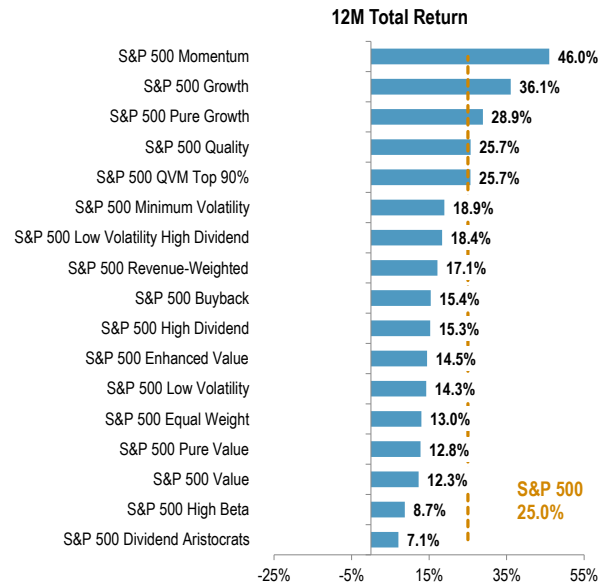
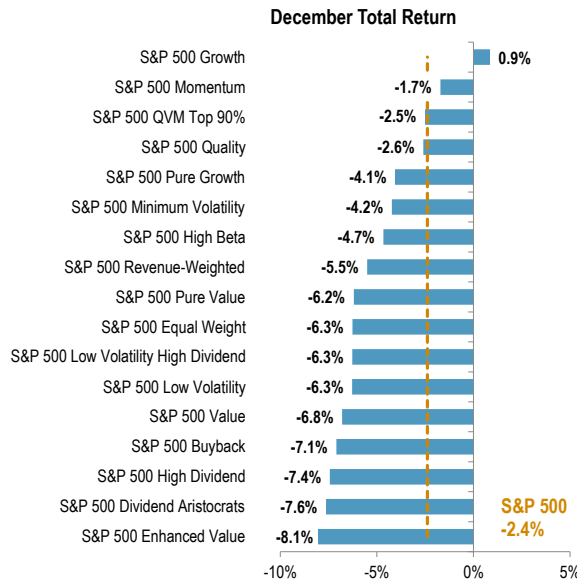


# S&P Dow Jones Indices

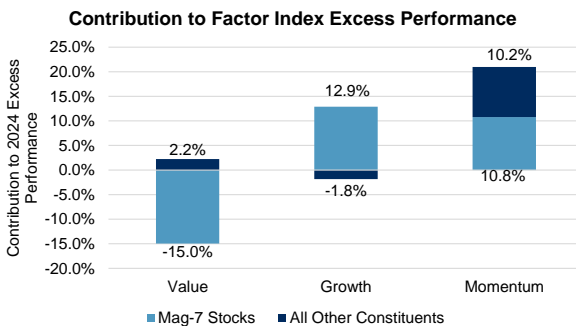
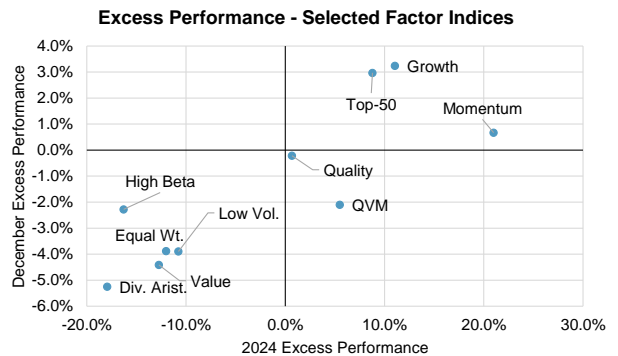
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## MONTHLY AND YTD PERFORMANCE SUMMARY



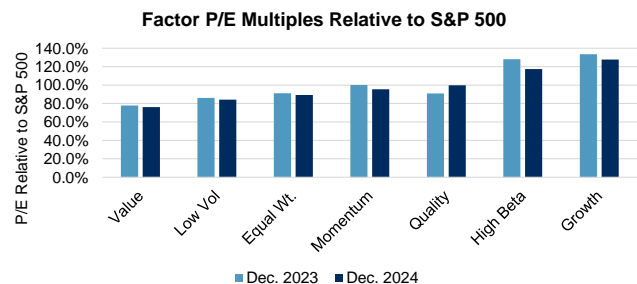
## COMMENTARY

As the saying goes, “the internet is forever”, and a simple search for 2024 market forecasts yields a bounty of well-intentioned yet wildly inaccurate predictions made just 12 months ago. Divining the future is no easy task, and few would have guessed that 2024 would mark the second year in a row of S&P 500 total performance exceeding 20%. While not unprecedented, the last such occurrence was in 1999 when, similar to 2024, the S&P 500 Momentum Index was among the highest factor index outperformers, exceeding the S&P 500 by more than 20% for the year. Our first chart illustrates the excess performance of selected factors over the month of December and for the entirety of 2024. Momentum and Growth maintain persistent leadership positions, while the S&P 500 Top-50 index illustrates the relative strength of mega-cap stocks.



Once again, the S&P 500 Momentum Index features as the highest performer among major factor indices for both the month of December and the full 2024 calendar year. For many non-capitalization-weighted strategies including factor indices, the dominant contribution of Magnificent-7 stocks to the overall performance of the S&P 500 meant that their inclusion or omission was the main driver of positive or negative excess performance. However, Momentum was an exception. In our second chart, we show the contribution to excess performance from Mag-7 stocks and all other stocks across Value, Growth and Momentum indices. While Mag-7 stocks explained the vast majority of Value underperformance and Growth outperformance, only half of Momentum’s 21.0% excess performance was attributable to the Mag-7.

Closing out 2024, we observe valuations for various factor indices as we head into 2025. Our third chart reviews the price-to-earnings (P/E) ratios for a select group of factor indices, relative to the S&P 500 P/E ratio at the end of 2023 and the end of 2024. Notably, as the S&P 500 P/E ratio rose from 25.7 in December 2023 to 29.8 at the end of December 2024, nearly all relative valuations declined slightly over the same period, with Quality the sole exception, rising to a P/E level essentially identical to the broad benchmark.



# S&P Dow Jones Indices

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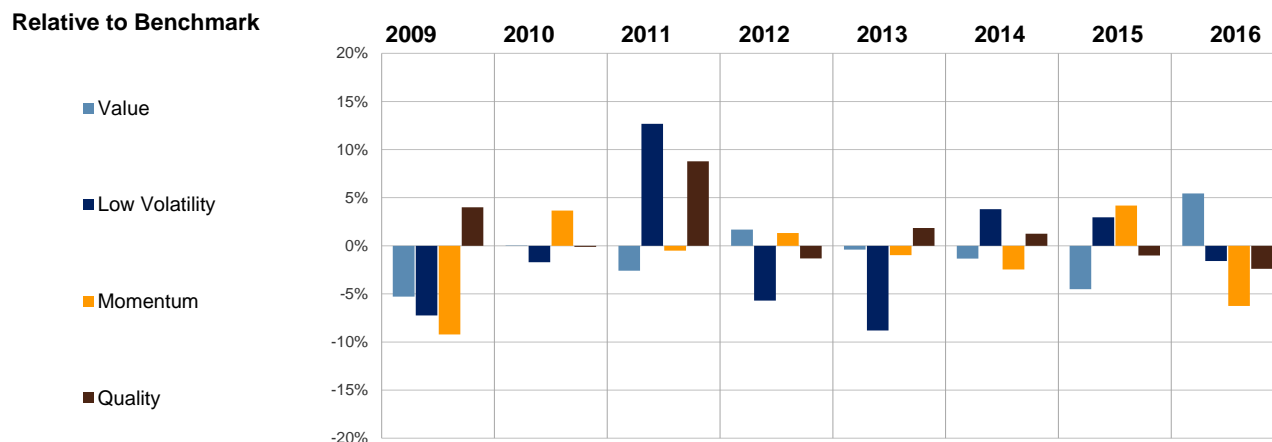
Index Dashboard: S&P 500® Factor Indices

