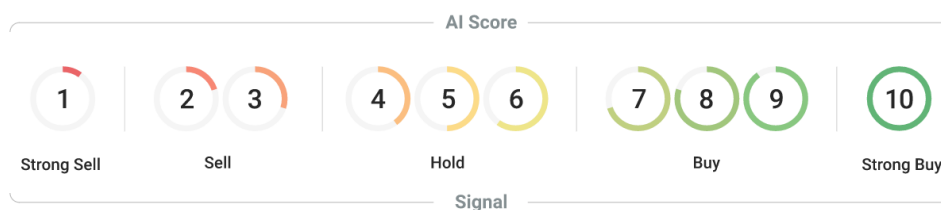




Broad Market | Alpha Signal Breakdown

Our AI transforms hundreds of complex stock/ETFs indicators and thousands of stock/ETFs features to rate stocks and ETFs with an easy-to-understand score: the AI Score.

Stocks and ETFs with the highest AI Scores (7 to 10) have a higher probability of outperforming the market, while stocks and ETFs with the lowest AI Scores (1 to 3) have a lower probability. AI Scores are translated into ratings/signals for short-term investment timeframes (3 months), as explained in the following table.



Our Artificial Intelligence calculates probabilities, not certainties. The AI Scores and the ratings/signals should be used as useful but not infallible information to complement your own investment decision process.

The AI Score is calculated by our Artificial Intelligence, which analyzes 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.

While the AI Score has a holistic approach, considering all the different types of information available for a stock or ETF, the Fundamental, Technical, and Sentiment subscores rate the probability of beating the market based only on those specific types of indicators.

These specific subscores can be helpful to enrich your investment strategy. For example, if you favor fundamental analysis when picking a stock or ETF, you could select the one with the highest Fundamental subscore between two with the same global AI Score. The same would apply to investors that usually favor technical or sentiment analysis in their stock/ETF picking process.

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 AI Score is not the average of the subscores. The AI Score is calculated by analyzing all the data types available for a stock or ETF, independently of the specific subscores.



IWY | iShares Russell Top 200 Growth ETF

Fundamental 10 | Technical 4 | Sentiment 10 | Low Risk 6

AI Score 10 | Strong Buy

#1 of 3338 in ETF's, #1 of 529 in Large Cap



iShares Russell Top 200 Growth ETF (IWY) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (46.51%) is **+12.83%** vs. the average probability (33.68%) of US stocks analysed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Russell Top 200 Growth ETF (IWY) is based on the 23 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Technical	Chart pattern 180d	n/a	56.76%	99/100
Fundamental	Weighted avg P/E Ratio	25.69	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	Ultimate Oscillator	57.27	44.34%	83/100
Technical	Chart pattern 120d	n/a	43.99%	81/100
Technical	Phasor inphase	4.48%	43.86%	80/100
Technical	SLOWD	52.34	43.19%	76/100
Technical	ATR 180d	2.43	43.16%	76/100



IWF | iShares Russell 1000 Growth ETF

Fundamental 10 | Technical 4 | Sentiment 10 | Low Risk 6

AI Score 10 | Strong Buy

#3 of 3338 in ETFs, #2 of 529 in Large Cap



iShares Russell 1000 Growth ETF (IWF) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (45.79%) is **+12.11%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Russell 1000 Growth ETF (IWF) is based on the 23 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Fundamental	Weighted avg P/E Ratio	25.5	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	MOM 180d	68.25	45.18%	86/100
Technical	Chart pattern 180d	n/a	22.89%	83/100
Technical	Ultimate Oscillator	57.16	44.34%	83/100
Technical	Phasor inphase	7.77%	43.86%	80/100
Technical	SLOWD	55.21	43.19%	76/100
Technical	ATR 180d	4.1	43.06%	75/100

**MGK | Vanguard Mega Cap Growth ETF**

Fundamental 10 | Technical 4 | Sentiment 10 | Low Risk 6

AI Score 10 | Strong Buy

#4 of 3338 in ETFs, #3 of 592 in Large Cap



Vanguard Mega Cap Growth ETF (MGK) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (45.42%) is **+11.74%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Vanguard Mega Cap Growth ETF (MGK) is based on the 23 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Technical	Chart pattern 180d	n/a	56.76%	99/100
Sentiment	Asset Class Size	Mega-Cap	53.88%	98/100
Fundamental	Weighted avg P/E Ratio	28.07	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	MOM 180d	59.33	45.18%	86/100
Technical	Ultimate Oscillator	57.94	44.34%	83/100
Technical	Chart pattern 120d	n/a	43.99%	81/100
Technical	Phasor inphase	6.88%	43.86%	80/100



VOT | Vanguard Mid-Cap Growth ETF

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

AI Score 10 | Strong Buy

#5 of 3338 in ETFs, #1 of 70 in Mid Cap



Vanguard Mid-Cap Growth ETF (VOT) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (45.35%) is **+11.67%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Vanguard Mid-Cap Growth ETF (VOT) is based on the 24 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Fundamental	Weighted avg P/E Ratio	25.37	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	Chart pattern 120d	n/a	46.65%	91/100
Technical	Chart pattern 180d	n/a	22.89%	83/100
Technical	Ultimate Oscillator	54.89	44.34%	83/100
Technical	SLOWD	69.67	43.60%	79/100
Technical	MINUS DI 300d	21.03	43.16%	76/100
Technical	Volume	123,668	43.13%	76/100

