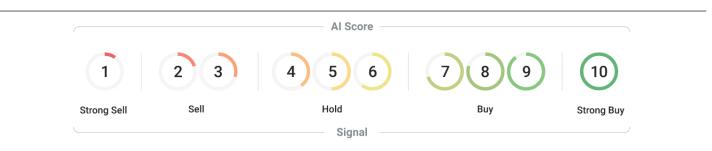


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Cut through the noise and get straight to the signals.



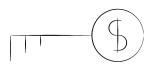
We are stock analytics research firm powered by Explainable Artificial Intelligence - rating stocks and ETFs with an easy-to-understand global AI Score, ranging from 1 to 10; the higher the score, the higher the probability of beating the market in the next 3 months.

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This chartbook contains the Alpha Signal Breakdown for the Broad Market. Members receive an Alpha Breakdown of all the constituents listed within the table, as well as 50 tickers of their choosing (U.S. Single stocks, U.S. listed etf's and constituents from the EuroSTOXX 600).

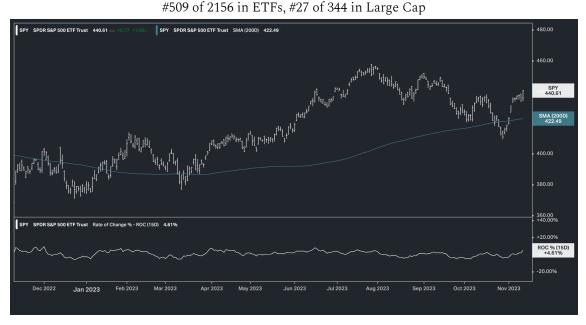
BROAD MARKET	SPY	QQQ	IWM	IWF	IWD	MTUM	IJR	USMV	VYM	QUAL	PSP
Fundamental	5	9	4	6	4	5	5	5	4	4	5
Technical	5	3	9	2	5	4	9	3	4	3	3
Sentiment	4	9	5	10	5	7	5	5	5	9	5
Low Risk	10	7	9	8	10	9	9	10	10	9	7
AI Score	5	4	10	3	3	3	10	3	3	3	4
Asset Class	RANK	I	II	III	IV	v	VI	VII	VIII	IX	х
Bond	Ticker	EDV	ZROZ	TLT	SCHQ	SPTL	VGLT	LTPZ	TLTW	TLH	FTSM
	Fundamental	4	4	4	4	4	5	4	3	4	4
	Technical	10	10	10	10	9	10	10	10	9	4
	Sentiment	4	2	2	2	3	3	3	3	2	3
	Low Risk	9	8	10	10	10	10	10	10	10	10
	AI Score	10	10	10	10	10	9	9	9	9	5
Commodity	Ticker	WEAT	UNG	BDRY	DBO	USO	BNO	SLV	IAU	SIVR	DBB
	Fundamental	5	5	6	5	6	6	6	7	4	4
	Technical	10	10	6	3	5	4	2	3	2	4
	Sentiment	6	5	6	6	5	5	5	5	7	6
	Low Risk	4	1	2	3	3	3	8	10	8	9
	AI Score	10	9	9	6	5	5	4	4	3	3
Equity	Ticker	XBI	JETS	IWO	GNOM	SILJ	CQQQ	IHI	NUSC	COPX	KRE
	Fundamental	6	9	5	5	7	5	5	4	5	4
	Technical	10	10	10	10	10	10	10	9	10	10
	Sentiment	5	5	6	4	5	5	9	5	5	5
	Low Risk	4	5	7	4	4	4	9	9	5	5
	AI Score	10	10	10	10	10	10	10	10	10	10
Multi Asset	Ticker	RYLD	CYA	TAIL	YYY	RPAR	AOK	XYLD	DRSK	COMT	PTLC
	Fundamental	4	3	4	3	4	4	4	4	3	5
	Technical	9	8	6	4	7	2	3	4	2	2
	Sentiment	4	3	3	4	4	5	4	3	5	4
	Low Risk	10	1	10	10	10	10	10	10	6	10
	AI Score	9	9	6	4	4	3	3	3	3	3

