VecViz Opportunity At Risk (OaR) Performance Report

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1 November 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.

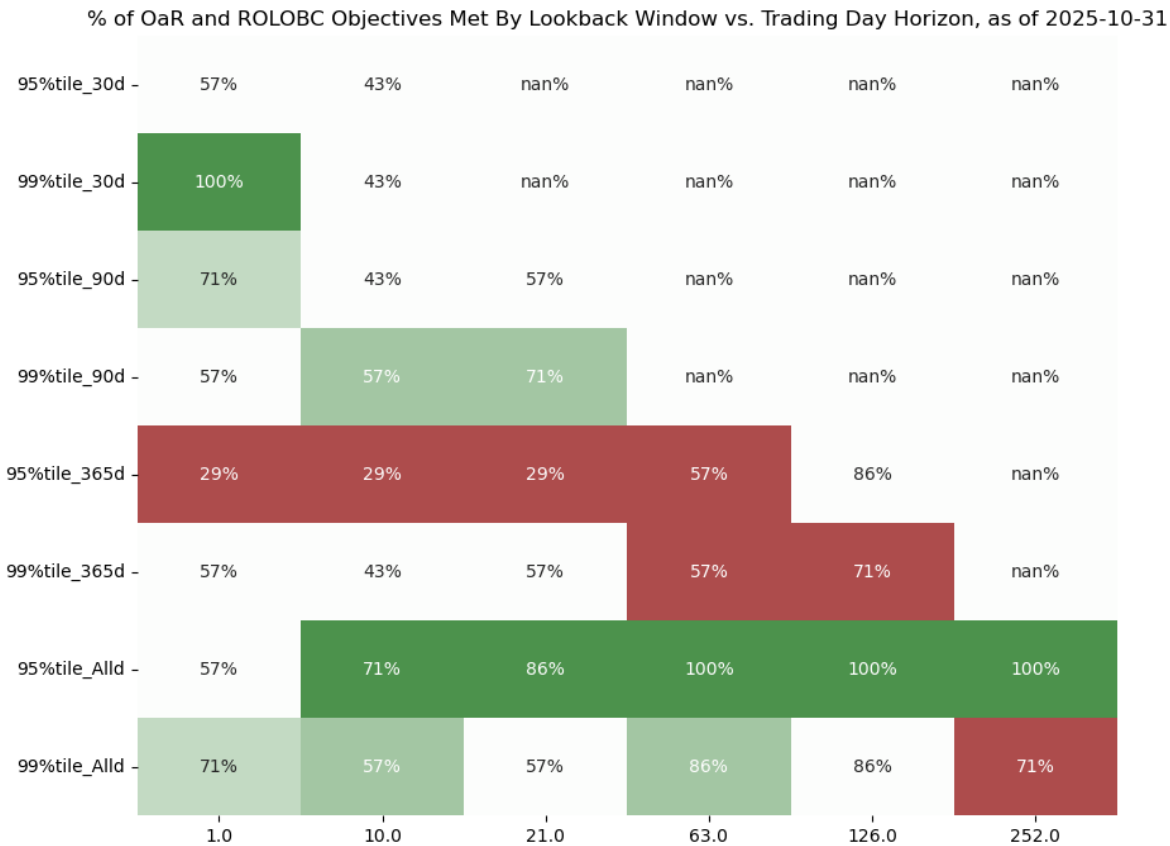
8) Note that OaR for both the Vector Model and Sigma as presented in this report assumes that prices are floored at $0.01. Since the coverage universe for this report includes only listed equities, that assumption is likely appropriate. However, if the Vector Model were applied to commodities or perhaps 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 2025-10-30 while 365D /90D/ 30D include the 365/90/30 days ended 2025-10-30, respectively.

Sigma Comparison 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 2025-10-30. 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	192.74	0	1.23	0.27
Vector	95	10	16.47	0	2.32	0.13
Vector	95	21	20.94	0	0.19	0.66
Vector	95	63	2.27	0.13	-0	1
Vector	95	126	9.58	0	nan	0
Vector	95	252	0.05	0.83	nan	0
Vector	99	1	7.94	0	1.85	0.17
Vector	99	10	26.83	0	3.11	0.08
Vector	99	21	10.93	0	4.1	0.04
Vector	99	63	1.6	0.21	1.63	0.2
Vector	99	126	1.27	0.26	0.6	0.44
Vector	99	252	2.4	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 2025-10-30.

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	81.25
3. Less Volatile OaR Breakage Across Tickers Than Sigma	43.75
4. Higher ROLOBC Than Sigma	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	43.75
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	50
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	62.5
Overall Comparison to Sigma Average	64.29
Kupiec Test of VaR Proximity to Target	41.6667
Christoferson Test of OaR Date Independence	66.6667

OaR and ROLOBC Criteria By Fwd Hzn	1D	10D	21D	63D	126D	252D
1. Closer to Target OaR Breakage Than Sigma	75	62.5	50	75	100	50
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	87.5	50	83.33	100	100	100
3. Less Volatile OaR Breakage Across Tickers Than Sigma	12.5	12.5	50	75	100	100
4. Higher ROLOBC Than Sigma	100	100	100	100	100	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	37.5	62.5	50	25	25	50
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	62.5	12.5	33.33	50	100	100
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	62.5	37.5	50	100	75	100
TotalScore	62.5	48.21	59.52	75	85.71	85.71

OaR and ROLOBC Criteria Across Lookback Window	30D	90D	365D	AllD
1. Closer to Target OaR Breakage Than Sigma	50	100	50	75
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	25	66.67	90	100
3. Less Volatile OaR Breakage Across Tickers Than Sigma	50	33.33	40	50
4. Higher ROLOBC Than Sigma	100	100	100	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	100	83.33	0	41.67
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	50	33.33	20	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	50	0	60	100
TotalScore	60.71	59.52	51.43	78.57

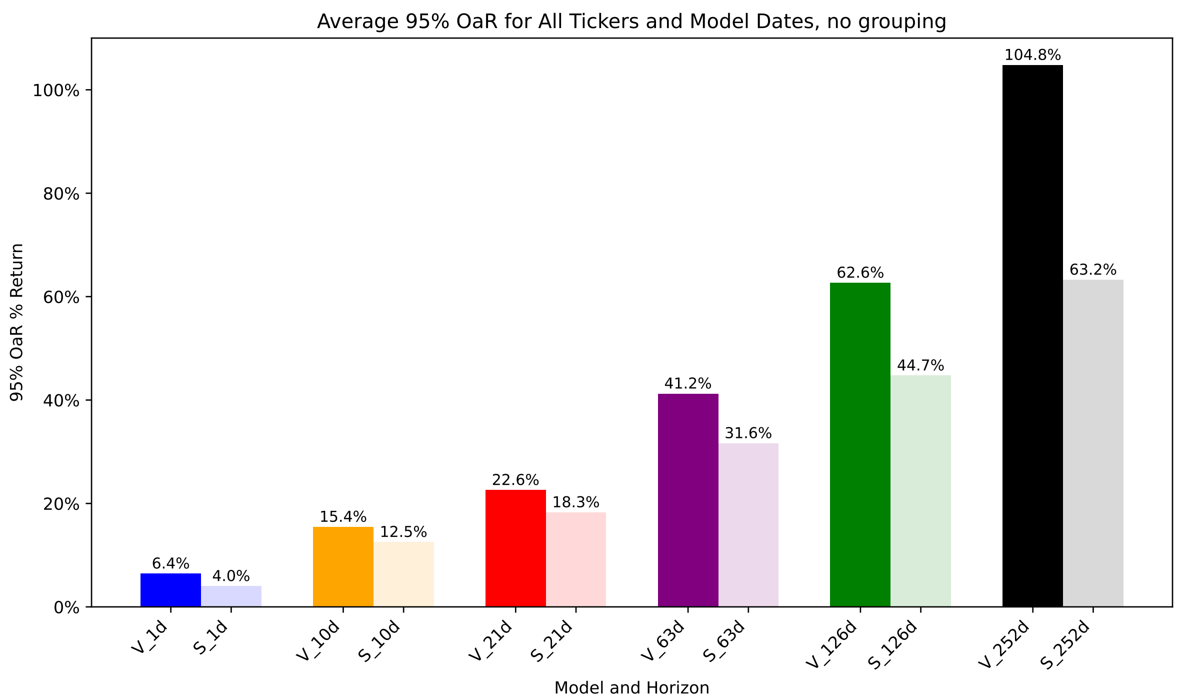
95% Opportunity At Risk (OaR)

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.

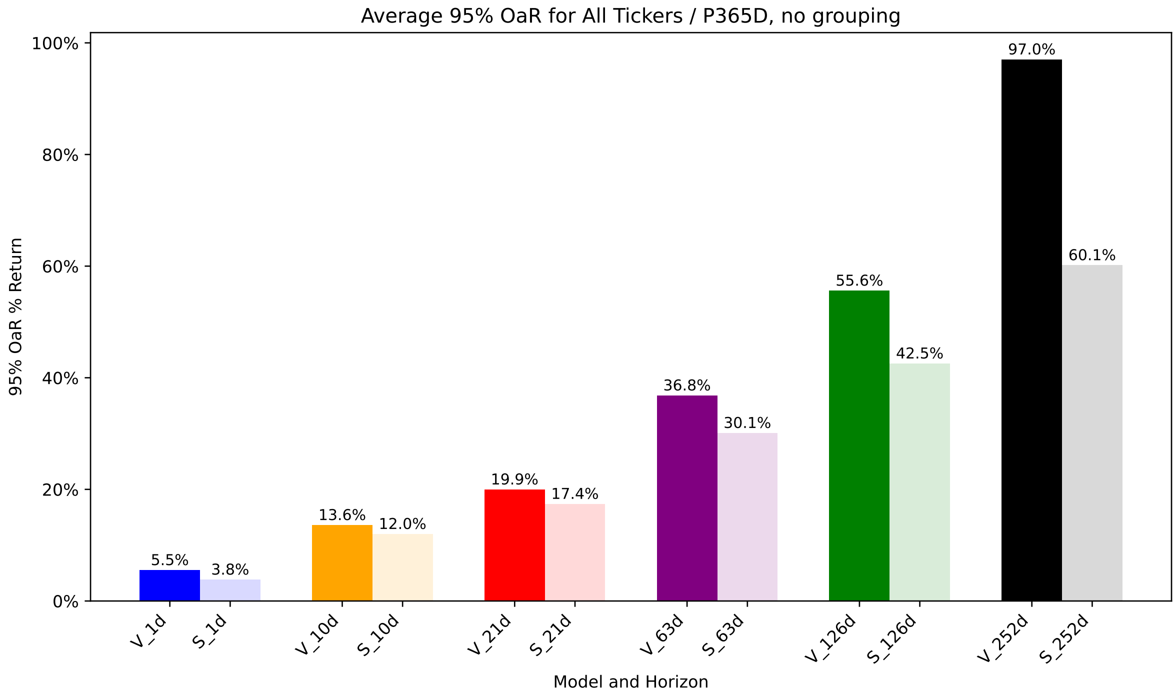
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-10-30



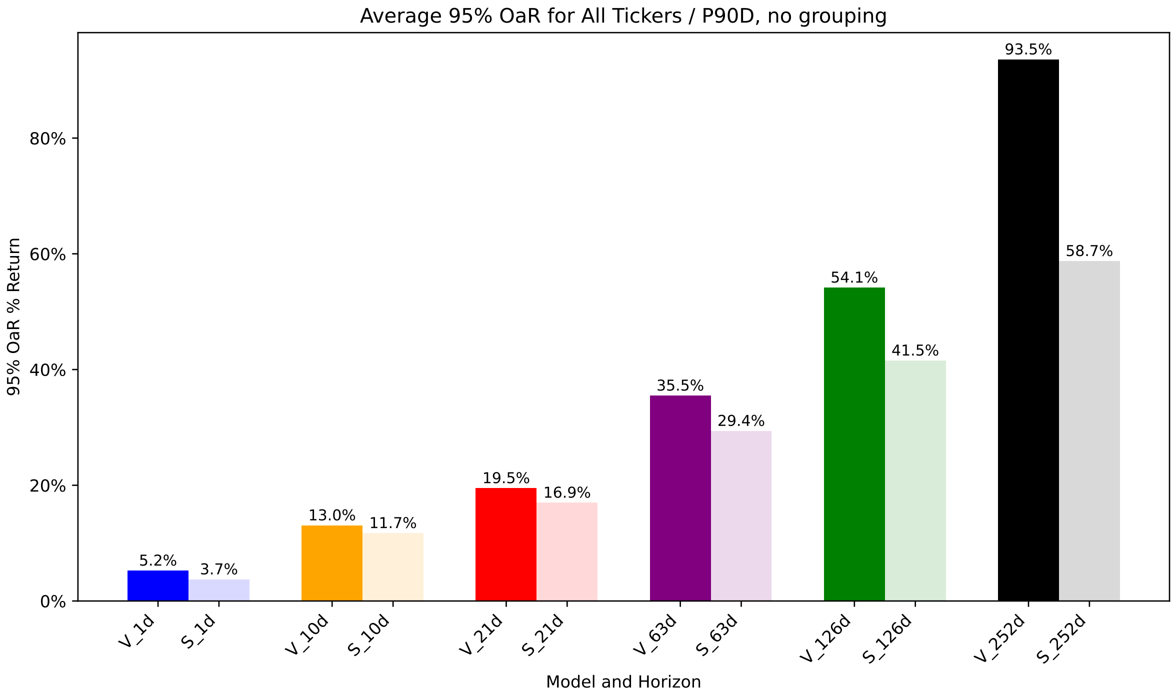
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-10-30 through 2024-11-01



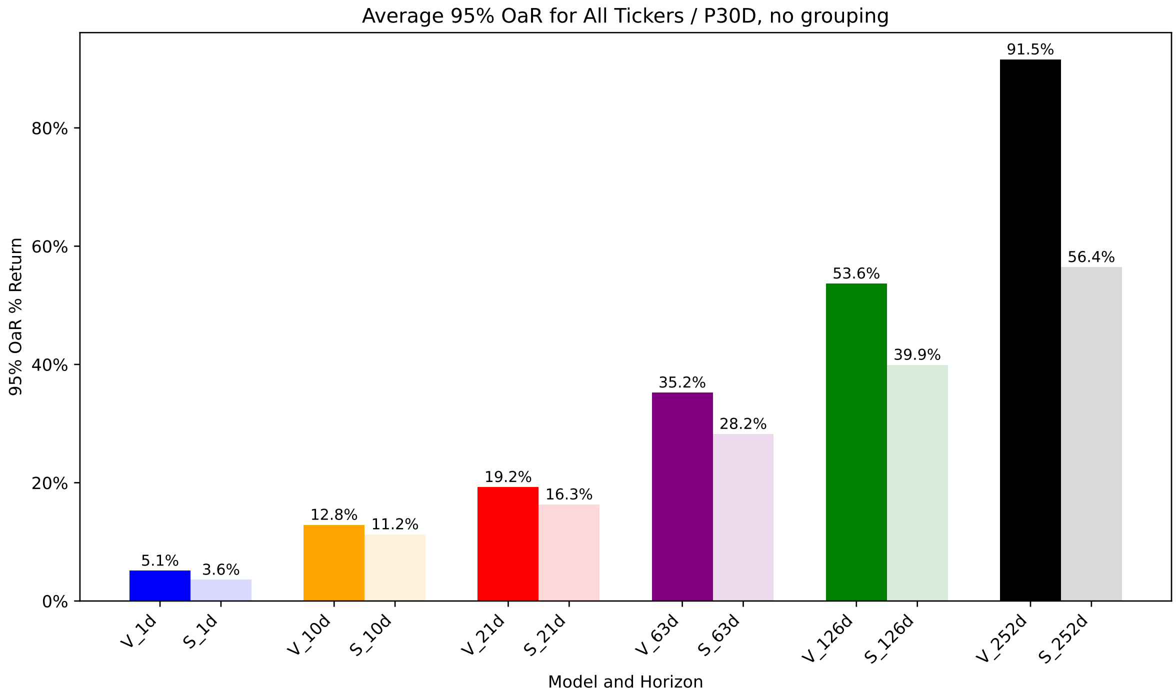
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-10-30 through 2025-08-04



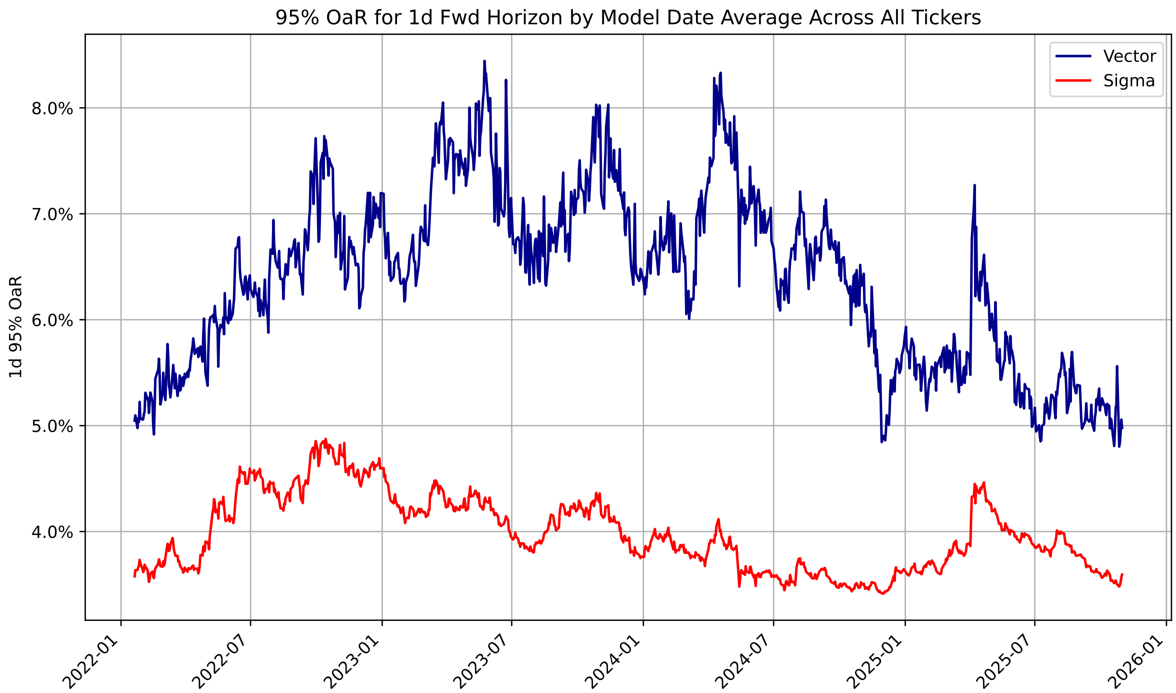
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-10-30 through 2025-10-02

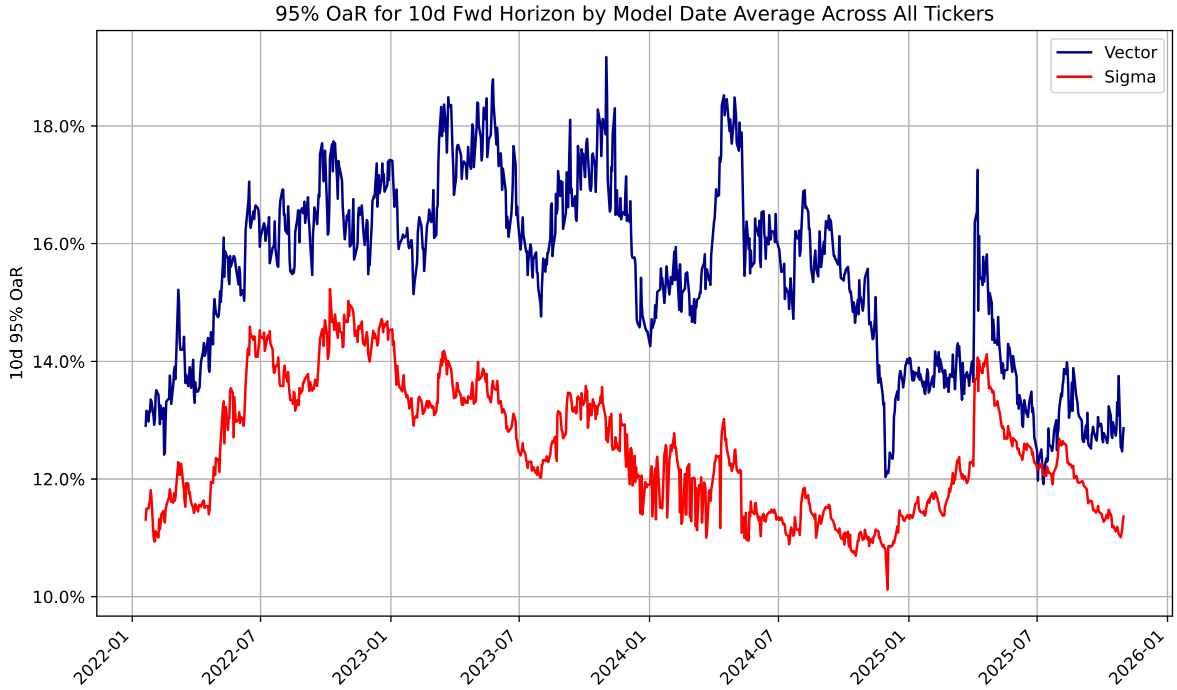


Daily Levels

1d Horizon

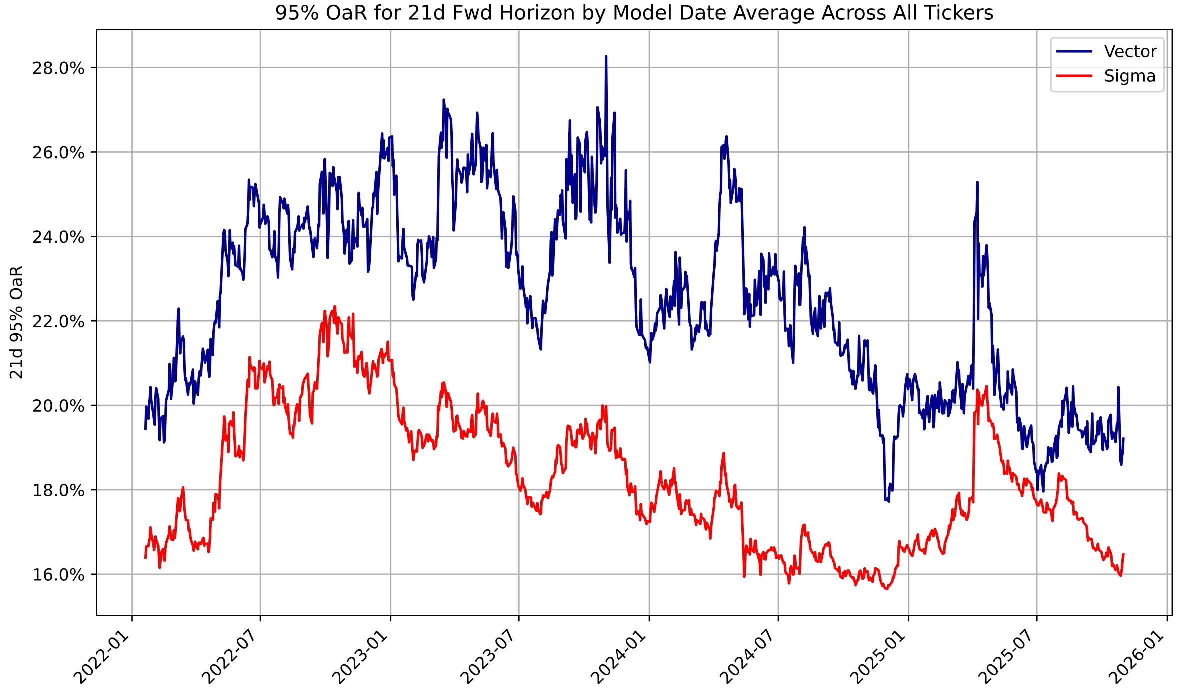


10d Horizon



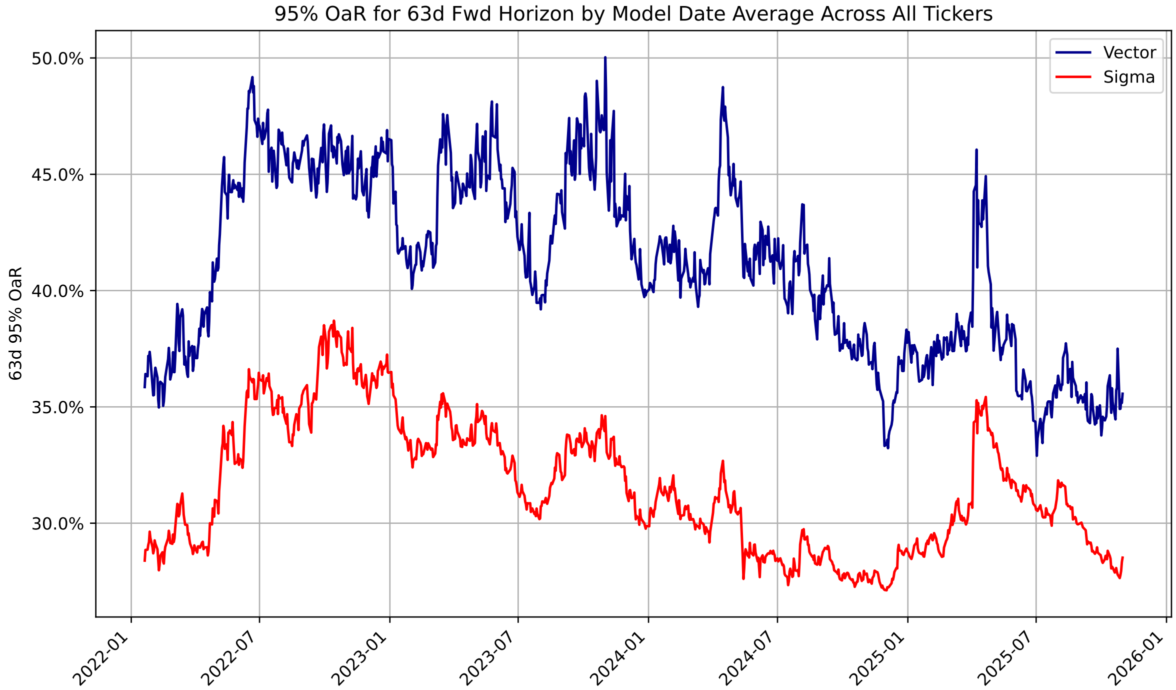
95% OaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 95% OaR
18.0%
16.0%
14.0%
12.0%
10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

21d Horizon



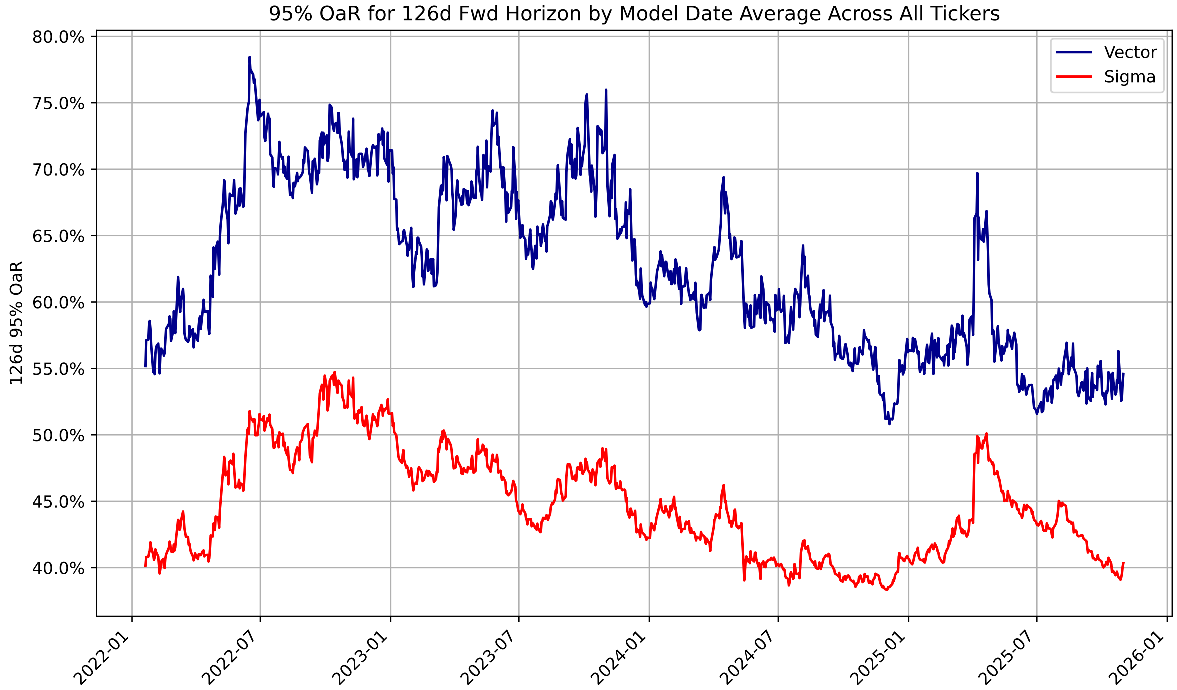
95% OaR for 21d Fwd Horizon by Model Date Average Across All Tickers
21d 95% OaR
28.0%
26.0%
24.0%
22.0%
20.0%
18.0%
16.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01
Vector
Sigma

63d Horizon

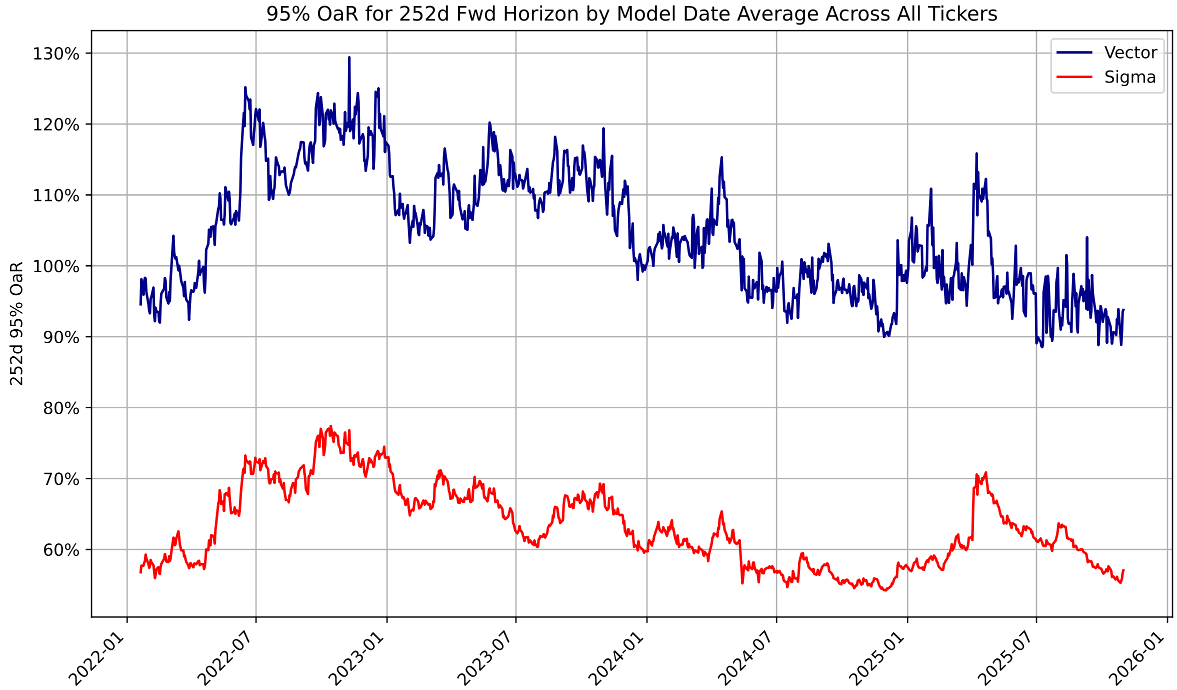


95% OaR for 63d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
63d 95% OaR
50.0%
45.0%
40.0%
35.0%
30.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

126d Horizon



252d Horizon



Performance Summary

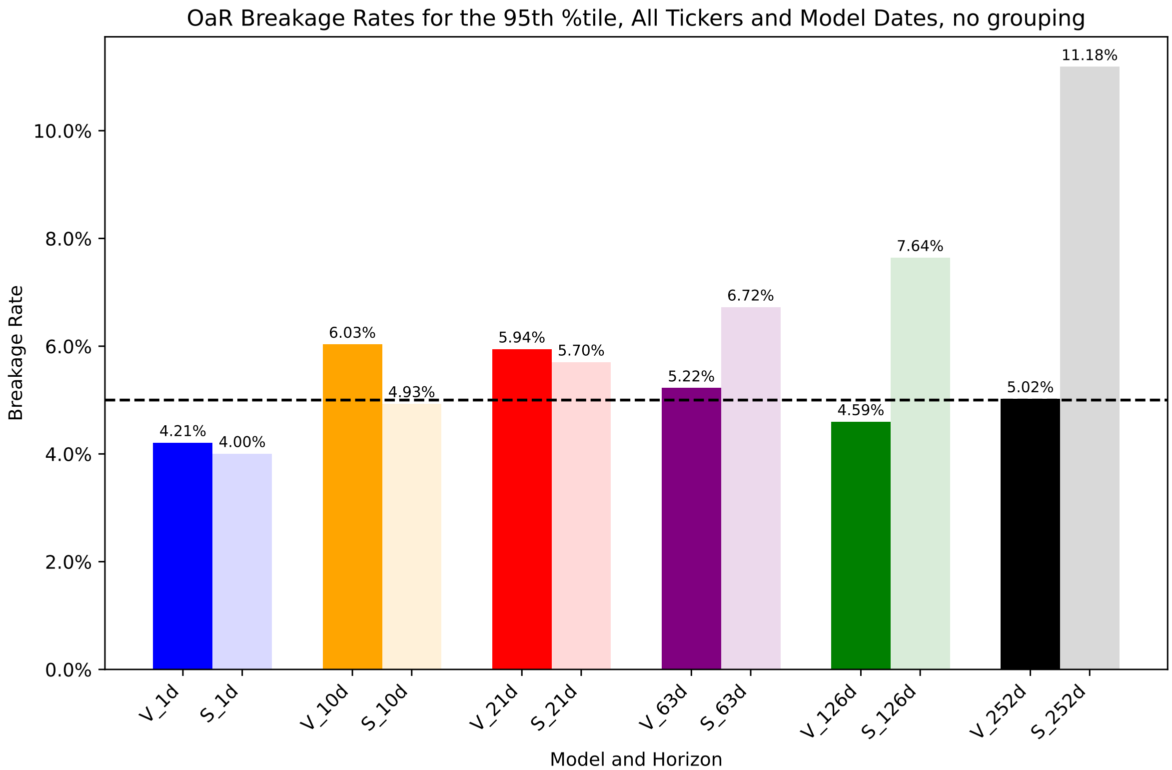
Here we compare the performance of 95% OaR estimates generated by the Vector Model ("V", presented with dark shading) with those generated by Sigma ("S", presented with light shading). This comparison is made on the basis of breakage rates and Return on Long OaR based Capital (ROLOBC), presenting the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

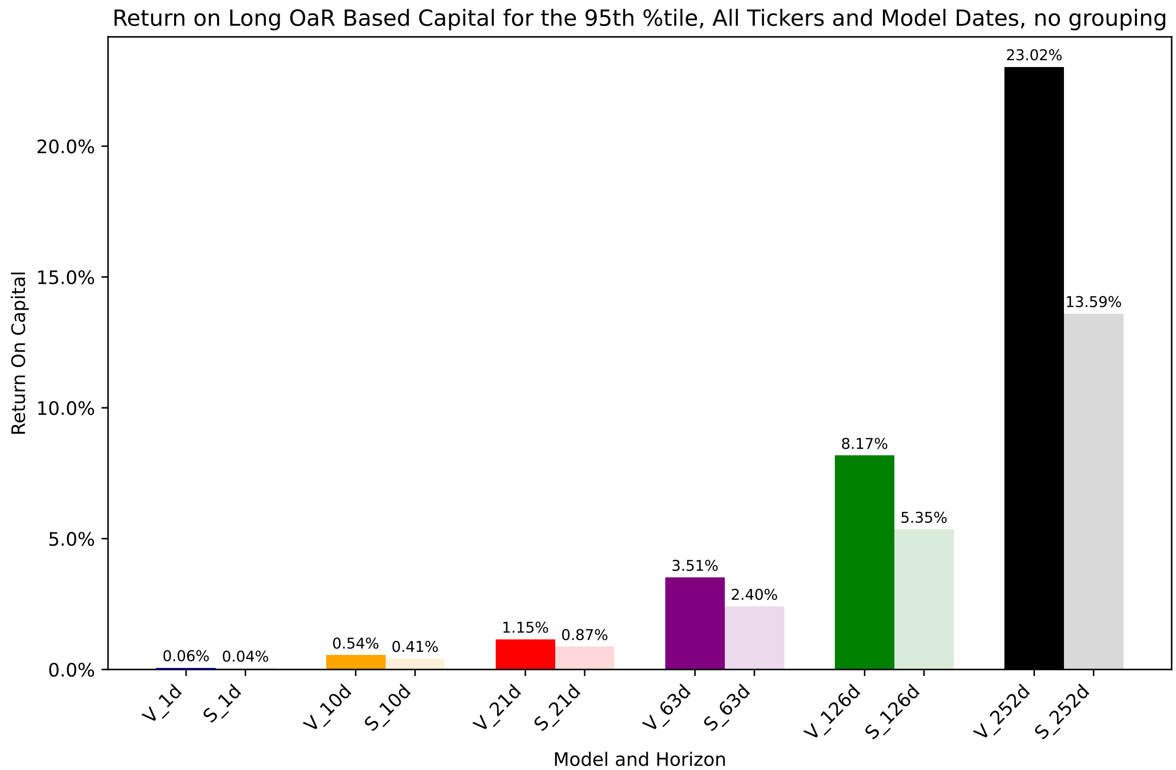
ROLOBC comparisons are made on the basis of outright ROLOBC and the alpha of Vector Model ROLOBC to underlying ticker returns (the proxy for Sigma ROLOBC). As discussed in the Introduction, ROLOBC for Sigma is presumed to be the return of the underlying ticker, and for the Vector Model it is based on 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 2025-10-30



