VecViz Opportunity At Risk (OaR) Performance Report

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31 May 2025

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Introduction

Opportunity at Risk, or OaR, as discussed in this report, is an estimate of the maximum amount an investor could gain by being long a ticker at the end of a specified forward time horizon, at a specified level of probability. An accurate OaR measure forecasts gains that are exceeded by actual gains in one minus the specified probability percent of all observations.

The aim of this report is to inform a broad spectrum of readers of the behavior and accuracy of VecViz's OaR estimates, and how they might influence portfolio performance. To do so, we rely upon both comparison to the well-known and still widely used "Sigma" approach to volatility and on well-established statistical tests from the academic literature. Please see the "Important Considerations" section of this report for disclosure of at least some of the many ways this report likely falls short of its objective and other important disclosures.

Evaluation of OaR Estimates

The metrics used in this report to evaluate OaR performance via comparison to Sigma include the mean absolute error (MAE) of breakage rates to the specified probability, Return on OaR Based Capital (ROLOBC), and the alpha of Vector Model ROLOBC to underlying ticker returns. Substantial supporting detail in terms of influential tickers and model dates are provided for each metric and model. The results of this comparative analysis are summarized in the Vector Model OaR "Report Card" section of this report.

We supplement this comparative analysis with two additional tests of Vector Model OaR that are well established in the quantitative finance literature (though more so with regard to Value at Risk, or VaR, than with regard to OaR): the Kupiec Test of breakage consistency with the specified probability and the Christoferson test of breakage independence. The results of these tests are also summarized in the Report Card section.

OaR Breakage Ratios

OaR Breakage refers to forward returns being above the OaR estimate for the corresponding horizon date. Because the Vector Model delivers ticker level probability analytics, breakage is measured at the individual ticker-model date level. and we aggregate it in various ways for evaluation purposes.

For example, 100 tickers tracked over 10 days represents 1,000 ticker-model dates. An ideal estimate of 95% ticker level OaR would generate 50 breaks. Therefore, we compare Vector Model OaR breakage to Sigma's on the basis of MAE to the ideal number of breaks. The model with the smaller MAE is deemed preferable with regard to OaR breakage proximity to target.

However, an ideal OaR estimate wouldn't have all those breaks concentrated in just a couple days or just a few tickers. The breaks generated by an ideal OaR estimate would also be independent with respect to model dates and tickers. Therefore, we also compare the Vector Model's OaR breakage to Sigma's on the basis of variability over time (on average across tickers) and across tickers (on average across dates).

Sigma is known to have some significant shortcomings in measuring the volatility of security price returns. Thus, we supplement the comparison of Vector Model breakage rate MAE to Sigma's MAE with the aforementioned Kupiec test, which tells us whether Vector Model OaR breakage is consistent with targeted breakage with a high degree of confidence (95%). Further, we supplement the comparison of Vector Model breakage variability across model dates with the Christoferson test of date independence.

ROLOBC and its drivers

The metric "ROLOBC" requires some explanation. Return on Long OaR Based Capital, or ROLOBC, attempts to capture the impact on investor returns of using the Vector Model OaR instead of Sigma OaR to size positions. OaR based position weighting might be appropriate for risk tolerant investors who are seeking to maximize returns. Weighting exposures proportionate to their estimated price upside, subject to caps to assure some minimum level of diversification, is consistent with the objectives of such investors, and that is what ROLOBC presumes.

ROLOBC assumes that Sigma earns the return of the underlying ticker and the Vector Model earns a return proportionate to that, where the proportion is the ratio of Vector OaR / Sigma OaR, subject to a cap and floor (we use 300% and 33.33%). So, for example, if Sigma said OaR for ticker ABC was 2.00% and the Vector Model said OaR for ABC was 4.00%, the Vector Model ROLOBC would be double Sigma's. Likewise, if the Vector Model said OaR for ABC was 1.00% the Vector Model's ROLOBC would be half Sigma's. No cost of borrowing or crediting for uninvested funds is incorporated.

For the Vector Model ROLOBC to be higher than Sigma's it signifies that either (1) Vector Model OaR exceeded Sigma's OaR (to the upside) and the ticker traded higher, or (2) Sigma OaR exceeded the Vector Model's OaR (to the upside) and the ticker traded lower.

Note that we do not yet present ROLOBC metrics on VecViz.com. Instead we present ROOBC (Return on OaR Based Capital), which views OaR as a risk metric for short sellers. ROOBC is highly correlated to ROLOBC, but has opposing directionality (if ROOBC is positive ROLOBC is negative and vice versa). Upon further reflection, we have decided that ROLOBC is a way to discuss how OaR can influence investment returns in a way that is relevant to a broader audience. We hope to replace reference to ROOBC on our website to ROLOBC later this year.

Addressing The Tradeoff Between OaR Breakage and ROLOBC

All else equal, assuming a positive drift higher in average asset prices over time, the model with higher average OaR levels will have lower breakage rates and also higher ROLOBC, and vice versa. Thus, relative ROLOBC must be considered in the context of relative breakage rate MAE. In the Report Card we include a metric that directly addresses this concern: comparison of Vector Model ROLOBC to Sigma ROLOBC "Adj. for Avg. VM-Sigma OaR Diff." (adjusted for average Vector Model - Sigma OaR differentials). Specifically, we multiply average aggregate Sigma ROLOBC by the ratio of average aggregate Vector Model OaR to average aggregate Sigma OaR. This multiplication almost entirely eliminates the influence of systematic OaR differentials on the relationship between Vector Model and Sigma ROLOBC. The bias that remains reflects only the aforementioned capping and flooring when calculating Vector Model ROLOBC.

We also provide a more elegant, though less transparent metric that addresses this concern - the alpha of Vector Model ROLOBC to Sigma ROLOBC (i.e., the underlying, equally weighted ticker returns). "Alpha", as discussed in this report, is the intercept of an ordinary least squares regression of Vector Model ROLOBC on the underlying ticker forward returns for corresponding TMD's. It represents the expected Vector Model ROLOBC when Sigma ROLOBC, i.e., the underlying ticker return, is 0.00%.

Determining the drivers of ROLOBC alpha

A ROLOBC Alpha greater than 0.00 across TMD's indicates that Vector Model OaR moved favorably from a market timing and / or ticker selection perspective. We present that statistic alongside an average ROLOBC alpha calculated at the single ticker level across dates. If this second alpha is >0 it indicates that market timing added to the overall alpha, and vice versa. If this second alpha exceeds the overall alpha then it indicates that ticker selection detracted from alpha.

ROLOBC Beta

ROLOBC Beta represents the expected sensitivity of Vector Model ROLOBC to Sigma ROLOBC, i.e., the underlying ticker return. It is the slope of the aforementioned ordinary least squares regression of Vector Model ROLOBC on Sigma ROLOBC. Like outright ROLOBC, it must be considered in the context of Breakage MAE, and like alpha it can be bifurcated to reveal additional insight.

We encourage readers to consider the Vector Model ROLOBC beta to Sigma ROLOBC in the context of how well each model's OaR breakage rates compare to targeted levels. For example, if the Sigma model OaR breakage is well above target and the Vector Model's OaR breakage is close to target, then Vector Model OaR levels are likely higher than Sigma's and the beta of Vector Model ROLOBC to Sigma ROLOBC should be expected to be > 1.00.

A ROLOBC Beta greater than 1.00 across TMD's indicates that Vector Model OaR was higher than Sigma's for more volatile dates and / or tickers. We also present an average Beta alpha calculated at the single ticker level across dates. If this second beta is >1.00 it indicates that Vector Model OaR was higher than Sigma OAR on more volatile days. If this second beta is less than the overall beta then it indicates that Vector Model OaR tended to be less elevated with respect to more volatile tickers than with respect to more volatile dates.

Vector Model Input and Calculation Details

The Vector Model uses systematic price channel identification and scoring in conjunction with machine learning to provide investors with volatility forecasts that reflect the asymmetric, jumpy, clustering, and price dependent behavior of realized and option implied volatility in the financial markets.

The sole input to Vector Model and the Sigma Model out of sample OaR analytics are daily closing prices obtained from QuoteMedia.

The Vector Model was trained upon ~ 60,000 ticker model dates (TMD's) representing ~550 tickers (including equities, currencies, and commodities) and ~ 120 model dates spanning from March 9, 2002 to February 3, 2021. The Out of Sample period starts on 1/31/2022, nearly a full one year from the last model date included in the training data. All OaR estimates discussed in this report are for model dates beyond January 31, 2022, making them fully out of sample.

This report includes Vector Model and Sigma model results for ~150 tickers. Only about twenty of these tickers were included in the Vector Model training data set discussed above. These tickers were selected using the following criteria at the time of selection: Top and Bottom 25 S&P 500 performers, Largest 25 publicly traded issuers in the LQD and HYG etf's, constituents of the Metals and Pharmaceuticals sector within the LQD and HYG etf's, and any other tickers that at the time drew significant financial media attention (Mag 7, meme-related stocks, bitcoin related stocks). We also included several major equity and debt-oriented ETF's. The complete Vector Model OaR coverage universe discussed in this report includes the following tickers:

AA, AAP, AAPL, ABBV, ACGL, ADBE, AMAT, AMC, AMD, AMGN, AMZN, AVGO, AZN, AZO, BA, BAC, BALL, BBY, BHC, BHP, BIIB, BMY, BUD, BXP, CAH, CCL, CDNS, CHTR, CITI, CLF, CMA, CMCSA, CMG, CNC, COST, CPRT, CSCO, CSTM, CTLT, CVS, CYH, CZR, DHI, ELAN, EMB, ETRN, EXPE, FCX, FIS, FITB, FRA, FRCB, FSUGY, GBTC, GE, GILD, GLD, GME, GNRC, GOLD, GOOGL, GS, GSK, GT, GWW, HCA, HD, HLT, HON, HSBC, HYG, IEP, INTC, INTU, IRM, ISRG, JAZZ, JPM, KALU, KEY, KHC, LEN, LLY, LNC, LQD, LUMN, LVS, LW, META, MNST, MOS, MRK, MS, MSFT, MSI, MSTR,

MU, MUB, NAVI, NEM, NFLX, NVDA, NVS, NWL, ON, ORCL, ORLY, OXY, PCG, PEP, PHM, POST, PRGO, PWR, QCOM, QQQ, RIO, SBNY, SBUX, SIVBQ, SLV, SNY, SPY, T, TDG, TEVA, TFC, THC, TLT, TMUS, TRGP, TSLA, TXN, UAA, UNH, USB, VCSH, VFC, VICI, VNO, VST, VZ, WDC, WFC, WRK, WYNN, X, XOM, ZION, ZTS.

The Vector Model is described further in the FAQ and Blog of vecviz.com.

Sigma Details

The core of Sigma, as presented alongside Vector Model output by VecViz, is the standard deviation of price-based returns that very likely gets discussed in any introductory book on risk or portfolio management. This is the same definition of volatility that is utilized in the Black Scholes option pricing formula.

Sigma's flaws as an estimate of forward volatility are well documented. Nevertheless, it remains perhaps the most popular metric for "risk" when it comes to investments, likely because of its simplicity and familiarity.

We present Sigma based on daily logarithmic price returns (akin to % changes in price), and a lookback period of two years. To enhance Sigma's accuracy, we apply a 6-month half-life rate of decay to the weightings applied to the daily returns used to calculate Sigma. This weighting scheme causes the most recent 6-month period to be weighted 8x the least recent 6-month period in the 2 year look back window.

Sigma is converted to probabilities by applying multipliers associated with the standard normal (i.e. Gaussian) distribution with a mean of 0 and sigma of 1.00. Thus, 95% OaR is assumed to be -1.645 sigma's lower than the current price and 99% OaR is presumed to be -2.326 sigma's lower than the current price.

Sigma based probability percentiles for longer time horizons are obtained by multiplying Sigma calculated from daily closing prices by the square root of the number of trading days in the given horizon. In doing so, we are assuming daily returns are independent and identically distributed. So, for example, the multiplier that converts daily horizon sigma to 1 year horizon sigma is the square root of 252 (~15.9).

All calculations for Sigma are based on the same pricing data obtained from QuoteMedia data used to calculate Vector Model OaR.

All Sigma estimates discussed in this report are for dates beyond January 31, 2022, the end of the training period for the Vector Model.

Using this report

This report is ~200 pages long. Some tips to help you navigate: 1) Clicking on the page headings in the Table of Contents will instantly take you to the corresponding page.
2) Use Ctrl-F to search for tickers of interest, to see what Top/Bottom contributor lists they land on, and for what horizons 3) Click Ctrl-Home to return to the Table of Contents

Important considerations about the analytics and performance metrics presented in this report:

1) Past performance is no guarantee of future results. None of the content in this report is investment advice or an offer to buy or sell securities. VecViz is not a SEC investment advisor or broker-dealer. The staff of VecViz actively transacts in securities tied to many of the tickers discussed in this report.
   See VecViz's Terms and Conditions for more context and detail at https://vecviz.com/terms-and-conditions/
2) Read ""Let me warn you…" of the limitations of VecViz's Analytics.", a blog entry on vecviz.com (https://vecviz.com/let-me-warn-you-of-the-limitations-of-vecvizs-analytics/)
3) There are many volatility models that the Vector Model could be compared to beyond Sigma. Thus, even if this report causes you to conclude that the Vector Model's OaR outperforms Sigma OaR, you should not necessarily conclude that Vector Model OaR is the best volatility model for your purposes. See the discussion of some of the other types of volatility models in this blog for more detail: https://vecviz.com/an-llms-comparison-of-vecviz-to-established-vol-models/
4) All breakage rate and ROLOBC performance statistics are as of the end of the horizon only. All interim price movement is ignored. In other words, a stock with a 10d OaR of -15% may have declined 99% the day after the OaR estimate of -15% was calculated, but if it reverts to being only down 14.99% on the 10th day then no breakage occurred as calculated in this report, and its ROLOBC performance will be based on a -14.99% price return.
5) Clearly, all horizons > 1d overlap when considered on a daily basis (except for those utilized in the Kupiec and Christoferson tests). Please note that the volatility of overlapping periodic returns is understated, because each observation shares return experience with other observations for such time horizons.
   Thus, we advise against considering any perceived volatility or volatility related metrics for multi-day horizons in isolation„ including p-values for alpha and beta statistics. However, we do believe that their use is valid for comparing the Vector Model to Sigma, whose multi-day horizon OaR breakage and ROLOBC returns are calculated similarly.

6) We are not considering transaction costs. The turnover and therefore transaction costs experienced by Vector Model ROLOBC based investors resulting in the change in the ratio between Vector Model and Sigma OaR is completely ignored.

7) We are not incorporating any financing charges or margin-related costs for implied "levered" ROLOBC positions.

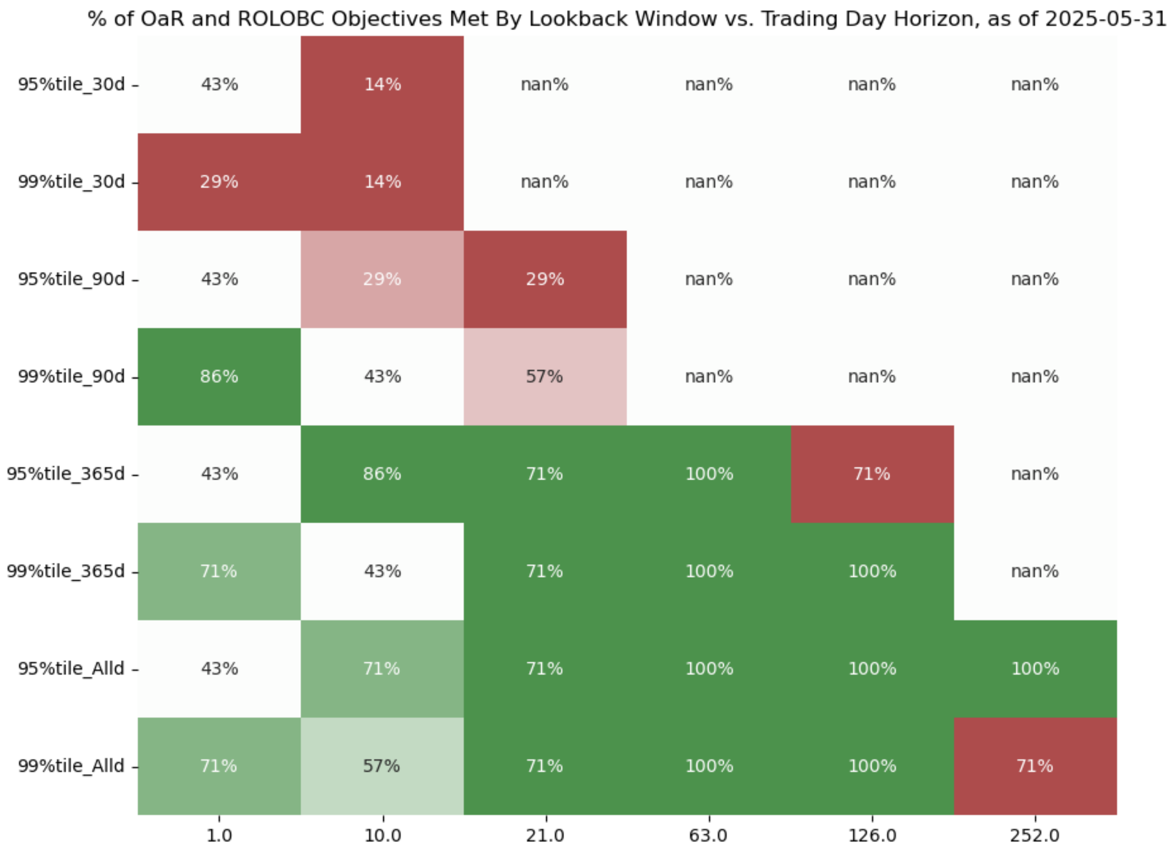
8) Note that OaR for both the Vector Model and Sigma as presented in this report assumes that prices are floored at $0.01. Since the coverage universe for this report includes only listed equities, that assumption is likely appropriate. However, if the Vector Model were applied to commodities or perhaps other potentially illiquid securities we would likely have to remove that floor for such tickers, and the resulting impact on model performance for such tickers has not yet been researched.

Thus, in summary, with the exception of the Kupiec and Christoferson tests, all metrics presented in this report are presented and are to be considered on a comparative basis. Are Vector Model OaR breakage rates closer to target than Sigma's? Does Vector Model ROLOBC outperform Sigma ROLOBC? Is the relative performance driven by alpha or beta? By timing or ticker selection? What tickers contributed or detracted the most from the relative performance? These are the primary questions this report is structured to answer.

Opportunity At Risk (OaR) Report Cards

Period examined: AllD = 2022-01-31 through 2025-05-29 while 365D /90D/ 30D include the 365/90/30 days ended 2025-05-29, respectively.

Sigma Comparison Report Card:



Vector Model Statistical Testing Report Card:

Vector Model Statistical Testing Report Card:

The Kupiec Proportion of Failures test statistic (listed as OaR_kStat in the table below), and its probability (OaR_pValK) are used to test the null hypothesis that the Vector Model's OaR breakage rate is consistent with expectations. The test statistic is calculated by comparing the number of OaR breaks experienced to the expected number of breaks given the total number of observations and the specified probability level. Breakage is measured at the individual ticker-model date level. The probability of the Kupiec statistic occurring is obtained from the chi-squared distribution. The lower the Kupiec statistic, the higher the p-Value, and the more likely that the Vector Model's OaR breakage rate is consistent with expectations.

The Christoferson OaR Violation Independence test statistic (listed as OaR_chrStat in the table below) and its probability (OaR_pValChr) are used to test the null hypothesis that the OaR model violations are independent. The test statistic focuses on consecutive breakages over time. We measure breakage at the portfolio level, with portfolio breakage for a given period defined as equally weighted ticker level breakage for that period being beyond expectation given the specified probability level. The probability of the Christoferson statistic occurring is obtained from the chi-squared distribution. The lower the Christoferson statistic, the higher the p-Value, and the more likely that Vector Model OaR breakage is independent.

Kupiec and Christoferson test results for Sigma OaR can be found in the Appendix.

Period examined: 2022-01-31 through 2025-05-29. Note that for horizon periods greater than 1d we exclude enough model dates to assure no overlap between observation periods.

Model	Pctile	Horizon	OaR_kStat	OaR_pValK	OaR_chrStat	OaR_pValChr
Vector	95	1	156.09	0	2.29	0.13
Vector	95	10	9.15	0	2.91	0.09
Vector	95	21	16.7	0	0.27	0.6
Vector	95	63	0	0.96	0.09	0.76
Vector	95	126	6.73	0.01	nan	0
Vector	95	252	0.06	0.8	nan	0
Vector	99	1	7.86	0.01	1.76	0.18
Vector	99	10	20.79	0	2.91	0.09
Vector	99	21	7.44	0.01	6.5	0.01
Vector	99	63	0.49	0.48	1.6	0.21
Vector	99	126	1.83	0.18	nan	0
Vector	99	252	2.45	0.12	nan	0

Combined Summary Report Card By Objective:

Here we summarize the results by objective, starting with the Sigma comparison-based objectives, for which a sub-total is provided. Each lookback period, horizon and specified percentile receives equal weighting in these calculations.

Then summary results for the statistical tests are provided, with success defined as a p-value for the corresponding test statistic > 0.05, and each horizon and specified percentile receiving equal weighting.")

Period examined: 2022-01-31 through 2025-05-29.

OaR and ROLOBC Criteria	Average Score(%)
1. Closer to Target OaR Breakage Than Sigma	68.75
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	90.62
3. Less Volatile OaR Breakage Across Tickers Than Sigma	37.5
4. Higher ROLOBC Than Sigma	96.88
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	50
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	53.12
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	62.5
Overall Comparison to Sigma Average	65.62
Kupiec Test of VaR Proximity to Target	41.6667
Christoferson Test of OaR Date Independence	58.3333

OaR and ROLOBC Criteria By Fwd Hzn	1D	10D	21D	63D	126D	252D
1. Closer to Target OaR Breakage Than Sigma	62.5	75	33.33	100	100	50
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	100	62.5	100	100	100	100
3. Less Volatile OaR Breakage Across Tickers Than Sigma	0	0	33.33	100	100	100
4. Higher ROLOBC Than Sigma	100	87.5	100	100	100	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	12.5	25	66.67	100	100	50
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	37.5	25	50	100	75	100
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	62.5	37.5	50	100	75	100
TotalScore	53.57	44.64	61.9	100	92.86	85.71

OaR and ROLOBC Criteria Across Lookback Window	30D	90D	365D	AllD
1. Closer to Target OaR Breakage Than Sigma	50	83.33	80	58.33
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	50	83.33	100	100
3. Less Volatile OaR Breakage Across Tickers Than Sigma	0	16.67	50	50
4. Higher ROLOBC Than Sigma	75	100	100	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	0	16.67	70	66.67
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	0	16.67	60	83.33

OaR and ROLOBC Criteria Across Lookback Window	30D	90D	365D	AllD
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	0	16.67	70	100
TotalScore	25	47.62	75.71	79.76

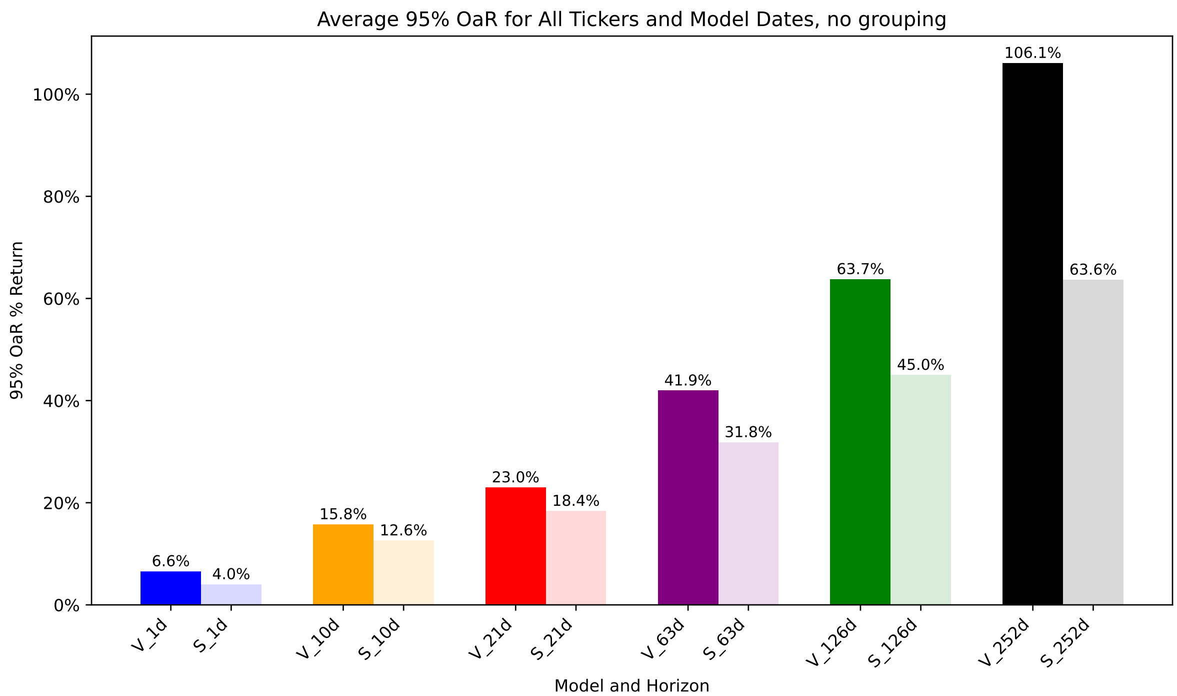
95% Opportunity At Risk (OaR)

Historic Average Levels

Here we compare Vector Model ("V", dark shading) and Sigma ("S", light shading) 95% OaR levels by horizon, on average across tickers. We make this comparison on average across tickers for select cohorts of model dates (ex: P30D), and forward horizons (ex: 21d) for all ticker model dates thru the present.

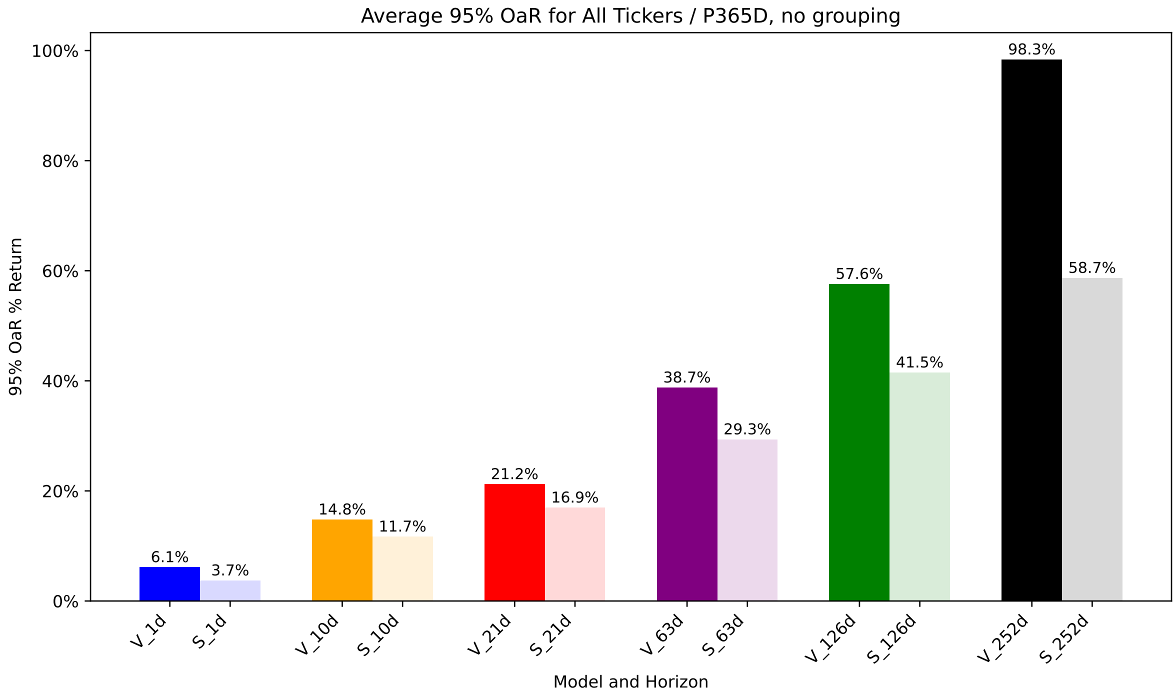
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-05-29



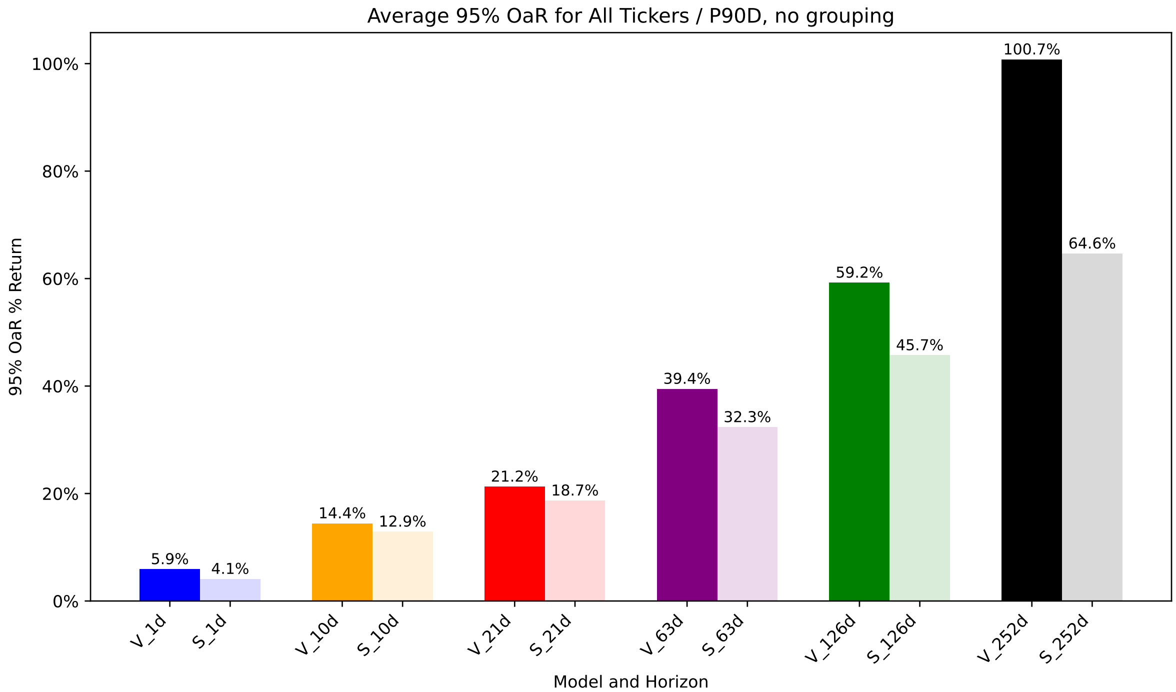
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-29 through 2024-06-03



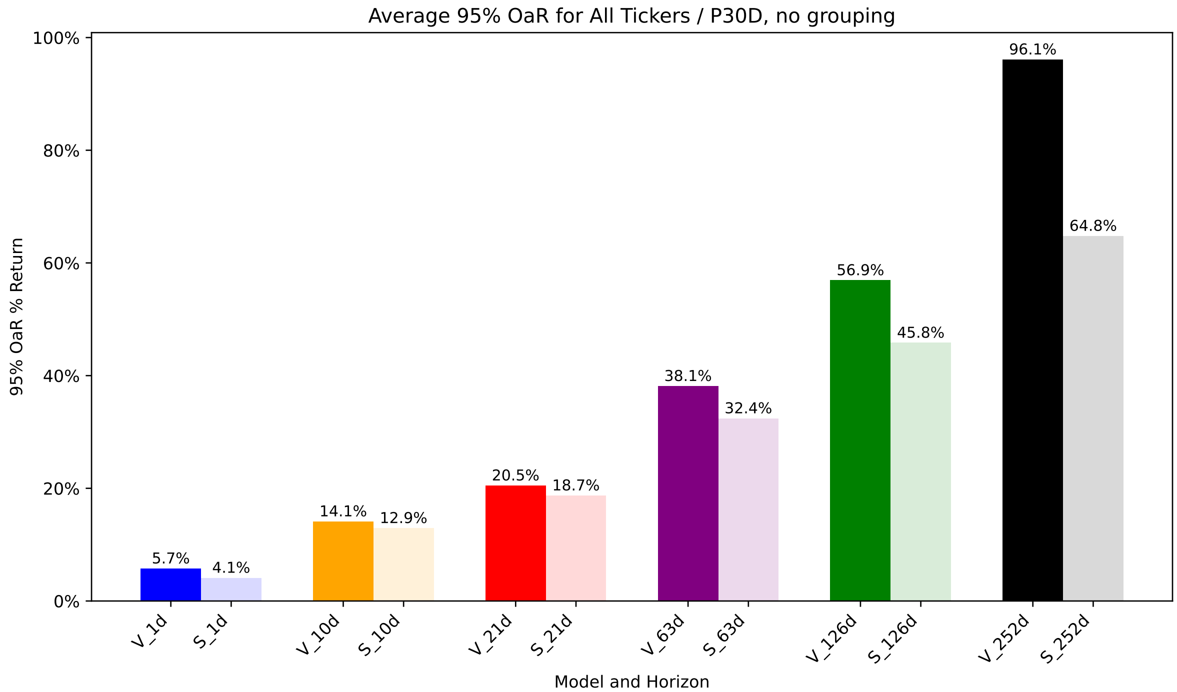
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-05-29 through 2025-03-03



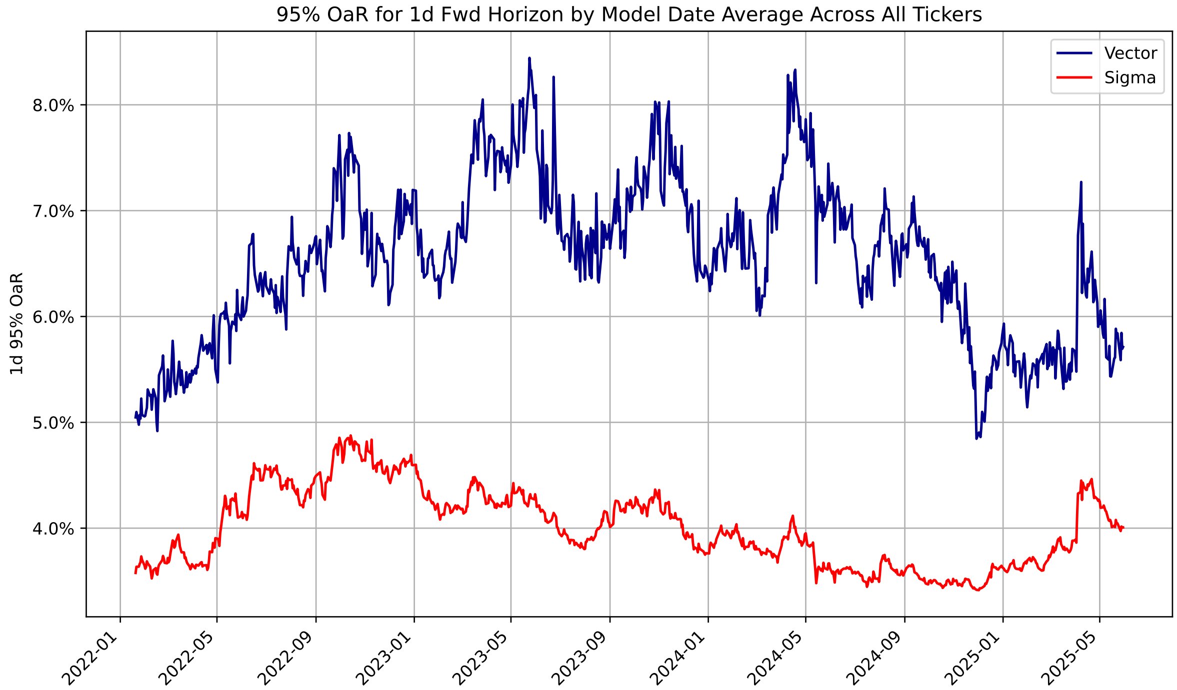
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-05-29 through 2025-05-02

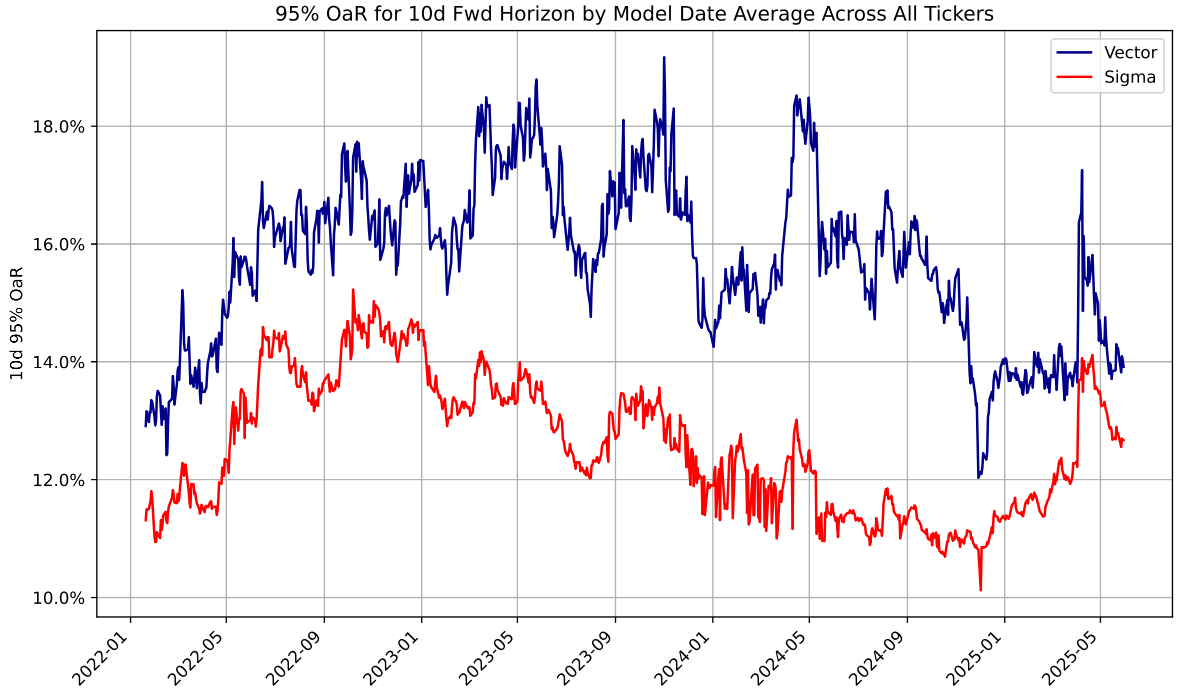


Daily Levels

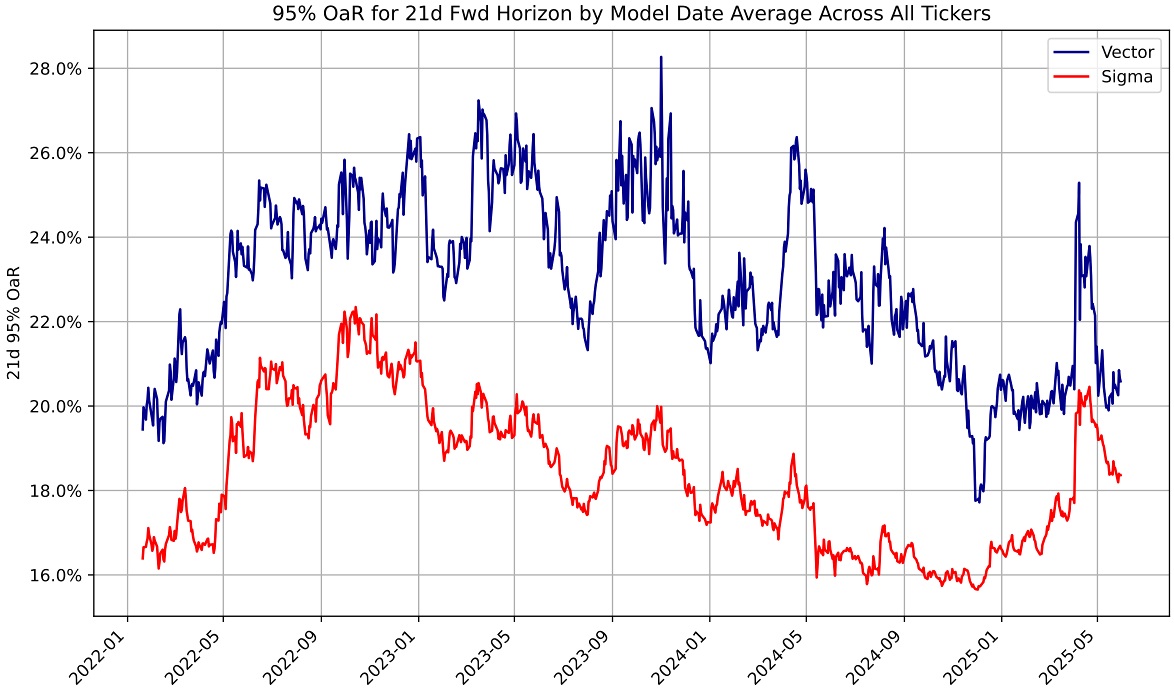
1d Horizon



10d Horizon


95% OaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 95% OaR
10.0%
12.0%
14.0%
16.0%
18.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

21d Horizon



95% OaR for 21d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
21d 95% OaR
28.0%
26.0%
24.0%
22.0%
20.0%
18.0%
16.0%
2022-01
2022-05
2022-09
2023-01
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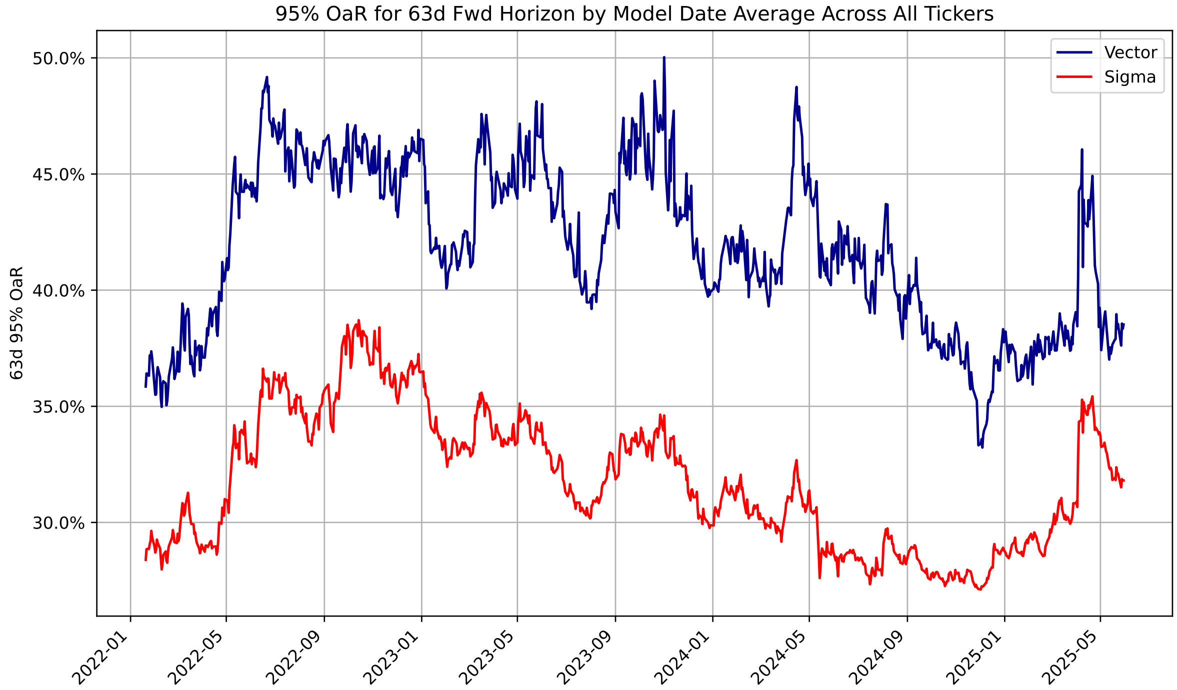
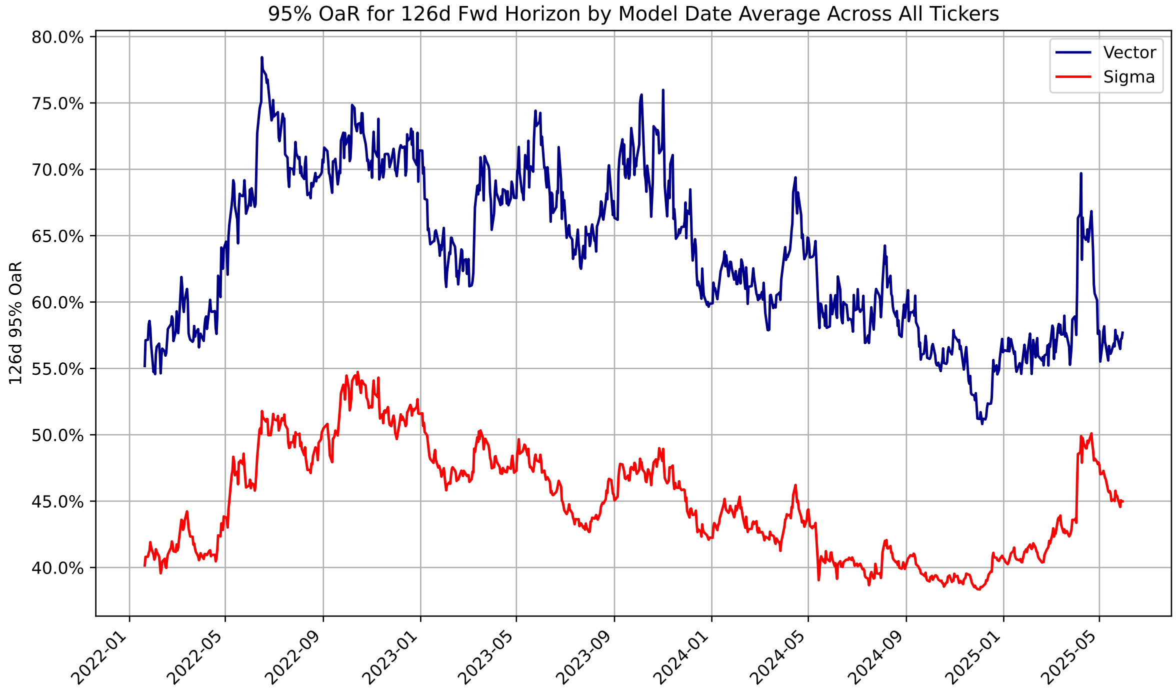
2024-09
2025-01
2025-05

63d Horizon

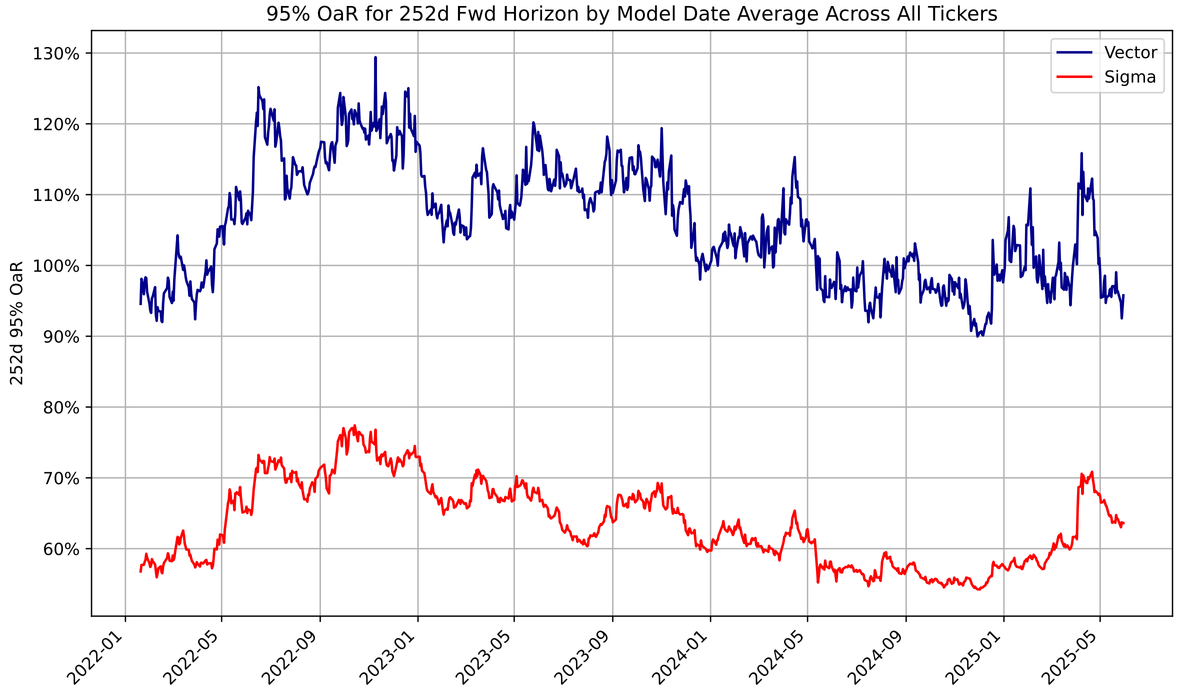


95% OaR for 63d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
63d 95% OaR
50.0%
45.0%
40.0%
35.0%
30.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

126d Horizon



252d Horizon



Performance Summary

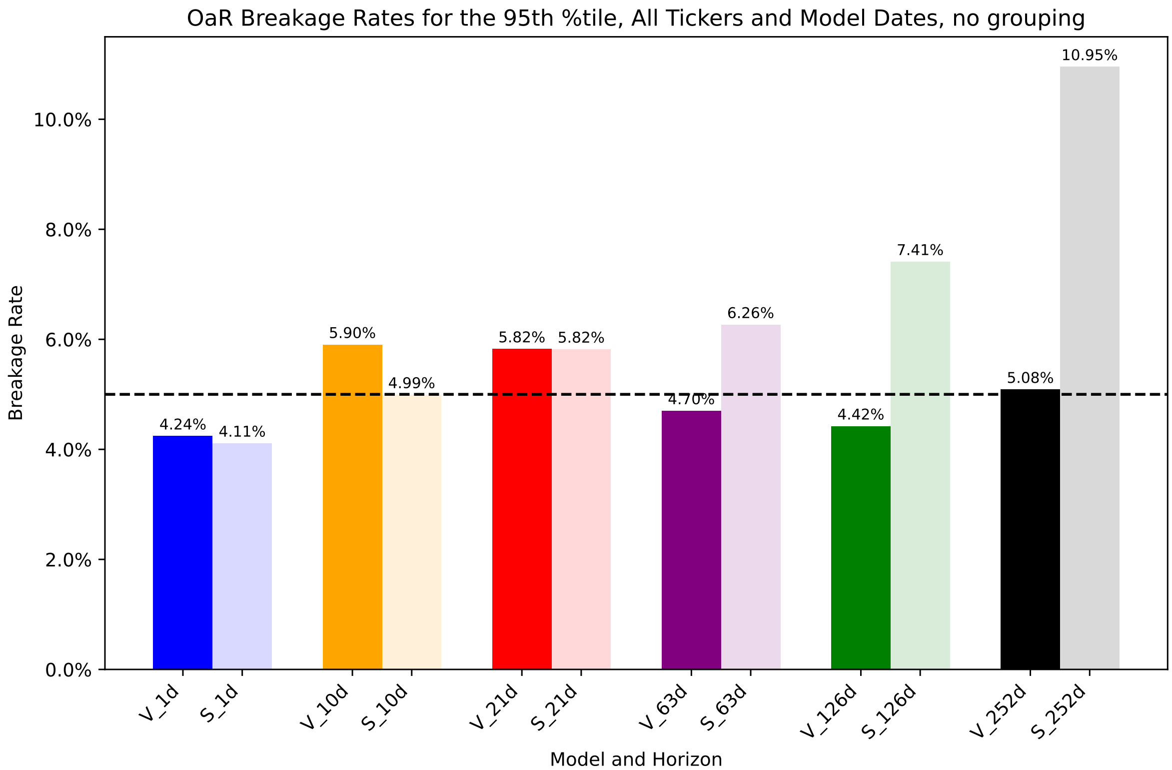
Here we compare the performance of 95% OaR estimates generated by the Vector Model ("V", presented with dark shading) with those generated by Sigma ("S", presented with light shading). This comparison is made on the basis of breakage rates and Return on Long OaR based Capital (ROLOBC), presenting the average results across tickers and model dates for all horizons as of the most recent model date.

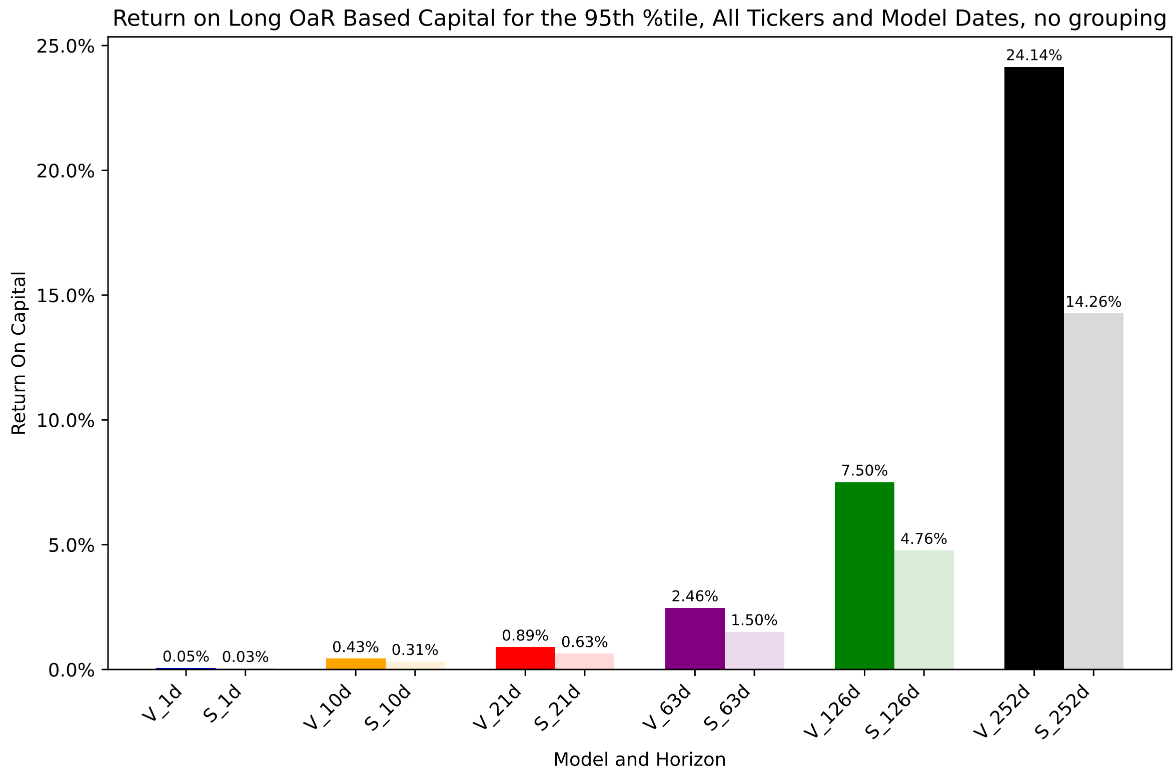
ROLOBC comparisons are made on the basis of outright ROLOBC and the alpha of Vector Model ROLOBC to underlying ticker returns (the proxy for Sigma ROLOBC). As discussed in the Introduction, ROLOBC for Sigma is presumed to be the return of the underlying ticker, and for the Vector Model it is based on the return of the ticker multiplied by the ratio Vector Model based OaR to Sigma model based OaR, with a cap of 3.0x and a floor of 0.333x. Alpha allows us to isolate ROLOBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROLOBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by OaR differentials between tickers and / or between dates. Thus we also present average alpha by ticker across model dates.

Results for each horizon reflect the average for all model estimates for that horizon from all model dates for which forward performance is known. Note that periods for all horizons > 1d overlap.

