

SPDR® Sector Scorecard

Sector investing is a powerful portfolio construction tool that can enhance your core equity exposure. Our scorecard provides transparent and quantitative measurements of each sector's **valuation, momentum, sentiment, volatility,** and **current positioning.**

The metrics shown are z-scores, which are calculated using the mean and standard deviation of the relevant metrics within S&P 500® sectors.

Monthly Insights

Tech continues to dominate momentum and earnings sentiment, but investors are paying high valuations for that exposure.

Meanwhile, the opposite is true for Energy, with constructive valuations and weak momentum and sentiment.

Sector	Valuation Composite Score	Momentum Composite Score	Earnings Sentiment Composite Score	Aggregate Score
Communication Services	0.13	1.38	-0.21	1.30
Consumer Discretionary	-0.47	0.14	0.50	0.17
Consumer Staples	0.62	-0.60	0.21	0.24
Energy	0.93	-1.33	-0.91	-1.32
Financials	-0.36	0.71	-0.27	0.08
Health Care	-0.19	0.10	0.66	0.57
Industrials	-0.73	0.19	0.48	-0.07
Information Technology	-1.59	1.64	0.90	0.95
Materials	-0.09	-0.69	-0.56	-1.34
Real Estate	1.10	-0.22	-0.76	0.11
Utilities	1.10	-1.32	-0.04	-0.25

Source: FactSet, SPDR Americas Research, as of February 29, 2024. Green shading represents top 3, red shading represents bottom 3. Red and green shading are meant to be read vertically.

Absolute Valuation Composite Score

On an absolute basis, Utilities, Real Estate, and Energy are all exhibiting constructive valuations. Meanwhile, Tech valuations are extended in all metrics.

Sector	P/E	NTM P/E	P/B	P/S	Absolute Valuation Composite Score
Communication Services	0.56	0.60	-0.70	-0.72	-0.06
Consumer Discretionary	-0.31	-0.39	-0.23	-0.64	-0.40
Consumer Staples	-0.17	0.11	0.12	1.65	0.43
Energy	2.45	1.32	-0.10	1.00	1.17
Financials	-0.66	-0.99	-0.94	-0.41	-0.75
Health Care	-0.99	-1.09	-0.72	1.68	-0.28
Industrials	-0.71	-0.71	-0.97	-0.83	-0.80
Information Technology	-0.96	-1.01	-0.91	-1.25	-1.03
Materials	-0.34	-0.79	0.88	-0.45	-0.18
Real Estate	2.13	1.62	2.03	-0.68	1.27
Utilities	1.44	1.34	1.54	0.65	1.24

Source: FactSet, SPDR Americas Research, as of February 29, 2024. Green shading represents top 3, red shading represents bottom 3. Red and green shading are meant to be read vertically. Sector z-score for each metric is calculated across sectors.

Relative Valuation Composite Score

Relative to the S&P 500, Tech. is still incredibly expensive. Meanwhile, Energy and defensive sector valuations — Utilities and Consumer Staples — are attractive.

Sector	P/E	NTM P/E	P/B	P/S	Relative Valuation Composite Score
Communication Services	0.62	1.06	-0.31	-0.09	0.32
Consumer Discretionary	-0.16	-0.73	0.38	-1.66	-0.54
Consumer Staples	0.79	0.76	0.83	0.90	0.82
Energy	1.23	0.74	0.29	0.52	0.69
Financials	0.16	-0.11	-0.49	0.57	0.03
Health Care	-1.48	-0.39	0.63	0.81	-0.11
Industrials	-0.36	-0.31	-1.41	-0.51	-0.65
Information Technology	-1.98	-2.10	-2.33	-2.19	-2.15
Materials	0.10	-1.10	0.76	0.24	0.00
Real Estate	1.31	1.04	0.82	0.53	0.92
Utilities	1.00	1.13	0.83	0.88	0.96

Source: FactSet, SPDR Americas Research, as of February 29, 2024. Green shading represents top 3, red shading represents bottom 3. Red and green shading are meant to be read vertically. Sector z-score for each metric is calculated across sectors.

Momentum Composite Score

Tech. has one of the strongest momentum over every reported time period. Meanwhile, defensive sectors such as Consumer Staples and Energy are suffering from poor momentum.