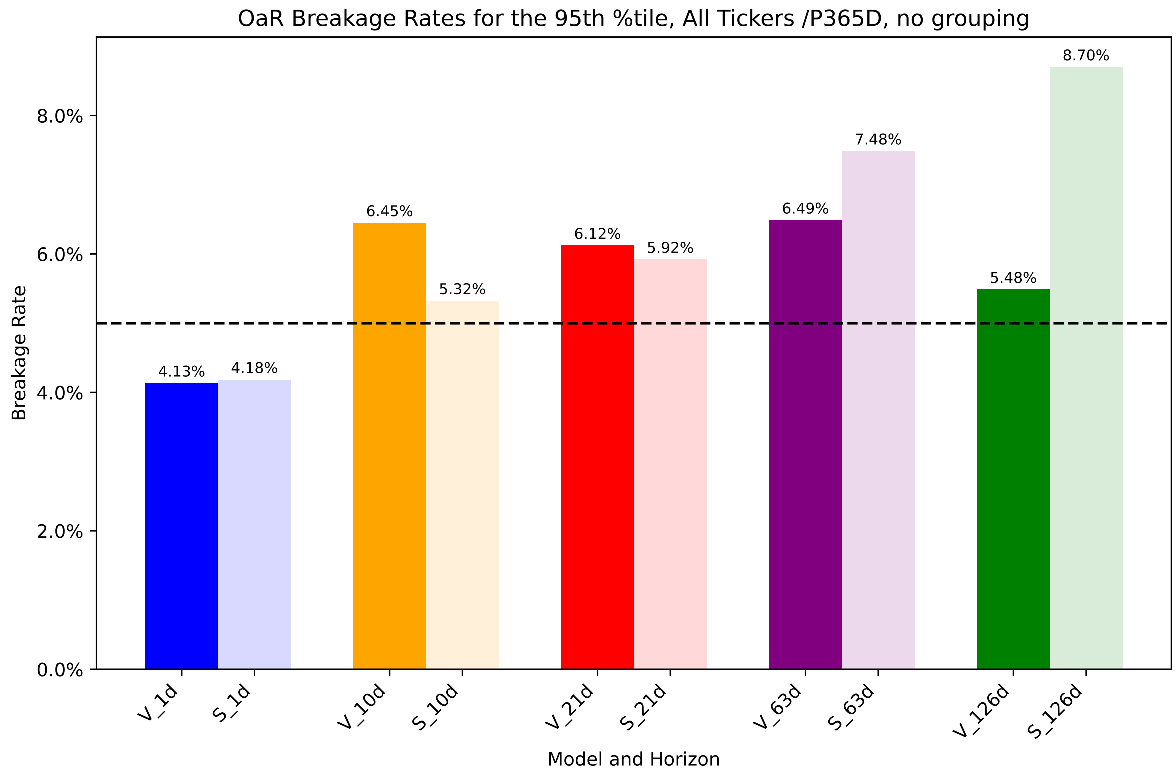


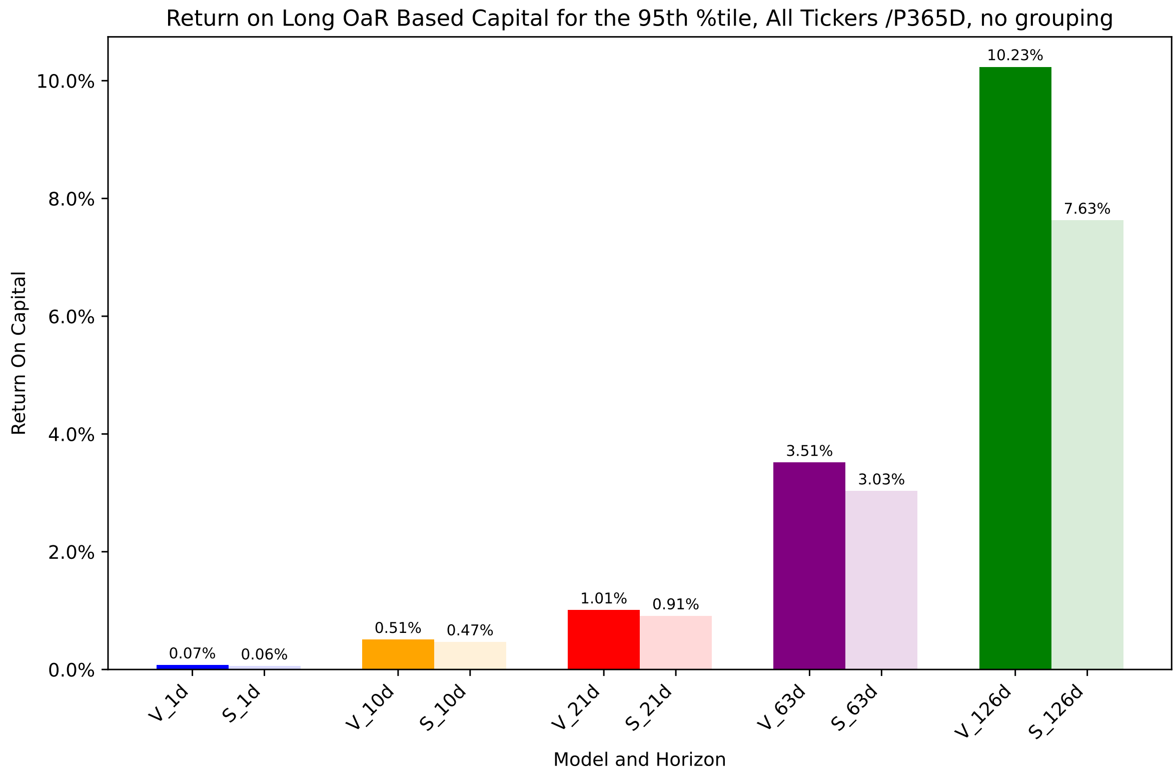

```
Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon
corresponding actual returns across TMD's:
                       1d      10d      21d      63d     126d     252d
intercept          -0.00%    0.04%    0.09%    0.27%    0.66%    2.31%
intercept_p_value  86.65%    0.38%    0.00%    0.00%    0.00%    0.00%
slope             145.47%  120.22%  122.14%  134.98%  140.34%  152.37%
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          -0.04%   -0.17%   -0.47%   -1.85%   -3.62%   -5.04%
intercept_p_value   0.00%    0.93%    0.13%    0.01%    0.00%    0.20%
slope             161.83%  147.24%  163.85%  177.37%  175.99%  161.83%
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 2025-10-30 through 2024-11-01





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

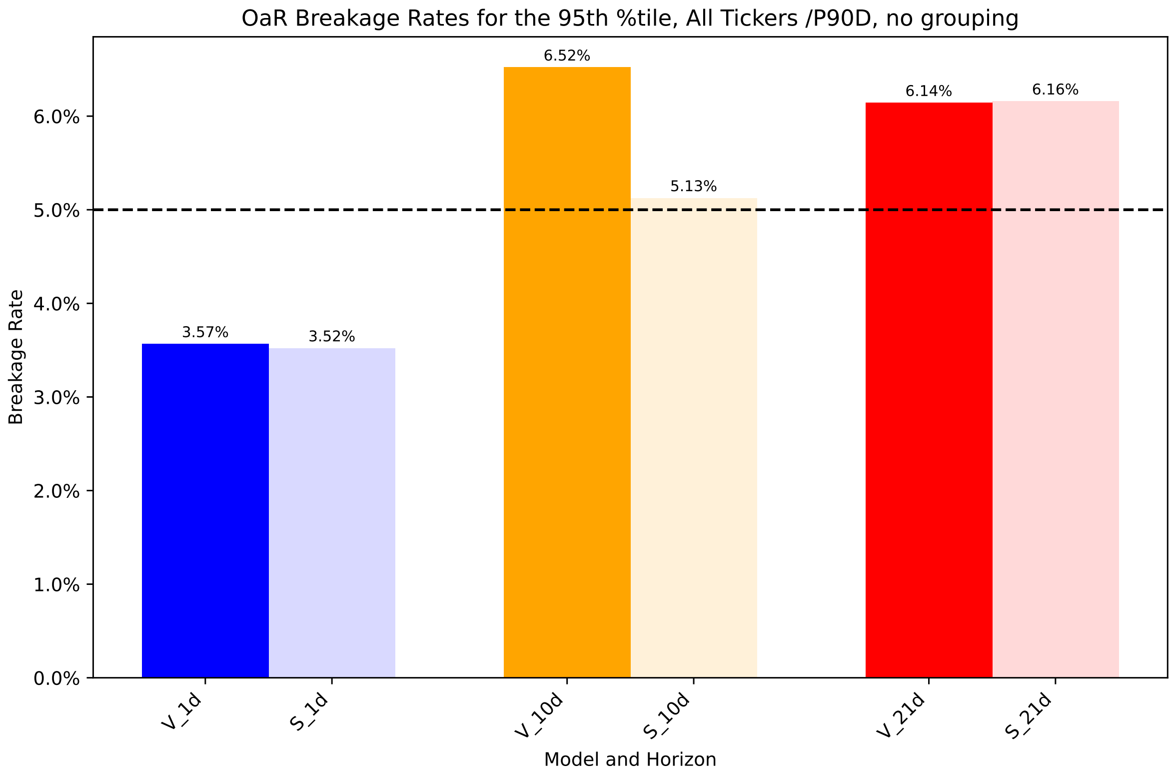
	1d	10d	21d	63d	126d
intercept	-0.01%	-0.04%	-0.07%	-0.25%	0.49%
intercept_p_value	43.11%	11.55%	1.97%	0.00%	0.00%
slope	145.00%	116.41%	119.26%	124.17%	127.72%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

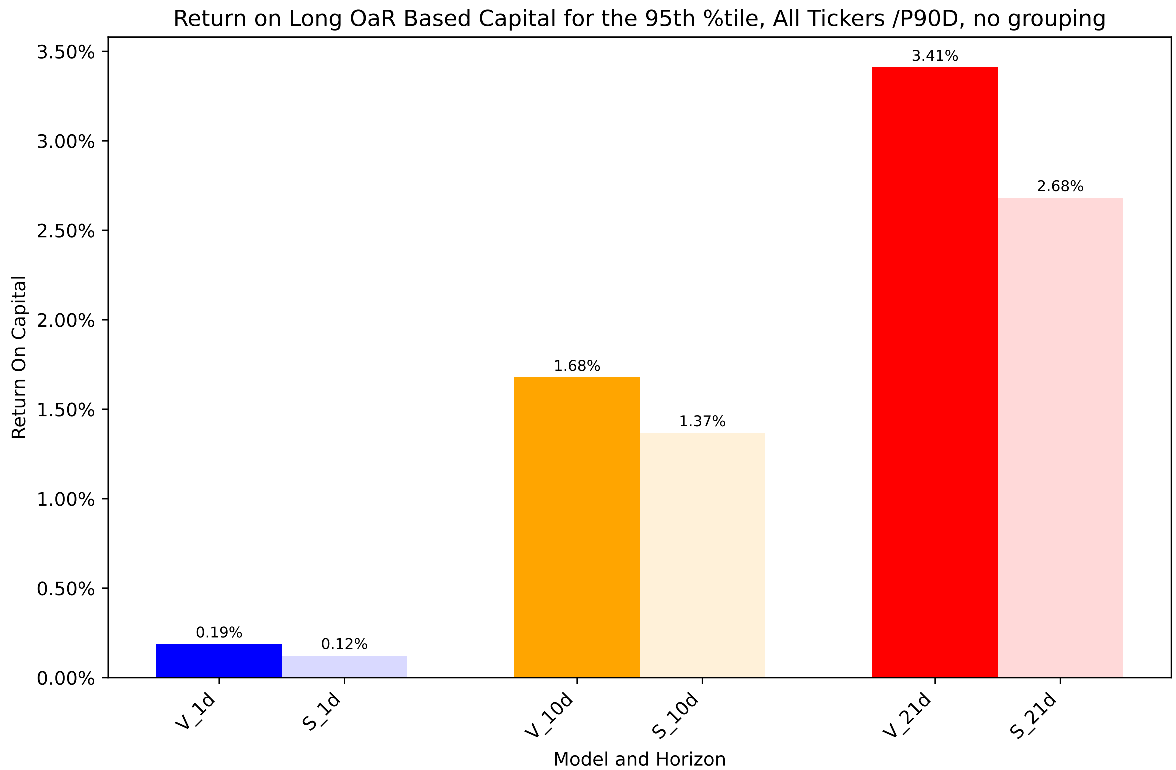
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P365D:

	1d	10d	21d	63d	126d
intercept	0.01%	0.12%	0.27%	0.42%	-0.11%
intercept_p_value	54.49%	8.44%	5.60%	30.93%	90.66%
slope	100.77%	116.71%	120.50%	134.10%	145.83%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-10-30 through 2025-08-04





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

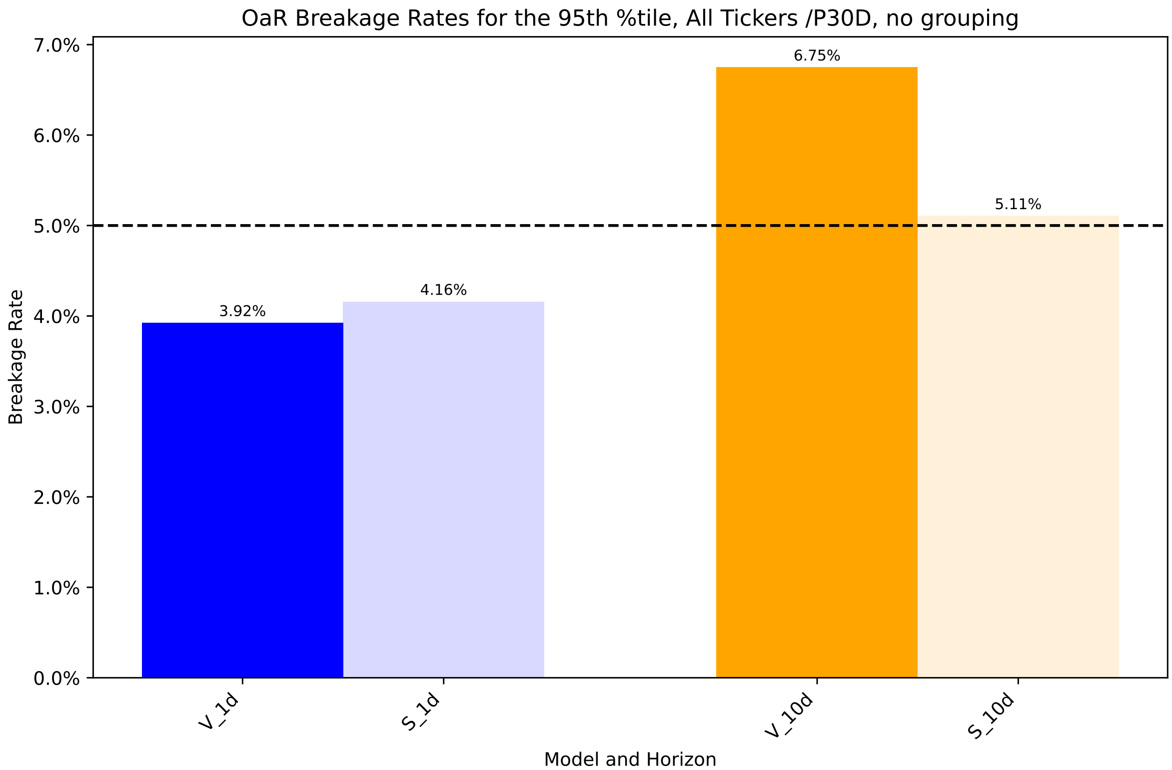
	1d	10d	21d
intercept	0.01%	-0.03%	-0.09%
intercept_p_value	57.15%	48.83%	27.09%
slope	145.12%	125.14%	130.52%
slope_p_value	0.00%	0.00%	0.00%

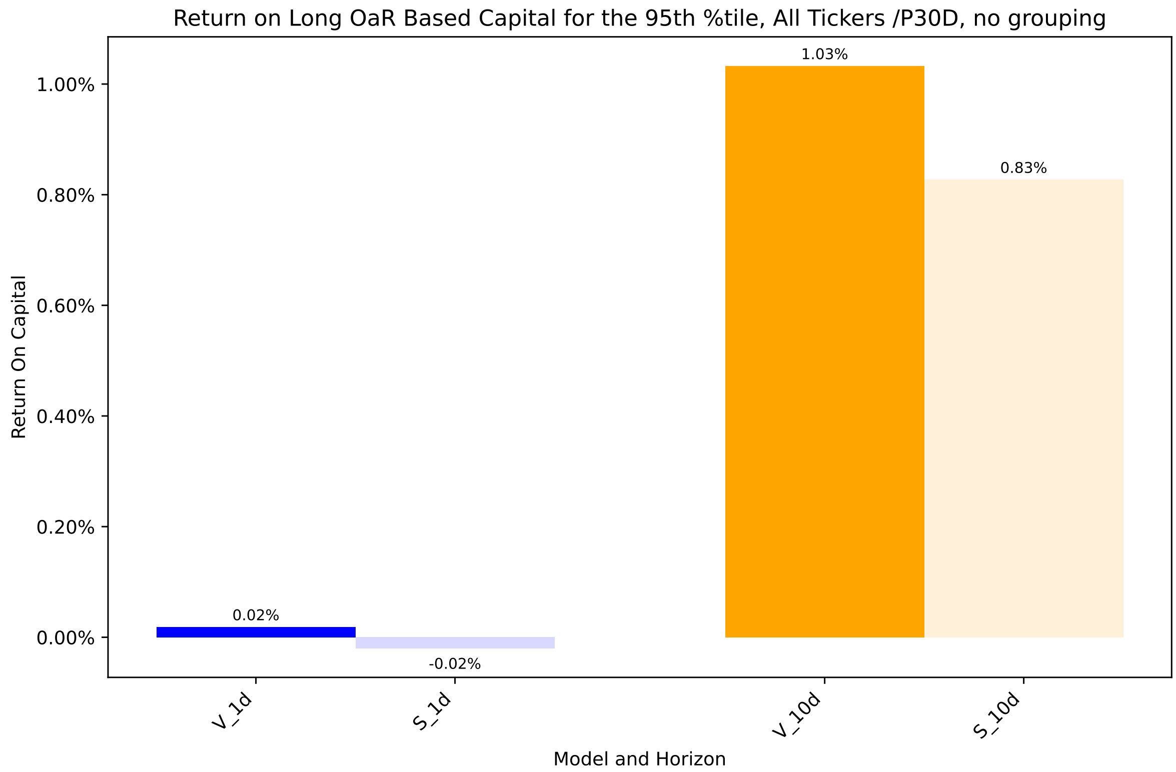
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P90D:

	1d	10d	21d
intercept	-0.02%	-0.01%	-0.05%
intercept_p_value	30.86%	92.75%	89.01%
slope	99.72%	104.70%	112.65%
slope_p_value	0.00%	0.00%	0.00%

Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-10-30 through 2025-10-02





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across P30D:

	1d	10d
intercept	0.05%	-0.05%
intercept_p_value	14.34%	65.40%
slope	140.69%	131.04%
slope_p_value	0.00%	0.00%

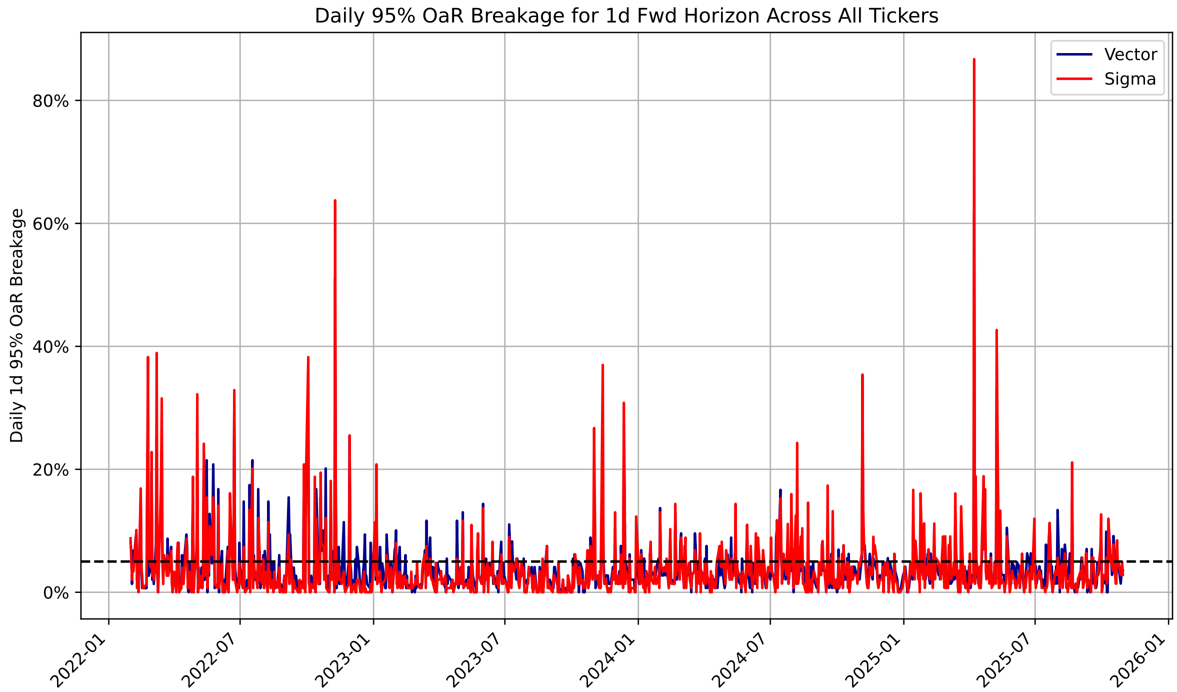
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P30D:

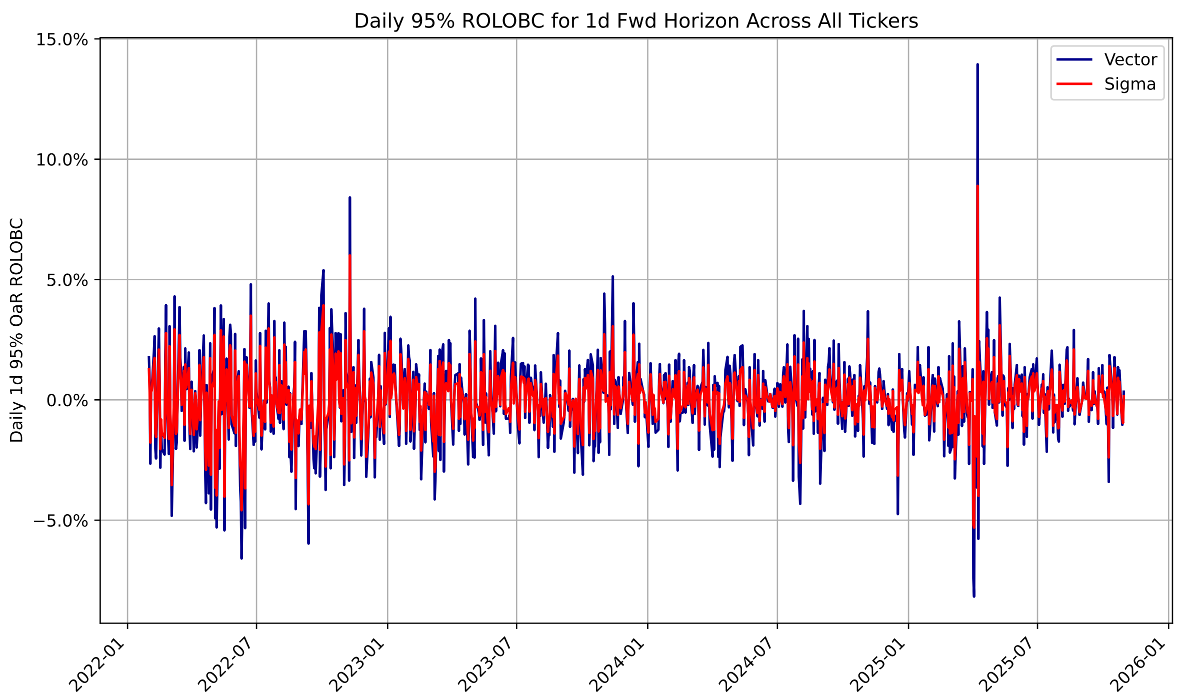
	1d	10d
intercept	-0.01%	-0.09%
intercept_p_value	82.26%	74.26%
slope	87.46%	104.18%
slope_p_value	0.00%	0.00%

Daily Performance

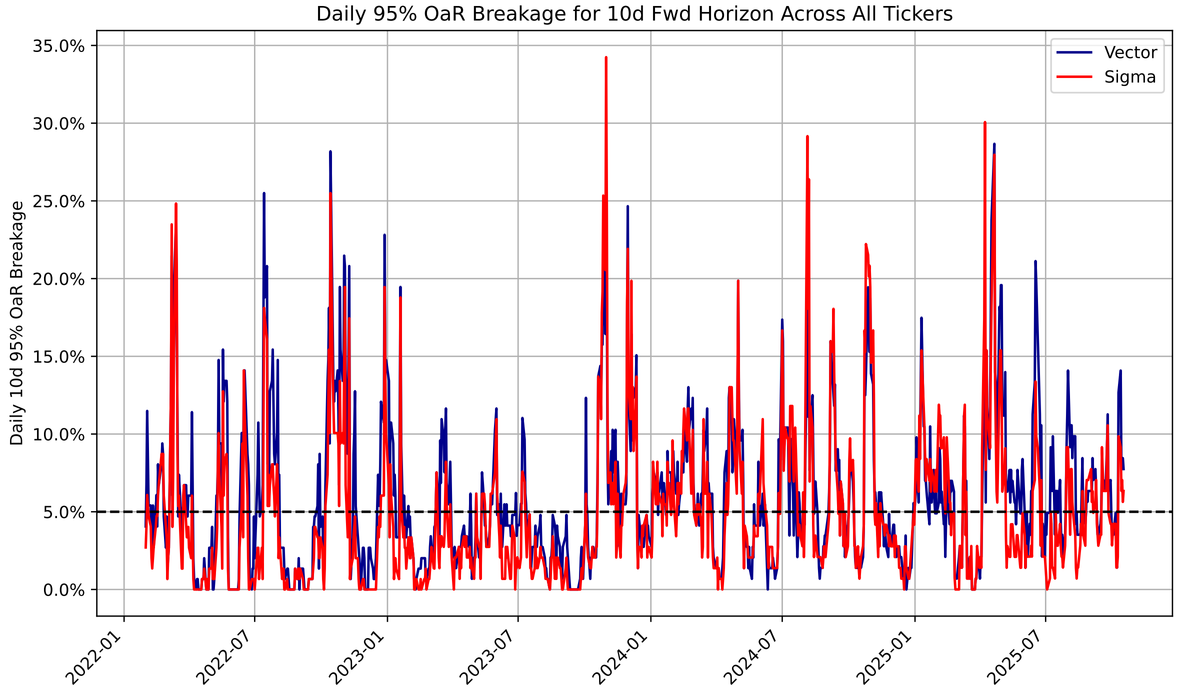
Here we look at the daily breakage and ROLOBC statitics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROLOBC outliers.

1d Horizon

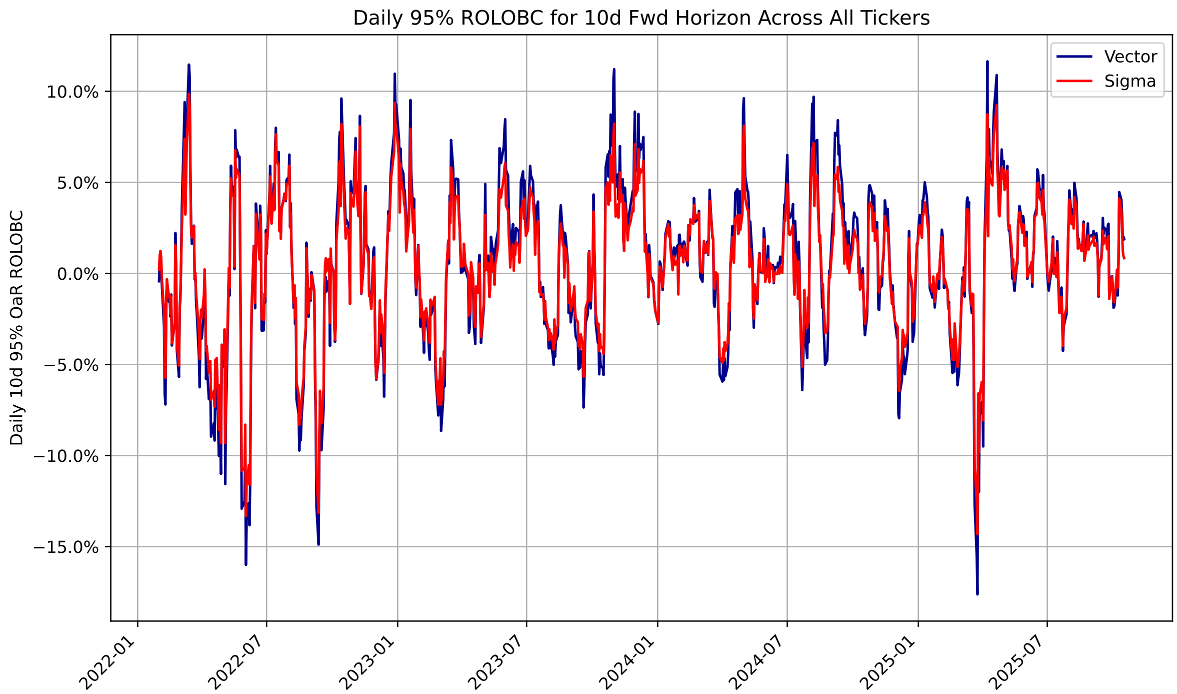



Daily 95% ROLOBC for 1d Fwd Horizon Across All Tickers
Daily 1d 95% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01
Vector
Sigma

10d Horizon

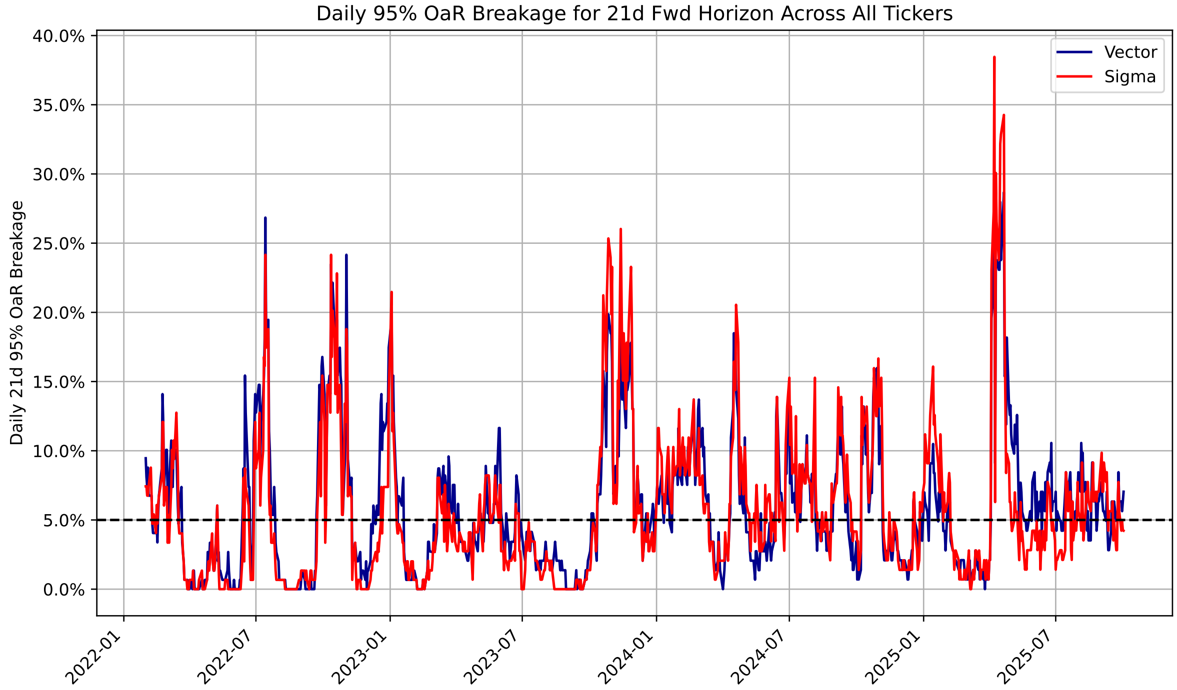


Daily 95% OaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 95% OaR Breakage
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

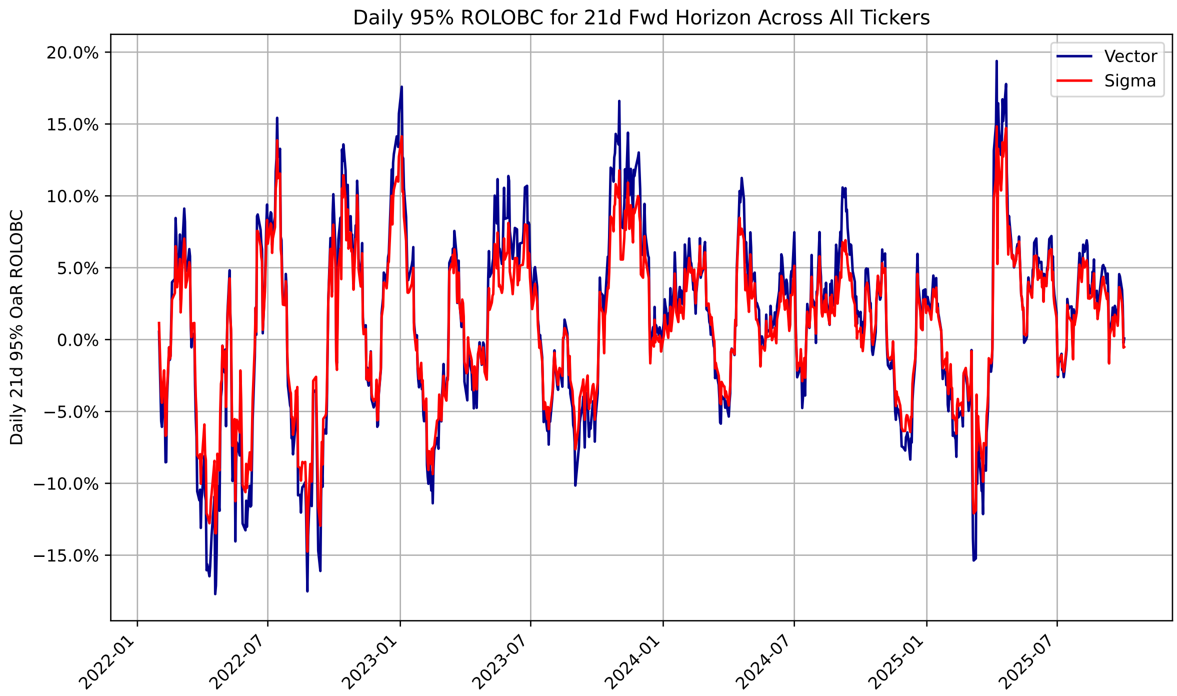


Daily 95% ROLOBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 95% OaR ROLOBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

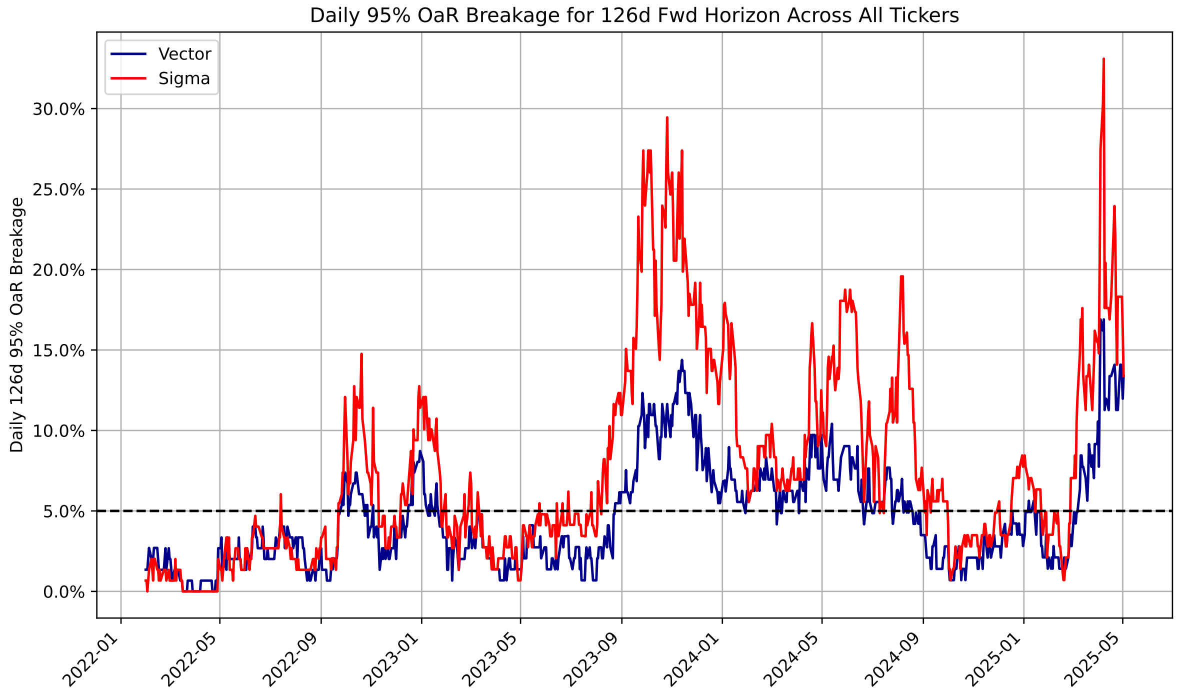


Daily 95% OaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 95% OaR Breakage
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

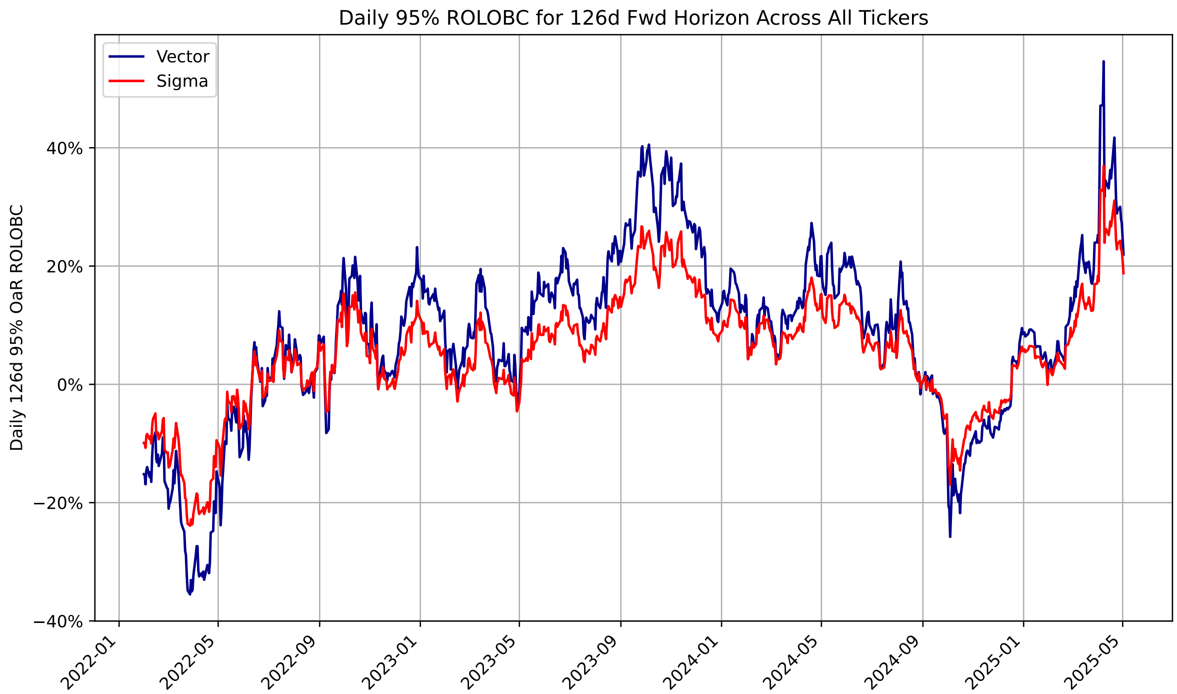


Daily 95% ROLOBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 95% OaR ROLOBC
20.0%
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

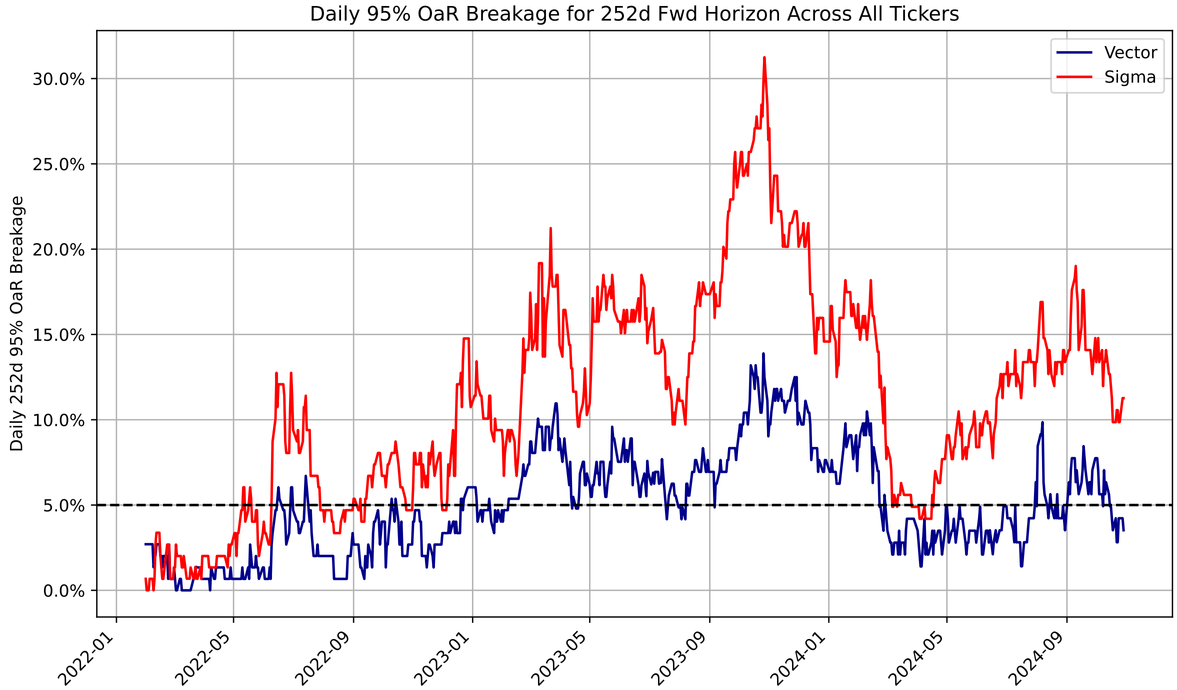


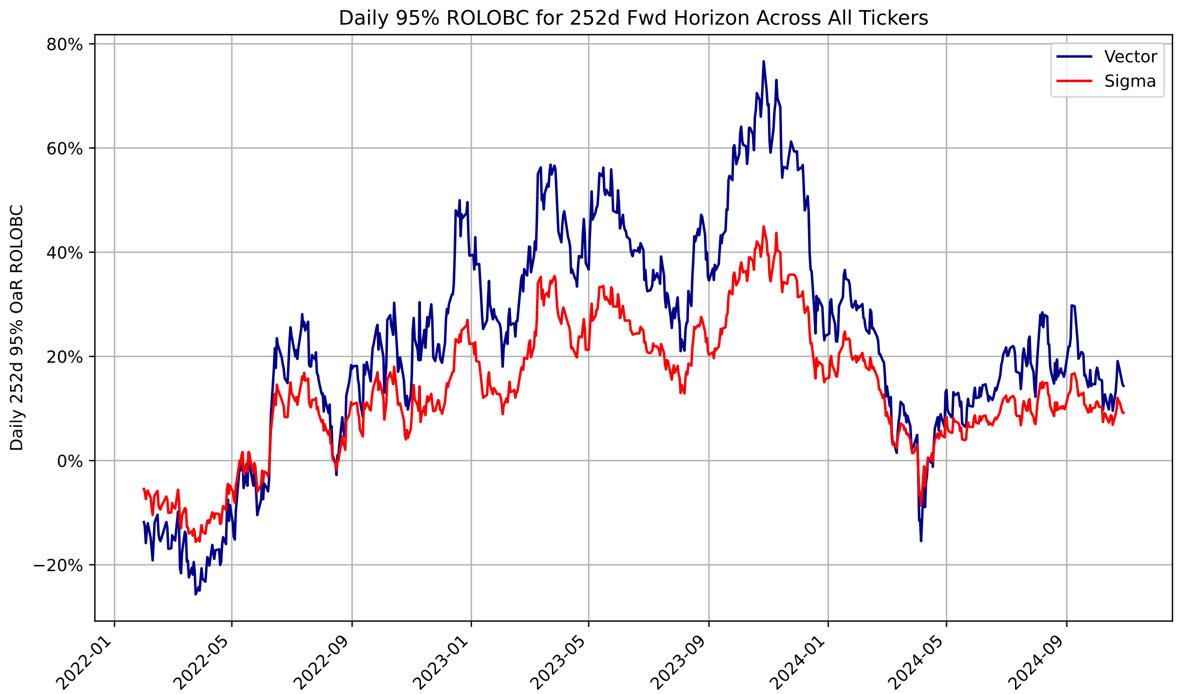
Daily 95% OaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 95% OaR Breakage
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



Daily 95% ROLOBC for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 95% OaR ROLOBC
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
2025-05

252d Horizon

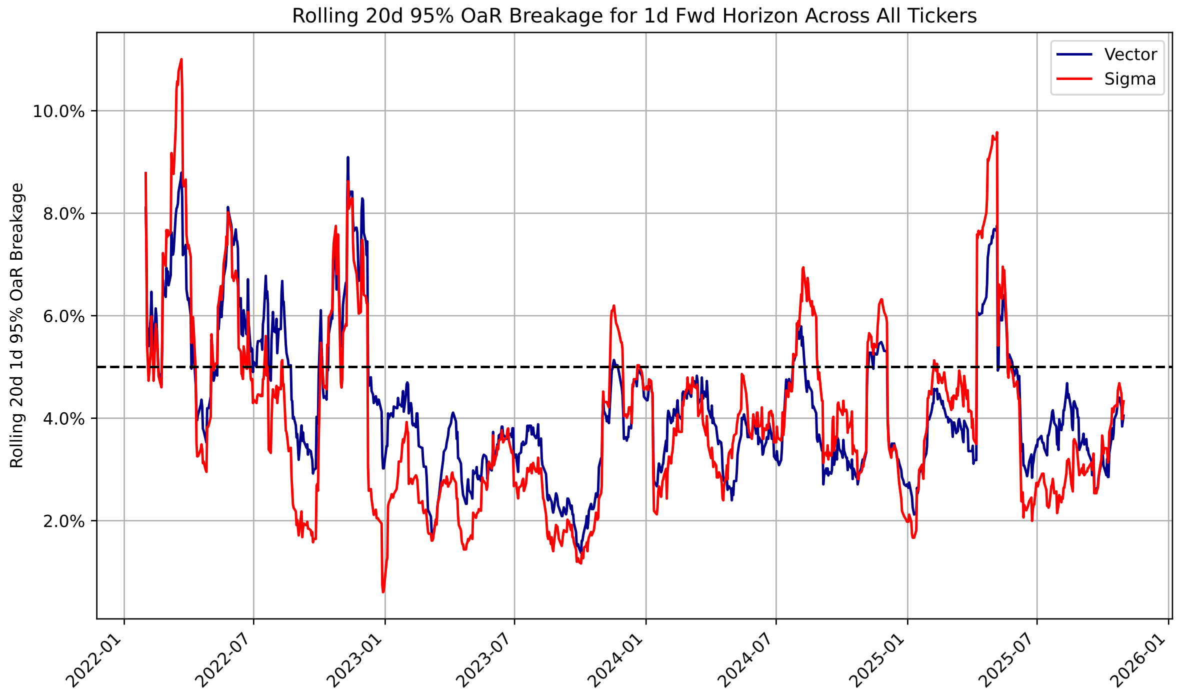


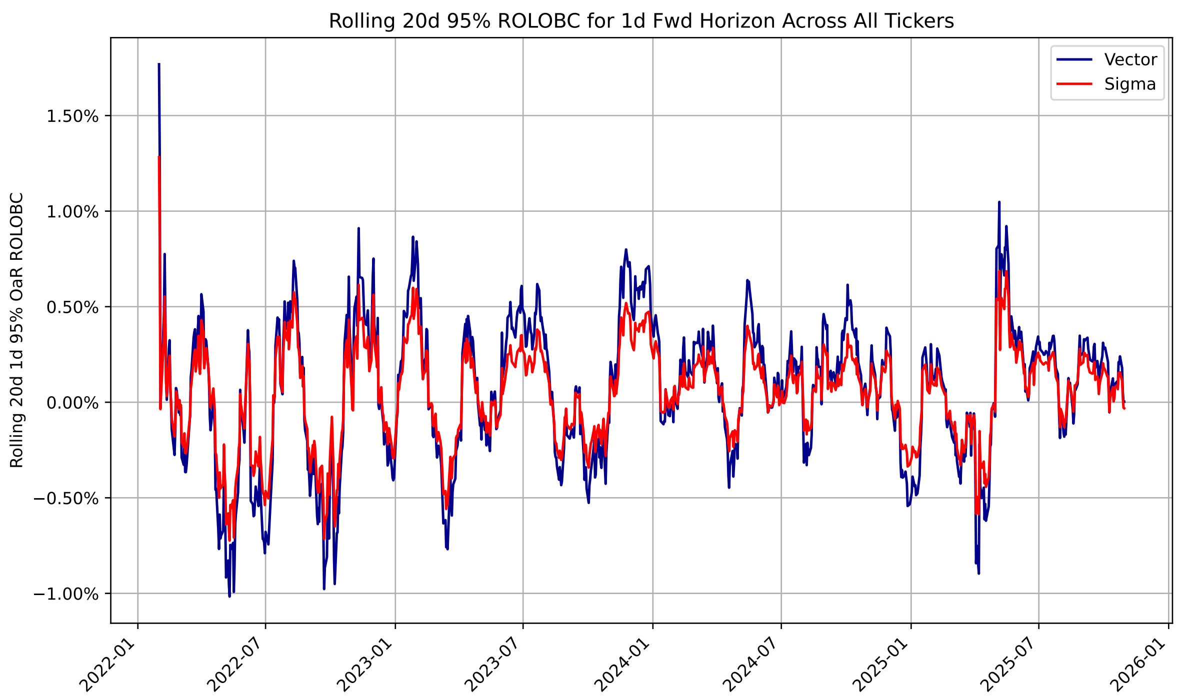


Rolling 20d Performance

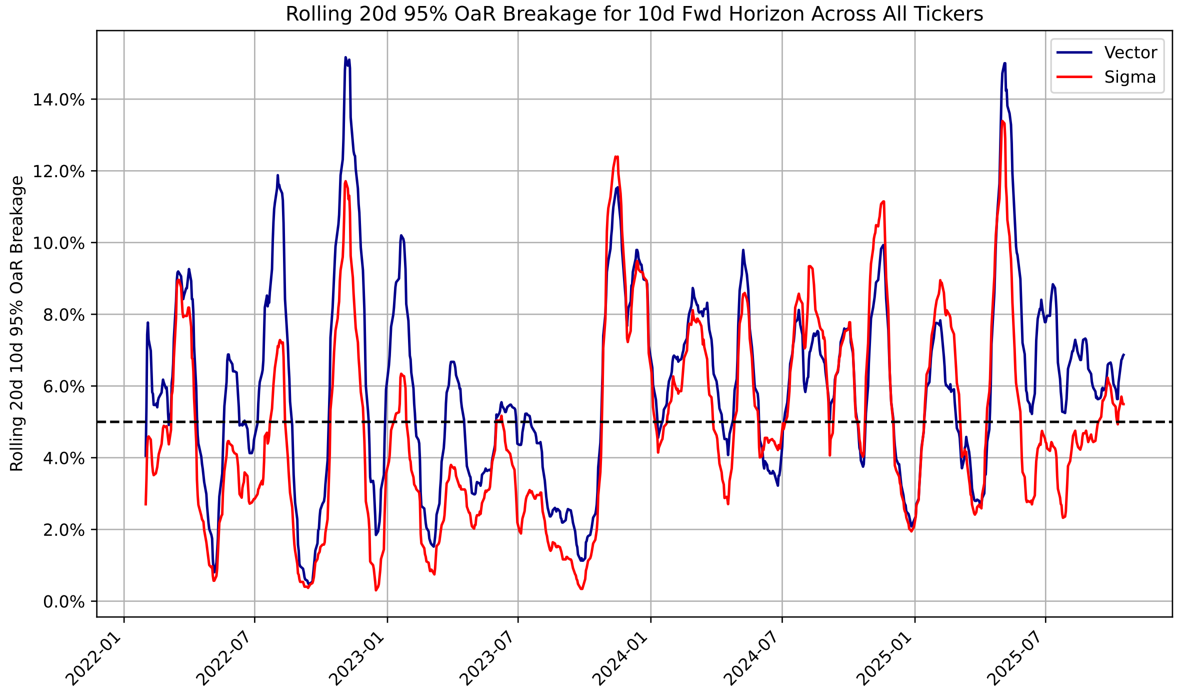
Here we look at 20 day rolling moving averages of the breakage and ROLOBC statitics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

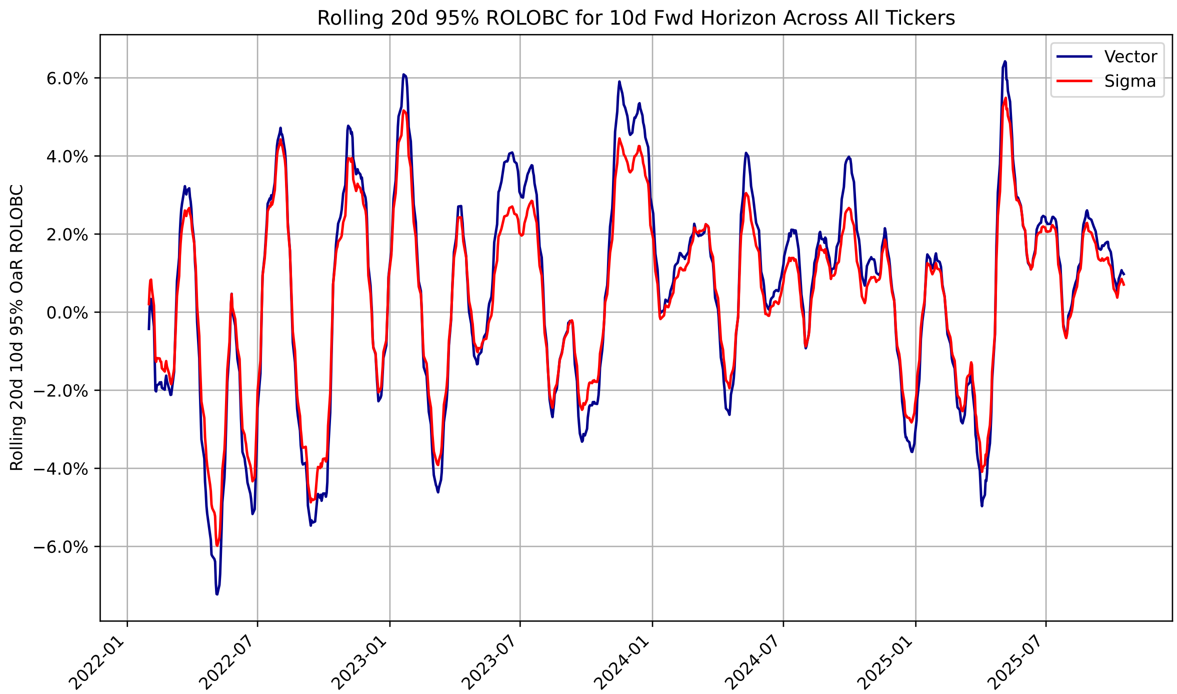
1d Horizon



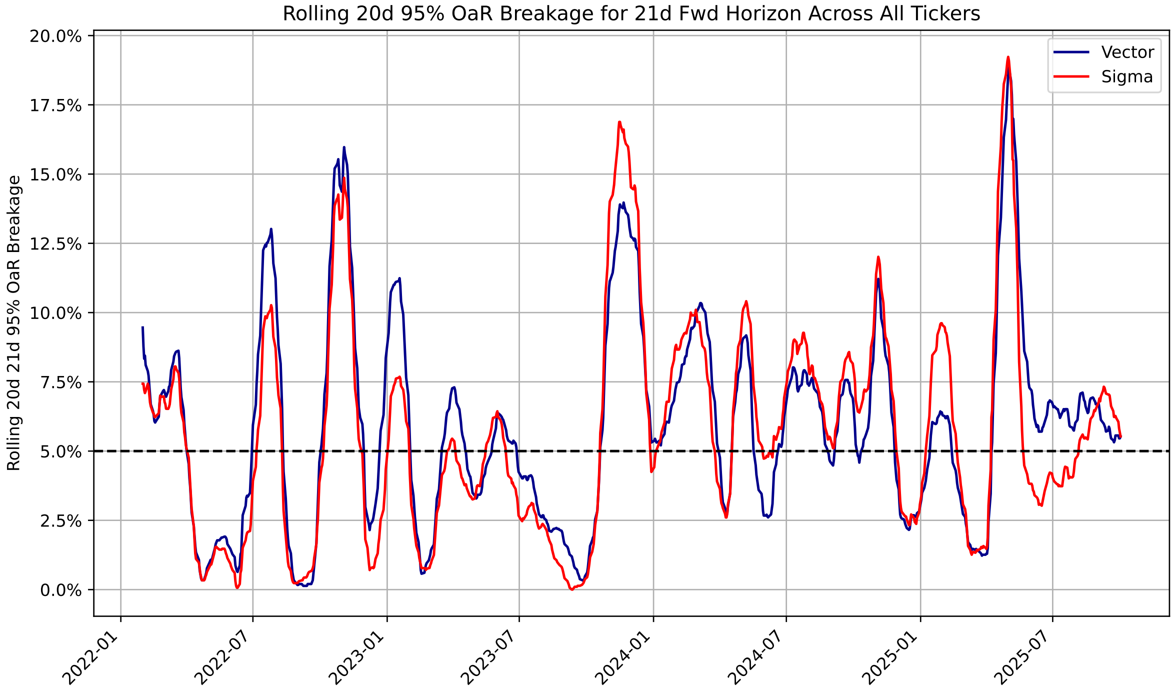

Rolling 20d 95% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 95% OaR ROLOBC
1.50%
1.00%
0.50%
0.00%
−0.50%
−1.00%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

10d Horizon

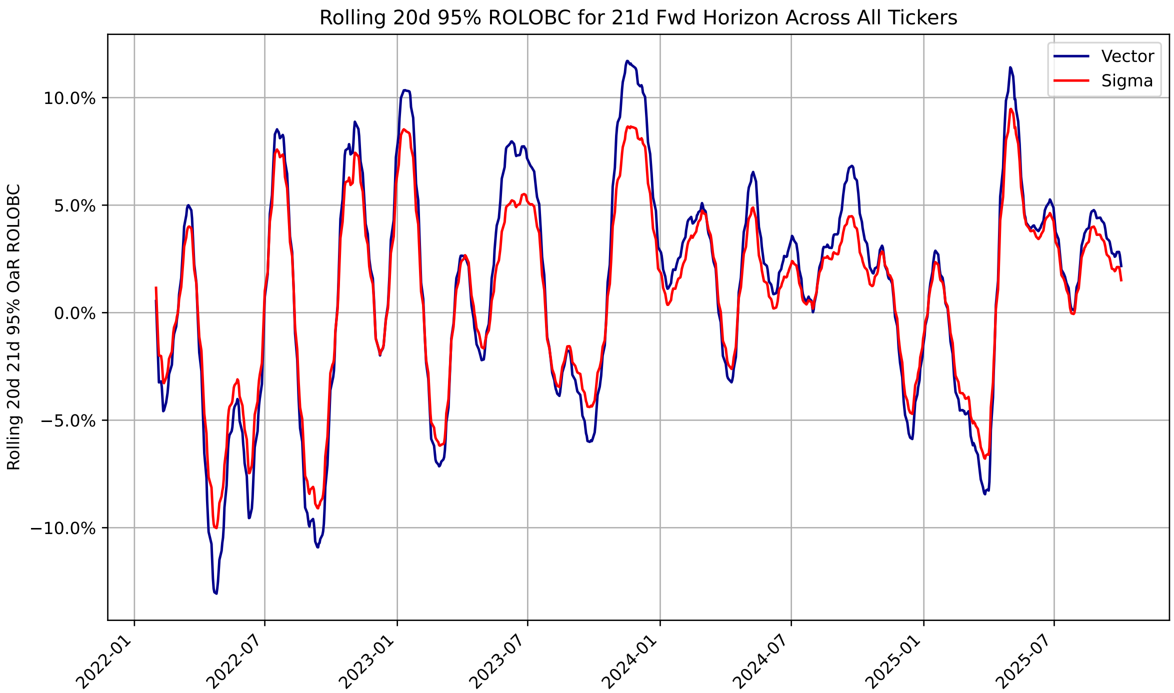

Rolling 20d 95% OaR Breakage for 10d Fwd Horizon Across All Tickers
Rolling 20d 10d 95% OaR Breakage
Vector
Sigma
0.0%
2.0%
4.0%
6.0%
8.0%
10.0%
12.0%
14.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07


Rolling 20d 95% ROLOBC for 10d Fwd Horizon Across All Tickers
Rolling 20d 10d 95% OaR ROLOBC
Vector
Sigma
−6.0%
−4.0%
−2.0%
0.0%
2.0%
4.0%
6.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

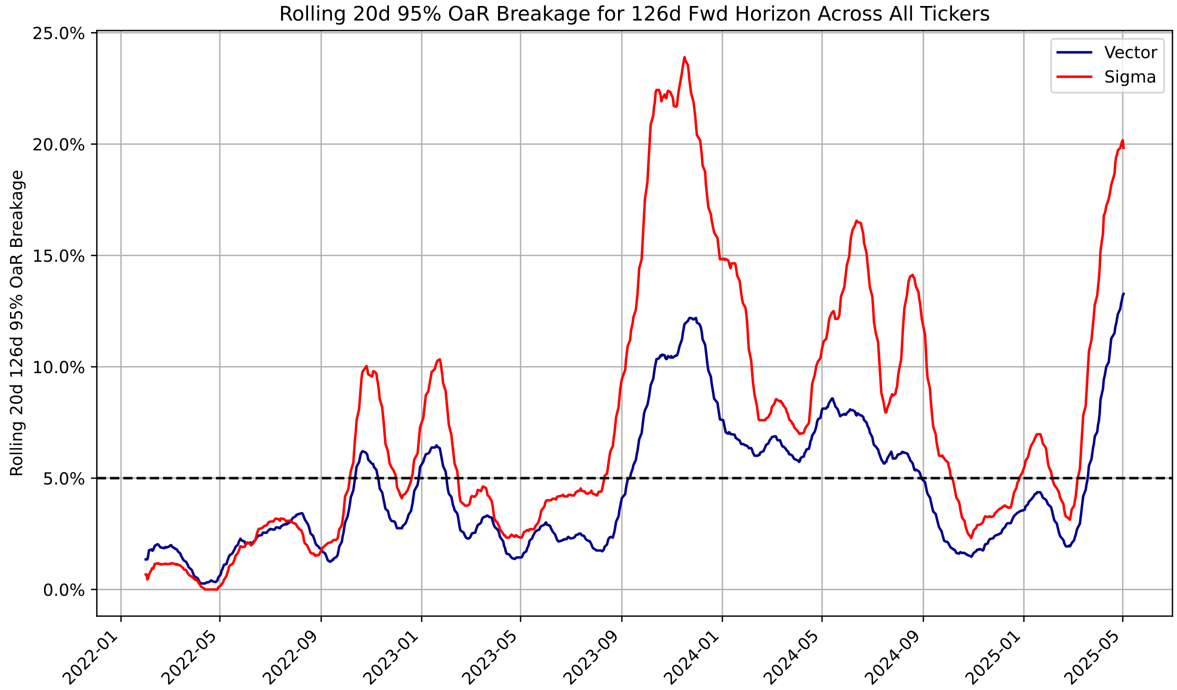


Rolling 20d 95% OaR Breakage for 21d Fwd Horizon Across All Tickers
Rolling 20d 21d 95% OaR Breakage
20.0%
17.5%
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

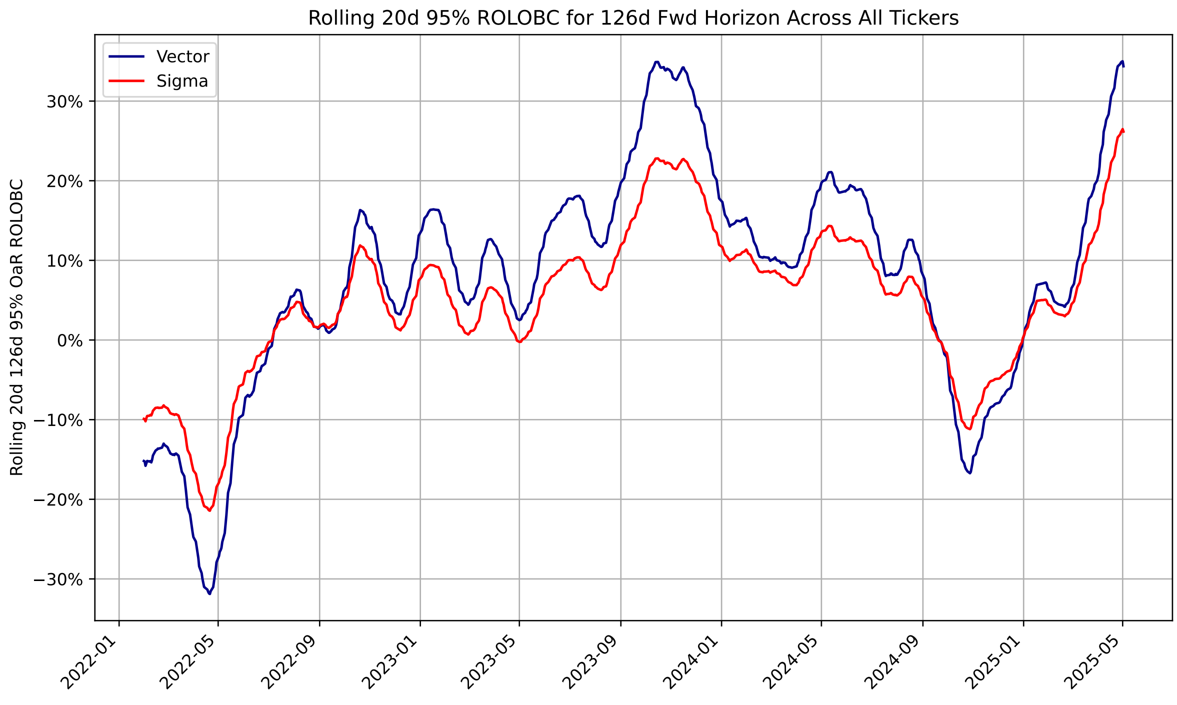


Rolling 20d 95% ROLOBC for 21d Fwd Horizon Across All Tickers
Rolling 20d 21d 95% OaR ROLOBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

63d Horizon

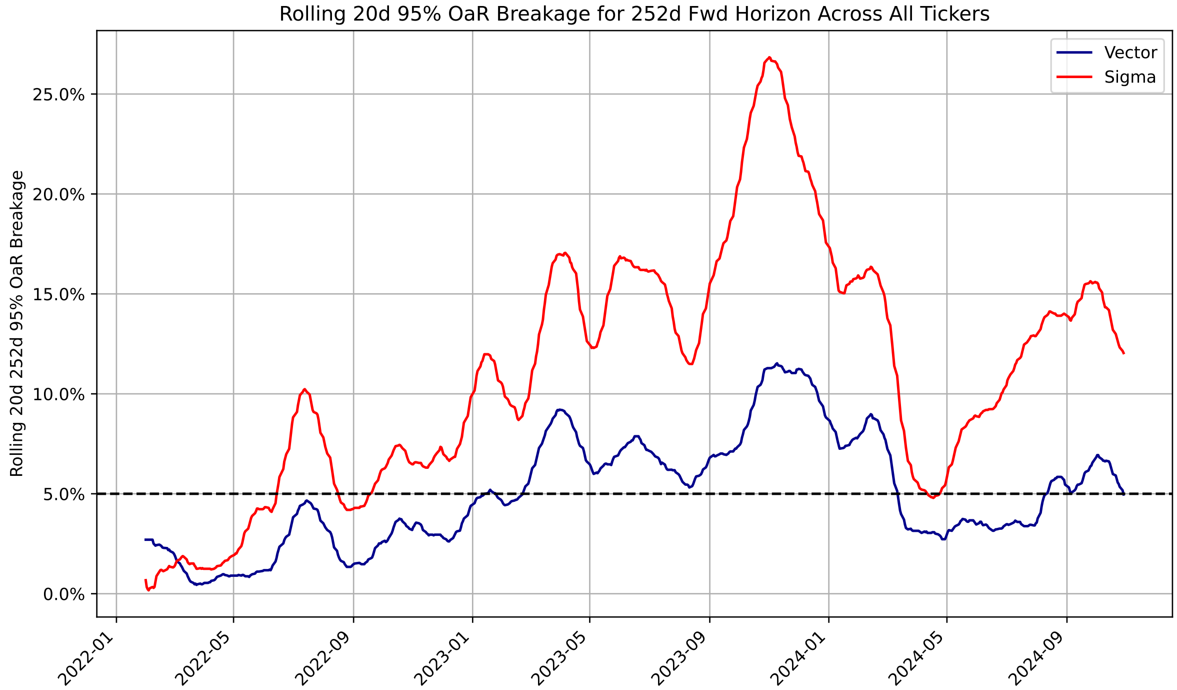


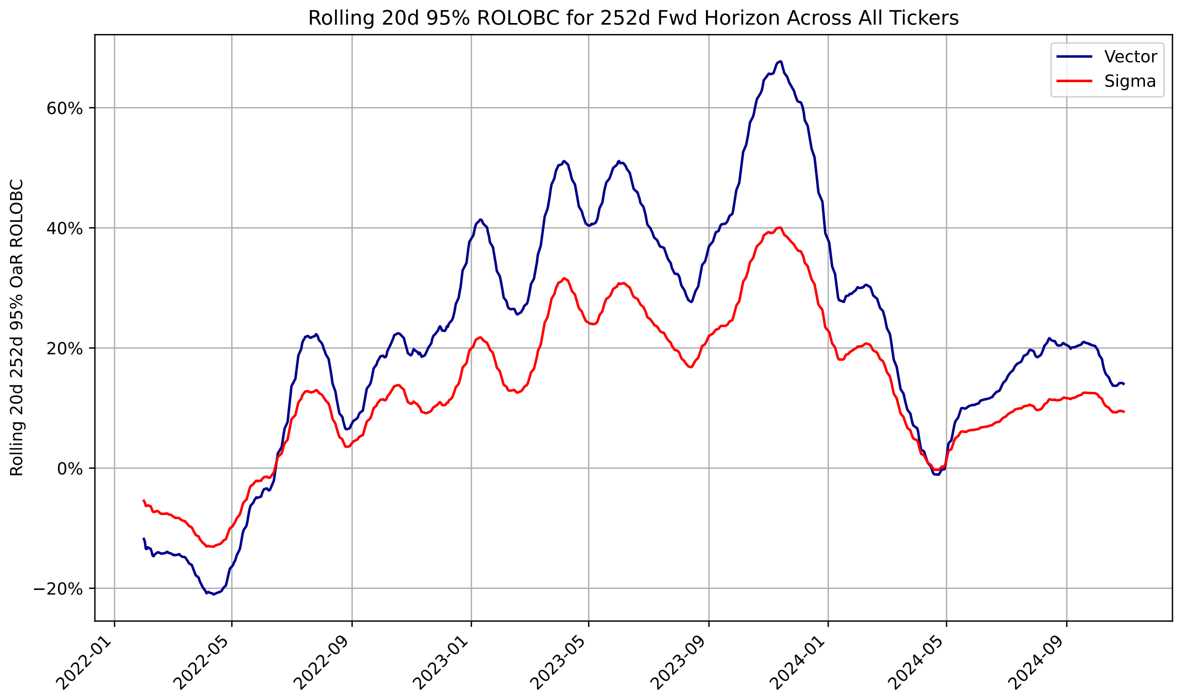
Rolling 20d 95% OaR Breakage for 126d Fwd Horizon Across All Tickers
Rolling 20d 126d 95% OaR Breakage
Vector
Sigma
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



Rolling 20d 95% ROLOBC for 126d Fwd Horizon Across All Tickers
Rolling 20d 126d 95% OaR ROLOBC
Vector
Sigma
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
2025-05

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	MSTR	16.56%	VST	9.66%
1.0	SBNY	16.55%	GLD	7.32%
1.0	SIVBQ	12.95%	MSTR	7.01%
1.0	GME	12.85%	AVGO	6.9%
1.0	SLV	11.9%	NVDA	6.79%
1.0	CHTR	10.93%	MU	6.48%
1.0	VST	10.72%	WDC	6.37%
1.0	AVGO	10.72%	SLV	6.06%
1.0	FRCB	10.07%	CAH	5.84%
1.0	META	9.77%	ACGL	5.84%
1.0	GNRC	9.45%	GBTC	5.73%
1.0	B	9.45%	PWR	5.73%
1.0	ZTS	9.02%	TRGP	5.63%
1.0	HLT	8.81%	ON	5.41%
1.0	NFLX	8.07%	TEVA	5.41%
1.0	ORCL	7.86%	FCX	5.41%
1.0	ACGL	7.75%	PHM	5.41%
1.0	TEVA	7.64%	CDNS	5.31%
1.0	GILD	7.54%	IRM	5.31%
1.0	BUD	7.54%	AMAT	5.31%
1.0	INTU	7.43%	AMGN	5.2%
1.0	CMA	7.32%	LLY	5.2%
1.0	FRA	7.22%	B	5.2%
1.0	TSLA	7.22%	NEM	5.2%
1.0	BALL	7.01%	DHI	5.1%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	MSTR	20.79%	VST	12.86%
10.0	META	18.33%	NVDA	11.36%
10.0	VST	17.04%	GLD	11.25%
10.0	AVGO	16.4%	ORCL	11.15%
10.0	SLV	15.24%	CAH	11.04%
10.0	TEVA	15.11%	LLY	10.61%
10.0	HCA	15.11%	GS	9.65%
10.0	B	14.79%	SLV	9.44%
10.0	GME	14.04%	NVS	9.32%
10.0	SIVBQ	13.97%	IRM	8.57%
10.0	CHTR	13.72%	MSTR	8.57%
10.0	IRM	13.72%	MU	8.57%
10.0	KALU	13.4%	TRGP	8.57%
10.0	GILD	13.4%	TSLA	8.47%
10.0	ORCL	12.86%	AVGO	8.36%
10.0	WDC	12.43%	B	8.36%
10.0	TRGP	11.58%	GE	8.25%
10.0	GNRC	11.36%	MUB	8.15%
10.0	GWW	11.36%	TEVA	7.82%
10.0	SBNY	10.66%	ABBV	7.82%
10.0	NVS	10.61%	WDC	7.4%
10.0	HD	10.4%	AMD	7.29%
10.0	NEM	10.4%	CPRT	7.29%
10.0	BALL	9.75%	GBTC	7.29%
10.0	GLD	9.75%	MS	7.18%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	AVGO	22.23%	GLD	16.7%
21.0	MSTR	21.58%	CAH	15.08%
21.0	META	18.76%	ORCL	14.32%
21.0	VST	18.22%	MSTR	14.32%
21.0	TRGP	15.51%	VST	13.99%
21.0	TEVA	15.4%	NVDA	13.56%
21.0	CHTR	15.29%	TRGP	12.91%
21.0	B	15.18%	LLY	12.91%
21.0	ORCL	15.18%	GE	12.8%
21.0	IRM	14.97%	GS	12.04%
21.0	GME	14.32%	AVGO	11.71%
21.0	NEM	13.67%	TSLA	11.5%
21.0	ISRG	13.67%	IRM	10.85%
21.0	GILD	13.12%	GWW	10.74%
21.0	HCA	13.12%	GBTC	10.63%
21.0	GNRC	12.91%	CCL	10.41%
21.0	KALU	12.58%	X	10.4%
21.0	NVS	12.36%	MUB	10.31%
21.0	GWW	12.36%	NVS	10.09%
21.0	ETRN	12.14%	TEVA	9.76%
21.0	SLV	11.94%	PWR	9.76%
21.0	SIVBQ	11.85%	CMG	9.65%
21.0	BUD	11.28%	AMGN	9.54%
21.0	CAH	10.74%	MS	9.54%
21.0	GS	10.63%	JPM	9.33%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	AVGO	33.41%	NVDA	29.89%
63.0	VST	28.18%	VST	27.84%
63.0	META	26.82%	AVGO	21.82%
63.0	MSTR	24.09%	GLD	21.02%
63.0	IRM	17.05%	GBTC	21.02%
63.0	GILD	16.93%	TRGP	20.11%
63.0	ETRN	16.7%	CAH	19.32%
63.0	TRGP	16.36%	GE	19.09%
63.0	CAH	16.14%	ORCL	19.09%
63.0	NEM	15.23%	LLY	18.52%
63.0	ORCL	15.0%	THC	17.95%
63.0	CHTR	14.55%	MSTR	16.7%
63.0	EXPE	14.32%	ETRN	16.15%
63.0	TEVA	14.2%	WDC	16.02%
63.0	BUD	14.2%	PHM	15.57%
63.0	WFC	13.86%	GILD	15.11%
63.0	WDC	12.27%	CMG	15.11%
63.0	MSI	12.05%	META	14.43%
63.0	LW	11.25%	CCL	13.98%
63.0	SIVBQ	11.11%	TMUS	13.64%
63.0	GLD	11.02%	DHI	13.3%
63.0	HCA	11.02%	AMD	13.07%
63.0	THC	10.91%	TEVA	12.95%
63.0	TMUS	10.8%	WFC	12.84%
63.0	GME	10.68%	GS	12.73%
63.0	GE	10.57%	PWR	12.5%
63.0	LLY	9.89%	MU	12.16%
63.0	GNRC	9.77%	IRM	11.48%
63.0	NVDA	9.77%	JPM	11.36%
63.0	TSLA	9.32%	ABBV	11.14%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	VST	42.59%	NVDA	45.65%
126.0	MSTR	35.25%	VST	42.47%
126.0	AVGO	32.68%	GLD	40.51%
126.0	TRGP	27.54%	GE	39.41%
126.0	META	26.32%	AVGO	35.86%
126.0	IRM	25.21%	MSTR	29.13%
126.0	GLD	22.64%	TRGP	29.01%
126.0	TMUS	21.42%	LLY	26.81%
126.0	TEVA	20.69%	GILD	26.44%
126.0	CAH	19.83%	PHM	25.21%
126.0	LW	19.58%	ORCL	24.85%
126.0	NVDA	19.58%	CAH	24.6%
126.0	GILD	19.34%	THC	23.5%
126.0	MSI	17.14%	GS	21.66%
126.0	GE	16.65%	GBTC	21.05%
126.0	LLY	16.4%	META	20.81%
126.0	WDC	13.22%	IRM	20.69%
126.0	NEM	12.85%	TMUS	19.95%
126.0	WFC	12.61%	ACGL	18.12%
126.0	GOOGL	11.38%	JPM	17.75%
126.0	THC	11.26%	TEVA	17.01%
126.0	EXPE	11.26%	NEM	16.65%
126.0	ACGL	10.65%	MSI	16.65%
126.0	ORCL	10.53%	NFLX	16.28%
126.0	VFC	9.91%	T	15.67%
126.0	ETRN	8.81%	CMG	15.3%
126.0	HCA	7.1%	PWR	15.3%
126.0	BUD	6.85%	COST	15.3%
126.0	GME	6.85%	WDC	15.18%
126.0	XOM	6.49%	WFC	14.2%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
252.0	VST	68.6%	AVGO	78.15%
252.0	AVGO	57.74%	GE	74.24%
252.0	MSTR	52.97%	VST	65.56%
252.0	NVDA	39.94%	NVDA	63.97%
252.0	META	37.63%	MSTR	52.82%
252.0	TRGP	37.48%	PHM	52.1%
252.0	GLD	36.03%	LLY	49.06%
252.0	IRM	34.01%	GBTC	46.16%
252.0	LLY	27.06%	GLD	46.02%
252.0	TEVA	25.62%	META	45.44%
252.0	TMUS	20.69%	JPM	45.15%
252.0	TDG	18.81%	TRGP	41.97%
252.0	GS	18.38%	NFLX	39.94%
252.0	GILD	17.8%	ORCL	39.51%
252.0	CAH	17.66%	TMUS	39.07%
252.0	GWW	17.66%	GS	39.07%
252.0	GE	15.2%	COST	37.34%
252.0	THC	14.18%	ACGL	36.9%
252.0	ORCL	12.16%	TDG	35.46%
252.0	LW	12.16%	CAH	31.55%
252.0	MSI	11.0%	IRM	29.67%
252.0	WFC	9.99%	PWR	29.52%
252.0	ETRN	8.01%	GILD	26.34%
252.0	ACGL	7.67%	TEVA	26.34%
252.0	WDC	7.24%	GWW	25.76%
252.0	EXPE	6.95%	THC	25.33%
252.0	GBTC	6.22%	CPRT	24.89%
252.0	CMG	6.08%	WFC	23.88%
252.0	JPM	6.08%	CMG	23.15%
252.0	HSBC	6.08%	T	22.87%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	GLD	28.57%	GLD	23.81%
1.0	ZTS	23.81%	LUMN	23.81%
1.0	WDC	23.81%	WDC	23.81%
1.0	SLV	23.81%	SLV	23.81%
1.0	AMD	19.05%	MU	19.05%
1.0	NEM	19.05%	NEM	19.05%
1.0	ISRG	19.05%	B	19.05%
1.0	AA	14.29%	AMD	19.05%
1.0	NFLX	14.29%	KALU	14.29%
1.0	GILD	14.29%	AA	14.29%
1.0	HCA	14.29%	PEP	9.52%
1.0	CLF	14.29%	PWR	9.52%
1.0	MU	14.29%	CLF	9.52%
1.0	LUMN	14.29%	MS	9.52%
1.0	ON	9.52%	QCOM	9.52%
1.0	QCOM	9.52%	WFC	9.52%
1.0	TDG	9.52%	WYNN	9.52%
1.0	TXN	9.52%	HON	9.52%
1.0	KEY	9.52%	GSK	9.52%
1.0	HON	9.52%	GOOGL	9.52%
1.0	HLT	9.52%	GNRC	9.52%
1.0	VFC	9.52%	ZION	9.52%
1.0	GWW	9.52%	GILD	9.52%
1.0	GNRC	9.52%	GE	9.52%
1.0	WFC	9.52%	CYH	9.52%
1.0	FRA	9.52%	ISRG	9.52%
1.0	CSTM	9.52%	BAC	9.52%
1.0	CSCO	9.52%	BHC	9.52%
1.0	KALU	9.52%	CCL	4.76%
1.0	BAC	9.52%	AMAT	4.76%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	ISRG	75.0%	ISRG	66.67%
10.0	KALU	58.33%	AMD	50.0%
10.0	WDC	50.0%	LVS	50.0%
10.0	MU	50.0%	KALU	50.0%
10.0	HCA	50.0%	CYH	50.0%
10.0	GOOGL	50.0%	LUMN	50.0%
10.0	THC	41.67%	PEP	41.67%
10.0	LVS	41.67%	GOOGL	41.67%
10.0	GNRC	41.67%	HCA	33.33%
10.0	GLD	41.67%	MU	33.33%
10.0	CYH	33.33%	GLD	25.0%
10.0	GILD	33.33%	SLV	25.0%
10.0	VFC	25.0%	GNRC	25.0%
10.0	SLV	25.0%	WDC	25.0%
10.0	LUMN	25.0%	WFC	16.67%
10.0	ZTS	25.0%	BAC	16.67%
10.0	AAPL	25.0%	CAH	16.67%
10.0	AMZN	25.0%	GILD	8.33%
10.0	SBUX	16.67%	AAPL	8.33%
10.0	INTC	16.67%	THC	8.33%
10.0	HON	16.67%	AMZN	8.33%
10.0	AMD	16.67%	HON	8.33%
10.0	CAH	16.67%	RIO	8.33%
10.0	BXP	16.67%	CSTM	8.33%
10.0	WFC	16.67%	INTC	8.33%
10.0	PEP	16.67%	NVDA	8.33%
10.0	NFLX	8.33%	BBY	8.33%
10.0	GWW	8.33%	NEM	8.33%
10.0	GSK	8.33%	QCOM	8.33%
10.0	TDG	8.33%	CLF	8.33%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	22.22%	WDC	19.05%
1.0	SLV	14.52%	SLV	14.52%
1.0	GWW	14.29%	MU	14.29%
1.0	GILD	12.7%	B	14.29%
1.0	ZTS	11.11%	LUMN	14.29%
1.0	VFC	11.11%	INTC	11.11%
1.0	INTC	11.11%	AAPL	9.52%
1.0	PCG	11.11%	WYNN	9.52%
1.0	BAC	11.11%	NEM	9.52%
1.0	CLF	11.11%	AMD	9.52%
1.0	NFLX	9.52%	GLD	9.52%
1.0	GLD	9.52%	PCG	7.94%
1.0	MU	9.52%	AA	7.94%
1.0	NVS	9.52%	CAH	7.94%
1.0	AMZN	9.52%	KALU	7.94%
1.0	TSLA	9.52%	GOOGL	7.94%
1.0	WYNN	9.52%	GSK	7.94%
1.0	AAPL	9.52%	ORCL	6.35%
1.0	NEM	7.94%	CSTM	6.35%
1.0	ORLY	7.94%	HD	6.35%
1.0	SNY	7.94%	PWR	6.35%
1.0	HCA	7.94%	MNST	6.35%
1.0	GOOGL	7.94%	POST	6.35%
1.0	EXPE	7.94%	AZN	6.35%
1.0	ELAN	7.94%	BIIB	6.35%
1.0	ISRG	7.94%	AMAT	6.35%
1.0	B	7.94%	BHC	6.35%
1.0	AA	6.35%	IRM	6.35%
1.0	AMD	6.35%	GWW	4.76%
1.0	HD	6.35%	BAC	4.76%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	WDC	62.96%	B	53.7%
10.0	SLV	45.28%	GLD	42.59%
10.0	INTC	42.59%	WDC	42.59%
10.0	GOOGL	37.04%	SLV	39.62%
10.0	MU	37.04%	MU	37.04%
10.0	B	35.19%	INTC	31.48%
10.0	BXP	33.33%	GOOGL	27.78%
10.0	NVS	33.33%	AMD	25.93%
10.0	GLD	27.78%	AZN	24.07%
10.0	GILD	25.93%	AMAT	22.22%
10.0	AAPL	25.93%	NVS	18.52%
10.0	UNH	25.93%	ORCL	18.52%
10.0	HCA	24.07%	TSLA	14.81%
10.0	BAC	22.22%	LUMN	14.81%
10.0	AZN	20.37%	ISRG	14.81%
10.0	THC	20.37%	PEP	12.96%
10.0	CVS	18.52%	CMA	12.96%
10.0	ORCL	18.52%	MUB	12.96%
10.0	VFC	18.52%	AVGO	12.96%
10.0	ISRG	16.67%	NEM	11.11%
10.0	TSLA	16.67%	UNH	11.11%
10.0	AMD	16.67%	MRK	11.11%
10.0	AMZN	16.67%	HCA	11.11%
10.0	KALU	12.96%	CYH	11.11%
10.0	CMA	12.96%	LVS	11.11%
10.0	FCX	11.11%	KALU	11.11%
10.0	IRM	11.11%	BHC	9.26%
10.0	EXPE	11.11%	AAPL	9.26%
10.0	WYNN	11.11%	LLY	7.41%
10.0	GNRC	11.11%	GSK	7.41%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	WDC	86.05%	GLD	76.74%
21.0	INTC	60.47%	WDC	74.42%
21.0	SLV	57.14%	MU	72.09%
21.0	GOOGL	53.49%	B	72.09%
21.0	MU	53.49%	SLV	61.9%
21.0	B	46.51%	GOOGL	53.49%
21.0	BXP	34.88%	ORCL	48.84%
21.0	NVS	34.88%	INTC	48.84%
21.0	NEM	32.56%	NEM	48.84%
21.0	CMA	30.23%	AMD	46.51%
21.0	GLD	27.91%	AMAT	41.86%
21.0	AAPL	27.91%	LUMN	25.58%
21.0	AMD	23.26%	ISRG	18.6%
21.0	HCA	20.93%	UNH	18.6%
21.0	CVS	18.6%	BXP	18.6%
21.0	GILD	18.6%	MUB	16.28%
21.0	TSLA	18.6%	CMA	13.95%
21.0	ISRG	18.6%	KALU	11.63%
21.0	KALU	16.28%	TSLA	11.63%
21.0	EXPE	13.95%	AZN	6.98%
21.0	ELAN	13.95%	ELAN	6.98%
21.0	LUMN	11.63%	LEN	4.65%
21.0	UNH	11.63%	IRM	4.65%
21.0	ORCL	11.63%	NVS	4.65%
21.0	IRM	11.63%	HSBC	4.65%
21.0	VFC	9.3%	HCA	4.65%
21.0	PCG	9.3%	PHM	4.65%
21.0	WYNN	9.3%	GSK	4.65%
21.0	SNY	9.3%	THC	4.65%
21.0	BAC	9.3%	DHI	4.65%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	GILD	18.07%	GLD	9.64%
1.0	SLV	14.52%	WDC	8.43%
1.0	TSLA	14.06%	TRGP	7.63%
1.0	VST	14.06%	POST	7.63%
1.0	AVGO	12.85%	VST	7.23%
1.0	ORLY	12.45%	AZO	7.23%
1.0	CHTR	11.65%	MU	7.23%
1.0	ZTS	11.65%	X	7.14%
1.0	MSTR	10.84%	CAH	6.83%
1.0	META	9.64%	GILD	6.83%
1.0	BAC	8.84%	INTC	6.83%
1.0	NEM	8.84%	AZN	6.83%
1.0	HON	8.03%	B	6.83%
1.0	WFC	8.03%	MSTR	6.83%
1.0	MU	8.03%	SLV	6.45%
1.0	UNH	8.03%	HLT	6.43%
1.0	WDC	8.03%	HD	6.43%
1.0	AMZN	8.03%	NEM	6.43%
1.0	TXN	7.63%	NVS	6.43%
1.0	GOOGL	7.63%	PWR	6.43%
1.0	HLT	7.63%	KALU	6.02%
1.0	VFC	7.63%	ORCL	6.02%
1.0	CLF	7.63%	HSBC	6.02%
1.0	VZ	7.63%	ORLY	6.02%
1.0	BUD	7.63%	PCG	6.02%
1.0	NVS	7.63%	WYNN	6.02%
1.0	INTC	7.23%	COST	5.62%
1.0	CMA	7.23%	GOOGL	5.62%
1.0	ABBV	6.83%	ACGL	5.62%
1.0	ORCL	6.83%	TSLA	5.62%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	AVGO	26.67%	B	16.25%
10.0	GILD	25.42%	GLD	15.0%
10.0	WDC	24.58%	MU	14.17%
10.0	SLV	19.67%	ORCL	14.17%
10.0	TSLA	19.17%	SLV	12.55%
10.0	MU	18.75%	WDC	12.08%
10.0	GOOGL	17.08%	LVS	11.67%
10.0	KALU	17.08%	GOOGL	11.25%
10.0	NEM	15.83%	GS	11.25%
10.0	NVS	15.83%	NVS	11.25%
10.0	HCA	15.83%	NFLX	11.25%
10.0	VZ	15.42%	WYNN	11.25%
10.0	AAP	15.42%	T	10.42%
10.0	INTC	15.42%	CAH	10.42%
10.0	AMZN	15.0%	INTC	10.42%
10.0	B	15.0%	GILD	10.42%
10.0	UNH	14.58%	BA	10.42%
10.0	WFC	14.17%	TSLA	10.0%
10.0	CMA	14.17%	TRGP	10.0%
10.0	META	13.75%	MOS	9.58%
