HedgAI Signals - 04/16/2024

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- Performance Metrics Since Publishing
- Asset Charts
- Description/Tutorial/Disclaimer

- Buys Added: Tesla, Meta Platforms
- Sells Added:
- Buys Closed:
- Sells Closed:

HedgAI Signals - Summary Of Signals (Displaying Prediction Z Scores)

Top Algos Position Summary

Asset	Current Position	Threshold	Today	1 Day Ago	2 Days Ago	3 Days Ago
NASDAQ 100	Sell	1.0	-1.49	-1.19	-0.92	-0.83
NVIDIA	Wait and Watch	0.7	-0.37	-0.56	-0.59	-0.55
Tesla	Buy	0.8	0.9	0.63	0.62	0.56
Meta Platforms	Buy	0.8	0.86	0.4	0.33	0.28
Netflix	Wait and Watch	1.0	0.47	0.55	0.63	0.57
Energy $XLE	Wait and Watch	0.9	0.46	0.39	0.36	0.4
Consumer Staples $XLP	Sell	1.0	-1.63	-1.56	-1.0	-0.53
Retail $XRT	Wait and Watch	0.9	0.4	0.55	0.75	0.85
Steel	Wait and Watch	1.0	0.3	0.04	-0.14	-0.38
Uranium $URA	Wait and Watch	0.6	-0.36	-0.38	-0.32	-0.3
Sugar	Wait and Watch	0.9	0.41	0.26	0.18	0.2
US Dollar To Yen Cross	Wait and Watch	1.0	-0.06	-0.26	-0.36	-0.25
Canadian Dollar To US Dollar Cross	Sell	0.6	-1.73	-1.05	-1.12	-1.17
UST 30yr Yield	Wait and Watch	1.0	-0.07	-0.32	0.45	1.75
High Yield Corp Bond $HYG	Wait and Watch	1.0	-0.57	0.22	0.78	1.29

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HedgAI Signals - Performance Metrics Since Publishing

Best Algos Performance Metrics

Asset	Buy Sell Batting Average	Buy Sell Win/Loss Ratio	Buy Sell Number Of Signals	Buy Only Batting Average	Buy Only Win/Loss Ratio	Buy Only Number Of Signals	Sell Only Batting Average	Sell Only Win/Loss Ratio	Sell Only Number Of Signals
NASDAQ 100	0.636	10.11	11	0.714	9.32	7	0.5	8.2	4
NVIDIA	0.6	3.41	10	0.714	2.41	7	0.333	3.19	3
Tesla	0.538	2.76	13	0.5	2.59	4	0.556	2.67	9
Meta Platforms	0.714	2.6	7	1.0	inf	3	0.5	1.08	4
Netflix	1.0	inf	4	1.0	inf	2	1.0	inf	2
Energy $XLE	0.75	0.65	8	1.0	inf	4	0.5	1.19	4
Consumer Staples $XLP	0.714	0.63	7	1.0	inf	4	0.333	0.08	3
Retail $XRT	0.556	1.82	9	1.0	inf	3	0.333	2.21	6
Steel	0.857	2.46	7	1.0	inf	5	0.5	1.49	2
Uranium $URA	0.857	1.14	7	1.0	inf	4	0.667	0.88	3
Sugar	0.6	1.42	5	0.0	-0.0	2	1.0	inf	3
US Dollar To Yen Cross	0.667	2.05	6	0.667	2.75	3	0.667	1.64	3
Canadian Dollar To US Dollar Cross	0.714	3.11	7	0.667	8.42	3	0.75	0.78	4
UST 30yr Yield	0.6	0.97	5	0.5	0.88	4	1.0	inf	1
High Yield Corp Bond $HYG	0.5	0.99	10	0.6	1.06	5	0.4	0.68	5

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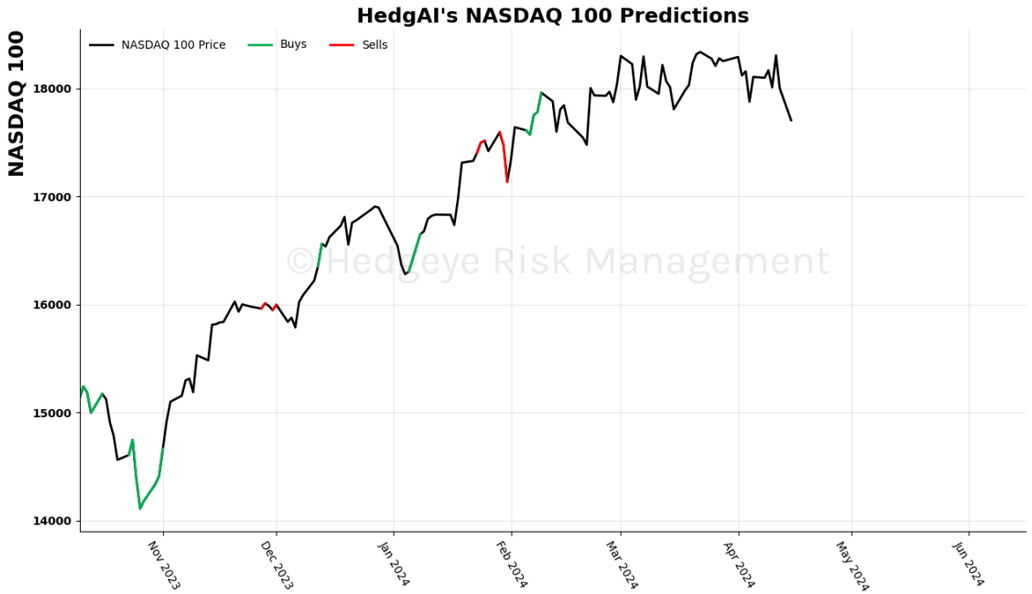
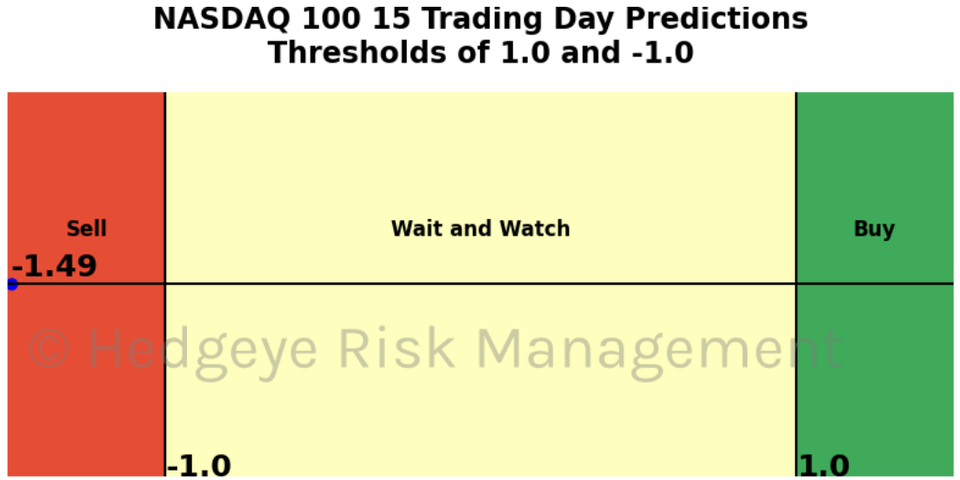
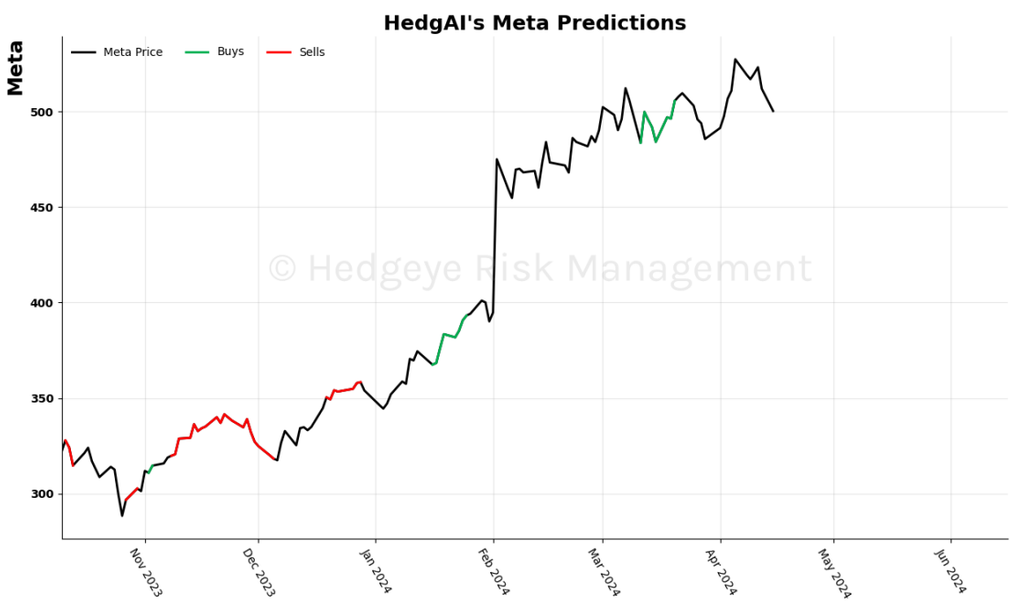
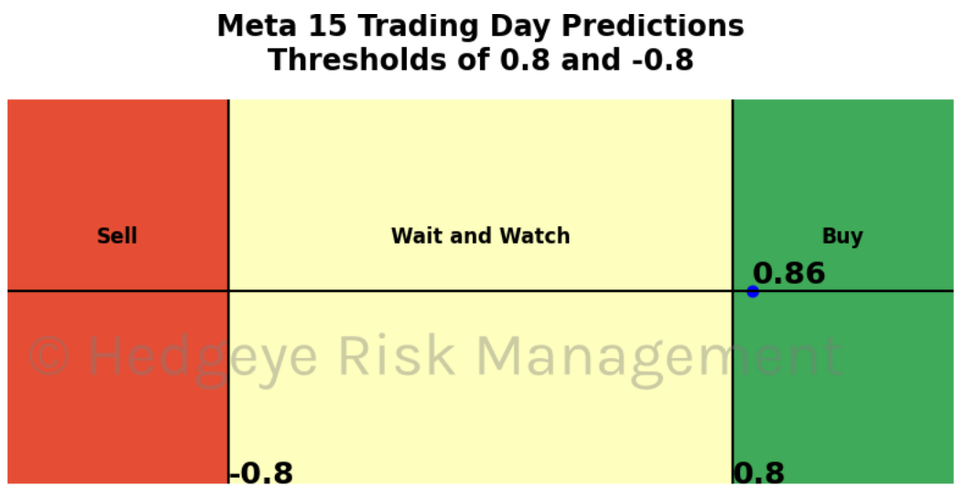
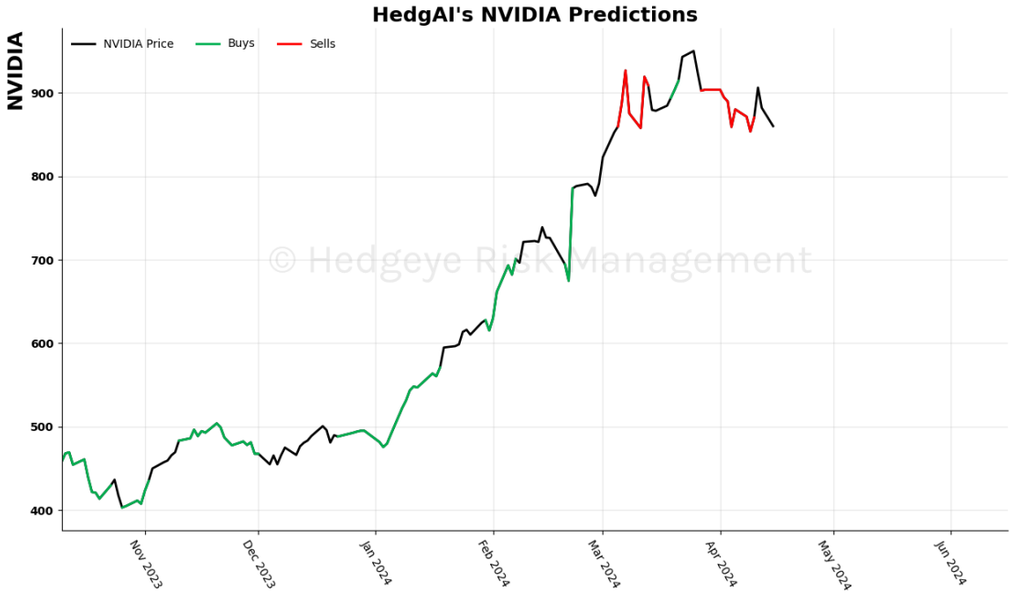
HedgAI Signals - Asset Charts