AI Score Summary



SPY | SPDR S&P 500 ETF Trust

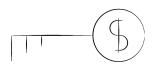
Fundamental 5 | Technical 5 | Sentiment 4 | Low Risk 10 AI Score 5 | Hold



SPDR S&P 500 ETF Trust (SPY) has an AI Score of 5/10 (Hold) because its overall probability of beating the market (S&P 500) in the next 3 months (36.80%) is **-0.74%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

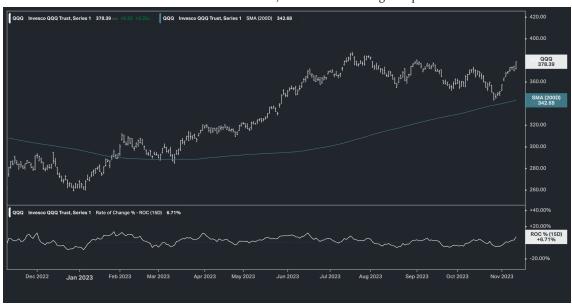
The AI-powered overall analysis of SPDR S&P 500 ETF Trust (SPY) is based on the 25 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	APO 90d	-7.43	54.43%	97/100
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	PLUS Dl 180	18.35	49.89%	93/100
Technical	MACD signal extended	-3.56	48.70%	90/100
Technical	MACD hist	2.47	46.58%	83/100
Technical	MACD hist extended	2.6	46.28%	82/100
Technical	MFI 90d	46.97	45.82%	79/100
Technical	Phasor inphase	16.45%	45.70%	79/100
Technical	TRIX 30d	-0.06	44.83%	73/100
Technical	PLUS Dl	28.23	44.73%	72/100



QQQ | Invesco QQQ Trust

Fundamental 9 | Technical 3 | Sentiment 9 | Low Risk 7 AI Score 4 | Hold

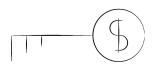


#679 of 2156 in ETFs, #49 of 334 in Large Cap

Invesco QQQ Trust (QQQ) has an AI Score of 4/10 (Hold) because its overall probability of beating the market (S&P 500) in the next 3 months (32.59%) is **-4.95%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of Invesco QQQ Trust (QQQ) 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):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	APO 90d	-4.61	49.17%	91/100
Technical	MACD signal extended	-3.65	48.70%	90/100
Sentiment	Asset Class Style	Growth	46.81%	84/100
Technical	MACD hist	2.7	46.58%	83/100
Fundamental	Weighted avg P/E Ratio	25.67	46.46%	83/100
Technical	MACD hist extended	2.76	46.28%	82/100
Technical	RSI SLOPE 90d	-0.17	46.02%	81/100
Technical	Phasor inphase	16.85%	45.70%	79/100
Sentiment	Strategy	Exchange-specific	45.58%	78/100



IWM | iShares Russell 2000 ETF

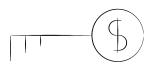
Fundamental 4 | Technical 9 | Sentiment 5 | Low Risk 9 AI Score 10 | Strong Buy



iShares Russell 2000 ETF (IWM) 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 (49.07%) is +**11.53%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