All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-05-29





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across TMD's:

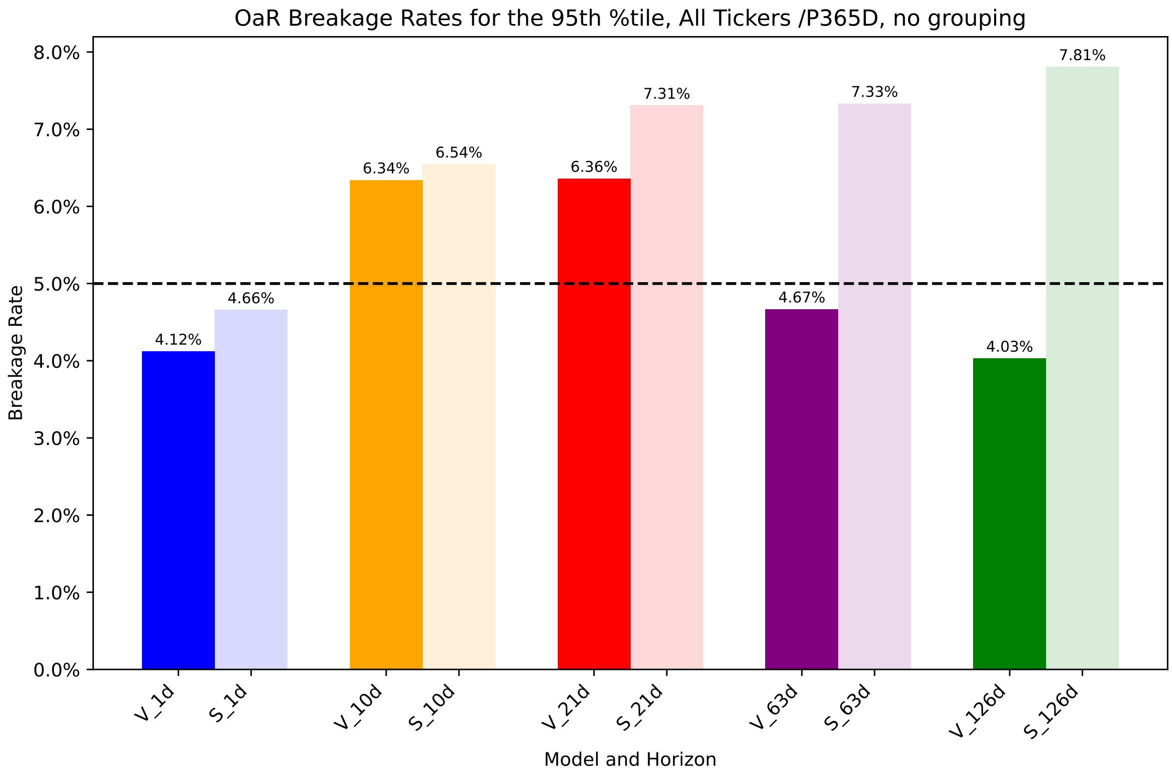
	1d	10d	21d	63d	126d	252d
intercept	-0.00%	0.05%	0.12%	0.39%	0.71%	2.58%
intercept_p_value	86.20%	0.29%	0.00%	0.00%	0.00%	0.00%
slope	145.67%	120.97%	122.71%	137.44%	142.59%	151.20%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

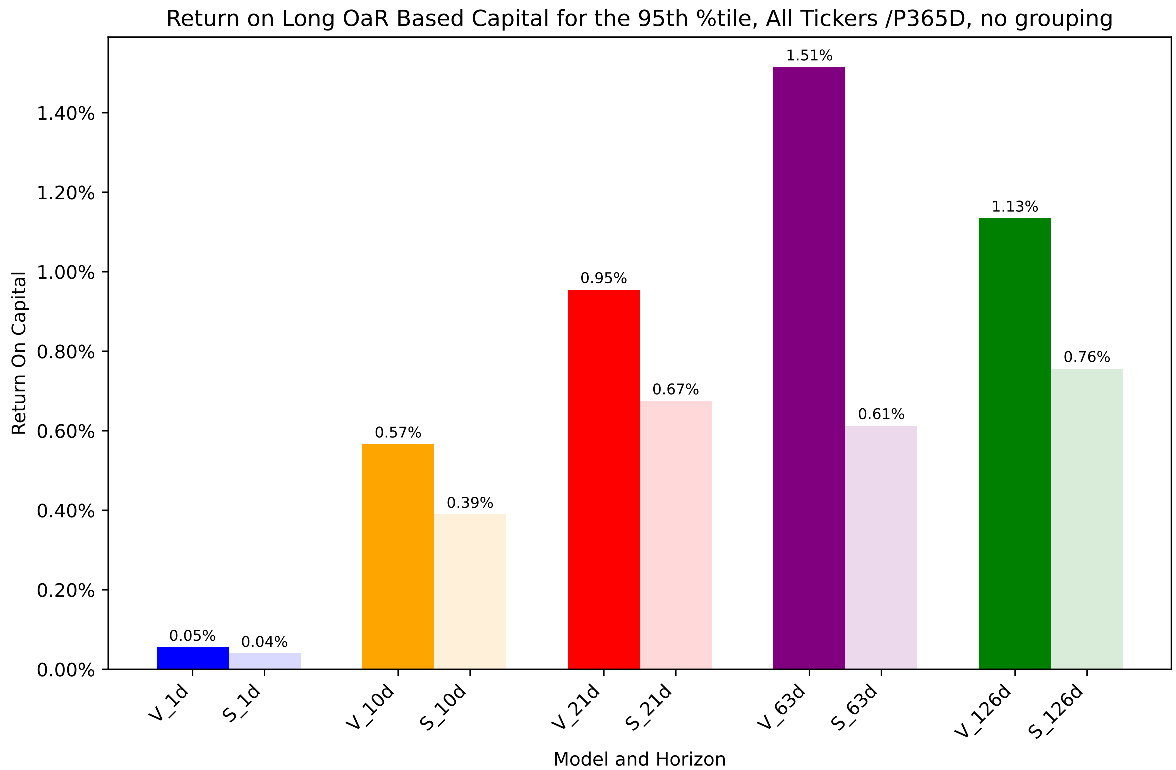
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.02%	-0.12%	-0.35%	-1.47%	-3.50%	-5.01%
intercept_p_value	0.80%	7.42%	1.69%	0.20%	0.01%	0.45%
slope	157.57%	153.05%	163.38%	175.52%	173.89%	162.67%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-29 through 2024-06-03





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across P365D:

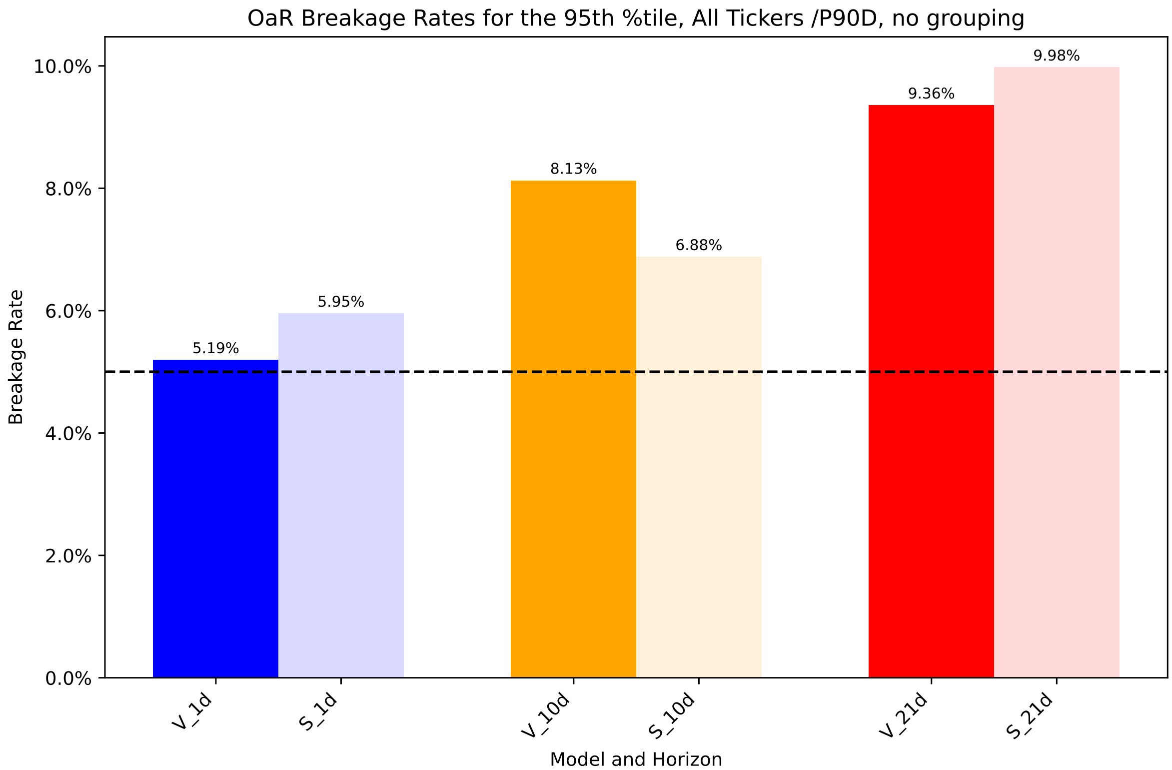
	1d	10d	21d	63d	126d
intercept	-0.00%	0.04%	0.05%	0.54%	-0.01%
intercept_p_value	68.59%	17.76%	18.72%	0.00%	95.14%
slope	150.49%	135.17%	133.96%	159.78%	150.83%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

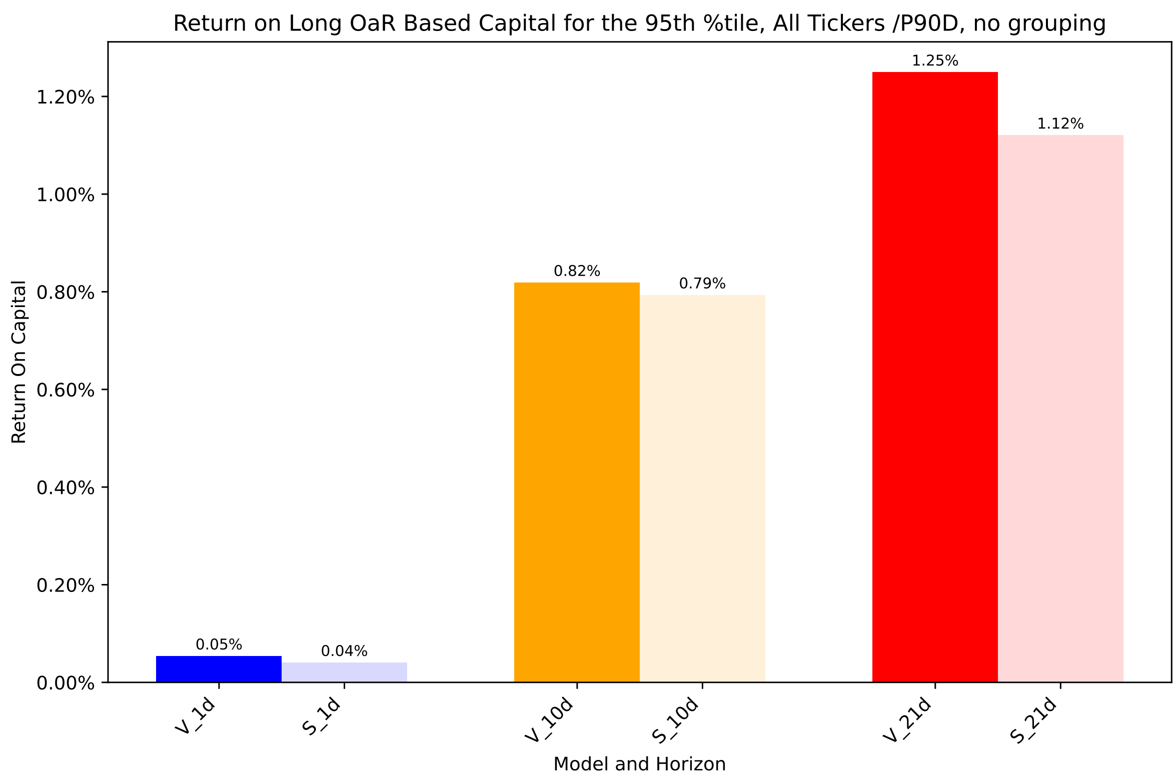
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P365D:

	1d	10d	21d	63d	126d
intercept	0.02%	0.19%	0.22%	-0.05%	0.14%
intercept_p_value	4.99%	2.13%	14.99%	88.14%	82.95%
slope	79.66%	98.38%	106.81%	115.34%	119.48%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-05-29 through 2025-03-03





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across P90D:

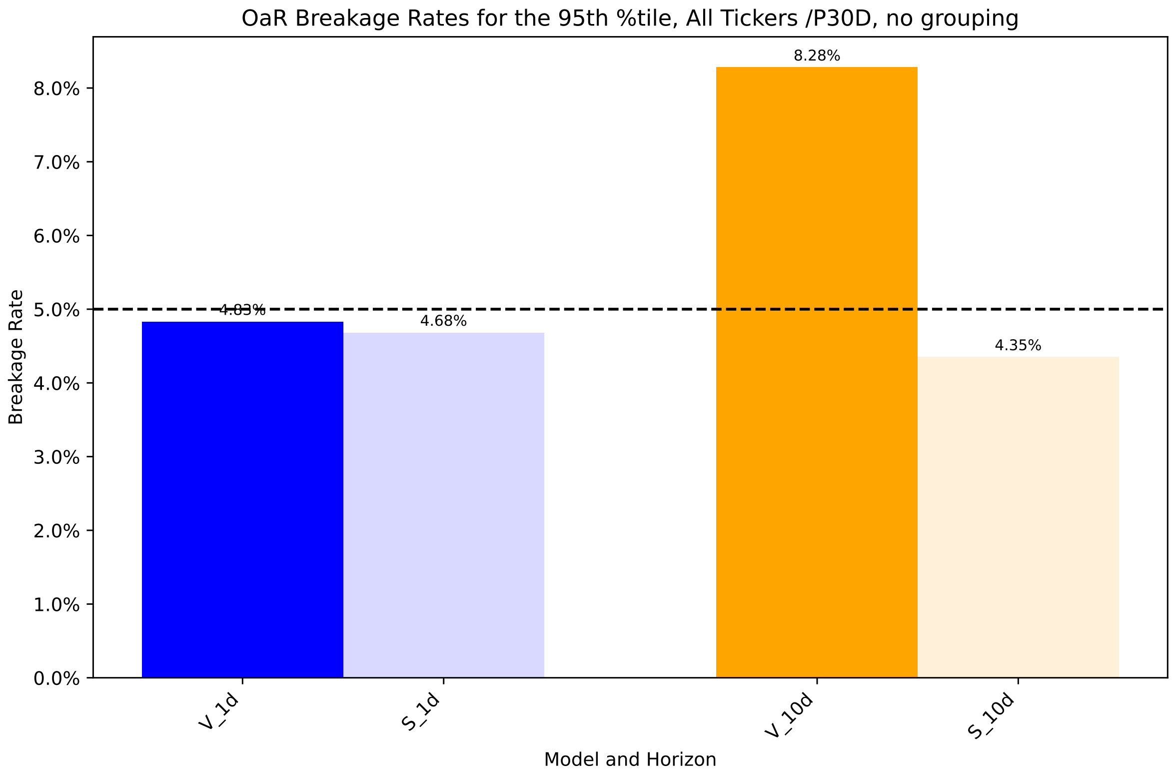
	1d	10d	21d
intercept	-0.00%	-0.10%	-0.07%
intercept_p_value	87.56%	8.09%	48.05%
slope	142.82%	116.42%	117.94%
slope_p_value	0.00%	0.00%	0.00%

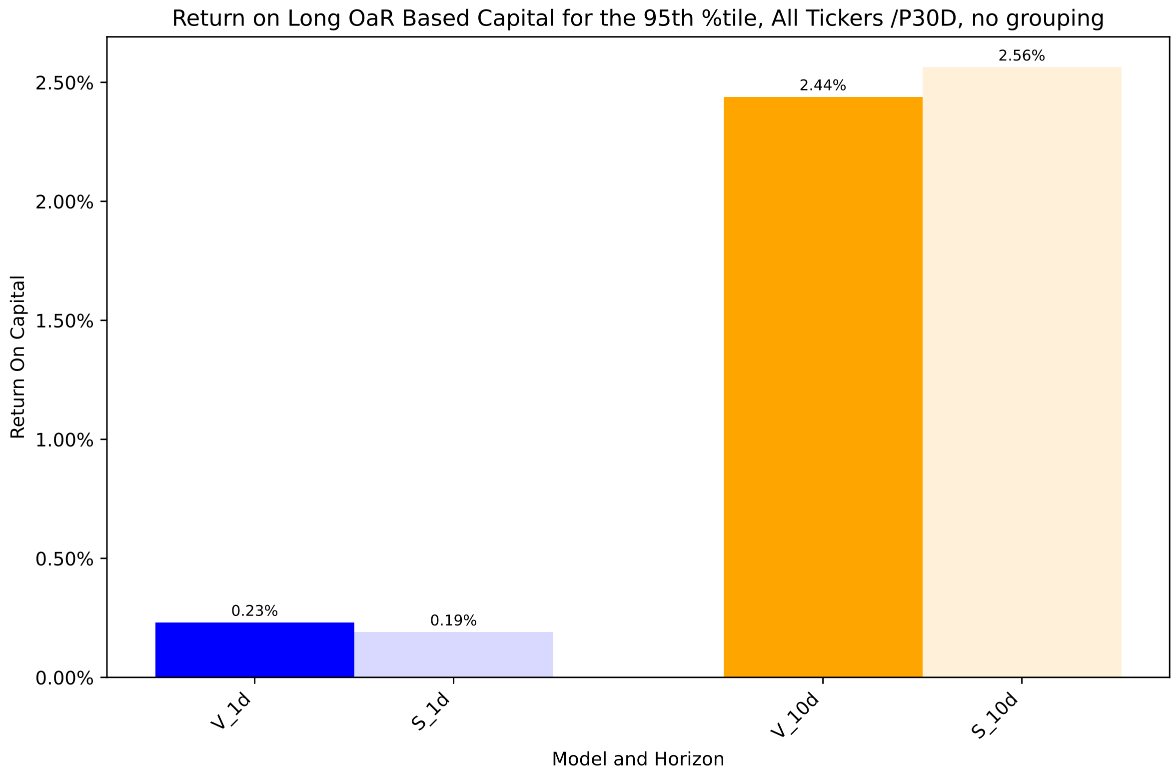
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P90D:

	1d	10d	21d
intercept	0.03%	0.50%	0.87%
intercept_p_value	16.22%	0.15%	0.93%
slope	106.58%	109.91%	118.78%
slope_p_value	0.00%	0.00%	0.00%

Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-05-29 through 2025-05-02





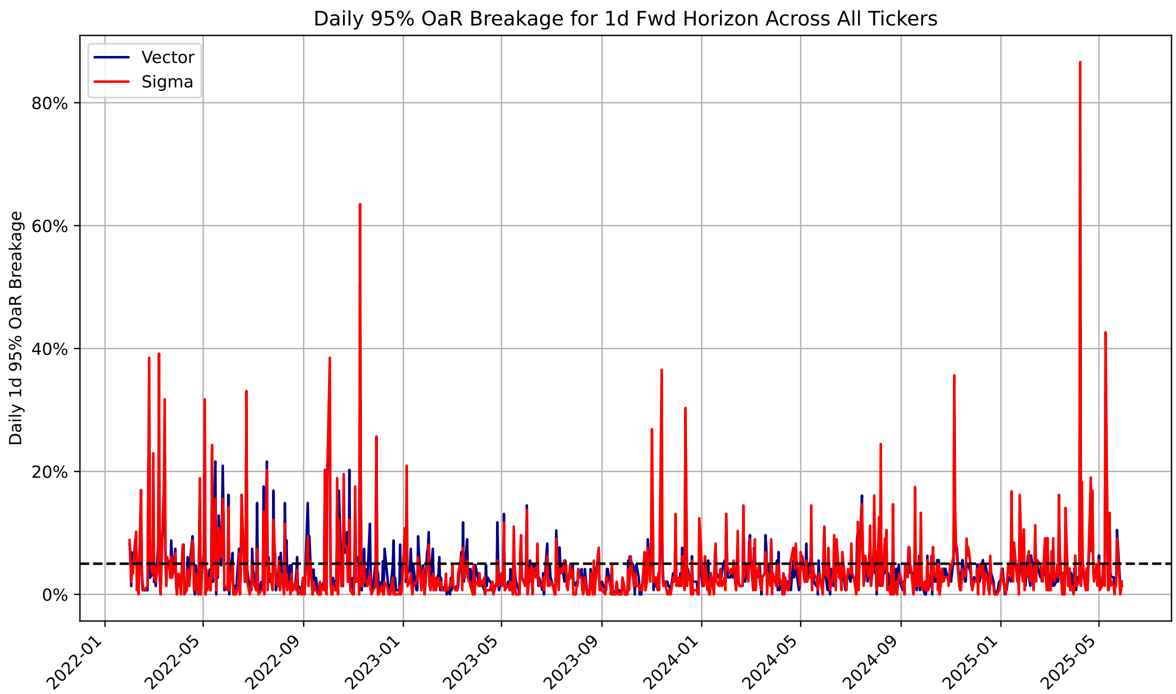

```
Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon
corresponding actual returns across P30D:
                        1d      10d
intercept           -0.03%   -0.42%
intercept_p_value   37.03%    0.05%
slope              138.49%  111.36%
slope_p_value        0.00%    0.00%
```

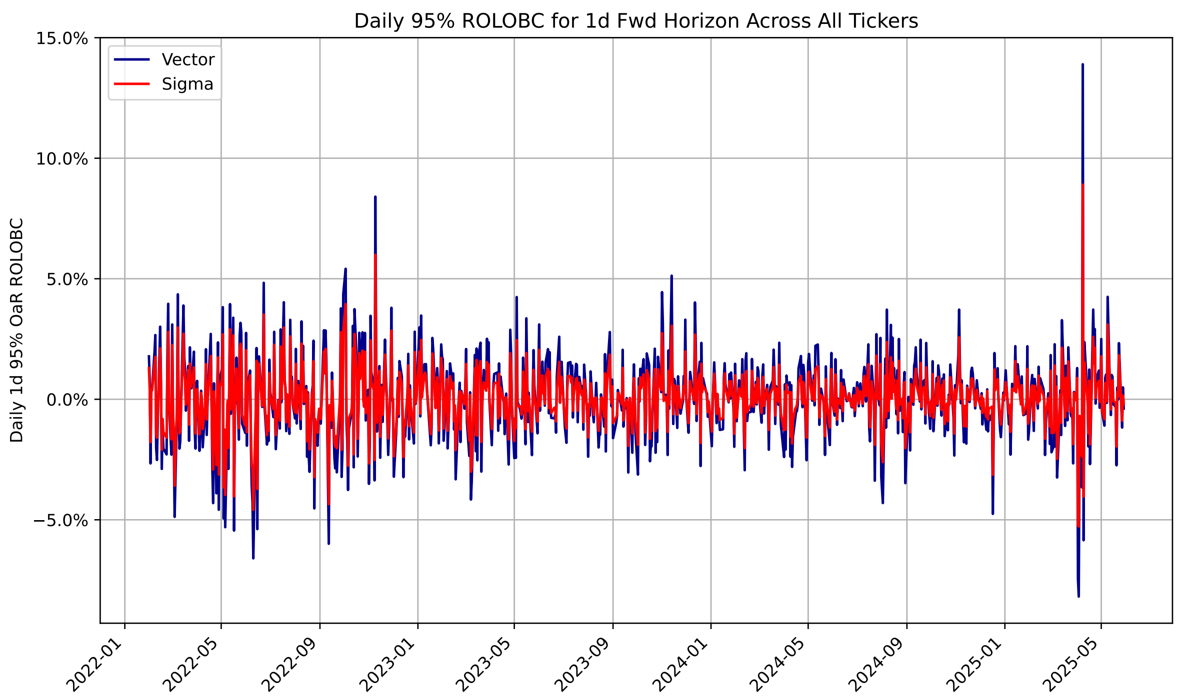
```
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon
corresponding actual returns, by ticker across P30D:
                        1d      10d
intercept            0.00%    0.10%
intercept_p_value   94.77%   81.82%
slope              136.17%  144.48%
slope_p_value        0.00%    0.00%
```

Daily Performance

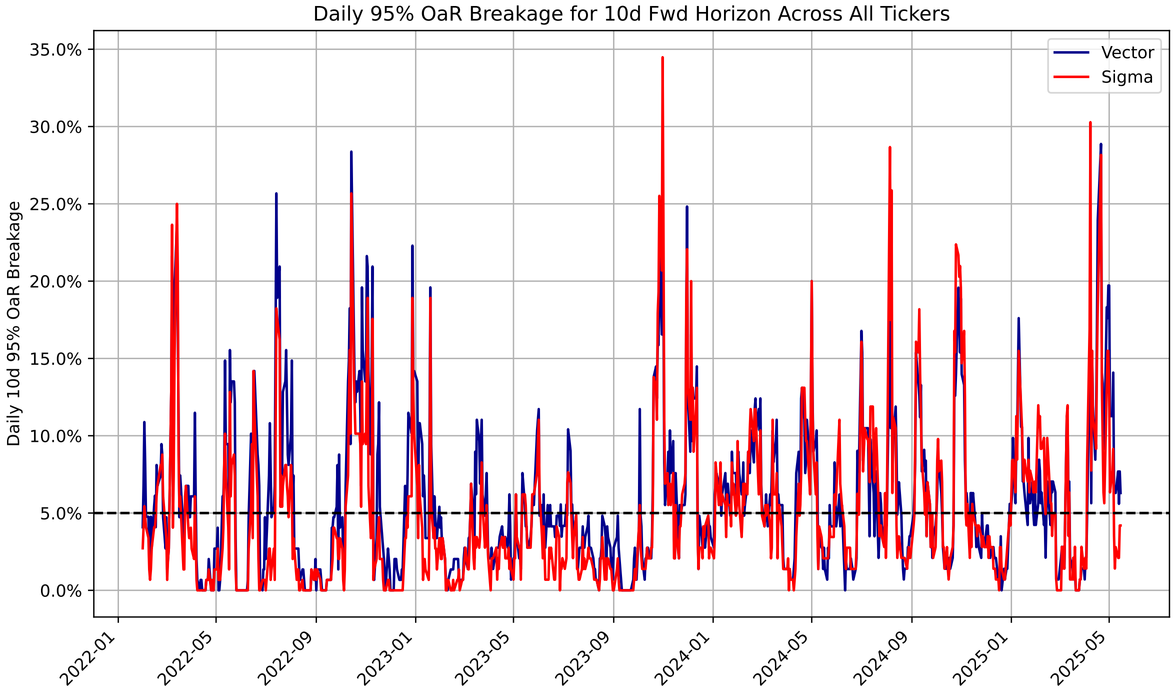
Here we look at the daily breakage and ROLOBC statitics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROLOBC outliers.

1d Horizon

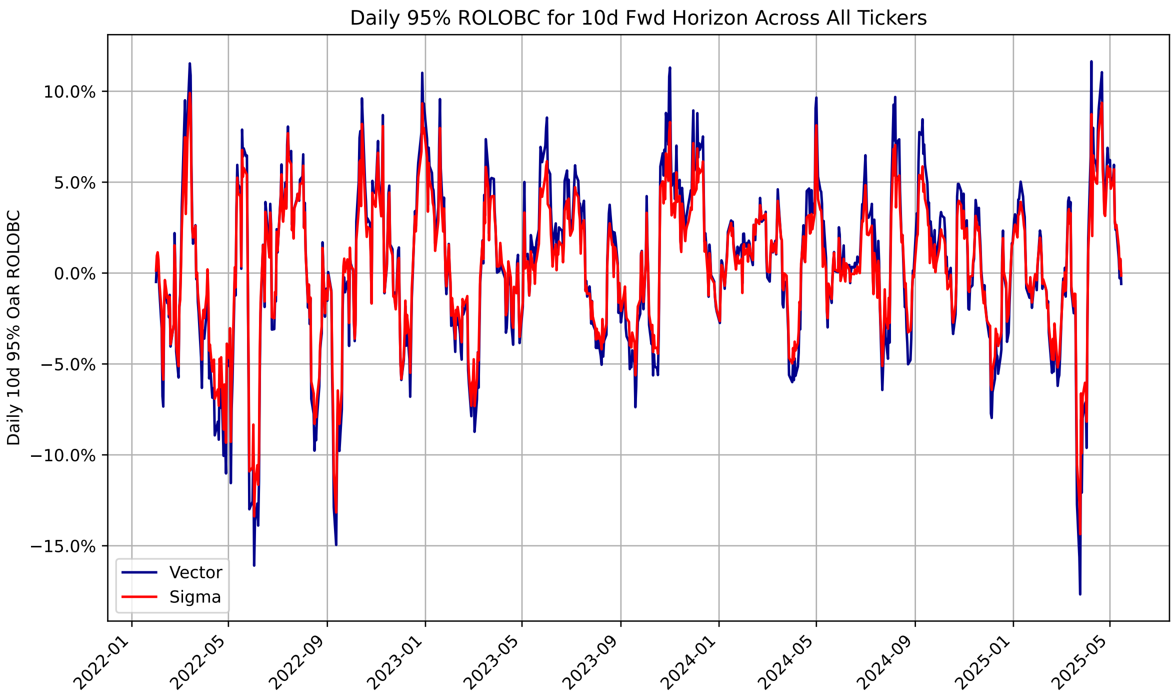



Daily 95% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 95% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

10d Horizon

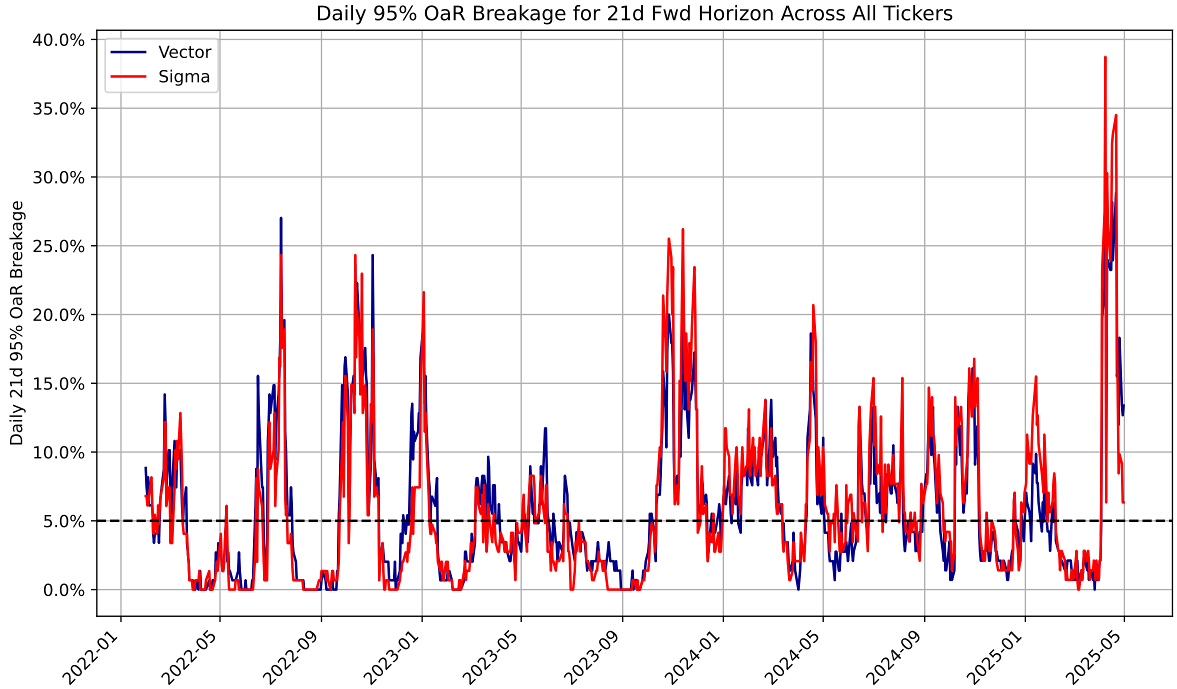


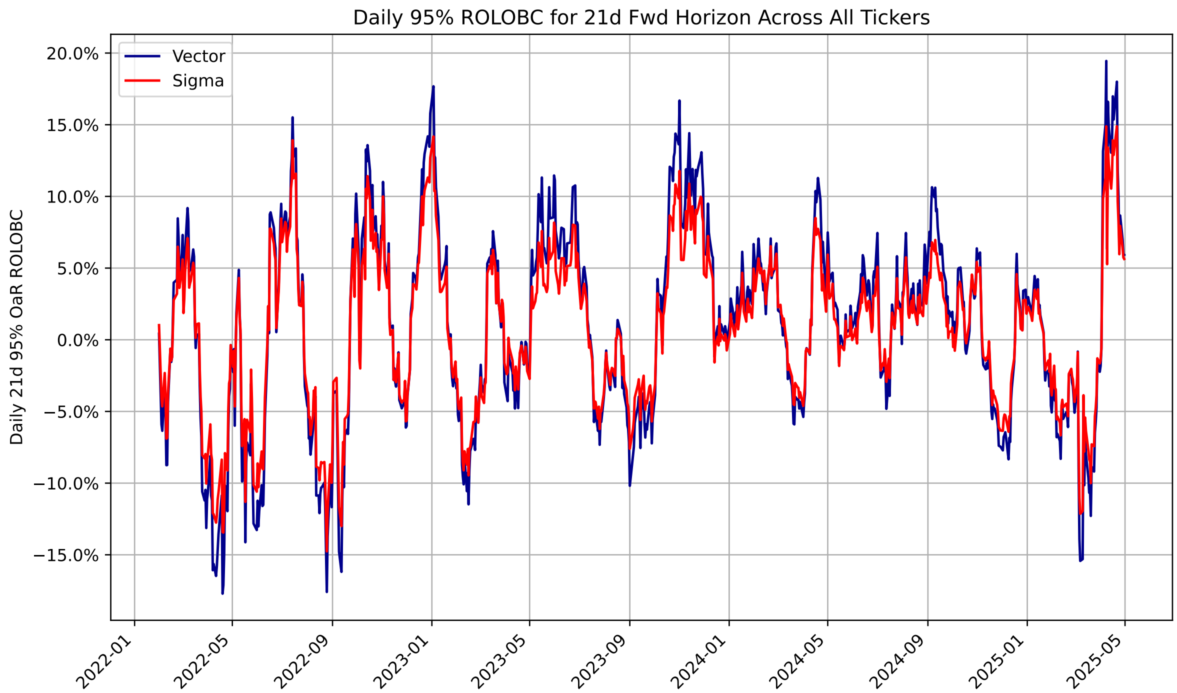
Daily 95% OaR Breakage for 10d Fwd Horizon Across All Tickers
Daily 10d 95% OaR Breakage
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05
Vector
Sigma



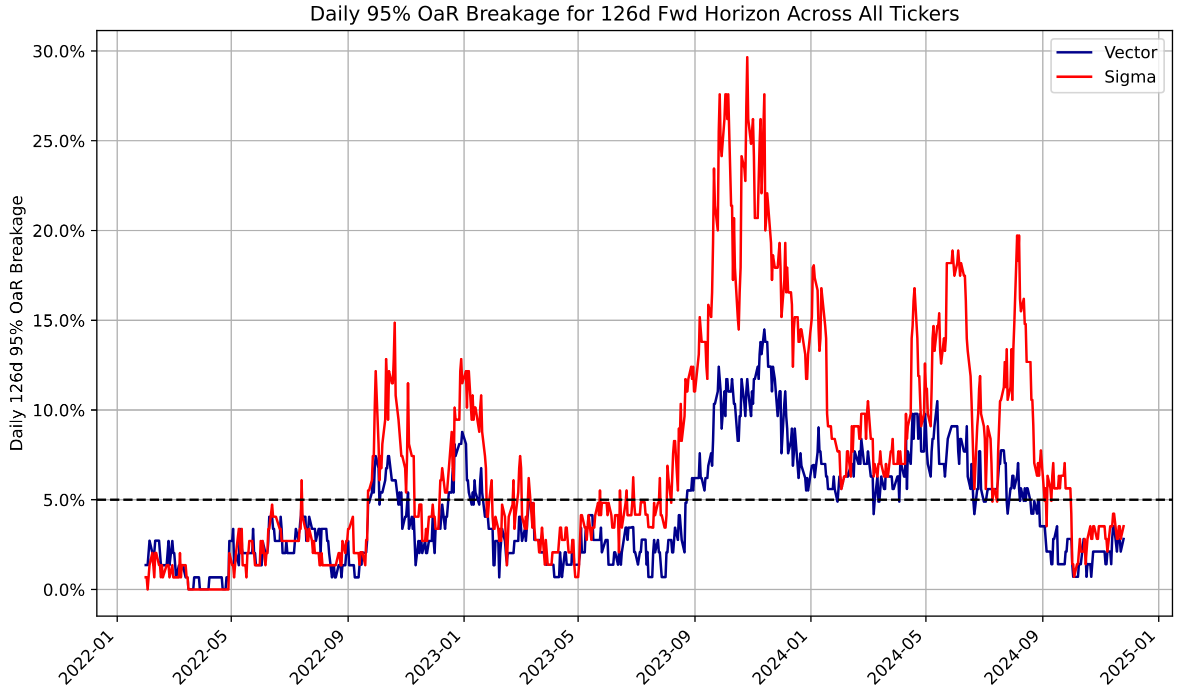
Daily 95% ROLOBC for 10d Fwd Horizon Across All Tickers
Daily 10d 95% OaR ROLOBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05
Vector
Sigma

21d Horizon

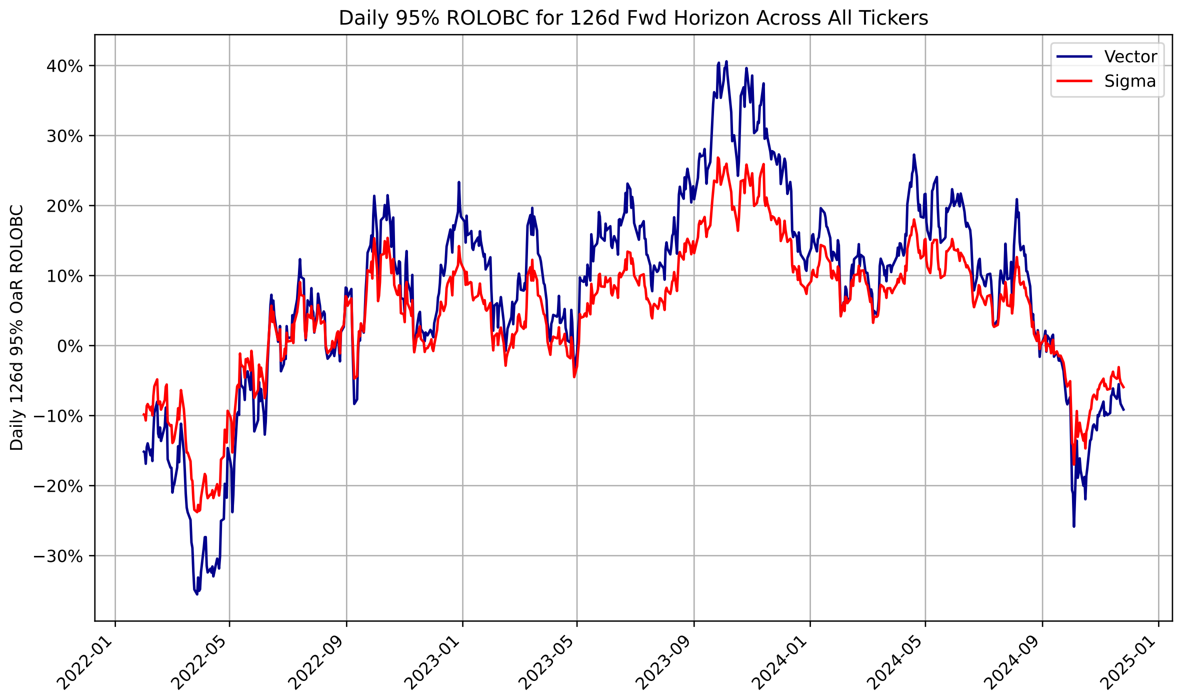

Daily 95% OaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 95% OaR Breakage
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05


Daily 95% ROLOBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 95% OaR ROLOBC
20.0%
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

63d Horizon

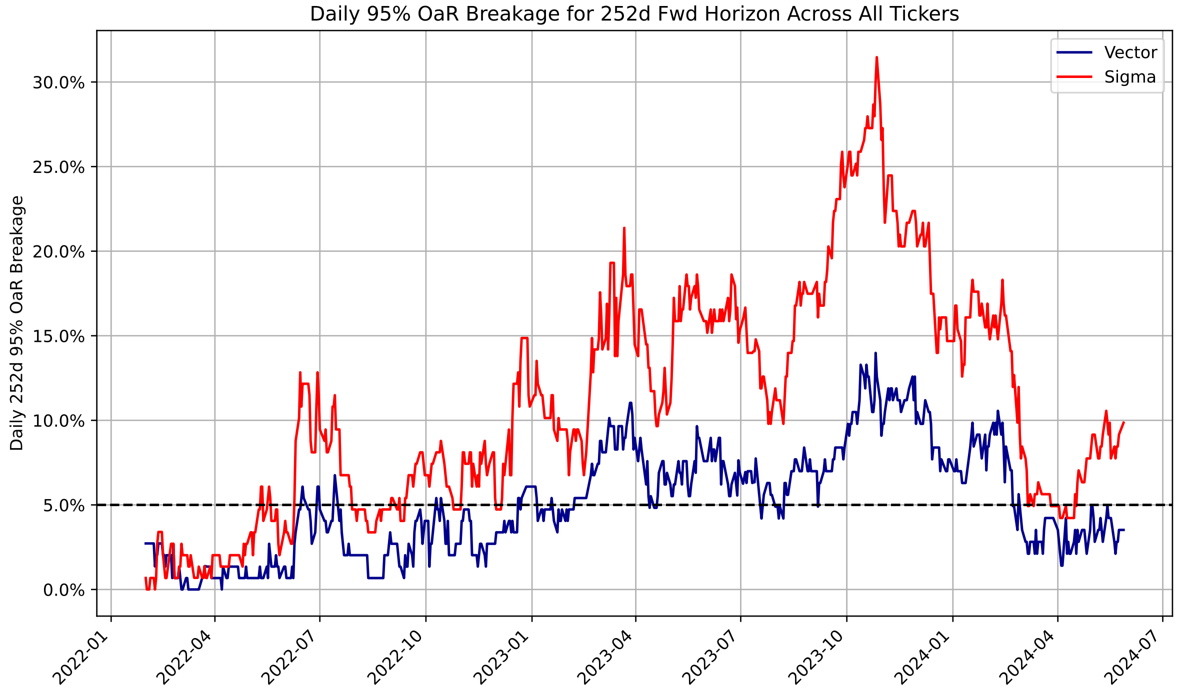


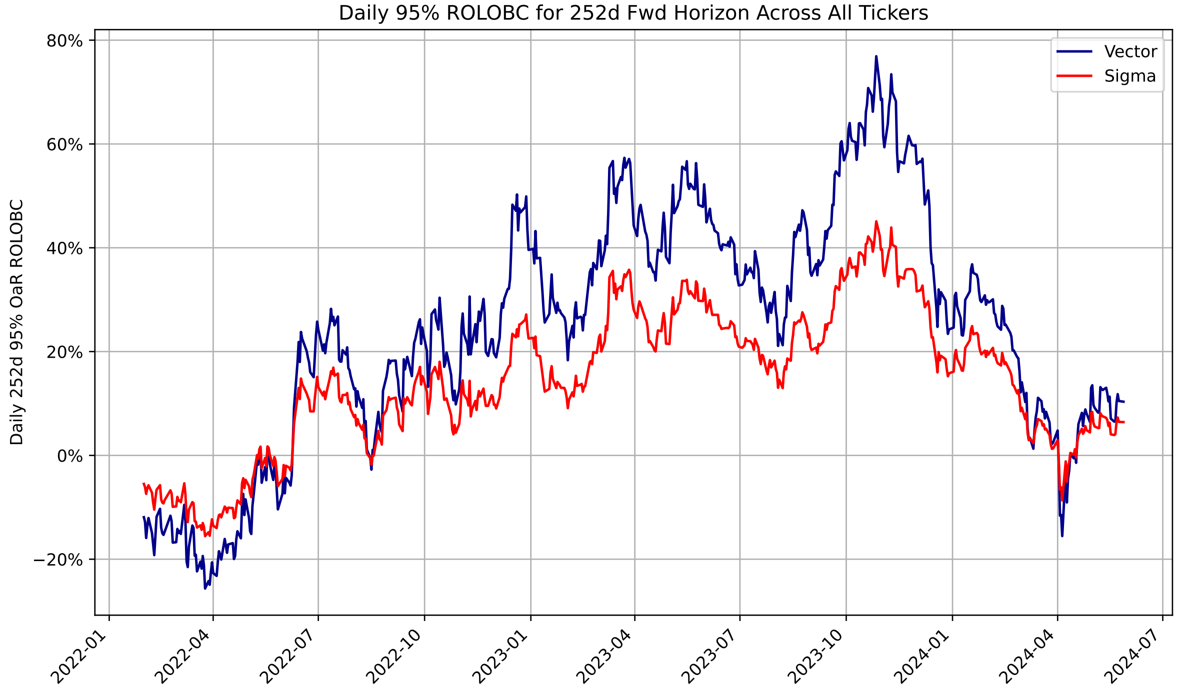
Daily 95% OaR Breakage for 126d Fwd Horizon Across All Tickers
Daily 126d 95% OaR Breakage
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
Vector
Sigma



Daily 95% ROLOBC for 126d Fwd Horizon Across All Tickers
Daily 126d 95% OaR ROLOBC
40%
30%
20%
10%
0%
−10%
−20%
−30%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
Vector
Sigma

252d Horizon

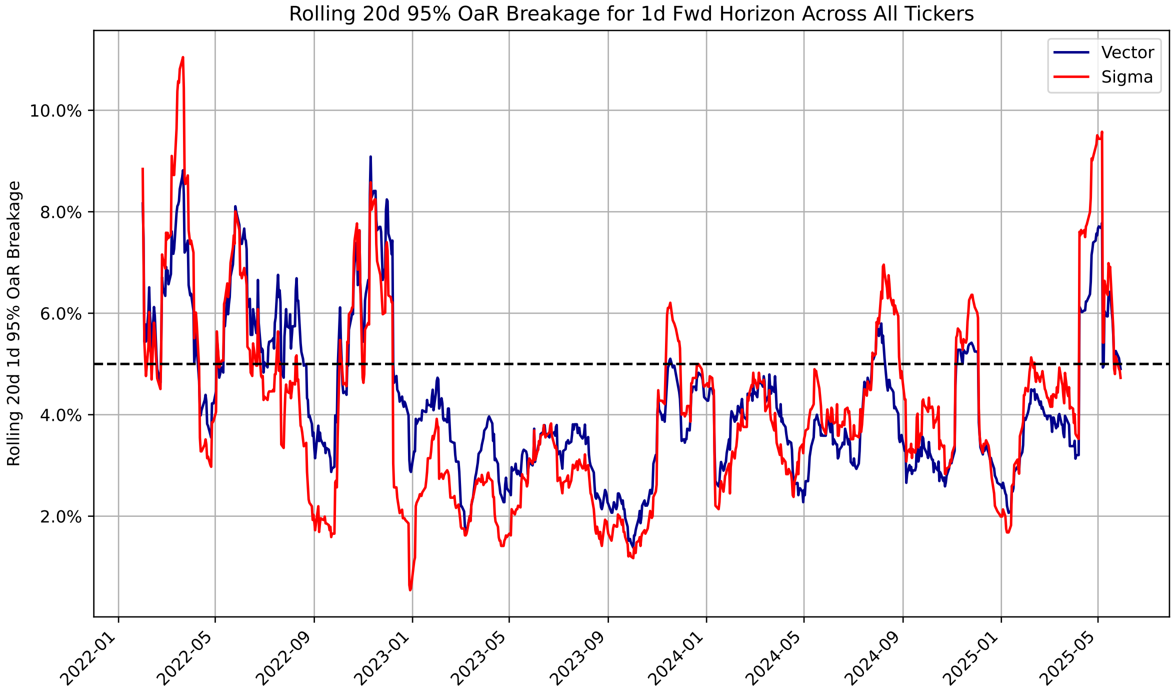


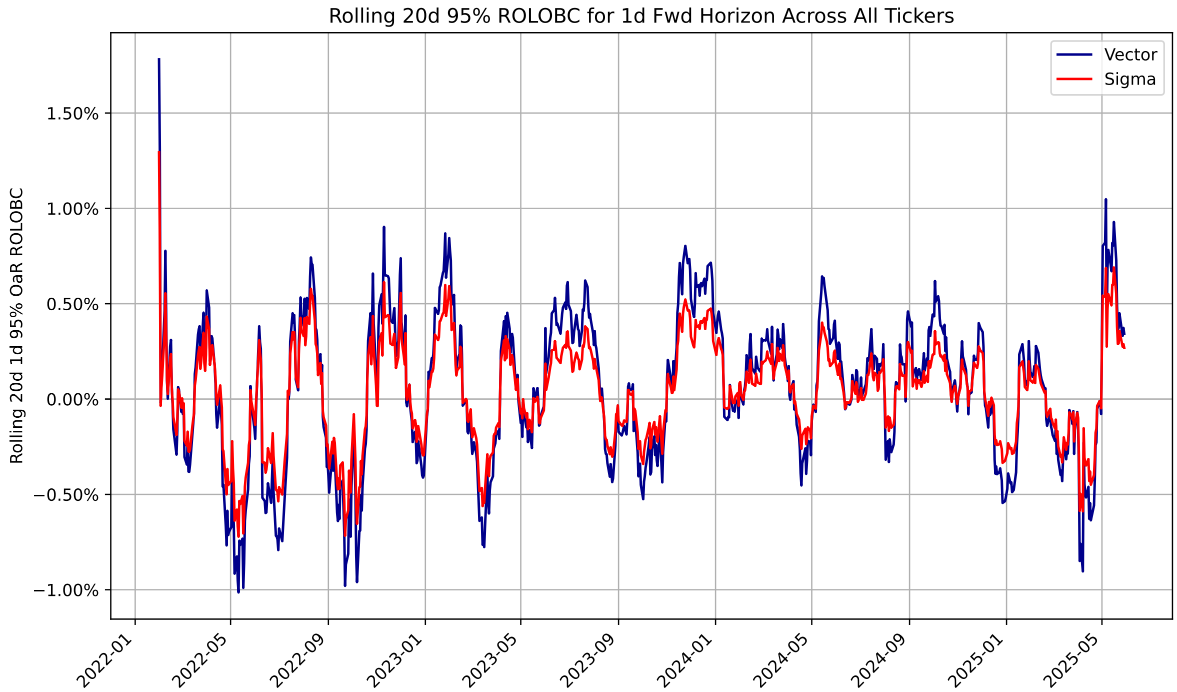


Rolling 20d Performance

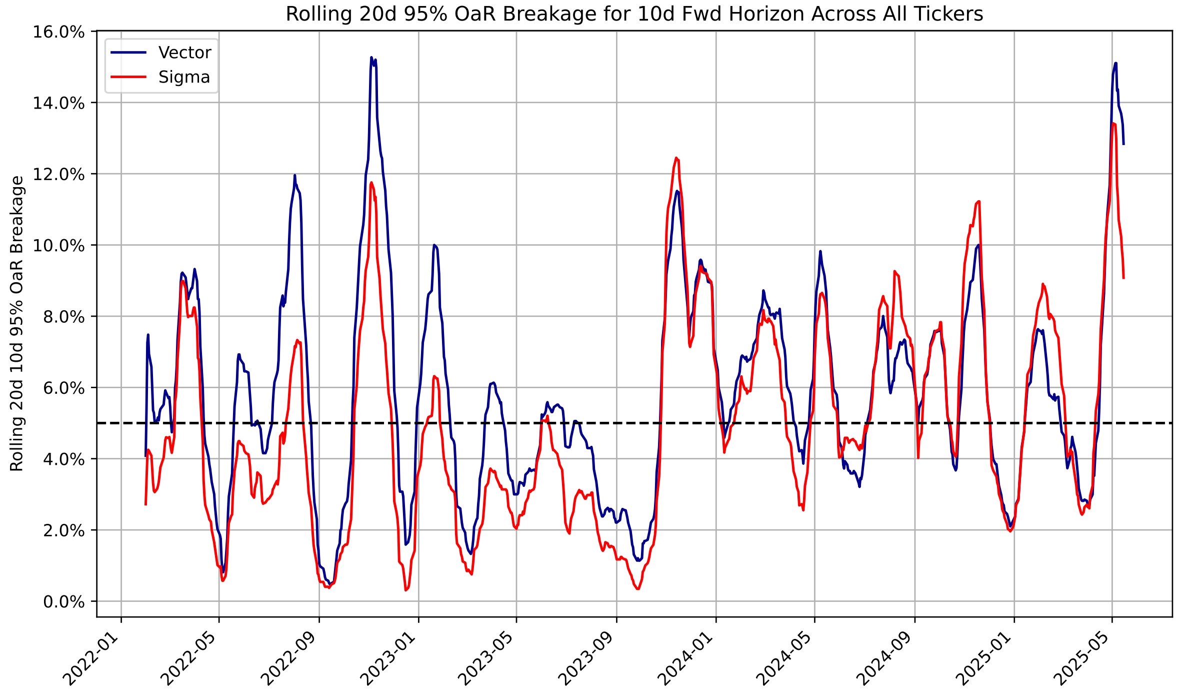
Here we look at 20 day rolling moving averages of the breakage and ROLOBC statitics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

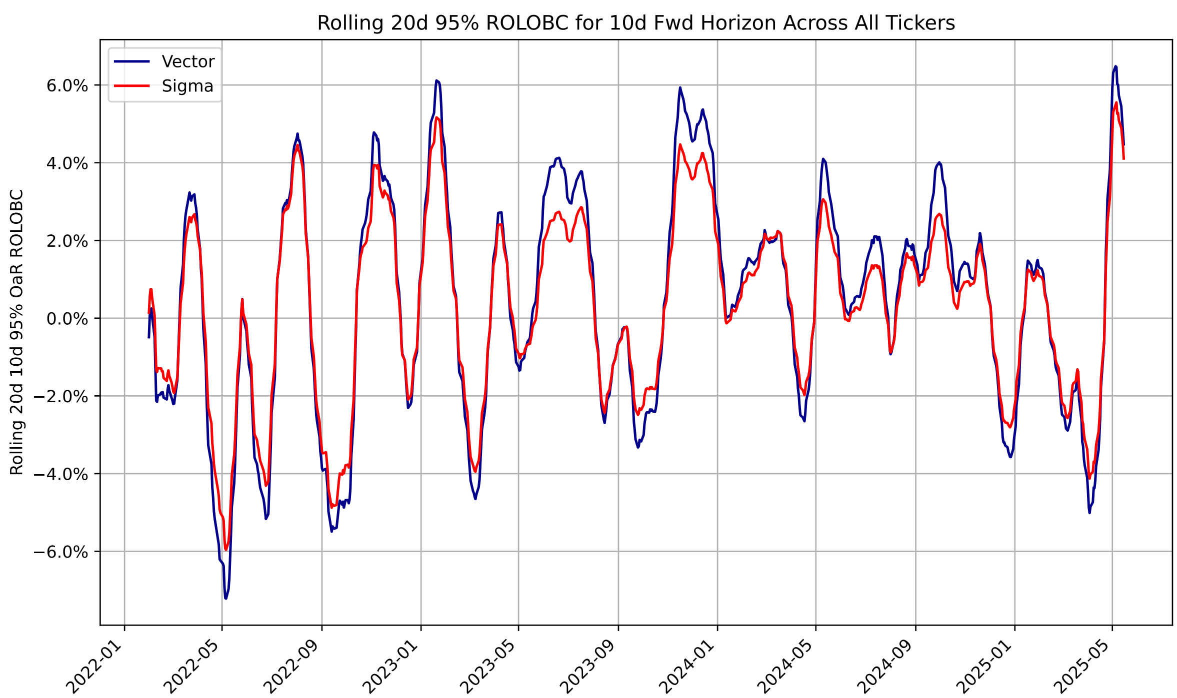



Rolling 20d 95% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 95% OaR ROLOBC
1.50%
1.00%
0.50%
0.00%
−0.50%
−1.00%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

10d Horizon

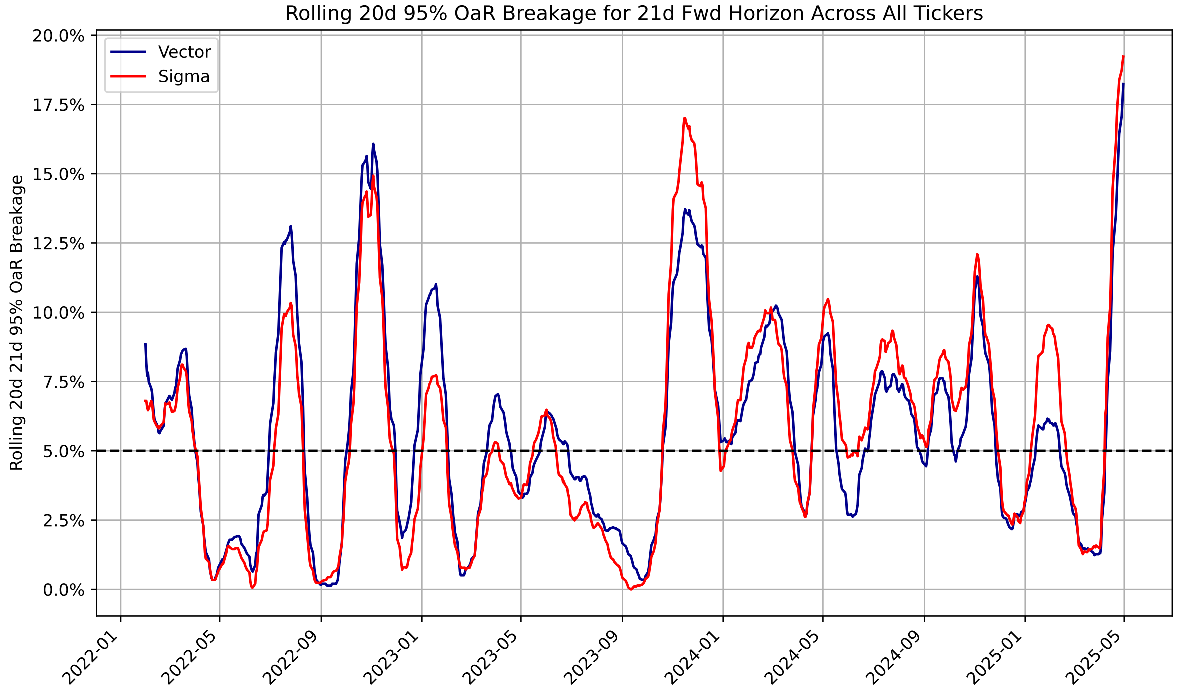


Rolling 20d 95% OaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 95% OaR Breakage
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

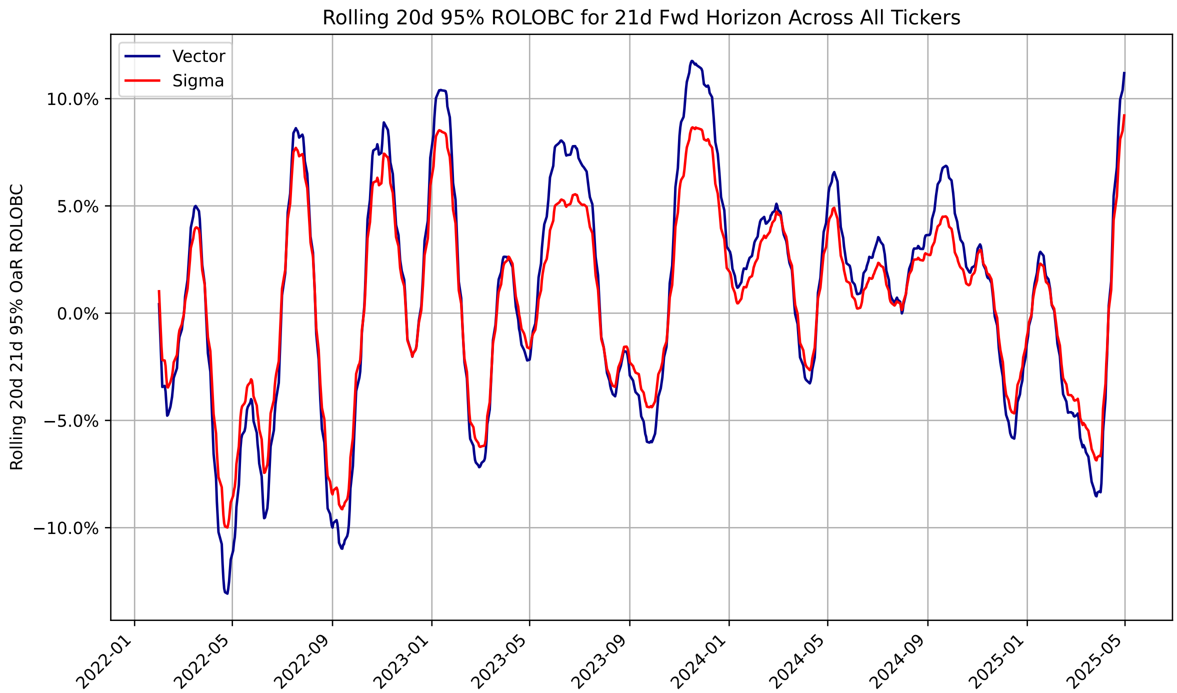


Rolling 20d 95% ROLOBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 95% OaR ROLOBC
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

21d Horizon

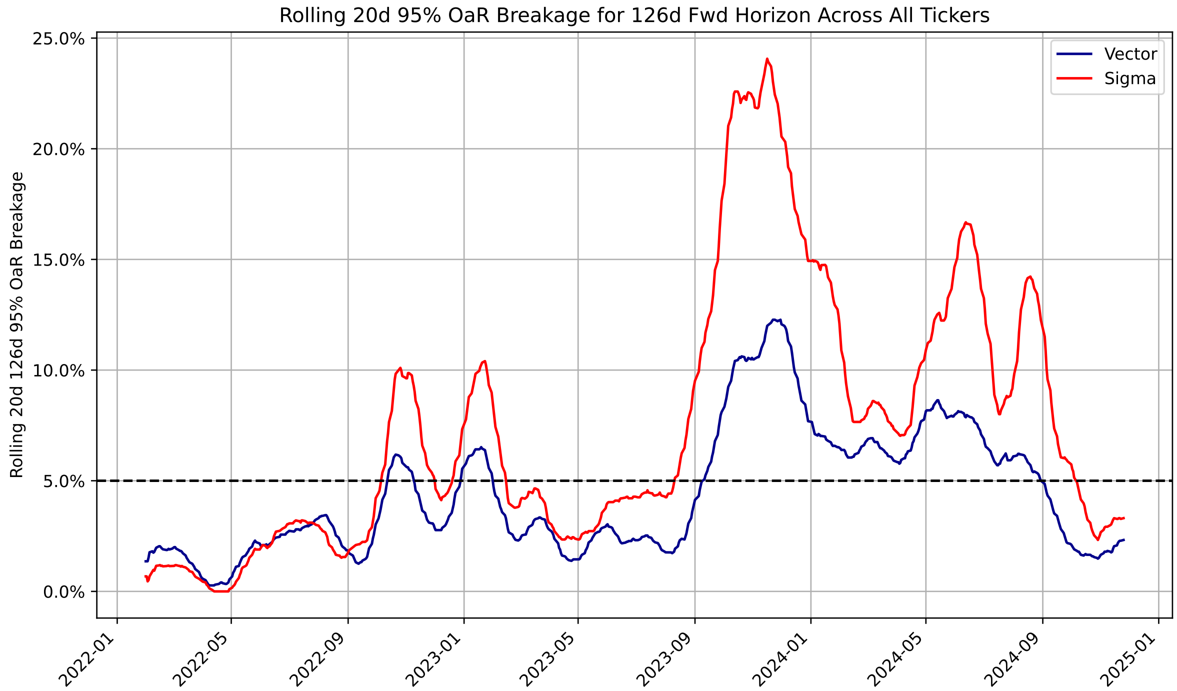


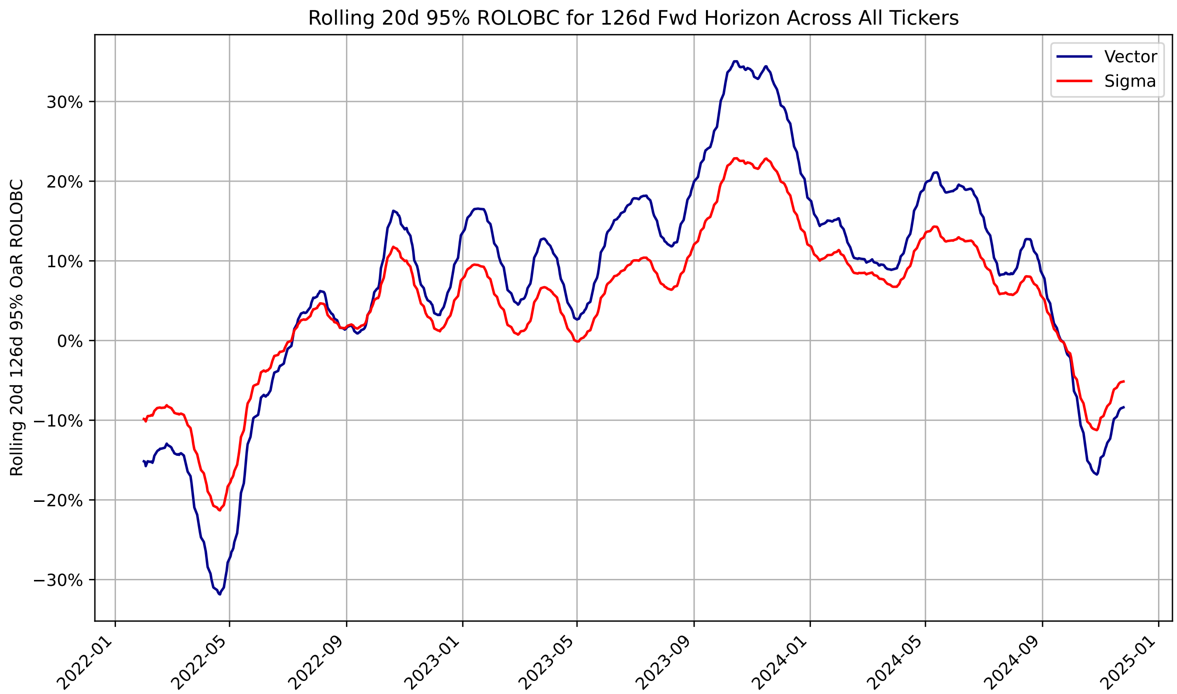
Rolling 20d 95% OaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 95% OaR Breakage
20.0%
17.5%
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