10.0	BAC	13.33%	WFC	9.58%
10.0	TXN	13.33%	AMD	9.58%
10.0	INTU	13.33%	HLT	9.58%
10.0	GE	12.92%	META	9.17%
10.0	MSTR	12.5%	CVS	9.17%
10.0	GS	12.5%	X	8.97%
10.0	CHTR	12.5%	CCL	8.75%
10.0	BUD	12.08%	BUD	8.75%
10.0	ORCL	11.67%	VST	8.75%
10.0	ABBV	11.67%	LLY	8.75%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	AVGO	41.48%	GLD	31.0%
21.0	NEM	28.82%	ORCL	22.27%
21.0	WDC	27.95%	B	20.96%
21.0	MU	24.89%	MU	19.65%
21.0	GILD	24.02%	NEM	18.78%
21.0	BUD	20.09%	WDC	17.9%
21.0	TSLA	19.65%	AMD	17.03%
21.0	AAP	19.65%	GE	16.59%
21.0	GE	18.78%	GOOGL	15.28%
21.0	SLV	17.98%	AVGO	15.28%
21.0	ELAN	17.9%	NFLX	14.85%
21.0	B	17.47%	ELAN	13.97%
21.0	ORCL	17.47%	CVS	13.54%
21.0	GOOGL	17.03%	X	13.43%
21.0	KALU	17.03%	BUD	13.1%
21.0	CMA	16.16%	GS	13.1%
21.0	VZ	16.16%	SLV	12.72%
21.0	CVS	15.28%	HSBC	12.66%
21.0	TXN	14.85%	CCL	12.66%
21.0	META	14.85%	ORLY	12.66%
21.0	ORLY	14.85%	WYNN	12.23%
21.0	NVS	14.41%	JPM	11.79%
21.0	HCA	14.41%	TSLA	11.79%
21.0	INTC	13.97%	CAH	11.35%
21.0	ISRG	13.54%	HLT	10.92%
21.0	X	11.94%	TEVA	10.92%
21.0	GS	11.79%	COST	10.92%
21.0	WYNN	11.79%	GNRC	10.92%
21.0	EXPE	10.92%	GILD	10.92%
21.0	INTU	10.92%	TMUS	10.48%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	AVGO	56.68%	GLD	48.66%
63.0	NEM	45.45%	WDC	44.92%
63.0	WDC	43.32%	ORCL	38.5%
63.0	BUD	42.78%	NEM	36.9%
63.0	B	32.62%	B	33.16%
63.0	ORCL	32.62%	AMD	31.02%
63.0	ELAN	31.02%	CAH	30.48%
63.0	GILD	30.48%	BUD	27.27%
63.0	AAP	28.34%	HSBC	26.2%
63.0	SLV	25.67%	GOOGL	25.67%
63.0	CAH	25.13%	GNRC	24.6%
63.0	GE	22.99%	NFLX	22.99%
63.0	CMA	22.46%	WYNN	22.99%
63.0	MU	21.93%	PWR	22.99%
63.0	ORLY	21.39%	MSFT	22.46%
63.0	GLD	20.86%	ELAN	21.93%
63.0	WYNN	18.72%	T	21.93%
63.0	MSFT	18.18%	LVS	20.32%
63.0	CVS	17.11%	MOS	19.79%
63.0	EXPE	17.11%	INTU	19.79%
63.0	TSLA	16.04%	CCL	19.79%
63.0	GNRC	16.04%	GS	19.25%
63.0	GS	14.44%	MU	18.72%
63.0	INTC	14.44%	AVGO	18.72%
63.0	AMD	13.9%	DHI	18.18%
63.0	META	12.83%	GE	17.65%
63.0	GOOGL	12.83%	AAP	17.11%
63.0	KALU	12.83%	SLV	17.11%
63.0	CCL	12.83%	THC	16.58%
63.0	PWR	11.23%	CVS	16.58%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	AVGO	76.61%	GLD	91.13%
126.0	NEM	74.19%	NEM	75.0%
126.0	GLD	66.94%	GE	65.32%
126.0	GE	50.81%	ORCL	57.26%
126.0	CAH	44.35%	HSBC	50.81%
126.0	WDC	39.52%	CAH	49.19%
126.0	BUD	39.52%	MSFT	45.97%
126.0	AAP	33.87%	B	41.94%
126.0	GOOGL	31.45%	NFLX	40.32%
126.0	ORCL	30.65%	ELAN	37.1%
126.0	B	25.0%	AVGO	36.29%
126.0	GILD	24.19%	BUD	36.29%
126.0	SLV	24.19%	WDC	36.29%
126.0	ELAN	20.97%	GOOGL	34.68%
126.0	MU	19.35%	WYNN	33.87%
126.0	WYNN	17.74%	PWR	33.06%
126.0	CCL	16.94%	THC	32.26%
126.0	AMD	16.13%	GS	31.45%
126.0	GS	16.13%	QQQ	30.65%
126.0	CMA	15.32%	SPY	27.42%
126.0	BAC	10.48%	MU	25.81%
126.0	NFLX	9.68%	MS	25.81%
126.0	ORLY	8.87%	SLV	24.19%
126.0	INTC	8.87%	AMD	23.39%
126.0	TSLA	8.06%	T	22.58%
126.0	META	7.26%	NVDA	19.35%
126.0	MSTR	6.45%	NVS	16.13%
126.0	PWR	4.84%	JPM	15.32%
126.0	KALU	4.84%	CCL	14.52%
126.0	EXPE	4.84%	GNRC	12.9%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NVDA	0.47%	MSTR	0.39%
1.0	AVGO	0.41%	NVDA	0.28%
1.0	GBTC	0.39%	VST	0.28%
1.0	X	0.38%	AVGO	0.24%
1.0	VST	0.37%	GBTC	0.2%
1.0	CCL	0.34%	PWR	0.18%
1.0	GE	0.33%	GME	0.18%
1.0	TSLA	0.32%	GE	0.17%
1.0	AMD	0.28%	X	0.17%
1.0	LLY	0.27%	WDC	0.16%
1.0	B	0.24%	ORCL	0.16%
1.0	MU	0.23%	MU	0.15%
1.0	TDG	0.22%	LLY	0.15%
1.0	THC	0.22%	THC	0.15%
1.0	PWR	0.22%	CAH	0.15%
1.0	CAH	0.21%	AMD	0.14%
1.0	WDC	0.2%	NFLX	0.14%
1.0	PHM	0.18%	TEVA	0.13%
1.0	TRGP	0.17%	TRGP	0.12%
1.0	DHI	0.17%	META	0.12%
1.0	CDNS	0.16%	ETRN	0.12%
1.0	LVS	0.16%	TSLA	0.12%
1.0	AZO	0.16%	PHM	0.11%
1.0	MSFT	0.16%	CDNS	0.11%
1.0	MSTR	0.15%	CCL	0.1%
1.0	GME	0.15%	IRM	0.1%
1.0	ORLY	0.15%	GS	0.1%
1.0	AMAT	0.14%	GOOGL	0.1%
1.0	ETRN	0.14%	SLV	0.1%
1.0	JPM	0.14%	TDG	0.1%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NVDA	5.44%	MSTR	3.99%
10.0	AVGO	3.61%	VST	2.8%
10.0	TSLA	3.42%	NVDA	2.75%
10.0	VST	3.16%	AVGO	2.29%
10.0	LLY	3.14%	GBTC	1.93%
10.0	GBTC	3.09%	PWR	1.77%
10.0	CCL	2.92%	GE	1.7%
10.0	MSTR	2.63%	ORCL	1.59%
10.0	PWR	2.54%	X	1.58%
10.0	GE	2.29%	LLY	1.53%
10.0	AMD	2.28%	GME	1.53%
10.0	MU	1.92%	NFLX	1.52%
10.0	PHM	1.77%	MU	1.51%
10.0	AZO	1.71%	META	1.51%
10.0	CAH	1.7%	WDC	1.48%
10.0	CDNS	1.67%	THC	1.44%
10.0	X	1.67%	ETRN	1.41%
10.0	THC	1.56%	CAH	1.36%
10.0	MSFT	1.55%	AMD	1.33%
10.0	ETRN	1.52%	TEVA	1.33%
10.0	AMAT	1.5%	TSLA	1.25%
10.0	WDC	1.36%	TRGP	1.18%
10.0	ORLY	1.35%	PHM	1.13%
10.0	DHI	1.35%	CDNS	1.1%
10.0	HLT	1.31%	IRM	1.06%
10.0	JPM	1.28%	CCL	1.0%
10.0	TDG	1.25%	GS	0.98%
10.0	QQQ	1.25%	ORLY	0.96%
10.0	GME	1.24%	SLV	0.94%
10.0	LVS	1.24%	TDG	0.94%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	NVDA	11.25%	MSTR	9.1%
21.0	TSLA	8.39%	VST	6.15%
21.0	MSTR	7.3%	NVDA	5.94%
21.0	GBTC	7.3%	AVGO	4.8%
21.0	VST	7.21%	GBTC	4.3%
21.0	CCL	6.28%	PWR	3.75%
21.0	PWR	5.62%	GE	3.69%
21.0	LLY	5.59%	ORCL	3.57%
21.0	AVGO	5.52%	ETRN	3.5%
21.0	AMD	5.02%	NFLX	3.42%
21.0	GE	4.86%	META	3.37%
21.0	PHM	4.19%	LLY	3.2%
21.0	AMAT	4.09%	X	3.17%
21.0	AZO	4.09%	WDC	3.11%
21.0	MU	3.82%	THC	2.99%
21.0	CDNS	3.76%	MU	2.91%
21.0	DHI	3.59%	TEVA	2.9%
21.0	X	3.55%	TSLA	2.89%
21.0	CAH	3.44%	AMD	2.81%
21.0	ORCL	3.36%	CAH	2.8%
21.0	THC	3.33%	PHM	2.51%
21.0	PCG	3.31%	TRGP	2.47%
21.0	ETRN	3.28%	GME	2.43%
21.0	NFLX	3.16%	CDNS	2.31%
21.0	ORLY	3.02%	IRM	2.27%
21.0	MSFT	3.01%	CCL	2.25%
21.0	QQQ	2.88%	GS	2.13%
21.0	JPM	2.84%	ORLY	2.07%
21.0	TEVA	2.7%	SLV	1.96%
21.0	GS	2.6%	TDG	1.9%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	40.48%	MSTR	27.38%
63.0	NVDA	36.45%	VST	20.27%
63.0	GBTC	24.38%	NVDA	19.98%
63.0	VST	22.75%	AVGO	14.82%
63.0	CCL	22.23%	GBTC	14.68%
63.0	PWR	16.51%	META	12.2%
63.0	PHM	14.83%	NFLX	11.98%
63.0	GE	14.46%	GE	11.66%
63.0	LLY	14.26%	ORCL	10.91%
63.0	NFLX	14.11%	ETRN	10.28%
63.0	AVGO	13.87%	PWR	10.23%
63.0	TSLA	13.27%	PHM	9.06%
63.0	AMD	13.11%	THC	9.01%
63.0	ORCL	12.47%	WDC	8.96%
63.0	DHI	12.46%	LLY	8.59%
63.0	THC	12.1%	CAH	8.09%
63.0	MU	10.99%	CCL	7.94%
63.0	CDNS	10.6%	MU	7.42%
63.0	AZO	10.02%	AMD	7.36%
63.0	MSFT	9.91%	TEVA	7.36%
63.0	CAH	9.65%	TRGP	7.22%
63.0	JPM	9.65%	DHI	6.9%
63.0	QQQ	9.59%	CDNS	6.87%
63.0	AMAT	9.47%	GS	6.76%
63.0	ETRN	9.32%	TSLA	6.58%
63.0	TDG	8.97%	ORLY	6.35%
63.0	PCG	8.77%	JPM	6.29%
63.0	AMZN	8.49%	TDG	6.02%
63.0	GOOGL	8.45%	X	5.91%
63.0	VNO	8.42%	IRM	5.78%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	NVDA	92.77%	MSTR	67.34%
126.0	MSTR	72.48%	NVDA	49.24%
126.0	GBTC	64.93%	VST	44.1%
126.0	VST	52.61%	GBTC	38.75%
126.0	NFLX	44.45%	AVGO	31.52%
126.0	GE	40.4%	NFLX	29.76%
126.0	CCL	37.88%	META	28.85%
126.0	PHM	37.87%	GE	27.37%
126.0	PWR	35.92%	ORCL	21.84%
126.0	ORCL	34.42%	THC	21.51%
126.0	THC	34.38%	PWR	20.7%
126.0	AVGO	32.27%	PHM	19.11%
126.0	AMD	31.23%	ETRN	18.49%
126.0	MU	30.78%	LLY	18.19%
126.0	DHI	27.69%	CAH	17.95%
126.0	META	27.03%	TRGP	16.82%
126.0	AMAT	26.15%	CCL	16.09%
126.0	AMZN	26.15%	TEVA	15.23%
126.0	QQQ	25.12%	MU	15.22%
126.0	LLY	24.65%	TDG	15.0%
126.0	TSLA	24.39%	WDC	14.63%
126.0	VNO	24.21%	AMD	14.49%
126.0	JPM	23.92%	JPM	14.11%
126.0	MSFT	22.22%	GS	13.98%
126.0	MS	22.09%	CDNS	13.71%
126.0	TDG	22.02%	ORLY	13.38%
126.0	CAH	21.66%	ISRG	13.27%
126.0	ISRG	20.62%	DHI	13.15%
126.0	CDNS	20.62%	IRM	13.06%
126.0	AZO	20.48%	GWW	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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	NVDA	262.41%	MSTR	215.16%
252.0	GBTC	226.14%	NVDA	134.21%
252.0	MSTR	215.15%	VST	125.4%
252.0	NFLX	132.78%	GBTC	115.0%
252.0	VST	127.46%	META	75.98%
252.0	GE	116.62%	AVGO	75.83%
252.0	PHM	106.66%	NFLX	69.69%
252.0	AVGO	101.71%	GE	61.36%
252.0	CCL	97.74%	PHM	48.79%
252.0	META	90.03%	THC	48.22%
252.0	LLY	88.8%	LLY	45.93%
252.0	PWR	83.99%	TRGP	45.7%
252.0	THC	77.89%	PWR	42.61%
252.0	AMZN	73.86%	ORCL	42.57%
252.0	MU	71.99%	CCL	40.52%
252.0	VNO	69.45%	TDG	36.35%
252.0	CDNS	68.77%	ETRN	35.78%
252.0	ORCL	66.83%	ISRG	34.93%
252.0	ISRG	66.64%	TEVA	34.58%
252.0	DHI	66.61%	CAH	34.45%
252.0	COST	64.93%	JPM	32.46%
252.0	QQQ	63.78%	IRM	31.44%
252.0	TRGP	63.46%	GWW	30.16%
252.0	JPM	63.37%	GS	29.43%
252.0	ACGL	61.25%	DHI	29.41%
252.0	MSFT	61.15%	CDNS	28.87%
252.0	AMD	59.56%	MU	28.85%
252.0	TDG	56.57%	COST	28.73%
252.0	INTU	53.92%	ACGL	28.45%
252.0	MS	53.31%	AMZN	28.11%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	5.95%	LUMN	2.44%
1.0	AMD	4.51%	AMD	2.17%
1.0	CYH	3.25%	CYH	1.4%
1.0	CAH	1.85%	MU	0.99%
1.0	LVS	1.43%	ISRG	0.95%
1.0	AVGO	1.14%	CAH	0.94%
1.0	KALU	1.04%	WDC	0.75%
1.0	WDC	0.98%	KALU	0.74%
1.0	MU	0.97%	GOOGL	0.66%
1.0	FSUGY	0.9%	AMZN	0.48%
1.0	GOOGL	0.88%	CMA	0.48%
1.0	BHC	0.84%	AVGO	0.47%
1.0	PWR	0.81%	FSUGY	0.46%
1.0	ISRG	0.79%	LVS	0.44%
1.0	INTC	0.78%	BHC	0.4%
1.0	RIO	0.76%	GILD	0.39%
1.0	QCOM	0.69%	WFC	0.39%
1.0	QQQ	0.66%	RIO	0.39%
1.0	GSK	0.63%	ELAN	0.39%
1.0	AA	0.62%	QCOM	0.38%
1.0	CMA	0.6%	BBY	0.37%
1.0	AMAT	0.55%	HCA	0.37%
1.0	TDG	0.55%	INTC	0.36%
1.0	ELAN	0.52%	FCX	0.36%
1.0	TSLA	0.49%	NVDA	0.36%
1.0	MS	0.48%	AA	0.36%
1.0	LLY	0.45%	GSK	0.35%
1.0	SLV	0.44%	PWR	0.34%
1.0	CLF	0.43%	CSCO	0.33%
1.0	PCG	0.41%	BAC	0.29%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	59.05%	LUMN	24.02%
10.0	AMD	25.59%	CYH	20.05%
10.0	CYH	25.49%	AMD	16.19%
10.0	LVS	16.63%	ISRG	15.78%
10.0	AVGO	11.4%	MU	11.36%
10.0	CAH	11.24%	KALU	10.35%
10.0	MU	10.42%	LVS	9.11%
10.0	AMAT	9.86%	BBY	7.37%
10.0	ELAN	8.59%	ELAN	7.12%
10.0	RIO	7.59%	GOOGL	6.59%
10.0	FSUGY	7.29%	AA	6.35%
10.0	BBY	7.06%	GNRC	6.17%
10.0	ISRG	6.81%	CSTM	6.1%
10.0	KALU	6.01%	WDC	5.83%
10.0	AA	5.91%	CAH	5.78%
10.0	GOOGL	5.73%	HCA	5.7%
10.0	GNRC	5.7%	FSUGY	5.45%
10.0	NVDA	5.41%	QCOM	5.39%
10.0	CSTM	5.26%	INTC	5.16%
10.0	QCOM	5.24%	WFC	5.02%
10.0	WFC	5.04%	ON	4.86%
10.0	BAC	4.96%	VFC	4.59%
10.0	INTC	4.96%	RIO	4.57%
10.0	PEP	4.71%	AVGO	4.43%
10.0	MS	4.38%	AAPL	4.19%
10.0	QQQ	4.01%	AMAT	3.92%
10.0	AAPL	3.83%	THC	3.9%
10.0	HCA	3.63%	BAC	3.79%
10.0	TSLA	3.54%	CVS	3.43%
10.0	CSCO	3.36%	MS	3.38%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	4.65%	LUMN	1.73%
1.0	AMD	1.63%	INTC	1.23%
1.0	MU	1.58%	MU	1.21%
1.0	INTC	1.4%	WDC	1.12%
1.0	CYH	1.36%	CYH	0.79%
1.0	AVGO	1.28%	ELAN	0.76%
1.0	B	1.13%	AMD	0.68%
1.0	WDC	1.07%	B	0.66%
1.0	AMAT	1.04%	TSLA	0.66%
1.0	ELAN	0.87%	GOOGL	0.6%
1.0	LLY	0.78%	UNH	0.58%
1.0	TSLA	0.75%	CNC	0.53%
1.0	BIIB	0.72%	CLF	0.51%
1.0	TEVA	0.7%	AAPL	0.47%
1.0	CAH	0.68%	SLV	0.45%
1.0	AA	0.66%	TEVA	0.44%
1.0	CNC	0.66%	AMAT	0.43%
1.0	LVS	0.63%	AA	0.42%
1.0	SLV	0.63%	THC	0.41%
1.0	RIO	0.61%	CVS	0.39%
1.0	GSK	0.61%	KALU	0.39%
1.0	GOOGL	0.61%	HCA	0.38%
1.0	BHC	0.6%	AVGO	0.38%
1.0	KALU	0.57%	BHC	0.38%
1.0	CLF	0.53%	NEM	0.37%
1.0	QQQ	0.53%	BBY	0.37%
1.0	QCOM	0.52%	GSK	0.36%
1.0	AAPL	0.52%	QCOM	0.35%
1.0	JAZZ	0.51%	CAH	0.32%
1.0	PWR	0.49%	CSTM	0.32%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	41.33%	LUMN	16.47%
10.0	AMD	14.58%	INTC	12.71%
10.0	MU	13.49%	MU	12.31%
10.0	AMAT	12.86%	WDC	10.93%
10.0	INTC	10.03%	AMD	7.84%
10.0	CYH	9.59%	CYH	7.83%
10.0	AVGO	8.85%	B	6.67%
10.0	B	8.83%	UNH	6.51%
10.0	WDC	7.03%	TSLA	6.33%
10.0	BIIB	6.87%	CLF	6.14%
10.0	ELAN	6.57%	ELAN	5.92%
10.0	LLY	5.96%	CNC	5.82%
10.0	UNH	5.39%	GOOGL	5.52%
10.0	NEM	5.18%	AMAT	4.89%
10.0	TSLA	5.13%	SLV	4.66%
10.0	CNC	5.11%	AA	4.51%
10.0	AA	4.72%	CVS	4.28%
10.0	LW	4.71%	THC	4.27%
10.0	CLF	4.58%	NEM	4.13%
10.0	SLV	4.58%	VFC	4.04%
10.0	TEVA	4.51%	LW	3.88%
10.0	RIO	4.18%	JAZZ	3.71%
10.0	PWR	3.97%	LLY	3.68%
10.0	GLD	3.92%	GLD	3.65%
10.0	JAZZ	3.82%	BBY	3.46%
10.0	ORCL	3.69%	AAPL	3.46%
10.0	CAH	3.42%	KALU	3.45%
10.0	CVS	3.37%	CSTM	3.45%
10.0	NWL	3.32%	AVGO	3.45%
10.0	THC	3.32%	HCA	3.37%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	LUMN	63.11%	LUMN	33.51%
21.0	AMD	44.73%	MU	30.55%
21.0	AMAT	44.2%	INTC	29.21%
21.0	MU	39.2%	WDC	27.52%
21.0	INTC	25.38%	AMD	19.42%
21.0	B	24.6%	B	16.5%
21.0	WDC	22.13%	TSLA	15.41%
21.0	CNC	17.46%	AMAT	15.28%
21.0	ORCL	17.0%	CLF	14.73%
21.0	UNH	16.07%	CNC	14.18%
21.0	BIIB	14.32%	SLV	13.69%
21.0	LLY	14.16%	UNH	13.1%
21.0	SLV	13.64%	CYH	12.71%
21.0	TSLA	13.37%	GOOGL	12.07%
21.0	GLD	13.37%	NEM	11.45%
21.0	AVGO	13.28%	ELAN	11.12%
21.0	CYH	13.12%	AA	9.79%
21.0	NEM	13.05%	GLD	9.59%
21.0	CLF	12.89%	ORCL	9.58%
21.0	AA	11.32%	LW	8.57%
21.0	ELAN	11.1%	LLY	8.54%
21.0	PWR	10.41%	AVGO	8.14%
21.0	IRM	9.92%	CVS	7.91%
21.0	TEVA	8.76%	THC	7.91%
21.0	LW	8.74%	JAZZ	7.41%
21.0	CAH	7.84%	AAPL	6.89%
21.0	GOOGL	7.72%	TEVA	6.58%
21.0	RIO	7.65%	IRM	6.57%
21.0	GE	7.52%	PWR	6.55%
21.0	JAZZ	7.06%	GSK	6.48%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	0.78%	WDC	0.4%
1.0	AVGO	0.7%	MU	0.4%
1.0	AMD	0.62%	AVGO	0.38%
1.0	B	0.56%	TSLA	0.33%
1.0	MU	0.49%	AMD	0.3%
1.0	VST	0.49%	INTC	0.29%
1.0	AAP	0.43%	X	0.29%
1.0	NVDA	0.42%	VST	0.28%
1.0	TSLA	0.42%	ELAN	0.28%
1.0	WDC	0.41%	NEM	0.26%
1.0	GBTC	0.41%	LUMN	0.26%
1.0	CCL	0.37%	GE	0.26%
1.0	NFLX	0.35%	B	0.25%
1.0	GE	0.35%	ORCL	0.24%
1.0	CLF	0.35%	GBTC	0.22%
1.0	ELAN	0.34%	GOOGL	0.22%
1.0	CAH	0.33%	AAP	0.22%
1.0	CTLT	0.33%	MSTR	0.22%
1.0	INTC	0.3%	CAH	0.21%
1.0	AMAT	0.29%	NVDA	0.21%
1.0	HSBC	0.29%	GS	0.19%
1.0	NEM	0.29%	PWR	0.19%
1.0	MS	0.29%	CSTM	0.18%
1.0	X	0.27%	HSBC	0.18%
1.0	CSTM	0.27%	SLV	0.18%
1.0	GLD	0.27%	NFLX	0.18%
1.0	JAZZ	0.26%	EXPE	0.16%
1.0	GOOGL	0.26%	CVS	0.16%
1.0	LVS	0.26%	GLD	0.16%
1.0	CVS	0.24%	MS	0.16%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	AVGO	4.72%	MU	3.82%
10.0	LUMN	4.71%	WDC	3.73%
10.0	AMD	4.21%	AVGO	3.6%
10.0	MU	3.57%	NEM	2.99%
10.0	NVDA	3.5%	AMD	2.95%
10.0	B	3.14%	INTC	2.74%
10.0	VST	3.13%	B	2.69%
10.0	WDC	3.08%	X	2.64%
10.0	AAP	2.91%	TSLA	2.56%
10.0	NEM	2.91%	ELAN	2.53%
10.0	CSTM	2.7%	GE	2.46%
10.0	NFLX	2.69%	AAP	2.29%
10.0	CTLT	2.61%	ORCL	2.26%
10.0	X	2.58%	VST	2.24%
10.0	GLD	2.45%	CSTM	1.96%
10.0	WYNN	2.39%	GOOGL	1.89%
10.0	BA	2.35%	SLV	1.89%
10.0	ELAN	2.29%	CVS	1.89%
10.0	CLF	2.22%	BA	1.87%
10.0	GBTC	2.21%	GLD	1.82%
10.0	HSBC	2.21%	HSBC	1.78%
10.0	GE	2.15%	NFLX	1.72%
10.0	MOS	2.11%	WYNN	1.7%
10.0	LVS	2.08%	GBTC	1.7%
10.0	CAH	2.05%	CTLT	1.69%
10.0	INTC	2.01%	PWR	1.6%
10.0	CVS	1.75%	NVDA	1.53%
10.0	AMAT	1.72%	CAH	1.51%
10.0	AZO	1.71%	GS	1.5%
10.0	JPM	1.63%	THC	1.31%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	AMD	10.41%	MU	8.18%
21.0	B	8.4%	WDC	8.12%
21.0	MU	8.16%	AVGO	8.07%
21.0	AVGO	7.57%	NEM	7.06%
21.0	NVDA	6.84%	B	6.43%
21.0	MOS	6.64%	AMD	6.28%
21.0	NEM	6.5%	INTC	5.46%
21.0	CSTM	6.23%	ELAN	5.44%
21.0	AMAT	6.18%	GE	5.34%
21.0	GLD	6.05%	ORCL	5.23%
21.0	CTLT	5.99%	X	5.04%
21.0	BA	5.88%	TSLA	4.76%
21.0	WDC	5.76%	AAP	4.6%
21.0	ORCL	5.76%	SLV	4.57%
21.0	VST	5.74%	VST	4.3%
21.0	LUMN	5.66%	CTLT	4.27%
21.0	GE	5.21%	GLD	4.09%
21.0	AAP	5.18%	GOOGL	4.02%
21.0	NFLX	5.12%	BA	3.97%
21.0	WYNN	4.97%	CVS	3.89%
21.0	ELAN	4.57%	CSTM	3.86%
21.0	HSBC	4.5%	HSBC	3.83%
21.0	GOOGL	4.43%	NFLX	3.55%
21.0	X	4.33%	WYNN	3.37%
21.0	INTC	4.3%	NVDA	3.25%
21.0	SLV	4.04%	PWR	3.21%
21.0	GBTC	3.88%	THC	3.18%
21.0	AZO	3.82%	GS	3.07%
21.0	CLF	3.69%	GBTC	2.94%
21.0	LVS	3.62%	AMAT	2.91%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	B	29.99%	WDC	27.1%
63.0	MOS	29.08%	NEM	25.41%
63.0	NVDA	24.73%	B	22.68%
63.0	NEM	23.39%	AVGO	21.62%
63.0	X	22.78%	MU	20.9%
63.0	WDC	22.42%	ORCL	20.43%
63.0	AMD	21.85%	ELAN	19.34%
63.0	MU	20.16%	GE	18.03%
63.0	ORCL	20.15%	AMD	17.98%
63.0	VST	20.14%	X	16.98%
63.0	CSTM	19.39%	AAP	15.82%
63.0	BA	17.68%	VST	13.83%
63.0	GOOGL	17.29%	CVS	13.62%
63.0	ELAN	16.97%	INTC	13.62%
63.0	GLD	16.83%	NVDA	12.91%
63.0	GE	16.67%	SLV	12.86%
63.0	NFLX	16.46%	CSTM	12.79%
63.0	HSBC	15.86%	WYNN	12.63%
63.0	THC	15.73%	THC	12.13%
63.0	LUMN	15.14%	HSBC	11.92%
63.0	AVGO	14.54%	BA	11.92%
63.0	CVS	14.53%	GLD	11.81%
63.0	T	14.24%	NFLX	11.58%
63.0	LNC	14.04%	GS	10.26%
63.0	AAP	13.83%	GOOGL	10.19%
63.0	PWR	13.75%	PWR	9.88%
63.0	WYNN	13.5%	CCL	9.77%
63.0	LVS	12.86%	HCA	9.13%
63.0	GNRC	12.86%	MOS	9.06%
63.0	CLF	12.23%	CAH	8.93%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	MOS	88.36%	WDC	66.58%
126.0	ORCL	84.49%	NEM	52.95%
126.0	AMD	81.52%	AVGO	52.36%
126.0	ELAN	70.22%	MU	51.61%
126.0	NVDA	70.12%	ELAN	50.76%
126.0	B	61.4%	ORCL	50.16%
126.0	BA	59.41%	AMD	47.15%
126.0	MU	56.43%	GE	42.96%
126.0	THC	56.37%	B	41.04%
126.0	NEM	51.51%	VST	36.38%
126.0	NFLX	50.21%	CSTM	35.14%
126.0	PWR	49.4%	AAP	34.34%
126.0	VST	47.41%	NVDA	33.87%
126.0	GE	46.55%	THC	33.61%
126.0	CSTM	43.78%	PWR	31.11%
126.0	X	43.3%	BA	31.02%
126.0	MS	39.62%	NFLX	30.36%
126.0	WDC	38.69%	MOS	29.5%
126.0	MSFT	37.21%	WYNN	28.98%
126.0	JPM	36.44%	SLV	25.87%
126.0	WYNN	35.39%	X	25.82%
126.0	AMAT	33.83%	CAH	24.0%
126.0	HSBC	32.97%	CCL	23.61%
126.0	QQQ	32.37%	GS	23.55%
126.0	AVGO	31.48%	HSBC	23.4%
126.0	GLD	30.99%	GLD	23.26%
126.0	T	28.58%	MSFT	22.21%
126.0	GS	27.91%	GBTC	21.72%
126.0	CCL	27.8%	HCA	20.71%
126.0	MNST	27.04%	INTC	20.26%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	SIVBQ	-0.8%	SIVBQ	-0.78%