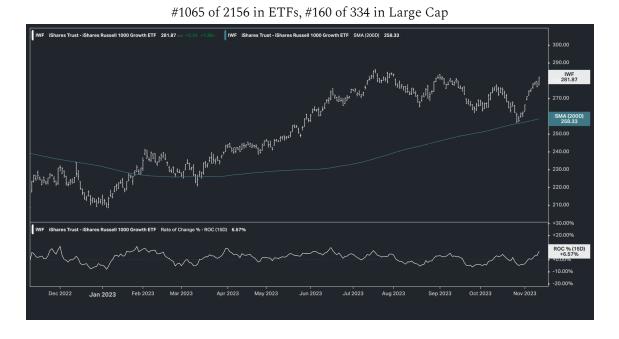
The AI-powered overall analysis of iShares Russell 2000 ETF (IWM) is based on the 24 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	APO 90d	-8.3	54.43%	97/100
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	MOM 180d	-17.01	52.21%	96/100
Technical	PLUS DI 180	20.3	49.89%	93/100
Technical	Chart pattern 30d	n/a	49.88%	93/100
Technical	MOM 90d	-12.81	49.52%	92/100
Technical	MACD signal extended	-3.06	48.70%	90/100
Technical	MFI 180d	46.24	48.22%	89/100
Technical	MINUS DI 300d	27.09	47.54%	87/100
Technical	MOM 18d	-5.84	47.04%	85/100



IWF | iShares Russell 1000 Growth ETF

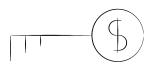
Fundamental 6 | Technical 2 | Sentiment 10 | Low Risk 8 AI Score 3 | Sell



iShares Russell 1000 Growth ETF (IWF) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (31.26%) is **-6.28%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

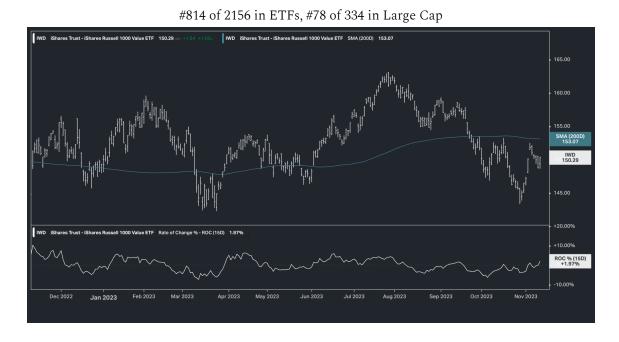
The AI-powered overall analysis of iShares Russell 1000 Growth ETF (IWF) is based on the 24 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Sentiment	Niche	Growth	53.06%	96/100
Sentiment	Strategy	Growth	51.56%	95/100
Technical	Chart pattern 180d	n/a	24.19%	94/100
Technical	APO 90d	-3.25	49.17%	91/100
Technical	MACD signal extended	-2.35	48.70%	90/100
Sentiment	Asset Class Style	Growth	46.81%	84/100
Technical	MACD hist	2	46.58%	83/100
Fundamental	Weighted avg P/E Ratio	25.5	46.46%	83/100
Technical	ATR 180d	4.42	46.16%	81/100



IWD | iShares Russell 1000 Value ETF

Fundamental 4 | Technical 5 | Sentiment 5 | Low Risk 10 AI Score 3 | Sell

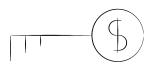


iShares Russell 1000 Value ETF (IWD) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (31.89%) is **-5.65%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares Russell 1000 Value ETF (IWD) 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):

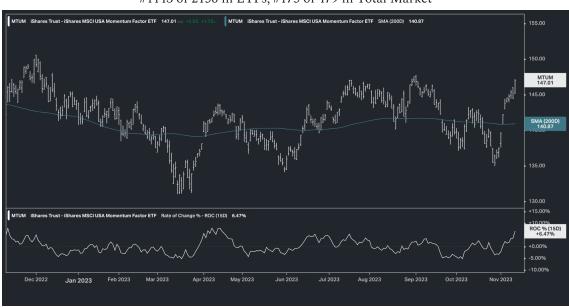
Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	PLUS DI 180	17.93	49.89%	93/100
Technical	Chart pattern 30d	n/a	49.88%	93/100
Technical	APO 90d	-3.79	49.17%	91/100
Technical	MOM 90d	-4.65	47.68%	88/100
Technical	MINUS DI 300d	27.82	47.54%	87/100
Technical	MIFI 90d	40.32	46.21%	82/100
Technical	Phasor inphase	5.27%	45.70%	79/100
Technical	PLUS DI	23.61	45.56%	78/100
Technical	MACD signal extended	-1.43	45.50%	78/100