December 2024

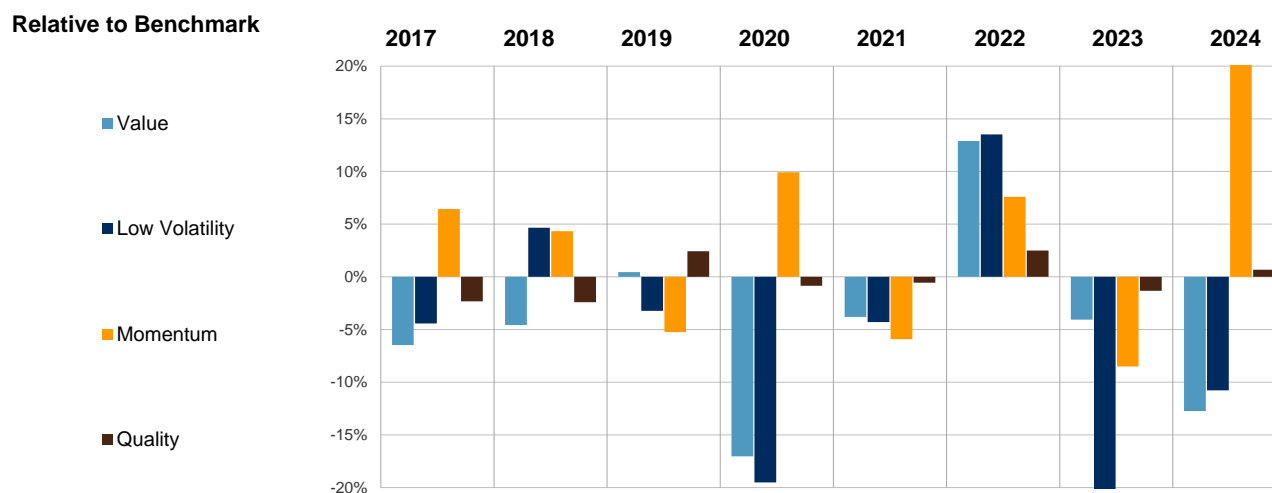
## ANNUAL PERFORMANCE

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%

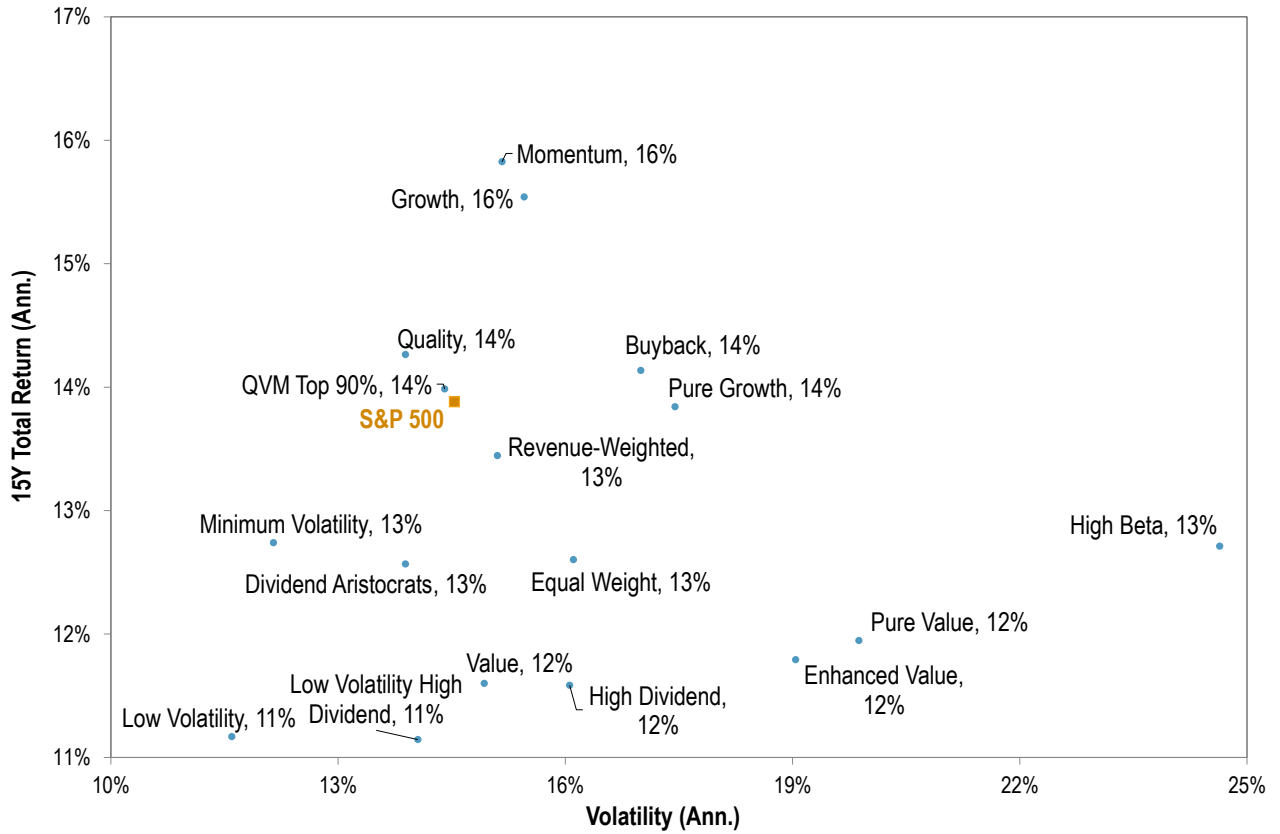


Total Return	2017	2018	2019	2020	2021	2022	2023	2024
Value	15.36%	-8.95%	31.93%	1.36%	24.90%	-5.22%	22.23%	12.29%
Low Volatility	17.41%	0.27%	28.26%	-1.11%	24.42%	-4.59%	0.72%	14.26%
Momentum	28.27%	-0.04%	26.25%	28.32%	22.79%	-10.51%	17.78%	46.01%
Quality	19.51%	-6.79%	33.91%	17.55%	28.16%	-15.62%	24.97%	25.70%
S&P 500	21.83%	-4.38%	31.49%	18.40%	28.71%	-18.11%	26.29%	25.02%



Source: S&P Dow Jones Indices LLC and/or its affiliates. Data as of December 31, 2024. Returns in U.S. dollars.

**15 YEAR RISK & RETURN - ABSOLUTE**



TOTAL RETURN	1M	3M	12M	3Y	5Y	10Y	15Y
S&P 500 Momentum	-1.7%	5.0%	46.0%	15.5%	19.4%	15.9%	15.8%
S&P 500 Growth	0.9%	6.2%	36.1%	7.7%	17.1%	15.3%	15.5%
S&P 500 Quality	-2.6%	-0.1%	25.7%	9.8%	14.8%	12.6%	14.3%
S&P 500 Buyback	-7.1%	-1.7%	15.4%	6.2%	11.5%	11.0%	14.1%
S&P 500 QVM Top 90%	-2.5%	2.0%	25.7%	8.9%	14.7%	13.2%	14.0%
S&P 500 Pure Growth	-4.1%	5.4%	28.9%	0.5%	11.3%	11.1%	13.8%
S&P 500 Revenue-Weighted	-5.5%	0.2%	17.1%	9.2%	13.2%	11.6%	13.4%
S&P 500 Minimum Volatility	-4.2%	-1.5%	18.9%	5.4%	9.6%	10.9%	12.7%
S&P 500 High Beta	-4.7%	-0.5%	8.7%	5.0%	15.5%	11.8%	12.7%
S&P 500 Equal Weight	-6.3%	-1.9%	13.0%	4.5%	10.8%	10.3%	12.6%
S&P 500 Dividend Aristocrats	-7.6%	-6.2%	7.1%	2.9%	8.3%	9.8%	12.6%
S&P 500 Pure Value	-6.2%	2.1%	12.8%	6.6%	8.3%	7.8%	11.9%
S&P 500 Enhanced Value	-8.1%	-0.4%	14.5%	6.6%	8.1%	8.9%	11.8%
S&P 500 Value	-6.8%	-2.7%	12.3%	9.2%	10.5%	10.0%	11.6%
S&P 500 High Dividend	-7.4%	-4.1%	15.3%	5.8%	6.8%	8.3%	11.6%
S&P 500 Low Volatility	-6.3%	-2.0%	14.3%	3.2%	6.2%	8.9%	11.2%
S&P 500 Low Volatility High Dividend	-6.3%	-3.6%	18.4%	6.7%	6.6%	8.6%	11.1%
<b>S&amp;P 500</b>	<b>-2.4%</b>	<b>2.4%</b>	<b>25.0%</b>	<b>8.9%</b>	<b>14.5%</b>	<b>13.1%</b>	<b>13.9%</b>

VOLATILITY (ANN.)	12M	3Y	5Y	10Y	15Y
S&P 500 Momentum	15.7%	19.0%	18.6%	15.8%	15.2%
S&P 500 Growth	11.8%	19.9%	20.1%	16.6%	15.5%
S&P 500 Quality	10.5%	16.7%	17.1%	14.7%	13.9%
S&P 500 Buyback	14.9%	19.2%	21.8%	18.6%	17.0%
S&P 500 QVM Top 90%	10.1%	16.6%	17.7%	15.1%	14.4%
S&P 500 Pure Growth	15.2%	21.4%	22.2%	18.2%	17.4%
S&P 500 Revenue-Weighted	12.3%	16.5%	18.4%	15.7%	15.1%
S&P 500 Minimum Volatility	9.9%	14.2%	15.8%	13.2%	12.1%
S&P 500 High Beta	14.4%	26.8%	30.4%	25.6%	24.6%
S&P 500 Equal Weight	13.0%	18.3%	20.3%	16.8%	16.1%
S&P 500 Dividend Aristocrats	13.7%	16.8%	18.2%	15.0%	13.9%
S&P 500 Pure Value	15.6%	21.2%	25.7%	21.2%	19.9%
S&P 500 Enhanced Value	15.6%	20.3%	24.3%	20.4%	19.0%
S&P 500 Value	12.6%	16.6%	18.2%	15.6%	14.9%
S&P 500 High Dividend	14.2%	19.0%	23.0%	18.1%	16.1%
S&P 500 Low Volatility	11.4%	13.2%	15.3%	12.6%	11.6%
S&P 500 Low Volatility High Dividend	12.6%	16.2%	19.3%	15.6%	14.1%
<b>S&amp;P 500</b>	<b>10.2%</b>	<b>17.2%</b>	<b>18.1%</b>	<b>15.3%</b>	<b>14.5%</b>

Performance figures for more than one year are annualized.

