Index-Weighted Avg.	Index	Bmark
Stock Volatility	23%	26%
12M - 1M price return	6%	37%
Book/Price	0.34	0.20
Earnings/Price	0.05	0.04
Sales/Price	0.58	0.36
Stock Beta	0.87	1.02
Yield (12M trailing)	2.3%	1.4%
R.O.E.	24%	35%
Market Cap (U.S. \$ bn)	181.3	755.6

## Top Sector Tilts (versus benchmark)

Sector	inaex	Bmark	DIΠ.	
Financials	23%	13%	10%	
Health Care	19%	13%	6%	
IT	8%	30%	22%	
Cons. Disc.	6%	11%	5%	



Small Size



#### S&P 500 Pure Growth

#### Description

The S&P 500 Pure Growth comprises those S&P 500 stocks with 100% of their market cap in the S&P 500 Growth index and a growth score in the highest quartile. The weighting is proportional to the growth score. As of February 29, 2024 the index comprised 59 constituents.

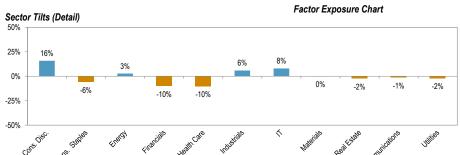
Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	8.2%	15.7%	10.8%	19.4%	3.9%	10.7%	10.2%	16.9%
Relative to Benchmark	2.9%	3.7%	3.6%	-11.0%	-8.0%	-4.1%	-2.5%	0.9%
Index Volatility				14.7%	21.7%	21.8%	17.9%	17.8%
Tracking Error				8.4%	10.0%	8.5%	6.9%	6.7%

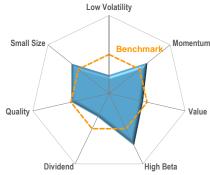
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.13

Portfolio Statistics	Index	Bmark
Active Share (Stock)	63%	0%
Active Share (Sector)	32%	0%
Concentration (HH Index)	295.6	169.3
Correlation (stock)	0.41	0.43
Ann. Turnover (last 10 yr)	0.67	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	33%	26%
12M - 1M price return	60%	37%
Book/Price	0.12	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.27	0.36
Stock Beta	1.35	1.02
Yield (12M trailing)	0.5%	1.4%
R.O.E.	35%	35%
Market Cap (U.S. \$ bn)	296.8	755.6

Sector	Index	Bmark	Diff.
Cons. Disc.	26%	11%	16%
IT	38%	30%	8%
Health Care	2%	13%	10%
Financials	3%	13%	10%





A Division of S&P Global

Index Dashboard: S&P 500® Factor Indices February 2024

Benchmark

Momentum

Value

Low Volatility

#### S&P 500 Pure Value

#### Description

The S&P 500 Pure Value comprises S&P 500 stocks with 100% of their market cap in the S&P 500 Value index and a value score in the highest quartile. The weighting is proportional to the value score. As of February 29, 2024 the index comprised 99 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	2.2%	9.5%	1.5%	4.6%	9.0%	8.1%	7.9%	17.7%
Relative to Benchmark	-3.1%	-2.5%	-5.6%	-25.8%	-2.9%	-6.6%	-4.8%	1.7%
Index Volatility				20.5%	20.6%	25.8%	20.8%	22.2%
Tracking Error				13.0%	13.1%	14.7%	11.2%	12.3%

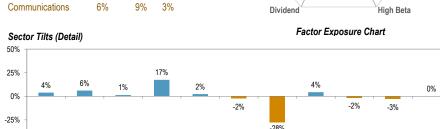
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.92

Portfolio Statistics	Index	Bmark
Active Share (Stock)	87%	0%
Active Share (Sector)	36%	0%
Concentration (HH Index)	139.9	169.3
Correlation (stock)	0.39	0.43
Ann. Turnover (last 10 yr)	0.41	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	31%	26%
12M - 1M price return	-2%	37%
Book/Price	0.69	0.20
Earnings/Price	0.06	0.04
Sales/Price	1.80	0.36
Stock Beta	1.03	1.02
Yield (12M trailing)	2.9%	1.4%
R.O.E.	14%	35%
Market Cap (U.S. \$ bn)	68.3	755.6

#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Financials	30%	13%	17%	
Cons. Staples	12%	6%	6%	
IT	2%	30%	28%	
Communications	6%	9%	3%	



Small Size

Quality

# -28% -50% 4

#### S&P 500 Buyback

#### Description

The S&P 500 Buyback is designed to measure the performance of the top 100 stocks in the S&P 500 by buyback ratio. The components are equally weighted. As of February 29, 2024 the index comprised 100 constituents.