<u>GRYNING | CAPITAL</u>



MTUM | iShares MSCI USA Momentum Factor ETF

Fundamental 5 | Technical 4 | Sentiment 7 | Low Risk 9 AI Score 3 | Sell

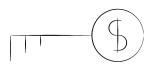


#1143 of 2156 in ETFs, #175 of 479 in Total Market

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 (31.12%) is **-6.42%** vs. the average probability (37.54%) 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):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	APO 90d	-1.71	47.11%	86/100
Technical	PLUS DI 180	16.43	46.94%	85/100
Sentiment	Asset Class Style	Growth	46.81%	84/100
Technical	MACD hist	0.97	46.58%	83/100
Technical	RSI SLOPE 90d	-0.15	46.02%	81/100
Technical	Phasor inphase	6.17%	45.70%	79/100
Fundamental	ETF Turnover ratio	111%	29.50%	78/100
Technical	SAR 90d (in dollars)	-0.06	45.43%	77/100
Technical	TRIX 30d	-0.04	44.83%	73/100



IJR | iShares Core S&P Small-Cap ETF

Fundamental 5 | Technical 9 | Sentiment 5 | Low Risk 9 AI Score 10 | Strong Buy

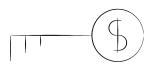


#160 of 2156 in ETFs, #20 of 117 in Small Cap

iShares Core S&P Small-Cap ETF (IJR) 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 (47.68%) is +**10.14%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

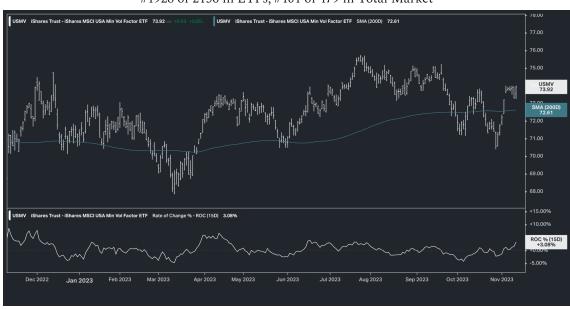
The AI-powered overall analysis of iShares Core S&P Small-Cap ETF (IJR) is based on the 23 fundamental, technical, and sentiment features that are among the ones that had the greatest impact on the performance of ETFs during the last 12 months (alpha signals):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	Chart pattern 30d	n/a	49.88%	93/100
Technical	APO 90d	-4.08	49.17%	91/100
Technical	MFI 180d	46.79	48.22%	89/100
Technical	MOM 90d	-5.52	47.68%	88/100
Technical	MFI 90d	45.14	47.39%	87/100
Technical	PLUS DI 180	20.66	47.31%	86/100
Technical	Upside based on 90-day Price Forecast	-16.25%	46.76%	84/100
Technical	TRIX 30d	-0.16	46.64%	84/100
Technical	MINUS DI 300d	26	46.47%	83/100



USMV | iShares MSCI USA Min Vol Factor ETF

Fundamental 5 | Technical 3 | Sentiment 5 | Low Risk 10 AI Score 3 | Sell

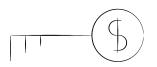


iShares MSCI USA Min Vol Factor ETF (USMV) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (29.95%) is **-7.59%** vs. the average probability (37.54%) of US stocks analyzed by our Artificial Intelligence.

