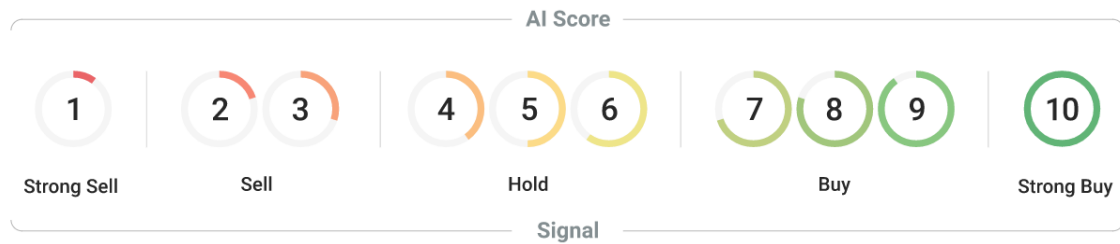




Broad Market | Alpha Signal Analysis



The AI Score is calculated by our Artificial Intelligence, which analyses 10,000 features per stock/ETF per day, based on more than 600 technical, 150 fundamental, and 150 sentiment indicators for every stock and ETF. The predictive capacity achieved by our Artificial Intelligence and the amount of data processed for every stock/ETF are out of reach for human analysis. Some examples of the hundreds of indicators that our AI analyzes every day to learn and improve its predictions:

- Technical indicators: 52 weeks high %, RSI, RSI Slope, MACD, Fibonacci, Distance to support, Momentum, Volatility, WillR, MFI, and many more.
- Fundamental indicators: CROCI, EBITDA, EPS Growth this year, P/E, P/FCF, P/B, P/S, Gross Margin, F-Score, ROA, Sales Q/Q, and many more.
- Sentiment indicators: Average price target analysts, EPS estimate for next quarter, Short Float, Insider Transactions, Hedge Fund Transactions, and many more.
- The Low Risk subscore rates the negative price fluctuations (semi-deviation) of the latest 500 days. The higher the Low Risk subscore, the lower the downside risk.

The alpha signals are the stock and ETF features that are more relevant to calculate the probability of beating the market. These alpha signals are ordered according to their alpha relevance.



IWF | iShares Russell 1000 Growth ETF

Fundamental 9 | Technical 4 | Sentiment 10 | Low Risk 8

AI Score 6 | Hold

#230 of 2151 in ETFs, #18 of 336 in Large Cap

iShares Russell 1000 Growth ETF (IWF) has an AI Score of 6/10 (Hold) because its overall probability of beating the market (S&P 500) in the next 3 months (37.16%) is **+0.80%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Russell 1000 Growth ETF (IWF) is based on the 25 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Sentiment	Niche	Growth	54.07%	97/100
Technical	Chart pattern 180d	n/a	19.67%	97/100
Sentiment	Strategy	Growth	52.12%	96/100
Fundamental	Weighted avg P/E Ratio	25.5	49.05%	92/100
Technical	Chart pattern 90d	n/a	24.45%	90/100
Sentiment	Asset Class Style	Growth	47.25%	88/100
Technical	ATR 180d	4.28	44.61%	78/100
Technical	Average True Range (ATR)	3.26	44.47%	77/100
Technical	SLOWD	60.64	44.29%	76/100
Technical	RSI SLOPE 20d	-0.14	43.95%	74/100
Technical	Chart pattern 120d	n/a	43.65%	71/100
Technical	Balance Of Power	0.86	43.31%	68/100
Technical	MINUS DI 90d	20.5	43.18%	67/100
Technical	Long Line Candle pattern	YES	42.98%	65/100
Technical	FastK	95.66	42.94%	65/100