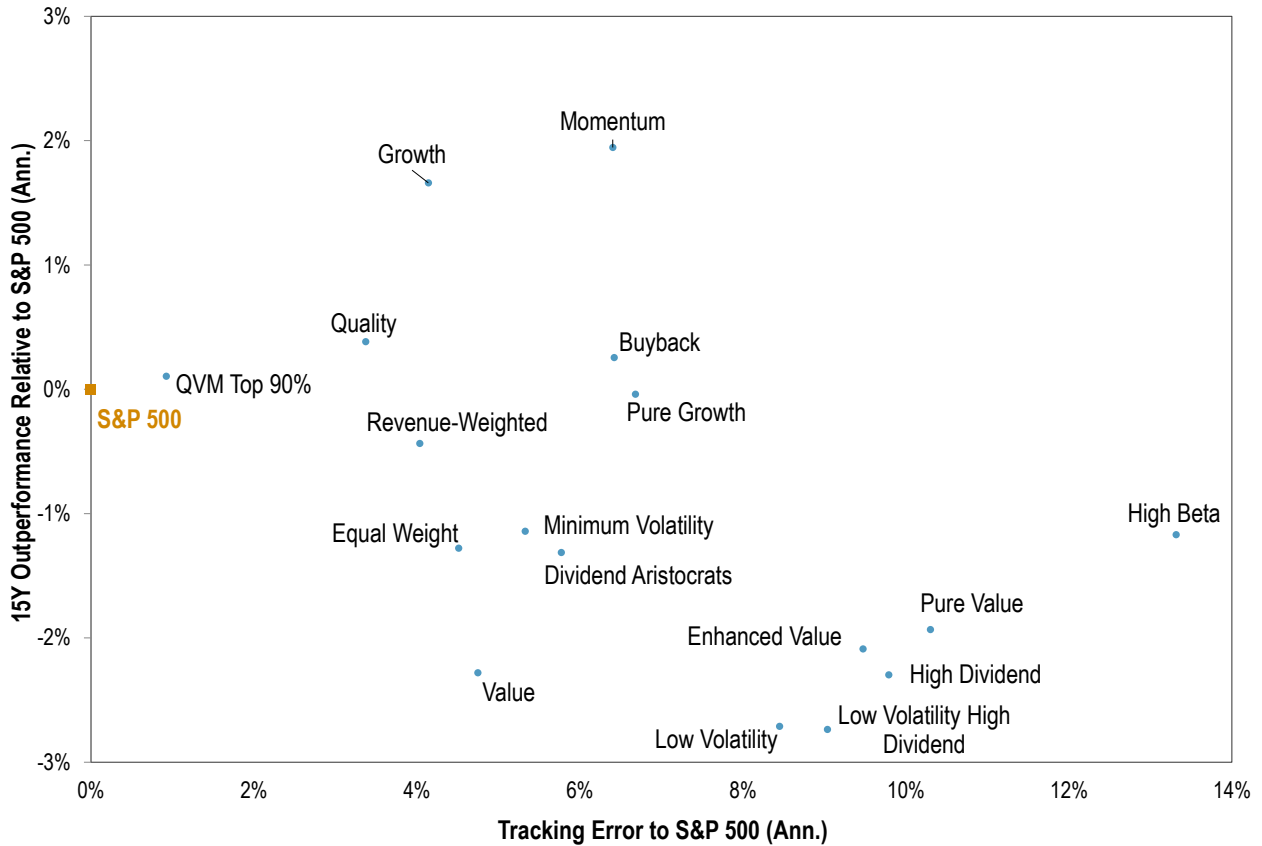
# S&P Dow Jones Indices

A Division of S&P Global

Index Dashboard: S&P 500® Factor Indices

December 2024

## TO S&P 500



## 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	10YR	15YR
S&P 500 Momentum	0.7%	2.6%	21.0%	6.5%	4.9%	2.8%	1.9%	S&P 500 Momentum	8.0%	9.3%	8.7%	7.3%	6.4%
S&P 500 Growth	3.2%	3.8%	11.1%	-1.2%	2.6%	2.2%	1.7%	S&P 500 Growth	5.6%	6.1%	6.1%	4.8%	4.1%
S&P 500 Quality	-0.2%	-2.5%	0.7%	0.9%	0.3%	-0.5%	0.4%	S&P 500 Quality	2.7%	4.0%	4.1%	3.4%	3.4%
S&P 500 Buyback	-4.7%	-4.1%	-9.6%	-2.8%	-3.0%	-2.1%	0.3%	S&P 500 Buyback	8.3%	8.7%	9.1%	7.3%	6.4%
S&P 500 QVM Top 90%	-0.1%	-0.4%	0.7%	0.0%	0.2%	0.1%	0.1%	S&P 500 QVM Top 90%	1.1%	1.7%	1.4%	1.1%	0.9%
S&P 500 Pure Growth	-1.7%	3.0%	3.8%	-8.4%	-3.2%	-2.0%	0.0%	S&P 500 Pure Growth	6.7%	8.8%	8.9%	7.0%	6.7%
S&P 500 Revenue-Weighted	-3.1%	-2.2%	-7.9%	0.3%	-1.3%	-1.5%	-0.4%	S&P 500 Revenue-Weighted	5.8%	6.0%	6.0%	4.7%	4.0%
S&P 500 Minimum Volatility	-1.8%	-3.9%	-6.1%	-3.5%	-4.9%	-2.2%	-1.1%	S&P 500 Minimum Volatility	4.1%	5.9%	5.5%	5.3%	5.3%
S&P 500 High Beta	-2.3%	-2.9%	-16.3%	-3.9%	0.9%	-1.3%	-1.2%	S&P 500 High Beta	7.6%	13.5%	16.9%	14.1%	13.3%
S&P 500 Equal Weight	-3.9%	-4.3%	-12.0%	-4.5%	-3.8%	-2.8%	-1.3%	S&P 500 Equal Weight	7.0%	6.5%	6.7%	5.1%	4.5%
S&P 500 Dividend Aristocrats	-5.2%	-8.6%	-17.9%	-6.1%	-6.2%	-3.3%	-1.3%	S&P 500 Dividend Aristocrats	9.1%	8.5%	7.6%	6.2%	5.8%
S&P 500 Pure Value	-3.8%	-0.3%	-12.2%	-2.4%	-6.3%	-5.3%	-1.9%	S&P 500 Pure Value	10.8%	13.1%	15.0%	11.6%	10.3%
S&P 500 Enhanced Value	-5.7%	-2.8%	-10.5%	-2.3%	-6.5%	-4.2%	-2.1%	S&P 500 Enhanced Value	10.6%	11.9%	13.5%	10.8%	9.5%
S&P 500 Value	-4.4%	-5.1%	-12.7%	0.2%	-4.0%	-3.1%	-2.3%	S&P 500 Value	7.4%	6.8%	7.0%	5.5%	4.7%
S&P 500 High Dividend	-5.1%	-6.5%	-9.7%	-3.1%	-7.7%	-4.8%	-2.3%	S&P 500 High Dividend	10.9%	12.2%	13.6%	10.8%	9.8%
S&P 500 Low Volatility	-3.9%	-4.4%	-10.8%	-5.8%	-8.3%	-4.2%	-2.7%	S&P 500 Low Volatility	7.9%	9.7%	9.6%	8.6%	8.4%
S&P 500 Low Volatility High Dividend	-3.9%	-6.0%	-6.7%	-2.2%	-8.0%	-4.5%	-2.7%	S&P 500 Low Volatility High Dividend	10.5%	11.2%	11.2%	9.5%	9.0%

Performance figures for more than one year are annualized.

# S&P Dow Jones Indices

A Division of S&P Global

Index Dashboard: S&P 500® Factor Indices

December 2024

## DEGREE OF PORTFOLIO OVERLAP AND RELATIVE RETURN CORRELATIONS

### PORTFOLIO OVERLAP

	S&P 500 Momentum	S&P 500 Growth	S&P 500 Quality	S&P 500 Pure Growth	S&P 500 Low Volatility	S&P 500 Minimum Volatility	S&P 500 QVM Top 90%	S&P 500 Dividend Aristocrats	S&P 500 Low Volatility High Dividend	S&P 500 High Dividend	S&P 500 Revenue-Weighted	S&P 500 Value	S&P 500 Equal Weight	S&P 500 Pure Value	S&P 500 Buyback	S&P 500 Enhanced Value	S&P 500 High Beta	S&P 500
S&P 500 Momentum	100%	45%	22%	23%	17%	22%	37%	7%	4%	4%	26%	16%	18%	5%	10%	12%	13%	33%
S&P 500 Growth	45%	100%	31%	28%	12%	29%	59%	5%	2%	3%	34%	31%	27%	0%	8%	2%	22%	67%
S&P 500 Quality	22%	31%	100%	16%	16%	23%	31%	13%	2%	1%	17%	19%	19%	3%	11%	3%	15%	28%
S&P 500 Pure Growth	23%	28%	16%	100%	8%	11%	19%	4%	1%	1%	12%	0%	17%	0%	21%	4%	32%	19%
S&P 500 Low Volatility	17%	12%	16%	8%	100%	17%	21%	29%	18%	19%	16%	23%	20%	7%	16%	8%	0%	18%
S&P 500 Minimum Volatility	22%	29%	23%	11%	17%	100%	32%	11%	11%	8%	26%	30%	15%	4%	5%	10%	12%	34%
S&P 500 QVM Top 90%	37%	59%	31%	19%	21%	32%	100%	13%	9%	9%	57%	62%	46%	9%	12%	13%	18%	84%
S&P 500 Dividend Aristocrats	7%	5%	13%	4%	29%	11%	13%	100%	17%	15%	15%	18%	13%	10%	7%	9%	3%	12%
S&P 500 Low Volatility High Dividend	4%	2%	2%	1%	18%	11%	9%	17%	100%	54%	10%	13%	10%	12%	5%	14%	0%	8%
S&P 500 High Dividend	4%	3%	1%	1%	19%	8%	9%	15%	54%	100%	13%	13%	16%	23%	6%	15%	5%	8%
S&P 500 Revenue-Weighted	26%	34%	17%	12%	16%	26%	57%	15%	10%	13%	100%	58%	49%	32%	23%	37%	13%	57%
S&P 500 Value	16%	31%	19%	0%	23%	30%	62%	18%	13%	13%	58%	100%	48%	15%	12%	20%	11%	64%
S&P 500 Equal Weight	18%	27%	19%	17%	20%	15%	46%	13%	10%	16%	49%	48%	100%	22%	19%	20%	20%	47%
S&P 500 Pure Value	5%	0%	3%	0%	7%	4%	9%	10%	12%	23%	32%	15%	22%	100%	25%	49%	9%	8%
S&P 500 Buyback	10%	8%	11%	21%	16%	5%	12%	7%	5%	6%	23%	12%	19%	25%	100%	23%	13%	11%
S&P 500 Enhanced Value	12%	2%	3%	4%	8%	10%	13%	9%	14%	15%	37%	20%	20%	49%	23%	100%	5%	11%
S&P 500 High Beta	13%	22%	15%	32%	0%	12%	18%	3%	0%	5%	13%	11%	20%	9%	13%	5%	100%	20%

"Portfolio Overlap" is percentage of index weights held in common between any two indices.

### RELATIVE RETURN CORRELATIONS

	S&P 500 Momentum	S&P 500 Growth	S&P 500 Quality	S&P 500 Pure Growth	S&P 500 Low Volatility	S&P 500 Minimum Volatility	S&P 500 QVM Top 90%	S&P 500 Dividend Aristocrats	S&P 500 Low Volatility High Dividend	S&P 500 High Dividend	S&P 500 Revenue-Weighted	S&P 500 Value	S&P 500 Equal Weight	S&P 500 Pure Value	S&P 500 Buyback	S&P 500 Enhanced Value	S&P 500 High Beta
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 returns (versus S&P 500), last three years