HedgAI's NVIDIA Predictions
NVIDIA Price
Buys
Sells
NVIDIA
900
800
700
600
500
400
Nov 2023
Dec 2023
Jan 2024
Feb 2024
Mar 2024
Apr 2024
May 2024
Jun 2024
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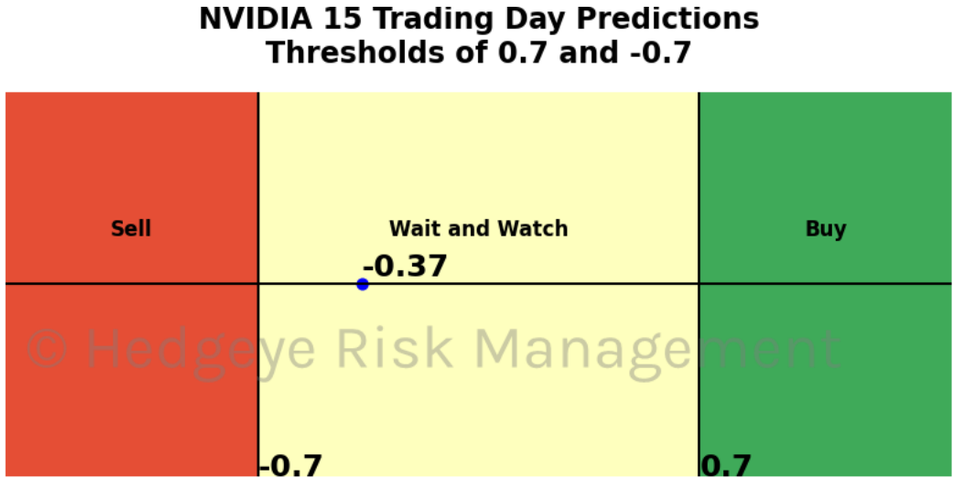
NVIDIA 15 Trading Day Predictions
Thresholds of 0.7 and -0.7
Sell
Wait and Watch
Buy
-0.37
-0.7
0.7
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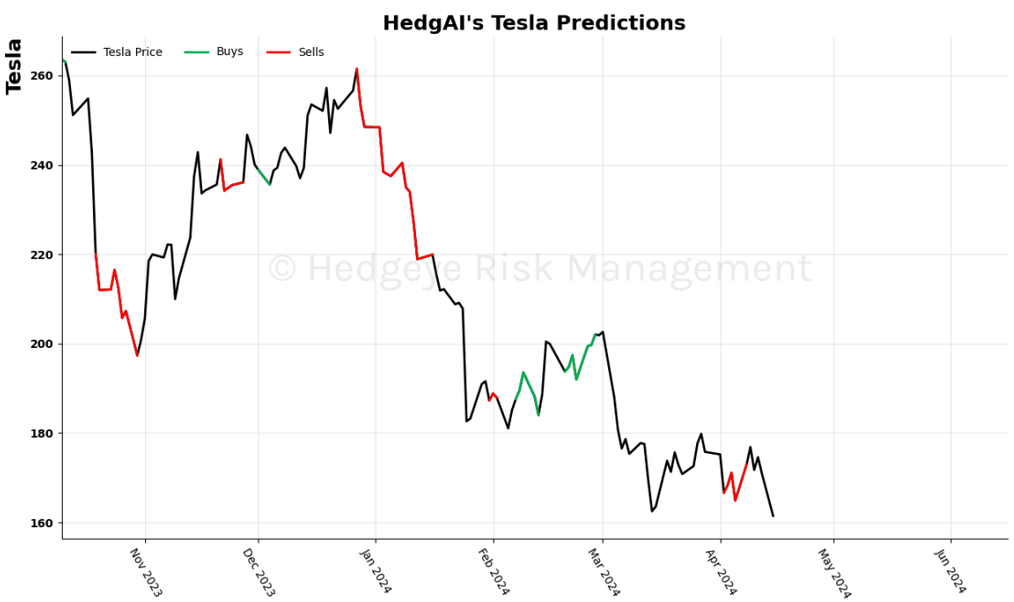
HedgAI's Tesla Predictions
Tesla Price
Buys
Sells
Tesla
260
240
220
200
180
160
Nov 2023
Dec 2023
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Feb 2024
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Apr 2024
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Jun 2024
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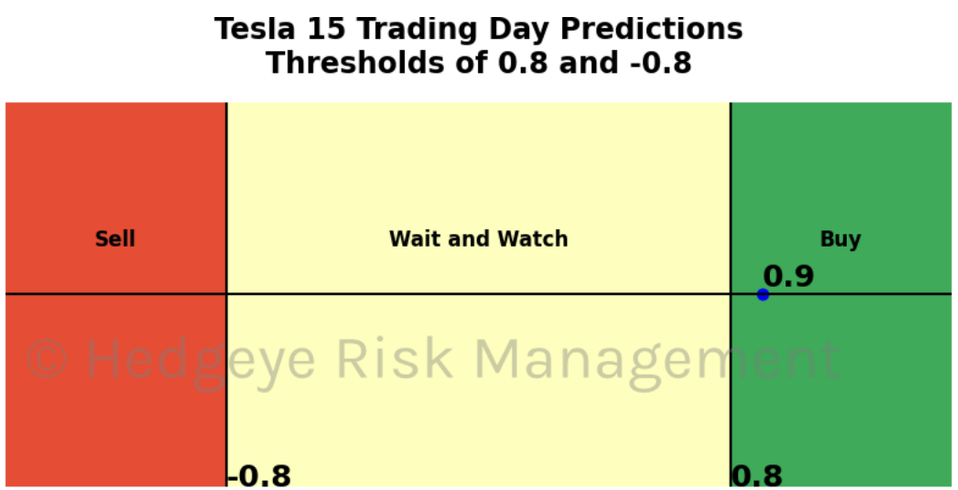
Tesla 15 Trading Day Predictions
Thresholds of 0.8 and -0.8
Sell
Wait and Watch
Buy
0.9
-0.8
0.8
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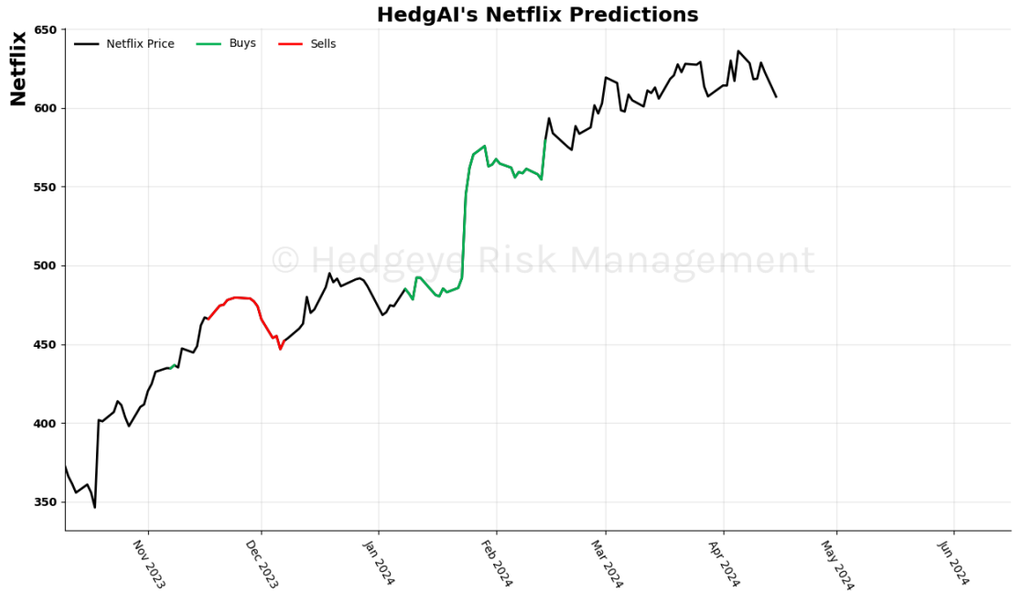
HedgAI's Netflix Predictions
Netflix