PSP | Invesco Global Listed Private Equity ETF

Fundamental 4 | Technical 4 | Sentiment 4 | Low Risk 7

AI Score 3 | Sell

#633 of 2151 in ETFs, #12 of 42 in Financials

Invesco Global Listed Private Equity ETF (PSP) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (30.85%) is **-5.51%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Invesco Global Listed Private Equity ETF (PSP) is based on the 24 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 180d	n/a	18.75%	97/100
Technical	ATR 180d	23.54	49.99%	94/100
Technical	ADXR 90d	25.62	46.88%	86/100
Technical	ADXR 50d	41.22	46.43%	85/100
Technical	Volume	33,859	44.53%	78/100
Technical	RSI SLOPE 20d	0.55	44.35%	77/100
Technical	NATR 90d	22.85	44.34%	77/100
Technical	SLOWD	63.32	44.29%	76/100
Technical	MFI god	49.94	44.21%	76/100
Technical	Chart pattern 120d	n/a	43.65%	71/100
Technical	Balance Of Power	0.78	43.31%	68/100
Technical	DEMA 50d	-4.82%	43.15%	67/100
Technical	PLUS DI 180	1.18	42.99%	65/100
Fundamental	ETF Dividend Yield	2.97%	29.76%	65/100
Technical	FastK	88.03	42.94%	65/100



QQQ | Invesco QQQ Trust

Fundamental 9 | Technical 3 | Sentiment 9 | Low Risk 7

AI Score 3 | Sell

#639 of 2151 in ETFs, #126 of 336 in Large Cap

Invesco QQQ Trust (QQQ) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (30.80%) is **-5.56%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Invesco QQQ Trust (QQQ) is based on the 25 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Fundamental	Weighted avg P/E Ratio	25.67	49.05%	92/100
Technical	Chart pattern 90d	n/a	24.45%	90/100
Sentiment	Asset Class Style	Growth	47.25%	88/100
Sentiment	Strategy	Exchange-specific	47.01%	87/100
Technical	Average True Range (ATR)	4.87	45.19%	81/100
Technical	ADXR 90d	12.28	45.14%	81/100
Technical	PLUS DI	29.53	44.61%	78/100
Technical	Aroon Oscillator Momentum	-21.43	44.40%	77/100
Technical	SLOWD	53.27	44.08%	75/100
Technical	Volume	46,593,064	44.01%	74/100
Technical	Chart pattern 120d	n/a	43.65%	71/100
Technical	Balance Of Power	0.85	43.31%	68/100
Technical	MINUS DI 90d	19.96	43.18%	67/100
Technical	Long Line Candle pattern	YES	42.98%	65/100
Technical	FastK	95.48	42.94%	65/100



QUAL | iShares MSCI USA Quality Factor ETF

Fundamental 5 | Technical 4 | Sentiment 9 | Low Risk 9

AI Score 3 | Sell

#696 of 2151 in ETFs, #99 of 476 in Total Market

iShares MSCI USA Quality Factor ETF (QUAL) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (30.44%) is **-5.92%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares MSCI USA Quality Factor ETF (QUAL) is based on the 23 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 180d	n/a	24.26%	90/100
Technical	Chart pattern 90d	n/a	24.45%	90/100
Technical	PLUS DI 180	21.7	47.71%	89/100
Sentiment	Asset Class Style	Growth	47.25%	88/100
Technical	ADXR 50d	15.97	44.48%	78/100
Technical	ATR 180d	2.16	44.47%	77/100
Technical	SLOWD	59.21	44.08%	75/100
Technical	RSI SLOPE 20d	-0.02	43.95%	74/100
Technical	Chart pattern 120d	n/a	43.65%	71/100
Technical	Balance Of Power	0.85	43.31%	68/100
Technical	ADXR 90d	10.67	43.27%	68/100
Technical	Long Line Candle pattern	YES	42.98%	65/100
Technical	FastK	90.75	42.94%	65/100
Technical	AD(180d	6.22	42.83%	63/100
Technical	Belt-hold pattern	YES	42.58%	61/100



IWD | iShares Russell 1000 Value ETF

Fundamental 4 | Technical 3 | Sentiment 4 | Low Risk 10

AI Score 3 | Sell

#1122 of 2151 in ETFs, #233 of 336 in Large Cap

iShares Russell 1000 Value ETF (IWD) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (28.88%) is **-7.48%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Russell 1000 Value ETF (IWD) is based on the 23 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	PLUS DI 180	19.65	48.79%	91/100
Technical	Chart pattern 180d	n/a	24.95%	89/100
Technical	52 week low %	10.78%	47.35%	88/100
Technical	APO 90d	-2	46.70%	86/100
Technical	MFI 90d	45.24	46.30%	85/100
Technical	Chart pattern 120d	n/a	26.76%	84/100
Technical	ATR 180d	2.42	44.47%	77/100
Technical	RSI SLOPE 20d	0.66	44.35%	77/100
Technical	SLOWD	52.08	44.08%	75/100
Technical	Short Line Candle pattern	YES	43.96%	74/100
Technical	Three Inside Up/Down pattern	YES	43.92%	73/100
Technical	Relative Volume	1.33	43.51%	70/100
Technical	Balance Of Power	0.6	43.31%	68/100
Technical	MOM 90d	-1.65	43.27%	68/100
Technical	FastK	58.41	43.25%	68/100