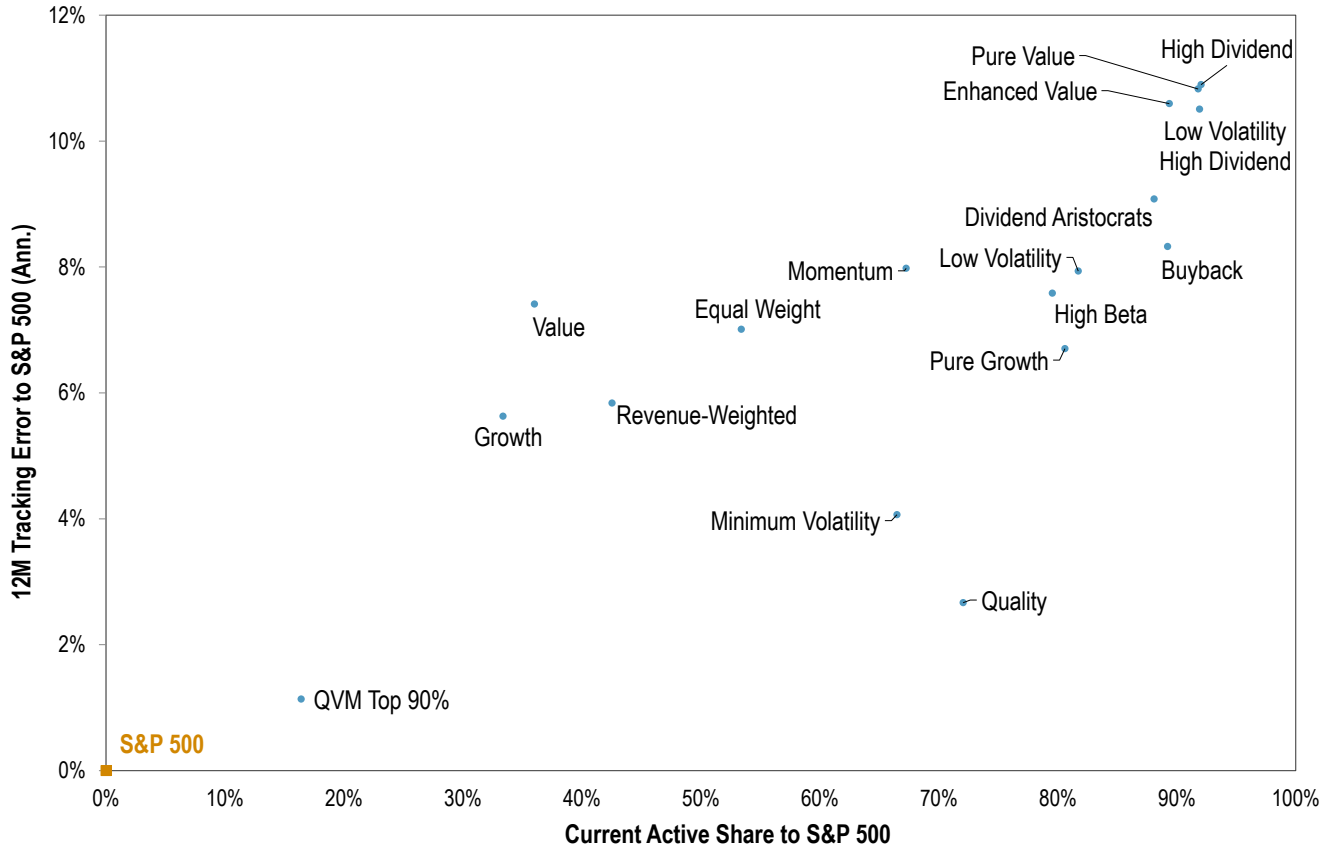
# S&P Dow Jones Indices

A Division of S&P Global

Index Dashboard: S&P 500® Factor Indices

December 2024

## TRACKING ERROR & ACTIVE SHARE- RELATIVE TO S&P 500



## FACTOR EXPOSURE SUMMARY (See following pages for factor details)

INDEX	PAGE No.	LOW VOLATILITY	MOMENTUM	VALUE	HIGH BETA	DIVIDEND	QUALITY	SMALL SIZE
S&P 500 Low Volatility	7	78.1%	5.5%	37.8%	-64.2%	53.7%	-10.5%	49.5%
S&P 500 Minimum Volatility	7	12.3%	-8.8%	14.9%	-15.8%	23.7%	-10.5%	20.5%
S&P 500 Low Volatility High Dividend	8	38.0%	-13.9%	61.1%	-78.1%	90.8%	-32.2%	60.1%
S&P 500 High Dividend	8	17.2%	-8.8%	62.1%	-60.8%	90.1%	-37.2%	71.1%
S&P 500 Quality	9	10.1%	-0.2%	-6.5%	-9.0%	-1.9%	44.7%	20.5%
S&P 500 Dividend Aristocrats	9	25.4%	-17.8%	44.8%	-57.3%	54.1%	-10.5%	53.0%
S&P 500 Momentum	10	-10.0%	51.7%	3.9%	23.0%	-11.0%	-21.7%	7.6%
S&P 500 Revenue-Weighted	10	10.1%	-8.8%	65.7%	-22.4%	39.7%	-13.0%	24.6%
S&P 500 QVM Top 90%	11	2.4%	6.7%	14.9%	-9.0%	8.0%	3.7%	7.6%
S&P 500 Growth	11	-28.2%	27.0%	-18.7%	32.8%	-22.5%	3.7%	-22.4%
S&P 500 Value	12	15.0%	-21.2%	37.8%	-27.0%	39.2%	-2.9%	14.2%
S&P 500 Pure Growth	12	-43.2%	52.8%	-0.7%	23.3%	-20.7%	-13.0%	37.3%
S&P 500 Pure Value	13	-16.1%	-60.8%	93.2%	-42.1%	66.5%	-24.3%	80.6%
S&P 500 Buyback	13	-11.2%	-9.3%	67.3%	-18.0%	10.1%	3.7%	64.6%
S&P 500 High Beta	14	-68.4%	-21.2%	14.9%	57.3%	-12.6%	-21.7%	35.7%
S&P 500 Enhanced Value	14	10.1%	-12.6%	92.1%	-49.3%	63.9%	-26.4%	40.7%
S&P 500 Equal Weight	15	2.4%	-13.7%	45.5%	-17.0%	39.2%	-10.5%	51.3%

Source: S&P Dow Jones Indices LLC and/or its affiliates. Data as of December 31, 2024. Returns in U.S. dollars.

# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: **S&P 500® Factor Indices**  
December 2024

## 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 December 31, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-6.3%	-2.0%	14.3%	14.3%	3.2%	6.2%	8.9%	11.2%
Relative to Benchmark	-3.9%	-4.4%	-10.8%	-10.8%	-5.8%	-8.3%	-4.2%	-2.7%
Index Volatility				11.4%	13.2%	15.3%	12.6%	11.6%
Tracking Error				7.9%	9.7%	9.6%	8.6%	8.4%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.37

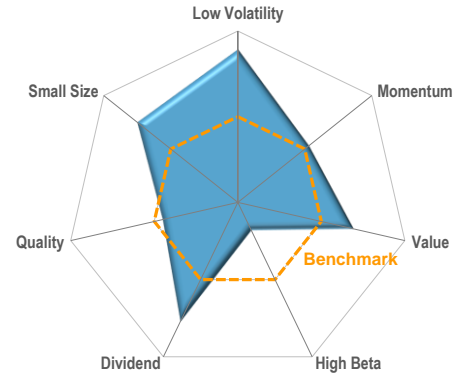
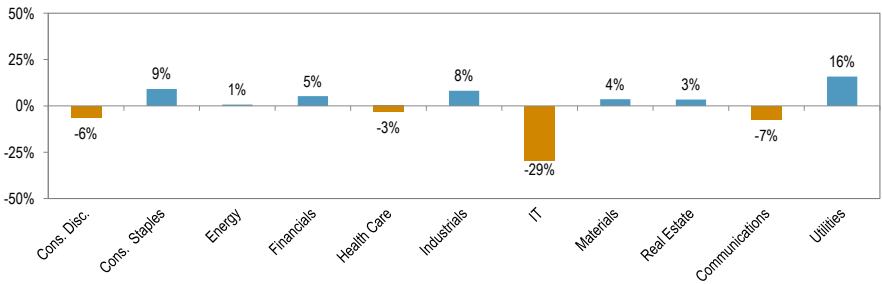
Portfolio Statistics	Index	Bmark
Active Share (Stock)	82%	0%
Active Share (Sector)	46%	0%
Concentration (HH Index)	101.3	207.5
Correlation (stock)	0.26	0.21
Ann. Turnover (last 10 yr)	0.64	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	18%	28%
12M - 1M price return	29%	46%
Book/Price	0.27	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.37	0.31
Stock Beta	0.32	1.07
Yield (12M trailing)	2.2%	1.3%
R.O.E.	27%	39%
Market Cap (U.S. \$ bn)	109.0	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Difference
Utilities	18%	2%	16%
Cons. Staples	15%	6%	9%
IT	3%	32%	29%
Communications	2%	9%	7%

### Sector Tilts (Detail)



Factor Exposure Chart

## 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 December 31, 2024 the index comprised 75 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-4.2%	-1.5%	18.9%	18.9%	5.4%	9.6%	10.9%	12.7%
Relative to Benchmark	-1.8%	-3.9%	-6.1%	-6.1%	-3.5%	-4.9%	-2.2%	-1.1%
Index Volatility				9.9%	14.2%	15.8%	13.2%	12.1%
Tracking Error				4.1%	5.9%	5.5%	5.3%	5.3%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.69

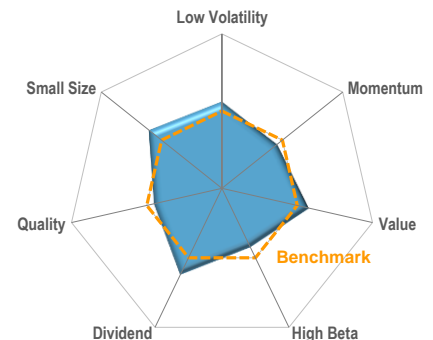
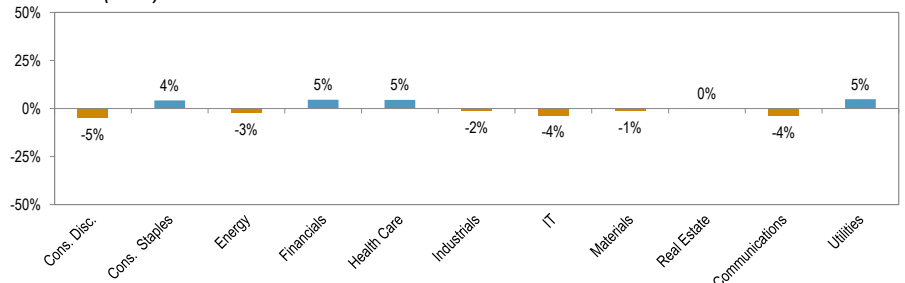
Portfolio Statistics	Index	Bmark
Active Share (Stock)	66%	0%
Active Share (Sector)	18%	0%
Concentration (HH Index)	218.4	207.5
Correlation (stock)	0.16	0.21
Ann. Turnover (last 10 yr)	0.31	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	25%	28%
12M - 1M price return	33%	46%
Book/Price	0.21	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.29	0.31
Stock Beta	0.77	1.07
Yield (12M trailing)	1.6%	1.3%
R.O.E.	32%	39%
Market Cap (U.S. \$ bn)	608.8	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Difference
Utilities	7%	2%	5%
Financials	18%	14%	5%
Cons. Disc.	6%	11%	5%
Communications	5%	9%	4%

### Sector Tilts (Detail)



Factor Exposure Chart



# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: S&P 500® Factor Indices  
December 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 December 31, 2024 the index comprised 50 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-6.3%	-3.6%	18.4%	18.4%	6.7%	6.6%	8.6%	11.1%
Relative to Benchmark	-3.9%	-6.0%	-6.7%	-6.7%	-2.2%	-8.0%	-4.5%	-2.7%
Index Volatility				12.6%	16.2%	19.3%	15.6%	14.1%
Tracking Error				10.5%	11.2%	11.2%	9.5%	9.0%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.3