Sector	3 Months	6 Months	12 Months	Momentum Composite Score
Communication Services	0.91	1.52	1.72	1.38
Consumer Discretionary	0.18	-0.23	0.47	0.14
Consumer Staples	-0.62	-0.70	-0.48	-0.60
Energy	-2.07	-1.02	-0.91	-1.33
Financials	1.12	1.20	-0.18	0.71
Health Care	0.09	0.44	-0.22	0.10
Industrials	0.40	0.07	0.08	0.19
Information Technology	1.36	1.47	2.09	1.64
Materials	-0.54	-0.88	-0.65	-0.69
Real Estate	0.45	-0.29	-0.83	-0.22
Utilities	-1.30	-1.57	-1.09	-1.32

Source: Bloomberg Finance L.P., SPDR Americas Research, as of February 29, 2024. Green shading represents top 3, red shading represents bottom 3. Red and green shading are meant to be read vertically. Sector z-score for each metric is calculated across sectors.

Sentiment Composite Score

Materials, and Real Estate saw poor earnings scores based off most metrics. While earnings downgrades in Energy pointed to negative Energy earnings outlook for 2024. Tech. and Health Care led earnings sentiment based on most metrics.

Sector	3-Month Change to 2023 EPS Est.	2023 EPS Est. Upgrade-to-Downgrade Ratio	Current Earnings Season		Sentiment Composite Score
			Magnitude of Earnings Surprise	% of Companies with Earnings Beats	
Communication Services	0.54	-0.23	-0.33	-0.81	-0.21
Consumer Discretionary	0.69	0.05	1.09	0.18	0.50
Consumer Staples	0.12	-0.14	0.06	0.81	0.21
Energy	-2.67	-1.73	1.00	-0.25	-0.91
Financials	0.43	1.76	-2.58	-0.70	-0.27
Health Care	-0.55	1.41	0.78	1.01	0.66
Industrials	-0.04	-0.01	0.89	1.06	0.48
Information Technology	1.04	0.71	0.26	1.59	0.90
Materials	-0.76	-0.61	-0.14	-0.75	-0.56
Real Estate	0.92	-1.39	-0.62	-1.95	-0.76
Utilities	0.28	0.19	-0.41	-0.20	-0.04

Source: FactSet, SPDR Americas Research, as of February 29, 2024. Green shading represents top 3, red shading represents bottom 3. Red and green shading are meant to be read vertically. Sector z-score for each metric is calculated across sectors.

Volatility Composite Score

Communication Services and Utilities saw elevated implied and realized volatility. Meanwhile, cyclical sectors such as Industrials, Energy, and Consumer Discretionary saw lower volatility.

Sector	Volatility Relative to the S&P 500 (Percentile)		Volatility Z-Score		Volatility Composite Score
	30-Day Realized	3-Month Implied	Realized	Implied	
Communication Services	74	84	1.29	0.76	1.02
Consumer Discretionary	28	44	-0.41	-0.62	-0.51
Consumer Staples	56	99	0.61	1.28	0.94
Energy	3	45	-1.34	-0.59	-0.96
Financials	12	72	-1.00	0.33	-0.33
Health Care	15	75	-0.90	0.45	-0.23
Industrials	9	1	-1.09	-2.09	-1.59
Information Technology	87	79	1.75	0.61	1.18
Materials	55	22	0.56	-1.38	-0.41
Real Estate	33	69	-0.23	0.25	0.01
Utilities	60	91	0.76	1.02	0.89

Source: Bloomberg Finance L.P., SPDR Americas Research, as of February 29, 2024. Green shading represents least volatile, red shading represents most volatile. Red and green shading are meant to be read vertically. Sector z-score for each metric is calculated across sectors.

Sector Positioning

Most sectors saw an increase in their short interest levels in February. Elevated put/call ratio and short interest in Health Care indicated bearish sentiment in the sector.