The AI-powered overall analysis of iShares MSCI USA Min Vol Factor ETF (USMV) is based on the 26 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):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	PLUS DI	25.02	45.56%	78/100
Technical	RSI SLOPE 90d	-0.2	45.52%	78/100
Technical	MINUS DI 300d	21.8	45.42%	77/100
Technical	DC Period	1809.33%	44.90%	73/100
Technical	TRIX 30d	-0.04	44.83%	73/100
Sentiment	Strategy	Low Volatility	30.33%	72/100
Technical	DX	688.37%	44.52%	71/100
Technical	Balance Of Power	0.53	44.48%	70/100
Technical	SLOWD	72.88	44.44%	70/100

#1928 of 2156 in ETFs, #401 of 479 in Total Market



VYM | Vanguard High Dividend Yield Index Fund

Fundamental 4 | Technical 4 | Sentiment 5 | Low Risk 10 AI Score 3 | Sell

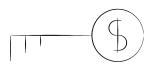


#1323 of 2156 in ETFs, #22 of 40 in High Dividend Yield

Vanguard High Dividend Yield Index Fund (VYM) has an AI Score of 3/10 (Sell) because its overall probability of beating the market (S&P 500) in the next 3 months (30.81%) is **-6.73%** vs. the average probability (37.54%) 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 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):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	Chart pattern 90d	n/a	26.50%	90/100
Technical	MINUS DI 300d	30.37	47.54%	87/100
Technical	Chart pattern 180d	n/a	27.95%	86/100
Technical	APO 90d	-2	47.11%	86/100
Technical	PLUS DI 180	14.04	46.94%	85/100
Technical	MFI 90d	48.82	46.07%	81/100
Technical	ADX 180d	5.98	45.41%	77/100
Technical	Ultimate Oscillator	56.59	45.38%	77/100
Technical	RSI 100	48.67	45.32%	76/100



QUAL | iShares MSCI USA Quality Factor ETF

Fundamental 4 | Technical 3 | Sentiment 9 | Low Risk 9 AI Score 3 | Sell

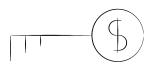


#1562 of 2156 in ETF's, #280 of 479 in Total Market

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 (30.46%) is **-7.08%** vs. the average probability (37.54%) 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 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):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 120d	n/a	11.55%	99/100
Technical	Chart pattern 90d	n/a	19.82%	97/100
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	Chart pattern 180d	n/a	24.19%	94/100
Technical	PLUS DI 180	20.6	49.89%	93/100
Technical	APO 90d	-1.67	47.11%	86/100
Sentiment	Asset Class Style	Growth	46.81%	84/100
Technical	Phasor inphase	5.32%	45.70%	79/100
Technical	RSI SLOPE 90d	-0.24	45.52%	78/100
Technical	MACD signal extended	-1.03	45.50%	78/100



PSP | Invesco Gloabl Listed Private Equity ETF

Fundamental 5 | Technical 3 | Sentiment 5 | Low Risk 7 AI Score 4 | Hold

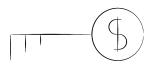


#655 of 2156 in ETFs, #18 of 42 in Financials

Invesco Global Listed Private Equity ETF (PSP) has an AI Score of 4/10 (Hold) because its overall probability of beating the market (S&P 500) in the next 3 months (32.84%) is **-4.70%** vs. the average probability (37.54%) 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):

Туре	Alpha Signal	Current Value	Odds to Beat Market	Signal Relevance
Technical	Chart pattern 120d	n/a	11.55%	99/100
Technical	Chart pattern 90d	n/a	19.82%	97/100
Technical	S&P 500 Al Score	7	54.37%	97/100
Technical	Chart pattern 180d	n/a	24.19%	94/100
Technical	PLUS DI 180	20.6	49.89%	93/100
Technical	APO 90d	-1.67	47.11%	86/100
Sentiment	Asset Class Style	Growth	46.81%	84/100
Technical	Phasor inphase	5.32%	45.70%	79/100
Technical	RSI SLOPE 90d	-0.24	45.52%	78/100
Technical	MACD signal extended	-1.03	45.50%	78/100



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