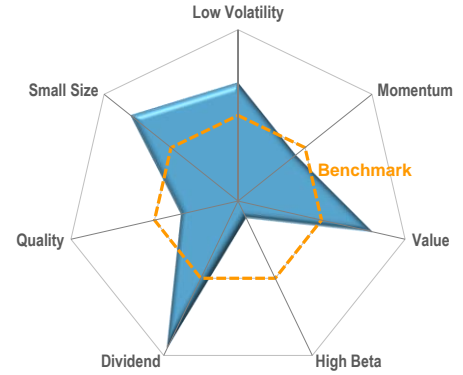
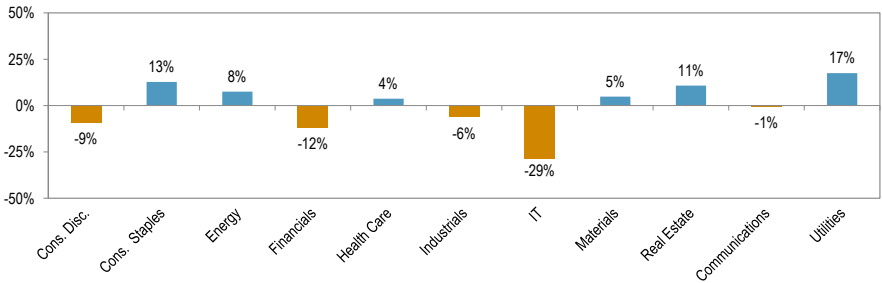
Portfolio Statistics	Index	Bmark
Active Share (Stock)	92%	0%
Active Share (Sector)	57%	0%
Concentration (HH Index)	210.1	207.5
Correlation (stock)	0.27	0.21
Ann. Turnover (last 10 yr)	0.66	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	21%	28%
12M - 1M price return	24%	46%
Book/Price	0.43	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.53	0.31
Stock Beta	0.17	1.07
Yield (12M trailing)	4.5%	1.3%
R.O.E.	16%	39%
Market Cap (U.S. \$ bn)	78.5	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Utilities	20%	2%	17%
Cons. Staples	18%	6%	13%
IT	4%	32%	29%
Financials	2%	14%	12%

### Sector Tilts (Detail)



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 December 31, 2024 the index comprised 80 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-7.4%	-4.1%	15.3%	15.3%	5.8%	6.8%	8.3%	11.6%
Relative to Benchmark	-5.1%	-6.5%	-9.7%	-9.7%	-3.1%	-7.7%	-4.8%	-2.3%
Index Volatility				14.2%	19.0%	23.0%	18.1%	16.1%
Tracking Error				10.9%	12.2%	13.6%	10.8%	9.8%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.49

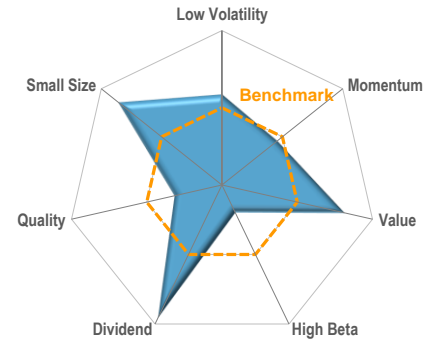
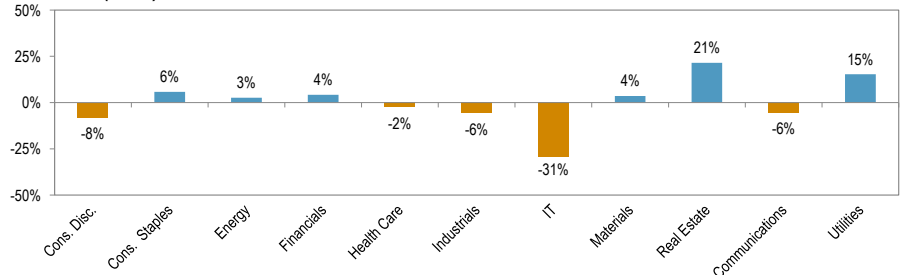
Portfolio Statistics	Index	Bmark
Active Share (Stock)	92%	0%
Active Share (Sector)	53%	0%
Concentration (HH Index)	127.2	207.5
Correlation (stock)	0.30	0.21
Ann. Turnover (last 10 yr)	1.14	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	24%	28%
12M - 1M price return	31%	46%
Book/Price	0.51	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.58	0.31
Stock Beta	0.36	1.07
Yield (12M trailing)	4.4%	1.3%
R.O.E.	12%	39%
Market Cap (U.S. \$ bn)	52.5	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Real Estate	24%	2%	21%
Utilities	18%	2%	15%
IT	1%	32%	31%
Cons. Disc.	3%	11%	8%

### Sector Tilts (Detail)



Factor Exposure Chart



# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: **S&P 500® Factor Indices**  
December 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 December 31, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-2.6%	-0.1%	25.7%	25.7%	9.8%	14.8%	12.6%	14.3%
Relative to Benchmark	-0.2%	-2.5%	0.7%	0.7%	0.9%	0.3%	-0.5%	0.4%
Index Volatility				10.5%	16.7%	17.1%	14.7%	13.9%
Tracking Error				2.7%	4.0%	4.1%	3.4%	3.4%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.93

### Portfolio Statistics

	Index	Bmark
Active Share (Stock)	72%	0%
Active Share (Sector)	20%	0%
Concentration (HH Index)	278.7	207.5
Correlation (stock)	0.20	0.21
Ann. Turnover (last 10 yr)	0.60	0.04

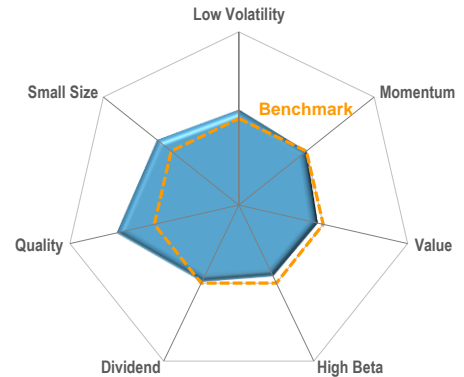
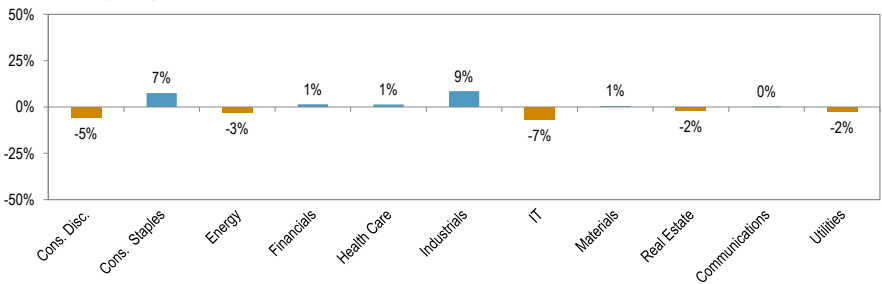
### Index-Weighted Avg.

	Index	Bmark
Stock Volatility	27%	28%
12M - 1M price return	42%	46%
Book/Price	0.11	0.18
Earnings/Price	0.03	0.03
Sales/Price	0.28	0.31
Stock Beta	0.92	1.07
Yield (12M trailing)	1.2%	1.3%
R.O.E.	50%	39%
Market Cap (U.S. \$ bn)	610.9	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Industrials	17%	8%	9%
Cons. Staples	13%	6%	7%
IT	26%	32%	7%
Cons. Disc.	6%	11%	5%

### Sector Tilts (Detail)



Factor Exposure Chart

## 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 December 31, 2024 the index comprised 66 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-7.6%	-6.2%	7.1%	7.1%	2.9%	8.3%	9.8%	12.6%
Relative to Benchmark	-5.2%	-8.6%	-17.9%	-17.9%	-6.1%	-6.2%	-3.3%	-1.3%
Index Volatility				13.7%	16.8%	18.2%	15.0%	13.9%
Tracking Error				9.1%	8.5%	7.6%	6.2%	5.8%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.48

### Portfolio Statistics

	Index	Bmark
Active Share (Stock)	88%	0%
Active Share (Sector)	48%	0%
Concentration (HH Index)	152.3	207.5
Correlation (stock)	0.20	0.21
Ann. Turnover (last 10 yr)	0.19	0.04

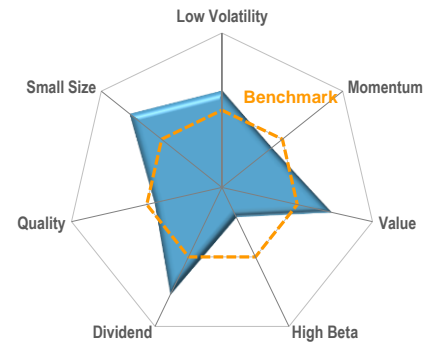
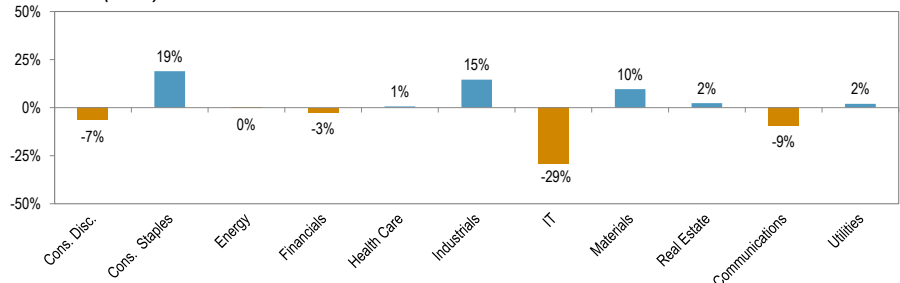
### Index-Weighted Avg.