Sector	Put/Call Volume Ratio		Short Interest as % of Shares Outstanding		
	Current Level	1-Year Percentile Ranking (%)	Current Level (%)	Prior Month (%)	1-Year Percentile Ranking (%)
Communication Services	1.01	8	1.4	1.3	22
Consumer Discretionary	1.34	15	10.9	11.8	13
Consumer Staples	1.33	9	10.0	8.5	100
Energy	1.28	47	4.6	4.7	30
Financials	2.09	71	11.5	10.0	39
Health Care	2.31	89	11.1	10.0	100
Industrials	1.66	8	10.5	9.6	61
Information Technology	1.57	59	3.4	3.1	100
Materials	2.38	61	12.9	10.6	100
Real Estate	6.06	64	2.1	2.1	30
Utilities	1.71	87	11.9	9.1	96

Source: Bloomberg Finance L.P., SPDR Americas Research, as of February 29, 2024. Select Sector SPDR Funds' put/call volume is used to represent the sector. Short interest of all US-listed sector ETFs are used to calculate short interest as a percent of shares outstanding. Current levels of short interest as a percent of shares outstanding are in green if short interest decreases from last quarter and are in red if short interest increases from last quarter. Sectors with lowest percentile ranking based on put/call ratio and of short interest are shaded in green, and highest ranking are in red.

Scorecard Methodology

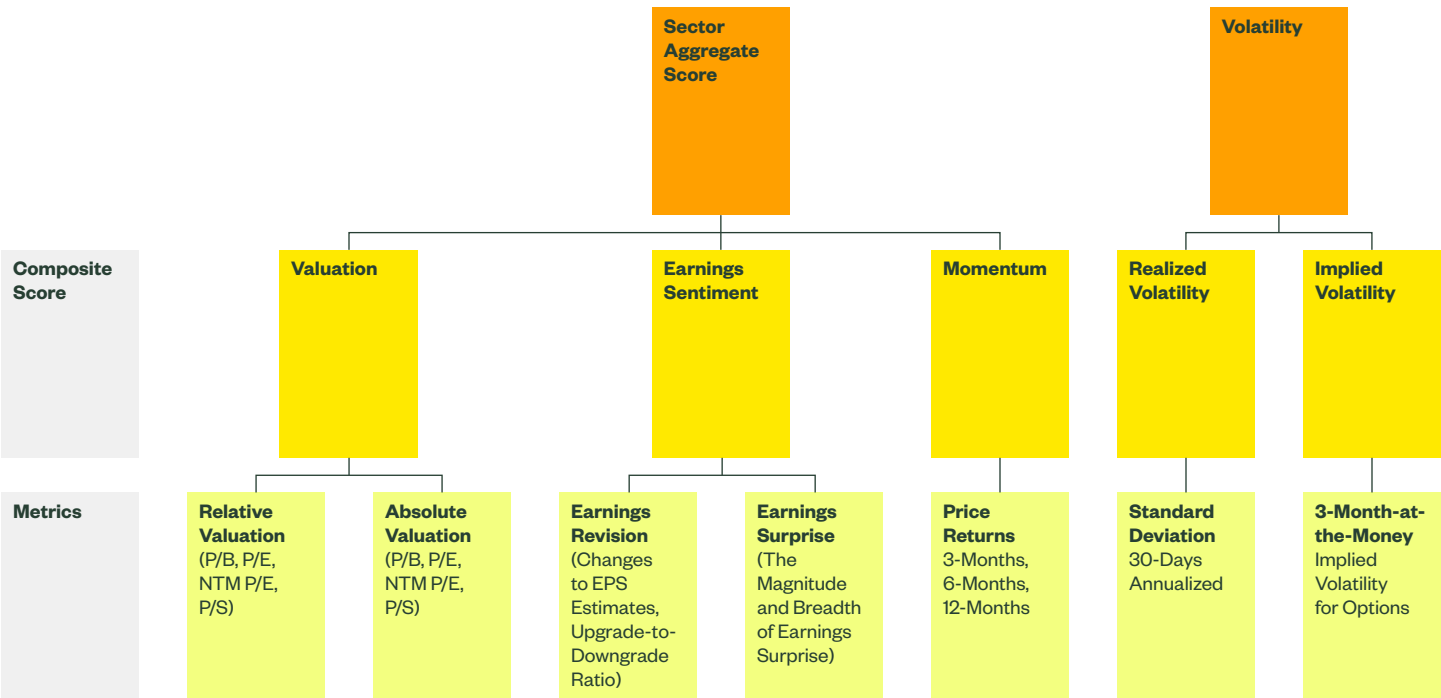
Z-scores are calculated using the mean and standard deviation of the relevant metrics within S&P 500 sectors. Using z-scores to standardize results across all sectors allows for easier relative assessment. Sectors with cheaper valuation, higher price momentum, higher sentiment and higher volatility will have higher z-scores.