Netflix Price
Buys
Sells
650
600
550
500
450
400
350
Nov 2023
Dec 2023
Jan 2024
Feb 2024
Mar 2024
Apr 2024
May 2024
Jun 2024
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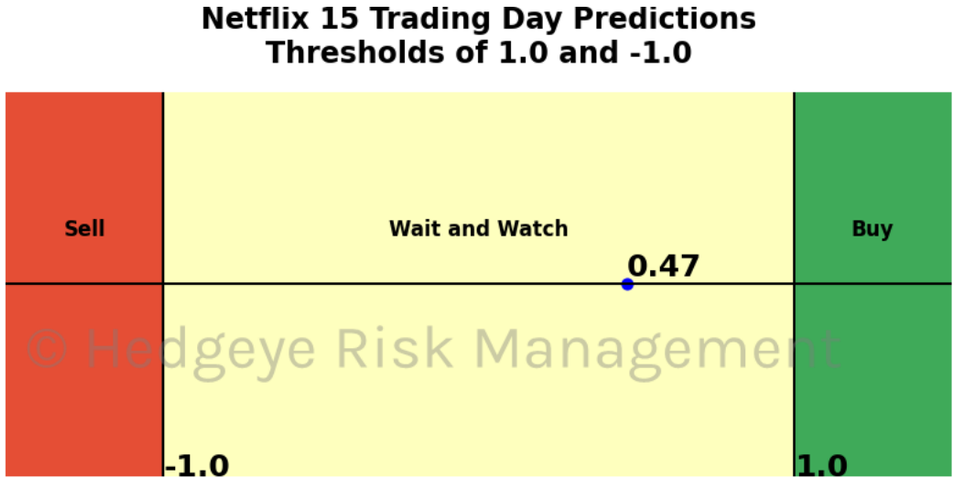
Netflix 15 Trading Day Predictions
Thresholds of 1.0 and -1.0
Sell
Wait and Watch
Buy
0.47
-1.0
1.0
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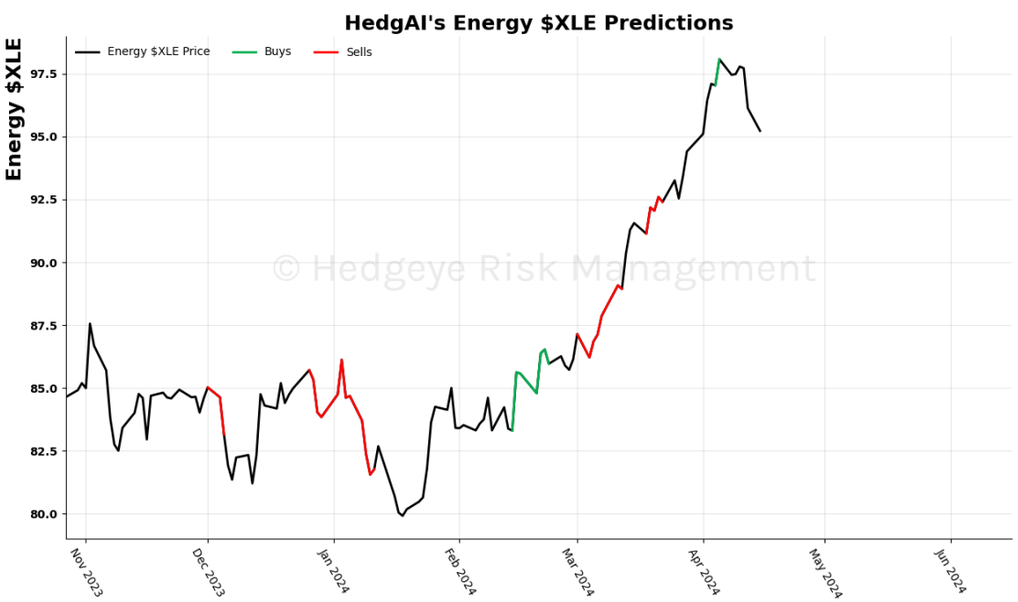
HedgAI's Energy $XLE Predictions
Energy $XLE
Energy $XLE Price
Buys
Sells
97.5
95.0
92.5
90.0
87.5
85.0
82.5
80.0
Nov 2023
Dec 2023
Jan 2024
Feb 2024
Mar 2024
Apr 2024
May 2024
Jun 2024
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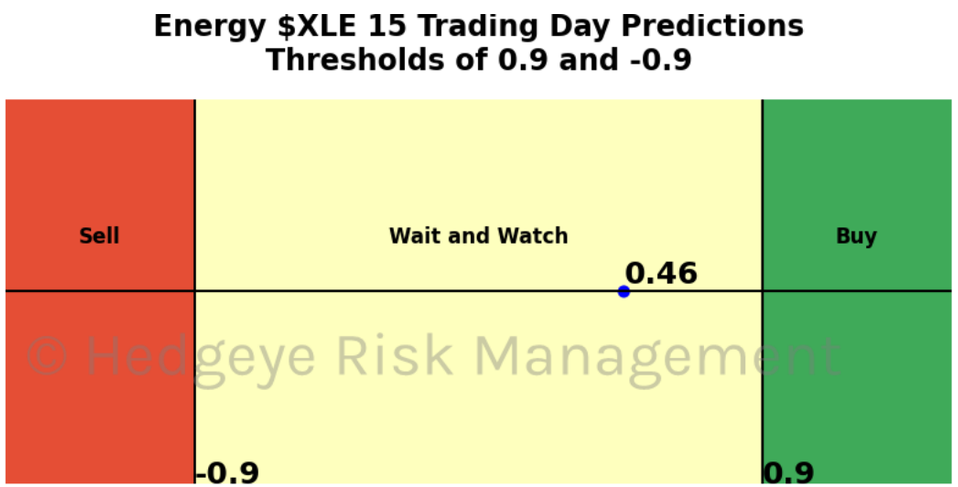
Energy $XLE 15 Trading Day Predictions
Thresholds of 0.9 and -0.9
Sell
Wait and Watch
Buy
0.46
-0.9
0.9
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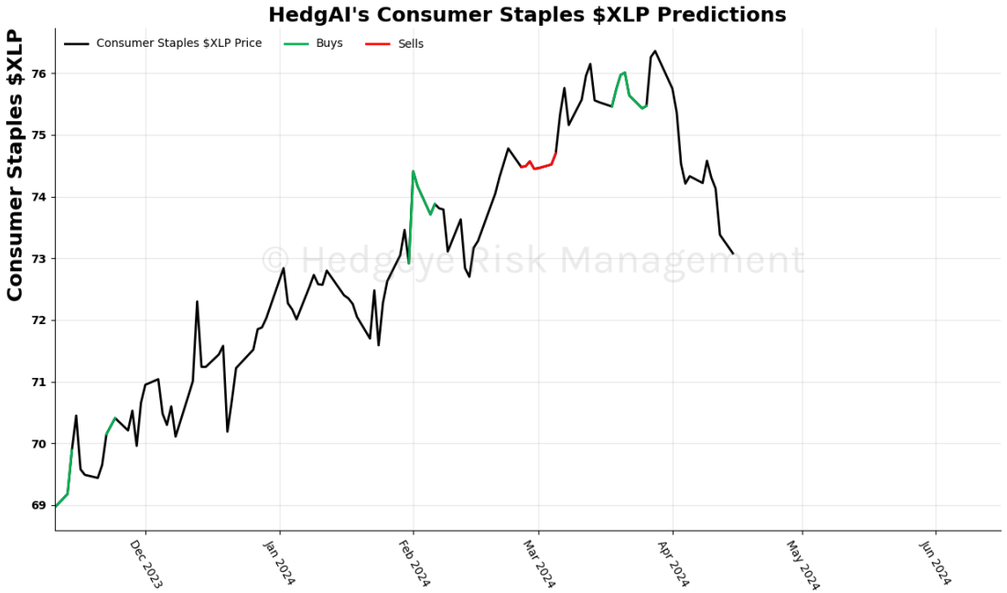
HedgAI's Consumer Staples $XLP Predictions
Consumer Staples $XLP Price
Buys
Sells
Consumer Staples $XLP
76
75
74
73
72
71
70
69
Dec 2023
Jan 2024