	Index	Bmark
Stock Volatility	22%	28%
12M - 1M price return	22%	46%
Book/Price	0.28	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.55	0.31
Stock Beta	0.47	1.07
Yield (12M trailing)	2.4%	1.3%
R.O.E.	29%	39%
Market Cap (U.S. \$ bn)	97.9	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Cons. Staples	24%	6%	19%
Industrials	23%	8%	15%
IT	3%	32%	29%
Communications	0%	9%	9%

### Sector Tilts (Detail)



Factor Exposure Chart

# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: S&P 500® Factor Indices  
December 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 December 31, 2024 the index comprised 98 constituents

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-1.7%	5.0%	46.0%	46.0%	15.5%	19.4%	15.9%	15.8%
Relative to Benchmark	0.7%	2.6%	21.0%	21.0%	6.5%	4.9%	2.8%	1.9%
Index Volatility				15.7%	19.0%	18.6%	15.8%	15.2%
Tracking Error				8.0%	9.3%	8.7%	7.3%	6.4%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.34

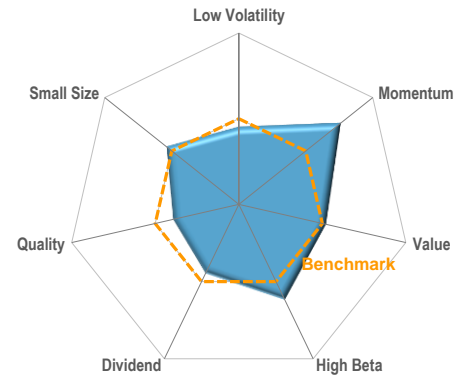
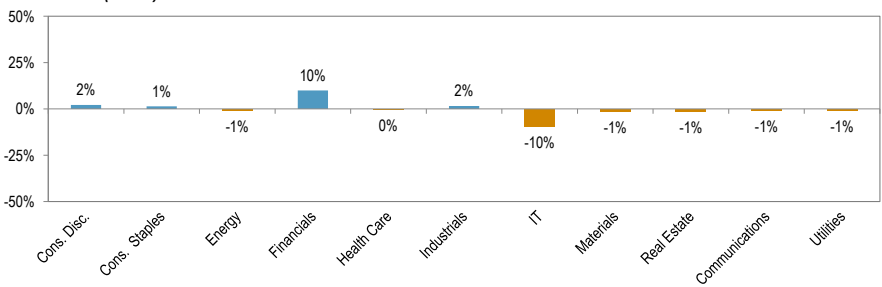
Portfolio Statistics	Index	Bmark
Active Share (Stock)	67%	0%
Active Share (Sector)	15%	0%
Concentration (HH Index)	442.0	207.5
Correlation (stock)	0.37	0.21
Ann. Turnover (last 10 yr)	1.04	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	30%	28%
12M - 1M price return	73%	46%
Book/Price	0.18	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.34	0.31
Stock Beta	1.34	1.07
Yield (12M trailing)	0.9%	1.3%
R.O.E.	36%	39%
Market Cap (U.S. \$ bn)	928.3	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Financials	24%	14%	10%
Cons. Disc.	13%	11%	2%
IT	23%	32%	10%
Materials	1%	2%	1%

### Sector Tilts (Detail)



Factor Exposure Chart

## 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 December 31, 2024 the index comprised 502 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-5.5%	0.2%	17.1%	17.1%	9.2%	13.2%	11.6%	13.4%
Relative to Benchmark	-3.1%	-2.2%	-7.9%	-7.9%	0.3%	-1.3%	-1.5%	-0.4%
Index Volatility				12.3%	16.5%	18.4%	15.7%	15.1%
Tracking Error				5.8%	6.0%	6.0%	4.7%	4.0%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.68

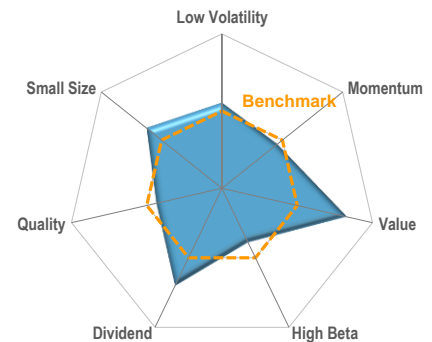
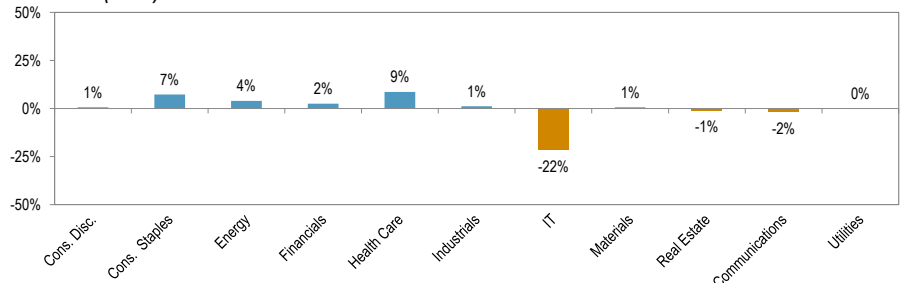
Portfolio Statistics	Index	Bmark
Active Share (Stock)	43%	0%
Active Share (Sector)	25%	0%
Concentration (HH Index)	95.8	207.5
Correlation (stock)	0.14	0.21
Ann. Turnover (last 10 yr)	0.19	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	27%	28%
12M - 1M price return	32%	46%
Book/Price	0.34	0.18
Earnings/Price	0.05	0.03
Sales/Price	1.03	0.31
Stock Beta	0.71	1.07
Yield (12M trailing)	2.0%	1.3%
R.O.E.	27%	39%
Market Cap (U.S. \$ bn)	439.5	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Health Care	19%	10%	9%
Cons. Staples	13%	6%	7%
IT	11%	32%	22%
Communications	7%	9%	2%

### Sector Tilts (Detail)



Factor Exposure Chart

# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: **S&P 500® Factor Indices**  
December 2024

## 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 December 31, 2024 the index comprised 450 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-2.5%	2.0%	25.7%	25.7%	8.9%	14.7%	13.2%	14.0%
Relative to Benchmark	-0.1%	-0.4%	0.7%	0.7%	0.0%	0.2%	0.1%	0.1%
Index Volatility				10.1%	16.6%	17.7%	15.1%	14.4%
Tracking Error				1.1%	1.7%	1.4%	1.1%	0.9%

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

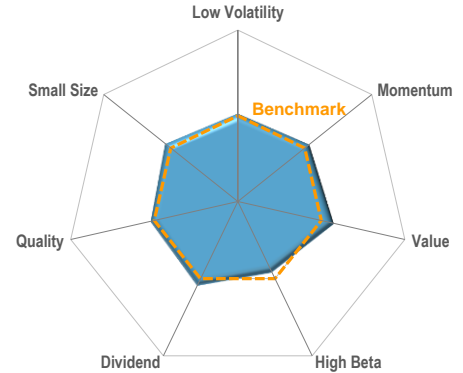
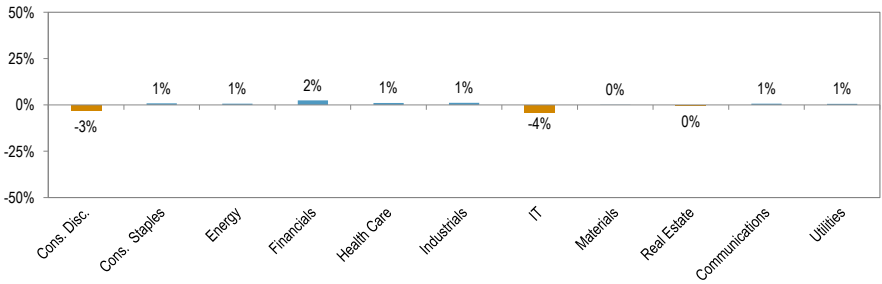
Portfolio Statistics	Index	Bmark
Active Share (Stock)	16%	0%
Active Share (Sector)	8%	0%
Concentration (HH Index)	213.8	207.5
Correlation (stock)	0.22	0.21
Ann. Turnover (last 10 yr)	0.19	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	28%	28%
12M - 1M price return	49%	46%
Book/Price	0.20	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.35	0.31
Stock Beta	1.02	1.07
Yield (12M trailing)	1.4%	1.3%
R.O.E.	40%	39%
Market Cap (U.S. \$ bn)	930.8	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Financials	16%	14%	2%
Industrials	9%	8%	1%
IT	28%	32%	4%
Cons. Disc.	8%	11%	3%

### Sector Tilts (Detail)



Factor Exposure Chart

## S&P 500 Growth

### Description

The S&P 500 Growth index 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 December 31, 2024 the index comprised 208 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	0.9%	6.2%	36.1%	36.1%	7.7%	17.1%	15.3%	15.5%
Relative to Benchmark	3.2%	3.8%	11.1%	11.1%	-1.2%	2.6%	2.2%	1.7%
Index Volatility				11.8%	19.9%	20.1%	16.6%	15.5%
Tracking Error				5.6%	6.1%	6.1%	4.8%	4.1%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.33

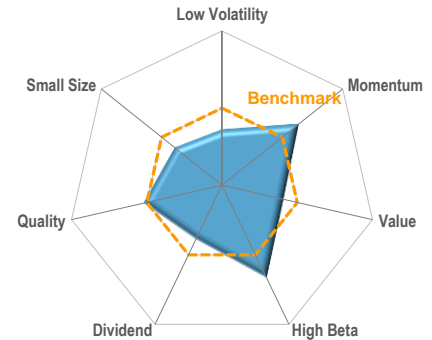
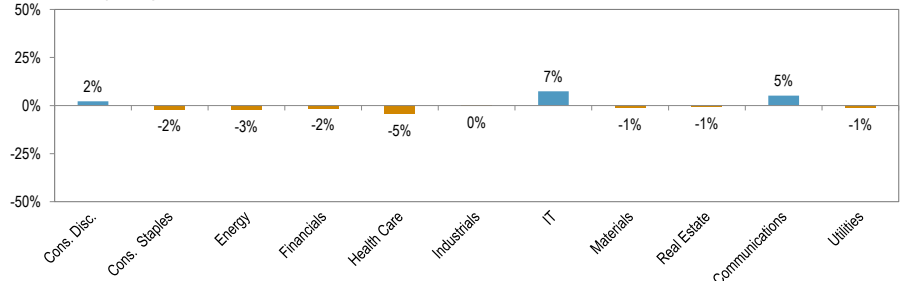
Portfolio Statistics	Index	Bmark
Active Share (Stock)	33%	0%
Active Share (Sector)	15%	0%
Concentration (HH Index)	396.7	207.5
Correlation (stock)	0.31	0.21
Ann. Turnover (last 10 yr)	0.26	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	32%	28%
12M - 1M price return	66%	46%
Book/Price	0.09	0.18
Earnings/Price	0.03	0.03
Sales/Price	0.18	0.31
Stock Beta	1.45	1.07
Yield (12M trailing)	0.6%	1.3%
R.O.E.	47%	39%
Market Cap (U.S. \$ bn)	1354.3	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
IT	40%	32%	7%
Communications	15%	9%	5%
Health Care	5%	10%	5%
Energy	1%	3%	3%

### Sector Tilts (Detail)



Factor Exposure Chart

# S&P Dow Jones Indices

A Division of **S&P Global**

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

## 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 December 31, 2024 the index comprised 401 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-6.8%	-2.7%	12.3%	12.3%	9.2%	10.5%	10.0%	11.6%
Relative to Benchmark	-4.4%	-5.1%	-12.7%	-12.7%	0.2%	-4.0%	-3.1%	-2.3%
Index Volatility			12.6%	16.6%	18.2%	15.6%	14.9%	
Tracking Error			7.4%	6.8%	7.0%	5.5%	4.7%	

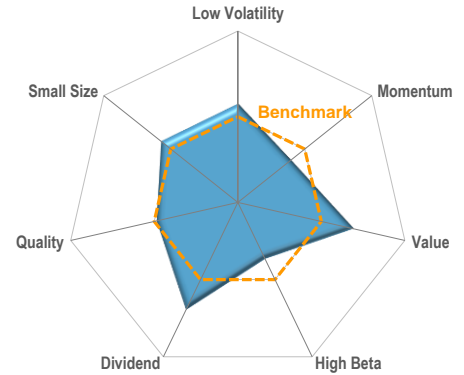
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.57