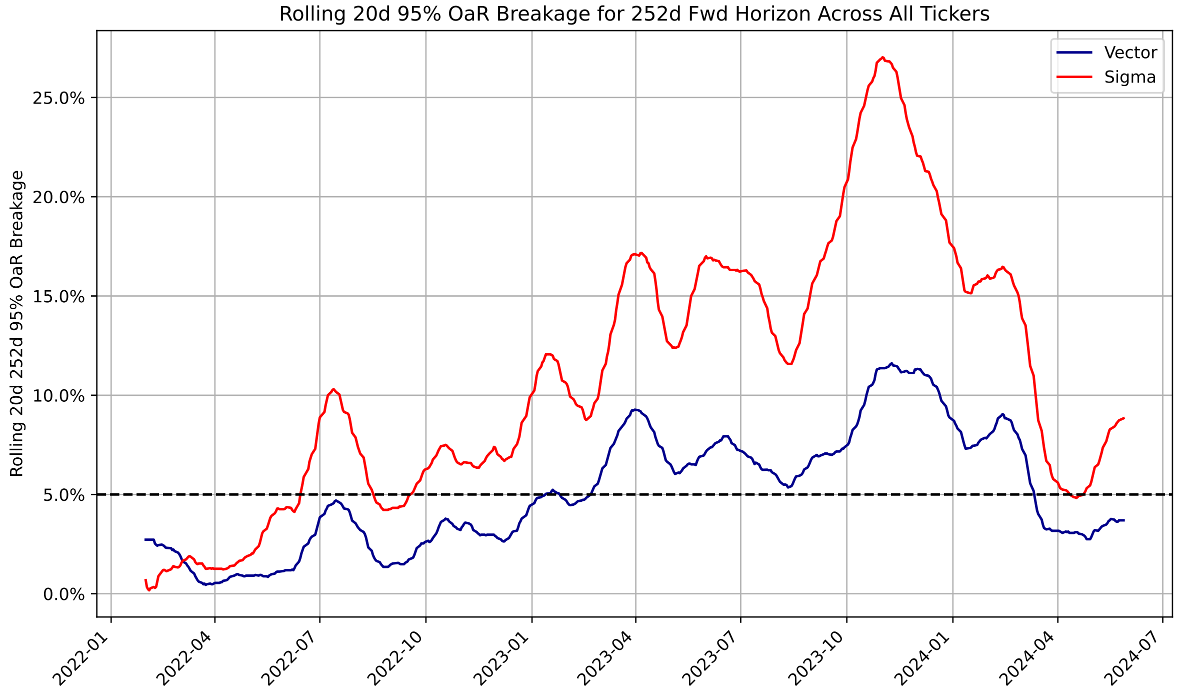
Rolling 20d 95% ROLOBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 95% OaR ROLOBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

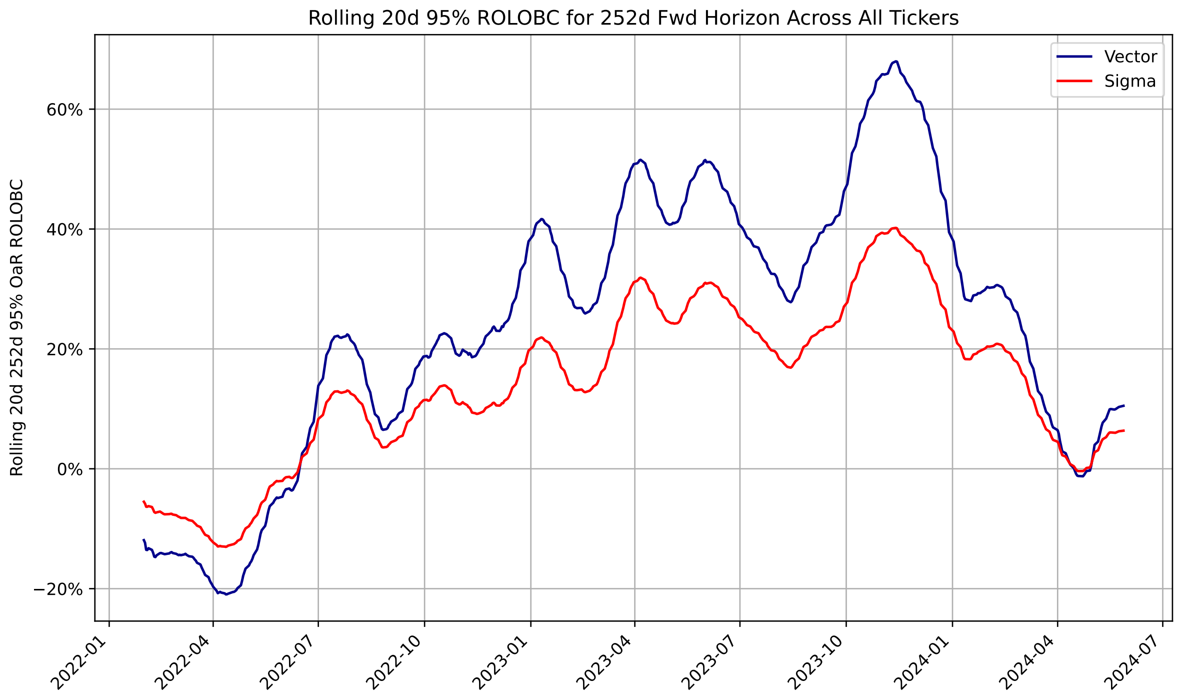
63d Horizon


Rolling 20d 95% OaR Breakage for 126d Fwd Horizon Across All Tickers
Rolling 20d 126d 95% OaR Breakage
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
Vector
Sigma


Rolling 20d 95% ROLOBC for 126d Fwd Horizon Across All Tickers
Rolling 20d 126d 95% OaR ROLOBC
30%
20%
10%
0%
−10%
−20%
−30%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
Vector
Sigma

252d Horizon





Top 30 Tickers By OaR Breakage

All TMD: 1d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	MSTR	18.56%	VST	10.66%
1.0	SBNY	16.55%	MSTR	7.9%
1.0	GME	14.25%	NVDA	7.54%
1.0	SIVBQ	12.95%	AVGO	7.43%
1.0	CHTR	11.86%	GLD	7.31%
1.0	AVGO	11.5%	TRGP	6.35%
1.0	SLV	11.26%	GBTC	6.35%
1.0	VST	10.9%	ACGL	6.23%
1.0	META	10.18%	MU	6.23%
1.0	FRCB	10.07%	PWR	5.99%
1.0	GNRC	10.06%	ON	5.87%
1.0	HLT	9.46%	CAH	5.87%
1.0	ZTS	8.98%	TEVA	5.75%
1.0	ACGL	8.74%	FCX	5.75%
1.0	TEVA	8.62%	WDC	5.63%
1.0	NFLX	8.38%	CDNS	5.63%
1.0	INTU	8.14%	TXN	5.63%
1.0	BALL	7.9%	IRM	5.51%
1.0	FRA	7.9%	PHM	5.39%
1.0	BUD	7.66%	SLV	5.39%
1.0	ORCL	7.66%	AMAT	5.39%
1.0	XOM	7.43%	LLY	5.39%
1.0	TRGP	7.19%	TSLA	5.39%
1.0	CMA	7.07%	AMGN	5.27%
1.0	IRM	6.95%	GS	5.27%

All TMD: 10d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	MSTR	23.49%	VST	14.53%
10.0	META	20.22%	NVDA	12.71%
10.0	VST	18.28%	CAH	11.74%
10.0	TEVA	16.71%	LLY	11.5%
10.0	GME	15.86%	GS	10.17%
10.0	AVGO	15.25%	GLD	9.81%
10.0	CHTR	15.13%	ORCL	9.81%
10.0	IRM	14.77%	MSTR	9.69%
10.0	HCA	14.65%	TRGP	9.69%
10.0	SIVBQ	13.97%	IRM	9.32%
10.0	TRGP	13.08%	GE	9.08%
10.0	GWW	12.59%	NVS	8.96%
10.0	KALU	12.47%	ABBV	8.72%
10.0	SLV	12.35%	TSLA	8.6%
10.0	GILD	11.99%	TEVA	8.6%
10.0	ORCL	11.74%	AVGO	8.6%
10.0	BALL	11.02%	MUB	8.36%
10.0	SBNY	10.66%	CPRT	8.23%
10.0	HD	10.41%	GBTC	8.23%
10.0	GNRC	10.29%	GWW	8.11%
10.0	ABBV	10.05%	MS	8.11%
10.0	ZTS	9.93%	PWR	7.99%
10.0	NFLX	9.81%	CMG	7.63%
10.0	ISRG	9.81%	TMUS	7.63%
10.0	WDC	9.69%	SLV	7.26%

All TMD: 21d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	MSTR	24.42%	CAH	16.81%
21.0	META	20.74%	MSTR	16.2%
21.0	VST	20.0%	VST	15.83%
21.0	AVGO	18.77%	NVDA	15.34%
21.0	TRGP	17.55%	GLD	14.85%
21.0	TEVA	17.42%	TRGP	14.6%
21.0	CHTR	17.3%	LLY	14.48%
21.0	IRM	16.32%	GE	13.74%
21.0	GME	16.2%	AVGO	13.01%
21.0	ISRG	14.48%	GS	12.64%
21.0	GWW	13.87%	TSLA	12.39%
21.0	ORCL	12.39%	GWW	12.15%
21.0	HCA	12.15%	GBTC	12.02%
21.0	CAH	12.15%	IRM	12.02%
21.0	ETRN	12.14%	TEVA	11.04%
21.0	GNRC	12.02%	ORCL	10.92%
21.0	GILD	11.9%	PWR	10.92%
21.0	SIVBQ	11.85%	MUB	10.81%
21.0	KALU	11.78%	CMG	10.8%
21.0	BUD	11.78%	MS	10.8%
21.0	GS	11.53%	NVS	10.67%
21.0	FRCB	10.37%	AMGN	10.67%
21.0	BAC	10.31%	JPM	10.55%
21.0	LW	10.18%	TMUS	10.43%
21.0	NVS	10.06%	ABBV	10.31%

All TMD: 63d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	VST	31.82%	NVDA	30.53%
63.0	META	28.2%	VST	29.5%
63.0	MSTR	27.3%	GBTC	23.54%
63.0	AVGO	25.74%	TRGP	22.9%
63.0	IRM	19.4%	LLY	21.09%
63.0	TRGP	18.63%	AVGO	20.83%
63.0	GILD	17.98%	GLD	19.02%
63.0	ETRN	16.7%	MSTR	19.02%
63.0	TEVA	16.17%	GE	17.72%
63.0	CHTR	15.65%	CMG	17.21%
63.0	CAH	15.01%	CAH	16.95%
63.0	WFC	13.97%	GILD	16.95%
63.0	BUD	13.84%	THC	16.56%
63.0	MSI	13.71%	ETRN	16.15%
63.0	LW	12.81%	TMUS	15.52%
63.0	TMUS	12.29%	PHM	15.01%
63.0	GME	12.16%	TEVA	14.75%
63.0	EXPE	12.16%	META	13.97%
63.0	LLY	11.25%	WFC	13.71%
63.0	NVDA	11.13%	IRM	13.07%
63.0	SIVBQ	11.11%	ORCL	12.42%
63.0	THC	11.0%	VNO	12.29%
63.0	HCA	11.0%	ACGL	12.16%
63.0	GLD	10.35%	MRK	11.64%
63.0	GBTC	9.96%	ABBV	11.64%
63.0	GWW	9.7%	TSLA	11.38%
63.0	ACGL	9.44%	JPM	11.13%
63.0	ORCL	9.18%	GWW	11.13%
63.0	SNY	8.8%	CCL	11.13%
63.0	ISRG	8.28%	DHI	10.74%

All TMD: 126d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	VST	49.01%	NVDA	49.15%
126.0	MSTR	40.56%	VST	48.45%
126.0	TRGP	31.69%	AVGO	34.93%
126.0	IRM	29.01%	GE	33.94%
126.0	META	29.01%	MSTR	33.52%
126.0	TMUS	24.65%	TRGP	33.38%
126.0	AVGO	24.23%	GLD	33.1%
126.0	TEVA	23.8%	LLY	30.85%
126.0	NVDA	22.54%	GILD	29.58%
126.0	LW	22.54%	PHM	28.87%
126.0	MSI	19.72%	GBTC	24.23%
126.0	GILD	19.01%	IRM	23.8%
126.0	LLY	18.87%	META	23.38%
126.0	CAH	17.32%	TMUS	22.96%
126.0	GLD	15.63%	CAH	21.83%
126.0	WFC	14.08%	THC	21.41%
126.0	THC	12.82%	ACGL	20.85%
126.0	ACGL	12.25%	TEVA	19.58%
126.0	EXPE	12.11%	GS	19.44%
126.0	VFC	11.41%	MSI	19.15%
126.0	GE	10.28%	ORCL	18.59%
126.0	ETRN	8.81%	JPM	17.75%
126.0	WDC	8.31%	CMG	17.61%
126.0	GME	7.89%	COST	17.61%
126.0	GOOGL	7.61%	WFC	16.34%
126.0	HCA	7.46%	TDG	15.92%
126.0	TDG	7.46%	T	15.07%
126.0	XOM	7.46%	GWW	14.93%
126.0	GBTC	7.18%	NFLX	13.94%
126.0	BALL	7.04%	PWR	11.83%

All TMD: 252d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
252.0	VST	66.27%	AVGO	75.86%
252.0	MSTR	61.47%	GE	75.34%
252.0	AVGO	55.31%	NVDA	74.66%
252.0	NVDA	47.26%	VST	62.5%
252.0	TRGP	44.35%	PHM	61.64%
252.0	IRM	40.24%	LLY	58.05%
252.0	META	37.84%	META	53.42%
252.0	LLY	32.02%	MSTR	52.4%
252.0	TEVA	30.31%	GBTC	49.66%
252.0	GLD	26.37%	TRGP	46.06%
252.0	TDG	22.26%	COST	44.18%
252.0	GWW	20.89%	ACGL	43.66%
252.0	TMUS	19.69%	TDG	41.95%
252.0	THC	16.78%	GLD	36.13%
252.0	CAH	14.55%	JPM	35.62%
252.0	LW	14.38%	IRM	35.1%
252.0	GE	13.36%	TMUS	34.93%
252.0	MSI	13.01%	TEVA	31.16%
252.0	GILD	11.99%	GWW	30.48%
252.0	GS	11.47%	ORCL	30.31%
252.0	WFC	10.62%	NFLX	30.31%
252.0	ACGL	9.08%	THC	29.97%
252.0	WDC	8.39%	PWR	29.79%
252.0	ORCL	8.05%	CPRT	29.45%
252.0	ETRN	8.01%	GS	29.11%
252.0	GBTC	7.36%	CMG	27.4%
252.0	JPM	7.19%	ISRG	26.37%
252.0	CMG	7.19%	MSI	24.66%
252.0	GOOGL	6.51%	DHI	22.77%
252.0	HLT	5.82%	CAH	20.72%

P30D: 1d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	SLV	36.84%	GLD	21.05%
1.0	ZTS	31.58%	ZTS	15.79%
1.0	AVGO	31.58%	CYH	15.79%
1.0	GILD	26.32%	GILD	15.79%
1.0	TSLA	26.32%	AMGN	15.79%
1.0	NEM	21.05%	T	10.53%
1.0	GOOGL	15.79%	BXP	10.53%
1.0	BUD	15.79%	SPY	10.53%
1.0	UNH	15.79%	CCL	10.53%
1.0	VFC	15.79%	OXY	10.53%
1.0	NAVI	15.79%	CSCO	10.53%
1.0	MU	15.79%	NVS	10.53%
1.0	CSCO	10.53%	ELAN	10.53%
1.0	HCA	10.53%	BIIB	10.53%
1.0	CYH	10.53%	MOS	10.53%
1.0	MSFT	10.53%	LVS	10.53%
1.0	NVS	10.53%	GOOGL	10.53%
1.0	AAP	10.53%	KALU	10.53%
1.0	QQQ	10.53%	AAP	10.53%
1.0	GME	10.53%	BMY	10.53%
1.0	HLT	10.53%	HLT	10.53%
1.0	SNY	10.53%	TEVA	10.53%
1.0	BXP	10.53%	TXN	10.53%
1.0	SBUX	10.53%	UNH	10.53%
1.0	SPY	10.53%	AZN	10.53%
1.0	BAC	10.53%	ACGL	10.53%
1.0	ADBE	10.53%	AZO	10.53%
1.0	WFC	10.53%	TDG	5.26%
1.0	AMC	10.53%	WFC	5.26%
1.0	TXN	10.53%	MS	5.26%

P30D: 10d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	GILD	70.0%	GILD	60.0%
10.0	TSLA	70.0%	AAP	60.0%
10.0	AMC	70.0%	X	50.0%
10.0	BUD	70.0%	INTU	40.0%
10.0	AVGO	70.0%	TXN	40.0%
10.0	AAP	60.0%	MOS	40.0%
10.0	HCA	60.0%	GE	40.0%
10.0	TXN	50.0%	CYH	30.0%
10.0	X	50.0%	ELAN	30.0%
10.0	ADBE	50.0%	CCL	30.0%
10.0	GOOGL	50.0%	NVS	20.0%
10.0	MU	40.0%	GSK	20.0%
10.0	INTU	40.0%	HCA	20.0%
10.0	AMZN	40.0%	MU	20.0%
10.0	MSFT	40.0%	CSCO	20.0%
10.0	WDC	40.0%	WYNN	20.0%
10.0	CYH	30.0%	GOOGL	20.0%
10.0	ELAN	30.0%	BIIB	10.0%
10.0	GME	30.0%	NVDA	10.0%
10.0	ZTS	30.0%	QQQ	10.0%
10.0	NAVI	20.0%	ZTS	10.0%
10.0	GE	20.0%	BAC	10.0%
10.0	WYNN	20.0%	TSLA	10.0%
10.0	MS	20.0%	TRGP	0.0%
10.0	UNH	10.0%	VFC	0.0%
10.0	ON	10.0%	VICI	0.0%
10.0	GNRC	10.0%	NFLX	0.0%
10.0	META	10.0%	VNO	0.0%
10.0	VZ	10.0%	NEM	0.0%
10.0	QQQ	10.0%	VST	0.0%

P90D: 1d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	GILD	22.58%	GLD	16.13%
1.0	ORLY	22.58%	HLT	14.52%
1.0	SLV	19.35%	CAH	12.9%
1.0	CHTR	17.74%	HSBC	12.9%
1.0	META	17.74%	TRGP	11.29%
1.0	AVGO	16.13%	SPY	11.29%
1.0	NEM	16.13%	AZN	11.29%
1.0	MSTR	14.52%	KALU	11.29%
1.0	MU	14.52%	NVS	9.68%
1.0	TSLA	14.52%	NFLX	9.68%
1.0	TXN	14.52%	ACGL	9.68%
1.0	ZTS	14.52%	QQQ	9.68%
1.0	WFC	14.52%	AZO	9.68%
1.0	BUD	12.9%	MSTR	9.68%
1.0	VZ	12.9%	BAC	9.68%
1.0	UNH	12.9%	BALL	9.68%
1.0	TEVA	12.9%	META	9.68%
1.0	BAC	11.29%	XOM	9.68%
1.0	ABBV	11.29%	MS	9.68%
1.0	GLD	9.68%	MSFT	8.06%
1.0	VFC	9.68%	NEM	8.06%
1.0	CVS	9.68%	POST	8.06%
1.0	KALU	9.68%	MOS	8.06%
1.0	NVS	9.68%	GWW	8.06%
1.0	ON	9.68%	FIS	8.06%
1.0	IRM	9.68%	LNC	8.06%
1.0	HD	9.68%	GBTC	8.06%
1.0	GS	9.68%	GILD	8.06%
1.0	SNY	9.68%	HD	8.06%
1.0	AMZN	9.68%	ORLY	8.06%

P90D: 10d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	WDC	43.4%	MOS	37.74%
10.0	CHTR	35.85%	BA	32.08%
10.0	GE	33.96%	CAH	24.53%
10.0	INTU	33.96%	NFLX	24.53%
10.0	KALU	32.08%	PWR	20.75%
10.0	UNH	32.08%	FIS	18.87%
10.0	AVGO	30.19%	NEM	18.87%
10.0	MSFT	28.3%	ELAN	18.87%
10.0	TSLA	28.3%	BAC	18.87%
10.0	HCA	28.3%	HLT	18.87%
10.0	MU	28.3%	CDNS	18.87%
10.0	MSTR	28.3%	MSFT	18.87%
10.0	GS	26.42%	GS	18.87%
10.0	NFLX	24.53%	GE	16.98%
10.0	BUD	24.53%	META	16.98%
10.0	HON	22.64%	THC	16.98%
10.0	META	22.64%	CHTR	16.98%
10.0	NEM	20.75%	LVS	16.98%
10.0	BAC	20.75%	QQQ	15.09%
10.0	WFC	20.75%	GLD	15.09%
10.0	ADBE	20.75%	GSK	15.09%
10.0	THC	18.87%	LLY	15.09%
10.0	ELAN	18.87%	WFC	15.09%
10.0	TXN	18.87%	TXN	15.09%
10.0	AMZN	18.87%	CYH	13.21%
10.0	GOOGL	16.98%	CSCO	13.21%
10.0	TEVA	15.09%	JPM	13.21%
10.0	GLD	15.09%	HSBC	13.21%
10.0	GILD	15.09%	MS	13.21%
10.0	IRM	13.21%	KALU	13.21%

P90D: 21d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	KALU	45.24%	MSFT	50.0%
21.0	WDC	45.24%	GLD	47.62%
21.0	AVGO	45.24%	CAH	45.24%
21.0	GE	42.86%	MOS	42.86%
21.0	META	40.48%	GE	40.48%
21.0	ELAN	40.48%	NFLX	38.1%
21.0	HON	38.1%	ELAN	38.1%
21.0	INTU	38.1%	PWR	38.1%
21.0	MU	38.1%	THC	35.71%
21.0	PWR	35.71%	CDNS	33.33%
21.0	CHTR	35.71%	HLT	33.33%
21.0	TXN	33.33%	BA	30.95%
21.0	MSFT	33.33%	CHTR	30.95%
21.0	BAC	33.33%	HON	28.57%
21.0	TSLA	33.33%	AVGO	28.57%
21.0	THC	33.33%	KALU	28.57%
21.0	GS	30.95%	QQQ	28.57%
21.0	NEM	30.95%	CPRT	28.57%
21.0	CAH	30.95%	META	28.57%
21.0	CCL	28.57%	HSBC	26.19%
21.0	UNH	28.57%	GS	23.81%
21.0	HCA	26.19%	BAC	23.81%
21.0	ISRG	26.19%	MS	23.81%
21.0	WFC	26.19%	SPY	23.81%
21.0	NFLX	23.81%	CSCO	23.81%
21.0	MSTR	23.81%	WFC	23.81%
21.0	ZTS	21.43%	IRM	21.43%
21.0	JPM	21.43%	JPM	21.43%
21.0	GLD	21.43%	CCL	21.43%
21.0	ADBE	21.43%	CYH	21.43%

P365D: 1d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	VST	14.11%	VST	12.9%
1.0	AVGO	13.71%	MSTR	11.29%
1.0	SLV	13.31%	TRGP	11.29%
1.0	GILD	13.31%	GLD	9.68%
1.0	CHTR	13.31%	WRK	9.09%
1.0	MSTR	12.5%	TMUS	8.47%
1.0	IRM	11.69%	HLT	8.06%
1.0	FRA	11.29%	PWR	8.06%
1.0	GS	11.29%	TXN	8.06%
1.0	META	10.48%	GBTC	7.66%
1.0	VFC	10.08%	AVGO	7.66%
1.0	ORLY	10.08%	MU	7.66%
1.0	PWR	10.08%	NVDA	7.26%
1.0	HLT	9.68%	TSLA	7.26%
1.0	TSLA	9.68%	CCL	6.85%
1.0	HD	9.27%	GILD	6.85%
1.0	NFLX	8.87%	HD	6.85%
1.0	ZTS	8.87%	GS	6.85%
1.0	KEY	8.47%	MS	6.45%
1.0	GNRC	8.47%	AZO	6.45%
1.0	HON	8.47%	WDC	6.45%
1.0	TXN	8.47%	UNH	6.45%
1.0	GME	8.06%	CMG	6.45%
1.0	BAC	8.06%	PHM	6.45%
1.0	CLF	7.66%	TDG	6.05%
1.0	WFC	7.66%	T	6.05%
1.0	SBUX	7.26%	COST	6.05%
1.0	MU	7.26%	THC	6.05%
1.0	ABBV	7.26%	SPY	6.05%
1.0	GLD	6.85%	POST	6.05%

P365D: 10d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	CHTR	24.27%	TRGP	20.92%
10.0	GILD	23.43%	TMUS	17.57%
10.0	META	21.34%	VST	17.57%
10.0	HCA	19.67%	MS	17.15%
10.0	WFC	19.25%	GILD	15.06%
10.0	IRM	17.99%	WFC	15.06%
10.0	AVGO	17.15%	T	14.64%
10.0	VFC	16.74%	GS	14.64%
10.0	GS	16.32%	TSLA	14.23%
10.0	MSTR	16.32%	CAH	13.81%
10.0	VST	15.9%	NFLX	13.39%
10.0	VZ	15.9%	ORCL	13.39%
10.0	TSLA	15.48%	JPM	13.39%
10.0	GE	15.48%	ABBV	13.39%
10.0	HD	15.48%	CSCO	12.55%
10.0	ABBV	15.48%	IRM	12.13%
10.0	EXPE	15.48%	CCL	12.13%
10.0	TRGP	15.48%	CPRT	11.72%
10.0	NFLX	15.06%	CHTR	11.72%
10.0	NEM	14.64%	HLT	11.72%
10.0	KALU	14.64%	LLY	11.3%
10.0	BAC	13.81%	BAC	11.3%
10.0	ORCL	13.39%	AVGO	10.88%
10.0	BUD	12.97%	AMZN	10.88%
10.0	BXP	12.55%	WYNN	10.88%
10.0	INTU	12.13%	LVS	10.46%
10.0	AMZN	12.13%	NVS	10.04%
10.0	SLV	11.72%	HD	10.04%
10.0	PWR	11.72%	META	10.04%
10.0	UNH	10.88%	ORLY	10.04%

P365D: 21d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	CHTR	28.95%	TMUS	29.82%
21.0	META	25.0%	TRGP	26.32%
21.0	VZ	24.56%	WFC	24.12%
21.0	TMUS	23.68%	TSLA	23.25%
21.0	TSLA	22.37%	MS	22.81%
21.0	GILD	21.93%	CAH	22.37%
21.0	TRGP	20.18%	MSTR	21.05%
21.0	GS	19.74%	VST	20.61%
21.0	VST	19.3%	NFLX	19.74%
21.0	AVGO	18.86%	IRM	19.74%
21.0	BUD	18.42%	GS	19.3%
21.0	IRM	17.54%	AVGO	18.86%
21.0	BAC	16.67%	JPM	18.42%
21.0	GE	16.67%	CHTR	17.54%
21.0	WFC	16.23%	GILD	17.11%
21.0	MSTR	15.79%	GLD	17.11%
21.0	HCA	14.91%	SBUX	17.11%
21.0	PWR	14.47%	T	16.23%
21.0	EXPE	14.04%	CCL	15.35%
21.0	NEM	14.04%	ORCL	14.91%
21.0	BXP	13.6%	GE	14.04%
21.0	KALU	13.6%	CPRT	14.04%
21.0	NFLX	13.6%	COST	14.04%
21.0	ISRG	13.16%	ABBV	13.6%
21.0	ABBV	12.72%	BUD	13.16%
21.0	HD	12.72%	WYNN	13.16%
21.0	UNH	11.4%	LVS	13.16%
21.0	ORCL	11.4%	LUMN	12.72%
21.0	GNRC	10.96%	GBTC	12.28%
21.0	MSI	10.53%	HLT	12.28%

P365D: 63d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	TMUS	40.86%	TRGP	54.3%
63.0	GILD	40.32%	TMUS	49.46%
63.0	MSI	33.33%	GLD	43.01%
63.0	BUD	33.33%	VST	39.78%
63.0	TSLA	30.65%	T	34.41%
63.0	VST	29.57%	WFC	34.41%
63.0	TRGP	27.42%	GILD	33.87%
63.0	EXPE	26.34%	TSLA	31.18%
63.0	IRM	24.73%	GBTC	30.65%
63.0	WFC	24.19%	MSTR	30.65%
63.0	GS	21.51%	MSI	29.57%
63.0	BXP	19.89%	MS	27.42%
63.0	GLD	17.74%	BUD	27.42%
63.0	NEM	17.2%	CCL	26.34%
63.0	HCA	16.67%	VNO	25.81%
63.0	AVGO	16.13%	NFLX	25.81%
63.0	VFC	15.59%	IRM	23.12%
63.0	META	15.59%	ORCL	21.51%
63.0	HD	15.05%	LUMN	20.97%
63.0	CHTR	14.52%	GS	20.43%
63.0	ORCL	13.98%	HSBC	18.82%
63.0	MSTR	13.98%	CSCO	17.2%
63.0	MS	12.37%	CAH	16.67%
63.0	CAH	12.37%	SBUX	16.13%
63.0	GBTC	11.83%	LVS	16.13%
63.0	SNY	11.29%	ABBV	14.52%
63.0	CVS	10.22%	EXPE	13.98%
63.0	PWR	9.68%	DHI	13.98%
63.0	ABBV	8.6%	HCA	13.98%
63.0	CMA	8.6%	MNST	12.9%

P365D: 126d

Results reflect ticker level average 95% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	TMUS	76.42%	TMUS	77.24%
126.0	EXPE	55.28%	TRGP	65.85%
126.0	VFC	48.78%	T	64.23%
126.0	GILD	47.97%	MSTR	60.98%
126.0	TRGP	40.65%	NFLX	60.16%
126.0	MSTR	40.65%	GLD	56.91%
126.0	META	34.15%	GILD	56.91%
126.0	MSI	33.33%	VST	55.28%
126.0	VST	33.33%	CSCO	54.47%
126.0	TSLA	23.58%	HSBC	48.78%
126.0	WFC	22.76%	WFC	43.9%
126.0	CAH	20.33%	CAH	42.28%
126.0	NFLX	12.2%	MS	40.65%
126.0	AVGO	11.38%	TSLA	39.02%
126.0	GLD	10.57%	GS	34.96%
126.0	CHTR	8.94%	JPM	30.08%
126.0	NWL	8.94%	BMY	30.08%
126.0	HD	6.5%	CCL	28.46%
126.0	BUD	6.5%	VNO	21.95%
126.0	HSBC	5.69%	EXPE	19.51%
126.0	IRM	4.07%	AVGO	17.89%
126.0	MS	4.07%	MSI	15.45%
126.0	ORLY	4.07%	HLT	15.45%
126.0	TEVA	4.07%	ORLY	14.63%
126.0	GS	4.07%	ISRG	12.2%
126.0	BXP	1.63%	IRM	9.76%
126.0	AAPL	1.63%	SBUX	8.94%
126.0	FITB	0.81%	TEVA	8.94%
126.0	CMA	0.81%	COST	8.13%
126.0	ON	0.0%	GWW	7.32%

Top 30 Tickers By ROLOBC

All TMD: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NVDA	0.45%	MSTR	0.47%
1.0	GBTC	0.42%	VST	0.29%
1.0	VST	0.39%	NVDA	0.27%
1.0	X	0.38%	GME	0.23%
1.0	GE	0.34%	GBTC	0.22%
1.0	AVGO	0.34%	AVGO	0.21%
1.0	CCL	0.33%	PWR	0.17%
1.0	B	0.31%	NFLX	0.17%
1.0	TSLA	0.3%	X	0.17%
1.0	TDG	0.25%	GE	0.17%
1.0	LLY	0.25%	LLY	0.15%
1.0	MSTR	0.24%	THC	0.14%
1.0	THC	0.22%	CAH	0.14%
1.0	TRGP	0.2%	TRGP	0.14%
1.0	GME	0.2%	META	0.13%
1.0	CAH	0.19%	TEVA	0.12%
1.0	PWR	0.19%	TDG	0.12%
1.0	COST	0.18%	ETRN	0.12%
1.0	CMG	0.18%	IRM	0.11%
1.0	AZO	0.17%	ORCL	0.11%
1.0	ORLY	0.17%	TMUS	0.11%
1.0	MSFT	0.16%	GWW	0.11%
1.0	CDNS	0.16%	ISRG	0.1%
1.0	JPM	0.15%	CDNS	0.1%
1.0	IRM	0.15%	ACGL	0.1%
1.0	DHI	0.14%	ORLY	0.1%
1.0	ETRN	0.14%	PHM	0.1%
1.0	HLT	0.14%	COST	0.1%
1.0	GWW	0.13%	TSLA	0.09%
1.0	TMUS	0.13%	CCL	0.09%

All TMD: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NVDA	5.39%	MSTR	4.85%
10.0	TSLA	3.61%	B	4.18%
10.0	MSTR	3.5%	VST	2.9%
10.0	VST	3.38%	NVDA	2.66%
10.0	GBTC	3.34%	GBTC	2.14%
10.0	AVGO	3.32%	AVGO	2.03%
10.0	LLY	3.26%	GME	1.99%
10.0	B	3.19%	NFLX	1.77%
10.0	CCL	2.93%	PWR	1.67%
10.0	PWR	2.49%	GE	1.6%
10.0	GE	2.25%	LLY	1.55%
10.0	AZO	1.87%	META	1.54%
10.0	CDNS	1.76%	X	1.43%
10.0	CAH	1.75%	CAH	1.43%
10.0	MSFT	1.64%	ETRN	1.41%
10.0	GME	1.56%	TRGP	1.38%
10.0	COST	1.55%	THC	1.33%
10.0	ETRN	1.52%	TEVA	1.32%
10.0	ORLY	1.51%	TDG	1.14%
10.0	THC	1.5%	IRM	1.12%
10.0	X	1.49%	CDNS	1.12%
10.0	TDG	1.47%	GWW	1.11%
10.0	HLT	1.42%	TSLA	1.06%
10.0	PHM	1.37%	ORCL	1.04%
10.0	JPM	1.25%	PHM	1.03%
10.0	TMUS	1.24%	ISRG	1.01%
10.0	NFLX	1.21%	ORLY	1.0%
10.0	TRGP	1.19%	TMUS	0.94%
10.0	QQQ	1.18%	COST	0.94%
10.0	DHI	1.16%	ACGL	0.93%

All TMD: 21d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	NVDA	10.85%	MSTR	10.93%
21.0	MSTR	9.22%	VST	6.17%
21.0	TSLA	8.83%	NVDA	5.64%
21.0	GBTC	7.94%	GBTC	4.6%
21.0	VST	7.46%	AVGO	4.17%
21.0	CCL	6.02%	NFLX	3.86%
21.0	LLY	5.83%	PWR	3.53%
21.0	PWR	5.51%	ETRN	3.5%
21.0	AVGO	5.21%	META	3.43%
21.0	GE	4.6%	GE	3.37%
21.0	AZO	4.33%	LLY	3.31%
21.0	CDNS	4.05%	GME	3.14%
21.0	NFLX	3.62%	CAH	2.99%
21.0	CAH	3.61%	TRGP	2.89%
21.0	PCG	3.55%	TEVA	2.85%
21.0	PHM	3.38%	X	2.81%
21.0	ETRN	3.28%	THC	2.7%
21.0	COST	3.27%	GWW	2.4%
21.0	ORLY	3.23%	IRM	2.36%
21.0	X	3.19%	TSLA	2.36%
21.0	DHI	3.11%	CDNS	2.35%
21.0	THC	3.09%	TDG	2.34%
21.0	MSFT	3.07%	PHM	2.29%
21.0	TDG	3.01%	ORCL	2.26%
21.0	JPM	2.83%	ISRG	2.19%
21.0	QQQ	2.79%	ORLY	2.09%
21.0	TMUS	2.62%	COST	2.04%
21.0	ACGL	2.6%	ACGL	2.0%
21.0	HLT	2.58%	TMUS	1.96%
21.0	GWW	2.56%	CPRT	1.94%

All TMD: 63d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	45.91%	MSTR	30.76%
63.0	NVDA	33.46%	VST	18.67%
63.0	GBTC	25.4%	NVDA	18.34%
63.0	CCL	21.09%	GBTC	14.7%
63.0	VST	19.96%	NFLX	12.13%
63.0	LLY	16.55%	META	11.72%
63.0	PWR	14.69%	AVGO	11.61%
63.0	NFLX	13.94%	ETRN	10.28%
63.0	GE	13.48%	LLY	10.14%
63.0	TSLA	12.86%	GE	10.08%
63.0	AVGO	12.79%	TRGP	8.84%
63.0	PHM	12.5%	PWR	8.34%
63.0	DHI	10.51%	CAH	8.18%
63.0	PCG	10.39%	PHM	8.15%
63.0	AZO	10.24%	THC	7.17%
63.0	TDG	10.06%	TDG	7.0%
63.0	TRGP	9.94%	TEVA	6.77%
63.0	CAH	9.75%	GWW	6.61%
63.0	THC	9.73%	ISRG	6.46%
63.0	CDNS	9.36%	ACGL	6.31%
63.0	ETRN	9.32%	ORLY	6.19%
63.0	CPRT	8.78%	TMUS	6.17%
63.0	ACGL	8.76%	ORCL	6.17%
63.0	VNO	8.7%	CPRT	5.79%
63.0	MSFT	8.44%	IRM	5.7%
63.0	JPM	8.42%	CDNS	5.67%
63.0	COST	8.24%	MSI	5.56%
63.0	GWW	8.09%	CMG	5.47%
63.0	AMZN	8.07%	GILD	5.45%
63.0	ORLY	8.02%	X	5.36%

All TMD: 126d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	NVDA	94.18%	MSTR	75.99%
126.0	MSTR	80.86%	NVDA	50.54%
126.0	GBTC	71.31%	VST	44.6%
126.0	VST	52.48%	GBTC	41.36%
126.0	NFLX	43.68%	META	30.18%
126.0	PHM	39.72%	NFLX	29.96%
126.0	GE	39.11%	AVGO	27.93%
126.0	CCL	38.53%	GE	24.67%
126.0	PWR	32.77%	LLY	21.72%
126.0	AVGO	32.4%	TRGP	21.33%
126.0	THC	29.81%	PHM	20.21%
126.0	LLY	29.62%	THC	18.94%
126.0	AMZN	28.35%	ETRN	18.49%
126.0	VNO	27.95%	PWR	18.48%
126.0	META	27.83%	CAH	17.11%
126.0	DHI	27.26%	ISRG	16.57%
126.0	TSLA	26.1%	TEVA	16.51%
126.0	PCG	25.9%	TDG	16.26%
126.0	ISRG	25.33%	ORCL	16.03%
126.0	MU	25.24%	GWW	15.46%
126.0	ORCL	24.44%	ACGL	14.63%
126.0	ACGL	23.84%	IRM	14.54%
126.0	AMAT	23.61%	CCL	14.21%
126.0	TRGP	23.43%	CMG	13.84%
126.0	QQQ	23.34%	MSI	13.83%
126.0	TDG	22.39%	CPRT	13.68%
126.0	CMG	22.3%	ORLY	13.42%
126.0	COST	22.17%	JPM	13.35%
126.0	CPRT	22.06%	DHI	13.15%
126.0	JPM	21.43%	COST	12.92%

All TMD: 252d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	NVDA	294.52%	MSTR	229.44%
252.0	GBTC	248.49%	NVDA	151.19%
252.0	MSTR	220.23%	VST	127.47%
252.0	NFLX	131.72%	GBTC	123.01%
252.0	PHM	127.82%	META	82.56%
252.0	GE	124.25%	AVGO	73.31%
252.0	VST	115.91%	NFLX	67.91%
252.0	LLY	111.23%	GE	61.52%
252.0	META	100.69%	PHM	58.63%
252.0	AVGO	99.03%	LLY	56.85%
252.0	CCL	89.63%	THC	53.06%
252.0	PWR	88.61%	TRGP	50.73%
252.0	THC	84.76%	PWR	42.43%
252.0	DHI	82.75%	TDG	41.72%
252.0	AMZN	79.27%	TEVA	40.35%
252.0	ACGL	77.26%	ISRG	40.16%
252.0	ISRG	76.86%	IRM	38.04%
252.0	MU	73.73%	ORCL	37.69%
252.0	VNO	71.77%	DHI	36.88%
252.0	CDNS	71.11%	ACGL	36.16%
252.0	COST	70.81%	ETRN	35.78%
252.0	TRGP	68.66%	CCL	35.77%
252.0	AMD	65.68%	GWW	35.03%
252.0	TDG	64.67%	CMG	34.46%
252.0	QQQ	64.29%	CPRT	32.34%
252.0	MSFT	63.28%	LEN	32.07%
252.0	AMAT	62.63%	COST	31.98%
252.0	CMG	62.23%	CAH	31.6%
252.0	LEN	60.18%	MSI	31.23%
252.0	ORCL	57.96%	AMAT	31.14%

P30D: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	AAP	4.22%	AAP	2.61%
1.0	CYH	4.0%	ELAN	1.87%
1.0	MOS	2.7%	CYH	1.79%
1.0	ELAN	2.51%	AMC	1.73%
1.0	NVDA	1.97%	X	1.18%
1.0	CCL	1.91%	TSLA	1.04%
1.0	X	1.47%	INTU	0.97%
1.0	LVS	1.41%	CCL	0.95%
1.0	INTU	1.36%	AVGO	0.93%
1.0	GE	1.35%	MOS	0.91%
1.0	LW	1.18%	NVDA	0.9%
1.0	BA	1.17%	GE	0.9%
1.0	AMD	1.04%	MU	0.86%
1.0	WYNN	1.0%	VST	0.8%
1.0	THC	0.97%	WDC	0.78%
1.0	BIIB	0.94%	THC	0.71%
1.0	GBTC	0.9%	UAA	0.64%
1.0	WDC	0.86%	AMD	0.63%
1.0	VST	0.84%	BA	0.6%
1.0	LUMN	0.8%	TXN	0.59%
1.0	CSTM	0.77%	GME	0.53%
1.0	ORCL	0.63%	WYNN	0.52%
1.0	AMC	0.57%	ORCL	0.51%
1.0	AMZN	0.53%	HCA	0.49%
1.0	NWL	0.52%	CSTM	0.49%
1.0	HSBC	0.47%	ADBE	0.46%
1.0	GNRC	0.46%	META	0.45%
1.0	ACGL	0.45%	LW	0.44%
1.0	GT	0.44%	LVS	0.43%
1.0	QQQ	0.44%	AMZN	0.43%

P30D: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	AAP	41.74%	AAP	32.99%
10.0	NVDA	33.19%	AMC	20.37%
10.0	MOS	22.21%	CYH	16.7%
10.0	CYH	21.36%	TSLA	14.9%
10.0	X	15.32%	ELAN	13.57%
10.0	BIIB	13.63%	X	12.81%
10.0	CCL	12.76%	NVDA	11.23%
10.0	ELAN	11.24%	UAA	11.14%
10.0	THC	11.11%	MU	10.79%
10.0	UAA	10.52%	WDC	10.46%
10.0	GE	10.44%	GME	10.26%
10.0	GBTC	10.27%	MOS	10.17%
10.0	INTU	9.96%	GE	10.09%
10.0	CSTM	8.29%	CCL	9.87%
10.0	VST	8.25%	AVGO	9.45%
10.0	AMD	8.13%	VST	9.43%
10.0	BA	7.11%	INTU	8.4%
10.0	GS	6.79%	THC	7.83%
10.0	AMC	6.78%	GILD	7.6%
10.0	AA	6.68%	AMD	7.46%
10.0	MU	6.49%	GBTC	7.31%
10.0	WDC	6.34%	ADBE	6.66%
10.0	CSCO	6.27%	AA	6.57%
10.0	NWL	6.0%	TXN	6.54%
10.0	WYNN	5.84%	BIIB	6.34%
10.0	TSLA	5.5%	GOOGL	6.3%
10.0	GSK	5.45%	HCA	5.8%
10.0	GILD	5.29%	BA	5.47%
10.0	HSBC	4.71%	CSTM	5.18%
10.0	AVGO	4.49%	GS	4.93%

P90D: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	MOS	2.18%	MSTR	0.82%
1.0	VST	1.39%	AAP	0.75%
1.0	CYH	1.34%	MOS	0.74%
1.0	NVDA	1.19%	X	0.61%
1.0	AAP	1.08%	THC	0.55%
1.0	TSLA	0.92%	PWR	0.55%
1.0	X	0.67%	VST	0.53%
1.0	MSTR	0.64%	AVGO	0.49%
1.0	GT	0.63%	GT	0.49%
1.0	LW	0.63%	TSLA	0.47%
1.0	INTU	0.62%	CYH	0.47%
1.0	GBTC	0.62%	GME	0.45%
1.0	THC	0.61%	INTU	0.4%
1.0	AMD	0.58%	NEM	0.39%
1.0	PWR	0.58%	ELAN	0.39%
1.0	AVGO	0.58%	NFLX	0.38%
1.0	BA	0.57%	BA	0.38%
1.0	CDNS	0.56%	GBTC	0.36%
1.0	GE	0.55%	GE	0.36%
1.0	MSFT	0.54%	NVDA	0.35%
1.0	CSTM	0.51%	HCA	0.35%
1.0	AZO	0.5%	AMC	0.34%
1.0	CAH	0.49%	CDNS	0.33%
1.0	HCA	0.47%	CAH	0.3%
1.0	TDG	0.46%	CSTM	0.3%
1.0	ELAN	0.46%	MSFT	0.3%
1.0	CCL	0.45%	AMD	0.29%
1.0	NFLX	0.45%	BUD	0.25%
1.0	IRM	0.44%	MNST	0.25%
1.0	NEM	0.42%	WDC	0.24%

P90D: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	MOS	17.57%	MSTR	7.98%
10.0	NVDA	12.56%	CYH	7.91%
10.0	VST	10.25%	MOS	7.69%
10.0	CYH	9.95%	TSLA	6.89%
10.0	GT	8.82%	PWR	6.47%
10.0	CDNS	7.52%	VST	6.26%
10.0	BA	6.96%	THC	6.08%
10.0	AAP	6.79%	BA	5.58%
10.0	PWR	6.71%	NFLX	5.37%
10.0	NFLX	6.58%	GME	5.37%
10.0	THC	5.71%	ELAN	5.18%
10.0	X	5.64%	CDNS	5.14%
10.0	CAH	5.46%	X	4.83%
10.0	TSLA	5.46%	GBTC	4.74%
10.0	CSTM	5.05%	AVGO	4.69%
10.0	MSTR	5.04%	AAP	4.62%
10.0	GBTC	4.94%	WDC	4.29%
10.0	AVGO	4.25%	B	4.18%
10.0	MSFT	4.08%	GE	4.1%
10.0	COST	4.03%	GT	3.95%
10.0	FIS	3.79%	CAH	3.85%
10.0	IRM	3.78%	NVDA	3.77%
10.0	AMD	3.54%	NEM	3.72%
10.0	NEM	3.51%	HCA	3.45%
10.0	GWW	3.39%	MSFT	3.37%
10.0	WYNN	3.38%	INTU	3.24%
10.0	GLD	3.37%	AMD	3.2%
10.0	GE	3.26%	CCL	2.79%
10.0	ELAN	3.2%	IRM	2.77%
10.0	B	3.19%	MNST	2.69%

P90D: 21d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	MOS	36.92%	CYH	17.82%
21.0	NVDA	20.0%	MSTR	17.78%
21.0	GT	19.43%	MOS	14.72%
21.0	VST	19.38%	PWR	14.7%
21.0	CYH	18.96%	TSLA	13.66%
21.0	CDNS	16.86%	THC	12.97%
21.0	BA	16.8%	VST	12.53%
21.0	NFLX	16.13%	NFLX	12.0%
21.0	MSTR	15.28%	CDNS	11.67%
21.0	PWR	14.62%	AVGO	10.89%
21.0	GBTC	13.89%	GBTC	10.58%
21.0	CSTM	13.81%	ELAN	10.53%
21.0	THC	13.36%	GME	10.49%
21.0	MSFT	12.71%	BA	10.23%
21.0	WYNN	11.78%	GT	10.14%
21.0	TSLA	11.28%	WDC	8.6%
21.0	COST	9.84%	MSFT	8.13%
21.0	IRM	9.74%	CAH	8.06%
21.0	CAH	9.23%	NEM	7.08%
21.0	AMD	8.54%	GE	6.97%
21.0	AVGO	8.52%	IRM	6.51%
21.0	QQQ	7.43%	NVDA	6.47%
21.0	FIS	7.34%	HCA	6.3%
21.0	GLD	6.95%	CSTM	6.16%
21.0	GWW	6.69%	CHTR	6.16%
21.0	HLT	6.66%	X	6.16%
21.0	X	6.62%	INTU	5.9%
21.0	CPRT	6.62%	CPRT	5.39%
21.0	NEM	6.42%	GLD	4.99%
21.0	LVS	6.36%	TEVA	4.9%

P365D: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	0.91%	MSTR	0.52%
1.0	AVGO	0.71%	TSLA	0.38%
1.0	TSLA	0.66%	LUMN	0.35%
1.0	VST	0.63%	VST	0.33%
1.0	CCL	0.57%	AVGO	0.32%
1.0	VNO	0.55%	NFLX	0.28%
1.0	T	0.43%	GILD	0.24%
1.0	TRGP	0.35%	GME	0.21%
1.0	GE	0.34%	VNO	0.21%
1.0	MOS	0.34%	CCL	0.2%
1.0	NVDA	0.33%	GE	0.19%
1.0	MS	0.32%	X	0.19%
1.0	NFLX	0.32%	EXPE	0.19%
1.0	B	0.31%	CAH	0.19%
1.0	BMY	0.31%	T	0.19%
1.0	COST	0.31%	GBTC	0.18%
1.0	CAH	0.29%	ORCL	0.17%
1.0	INTU	0.29%	CHTR	0.16%
1.0	CYH	0.27%	ORLY	0.15%
1.0	GT	0.26%	TMUS	0.15%
1.0	GILD	0.24%	META	0.15%
1.0	TDG	0.22%	ISRG	0.15%
1.0	CSCO	0.22%	TRGP	0.15%
1.0	AAP	0.22%	GLD	0.14%
1.0	HLT	0.21%	INTU	0.14%
1.0	TMUS	0.21%	GS	0.14%
1.0	JPM	0.21%	NVDA	0.13%
1.0	GBTC	0.21%	MS	0.13%
1.0	AZO	0.21%	CSCO	0.13%
1.0	ORLY	0.2%	THC	0.13%

P365D: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	13.59%	MSTR	5.41%
10.0	TSLA	5.93%	LUMN	5.05%
10.0	VST	5.64%	B	4.18%
10.0	MSTR	4.89%	TSLA	3.96%
10.0	AVGO	4.71%	VST	3.48%
10.0	T	4.22%	NFLX	2.83%
10.0	CCL	3.96%	AVGO	2.68%
10.0	NFLX	3.55%	GILD	2.31%
10.0	NVDA	3.41%	VNO	2.12%
10.0	B	3.19%	CAH	1.95%
10.0	COST	3.16%	CHTR	1.93%
10.0	VNO	3.0%	CCL	1.92%
10.0	CAH	2.95%	GBTC	1.9%
10.0	MOS	2.89%	T	1.88%
10.0	GT	2.74%	GE	1.88%
10.0	CSCO	2.35%	EXPE	1.64%
10.0	CYH	2.18%	TRGP	1.57%
10.0	BMY	2.05%	GLD	1.49%
10.0	TMUS	2.02%	ORLY	1.46%
10.0	JPM	1.97%	GS	1.45%
10.0	AZO	1.94%	MS	1.45%
10.0	WYNN	1.93%	CSCO	1.44%
10.0	GILD	1.92%	TMUS	1.42%
10.0	ORLY	1.9%	JPM	1.38%
10.0	HLT	1.88%	HSBC	1.38%
10.0	GLD	1.83%	CYH	1.36%
10.0	GBTC	1.83%	AZO	1.34%
10.0	TRGP	1.7%	X	1.34%
10.0	WFC	1.69%	META	1.34%
10.0	CDNS	1.6%	ISRG	1.32%

P365D: 21d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	LUMN	22.99%	MSTR	12.63%
21.0	MSTR	15.06%	LUMN	11.92%
21.0	TSLA	11.6%	TSLA	7.74%
21.0	VST	11.41%	VST	7.34%
21.0	T	8.0%	NFLX	5.8%
21.0	NFLX	7.64%	AVGO	4.61%
21.0	AVGO	6.52%	VNO	4.46%
21.0	CCL	6.21%	GILD	4.45%
21.0	VNO	6.18%	GBTC	4.22%
21.0	NVDA	5.67%	CAH	4.05%
21.0	COST	5.6%	T	3.97%
21.0	MOS	5.56%	CHTR	3.9%
21.0	CAH	5.44%	GE	3.57%
21.0	CYH	4.81%	CCL	3.52%
21.0	GBTC	4.79%	GLD	3.26%
21.0	TMUS	4.6%	TMUS	3.25%
21.0	WYNN	4.4%	EXPE	3.24%
21.0	CSCO	4.26%	CYH	3.07%
21.0	GLD	4.24%	TRGP	3.05%
21.0	MS	4.03%	MS	2.9%
21.0	AZO	4.02%	GS	2.86%
21.0	BMY	3.96%	HSBC	2.81%
21.0	GILD	3.82%	ORLY	2.81%
21.0	JPM	3.81%	CSCO	2.81%
21.0	TRGP	3.71%	JPM	2.79%
21.0	WFC	3.38%	NEM	2.73%
21.0	HLT	3.36%	WFC	2.73%
21.0	GWW	3.23%	PWR	2.65%
21.0	HSBC	3.22%	META	2.63%
21.0	SBUX	3.2%	ISRG	2.6%

P365D: 63d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	110.35%	MSTR	46.67%
63.0	LUMN	57.18%	LUMN	25.22%
63.0	VST	41.52%	VST	22.51%
63.0	T	29.78%	TSLA	17.74%
63.0	CCL	26.47%	NFLX	16.68%
63.0	NFLX	26.43%	GILD	15.17%
63.0	VNO	23.08%	GBTC	14.79%
63.0	GBTC	21.29%	T	13.35%
63.0	TRGP	19.6%	VNO	11.85%
63.0	TSLA	18.49%	TMUS	11.8%
63.0	CSCO	17.85%	TRGP	11.77%
63.0	CAH	15.59%	CAH	11.38%
63.0	GILD	14.84%	EXPE	10.53%
63.0	GLD	13.56%	CCL	10.42%
63.0	MS	13.1%	GLD	9.84%
63.0	HSBC	12.43%	HSBC	9.58%
63.0	BMY	12.1%	AVGO	8.92%
63.0	TMUS	11.92%	ORLY	8.86%
63.0	WFC	11.66%	CSCO	8.73%
63.0	AVGO	11.52%	WFC	8.39%
63.0	ORLY	10.54%	GE	7.96%
63.0	AZO	10.49%	AZO	7.27%
63.0	MNST	9.78%	MS	7.1%
63.0	JPM	9.2%	BMY	7.1%
63.0	GWW	8.91%	MNST	6.67%
63.0	COST	8.7%	JPM	6.31%
63.0	LVS	7.74%	META	6.22%
63.0	SBUX	7.64%	GS	5.85%
63.0	NWL	7.52%	CHTR	5.73%
63.0	GT	7.15%	CVS	5.53%

P365D: 126d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	MSTR	129.58%	MSTR	101.1%
126.0	VST	101.24%	VST	51.44%
126.0	NFLX	64.87%	TSLA	47.03%
126.0	TSLA	64.13%	NFLX	41.0%
126.0	T	61.47%	GBTC	39.07%
126.0	CCL	60.71%	GILD	30.43%
126.0	GBTC	60.65%	TRGP	27.94%
126.0	MS	46.12%	CCL	27.04%
126.0	TRGP	43.86%	AVGO	26.61%
126.0	LUMN	42.56%	EXPE	26.58%
126.0	VNO	42.24%	T	25.56%
126.0	CSCO	40.28%	LUMN	23.18%
126.0	GILD	34.69%	TMUS	22.99%
126.0	CAH	33.42%	WFC	22.88%
126.0	HSBC	30.96%	CAH	22.49%
126.0	AVGO	30.48%	HSBC	22.32%
126.0	WFC	29.18%	VNO	21.33%
126.0	JPM	27.61%	CSCO	19.91%
126.0	BMY	26.39%	MS	18.66%
126.0	GLD	25.34%	ORLY	17.83%
126.0	AMZN	24.03%	GLD	17.14%
126.0	AZO	23.98%	JPM	17.02%
126.0	ORLY	23.52%	GS	16.89%
126.0	GS	23.42%	META	16.72%
126.0	ISRG	21.16%	BMY	15.54%
126.0	COST	20.7%	GME	15.31%
126.0	CPRT	20.1%	AZO	14.73%
126.0	TMUS	18.52%	ISRG	14.38%
126.0	HLT	16.3%	VFC	14.01%
126.0	EXPE	16.04%	GE	13.6%

Bottom 30 Tickers By ROLOBC

All TMD: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	SIVBQ	-0.8%	SIVBQ	-0.78%
1.0	IEP	-0.48%	SBNY	-0.45%
1.0	SBNY	-0.38%	FRCB	-0.23%
1.0	LUMN	-0.33%	IEP	-0.18%
1.0	NWL	-0.33%	VFC	-0.13%
1.0	CZR	-0.23%	AMC	-0.13%
1.0	UAA	-0.21%	AAP	-0.13%
1.0	GNRC	-0.18%	NWL	-0.12%
1.0	BIIB	-0.18%	BHC	-0.11%
1.0	FRCB	-0.17%	LUMN	-0.1%
1.0	LNC	-0.14%	B	-0.08%
1.0	BXP	-0.13%	CLF	-0.07%
1.0	BALL	-0.1%	CZR	-0.07%
1.0	TLT	-0.1%	UAA	-0.07%
1.0	AAP	-0.1%	INTC	-0.06%
1.0	CLF	-0.09%	TLT	-0.05%
1.0	VFC	-0.09%	BALL	-0.05%
1.0	INTC	-0.09%	BIIB	-0.04%
1.0	AA	-0.09%	LNC	-0.04%
1.0	AMC	-0.08%	CVS	-0.04%
1.0	GT	-0.07%	GNRC	-0.04%
1.0	FSUGY	-0.06%	BXP	-0.04%
1.0	BHC	-0.05%	UNH	-0.03%
1.0	PEP	-0.05%	ELAN	-0.03%
1.0	KHC	-0.05%	TFC	-0.03%
1.0	BHP	-0.05%	CMCSA	-0.03%
1.0	CMA	-0.05%	AA	-0.03%
1.0	UNH	-0.05%	PEP	-0.03%
1.0	SBUX	-0.04%	KHC	-0.03%
1.0	ZTS	-0.04%	GSK	-0.03%

All TMD: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	SIVBQ	-4.46%	SBNY	-4.05%
10.0	IEP	-3.22%	SIVBQ	-3.9%
10.0	LUMN	-2.6%	FRCB	-2.19%
10.0	CZR	-2.37%	IEP	-1.67%
10.0	NWL	-2.21%	AMC	-1.53%
10.0	SBNY	-2.19%	AAP	-1.45%
10.0	FRCB	-1.26%	VFC	-1.33%
10.0	GNRC	-1.21%	NWL	-1.17%
10.0	CLF	-1.1%	BHC	-0.98%
10.0	VFC	-1.1%	CZR	-0.8%
10.0	AAP	-1.09%	LUMN	-0.79%
10.0	BIIB	-1.06%	UAA	-0.79%
10.0	AMC	-1.0%	CLF	-0.65%
10.0	UAA	-0.98%	INTC	-0.57%
10.0	LNC	-0.85%	TLT	-0.54%
10.0	AA	-0.82%	LNC	-0.49%
10.0	BALL	-0.8%	BALL	-0.49%
10.0	BXP	-0.78%	BIIB	-0.49%
10.0	INTC	-0.64%	GNRC	-0.44%
10.0	TLT	-0.55%	CVS	-0.44%
10.0	FSUGY	-0.53%	BXP	-0.44%
10.0	FIS	-0.42%	ELAN	-0.41%
10.0	CVS	-0.42%	ZION	-0.41%
10.0	CMA	-0.4%	AA	-0.39%
10.0	VZ	-0.4%	UNH	-0.35%
10.0	KHC	-0.39%	TFC	-0.33%
10.0	UNH	-0.39%	CMCSA	-0.3%
10.0	PEP	-0.31%	GSK	-0.3%
10.0	BHP	-0.27%	BMY	-0.29%
10.0	INTU	-0.26%	CMA	-0.28%