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Mar 2024
Apr 2024
May 2024
Jun 2024
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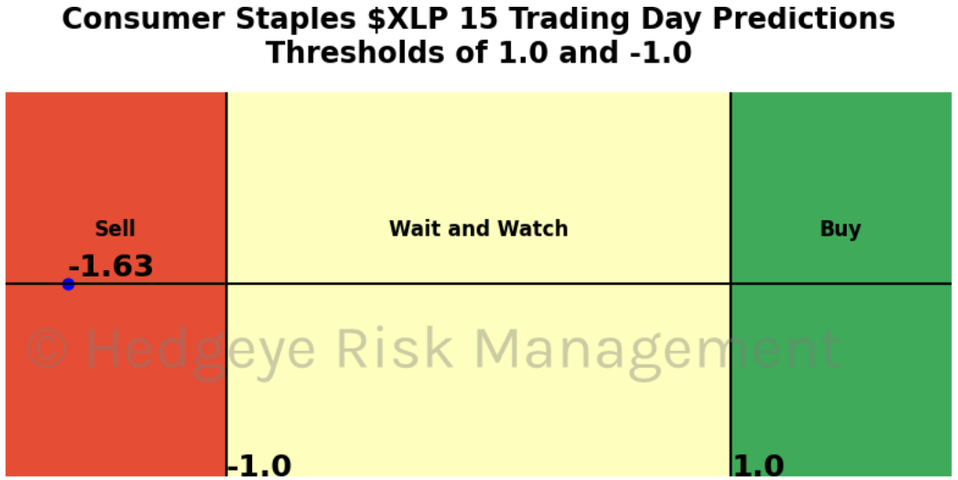
Consumer Staples $XLP 15 Trading Day Predictions
Thresholds of 1.0 and -1.0
Sell
Wait and Watch
Buy
-1.63
-1.0
1.0
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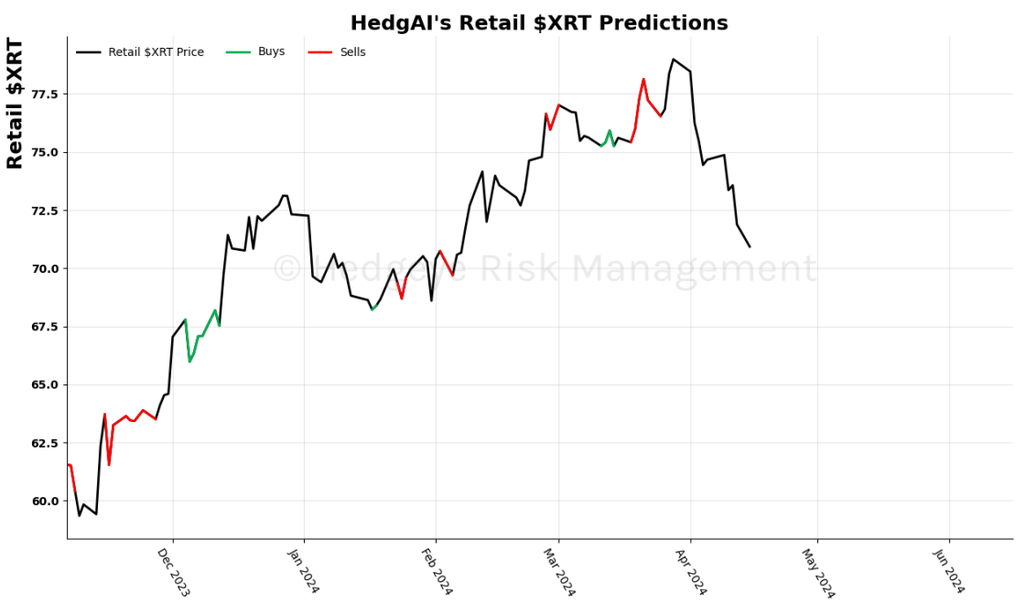
HedgAI's Retail $XRT Predictions
Retail $XRT Price
Buys
Sells
Retail $XRT
77.5
75.0
72.5
70.0
67.5
65.0
62.5
60.0
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May 2024
Jun 2024
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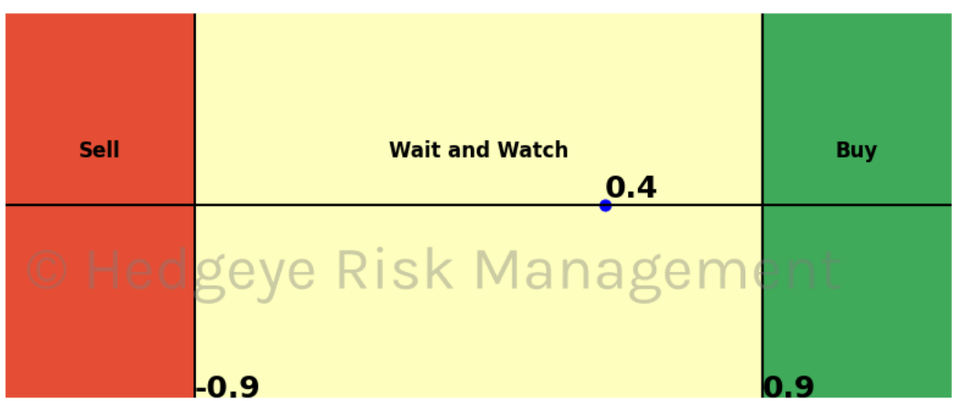
Retail $XRT 15 Trading Day Predictions
Thresholds of 0.9 and -0.9
Sell
Wait and Watch
Buy
0.4
-0.9
0.9
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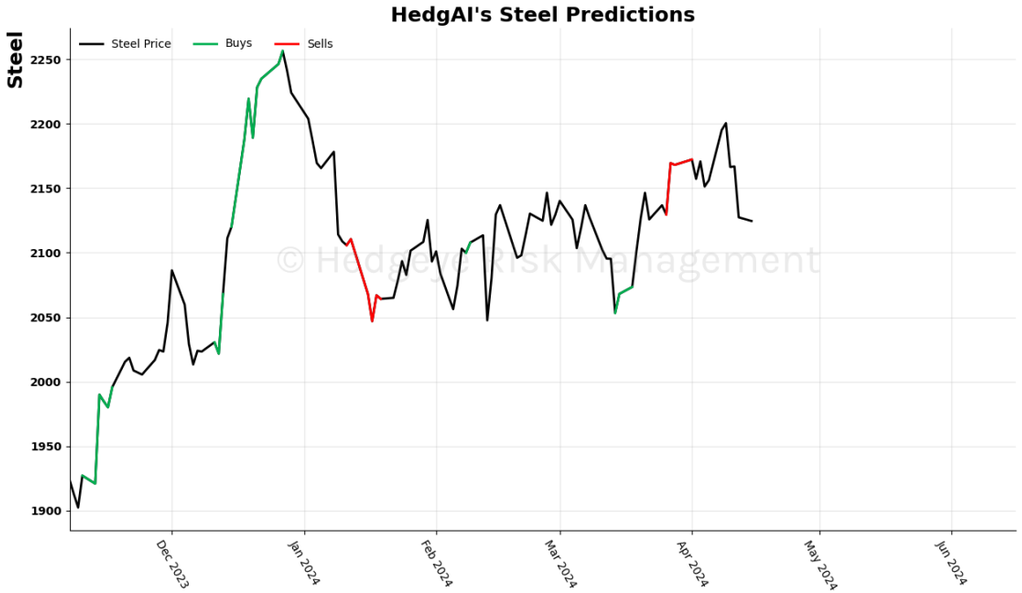
HedgAI's Steel Predictions
Steel Price
Buys
Sells
Steel
2250
2200
2150
2100
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1950
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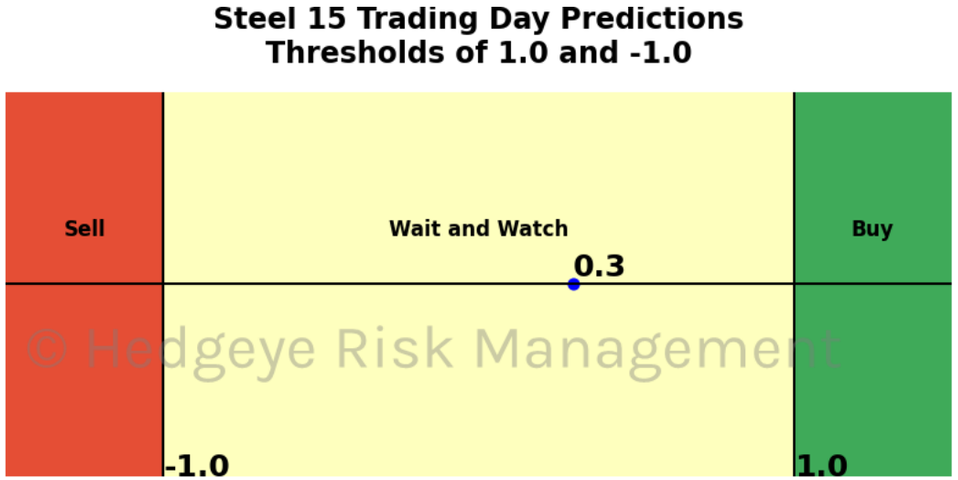