1.0	IEP	-0.43%	SBNY	-0.45%
1.0	SBNY	-0.38%	FRCB	-0.23%
1.0	NWL	-0.3%	IEP	-0.16%
1.0	UAA	-0.28%	AMC	-0.14%
1.0	CZR	-0.26%	NWL	-0.14%
1.0	GT	-0.2%	AAP	-0.11%
1.0	FRCB	-0.17%	VFC	-0.1%
1.0	BALL	-0.11%	UAA	-0.09%
1.0	BXP	-0.1%	CZR	-0.08%
1.0	BIIB	-0.1%	CHTR	-0.07%
1.0	LNC	-0.1%	GT	-0.06%
1.0	AMC	-0.09%	BALL	-0.06%
1.0	GNRC	-0.09%	CNC	-0.05%
1.0	CHTR	-0.08%	CMCSA	-0.05%
1.0	AAP	-0.08%	FIS	-0.04%
1.0	TLT	-0.08%	PRGO	-0.04%
1.0	VFC	-0.07%	BHC	-0.04%
1.0	FIS	-0.07%	TLT	-0.04%
1.0	CNC	-0.06%	KHC	-0.03%
1.0	ZTS	-0.05%	BXP	-0.02%
1.0	CMCSA	-0.05%	BMY	-0.02%
1.0	PRGO	-0.05%	VZ	-0.02%
1.0	KHC	-0.05%	ADBE	-0.02%
1.0	SBUX	-0.03%	ZTS	-0.02%
1.0	CTLT	-0.03%	BIIB	-0.02%
1.0	UNH	-0.03%	CTLT	-0.01%
1.0	VZ	-0.03%	CVS	-0.01%
1.0	OXY	-0.03%	NAVI	-0.01%
1.0	HD	-0.02%	TFC	-0.01%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	SIVBQ	-4.46%	SBNY	-4.05%
10.0	IEP	-2.97%	SIVBQ	-3.9%
10.0	CZR	-2.52%	FRCB	-2.19%
10.0	SBNY	-2.19%	IEP	-1.52%
10.0	NWL	-1.86%	AMC	-1.51%
10.0	FRCB	-1.26%	NWL	-1.14%
10.0	UAA	-1.21%	UAA	-1.02%
10.0	AMC	-0.95%	VFC	-0.99%
10.0	VFC	-0.86%	CZR	-0.96%
10.0	BALL	-0.82%	AAP	-0.91%
10.0	AAP	-0.63%	CHTR	-0.64%
10.0	BXP	-0.61%	GT	-0.63%
10.0	FIS	-0.56%	CNC	-0.61%
10.0	CNC	-0.55%	BALL	-0.52%
10.0	GNRC	-0.53%	CMCSA	-0.45%
10.0	CHTR	-0.48%	BHC	-0.42%
10.0	BIIB	-0.48%	TLT	-0.41%
10.0	VZ	-0.45%	PRGO	-0.39%
10.0	KHC	-0.44%	FIS	-0.38%
10.0	LNC	-0.42%	BMY	-0.32%
10.0	TLT	-0.39%	BXP	-0.28%
10.0	CMCSA	-0.36%	KHC	-0.27%
10.0	AA	-0.34%	BIIB	-0.26%
10.0	GT	-0.31%	ZION	-0.24%
10.0	ZTS	-0.3%	VZ	-0.23%
10.0	PRGO	-0.29%	LNC	-0.22%
10.0	INTU	-0.25%	ZTS	-0.22%
10.0	ADBE	-0.25%	NAVI	-0.2%
10.0	NAVI	-0.17%	TFC	-0.18%
10.0	BMY	-0.14%	ADBE	-0.14%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	SIVBQ	-9.97%	SBNY	-11.16%
21.0	IEP	-6.75%	SIVBQ	-9.37%
21.0	SBNY	-6.13%	FRCB	-6.02%
21.0	CZR	-5.94%	AMC	-3.59%
21.0	FRCB	-3.78%	IEP	-3.28%
21.0	NWL	-3.69%	NWL	-2.48%
21.0	VFC	-2.22%	VFC	-2.17%
21.0	UAA	-1.99%	CZR	-2.01%
21.0	AMC	-1.99%	UAA	-1.98%
21.0	BALL	-1.69%	AAP	-1.85%
21.0	GT	-1.51%	CHTR	-1.24%
21.0	AAP	-1.34%	GT	-1.24%
21.0	GNRC	-1.33%	CNC	-1.17%
21.0	CNC	-1.24%	BHC	-1.16%
21.0	VZ	-1.21%	BALL	-1.1%
21.0	KHC	-1.11%	CMCSA	-0.87%
21.0	CHTR	-1.0%	TLT	-0.86%
21.0	BXP	-0.99%	PRGO	-0.85%
21.0	TLT	-0.97%	BMY	-0.72%
21.0	LUMN	-0.96%	KHC	-0.66%
21.0	PRGO	-0.84%	BXP	-0.64%
21.0	ADBE	-0.73%	FIS	-0.63%
21.0	FIS	-0.73%	LNC	-0.58%
21.0	CLF	-0.67%	BIIB	-0.49%
21.0	NAVI	-0.65%	ZTS	-0.47%
21.0	CYH	-0.65%	NAVI	-0.47%
21.0	BHC	-0.65%	VZ	-0.46%
21.0	CMCSA	-0.57%	TFC	-0.37%
21.0	INTU	-0.53%	AA	-0.34%
21.0	AA	-0.52%	ZION	-0.29%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	SIVBQ	-36.58%	SBNY	-37.59%
63.0	SBNY	-24.57%	SIVBQ	-33.73%
63.0	IEP	-22.25%	FRCB	-24.04%
63.0	FRCB	-18.2%	AMC	-14.11%
63.0	NWL	-13.69%	IEP	-10.84%
63.0	CZR	-9.68%	NWL	-7.47%
63.0	VFC	-9.6%	VFC	-6.66%
63.0	AMC	-7.8%	CZR	-6.04%
63.0	UAA	-7.66%	UAA	-5.5%
63.0	GNRC	-7.43%	AAP	-5.33%
63.0	AAP	-5.98%	CNC	-4.96%
63.0	BALL	-5.72%	CHTR	-3.56%
63.0	AA	-4.61%	AA	-3.28%
63.0	PRGO	-3.92%	BHC	-3.27%
63.0	CNC	-3.82%	BALL	-3.03%
63.0	CHTR	-3.75%	PRGO	-2.95%
63.0	CLF	-3.61%	MOS	-2.83%
63.0	KHC	-3.13%	TLT	-2.5%
63.0	CYH	-2.81%	GT	-2.49%
63.0	TLT	-2.71%	BMY	-2.43%
63.0	VZ	-2.57%	KHC	-2.36%
63.0	CVS	-2.44%	BXP	-2.26%
63.0	BHC	-2.28%	CMCSA	-2.16%
63.0	BHP	-2.28%	CLF	-2.08%
63.0	BMY	-2.2%	BIIB	-1.78%
63.0	ADBE	-2.16%	UNH	-1.76%
63.0	BBY	-2.08%	FIS	-1.69%
63.0	INTC	-1.93%	LNC	-1.56%
63.0	GT	-1.93%	NAVI	-1.4%
63.0	OXY	-1.87%	CVS	-1.39%

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 2025-10-30

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	SBNY	-45.8%	FRCB	-51.17%
126.0	IEP	-45.38%	AMC	-27.08%
126.0	NWL	-38.0%	IEP	-21.19%
126.0	VFC	-25.72%	NWL	-16.38%
126.0	AMC	-17.23%	VFC	-13.89%
126.0	GNRC	-15.2%	AAP	-12.75%
126.0	AAP	-14.72%	CZR	-9.58%
126.0	CLF	-11.64%	CNC	-9.48%
126.0	CZR	-11.18%	UAA	-8.06%
126.0	UAA	-10.77%	CLF	-7.28%
126.0	LUMN	-9.73%	AA	-6.78%
126.0	AA	-9.43%	BHC	-6.29%
126.0	BALL	-9.29%	PRGO	-5.95%
126.0	PRGO	-8.76%	CTLT	-5.69%
126.0	CNC	-8.33%	MOS	-5.66%
126.0	CVS	-8.04%	BMY	-5.51%
126.0	BHC	-7.98%	KHC	-5.11%
126.0	CHTR	-7.35%	TLT	-4.82%
126.0	KHC	-6.96%	UNH	-4.79%
126.0	CTLT	-6.66%	CHTR	-4.49%
126.0	TLT	-6.41%	BXP	-4.3%
126.0	UNH	-5.91%	BALL	-4.25%
126.0	VZ	-5.72%	BIIB	-4.22%
126.0	GT	-5.13%	CVS	-4.08%
126.0	BMY	-5.05%	GT	-3.34%
126.0	OXY	-4.51%	LNC	-3.32%
126.0	BBY	-4.36%	INTC	-3.26%
126.0	GSK	-4.31%	CMCSA	-3.16%

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 2025-10-30

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	-92.83%	AMC	-54.63%
252.0	NWL	-72.93%	IEP	-44.22%
252.0	AMC	-45.15%	AAP	-34.02%
252.0	AAP	-44.72%	NWL	-28.0%
252.0	CLF	-37.04%	VFC	-23.4%
252.0	VFC	-34.59%	CLF	-16.68%
252.0	CVS	-28.88%	MOS	-16.46%
252.0	CZR	-28.69%	CZR	-16.29%
252.0	MOS	-24.83%	CNC	-15.5%
252.0	UAA	-23.64%	UAA	-13.87%
252.0	GNRC	-23.35%	CVS	-13.05%
252.0	AA	-22.51%	PRGO	-12.76%
252.0	CNC	-18.78%	BIIB	-12.63%
252.0	GT	-18.04%	AA	-11.25%
252.0	PRGO	-17.47%	BMY	-10.5%
252.0	BHC	-15.81%	KHC	-9.77%
252.0	BALL	-14.16%	OXY	-8.68%
252.0	BIIB	-13.94%	TLT	-8.37%
252.0	CYH	-13.81%	BHC	-8.29%
252.0	KHC	-13.68%	GT	-7.3%
252.0	UNH	-13.36%	CYH	-6.93%
252.0	TLT	-12.98%	JAZZ	-6.88%
252.0	BMY	-12.92%	INTC	-6.65%
252.0	CTLT	-10.5%	CTLT	-6.24%
252.0	CHTR	-10.04%	CHTR	-5.97%
252.0	OXY	-9.9%	UNH	-5.73%
252.0	JAZZ	-9.87%	BHP	-5.44%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	MOS	-2.93%	NWL	-1.78%
1.0	CZR	-2.06%	CZR	-1.27%
1.0	MSTR	-1.95%	AAP	-1.23%
1.0	CMG	-1.41%	MSTR	-1.19%
1.0	AAP	-1.36%	MOS	-1.09%
1.0	UAA	-1.35%	CMG	-1.04%
1.0	PHM	-1.22%	GME	-0.92%
1.0	GT	-1.19%	AMC	-0.9%
1.0	AZO	-1.09%	AZO	-0.69%
1.0	NWL	-1.02%	CHTR	-0.65%
1.0	DHI	-0.97%	DHI	-0.64%
1.0	VNO	-0.95%	TXN	-0.56%
1.0	ORLY	-0.91%	PHM	-0.54%
1.0	NEM	-0.9%	META	-0.5%
1.0	CHTR	-0.86%	WYNN	-0.5%
1.0	AMC	-0.82%	ORLY	-0.5%
1.0	VICI	-0.81%	UAA	-0.46%
1.0	WYNN	-0.78%	MSI	-0.44%
1.0	ORCL	-0.78%	GBTC	-0.44%
1.0	BALL	-0.69%	TMUS	-0.42%
1.0	MSI	-0.68%	VICI	-0.41%
1.0	KEY	-0.64%	CMCSA	-0.41%
1.0	CMCSA	-0.63%	GT	-0.41%
1.0	GME	-0.63%	ORCL	-0.4%
1.0	BA	-0.58%	VZ	-0.4%
1.0	OXY	-0.51%	T	-0.4%
1.0	VFC	-0.5%	ABBV	-0.38%
1.0	MRK	-0.47%	VNO	-0.36%
1.0	IEP	-0.47%	VFC	-0.36%
1.0	T	-0.46%	BA	-0.35%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	MSTR	-16.72%	MSTR	-10.84%
10.0	ORCL	-14.71%	MOS	-9.52%
10.0	MOS	-14.49%	CZR	-8.41%
10.0	CZR	-11.93%	CHTR	-8.06%
10.0	ACGL	-8.46%	AMC	-6.11%
10.0	CHTR	-8.19%	GBTC	-5.83%
10.0	AZO	-7.43%	AZO	-5.4%
10.0	PHM	-7.12%	ORCL	-5.36%
10.0	ORLY	-6.85%	CNC	-4.88%
10.0	OXY	-5.32%	VST	-4.72%
10.0	ZION	-5.27%	ZION	-4.62%
10.0	GBTC	-5.25%	ACGL	-4.58%
10.0	B	-4.83%	NFLX	-4.51%
10.0	T	-4.48%	PHM	-4.48%
10.0	VICI	-4.44%	NWL	-4.39%
10.0	DHI	-4.35%	GME	-4.37%
10.0	NEM	-4.21%	OXY	-4.36%
10.0	VST	-4.12%	TXN	-4.09%
10.0	VNO	-4.04%	ORLY	-4.09%
10.0	CNC	-3.96%	CMCSA	-3.46%
10.0	AMC	-3.6%	NEM	-3.41%
10.0	CMG	-3.54%	VZ	-3.4%
10.0	MSI	-3.4%	CMG	-3.38%
10.0	UAA	-3.31%	MSI	-3.06%
10.0	NFLX	-3.25%	B	-3.04%
10.0	FITB	-3.0%	UAA	-2.9%
10.0	KEY	-2.79%	TRGP	-2.88%
10.0	TEVA	-2.7%	DHI	-2.83%
10.0	CMCSA	-2.63%	T	-2.8%
10.0	TMUS	-2.59%	VNO	-2.75%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	GT	-1.48%	UAA	-0.56%
1.0	UAA	-1.36%	GT	-0.53%
1.0	MOS	-1.01%	MSTR	-0.52%
1.0	MSTR	-0.87%	NWL	-0.5%
1.0	CZR	-0.73%	CMG	-0.44%
1.0	CMG	-0.61%	PRGO	-0.39%
1.0	PRGO	-0.59%	MOS	-0.37%
1.0	BALL	-0.54%	FIS	-0.35%
1.0	FIS	-0.53%	BALL	-0.31%
1.0	INTU	-0.39%	CZR	-0.31%
1.0	VICI	-0.38%	TDG	-0.3%
1.0	CMCSA	-0.31%	META	-0.27%
1.0	T	-0.3%	INTU	-0.24%
1.0	OXY	-0.26%	CMCSA	-0.24%
1.0	BA	-0.24%	GNRC	-0.21%
1.0	TMUS	-0.23%	TMUS	-0.21%
1.0	COST	-0.23%	VICI	-0.19%
1.0	ORLY	-0.22%	TXN	-0.18%
1.0	GNRC	-0.2%	T	-0.17%
1.0	CHTR	-0.19%	CHTR	-0.16%
1.0	IEP	-0.19%	VST	-0.16%
1.0	HON	-0.19%	IEP	-0.16%
1.0	AMC	-0.17%	SBUX	-0.15%
1.0	KHC	-0.16%	AAP	-0.15%
1.0	AZO	-0.16%	BA	-0.14%
1.0	MSI	-0.15%	HON	-0.13%
1.0	CPRT	-0.13%	AMC	-0.13%
1.0	META	-0.13%	AZO	-0.11%
1.0	TRGP	-0.13%	VZ	-0.11%
1.0	TXN	-0.1%	MSI	-0.11%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	GT	-10.02%	MSTR	-5.41%
10.0	MSTR	-8.25%	GT	-4.25%
10.0	CZR	-4.07%	UAA	-3.16%
10.0	UAA	-3.34%	CZR	-2.34%
10.0	KHC	-3.11%	IEP	-2.21%
10.0	BALL	-2.88%	TMUS	-2.01%
10.0	T	-2.74%	CMCSA	-1.93%
10.0	IEP	-2.67%	T	-1.87%
10.0	MOS	-2.65%	BALL	-1.86%
10.0	TMUS	-2.56%	MOS	-1.84%
10.0	VICI	-2.37%	TXN	-1.83%
10.0	ORLY	-1.85%	PRGO	-1.67%
10.0	INTU	-1.84%	INTU	-1.65%
10.0	PRGO	-1.84%	FIS	-1.57%
10.0	COST	-1.79%	VZ	-1.56%
10.0	CMG	-1.77%	KHC	-1.52%
10.0	BA	-1.66%	AMC	-1.43%
10.0	CMCSA	-1.53%	CMG	-1.39%
10.0	FIS	-1.53%	VICI	-1.31%
10.0	BMY	-1.5%	TRGP	-1.31%
10.0	OXY	-1.48%	SBUX	-1.3%
10.0	VZ	-1.39%	CHTR	-1.26%
10.0	AZO	-1.27%	TDG	-1.25%
10.0	CPRT	-1.25%	META	-1.19%
10.0	CHTR	-1.16%	AAP	-1.13%
10.0	TRGP	-1.13%	BA	-1.08%
10.0	TDG	-1.01%	NFLX	-1.02%
10.0	ACGL	-0.97%	FRA	-1.01%
10.0	FRA	-0.95%	CPRT	-1.01%
10.0	NFLX	-0.86%	GBTC	-0.98%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	GT	-26.37%	GT	-9.52%
21.0	MSTR	-14.33%	MSTR	-8.74%
21.0	CZR	-9.91%	CZR	-5.69%
21.0	BHC	-8.0%	TXN	-5.63%
21.0	TMUS	-7.82%	TMUS	-5.26%
21.0	KHC	-6.91%	CMCSA	-5.23%
21.0	BALL	-6.52%	UAA	-5.02%
21.0	T	-6.32%	T	-4.79%
21.0	UAA	-5.69%	BHC	-4.53%
21.0	CMCSA	-5.6%	BALL	-4.51%
21.0	CPRT	-5.27%	PRGO	-4.37%
21.0	VICI	-5.0%	NWL	-4.05%
21.0	BA	-4.82%	KHC	-4.0%
21.0	PRGO	-4.58%	VZ	-3.95%
21.0	BMY	-4.22%	SBUX	-3.64%
21.0	IEP	-4.11%	TDG	-3.61%
21.0	TXN	-3.97%	IEP	-3.43%
21.0	COST	-3.76%	CPRT	-3.31%
21.0	OXY	-3.67%	AAP	-3.16%
21.0	CMG	-3.61%	GNRC	-3.12%
21.0	FIS	-3.54%	VICI	-3.07%
21.0	VZ	-3.29%	BA	-3.04%
21.0	MOS	-3.02%	BMY	-3.02%
21.0	NFLX	-2.9%	FIS	-2.89%
21.0	TRGP	-2.87%	INTU	-2.86%
21.0	INTU	-2.83%	MOS	-2.85%
21.0	DHI	-2.76%	TRGP	-2.76%
21.0	TDG	-2.73%	META	-2.68%
21.0	CCL	-2.7%	CMG	-2.61%
21.0	CDNS	-2.43%	ZTS	-2.57%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	MSTR	-0.55%	NWL	-0.29%
1.0	IEP	-0.44%	CZR	-0.22%
1.0	UAA	-0.44%	CMG	-0.22%
1.0	CZR	-0.4%	UAA	-0.18%
1.0	UNH	-0.35%	AMC	-0.16%
1.0	CMG	-0.31%	CMCSA	-0.16%
1.0	CMCSA	-0.31%	CNC	-0.16%
1.0	NWL	-0.31%	UNH	-0.15%
1.0	PCG	-0.31%	IEP	-0.15%
1.0	CNC	-0.3%	CHTR	-0.15%
1.0	LEN	-0.29%	FIS	-0.12%
1.0	FIS	-0.28%	ADBE	-0.12%
1.0	OXY	-0.17%	KHC	-0.11%
1.0	AMC	-0.17%	LEN	-0.1%
1.0	BXP	-0.17%	ZTS	-0.08%
1.0	ON	-0.16%	BALL	-0.08%
1.0	CHTR	-0.12%	ON	-0.07%
1.0	BIIB	-0.12%	PCG	-0.07%
1.0	BALL	-0.11%	BHC	-0.07%
1.0	KHC	-0.11%	VFC	-0.07%
1.0	GT	-0.1%	PRGO	-0.07%
1.0	BHC	-0.1%	TXN	-0.06%
1.0	ADBE	-0.09%	SBUX	-0.06%
1.0	GWW	-0.09%	CPRT	-0.06%
1.0	LNC	-0.09%	MRK	-0.05%
1.0	ZTS	-0.08%	LW	-0.05%
1.0	IRM	-0.08%	BMY	-0.05%
1.0	TXN	-0.08%	OXY	-0.05%
1.0	BMY	-0.07%	IRM	-0.04%
1.0	MRK	-0.06%	PEP	-0.04%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	IEP	-3.22%	UAA	-2.4%
10.0	UAA	-3.05%	CZR	-2.14%
10.0	CZR	-2.8%	NWL	-1.85%
10.0	FIS	-2.55%	CMCSA	-1.61%
10.0	MSTR	-1.93%	CNC	-1.59%
10.0	CMG	-1.9%	IEP	-1.58%
10.0	CMCSA	-1.8%	AMC	-1.57%
10.0	ON	-1.76%	CHTR	-1.54%
10.0	UNH	-1.66%	UNH	-1.47%
10.0	CNC	-1.66%	CMG	-1.43%
10.0	LEN	-1.59%	ADBE	-1.31%
10.0	PCG	-1.56%	FIS	-1.06%
10.0	ADBE	-1.45%	LEN	-1.05%
10.0	KHC	-1.42%	KHC	-1.02%
10.0	OXY	-1.25%	BMY	-0.9%
10.0	BHC	-1.13%	BALL	-0.77%
10.0	CHTR	-1.09%	CPRT	-0.76%
10.0	PRGO	-1.07%	PCG	-0.75%
10.0	BIIB	-1.05%	BHC	-0.73%
10.0	FITB	-0.81%	ON	-0.73%
10.0	BMY	-0.8%	GT	-0.71%
10.0	GWW	-0.79%	GWW	-0.7%
10.0	GT	-0.78%	ZTS	-0.69%
10.0	VNO	-0.77%	PRGO	-0.66%
10.0	TRGP	-0.69%	TXN	-0.62%
10.0	BXP	-0.67%	LW	-0.59%
10.0	CPRT	-0.66%	OXY	-0.58%
10.0	NWL	-0.66%	TRGP	-0.53%
10.0	BBY	-0.6%	NAVI	-0.52%
10.0	BALL	-0.59%	ACGL	-0.5%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	UAA	-6.21%	UAA	-5.27%
21.0	IEP	-6.06%	CZR	-4.14%
21.0	CZR	-5.79%	NWL	-4.1%
21.0	GT	-5.01%	AMC	-3.69%
21.0	FIS	-4.31%	CMCSA	-3.29%
21.0	CMG	-4.28%	UNH	-3.1%
21.0	CMCSA	-4.2%	CMG	-3.08%
21.0	PCG	-4.15%	ADBE	-3.03%
21.0	ON	-3.72%	IEP	-2.96%
21.0	MSTR	-3.63%	CHTR	-2.94%
21.0	NWL	-3.62%	CNC	-2.79%
21.0	ADBE	-3.56%	LEN	-2.44%
21.0	LEN	-3.41%	FIS	-2.18%
21.0	OXY	-3.39%	BMY	-2.17%
21.0	CNC	-3.26%	KHC	-2.04%
21.0	UNH	-3.06%	GT	-2.04%
21.0	KHC	-2.83%	CPRT	-2.02%
21.0	BHC	-2.8%	BALL	-1.86%
21.0	PRGO	-2.59%	ON	-1.8%
21.0	BMY	-2.47%	PCG	-1.78%
21.0	GWW	-2.34%	PRGO	-1.75%
21.0	TRGP	-2.16%	TRGP	-1.72%
21.0	CHTR	-2.06%	GWW	-1.72%
21.0	CPRT	-1.89%	ZTS	-1.65%
21.0	FITB	-1.67%	BHC	-1.4%
21.0	ISRG	-1.59%	OXY	-1.28%
21.0	NAVI	-1.5%	NAVI	-1.28%
21.0	AMC	-1.27%	LW	-1.25%
21.0	BBY	-1.23%	SBUX	-1.11%
21.0	DHI	-1.21%	MRK	-1.07%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	NWL	-23.37%	UAA	-15.83%
63.0	UAA	-19.69%	NWL	-15.74%
63.0	CMG	-16.48%	CNC	-14.87%
63.0	UNH	-16.47%	UNH	-12.74%
63.0	CZR	-15.97%	CMG	-11.39%
63.0	CNC	-13.12%	CZR	-11.03%
63.0	ADBE	-12.89%	AMC	-9.87%
63.0	PCG	-12.88%	ADBE	-9.23%
63.0	VFC	-11.9%	CHTR	-8.74%
63.0	ON	-11.63%	VFC	-8.38%
63.0	OXY	-11.33%	BMY	-7.05%
63.0	IEP	-10.2%	CPRT	-7.04%
63.0	CPRT	-8.91%	CMCSA	-7.03%
63.0	CMCSA	-8.77%	IEP	-6.31%
63.0	FIS	-8.49%	FIS	-5.91%
63.0	BMY	-7.53%	PCG	-5.86%
63.0	TRGP	-7.19%	TRGP	-5.22%
63.0	PRGO	-6.37%	MRK	-5.02%
63.0	ISRG	-6.31%	KHC	-4.94%
63.0	BBY	-6.04%	ZTS	-4.73%
63.0	KHC	-5.61%	ISRG	-4.69%
63.0	MRK	-5.6%	PRGO	-4.62%
63.0	ZION	-5.32%	LW	-4.47%
63.0	CHTR	-5.2%	GWW	-4.46%
63.0	AMC	-5.06%	GME	-4.25%
63.0	GWW	-4.54%	AA	-3.72%
63.0	FITB	-4.45%	BBY	-3.67%
63.0	GME	-4.4%	LEN	-3.66%
63.0	VNO	-3.92%	BALL	-3.56%
63.0	ZTS	-3.62%	ON	-3.43%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	UNH	-64.17%	UNH	-39.01%
126.0	NWL	-43.52%	CNC	-34.68%
126.0	VFC	-42.57%	NWL	-27.32%
126.0	PCG	-35.86%	VFC	-25.39%
126.0	UAA	-33.12%	UAA	-23.32%
126.0	ADBE	-32.75%	BMY	-17.87%
126.0	CNC	-29.95%	CZR	-17.86%
126.0	CMG	-28.61%	CMG	-17.24%
126.0	CZR	-25.43%	CPRT	-15.4%
126.0	TRGP	-24.15%	ADBE	-14.97%
126.0	IEP	-23.97%	PCG	-14.15%
126.0	CPRT	-22.15%	AMC	-13.88%
126.0	BMY	-19.36%	TRGP	-13.37%
126.0	OXY	-17.26%	KHC	-11.91%
126.0	BHC	-16.08%	IEP	-11.81%
126.0	BBY	-15.87%	MRK	-11.38%
126.0	MRK	-15.54%	CHTR	-11.32%
126.0	KHC	-14.4%	CMCSA	-11.17%
126.0	CMCSA	-12.39%	SBUX	-9.26%
126.0	SBUX	-11.02%	BHC	-9.21%
126.0	FIS	-9.94%	BBY	-8.37%
126.0	PRGO	-9.62%	ZTS	-7.6%
126.0	LLY	-9.17%	LEN	-7.51%
126.0	PEP	-9.11%	AA	-7.23%
126.0	AMC	-9.03%	LW	-7.16%
126.0	ISRG	-8.61%	ISRG	-6.92%
126.0	LEN	-8.45%	PEP	-6.72%
126.0	ON	-7.91%	OXY	-6.46%
126.0	CHTR	-7.65%	GME	-6.04%
126.0	ZTS	-7.48%	PRGO	-5.76%

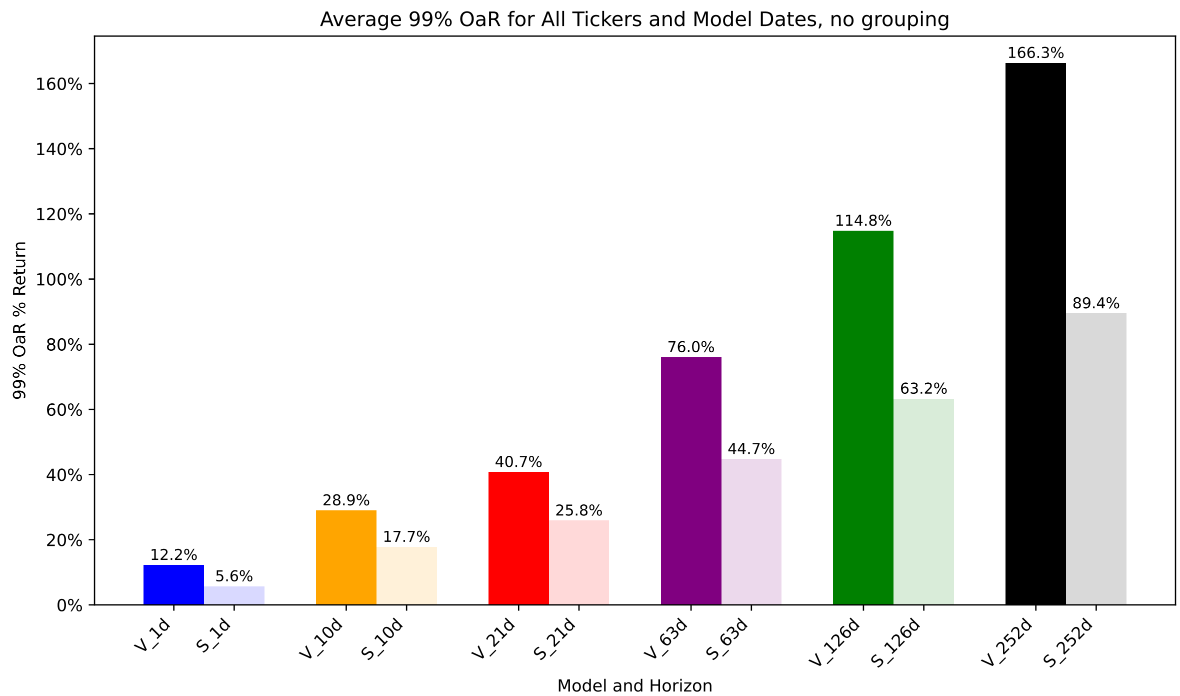
99% Opportunity At Risk (OaR)

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.

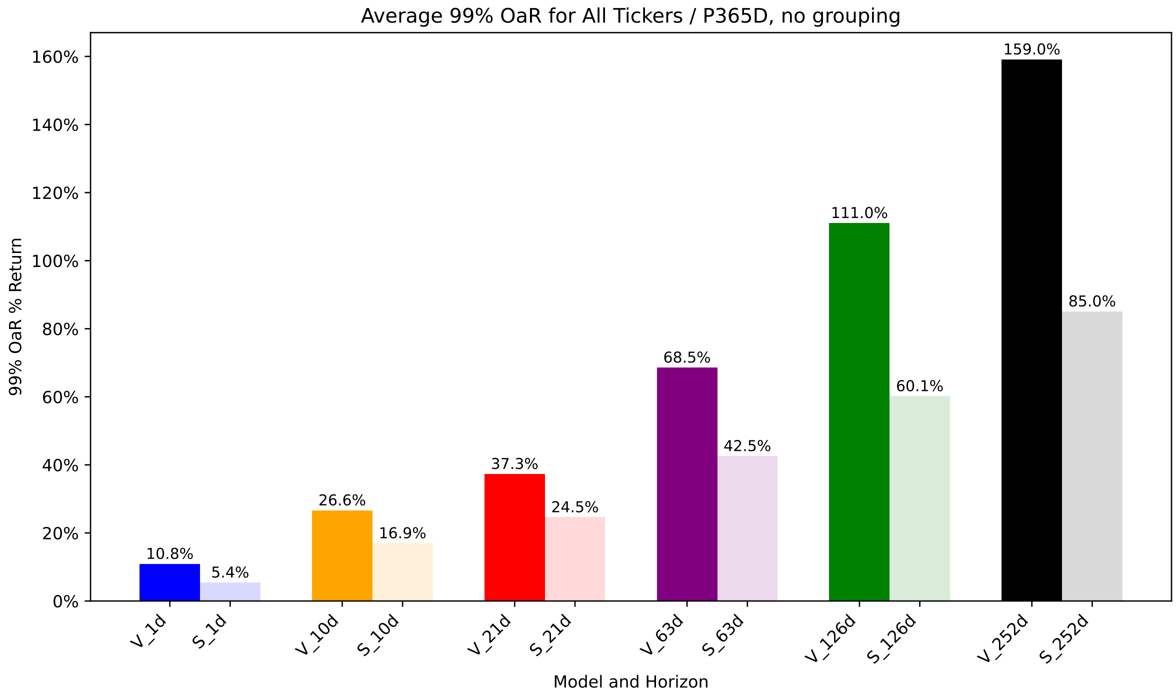
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-10-30



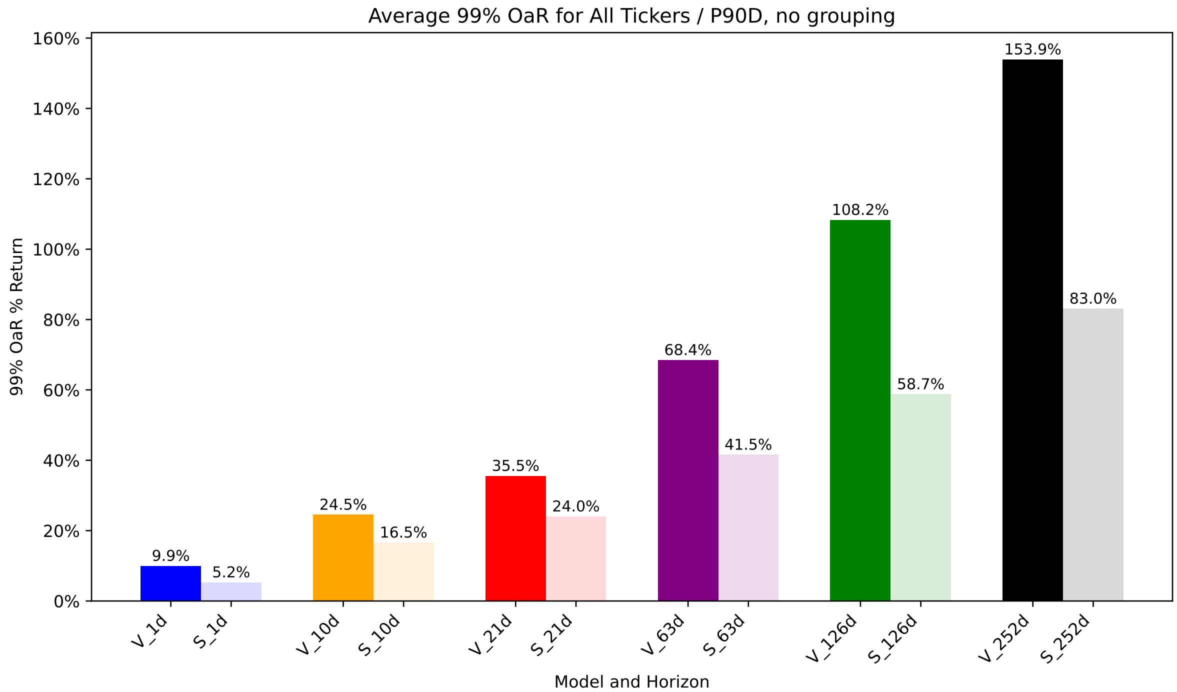
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-10-30 through 2024-11-01



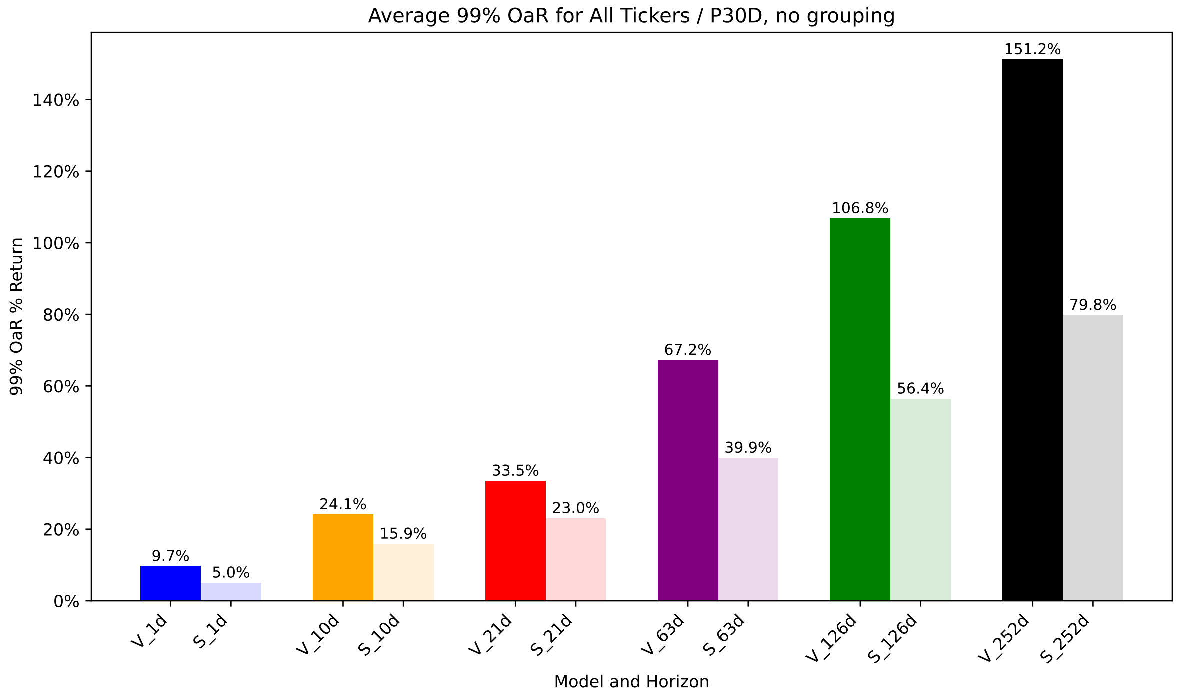
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-10-30 through 2025-08-04



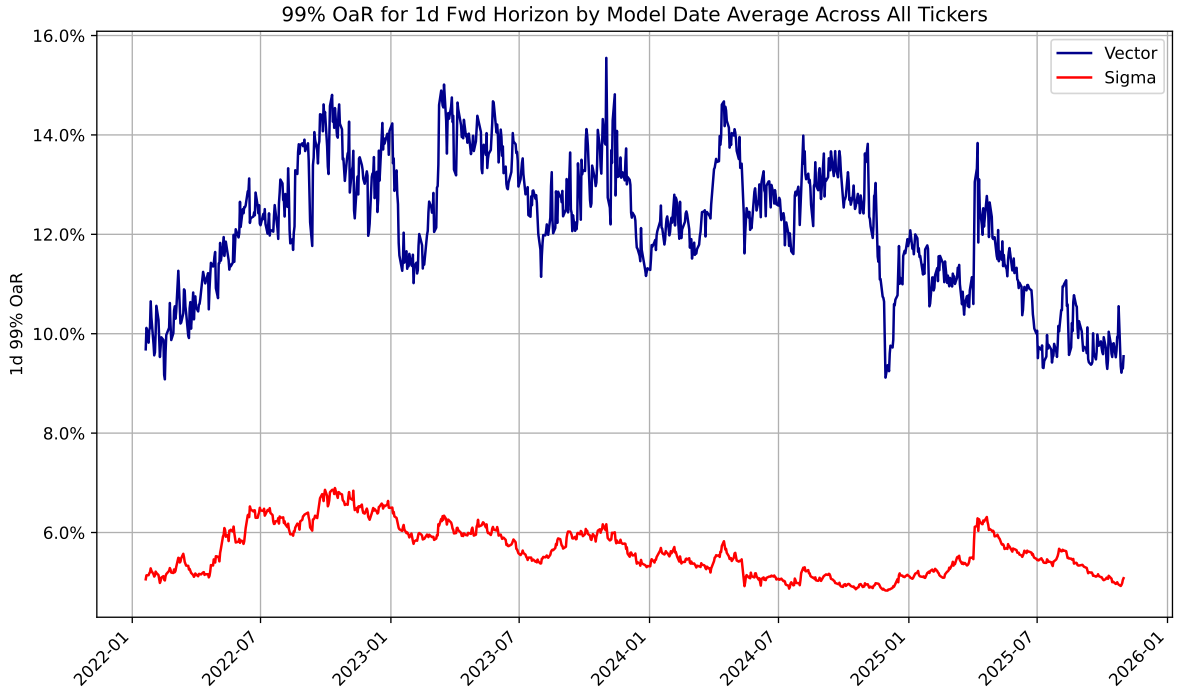
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-10-30 through 2025-10-02

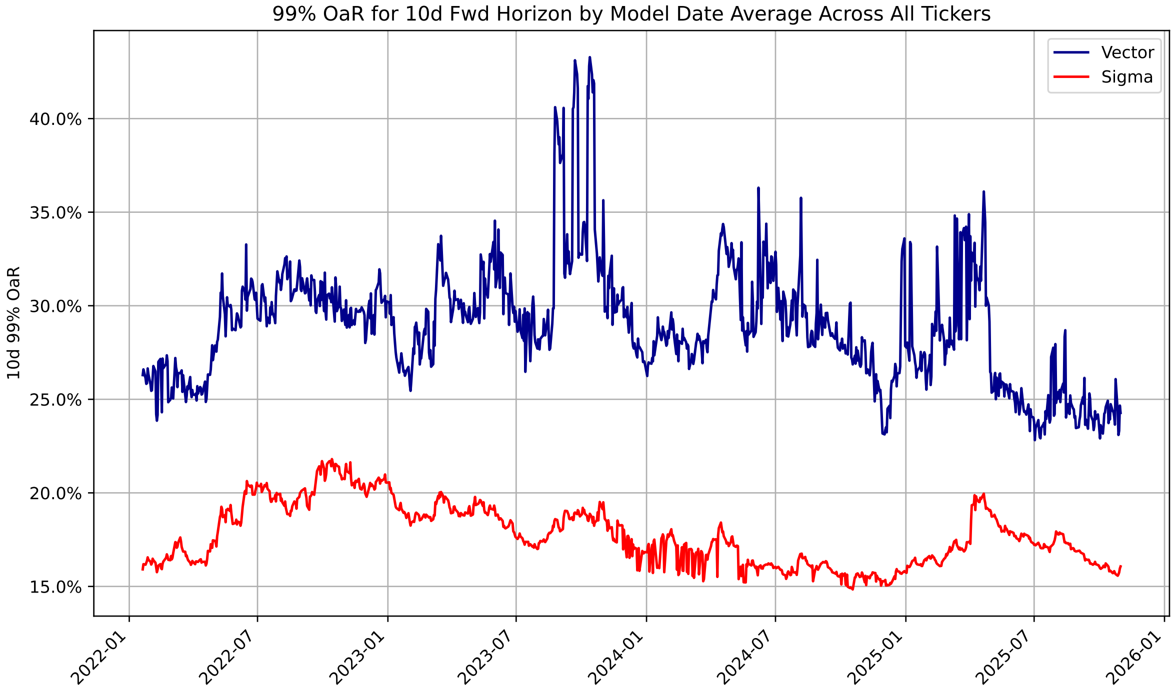


Daily Levels

1d Horizon

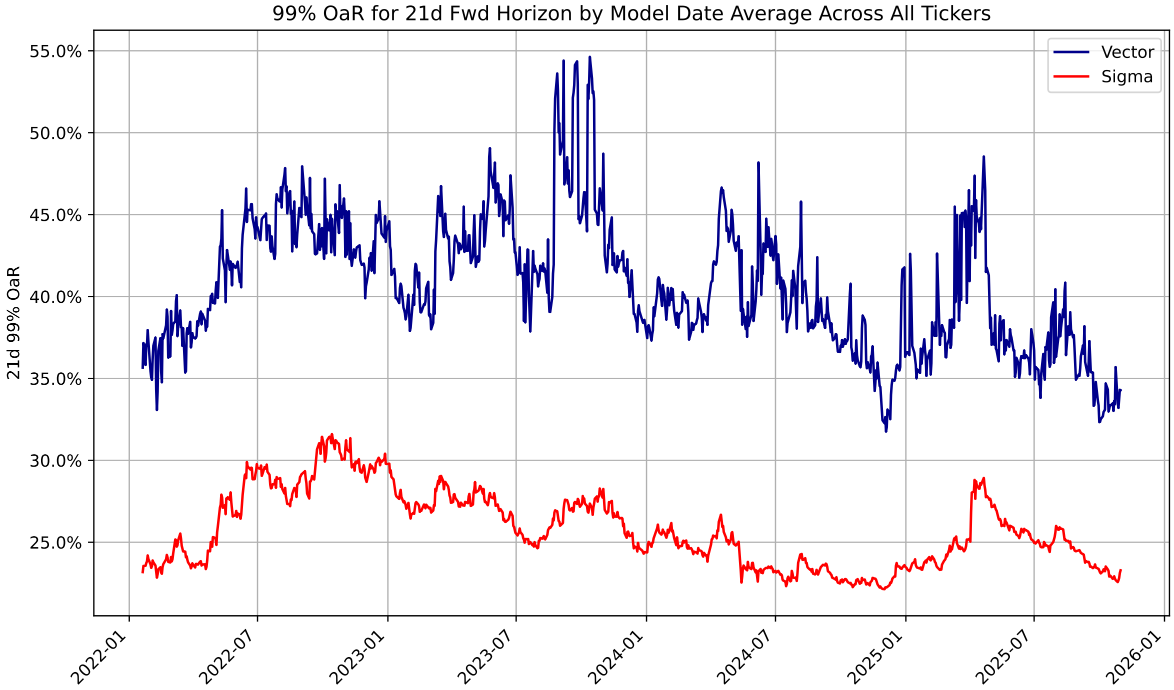


10d Horizon



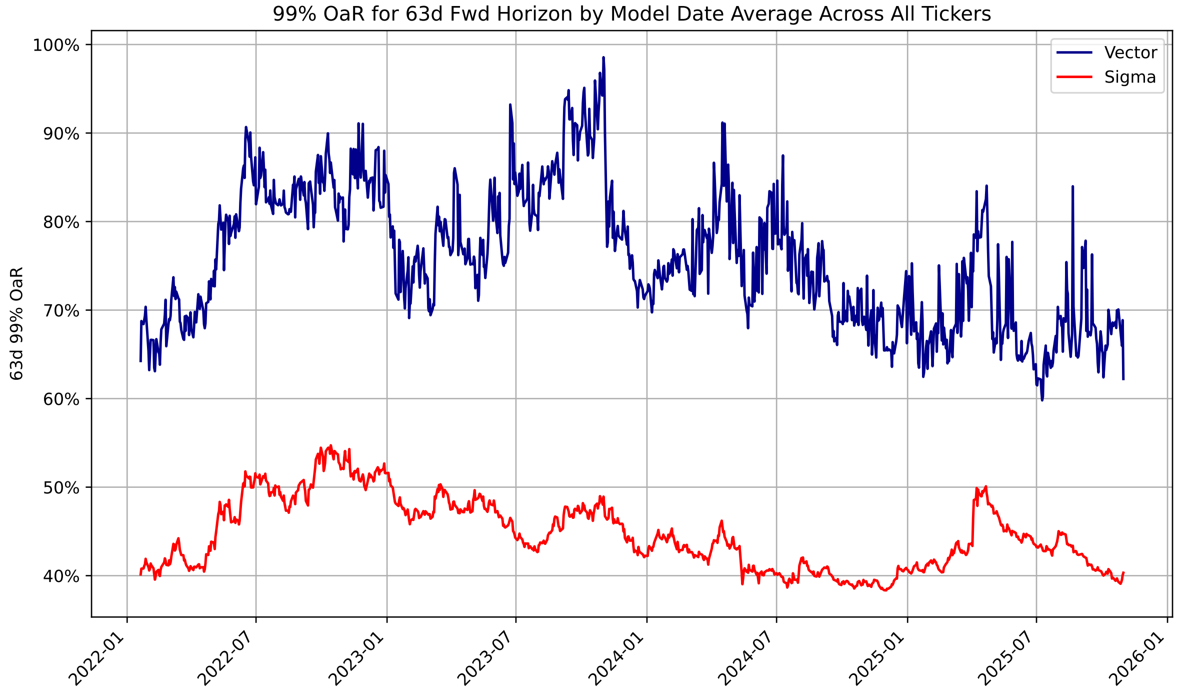
99% OaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 99% OaR
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

21d Horizon



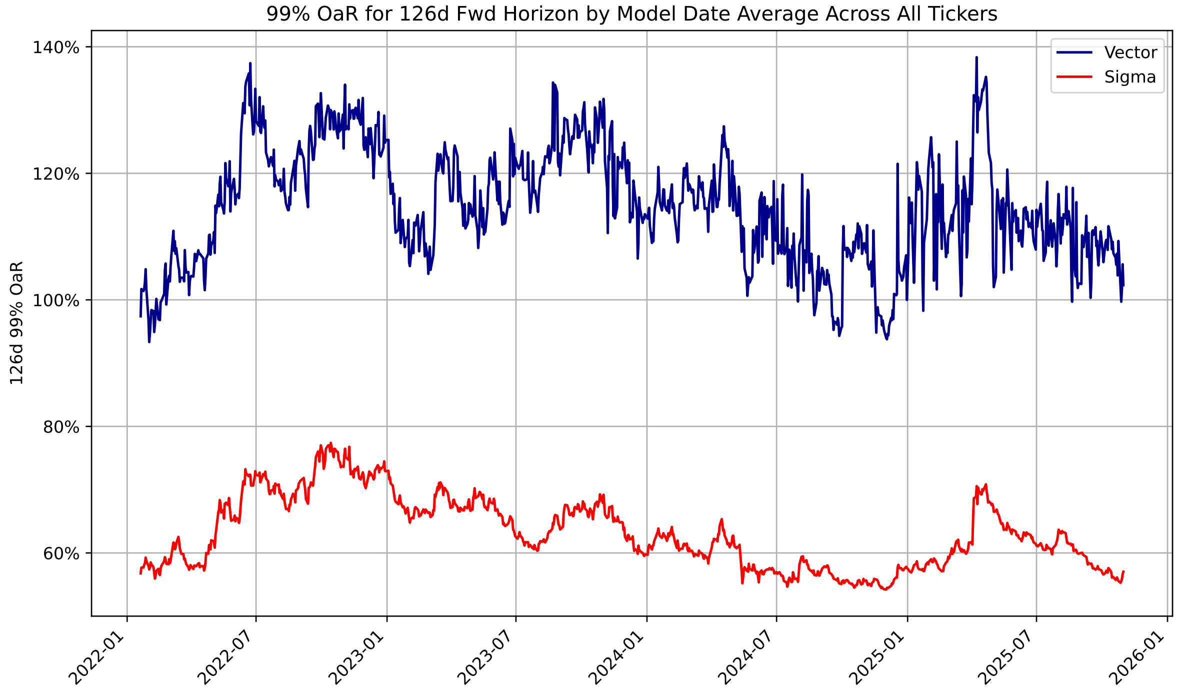
99% OaR for 21d Fwd Horizon by Model Date Average Across All Tickers
21d 99% OaR
55.0%
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01
Vector
Sigma

63d Horizon

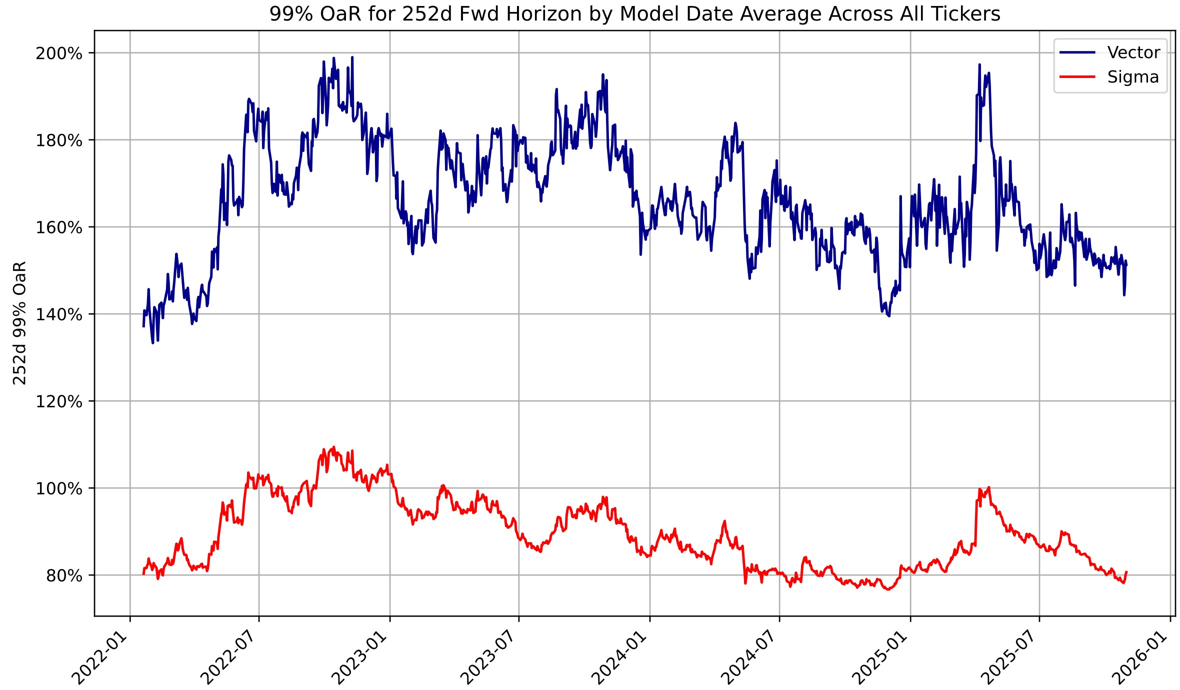


99% OaR for 63d Fwd Horizon by Model Date Average Across All Tickers
63d 99% OaR
Vector
Sigma
100%
90%
80%
70%
60%
50%
40%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

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.

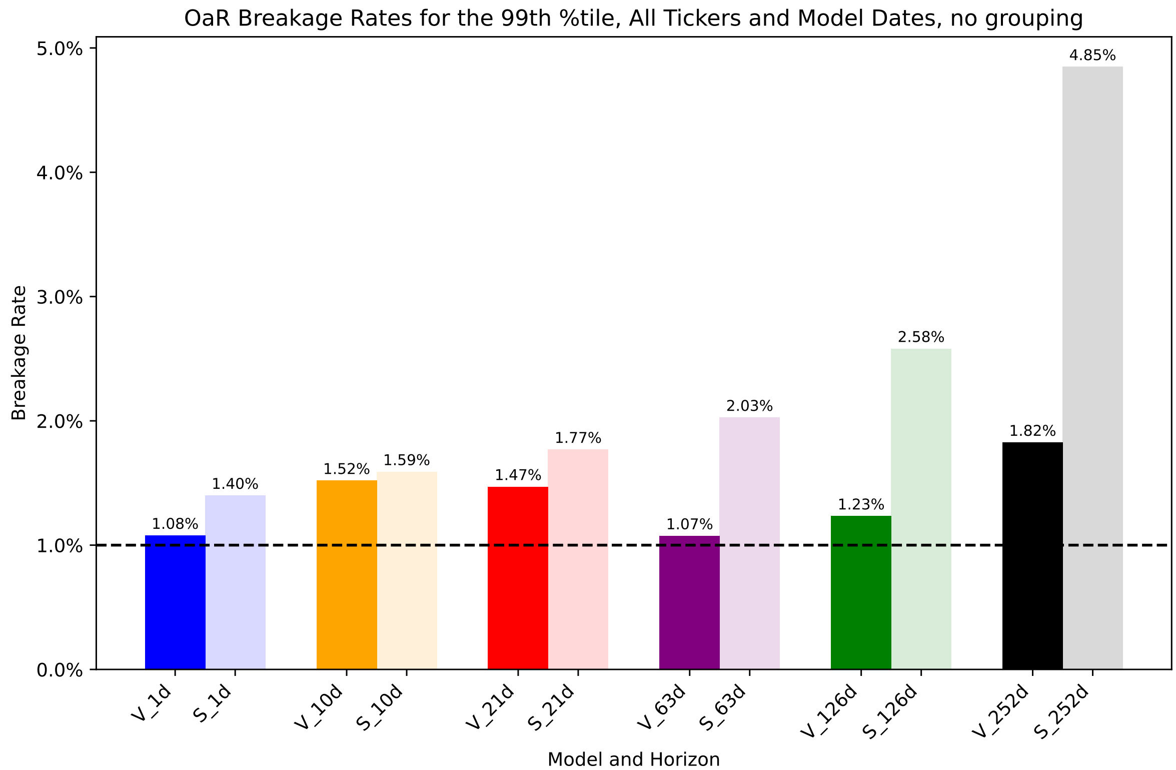
Vector Model ROLOBC can be evalauated on the basis of outright levels relative to Sigma and alpha relative to Sigma ROLOBC (which, as discussed previously, is assigned the underlying ticker price returns). We advise keeping proximity of OaR breakage rates to targetted levels in mind when comparing outright 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.

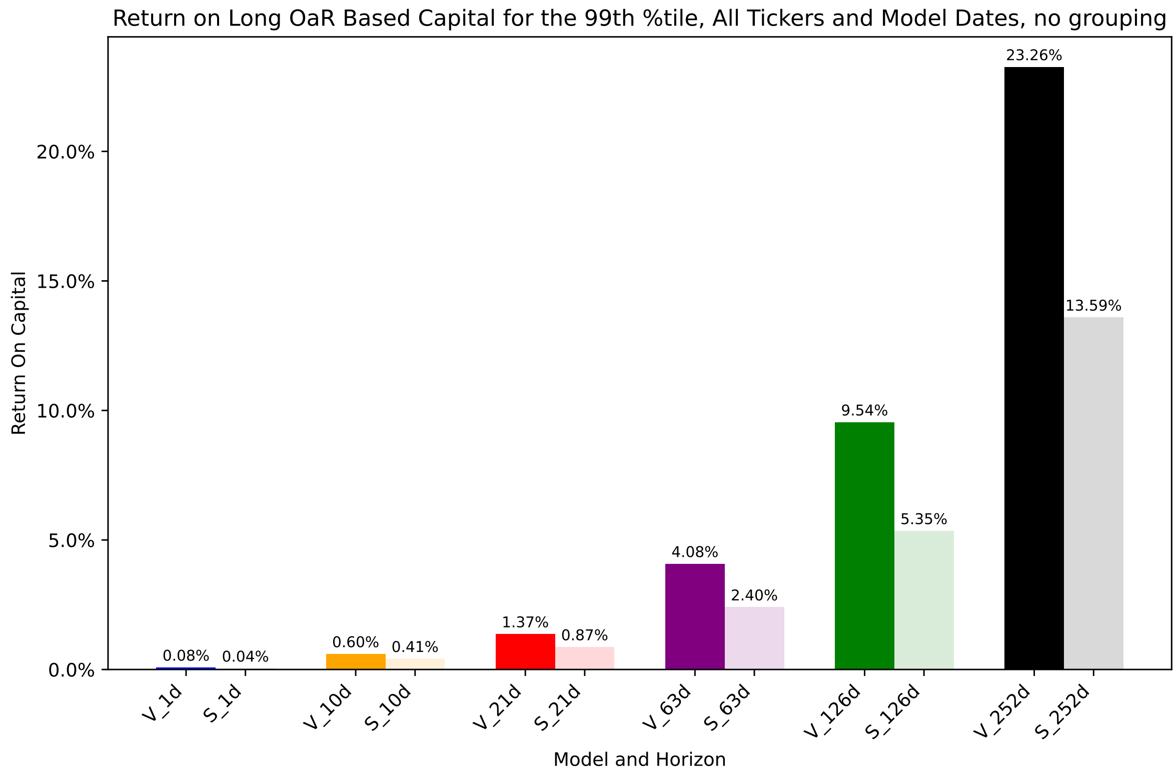
Alpha allows us to isolate ROLOBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROLOBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by OaR differentials between tickers and / or between dates. Thus we also 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 2025-10-30



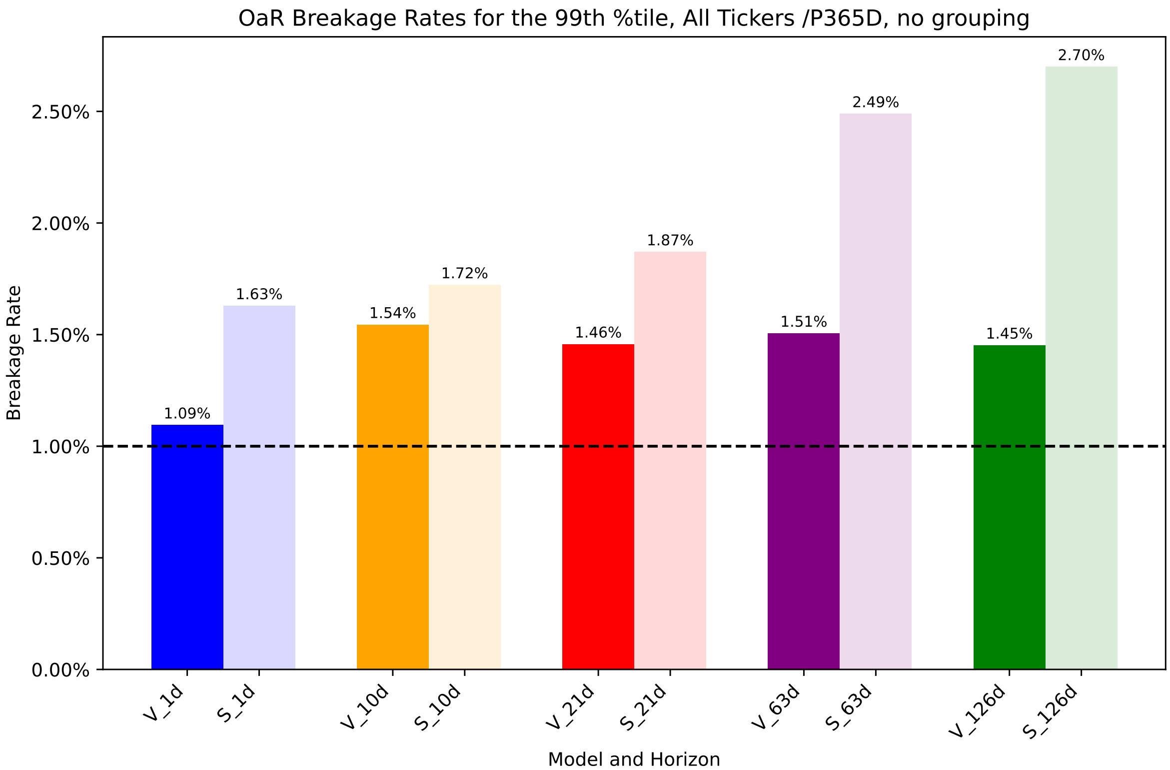


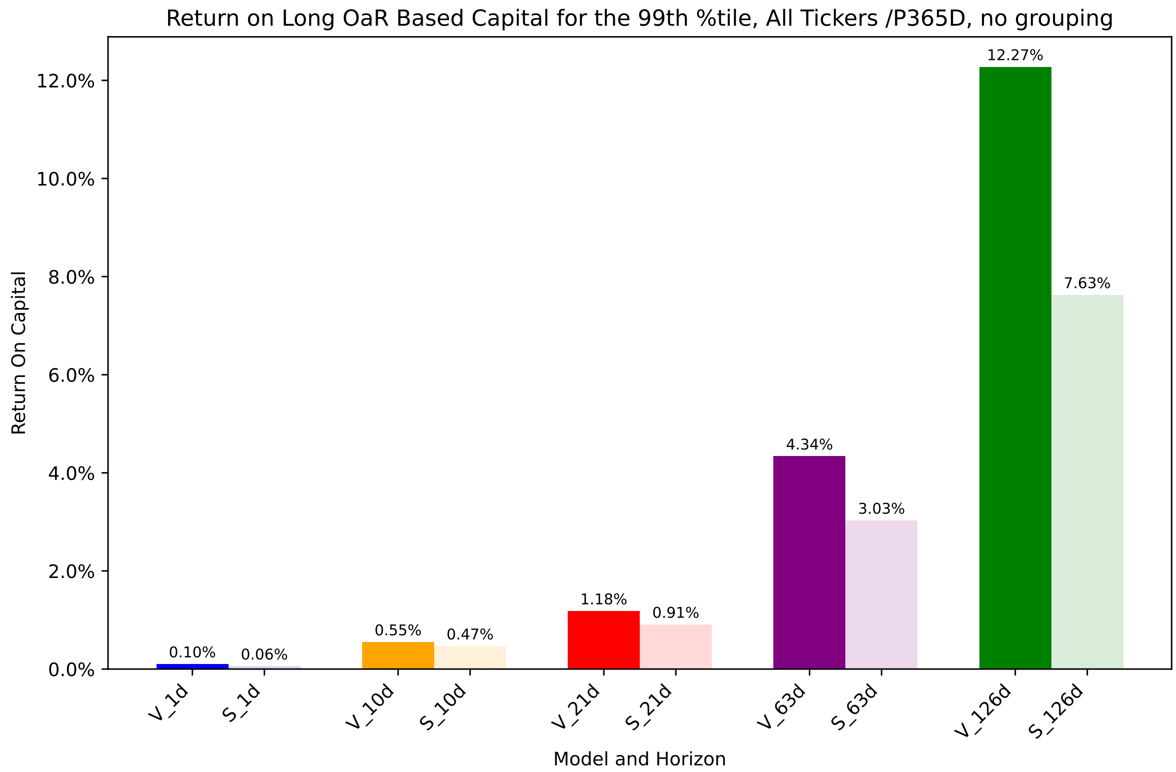