All TMD: 21d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	SIVBQ	-9.97%	SBNY	-11.16%
21.0	IEP	-7.28%	SIVBQ	-9.37%
21.0	SBNY	-6.13%	FRCB	-6.02%
21.0	CZR	-5.81%	AMC	-3.99%
21.0	LUMN	-4.9%	IEP	-3.56%
21.0	NWL	-4.43%	AAP	-3.39%
21.0	FRCB	-3.78%	VFC	-2.78%
21.0	GNRC	-3.05%	NWL	-2.61%
21.0	CLF	-2.87%	BHC	-2.3%
21.0	AAP	-2.73%	CZR	-1.76%
21.0	VFC	-2.71%	UAA	-1.66%
21.0	AMC	-2.22%	LUMN	-1.36%
21.0	BHC	-1.92%	INTC	-1.28%
21.0	BALL	-1.7%	CLF	-1.27%
21.0	BIIB	-1.67%	AA	-1.22%
21.0	UAA	-1.59%	LNC	-1.14%
21.0	AA	-1.56%	TLT	-1.1%
21.0	INTC	-1.37%	BALL	-1.06%
21.0	BXP	-1.33%	GNRC	-1.05%
21.0	TLT	-1.27%	BIIB	-1.04%
21.0	LNC	-1.22%	BXP	-1.01%
21.0	FSUGY	-1.18%	ELAN	-0.91%
21.0	VZ	-1.18%	CVS	-0.84%
21.0	CYH	-1.14%	TFC	-0.68%
21.0	BHP	-1.01%	ZION	-0.67%
21.0	KHC	-1.0%	BMY	-0.64%
21.0	CVS	-0.91%	CMCSA	-0.6%
21.0	CMA	-0.76%	GSK	-0.58%
21.0	PEP	-0.73%	CMA	-0.58%
21.0	RIO	-0.72%	CNC	-0.55%

All TMD: 63d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	SIVBQ	-36.58%	SBNY	-37.59%
63.0	IEP	-25.23%	SIVBQ	-33.73%
63.0	SBNY	-24.57%	FRCB	-24.04%
63.0	FRCB	-18.2%	AMC	-16.03%
63.0	NWL	-15.37%	IEP	-11.93%
63.0	GNRC	-13.51%	AAP	-11.2%
63.0	VFC	-11.1%	NWL	-8.22%
63.0	AAP	-11.03%	VFC	-8.1%
63.0	CZR	-9.87%	CLF	-6.35%
63.0	CLF	-8.95%	CZR	-6.18%
63.0	AMC	-8.86%	BHC	-5.97%
63.0	LUMN	-7.87%	AA	-5.26%
63.0	UAA	-7.43%	UAA	-4.96%
63.0	BALL	-6.87%	MOS	-4.6%
63.0	AA	-6.8%	ELAN	-4.56%
63.0	BHC	-5.53%	INTC	-4.47%
63.0	MOS	-5.15%	LUMN	-3.73%
63.0	INTC	-5.0%	LNC	-3.48%
63.0	BHP	-4.69%	BALL	-3.46%
63.0	CYH	-4.6%	GNRC	-3.4%
63.0	CVS	-3.75%	BXP	-3.35%
63.0	ON	-3.69%	BIIB	-2.91%
63.0	CSTM	-3.67%	TLT	-2.9%
63.0	BIIB	-3.54%	CVS	-2.72%
63.0	TLT	-3.19%	CSTM	-2.54%
63.0	BBY	-3.13%	BHP	-2.29%
63.0	CHTR	-2.92%	CNC	-2.17%
63.0	FSUGY	-2.79%	PRGO	-2.07%
63.0	LNC	-2.79%	KHC	-1.92%
63.0	PRGO	-2.74%	TFC	-1.84%

All TMD: 126d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	SIVBQ	-79.5%	SIVBQ	-65.15%
126.0	FRCB	-59.03%	SBNY	-64.8%
126.0	IEP	-49.87%	FRCB	-51.17%
126.0	SBNY	-45.8%	AMC	-29.5%
126.0	NWL	-37.88%	IEP	-22.97%
126.0	VFC	-23.25%	AAP	-20.71%
126.0	GNRC	-22.27%	NWL	-14.99%
126.0	AAP	-21.09%	VFC	-12.34%
126.0	AMC	-19.14%	MOS	-10.95%
126.0	MOS	-17.04%	CLF	-10.34%
126.0	LUMN	-16.44%	CZR	-8.53%
126.0	CLF	-15.54%	CVS	-7.73%
126.0	CVS	-12.62%	INTC	-7.63%
126.0	BALL	-10.78%	ELAN	-7.6%
126.0	AA	-10.77%	AA	-7.4%
126.0	CZR	-9.32%	BHC	-6.78%
126.0	BHC	-8.47%	UAA	-5.96%
126.0	PRGO	-8.41%	PRGO	-5.84%
126.0	UAA	-7.58%	CTLT	-5.69%
126.0	BHP	-7.51%	LNC	-5.57%
126.0	LNC	-7.46%	TLT	-5.31%
126.0	GSK	-7.14%	BXP	-5.17%
126.0	CHTR	-7.04%	GNRC	-5.05%
126.0	TLT	-7.02%	BALL	-4.95%
126.0	VZ	-6.71%	CNC	-4.87%
126.0	CTLT	-6.66%	LUMN	-4.73%
126.0	KHC	-5.94%	BIIB	-4.68%
126.0	INTC	-5.43%	GSK	-4.49%
126.0	GT	-5.27%	KHC	-4.16%
126.0	CSTM	-4.99%	BHP	-3.78%

All TMD: 252d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	FRCB	-207.49%	SBNY	-95.75%
252.0	SIVBQ	-176.51%	SIVBQ	-95.29%
252.0	SBNY	-109.04%	FRCB	-91.61%
252.0	IEP	-94.21%	AMC	-57.69%
252.0	NWL	-75.19%	IEP	-44.46%
252.0	AAP	-54.94%	AAP	-42.7%
252.0	AMC	-41.87%	NWL	-28.77%
252.0	MOS	-40.5%	VFC	-24.43%
252.0	CVS	-38.42%	MOS	-23.75%
252.0	VFC	-35.69%	CVS	-18.88%
252.0	CLF	-34.45%	CLF	-15.69%
252.0	GNRC	-29.25%	CZR	-13.51%
252.0	CZR	-25.94%	PRGO	-13.33%
252.0	AA	-24.21%	BMY	-12.43%
252.0	PRGO	-19.16%	UAA	-12.41%
252.0	UAA	-19.08%	AA	-11.09%
252.0	GT	-18.58%	JAZZ	-10.13%
252.0	BHC	-17.41%	LUMN	-9.96%
252.0	BMY	-15.66%	INTC	-9.66%
252.0	JAZZ	-14.44%	CNC	-9.39%
252.0	TLT	-13.66%	BHC	-9.18%
252.0	CMA	-12.08%	BIIB	-8.8%
252.0	CNC	-11.87%	TLT	-8.52%
252.0	CHTR	-11.74%	GT	-7.69%
252.0	KEY	-11.3%	KHC	-7.44%
252.0	KHC	-10.93%	CHTR	-6.65%
252.0	CTLT	-10.5%	OXY	-6.27%
252.0	BALL	-9.73%	CTLT	-6.24%
252.0	BIIB	-9.67%	LNC	-5.72%
252.0	LNC	-8.86%	BHP	-5.37%

P30D: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	UNH	-3.17%	CLF	-2.08%
1.0	CLF	-2.82%	UNH	-1.31%
1.0	CPRT	-1.19%	BHC	-0.9%
1.0	BHC	-1.15%	CPRT	-0.86%
1.0	MSTR	-1.06%	SNY	-0.59%
1.0	IEP	-0.96%	LLY	-0.55%
1.0	FSUGY	-0.95%	JAZZ	-0.5%
1.0	PHM	-0.9%	MRK	-0.39%
1.0	JAZZ	-0.82%	DHI	-0.38%
1.0	KHC	-0.8%	KHC	-0.35%
1.0	LLY	-0.74%	FSUGY	-0.34%
1.0	SNY	-0.65%	IEP	-0.34%
1.0	MRK	-0.57%	CDNS	-0.34%
1.0	CNC	-0.52%	ABBV	-0.32%
1.0	DHI	-0.37%	PHM	-0.31%
1.0	BMY	-0.37%	MSTR	-0.31%
1.0	LEN	-0.35%	CNC	-0.3%
1.0	AZN	-0.34%	INTC	-0.26%
1.0	LNC	-0.28%	CVS	-0.25%
1.0	CZR	-0.27%	BMY	-0.21%
1.0	INTC	-0.25%	XOM	-0.19%
1.0	ABBV	-0.24%	LEN	-0.18%
1.0	PEP	-0.23%	CZR	-0.14%
1.0	XOM	-0.23%	ORLY	-0.14%
1.0	T	-0.22%	CMG	-0.14%
1.0	TMUS	-0.22%	TMUS	-0.14%
1.0	TEVA	-0.18%	TRGP	-0.12%
1.0	RIO	-0.17%	BBY	-0.1%
1.0	CMG	-0.16%	POST	-0.1%
1.0	FIS	-0.16%	AAPL	-0.1%

P30D: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	UNH	-20.56%	UNH	-15.49%
10.0	CLF	-19.48%	CLF	-15.07%
10.0	LUMN	-16.09%	LUMN	-7.13%
10.0	PHM	-9.9%	CPRT	-6.14%
10.0	IEP	-9.76%	LLY	-4.01%
10.0	KHC	-6.95%	BHC	-3.99%
10.0	MSTR	-6.14%	KHC	-3.82%
10.0	CPRT	-5.99%	IEP	-3.67%
10.0	LLY	-5.95%	CVS	-3.66%
10.0	BHC	-4.38%	CNC	-3.56%
10.0	FSUGY	-4.11%	PHM	-3.3%
10.0	XOM	-3.61%	DHI	-2.87%
10.0	CNC	-3.29%	FSUGY	-2.84%
10.0	DHI	-2.86%	MSTR	-2.83%
10.0	MRK	-2.44%	XOM	-2.56%
10.0	LEN	-2.34%	VFC	-2.29%
10.0	LNC	-2.26%	INTC	-1.94%
10.0	VNO	-2.1%	LEN	-1.88%
10.0	CVS	-1.98%	ABBV	-1.74%
10.0	CZR	-1.82%	LNC	-1.6%
10.0	TLT	-1.76%	TLT	-1.56%
10.0	TMUS	-1.63%	VNO	-1.47%
10.0	ABBV	-1.47%	MRK	-1.44%
10.0	INTC	-1.18%	TMUS	-1.16%
10.0	POST	-1.0%	POST	-1.12%
10.0	VFC	-0.68%	TRGP	-0.97%
10.0	EXPE	-0.52%	EXPE	-0.92%
10.0	TRGP	-0.51%	CZR	-0.87%
10.0	FRA	-0.4%	CDNS	-0.44%
10.0	MUB	-0.33%	FRA	-0.4%

P90D: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	UNH	-1.1%	VFC	-0.82%
1.0	BHC	-1.01%	CLF	-0.73%
1.0	LLY	-0.99%	BHC	-0.66%
1.0	LNC	-0.98%	UNH	-0.59%
1.0	CLF	-0.84%	SBUX	-0.46%
1.0	IEP	-0.63%	JAZZ	-0.37%
1.0	KHC	-0.61%	BBY	-0.34%
1.0	LUMN	-0.58%	BMY	-0.32%
1.0	JAZZ	-0.57%	LLY	-0.32%
1.0	AA	-0.52%	TRGP	-0.29%
1.0	MRK	-0.46%	MRK	-0.29%
1.0	PEP	-0.45%	PEP	-0.27%
1.0	VFC	-0.44%	IEP	-0.26%
1.0	SBUX	-0.41%	KHC	-0.24%
1.0	OXY	-0.41%	AAPL	-0.22%
1.0	TRGP	-0.4%	LUMN	-0.21%
1.0	BBY	-0.4%	SNY	-0.2%
1.0	ZION	-0.39%	TFC	-0.19%
1.0	BIIB	-0.37%	ABBV	-0.18%
1.0	NWL	-0.37%	CZR	-0.18%
1.0	BMY	-0.34%	EXPE	-0.17%
1.0	CMA	-0.34%	NWL	-0.17%
1.0	LEN	-0.32%	AA	-0.17%
1.0	VNO	-0.32%	TMUS	-0.17%
1.0	EXPE	-0.27%	FITB	-0.16%
1.0	CMCSA	-0.26%	OXY	-0.16%
1.0	CZR	-0.25%	LNC	-0.15%
1.0	AAPL	-0.25%	LEN	-0.15%
1.0	AMZN	-0.24%	INTC	-0.14%
1.0	AZN	-0.24%	ZION	-0.13%

P90D: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	BHC	-9.14%	UNH	-7.18%
10.0	UNH	-8.14%	BHC	-6.72%
10.0	LUMN	-6.64%	CLF	-5.99%
10.0	BIIB	-6.15%	VFC	-4.95%
10.0	MRK	-5.44%	BMY	-4.33%
10.0	CLF	-5.37%	JAZZ	-3.74%
10.0	LNC	-4.48%	SBUX	-3.59%
10.0	JAZZ	-4.02%	MRK	-3.49%
10.0	KHC	-3.76%	LUMN	-2.89%
10.0	BMY	-3.63%	PEP	-2.79%
10.0	PEP	-3.51%	LLY	-2.56%
10.0	TRGP	-3.01%	KHC	-2.56%
10.0	OXY	-3.0%	AMGN	-2.44%
10.0	BBY	-2.92%	ABBV	-2.32%
10.0	LEN	-2.77%	TRGP	-2.2%
10.0	LLY	-2.66%	NWL	-2.12%
10.0	SBUX	-2.56%	LEN	-2.11%
10.0	NWL	-2.45%	SNY	-1.97%
10.0	AA	-2.44%	BIIB	-1.85%
10.0	ADBE	-2.44%	AAPL	-1.74%
10.0	AAPL	-2.34%	AA	-1.53%
10.0	AMGN	-2.25%	IEP	-1.51%
10.0	PHM	-2.08%	TMUS	-1.46%
10.0	ABBV	-1.94%	AZN	-1.46%
10.0	SNY	-1.8%	OXY	-1.4%
10.0	TFC	-1.7%	DHI	-1.26%
10.0	VFC	-1.7%	TLT	-1.11%
10.0	TMUS	-1.65%	GILD	-1.06%
10.0	UAA	-1.55%	BBY	-0.94%
10.0	TLT	-1.31%	EXPE	-0.93%

P90D: 21d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	BHC	-24.07%	BHC	-17.05%
21.0	BIIB	-17.77%	UNH	-15.53%
21.0	UNH	-14.54%	CLF	-11.1%
21.0	OXY	-13.51%	BMY	-11.05%
21.0	TRGP	-13.27%	JAZZ	-10.15%
21.0	JAZZ	-12.97%	VFC	-8.77%
21.0	LNC	-12.89%	TRGP	-8.17%
21.0	BMY	-11.12%	SBUX	-8.11%
21.0	MRK	-10.83%	MRK	-8.1%
21.0	CLF	-10.42%	AA	-7.01%
21.0	AA	-9.03%	PEP	-6.49%
21.0	PEP	-8.89%	AMGN	-6.38%
21.0	NWL	-8.66%	NWL	-6.19%
21.0	LLY	-7.28%	BIIB	-5.9%
21.0	LUMN	-6.91%	LLY	-5.61%
21.0	KHC	-6.73%	OXY	-5.51%
21.0	AAPL	-6.35%	ABBV	-5.42%
21.0	LEN	-6.16%	KHC	-4.74%
21.0	SBUX	-5.67%	SNY	-4.61%
21.0	AMGN	-5.18%	LEN	-4.37%
21.0	AZN	-5.06%	LUMN	-4.34%
21.0	BBY	-4.43%	AAPL	-3.84%
21.0	ABBV	-4.17%	AZN	-3.78%
21.0	TMUS	-4.16%	INTC	-3.6%
21.0	ZION	-3.97%	GILD	-3.56%
21.0	SNY	-3.89%	TMUS	-3.46%
21.0	CMCSA	-3.87%	IEP	-3.16%
21.0	XOM	-3.62%	XOM	-3.09%
21.0	INTC	-3.6%	LNC	-2.97%
21.0	MU	-3.52%	DHI	-2.51%

P365D: 1d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	IEP	-0.67%	CLF	-0.35%
1.0	BIIB	-0.62%	ETRN	-0.33%
1.0	NWL	-0.45%	WRK	-0.26%
1.0	CLF	-0.37%	IEP	-0.23%
1.0	FSUGY	-0.33%	BIIB	-0.21%
1.0	WRK	-0.32%	MRK	-0.19%
1.0	LEN	-0.31%	CSTM	-0.17%
1.0	ETRN	-0.29%	FSUGY	-0.17%
1.0	AMAT	-0.28%	UNH	-0.16%
1.0	ON	-0.27%	ON	-0.16%
1.0	OXY	-0.27%	AA	-0.15%
1.0	BHC	-0.24%	LEN	-0.15%
1.0	UNH	-0.23%	OXY	-0.14%
1.0	CSTM	-0.23%	LW	-0.13%
1.0	MRK	-0.21%	QCOM	-0.1%
1.0	AA	-0.2%	AMD	-0.1%
1.0	LNC	-0.19%	KHC	-0.1%
1.0	BHP	-0.19%	PEP	-0.1%
1.0	PHM	-0.19%	INTC	-0.1%
1.0	PEP	-0.18%	BALL	-0.09%
1.0	UAA	-0.17%	B	-0.08%
1.0	KHC	-0.17%	WDC	-0.08%
1.0	RIO	-0.15%	FCX	-0.08%
1.0	AMD	-0.15%	AMAT	-0.08%
1.0	TEVA	-0.14%	KALU	-0.07%
1.0	INTC	-0.14%	BBY	-0.07%
1.0	AZN	-0.12%	CNC	-0.07%
1.0	QCOM	-0.11%	BHC	-0.07%
1.0	CMCSA	-0.11%	CZR	-0.07%
1.0	WDC	-0.11%	DHI	-0.07%

P365D: 10d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	IEP	-4.92%	ETRN	-5.36%
10.0	ETRN	-4.66%	CLF	-2.92%
10.0	BIIB	-4.27%	BIIB	-2.29%
10.0	WRK	-3.17%	WRK	-2.2%
10.0	AMAT	-2.79%	IEP	-2.13%
10.0	CLF	-2.65%	MRK	-2.03%
10.0	MRK	-2.51%	ON	-1.82%
10.0	FSUGY	-2.34%	LW	-1.63%
10.0	ON	-2.34%	UNH	-1.58%
10.0	OXY	-2.03%	CSTM	-1.5%
10.0	LEN	-1.92%	FSUGY	-1.48%
10.0	MU	-1.77%	AMC	-1.41%
10.0	INTC	-1.76%	LEN	-1.36%
10.0	AMD	-1.53%	OXY	-1.3%
10.0	QCOM	-1.47%	QCOM	-1.21%
10.0	UNH	-1.43%	AMAT	-1.05%
10.0	CMG	-1.41%	AMD	-1.03%
10.0	KHC	-1.27%	PEP	-0.98%
10.0	ELAN	-1.14%	AAP	-0.98%
10.0	PEP	-1.11%	AA	-0.95%
10.0	CSTM	-1.08%	WDC	-0.91%
10.0	AA	-0.99%	BALL	-0.88%
10.0	BBY	-0.91%	KHC	-0.88%
10.0	AMC	-0.9%	ELAN	-0.76%
10.0	BHP	-0.86%	CMG	-0.76%
10.0	CNC	-0.81%	INTC	-0.73%
10.0	FCX	-0.79%	CZR	-0.71%
10.0	RIO	-0.75%	FCX	-0.67%
10.0	LNC	-0.74%	BBY	-0.62%
10.0	LW	-0.73%	MU	-0.6%

P365D: 21d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	IEP	-11.05%	ETRN	-9.38%
21.0	BIIB	-9.14%	WRK	-6.87%
21.0	ETRN	-8.85%	CLF	-5.77%
21.0	WRK	-8.6%	BIIB	-5.25%
21.0	CLF	-6.41%	IEP	-4.52%
21.0	ON	-5.89%	MRK	-4.39%
21.0	AMAT	-5.75%	ON	-4.08%
21.0	MU	-5.66%	AMC	-4.01%
21.0	OXY	-5.58%	AAP	-3.67%
21.0	MRK	-5.32%	LW	-3.55%
21.0	INTC	-5.04%	CSTM	-3.26%
21.0	AMD	-4.24%	OXY	-3.22%
21.0	FSUGY	-4.23%	FSUGY	-2.87%
21.0	QCOM	-3.96%	AMD	-2.83%
21.0	LEN	-3.71%	QCOM	-2.81%
21.0	WDC	-3.41%	AMAT	-2.75%
21.0	CMG	-3.09%	WDC	-2.7%
21.0	BHC	-2.92%	LEN	-2.68%
21.0	PEP	-2.77%	UNH	-2.47%
21.0	AA	-2.71%	MU	-2.46%
21.0	BHP	-2.59%	AA	-2.39%
21.0	KHC	-2.27%	PEP	-2.1%
21.0	CSTM	-2.23%	INTC	-2.06%
21.0	ADBE	-2.18%	ELAN	-1.9%
21.0	BBY	-2.12%	FCX	-1.79%
21.0	FCX	-2.09%	CMG	-1.74%
21.0	ELAN	-2.08%	CZR	-1.71%
21.0	UNH	-2.01%	BALL	-1.62%
21.0	CZR	-1.99%	KHC	-1.54%
21.0	AMC	-1.79%	BBY	-1.48%

P365D: 63d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	IEP	-48.76%	IEP	-17.91%
63.0	ON	-29.65%	CLF	-17.44%
63.0	AMD	-25.1%	ON	-16.62%
63.0	BIIB	-24.16%	BIIB	-16.24%
63.0	AMAT	-23.71%	AMC	-16.23%
63.0	OXY	-21.14%	CSTM	-15.2%
63.0	CSTM	-20.4%	WDC	-13.49%
63.0	CLF	-18.35%	AAP	-13.01%
63.0	MRK	-15.53%	AMD	-12.47%
63.0	ADBE	-15.24%	MRK	-12.12%
63.0	WDC	-14.48%	AMAT	-11.16%
63.0	FSUGY	-14.46%	LEN	-10.63%
63.0	AMC	-14.42%	OXY	-10.36%
63.0	LEN	-13.42%	ELAN	-9.93%
63.0	INTC	-13.32%	ADBE	-9.73%
63.0	MU	-12.95%	FSUGY	-9.47%
63.0	QCOM	-11.58%	MU	-8.79%
63.0	ELAN	-11.46%	CZR	-8.35%
63.0	CZR	-11.29%	QCOM	-7.56%
63.0	AAP	-11.23%	LW	-7.49%
63.0	BHP	-9.84%	KALU	-7.0%
63.0	BBY	-9.43%	FCX	-6.9%
63.0	DHI	-7.57%	BALL	-6.45%
63.0	PEP	-7.49%	INTC	-6.45%
63.0	FCX	-7.03%	DHI	-6.37%
63.0	UNH	-6.87%	BBY	-6.19%
63.0	PCG	-6.0%	PEP	-5.83%
63.0	KALU	-5.72%	UNH	-5.36%
63.0	KHC	-5.69%	NAVI	-5.08%
63.0	BALL	-5.36%	CNC	-4.99%

P365D: 126d

Results reflect ticker level average 95% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	IEP	-89.4%	IEP	-35.41%
126.0	ON	-71.41%	CSTM	-32.05%
126.0	AMD	-50.61%	BIIB	-31.53%
126.0	CLF	-45.9%	CLF	-31.13%
126.0	CSTM	-43.51%	ON	-30.97%
126.0	AMC	-42.27%	AMC	-30.46%
126.0	ADBE	-38.76%	CYH	-28.48%
126.0	BIIB	-37.83%	AMD	-27.56%
126.0	WDC	-36.92%	LEN	-26.49%
126.0	ELAN	-35.58%	MRK	-22.47%
126.0	CYH	-35.08%	WDC	-21.77%
126.0	MRK	-31.97%	ELAN	-20.97%
126.0	FSUGY	-31.96%	DHI	-20.73%
126.0	AMAT	-31.63%	AMAT	-19.35%
126.0	BHP	-27.92%	ADBE	-19.24%
126.0	OXY	-27.87%	CZR	-18.65%
126.0	DHI	-27.44%	LW	-18.38%
126.0	UNH	-26.94%	OXY	-17.7%
126.0	LEN	-26.57%	FCX	-17.49%
126.0	MU	-26.48%	AAP	-16.98%
126.0	CZR	-25.35%	BALL	-16.95%
126.0	INTC	-25.02%	FSUGY	-16.36%
126.0	PHM	-22.94%	PHM	-15.0%
126.0	PCG	-22.08%	MU	-14.94%
126.0	BBY	-21.9%	PEP	-14.07%
126.0	FCX	-21.13%	BBY	-13.23%
126.0	QCOM	-20.99%	UNH	-12.96%
126.0	THC	-18.29%	KHC	-12.89%
126.0	BALL	-17.38%	INTC	-12.81%
126.0	PEP	-16.88%	CNC	-12.75%

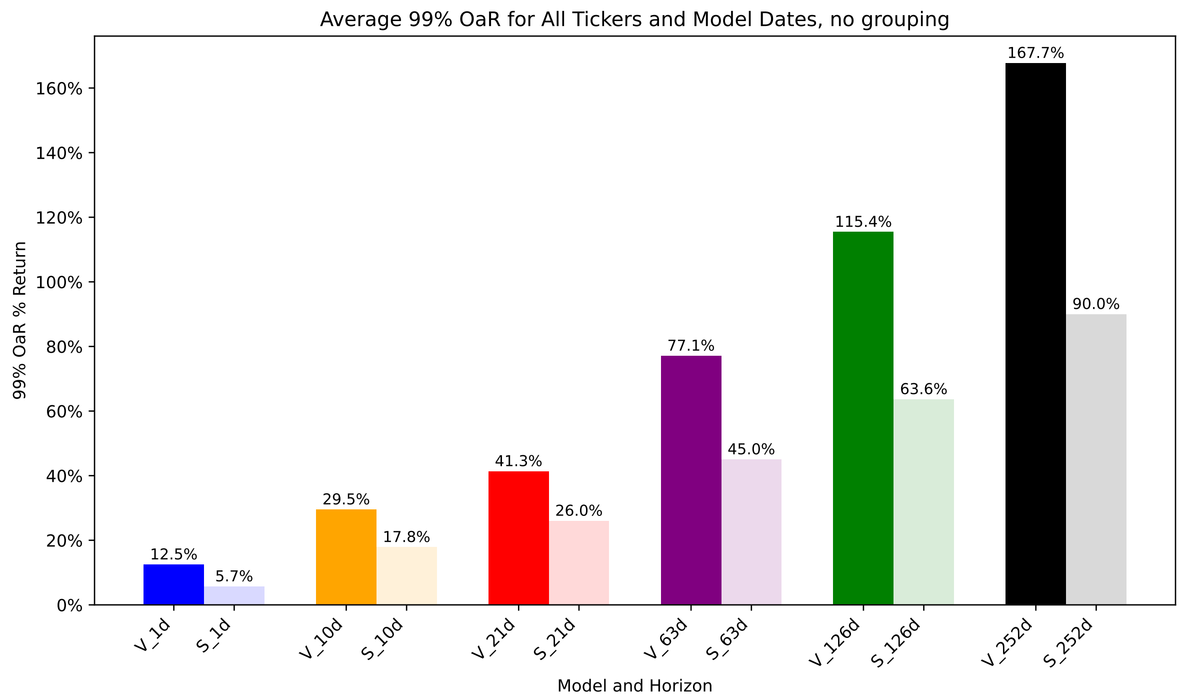
99% Opportunity At Risk (OaR)

Historic Average Levels

Here we compare Vector Model ("V", dark shading) and Sigma ("S", light shading) 99% OaR levels by horizon, on average across tickers. We make this comparison on average across tickers for select cohorts of model dates (ex: P30D), and forward horizons (ex: 21d) for all ticker model dates thru the present.

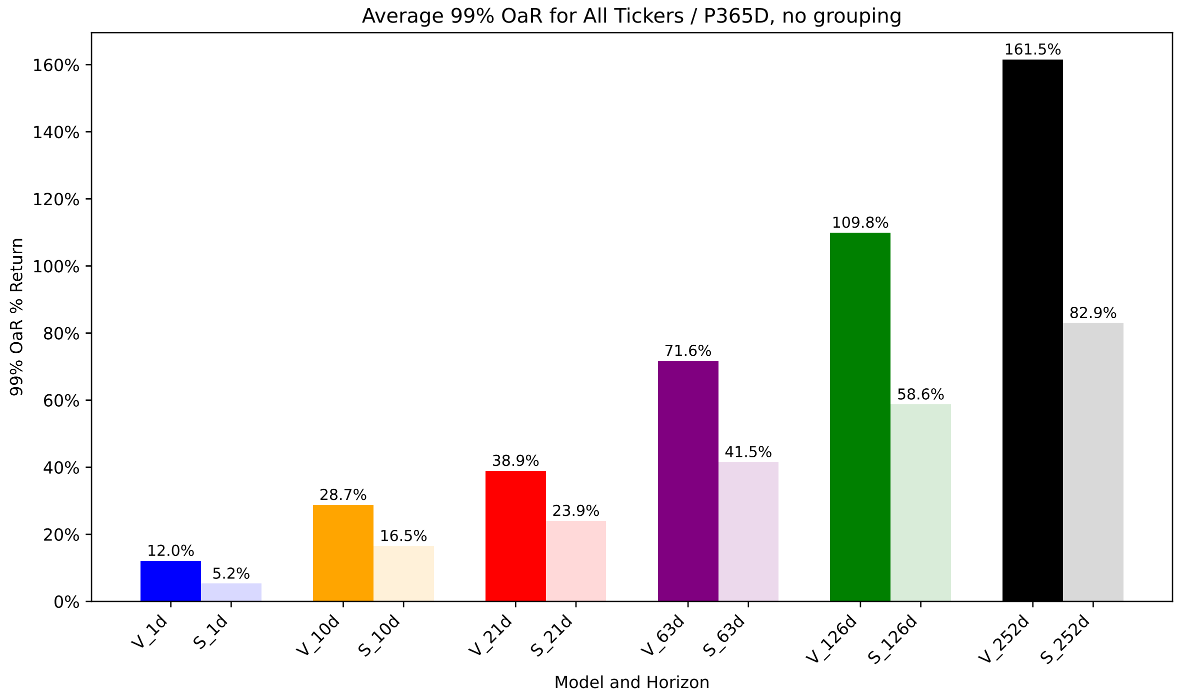
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-05-29



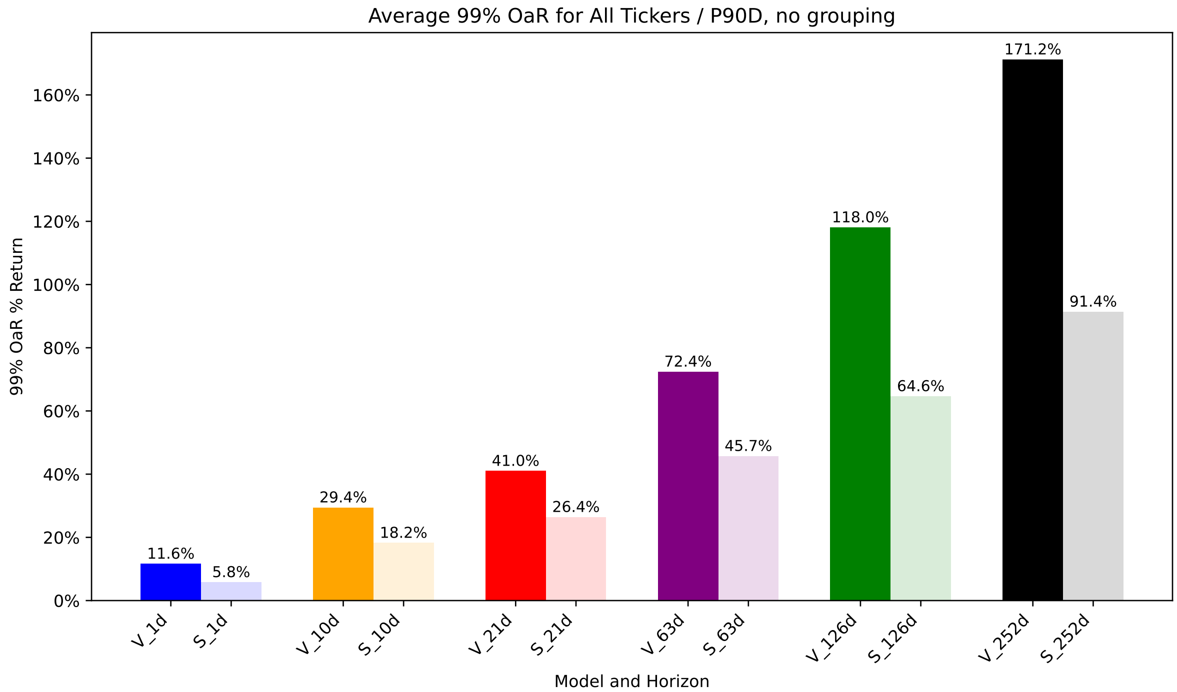
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-29 through 2024-06-03



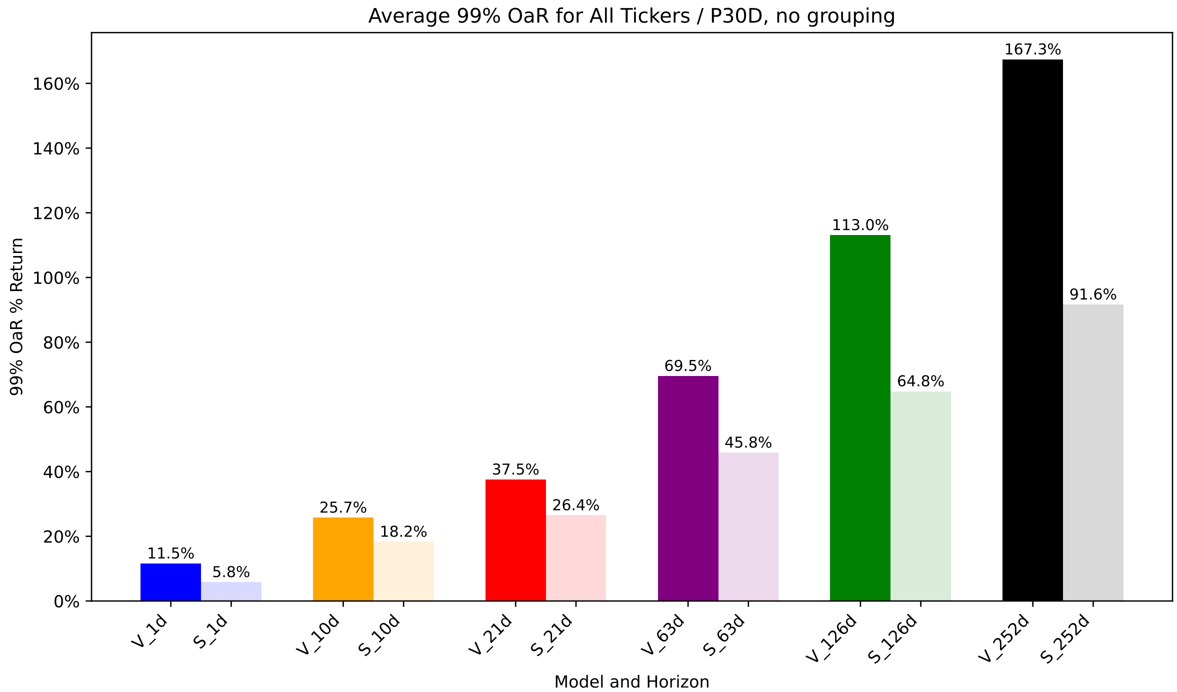
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-05-29 through 2025-03-03



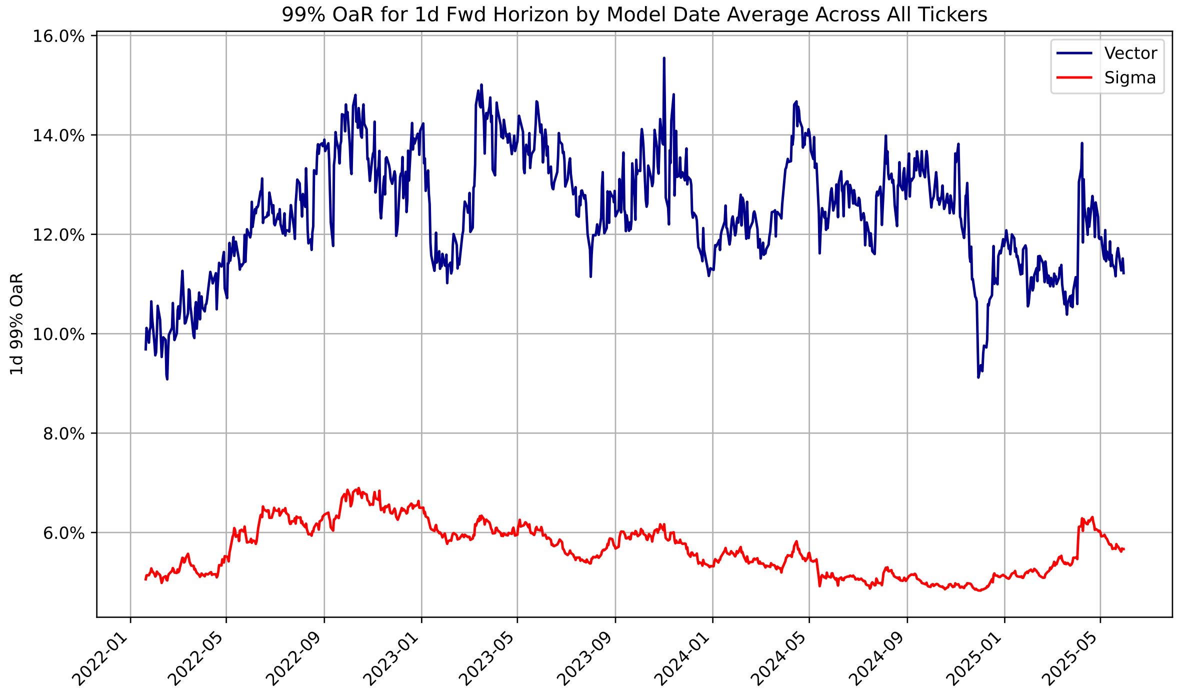
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-05-29 through 2025-05-02

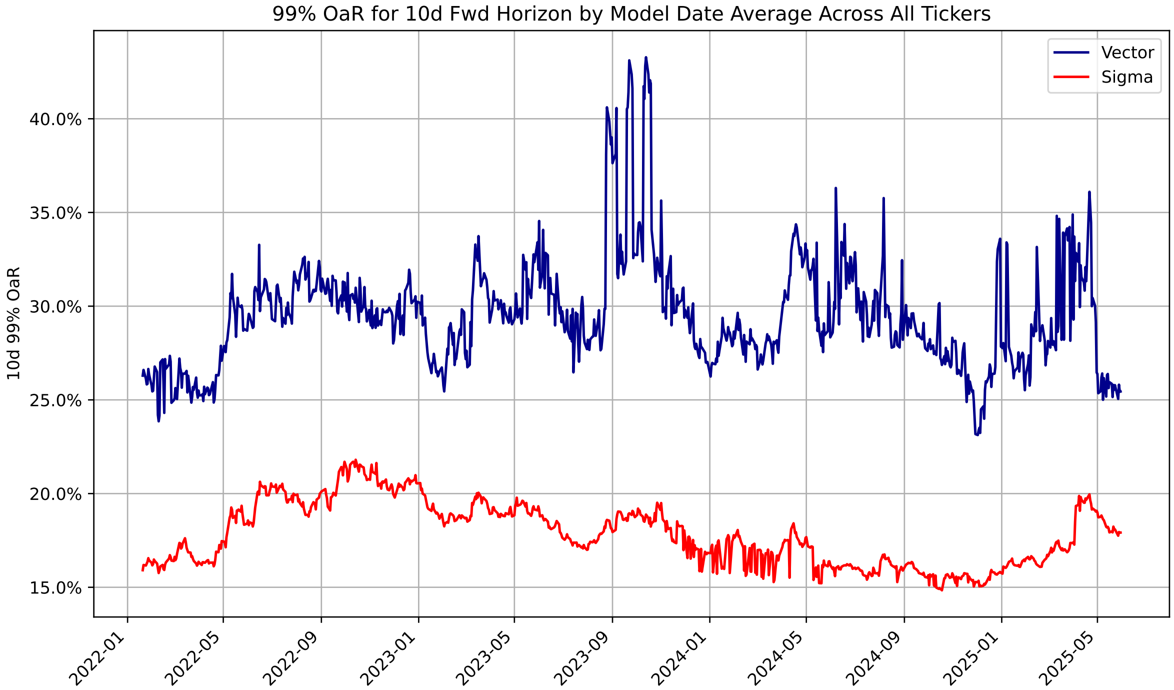


Daily Levels

1d Horizon

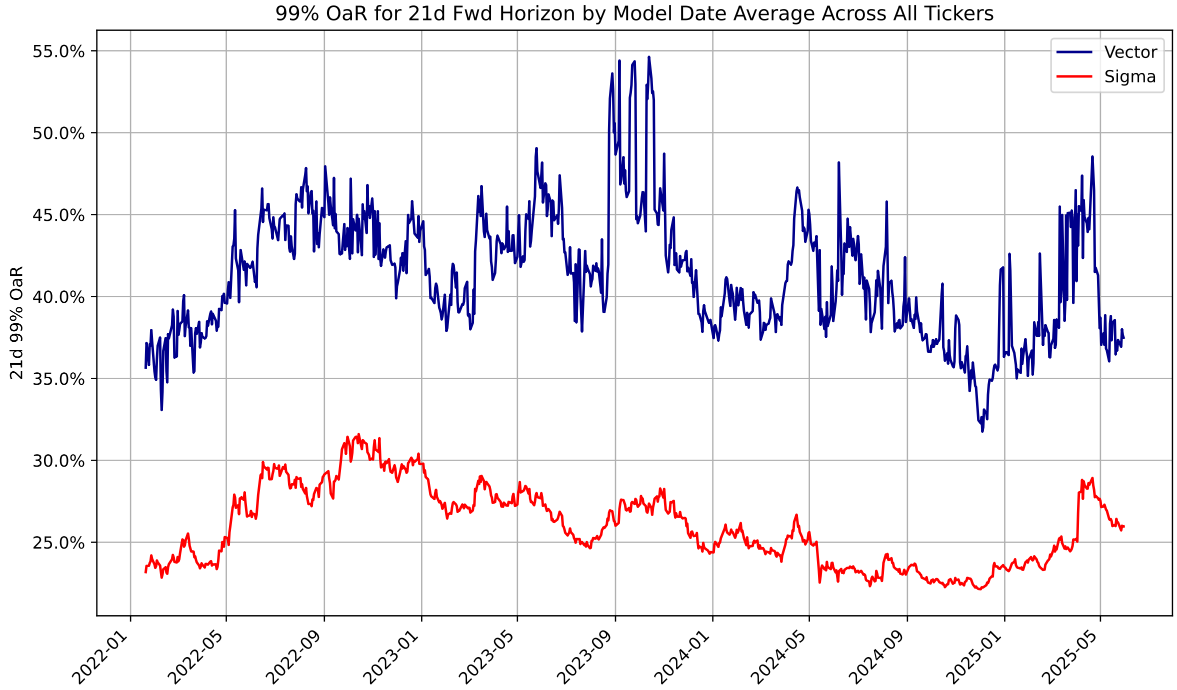


10d Horizon

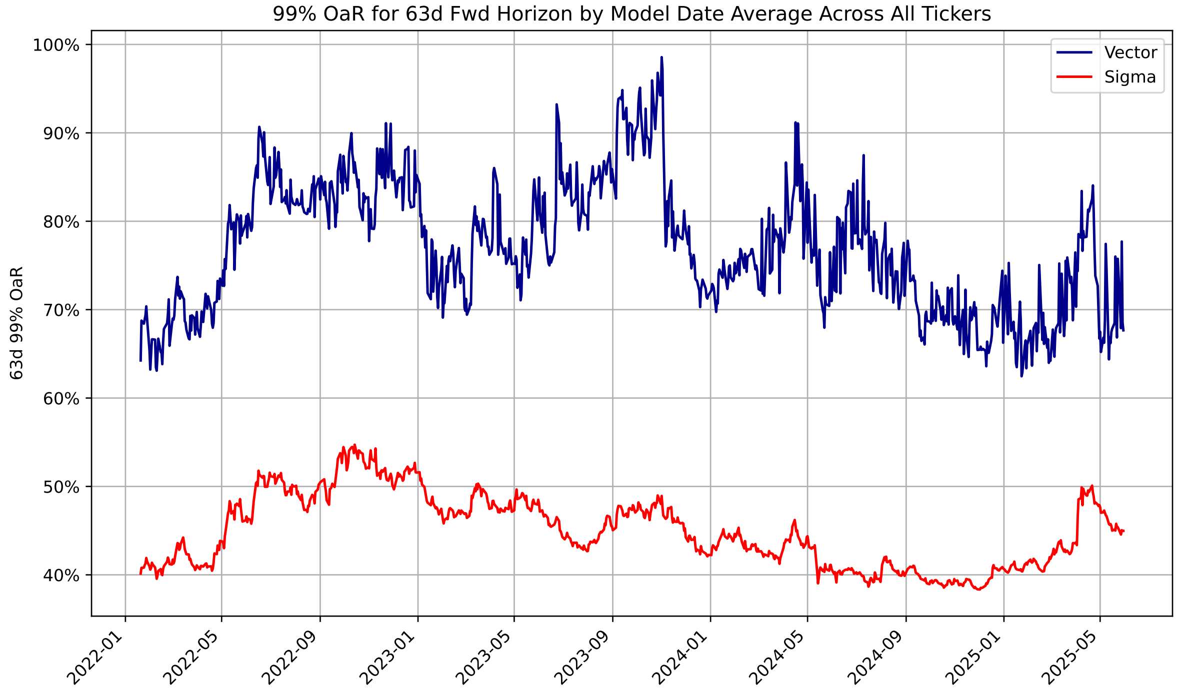


99% OaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 99% OaR
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

21d Horizon

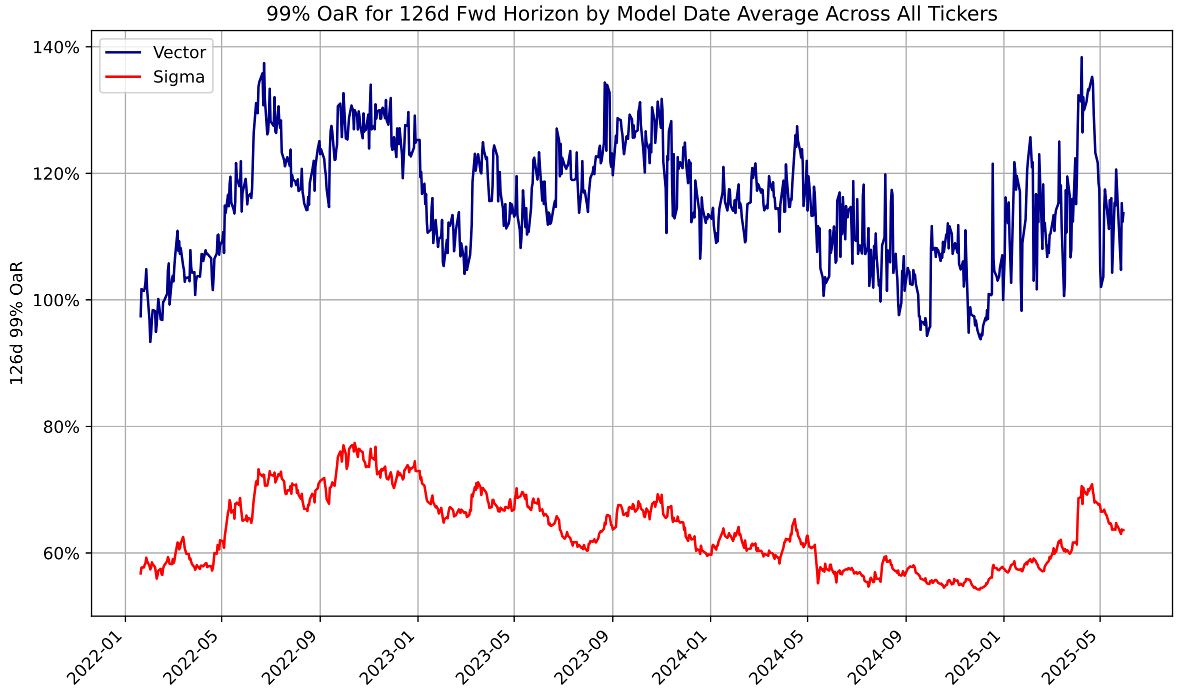

99% OaR for 21d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
21d 99% OaR
55.0%
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

63d Horizon

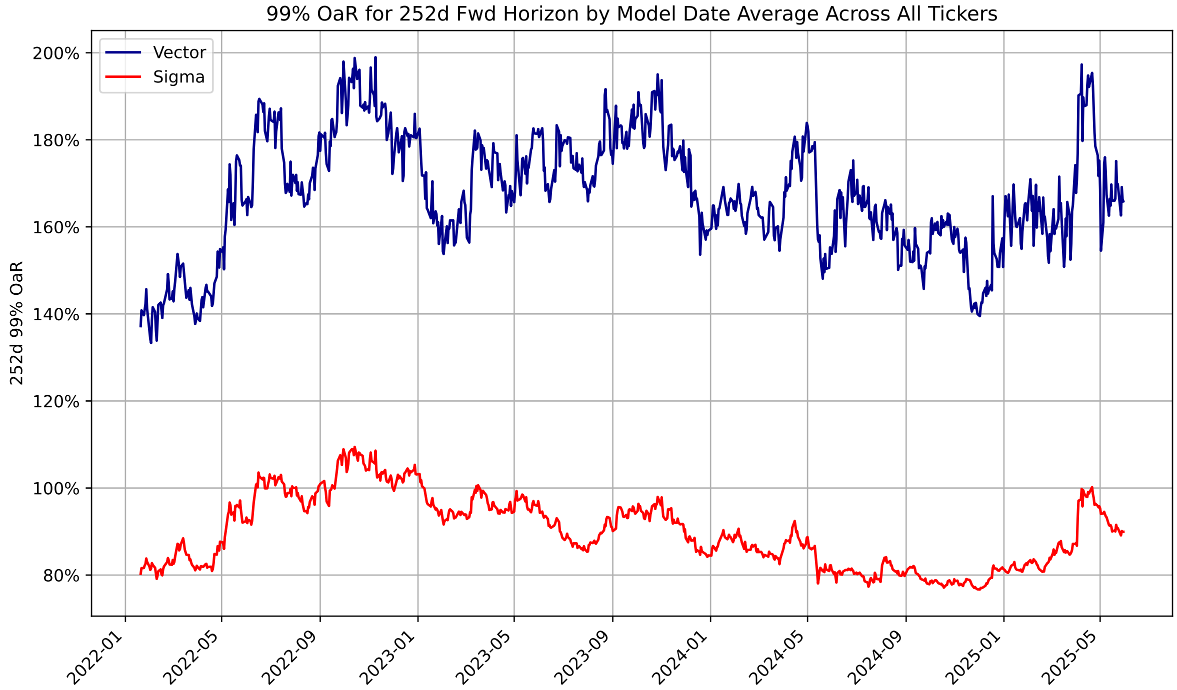


99% OaR for 63d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
63d 99% OaR
100%
90%
80%
70%
60%
50%
40%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

126d Horizon



252d Horizon



Performance Summary

Here we compare the performance of 99% OaR estimates generated by the Vector Model ("V", presented with dark shading) with those generated by Sigma ("S", presented with light shading). This comparison is made on the basis of OaR breakage rates and Return on Long OaR Based Capital (ROLOBC), presenting the average results across tickers and model dates for model dates in the period indicated.

To faciliate evaluation of OaR breakage we provide dashed horizontal lines at the targetted breakage level. Proximity to that line is the key breakage related criteria.

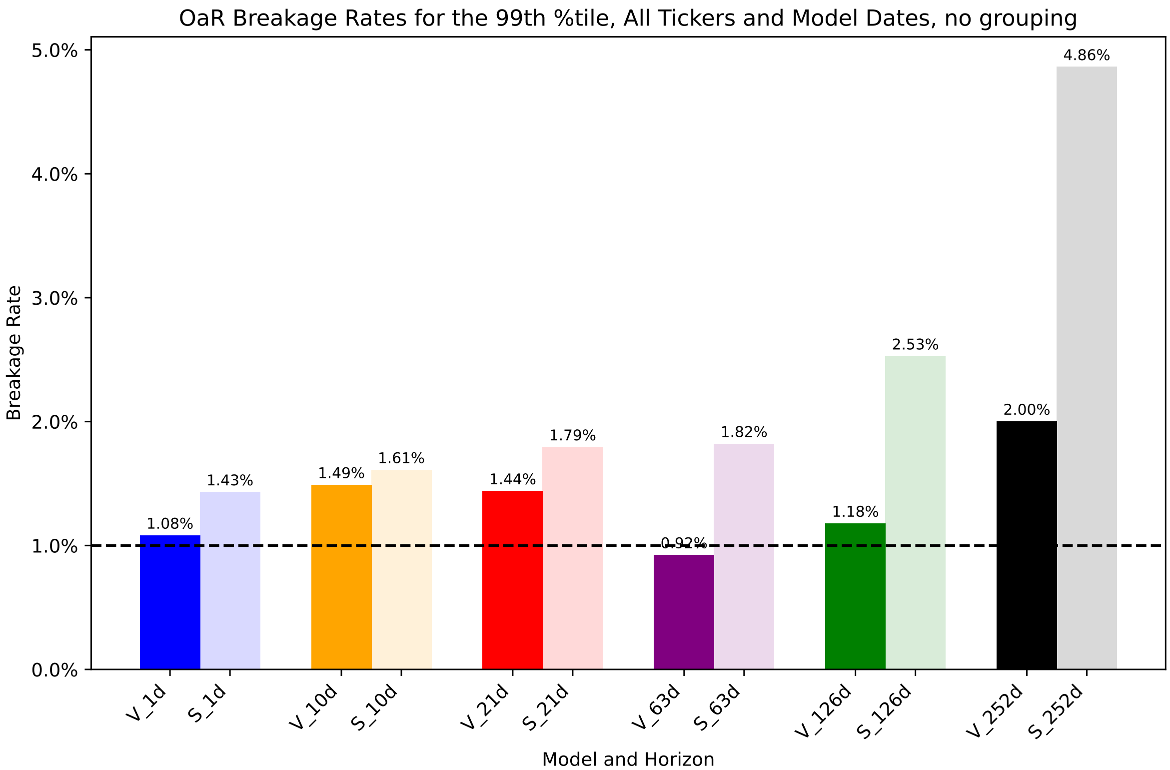
Vector Model ROLOBC can be evalauated on the basis of outright levels relative to Sigma and alpha relative to Sigma ROLOBC (which, as discussed previously, is assigned the underlying ticker price returns). We advise keeping proximity of OaR breakage rates to targetted levels in mind when comparing outright ROLOBC levels. For example, a model with much more benign OaR estimates will likely have higher ROLOBC in the context of an upwardly trending market, but how did it do on OaR breakage rates compared to the other model. This tradeoff between ROLOBC and OaR breakage rate proximity to target is the motivation for including ROLOBC Adjusted for Average Vector Model-Sigma OaR Differentials in the Report Card presented earlier in this report, and for providing the alpha metrics.

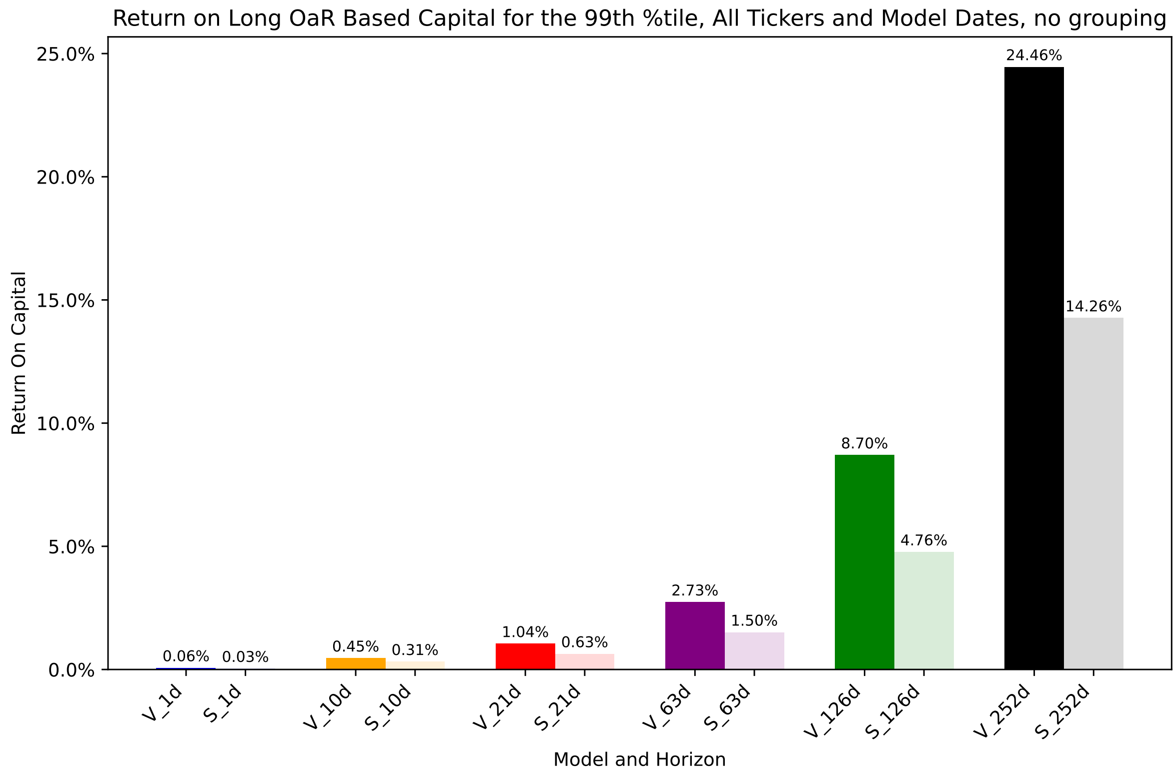
Alpha allows us to isolate ROLOBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROLOBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by OaR differentials between tickers and / or between dates. Thus we also present average alpha by ticker across model dates. If this cross-date based alpha is positive, at least some of the overall alpha is driven by OaRiation in Vector Mdoel OaR relative to Sigma across time as opposed to OaRiation in Vector Model OaR relative to Sigma between tickers.

Results for each horizon reflect the average for all model estimates for that horizon from all model dates for which forward performance is known. Note that periods for all horizons > 1d overlap.