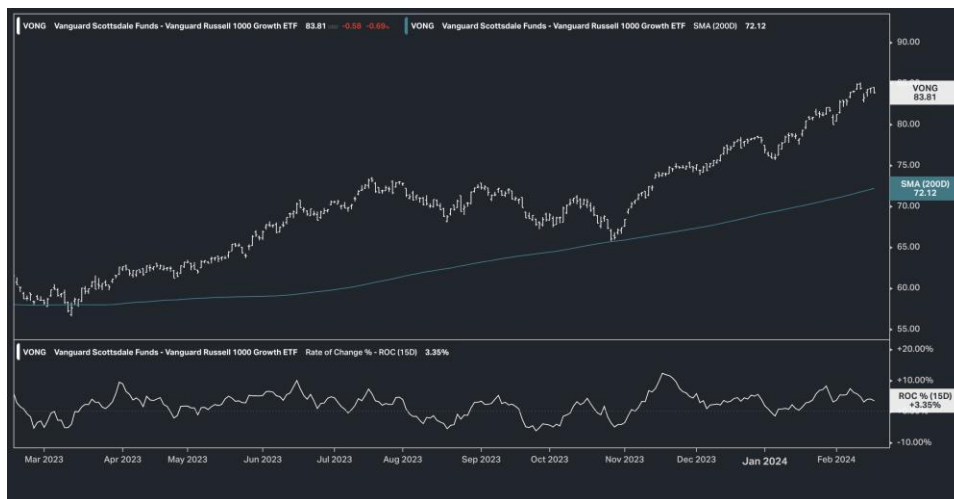


VONG | Vanguard Russell 1000 Growth Index ETF

Fundamental 9 | Technical 3 | Sentiment 10 | Low Risk 6

AI Score 10 | Strong Buy

#6 of 3338 in ETFs, #4 of 592 in Large Cap



Vanguard Russell 1000 Growth Index ETF (VONG) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (45.34%) is **+11.66%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Vanguard Russell 1000 Growth Index ETF (VONG) is based on the 23 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Fundamental	Weighted avg P/E Ratio	25.33	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	Chart pattern 180d	figure_139	22.89%	83/100
Technical	Chart pattern 120d	figure_105	43.99%	81/100
Technical	SLOWD	56.3	43.19%	76/100
Fundamental	ETF Dividend Yield	0.66%	42.96%	74/100
Technical	MINUS DI 90d	19.13	42.81%	73/100
Technical	NATR 90d	1.16	42.52%	72/100

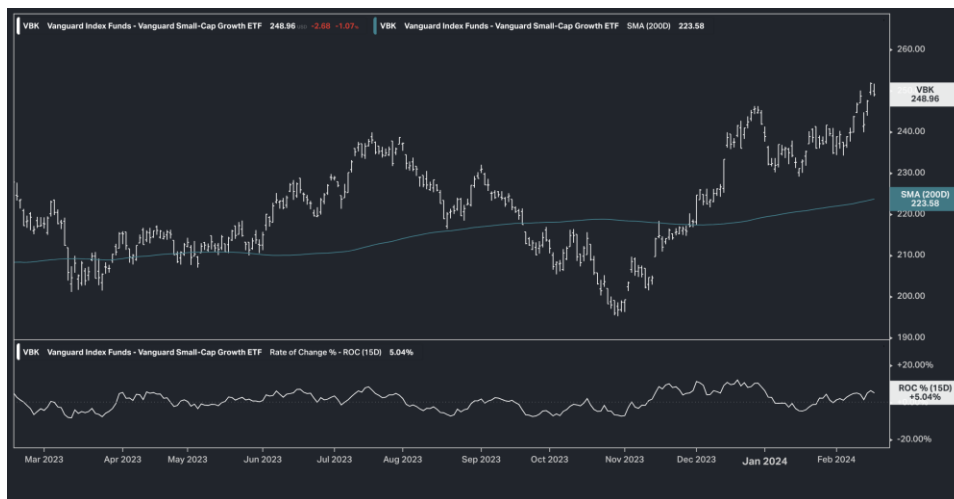


VBK | Vanguard Small Cap Growth ETF

Fundamental 5 | Technical 4 | Sentiment 7 | Low Risk 6

AI Score 10 | Strong Buy

#7 of 3338 in ETFs, #1 of 148 in Smal Cap



Vanguard Small Cap Growth ETF (VBK) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (45.21%) is **+11.53%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Vanguard Small Cap Growth ETF (VBK) is based on the 26 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	Chart pattern 180d	n/a	17.91%	96/100
Technical	Chart pattern 120d	n/a	46.65%	91/100
Technical	Average True Range (ATR)	3.86	43.94%	81/100
Technical	Phasor inphase	7.46%	43.86%	80/100
Technical	SLOWD	72.48	43.60%	79/100
Technical	MOM 300d	9.75	43.54%	78/100
Technical	ATR 180d	4.27	43.06%	75/100