```
Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon
corresponding actual returns across TMD's:
                       1d       10d       21d       63d      126d      252d
intercept           0.00%    -0.02%     0.05%     0.15%     0.36%     0.92%
intercept_p_value  64.26%    32.99%     3.53%     0.04%     0.00%     0.00%
slope             178.38%   148.57%   151.53%   163.34%   171.69%   164.38%
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          -0.04%    -0.17%    -0.47%    -1.85%    -3.62%    -5.04%
intercept_p_value   0.00%     0.93%     0.13%     0.01%     0.00%     0.20%
slope             161.83%   147.24%   163.85%   177.37%   175.99%   161.83%
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 2025-10-30 through 2024-11-01





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

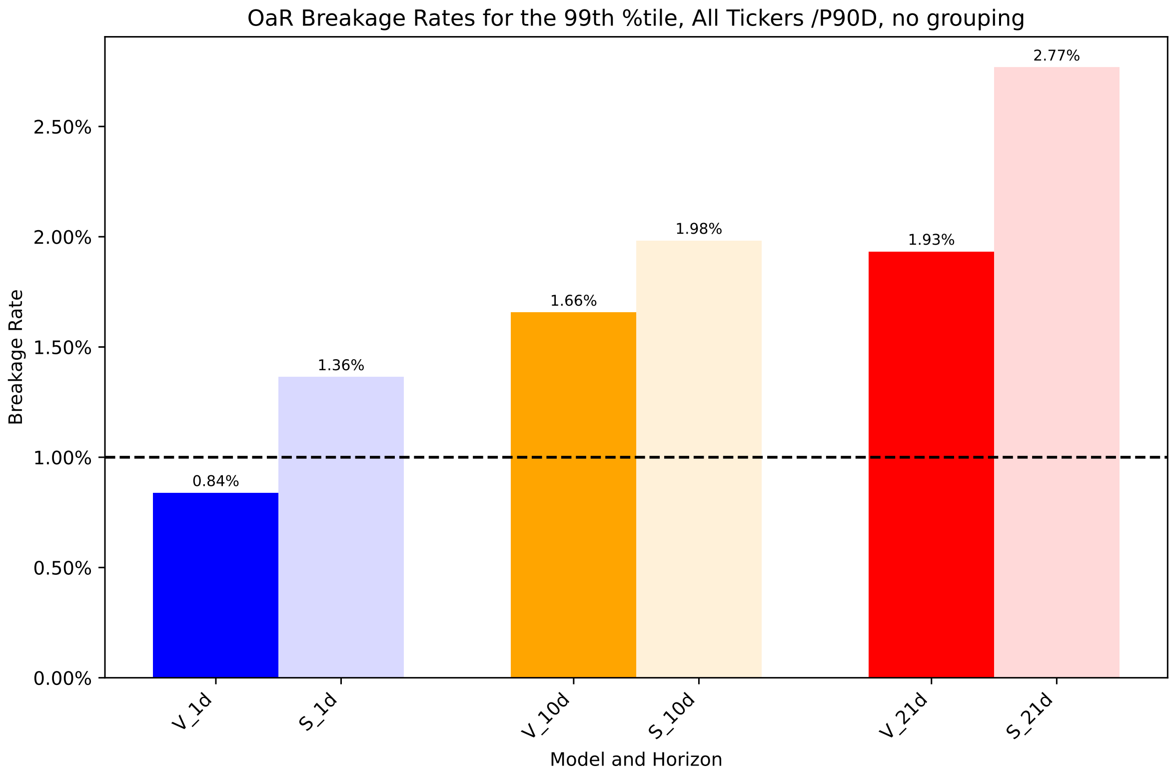
	1d	10d	21d	63d	126d
intercept	-0.00%	-0.15%	-0.17%	-0.27%	0.10%
intercept_p_value	81.87%	0.00%	0.00%	0.05%	50.88%
slope	183.50%	150.31%	149.51%	152.27%	159.70%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

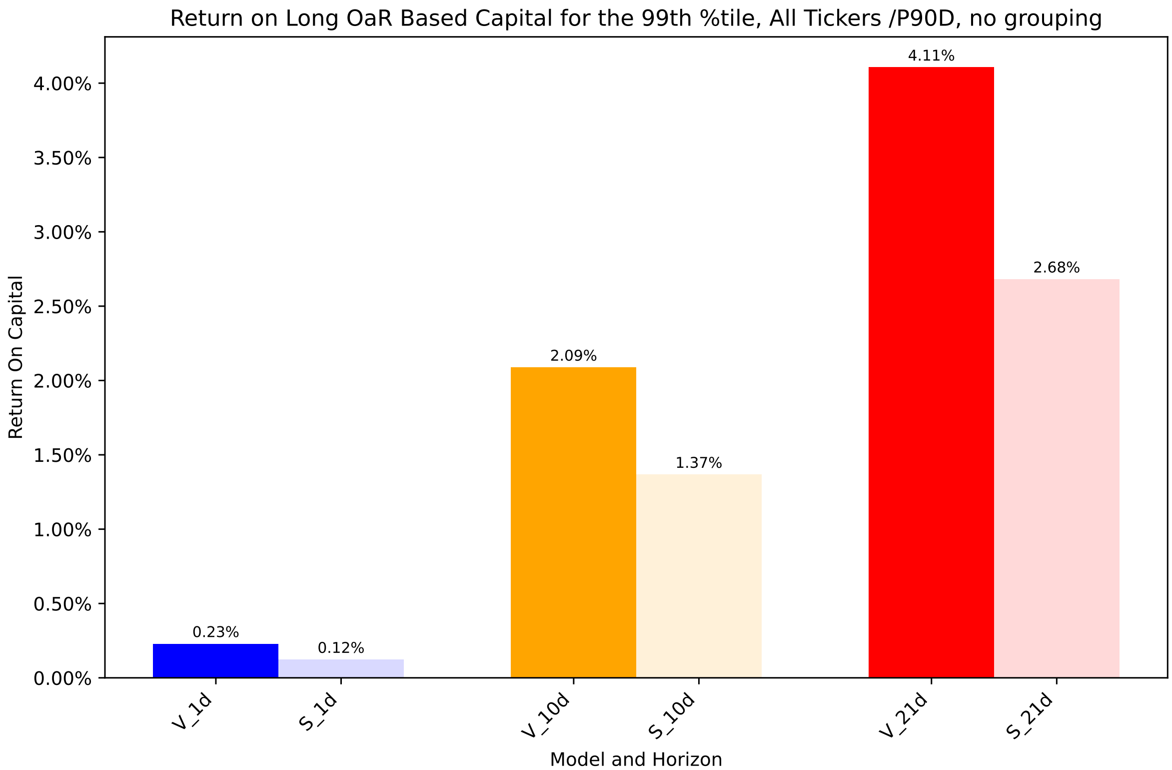
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P365D:

	1d	10d	21d	63d	126d
intercept	0.01%	0.12%	0.27%	0.42%	-0.11%
intercept_p_value	54.49%	8.44%	5.60%	30.93%	90.66%
slope	100.77%	116.71%	120.50%	134.10%	145.83%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-10-30 through 2025-08-04





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

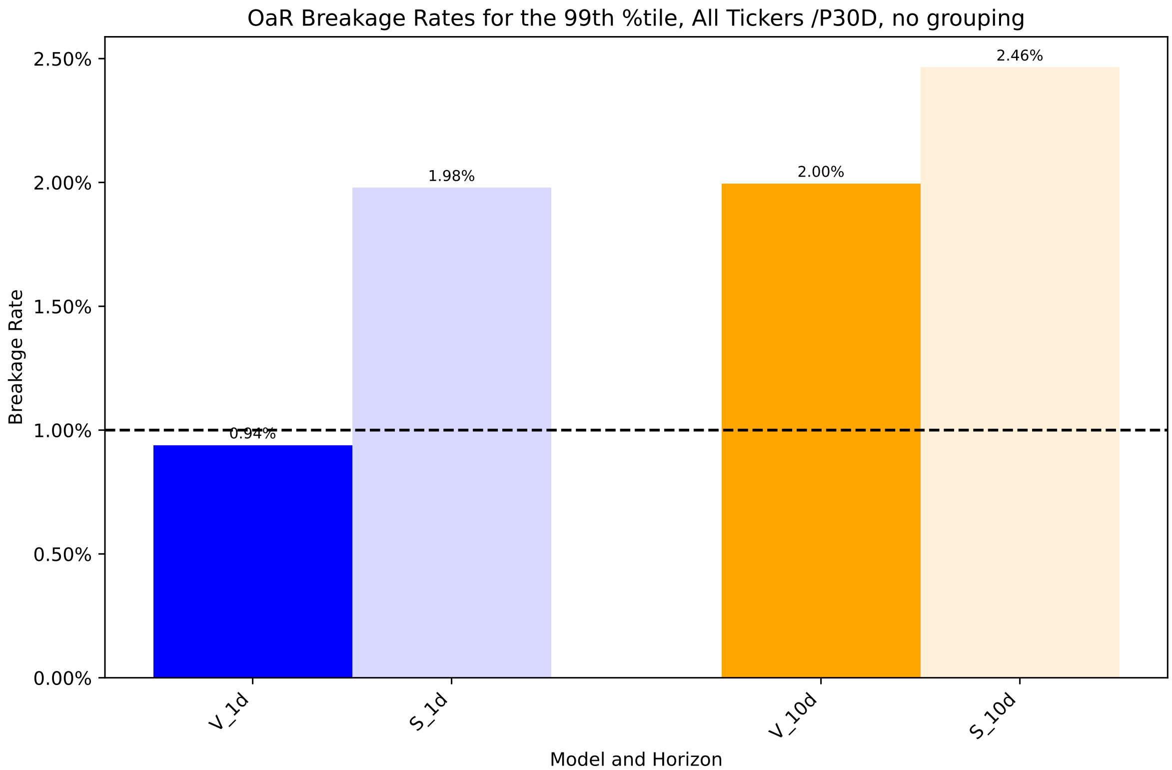
	1d	10d	21d
intercept	0.01%	-0.05%	-0.17%
intercept_p_value	72.86%	36.85%	10.15%
slope	181.85%	156.57%	159.64%
slope_p_value	0.00%	0.00%	0.00%

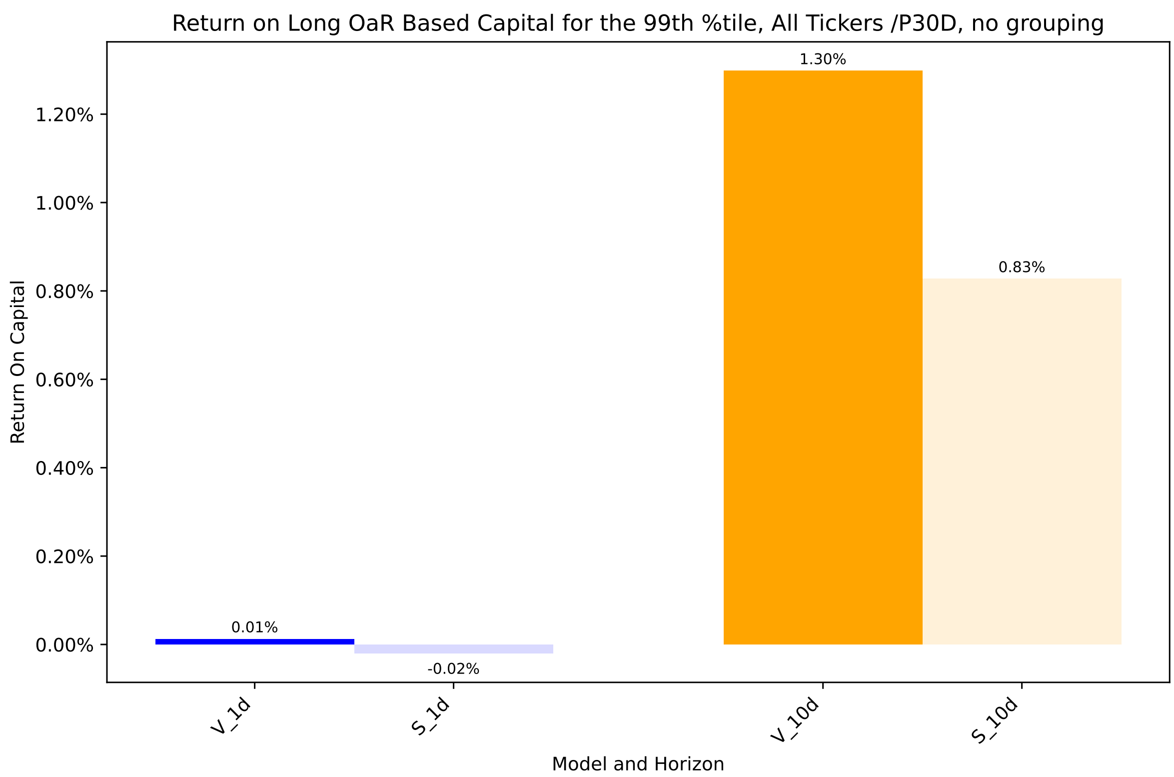
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P90D:

	1d	10d	21d
intercept	-0.02%	-0.01%	-0.05%
intercept_p_value	30.86%	92.75%	89.01%
slope	99.72%	104.70%	112.65%
slope_p_value	0.00%	0.00%	0.00%

Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-10-30 through 2025-10-02





Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns across P30D:

	1d	10d
intercept	0.05%	-0.07%
intercept_p_value	16.59%	61.95%
slope	177.42%	164.85%
slope_p_value	0.00%	0.00%

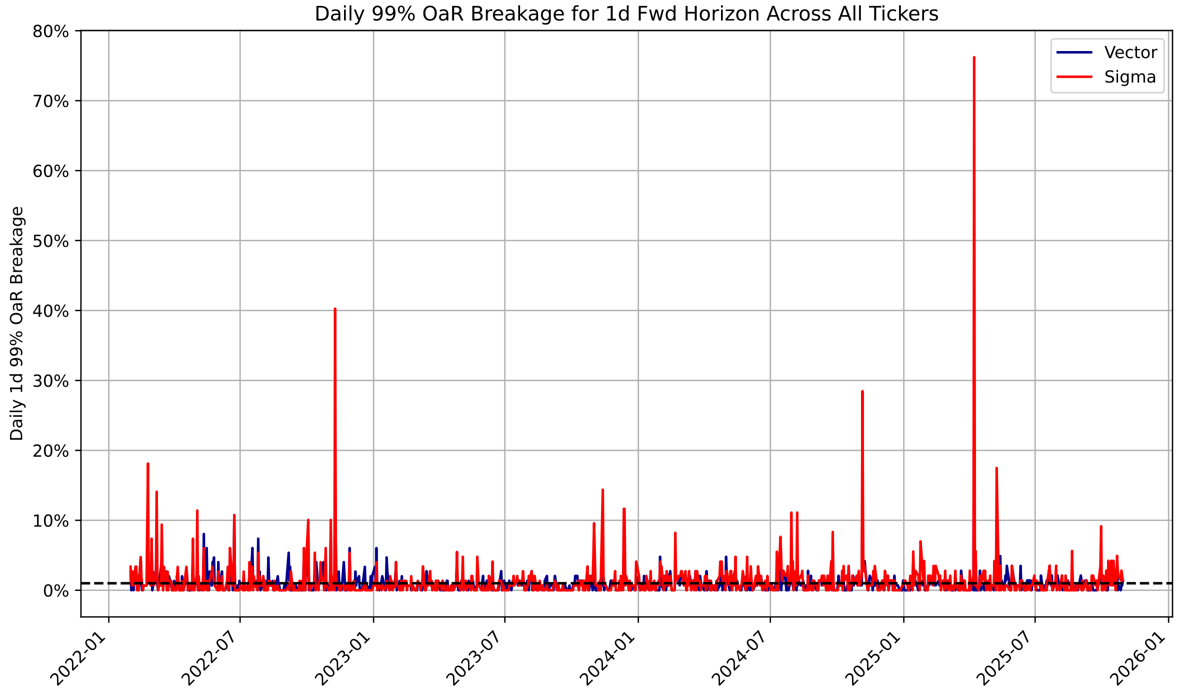
Average Alpha (intercept) and Beta (slope) of Vector Model ROLOBC regressed upon corresponding actual returns, by ticker across P30D:

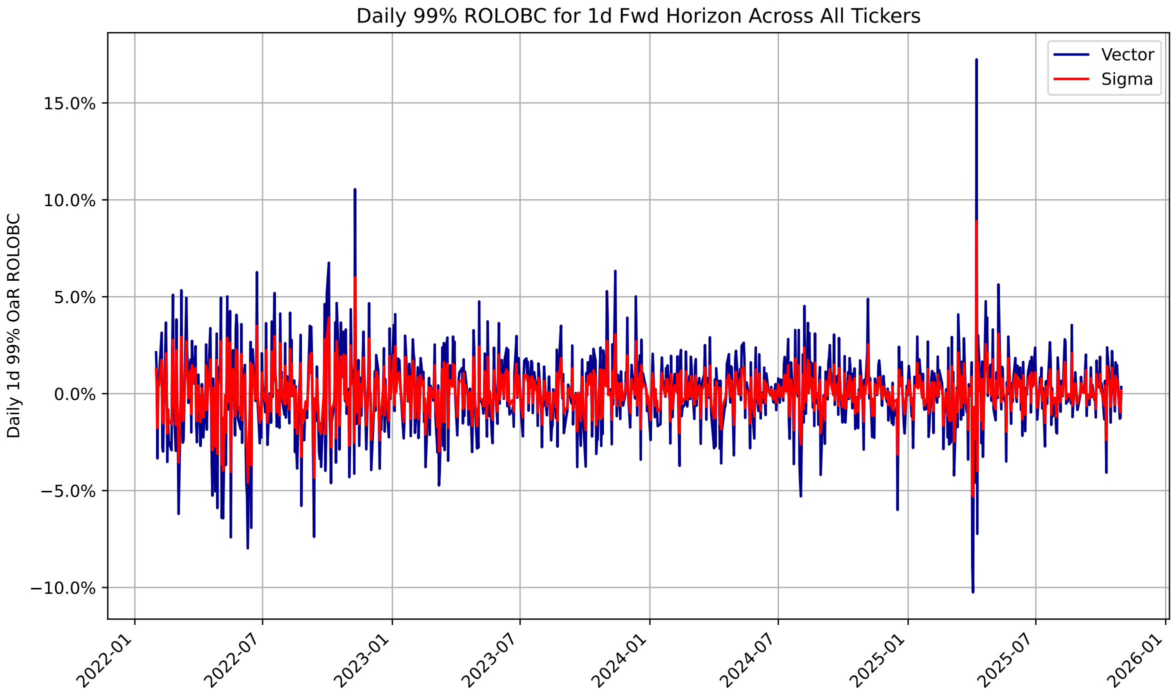
	1d	10d
intercept	-0.01%	-0.09%
intercept_p_value	82.26%	74.26%
slope	87.46%	104.18%
slope_p_value	0.00%	0.00%

Daily Performance

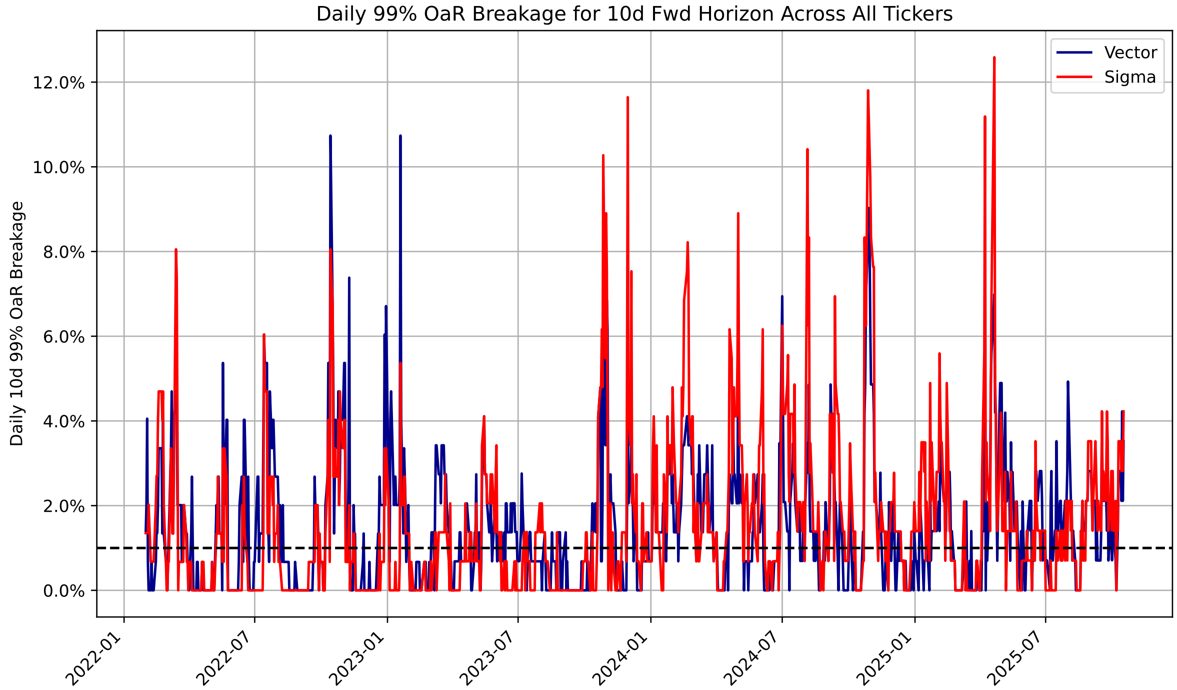
Here we look at the daily breakage and ROLOBC statitics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROLOBC outliers.