We calculate a composite score by equally weighting each metric z-score in the same category.

The scorecard does not represent the investment views of State Street. Metrics used in the scorecard have not been backtested for any sector strategies by State Street. These are for illustrative and educational purposes, as we seek to bring greater transparency to the sector-investing landscape and the due diligence required to build sophisticated portfolios to meet specific client objectives.

Our rationale for these parameters guides our examinations:

- Value** Stocks that trade at a lower price relative to their fundamentals may outperform high-valuation sectors
- Momentum** Stocks that have performed well may tend to continue doing well in the near term
- Earnings sentiment** Stocks with strong earnings sentiment may indicate improving earnings growth prospects in the near term
- Volatility** Realized volatility provides an insight on the sector historical volatility levels, while implied volatility indicates forward-looking risk levels



Source: SPDR Americas Research.

To calculate the **Absolute Valuation Composite Score**, we examined the percentile ranking of sector trailing price-to-earnings (P/E), next-12-month price-to-earnings (NTM P/E), price-to-book (P/B) and price-to-sales (P/S) over the past 15 years. A higher score indicates more attractive valuations at present relative to the sector's historical norm.

To calculate the **Relative Valuation Composite Score**, we examined the percentile ranking of sector valuations relative to the S&P 500 over the past 15 years based on trailing P/E, NTM P/E, P/B and P/S. A higher score indicates more attractive relative valuations compared with the sector's historical norm.

The **Momentum Composite Score** is calculated by combining recent — (not including the most recent month) 3-months, 6-months and 12-months — price performance of the sector. A higher score indicates higher price momentum.

To calculate the **Sentiment Composite Score**, we examined changes to the NTM EPS estimates over the prior three months, the EPS upgrade-to-downgrade ratio, and the magnitude and breadth of earnings beats in the current earnings season. A higher score indicates higher earnings sentiment in the sector.

To calculate the **Volatility Composite Score**, we examined the percentile ranking of each sector's 30-day realized volatility and 3-month implied volatility relative to the S&P 500 over the past 12 months. A z-score was calculated based off that percentile. A higher score indicates higher-than-normal levels of realized or implied volatility.

US Sector ETFs' put and call volume is used to calculate **Put/Call Volume Ratio**. Short interest of all US-listed sector ETFs are used to calculate **Short Interest as a Percentage of Shares Outstanding**.

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Information Classification: General Access

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Glossary

Implied Volatility (IV) is measured by the 3-month at-the-money implied volatility for options tied to the corresponding Select Sector SPDR ETFs. It represents the market's forward-looking expectation of volatility based on current options pricing.

NTM Price-to-Earnings Ratio (NTM P/E) The ratio of the price of a stock and the firms earnings per share over the next 12 months. A lower NTM P/E indicates cheaper valuation.

Price-to-Book Ratio (P/B) A financial ratio used to compare a company's current market price to its book value which is the carrying value of an asset according to its balance sheet account balance. A lower P/B indicates cheaper valuation.

Price-to-Earnings Ratio (P/E) The ratio of the price of a stock and the firms

earnings per share. A lower P/E indicates cheaper valuation.

Price-to-Sales Ratio (P/S) The ratio of the price of a stock and the firms sales per share. A lower P/S indicates cheaper valuation.

Z-score measures how many standard deviations an element is above or below the population mean. A sector z-score can be calculated from the following formula. $z = (X - \mu) / \sigma$, where X is the sector value of the metrics, μ is the mean of 11 sector values for a certain metric, and σ is the standard deviation of the value of 11 sectors.

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Because of their narrow focus, sector funds tend to be more volatile than funds that diversify across many sectors and companies. Select Sector SPDR Funds bear higher level of risk than more broadly diversified funds.

All ETFs are subject to risk, including possible loss of principal. Sector ETF products are also subject to sector risk and non-diversification risk, which generally result in greater price fluctuations than the overall market.

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