Steel 15 Trading Day Predictions
Thresholds of 1.0 and -1.0
Sell
Wait and Watch
Buy
0.3
-1.0
1.0
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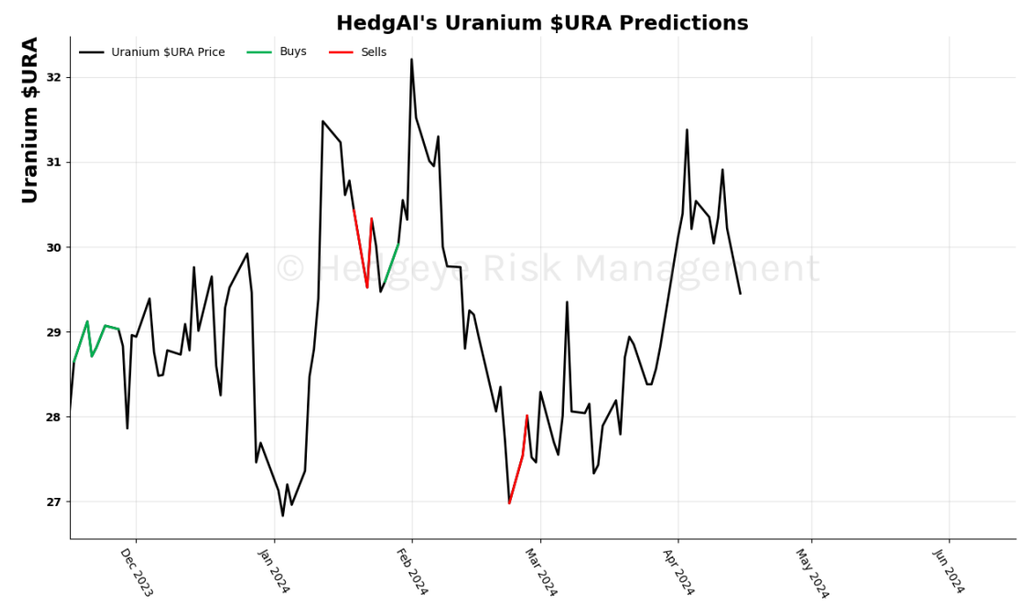
HedgAI's Uranium $URA Predictions
Uranium $URA Price
Buys
Sells
Uranium $URA
32
31
30
29
28
27
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Jan 2024
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May 2024
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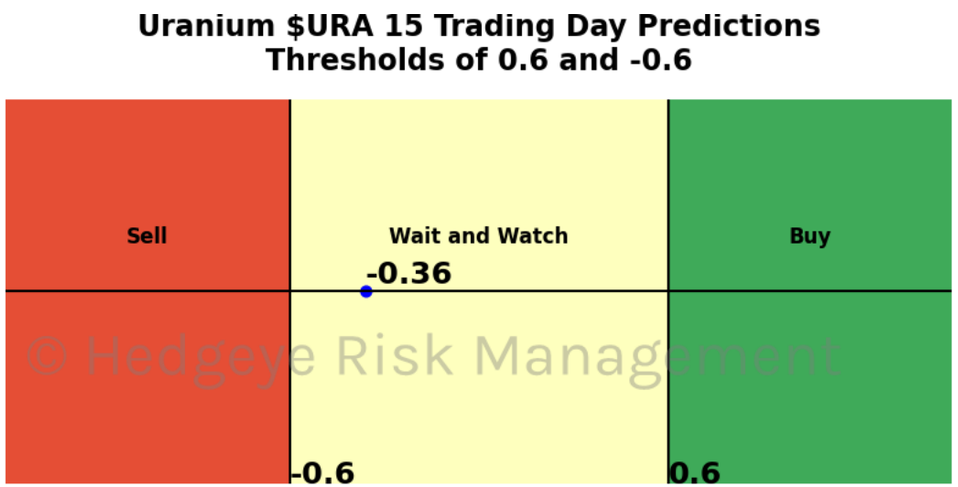
Uranium $URA 15 Trading Day Predictions
Thresholds of 0.6 and -0.6
Sell
Wait and Watch
Buy
-0.36
-0.6
0.6
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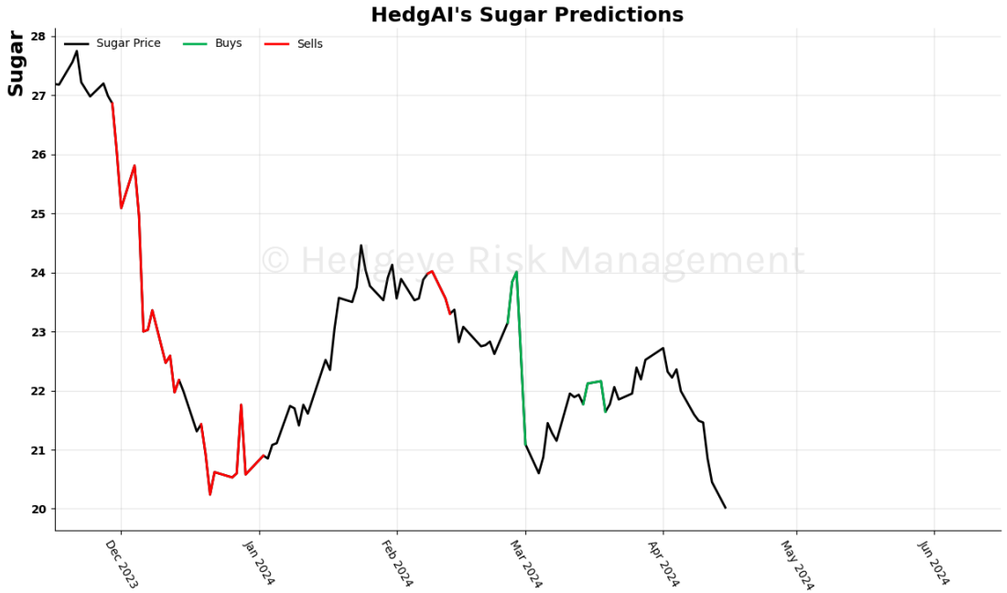
HedgAI's Sugar Predictions
Sugar Price
Buys
Sells
Sugar
28
27
26
25
24
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22
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20
Dec 2023
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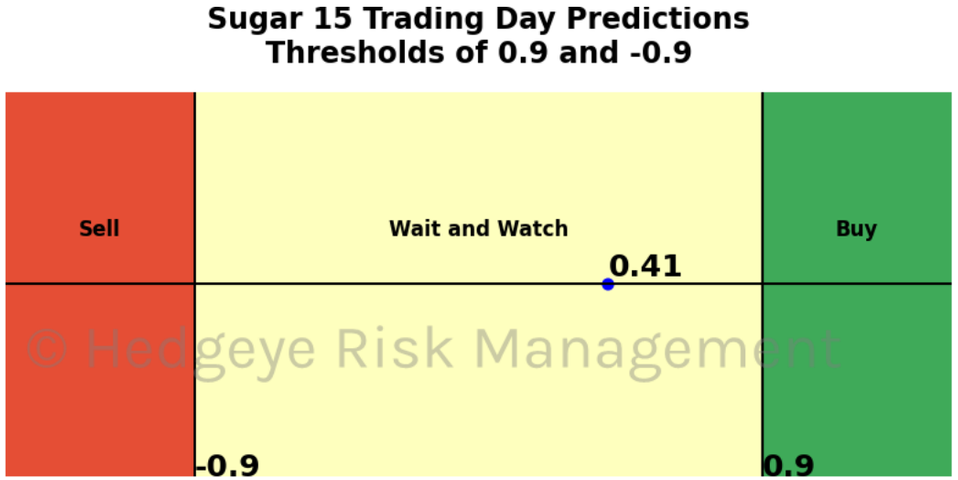
Sugar 15 Trading Day Predictions
Thresholds of 0.9 and -0.9