All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-05-29





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across TMD's:

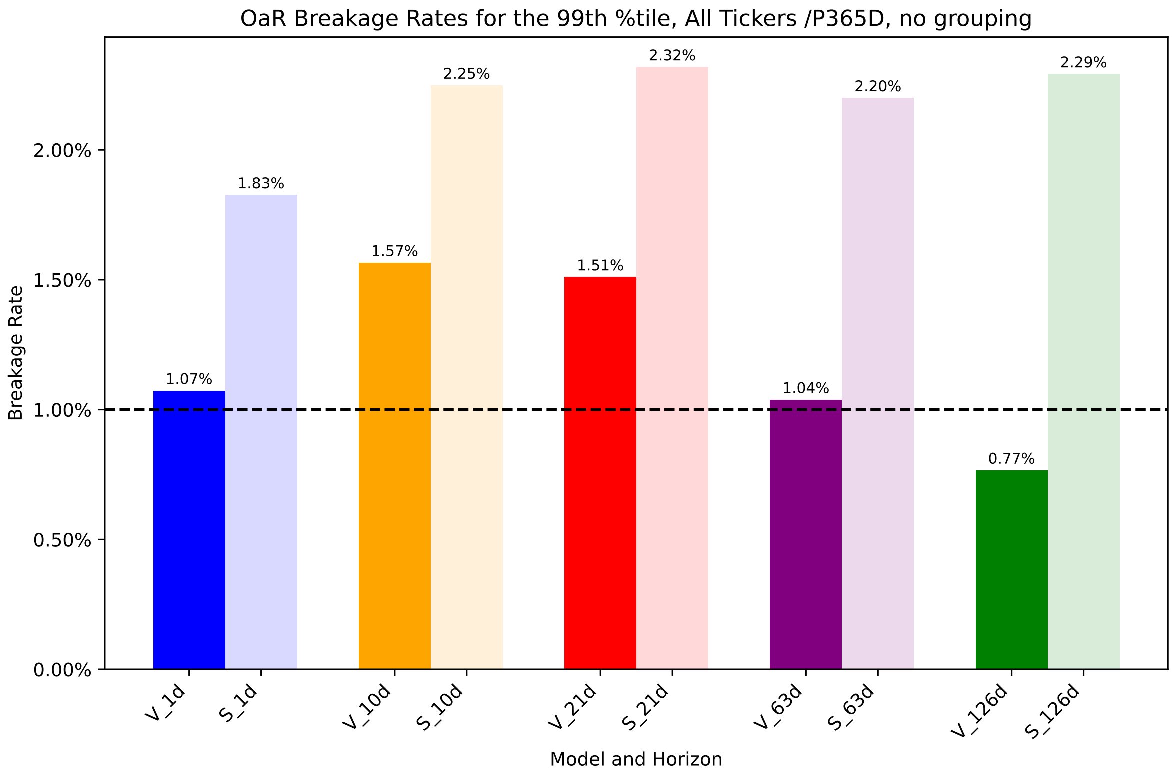
	1d	10d	21d	63d	126d	252d
intercept	0.00%	-0.01%	0.08%	0.23%	0.42%	1.11%
intercept_p_value	70.92%	54.44%	0.23%	0.00%	0.00%	0.00%
slope	178.30%	148.90%	152.18%	165.83%	173.81%	163.72%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

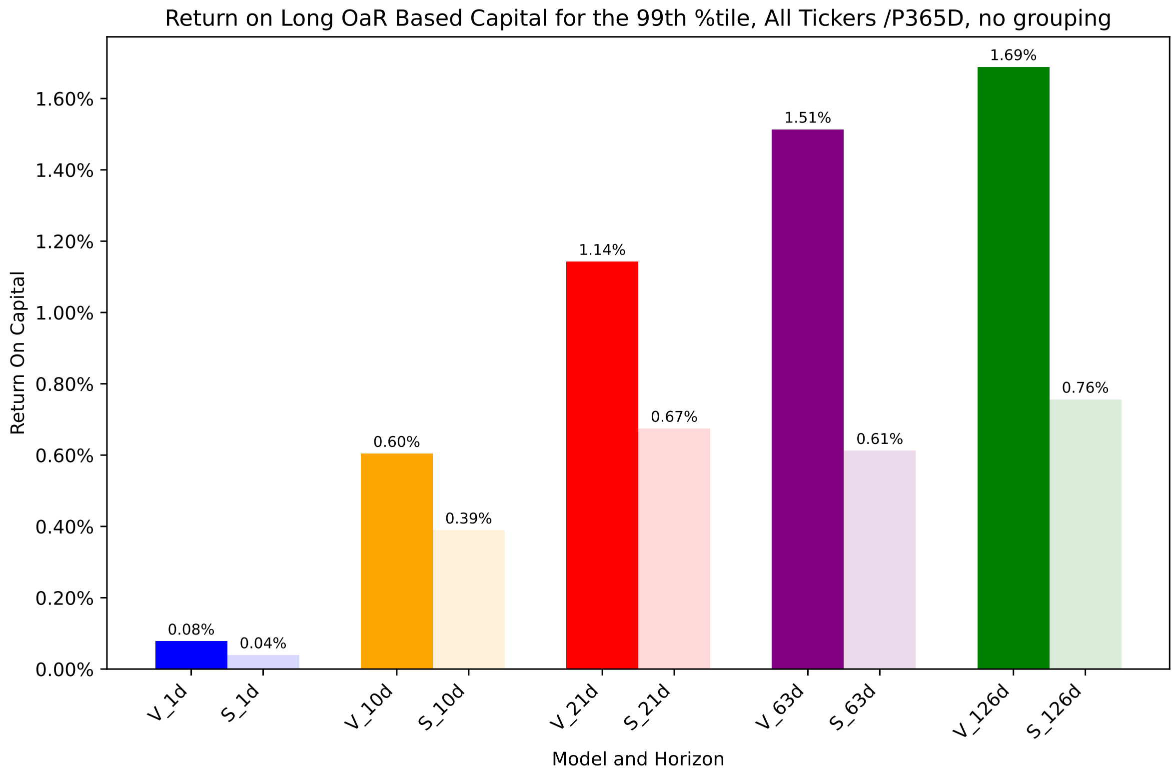
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.02%	-0.12%	-0.35%	-1.47%	-3.50%	-5.01%
intercept_p_value	0.80%	7.42%	1.69%	0.20%	0.01%	0.45%
slope	157.57%	153.05%	163.38%	175.52%	173.89%	162.67%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-29 through 2024-06-03





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across P365D:

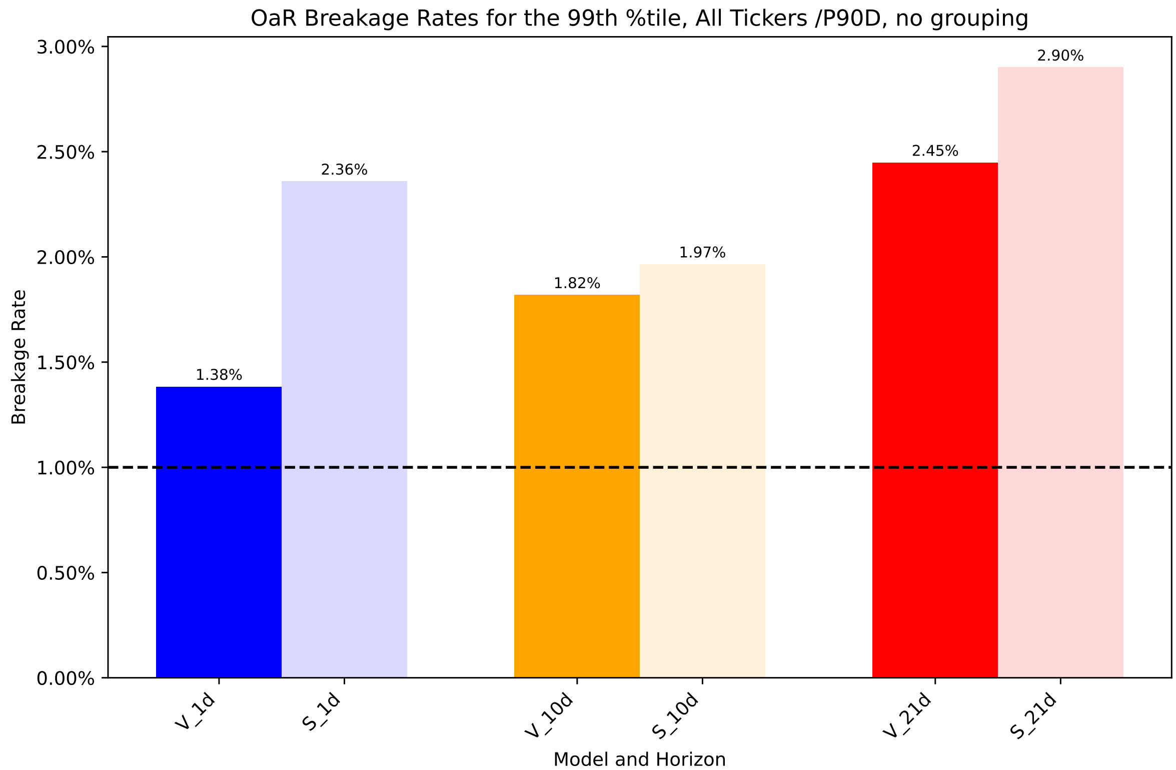
	1d	10d	21d	63d	126d
intercept	0.00%	-0.06%	-0.02%	0.36%	0.30%
intercept_p_value	77.12%	7.78%	65.80%	0.01%	2.96%
slope	188.95%	170.80%	172.68%	188.91%	183.92%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

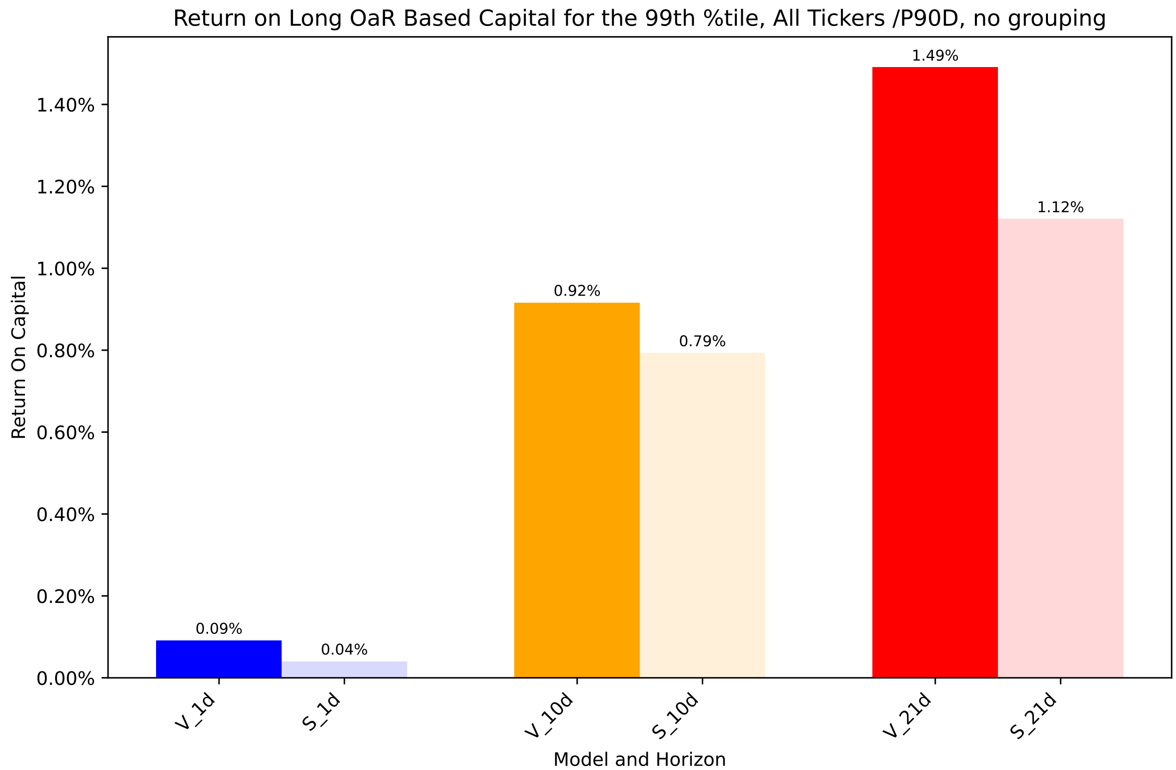
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P365D:

	1d	10d	21d	63d	126d
intercept	0.02%	0.19%	0.22%	-0.05%	0.14%
intercept_p_value	4.99%	2.13%	14.99%	88.14%	82.95%
slope	79.66%	98.38%	106.81%	115.34%	119.48%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-05-29 through 2025-03-03





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across P90D:

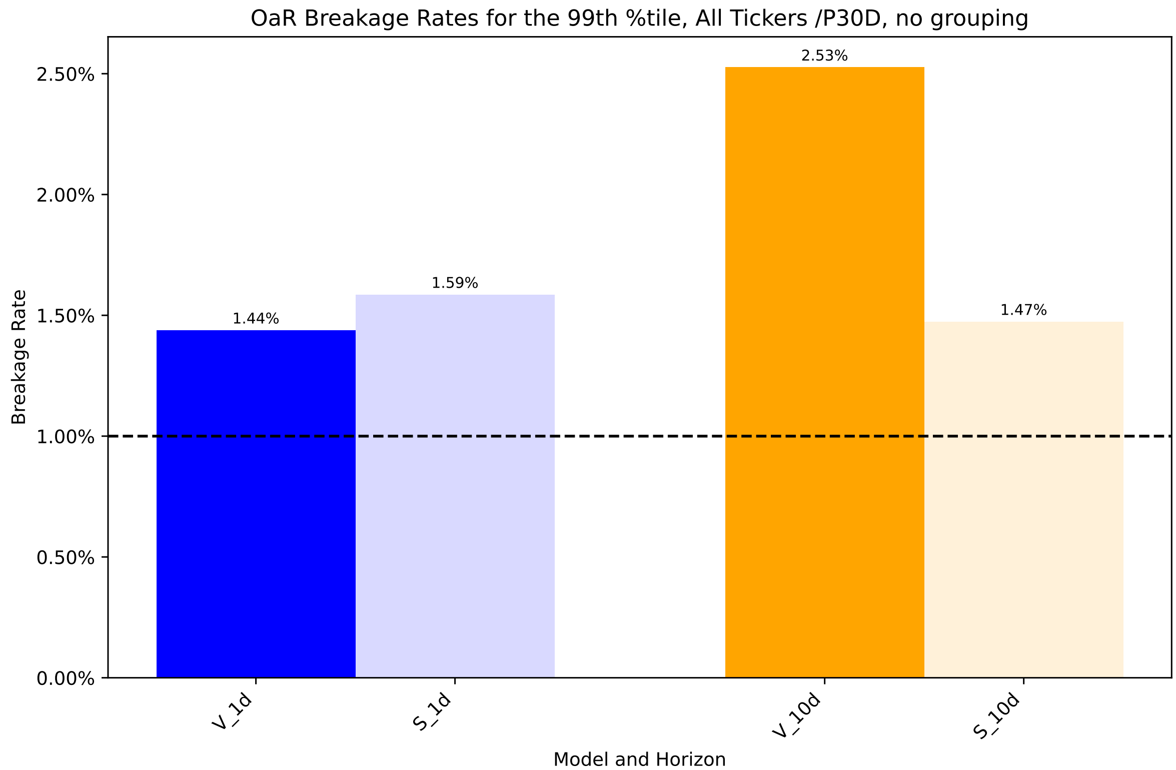
	1d	10d	21d
intercept	0.02%	-0.26%	-0.18%
intercept_p_value	47.92%	0.04%	13.69%
slope	179.89%	148.16%	149.21%
slope_p_value	0.00%	0.00%	0.00%

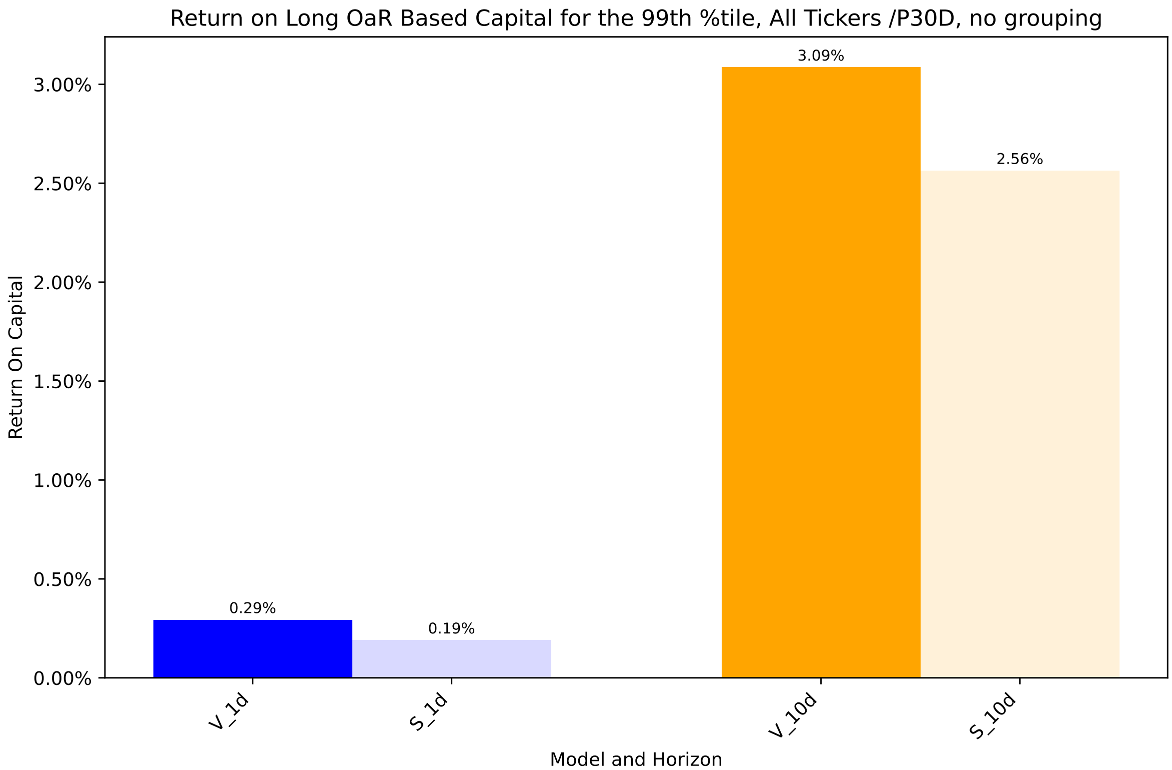
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P90D:

	1d	10d	21d
intercept	0.03%	0.50%	0.87%
intercept_p_value	16.22%	0.15%	0.93%
slope	106.58%	109.91%	118.78%
slope_p_value	0.00%	0.00%	0.00%

Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-05-29 through 2025-05-02





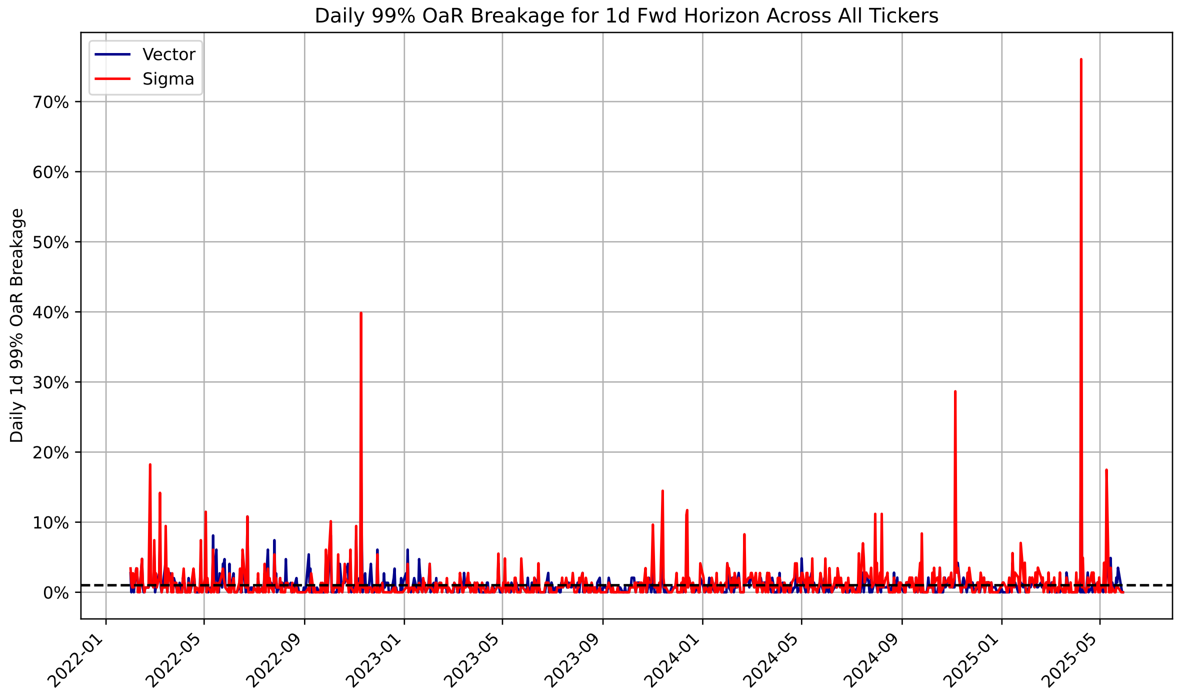

```
Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon
corresponding actual returns across P30D:
                        1d      10d
intercept            -0.04%   -0.39%
intercept_p_value    32.85%    0.75%
slope               175.13%  135.50%
slope_p_value         0.00%    0.00%
```

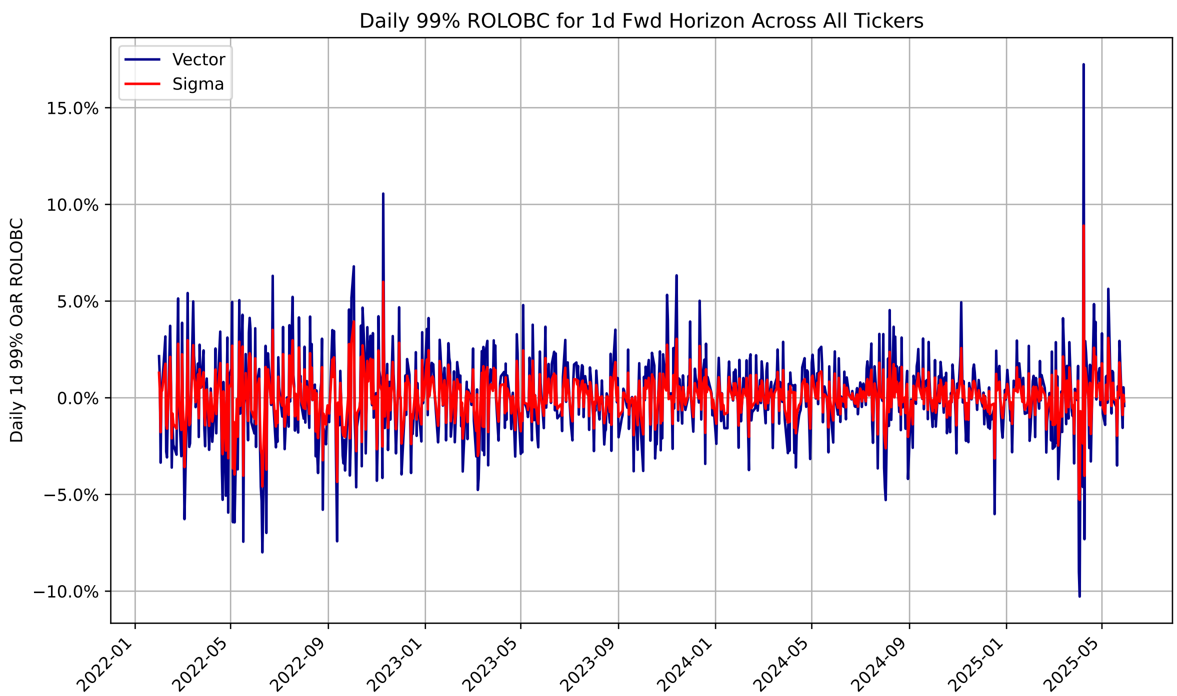
```
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon
corresponding actual returns, by ticker across P30D:
                        1d      10d
intercept             0.00%    0.10%
intercept_p_value    94.77%   81.82%
slope               136.17%  144.48%
slope_p_value         0.00%    0.00%
```

Daily Performance

Here we look at the daily breakage and ROLOBC statitics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROLOBC outliers.

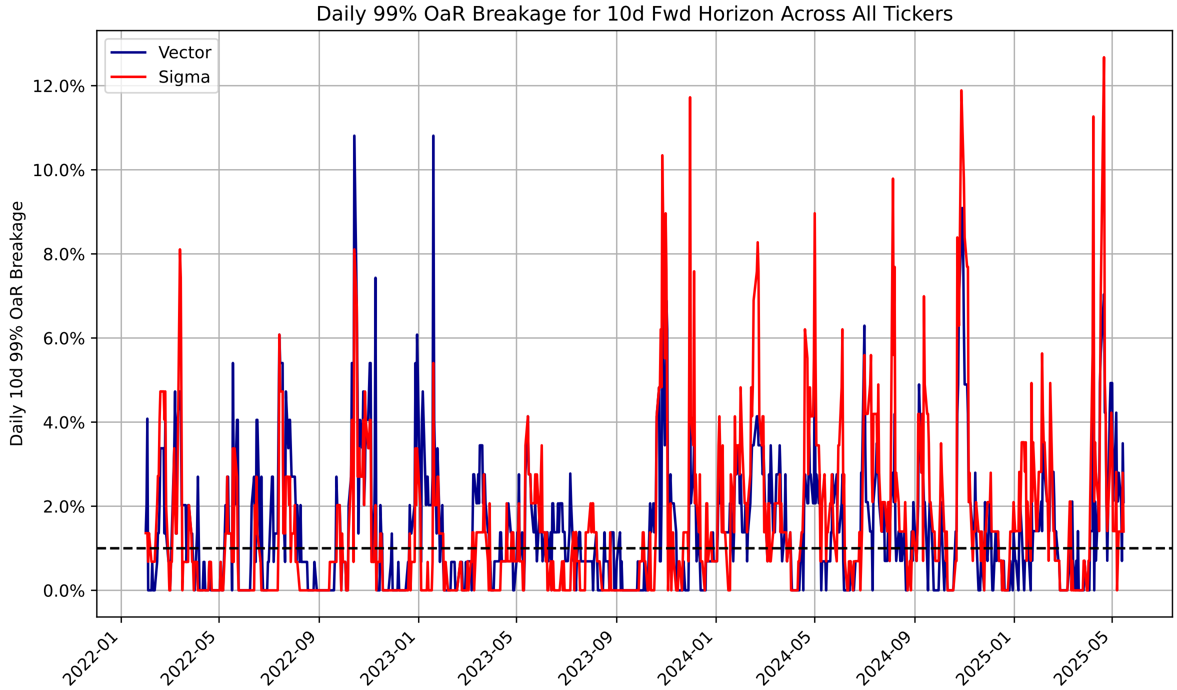
1d Horizon

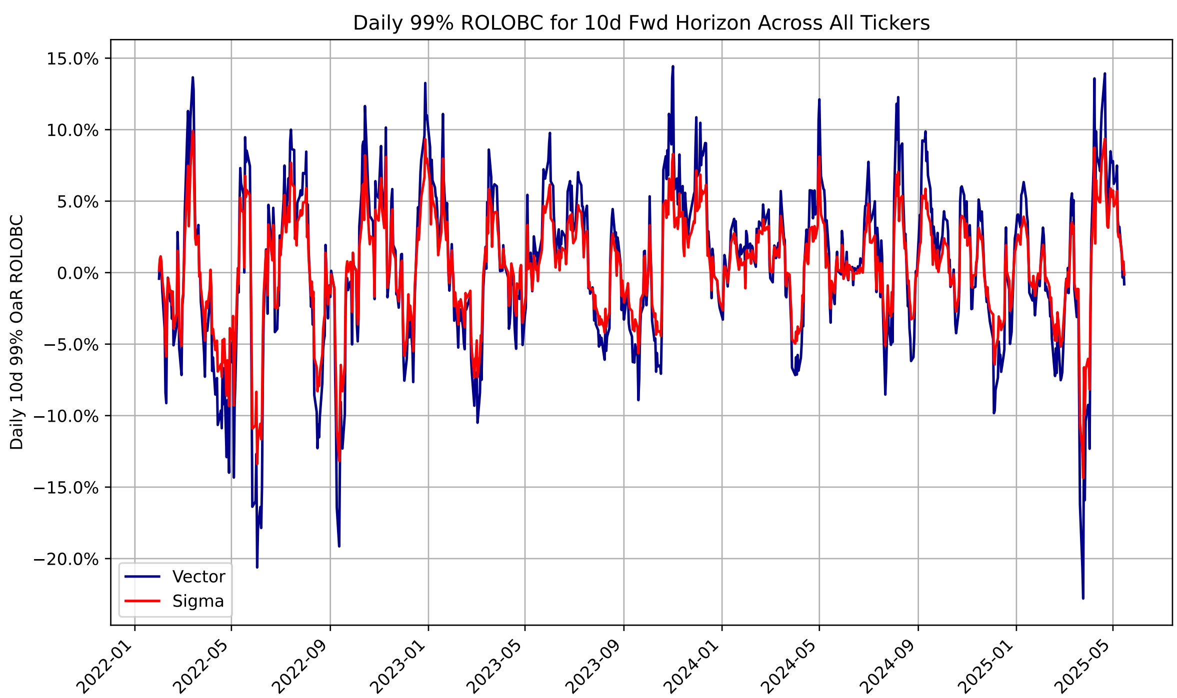




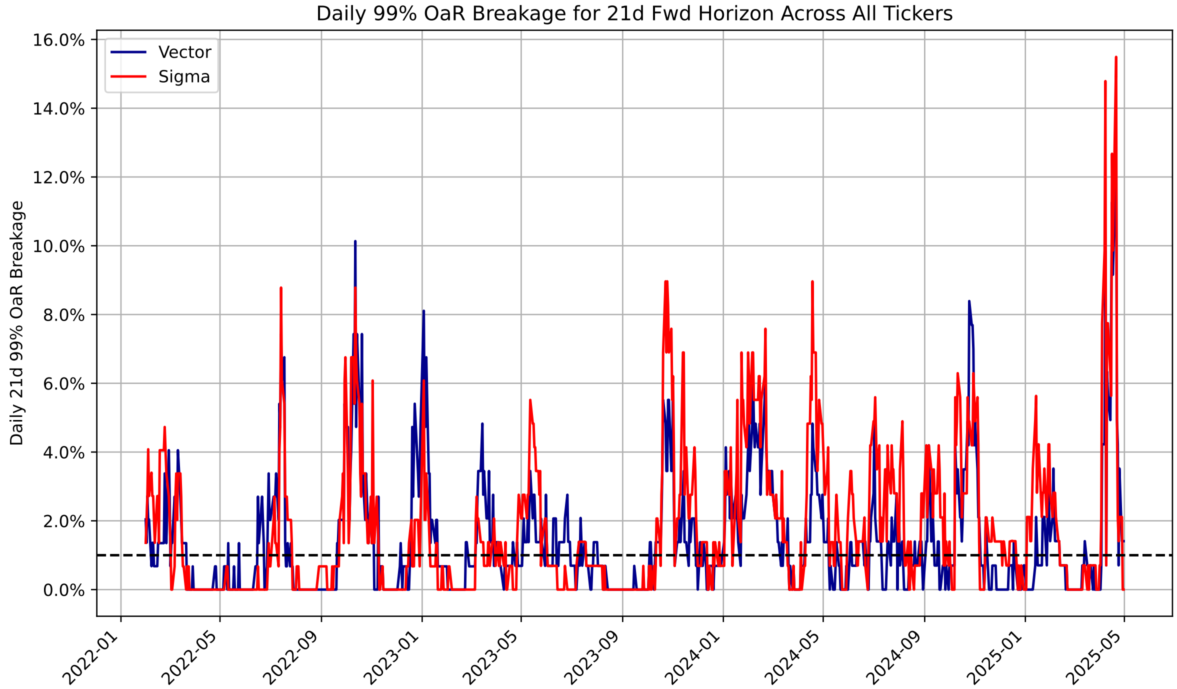
Daily 99% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 99% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

10d Horizon

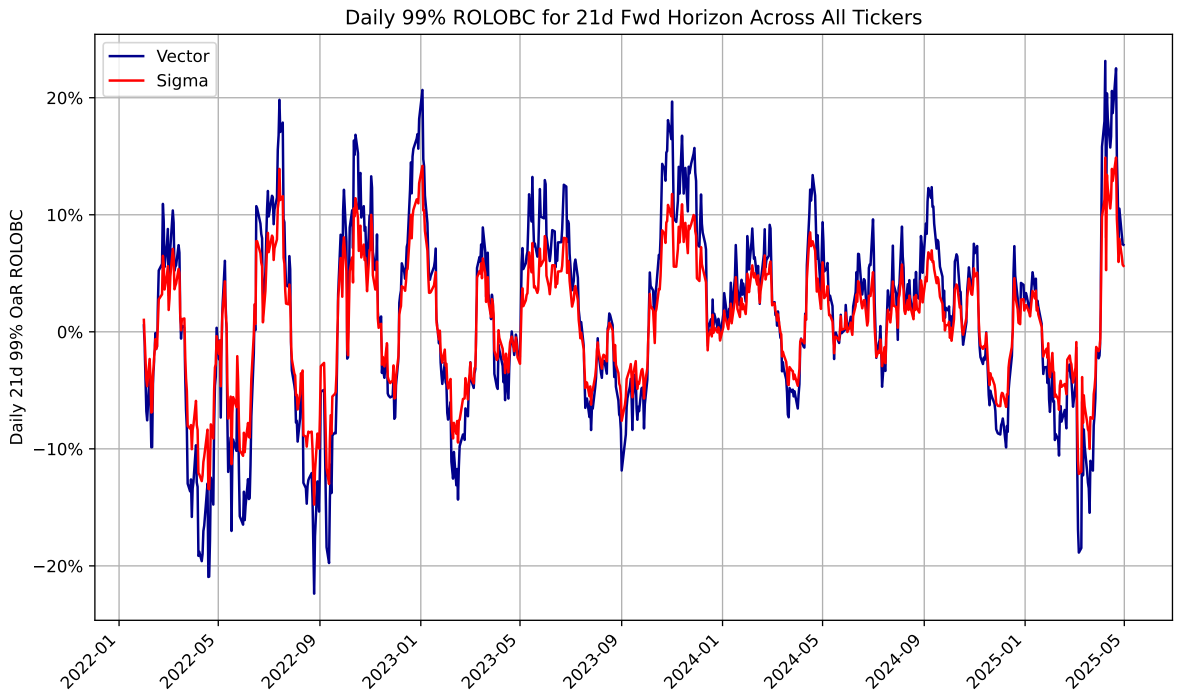

Daily 99% OaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 99% OaR Breakage
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05


Daily 99% ROLOBC for 10d Fwd Horizon Across All Tickers
Daily 10d 99% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
−20.0%
Vector
Sigma
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

21d Horizon

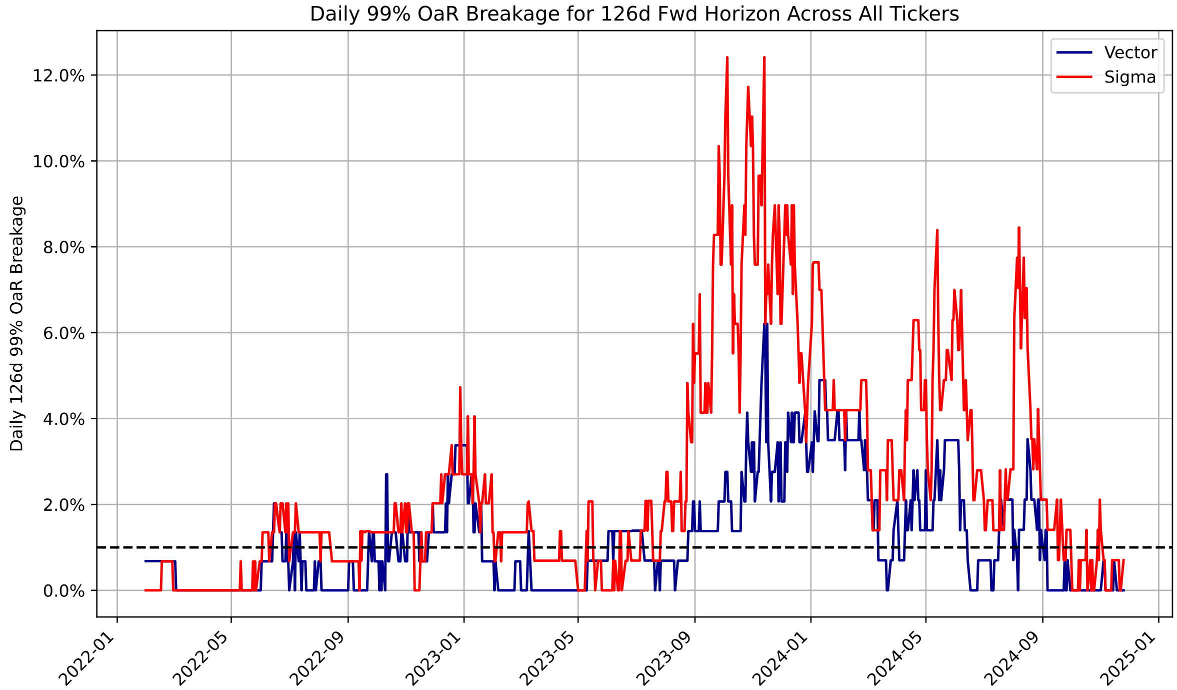


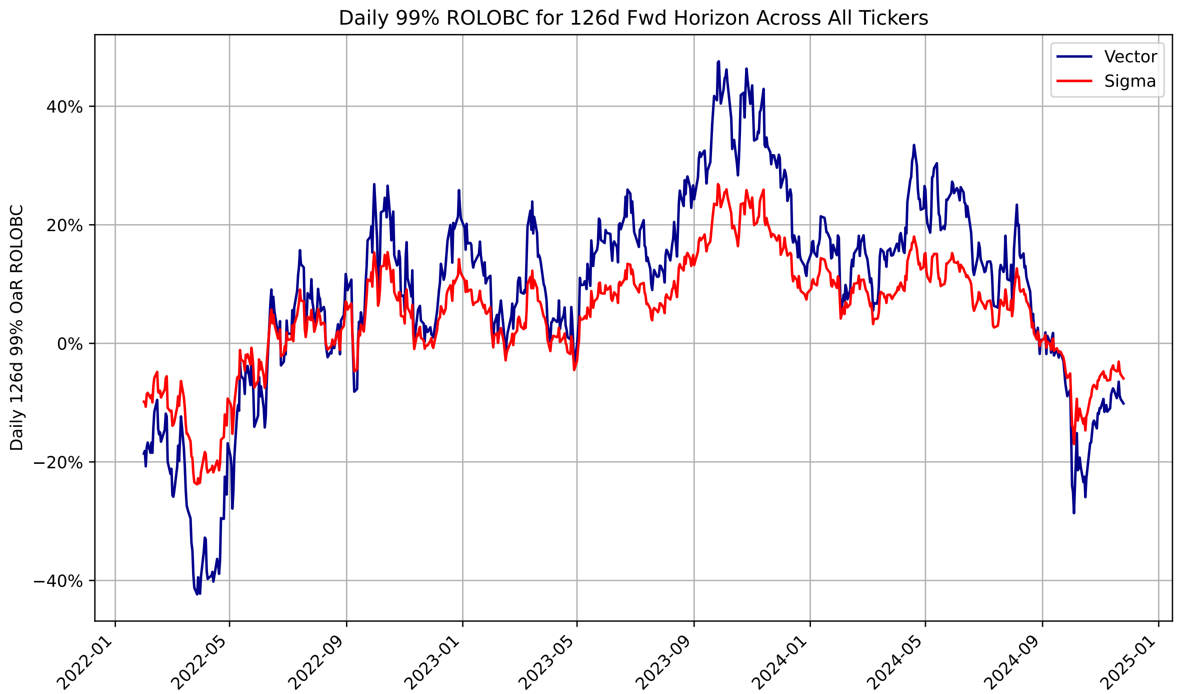
Daily 99% OaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 99% OaR Breakage
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



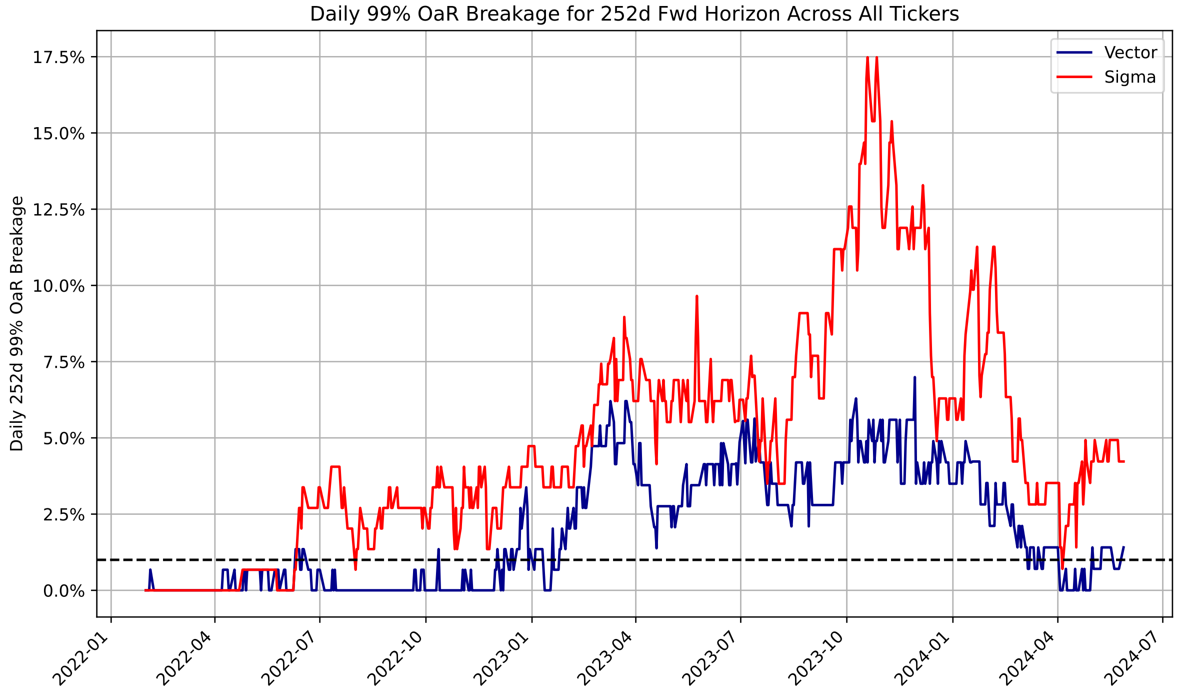
Daily 99% ROLOBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 99% OaR ROLOBC
20%
10%
0%
−10%
−20%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

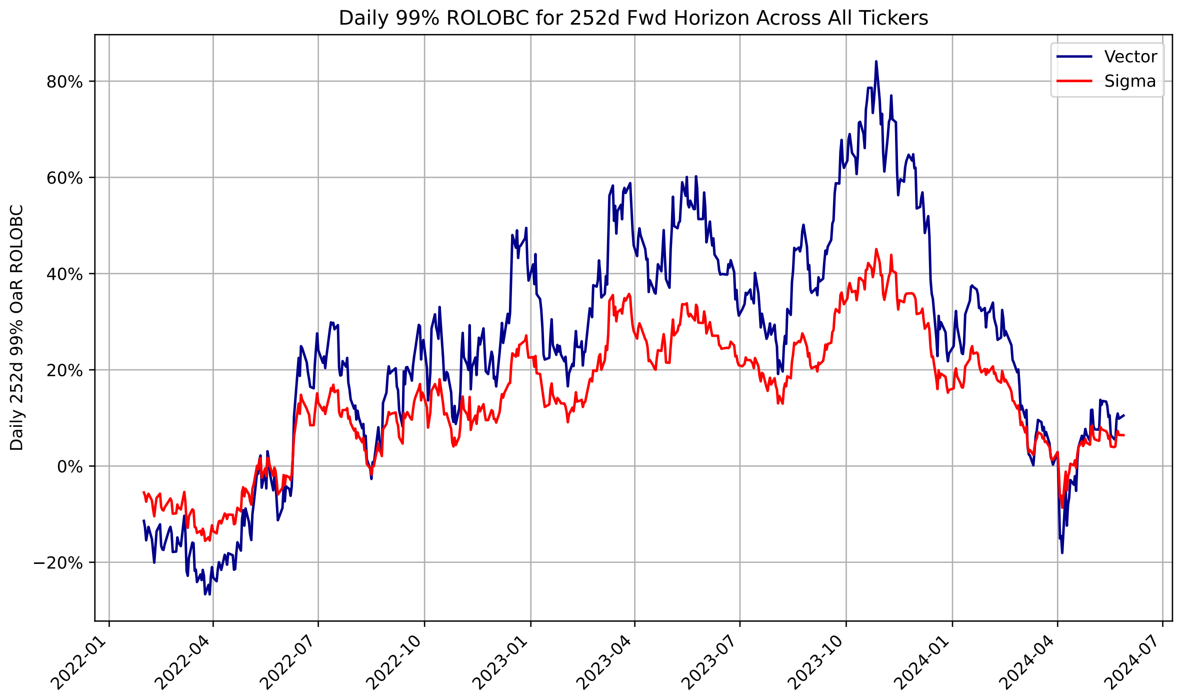
63d Horizon


Daily 99% OaR Breakage for 126d Fwd Horizon Across All Tickers
Daily 126d 99% OaR Breakage
Vector
Sigma
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01


Daily 99% ROLOBC for 126d Fwd Horizon Across All Tickers
Daily 126d 99% OaR ROLOBC
Vector
Sigma
40%
20%
0%
−20%
−40%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01

252d Horizon

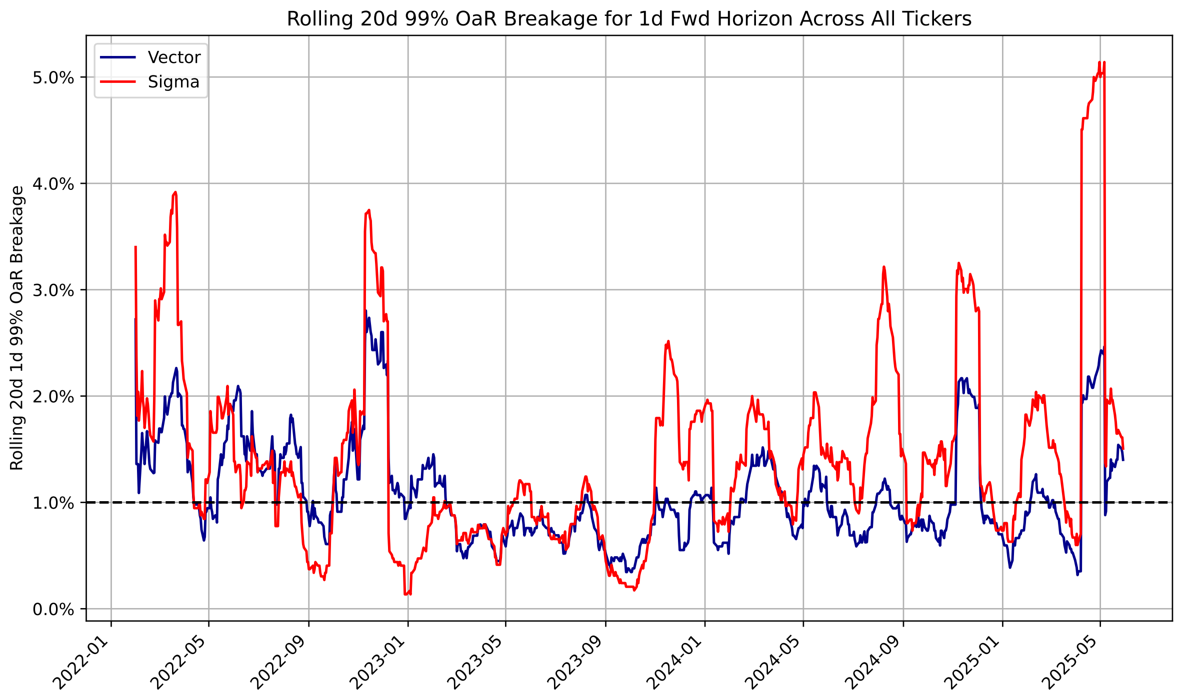


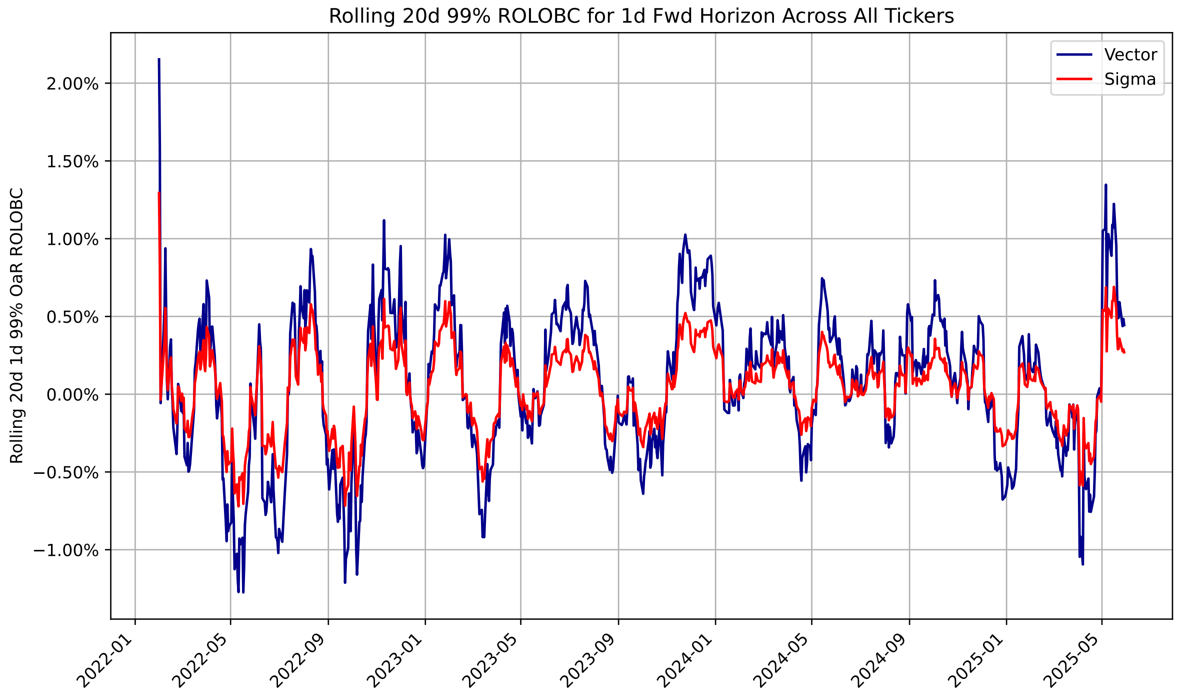


Rolling 20d Performance

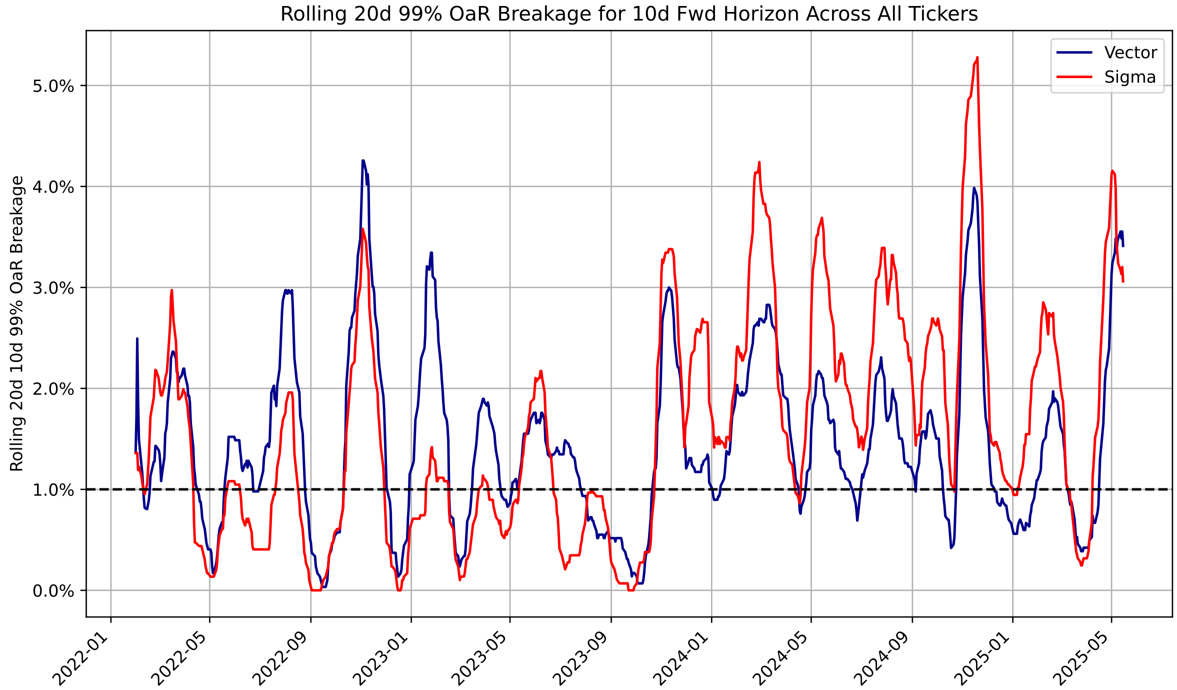
Here we look at 20 day rolling moving averages of the breakage and ROLOBC statitics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

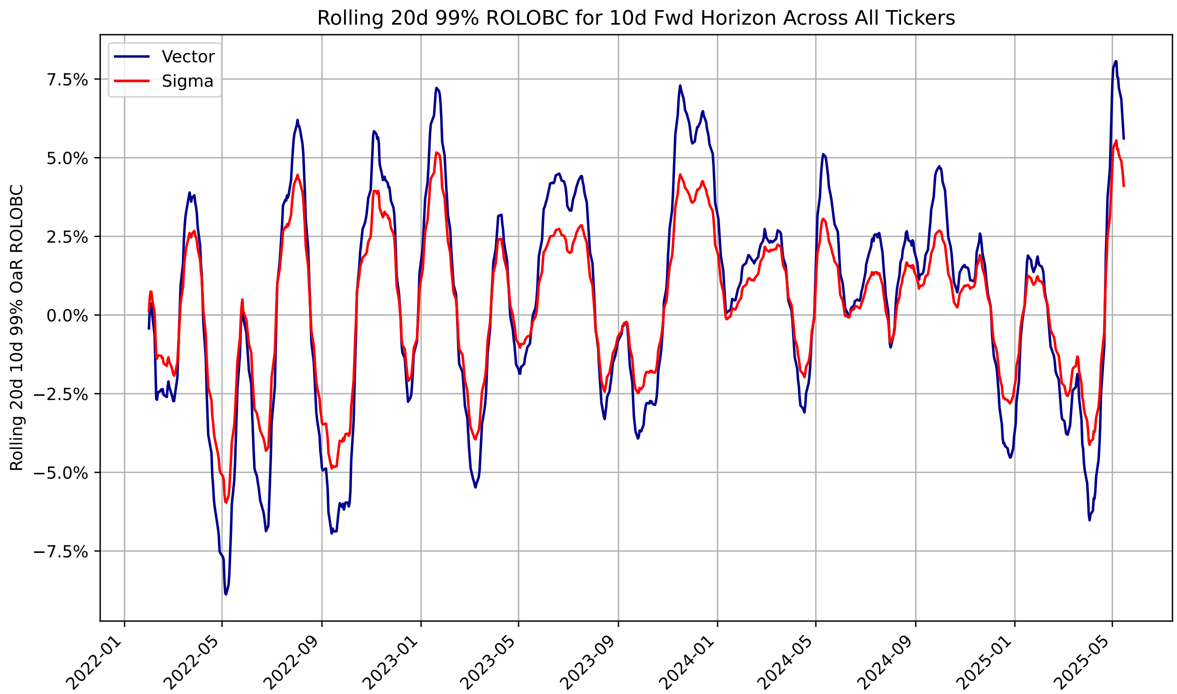



Rolling 20d 99% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 99% OaR ROLOBC
2.00%
1.50%
1.00%
0.50%
0.00%
−0.50%
−1.00%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

10d Horizon

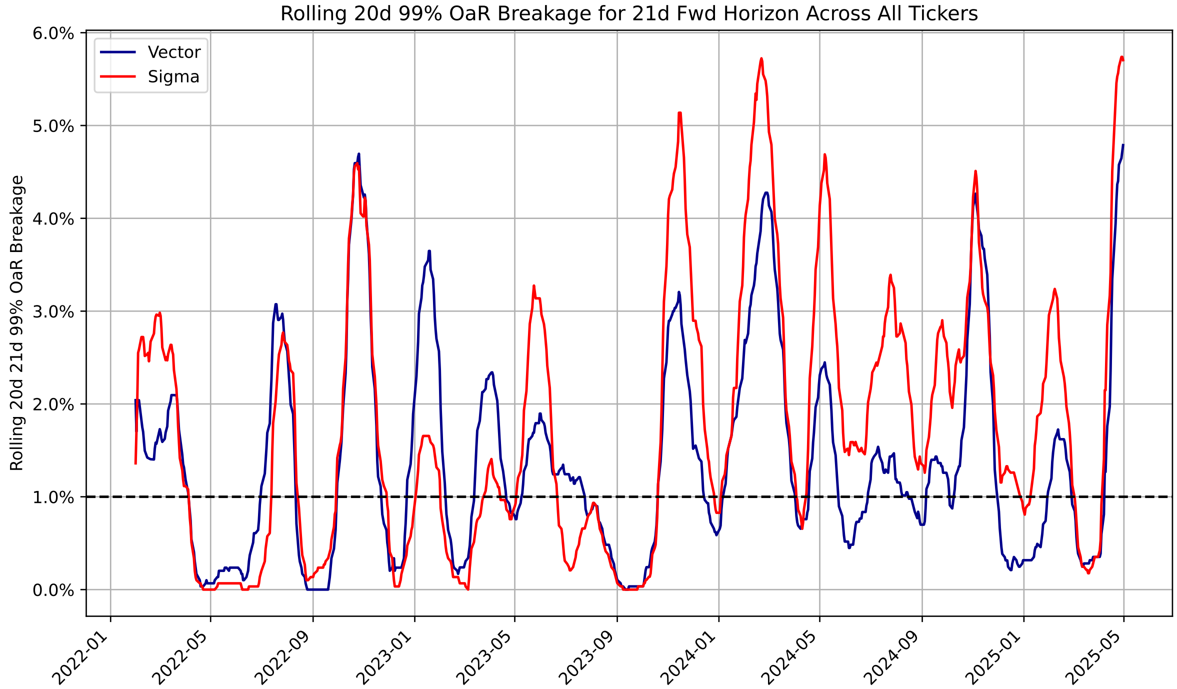


Rolling 20d 99% OaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 99% OaR Breakage
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

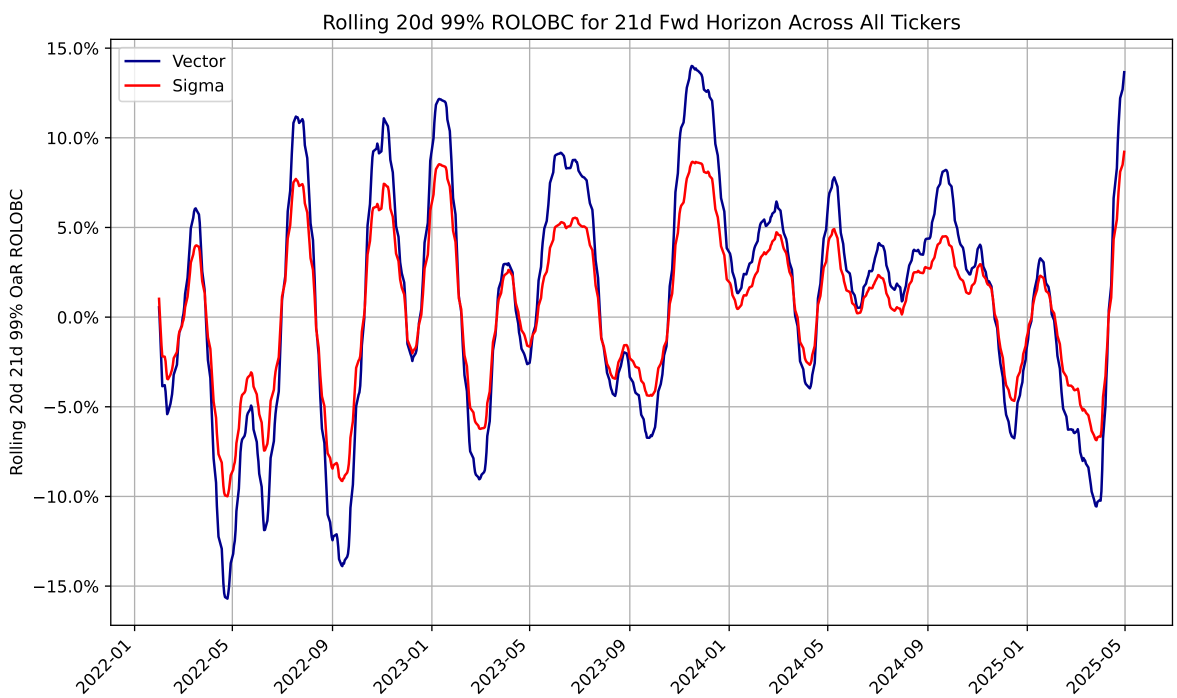


Rolling 20d 99% ROLOBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 99% OaR ROLOBC
7.5%
5.0%
2.5%
0.0%
−2.5%
−5.0%
−7.5%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

21d Horizon

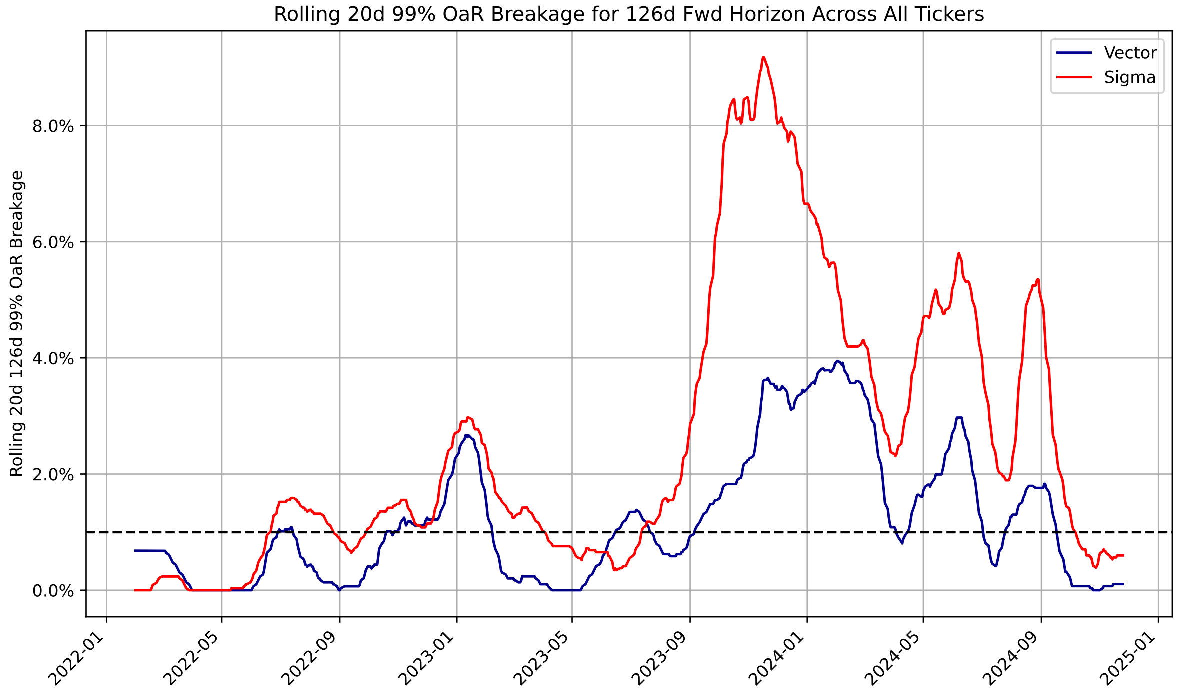


Rolling 20d 99% OaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 99% OaR Breakage
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