VUG | Vanguard Growth ETF

Fundamental 10 | Technical 4 | Sentiment 10 | Low Risk 6

AI Score 10 | Strong Buy

#8 of 3338 in ETFs, #5 of 592 in Large Cap



Vanguard Growth ETF (VUG) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (45.09%) is **+11.41%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Vanguard Growth ETF (VUG) is based on the 24 (top 10 shown below) 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	60.29%	99/100
Sentiment	Strategy	Growth	57.96%	99/100
Fundamental	Weighted avg P/E Ratio	27.83	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Technical	MOM 180d	69.44	45.18%	86/100
Technical	Chart pattern 180d	n/a	22.89%	83/100
Technical	Ultimate Oscillator	57.46	44.34%	83/100
Technical	Chart pattern 120d	n/a	43.99%	81/100
Technical	Average True Range (ATR)	3.8	43.94%	81/100
Technical	Phasor inphase	7.91%	43.86%	80/100

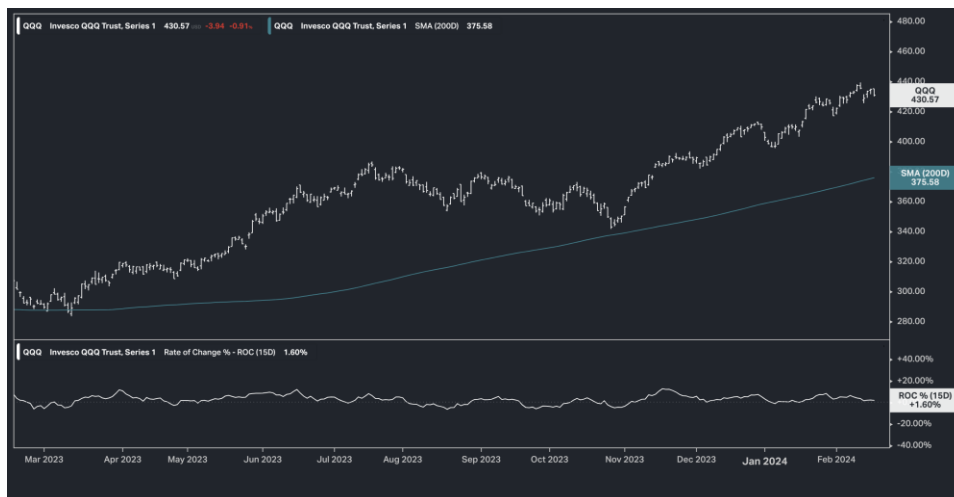


QQQ | Invesco QQQ Trust Series 1

Fundamental 10 | Technical 4 | Sentiment 10 | Low Risk 6

AI Score 10 | Strong Buy

#13 of 3338 in ETFs, #8 of 592 in Large Cap



Invesco QQQ Trust Series 1 (QQQ) has an AI Score of 10/10 (Strong Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (44.18%) is **+10.50%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Invesco QQQ Trust Series 1 (QQQ) is based on the 24 (top 10 shown below) 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	53.83%	98/100
Sentiment	Asset Class Style	Growth	51.46%	97/100
Sentiment	Strategy	Exchange-specific	49.96%	96/100
Technical	APO 180d	14.28	47.09%	92/100
Technical	Chart pattern 120d	n/a	46.65%	91/100
Technical	MOM 180d	84.43	45.18%	86/100
Technical	Chart pattern 180d	n/a	22.89%	83/100
Technical	Ultimate Oscillator	53.26	44.34%	83/100
Technical	Phasor inphase	6.97%	43.86%	80/100
Fundamental	ETF Dividend Yield	0.59%	43.58%	79/100



DSI | iShares MSCI KLD 400 Social Index Fund

Fundamental 5 | Technical 4 | Sentiment 9 | Low Risk 7

AI Score 9 | Buy

#17 of 3338 in ETFs, #1 of 675 in Total Market



iShares MSCI KLD 400 Social Index Fund (DSI) has an AI Score of 9/10 (Buy) because its overall probability of beating the market (S&P 500) in the next 3 months (43.51%) is **+9.83%** vs. the average probability (33.68%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares MSCI KLD 400 Social Index Fund (DSI) is based on the 21 (top 10 shown below) 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	Asset Class Style	Growth	51.46%	97/100
Technical	Chart pattern 120d	n/a	46.65%	91/100
Technical	MINUS DI 300d	23.77	45.13%	86/100
Technical	Chart pattern 180d	n/a	22.89%	83/100
Technical	Ultimate Oscillator	55.21	44.34%	83/100
Technical	SLOWD	56.08	43.19%	76/100
Technical	PLUS DI 180	24.48	43.15%	76/100
Technical	Volume	122,013	43.13%	76/100
Technical	MINUS DI 90d	19.11	42.81%	73/100
Technical	NATR 90d	1.08	42.52%	72/100



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