Sell
Wait and Watch
Buy
0.41
-0.9
0.9
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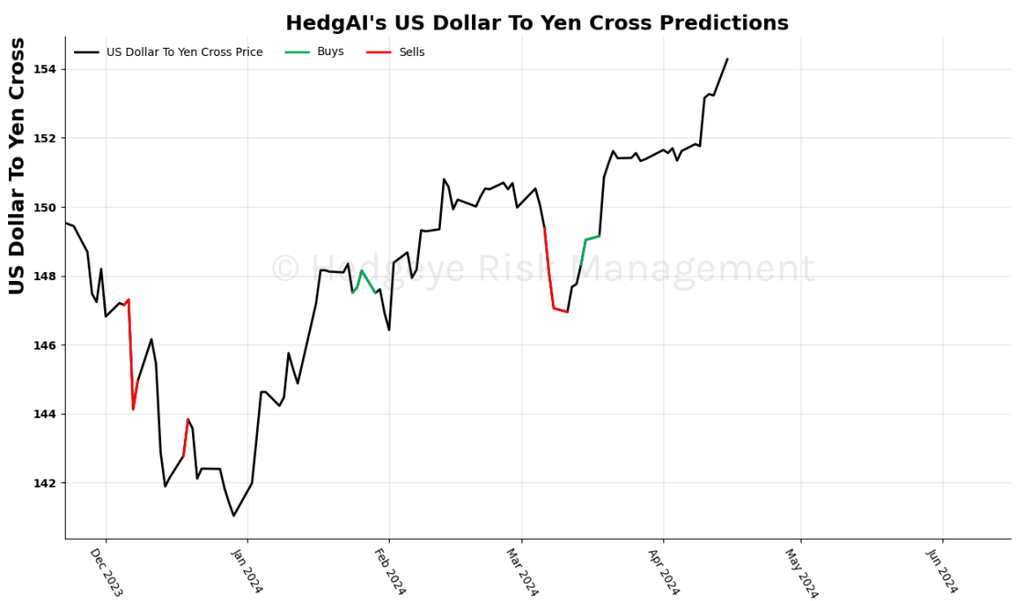
HedgAI's US Dollar To Yen Cross Predictions
US Dollar To Yen Cross Price
Buys
Sells
US Dollar To Yen Cross
154
152
150
148
146
144
142
Dec 2023
Jan 2024
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Mar 2024
Apr 2024
May 2024
Jun 2024
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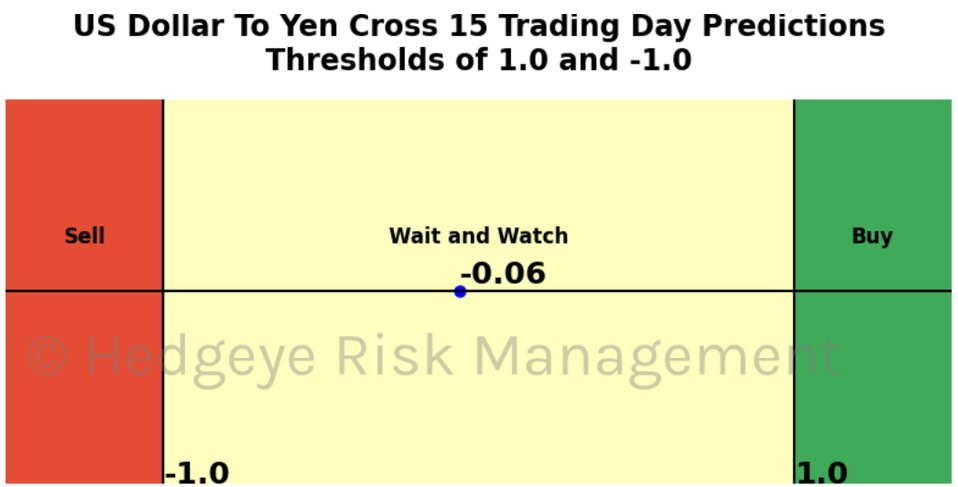
US Dollar To Yen Cross 15 Trading Day Predictions
Thresholds of 1.0 and -1.0
Sell
Wait and Watch
Buy
-0.06
-1.0
1.0
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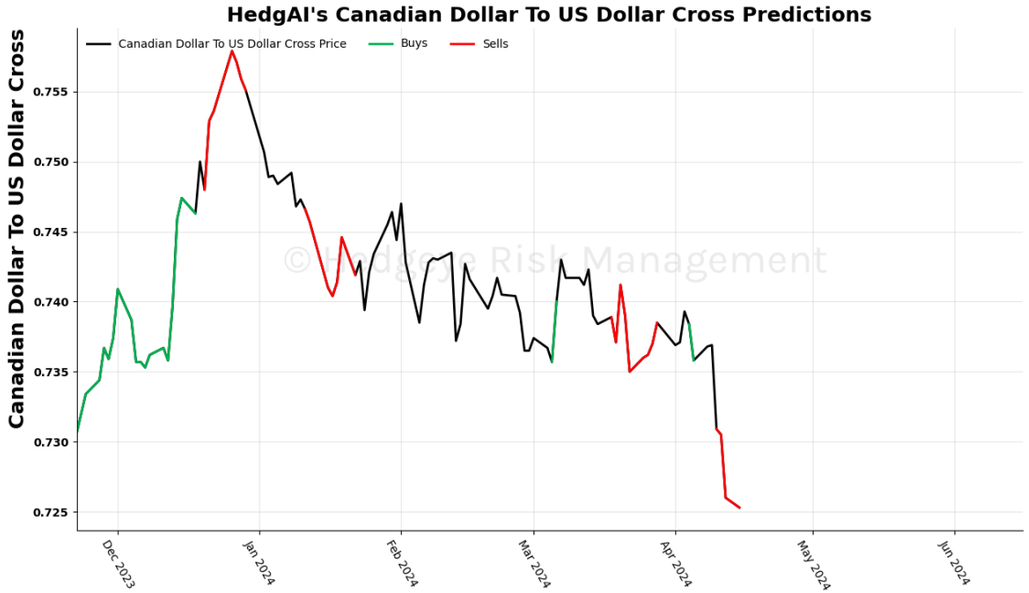
HedgAI's Canadian Dollar To US Dollar Cross Predictions
Canadian Dollar To US Dollar Cross Price
Buys
Sells
Canadian Dollar To US Dollar Cross
0.755
0.750
0.745
0.740
0.735
0.730
0.725
Dec 2023
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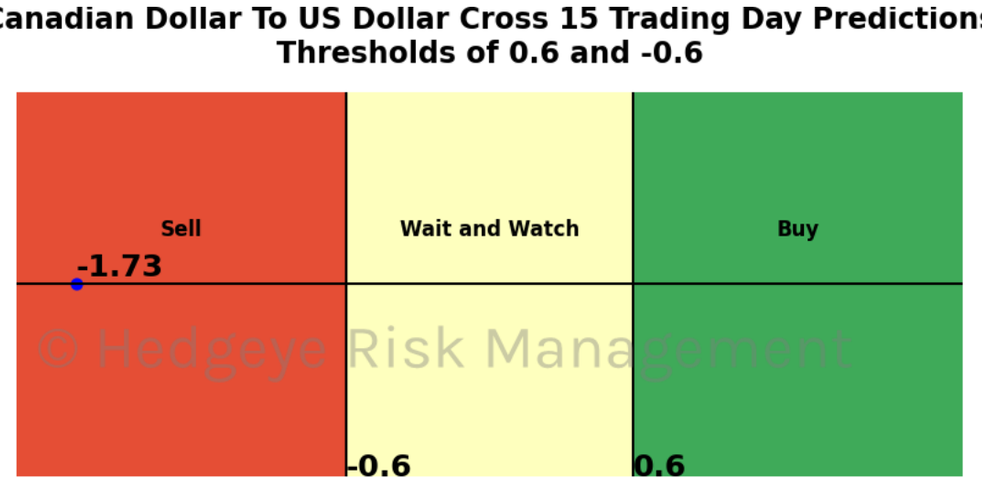
Canadian Dollar To US Dollar Cross 15 Trading Day Predictions
Thresholds of 0.6 and -0.6