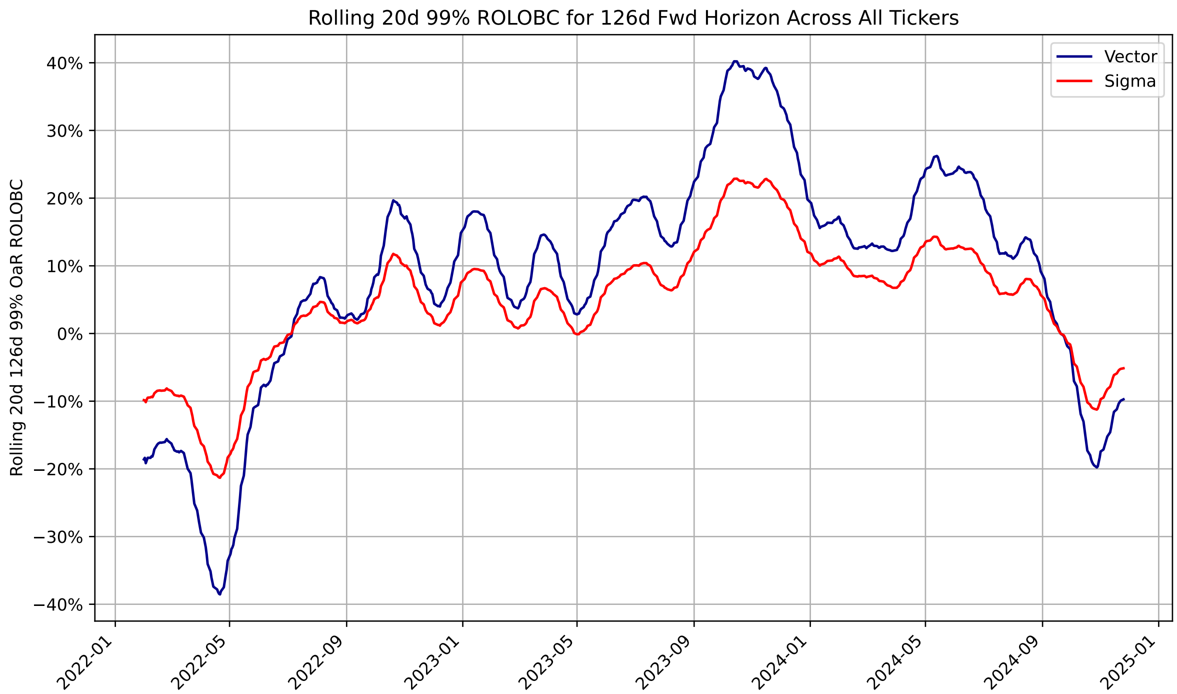


Rolling 20d 99% ROLOBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 99% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05

63d Horizon

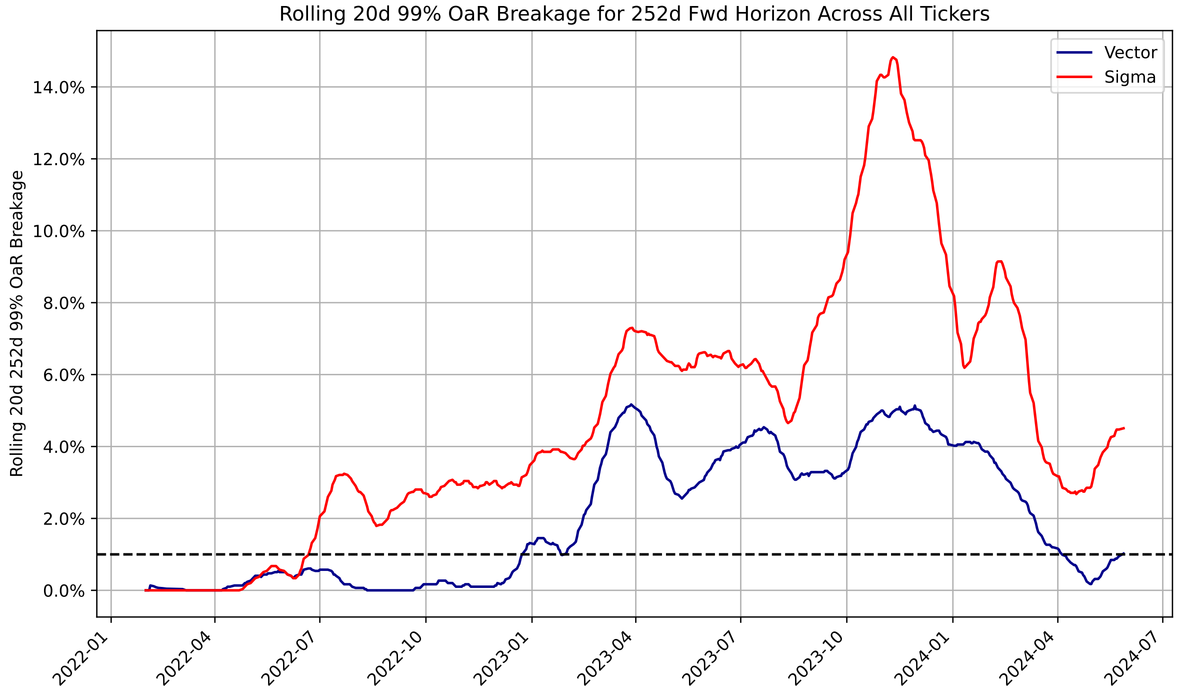


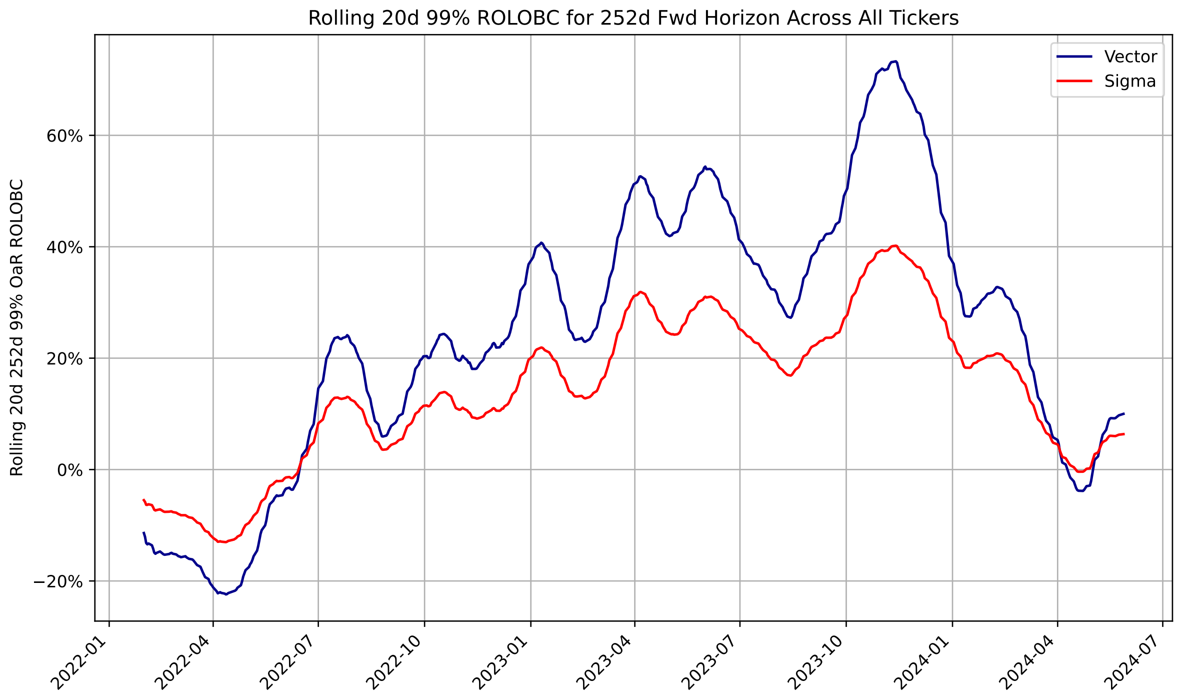
Rolling 20d 99% OaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 126d 99% OaR Breakage
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01



Rolling 20d 99% ROLOBC for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 126d 99% OaR ROLOBC
40%
30%
20%
10%
0%
−10%
−20%
−30%
−40%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01

252d Horizon





Top 30 Tickers By OaR Breakage

All TMD: 1d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	SIVBQ	6.83%	VST	4.91%
1.0	GME	6.23%	MSTR	3.47%
1.0	AVGO	5.39%	AVGO	3.11%
1.0	VST	5.15%	NVDA	2.87%
1.0	MSTR	5.15%	SLV	2.63%
1.0	META	4.07%	SIVBQ	2.52%
1.0	HLT	3.71%	LLY	2.51%
1.0	FRCB	3.6%	GLD	2.4%
1.0	ACGL	3.35%	MU	2.4%
1.0	TEVA	3.35%	PWR	2.28%
1.0	CHTR	3.35%	WDC	2.04%
1.0	INTU	3.23%	UNH	2.04%
1.0	BALL	3.11%	BAC	1.92%
1.0	SLV	2.87%	CMG	1.92%
1.0	OXY	2.75%	CCL	1.92%
1.0	TSLA	2.75%	GBTC	1.92%
1.0	BUD	2.75%	IRM	1.92%
1.0	ZTS	2.63%	PHM	1.92%
1.0	NFLX	2.63%	GOOGL	1.92%
1.0	SBNY	2.52%	FRCB	1.8%
1.0	SPY	2.28%	SBNY	1.8%
1.0	CMA	2.04%	THC	1.8%
1.0	JAZZ	1.92%	TMUS	1.8%
1.0	GWW	1.92%	TXN	1.8%
1.0	AA	1.92%	GE	1.8%
1.0	ISRG	1.92%	HSBC	1.8%
1.0	AMC	1.92%	AMGN	1.8%
1.0	BA	1.68%	USB	1.8%
1.0	SNY	1.68%	WYNN	1.8%
1.0	XOM	1.68%	TEVA	1.8%

All TMD: 10d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	MSTR	13.68%	VST	8.72%
10.0	SIVBQ	9.93%	NVDA	6.54%
10.0	VST	8.96%	AVGO	4.96%
10.0	META	7.87%	LLY	4.6%
10.0	GME	7.38%	MSTR	4.36%
10.0	AVGO	7.02%	TEVA	4.36%
10.0	CHTR	6.9%	GWW	4.24%
10.0	GWW	6.17%	TMUS	4.12%
10.0	ORCL	4.72%	TRGP	4.12%
10.0	ZTS	4.48%	X	4.0%
10.0	GILD	4.48%	GLD	4.0%
10.0	IRM	4.36%	ORCL	3.87%
10.0	ETRN	3.97%	TSLA	3.75%
10.0	ISRG	3.87%	CAH	3.75%
10.0	VZ	3.75%	GBTC	3.75%
10.0	TSLA	3.75%	MUB	3.64%
10.0	SBNY	3.68%	IRM	3.51%
10.0	TEVA	3.63%	CPRT	3.39%
10.0	EXPE	3.39%	AMGN	3.27%
10.0	XOM	3.39%	DHI	3.03%
10.0	AMC	3.39%	CMG	2.91%
10.0	HCA	2.91%	PWR	2.91%
10.0	CAH	2.91%	POST	2.91%
10.0	GNRC	2.91%	GILD	2.78%
10.0	TRGP	2.91%	THC	2.78%
10.0	NFLX	2.91%	WFC	2.66%
10.0	OXY	2.66%	ELAN	2.58%
10.0	WFC	2.54%	NFLX	2.54%
10.0	NVS	2.54%	BUD	2.54%
10.0	HLT	2.42%	MU	2.54%

All TMD: 21d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	MSTR	14.48%	VST	11.04%
21.0	CHTR	9.82%	NVDA	10.43%
21.0	SIVBQ	9.63%	MSTR	7.24%
21.0	VST	9.33%	TEVA	6.75%
21.0	GWW	8.83%	GE	6.5%
21.0	META	7.12%	LLY	6.01%
21.0	GME	6.75%	GBTC	5.52%
21.0	AVGO	5.4%	AVGO	5.52%
21.0	GILD	5.28%	CAH	5.52%
21.0	ISRG	4.91%	TSLA	5.52%
21.0	TRGP	4.79%	TRGP	5.4%
21.0	TEVA	4.29%	GWW	5.03%
21.0	WFC	4.29%	GILD	5.03%
21.0	ORCL	4.29%	MOS	4.91%
21.0	NVDA	4.05%	ETRN	4.55%
21.0	GNRC	3.8%	MUB	4.55%
21.0	CAH	3.31%	TMUS	4.54%
21.0	GS	3.19%	AMGN	4.54%
21.0	KALU	2.94%	X	4.17%
21.0	AAPL	2.82%	PWR	4.05%
21.0	NFLX	2.82%	WFC	4.05%
21.0	TSLA	2.7%	IRM	3.8%
21.0	OXY	2.7%	GS	3.68%
21.0	BUD	2.7%	DHI	3.68%
21.0	XOM	2.7%	THC	3.68%
21.0	LW	2.7%	BA	3.56%
21.0	NEM	2.7%	ACGL	3.56%
21.0	SNY	2.58%	BUD	3.44%
21.0	CMG	2.58%	ORCL	3.19%
21.0	VZ	2.58%	WYNN	3.07%

All TMD: 63d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	VST	13.58%	NVDA	20.96%
63.0	MSTR	10.35%	VST	20.05%
63.0	SIVBQ	7.78%	MSTR	13.84%
63.0	NVDA	7.24%	GBTC	12.03%
63.0	AVGO	7.12%	TRGP	10.74%
63.0	GME	7.12%	IRM	9.57%
63.0	IRM	6.99%	GILD	8.8%
63.0	TRGP	5.69%	LLY	8.8%
63.0	WFC	5.3%	TMUS	8.41%
63.0	BUD	4.4%	AVGO	7.37%
63.0	TMUS	4.4%	GLD	6.73%
63.0	LW	4.27%	GE	6.6%
63.0	EXPE	3.75%	ACGL	6.08%
63.0	ORCL	3.62%	ETRN	5.99%
63.0	META	3.62%	MUB	5.7%
63.0	CTLT	3.23%	MRK	5.69%
63.0	TEVA	2.98%	DHI	5.56%
63.0	OXY	2.98%	PHM	5.43%
63.0	GILD	2.85%	MU	5.3%
63.0	TSLA	2.72%	THC	5.17%
63.0	MSI	2.72%	TSLA	4.53%
63.0	GWW	2.07%	META	4.4%
63.0	ACGL	2.07%	WFC	4.27%
63.0	GOOGL	1.94%	BUD	4.01%
63.0	RIO	1.55%	CCL	3.88%
63.0	CHTR	1.42%	MS	3.75%
63.0	CAH	1.42%	ORCL	3.62%
63.0	BXP	1.42%	ABBV	3.23%
63.0	HCA	1.29%	AAPL	2.98%
63.0	KALU	1.29%	COST	2.85%

All TMD: 126d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	VST	32.54%	VST	36.2%
126.0	MSTR	21.41%	NVDA	33.52%
126.0	IRM	17.04%	TRGP	23.8%
126.0	TRGP	12.68%	MSTR	19.3%
126.0	META	11.41%	GE	17.18%
126.0	NVDA	10.28%	THC	17.18%
126.0	MSI	8.59%	TMUS	15.21%
126.0	LW	6.62%	IRM	15.07%
126.0	AVGO	6.48%	LLY	14.65%
126.0	EXPE	6.06%	GBTC	13.1%
126.0	TEVA	6.06%	GILD	12.96%
126.0	ACGL	3.66%	ACGL	12.54%
126.0	CAH	3.38%	MU	10.42%
126.0	OXY	3.24%	META	9.72%
126.0	TDG	2.82%	CMG	8.87%
126.0	TMUS	2.68%	PHM	7.75%
126.0	GOOGL	2.25%	AVGO	7.75%
126.0	GLD	1.97%	GLD	7.46%
126.0	THC	1.97%	ORCL	5.49%
126.0	GME	1.83%	MSI	5.35%
126.0	GILD	1.69%	X	5.35%
126.0	BALL	1.55%	TEVA	4.79%
126.0	VFC	1.55%	COST	4.79%
126.0	ETRN	1.02%	TDG	4.37%
126.0	GE	0.99%	TSLA	4.37%
126.0	ORCL	0.42%	PWR	4.37%
126.0	WDC	0.42%	WFC	3.8%
126.0	WFC	0.42%	WDC	3.66%
126.0	HCA	0.28%	JPM	3.52%
126.0	XOM	0.14%	NFLX	3.1%

All TMD: 252d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
252.0	VST	52.23%	NVDA	67.47%
252.0	MSTR	46.58%	VST	56.68%
252.0	NVDA	45.21%	AVGO	51.88%
252.0	AVGO	27.4%	MSTR	46.58%
252.0	IRM	26.03%	GE	42.64%
252.0	LLY	16.95%	LLY	42.29%
252.0	GWW	10.1%	GBTC	35.27%
252.0	TEVA	10.1%	PHM	31.68%
252.0	MSI	9.08%	TRGP	29.45%
252.0	TRGP	9.08%	GLD	26.03%
252.0	META	8.05%	COST	22.43%
252.0	LW	5.31%	TMUS	22.26%
252.0	GLD	4.28%	IRM	22.26%
252.0	WFC	2.91%	META	22.09%
252.0	THC	2.57%	ACGL	20.72%
252.0	TMUS	2.57%	MSI	17.47%
252.0	GOOGL	2.05%	TEVA	16.27%
252.0	GE	1.54%	THC	15.92%
252.0	TDG	1.54%	GS	14.04%
252.0	JPM	1.37%	JPM	11.82%
252.0	GNRC	1.03%	PWR	9.59%
252.0	ORLY	0.86%	CAH	8.9%
252.0	ORCL	0.86%	TDG	7.19%
252.0	CAH	0.68%	ETRN	7.18%
252.0	CMG	0.68%	ISRG	6.51%
252.0	NFLX	0.51%	T	6.51%
252.0	ACGL	0.34%	WFC	6.34%
252.0	GBTC	0.34%	NFLX	5.82%
252.0	GS	0.34%	MU	5.65%
252.0	XOM	0.17%	DHI	5.31%

P30D: 1d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	ZTS	15.79%	GLD	10.53%
1.0	AMC	10.53%	ZTS	5.26%
1.0	UNH	10.53%	QQQ	5.26%
1.0	VFC	10.53%	TEVA	5.26%
1.0	SLV	10.53%	T	5.26%
1.0	GILD	10.53%	SPY	5.26%
1.0	TSLA	10.53%	CNC	5.26%
1.0	BUD	10.53%	HLT	5.26%
1.0	AAP	10.53%	CSCO	5.26%
1.0	HCA	5.26%	SBUX	5.26%
1.0	NAVI	5.26%	HD	5.26%
1.0	MU	5.26%	CYH	5.26%
1.0	GME	5.26%	LVS	5.26%
1.0	GLD	5.26%	CCL	5.26%
1.0	HLT	5.26%	ELAN	5.26%
1.0	ELAN	5.26%	HCA	5.26%
1.0	INTU	5.26%	EXPE	5.26%
1.0	TEVA	5.26%	PRGO	5.26%
1.0	TFC	5.26%	FITB	5.26%
1.0	META	5.26%	NVS	5.26%
1.0	NEM	5.26%	NWL	5.26%
1.0	CYH	5.26%	OXY	5.26%
1.0	TXN	5.26%	GILD	5.26%
1.0	ADBE	5.26%	TFC	5.26%
1.0	VZ	5.26%	HYG	5.26%
1.0	AVGO	5.26%	KEY	5.26%
1.0	AMZN	5.26%	USB	5.26%
1.0	X	5.26%	AAPL	5.26%
1.0	WFC	5.26%	ZION	5.26%
1.0	VST	0.0%	META	5.26%

P30D: 10d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	TSLA	70.0%	AAP	60.0%
10.0	GILD	60.0%	X	50.0%
10.0	AAP	60.0%	CYH	30.0%
10.0	TXN	40.0%	ELAN	30.0%
10.0	HCA	30.0%	GILD	20.0%
10.0	ZTS	20.0%	INTU	10.0%
10.0	ELAN	20.0%	MOS	10.0%
10.0	ADBE	10.0%	NVS	0.0%
10.0	NEM	10.0%	NAVI	0.0%
10.0	GME	10.0%	NEM	0.0%
10.0	AMC	10.0%	NFLX	0.0%
10.0	UNH	10.0%	NVDA	0.0%
10.0	BUD	10.0%	ON	0.0%
10.0	MOS	0.0%	NWL	0.0%
10.0	LVS	0.0%	MU	0.0%
10.0	PCG	0.0%	ORCL	0.0%
10.0	OXY	0.0%	ORLY	0.0%
10.0	ORLY	0.0%	OXY	0.0%
10.0	ORCL	0.0%	PCG	0.0%
10.0	ON	0.0%	MUB	0.0%
10.0	NWL	0.0%	AA	0.0%
10.0	NVS	0.0%	MSTR	0.0%
10.0	NVDA	0.0%	MSI	0.0%
10.0	NFLX	0.0%	PEP	0.0%
10.0	LLY	0.0%	MS	0.0%
10.0	LUMN	0.0%	MRK	0.0%
10.0	NAVI	0.0%	MNST	0.0%
10.0	MRK	0.0%	META	0.0%
10.0	MUB	0.0%	LW	0.0%
10.0	MU	0.0%	LVS	0.0%

P90D: 1d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	ZTS	6.45%	GLD	9.68%
1.0	GILD	6.45%	HLT	6.45%
1.0	VZ	6.45%	SPY	4.84%
1.0	BUD	6.45%	TRGP	4.84%
1.0	UNH	6.45%	ORLY	4.84%
1.0	TSLA	6.45%	GT	4.84%
1.0	AVGO	4.84%	UNH	4.84%
1.0	HD	4.84%	HD	4.84%
1.0	META	4.84%	BA	4.84%
1.0	MU	4.84%	HSBC	4.84%
1.0	NEM	4.84%	TXN	4.84%
1.0	AMZN	4.84%	NVS	4.84%
1.0	AMC	4.84%	FIS	4.84%
1.0	VFC	4.84%	LVS	4.84%
1.0	HLT	3.23%	MSFT	4.84%
1.0	WDC	3.23%	FRA	3.23%
1.0	GLD	3.23%	GE	3.23%
1.0	GME	3.23%	FITB	3.23%
1.0	GNRC	3.23%	FCX	3.23%
1.0	TXN	3.23%	EXPE	3.23%
1.0	HON	3.23%	ELAN	3.23%
1.0	SLV	3.23%	PHM	3.23%
1.0	INTU	3.23%	QQQ	3.23%
1.0	AAP	3.23%	PWR	3.23%
1.0	THC	3.23%	ZTS	3.23%
1.0	CHTR	3.23%	OXY	3.23%
1.0	QCOM	3.23%	CYH	3.23%
1.0	FCX	3.23%	HON	3.23%
1.0	AA	3.23%	HYG	3.23%
1.0	ISRG	1.61%	INTC	3.23%

P90D: 10d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	TSLA	18.87%	MSFT	18.87%
10.0	META	18.87%	NFLX	18.87%
10.0	ELAN	16.98%	ELAN	16.98%
10.0	KALU	16.98%	HLT	15.09%
10.0	CHTR	16.98%	THC	13.21%
10.0	TXN	15.09%	AAP	11.32%
10.0	GILD	13.21%	HSBC	11.32%
10.0	AAP	11.32%	GLD	11.32%
10.0	UNH	11.32%	X	9.43%
10.0	WDC	11.32%	CAH	7.55%
10.0	KEY	9.43%	LLY	7.55%
10.0	HON	9.43%	PWR	7.55%
10.0	HCA	7.55%	FIS	7.55%
10.0	WFC	7.55%	CYH	7.55%
10.0	THC	7.55%	CHTR	7.55%
10.0	NEM	7.55%	META	7.55%
10.0	ORLY	5.66%	NEM	5.66%
10.0	MSFT	5.66%	MOS	5.66%
10.0	ABBV	5.66%	WYNN	5.66%
10.0	GS	5.66%	BA	5.66%
10.0	PWR	3.77%	KALU	3.77%
10.0	HSBC	3.77%	JAZZ	3.77%
10.0	GLD	3.77%	CPRT	3.77%
10.0	ZTS	3.77%	FCX	3.77%
10.0	MS	3.77%	ABBV	3.77%
10.0	AAPL	1.89%	VICI	3.77%
10.0	ADBE	1.89%	IRM	3.77%
10.0	BUD	1.89%	SPY	3.77%
10.0	MU	1.89%	GILD	3.77%
10.0	EXPE	1.89%	TRGP	3.77%

P90D: 21d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	CHTR	33.33%	MSFT	33.33%
21.0	WFC	23.81%	MOS	28.57%
21.0	TXN	21.43%	HLT	23.81%
21.0	KALU	21.43%	BA	23.81%
21.0	MU	21.43%	GLD	23.81%
21.0	HON	19.05%	NFLX	21.43%
21.0	KEY	19.05%	THC	21.43%
21.0	NEM	19.05%	PWR	21.43%
21.0	WDC	16.67%	ELAN	19.05%
21.0	THC	16.67%	CAH	19.05%
21.0	GE	14.29%	WYNN	16.67%
21.0	META	14.29%	GE	14.29%
21.0	ELAN	11.9%	TXN	9.52%
21.0	GS	11.9%	HSBC	9.52%
21.0	CAH	11.9%	KALU	9.52%
21.0	ZTS	11.9%	QQQ	9.52%
21.0	UNH	9.52%	CDNS	9.52%
21.0	BAC	9.52%	META	9.52%
21.0	TSLA	9.52%	LVS	9.52%
21.0	PWR	7.14%	SPY	7.14%
21.0	MSFT	7.14%	IRM	7.14%
21.0	AMZN	2.38%	UNH	7.14%
21.0	AMC	2.38%	CYH	7.14%
21.0	GLD	2.38%	BAC	7.14%
21.0	AAP	2.38%	CHTR	7.14%
21.0	MSTR	2.38%	AAP	7.14%
21.0	CSCO	2.38%	GS	4.76%
21.0	HSBC	2.38%	MSTR	2.38%
21.0	LW	0.0%	HON	2.38%
21.0	LVS	0.0%	INTU	2.38%

P365D: 1d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	AVGO	6.85%	MSTR	4.84%
1.0	VST	6.45%	WRK	4.55%
1.0	MSTR	4.44%	AVGO	4.44%
1.0	TSLA	4.44%	VST	4.44%
1.0	SLV	4.44%	UNH	3.63%
1.0	VZ	4.03%	PWR	3.63%
1.0	GILD	4.03%	CCL	3.63%
1.0	GME	4.03%	GLD	3.23%
1.0	HLT	4.03%	PHM	3.23%
1.0	NFLX	3.63%	TEVA	3.23%
1.0	META	3.23%	TMUS	3.23%
1.0	SBUX	3.23%	WYNN	3.23%
1.0	UNH	2.82%	TXN	3.23%
1.0	KEY	2.82%	JAZZ	3.23%
1.0	IRM	2.82%	TRGP	2.82%
1.0	ZTS	2.42%	TSLA	2.82%
1.0	BUD	2.42%	NVDA	2.82%
1.0	CMA	2.42%	ORCL	2.82%
1.0	CHTR	2.42%	WFC	2.82%
1.0	BAC	2.42%	HON	2.82%
1.0	EXPE	2.42%	AMAT	2.82%
1.0	ORCL	2.42%	HSBC	2.82%
1.0	VFC	2.42%	LVS	2.82%
1.0	GS	2.02%	T	2.42%
1.0	TXN	2.02%	CMG	2.42%
1.0	MU	1.61%	ORLY	2.42%
1.0	PWR	1.61%	GSK	2.42%
1.0	HD	1.61%	GT	2.42%
1.0	GSK	1.61%	THC	2.42%
1.0	GNRC	1.61%	HLT	2.42%

P365D: 10d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	CHTR	11.72%	TRGP	10.88%
10.0	TSLA	11.3%	TMUS	10.04%
10.0	VST	10.46%	VST	8.37%
10.0	VZ	10.04%	NFLX	7.95%
10.0	GILD	10.04%	TSLA	7.95%
10.0	META	9.62%	LUMN	7.11%
10.0	EXPE	9.21%	AVGO	7.11%
10.0	MSTR	5.86%	WFC	6.69%
10.0	SBUX	5.86%	CPRT	6.28%
10.0	TXN	5.86%	WYNN	5.86%
10.0	GS	5.44%	ORCL	5.86%
10.0	KALU	5.44%	MS	5.44%
10.0	WFC	5.02%	BUD	5.02%
10.0	BUD	4.6%	SBUX	5.02%
10.0	HON	4.6%	CHTR	5.02%
10.0	AVGO	4.18%	UNH	4.6%
10.0	BXP	4.18%	CAH	4.6%
10.0	CNC	4.18%	T	4.6%
10.0	CMA	4.18%	GS	4.6%
10.0	HD	3.77%	DHI	4.6%
10.0	ELAN	3.77%	LVS	4.6%
10.0	NEM	3.77%	MSTR	4.6%
10.0	AMGN	3.77%	TEVA	4.18%
10.0	HCA	3.77%	THC	4.18%
10.0	TRGP	3.35%	POST	4.18%
10.0	AAPL	3.35%	GILD	4.18%
10.0	VFC	3.35%	HON	4.18%
10.0	NFLX	3.35%	GBTC	4.18%
10.0	ABBV	2.93%	MSFT	4.18%
10.0	ORCL	2.51%	LLY	4.18%

P365D: 21d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	CHTR	22.37%	TMUS	15.35%
21.0	GILD	10.53%	TRGP	14.04%
21.0	MSTR	10.53%	VST	13.6%
21.0	WFC	10.09%	TSLA	11.84%
21.0	VST	10.09%	WYNN	10.96%
21.0	TSLA	9.65%	WFC	10.53%
21.0	VZ	8.77%	MSTR	10.53%
21.0	GS	7.89%	AVGO	10.09%
21.0	META	7.89%	LUMN	10.09%
21.0	BXP	5.26%	LVS	9.65%
21.0	ORCL	4.82%	TEVA	8.77%
21.0	TRGP	4.82%	GILD	8.77%
21.0	NEM	4.82%	SBUX	8.33%
21.0	BAC	4.39%	BUD	7.89%
21.0	TXN	3.95%	GBTC	7.46%
21.0	HD	3.95%	NFLX	7.46%
21.0	HON	3.95%	DHI	6.58%
21.0	KALU	3.95%	ABBV	6.58%
21.0	CNC	3.95%	UNH	6.14%
21.0	NFLX	3.95%	MSFT	6.14%
21.0	MU	3.95%	IRM	6.14%
21.0	CPRT	3.51%	GS	6.14%
21.0	BUD	3.51%	T	5.7%
21.0	AVGO	3.51%	CAH	5.7%
21.0	KEY	3.51%	PWR	5.7%
21.0	ABBV	3.51%	MOS	5.26%
21.0	AMGN	3.07%	HLT	4.82%
21.0	WDC	3.07%	ORCL	4.82%
21.0	THC	3.07%	COST	4.82%
21.0	GE	2.63%	BA	4.82%

P365D: 63d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	TMUS	18.28%	VST	29.03%
63.0	WFC	18.28%	TRGP	28.49%
63.0	BUD	18.28%	TMUS	27.42%
63.0	EXPE	12.9%	MSTR	20.97%
63.0	GILD	11.83%	IRM	20.97%
63.0	TSLA	11.29%	TSLA	17.74%
63.0	MSI	9.68%	WFC	17.74%
63.0	ORCL	8.06%	BUD	16.67%
63.0	VST	6.99%	MS	15.59%
63.0	BXP	5.91%	CCL	13.98%
63.0	HCA	5.38%	GLD	13.44%
63.0	HD	4.84%	LUMN	10.22%
63.0	IRM	2.69%	ORCL	8.06%
63.0	META	2.15%	DHI	6.99%
63.0	VFC	2.15%	T	6.45%
63.0	CMA	2.15%	CVS	5.91%
63.0	TRGP	2.15%	GBTC	5.91%
63.0	GLD	1.61%	HSBC	5.38%
63.0	CVS	1.61%	GILD	5.38%
63.0	MSTR	1.08%	VNO	5.38%
63.0	CYH	0.54%	MSI	4.84%
63.0	MSFT	0.0%	CSCO	3.76%
63.0	NVDA	0.0%	GWW	3.76%
63.0	OXY	0.0%	CPRT	3.23%
63.0	ORLY	0.0%	PHM	3.23%
63.0	LNC	0.0%	BMY	2.69%
63.0	ON	0.0%	NFLX	1.61%
63.0	NWL	0.0%	LVS	1.61%
63.0	NVS	0.0%	AVGO	1.08%
63.0	LQD	0.0%	HCA	1.08%

P365D: 126d

Results reflect ticker level average 99% OaR breakage (OaRBreak) across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	EXPE	29.27%	TRGP	55.28%
126.0	TRGP	21.14%	TMUS	53.66%
126.0	TMUS	15.45%	VST	45.53%
126.0	META	14.63%	GILD	26.02%
126.0	VFC	8.13%	NFLX	17.89%
126.0	GILD	5.69%	TSLA	16.26%
126.0	VST	4.88%	MSTR	15.45%
126.0	MSI	4.88%	GLD	13.01%
126.0	IRM	2.44%	WFC	10.57%
126.0	MSTR	1.63%	T	10.57%
126.0	GLD	0.81%	MS	8.94%
126.0	NVS	0.0%	CSCO	8.13%
126.0	NWL	0.0%	JPM	7.32%
126.0	NVDA	0.0%	HSBC	5.69%
126.0	ON	0.0%	ORCL	4.88%
126.0	ORCL	0.0%	CCL	4.88%
126.0	NEM	0.0%	IRM	4.07%
126.0	NAVI	0.0%	MSI	4.07%
126.0	MUB	0.0%	VNO	3.25%
126.0	MU	0.0%	BMY	2.44%
126.0	ORLY	0.0%	GS	2.44%
126.0	NFLX	0.0%	CAH	2.44%
126.0	AA	0.0%	HLT	0.81%
126.0	PCG	0.0%	ISRG	0.81%
126.0	MSFT	0.0%	EXPE	0.81%
126.0	MS	0.0%	AVGO	0.81%
126.0	MRK	0.0%	LW	0.0%
126.0	MOS	0.0%	ORLY	0.0%
126.0	MNST	0.0%	LQD	0.0%
126.0	LW	0.0%	ON	0.0%

Top 30 Tickers By ROLOBC

All TMD: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NVDA	0.55%	MSTR	0.47%
1.0	GBTC	0.52%	VST	0.29%
1.0	X	0.45%	NVDA	0.27%
1.0	MSTR	0.45%	GME	0.23%
1.0	VST	0.43%	GBTC	0.22%
1.0	GE	0.4%	AVGO	0.21%
1.0	AVGO	0.37%	PWR	0.17%
1.0	PWR	0.36%	NFLX	0.17%
1.0	LLY	0.34%	X	0.17%
1.0	TDG	0.29%	GE	0.17%
1.0	TSLA	0.28%	LLY	0.15%
1.0	CAH	0.28%	THC	0.14%
1.0	TRGP	0.27%	CAH	0.14%
1.0	CCL	0.27%	TRGP	0.14%
1.0	THC	0.24%	META	0.13%
1.0	NFLX	0.24%	TEVA	0.12%
1.0	CDNS	0.23%	TDG	0.12%
1.0	GME	0.23%	ETRN	0.12%
1.0	ORLY	0.23%	IRM	0.11%
1.0	AZO	0.21%	ORCL	0.11%
1.0	CMG	0.2%	TMUS	0.11%
1.0	TMUS	0.2%	GWW	0.11%
1.0	HLT	0.19%	ISRG	0.1%
1.0	PCG	0.18%	CDNS	0.1%
1.0	MSFT	0.18%	ACGL	0.1%
1.0	JPM	0.18%	ORLY	0.1%
1.0	COST	0.18%	PHM	0.1%
1.0	HCA	0.17%	COST	0.1%
1.0	IRM	0.17%	TSLA	0.09%
1.0	ETRN	0.17%	CCL	0.09%

All TMD: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NVDA	5.98%	MSTR	4.85%
10.0	MSTR	5.1%	B	4.18%
10.0	GBTC	4.47%	VST	2.9%
10.0	B	4.13%	NVDA	2.66%
10.0	LLY	3.89%	GBTC	2.14%
10.0	VST	3.79%	AVGO	2.03%
10.0	TSLA	3.39%	GME	1.99%
10.0	AVGO	3.3%	NFLX	1.77%
10.0	CCL	2.93%	PWR	1.67%
10.0	PWR	2.9%	GE	1.6%
10.0	GE	2.58%	LLY	1.55%
10.0	AZO	2.2%	META	1.54%
10.0	THC	2.12%	X	1.43%
10.0	TEVA	2.0%	CAH	1.43%
10.0	CAH	1.94%	ETRN	1.41%
10.0	PHM	1.94%	TRGP	1.38%
10.0	COST	1.89%	THC	1.33%
10.0	X	1.8%	TEVA	1.32%
10.0	TDG	1.78%	TDG	1.14%
10.0	ACGL	1.78%	IRM	1.12%
10.0	PCG	1.77%	CDNS	1.12%
10.0	TRGP	1.68%	GWW	1.11%
10.0	NFLX	1.66%	TSLA	1.06%
10.0	CDNS	1.63%	ORCL	1.04%
10.0	DHI	1.63%	PHM	1.03%
10.0	TMUS	1.54%	ISRG	1.01%
10.0	JPM	1.51%	ORLY	1.0%
10.0	MSFT	1.5%	TMUS	0.94%
10.0	ORLY	1.48%	COST	0.94%
10.0	T	1.39%	ACGL	0.93%

All TMD: 21d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	MSTR	13.14%	MSTR	10.93%
21.0	NVDA	12.0%	VST	6.17%
21.0	GBTC	10.38%	NVDA	5.64%
21.0	VST	9.24%	GBTC	4.6%
21.0	TSLA	8.15%	AVGO	4.17%
21.0	ETRN	7.53%	NFLX	3.86%
21.0	CCL	6.13%	PWR	3.53%
21.0	PWR	5.97%	ETRN	3.5%
21.0	AVGO	5.93%	META	3.43%
21.0	LLY	5.92%	GE	3.37%
21.0	CDNS	5.13%	LLY	3.31%
21.0	GE	5.04%	GME	3.14%
21.0	AZO	4.34%	CAH	2.99%
21.0	THC	4.09%	TRGP	2.89%
21.0	CAH	4.09%	TEVA	2.85%
21.0	PHM	4.03%	X	2.81%
21.0	TMUS	3.99%	THC	2.7%
21.0	PCG	3.98%	GWW	2.4%
21.0	X	3.94%	IRM	2.36%
21.0	TDG	3.67%	TSLA	2.36%
21.0	DHI	3.49%	CDNS	2.35%
21.0	NFLX	3.44%	TDG	2.34%
21.0	TRGP	3.39%	PHM	2.29%
21.0	COST	3.36%	ORCL	2.26%
21.0	TEVA	3.36%	ISRG	2.19%
21.0	MSFT	3.27%	ORLY	2.09%
21.0	AMAT	3.14%	COST	2.04%
21.0	JPM	3.04%	ACGL	2.0%
21.0	HLT	2.9%	TMUS	1.96%
21.0	AMD	2.87%	CPRT	1.94%

All TMD: 63d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	45.77%	MSTR	30.76%
63.0	GBTC	41.32%	VST	18.67%
63.0	NVDA	38.2%	NVDA	18.34%
63.0	VST	26.27%	GBTC	14.7%
63.0	CCL	20.33%	NFLX	12.13%
63.0	LLY	19.97%	META	11.72%
63.0	PWR	19.7%	AVGO	11.61%
63.0	GE	19.41%	ETRN	10.28%
63.0	ETRN	18.76%	LLY	10.14%
63.0	PHM	17.81%	GE	10.08%
63.0	NFLX	14.86%	TRGP	8.84%
63.0	AVGO	14.83%	PWR	8.34%
63.0	META	12.29%	CAH	8.18%
63.0	TMUS	12.2%	PHM	8.15%
63.0	CAH	12.07%	THC	7.17%
63.0	TSLA	11.76%	TDG	7.0%
63.0	TRGP	11.66%	TEVA	6.77%
63.0	PCG	11.4%	GWW	6.61%
63.0	ACGL	10.95%	ISRG	6.46%
63.0	THC	10.8%	ACGL	6.31%
63.0	JPM	10.55%	ORLY	6.19%
63.0	TDG	10.46%	TMUS	6.17%
63.0	X	10.4%	ORCL	6.17%
63.0	COST	10.23%	CPRT	5.79%
63.0	CDNS	10.04%	IRM	5.7%
63.0	GILD	9.41%	CDNS	5.67%
63.0	ORLY	9.31%	MSI	5.56%
63.0	AZO	9.16%	CMG	5.47%
63.0	T	9.05%	GILD	5.45%
63.0	CMG	8.64%	X	5.36%

All TMD: 126d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	GBTC	106.38%	MSTR	75.99%
126.0	NVDA	101.63%	NVDA	50.54%
126.0	MSTR	89.82%	VST	44.6%
126.0	VST	57.77%	GBTC	41.36%
126.0	GE	49.52%	META	30.18%
126.0	PHM	47.02%	NFLX	29.96%
126.0	LLY	46.72%	AVGO	27.93%
126.0	NFLX	46.11%	GE	24.67%
126.0	CCL	45.93%	LLY	21.72%
126.0	THC	37.55%	TRGP	21.33%
126.0	AVGO	37.25%	PHM	20.21%
126.0	PWR	36.78%	THC	18.94%
126.0	META	33.26%	ETRN	18.49%
126.0	TSLA	29.25%	PWR	18.48%
126.0	TRGP	28.79%	CAH	17.11%
126.0	ORCL	28.26%	ISRG	16.57%
126.0	JPM	28.15%	TEVA	16.51%
126.0	ACGL	28.12%	TDG	16.26%
126.0	DHI	27.9%	ORCL	16.03%
126.0	AMZN	27.15%	GWW	15.46%
126.0	VNO	26.98%	ACGL	14.63%
126.0	COST	26.8%	IRM	14.54%
126.0	CMG	26.78%	CCL	14.21%
126.0	PCG	26.72%	CMG	13.84%
126.0	ISRG	26.25%	MSI	13.83%
126.0	CAH	25.77%	CPRT	13.68%
126.0	MU	25.73%	ORLY	13.42%
126.0	TMUS	25.62%	JPM	13.35%
126.0	X	24.77%	DHI	13.15%
126.0	ETRN	24.38%	COST	12.92%

All TMD: 252d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	GBTC	280.32%	MSTR	229.44%
252.0	NVDA	260.16%	NVDA	151.19%
252.0	MSTR	257.62%	VST	127.47%
252.0	GE	164.36%	GBTC	123.01%
252.0	PHM	148.02%	META	82.56%
252.0	VST	131.45%	AVGO	73.31%
252.0	META	119.0%	NFLX	67.91%
252.0	THC	117.14%	GE	61.52%
252.0	NFLX	113.26%	PHM	58.63%
252.0	CCL	110.04%	LLY	56.85%
252.0	TRGP	102.49%	THC	53.06%
252.0	AVGO	102.01%	TRGP	50.73%
252.0	LLY	89.0%	PWR	42.43%
252.0	MU	74.33%	TDG	41.72%
252.0	AMAT	73.28%	TEVA	40.35%
252.0	ORCL	72.44%	ISRG	40.16%
252.0	PWR	70.74%	IRM	38.04%
252.0	X	68.13%	ORCL	37.69%
252.0	ACGL	66.85%	DHI	36.88%
252.0	ISRG	66.78%	ACGL	36.16%
252.0	DHI	66.32%	ETRN	35.78%
252.0	TDG	63.86%	CCL	35.77%
252.0	COST	61.12%	GWW	35.03%
252.0	QQQ	59.86%	CMG	34.46%
252.0	VNO	58.58%	CPRT	32.34%
252.0	CDNS	57.41%	LEN	32.07%
252.0	AMZN	56.11%	COST	31.98%
252.0	CMG	55.16%	CAH	31.6%
252.0	PCG	54.4%	MSI	31.23%
252.0	TEVA	54.25%	AMAT	31.14%

P30D: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	AAP	5.33%	AAP	2.61%
1.0	CYH	4.94%	ELAN	1.87%
1.0	ELAN	3.53%	CYH	1.79%
1.0	MOS	2.72%	AMC	1.73%
1.0	NVDA	2.71%	X	1.18%
1.0	CCL	2.48%	TSLA	1.04%
1.0	X	2.2%	INTU	0.97%
1.0	INTU	2.1%	CCL	0.95%
1.0	LW	1.44%	AVGO	0.93%
1.0	WDC	1.4%	MOS	0.91%
1.0	WYNN	1.39%	NVDA	0.9%
1.0	GE	1.31%	GE	0.9%
1.0	LVS	1.3%	MU	0.86%
1.0	THC	1.08%	VST	0.8%
1.0	AMD	1.08%	WDC	0.78%
1.0	ORCL	1.07%	THC	0.71%
1.0	CSCO	1.03%	UAA	0.64%
1.0	BA	0.99%	AMD	0.63%
1.0	CSTM	0.95%	BA	0.6%
1.0	EXPE	0.92%	TXN	0.59%
1.0	QQQ	0.92%	GME	0.53%
1.0	BIIB	0.89%	WYNN	0.52%
1.0	VST	0.88%	ORCL	0.51%
1.0	GBTC	0.86%	HCA	0.49%
1.0	GS	0.81%	CSTM	0.49%
1.0	LUMN	0.8%	ADBE	0.46%
1.0	AVGO	0.72%	META	0.45%
1.0	UAA	0.68%	LW	0.44%
1.0	PRGO	0.63%	LVS	0.43%
1.0	PWR	0.6%	AMZN	0.43%

P30D: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	AAP	42.13%	AAP	32.99%
10.0	NVDA	33.61%	AMC	20.37%
10.0	X	29.2%	CYH	16.7%
10.0	MOS	28.83%	TSLA	14.9%
10.0	CYH	25.62%	ELAN	13.57%
10.0	BIIB	19.03%	X	12.81%
10.0	ELAN	16.79%	NVDA	11.23%
10.0	CCL	16.66%	UAA	11.14%
10.0	UAA	14.51%	MU	10.79%
10.0	GOOGL	12.82%	WDC	10.46%
10.0	WDC	12.61%	GME	10.26%
10.0	AA	12.31%	MOS	10.17%
10.0	GE	11.72%	GE	10.09%
10.0	GBTC	11.67%	CCL	9.87%
10.0	INTU	11.43%	AVGO	9.45%
10.0	THC	11.37%	VST	9.43%
10.0	CSTM	9.97%	INTU	8.4%
10.0	MU	9.18%	THC	7.83%
10.0	AMD	9.14%	GILD	7.6%
10.0	ADBE	8.69%	AMD	7.46%
10.0	WYNN	8.32%	GBTC	7.31%
10.0	VST	8.09%	ADBE	6.66%
10.0	BA	7.72%	AA	6.57%
10.0	GS	7.56%	TXN	6.54%
10.0	AMC	7.15%	BIIB	6.34%
10.0	TSLA	6.79%	GOOGL	6.3%
10.0	NWL	6.49%	HCA	5.8%
10.0	NFLX	6.44%	BA	5.47%
10.0	LW	6.14%	CSTM	5.18%
10.0	CSCO	6.06%	GS	4.93%

P90D: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	MOS	2.22%	MSTR	0.82%
1.0	CYH	1.76%	AAP	0.75%
1.0	AAP	1.58%	MOS	0.74%
1.0	GT	1.45%	X	0.61%
1.0	VST	1.44%	THC	0.55%
1.0	X	1.33%	PWR	0.55%
1.0	MSTR	1.29%	VST	0.53%
1.0	TSLA	1.19%	AVGO	0.49%
1.0	NVDA	1.05%	GT	0.49%
1.0	CDNS	1.02%	TSLA	0.47%
1.0	GE	0.95%	CYH	0.47%
1.0	PWR	0.89%	GME	0.45%
1.0	HCA	0.86%	INTU	0.4%
1.0	NFLX	0.78%	NEM	0.39%
1.0	ELAN	0.75%	ELAN	0.39%
1.0	CSTM	0.75%	NFLX	0.38%
1.0	CAH	0.74%	BA	0.38%
1.0	MSFT	0.74%	GBTC	0.36%
1.0	INTU	0.73%	GE	0.36%
1.0	AMD	0.71%	NVDA	0.35%
1.0	THC	0.7%	HCA	0.35%
1.0	NEM	0.69%	AMC	0.34%
1.0	LW	0.65%	CDNS	0.33%
1.0	AVGO	0.61%	CAH	0.3%
1.0	MNST	0.59%	CSTM	0.3%
1.0	GBTC	0.58%	MSFT	0.3%
1.0	AZO	0.57%	AMD	0.29%
1.0	CCL	0.55%	BUD	0.25%
1.0	BA	0.52%	MNST	0.25%
1.0	TDG	0.48%	WDC	0.24%

P90D: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	MOS	22.68%	MSTR	7.98%
10.0	MSTR	15.24%	CYH	7.91%
10.0	CYH	12.06%	MOS	7.69%
10.0	NVDA	11.29%	TSLA	6.89%
10.0	VST	9.12%	PWR	6.47%
10.0	X	9.07%	VST	6.26%
10.0	NFLX	8.82%	THC	6.08%
10.0	BA	8.36%	BA	5.58%
10.0	CDNS	7.83%	NFLX	5.37%
10.0	PWR	7.78%	GME	5.37%
10.0	GT	7.49%	ELAN	5.18%
10.0	CSTM	7.03%	CDNS	5.14%
10.0	GBTC	6.87%	X	4.83%
10.0	AAP	6.84%	GBTC	4.74%
10.0	THC	6.81%	AVGO	4.69%
10.0	GE	5.84%	AAP	4.62%
10.0	WYNN	5.74%	WDC	4.29%
10.0	TSLA	5.68%	B	4.18%
10.0	AVGO	5.55%	GE	4.1%
10.0	CAH	5.29%	GT	3.95%
10.0	AMD	5.26%	CAH	3.85%
10.0	IRM	5.14%	NVDA	3.77%
10.0	FIS	4.89%	NEM	3.72%
10.0	MSFT	4.52%	HCA	3.45%
10.0	CCL	4.51%	MSFT	3.37%
10.0	NEM	4.44%	INTU	3.24%
10.0	B	4.13%	AMD	3.2%
10.0	HCA	3.99%	CCL	2.79%
10.0	GLD	3.86%	IRM	2.77%
10.0	PCG	3.8%	MNST	2.69%

P90D: 21d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	MOS	44.15%	CYH	17.82%
21.0	MSTR	33.21%	MSTR	17.78%
21.0	CYH	31.68%	MOS	14.72%
21.0	GT	29.44%	PWR	14.7%
21.0	CDNS	23.66%	TSLA	13.66%
21.0	VST	21.54%	THC	12.97%
21.0	PWR	19.71%	VST	12.53%
21.0	NVDA	19.13%	NFLX	12.0%
21.0	BA	17.07%	CDNS	11.67%
21.0	NFLX	16.99%	AVGO	10.89%
21.0	THC	13.86%	GBTC	10.58%
21.0	IRM	13.08%	ELAN	10.53%
21.0	GBTC	12.81%	GME	10.49%
21.0	TSLA	12.65%	BA	10.23%
21.0	AVGO	12.57%	GT	10.14%
21.0	MSFT	12.49%	WDC	8.6%
21.0	WYNN	12.02%	MSFT	8.13%
21.0	CSTM	11.71%	CAH	8.06%
21.0	HCA	10.44%	NEM	7.08%
21.0	AMD	10.44%	GE	6.97%
21.0	CAH	10.21%	IRM	6.51%
21.0	TEVA	9.88%	NVDA	6.47%
21.0	ELAN	9.27%	HCA	6.3%
21.0	COST	8.82%	CSTM	6.16%
21.0	AMAT	8.6%	CHTR	6.16%
21.0	GWW	7.85%	X	6.16%
21.0	QQQ	7.84%	INTU	5.9%
21.0	X	7.75%	CPRT	5.39%
21.0	FIS	7.49%	GLD	4.99%
21.0	GLD	6.89%	TEVA	4.9%

P365D: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	1.06%	MSTR	0.52%
1.0	TSLA	0.85%	TSLA	0.38%
1.0	AVGO	0.77%	LUMN	0.35%
1.0	VST	0.69%	VST	0.33%
1.0	CCL	0.63%	AVGO	0.32%
1.0	T	0.54%	NFLX	0.28%
1.0	VNO	0.53%	GILD	0.24%
1.0	GE	0.47%	GME	0.21%
1.0	NFLX	0.46%	VNO	0.21%
1.0	VFC	0.45%	CCL	0.2%
1.0	TRGP	0.4%	GE	0.19%
1.0	CAH	0.37%	X	0.19%
1.0	GILD	0.35%	EXPE	0.19%
1.0	CYH	0.35%	CAH	0.19%
1.0	ORLY	0.33%	T	0.19%
1.0	AZO	0.33%	GBTC	0.18%
1.0	COST	0.33%	ORCL	0.17%
1.0	NVDA	0.32%	CHTR	0.16%
1.0	MS	0.32%	ORLY	0.15%
1.0	JPM	0.31%	TMUS	0.15%
1.0	INTU	0.31%	META	0.15%
1.0	GBTC	0.31%	ISRG	0.15%
1.0	X	0.31%	TRGP	0.15%
1.0	CSCO	0.31%	GLD	0.14%
1.0	BMY	0.3%	INTU	0.14%
1.0	HCA	0.3%	GS	0.14%
1.0	MOS	0.28%	NVDA	0.13%
1.0	JAZZ	0.27%	MS	0.13%
1.0	EXPE	0.27%	CSCO	0.13%
1.0	GLD	0.27%	THC	0.13%

P365D: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	16.14%	MSTR	5.41%
10.0	MSTR	8.93%	LUMN	5.05%
10.0	VST	6.05%	B	4.18%
10.0	AVGO	5.77%	TSLA	3.96%
10.0	TSLA	5.54%	VST	3.48%
10.0	T	5.34%	NFLX	2.83%
10.0	CCL	5.15%	AVGO	2.68%
10.0	NFLX	4.2%	GILD	2.31%
10.0	B	4.13%	VNO	2.12%
10.0	MOS	3.98%	CAH	1.95%
10.0	TRGP	3.17%	CHTR	1.93%
10.0	CAH	3.05%	CCL	1.92%
10.0	NVDA	2.93%	GBTC	1.9%
10.0	COST	2.86%	T	1.88%
10.0	AZO	2.82%	GE	1.88%
10.0	GBTC	2.72%	EXPE	1.64%
10.0	JPM	2.69%	TRGP	1.57%
10.0	WYNN	2.57%	GLD	1.49%
10.0	WFC	2.44%	ORLY	1.46%
10.0	CSCO	2.39%	GS	1.45%
10.0	GLD	2.33%	MS	1.45%
10.0	VNO	2.33%	CSCO	1.44%
10.0	TMUS	2.33%	TMUS	1.42%
10.0	GE	2.17%	JPM	1.38%
10.0	GT	2.08%	HSBC	1.38%
10.0	GILD	2.03%	CYH	1.36%
10.0	MS	1.98%	AZO	1.34%
10.0	BMY	1.89%	X	1.34%
10.0	GWW	1.85%	META	1.34%
10.0	BUD	1.74%	ISRG	1.32%

P365D: 21d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	LUMN	38.57%	MSTR	12.63%
21.0	MSTR	23.03%	LUMN	11.92%
21.0	VST	14.63%	TSLA	7.74%
21.0	VNO	10.03%	VST	7.34%
21.0	T	9.92%	NFLX	5.8%
21.0	TSLA	9.62%	AVGO	4.61%
21.0	AVGO	9.31%	VNO	4.46%
21.0	NFLX	7.79%	GILD	4.45%
21.0	TRGP	6.92%	GBTC	4.22%
21.0	MS	6.84%	CAH	4.05%
21.0	MOS	6.6%	T	3.97%
21.0	CCL	6.48%	CHTR	3.9%
21.0	TMUS	6.26%	GE	3.57%
21.0	CAH	6.09%	CCL	3.52%
21.0	GBTC	6.01%	GLD	3.26%
21.0	CYH	5.95%	TMUS	3.25%
21.0	NVDA	5.47%	EXPE	3.24%
21.0	CSCO	4.77%	CYH	3.07%
21.0	COST	4.76%	TRGP	3.05%
21.0	WFC	4.75%	MS	2.9%
21.0	JPM	4.47%	GS	2.86%
21.0	GLD	4.45%	HSBC	2.81%
21.0	GT	4.35%	ORLY	2.81%
21.0	ZION	4.07%	CSCO	2.81%
21.0	AZO	4.05%	JPM	2.79%
21.0	GILD	3.98%	NEM	2.73%
21.0	BMY	3.97%	WFC	2.73%
21.0	BUD	3.65%	PWR	2.65%
21.0	GWW	3.57%	META	2.63%
21.0	SBUX	3.32%	ISRG	2.6%

P365D: 63d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	98.08%	MSTR	46.67%
63.0	LUMN	85.29%	LUMN	25.22%
63.0	VST	52.48%	VST	22.51%
63.0	T	37.33%	TSLA	17.74%
63.0	CCL	32.22%	NFLX	16.68%
63.0	GBTC	27.41%	GILD	15.17%
63.0	NFLX	26.72%	GBTC	14.79%
63.0	VNO	25.29%	T	13.35%
63.0	TRGP	23.15%	VNO	11.85%
63.0	MS	22.63%	TMUS	11.8%
63.0	TSLA	20.21%	TRGP	11.77%
63.0	HSBC	18.98%	CAH	11.38%
63.0	CAH	18.88%	EXPE	10.53%
63.0	TMUS	18.82%	CCL	10.42%
63.0	CSCO	18.65%	GLD	9.84%
63.0	JPM	17.31%	HSBC	9.58%
63.0	GLD	15.84%	AVGO	8.92%
63.0	GILD	15.65%	ORLY	8.86%
63.0	AVGO	15.48%	CSCO	8.73%
63.0	ORLY	14.94%	WFC	8.39%
63.0	GE	13.06%	GE	7.96%
63.0	NWL	12.72%	AZO	7.27%
63.0	BMY	11.78%	MS	7.1%
63.0	WFC	11.24%	BMY	7.1%
63.0	PWR	10.96%	MNST	6.67%
63.0	AZO	9.74%	JPM	6.31%
63.0	MNST	9.34%	META	6.22%
63.0	GS	9.22%	GS	5.85%
63.0	LVS	8.56%	CHTR	5.73%
63.0	EXPE	8.46%	CVS	5.53%

P365D: 126d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	MSTR	130.94%	MSTR	101.1%
126.0	VST	101.89%	VST	51.44%
126.0	LUMN	89.68%	TSLA	47.03%
126.0	GBTC	85.99%	NFLX	41.0%
126.0	CCL	83.25%	GBTC	39.07%
126.0	TSLA	82.2%	GILD	30.43%
126.0	T	72.67%	TRGP	27.94%
126.0	NFLX	65.58%	CCL	27.04%
126.0	MS	56.19%	AVGO	26.61%
126.0	VNO	52.59%	EXPE	26.58%
126.0	TRGP	52.56%	T	25.56%
126.0	JPM	49.1%	LUMN	23.18%
126.0	HSBC	42.28%	TMUS	22.99%
126.0	CAH	40.74%	WFC	22.88%
126.0	TMUS	39.19%	CAH	22.49%
126.0	CSCO	39.12%	HSBC	22.32%
126.0	GILD	38.34%	VNO	21.33%
126.0	AVGO	33.9%	CSCO	19.91%
126.0	AZO	33.19%	MS	18.66%
126.0	BMY	30.51%	ORLY	17.83%
126.0	CTLT	30.45%	GLD	17.14%
126.0	WFC	29.65%	JPM	17.02%
126.0	GS	28.12%	GS	16.89%
126.0	ORLY	26.95%	META	16.72%
126.0	GLD	26.18%	BMY	15.54%
126.0	AMZN	22.24%	GME	15.31%
126.0	GE	21.6%	AZO	14.73%
126.0	CPRT	20.47%	ISRG	14.38%
126.0	COST	18.4%	VFC	14.01%
126.0	ISRG	18.36%	GE	13.6%