1d Horizon

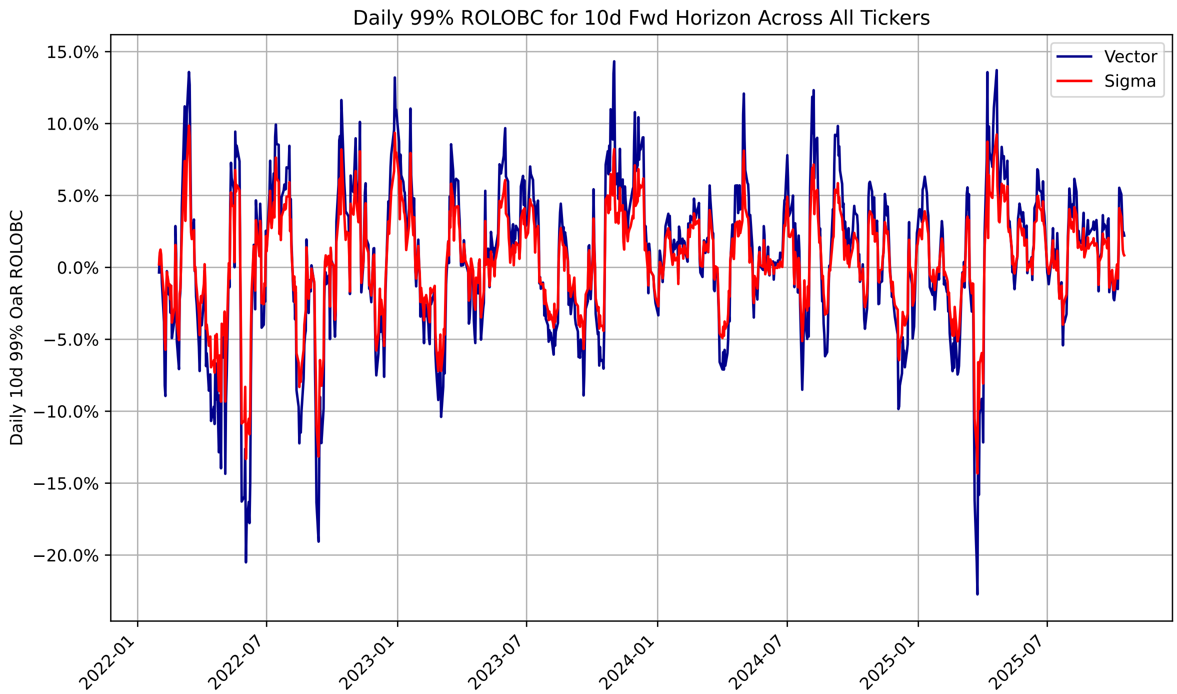



Daily 99% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 99% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

10d Horizon

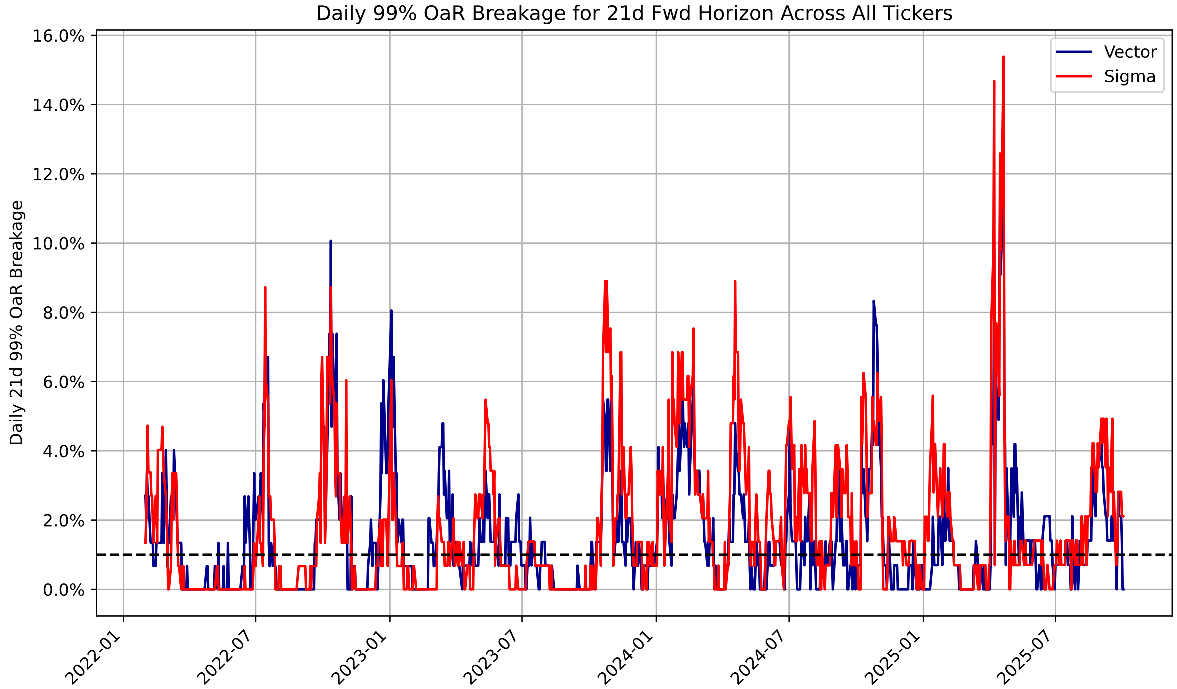


Daily 99% OaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 99% OaR Breakage
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

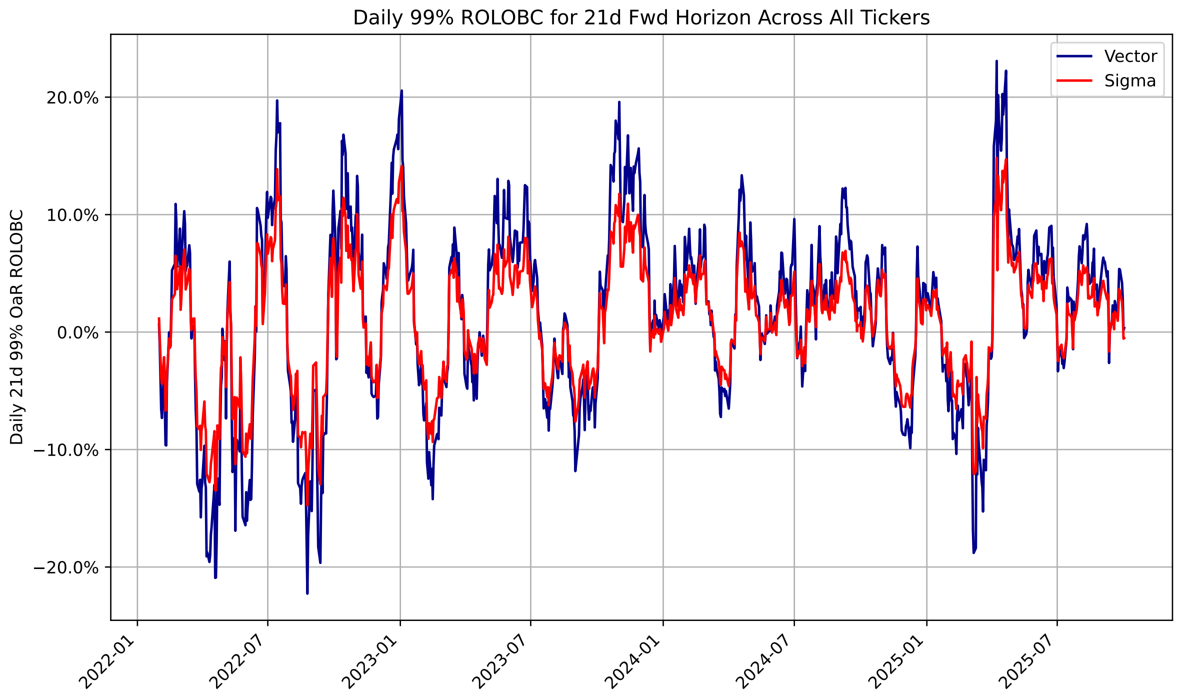


Daily 99% ROLOBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 99% OaR ROLOBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
−20.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

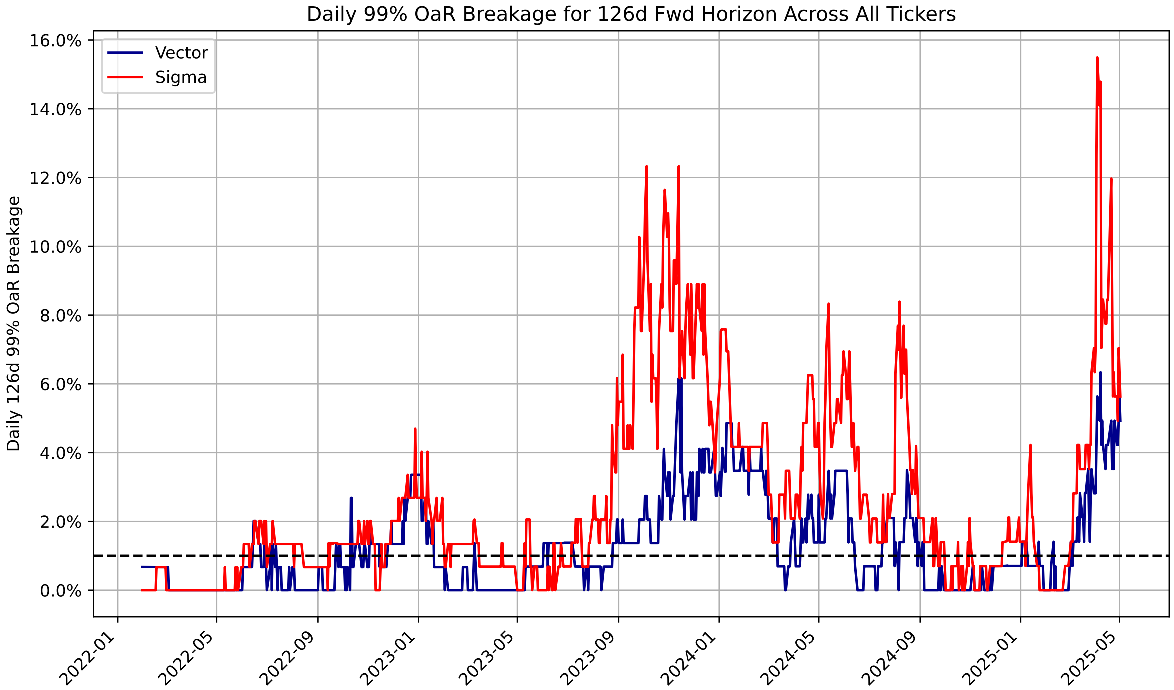


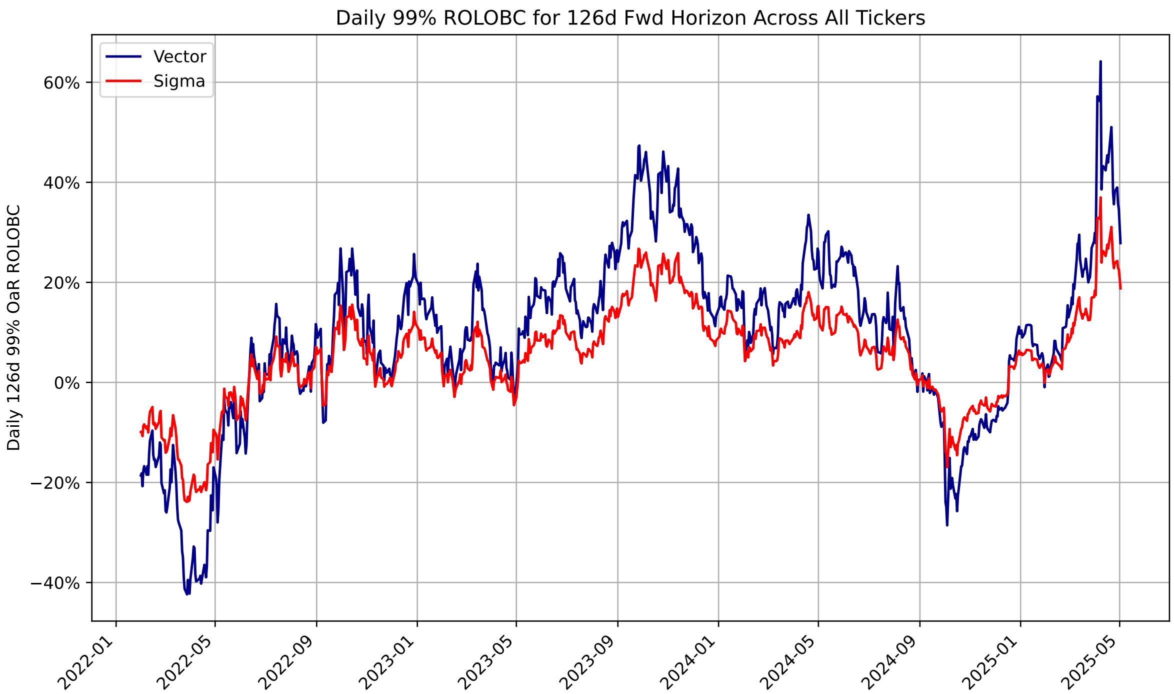
Daily 99% OaR Breakage for 21d Fwd Horizon Across All Tickers
Daily 21d 99% OaR Breakage
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma



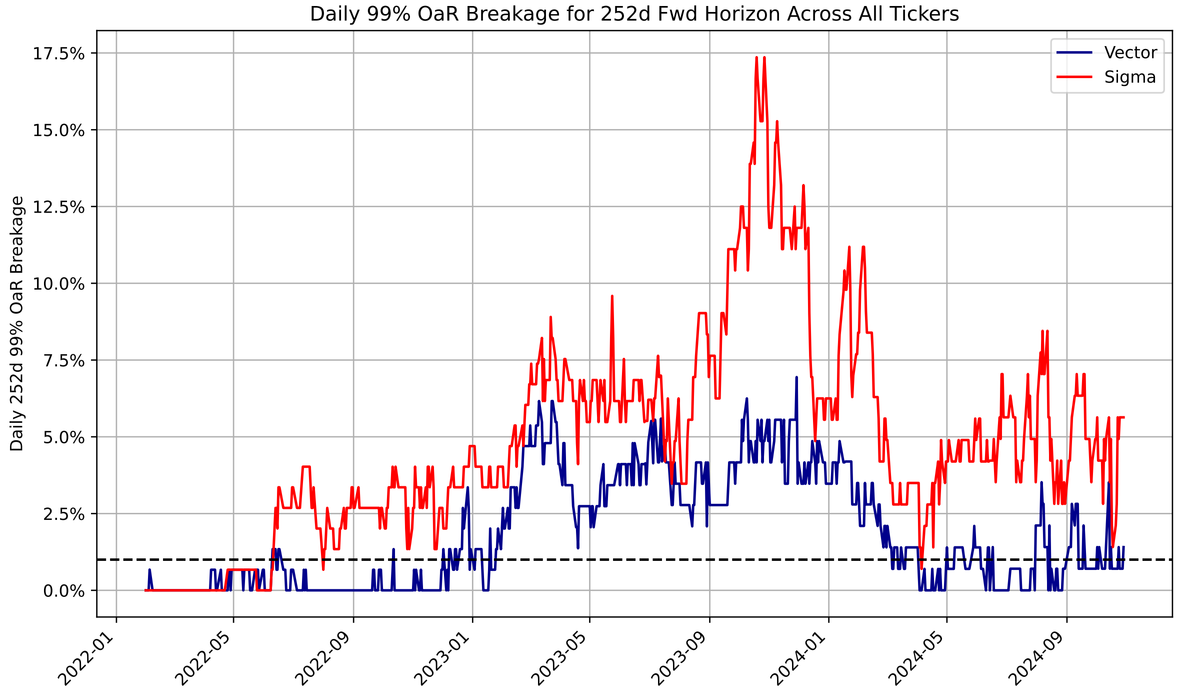
Daily 99% ROLOBC for 21d Fwd Horizon Across All Tickers
Daily 21d 99% OaR ROLOBC
20.0%
10.0%
0.0%
−10.0%
−20.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

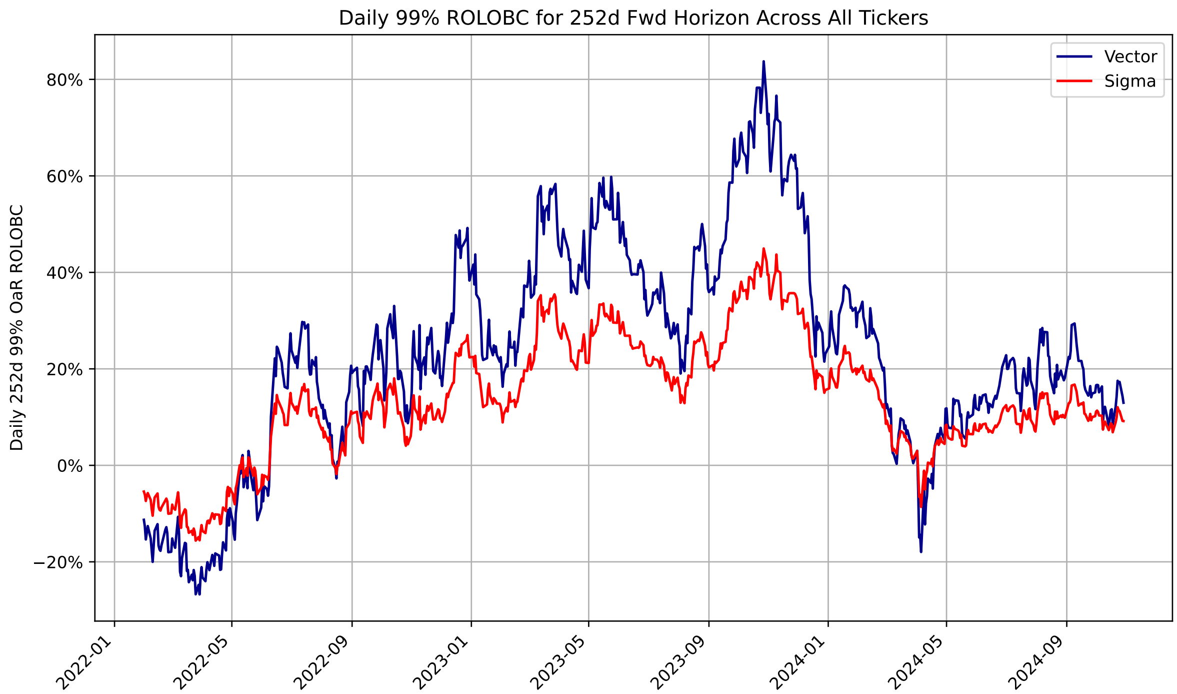
63d Horizon


Daily 99% OaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 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 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 99% OaR ROLOBC
60%
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
2025-05

252d Horizon

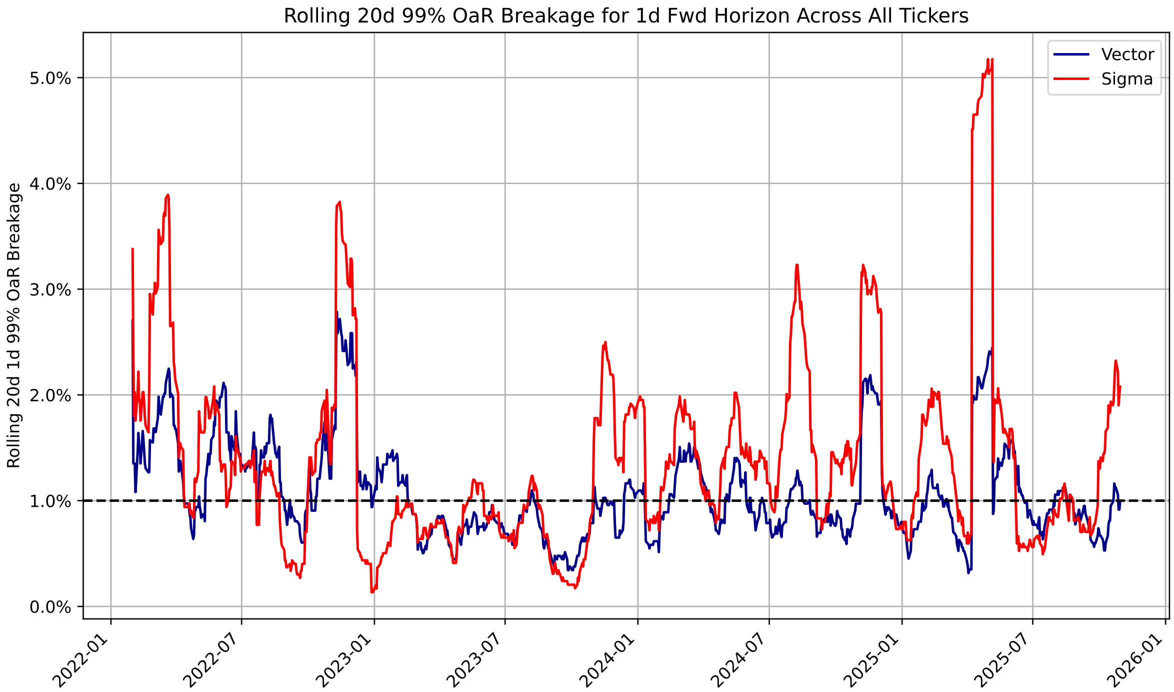


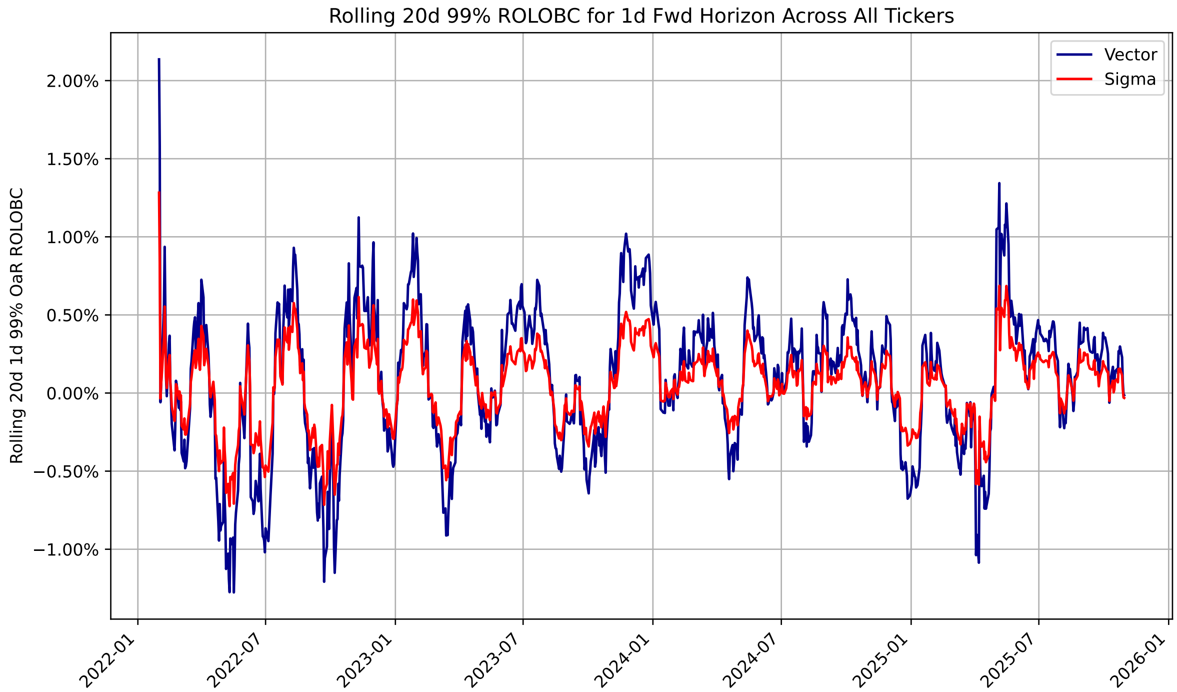


Rolling 20d Performance

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.

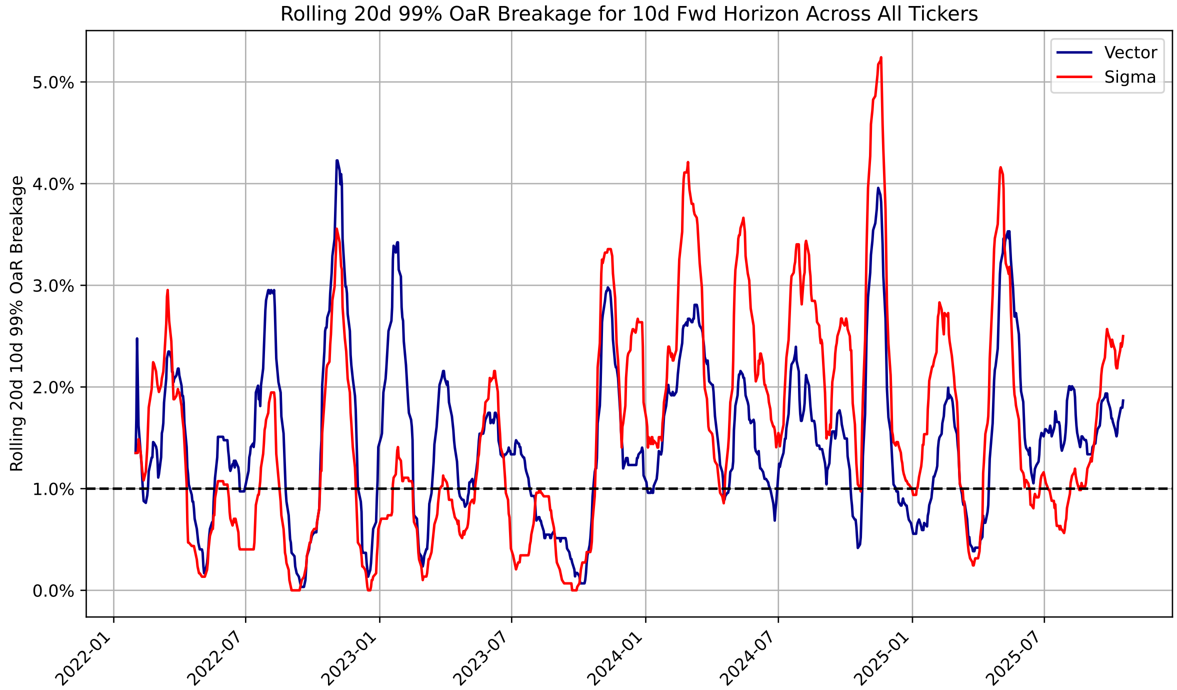
1d Horizon



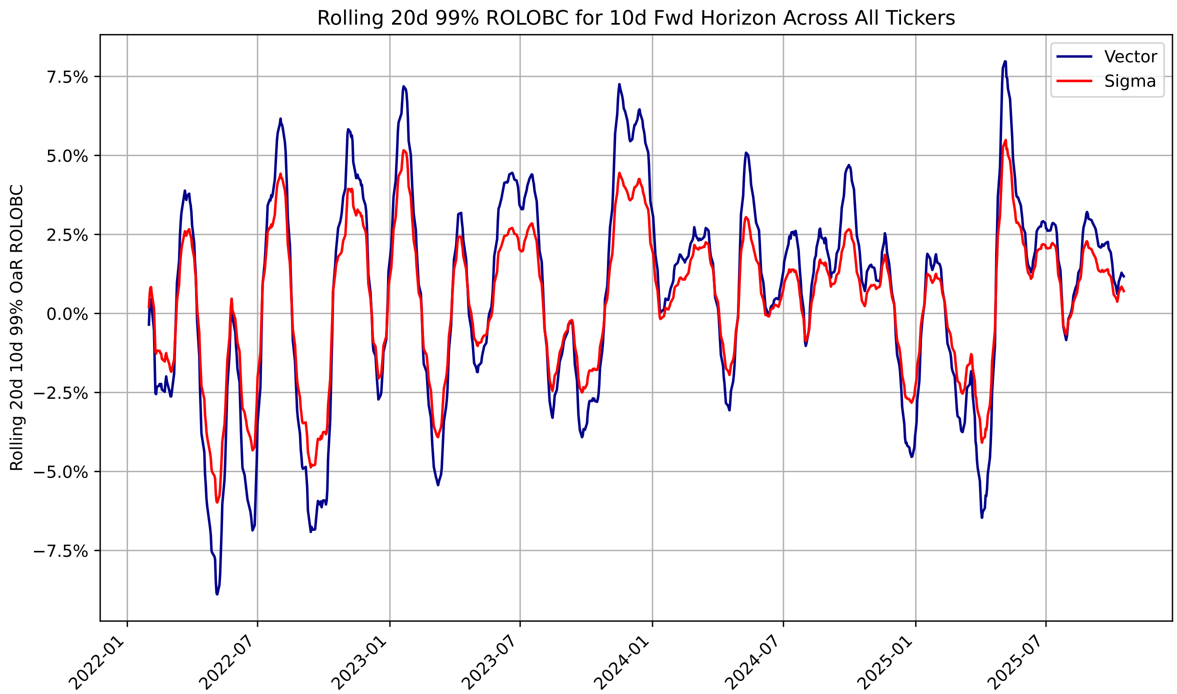


Rolling 20d 99% ROLOBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 99% OaR ROLOBC
2.00%
1.50%
1.00%
0.50%
0.00%
−0.50%
−1.00%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

10d Horizon

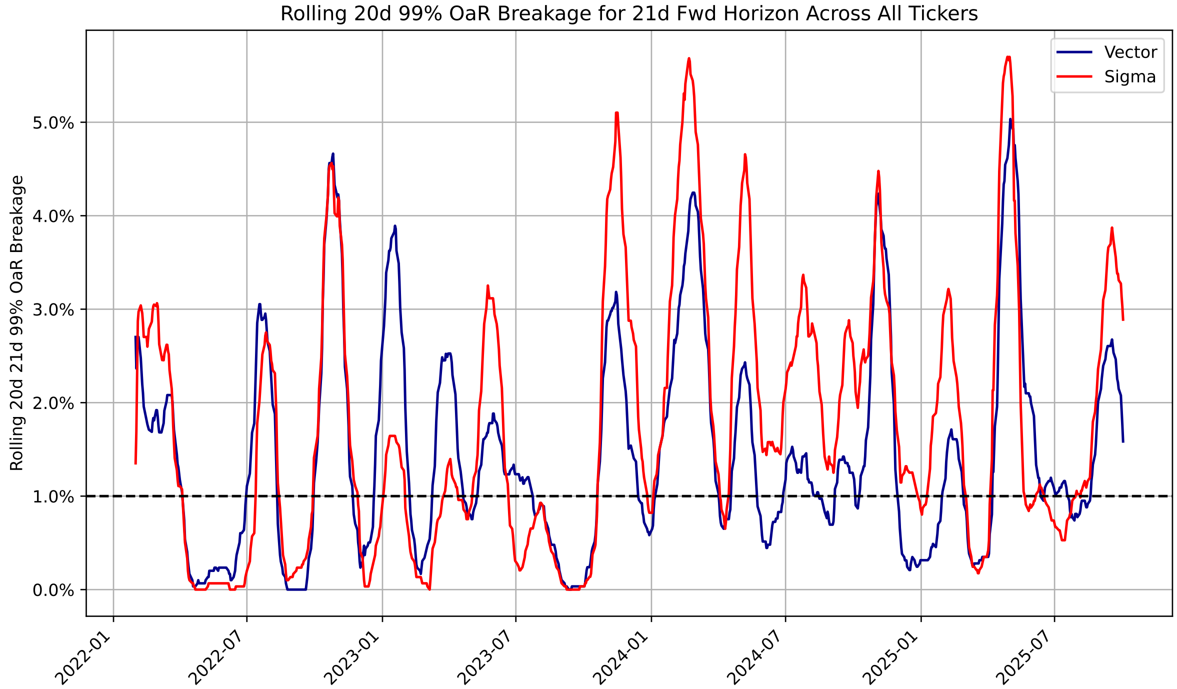


Rolling 20d 99% OaR Breakage for 10d Fwd Horizon Across All Tickers
Rolling 20d 10d 99% OaR Breakage
Vector
Sigma
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

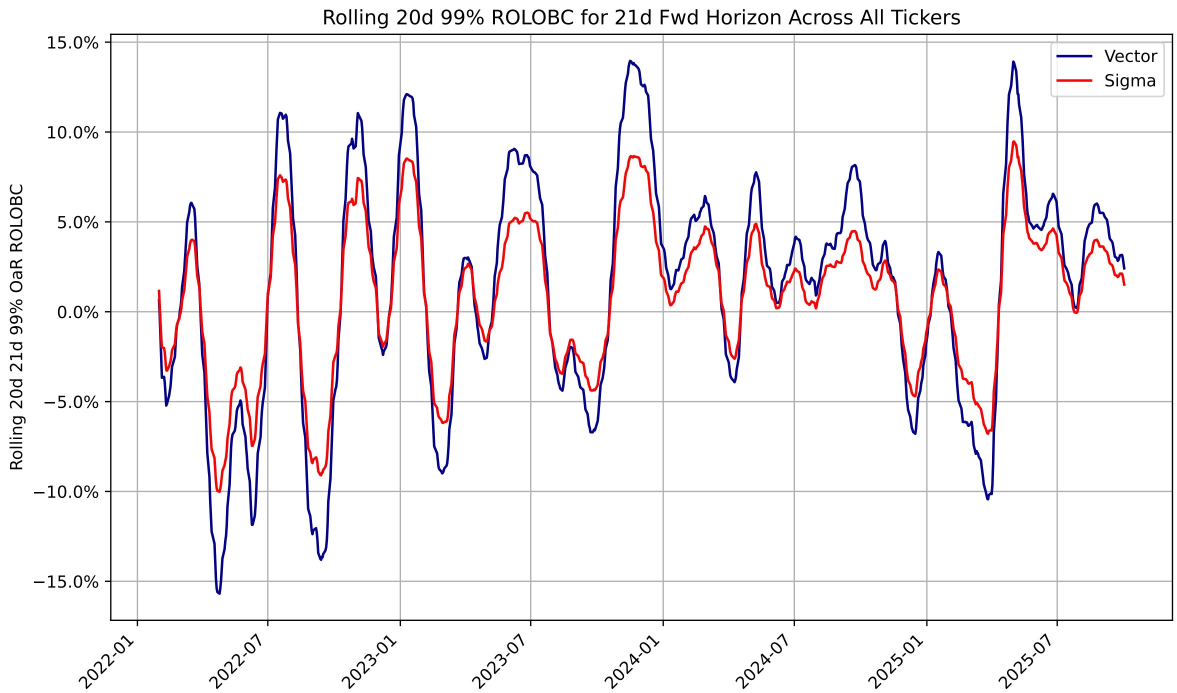


Rolling 20d 99% ROLOBC for 10d Fwd Horizon Across All Tickers
Rolling 20d 10d 99% OaR ROLOBC
Vector
Sigma
7.5%
5.0%
2.5%
0.0%
−2.5%
−5.0%
−7.5%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

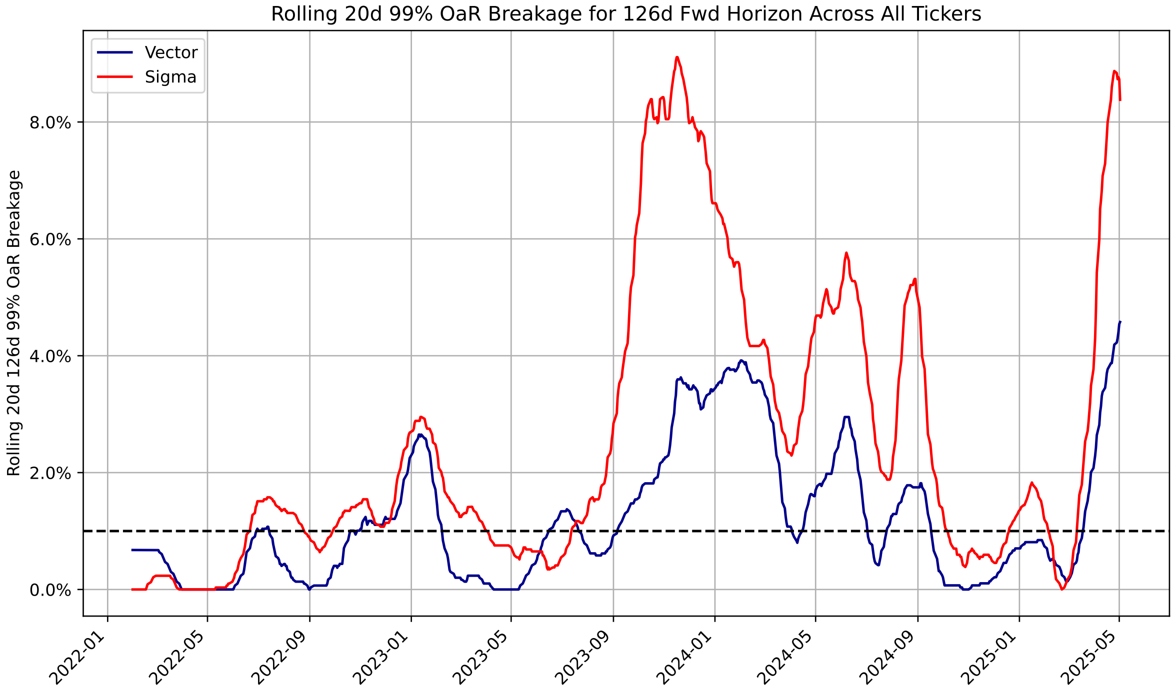


Rolling 20d 99% OaR Breakage for 21d Fwd Horizon Across All Tickers
Rolling 20d 21d 99% OaR Breakage
Vector
Sigma
0.0%
1.0%
2.0%
3.0%
4.0%
5.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

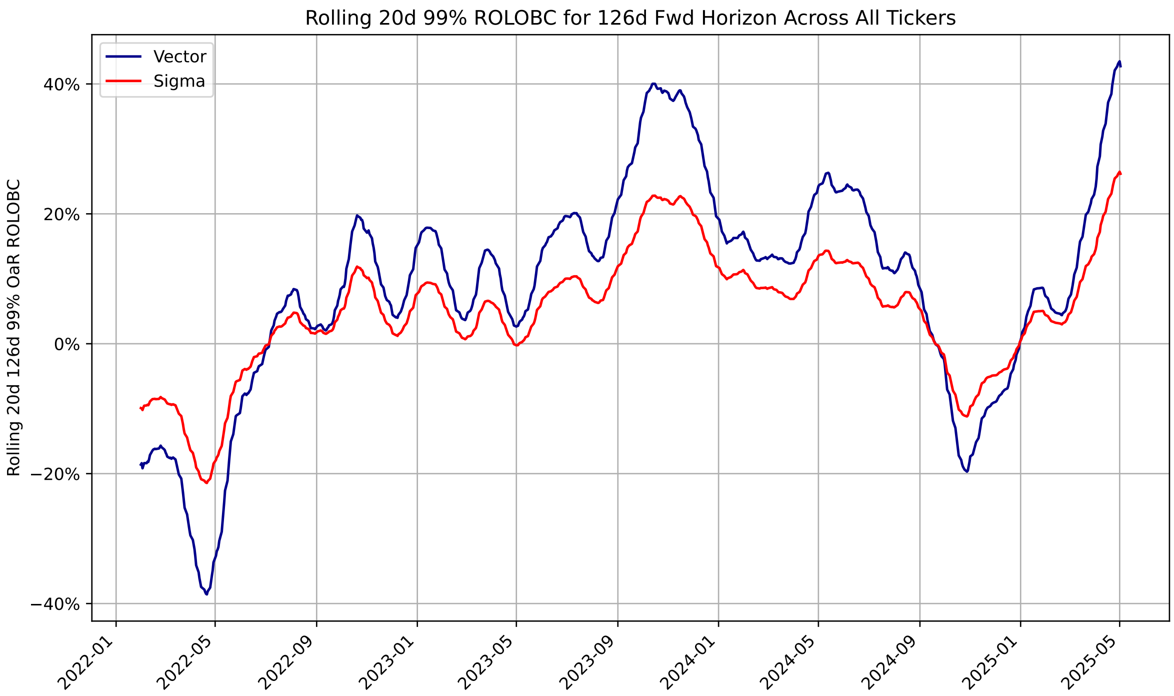


Rolling 20d 99% ROLOBC for 21d Fwd Horizon Across All Tickers
Rolling 20d 21d 99% OaR ROLOBC
Vector
Sigma
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

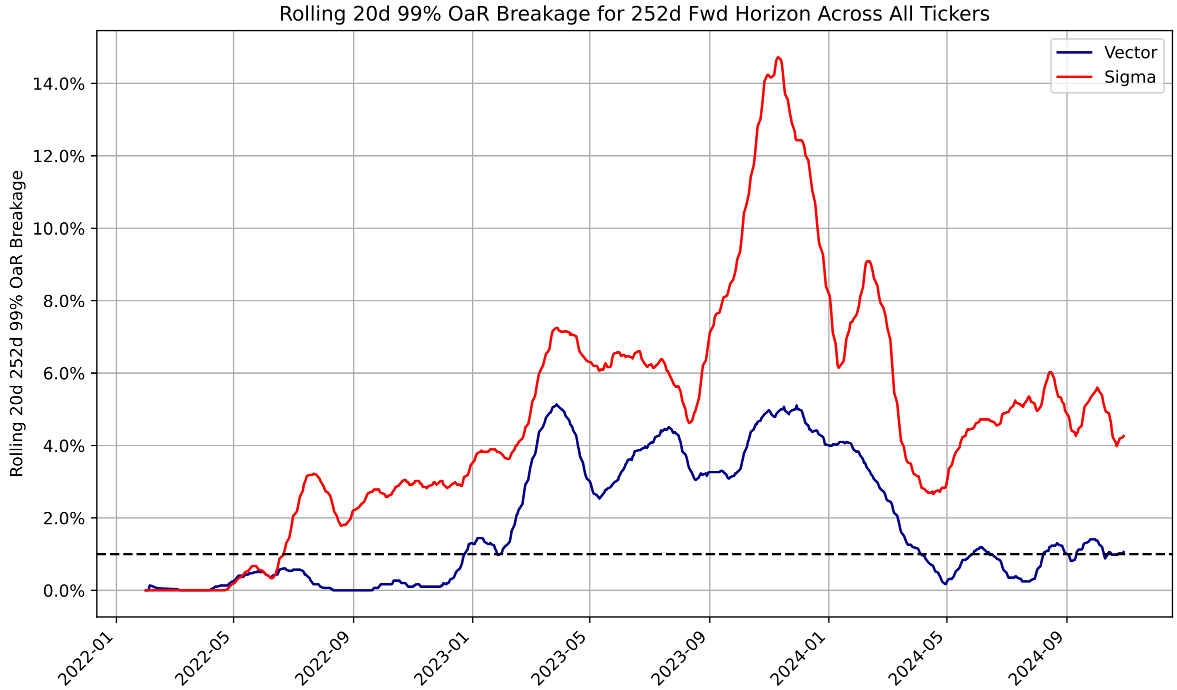


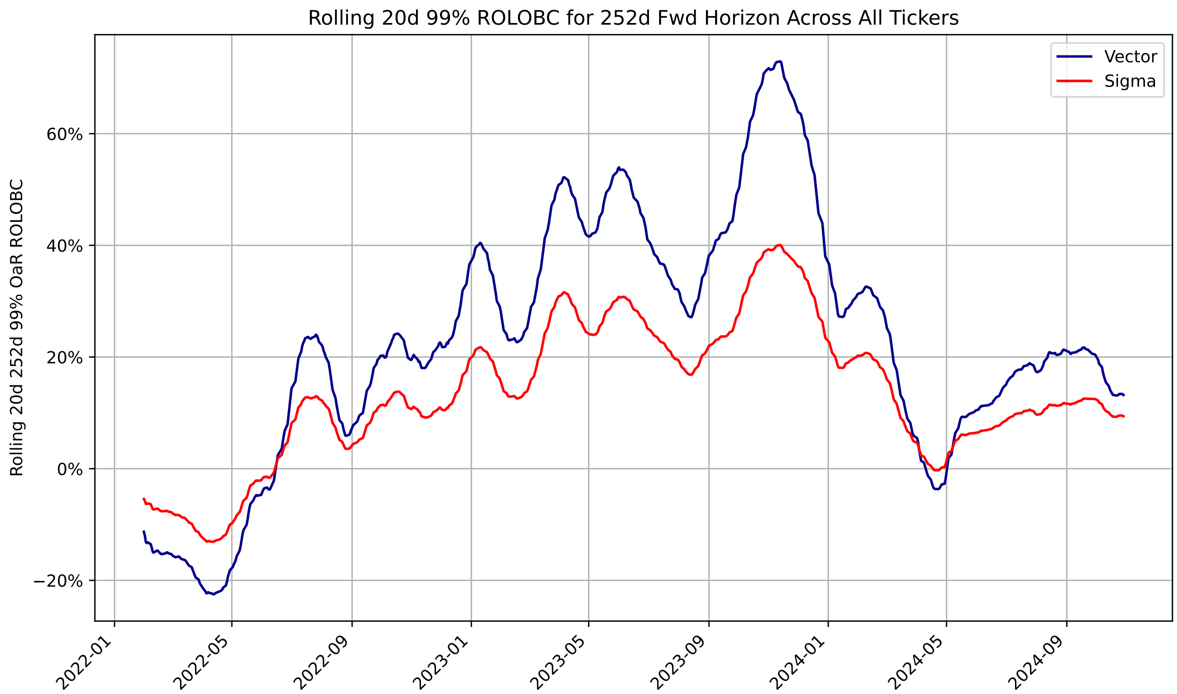
Rolling 20d 99% OaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 126d 99% OaR Breakage
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



Rolling 20d 99% ROLOBC for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 126d 99% OaR ROLOBC
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
2025-05