Sell
Wait and Watch
Buy
-1.73
-0.6
0.6
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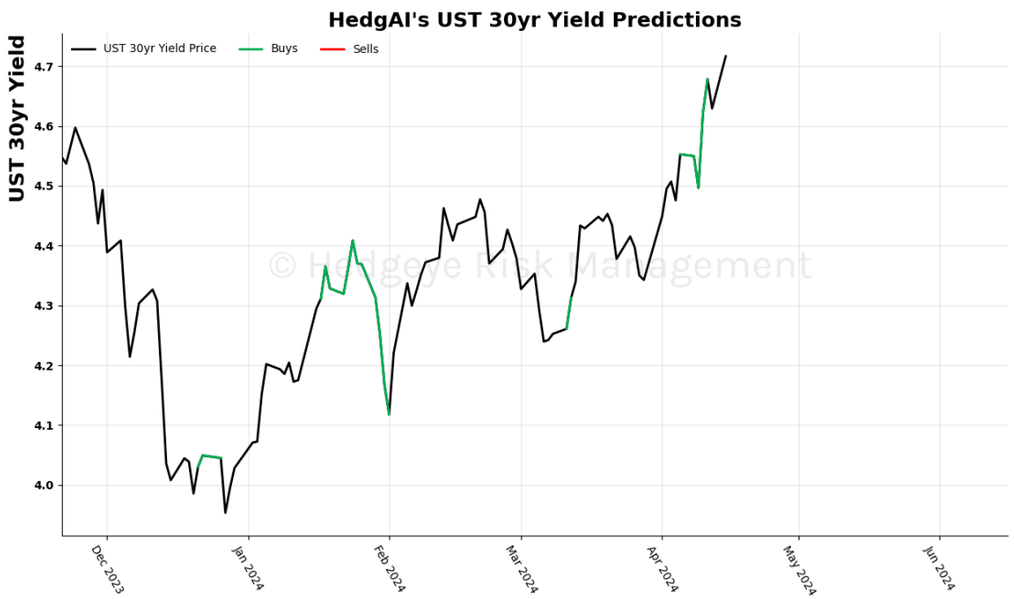
HedgAI's UST 30yr Yield Predictions
UST 30yr Yield Price
Buys
Sells
UST 30yr Yield
4.7
4.6
4.5
4.4
4.3
4.2
4.1
4.0
Dec 2023
Jan 2024
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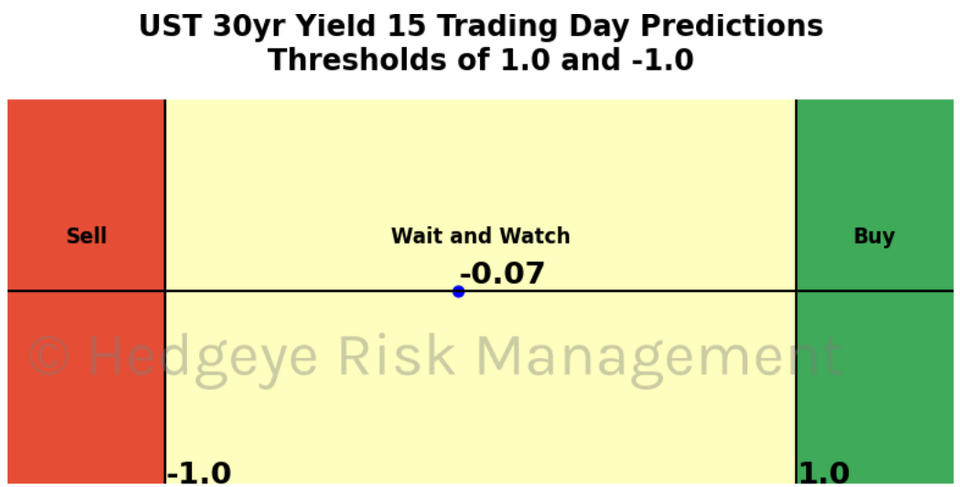
UST 30yr Yield 15 Trading Day Predictions
Thresholds of 1.0 and -1.0
Sell
Wait and Watch
Buy
-0.07
-1.0
1.0
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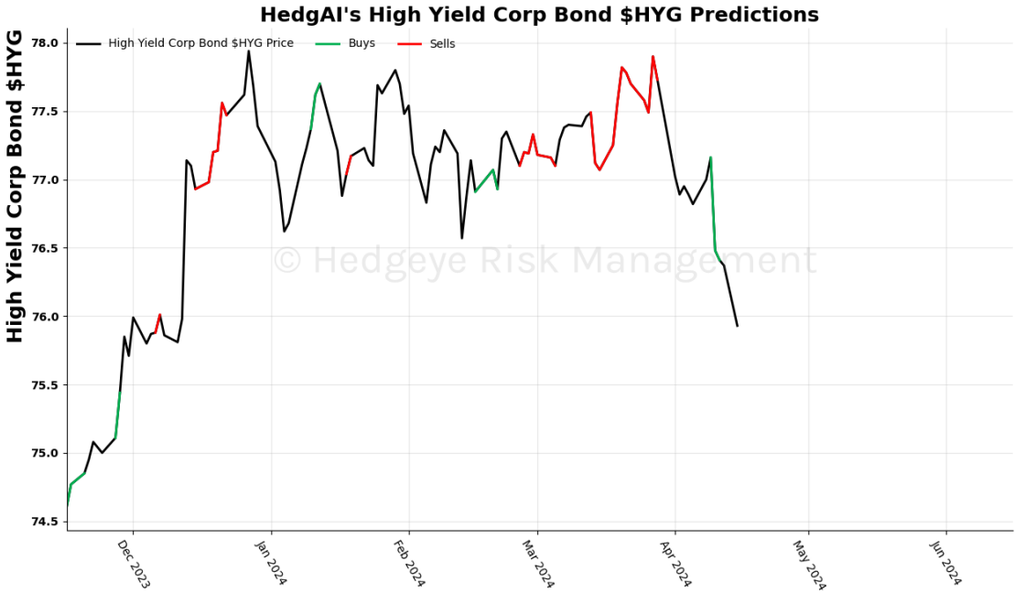
HedgAI's High Yield Corp Bond $HYG Predictions
High Yield Corp Bond $HYG Price
Buys
Sells
High Yield Corp Bond $HYG
78.0
77.5
77.0
76.5
76.0
75.5
75.0
74.5
Dec 2023
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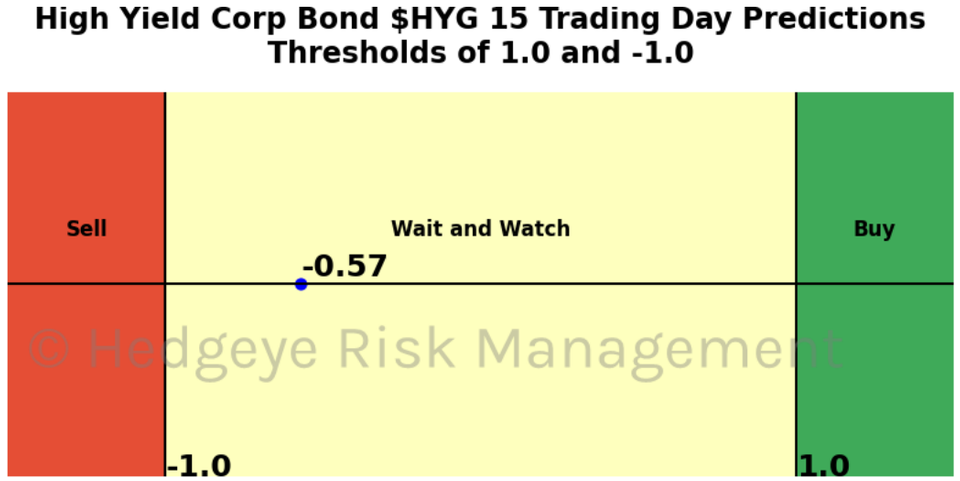
High Yield Corp Bond $HYG 15 Trading Day Predictions
Thresholds of 1.0 and -1.0
Sell
Wait and Watch
Buy
-0.57
-1.0
1.0
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HedgAI Signals - Description/Tutorial/Disclaimer