Bottom 30 Tickers By ROLOBC

All TMD: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	SIVBQ	-0.91%	SIVBQ	-0.78%
1.0	NWL	-0.48%	SBNY	-0.45%
1.0	IEP	-0.48%	FRCB	-0.23%
1.0	SBNY	-0.39%	IEP	-0.18%
1.0	LUMN	-0.28%	VFC	-0.13%
1.0	FRCB	-0.19%	AMC	-0.13%
1.0	GNRC	-0.18%	AAP	-0.13%
1.0	BIIB	-0.18%	NWL	-0.12%
1.0	CZR	-0.17%	BHC	-0.11%
1.0	INTC	-0.17%	LUMN	-0.1%
1.0	UAA	-0.16%	B	-0.08%
1.0	BXP	-0.14%	CLF	-0.07%
1.0	BALL	-0.12%	CZR	-0.07%
1.0	AAP	-0.12%	UAA	-0.07%
1.0	CLF	-0.12%	INTC	-0.06%
1.0	AMC	-0.11%	TLT	-0.05%
1.0	BHC	-0.1%	BALL	-0.05%
1.0	FSUGY	-0.1%	BIIB	-0.04%
1.0	PEP	-0.09%	LNC	-0.04%
1.0	TLT	-0.08%	CVS	-0.04%
1.0	FIS	-0.08%	GNRC	-0.04%
1.0	ZTS	-0.08%	BXP	-0.04%
1.0	KHC	-0.08%	UNH	-0.03%
1.0	CTLT	-0.07%	ELAN	-0.03%
1.0	LNC	-0.07%	TFC	-0.03%
1.0	GT	-0.06%	CMCSA	-0.03%
1.0	VZ	-0.06%	AA	-0.03%
1.0	ELAN	-0.05%	PEP	-0.03%
1.0	UNH	-0.05%	KHC	-0.03%
1.0	BHP	-0.05%	GSK	-0.03%

All TMD: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	SIVBQ	-5.34%	SBNY	-4.05%
10.0	IEP	-3.78%	SIVBQ	-3.9%
10.0	SBNY	-3.67%	FRCB	-2.19%
10.0	NWL	-3.09%	IEP	-1.67%
10.0	CZR	-2.12%	AMC	-1.53%
10.0	CLF	-2.09%	AAP	-1.45%
10.0	AMC	-1.81%	VFC	-1.33%
10.0	LUMN	-1.79%	NWL	-1.17%
10.0	FRCB	-1.67%	BHC	-0.98%
10.0	AAP	-1.63%	CZR	-0.8%
10.0	VFC	-1.41%	LUMN	-0.79%
10.0	GNRC	-1.36%	UAA	-0.79%
10.0	CYH	-1.3%	CLF	-0.65%
10.0	BIIB	-1.17%	INTC	-0.57%
10.0	BXP	-0.96%	TLT	-0.54%
10.0	LNC	-0.93%	LNC	-0.49%
10.0	UAA	-0.85%	BALL	-0.49%
10.0	RIO	-0.75%	BIIB	-0.49%
10.0	VZ	-0.73%	GNRC	-0.44%
10.0	BHP	-0.7%	CVS	-0.44%
10.0	FSUGY	-0.69%	BXP	-0.44%
10.0	BALL	-0.65%	ELAN	-0.41%
10.0	INTC	-0.61%	ZION	-0.41%
10.0	BHC	-0.54%	AA	-0.39%
10.0	PEP	-0.48%	UNH	-0.35%
10.0	TLT	-0.46%	TFC	-0.33%
10.0	ZTS	-0.45%	CMCSA	-0.3%
10.0	BBY	-0.44%	GSK	-0.3%
10.0	ON	-0.41%	BMY	-0.29%
10.0	HD	-0.4%	CMA	-0.28%

All TMD: 21d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	SIVBQ	-11.42%	SBNY	-11.16%
21.0	SBNY	-8.31%	SIVBQ	-9.37%
21.0	IEP	-7.13%	FRCB	-6.02%
21.0	NWL	-6.05%	AMC	-3.99%
21.0	CZR	-4.53%	IEP	-3.56%
21.0	FRCB	-4.48%	AAP	-3.39%
21.0	AAP	-4.05%	VFC	-2.78%
21.0	CLF	-3.72%	NWL	-2.61%
21.0	GNRC	-3.68%	BHC	-2.3%
21.0	VFC	-3.45%	CZR	-1.76%
21.0	BALL	-2.04%	UAA	-1.66%
21.0	KEY	-1.97%	LUMN	-1.36%
21.0	LUMN	-1.97%	INTC	-1.28%
21.0	BIIB	-1.96%	CLF	-1.27%
21.0	AMC	-1.95%	AA	-1.22%
21.0	BXP	-1.82%	LNC	-1.14%
21.0	BHC	-1.67%	TLT	-1.1%
21.0	BBY	-1.58%	BALL	-1.06%
21.0	INTC	-1.57%	GNRC	-1.05%
21.0	UAA	-1.56%	BIIB	-1.04%
21.0	RIO	-1.44%	BXP	-1.01%
21.0	LNC	-1.37%	ELAN	-0.91%
21.0	FSUGY	-1.22%	CVS	-0.84%
21.0	TLT	-1.19%	TFC	-0.68%
21.0	VZ	-1.12%	ZION	-0.67%
21.0	CYH	-1.11%	BMY	-0.64%
21.0	CVS	-1.08%	CMCSA	-0.6%
21.0	ZION	-1.04%	GSK	-0.58%
21.0	BAC	-1.01%	CMA	-0.58%
21.0	FITB	-0.97%	CNC	-0.55%

All TMD: 63d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	SIVBQ	-51.27%	SBNY	-37.59%
63.0	SBNY	-33.22%	SIVBQ	-33.73%
63.0	IEP	-26.85%	FRCB	-24.04%
63.0	FRCB	-25.04%	AMC	-16.03%
63.0	NWL	-16.97%	IEP	-11.93%
63.0	CLF	-14.6%	AAP	-11.2%
63.0	GNRC	-14.58%	NWL	-8.22%
63.0	AAP	-14.04%	VFC	-8.1%
63.0	BHC	-12.93%	CLF	-6.35%
63.0	VFC	-12.15%	CZR	-6.18%
63.0	AMC	-11.1%	BHC	-5.97%
63.0	UAA	-10.58%	AA	-5.26%
63.0	CYH	-9.44%	UAA	-4.96%
63.0	CZR	-8.65%	MOS	-4.6%
63.0	AA	-8.42%	ELAN	-4.56%
63.0	INTC	-8.0%	INTC	-4.47%
63.0	BALL	-7.36%	LUMN	-3.73%
63.0	MOS	-6.93%	LNC	-3.48%
63.0	CVS	-6.63%	BALL	-3.46%
63.0	KEY	-4.94%	GNRC	-3.4%
63.0	BBY	-4.77%	BXP	-3.35%
63.0	BHP	-4.71%	BIIB	-2.91%
63.0	FSUGY	-4.58%	TLT	-2.9%
63.0	PRGO	-4.14%	CVS	-2.72%
63.0	LNC	-4.09%	CSTM	-2.54%
63.0	TLT	-3.83%	BHP	-2.29%
63.0	ZION	-3.76%	CNC	-2.17%
63.0	LUMN	-3.22%	PRGO	-2.07%
63.0	VZ	-3.1%	KHC	-1.92%
63.0	GT	-3.1%	TFC	-1.84%

All TMD: 126d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	FRCB	-125.62%	SIVBQ	-65.15%
126.0	SIVBQ	-88.65%	SBNY	-64.8%
126.0	SBNY	-70.11%	FRCB	-51.17%
126.0	IEP	-50.58%	AMC	-29.5%
126.0	NWL	-37.43%	IEP	-22.97%
126.0	AMC	-29.03%	AAP	-20.71%
126.0	VFC	-28.67%	NWL	-14.99%
126.0	CLF	-26.48%	VFC	-12.34%
126.0	AAP	-26.21%	MOS	-10.95%
126.0	GNRC	-21.09%	CLF	-10.34%
126.0	INTC	-19.77%	CZR	-8.53%
126.0	MOS	-18.85%	CVS	-7.73%
126.0	BHC	-16.8%	INTC	-7.63%
126.0	UAA	-15.05%	ELAN	-7.6%
126.0	CVS	-14.28%	AA	-7.4%
126.0	BALL	-13.04%	BHC	-6.78%
126.0	AA	-11.9%	UAA	-5.96%
126.0	CTLT	-11.71%	PRGO	-5.84%
126.0	CZR	-11.2%	CTLT	-5.69%
126.0	PRGO	-11.08%	LNC	-5.57%
126.0	CHTR	-10.23%	TLT	-5.31%
126.0	BHP	-8.13%	BXP	-5.17%
126.0	TLT	-8.07%	GNRC	-5.05%
126.0	LNC	-8.06%	BALL	-4.95%
126.0	GSK	-7.5%	CNC	-4.87%
126.0	KHC	-6.38%	LUMN	-4.73%
126.0	KEY	-6.25%	BIIB	-4.68%
126.0	CMA	-5.91%	GSK	-4.49%
126.0	VZ	-5.8%	KHC	-4.16%
126.0	GT	-5.71%	BHP	-3.78%

All TMD: 252d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	FRCB	-207.06%	SBNY	-95.75%
252.0	SBNY	-152.31%	SIVBQ	-95.29%
252.0	SIVBQ	-151.21%	FRCB	-91.61%
252.0	IEP	-100.84%	AMC	-57.69%
252.0	NWL	-76.77%	IEP	-44.46%
252.0	AAP	-67.68%	AAP	-42.7%
252.0	AMC	-54.48%	NWL	-28.77%
252.0	MOS	-51.96%	VFC	-24.43%
252.0	CLF	-45.39%	MOS	-23.75%
252.0	VFC	-43.92%	CVS	-18.88%
252.0	CVS	-32.03%	CLF	-15.69%
252.0	CZR	-28.04%	CZR	-13.51%
252.0	LUMN	-26.8%	PRGO	-13.33%
252.0	BHC	-25.97%	BMY	-12.43%
252.0	GT	-24.54%	UAA	-12.41%
252.0	GNRC	-23.63%	AA	-11.09%
252.0	PRGO	-23.57%	JAZZ	-10.13%
252.0	UAA	-22.09%	LUMN	-9.96%
252.0	INTC	-21.47%	INTC	-9.66%
252.0	LNC	-20.53%	CNC	-9.39%
252.0	CTLT	-19.6%	BHC	-9.18%
252.0	BMY	-16.65%	BIIB	-8.8%
252.0	KHC	-14.9%	TLT	-8.52%
252.0	TLT	-14.68%	GT	-7.69%
252.0	JAZZ	-14.3%	KHC	-7.44%
252.0	OXY	-13.09%	CHTR	-6.65%
252.0	KEY	-12.35%	OXY	-6.27%
252.0	BIIB	-11.92%	CTLT	-6.24%
252.0	CNC	-11.12%	LNC	-5.72%
252.0	CHTR	-11.09%	BHP	-5.37%

P30D: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	CLF	-5.3%	CLF	-2.08%
1.0	UNH	-3.15%	UNH	-1.31%
1.0	BHC	-2.28%	BHC	-0.9%
1.0	CPRT	-1.55%	CPRT	-0.86%
1.0	LLY	-1.24%	SNY	-0.59%
1.0	MSTR	-1.09%	LLY	-0.55%
1.0	JAZZ	-1.08%	JAZZ	-0.5%
1.0	KHC	-1.05%	MRK	-0.39%
1.0	SNY	-1.02%	DHI	-0.38%
1.0	IEP	-1.0%	KHC	-0.35%
1.0	FSUGY	-0.99%	FSUGY	-0.34%
1.0	PHM	-0.94%	IEP	-0.34%
1.0	CNC	-0.56%	CDNS	-0.34%
1.0	DHI	-0.5%	ABBV	-0.32%
1.0	CZR	-0.43%	PHM	-0.31%
1.0	MRK	-0.41%	MSTR	-0.31%
1.0	LEN	-0.37%	CNC	-0.3%
1.0	XOM	-0.34%	INTC	-0.26%
1.0	ABBV	-0.34%	CVS	-0.25%
1.0	TMUS	-0.29%	BMY	-0.21%
1.0	PEP	-0.26%	XOM	-0.19%
1.0	INTC	-0.25%	LEN	-0.18%
1.0	BMY	-0.2%	CZR	-0.14%
1.0	AZN	-0.19%	ORLY	-0.14%
1.0	CDNS	-0.18%	CMG	-0.14%
1.0	ON	-0.18%	TMUS	-0.14%
1.0	TEVA	-0.16%	TRGP	-0.12%
1.0	CMG	-0.16%	BBY	-0.1%
1.0	TRGP	-0.16%	POST	-0.1%
1.0	BBY	-0.15%	AAPL	-0.1%

P30D: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	CLF	-33.24%	UNH	-15.49%
10.0	LUMN	-19.78%	CLF	-15.07%
10.0	UNH	-17.09%	LUMN	-7.13%
10.0	IEP	-11.79%	CPRT	-6.14%
10.0	KHC	-8.72%	LLY	-4.01%
10.0	PHM	-8.65%	BHC	-3.99%
10.0	LLY	-8.43%	KHC	-3.82%
10.0	CPRT	-6.69%	IEP	-3.67%
10.0	BHC	-5.38%	CVS	-3.66%
10.0	MSTR	-5.32%	CNC	-3.56%
10.0	FSUGY	-4.74%	PHM	-3.3%
10.0	LNC	-4.23%	DHI	-2.87%
10.0	VNO	-4.1%	FSUGY	-2.84%
10.0	LEN	-3.99%	MSTR	-2.83%
10.0	XOM	-3.84%	XOM	-2.56%
10.0	CVS	-3.42%	VFC	-2.29%
10.0	DHI	-3.34%	INTC	-1.94%
10.0	CNC	-3.29%	LEN	-1.88%
10.0	TLT	-2.73%	ABBV	-1.74%
10.0	MRK	-2.2%	LNC	-1.6%
10.0	INTC	-1.66%	TLT	-1.56%
10.0	TMUS	-1.48%	VNO	-1.47%
10.0	CZR	-1.33%	MRK	-1.44%
10.0	OXY	-1.23%	TMUS	-1.16%
10.0	VFC	-1.23%	POST	-1.12%
10.0	TRGP	-1.13%	TRGP	-0.97%
10.0	ABBV	-1.11%	EXPE	-0.92%
10.0	POST	-1.06%	CZR	-0.87%
10.0	AAPL	-1.01%	CDNS	-0.44%
10.0	CDNS	-0.71%	FRA	-0.4%

P90D: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	BHC	-1.65%	VFC	-0.82%
1.0	CLF	-1.18%	CLF	-0.73%
1.0	UNH	-1.05%	BHC	-0.66%
1.0	LLY	-0.88%	UNH	-0.59%
1.0	LNC	-0.84%	SBUX	-0.46%
1.0	AMZN	-0.69%	JAZZ	-0.37%
1.0	KHC	-0.69%	BBY	-0.34%
1.0	JAZZ	-0.66%	BMY	-0.32%
1.0	PEP	-0.65%	LLY	-0.32%
1.0	LUMN	-0.62%	TRGP	-0.29%
1.0	IEP	-0.61%	MRK	-0.29%
1.0	MRK	-0.57%	PEP	-0.27%
1.0	BBY	-0.57%	IEP	-0.26%
1.0	AA	-0.54%	KHC	-0.24%
1.0	NWL	-0.51%	AAPL	-0.22%
1.0	OXY	-0.48%	LUMN	-0.21%
1.0	ZION	-0.43%	SNY	-0.2%
1.0	SBUX	-0.42%	TFC	-0.19%
1.0	VZ	-0.39%	ABBV	-0.18%
1.0	BMY	-0.38%	CZR	-0.18%
1.0	LEN	-0.38%	EXPE	-0.17%
1.0	ADBE	-0.35%	NWL	-0.17%
1.0	LVS	-0.34%	AA	-0.17%
1.0	VNO	-0.32%	TMUS	-0.17%
1.0	SNY	-0.32%	FITB	-0.16%
1.0	BIIB	-0.31%	OXY	-0.16%
1.0	TRGP	-0.31%	LNC	-0.15%
1.0	TFC	-0.24%	LEN	-0.15%
1.0	META	-0.24%	INTC	-0.14%
1.0	PHM	-0.23%	ZION	-0.13%

P90D: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	CLF	-11.87%	UNH	-7.18%
10.0	BHC	-10.52%	BHC	-6.72%
10.0	UNH	-7.81%	CLF	-5.99%
10.0	LUMN	-7.05%	VFC	-4.95%
10.0	NWL	-6.81%	BMY	-4.33%
10.0	LNC	-6.1%	JAZZ	-3.74%
10.0	JAZZ	-5.85%	SBUX	-3.59%
10.0	OXY	-5.76%	MRK	-3.49%
10.0	KHC	-5.59%	LUMN	-2.89%
10.0	BIIB	-5.54%	PEP	-2.79%
10.0	PEP	-5.21%	LLY	-2.56%
10.0	MRK	-4.6%	KHC	-2.56%
10.0	LLY	-4.43%	AMGN	-2.44%
10.0	AA	-4.16%	ABBV	-2.32%
10.0	BMY	-3.98%	TRGP	-2.2%
10.0	VFC	-3.52%	NWL	-2.12%
10.0	LEN	-3.32%	LEN	-2.11%
10.0	PRGO	-3.3%	SNY	-1.97%
10.0	TRGP	-3.03%	BIIB	-1.85%
10.0	AAPL	-2.96%	AAPL	-1.74%
10.0	FITB	-2.81%	AA	-1.53%
10.0	AMGN	-2.8%	IEP	-1.51%
10.0	BBY	-2.59%	TMUS	-1.46%
10.0	AZN	-2.55%	AZN	-1.46%
10.0	CVS	-2.52%	OXY	-1.4%
10.0	IEP	-2.46%	DHI	-1.26%
10.0	SBUX	-2.45%	TLT	-1.11%
10.0	TFC	-2.06%	GILD	-1.06%
10.0	ORCL	-1.96%	BBY	-0.94%
10.0	SNY	-1.76%	EXPE	-0.93%

P90D: 21d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	BHC	-32.75%	BHC	-17.05%
21.0	UNH	-18.8%	UNH	-15.53%
21.0	NWL	-18.74%	CLF	-11.1%
21.0	BIIB	-16.57%	BMY	-11.05%
21.0	CLF	-16.02%	JAZZ	-10.15%
21.0	JAZZ	-15.63%	VFC	-8.77%
21.0	OXY	-15.59%	TRGP	-8.17%
21.0	LNC	-14.54%	SBUX	-8.11%
21.0	AA	-11.75%	MRK	-8.1%
21.0	MRK	-11.12%	AA	-7.01%
21.0	TRGP	-11.11%	PEP	-6.49%
21.0	BMY	-11.06%	AMGN	-6.38%
21.0	PEP	-10.84%	NWL	-6.19%
21.0	LUMN	-10.27%	BIIB	-5.9%
21.0	LLY	-9.87%	LLY	-5.61%
21.0	VFC	-8.89%	OXY	-5.51%
21.0	LEN	-8.16%	ABBV	-5.42%
21.0	KHC	-7.88%	KHC	-4.74%
21.0	AAPL	-6.93%	SNY	-4.61%
21.0	AMGN	-6.03%	LEN	-4.37%
21.0	SBUX	-5.88%	LUMN	-4.34%
21.0	CVS	-5.48%	AAPL	-3.84%
21.0	EXPE	-5.43%	AZN	-3.78%
21.0	PRGO	-5.17%	INTC	-3.6%
21.0	ORCL	-5.12%	GILD	-3.56%
21.0	FITB	-4.97%	TMUS	-3.46%
21.0	BBY	-4.7%	IEP	-3.16%
21.0	AZN	-4.69%	XOM	-3.09%
21.0	ABBV	-4.27%	LNC	-2.97%
21.0	XOM	-4.17%	DHI	-2.51%

P365D: 1d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	WRK	-0.87%	CLF	-0.35%
1.0	IEP	-0.65%	ETRN	-0.33%
1.0	NWL	-0.61%	WRK	-0.26%
1.0	BIIB	-0.59%	IEP	-0.23%
1.0	CLF	-0.48%	BIIB	-0.21%
1.0	FSUGY	-0.48%	MRK	-0.19%
1.0	MRK	-0.4%	CSTM	-0.17%
1.0	LEN	-0.38%	FSUGY	-0.17%
1.0	AMAT	-0.37%	UNH	-0.16%
1.0	CSTM	-0.35%	ON	-0.16%
1.0	BHC	-0.34%	AA	-0.15%
1.0	OXY	-0.33%	LEN	-0.15%
1.0	AA	-0.25%	OXY	-0.14%
1.0	PEP	-0.25%	LW	-0.13%
1.0	KHC	-0.24%	QCOM	-0.1%
1.0	ETRN	-0.23%	AMD	-0.1%
1.0	UNH	-0.23%	KHC	-0.1%
1.0	PHM	-0.22%	PEP	-0.1%
1.0	ON	-0.21%	INTC	-0.1%
1.0	BHP	-0.21%	BALL	-0.09%
1.0	AMD	-0.2%	B	-0.08%
1.0	INTC	-0.2%	WDC	-0.08%
1.0	DHI	-0.17%	FCX	-0.08%
1.0	QCOM	-0.14%	AMAT	-0.08%
1.0	BBY	-0.14%	KALU	-0.07%
1.0	RIO	-0.14%	BBY	-0.07%
1.0	CMG	-0.13%	CNC	-0.07%
1.0	WDC	-0.13%	BHC	-0.07%
1.0	MU	-0.12%	CZR	-0.07%
1.0	AMC	-0.11%	DHI	-0.07%

P365D: 10d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	WRK	-5.9%	ETRN	-5.36%
10.0	IEP	-5.5%	CLF	-2.92%
10.0	ETRN	-5.06%	BIIB	-2.29%
10.0	CLF	-4.69%	WRK	-2.2%
10.0	BIIB	-4.47%	IEP	-2.13%
10.0	ON	-3.47%	MRK	-2.03%
10.0	AMAT	-3.19%	ON	-1.82%
10.0	OXY	-3.1%	LW	-1.63%
10.0	FSUGY	-2.68%	UNH	-1.58%
10.0	MRK	-2.67%	CSTM	-1.5%
10.0	AMC	-2.38%	FSUGY	-1.48%
10.0	MU	-2.16%	AMC	-1.41%
10.0	QCOM	-2.1%	LEN	-1.36%
10.0	INTC	-2.05%	OXY	-1.3%
10.0	LEN	-1.95%	QCOM	-1.21%
10.0	CNC	-1.7%	AMAT	-1.05%
10.0	NWL	-1.66%	AMD	-1.03%
10.0	UNH	-1.6%	PEP	-0.98%
10.0	PEP	-1.55%	AAP	-0.98%
10.0	AMD	-1.55%	AA	-0.95%
10.0	CMG	-1.52%	WDC	-0.91%
10.0	RIO	-1.52%	BALL	-0.88%
10.0	KHC	-1.52%	KHC	-0.88%
10.0	BHP	-1.46%	ELAN	-0.76%
10.0	AA	-1.43%	CMG	-0.76%
10.0	LW	-1.26%	INTC	-0.73%
10.0	KALU	-0.97%	CZR	-0.71%
10.0	BHC	-0.96%	FCX	-0.67%
10.0	BBY	-0.91%	BBY	-0.62%
10.0	ELAN	-0.78%	MU	-0.6%

P365D: 21d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	WRK	-16.09%	ETRN	-9.38%
21.0	IEP	-11.66%	WRK	-6.87%
21.0	BIIB	-9.53%	CLF	-5.77%
21.0	OXY	-8.45%	BIIB	-5.25%
21.0	ETRN	-8.34%	IEP	-4.52%
21.0	CLF	-7.37%	MRK	-4.39%
21.0	ON	-7.2%	ON	-4.08%
21.0	FSUGY	-7.18%	AMC	-4.01%
21.0	MRK	-6.31%	AAP	-3.67%
21.0	AAP	-5.89%	LW	-3.55%
21.0	AMAT	-5.82%	CSTM	-3.26%
21.0	MU	-5.69%	OXY	-3.22%
21.0	QCOM	-5.15%	FSUGY	-2.87%
21.0	AMD	-5.09%	AMD	-2.83%
21.0	INTC	-5.0%	QCOM	-2.81%
21.0	LEN	-4.36%	AMAT	-2.75%
21.0	BBY	-4.22%	WDC	-2.7%
21.0	WDC	-3.87%	LEN	-2.68%
21.0	BHC	-3.64%	UNH	-2.47%
21.0	CSTM	-3.5%	MU	-2.46%
21.0	UNH	-3.4%	AA	-2.39%
21.0	AMC	-3.34%	PEP	-2.1%
21.0	CMG	-3.18%	INTC	-2.06%
21.0	PEP	-3.02%	ELAN	-1.9%
21.0	ELAN	-2.97%	FCX	-1.79%
21.0	BHP	-2.85%	CMG	-1.74%
21.0	AA	-2.65%	CZR	-1.71%
21.0	LW	-2.59%	BALL	-1.62%
21.0	KHC	-2.34%	KHC	-1.54%
21.0	CZR	-2.34%	BBY	-1.48%

P365D: 63d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	IEP	-46.21%	IEP	-17.91%
63.0	AMD	-32.85%	CLF	-17.44%
63.0	ON	-29.31%	ON	-16.62%
63.0	CLF	-25.27%	BIIB	-16.24%
63.0	OXY	-23.91%	AMC	-16.23%
63.0	BIIB	-21.89%	CSTM	-15.2%
63.0	AMAT	-21.43%	WDC	-13.49%
63.0	CSTM	-21.14%	AAP	-13.01%
63.0	WDC	-21.01%	AMD	-12.47%
63.0	AMC	-20.36%	MRK	-12.12%
63.0	FSUGY	-19.81%	AMAT	-11.16%
63.0	ADBE	-18.98%	LEN	-10.63%
63.0	AAP	-18.67%	OXY	-10.36%
63.0	ELAN	-17.52%	ELAN	-9.93%
63.0	MRK	-17.06%	ADBE	-9.73%
63.0	MU	-15.87%	FSUGY	-9.47%
63.0	INTC	-15.32%	MU	-8.79%
63.0	QCOM	-14.2%	CZR	-8.35%
63.0	CZR	-13.84%	QCOM	-7.56%
63.0	BHP	-13.64%	LW	-7.49%
63.0	LEN	-11.98%	KALU	-7.0%
63.0	CYH	-10.99%	FCX	-6.9%
63.0	TEVA	-10.32%	BALL	-6.45%
63.0	BBY	-9.27%	INTC	-6.45%
63.0	UNH	-8.93%	DHI	-6.37%
63.0	FCX	-8.79%	BBY	-6.19%
63.0	BALL	-8.58%	PEP	-5.83%
63.0	DHI	-8.31%	UNH	-5.36%
63.0	CMG	-8.14%	NAVI	-5.08%
63.0	AA	-8.09%	CNC	-4.99%

P365D: 126d

Results reflect ticker level average 99% OaR based ROLOBC across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	IEP	-86.76%	IEP	-35.41%
126.0	AMC	-60.99%	CSTM	-32.05%
126.0	ON	-58.93%	BIIB	-31.53%
126.0	CYH	-58.82%	CLF	-31.13%
126.0	AMD	-58.08%	ON	-30.97%
126.0	CSTM	-56.55%	AMC	-30.46%
126.0	CLF	-50.12%	CYH	-28.48%
126.0	BIIB	-42.2%	AMD	-27.56%
126.0	ADBE	-39.99%	LEN	-26.49%
126.0	ELAN	-37.24%	MRK	-22.47%
126.0	WDC	-36.66%	WDC	-21.77%
126.0	FSUGY	-35.56%	ELAN	-20.97%
126.0	DHI	-34.79%	DHI	-20.73%
126.0	LEN	-34.32%	AMAT	-19.35%
126.0	OXY	-32.56%	ADBE	-19.24%
126.0	BALL	-32.25%	CZR	-18.65%
126.0	MRK	-31.65%	LW	-18.38%
126.0	INTC	-31.59%	OXY	-17.7%
126.0	BHP	-30.92%	FCX	-17.49%
126.0	MU	-29.61%	AAP	-16.98%
126.0	AMAT	-28.97%	BALL	-16.95%
126.0	IRM	-25.25%	FSUGY	-16.36%
126.0	QCOM	-24.5%	PHM	-15.0%
126.0	UNH	-24.37%	MU	-14.94%
126.0	PCG	-24.27%	PEP	-14.07%
126.0	AAP	-24.13%	BBY	-13.23%
126.0	FCX	-23.75%	UNH	-12.96%
126.0	BBY	-22.75%	KHC	-12.89%
126.0	CZR	-22.49%	INTC	-12.81%
126.0	THC	-22.21%	CNC	-12.75%

Appendix 1: Top 25 Ticker Level Differences in VM vs. Sigma 95% and 99% OaR Breakage

All TMD: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	SBNY	12.59%	GME	4.67%
1.0	GME	12.22%	SIVBQ	4.32%
1.0	MSTR	10.66%	META	3.23%
1.0	CHTR	8.5%	HLT	2.63%
1.0	SIVBQ	7.91%	AVGO	2.28%
1.0	META	7.19%	BALL	2.16%
1.0	GNRC	6.59%	INTU	1.92%
1.0	SLV	5.87%	FRCB	1.8%
1.0	FRCB	5.76%	MSTR	1.68%
1.0	NFLX	5.39%	CHTR	1.68%
1.0	FRA	4.79%	ACGL	1.68%
1.0	ZTS	4.79%	BUD	1.56%
1.0	BALL	4.67%	AMC	1.56%
1.0	HLT	4.31%	TEVA	1.56%
1.0	INTU	4.19%	NFLX	1.44%
1.0	AVGO	4.07%	OXY	1.2%
1.0	BUD	3.95%	SPY	1.2%
1.0	ORCL	3.83%	TSLA	1.2%
1.0	CMA	3.71%	ZTS	1.08%
1.0	AMC	3.47%	FRA	0.84%
1.0	VFC	2.99%	SBNY	0.72%
1.0	HCA	2.87%	CMA	0.72%
1.0	TEVA	2.87%	ISRG	0.72%
1.0	CLF	2.75%	AA	0.6%
1.0	AA	2.75%	BA	0.6%

All TMD: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	META	14.77%	SIVBQ	9.56%
10.0	MSTR	13.8%	MSTR	9.32%
10.0	SIVBQ	12.13%	GME	6.05%
10.0	GME	11.74%	META	5.69%
10.0	SBNY	10.66%	CHTR	5.33%
10.0	HCA	10.29%	ZTS	3.87%
10.0	BALL	10.17%	SBNY	3.68%
10.0	CHTR	9.81%	AMC	3.15%
10.0	KALU	8.96%	VZ	2.91%
10.0	TEVA	8.11%	XOM	2.78%
10.0	FRCB	8.09%	GNRC	2.42%
10.0	GNRC	7.51%	BALL	2.18%
10.0	AVGO	6.66%	ETRN	2.15%
10.0	HD	6.3%	CMA	2.06%
10.0	CMA	6.17%	ISRG	2.06%
10.0	LW	6.05%	AVGO	2.06%
10.0	ZTS	5.81%	GWW	1.94%
10.0	IRM	5.45%	GILD	1.69%
10.0	INTU	5.33%	HCA	1.69%
10.0	PEP	5.21%	EXPE	1.69%
10.0	SLV	5.08%	OXY	1.57%
10.0	ISRG	5.08%	KALU	1.57%
10.0	BXP	4.96%	FRCB	1.47%
10.0	AMC	4.96%	HD	1.33%
10.0	GILD	4.72%	INTU	1.33%

All TMD: 21d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	META	13.74%	SIVBQ	9.26%
21.0	GME	13.62%	CHTR	8.83%
21.0	GNRC	10.55%	MSTR	7.24%
21.0	CHTR	9.57%	GME	4.54%
21.0	FRCB	8.89%	META	4.42%
21.0	MSTR	8.22%	ISRG	3.93%
21.0	SIVBQ	8.15%	GNRC	3.8%
21.0	ZTS	8.1%	GWW	3.8%
21.0	ISRG	7.24%	ZTS	2.33%
21.0	KALU	7.12%	VZ	2.21%
21.0	LW	6.87%	LW	2.21%
21.0	CMA	6.38%	AAPL	1.96%
21.0	BALL	6.38%	AMC	1.96%
21.0	TEVA	6.38%	KALU	1.96%
21.0	HCA	6.01%	SBNY	1.85%
21.0	AVGO	5.77%	NEM	1.84%
21.0	AMC	5.64%	XOM	1.72%
21.0	SBNY	5.56%	HD	1.72%
21.0	HD	5.4%	SNY	1.6%
21.0	NAVI	5.28%	ORLY	1.47%
21.0	VZ	5.03%	CMA	1.35%
21.0	INTU	4.54%	BALL	1.23%
21.0	IRM	4.29%	RIO	1.1%
21.0	VST	4.17%	ORCL	1.1%
21.0	EXPE	4.05%	KEY	0.98%

All TMD: 63d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	META	14.23%	SIVBQ	7.78%
63.0	CHTR	13.45%	GME	6.08%
63.0	SIVBQ	11.11%	LW	4.27%
63.0	LW	10.74%	CTLT	3.23%
63.0	MSTR	8.28%	EXPE	2.46%
63.0	GME	7.5%	TEVA	2.33%
63.0	GNRC	7.24%	GOOGL	1.94%
63.0	IRM	6.34%	CHTR	1.42%
63.0	SNY	5.56%	BXP	1.42%
63.0	XOM	5.43%	RIO	1.29%
63.0	AVGO	4.92%	MSI	1.16%
63.0	CTLT	4.69%	OXY	1.03%
63.0	BALL	4.66%	HD	1.03%
63.0	EXPE	4.53%	WFC	1.03%
63.0	NEM	4.4%	KALU	1.03%
63.0	VFC	3.62%	GWW	0.91%
63.0	BUD	3.62%	AMC	0.65%
63.0	BXP	3.36%	XOM	0.65%
63.0	MSI	3.36%	AZO	0.52%
63.0	KALU	3.23%	CMA	0.52%
63.0	CMA	3.1%	GNRC	0.52%
63.0	ZTS	2.85%	VFC	0.52%
63.0	AMC	2.72%	KHC	0.39%
63.0	VST	2.33%	BUD	0.39%
63.0	FRCB	2.22%	SNY	0.39%

All TMD: 126d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	LW	15.92%	LW	6.62%
126.0	VFC	11.41%	EXPE	5.92%
126.0	GME	7.46%	MSI	3.24%
126.0	XOM	7.18%	OXY	2.25%
126.0	MSTR	7.04%	GOOGL	2.25%
126.0	EXPE	6.62%	MSTR	2.11%
126.0	BALL	6.62%	IRM	1.97%
126.0	GOOGL	5.77%	META	1.69%
126.0	META	5.63%	VFC	1.55%
126.0	BXP	5.49%	BALL	1.55%
126.0	CHTR	5.35%	GME	1.41%
126.0	IRM	5.21%	TEVA	1.27%
126.0	TEVA	4.23%	ETRN	1.02%
126.0	GNRC	3.52%	CAH	0.56%
126.0	CMA	1.97%	HCA	0.28%
126.0	CTLT	1.78%	XOM	0.14%
126.0	TMUS	1.69%	KALU	0.0%
126.0	NWL	1.55%	HON	0.0%
126.0	HCA	1.55%	MSFT	0.0%
126.0	KHC	1.13%	MRK	0.0%
126.0	AMC	1.13%	MOS	0.0%
126.0	OXY	0.85%	MNST	0.0%
126.0	KALU	0.7%	HYG	0.0%
126.0	BAC	0.7%	AAP	0.0%
126.0	BIIB	0.56%	IEP	0.0%

All TMD: 252d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
252.0	MSTR	9.08%	GWW	5.31%
252.0	GNRC	5.14%	LW	5.31%
252.0	IRM	5.14%	IRM	3.77%
252.0	GME	4.79%	GOOGL	2.05%
252.0	GOOGL	4.28%	GNRC	1.03%
252.0	VST	3.77%	ORLY	0.86%
252.0	XOM	3.6%	XOM	0.17%
252.0	OXY	2.23%	HON	0.0%
252.0	BA	2.23%	LVS	0.0%
252.0	BALL	2.05%	NVS	0.0%
252.0	EXPE	1.37%	NEM	0.0%
252.0	CHTR	0.86%	NAVI	0.0%
252.0	AAPL	0.51%	MUB	0.0%
252.0	LNC	0.0%	MSTR	0.0%
252.0	MNST	0.0%	MSFT	0.0%
252.0	GSK	0.0%	MRK	0.0%
252.0	LVS	0.0%	MOS	0.0%
252.0	LUMN	0.0%	MNST	0.0%
252.0	LQD	0.0%	HLT	0.0%
252.0	KHC	0.0%	LUMN	0.0%
252.0	HYG	0.0%	HYG	0.0%
252.0	KEY	0.0%	LQD	0.0%
252.0	KALU	0.0%	LNC	0.0%
252.0	AAP	0.0%	NWL	0.0%
252.0	GT	0.0%	KEY	0.0%

P30D: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	SLV	36.84%	ZTS	10.53%
1.0	TSLA	26.32%	AMC	10.53%
1.0	AVGO	26.32%	VFC	10.53%
1.0	NEM	21.05%	TSLA	10.53%
1.0	ZTS	15.79%	BUD	10.53%
1.0	MSFT	10.53%	SLV	10.53%
1.0	GME	10.53%	ADBE	5.26%
1.0	VFC	10.53%	AAP	5.26%
1.0	GILD	10.53%	WFC	5.26%
1.0	MU	10.53%	VZ	5.26%
1.0	BUD	10.53%	NAVI	5.26%
1.0	AMC	10.53%	MU	5.26%
1.0	ADBE	10.53%	AVGO	5.26%
1.0	NAVI	10.53%	GILD	5.26%
1.0	SBUX	5.26%	NEM	5.26%
1.0	QQQ	5.26%	UNH	5.26%
1.0	CHTR	5.26%	GME	5.26%
1.0	GOOGL	5.26%	MOS	0.0%
1.0	CVS	5.26%	MSTR	0.0%
1.0	SNY	5.26%	MS	0.0%
1.0	FCX	5.26%	MSFT	0.0%
1.0	BHC	5.26%	MSI	0.0%
1.0	UNH	5.26%	META	0.0%
1.0	BAC	5.26%	MUB	0.0%
1.0	HCA	5.26%	MNST	0.0%

P30D: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	AMC	70.0%	TSLA	70.0%
10.0	AVGO	70.0%	GILD	40.0%
10.0	BUD	70.0%	TXN	40.0%
10.0	TSLA	60.0%	HCA	30.0%
10.0	ADBE	50.0%	ZTS	20.0%
10.0	HCA	40.0%	ADBE	10.0%
10.0	WDC	40.0%	AMC	10.0%
10.0	AMZN	40.0%	GME	10.0%
10.0	MSFT	40.0%	NEM	10.0%
10.0	GME	30.0%	UNH	10.0%
10.0	GOOGL	30.0%	BUD	10.0%
10.0	MS	20.0%	NFLX	0.0%
10.0	NAVI	20.0%	MUB	0.0%
10.0	MU	20.0%	KHC	0.0%
10.0	ZTS	20.0%	NAVI	0.0%
10.0	VZ	10.0%	NVDA	0.0%
10.0	NFLX	10.0%	NVS	0.0%
10.0	NEM	10.0%	NWL	0.0%
10.0	META	10.0%	ON	0.0%
10.0	UNH	10.0%	ORCL	0.0%
10.0	HON	10.0%	ORLY	0.0%
10.0	TXN	10.0%	OXY	0.0%
10.0	GILD	10.0%	MU	0.0%
10.0	VFC	10.0%	MSTR	0.0%
10.0	GNRC	10.0%	LNC	0.0%

P90D: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	ORLY	14.52%	GILD	4.84%
1.0	GILD	14.52%	BUD	4.84%
1.0	CHTR	14.52%	AMC	4.84%
1.0	SLV	12.9%	TSLA	3.23%
1.0	AVGO	9.68%	GME	3.23%
1.0	BUD	8.06%	MU	3.23%
1.0	MU	8.06%	ZTS	3.23%
1.0	META	8.06%	VFC	3.23%
1.0	TEVA	8.06%	VZ	3.23%
1.0	TSLA	8.06%	SLV	3.23%
1.0	ZTS	8.06%	UNH	1.61%
1.0	AMC	8.06%	QCOM	1.61%
1.0	WFC	8.06%	NEM	1.61%
1.0	NEM	8.06%	META	1.61%
1.0	TXN	6.45%	AAP	1.61%
1.0	IRM	6.45%	GNRC	1.61%
1.0	VFC	6.45%	WDC	1.61%
1.0	GME	6.45%	AA	1.61%
1.0	ABBV	6.45%	AMZN	1.61%
1.0	KEY	4.84%	AVGO	1.61%
1.0	CVS	4.84%	BBY	0.0%
1.0	MSTR	4.84%	BHC	0.0%
1.0	NAVI	4.84%	B	0.0%
1.0	ON	4.84%	GS	0.0%
1.0	SBUX	4.84%	HCA	0.0%

P90D: 10d

The columns labeled “OaRBreak_VmS” represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	WDC	43.4%	TSLA	18.87%
10.0	INTU	24.53%	KALU	13.21%
10.0	AVGO	24.53%	TXN	13.21%
10.0	MSTR	20.75%	META	11.32%
10.0	TSLA	20.75%	WDC	11.32%
10.0	UNH	20.75%	HON	9.43%
10.0	ADBE	20.75%	CHTR	9.43%
10.0	KALU	18.87%	GILD	9.43%
10.0	HCA	18.87%	KEY	9.43%
10.0	MU	18.87%	UNH	7.55%
10.0	CHTR	18.87%	HCA	7.55%
10.0	BUD	16.98%	GS	5.66%
10.0	GE	16.98%	WFC	5.66%
10.0	AMC	13.21%	ORLY	3.77%
10.0	KEY	13.21%	MS	3.77%
10.0	GOOGL	11.32%	ZTS	3.77%
10.0	HON	11.32%	AMC	1.89%
10.0	ISRG	11.32%	GME	1.89%
10.0	AMZN	11.32%	MU	1.89%
10.0	VZ	11.32%	EXPE	1.89%
10.0	MSFT	9.43%	ABBV	1.89%
10.0	VFC	9.43%	ADBE	1.89%
10.0	GME	9.43%	NEM	1.89%
10.0	FITB	9.43%	AVGO	1.89%
10.0	ON	7.55%	LUMN	0.0%

P90D: 21d

The columns labeled “OaRBreak_VmS” represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	WDC	23.81%	CHTR	26.19%
21.0	ZTS	21.43%	WFC	23.81%
21.0	INTU	21.43%	MU	21.43%
21.0	MU	21.43%	KEY	19.05%
21.0	AVGO	16.67%	NEM	19.05%
21.0	KALU	16.67%	HON	16.67%
21.0	KEY	16.67%	WDC	16.67%
21.0	MSTR	16.67%	TXN	11.9%
21.0	TSLA	16.67%	ZTS	11.9%
21.0	BUD	14.29%	KALU	11.9%
21.0	TXN	14.29%	TSLA	7.14%
21.0	NEM	14.29%	GS	7.14%
21.0	ADBE	14.29%	META	4.76%
21.0	VZ	11.9%	AMZN	2.38%
21.0	TFC	11.9%	AMC	2.38%
21.0	ISRG	11.9%	BAC	2.38%
21.0	UNH	11.9%	UNH	2.38%
21.0	META	11.9%	MUB	0.0%
21.0	VFC	9.52%	NVDA	0.0%
21.0	AMC	9.52%	NAVI	0.0%
21.0	HON	9.52%	MSI	0.0%
21.0	HCA	9.52%	NVS	0.0%
21.0	FITB	9.52%	NWL	0.0%
21.0	BAC	9.52%	ON	0.0%
21.0	USB	7.14%	MSTR	0.0%

P365D: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	CHTR	10.48%	GME	2.82%
1.0	SLV	8.06%	VZ	2.42%
1.0	FRA	7.66%	SLV	2.42%
1.0	GME	6.85%	AVGO	2.42%
1.0	GILD	6.45%	META	2.02%
1.0	IRM	6.05%	VST	2.02%
1.0	AVGO	6.05%	GILD	2.02%
1.0	ZTS	5.65%	NFLX	2.02%
1.0	KEY	5.24%	TSLA	1.61%
1.0	NFLX	5.24%	HLT	1.61%
1.0	VFC	5.24%	KEY	1.21%
1.0	CLF	5.24%	BALL	1.21%
1.0	META	4.84%	IRM	1.21%
1.0	GNRC	4.84%	ZTS	1.21%
1.0	ORLY	4.84%	SBUX	1.21%
1.0	GS	4.44%	AMC	1.21%
1.0	SBUX	4.44%	EXPE	0.81%
1.0	NAVI	3.23%	BUD	0.81%
1.0	HON	3.23%	CMA	0.81%
1.0	VZ	2.82%	AAP	0.4%
1.0	WFC	2.42%	CHTR	0.4%
1.0	AMC	2.42%	NEM	0.4%
1.0	BAC	2.42%	GS	0.4%
1.0	HCA	2.42%	VFC	0.4%
1.0	TSLA	2.42%	FRA	0.4%

P365D: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	CHTR	12.55%	VZ	10.04%
10.0	HCA	12.13%	META	7.95%
10.0	META	11.3%	CHTR	6.69%
10.0	VZ	10.46%	GILD	5.86%
10.0	BXP	10.04%	EXPE	5.86%
10.0	KALU	10.04%	TXN	5.02%
10.0	GME	9.62%	CMA	4.18%
10.0	VFC	9.21%	BXP	4.18%
10.0	GILD	8.37%	KALU	3.35%
10.0	CMA	8.37%	AMGN	3.35%
10.0	EXPE	7.95%	TSLA	3.35%
10.0	SLV	7.53%	VFC	2.51%
10.0	WDC	6.69%	NEM	2.51%
10.0	NEM	6.69%	WDC	2.51%
10.0	MSTR	6.69%	HD	2.51%
10.0	GNRC	6.28%	VST	2.09%
10.0	AVGO	6.28%	CNC	1.67%
10.0	GE	6.28%	ZTS	1.67%
10.0	IRM	5.86%	HCA	1.67%
10.0	AMGN	5.86%	MSTR	1.26%
10.0	HD	5.44%	KEY	1.26%
10.0	AAP	5.02%	SLV	1.26%
10.0	ISRG	4.6%	AAPL	1.26%
10.0	QCOM	4.6%	LQD	0.84%
10.0	CLF	4.6%	GME	0.84%

P365D: 21d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	VZ	21.93%	CHTR	19.3%
21.0	META	13.6%	VZ	7.89%
21.0	BXP	11.84%	META	5.7%
21.0	CHTR	11.4%	BXP	5.26%
21.0	EXPE	9.65%	NEM	4.82%
21.0	VFC	8.77%	HD	3.95%
21.0	CMA	8.77%	MU	3.95%
21.0	GNRC	8.33%	KEY	3.51%
21.0	HD	7.89%	BAC	3.07%
21.0	ISRG	7.89%	WDC	3.07%
21.0	NEM	7.89%	AMGN	2.63%
21.0	KALU	7.46%	CMA	2.63%
21.0	AMGN	6.58%	TXN	2.19%
21.0	BUD	5.26%	KALU	2.19%
21.0	BAC	5.26%	HON	2.19%
21.0	GILD	4.82%	CNC	2.19%
21.0	GME	4.39%	ZTS	2.19%
21.0	SLV	4.39%	MSI	1.75%
21.0	WDC	4.39%	GS	1.75%
21.0	ZTS	4.39%	GME	1.75%
21.0	AAP	3.95%	GILD	1.75%
21.0	KEY	3.95%	NVS	1.32%
21.0	INTU	3.95%	SLV	1.32%
21.0	HCA	3.51%	EXPE	0.88%
21.0	MU	3.07%	AA	0.88%

P365D: 63d

The columns labeled “OaRBreak_VmS” represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	META	15.59%	EXPE	12.9%
63.0	CHTR	14.52%	GILD	6.45%
63.0	VFC	12.37%	BXP	5.91%
63.0	EXPE	12.37%	MSI	4.84%
63.0	BXP	10.75%	HD	4.84%
63.0	CMA	8.6%	HCA	4.3%
63.0	NEM	8.6%	CMA	2.15%
63.0	HD	8.06%	META	2.15%
63.0	GSK	6.99%	VFC	2.15%
63.0	GILD	6.45%	BUD	1.61%
63.0	VZ	5.91%	WFC	0.54%
63.0	BUD	5.91%	CYH	0.54%
63.0	AVGO	5.91%	NVS	0.0%
63.0	MSI	3.76%	NWL	0.0%
63.0	SNY	3.76%	NVDA	0.0%
63.0	SLV	3.76%	NEM	0.0%
63.0	HCA	2.69%	NAVI	0.0%
63.0	AA	2.15%	ON	0.0%
63.0	IRM	1.61%	MUB	0.0%
63.0	GNRC	1.61%	ORCL	0.0%
63.0	ZION	1.61%	AA	0.0%
63.0	GS	1.08%	MRK	0.0%
63.0	GE	1.08%	MU	0.0%
63.0	THC	1.08%	MSFT	0.0%
63.0	LW	0.54%	OXY	0.0%

P365D: 126d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	VFC	48.78%	EXPE	28.46%
126.0	EXPE	35.77%	META	14.63%
126.0	META	27.64%	VFC	8.13%
126.0	MSI	17.89%	MSI	0.81%
126.0	CHTR	8.94%	AA	0.0%
126.0	NWL	8.94%	MOS	0.0%
126.0	BUD	3.25%	MRK	0.0%
126.0	BXP	1.63%	MSFT	0.0%
126.0	AAPL	0.81%	MU	0.0%
126.0	FITB	0.81%	MUB	0.0%
126.0	CMA	0.81%	NAVI	0.0%
126.0	HD	0.81%	NEM	0.0%
126.0	MOS	0.0%	NVDA	0.0%
126.0	NEM	0.0%	NVS	0.0%
126.0	MU	0.0%	NWL	0.0%
126.0	MSFT	0.0%	ON	0.0%
126.0	MRK	0.0%	MNST	0.0%
126.0	MUB	0.0%	LW	0.0%
126.0	NAVI	0.0%	OXY	0.0%
126.0	NVDA	0.0%	LVS	0.0%
126.0	AA	0.0%	LUMN	0.0%
126.0	MNST	0.0%	LQD	0.0%
126.0	LW	0.0%	LNC	0.0%
126.0	LVS	0.0%	LLY	0.0%
126.0	LQD	0.0%	LEN	0.0%

Appendix 2: Bottom 25 Ticker Level Differences in VM vs. Sigma 95% and 99% OaR Breakage

All TMD: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	VCSH	-4.19%	NVDA	-2.28%
1.0	EMB	-4.08%	WYNN	-1.8%
1.0	HYG	-4.07%	CCL	-1.8%
1.0	ON	-4.07%	LLY	-1.8%
1.0	MOS	-3.95%	MUB	-1.68%
1.0	GE	-3.83%	GE	-1.68%
1.0	NVDA	-3.35%	LVS	-1.68%
1.0	CCL	-3.23%	HYG	-1.68%
1.0	DHI	-3.23%	HSBC	-1.68%
1.0	MUB	-3.12%	VCSH	-1.56%
1.0	MS	-3.11%	MU	-1.56%
1.0	AZN	-3.11%	MNST	-1.56%
1.0	HSBC	-3.11%	PHM	-1.44%
1.0	QQQ	-2.99%	PWR	-1.44%
1.0	PHM	-2.99%	VNO	-1.44%
1.0	VNO	-2.99%	CMG	-1.32%
1.0	MSFT	-2.87%	GLD	-1.32%
1.0	T	-2.75%	MOS	-1.32%
1.0	TLT	-2.75%	USB	-1.32%
1.0	LVS	-2.63%	COST	-1.32%
1.0	LLY	-2.63%	CPRT	-1.32%
1.0	X	-2.63%	CDNS	-1.32%
1.0	CAH	-2.63%	T	-1.32%
1.0	CSCO	-2.63%	MS	-1.32%
1.0	JPM	-2.51%	WDC	-1.2%

All TMD: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	MUB	-7.64%	NVDA	-4.96%
10.0	LLY	-7.26%	LLY	-4.12%
10.0	NVDA	-6.78%	MUB	-3.64%
10.0	MS	-5.69%	TMUS	-3.51%
10.0	CCL	-5.69%	GBTC	-3.51%
10.0	T	-5.33%	CPRT	-3.15%
10.0	CDNS	-5.21%	DHI	-3.03%
10.0	JPM	-4.84%	X	-2.91%
10.0	CYH	-4.36%	GLD	-2.54%
10.0	CSCO	-4.24%	PHM	-2.42%
10.0	COST	-4.12%	PWR	-2.42%
10.0	VCSH	-3.87%	MS	-2.18%
10.0	CAH	-3.87%	LUMN	-2.06%
10.0	CPRT	-3.63%	THC	-2.06%
10.0	MOS	-3.51%	CDNS	-1.94%
10.0	CMG	-3.51%	GE	-1.94%
10.0	GE	-3.51%	T	-1.82%
10.0	AMD	-3.39%	MU	-1.69%
10.0	VNO	-3.27%	CMG	-1.69%
10.0	GSK	-3.27%	CCL	-1.69%
10.0	BA	-3.15%	UNH	-1.69%
10.0	DHI	-3.15%	COST	-1.69%
10.0	PHM	-3.15%	MOS	-1.69%
10.0	QQQ	-3.15%	ELAN	-1.48%
10.0	FSUGY	-3.15%	HSBC	-1.45%

All TMD: 21d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	MUB	-8.85%	NVDA	-6.38%
21.0	LLY	-8.71%	GE	-5.52%
21.0	MS	-8.34%	GBTC	-5.15%
21.0	COST	-8.22%	ETRN	-4.38%
21.0	NVDA	-7.98%	TMUS	-4.17%
21.0	CCL	-7.85%	MUB	-4.05%
21.0	JPM	-7.36%	LLY	-3.8%
21.0	GLD	-6.87%	DHI	-3.68%
21.0	DHI	-6.63%	PWR	-3.68%
21.0	GE	-6.5%	MOS	-3.56%
21.0	PHM	-6.01%	BA	-3.07%
21.0	CDNS	-5.89%	WYNN	-3.07%
21.0	PWR	-5.52%	LUMN	-2.82%
21.0	GBTC	-5.15%	TSLA	-2.82%
21.0	TSLA	-5.03%	THC	-2.7%
21.0	CAH	-4.66%	X	-2.7%
21.0	T	-4.66%	AMGN	-2.58%
21.0	CPRT	-4.66%	TEVA	-2.45%
21.0	CMG	-4.54%	CCL	-2.45%
21.0	AZN	-4.54%	GLD	-2.33%
21.0	VNO	-4.54%	LVS	-2.33%
21.0	WYNN	-4.42%	PHM	-2.21%
21.0	ELAN	-4.11%	SBUX	-2.21%
21.0	VCSH	-3.93%	CAH	-2.21%
21.0	LEN	-3.93%	ELAN	-2.0%

All TMD: 63d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	NVDA	-19.4%	NVDA	-13.71%
63.0	GBTC	-13.58%	GBTC	-11.0%
63.0	CMG	-12.94%	LLY	-8.8%
63.0	VNO	-12.29%	VST	-6.47%
63.0	GE	-10.74%	GE	-6.47%
63.0	DHI	-10.74%	GLD	-6.21%
63.0	CCL	-10.61%	ETRN	-5.99%
63.0	LLY	-9.83%	GILD	-5.95%
63.0	JPM	-9.06%	MUB	-5.7%
63.0	PHM	-8.93%	DHI	-5.56%
63.0	GLD	-8.67%	MU	-5.3%
63.0	MU	-8.67%	PHM	-5.3%
63.0	T	-8.15%	THC	-5.17%
63.0	COST	-8.15%	MRK	-5.17%
63.0	CPRT	-8.02%	TRGP	-5.05%
63.0	AMD	-7.24%	ACGL	-4.01%
63.0	LUMN	-6.47%	TMUS	-4.01%
63.0	MUB	-6.35%	CCL	-3.88%
63.0	VCSH	-6.34%	MS	-3.75%
63.0	ABBV	-6.08%	MSTR	-3.49%
63.0	HLT	-5.95%	AAPL	-2.85%
63.0	NVS	-5.82%	ABBV	-2.85%
63.0	MRK	-5.69%	COST	-2.85%
63.0	THC	-5.56%	AMD	-2.72%
63.0	AMGN	-5.43%	CMG	-2.59%

All TMD: 126d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	NVDA	-26.62%	NVDA	-23.24%
126.0	PHM	-25.63%	GE	-16.2%
126.0	GE	-23.66%	THC	-15.21%
126.0	JPM	-17.46%	LLY	-14.65%
126.0	COST	-17.46%	GBTC	-13.1%
126.0	GLD	-17.46%	TMUS	-12.54%
126.0	GBTC	-17.04%	GILD	-11.27%
126.0	GS	-15.35%	TRGP	-11.13%
126.0	T	-15.07%	MU	-10.42%
126.0	CMG	-11.97%	ACGL	-8.87%
126.0	LLY	-11.97%	CMG	-8.87%
126.0	CPRT	-11.83%	PHM	-7.75%
126.0	ORCL	-11.83%	GLD	-5.49%
126.0	MU	-11.55%	X	-5.35%
126.0	PWR	-11.41%	ORCL	-5.07%
126.0	VNO	-10.99%	COST	-4.79%
126.0	AMAT	-10.99%	PWR	-4.37%
126.0	HLT	-10.99%	TSLA	-4.37%
126.0	AVGO	-10.7%	VST	-3.66%
126.0	GILD	-10.56%	JPM	-3.52%
126.0	NFLX	-10.56%	WFC	-3.38%
126.0	CSCO	-10.14%	WDC	-3.24%
126.0	MRK	-9.72%	NFLX	-3.1%
126.0	MS	-9.58%	GWW	-2.68%
126.0	ACGL	-8.59%	QCOM	-2.54%

All TMD: 252d

The columns labeled “OaRBreak_VmS” represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
252.0	GE	-61.99%	GE	-41.1%
252.0	PHM	-56.68%	GBTC	-34.93%
252.0	GBTC	-42.29%	PHM	-31.68%
252.0	COST	-39.73%	LLY	-25.34%
252.0	ACGL	-34.59%	AVGO	-24.49%
252.0	PWR	-29.62%	COST	-22.43%
252.0	NFLX	-28.94%	NVDA	-22.26%
252.0	JPM	-28.42%	GLD	-21.75%
252.0	NVDA	-27.4%	ACGL	-20.38%
252.0	LLY	-26.03%	TRGP	-20.38%
252.0	CPRT	-24.14%	TMUS	-19.69%
252.0	DHI	-22.77%	META	-14.04%
252.0	ISRG	-22.43%	GS	-13.7%
252.0	ORCL	-22.26%	THC	-13.36%
252.0	AVGO	-20.55%	JPM	-10.45%
252.0	CMG	-20.21%	PWR	-9.59%
252.0	TDG	-19.69%	MSI	-8.39%
252.0	GS	-17.64%	CAH	-8.22%
252.0	LEN	-16.27%	ETRN	-7.18%
252.0	MU	-15.75%	T	-6.51%
252.0	META	-15.58%	ISRG	-6.51%
252.0	TMUS	-15.24%	TEVA	-6.16%
252.0	HLT	-14.73%	MU	-5.65%
252.0	THC	-13.18%	TDG	-5.65%
252.0	T	-13.01%	NFLX	-5.31%

P30D: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	AZO	-10.53%	CSCO	-5.26%
1.0	MOS	-10.53%	SBUX	-5.26%
1.0	KALU	-10.53%	CCL	-5.26%
1.0	CCL	-10.53%	QQQ	-5.26%
1.0	ACGL	-10.53%	PRGO	-5.26%
1.0	GLD	-10.53%	CNC	-5.26%
1.0	LVS	-10.53%	ZION	-5.26%
1.0	OXY	-10.53%	OXY	-5.26%
1.0	AMGN	-10.53%	ORLY	-5.26%
1.0	BMY	-10.53%	SPY	-5.26%
1.0	BIIB	-10.53%	NWL	-5.26%
1.0	CNC	-5.26%	EXPE	-5.26%
1.0	GS	-5.26%	FITB	-5.26%
1.0	GSK	-5.26%	GLD	-5.26%
1.0	GT	-5.26%	MRK	-5.26%
1.0	COST	-5.26%	LVS	-5.26%
1.0	GNRC	-5.26%	HD	-5.26%
1.0	PHM	-5.26%	HYG	-5.26%
1.0	LNC	-5.26%	KEY	-5.26%
1.0	CYH	-5.26%	NVS	-5.26%
1.0	CZR	-5.26%	T	-5.26%
1.0	PEP	-5.26%	JAZZ	-5.26%
1.0	ELAN	-5.26%	WYNN	-5.26%
1.0	PCG	-5.26%	AMAT	-5.26%
1.0	ORCL	-5.26%	USB	-5.26%