Portfolio Statistics	Index	Bmark
Active Share (Stock)	36%	0%
Active Share (Sector)	16%	0%
Concentration (HH Index)	172.4	207.5
Correlation (stock)	0.17	0.21
Ann. Turnover (last 10 yr)	0.29	0.04

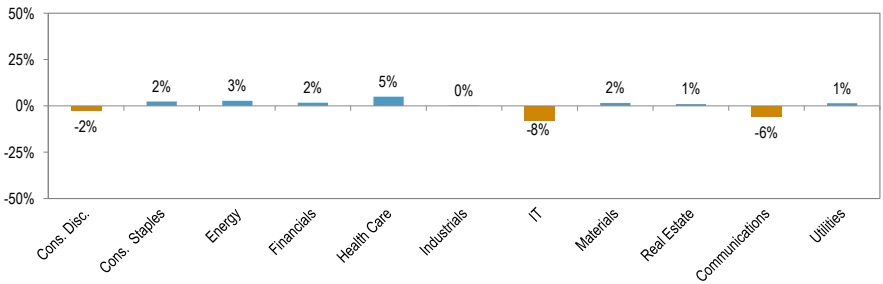
Index-Weighted Avg.	Index	Bmark
Stock Volatility	24%	28%
12M - 1M price return	23%	46%
Book/Price	0.28	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.46	0.31
Stock Beta	0.67	1.07
Yield (12M trailing)	2.0%	1.3%
R.O.E.	30%	39%
Market Cap (U.S. \$ bn)	743.5	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Health Care	15%	10%	5%
Energy	6%	3%	3%
IT	24%	32%	8%
Communications	4%	9%	6%



### Sector Tilts (Detail)



## 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 December 31, 2024 the index comprised 88 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-4.1%	5.4%	28.9%	28.9%	0.5%	11.3%	11.1%	13.8%
Relative to Benchmark	-1.7%	3.0%	3.8%	3.8%	-8.4%	-3.2%	-2.0%	0.0%
Index Volatility			15.2%	21.4%	22.2%	18.2%	17.4%	
Tracking Error			6.7%	8.8%	8.9%	7.0%	6.7%	

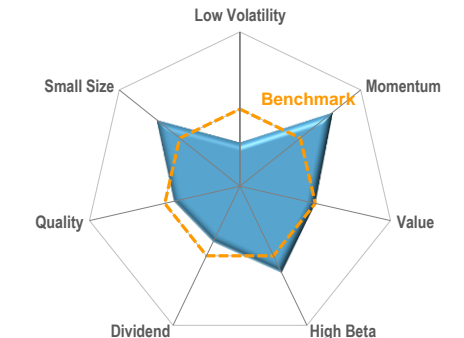
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.43

Portfolio Statistics	Index	Bmark
Active Share (Stock)	81%	0%
Active Share (Sector)	31%	0%
Concentration (HH Index)	134.7	207.5
Correlation (stock)	0.34	0.21
Ann. Turnover (last 10 yr)	0.67	0.04

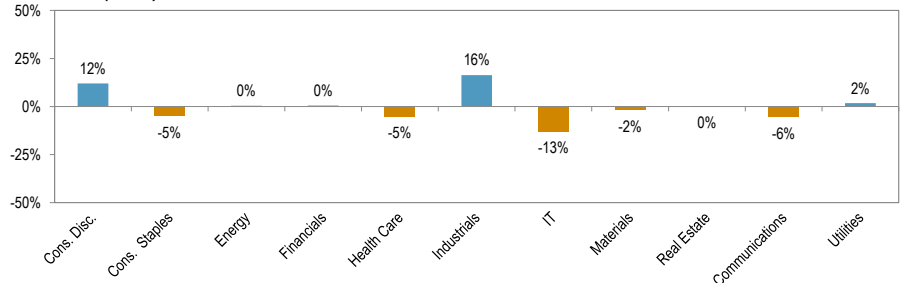
Index-Weighted Avg.	Index	Bmark
Stock Volatility	34%	28%
12M - 1M price return	84%	46%
Book/Price	0.11	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.37	0.31
Stock Beta	1.35	1.07
Yield (12M trailing)	0.7%	1.3%
R.O.E.	39%	39%
Market Cap (U.S. \$ bn)	190.8	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Industrials	25%	8%	16%
Cons. Disc.	23%	11%	12%
IT	19%	32%	13%
Communications	4%	9%	6%



### Sector Tilts (Detail)



# S&P Dow Jones Indices

A Division of **S&P Global**

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

## 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 December 31, 2024 the index comprised 109 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-6.2%	2.1%	12.8%	12.8%	6.6%	8.3%	7.8%	11.9%
Relative to Benchmark	-3.8%	-0.3%	-12.2%	-12.2%	-2.4%	-6.3%	-5.3%	-1.9%
Index Volatility				15.6%	21.2%	25.7%	21.2%	19.9%
Tracking Error				10.8%	13.1%	15.0%	11.6%	10.3%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.69

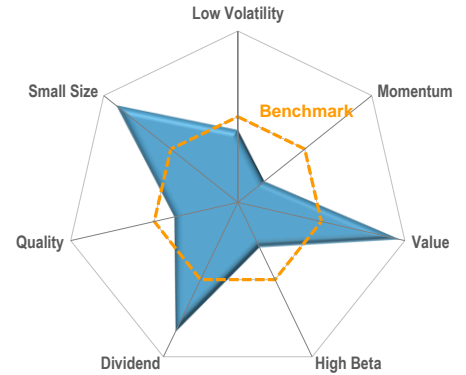
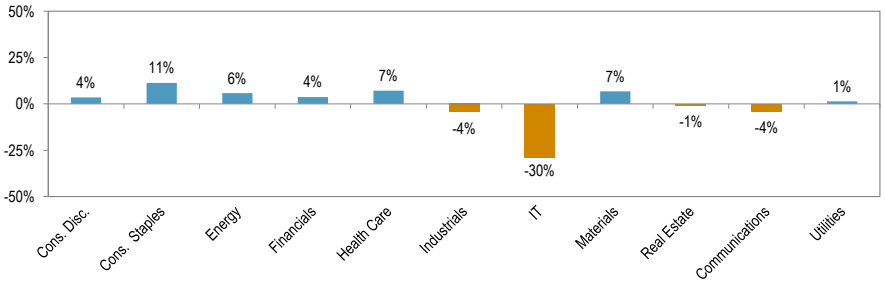
Portfolio Statistics	Index	Bmark
Active Share (Stock)	92%	0%
Active Share (Sector)	40%	0%
Concentration (HH Index)	122.1	207.5
Correlation (stock)	0.24	0.21
Ann. Turnover (last 10 yr)	0.37	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	31%	28%
12M - 1M price return	11%	46%
Book/Price	0.70	0.18
Earnings/Price	0.06	0.03
Sales/Price	1.78	0.31
Stock Beta	0.55	1.07
Yield (12M trailing)	2.9%	1.3%
R.O.E.	14%	39%
Market Cap (U.S. \$ bn)	37.0	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Cons. Staples	17%	6%	11%
Health Care	17%	10%	7%
IT	2%	32%	30%
Industrials	4%	8%	4%

### Sector Tilts (Detail)



Factor Exposure Chart

## 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 December 31, 2024 the index comprised 98 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-7.1%	-1.7%	15.4%	15.4%	6.2%	11.5%	11.0%	14.1%
Relative to Benchmark	-4.7%	-4.1%	-9.6%	-9.6%	-2.8%	-3.0%	-2.1%	0.3%
Index Volatility				14.9%	19.2%	21.8%	18.6%	17.0%
Tracking Error				8.3%	8.7%	9.1%	7.3%	6.4%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.78

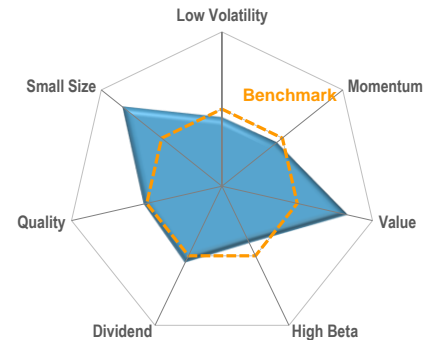
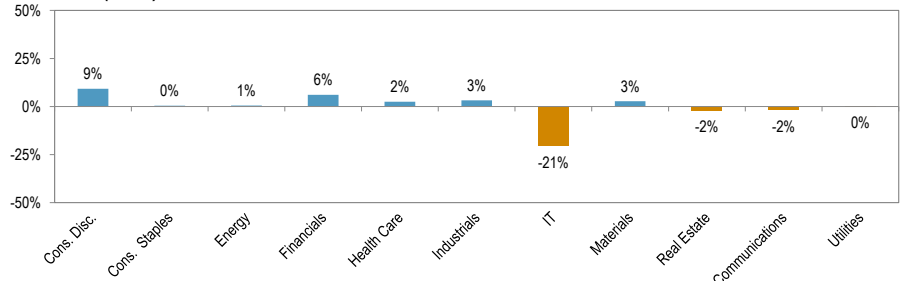
Portfolio Statistics	Index	Bmark
Active Share (Stock)	89%	0%
Active Share (Sector)	25%	0%
Concentration (HH Index)	104.0	207.5
Correlation (stock)	0.16	0.21
Ann. Turnover (last 10 yr)	0.93	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	30%	28%
12M - 1M price return	35%	46%
Book/Price	0.35	0.18
Earnings/Price	0.06	0.03
Sales/Price	0.84	0.31
Stock Beta	0.74	1.07
Yield (12M trailing)	1.4%	1.3%
R.O.E.	26%	39%
Market Cap (U.S. \$ bn)	67.5	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Cons. Disc.	20%	11%	9%
Financials	20%	14%	6%
IT	12%	32%	21%
Real Estate	0%	2%	2%

### Sector Tilts (Detail)



Factor Exposure Chart

# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: **S&P 500® Factor Indices**  
December 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 December 31, 2024 the index comprised 99 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-4.7%	-0.5%	8.7%	8.7%	5.0%	15.5%	11.8%	12.7%
Relative to Benchmark	-2.3%	-2.9%	-16.3%	-16.3%	-3.9%	0.9%	-1.3%	-1.2%
Index Volatility				14.4%	26.8%	30.4%	25.6%	24.6%
Tracking Error				7.6%	13.5%	16.9%	14.1%	13.3%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 1.45