HedgAI Signals – Product Description

HedgAI Signals are simple at their core. The Signals are generated by our proprietary "HedgAI" artificial intelligence (AI) trained algorithms—applying non-linear, squared error methods—to identify relationships between past market data and desired predictive outcomes. Each HedgAI algorithm (the "Algo" or "Algos") is trained using one data set and validated and operated on a separate data set.

We have back tested each Algo against years of historical market data and have been pleased with the results. We look forward to applying #timestamps to future iterations. Please keep an eye out for that.

Current signals (Buy, Sell, and Wait and Watch) are a directional call generated by the Algos, as of the date of publication. "Wait and Watch" means the Algo for that asset does not have a directional call as of the date of publication. Signals are updated daily based on the Algos' daily predictions.

Signaling data for each asset is the result of a unique Algo designed specifically for that asset, and trained using third-party historical market data. Each market day, the Algos ingests market data and updates their signal to either a Buy, Sell or Wait and Watch. Based on proprietary calculations against historical market data, each Algo then predicts 15 trading days into the future. The resulting published Z Score is a trailing twelve-month (TTM) Z Score of the Algo's predictions.

Each asset has a unique threshold that marks the point where signals are opened and closed.

The Algo opens a Buy signal if the TTM Z Score goes above the published threshold. The Algo closes a Buy signal when the TTM Z Score dips back below the same published threshold.

The algorithm opens a Sell signal if the TTM Z Score goes below the additive inverse of the published threshold (i.e. if a threshold is 1.0, a Sell signal is opened when the TTM Z Score hits -1.0). The Sell signal is closed when the TTM Z Score goes back above the same additive inverse of the published threshold.

Wait and Watch is an output generated by the Algo when the TTM Z Score is neither above or below the published threshold or its additive inverse. During Wait and Watch periods, the Algo assumes no signal (Buy or Sell) in the asset.

How HedgAI Works

When HedgAI opens a Buy or Sell signal, on a given day, the Algo notes the available closing price for that same day based on third-party market data available to Hedgeye. The Algo assumes the signal remains open until the TTM Z Score dictates the signal should be closed (above the threshold for a Buy signal or below the additive inverse of the threshold for a Sell signal). The Algo records the closing price based on third-party market data available to Hedgeye on the day that the Algo selects to close the signal based on the TTM Z Score moving below the threshold for an open Buy signal, and above the additive inverse for a Sell signal.

Using an example where the asset's threshold (and additive inverse) is 1.0 and -1.0 [Day, TTM Z Score, Closing Price]:

[8/14/2023, 0.9, 11], [8/15/2023, 1.2, 10], [8/16/2023, 1.3, 12], [8/17/2023, 1.4, 10], [8/18/2023, 0.8, 9], [8/21/2023, -1.1, 10], [8/22/2023, -2.0, 11], [8/23/2023, -0.9, 7], [8/24/2023, 0.2, 9].

Using the threshold stated (remember this is different for each Algo) the signals would be as follows: The Algo would open a buy on 8/15/2023 at $10 and close the buy on 8/18/2023 at $9, losing 10% on its signal. The Algo would also open a sell on 8/21/2023 at $10 and close the sell on 8/23/2023 at $7, a 30% positive price movement on the signal.

Understanding Product Graphics

Every day you will be given a list of 'Buys Added', 'Sells Added', 'Buys Closed', 'Sells Closed'

Summary Signals

Each market day, the Summary Signals will include all signals whether "opened" or in "wait and watch", the Algo's predicted threshold, the Z Score calculation against yesterday's closing price, one day prior to yesterday's close, 2 days prior to yesterday's close and 3 days prior to yesterday's close.

Our Algos run daily analysis across a large set of assets, including those not published. Each publication will represent our top performing algos based on our interpretation of the data. Assets may be added or dropped from the published list based on our interpretation of performance. We will communicate in our daily notes when assets are added and removed.

Performance Metrics

The results and performance in this section represent hypothetical results and do not represent actual trades. Back test results are from all data since publication of each algo on an asset basis. Results update daily on a one-day look back as each Algo makes hypothetical signals against future third-party market data. We will update results of each Algo on an asset basis against a hypothetical environment.

Each Algo's back tested results are from the initial publish date and are broken down into three strategies: Sell Only, Buy Only, and Buy Sell.

Sell Only hypothetical results assume the model only acted on the Algo's Sell signals for a given asset. Buy Only hypothetical results assume the model only acted on the Algo's Buy signals for a given asset. Buy Sell hypothetical results assume the model acted on all signals — Buy and Sell — for the given asset. "Batting Average" calculates the hypothetical signals directional (buy/sell) accuracy by dividing the number of hypothetical signals that were directionally accurate by the total number of hypothetical signals (0.73 means that on 73% of the hypothetical signals were directionally accurate). "Win/Loss Ratio" is the average positive delta divided by the average negative delta. "Number of Trades" is the amount of hypothetical open then closed signals.

Back test results are calculated in a hypothetical environment against third-party market data and therefore, may not reflect the impact that material conditions and market factors would have had on decision-making or the impact of the timing of actual cash flows into or out of an actual portfolio. The back test and model performance does not reflect brokerage commissions, trading costs, custodian fees, taxes or any other expenses associated with actual transaction, and as such, actual investment returns would be lower.

Results have not been verified by an independent third-party. Hedgeye has not verified third-party market data and makes no representations or warranties as to either's accuracy or completeness. Results are provided for illustrative purposes only. Subscribers are expected to test the results themselves before relying upon them. Past results are not indicative of future results. See Disclaimer below for additional information.

Trading Day Threshold Slider Graph

Each market day, the slider chart will illustrate the Algo's current TTM Z Score in relation to the threshold for all signals.

Algo Signal Graph

Each market day, the Algo Signal Graph will update with the prior day's signal generated by the model. The graph starts from the signal generated the day prior to the first day of publication for each asset. Signals are not actual trades.

Asset Non-Stock Asset Classes Models

The Algos designed to make predictions relating to exchange-traded securities are trained and tracked based on the third-party pricing available to those securities. The Algos designed to make predictions relating to assets classes which are not exchange-traded securities, have been trained and tracked based on the following Bloomberg® Tickers. The following chart also provides one example ETF that purports to correlate to the price movement of the corresponding asset.

Hedgeye does not have any influence or control over the management of the example Related ETFs listed and is not responsible for their performance. The Algos' performance in relation to tracking price movement of an asset may vary significantly from any ETF's performance for several reasons outside of Hedgeye's control. Hedgeye does not recommend the investment in any ETF relative to another.

Asset	Bloomberg Ticker	Example Related ETF
US 30yr yield	USGG30YR Index	TLT*
US 10yr yield	USGG10YR Index	UST*
US 2yr yield	USGG2YR Index	SHY*
Russell	RTY Index	IWM
S&P 500	SPX Index	SPY
Nasdaq	NDX Index	QQQ
Shanghai	SHCOMP Index	FXI
Japan	NKY Index	EWJ
Germany	DAX Index	EWG
Dollar	DXY Curncy	UUP
EUR/USD	EURUSD Curncy	FXE
USD/YEN	USDJPY Curncy	FXY*
GBP/USD	GBPUSD Curncy	FXB
CAD/USD	CADUSD Curncy	FXC
Brent Oil	CO1 Comdty	BNO
Copper	HG1 Comdty	CPER
Silver	SI1 Comdty	SLV
Sugar	SB1 Comdty	CANE
Steel	STEEL Index	SLX
Uranium	URA US Equity	URA
Lithium	LIT US Equity	LIT
Wheat	W 1 Comdty	WEAT
Palladium	XPD Curncy	PALL
Platinum	XPT Curncy	PPLT
Crude Oil	CL1 Comdty	USO
Corn	C 1 Comdty	CORN
Natural Gas	NG1 Comdty	UNG
Soybean	S 1 Comdty	SOYB
Gold	XAU Curncy	GLD
Cotton	CT1 Comdty	None
Coffee	KC1 Comdty	None
Bitcoin	XBTUSD Curncy	BITO

Disclaimer

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