P30D: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	MOS	-40.0%	X	-50.0%
10.0	CCL	-30.0%	CYH	-30.0%
10.0	GE	-20.0%	INTU	-10.0%
10.0	NVS	-20.0%	ELAN	-10.0%
10.0	GSK	-20.0%	MOS	-10.0%
10.0	CSCO	-20.0%	MSFT	0.0%
10.0	BAC	-10.0%	MSI	0.0%
10.0	NVDA	-10.0%	MSTR	0.0%
10.0	BIIB	-10.0%	MU	0.0%
10.0	MNST	0.0%	MUB	0.0%
10.0	MRK	0.0%	NVDA	0.0%
10.0	MUB	0.0%	NFLX	0.0%
10.0	MSTR	0.0%	NVS	0.0%
10.0	NWL	0.0%	NWL	0.0%
10.0	ORCL	0.0%	ON	0.0%
10.0	ORLY	0.0%	ORCL	0.0%
10.0	MSI	0.0%	NAVI	0.0%
10.0	LW	0.0%	MS	0.0%
10.0	AA	0.0%	MRK	0.0%
10.0	LUMN	0.0%	MNST	0.0%
10.0	LQD	0.0%	META	0.0%
10.0	LNC	0.0%	LW	0.0%
10.0	LLY	0.0%	LVS	0.0%
10.0	LEN	0.0%	LUMN	0.0%
10.0	KHC	0.0%	LQD	0.0%

P90D: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	HSBC	-11.29%	GLD	-6.45%
1.0	ACGL	-9.68%	LVS	-4.84%
1.0	HLT	-9.68%	GT	-4.84%
1.0	BALL	-9.68%	HSBC	-4.84%
1.0	AZN	-9.68%	TRGP	-3.23%
1.0	GBTC	-8.06%	FITB	-3.23%
1.0	CAH	-8.06%	PHM	-3.23%
1.0	VCSH	-8.06%	GE	-3.23%
1.0	BIIB	-8.06%	VICI	-3.23%
1.0	VICI	-8.06%	GWW	-3.23%
1.0	GWW	-8.06%	HLT	-3.23%
1.0	AZO	-8.06%	HYG	-3.23%
1.0	MOS	-8.06%	ORLY	-3.23%
1.0	TRGP	-8.06%	INTC	-3.23%
1.0	LVS	-6.45%	ZION	-3.23%
1.0	T	-6.45%	JAZZ	-3.23%
1.0	XOM	-6.45%	NVS	-3.23%
1.0	LNC	-6.45%	NFLX	-3.23%
1.0	GLD	-6.45%	MOS	-3.23%
1.0	GSK	-4.84%	MUB	-3.23%
1.0	DHI	-4.84%	MSFT	-3.23%
1.0	SPY	-4.84%	CNC	-3.23%
1.0	EMB	-4.84%	CDNS	-3.23%
1.0	RIO	-4.84%	FIS	-3.23%
1.0	TDG	-4.84%	BA	-3.23%

P90D: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	MOS	-37.74%	NFLX	-18.87%
10.0	BA	-20.75%	HLT	-15.09%
10.0	CAH	-16.98%	MSFT	-13.21%
10.0	LVS	-16.98%	X	-9.43%
10.0	GSK	-15.09%	FIS	-7.55%
10.0	CDNS	-13.21%	LLY	-7.55%
10.0	CSTM	-11.32%	CYH	-7.55%
10.0	FIS	-9.43%	GLD	-7.55%
10.0	BHP	-9.43%	HSBC	-7.55%
10.0	HLT	-9.43%	CAH	-5.66%
10.0	LLY	-9.43%	WYNN	-5.66%
10.0	CSCO	-9.43%	MOS	-5.66%
10.0	PWR	-9.43%	THC	-5.66%
10.0	HYG	-9.43%	BA	-5.66%
10.0	NVDA	-7.55%	SPY	-3.77%
10.0	JAZZ	-7.55%	TRGP	-3.77%
10.0	T	-7.55%	PWR	-3.77%
10.0	VCSH	-7.55%	FCX	-3.77%
10.0	XOM	-7.55%	VICI	-3.77%
10.0	QQQ	-7.55%	CPRT	-3.77%
10.0	RIO	-7.55%	IRM	-3.77%
10.0	COST	-7.55%	JAZZ	-3.77%
10.0	GWW	-5.66%	RIO	-1.89%
10.0	NVS	-5.66%	CDNS	-1.89%
10.0	VICI	-5.66%	QQQ	-1.89%

P90D: 21d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	MOS	-42.86%	MOS	-28.57%
21.0	QQQ	-28.57%	MSFT	-26.19%
21.0	GLD	-26.19%	BA	-23.81%
21.0	CPRT	-23.81%	HLT	-23.81%
21.0	CDNS	-23.81%	NFLX	-21.43%
21.0	LVS	-21.43%	GLD	-21.43%
21.0	WYNN	-21.43%	WYNN	-16.67%
21.0	SPY	-21.43%	PWR	-14.29%
21.0	CSTM	-19.05%	QQQ	-9.52%
21.0	HLT	-19.05%	LVS	-9.52%
21.0	BA	-16.67%	CDNS	-9.52%
21.0	MS	-16.67%	CAH	-7.14%
21.0	MSFT	-16.67%	ELAN	-7.14%
21.0	NFLX	-14.29%	CYH	-7.14%
21.0	VST	-14.29%	IRM	-7.14%
21.0	GWW	-14.29%	HSBC	-7.14%
21.0	NVDA	-14.29%	SPY	-7.14%
21.0	ORCL	-14.29%	AAP	-4.76%
21.0	CAH	-14.29%	THC	-4.76%
21.0	AMD	-11.9%	FRA	-2.38%
21.0	HYG	-9.52%	JPM	-2.38%
21.0	GBTC	-9.52%	TEVA	-2.38%
21.0	CYH	-9.52%	INTU	-2.38%
21.0	COST	-9.52%	HCA	-2.38%
21.0	IRM	-9.52%	ORCL	-2.38%

P365D: 1d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	TRGP	-6.05%	WRK	-4.55%
1.0	TDG	-5.65%	WYNN	-3.23%
1.0	COST	-5.65%	JAZZ	-3.23%
1.0	MOS	-5.24%	PHM	-3.23%
1.0	CCL	-5.24%	CCL	-3.23%
1.0	NVDA	-5.24%	NVDA	-2.82%
1.0	T	-4.84%	LVS	-2.82%
1.0	PHM	-4.84%	HSBC	-2.82%
1.0	QQQ	-4.84%	AMAT	-2.42%
1.0	PCG	-4.84%	CDNS	-2.42%
1.0	ACGL	-4.84%	GT	-2.42%
1.0	WRK	-4.55%	TEVA	-2.42%
1.0	LLY	-4.44%	T	-2.42%
1.0	JAZZ	-4.44%	GLD	-2.02%
1.0	VICI	-4.44%	ORLY	-2.02%
1.0	HSBC	-4.44%	COST	-2.02%
1.0	SPY	-4.44%	AAPL	-2.02%
1.0	AZO	-4.03%	PEP	-2.02%
1.0	POST	-4.03%	LUMN	-2.02%
1.0	CAH	-4.03%	MNST	-2.02%
1.0	ETRN	-3.85%	PWR	-2.02%
1.0	RIO	-3.63%	CMG	-2.02%
1.0	AZN	-3.63%	MUB	-1.62%
1.0	BA	-3.63%	CVS	-1.61%
1.0	CDNS	-3.63%	SPY	-1.61%

P365D: 10d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	T	-14.23%	TMUS	-9.21%
10.0	CSCO	-11.72%	TRGP	-7.53%
10.0	COST	-10.04%	LUMN	-7.11%
10.0	LLY	-10.04%	CPRT	-6.28%
10.0	MS	-9.62%	DHI	-4.6%
10.0	MOS	-9.62%	NFLX	-4.6%
10.0	CCL	-8.37%	T	-4.6%
10.0	CAH	-8.37%	MS	-4.6%
10.0	CDNS	-8.37%	LVS	-4.6%
10.0	JAZZ	-7.95%	WYNN	-4.18%
10.0	JPM	-7.53%	GBTC	-4.18%
10.0	TMUS	-6.69%	LLY	-4.18%
10.0	BA	-6.69%	PHM	-3.77%
10.0	LUMN	-6.69%	CDNS	-3.77%
10.0	LVS	-5.86%	CSCO	-3.77%
10.0	TRGP	-5.44%	X	-3.35%
10.0	NVDA	-5.44%	HLT	-3.35%
10.0	QQQ	-5.44%	HSBC	-3.35%
10.0	PHM	-5.02%	JAZZ	-3.35%
10.0	BHP	-5.02%	ORCL	-3.35%
10.0	NVS	-4.6%	ACGL	-3.35%
10.0	WYNN	-4.6%	COST	-3.35%
10.0	GSK	-4.18%	LEN	-2.93%
10.0	BMY	-4.18%	POST	-2.93%
10.0	THC	-4.18%	PWR	-2.93%

P365D: 21d

The columns labeled "OaRBreak_VmS" represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	COST	-14.04%	TMUS	-14.04%
21.0	MS	-14.04%	WYNN	-10.96%
21.0	CAH	-12.72%	LUMN	-10.09%
21.0	T	-12.28%	LVS	-9.65%
21.0	BMY	-9.65%	TRGP	-9.21%
21.0	CPRT	-9.21%	SBUX	-7.89%
21.0	LVS	-8.77%	GBTC	-7.46%
21.0	CCL	-8.77%	TEVA	-7.46%
21.0	WYNN	-8.77%	DHI	-6.58%
21.0	MOS	-8.33%	AVGO	-6.58%
21.0	JPM	-8.33%	T	-5.7%
21.0	GLD	-7.89%	IRM	-5.7%
21.0	WFC	-7.89%	MOS	-5.26%
21.0	DHI	-7.89%	BA	-4.82%
21.0	CDNS	-7.46%	COST	-4.82%
21.0	BA	-7.46%	MSFT	-4.82%
21.0	SBUX	-7.02%	HLT	-4.82%
21.0	PHM	-7.02%	UNH	-4.39%
21.0	QQQ	-6.58%	BUD	-4.39%
21.0	LEN	-6.14%	MS	-4.39%
21.0	LLY	-6.14%	PWR	-4.39%
21.0	MNST	-6.14%	BMY	-3.95%
21.0	TMUS	-6.14%	GLD	-3.95%
21.0	NFLX	-6.14%	CDNS	-3.51%
21.0	TRGP	-6.14%	VST	-3.51%

P365D: 63d

The columns labeled “OaRBreak_VmS” represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	T	-33.87%	TRGP	-26.34%
63.0	TRGP	-26.88%	VST	-22.04%
63.0	NFLX	-25.81%	MSTR	-19.89%
63.0	VNO	-25.81%	IRM	-18.28%
63.0	GLD	-25.27%	MS	-15.59%
63.0	CCL	-24.19%	CCL	-13.98%
63.0	LUMN	-20.97%	GLD	-11.83%
63.0	GBTC	-18.82%	LUMN	-10.22%
63.0	CSCO	-17.2%	TMUS	-9.14%
63.0	MSTR	-16.67%	DHI	-6.99%
63.0	LVS	-16.13%	TSLA	-6.45%
63.0	MS	-15.05%	T	-6.45%
63.0	SBUX	-15.05%	GBTC	-5.91%
63.0	DHI	-13.98%	VNO	-5.38%
63.0	BMY	-12.37%	HSBC	-5.38%
63.0	GWW	-12.37%	CVS	-4.3%
63.0	AMZN	-11.29%	CSCO	-3.76%
63.0	HSBC	-10.75%	GWW	-3.76%
63.0	WFC	-10.22%	PHM	-3.23%
63.0	VST	-10.22%	CPRT	-3.23%
63.0	JPM	-9.68%	BMY	-2.69%
63.0	HLT	-9.68%	NFLX	-1.61%
63.0	MNST	-9.14%	LVS	-1.61%
63.0	CPRT	-9.14%	GS	-1.08%
63.0	PHM	-9.14%	JPM	-1.08%

P365D: 126d

The columns labeled “OaRBreak_VmS” represent the average amount by which Vector Model OaR Breakage exceeds Sigma OaR breakage for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	T	-64.23%	VST	-40.65%
126.0	CSCO	-54.47%	TMUS	-38.21%
126.0	NFLX	-47.97%	TRGP	-34.15%
126.0	GLD	-46.34%	GILD	-20.33%
126.0	HSBC	-43.09%	NFLX	-17.89%
126.0	MS	-36.59%	TSLA	-16.26%
126.0	GS	-30.89%	MSTR	-13.82%
126.0	JPM	-30.08%	GLD	-12.2%
126.0	BMY	-30.08%	WFC	-10.57%
126.0	CCL	-28.46%	T	-10.57%
126.0	TRGP	-25.2%	MS	-8.94%
126.0	CAH	-21.95%	CSCO	-8.13%
126.0	VST	-21.95%	JPM	-7.32%
126.0	VNO	-21.95%	HSBC	-5.69%
126.0	WFC	-21.14%	CCL	-4.88%
126.0	MSTR	-20.33%	ORCL	-4.88%
126.0	HLT	-15.45%	VNO	-3.25%
126.0	TSLA	-15.45%	GS	-2.44%
126.0	ISRG	-12.2%	CAH	-2.44%
126.0	ORLY	-10.57%	BMY	-2.44%
126.0	GILD	-8.94%	IRM	-1.63%
126.0	SBUX	-8.94%	ISRG	-0.81%
126.0	COST	-8.13%	HLT	-0.81%
126.0	GWW	-7.32%	AVGO	-0.81%
126.0	GBTC	-7.32%	NWL	0.0%

Appendix 3: Top 25 Ticker Level Differences in VM vs. Sigma 95% and 99% ROLOBC

All TMD: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	B	0.39%	GBTC	0.3%
1.0	CCL	0.24%	X	0.29%
1.0	X	0.21%	NVDA	0.28%
1.0	TSLA	0.21%	GE	0.24%
1.0	GBTC	0.2%	TSLA	0.19%
1.0	NVDA	0.18%	PWR	0.19%
1.0	GE	0.17%	LLY	0.19%
1.0	AVGO	0.13%	CCL	0.18%
1.0	TDG	0.13%	TDG	0.17%
1.0	CYH	0.11%	AVGO	0.16%
1.0	ON	0.11%	VST	0.14%
1.0	VST	0.1%	CAH	0.14%
1.0	MOS	0.1%	PCG	0.13%
1.0	MSFT	0.1%	CDNS	0.13%
1.0	CMG	0.09%	TRGP	0.13%
1.0	LLY	0.09%	ORLY	0.13%
1.0	JAZZ	0.09%	B	0.13%
1.0	DHI	0.08%	WYNN	0.12%
1.0	AZO	0.08%	AZO	0.12%
1.0	COST	0.08%	MSFT	0.12%
1.0	VNO	0.08%	ON	0.12%
1.0	THC	0.08%	CMG	0.12%
1.0	FCX	0.07%	JAZZ	0.11%
1.0	KEY	0.07%	CYH	0.11%
1.0	SBNY	0.07%	HLT	0.11%

All TMD: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	NVDA	2.73%	NVDA	3.32%
10.0	TSLA	2.55%	LLY	2.34%
10.0	CCL	2.12%	TSLA	2.34%
10.0	SBNY	1.86%	GBTC	2.33%
10.0	LLY	1.71%	CCL	2.11%
10.0	AVGO	1.28%	AZO	1.31%
10.0	GBTC	1.21%	AVGO	1.27%
10.0	MSFT	1.03%	PWR	1.22%
10.0	AZO	0.99%	PCG	1.2%
10.0	FRCB	0.93%	T	1.1%
10.0	GT	0.9%	DHI	1.02%
10.0	BHC	0.87%	GE	0.99%
10.0	PWR	0.81%	COST	0.95%
10.0	GE	0.65%	PHM	0.91%
10.0	CDNS	0.64%	VST	0.89%
10.0	T	0.64%	WDC	0.88%
10.0	HLT	0.63%	MSFT	0.88%
10.0	QQQ	0.63%	WYNN	0.86%
10.0	LVS	0.61%	ACGL	0.84%
10.0	COST	0.6%	THC	0.79%
10.0	WYNN	0.56%	JPM	0.71%
10.0	DHI	0.55%	TEVA	0.68%
10.0	AMC	0.53%	TDG	0.64%
10.0	ORLY	0.52%	TMUS	0.6%
10.0	AMD	0.5%	HLT	0.59%

All TMD: 21d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	TSLA	6.47%	NVDA	6.36%
21.0	NVDA	5.21%	TSLA	5.8%
21.0	SBNY	5.03%	GBTC	5.78%
21.0	CCL	4.29%	CCL	4.4%
21.0	GBTC	3.34%	ETRN	4.03%
21.0	LLY	2.52%	VST	3.07%
21.0	AZO	2.43%	SBNY	2.85%
21.0	PCG	2.29%	CDNS	2.78%
21.0	FRCB	2.24%	PCG	2.72%
21.0	PWR	1.98%	LLY	2.61%
21.0	ELAN	1.8%	PWR	2.44%
21.0	MSFT	1.78%	AZO	2.43%
21.0	AMC	1.77%	AA	2.38%
21.0	DHI	1.74%	MSTR	2.21%
21.0	CDNS	1.7%	DHI	2.12%
21.0	QQQ	1.64%	AMAT	2.08%
21.0	WYNN	1.4%	AMC	2.04%
21.0	VNO	1.38%	TMUS	2.03%
21.0	VST	1.29%	AMD	2.01%
21.0	COST	1.23%	MSFT	1.98%
21.0	GE	1.23%	ELAN	1.8%
21.0	JPM	1.15%	AVGO	1.77%
21.0	ORLY	1.14%	PHM	1.75%
21.0	PHM	1.1%	GE	1.67%
21.0	GT	1.07%	FRCB	1.54%

All TMD: 63d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	CCL	16.01%	GBTC	26.61%
63.0	MSTR	15.14%	NVDA	19.86%
63.0	NVDA	15.12%	CCL	15.26%
63.0	SBNY	13.02%	MSTR	15.0%
63.0	GBTC	10.7%	PWR	11.35%
63.0	TSLA	8.64%	LLY	9.83%
63.0	AMC	7.16%	PHM	9.66%
63.0	PCG	6.59%	GE	9.33%
63.0	VNO	6.59%	ETRN	8.48%
63.0	ELAN	6.53%	PCG	7.6%
63.0	LLY	6.41%	VST	7.59%
63.0	PWR	6.35%	TSLA	7.54%
63.0	FRCB	5.84%	T	6.72%
63.0	DHI	5.23%	TMUS	6.03%
63.0	MSFT	5.23%	VNO	5.54%
63.0	AZO	4.9%	JPM	5.25%
63.0	QQQ	4.54%	X	5.03%
63.0	AMZN	4.46%	COST	4.95%
63.0	PHM	4.35%	AMC	4.92%
63.0	MU	3.86%	MS	4.74%
63.0	CDNS	3.69%	QQQ	4.71%
63.0	AMD	3.66%	ACGL	4.64%
63.0	GE	3.4%	AMD	4.47%
63.0	AMAT	3.37%	ELAN	4.46%
63.0	T	3.26%	SBNY	4.37%

All TMD: 126d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	NVDA	43.65%	GBTC	65.02%
126.0	GBTC	29.95%	NVDA	51.09%
126.0	CCL	24.32%	CCL	31.72%
126.0	VNO	19.93%	PHM	26.81%
126.0	PHM	19.51%	LLY	25.01%
126.0	SBNY	19.0%	GE	24.85%
126.0	AMZN	17.53%	VNO	18.96%
126.0	PCG	17.03%	THC	18.61%
126.0	MU	16.95%	TSLA	18.46%
126.0	TSLA	15.32%	PWR	18.3%
126.0	GE	14.44%	PCG	17.86%
126.0	PWR	14.29%	MU	17.43%
126.0	QQQ	14.24%	AMZN	16.33%
126.0	DHI	14.1%	NFLX	16.15%
126.0	AMAT	13.96%	JPM	14.8%
126.0	NFLX	13.72%	MS	14.78%
126.0	AMD	12.56%	DHI	14.75%
126.0	THC	10.86%	COST	13.88%
126.0	MSFT	10.83%	MSTR	13.83%
126.0	AZO	10.64%	ACGL	13.48%
126.0	MS	10.52%	VST	13.17%
126.0	AMC	10.36%	X	12.94%
126.0	COST	9.26%	CMG	12.94%
126.0	ACGL	9.21%	TMUS	12.92%
126.0	ELAN	8.99%	T	12.81%

All TMD: 252d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
252.0	NVDA	143.33%	GBTC	157.31%
252.0	GBTC	125.48%	NVDA	108.97%
252.0	PHM	69.19%	GE	102.84%
252.0	NFLX	63.81%	PHM	89.39%
252.0	GE	62.73%	CCL	74.26%
252.0	LLY	54.38%	THC	64.08%
252.0	CCL	53.85%	TRGP	51.77%
252.0	AMZN	49.97%	MU	46.03%
252.0	VNO	49.73%	NFLX	45.35%
252.0	PWR	46.18%	AMAT	42.14%
252.0	DHI	45.87%	X	41.73%
252.0	MU	45.43%	VNO	36.55%
252.0	ACGL	41.1%	META	36.43%
252.0	CDNS	40.72%	PCG	36.22%
252.0	QQQ	39.87%	QQQ	35.45%
252.0	COST	38.82%	ORCL	34.75%
252.0	MSFT	38.77%	LLY	32.14%
252.0	ISRG	36.7%	ACGL	30.69%
252.0	PCG	36.02%	DHI	29.44%
252.0	INTU	35.47%	COST	29.14%
252.0	AMD	35.02%	MSFT	28.72%
252.0	THC	31.69%	AVGO	28.7%
252.0	AMAT	31.49%	PWR	28.31%
252.0	LEN	28.11%	MSTR	28.18%
252.0	CMG	27.77%	QCOM	28.08%

P30D: 1d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	CYH	2.21%	CYH	3.15%
1.0	MOS	1.8%	AAP	2.72%
1.0	AAP	1.61%	MOS	1.81%
1.0	NVDA	1.07%	NVDA	1.8%
1.0	LVS	0.98%	ELAN	1.65%
1.0	CCL	0.96%	CCL	1.54%
1.0	LW	0.74%	INTU	1.13%
1.0	BIIB	0.65%	X	1.03%
1.0	ELAN	0.64%	LW	1.0%
1.0	BA	0.57%	WYNN	0.87%
1.0	LUMN	0.53%	LVS	0.87%
1.0	GBTC	0.48%	EXPE	0.72%
1.0	WYNN	0.48%	CSCO	0.7%
1.0	GE	0.45%	WDC	0.63%
1.0	AMD	0.41%	BIIB	0.6%
1.0	B	0.39%	QQQ	0.59%
1.0	INTU	0.39%	ORCL	0.56%
1.0	NWL	0.38%	LUMN	0.53%
1.0	AZO	0.35%	GS	0.49%
1.0	CVS	0.34%	CSTM	0.46%
1.0	OXY	0.3%	AMD	0.45%
1.0	X	0.3%	GBTC	0.44%
1.0	ACGL	0.29%	AMAT	0.41%
1.0	CSTM	0.29%	GE	0.41%
1.0	THC	0.27%	BA	0.39%

P30D: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	NVDA	21.96%	NVDA	22.38%
10.0	MOS	12.03%	MOS	18.65%
10.0	AAP	8.75%	X	16.39%
10.0	BIIB	7.29%	BIIB	12.68%
10.0	CYH	4.66%	AAP	9.14%
10.0	NWL	3.81%	CYH	8.92%
10.0	THC	3.28%	CCL	6.79%
10.0	CSTM	3.11%	GOOGL	6.52%
10.0	GBTC	2.96%	AA	5.73%
10.0	CCL	2.89%	CSTM	4.79%
10.0	X	2.51%	GBTC	4.37%
10.0	LVS	2.39%	WYNN	4.32%
10.0	COST	2.08%	NWL	4.3%
10.0	GS	1.86%	THC	3.54%
10.0	WYNN	1.85%	UAA	3.38%
10.0	CVS	1.68%	ELAN	3.22%
10.0	AZO	1.66%	INTU	3.03%
10.0	BA	1.63%	LVS	2.85%
10.0	VFC	1.61%	GS	2.63%
10.0	INTU	1.56%	LW	2.62%
10.0	CSCO	1.56%	BALL	2.27%
10.0	HSBC	1.25%	BA	2.25%
10.0	NVS	1.19%	WDC	2.15%
10.0	JAZZ	1.14%	ADBE	2.03%
10.0	AMAT	1.13%	PWR	2.01%

P90D: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	MOS	1.44%	MOS	1.48%
1.0	CYH	0.88%	CYH	1.29%
1.0	VST	0.86%	GT	0.96%
1.0	NVDA	0.84%	VST	0.91%
1.0	TSLA	0.45%	AAP	0.83%
1.0	LW	0.42%	VFC	0.77%
1.0	B	0.39%	TSLA	0.72%
1.0	VFC	0.38%	X	0.72%
1.0	AZO	0.37%	NVDA	0.7%
1.0	CCL	0.36%	CDNS	0.69%
1.0	AAP	0.33%	GE	0.6%
1.0	TDG	0.33%	HCA	0.51%
1.0	AMD	0.29%	MSTR	0.47%
1.0	IRM	0.27%	CCL	0.46%
1.0	GBTC	0.26%	CSTM	0.45%
1.0	ACGL	0.25%	AZO	0.44%
1.0	KEY	0.25%	MSFT	0.44%
1.0	MSFT	0.24%	CAH	0.44%
1.0	CDNS	0.24%	LW	0.44%
1.0	WYNN	0.23%	AMD	0.42%
1.0	HLT	0.23%	NFLX	0.4%
1.0	INTU	0.22%	ELAN	0.36%
1.0	GWW	0.21%	TDG	0.35%
1.0	CSTM	0.21%	MNST	0.34%
1.0	PCG	0.21%	PWR	0.34%

P90D: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	MOS	9.88%	MOS	14.99%
10.0	NVDA	8.8%	NVDA	7.52%
10.0	GT	4.87%	MSTR	7.27%
10.0	VST	4.0%	CSTM	4.42%
10.0	VFC	3.25%	X	4.24%
10.0	COST	2.87%	CYH	4.15%
10.0	LVS	2.57%	WYNN	4.07%
10.0	CSTM	2.44%	GT	3.54%
10.0	CDNS	2.37%	NFLX	3.45%
10.0	AAP	2.17%	VST	2.86%
10.0	CYH	2.04%	BA	2.78%
10.0	WYNN	1.7%	CDNS	2.69%
10.0	PCG	1.69%	PCG	2.58%
10.0	CAH	1.61%	COST	2.37%
10.0	GWW	1.48%	IRM	2.37%
10.0	HLT	1.43%	FIS	2.32%
10.0	BA	1.38%	ACGL	2.23%
10.0	AZO	1.34%	AAP	2.22%
10.0	FIS	1.23%	GBTC	2.13%
10.0	NFLX	1.21%	AMD	2.06%
10.0	GLD	1.07%	LVS	1.94%
10.0	CZR	1.03%	GOOGL	1.89%
10.0	SBUX	1.03%	GE	1.74%
10.0	IRM	1.01%	CCL	1.72%
10.0	IEP	0.98%	GLD	1.57%

P90D: 21d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	MOS	22.21%	MOS	29.43%
21.0	NVDA	13.53%	GT	19.3%
21.0	GT	9.29%	MSTR	15.43%
21.0	WYNN	7.79%	CYH	13.86%
21.0	CSTM	7.64%	NVDA	12.66%
21.0	VFC	6.87%	CDNS	11.99%
21.0	VST	6.85%	VST	9.01%
21.0	LVS	6.78%	WYNN	8.03%
21.0	BA	6.57%	BA	6.84%
21.0	COST	5.98%	IRM	6.57%
21.0	CDNS	5.19%	AMD	6.55%
21.0	AMD	4.65%	CSTM	5.54%
21.0	MSFT	4.58%	PWR	5.02%
21.0	QQQ	4.48%	NFLX	5.0%
21.0	NFLX	4.13%	TEVA	4.98%
21.0	HLT	3.55%	LVS	4.97%
21.0	IEP	3.38%	COST	4.96%
21.0	GBTC	3.32%	QQQ	4.9%
21.0	IRM	3.23%	AMAT	4.81%
21.0	AAP	3.05%	MSFT	4.36%
21.0	FIS	2.84%	HCA	4.15%
21.0	SBUX	2.44%	GWW	3.35%
21.0	GWW	2.19%	HLT	3.17%
21.0	BALL	2.12%	FIS	2.98%
21.0	PCG	2.01%	CMA	2.82%

P365D: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	LUMN	0.56%	LUMN	0.71%
1.0	B	0.39%	TSLA	0.48%
1.0	AVGO	0.39%	AVGO	0.45%
1.0	CCL	0.37%	CCL	0.43%
1.0	VNO	0.34%	VFC	0.39%
1.0	VST	0.3%	VST	0.36%
1.0	TSLA	0.29%	T	0.36%
1.0	AAP	0.25%	VNO	0.32%
1.0	T	0.24%	AAP	0.29%
1.0	MOS	0.24%	GE	0.28%
1.0	GT	0.24%	TRGP	0.25%
1.0	BMY	0.23%	CYH	0.25%
1.0	TRGP	0.2%	JAZZ	0.24%
1.0	COST	0.2%	HCA	0.23%
1.0	NVDA	0.19%	BMY	0.22%
1.0	MS	0.19%	COST	0.22%
1.0	CYH	0.18%	AZO	0.2%
1.0	TDG	0.17%	CDNS	0.19%
1.0	INTU	0.15%	NVDA	0.19%
1.0	GE	0.15%	MOS	0.19%
1.0	PRGO	0.14%	PRGO	0.19%
1.0	JAZZ	0.13%	JPM	0.19%
1.0	HLT	0.11%	CAH	0.19%
1.0	LW	0.11%	MS	0.18%
1.0	WYNN	0.11%	ORLY	0.18%

P365D: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	LUMN	8.54%	LUMN	11.09%
10.0	NVDA	2.51%	MSTR	3.52%
10.0	GT	2.44%	T	3.46%
10.0	T	2.35%	CCL	3.22%
10.0	COST	2.23%	AVGO	3.1%
10.0	VST	2.15%	MOS	2.77%
10.0	CCL	2.04%	VST	2.56%
10.0	AVGO	2.03%	WYNN	2.15%
10.0	TSLA	1.96%	NVDA	2.03%
10.0	MOS	1.67%	COST	1.93%
10.0	WYNN	1.51%	GT	1.78%
10.0	AAP	1.47%	TRGP	1.61%
10.0	LVS	1.37%	TSLA	1.57%
10.0	BMY	1.36%	AZO	1.47%
10.0	CDNS	1.11%	NFLX	1.37%
10.0	JAZZ	1.11%	JPM	1.31%
10.0	LLY	1.07%	TDG	1.29%
10.0	CAH	1.0%	BMY	1.19%
10.0	CSCO	0.91%	WFC	1.14%
10.0	LW	0.9%	WDC	1.14%
10.0	HLT	0.9%	LVS	1.13%
10.0	VNO	0.88%	BUD	1.11%
10.0	CYH	0.82%	CAH	1.1%
10.0	NFLX	0.72%	CSCO	0.95%
10.0	ETRN	0.7%	GWW	0.95%

P365D: 21d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	LUMN	11.07%	LUMN	26.65%
21.0	NVDA	4.76%	MSTR	10.4%
21.0	VST	4.07%	VST	7.29%
21.0	T	4.04%	T	5.95%
21.0	TSLA	3.86%	VNO	5.56%
21.0	COST	3.7%	AVGO	4.7%
21.0	WYNN	3.53%	NVDA	4.55%
21.0	MOS	3.47%	MOS	4.51%
21.0	CCL	2.69%	MS	3.94%
21.0	MSTR	2.43%	GT	3.88%
21.0	AAP	2.4%	TRGP	3.87%
21.0	BMY	2.37%	LVS	3.13%
21.0	LVS	2.36%	UAA	3.09%
21.0	AMC	2.22%	TMUS	3.01%
21.0	NWL	2.15%	CCL	2.96%
21.0	GT	2.15%	CYH	2.88%
21.0	SBUX	2.01%	COST	2.87%
21.0	AVGO	1.9%	BMY	2.38%
21.0	NFLX	1.84%	ZION	2.33%
21.0	LW	1.82%	BUD	2.18%
21.0	CYH	1.74%	SBUX	2.13%
21.0	VNO	1.72%	CAH	2.03%
21.0	CDNS	1.71%	WYNN	2.02%
21.0	QQQ	1.61%	WFC	2.02%
21.0	HLT	1.53%	NFLX	1.98%

P365D: 63d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	MSTR	63.68%	LUMN	60.07%
63.0	LUMN	31.96%	MSTR	51.41%
63.0	VST	19.01%	VST	29.97%
63.0	T	16.43%	T	23.99%
63.0	CCL	16.04%	CCL	21.8%
63.0	VNO	11.23%	MS	15.53%
63.0	NFLX	9.74%	NWL	13.89%
63.0	CSCO	9.12%	VNO	13.44%
63.0	NWL	8.69%	GBTC	12.63%
63.0	TRGP	7.83%	TRGP	11.38%
63.0	GOOGL	7.82%	JPM	11.0%
63.0	LVS	7.64%	NFLX	10.04%
63.0	GBTC	6.5%	CSCO	9.92%
63.0	GT	6.49%	HSBC	9.4%
63.0	MS	5.99%	LVS	8.46%
63.0	GWW	5.44%	CAH	7.5%
63.0	NVDA	5.37%	TMUS	7.02%
63.0	BMY	5.0%	PWR	6.63%
63.0	MOS	4.54%	AVGO	6.56%
63.0	CAH	4.2%	ORLY	6.08%
63.0	COST	3.92%	GOOGL	6.05%
63.0	AMZN	3.8%	GLD	6.0%
63.0	GLD	3.73%	NVDA	5.56%
63.0	QQQ	3.29%	GE	5.1%
63.0	WFC	3.27%	BMY	4.69%

P365D: 126d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	VST	49.8%	LUMN	66.5%
126.0	T	35.91%	CCL	56.21%
126.0	CCL	33.67%	VST	50.46%
126.0	MSTR	28.48%	T	47.11%
126.0	MS	27.46%	GBTC	46.92%
126.0	NFLX	23.87%	MS	37.53%
126.0	GBTC	21.58%	TSLA	35.17%
126.0	VNO	20.91%	JPM	32.08%
126.0	CSCO	20.36%	VNO	31.27%
126.0	LUMN	19.38%	MSTR	29.85%
126.0	TSLA	17.1%	TRGP	24.62%
126.0	TRGP	15.91%	NFLX	24.58%
126.0	AMZN	11.53%	HSBC	19.97%
126.0	CAH	10.92%	CSCO	19.2%
126.0	GT	10.85%	CTLT	18.52%
126.0	BMY	10.85%	AZO	18.46%
126.0	CPRT	10.71%	CAH	18.25%
126.0	JPM	10.6%	TMUS	16.2%
126.0	AZO	9.25%	BMY	14.97%
126.0	COST	8.8%	GT	12.07%
126.0	HSBC	8.64%	GS	11.23%
126.0	GLD	8.19%	CPRT	11.08%
126.0	QQQ	7.76%	AMZN	9.74%
126.0	GWW	6.91%	ORLY	9.12%
126.0	ISRG	6.78%	GLD	9.04%

Appendix 4: Bottom 25 Ticker Level Differences in VM vs. Sigma 95% and 99% ROLOBC

All TMD: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	IEP	-0.3%	NWL	-0.37%
1.0	LUMN	-0.23%	IEP	-0.31%
1.0	MSTR	-0.22%	LUMN	-0.18%
1.0	NWL	-0.21%	GNRC	-0.14%
1.0	CZR	-0.16%	SIVBQ	-0.14%
1.0	UAA	-0.15%	BIIB	-0.13%
1.0	GNRC	-0.14%	CZR	-0.11%
1.0	BIIB	-0.13%	INTC	-0.1%
1.0	TEVA	-0.1%	BXP	-0.1%
1.0	LNC	-0.1%	TEVA	-0.1%
1.0	META	-0.09%	UAA	-0.09%
1.0	BXP	-0.09%	META	-0.09%
1.0	NFLX	-0.07%	FSUGY	-0.09%
1.0	AA	-0.06%	ZTS	-0.08%
1.0	OXY	-0.06%	BALL	-0.07%
1.0	GT	-0.06%	PEP	-0.06%
1.0	AAPL	-0.06%	INTU	-0.06%
1.0	BALL	-0.06%	FIS	-0.06%
1.0	BA	-0.05%	CTLT	-0.06%
1.0	TLT	-0.05%	OXY	-0.06%
1.0	FSUGY	-0.05%	KHC	-0.05%
1.0	ORCL	-0.04%	CLF	-0.05%
1.0	SBUX	-0.04%	AAPL	-0.05%
1.0	HD	-0.04%	GT	-0.05%
1.0	BHP	-0.04%	VZ	-0.04%

All TMD: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	LUMN	-1.81%	IEP	-2.11%
10.0	CZR	-1.57%	NWL	-1.92%
10.0	IEP	-1.55%	CLF	-1.44%
10.0	MSTR	-1.35%	SIVBQ	-1.44%
10.0	NWL	-1.04%	CZR	-1.32%
10.0	B	-0.99%	CYH	-1.14%
10.0	META	-0.79%	GME	-1.04%
10.0	GNRC	-0.77%	LUMN	-1.0%
10.0	INTU	-0.75%	GNRC	-0.91%
10.0	BIIB	-0.56%	INTU	-0.85%
10.0	SIVBQ	-0.56%	BIIB	-0.68%
10.0	NFLX	-0.56%	META	-0.68%
10.0	MS	-0.52%	RIO	-0.66%
10.0	ORCL	-0.49%	OXY	-0.64%
10.0	GOOGL	-0.46%	VZ	-0.59%
10.0	CLF	-0.45%	ORCL	-0.56%
10.0	AA	-0.43%	ETRN	-0.55%
10.0	GME	-0.42%	FSUGY	-0.54%
10.0	OXY	-0.4%	HD	-0.54%
10.0	FSUGY	-0.38%	BHP	-0.53%
10.0	LNC	-0.36%	BXP	-0.52%
10.0	BXP	-0.34%	BAC	-0.48%
10.0	BALL	-0.31%	LNC	-0.43%
10.0	TEVA	-0.3%	ON	-0.4%
10.0	AAPL	-0.27%	ZTS	-0.34%

All TMD: 21d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	CZR	-4.05%	IEP	-3.57%
21.0	IEP	-3.72%	NWL	-3.44%
21.0	LUMN	-3.54%	GME	-2.97%
21.0	GME	-2.15%	CZR	-2.77%
21.0	GNRC	-2.0%	GNRC	-2.63%
21.0	NWL	-1.83%	CLF	-2.45%
21.0	MSTR	-1.71%	SIVBQ	-2.05%
21.0	INTU	-1.66%	INTU	-1.82%
21.0	CLF	-1.6%	KEY	-1.43%
21.0	META	-1.58%	BBY	-1.2%
21.0	FSUGY	-0.95%	BAC	-1.2%
21.0	OXY	-0.93%	RIO	-1.17%
21.0	CYH	-0.87%	META	-1.11%
21.0	VZ	-0.85%	OXY	-1.0%
21.0	ADBE	-0.74%	FSUGY	-1.0%
21.0	BAC	-0.65%	BALL	-0.98%
21.0	BALL	-0.63%	ADBE	-0.98%
21.0	BIIB	-0.62%	HD	-0.92%
21.0	SIVBQ	-0.6%	BIIB	-0.91%
21.0	BHP	-0.57%	FITB	-0.87%
21.0	ORCL	-0.56%	CYH	-0.84%
21.0	KALU	-0.51%	BXP	-0.81%
21.0	AAPL	-0.51%	VZ	-0.79%
21.0	KHC	-0.46%	VFC	-0.67%
21.0	RIO	-0.45%	AAP	-0.66%

All TMD: 63d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	IEP	-13.29%	SIVBQ	-17.54%
63.0	GNRC	-10.11%	IEP	-14.91%
63.0	NWL	-7.16%	GNRC	-11.17%
63.0	META	-6.19%	NWL	-8.75%
63.0	LUMN	-4.14%	CLF	-8.25%
63.0	GME	-4.1%	CYH	-7.74%
63.0	CZR	-3.69%	BHC	-6.96%
63.0	BALL	-3.42%	UAA	-5.63%
63.0	VFC	-3.0%	GME	-5.54%
63.0	CYH	-2.9%	VFC	-4.05%
63.0	SIVBQ	-2.85%	CVS	-3.91%
63.0	CLF	-2.6%	BALL	-3.91%
63.0	ON	-2.47%	KEY	-3.55%
63.0	UAA	-2.47%	INTC	-3.53%
63.0	BHP	-2.4%	BBY	-3.18%
63.0	OXY	-1.99%	AA	-3.15%
63.0	ADBE	-1.81%	FSUGY	-3.11%
63.0	VZ	-1.75%	ZION	-3.06%
63.0	INTU	-1.57%	AAP	-2.84%
63.0	BBY	-1.55%	CZR	-2.47%
63.0	AA	-1.54%	BHP	-2.42%
63.0	IRM	-1.37%	MOS	-2.32%
63.0	FITB	-1.37%	VZ	-2.12%
63.0	FSUGY	-1.32%	PRGO	-2.07%
63.0	HD	-1.31%	OXY	-1.97%

All TMD: 126d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	IEP	-26.89%	FRCB	-74.45%
126.0	NWL	-22.89%	IEP	-27.61%
126.0	GNRC	-17.22%	SIVBQ	-23.49%
126.0	SIVBQ	-14.35%	NWL	-22.44%
126.0	LUMN	-11.71%	VFC	-16.33%
126.0	VFC	-10.91%	CLF	-16.13%
126.0	FRCB	-7.86%	GNRC	-16.04%
126.0	MOS	-6.09%	INTC	-12.14%
126.0	BALL	-5.83%	BHC	-10.03%
126.0	CLF	-5.2%	UAA	-9.1%
126.0	CVS	-4.9%	GME	-8.79%
126.0	GME	-4.63%	BALL	-8.1%
126.0	VZ	-4.43%	MOS	-7.9%
126.0	ON	-4.42%	CHTR	-7.17%
126.0	CYH	-4.29%	CVS	-6.55%
126.0	IRM	-4.19%	KEY	-6.05%
126.0	CHTR	-3.97%	CTLT	-6.01%
126.0	BHP	-3.73%	AAP	-5.5%
126.0	AA	-3.37%	SBNY	-5.31%
126.0	TEVA	-3.08%	PRGO	-5.24%
126.0	BBY	-2.75%	AA	-4.5%
126.0	GSK	-2.65%	BHP	-4.34%
126.0	PRGO	-2.57%	VZ	-3.52%
126.0	KEY	-2.55%	CMA	-3.15%
126.0	FSUGY	-2.44%	BBY	-3.08%

All TMD: 252d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2022-01-31 through 2025-05-29

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
252.0	FRCB	-115.88%	FRCB	-115.45%
252.0	SIVBQ	-81.22%	SBNY	-56.56%
252.0	IEP	-49.75%	IEP	-56.39%
252.0	NWL	-46.41%	SIVBQ	-55.92%
252.0	GNRC	-27.32%	NWL	-48.0%
252.0	CVS	-19.54%	CLF	-29.69%
252.0	CLF	-18.76%	MOS	-28.21%
252.0	MOS	-16.75%	AAP	-24.99%
252.0	SBNY	-13.3%	GNRC	-21.7%
252.0	AA	-13.12%	VFC	-19.49%
252.0	CZR	-12.43%	GT	-16.85%
252.0	AAP	-12.24%	LUMN	-16.84%
252.0	KEY	-11.87%	BHC	-16.79%
252.0	VST	-11.56%	LNC	-14.82%
252.0	VFC	-11.26%	CZR	-14.53%
252.0	GT	-10.89%	CTLT	-13.37%
252.0	BA	-9.52%	CVS	-13.15%
252.0	MSTR	-9.21%	KEY	-12.92%
252.0	BHC	-8.23%	INTC	-11.82%
252.0	GME	-7.51%	PRGO	-10.23%
252.0	BALL	-7.22%	UAA	-9.68%
252.0	CMA	-6.88%	CSTM	-9.31%
252.0	UAA	-6.66%	KHC	-7.46%
252.0	IRM	-6.15%	FSUGY	-7.22%
252.0	PRGO	-5.83%	OXY	-6.82%

P30D: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	UNH	-1.86%	CLF	-3.22%
1.0	AMC	-1.15%	UNH	-1.84%
1.0	TSLA	-0.94%	BHC	-1.39%
1.0	MSTR	-0.75%	AMC	-1.15%
1.0	CLF	-0.74%	TSLA	-0.96%
1.0	IEP	-0.62%	MSTR	-0.79%
1.0	FSUGY	-0.61%	KHC	-0.7%
1.0	PHM	-0.58%	CPRT	-0.7%
1.0	MU	-0.58%	LLY	-0.69%
1.0	AVGO	-0.52%	IEP	-0.66%
1.0	KHC	-0.45%	FSUGY	-0.64%
1.0	TEVA	-0.43%	PHM	-0.63%
1.0	AZN	-0.38%	JAZZ	-0.58%
1.0	GOOGL	-0.35%	SNY	-0.43%
1.0	CPRT	-0.34%	TEVA	-0.41%
1.0	JAZZ	-0.32%	MU	-0.36%
1.0	TXN	-0.31%	CZR	-0.29%
1.0	LNC	-0.3%	CNC	-0.26%
1.0	T	-0.27%	ON	-0.25%
1.0	BHC	-0.25%	AZN	-0.24%
1.0	UAA	-0.24%	AVGO	-0.21%
1.0	CNC	-0.22%	LEN	-0.19%
1.0	FIS	-0.22%	PEP	-0.17%
1.0	GLD	-0.21%	TMUS	-0.16%
1.0	GME	-0.2%	GOOGL	-0.15%

P30D: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-05-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	AMC	-13.59%	CLF	-18.17%
10.0	TSLA	-9.4%	AMC	-13.22%
10.0	LUMN	-8.96%	LUMN	-12.65%
10.0	PHM	-6.6%	IEP	-8.11%
10.0	GME	-6.22%	TSLA	-8.11%
10.0	IEP	-6.09%	PHM	-5.34%
10.0	UNH	-5.07%	GME	-5.29%
10.0	AVGO	-4.96%	KHC	-4.9%
10.0	CLF	-4.41%	LLY	-4.43%
10.0	MU	-4.3%	AVGO	-4.02%
10.0	WDC	-4.12%	VNO	-2.63%
10.0	MSTR	-3.3%	LNC	-2.63%
10.0	KHC	-3.13%	GILD	-2.52%
10.0	TXN	-2.76%	MSTR	-2.49%
10.0	GOOGL	-2.55%	TXN	-2.3%
10.0	HCA	-2.44%	LEN	-2.11%
10.0	ELAN	-2.33%	HCA	-2.01%
10.0	GILD	-2.32%	FSUGY	-1.91%
10.0	ADBE	-2.22%	ZTS	-1.81%
10.0	BUD	-2.21%	MU	-1.61%
10.0	LLY	-1.94%	UNH	-1.6%
10.0	ON	-1.84%	BUD	-1.43%
10.0	ZTS	-1.75%	BHC	-1.38%
10.0	MSFT	-1.67%	VST	-1.34%
10.0	AMZN	-1.6%	XOM	-1.28%

P90D: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	LNC	-0.83%	BHC	-1.0%
1.0	LLY	-0.68%	AMZN	-0.73%
1.0	UNH	-0.51%	LNC	-0.68%
1.0	IEP	-0.38%	LLY	-0.56%
1.0	LUMN	-0.38%	UNH	-0.46%
1.0	KHC	-0.37%	CLF	-0.45%
1.0	AA	-0.36%	KHC	-0.44%
1.0	BHC	-0.35%	LUMN	-0.41%
1.0	ORCL	-0.3%	VZ	-0.41%
1.0	AMZN	-0.29%	PEP	-0.39%
1.0	VNO	-0.27%	AA	-0.38%
1.0	BIIB	-0.26%	IEP	-0.35%
1.0	MU	-0.26%	NWL	-0.34%
1.0	ZION	-0.26%	MU	-0.33%
1.0	OXY	-0.25%	OXY	-0.32%
1.0	UAA	-0.24%	ZION	-0.29%
1.0	QQQ	-0.23%	ADBE	-0.29%
1.0	AMC	-0.23%	JAZZ	-0.29%
1.0	CMA	-0.22%	UAA	-0.29%
1.0	CMCSA	-0.22%	MRK	-0.28%
1.0	TEVA	-0.2%	META	-0.28%
1.0	JAZZ	-0.2%	VNO	-0.28%
1.0	NWL	-0.2%	TEVA	-0.26%
1.0	HSBC	-0.19%	LEN	-0.23%
1.0	AZN	-0.19%	AMC	-0.23%

P90D: 10d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	BIIB	-4.3%	CLF	-5.89%
10.0	LUMN	-3.75%	LNC	-5.3%
10.0	LNC	-3.68%	NWL	-4.69%
10.0	MSTR	-2.94%	OXY	-4.36%
10.0	GME	-2.75%	LUMN	-4.16%
10.0	BHC	-2.42%	BHC	-3.8%
10.0	ADBE	-2.1%	BIIB	-3.69%
10.0	MU	-2.06%	ORCL	-3.3%
10.0	BBY	-1.98%	KHC	-3.03%
10.0	ELAN	-1.98%	PRGO	-2.69%
10.0	MRK	-1.95%	AA	-2.63%
10.0	WDC	-1.92%	GME	-2.59%
10.0	AMAT	-1.65%	FITB	-2.44%
10.0	OXY	-1.61%	PEP	-2.42%
10.0	AMZN	-1.54%	JAZZ	-2.11%
10.0	AMC	-1.45%	ELAN	-1.93%
10.0	SPY	-1.44%	VNO	-1.91%
10.0	TSLA	-1.43%	LLY	-1.87%
10.0	KALU	-1.43%	MU	-1.78%
10.0	META	-1.42%	CVS	-1.74%
10.0	TEVA	-1.39%	BBY	-1.65%
10.0	UAA	-1.39%	TFC	-1.59%
10.0	PHM	-1.37%	MS	-1.58%
10.0	TFC	-1.23%	META	-1.58%
10.0	KHC	-1.2%	UAA	-1.42%

P90D: 21d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2025-03-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	BIIB	-11.88%	BHC	-15.7%
21.0	LNC	-9.92%	NWL	-12.56%
21.0	OXY	-8.0%	LNC	-11.57%
21.0	BHC	-7.03%	BIIB	-10.67%
21.0	KALU	-5.43%	OXY	-10.07%
21.0	WDC	-5.35%	ORCL	-8.12%
21.0	MU	-5.27%	LUMN	-5.93%
21.0	TRGP	-5.1%	JAZZ	-5.48%
21.0	GME	-4.92%	MU	-5.17%
21.0	ELAN	-4.24%	CLF	-4.91%
21.0	META	-3.66%	AA	-4.74%
21.0	JAZZ	-2.82%	GME	-4.43%
21.0	MRK	-2.73%	PEP	-4.35%
21.0	AMZN	-2.61%	LLY	-4.26%
21.0	CHTR	-2.6%	KALU	-3.98%
21.0	LUMN	-2.57%	LEN	-3.79%
21.0	AAPL	-2.5%	CVS	-3.62%
21.0	MSTR	-2.5%	FITB	-3.6%
21.0	NWL	-2.47%	EXPE	-3.5%
21.0	GS	-2.4%	UNH	-3.27%
21.0	ZION	-2.4%	KHC	-3.15%
21.0	PEP	-2.39%	AAPL	-3.09%
21.0	TSLA	-2.38%	MRK	-3.02%
21.0	AVGO	-2.37%	TRGP	-2.94%
21.0	USB	-2.23%	KEY	-2.82%

P365D: 1d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	MSTR	-0.58%	WRK	-0.62%
1.0	IEP	-0.44%	NWL	-0.57%
1.0	BIIB	-0.4%	IEP	-0.42%
1.0	NWL	-0.4%	BIIB	-0.38%
1.0	UAA	-0.23%	MSTR	-0.32%
1.0	LNC	-0.22%	FSUGY	-0.3%
1.0	AMAT	-0.2%	AMAT	-0.29%
1.0	TEVA	-0.18%	BHC	-0.28%
1.0	BXP	-0.17%	LEN	-0.23%
1.0	BHC	-0.17%	MRK	-0.2%
1.0	PWR	-0.17%	OXY	-0.19%
1.0	LEN	-0.16%	CSTM	-0.18%
1.0	FSUGY	-0.16%	PHM	-0.18%
1.0	PHM	-0.14%	BXP	-0.15%
1.0	OXY	-0.13%	PEP	-0.15%
1.0	BHP	-0.12%	BHP	-0.15%
1.0	ON	-0.11%	TEVA	-0.14%
1.0	RIO	-0.1%	KHC	-0.14%
1.0	AMZN	-0.1%	LNC	-0.13%
1.0	AZN	-0.1%	CLF	-0.12%
1.0	PEP	-0.09%	AMZN	-0.11%
1.0	GME	-0.08%	DHI	-0.11%
1.0	UNH	-0.07%	AA	-0.1%
1.0	CMCSA	-0.07%	INTC	-0.1%
1.0	META	-0.07%	AMD	-0.1%

P365D: 10d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	IEP	-2.79%	WRK	-3.7%
10.0	BIIB	-1.98%	IEP	-3.37%
10.0	AMAT	-1.74%	BIIB	-2.18%
10.0	LNC	-1.18%	AMAT	-2.14%
10.0	MU	-1.17%	OXY	-1.81%
10.0	BXP	-1.08%	CLF	-1.77%
10.0	INTC	-1.02%	ON	-1.65%
10.0	B	-0.99%	MU	-1.56%
10.0	WRK	-0.97%	NWL	-1.39%
10.0	FSUGY	-0.86%	INTC	-1.32%
10.0	FIS	-0.85%	BXP	-1.27%
10.0	OXY	-0.73%	RIO	-1.21%
10.0	CHTR	-0.73%	FSUGY	-1.19%
10.0	META	-0.7%	CNC	-1.16%
10.0	UAA	-0.67%	LNC	-1.13%
10.0	X	-0.66%	ORCL	-0.98%
10.0	CMG	-0.66%	AMC	-0.97%
10.0	LEN	-0.56%	BHP	-0.95%
10.0	ORCL	-0.54%	QCOM	-0.9%
10.0	ON	-0.52%	CYH	-0.85%
10.0	GME	-0.52%	PRGO	-0.82%
10.0	MSTR	-0.52%	CMG	-0.77%
10.0	CMA	-0.52%	MRK	-0.64%
10.0	AMD	-0.5%	KHC	-0.64%
10.0	PWR	-0.49%	GME	-0.63%

P365D: 21d

The columns labeled "ROLOBC_VmS" represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	IEP	-6.53%	WRK	-9.22%
21.0	BIIB	-3.9%	IEP	-7.14%
21.0	MU	-3.21%	OXY	-5.23%
21.0	AMAT	-3.0%	FSUGY	-4.31%
21.0	INTC	-2.98%	BIIB	-4.28%
21.0	OXY	-2.36%	MU	-3.23%
21.0	ON	-1.81%	ON	-3.12%
21.0	CHTR	-1.8%	AMAT	-3.07%
21.0	WRK	-1.73%	INTC	-2.94%
21.0	LNC	-1.71%	BBY	-2.73%
21.0	PWR	-1.54%	QCOM	-2.34%
21.0	BHC	-1.45%	AMD	-2.25%
21.0	BHP	-1.42%	AAP	-2.21%
21.0	AMD	-1.41%	BHC	-2.17%
21.0	GME	-1.41%	MRK	-1.92%
21.0	FSUGY	-1.36%	EXPE	-1.9%
21.0	CMG	-1.35%	LNC	-1.87%
21.0	CMA	-1.34%	CHTR	-1.73%
21.0	META	-1.26%	BXP	-1.72%
21.0	QCOM	-1.15%	LEN	-1.68%
21.0	BXP	-1.14%	BHP	-1.67%
21.0	RIO	-1.06%	CLF	-1.6%
21.0	LEN	-1.04%	BAC	-1.53%
21.0	MRK	-0.93%	GME	-1.5%
21.0	VFC	-0.91%	FIS	-1.47%

P365D: 63d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	IEP	-30.85%	IEP	-28.3%
63.0	ON	-13.03%	AMD	-20.38%
63.0	AMD	-12.63%	OXY	-13.54%
63.0	AMAT	-12.55%	ON	-12.68%
63.0	OXY	-10.77%	FSUGY	-10.34%
63.0	BIIB	-7.92%	AMAT	-10.27%
63.0	INTC	-6.87%	ADBE	-9.25%
63.0	VFC	-6.8%	BHP	-9.0%
63.0	ADBE	-5.51%	INTC	-8.87%
63.0	CSTM	-5.21%	TEVA	-8.78%
63.0	BHP	-5.2%	VFC	-8.52%
63.0	GME	-5.09%	CLF	-7.83%
63.0	FSUGY	-4.99%	ELAN	-7.58%
63.0	PCG	-4.86%	WDC	-7.52%
63.0	EXPE	-4.35%	MU	-7.08%
63.0	ZION	-4.29%	FIS	-6.95%
63.0	MU	-4.16%	QCOM	-6.64%
63.0	QCOM	-4.02%	CYH	-6.23%
63.0	MRK	-3.41%	CSTM	-5.94%
63.0	BBY	-3.25%	ORCL	-5.72%
63.0	CZR	-2.94%	AAP	-5.66%
63.0	LEN	-2.8%	BIIB	-5.65%
63.0	MSI	-2.72%	CZR	-5.49%
63.0	BXP	-2.56%	MRK	-4.93%
63.0	CHTR	-2.54%	CVS	-4.62%

P365D: 126d

The columns labeled “ROLOBC_VmS” represent the average amount by which Vector Model ROLOBC exceeds Sigma ROLOBC for the given ticker across all model dates for which actual results for the stated horizon are known (periods for all horizons > 1d overlap).

Period examined: All model dates from 2025-05-29 through 2024-06-03

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	IEP	-53.99%	IEP	-51.35%
126.0	ON	-40.43%	AMC	-30.53%
126.0	AMD	-23.05%	AMD	-30.53%
126.0	ADBE	-19.52%	CYH	-30.34%
126.0	BHP	-16.38%	ON	-27.96%
126.0	FSUGY	-15.6%	CSTM	-24.5%
126.0	WDC	-15.15%	VFC	-22.91%
126.0	CLF	-14.76%	ADBE	-20.74%
126.0	ELAN	-14.62%	BHP	-19.38%
126.0	UNH	-13.98%	FSUGY	-19.2%
126.0	PCG	-13.17%	CLF	-18.99%
126.0	VFC	-12.47%	INTC	-18.78%
126.0	AMAT	-12.28%	IRM	-17.08%
126.0	INTC	-12.21%	ELAN	-16.28%
126.0	AMC	-11.8%	PCG	-15.36%
126.0	MU	-11.55%	BALL	-15.3%
126.0	CSTM	-11.46%	WDC	-14.89%
126.0	EXPE	-10.54%	OXY	-14.87%
126.0	OXY	-10.17%	MU	-14.68%
126.0	MRK	-9.51%	DHI	-14.06%
126.0	QCOM	-8.84%	THC	-12.7%
126.0	THC	-8.78%	QCOM	-12.36%
126.0	BBY	-8.67%	LLY	-11.54%
126.0	LLY	-8.22%	UNH	-11.42%
126.0	PHM	-7.94%	BIIB	-10.67%

Appendix 5: Kupiec and Christoferson Tests for Sigma

The Kupiec Proportion of Failures test statistic (listed as OaR_kStat in the table below), and its probability (OaR_pValK) are used to test the null hypothesis that the OaR model breakage is consistent with expectations. The test statistic is calculated by comparing the number of OaR breaks experienced to the expected number of breaks given the total number of observations and the specified probability level. Breakage was measured at the individual ticker-model date level. The probabilty of the Kupiec statistic occuring is obtained from the chi-squared distribution. The lower the statitic, the higher the p-Value, and the more likely that Sigma's OaR breakage is consistent with expectations.

The Christoferson OaR Violation Indepence test statistic (listed as OaR_chrStat in the table below) and its probabilty (OaR_pValChr) are used to test the null hypothesis that the OaR model violations are independent. The test statistic focuses on consecutive breakages over time. We measure breakage at the portfolio level, with portfolio breakage for a given period defined as equally weighted ticker level breakage for that period being beyond expecataion given the specified probability level. The probabilty of the Christoferson statistic occuring is obtained from the chi-squared distribution. The lower the statitic, the higher the p-Value, and the more likely that Sigma OaR breakage is independent.

Kupiec and Christoferson results for the Vector Model can be found in the Report Card section.

Period examined: 2022-01-31 through 2025-05-29. Note that for horizon periods greater than 1d we exclude enough model dates to assure no overlap between observation periods.

Model	Pctile	Horizon	OaR_kStat	OaR_pValK	OaR_chrStat	OaR_pValChr
Sigma	95	1	215.99	0	5.94	0.01
Sigma	95	10	3.48	0.06	2.37	0.12
Sigma	95	21	11.62	0	0.12	0.73
Sigma	95	63	7.24	0.01	0.75	0.39
Sigma	95	126	0.04	0.83	-0	1
Sigma	95	252	11.61	0	nan	0
Sigma	99	1	200.47	0	9.35	0
Sigma	99	10	29.46	0	0.65	0.42
Sigma	99	21	19.82	0	0.38	0.54
Sigma	99	63	19.59	0	nan	0
Sigma	99	126	9.13	0	nan	0
Sigma	99	252	24.14	0	nan	0