USMV | iShares MSCI USA Min Vol Factor ETF

Fundamental 5 | Technical 3 | Sentiment 5 | Low Risk 10

AI Score 3 | Sell

#1372 of 2151 in ETFs, #273 of 476 in Total Market

iShares MSCI USA Min Vol Factor ETF (USMV) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (28.40%) is **-7.96%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares MSCI USA Min Vol Factor ETF (USMV) is based on the 22 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 120d	n/a	17.69%	97/100
Technical	Chart pattern 90d	n/a	24.45%	90/100
Technical	52 week low %	11.28%	47.35%	88/100
Sentiment	Strategy	Low Volatility	26.49%	84/100
Technical	PLUS DI 180	14.74	44.68%	79/100
Technical	PLUS DI	28.57	44.61%	78/100
Technical	Balance Of Power	0.24	44.39%	77/100
Technical	RSI SLOPE 20d	0.54	44.35%	77/100
Technical	MFI 90d	50.13	44.21%	76/100
Technical	SLOWD	60.41	44.08%	75/100
Technical	MFI 14d	48.75	43.79%	72/100
Technical	ADX 180d	8.33	43.73%	72/100
Technical	Chart pattern 180d	n/a	29.39%	69/100
Technical	Beat SPY 10d	6	43.17%	67/100
Technical	Spinning Top pattem	YES	43.14%	67/100



MTUM | iShares MSCI USA Momentum Factor ETF

Fundamental 4 | Technical 3 | Sentiment 6 | Low Risk 9

AI Score 3 | Sell

#1379 of 2151 in ETFs, #275 of 476 in Total Market

iShares MSCI USA Momentum Factor ETF (MTUM) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (28.39%) is **-7.97%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares MSCI USA Momentum Factor ETF (MTUM) is based on the 24 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 90d	n/a	24.45%	90/100
Sentiment	Asset Class Style	Growth	47.25%	88/100
Fundamental	ETF Turnover ratio	111%	27.08%	83/100
Technical	ADX 180d	10.86	45.60%	83/100
Sentiment	Strategy	Momentum	27.17%	82/100
Technical	PLUS DI 180	17.41	44.68%	79/100
Technical	PLUS DI	28.01	44.61%	78/100
Technical	Volume	200,601	44.53%	78/100
Technical	Aroon Oscillator Momentum	-64.29	44.37%	77/100
Technical	MFI 90d	50.62	44.21%	76/100
Technical	SLOWD	36	43.82%	73/100
Technical	Chart pattern 120d	n/a	43.65%	71/100
Technical	ATR 180d	2.72	43.54%	70/100
Technical	Chart pattern 180d	n/a	29.39%	69/100
Technical	Balance Of Power	0.95	43.31%	68/100



IJR | iShares Core S&P Small-Cap ETF

Fundamental 4 | Technical 3 | Sentiment 5 | Low Risk 9

AI Score 2 | Sell

#1834 of 2151 in ETFs, #107 of 116 in Small Cap

iShares Core S&P Small-Cap ETF (IJR) has an AI Score of 2/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (27.70%) is **-8.66%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Core S&P Small-Cap ETF (IJR) is based on the 24 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	APO 90d	-2.03	46.70%	86/100
Technical	MFI 90d	47.09	44.62%	78/100
Technical	ATR 180d	1.94	44.47%	77/100
Technical	DC period	1876.82%	44.37%	77/100
Technical	RSI SLOPE 20d	0.55	44.35%	77/100
Technical	SLOWD	71.65	44.29%	76/100
Technical	Chart pattern 120d	n/a	44.26%	76/100
Technical	Phasor quadrature	3.62%	43.75%	72/100
Technical	FastK	80	43.54%	70/100
Technical	PLUS DI 180	22.78	43.38%	69/100
Technical	Balance Of Power	0.6	43.31%	68/100
Technical	MOM 90d	-2.91	43.27%	68/100
Technical	Aroon downside	42.86	43.26%	68/100
Technical	DEMA 50d	-4.64%	43.15%	67/100
Technical	52 week low %	14.92%	43.11%	66/100