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	SIVBQ	6.83%	VST	4.35%
1.0	GME	5.52%	MSTR	3.08%
1.0	AVGO	5.1%	AVGO	3.08%
1.0	VST	4.78%	SLV	2.76%
1.0	MSTR	4.56%	NVDA	2.55%
1.0	META	3.72%	WDC	2.55%
1.0	TSLA	3.61%	SIVBQ	2.52%
1.0	B	3.61%	LLY	2.34%
1.0	FRCB	3.6%	MU	2.34%
1.0	HLT	3.29%	GLD	2.34%
1.0	ACGL	2.97%	B	2.12%
1.0	TEVA	2.97%	PWR	2.12%
1.0	CHTR	2.97%	UNH	2.02%
1.0	SLV	2.87%	NEM	2.02%
1.0	INTU	2.87%	PHM	2.02%
1.0	BALL	2.76%	AMD	2.02%
1.0	ZTS	2.65%	GOOGL	1.91%
1.0	SBNY	2.52%	CCL	1.91%
1.0	OXY	2.44%	LVS	1.8%
1.0	BUD	2.44%	WYNN	1.8%
1.0	NFLX	2.34%	GSK	1.8%
1.0	CMA	2.23%	ORCL	1.8%
1.0	GILD	2.02%	IRM	1.8%
1.0	AMC	2.02%	AMGN	1.8%
1.0	SPY	2.02%	BAC	1.8%
1.0	GWW	1.91%	SBNY	1.8%
1.0	AA	1.91%	FRCB	1.8%
1.0	ISRG	1.8%	GILD	1.7%
1.0	WDC	1.7%	ABBV	1.7%
1.0	JAZZ	1.7%	CMG	1.7%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	MSTR	12.11%	VST	7.72%
10.0	SIVBQ	9.93%	NVDA	5.79%
10.0	VST	8.47%	ORCL	5.57%
10.0	AVGO	8.36%	AVGO	4.61%
10.0	META	6.97%	X	4.53%
10.0	GME	6.54%	LLY	4.18%
10.0	CHTR	6.11%	GLD	4.07%
10.0	GWW	5.47%	MSTR	3.86%
10.0	ORCL	4.39%	TEVA	3.86%
10.0	ISRG	4.29%	GWW	3.75%
10.0	TSLA	4.07%	TMUS	3.64%
10.0	GILD	4.07%	TRGP	3.64%
10.0	ETRN	3.97%	MU	3.54%
10.0	ZTS	3.97%	CAH	3.54%
10.0	NVS	3.86%	MUB	3.43%
10.0	HCA	3.86%	TSLA	3.32%
10.0	IRM	3.86%	GBTC	3.32%
10.0	GNRC	3.75%	IRM	3.11%
10.0	SBNY	3.68%	ELAN	3.04%
10.0	WDC	3.64%	CPRT	3.0%
10.0	B	3.54%	AMGN	2.89%
10.0	VZ	3.32%	DHI	2.89%
10.0	CMA	3.32%	SLV	2.68%
10.0	TEVA	3.22%	WYNN	2.68%
10.0	EXPE	3.11%	CMG	2.57%
10.0	AMC	3.0%	POST	2.57%
10.0	XOM	3.0%	WDC	2.57%
10.0	KALU	3.0%	PWR	2.57%
10.0	CAH	2.89%	AMD	2.47%
10.0	SLV	2.79%	GILD	2.47%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	MSTR	12.8%	VST	9.76%
21.0	SIVBQ	9.63%	NVDA	9.22%
21.0	CHTR	8.68%	MSTR	6.4%
21.0	VST	8.24%	TEVA	5.97%
21.0	AVGO	7.81%	ORCL	5.97%
21.0	GWW	7.81%	GE	5.75%
21.0	META	6.29%	LLY	5.31%
21.0	GME	5.97%	CAH	5.1%
21.0	GILD	5.42%	AVGO	4.88%
21.0	B	5.21%	GBTC	4.88%
21.0	GNRC	4.99%	TSLA	4.88%
21.0	ISRG	4.77%	TRGP	4.77%
21.0	ORCL	4.56%	ETRN	4.55%
21.0	TRGP	4.23%	GWW	4.45%
21.0	TEVA	3.8%	GILD	4.45%
21.0	WFC	3.8%	X	4.35%
21.0	SLV	3.58%	MOS	4.34%
21.0	NVDA	3.58%	MU	4.12%
21.0	KALU	3.58%	MUB	4.02%
21.0	GOOGL	2.93%	TMUS	4.01%
21.0	CAH	2.93%	AMGN	4.01%
21.0	MU	2.82%	DHI	3.9%
21.0	GS	2.82%	B	3.9%
21.0	NEM	2.71%	GLD	3.8%
21.0	WDC	2.71%	WYNN	3.58%
21.0	TSLA	2.6%	PWR	3.58%
21.0	NFLX	2.49%	WFC	3.58%
21.0	ZTS	2.49%	IRM	3.36%
21.0	AAPL	2.49%	GS	3.25%
21.0	LW	2.39%	THC	3.25%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	AVGO	13.64%	NVDA	18.86%
63.0	VST	11.93%	VST	17.95%
63.0	MSTR	9.09%	MSTR	12.16%
63.0	ORCL	8.3%	GBTC	10.57%
63.0	SIVBQ	7.78%	TRGP	9.43%
63.0	NVDA	6.36%	IRM	8.41%
63.0	GME	6.25%	ORCL	8.3%
63.0	IRM	6.14%	GLD	7.84%
63.0	WFC	5.34%	GILD	7.73%
63.0	TRGP	5.0%	LLY	7.73%
63.0	WDC	4.77%	TMUS	7.39%
63.0	META	4.09%	AVGO	6.93%
63.0	TMUS	3.86%	GE	6.7%
63.0	BUD	3.86%	DHI	6.48%
63.0	LW	3.75%	WDC	6.48%
63.0	EXPE	3.3%	MU	6.36%
63.0	CTLT	3.23%	ETRN	5.99%
63.0	NEM	3.18%	CCL	5.57%
63.0	KALU	2.95%	ACGL	5.34%
63.0	TSLA	2.73%	MUB	5.01%
63.0	TEVA	2.61%	MRK	5.0%
63.0	OXY	2.61%	AMD	4.89%
63.0	GILD	2.5%	B	4.89%
63.0	MU	2.39%	PHM	4.89%
63.0	SLV	2.39%	THC	4.55%
63.0	MSI	2.39%	META	4.32%
63.0	WYNN	1.93%	TSLA	3.98%
63.0	GOOGL	1.93%	WFC	3.75%
63.0	GWW	1.82%	MS	3.64%
63.0	ACGL	1.82%	BUD	3.52%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	VST	28.27%	VST	31.46%
126.0	MSTR	18.6%	NVDA	29.38%
126.0	IRM	14.81%	TRGP	20.69%
126.0	TRGP	11.02%	MSTR	16.77%
126.0	AVGO	10.89%	GE	16.4%
126.0	META	9.91%	THC	15.42%
126.0	NVDA	8.94%	GLD	13.83%
126.0	MSI	7.47%	TMUS	13.22%
126.0	WDC	5.75%	IRM	13.1%
126.0	LW	5.75%	LLY	12.73%
126.0	TEVA	5.26%	MU	11.87%
126.0	EXPE	5.26%	GBTC	11.38%
126.0	BUD	4.77%	GILD	11.26%
126.0	NEM	4.28%	ACGL	10.89%
126.0	ACGL	3.18%	ORCL	10.04%
126.0	ORCL	3.06%	AVGO	8.57%
126.0	CAH	2.94%	META	8.45%
126.0	OXY	2.82%	WDC	8.32%
126.0	MU	2.45%	CMG	7.71%
126.0	TDG	2.45%	PHM	6.73%
126.0	TMUS	2.33%	NEM	5.75%
126.0	GILD	2.33%	B	5.26%
126.0	GOOGL	2.2%	X	5.26%
126.0	B	1.96%	CAH	4.77%
126.0	GLD	1.71%	MSI	4.65%
126.0	THC	1.71%	PWR	4.41%
126.0	GME	1.59%	GOOGL	4.28%
126.0	BALL	1.35%	AMD	4.28%
126.0	VFC	1.35%	TEVA	4.16%
126.0	ETRN	1.02%	COST	4.16%

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 2025-10-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
252.0	VST	46.45%	VST	59.33%
252.0	MSTR	40.38%	NVDA	57.02%
252.0	NVDA	38.21%	AVGO	51.52%
252.0	AVGO	29.81%	MSTR	40.52%
252.0	IRM	22.0%	GLD	37.34%
252.0	LLY	14.33%	GE	36.32%
252.0	GWW	8.54%	LLY	35.75%
252.0	TEVA	8.54%	GBTC	29.81%
252.0	TRGP	7.67%	PHM	26.77%
252.0	MSI	7.67%	TRGP	24.89%
252.0	META	6.8%	TMUS	20.98%
252.0	GLD	6.51%	COST	18.96%
252.0	LW	4.49%	GS	18.81%
252.0	ORCL	2.75%	IRM	18.81%
252.0	WFC	2.46%	META	18.67%
252.0	TMUS	2.17%	ACGL	17.51%
252.0	THC	2.17%	NFLX	16.64%
252.0	GILD	1.74%	CAH	15.48%
252.0	GOOGL	1.74%	MSI	14.76%
252.0	ORLY	1.74%	JPM	13.75%
252.0	GE	1.3%	TEVA	13.75%
252.0	EXPE	1.3%	THC	13.46%
252.0	TDG	1.3%	T	11.58%
252.0	JPM	1.16%	ORCL	10.27%
252.0	GNRC	0.87%	HSBC	9.12%
252.0	NEM	0.87%	PWR	8.1%
252.0	NFLX	0.72%	GILD	7.38%
252.0	CAH	0.58%	ETRN	7.18%
252.0	CMG	0.58%	MS	6.51%
252.0	GBTC	0.29%	TDG	6.08%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	23.81%	LUMN	23.81%
1.0	GLD	23.81%	AMD	19.05%
1.0	AA	9.52%	NEM	14.29%
1.0	GILD	9.52%	WDC	14.29%
1.0	AMZN	9.52%	AA	9.52%
1.0	BAC	4.76%	B	9.52%
1.0	WFC	4.76%	PEP	9.52%
1.0	QCOM	4.76%	KALU	9.52%
1.0	KALU	4.76%	SLV	9.52%
1.0	HON	4.76%	CLF	9.52%
1.0	GWW	4.76%	GLD	4.76%
1.0	CMA	4.76%	HSBC	4.76%
1.0	CLF	4.76%	GSK	4.76%
1.0	CAH	4.76%	GILD	4.76%
1.0	BBY	4.76%	HCA	4.76%
1.0	ISRG	4.76%	CYH	4.76%
1.0	ZTS	4.76%	HLT	4.76%
1.0	NEM	0.0%	HON	4.76%
1.0	PRGO	0.0%	CSTM	4.76%
1.0	POST	0.0%	GS	4.76%
1.0	PHM	0.0%	MS	4.76%
1.0	PEP	0.0%	LVS	4.76%
1.0	PCG	0.0%	CNC	4.76%
1.0	OXY	0.0%	ON	4.76%
1.0	ORLY	0.0%	PWR	4.76%
1.0	ORCL	0.0%	QCOM	4.76%
1.0	ON	0.0%	RIO	4.76%
1.0	NWL	0.0%	SNY	4.76%
1.0	NVS	0.0%	WFC	4.76%
1.0	NVDA	0.0%	WYNN	4.76%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	ISRG	66.67%	ISRG	66.67%
10.0	KALU	50.0%	LVS	50.0%
10.0	HCA	41.67%	LUMN	41.67%
10.0	GLD	25.0%	CYH	33.33%
10.0	CAH	16.67%	GLD	25.0%
10.0	WDC	16.67%	AMD	16.67%
10.0	AMZN	16.67%	CAH	16.67%
10.0	VFC	8.33%	KALU	16.67%
10.0	GILD	8.33%	WDC	16.67%
10.0	NEM	8.33%	CLF	8.33%
10.0	SLV	8.33%	AMZN	8.33%
10.0	MU	8.33%	PEP	8.33%
10.0	THC	8.33%	HCA	8.33%
10.0	NVDA	0.0%	GNRC	8.33%
10.0	NVS	0.0%	SLV	8.33%
10.0	NWL	0.0%	MU	8.33%
10.0	NAVI	0.0%	NEM	8.33%
10.0	MUB	0.0%	NAVI	0.0%
10.0	ON	0.0%	MUB	0.0%
10.0	ORCL	0.0%	VZ	0.0%
10.0	ORLY	0.0%	WYNN	0.0%
10.0	NFLX	0.0%	NVDA	0.0%
10.0	MSI	0.0%	NVS	0.0%
10.0	MSTR	0.0%	NWL	0.0%
10.0	LVS	0.0%	ON	0.0%
10.0	KHC	0.0%	ORCL	0.0%
10.0	LEN	0.0%	NFLX	0.0%
10.0	LLY	0.0%	MSI	0.0%
10.0	LNC	0.0%	MSTR	0.0%
10.0	LQD	0.0%	OXY	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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	12.7%	LUMN	9.52%
1.0	PCG	9.52%	WDC	9.52%
1.0	TSLA	7.94%	B	7.94%
1.0	GLD	7.94%	AMD	6.35%
1.0	NWL	6.35%	NEM	6.35%
1.0	AMZN	6.35%	BHC	4.76%
1.0	GILD	4.76%	INTC	4.76%
1.0	AA	3.17%	AVGO	4.76%
1.0	BAC	3.17%	GSK	4.76%
1.0	UNH	3.17%	ABBV	4.76%
1.0	GWW	3.17%	BIIB	4.76%
1.0	ELAN	3.17%	SLV	3.23%
1.0	ZTS	3.17%	MU	3.17%
1.0	ISRG	1.59%	MRK	3.17%
1.0	CMCSA	1.59%	LEN	3.17%
1.0	SNY	1.59%	KALU	3.17%
1.0	QCOM	1.59%	CLF	3.17%
1.0	GOOGL	1.59%	GOOGL	3.17%
1.0	POST	1.59%	PEP	3.17%
1.0	GSK	1.59%	PHM	3.17%
1.0	AMC	1.59%	CSTM	3.17%
1.0	HD	1.59%	CAH	3.17%
1.0	HON	1.59%	AA	3.17%
1.0	ORCL	1.59%	BMY	3.17%
1.0	INTC	1.59%	SNY	3.17%
1.0	IRM	1.59%	UNH	3.17%
1.0	NVS	1.59%	AZN	3.17%
1.0	KALU	1.59%	GILD	3.17%
1.0	B	1.59%	AMAT	3.17%
1.0	MU	1.59%	AAPL	3.17%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	WDC	37.04%	B	24.07%
10.0	INTC	29.63%	MU	22.22%
10.0	NVS	22.22%	ORCL	18.52%
10.0	GOOGL	18.52%	GOOGL	18.52%
10.0	MU	18.52%	AMD	18.52%
10.0	ISRG	14.81%	INTC	16.67%
10.0	GLD	12.96%	WDC	16.67%
10.0	KALU	11.11%	ISRG	14.81%
10.0	HCA	11.11%	SLV	13.21%
10.0	SLV	7.55%	AZN	12.96%
10.0	AMZN	5.56%	LVS	11.11%
10.0	AZN	5.56%	GLD	9.26%
10.0	CMA	5.56%	CMA	9.26%
10.0	ELAN	5.56%	BHC	9.26%
10.0	TSLA	5.56%	LUMN	9.26%
10.0	CAH	3.7%	AMAT	9.26%
10.0	BXP	3.7%	CYH	7.41%
10.0	GILD	1.85%	ELAN	5.56%
10.0	ORCL	1.85%	CAH	3.7%
10.0	GSK	1.85%	AVGO	3.7%
10.0	NEM	1.85%	MUB	3.7%
10.0	THC	1.85%	KALU	3.7%
10.0	FCX	1.85%	NVS	1.85%
10.0	ABBV	1.85%	HCA	1.85%
10.0	VFC	1.85%	CLF	1.85%
10.0	B	1.85%	AMZN	1.85%
10.0	PCG	0.0%	GSK	1.85%
10.0	META	0.0%	UNH	1.85%
10.0	OXY	0.0%	NEM	1.85%
10.0	ORLY	0.0%	LLY	1.85%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	GOOGL	48.84%	B	60.47%
21.0	SLV	45.24%	WDC	46.51%
21.0	INTC	41.86%	AMD	46.51%
21.0	WDC	37.21%	MU	41.86%
21.0	MU	32.56%	SLV	40.48%
21.0	B	23.26%	INTC	34.88%
21.0	KALU	11.63%	GLD	25.58%
21.0	NVS	9.3%	ORCL	20.93%
21.0	GLD	9.3%	AMAT	18.6%
21.0	ISRG	9.3%	GOOGL	16.28%
21.0	SNY	2.33%	LUMN	11.63%
21.0	GILD	2.33%	ISRG	9.3%
21.0	ELAN	2.33%	UNH	4.65%
21.0	NWL	0.0%	CAH	4.65%
21.0	NFLX	0.0%	NVS	2.33%
21.0	ON	0.0%	ELAN	2.33%
21.0	ORCL	0.0%	CLF	2.33%
21.0	NEM	0.0%	KALU	2.33%
21.0	NAVI	0.0%	NEM	2.33%
21.0	MUB	0.0%	ON	0.0%
21.0	NVDA	0.0%	NAVI	0.0%
21.0	MSI	0.0%	ORLY	0.0%
21.0	MSTR	0.0%	OXY	0.0%
21.0	LVS	0.0%	NVDA	0.0%
21.0	KHC	0.0%	NFLX	0.0%
21.0	LEN	0.0%	PCG	0.0%
21.0	LLY	0.0%	NWL	0.0%
21.0	LNC	0.0%	MSI	0.0%
21.0	LQD	0.0%	MUB	0.0%
21.0	LUMN	0.0%	MSTR	0.0%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	TSLA	8.43%	WDC	4.02%
1.0	AVGO	7.23%	B	3.61%
1.0	GILD	6.02%	X	3.25%
1.0	VST	5.62%	UNH	3.21%
1.0	WDC	4.42%	GLD	3.21%
1.0	VZ	3.61%	VST	3.21%
1.0	UNH	3.61%	MSTR	3.21%
1.0	HLT	3.61%	AVGO	3.21%
1.0	MSTR	3.61%	NEM	3.21%
1.0	BAC	3.21%	LVS	2.81%
1.0	CMA	3.21%	JAZZ	2.81%
1.0	ZTS	3.21%	ORCL	2.81%
1.0	PCG	2.81%	HSBC	2.81%
1.0	AMZN	2.81%	HON	2.81%
1.0	B	2.81%	LUMN	2.81%
1.0	AAP	2.81%	CLF	2.81%
1.0	GLD	2.81%	CCL	2.81%
1.0	SLV	2.42%	HLT	2.81%
1.0	NEM	2.41%	WYNN	2.81%
1.0	AMC	2.41%	GT	2.81%
1.0	SBUX	2.01%	GSK	2.81%
1.0	MU	2.01%	PHM	2.81%
1.0	JPM	2.01%	PEP	2.41%
1.0	HON	2.01%	INTC	2.41%
1.0	GNRC	2.01%	ORLY	2.41%
1.0	NVS	2.01%	TRGP	2.41%
1.0	AA	2.01%	GOOGL	2.41%
1.0	BUD	2.01%	AAPL	2.41%
1.0	NAVI	1.61%	NVS	2.41%
1.0	GS	1.61%	AMD	2.41%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	TSLA	11.67%	ORCL	9.17%
10.0	AVGO	11.67%	NFLX	7.5%
10.0	WDC	10.83%	X	6.9%
10.0	GILD	10.42%	ELAN	6.67%
10.0	INTC	9.17%	GOOGL	6.25%
10.0	VST	8.33%	TMUS	5.83%
10.0	AAP	7.92%	B	5.83%
10.0	KALU	7.92%	TRGP	5.83%
10.0	ELAN	7.08%	WYNN	5.42%
10.0	HCA	6.67%	ISRG	5.42%
10.0	CMA	6.67%	GNRC	5.42%
10.0	NVS	6.25%	AAP	5.42%
10.0	VZ	6.25%	AVGO	5.0%
10.0	GOOGL	5.83%	BUD	5.0%
10.0	TXN	5.42%	INTC	5.0%
10.0	MU	5.42%	MU	5.0%
10.0	GNRC	4.58%	CPRT	5.0%
10.0	NEM	4.58%	GLD	4.58%
10.0	EXPE	4.58%	POST	4.17%
10.0	ISRG	4.17%	MSFT	4.17%
10.0	HON	4.17%	HSBC	4.17%
10.0	MSTR	4.17%	TEVA	4.17%
10.0	META	4.17%	AMD	4.17%
10.0	BUD	3.75%	GILD	3.75%
10.0	GLD	3.75%	HLT	3.75%
10.0	CHTR	3.75%	WDC	3.75%
10.0	SLV	3.35%	CCL	3.33%
10.0	ABBV	2.92%	LVS	3.33%
10.0	WFC	2.5%	TSLA	3.33%
10.0	AMZN	2.5%	EXPE	3.33%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	AVGO	15.72%	B	14.41%
21.0	GILD	12.66%	ORCL	13.1%
21.0	MU	11.35%	GLD	9.17%
21.0	WDC	10.04%	AMD	9.17%
21.0	SLV	9.21%	TEVA	8.73%
21.0	GOOGL	9.17%	GILD	8.73%
21.0	TXN	8.3%	WDC	8.73%
21.0	KALU	7.86%	AVGO	7.86%
21.0	INTC	7.86%	TMUS	7.86%
21.0	AAP	6.99%	BUD	7.86%
21.0	GNRC	6.55%	MU	7.86%
21.0	CHTR	6.55%	SLV	7.46%
21.0	TSLA	5.68%	NFLX	7.42%
21.0	B	5.24%	GNRC	7.42%
21.0	VZ	5.24%	INTC	6.55%
21.0	NEM	4.8%	WYNN	6.55%
21.0	WFC	4.37%	MSFT	6.11%
21.0	MSTR	4.37%	AAP	5.68%
21.0	META	3.93%	MOS	5.24%
21.0	ZTS	3.93%	T	5.24%
21.0	ELAN	3.93%	ELAN	4.8%
21.0	KEY	3.49%	COST	4.8%
21.0	BUD	3.49%	HLT	4.8%
21.0	HON	3.49%	BA	4.8%
21.0	CMA	3.49%	CAH	4.37%
21.0	ORCL	3.06%	THC	3.93%
21.0	THC	3.06%	PWR	3.93%
21.0	GS	3.06%	HSBC	3.93%
21.0	NVS	2.62%	TRGP	3.93%
21.0	ABBV	2.62%	AMAT	3.49%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	AVGO	34.76%	WDC	25.13%
63.0	ORCL	24.06%	ORCL	24.06%
63.0	WDC	20.86%	B	22.99%
63.0	BUD	18.18%	GLD	22.46%
63.0	NEM	14.97%	NEM	16.58%
63.0	GILD	11.23%	BUD	16.58%
63.0	MU	11.23%	GOOGL	16.04%
63.0	WYNN	9.09%	MSFT	13.9%
63.0	KALU	8.56%	GNRC	12.83%
63.0	SLV	8.02%	AMD	11.76%
63.0	CCL	6.42%	CAH	10.7%
63.0	B	6.42%	CCL	10.16%
63.0	TXN	5.35%	SLV	9.63%
63.0	GNRC	4.81%	PWR	9.09%
63.0	META	4.28%	MU	8.02%
63.0	WFC	3.21%	DHI	7.49%
63.0	CVS	3.21%	AAP	6.95%
63.0	GS	2.67%	HSBC	6.95%
63.0	HON	2.67%	KALU	6.42%
63.0	AAP	2.14%	T	5.88%
63.0	ELAN	1.6%	GS	5.88%
63.0	TSLA	1.6%	CVS	5.88%
63.0	BAC	1.6%	NFLX	5.88%
63.0	GLD	1.6%	WYNN	5.88%
63.0	MSFT	1.07%	BA	5.35%
63.0	GOOGL	1.07%	MOS	4.81%
63.0	VST	1.07%	HLT	4.81%
63.0	AAPL	1.07%	GE	4.28%
63.0	THC	0.53%	INTC	3.74%
63.0	CMA	0.53%	TMUS	3.74%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	WDC	35.48%	GLD	54.84%
126.0	AVGO	34.68%	NEM	35.48%
126.0	BUD	31.45%	ORCL	34.68%
126.0	NEM	28.23%	B	34.68%
126.0	ORCL	17.74%	WDC	33.87%
126.0	MU	16.13%	GOOGL	28.23%
126.0	B	12.9%	ELAN	19.35%
126.0	SLV	6.45%	MU	18.55%
126.0	GILD	5.65%	AMD	16.13%
126.0	ELAN	4.84%	CAH	15.32%
126.0	AMD	4.84%	SLV	14.52%
126.0	GS	4.03%	AVGO	12.1%
126.0	GOOGL	1.61%	BUD	10.48%
126.0	MSTR	1.61%	GE	9.68%
126.0	GLD	0.81%	GS	8.06%
126.0	OXY	0.0%	MSFT	4.84%
126.0	ORLY	0.0%	WYNN	4.84%
126.0	LLY	0.0%	NFLX	4.84%
126.0	NFLX	0.0%	PWR	4.03%
126.0	PCG	0.0%	QQQ	4.03%
126.0	LNC	0.0%	THC	3.23%
126.0	NWL	0.0%	SPY	3.23%
126.0	NVS	0.0%	HSBC	3.23%
126.0	NVDA	0.0%	NVDA	1.61%
126.0	PEP	0.0%	MS	0.81%
126.0	LQD	0.0%	JPM	0.81%
126.0	ON	0.0%	LUMN	0.81%
126.0	META	0.0%	AAPL	0.81%
126.0	LUMN	0.0%	GNRC	0.81%
126.0	LW	0.0%	NVS	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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NVDA	0.59%	MSTR	0.39%
1.0	GBTC	0.48%	NVDA	0.28%
1.0	X	0.45%	VST	0.28%
1.0	AVGO	0.44%	AVGO	0.24%
1.0	VST	0.41%	GBTC	0.2%
1.0	GE	0.4%	PWR	0.18%
1.0	PWR	0.38%	GME	0.18%
1.0	MSTR	0.35%	GE	0.17%
1.0	LLY	0.35%	X	0.17%
1.0	CAH	0.31%	WDC	0.16%
1.0	ORCL	0.3%	ORCL	0.16%
1.0	CCL	0.28%	MU	0.15%
1.0	TSLA	0.28%	LLY	0.15%
1.0	WDC	0.27%	THC	0.15%
1.0	AMD	0.27%	CAH	0.15%
1.0	MU	0.26%	AMD	0.14%
1.0	TDG	0.25%	NFLX	0.14%
1.0	THC	0.24%	TEVA	0.13%
1.0	CDNS	0.24%	TRGP	0.12%
1.0	TRGP	0.23%	META	0.12%
1.0	B	0.22%	ETRN	0.12%
1.0	PHM	0.21%	TSLA	0.12%
1.0	NFLX	0.21%	PHM	0.11%
1.0	ORLY	0.2%	CDNS	0.11%
1.0	JPM	0.2%	CCL	0.1%
1.0	LVS	0.19%	IRM	0.1%
1.0	WYNN	0.19%	GS	0.1%
1.0	AZO	0.18%	GOOGL	0.1%
1.0	HCA	0.18%	SLV	0.1%
1.0	DHI	0.18%	TDG	0.1%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NVDA	6.17%	MSTR	3.99%
10.0	GBTC	4.05%	VST	2.8%
10.0	MSTR	3.97%	NVDA	2.75%
10.0	LLY	3.88%	AVGO	2.29%
10.0	AVGO	3.65%	GBTC	1.93%
10.0	VST	3.48%	PWR	1.77%
10.0	TSLA	3.24%	GE	1.7%
10.0	CCL	3.07%	ORCL	1.59%
10.0	PWR	3.01%	X	1.58%
10.0	GE	2.72%	LLY	1.53%
10.0	WDC	2.23%	GME	1.53%
10.0	PHM	2.21%	NFLX	1.52%
10.0	THC	2.15%	MU	1.51%
10.0	TEVA	2.1%	META	1.51%
10.0	X	2.09%	WDC	1.48%
10.0	AMD	2.05%	THC	1.44%
10.0	MU	2.05%	ETRN	1.41%
10.0	AZO	1.97%	CAH	1.36%
10.0	AMAT	1.93%	AMD	1.33%
10.0	CAH	1.89%	TEVA	1.33%
10.0	DHI	1.83%	TSLA	1.25%
10.0	CDNS	1.68%	TRGP	1.18%
10.0	GS	1.66%	PHM	1.13%
10.0	TDG	1.56%	CDNS	1.1%
10.0	WYNN	1.54%	IRM	1.06%
10.0	ORCL	1.53%	CCL	1.0%
10.0	JPM	1.49%	GS	0.98%
10.0	COST	1.48%	ORLY	0.96%
10.0	GLD	1.46%	SLV	0.94%
10.0	MSFT	1.45%	TDG	0.94%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	NVDA	12.33%	MSTR	9.1%
21.0	MSTR	10.57%	VST	6.15%
21.0	GBTC	9.46%	NVDA	5.94%
21.0	VST	8.81%	AVGO	4.8%
21.0	TSLA	8.04%	GBTC	4.3%
21.0	ETRN	7.53%	PWR	3.75%
21.0	CCL	6.62%	GE	3.69%
21.0	AMD	6.61%	ORCL	3.57%
21.0	AVGO	6.23%	ETRN	3.5%
21.0	PWR	6.07%	NFLX	3.42%
21.0	LLY	5.94%	META	3.37%
21.0	GE	5.74%	LLY	3.2%
21.0	CDNS	4.9%	X	3.17%
21.0	ORCL	4.79%	WDC	3.11%
21.0	PHM	4.64%	THC	2.99%
21.0	AMAT	4.63%	MU	2.91%
21.0	X	4.44%	TEVA	2.9%
21.0	THC	4.17%	TSLA	2.89%
21.0	AZO	4.07%	AMD	2.81%
21.0	CAH	3.92%	CAH	2.8%
21.0	DHI	3.89%	PHM	2.51%
21.0	TEVA	3.78%	TRGP	2.47%
21.0	WDC	3.74%	GME	2.43%
21.0	MU	3.7%	CDNS	2.31%
21.0	LUMN	3.54%	IRM	2.27%
21.0	TMUS	3.23%	CCL	2.25%
21.0	MSFT	3.18%	GS	2.13%
21.0	JPM	3.15%	ORLY	2.07%
21.0	PCG	3.11%	SLV	1.96%
21.0	GS	3.11%	TDG	1.9%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	41.68%	MSTR	27.38%
63.0	NVDA	40.95%	VST	20.27%
63.0	GBTC	38.48%	NVDA	19.98%
63.0	VST	27.73%	AVGO	14.82%
63.0	CCL	22.33%	GBTC	14.68%
63.0	PWR	22.3%	META	12.2%
63.0	GE	21.36%	NFLX	11.98%
63.0	PHM	19.54%	GE	11.66%
63.0	ETRN	18.76%	ORCL	10.91%
63.0	AMD	18.06%	ETRN	10.28%
63.0	LLY	16.84%	PWR	10.23%
63.0	AVGO	16.18%	PHM	9.06%
63.0	NFLX	15.2%	THC	9.01%
63.0	META	13.08%	WDC	8.96%
63.0	THC	12.87%	LLY	8.59%
63.0	TSLA	12.76%	CAH	8.09%
63.0	ORCL	12.75%	CCL	7.94%
63.0	CDNS	12.7%	MU	7.42%
63.0	JPM	12.69%	AMD	7.36%
63.0	CAH	12.01%	TEVA	7.36%
63.0	DHI	11.24%	TRGP	7.22%
63.0	MS	11.13%	DHI	6.9%
63.0	MU	11.03%	CDNS	6.87%
63.0	X	10.99%	GS	6.76%
63.0	B	10.78%	TSLA	6.58%
63.0	ORLY	10.57%	ORLY	6.35%
63.0	TMUS	10.3%	JPM	6.29%
63.0	WDC	10.25%	TDG	6.02%
63.0	GS	9.96%	X	5.91%
63.0	MSFT	9.96%	IRM	5.78%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	NVDA	98.84%	MSTR	67.34%
126.0	GBTC	97.47%	NVDA	49.24%
126.0	MSTR	80.02%	VST	44.1%
126.0	VST	58.91%	GBTC	38.75%
126.0	GE	53.05%	AVGO	31.52%
126.0	NFLX	47.67%	NFLX	29.76%
126.0	PHM	45.12%	META	28.85%
126.0	CCL	44.81%	GE	27.37%
126.0	THC	43.33%	ORCL	21.84%
126.0	PWR	42.66%	THC	21.51%
126.0	ORCL	40.86%	PWR	20.7%
126.0	LLY	38.77%	PHM	19.11%
126.0	AVGO	37.83%	ETRN	18.49%
126.0	AMD	34.72%	LLY	18.19%
126.0	META	33.11%	CAH	17.95%
126.0	MU	32.5%	TRGP	16.82%
126.0	JPM	31.71%	CCL	16.09%
126.0	TSLA	28.06%	TEVA	15.23%
126.0	CAH	27.46%	MU	15.22%
126.0	DHI	27.25%	TDG	15.0%
126.0	MS	27.06%	WDC	14.63%
126.0	X	25.56%	AMD	14.49%
126.0	AMZN	25.1%	JPM	14.11%
126.0	GS	24.85%	GS	13.98%
126.0	ETRN	24.38%	CDNS	13.71%
126.0	AMAT	24.01%	ORLY	13.38%
126.0	ACGL	23.91%	ISRG	13.27%
126.0	TDG	23.61%	DHI	13.15%
126.0	VNO	23.6%	IRM	13.06%
126.0	QQQ	23.07%	GWW	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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	GBTC	258.05%	MSTR	215.16%
252.0	MSTR	238.27%	NVDA	134.21%
252.0	NVDA	229.44%	VST	125.4%
252.0	GE	151.75%	GBTC	115.0%
252.0	VST	139.71%	META	75.98%
252.0	PHM	123.93%	AVGO	75.83%
252.0	CCL	122.18%	NFLX	69.69%
252.0	NFLX	116.1%	GE	61.36%
252.0	META	107.74%	PHM	48.79%
252.0	THC	106.08%	THC	48.22%
252.0	AVGO	100.37%	LLY	45.93%
252.0	TRGP	94.57%	TRGP	45.7%
252.0	ORCL	75.72%	PWR	42.61%
252.0	MU	72.05%	ORCL	42.57%
252.0	LLY	71.4%	CCL	40.52%
252.0	PWR	70.65%	TDG	36.35%
252.0	X	68.34%	ETRN	35.78%
252.0	AMAT	60.59%	ISRG	34.93%
252.0	QQQ	59.67%	TEVA	34.58%
252.0	JPM	59.52%	CAH	34.45%
252.0	VNO	58.94%	JPM	32.46%
252.0	ISRG	57.71%	IRM	31.44%
252.0	MS	56.98%	GWW	30.16%
252.0	TDG	56.15%	GS	29.43%
252.0	CAH	56.13%	DHI	29.41%
252.0	COST	55.93%	CDNS	28.87%
252.0	CDNS	55.91%	MU	28.85%
252.0	GS	55.08%	COST	28.73%
252.0	DHI	53.7%	ACGL	28.45%
252.0	MSFT	52.98%	AMZN	28.11%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	6.75%	LUMN	2.44%
1.0	AMD	5.59%	AMD	2.17%
1.0	CYH	4.14%	CYH	1.4%
1.0	CAH	2.81%	MU	0.99%
1.0	MU	1.64%	ISRG	0.95%
1.0	LVS	1.42%	CAH	0.94%
1.0	AVGO	1.42%	WDC	0.75%
1.0	GOOGL	1.24%	KALU	0.74%
1.0	ISRG	1.2%	GOOGL	0.66%
1.0	RIO	1.07%	AMZN	0.48%
1.0	FSUGY	1.07%	CMA	0.48%
1.0	NVDA	1.01%	AVGO	0.47%
1.0	INTC	0.93%	FSUGY	0.46%
1.0	BHC	0.89%	LVS	0.44%
1.0	PWR	0.88%	BHC	0.4%
1.0	KALU	0.83%	GILD	0.39%
1.0	AA	0.79%	WFC	0.39%
1.0	WDC	0.73%	RIO	0.39%
1.0	SLV	0.67%	ELAN	0.39%
1.0	MS	0.66%	QCOM	0.38%
1.0	CMA	0.65%	BBY	0.37%
1.0	GSK	0.65%	HCA	0.37%
1.0	QQQ	0.64%	INTC	0.36%
1.0	CSCO	0.61%	FCX	0.36%
1.0	QCOM	0.58%	NVDA	0.36%
1.0	LLY	0.55%	AA	0.36%
1.0	HCA	0.52%	GSK	0.35%
1.0	ON	0.51%	PWR	0.34%
1.0	BHP	0.5%	CSCO	0.33%
1.0	ELAN	0.49%	BAC	0.29%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	72.05%	LUMN	24.02%
10.0	AMD	30.92%	CYH	20.05%
10.0	CYH	28.18%	AMD	16.19%
10.0	LVS	19.61%	ISRG	15.78%
10.0	MU	15.55%	MU	11.36%
10.0	ISRG	15.04%	KALU	10.35%
10.0	AVGO	13.1%	LVS	9.11%
10.0	CAH	11.79%	BBY	7.37%
10.0	AMAT	11.72%	ELAN	7.12%
10.0	RIO	10.99%	GOOGL	6.59%
10.0	ELAN	8.94%	AA	6.35%
10.0	INTC	8.32%	GNRC	6.17%
10.0	BBY	8.19%	CSTM	6.1%
10.0	CSTM	8.15%	WDC	5.83%
10.0	FSUGY	7.82%	CAH	5.78%
10.0	GNRC	7.62%	HCA	5.7%
10.0	GOOGL	7.32%	FSUGY	5.45%
10.0	PEP	7.18%	QCOM	5.39%
10.0	NVDA	7.03%	INTC	5.16%
10.0	KALU	6.97%	WFC	5.02%
10.0	WFC	6.64%	ON	4.86%
10.0	QCOM	6.56%	VFC	4.59%
10.0	MS	6.3%	RIO	4.57%
10.0	ON	5.85%	AVGO	4.43%
10.0	TSLA	5.73%	AAPL	4.19%
10.0	TDG	5.61%	AMAT	3.92%
10.0	QQQ	5.3%	THC	3.9%
10.0	BAC	5.14%	BAC	3.79%
10.0	AA	4.87%	CVS	3.43%
10.0	WDC	4.55%	MS	3.38%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	5.0%	LUMN	1.73%
1.0	MU	2.17%	INTC	1.23%
1.0	AMD	2.05%	MU	1.21%
1.0	CYH	1.94%	WDC	1.12%
1.0	INTC	1.65%	CYH	0.79%
1.0	B	1.35%	ELAN	0.76%
1.0	AVGO	1.33%	AMD	0.68%
1.0	WDC	1.17%	B	0.66%
1.0	BHC	0.98%	TSLA	0.66%
1.0	ORCL	0.96%	GOOGL	0.6%
1.0	CAH	0.96%	UNH	0.58%
1.0	CNC	0.91%	CNC	0.53%
1.0	AMAT	0.9%	CLF	0.51%
1.0	TEVA	0.88%	AAPL	0.47%
1.0	SLV	0.87%	SLV	0.45%
1.0	CLF	0.85%	TEVA	0.44%
1.0	ELAN	0.83%	AMAT	0.43%
1.0	RIO	0.79%	AA	0.42%
1.0	GOOGL	0.79%	THC	0.41%
1.0	LLY	0.74%	CVS	0.39%
1.0	BIIB	0.74%	KALU	0.39%
1.0	LW	0.74%	HCA	0.38%
1.0	NVDA	0.7%	AVGO	0.38%
1.0	AA	0.7%	BHC	0.38%
1.0	LVS	0.66%	NEM	0.37%
1.0	AAPL	0.66%	BBY	0.37%
1.0	PWR	0.65%	GSK	0.36%
1.0	TSLA	0.64%	QCOM	0.35%
1.0	GSK	0.6%	CAH	0.32%
1.0	NEM	0.59%	CSTM	0.32%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	49.1%	LUMN	16.47%
10.0	AMD	17.91%	INTC	12.71%
10.0	AMAT	14.94%	MU	12.31%
10.0	MU	14.01%	WDC	10.93%
10.0	B	13.1%	AMD	7.84%
10.0	INTC	11.62%	CYH	7.83%
10.0	CYH	11.33%	B	6.67%
10.0	CLF	10.22%	UNH	6.51%
10.0	AVGO	9.81%	TSLA	6.33%
10.0	LLY	8.98%	CLF	6.14%
10.0	WDC	8.48%	ELAN	5.92%
10.0	UNH	8.11%	CNC	5.82%
10.0	ORCL	7.82%	GOOGL	5.52%
10.0	BIIB	7.78%	AMAT	4.89%
10.0	CNC	6.98%	SLV	4.66%
10.0	TEVA	6.89%	AA	4.51%
10.0	TSLA	6.69%	CVS	4.28%
10.0	LW	6.59%	THC	4.27%
10.0	NEM	6.41%	NEM	4.13%
10.0	ELAN	6.3%	VFC	4.04%
10.0	SLV	5.93%	LW	3.88%
10.0	AA	5.86%	JAZZ	3.71%
10.0	GLD	5.33%	LLY	3.68%
10.0	PWR	4.9%	GLD	3.65%
10.0	RIO	4.82%	BBY	3.46%
10.0	CSTM	4.62%	AAPL	3.46%
10.0	MRK	4.4%	KALU	3.45%
10.0	CVS	4.38%	CSTM	3.45%
10.0	GOOGL	4.16%	AVGO	3.45%
10.0	THC	4.05%	HCA	3.37%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	LUMN	100.41%	LUMN	33.51%
21.0	AMD	49.84%	MU	30.55%
21.0	AMAT	37.71%	INTC	29.21%
21.0	MU	33.25%	WDC	27.52%
21.0	WDC	27.35%	AMD	19.42%
21.0	ORCL	27.08%	B	16.5%
21.0	B	26.99%	TSLA	15.41%
21.0	INTC	25.51%	AMAT	15.28%
21.0	UNH	21.55%	CLF	14.73%
21.0	TSLA	20.2%	CNC	14.18%
21.0	CLF	19.63%	SLV	13.69%
21.0	LLY	19.27%	UNH	13.1%
21.0	NEM	17.79%	CYH	12.71%
21.0	CNC	16.92%	GOOGL	12.07%
21.0	CYH	15.98%	NEM	11.45%
21.0	GE	15.87%	ELAN	11.12%
21.0	TEVA	15.01%	AA	9.79%
21.0	BIIB	14.97%	GLD	9.59%
21.0	AA	14.82%	ORCL	9.58%
21.0	AVGO	13.81%	LW	8.57%
21.0	GLD	13.66%	LLY	8.54%
21.0	IRM	13.49%	AVGO	8.14%
21.0	SLV	13.05%	CVS	7.91%
21.0	ELAN	12.95%	THC	7.91%
21.0	LW	11.86%	JAZZ	7.41%
21.0	PWR	10.07%	AAPL	6.89%
21.0	CVS	9.81%	TEVA	6.58%
21.0	CAH	9.61%	IRM	6.57%
21.0	GOOGL	9.09%	PWR	6.55%
21.0	AAPL	9.04%	GSK	6.48%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	0.81%	WDC	0.4%
1.0	AMD	0.71%	MU	0.4%
1.0	AVGO	0.68%	AVGO	0.38%
1.0	MU	0.63%	TSLA	0.33%
1.0	X	0.59%	AMD	0.3%
1.0	CLF	0.56%	INTC	0.29%
1.0	ORCL	0.56%	X	0.29%
1.0	B	0.56%	VST	0.28%
1.0	WDC	0.53%	ELAN	0.28%
1.0	NVDA	0.52%	NEM	0.26%
1.0	GE	0.51%	LUMN	0.26%
1.0	AAP	0.5%	GE	0.26%
1.0	NFLX	0.49%	B	0.25%
1.0	GBTC	0.48%	ORCL	0.24%
1.0	CAH	0.46%	GBTC	0.22%
1.0	VST	0.44%	GOOGL	0.22%
1.0	NEM	0.41%	AAP	0.22%
1.0	TSLA	0.39%	MSTR	0.22%
1.0	ELAN	0.39%	CAH	0.21%
1.0	CTLT	0.38%	NVDA	0.21%
1.0	CCL	0.36%	GS	0.19%
1.0	GOOGL	0.36%	PWR	0.19%
1.0	CVS	0.36%	CSTM	0.18%
1.0	JPM	0.36%	HSBC	0.18%
1.0	GLD	0.35%	SLV	0.18%
1.0	JAZZ	0.35%	NFLX	0.18%
1.0	CSTM	0.34%	EXPE	0.16%
1.0	INTC	0.33%	CVS	0.16%
1.0	HCA	0.32%	GLD	0.16%
1.0	HSBC	0.32%	MS	0.16%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	AVGO	6.34%	MU	3.82%
10.0	LUMN	5.3%	WDC	3.73%
10.0	WDC	4.86%	AVGO	3.6%
10.0	B	4.61%	NEM	2.99%
10.0	AMD	4.49%	AMD	2.95%
10.0	X	4.34%	INTC	2.74%
10.0	CSTM	4.13%	B	2.69%
10.0	NEM	3.95%	X	2.64%
10.0	GE	3.56%	TSLA	2.56%
10.0	NVDA	3.53%	ELAN	2.53%
10.0	MU	3.5%	GE	2.46%
10.0	CTLT	3.39%	AAP	2.29%
10.0	WYNN	3.27%	ORCL	2.26%
10.0	GLD	3.06%	VST	2.24%
10.0	GBTC	2.96%	CSTM	1.96%
10.0	CLF	2.93%	GOOGL	1.89%
10.0	BA	2.91%	SLV	1.89%
10.0	MOS	2.83%	CVS	1.89%
10.0	AAP	2.57%	BA	1.87%
10.0	AMAT	2.52%	GLD	1.82%
10.0	CCL	2.48%	HSBC	1.78%
10.0	ORCL	2.45%	NFLX	1.72%
10.0	NFLX	2.38%	WYNN	1.7%
10.0	VST	2.37%	GBTC	1.7%
10.0	CVS	2.36%	CTLT	1.69%
10.0	GS	2.35%	PWR	1.6%
10.0	INTC	2.27%	NVDA	1.53%
10.0	GOOGL	2.17%	CAH	1.51%
10.0	ELAN	2.17%	GS	1.5%
10.0	LVS	2.14%	THC	1.31%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	AMD	12.08%	MU	8.18%
21.0	AVGO	10.66%	WDC	8.12%
21.0	LUMN	10.58%	AVGO	8.07%
21.0	B	10.54%	NEM	7.06%
21.0	NEM	8.59%	B	6.43%
21.0	ORCL	8.01%	AMD	6.28%
21.0	MOS	7.69%	INTC	5.46%
21.0	GE	7.22%	ELAN	5.44%
21.0	WDC	7.21%	GE	5.34%
21.0	CTLT	7.01%	ORCL	5.23%
21.0	CLF	6.9%	X	5.04%
21.0	MU	6.76%	TSLA	4.76%
21.0	NVDA	6.76%	AAP	4.6%
21.0	VST	6.74%	SLV	4.57%
21.0	GOOGL	6.53%	VST	4.3%
21.0	GLD	6.18%	CTLT	4.27%
21.0	CSTM	6.11%	GLD	4.09%
21.0	WYNN	6.03%	GOOGL	4.02%
21.0	ELAN	6.03%	BA	3.97%
21.0	BA	5.95%	CVS	3.89%
21.0	AMAT	5.42%	CSTM	3.86%
21.0	X	5.22%	HSBC	3.83%
21.0	NFLX	4.7%	NFLX	3.55%
21.0	INTC	4.37%	WYNN	3.37%
21.0	AAP	4.36%	NVDA	3.25%
21.0	AZN	4.3%	PWR	3.21%
21.0	HSBC	4.26%	THC	3.18%
21.0	TEVA	4.21%	GS	3.07%
21.0	LVS	4.19%	GBTC	2.94%
21.0	GBTC	4.15%	AMAT	2.91%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	B	49.49%	WDC	27.1%
63.0	AMD	37.86%	NEM	25.41%
63.0	WDC	31.25%	B	22.68%
63.0	NEM	30.5%	AVGO	21.62%
63.0	GE	30.14%	MU	20.9%
63.0	MOS	27.78%	ORCL	20.43%
63.0	ELAN	26.51%	ELAN	19.34%
63.0	NVDA	25.55%	GE	18.03%
63.0	X	24.76%	AMD	17.98%
63.0	HSBC	21.31%	X	16.98%
63.0	MU	21.19%	AAP	15.82%
63.0	ORCL	20.68%	VST	13.83%
63.0	INTC	20.28%	CVS	13.62%
63.0	LNC	19.82%	INTC	13.62%
63.0	NFLX	19.61%	NVDA	12.91%
63.0	LUMN	19.04%	SLV	12.86%
63.0	CSTM	18.98%	CSTM	12.79%
63.0	GLD	18.79%	WYNN	12.63%
63.0	ORLY	18.63%	THC	12.13%
63.0	VST	18.21%	HSBC	11.92%
63.0	AVGO	17.98%	BA	11.92%
63.0	BA	17.96%	GLD	11.81%
63.0	GOOGL	17.95%	NFLX	11.58%
63.0	T	17.8%	GS	10.26%
63.0	LVS	16.92%	GOOGL	10.19%
63.0	JPM	16.85%	PWR	9.88%
63.0	AAP	16.25%	CCL	9.77%
63.0	CVS	14.97%	HCA	9.13%
63.0	PWR	14.75%	MOS	9.06%
63.0	MS	14.03%	CAH	8.93%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	AMD	105.92%	WDC	66.58%
126.0	ORCL	102.98%	NEM	52.95%
126.0	MOS	88.51%	AVGO	52.36%
126.0	CSTM	77.38%	MU	51.61%
126.0	GE	73.21%	ELAN	50.76%
126.0	THC	71.47%	ORCL	50.16%
126.0	PWR	70.96%	AMD	47.15%
126.0	ELAN	69.43%	GE	42.96%
126.0	B	68.27%	B	41.04%
126.0	NVDA	67.39%	VST	36.38%
126.0	BA	64.55%	CSTM	35.14%
126.0	MU	64.26%	AAP	34.34%
126.0	WDC	61.94%	NVDA	33.87%
126.0	NFLX	60.33%	THC	33.61%
126.0	VST	58.72%	PWR	31.11%
126.0	NEM	56.25%	BA	31.02%
126.0	HSBC	55.39%	NFLX	30.36%
126.0	JPM	50.81%	MOS	29.5%
126.0	MS	47.93%	WYNN	28.98%
126.0	X	46.1%	SLV	25.87%
126.0	AVGO	41.65%	X	25.82%
126.0	INTU	41.31%	CAH	24.0%
126.0	GBTC	39.86%	CCL	23.61%
126.0	CAH	38.71%	GS	23.55%
126.0	MSFT	37.57%	HSBC	23.4%
126.0	GS	35.81%	GLD	23.26%
126.0	GLD	35.11%	MSFT	22.21%
126.0	SLV	35.06%	GBTC	21.72%
126.0	WYNN	34.42%	HCA	20.71%
126.0	AAP	34.39%	INTC	20.26%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	SIVBQ	-0.91%	SIVBQ	-0.78%
1.0	NWL	-0.45%	SBNY	-0.45%
1.0	IEP	-0.45%	FRCB	-0.23%
1.0	SBNY	-0.39%	IEP	-0.16%
1.0	CZR	-0.22%	AMC	-0.14%
1.0	UAA	-0.21%	NWL	-0.14%
1.0	GT	-0.2%	AAP	-0.11%
1.0	FRCB	-0.19%	VFC	-0.1%
1.0	FIS	-0.13%	UAA	-0.09%
1.0	BALL	-0.12%	CZR	-0.08%
1.0	AMC	-0.12%	CHTR	-0.07%
1.0	CHTR	-0.11%	GT	-0.06%
1.0	BXP	-0.11%	BALL	-0.06%
1.0	BIIB	-0.1%	CNC	-0.05%
1.0	AAP	-0.1%	CMCSA	-0.05%
1.0	GNRC	-0.09%	FIS	-0.04%
1.0	ZTS	-0.08%	PRGO	-0.04%
1.0	KHC	-0.08%	BHC	-0.04%
1.0	CTLT	-0.07%	TLT	-0.04%
1.0	VZ	-0.07%	KHC	-0.03%
1.0	TLT	-0.07%	BXP	-0.02%
1.0	CMCSA	-0.06%	BMY	-0.02%
1.0	CNC	-0.06%	VZ	-0.02%
1.0	INTC	-0.04%	ADBE	-0.02%
1.0	PEP	-0.04%	ZTS	-0.02%
1.0	NAVI	-0.04%	BIIB	-0.02%
1.0	ADBE	-0.04%	CTLT	-0.01%
1.0	USB	-0.03%	CVS	-0.01%
1.0	UNH	-0.03%	NAVI	-0.01%
1.0	PRGO	-0.03%	TFC	-0.01%