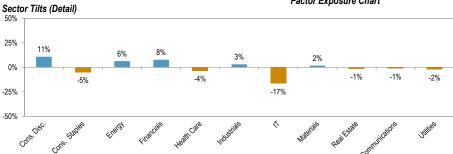
Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	4.2%	11.7%	4.9%	16.2%	10.5%	12.6%	11.4%	17.7%
Relative to Benchmark	-1.1%	-0.3%	-2.2%	-14.3%	-1.4%	-2.2%	-1.3%	1.7%
Index Volatility				16.7%	18.6%	21.9%	18.1%	17.6%
Tracking Error				9.3%	7.6%	8.7%	6.9%	6.5%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.99

Portfolio Statistics	Index	Bmark
Active Share (Stock)	80%	0%
Active Share (Sector)	30%	0%
Concentration (HH Index)	96.3	169.3
Correlation (stock)	0.45	0.43
Ann. Turnover (last 10 vr)	0.93	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	27%	26%
12M - 1M price return	18%	37%
Book/Price	0.31	0.20
Earnings/Price	0.06	0.04
Sales/Price	0.77	0.36
Stock Beta	1.03	1.02
Yield (12M trailing)	1.4%	1.4%
R.O.E.	29%	35%
Market Cap (U.S. \$ bn)	89.9	755.6

Sector	Index	Bmark	Diff.	
Cons. Disc.	22%	11%	11%	
Financials	21%	13%	8%	
IT	13%	30%	17%	
Cons Stanles	1%	6%	5%	





Factor Exposure Chart

Index Dashboard: S&P 500® Factor Indices

February 2024

#### S&P 500 High Beta

#### Description

The S&P 500 High Beta is designed to measure the performance of the top 100 stocks in the S&P 500 by sensitivity to market returns. The weighting is in proportional to the beta coefficient of each constituent. As of February 29, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	5.1%	15.7%	2.5%	20.7%	9.3%	17.2%	12.3%	18.4%
Relative to Benchmark	-0.3%	3.7%	-4.6%	-9.8%	-2.6%	2.5%	-0.4%	2.4%
Index Volatility				26.3%	26.6%	31.0%	25.4%	26.5%
Tracking Error				15.9%	13.8%	17.0%	14.0%	14.9%

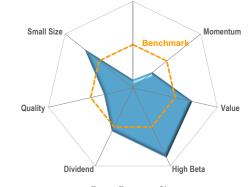
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.44

Portfolio Statistics	Index	Bmark
Active Share (Stock)	81%	0%
Active Share (Sector)	21%	0%
Concentration (HH Index)	97.3	169.3
Correlation (stock)	0.43	0.43
Ann. Turnover (last 10 yr)	0.92	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	40%	26%
12M - 1M price return	13%	37%
Book/Price	36%	20%
Earnings/Price	4%	4%
Sales/Price	59%	36%
Stock Beta	165%	102%
Yield (12M trailing)	1.6%	1.4%
R.O.E.	20%	35%
Market Cap (U.S. \$ bn)	120.0	755.6

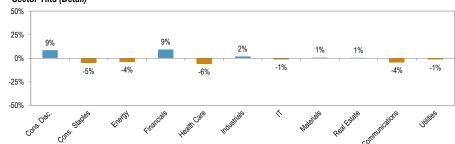
## Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Financials	22%	13%	9%	
Cons. Disc.	19%	11%	9%	
Health Care	7%	13%	6%	
Cons. Staples	1%	6%	5%	



Low Volatility

## Sector Tilts (Detail) Factor Exposure Chart



#### **S&P 500 Enhanced Value**

#### Description

The S&P 500 Enhanced Value is designed to measure the performance of the 100 stocks in the S&P 500 with the highest average book value-to-price, earnings-to-price, and sales-to-price. The weighting is proportional to both the value score and the market capitalization of each component. As of February 29, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	3.8%	12.4%	5.0%	12.5%	10.8%	9.4%	9.3%	16.1%
Relative to Benchmark	-1.5%	0.4%	-2.1%	-18.0%	-1.1%	-5.3%	-3.3%	0.1%
Index Volatility				17.2%	19.9%	24.6%	19.9%	20.1%
Tracking Error				12.1%	11.7%	13.1%	10.3%	10.0%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.95