SPY | SPDR S&P 500 ETF Trust

Fundamental 5 | Technical 4 | Sentiment 4 | Low Risk 10

AI Score 2 | Sell

#2040 of 2151 in ETFs, #331 of 336 in Large Cap

SPDR S&P 500 ETF Trust (SPY) has an AI Score of 2/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (27.32%) is **-9.04%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of SPDR S&P 500 ETF Trust (SPY) is based on the 24 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 120d	n/a	17.69%	97/100
Technical	Chart pattern 180d	n/a	18.75%	97/100
Technical	PLUS DI 180	19.63	48.79%	91/100
Technical	Chart pattern 90d	n/a	24.45%	90/100
Technical	Average True Range (ATR)	3.97	45.19%	81/100
Technical	MFI 90d	47.34	44.62%	78/100
Technical	ADX 180d	5.97	44.49%	78/100
Technical	SLOWD	51.36	44.08%	75/100
Technical	Volume	82,821,856	44.01%	74/100
Technical	RSI SLOPE 20d	0.15	43.98%	74/100
Technical	Three Inside Up/Down pattern	YES	43.92%	73/100
Technical	Balance Of Power	0.78	43.31%	68/100
Sentiment	Issuer	State Street	29.73%	65/100
Technical	Long Line Candle pattern	YES	42.98%	65/100
Technical	FastK	91.53	42.94%	65/100



IWM | iShares Russell 2000 ETF

Fundamental 4 | Technical 3 | Sentiment 5 | Low Risk 9

AI Score 2 | Sell

#2055 of 2151 in ETFs, #115 of 116 in Small Cap

iShares Russell 2000 ETF (IWM) has an AI Score of 2/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (27.30%) is **-9.06%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Russell 2000 ETF (IWM) is based on the 25 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	APO 90d	-4.62	49.03%	92/100
Technical	MOM 90d	-7.39	46.46%	85/100
Technical	MFI 90d	44.75	46.30%	85/100
Technical	Phasor quadrature	6.45%	45.61%	83/100
Technical	MACD hist	0.68	44.74%	79/100
Technical	Average True Range (ATR)	3.18	44.47%	77/100
Technical	RSI SLOPE 20d	0.67	44.35%	77/100
Technical	SLOWD	71.52	44.29%	76/100
Technical	Chart pattern 120d	n/a	44.26%	76/100
Technical	Volume	35,989,444	44.01%	74/100
Technical	Three Inside Up/Down pattern	YES	43.92%	73/100
Technical	FastK	75.28	43.54%	70/100
Technical	PLUS DI 180	22.72	43.38%	69/100
Technical	Balance Of Power	0.57	43.31%	68/100
Technical	DC period	1951.18%	43.28%	68/100



VYM | Vanguard High Dividend Yield Index Fund

Fundamental 3 | Technical 3 | Sentiment 4 | Low Risk 10

AI Score 2 | Sell

#2118 of 2151 in ETFs, #40 of 40 in High Dividend Yield

Vanguard High Dividend Yield Index Fund (VYM) has an AI Score of 2/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (27.12%) is **-9.24%** vs. the average probability (36.36%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Vanguard High Dividend Yield Index Fund (VYM) is based on the 23 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Type	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	52 week low %	9.35%	47.35%	88/100
Fundamental	ETF Dividend Yield	2.21%	26.47%	85/100
Fundamental	Propectus Objective	Equity-income	26.75%	84/100
Technical	Chart pattern 120d	n/a	26.76%	84/100
Technical	MFI god	48.79	44.71%	79/100
Sentiment	Category	High Dividend Yield	28.02%	79/100
Sentiment	Focus	High Dividend Yield	28.02%	79/100
Technical	PLUS DI 180	15.46	44.68%	79/100
Technical	ADX 180d	5.67	44.49%	78/100
Technical	ATR 180d	1.92	44.47%	77/100
Technical	Balance Of Power	0.41	44.39%	77/100
Technical	RSI SLOPE 20d	0.64	44.35%	77/100
Technical	SLOWD	56.85	44.08%	75/100
Technical	Three Inside Up/Down pattern	YES	43.92%	73/100
Technical	Chart pattern 180d	n/a	29.39%	69/100



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