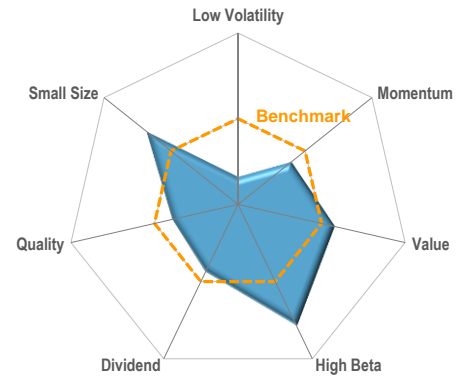
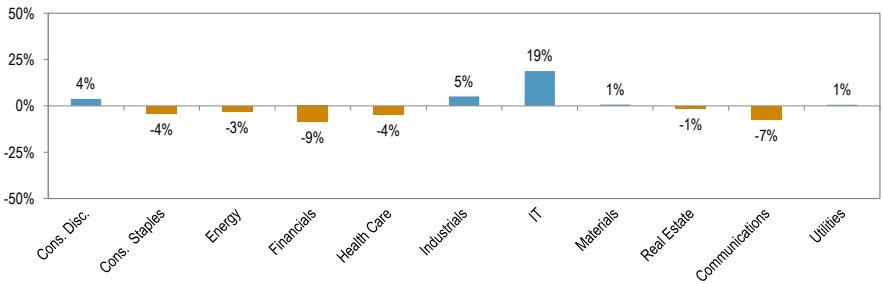
Portfolio Statistics	Index	Bmark
Active Share (Stock)	80%	0%
Active Share (Sector)	29%	0%
Concentration (HH Index)	114.7	207.5
Correlation (stock)	0.24	0.21
Ann. Turnover (last 10 yr)	0.90	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	43%	28%
12M - 1M price return	43%	46%
Book/Price	23%	18%
Earnings/Price	3%	3%
Sales/Price	42%	31%
Stock Beta	179%	107%
Yield (12M trailing)	0.9%	1.3%
R.O.E.	27%	39%
Market Cap (U.S. \$ bn)	226.2	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
IT	51%	32%	19%
Industrials	13%	8%	5%
Financials	5%	14%	9%
Communications	2%	9%	7%

### 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 December 31, 2024 the index comprised 100 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-8.1%	-0.4%	14.5%	14.5%	6.6%	8.1%	8.9%	11.8%
Relative to Benchmark	-5.7%	-2.8%	-10.5%	-10.5%	-2.3%	-6.5%	-4.2%	-2.1%
Index Volatility				15.6%	20.3%	24.3%	20.4%	19.0%
Tracking Error				10.6%	11.9%	13.5%	10.8%	9.5%

Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.61

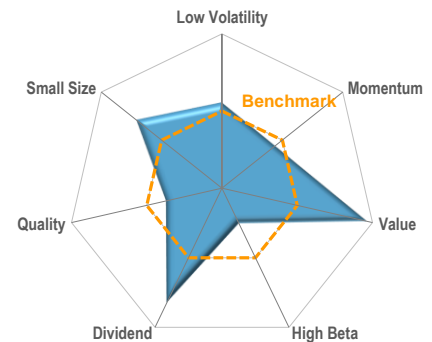
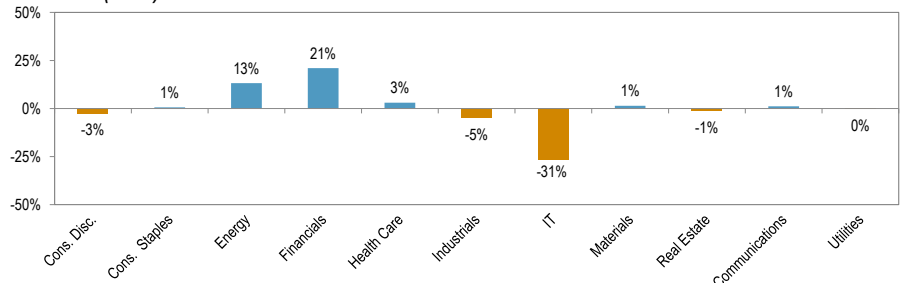
Portfolio Statistics	Index	Bmark
Active Share (Stock)	89%	0%
Active Share (Sector)	40%	0%
Concentration (HH Index)	222.9	207.5
Correlation (stock)	0.29	0.21
Ann. Turnover (last 10 yr)	0.39	0.04

Index-Weighted Avg.	Index	Bmark
Stock Volatility	26%	28%
12M - 1M price return	28%	46%
Book/Price	0.61	0.18
Earnings/Price	0.08	0.03
Sales/Price	1.38	0.31
Stock Beta	0.48	1.07
Yield (12M trailing)	2.8%	1.3%
R.O.E.	16%	39%
Market Cap (U.S. \$ bn)	158.4	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Financials	35%	14%	21%
Energy	16%	3%	13%
IT	2%	32%	31%
Industrials	3%	8%	5%

### Sector Tilts (Detail)



Factor Exposure Chart



# S&P Dow Jones Indices

A Division of **S&P Global**

Index Dashboard: **S&P 500® Factor Indices**  
December 2024

## 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 December 31, 2024 the index comprised 503 constituents.

Index Statistics	1M	3M	YTD	12M	3Y	5Y	10Y	15Y
Total Return (Ann)	-6.3%	-1.9%	13.0%	13.0%	4.5%	10.8%	10.3%	12.6%
Relative to Benchmark	-3.9%	-4.3%	-12.0%	-12.0%	-4.5%	-3.8%	-2.8%	-1.3%
Index Volatility				13.0%	18.3%	20.3%	16.8%	16.1%
Tracking Error				7.0%	6.5%	6.7%	5.1%	4.5%

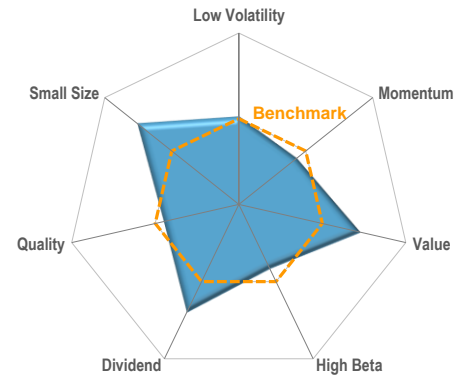
Benchmark: S&P 500. 1 Yr trailing beta to benchmark = 0.76

Portfolio Statistics	Index	Bmark
Active Share (Stock)	53%	0%
Active Share (Sector)	26%	0%
Concentration (HH Index)	20.0	207.5
Correlation (stock)	0.19	0.21
Ann. Turnover (last 10 yr)	0.22	0.04

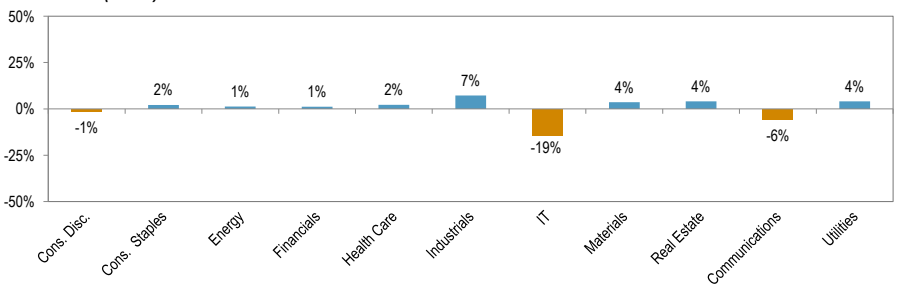
Index-Weighted Avg.	Index	Bmark
Stock Volatility	28%	28%
12M - 1M price return	30%	46%
Book/Price	0.31	0.18
Earnings/Price	0.04	0.03
Sales/Price	0.56	0.31
Stock Beta	0.75	1.07
Yield (12M trailing)	1.9%	1.3%
R.O.E.	24%	39%
Market Cap (U.S. \$ bn)	103.6	1060.6

### Top Sector Tilts (versus benchmark)

Sector	Index	Bmark	Diff.
Industrials	15%	8%	7%
Real Estate	6%	2%	4%
IT	14%	32%	19%
Communications	4%	9%	6%



### Sector Tilts (Detail)



## More Factor Resources



Access our latest research, education, videos, and webinars on smart beta at [spglobal.com/spdji/en/landing/investment-themes/factors/](https://spglobal.com/spdji/en/landing/investment-themes/factors/)



Hear directly from thought leader on the latest developments at [indexologyblog.com/category/factors](https://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](https://spglobal.com/spdji/en/research/article/factor-indices-a-simple-compendium)



# S&P Dow Jones Indices

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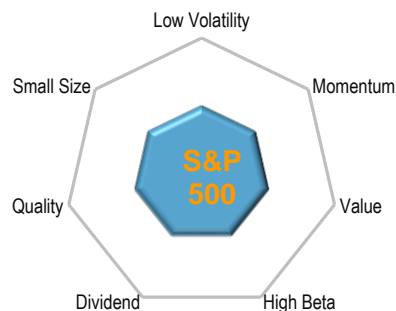
Index Dashboard: S&P 500® Factor Indices

December 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.



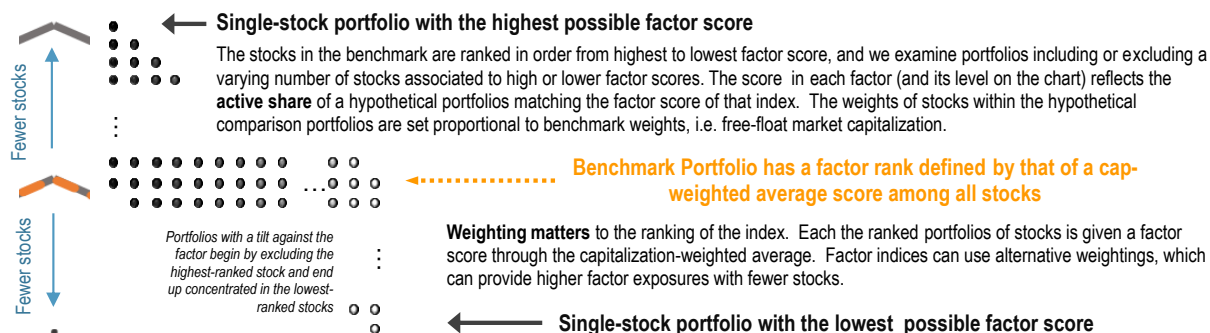
Factor	Measurement at single-stock level
<b>Volatility</b>	Trailing 12-month daily volatility.
<b>Momentum</b>	Twelve-month total return change as of one month ago ("13 minus 1 momentum"), divided by the daily volatility during the twelve-month period that ended one month prior. For more details, see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

### Index Factor Ranking and Factor Diagram Scaling

#### Index Scores

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



### 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 single-stock portfolio is 10,000 (the maximum possible). 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
<b>S&amp;P 500 index-weighted average</b>	0.034	0.183	0.313	12.44%	38.57%	1.23	45.57%	1.76%
<b>S&amp;P 500 index-weighted standard deviation</b>	0.025	0.216	0.437	17.41%	32.65%	1.09	50.24%	0.73%

Source: S&P Dow Jones Indices LLC and/or its affiliates. Data as of December 31, 2024. Returns in U.S. dollars.

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