Portfolio Statistics	Index	Bmark
Active Share (Stock)	86%	0%
Active Share (Sector)	46%	0%
Concentration (HH Index)	254.0	169.3
Correlation (stock)	0.50	0.43
Ann. Turnover (last 10 yr)	0.40	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	27%	26%
12M - 1M price return	5%	37%
Book/Price	0.63	0.20
Earnings/Price	0.08	0.04
Sales/Price	1.31	0.36
Stock Beta	0.96	1.02
Yield (12M trailing)	2.9%	1.4%
R.O.E.	17%	35%
Market Cap (U.S. \$ bn)	171.9	755.6

#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Financials	41%	13%	28%	
Energy	18%	4%	15%	
IT	1%	30%	29%	
0	40/	00/	E0/	

 IT
 1%
 30%
 29%

 Communications
 4%
 9%
 5%

Small Size

Benchmark

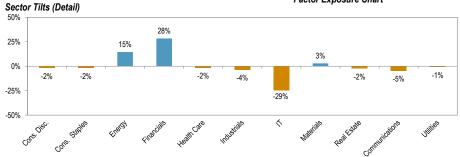
Momentum

Value

Dividend

High Beta

Factor Exposure Chart



Index Dashboard: S&P 500® Factor Indices

Benchmark

Low Volatility

February 2024

Momentum

Value

#### S&P 500 Equal Weight

#### Description

The S&P 500 Equal Weight comprises all the constituents in the S&P 500, equally weighted at each quarterly rebalance. As of February 29, 2024 the index comprised 503 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	4.2%	10.4%	3.3%	13.3%	8.7%	11.6%	10.5%	16.4%
Relative to Benchmark	-1.2%	-1.6%	-3.8%	-17.2%	-3.2%	-3.2%	-2.2%	0.3%
Index Volatility				16.5%	18.1%	20.2%	16.5%	16.9%
Tracking Error				6.7%	5.8%	6.0%	4.7%	4.9%

-50%

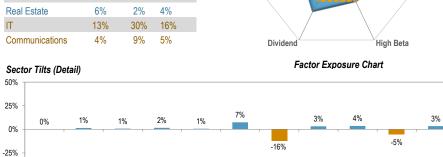
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.97

Portfolio Statistics	Index	Bmark
Active Share (Stock)	50%	0%
Active Share (Sector)	22%	0%
Concentration (HH Index)	19.5	169.3
Correlation (stock)	0.39	0.43
Ann. Turnover (last 10 yr)	0.22	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	27%	26%
12M - 1M price return	10%	37%
Book/Price	0.32	0.20
Earnings/Price	0.04	0.04
Sales/Price	0.57	0.36
Stock Beta	1.05	1.02
Yield (12M trailing)	1.9%	1.4%
R.O.E.	23%	35%
Market Cap (U.S. \$ bn)	92.0	755.6

#### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.	
Industrials	16%	9%	7%	
Real Estate	6%	2%	4%	
IT	13%	30%	16%	
Communications	4%	9%	5%	



Small Size

Quality

## **More Factor Resources**



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### Indexology Blog

Hear directly from thought leader on the latest developments at indexologyblog.com/category/factors



For more about S&P DJI's approach to factors, read "Factor Indices: A Simple Compendium" spglobal.com/spdji/en/research/article/factor-indices-a-simple-compendium

Index Dashboard: S&P 500® Factor Indices

February 2024

#### KEY TO FACTOR SCORINGS FOR INDICES

#### **Factor Definitions**

Each constituent of the S&P 500 index is provided with a factor "score" for each of Beta, Volatility, Momentum, Dividend, Size, Value and Quality.

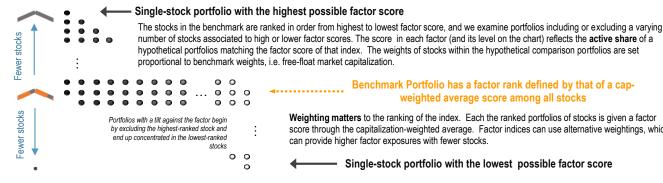


Factor	Measurement at single-stock level						
Volatility	Trailing 12-month daily volatility.						
Momentum	Twelve-month total return change as of one month ago ("13 minus 1 momentum"), divided by th daily volatility during the twelve-month period that ended one month prior. For more details, see the <a href="S&amp;P Momentum">S&amp;P Momentum</a> methodology.						
Value	The average of (normalized) earnings to price ratio, book to price ratio and sales to price ratio. For more details, see the <u>S&amp;P Value</u> methodology.						
Beta	Trailing 1 year beta of daily returns to the benchmark's returns.						
Dividend	Trailing 12-month dividend.						
Quality	The average of the (normalized) return on equity, the negative of the accruals ratio and the negative of the financial leverage ratio. For more details, see the <a href="S&amp;P Quality">S&amp;P Quality</a> methodology. Average and standard deviations for each metric follow below.						
Size	Free-float market capitalization.						

#### Index Factor Ranking and Factor Diagram Scaling

Each index is provided score in each factor from -100% to +100% based on how much of the total capitalization of the benchmark must be excluded in order to provide a portfolio of stocks with similar exposure to that factor. This is done by examining a ranked series of hypothetical cap-weighted portfolios, including or excluding an increasing number of the stocks with the highest or lowest scores. An illustration of the process is below, further details may be found at this link.

#### **Factor Diagram Axis**



Benchmark Portfolio has a factor rank defined by that of a capweighted average score among all stocks

Weighting matters to the ranking of the index. Each the ranked portfolios of stocks is given a factor score through the capitalization-weighted average. Factor indices can use alternative weightings, which can provide higher factor exposures with fewer stocks.

Single-stock portfolio with the lowest possible factor score

#### **Notes On Additional Index Statistics**

Statistic	Notes					
Active Share (Stock)	Ranging from 0 to 100%, "active share" is a measure of how much a portfolio's composition differs from that of its benchmark, and provides the amount of trading theoretically required to switch from a position in one to a position in the other. The Active Share (Stock) for each index is calculated as the absolute sum of difference between S&P 500 stock weights and Index stock weights, divided by two.					
Active Share (Sector)	The Active Share (Sector) is the absolute sum of difference between S&P 500 sector weights and Index sector weights, divided by two.					
Concentration (HH Index)  The Herfindahl-Hirschman ("HH") concentration measure is equal to the index constituent's percentage weights, squared. For example, the HH measure of a 100-stock, equally weighted index is 100.						
Correlation (Stock)	Calculated as the weighted-average 1Yr trailing daily variance of current index constituents, divided by the 1Yr trailing daily Index variance. The value approximates an average stock-to-stock correlation of index constituents, weighted proportionally to both constituent weight and constituent volatility.					

#### Benchmark Statistics for Value, Quality and Momentum (normalization variables)

	VALUE			QUALITY			MOMENTUM	
	Earnings to Price	Book to Price	Sales to Price	Accrual Ratio	Return on Equity	Leverage Ratio	13M - 1M Return	Daily Price Volatility
S&P 500 index-weighted average	0.038	0.201	0.356	8.17%	34.79%	1.25	37.25%	1.66%
S&P 500 index-weighted standard deviation	0.028	0.232	0.476	14.73%	29.02%	1.09	53.23%	0.53%

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#### Performance Disclosure

The S&P 500 Buyback Index was launched November 29, 2012. The S&P 500 Enhanced Value Index was launched April 27, 2015. The S&P 500 Revenue-Weighted was launched on Dec 30, The S&P 500 Buydack index was launched November 29, 2012. The S&P 500 Enhanced Value index was launched April 27, 2015. The S&P 500 Revenue-veighted was launched 2005. The S&P 500 Level Index was launched July 8, 2014. The S&P 500 Pure Growth was launched December 16, 2005. The S&P 500 Moulting Index was launched July 8, 2014. The S&P 500 Equal Weight Index was history for periods of market anomalies or other periods that do not reflect the general current market environment, index mahodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at <a href="https://www.spqlobal.com/spdii">www.spqlobal.com/spdii</a>. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk hat may affect results and may be considered to reflect survivor/look

hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk hat may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, backtested returns—Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only, not for use with retail investors.

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to the index methodology, but that may have been prior to the Index's public release date.

to the index methodology, but that may have been prior to the index's public release date.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate S&P DJI's ESG irdices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of backtested historical performance. Fackward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypotheticalback-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which

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