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 2025-10-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	SIVBQ	-5.34%	SBNY	-4.05%
10.0	SBNY	-3.67%	SIVBQ	-3.9%
10.0	IEP	-3.51%	FRCB	-2.19%
10.0	NWL	-2.73%	IEP	-1.52%
10.0	CZR	-2.35%	AMC	-1.51%
10.0	AMC	-1.7%	NWL	-1.14%
10.0	FRCB	-1.67%	UAA	-1.02%
10.0	GT	-1.64%	VFC	-0.99%
10.0	CNC	-1.23%	CZR	-0.96%
10.0	UAA	-1.18%	AAP	-0.91%
10.0	AAP	-1.12%	CHTR	-0.64%
10.0	VFC	-1.12%	GT	-0.63%
10.0	CYH	-1.02%	CNC	-0.61%
10.0	VZ	-0.8%	BALL	-0.52%
10.0	BXP	-0.78%	CMCSA	-0.45%
10.0	BALL	-0.73%	BHC	-0.42%
10.0	FIS	-0.66%	TLT	-0.41%
10.0	PRGO	-0.54%	PRGO	-0.39%
10.0	GNRC	-0.52%	FIS	-0.38%
10.0	CHTR	-0.5%	BMY	-0.32%
10.0	BIIB	-0.49%	BXP	-0.28%
10.0	ZTS	-0.48%	KHC	-0.27%
10.0	KHC	-0.43%	BIIB	-0.26%
10.0	OXY	-0.4%	ZION	-0.24%
10.0	RIO	-0.37%	VZ	-0.23%
10.0	BMY	-0.36%	LNC	-0.22%
10.0	INTU	-0.34%	ZTS	-0.22%
10.0	HD	-0.32%	NAVI	-0.2%
10.0	TLT	-0.26%	TFC	-0.18%
10.0	CMCSA	-0.24%	ADBE	-0.14%

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 2025-10-30

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	-6.65%	FRCB	-6.02%
21.0	NWL	-5.22%	AMC	-3.59%
21.0	CZR	-4.67%	IEP	-3.28%
21.0	FRCB	-4.48%	NWL	-2.48%
21.0	GT	-3.26%	VFC	-2.17%
21.0	VFC	-2.8%	CZR	-2.01%
21.0	AAP	-2.45%	UAA	-1.98%
21.0	UAA	-2.27%	AAP	-1.85%
21.0	BALL	-2.01%	CHTR	-1.24%
21.0	AMC	-1.77%	GT	-1.24%
21.0	GNRC	-1.69%	CNC	-1.17%
21.0	CNC	-1.5%	BHC	-1.16%
21.0	BXP	-1.34%	BALL	-1.1%
21.0	KEY	-1.33%	CMCSA	-0.87%
21.0	VZ	-1.24%	TLT	-0.86%
21.0	CHTR	-1.22%	PRGO	-0.85%
21.0	BBY	-1.07%	BMY	-0.72%
21.0	PRGO	-1.06%	KHC	-0.66%
21.0	FIS	-1.02%	BXP	-0.64%
21.0	ADBE	-1.0%	FIS	-0.63%
21.0	KHC	-0.98%	LNC	-0.58%
21.0	TLT	-0.86%	BIIB	-0.49%
21.0	RIO	-0.85%	ZTS	-0.47%
21.0	CYH	-0.73%	NAVI	-0.47%
21.0	BMY	-0.65%	VZ	-0.46%
21.0	INTU	-0.64%	TFC	-0.37%
21.0	ZTS	-0.58%	AA	-0.34%
21.0	FITB	-0.56%	ZION	-0.29%

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 2025-10-30

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	FRCB	-25.04%	FRCB	-24.04%
63.0	IEP	-23.85%	AMC	-14.11%
63.0	NWL	-15.31%	IEP	-10.84%
63.0	UAA	-10.57%	NWL	-7.47%
63.0	VFC	-10.54%	VFC	-6.66%
63.0	AMC	-10.08%	CZR	-6.04%
63.0	GNRC	-8.62%	UAA	-5.5%
63.0	CZR	-8.57%	AAP	-5.33%
63.0	BHC	-8.2%	CNC	-4.96%
63.0	AAP	-7.84%	CHTR	-3.56%
63.0	CLF	-7.83%	AA	-3.28%
63.0	CYH	-6.46%	BHC	-3.27%
63.0	PRGO	-6.29%	BALL	-3.03%
63.0	BALL	-6.11%	PRGO	-2.95%
63.0	AA	-6.0%	MOS	-2.83%
63.0	GT	-5.19%	TLT	-2.5%
63.0	CVS	-4.71%	GT	-2.49%
63.0	CNC	-4.32%	BMY	-2.43%
63.0	KHC	-3.74%	KHC	-2.36%
63.0	CHTR	-3.39%	BXP	-2.26%
63.0	BBY	-3.31%	CMCSA	-2.16%
63.0	TLT	-3.26%	CLF	-2.08%
63.0	KEY	-3.15%	BIIB	-1.78%
63.0	FIS	-3.15%	UNH	-1.76%
63.0	BMY	-2.98%	FIS	-1.69%
63.0	VZ	-2.94%	LNC	-1.56%
63.0	INTC	-2.46%	NAVI	-1.4%
63.0	ZTS	-2.42%	CVS	-1.39%

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 2025-10-30

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	-46.43%	AMC	-27.08%
126.0	NWL	-38.73%	IEP	-21.19%
126.0	VFC	-31.74%	NWL	-16.38%
126.0	AMC	-27.53%	VFC	-13.89%
126.0	CLF	-19.94%	AAP	-12.75%
126.0	UAA	-19.28%	CZR	-9.58%
126.0	AAP	-17.53%	CNC	-9.48%
126.0	CNC	-15.55%	UAA	-8.06%
126.0	BHC	-15.53%	CLF	-7.28%
126.0	GNRC	-14.3%	AA	-6.78%
126.0	CZR	-13.51%	BHC	-6.29%
126.0	CTLT	-11.71%	PRGO	-5.95%
126.0	INTC	-11.67%	CTLT	-5.69%
126.0	BALL	-11.4%	MOS	-5.66%
126.0	PRGO	-11.33%	BMY	-5.51%
126.0	AA	-10.47%	KHC	-5.11%
126.0	CHTR	-10.12%	TLT	-4.82%
126.0	UNH	-8.51%	UNH	-4.79%
126.0	CVS	-8.01%	CHTR	-4.49%
126.0	TLT	-7.44%	BXP	-4.3%
126.0	KHC	-7.31%	BALL	-4.25%
126.0	BMY	-6.53%	BIIB	-4.22%
126.0	GT	-5.87%	CVS	-4.08%
126.0	OXY	-5.38%	GT	-3.34%
126.0	MOS	-4.8%	LNC	-3.32%
126.0	BBY	-4.66%	INTC	-3.26%
126.0	JAZZ	-4.65%	CMCSA	-3.16%

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 2025-10-30

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	-99.51%	AMC	-54.63%
252.0	NWL	-74.16%	IEP	-44.22%
252.0	AMC	-60.57%	AAP	-34.02%
252.0	AAP	-55.49%	NWL	-28.0%
252.0	CLF	-46.19%	VFC	-23.4%
252.0	VFC	-41.86%	CLF	-16.68%
252.0	CZR	-34.84%	MOS	-16.46%
252.0	MOS	-33.34%	CZR	-16.29%
252.0	UAA	-27.07%	CNC	-15.5%
252.0	BHC	-23.16%	UAA	-13.87%
252.0	GT	-23.13%	CVS	-13.05%
252.0	PRGO	-22.28%	PRGO	-12.76%
252.0	CNC	-21.22%	BIIB	-12.63%
252.0	CVS	-21.07%	AA	-11.25%
252.0	CTLT	-19.6%	BMY	-10.5%
252.0	BIIB	-19.53%	KHC	-9.77%
252.0	OXY	-18.99%	OXY	-8.68%
252.0	GNRC	-18.82%	TLT	-8.37%
252.0	KHC	-17.21%	BHC	-8.29%
252.0	INTC	-16.52%	GT	-7.3%
252.0	TLT	-14.26%	CYH	-6.93%
252.0	BMY	-13.5%	JAZZ	-6.88%
252.0	AA	-12.84%	INTC	-6.65%
252.0	BALL	-12.17%	CTLT	-6.24%
252.0	CHTR	-11.87%	CHTR	-5.97%
252.0	UNH	-11.79%	UNH	-5.73%
252.0	LNC	-11.6%	BHP	-5.44%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	MOS	-2.74%	NWL	-1.78%
1.0	CZR	-2.42%	CZR	-1.27%
1.0	MSTR	-2.25%	AAP	-1.23%
1.0	NWL	-1.93%	MSTR	-1.19%
1.0	CMG	-1.8%	MOS	-1.09%
1.0	AZO	-1.79%	CMG	-1.04%
1.0	DHI	-1.78%	GME	-0.92%
1.0	CHTR	-1.58%	AMC	-0.9%
1.0	PHM	-1.32%	AZO	-0.69%
1.0	AAP	-1.3%	CHTR	-0.65%
1.0	VICI	-1.24%	DHI	-0.64%
1.0	UAA	-1.23%	TXN	-0.56%
1.0	GT	-1.22%	PHM	-0.54%
1.0	ORLY	-1.21%	META	-0.5%
1.0	ORCL	-1.14%	WYNN	-0.5%
1.0	AMC	-1.02%	ORLY	-0.5%
1.0	VNO	-0.95%	UAA	-0.46%
1.0	NEM	-0.93%	MSI	-0.44%
1.0	CMCSA	-0.79%	GBTC	-0.44%
1.0	GME	-0.77%	TMUS	-0.42%
1.0	T	-0.76%	VICI	-0.41%
1.0	WYNN	-0.74%	CMCSA	-0.41%
1.0	MSI	-0.71%	GT	-0.41%
1.0	OXY	-0.69%	ORCL	-0.4%
1.0	LEN	-0.64%	VZ	-0.4%
1.0	KEY	-0.63%	T	-0.4%
1.0	ZION	-0.63%	ABBV	-0.38%
1.0	BA	-0.63%	VNO	-0.36%
1.0	BALL	-0.61%	VFC	-0.36%
1.0	GBTC	-0.57%	BA	-0.35%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	MSTR	-21.2%	MSTR	-10.84%
10.0	ORCL	-16.8%	MOS	-9.52%
10.0	MOS	-16.19%	CZR	-8.41%
10.0	CZR	-14.21%	CHTR	-8.06%
10.0	ACGL	-12.29%	AMC	-6.11%
10.0	CHTR	-9.93%	GBTC	-5.83%
10.0	AZO	-9.08%	AZO	-5.4%
10.0	OXY	-8.6%	ORCL	-5.36%
10.0	ORLY	-8.26%	CNC	-4.88%
10.0	PHM	-7.61%	VST	-4.72%
10.0	NFLX	-7.59%	ZION	-4.62%
10.0	AMC	-6.83%	ACGL	-4.58%
10.0	CMG	-6.42%	NFLX	-4.51%
10.0	VST	-6.1%	PHM	-4.48%
10.0	B	-5.8%	NWL	-4.39%
10.0	GBTC	-5.62%	GME	-4.37%
10.0	NWL	-5.54%	OXY	-4.36%
10.0	DHI	-5.45%	TXN	-4.09%
10.0	T	-5.37%	ORLY	-4.09%
10.0	MSI	-5.02%	CMCSA	-3.46%
10.0	NEM	-4.95%	NEM	-3.41%
10.0	VICI	-4.86%	VZ	-3.4%
10.0	VNO	-4.76%	CMG	-3.38%
10.0	CNC	-4.62%	MSI	-3.06%
10.0	KEY	-4.55%	B	-3.04%
10.0	ZION	-4.46%	UAA	-2.9%
10.0	CMCSA	-4.19%	TRGP	-2.88%
10.0	TEVA	-3.91%	DHI	-2.83%
10.0	UAA	-3.16%	T	-2.8%
10.0	FITB	-3.04%	VNO	-2.75%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	GT	-1.6%	UAA	-0.56%
1.0	UAA	-1.18%	GT	-0.53%
1.0	MSTR	-1.05%	MSTR	-0.52%
1.0	MOS	-0.94%	NWL	-0.5%
1.0	CMG	-0.81%	CMG	-0.44%
1.0	FIS	-0.78%	PRGO	-0.39%
1.0	CZR	-0.75%	MOS	-0.37%
1.0	PRGO	-0.68%	FIS	-0.35%
1.0	VICI	-0.57%	BALL	-0.31%
1.0	INTU	-0.57%	CZR	-0.31%
1.0	BALL	-0.51%	TDG	-0.3%
1.0	IEP	-0.47%	META	-0.27%
1.0	CMCSA	-0.45%	INTU	-0.24%
1.0	AZO	-0.36%	CMCSA	-0.24%
1.0	CHTR	-0.34%	GNRC	-0.21%
1.0	TMUS	-0.3%	TMUS	-0.21%
1.0	TDG	-0.28%	VICI	-0.19%
1.0	T	-0.27%	TXN	-0.18%
1.0	ORLY	-0.26%	T	-0.17%
1.0	CPRT	-0.25%	CHTR	-0.16%
1.0	NWL	-0.25%	VST	-0.16%
1.0	BA	-0.25%	IEP	-0.16%
1.0	META	-0.24%	SBUX	-0.15%
1.0	NFLX	-0.21%	AAP	-0.15%
1.0	MSI	-0.2%	BA	-0.14%
1.0	OXY	-0.2%	HON	-0.13%
1.0	GNRC	-0.2%	AMC	-0.13%
1.0	HON	-0.19%	AZO	-0.11%
1.0	VZ	-0.19%	VZ	-0.11%
1.0	KHC	-0.18%	MSI	-0.11%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	GT	-12.74%	MSTR	-5.41%
10.0	MSTR	-9.94%	GT	-4.25%
10.0	IEP	-5.21%	UAA	-3.16%
10.0	CZR	-4.7%	CZR	-2.34%
10.0	T	-4.52%	IEP	-2.21%
10.0	BALL	-3.78%	TMUS	-2.01%
10.0	UAA	-3.59%	CMCSA	-1.93%
10.0	KHC	-3.23%	T	-1.87%
10.0	CMG	-3.17%	BALL	-1.86%
10.0	MOS	-3.05%	MOS	-1.84%
10.0	NFLX	-3.02%	TXN	-1.83%
10.0	OXY	-2.99%	PRGO	-1.67%
10.0	TMUS	-2.69%	INTU	-1.65%
10.0	VICI	-2.59%	FIS	-1.57%
10.0	FIS	-2.4%	VZ	-1.56%
10.0	PRGO	-2.37%	KHC	-1.52%
10.0	ORLY	-2.31%	AMC	-1.43%
10.0	CMCSA	-2.29%	CMG	-1.39%
10.0	INTU	-2.05%	VICI	-1.31%
10.0	VZ	-2.04%	TRGP	-1.31%
10.0	BA	-1.96%	SBUX	-1.3%
10.0	AZO	-1.7%	CHTR	-1.26%
10.0	ACGL	-1.58%	TDG	-1.25%
10.0	COST	-1.49%	META	-1.19%
10.0	TRGP	-1.46%	AAP	-1.13%
10.0	CPRT	-1.4%	BA	-1.08%
10.0	CDNS	-1.35%	NFLX	-1.02%
10.0	BMY	-1.32%	FRA	-1.01%
10.0	BHC	-1.28%	CPRT	-1.01%
10.0	CHTR	-1.19%	GBTC	-0.98%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	GT	-28.55%	GT	-9.52%
21.0	MSTR	-17.56%	MSTR	-8.74%
21.0	T	-14.14%	CZR	-5.69%
21.0	BHC	-10.26%	TXN	-5.63%
21.0	TMUS	-9.02%	TMUS	-5.26%
21.0	UAA	-8.65%	CMCSA	-5.23%
21.0	CZR	-8.56%	UAA	-5.02%
21.0	IEP	-7.65%	T	-4.79%
21.0	BALL	-7.28%	BHC	-4.53%
21.0	BA	-7.1%	BALL	-4.51%
21.0	KHC	-6.97%	PRGO	-4.37%
21.0	PRGO	-5.91%	NWL	-4.05%
21.0	CMCSA	-5.71%	KHC	-4.0%
21.0	FIS	-5.15%	VZ	-3.95%
21.0	VZ	-4.93%	SBUX	-3.64%
21.0	CPRT	-4.72%	TDG	-3.61%
21.0	BMY	-4.57%	IEP	-3.43%
21.0	OXY	-4.54%	CPRT	-3.31%
21.0	NFLX	-4.53%	AAP	-3.16%
21.0	VICI	-4.51%	GNRC	-3.12%
21.0	MOS	-4.43%	VICI	-3.07%
21.0	TXN	-4.39%	BA	-3.04%
21.0	CCL	-4.33%	BMY	-3.02%
21.0	TDG	-4.06%	FIS	-2.89%
21.0	CMG	-3.97%	INTU	-2.86%
21.0	COST	-3.52%	MOS	-2.85%
21.0	AAP	-3.35%	TRGP	-2.76%
21.0	CDNS	-3.34%	META	-2.68%
21.0	INTU	-3.18%	CMG	-2.61%
21.0	TRGP	-2.84%	ZTS	-2.57%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NWL	-0.53%	NWL	-0.29%
1.0	IEP	-0.47%	CZR	-0.22%
1.0	UAA	-0.44%	CMG	-0.22%
1.0	CMG	-0.43%	UAA	-0.18%
1.0	CZR	-0.39%	AMC	-0.16%
1.0	FIS	-0.38%	CMCSA	-0.16%
1.0	MSTR	-0.36%	CNC	-0.16%
1.0	CMCSA	-0.35%	UNH	-0.15%
1.0	UNH	-0.32%	IEP	-0.15%
1.0	CNC	-0.3%	CHTR	-0.15%
1.0	PCG	-0.29%	FIS	-0.12%
1.0	KHC	-0.28%	ADBE	-0.12%
1.0	LEN	-0.24%	KHC	-0.11%
1.0	CHTR	-0.23%	LEN	-0.1%
1.0	AMC	-0.2%	ZTS	-0.08%
1.0	OXY	-0.19%	BALL	-0.08%
1.0	ADBE	-0.16%	ON	-0.07%
1.0	BXP	-0.16%	PCG	-0.07%
1.0	ON	-0.14%	BHC	-0.07%
1.0	AMZN	-0.13%	VFC	-0.07%
1.0	BALL	-0.12%	PRGO	-0.07%
1.0	GWW	-0.11%	TXN	-0.06%
1.0	IRM	-0.11%	SBUX	-0.06%
1.0	VZ	-0.11%	CPRT	-0.06%
1.0	BHC	-0.11%	MRK	-0.05%
1.0	ZTS	-0.11%	LW	-0.05%
1.0	MRK	-0.1%	BMY	-0.05%
1.0	BIIB	-0.1%	OXY	-0.05%
1.0	DHI	-0.09%	IRM	-0.04%
1.0	CPRT	-0.09%	PEP	-0.04%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	IEP	-3.99%	UAA	-2.4%
10.0	UAA	-3.99%	CZR	-2.14%
10.0	CNC	-3.71%	NWL	-1.85%
10.0	CZR	-3.2%	CMCSA	-1.61%
10.0	GT	-2.9%	CNC	-1.59%
10.0	CMG	-2.56%	IEP	-1.58%
10.0	FIS	-2.53%	AMC	-1.57%
10.0	NWL	-2.46%	CHTR	-1.54%
10.0	PCG	-2.38%	UNH	-1.47%
10.0	CMCSA	-2.32%	CMG	-1.43%
10.0	OXY	-2.3%	ADBE	-1.31%
10.0	PRGO	-2.14%	FIS	-1.06%
10.0	KHC	-2.03%	LEN	-1.05%
10.0	ON	-2.03%	KHC	-1.02%
10.0	VNO	-1.95%	BMY	-0.9%
10.0	UNH	-1.8%	BALL	-0.77%
10.0	AMC	-1.58%	CPRT	-0.76%
10.0	BHC	-1.55%	PCG	-0.75%
10.0	ADBE	-1.32%	BHC	-0.73%
10.0	CPRT	-1.3%	ON	-0.73%
10.0	BXP	-1.13%	GT	-0.71%
10.0	FITB	-1.1%	GWW	-0.7%
10.0	CHTR	-1.02%	ZTS	-0.69%
10.0	LEN	-0.99%	PRGO	-0.66%
10.0	GWW	-0.87%	TXN	-0.62%
10.0	NAVI	-0.85%	LW	-0.59%
10.0	VFC	-0.78%	OXY	-0.58%
10.0	BMY	-0.77%	TRGP	-0.53%
10.0	BALL	-0.69%	NAVI	-0.52%
10.0	BIIB	-0.69%	ACGL	-0.5%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	UAA	-7.63%	UAA	-5.27%
21.0	IEP	-6.84%	CZR	-4.14%
21.0	PCG	-6.4%	NWL	-4.1%
21.0	CZR	-5.53%	AMC	-3.69%
21.0	NWL	-5.53%	CMCSA	-3.29%
21.0	FIS	-5.44%	UNH	-3.1%
21.0	GT	-5.05%	CMG	-3.08%
21.0	CMG	-4.91%	ADBE	-3.03%
21.0	CMCSA	-4.6%	IEP	-2.96%
21.0	CNC	-4.38%	CHTR	-2.94%
21.0	PRGO	-4.13%	CNC	-2.79%
21.0	ADBE	-4.02%	LEN	-2.44%
21.0	OXY	-3.91%	FIS	-2.18%
21.0	UNH	-3.57%	BMY	-2.17%
21.0	KHC	-3.34%	KHC	-2.04%
21.0	ON	-3.26%	GT	-2.04%
21.0	FITB	-3.25%	CPRT	-2.02%
21.0	BHC	-3.08%	BALL	-1.86%
21.0	CPRT	-2.73%	ON	-1.8%
21.0	LEN	-2.71%	PCG	-1.78%
21.0	AMC	-2.47%	PRGO	-1.75%
21.0	BMY	-2.39%	TRGP	-1.72%
21.0	BBY	-2.26%	GWW	-1.72%
21.0	GME	-2.18%	ZTS	-1.65%
21.0	VNO	-2.07%	BHC	-1.4%
21.0	GWW	-2.06%	OXY	-1.28%
21.0	ISRG	-1.86%	NAVI	-1.28%
21.0	CHTR	-1.8%	LW	-1.25%
21.0	VFC	-1.73%	SBUX	-1.11%
21.0	USB	-1.72%	MRK	-1.07%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	NWL	-28.68%	UAA	-15.83%
63.0	UAA	-24.88%	NWL	-15.74%
63.0	UNH	-19.1%	CNC	-14.87%
63.0	CMG	-17.97%	UNH	-12.74%
63.0	CZR	-17.78%	CMG	-11.39%
63.0	ADBE	-16.78%	CZR	-11.03%
63.0	PCG	-16.36%	AMC	-9.87%
63.0	CNC	-15.61%	ADBE	-9.23%
63.0	VFC	-14.23%	CHTR	-8.74%
63.0	FIS	-13.53%	VFC	-8.38%
63.0	PRGO	-11.94%	BMY	-7.05%
63.0	IEP	-11.56%	CPRT	-7.04%
63.0	CMCSA	-10.88%	CMCSA	-7.03%
63.0	AMC	-10.77%	IEP	-6.31%
63.0	ON	-10.44%	FIS	-5.91%
63.0	CPRT	-9.42%	PCG	-5.86%
63.0	BMY	-9.08%	TRGP	-5.22%
63.0	OXY	-8.43%	MRK	-5.02%
63.0	TRGP	-7.57%	KHC	-4.94%
63.0	KHC	-7.56%	ZTS	-4.73%
63.0	ZION	-7.26%	ISRG	-4.69%
63.0	MRK	-7.16%	PRGO	-4.62%
63.0	ISRG	-6.44%	LW	-4.47%
63.0	GWW	-6.04%	GWW	-4.46%
63.0	BBY	-5.88%	GME	-4.25%
63.0	GT	-5.79%	AA	-3.72%
63.0	VNO	-5.27%	BBY	-3.67%
63.0	FITB	-4.97%	LEN	-3.66%
63.0	CHTR	-4.56%	BALL	-3.56%
63.0	BHC	-4.33%	ON	-3.43%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	UNH	-85.29%	UNH	-39.01%
126.0	CNC	-77.46%	CNC	-34.68%
126.0	NWL	-56.52%	NWL	-27.32%
126.0	VFC	-54.54%	VFC	-25.39%
126.0	UAA	-51.64%	UAA	-23.32%
126.0	PCG	-40.97%	BMY	-17.87%
126.0	ADBE	-37.64%	CZR	-17.86%
126.0	CMG	-30.92%	CMG	-17.24%
126.0	CZR	-29.17%	CPRT	-15.4%
126.0	IEP	-26.21%	ADBE	-14.97%
126.0	AMC	-25.93%	PCG	-14.15%
126.0	CPRT	-24.86%	AMC	-13.88%
126.0	BMY	-23.34%	TRGP	-13.37%
126.0	TRGP	-21.89%	KHC	-11.91%
126.0	BHC	-19.88%	IEP	-11.81%
126.0	OXY	-19.23%	MRK	-11.38%
126.0	MRK	-16.56%	CHTR	-11.32%
126.0	CMCSA	-16.39%	CMCSA	-11.17%
126.0	BBY	-16.36%	SBUX	-9.26%
126.0	LLY	-14.21%	BHC	-9.21%
126.0	KHC	-14.02%	BBY	-8.37%
126.0	FIS	-12.17%	ZTS	-7.6%
126.0	PRGO	-11.45%	LEN	-7.51%
126.0	GWW	-10.57%	AA	-7.23%
126.0	SBUX	-10.34%	LW	-7.16%
126.0	PEP	-9.78%	ISRG	-6.92%
126.0	ISRG	-9.74%	PEP	-6.72%
126.0	ON	-9.49%	OXY	-6.46%
126.0	LW	-9.48%	GME	-6.04%
126.0	ZTS	-9.18%	PRGO	-5.76%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	SBNY	12.59%	SIVBQ	4.32%
1.0	GME	11.04%	GME	4.14%
1.0	MSTR	9.55%	META	2.87%
1.0	CHTR	7.96%	TSLA	2.23%
1.0	SIVBQ	7.91%	HLT	2.23%
1.0	META	7.01%	AVGO	2.02%
1.0	SLV	5.84%	BALL	1.91%
1.0	FRCB	5.76%	FRCB	1.8%
1.0	GNRC	5.73%	AMC	1.7%
1.0	NFLX	5.31%	INTU	1.7%
1.0	ZTS	5.2%	MSTR	1.49%
1.0	FRA	4.46%	B	1.49%
1.0	B	4.25%	ACGL	1.49%
1.0	BUD	4.25%	CHTR	1.49%
1.0	INTU	3.93%	BUD	1.38%
1.0	CMA	3.93%	NFLX	1.27%
1.0	HLT	3.82%	TEVA	1.27%
1.0	BALL	3.82%	ZTS	1.27%
1.0	AVGO	3.82%	SPY	1.06%
1.0	ORCL	3.72%	OXY	0.96%
1.0	AMC	3.72%	CMA	0.96%
1.0	VFC	3.61%	AAP	0.74%
1.0	AAP	3.08%	FRA	0.74%
1.0	HCA	2.87%	SBNY	0.72%
1.0	CLF	2.76%	ISRG	0.64%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	META	13.29%	SIVBQ	9.56%
10.0	MSTR	12.22%	MSTR	8.25%
10.0	SIVBQ	12.13%	GME	5.36%
10.0	SBNY	10.66%	META	5.04%
10.0	GME	10.4%	CHTR	4.72%
10.0	HCA	9.86%	AVGO	3.75%
10.0	KALU	9.43%	SBNY	3.68%
10.0	CHTR	9.0%	ZTS	3.43%
10.0	BALL	9.0%	AMC	2.79%
10.0	FRCB	8.09%	CMA	2.68%
10.0	AVGO	8.04%	VZ	2.57%
10.0	TEVA	7.29%	HCA	2.47%
10.0	GILD	6.86%	XOM	2.36%
10.0	GNRC	6.86%	KALU	2.25%
10.0	CMA	6.65%	ETRN	2.15%
10.0	HD	6.54%	BALL	1.93%
10.0	B	6.43%	GNRC	1.93%
10.0	AMC	6.22%	ISRG	1.82%
10.0	BXP	6.22%	GWW	1.71%
10.0	SLV	5.79%	NVS	1.61%
10.0	ZTS	5.47%	EXPE	1.61%
10.0	IRM	5.14%	GILD	1.61%
10.0	VFC	5.14%	NEM	1.5%
10.0	INTU	5.04%	FRCB	1.47%
10.0	WDC	5.04%	OXY	1.39%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	META	12.47%	SIVBQ	9.26%
21.0	GME	12.04%	CHTR	7.81%
21.0	AVGO	10.52%	MSTR	6.4%
21.0	GNRC	8.89%	GME	4.01%
21.0	FRCB	8.89%	META	3.9%
21.0	CHTR	8.46%	ISRG	3.47%
21.0	SIVBQ	8.15%	GWW	3.36%
21.0	CMA	8.13%	GNRC	3.15%
21.0	B	7.92%	AVGO	2.93%
21.0	ZTS	7.7%	KALU	2.6%
21.0	KALU	7.59%	ZTS	2.49%
21.0	MSTR	7.27%	CMA	2.06%
21.0	HCA	6.51%	GOOGL	2.06%
21.0	ISRG	6.4%	VZ	1.95%
21.0	AMC	6.18%	LW	1.95%
21.0	LW	6.07%	SBNY	1.85%
21.0	BALL	5.64%	NEM	1.84%
21.0	TEVA	5.64%	AMC	1.74%
21.0	SBNY	5.56%	AAPL	1.74%
21.0	NAVI	5.53%	XOM	1.52%
21.0	VZ	5.42%	HD	1.52%
21.0	GILD	5.31%	SNY	1.52%
21.0	EXPE	5.31%	B	1.3%
21.0	NEM	5.31%	BALL	1.08%
21.0	HD	4.99%	ORLY	1.08%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	CHTR	12.61%	SIVBQ	7.78%
63.0	META	12.39%	AVGO	6.7%
63.0	AVGO	11.59%	GME	5.34%
63.0	SIVBQ	11.11%	LW	3.75%
63.0	LW	9.43%	CTLT	3.23%
63.0	MSTR	7.39%	EXPE	2.16%
63.0	CMA	7.27%	TEVA	2.05%
63.0	EXPE	7.16%	WFC	1.59%
63.0	GME	6.59%	KALU	1.36%
63.0	NEM	5.68%	BXP	1.25%
63.0	IRM	5.57%	CHTR	1.25%
63.0	BUD	5.23%	RIO	1.14%
63.0	SNY	4.89%	MSI	1.02%
63.0	XOM	4.77%	OXY	0.91%
63.0	CTLT	4.69%	HD	0.91%
63.0	GNRC	4.55%	GWW	0.8%
63.0	BALL	3.75%	AMC	0.57%
63.0	KALU	3.75%	XOM	0.57%
63.0	VFC	3.18%	CMA	0.57%
63.0	BXP	2.95%	VFC	0.45%
63.0	MSI	2.84%	TXN	0.45%
63.0	ZTS	2.5%	AZO	0.45%
63.0	AAP	2.39%	KHC	0.34%
63.0	AMC	2.39%	BALL	0.34%
63.0	FRCB	2.22%	HON	0.34%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	LW	13.83%	LW	5.75%
126.0	VFC	9.91%	EXPE	5.14%
126.0	GME	6.49%	BUD	3.18%
126.0	XOM	6.24%	MSI	2.82%
126.0	EXPE	6.12%	AVGO	2.33%
126.0	MSTR	6.12%	OXY	1.96%
126.0	BALL	5.75%	MSTR	1.84%
126.0	META	5.51%	IRM	1.71%
126.0	AAP	5.14%	META	1.47%
126.0	BXP	4.77%	BALL	1.35%
126.0	CHTR	4.65%	VFC	1.35%
126.0	IRM	4.53%	GME	1.22%
126.0	GOOGL	4.53%	TEVA	1.1%
126.0	TEVA	3.67%	ETRN	1.02%
126.0	CMA	2.69%	HCA	0.24%
126.0	CTLT	1.78%	XOM	0.12%
126.0	TMUS	1.47%	INTC	0.0%
126.0	NWL	1.35%	LNC	0.0%
126.0	BAC	1.22%	MRK	0.0%
126.0	GNRC	1.1%	MOS	0.0%
126.0	KALU	1.1%	MNST	0.0%
126.0	AMC	0.98%	HD	0.0%
126.0	KHC	0.98%	LVS	0.0%
126.0	HCA	0.86%	LQD	0.0%
126.0	OXY	0.73%	KHC	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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
252.0	EXPE	6.22%	GWW	4.49%
252.0	IRM	4.34%	LW	4.49%
252.0	GNRC	4.34%	IRM	3.18%
252.0	GME	4.05%	ORLY	1.74%
252.0	XOM	3.04%	EXPE	1.3%
252.0	VST	3.04%	GOOGL	0.87%
252.0	BA	1.88%	GNRC	0.87%
252.0	OXY	1.88%	NEM	0.14%
252.0	BALL	1.74%	XOM	0.14%
252.0	CHTR	0.72%	HYG	0.0%
252.0	AAPL	0.43%	IEP	0.0%
252.0	MSTR	0.14%	NAVI	0.0%
252.0	HON	0.0%	HD	0.0%
252.0	KEY	0.0%	MUB	0.0%
252.0	LVS	0.0%	MSFT	0.0%
252.0	LUMN	0.0%	MRK	0.0%
252.0	LQD	0.0%	MOS	0.0%
252.0	LNC	0.0%	MNST	0.0%
252.0	KHC	0.0%	LVS	0.0%
252.0	KALU	0.0%	LUMN	0.0%
252.0	HYG	0.0%	LQD	0.0%
252.0	JAZZ	0.0%	LNC	0.0%
252.0	GSK	0.0%	KHC	0.0%
252.0	AAP	0.0%	HLT	0.0%
252.0	GT	0.0%	NVS	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 2025-10-30 through 2025-10-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	ZTS	23.81%	GLD	19.05%
1.0	FRA	9.52%	WDC	9.52%
1.0	VFC	9.52%	ZTS	4.76%
1.0	TXN	9.52%	GILD	4.76%
1.0	TDG	9.52%	GWW	4.76%
1.0	NFLX	9.52%	AMZN	4.76%
1.0	KEY	9.52%	MU	0.0%
1.0	HCA	9.52%	MRK	0.0%
1.0	ISRG	9.52%	MSFT	0.0%
1.0	JPM	4.76%	MSI	0.0%
1.0	GWW	4.76%	MSTR	0.0%
1.0	CSTM	4.76%	MUB	0.0%
1.0	CSCO	4.76%	MNST	0.0%
1.0	GILD	4.76%	NAVI	0.0%
1.0	GLD	4.76%	NFLX	0.0%
1.0	GME	4.76%	NVDA	0.0%
1.0	CLF	4.76%	NVS	0.0%
1.0	THC	4.76%	NWL	0.0%
1.0	ON	4.76%	MOS	0.0%
1.0	TSLA	4.76%	LQD	0.0%
1.0	EXPE	4.76%	META	0.0%
1.0	HLT	4.76%	LW	0.0%
1.0	AMZN	4.76%	ORLY	0.0%
1.0	LNC	4.76%	LNC	0.0%
1.0	AZN	4.76%	LLY	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 2025-10-30 through 2025-10-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	THC	33.33%	KALU	33.33%
10.0	ZTS	25.0%	HCA	33.33%
10.0	WDC	25.0%	AMZN	8.33%
10.0	VFC	25.0%	GILD	8.33%
10.0	GILD	25.0%	VFC	8.33%
10.0	AMZN	16.67%	THC	8.33%
10.0	GLD	16.67%	ON	0.0%
10.0	GNRC	16.67%	NWL	0.0%
10.0	HCA	16.67%	NVS	0.0%
10.0	MU	16.67%	NVDA	0.0%
10.0	SBUX	16.67%	ORCL	0.0%
10.0	AAPL	16.67%	ORLY	0.0%
10.0	BXP	16.67%	OXY	0.0%
10.0	ON	8.33%	NFLX	0.0%
10.0	NFLX	8.33%	NEM	0.0%
10.0	MS	8.33%	NAVI	0.0%
10.0	LEN	8.33%	MUB	0.0%
10.0	KALU	8.33%	MU	0.0%
10.0	INTC	8.33%	MSTR	0.0%
10.0	HON	8.33%	AA	0.0%
10.0	TDG	8.33%	MS	0.0%
10.0	GWW	8.33%	MSI	0.0%
10.0	GSK	8.33%	MSFT	0.0%
10.0	GOOGL	8.33%	PHM	0.0%
10.0	WYNN	8.33%	MRK	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	ZTS	11.11%	PCG	9.52%
1.0	VFC	11.11%	TSLA	7.94%
1.0	GWW	9.52%	GLD	6.35%
1.0	TSLA	7.94%	NWL	6.35%
1.0	NFLX	7.94%	AMZN	4.76%
1.0	GILD	7.94%	ZTS	3.17%
1.0	BAC	6.35%	GWW	3.17%
1.0	THC	6.35%	WDC	3.17%
1.0	NWL	6.35%	BAC	1.59%
1.0	NVS	6.35%	GILD	1.59%
1.0	HCA	6.35%	ELAN	1.59%
1.0	CLF	6.35%	CMCSA	1.59%
1.0	TXN	4.76%	AMC	1.59%
1.0	QQQ	4.76%	VZ	1.59%
1.0	META	4.76%	LQD	0.0%
1.0	EXPE	4.76%	NFLX	0.0%
1.0	ISRG	4.76%	NAVI	0.0%
1.0	AMC	4.76%	MUB	0.0%
1.0	AMZN	4.76%	VST	0.0%
1.0	ELAN	3.17%	MSTR	0.0%
1.0	SPY	3.17%	MSI	0.0%
1.0	SNY	3.17%	MSFT	0.0%
1.0	PCG	3.17%	MNST	0.0%
1.0	FRA	3.17%	META	0.0%
1.0	FSUGY	3.17%	LW	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	BXP	25.93%	WDC	20.37%
10.0	GILD	24.07%	NVS	20.37%
10.0	WDC	20.37%	INTC	12.96%
10.0	BAC	18.52%	HCA	9.26%
10.0	VFC	18.52%	KALU	7.41%
10.0	AAPL	16.67%	TSLA	5.56%
10.0	THC	16.67%	AMZN	3.7%
10.0	NVS	14.81%	GLD	3.7%
10.0	UNH	14.81%	FCX	1.85%
10.0	AMZN	14.81%	BXP	1.85%
10.0	CVS	12.96%	VFC	1.85%
10.0	HCA	12.96%	ABBV	1.85%
10.0	INTC	11.11%	GILD	1.85%
10.0	AMC	9.26%	THC	1.85%
10.0	GOOGL	9.26%	NWL	0.0%
10.0	EXPE	9.26%	NVDA	0.0%
10.0	FCX	9.26%	ON	0.0%
10.0	NWL	9.26%	NFLX	0.0%
10.0	TXN	7.41%	NEM	0.0%
10.0	HD	7.41%	NAVI	0.0%
10.0	CMCSA	7.41%	MSTR	0.0%
10.0	SLV	5.66%	MSI	0.0%
10.0	IRM	5.56%	MSFT	0.0%
10.0	CLF	5.56%	AA	0.0%
10.0	ZTS	5.56%	MOS	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	NVS	30.23%	GOOGL	32.56%
21.0	AAPL	23.26%	KALU	9.3%
21.0	GILD	18.6%	INTC	6.98%
21.0	CVS	16.28%	NVS	6.98%
21.0	BXP	16.28%	SLV	4.76%
21.0	HCA	16.28%	SNY	2.33%
21.0	CMA	16.28%	GILD	2.33%
21.0	EXPE	13.95%	KHC	0.0%
21.0	INTC	11.63%	LEN	0.0%
21.0	WDC	11.63%	ORLY	0.0%
21.0	VFC	9.3%	ON	0.0%
21.0	BAC	9.3%	NWL	0.0%
21.0	PCG	9.3%	AAP	0.0%
21.0	AMC	6.98%	NVDA	0.0%
21.0	WYNN	6.98%	NFLX	0.0%
21.0	IRM	6.98%	NAVI	0.0%
21.0	ELAN	6.98%	JAZZ	0.0%
21.0	SNY	6.98%	JPM	0.0%
21.0	TSLA	6.98%	MUB	0.0%
21.0	MS	4.65%	MSTR	0.0%
21.0	JAZZ	4.65%	MSI	0.0%
21.0	KALU	4.65%	MSFT	0.0%
21.0	HD	4.65%	MS	0.0%
21.0	LQD	4.65%	MRK	0.0%
21.0	AMZN	4.65%	MOS	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	GILD	11.24%	TSLA	6.43%
1.0	CHTR	10.44%	GILD	4.02%
1.0	ZTS	8.84%	AVGO	4.02%
1.0	TSLA	8.43%	AMC	2.41%
1.0	SLV	8.06%	AAP	2.41%
1.0	AVGO	8.03%	ZTS	2.41%
1.0	VST	6.83%	VST	2.41%
1.0	ORLY	6.43%	VZ	2.41%
1.0	GME	5.62%	CMA	2.01%
1.0	VFC	5.22%	PCG	1.61%
1.0	META	5.22%	AMZN	1.61%
1.0	BUD	5.22%	BAC	1.61%
1.0	AMC	4.82%	JPM	1.2%
1.0	VZ	4.82%	GME	1.2%
1.0	NAVI	4.82%	BUD	1.2%
1.0	CMA	4.42%	SLV	0.81%
1.0	MSTR	4.02%	HLT	0.8%
1.0	WFC	4.02%	BALL	0.8%
1.0	BAC	4.02%	VFC	0.8%
1.0	AAP	4.02%	NWL	0.8%
1.0	AMZN	4.02%	SBUX	0.8%
1.0	TXN	3.61%	NAVI	0.4%
1.0	SBUX	3.61%	MU	0.4%
1.0	QQQ	3.21%	MSTR	0.4%
1.0	HON	2.81%	META	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	AVGO	18.33%	TSLA	8.33%
10.0	GILD	15.0%	WDC	7.08%
10.0	WDC	12.5%	GILD	6.67%
10.0	VZ	11.25%	AVGO	6.67%
10.0	KALU	10.83%	KALU	6.25%
10.0	AMC	10.0%	VZ	6.25%
10.0	CMA	9.58%	HCA	5.42%
10.0	AMZN	9.58%	TXN	5.0%
10.0	TSLA	9.17%	NVS	5.0%
10.0	UNH	9.17%	VST	5.0%
10.0	CHTR	8.75%	CMA	4.58%
10.0	AAP	8.75%	INTC	4.17%
10.0	INTU	7.92%	HON	2.92%
10.0	TXN	7.92%	NEM	2.92%
10.0	MSTR	7.92%	META	2.5%
10.0	NEM	7.5%	AAP	2.5%
10.0	GME	7.5%	NAVI	2.08%
10.0	HCA	7.5%	KEY	2.08%
10.0	SLV	7.11%	CHTR	2.08%
10.0	BXP	7.08%	ZTS	1.67%
10.0	VFC	6.67%	AMZN	1.25%
10.0	BAC	6.25%	MSTR	1.25%
10.0	GOOGL	5.83%	EXPE	1.25%
10.0	HON	5.42%	VFC	1.25%
10.0	HD	5.0%	UNH	0.83%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	AVGO	26.2%	AVGO	7.86%
21.0	VZ	13.97%	TXN	6.55%
21.0	GILD	13.1%	KALU	5.68%
21.0	CMA	11.79%	GOOGL	5.68%
21.0	TXN	10.48%	CHTR	5.24%
21.0	WDC	10.04%	NEM	4.37%
21.0	NEM	10.04%	WFC	4.37%
21.0	AAP	10.04%	VZ	4.37%
21.0	EXPE	9.61%	ZTS	3.93%
21.0	KALU	8.3%	GILD	3.93%
21.0	TSLA	7.86%	KEY	3.49%
21.0	NVS	7.42%	CMA	3.49%
21.0	BUD	6.99%	MU	3.49%
21.0	ISRG	6.55%	HON	3.06%
21.0	ZTS	6.55%	TSLA	3.06%
21.0	AMC	6.55%	MSTR	2.18%
21.0	TDG	6.11%	SLV	1.75%
21.0	HCA	5.68%	META	1.75%
21.0	SLV	5.26%	AAP	1.31%
21.0	MSTR	5.24%	NVS	1.31%
21.0	MU	5.24%	WDC	1.31%
21.0	BXP	4.8%	INTC	1.31%
21.0	INTC	4.37%	GS	1.31%
21.0	META	4.37%	AMZN	0.44%
21.0	KEY	4.37%	SNY	0.44%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	AVGO	37.97%	AVGO	32.62%
63.0	CMA	21.39%	GILD	8.56%
63.0	BUD	15.51%	MU	3.21%
63.0	GILD	14.97%	WYNN	3.21%
63.0	EXPE	14.97%	WFC	2.67%
63.0	TSLA	14.97%	TXN	2.14%
63.0	AAP	11.23%	META	2.14%
63.0	ELAN	9.09%	KALU	2.14%
63.0	SLV	8.56%	BUD	1.6%
63.0	NEM	8.56%	TSLA	1.6%
63.0	ORLY	8.02%	HON	1.6%
63.0	KEY	7.49%	BAC	1.07%
63.0	CHTR	6.95%	AAPL	1.07%
63.0	GSK	6.42%	KEY	0.53%
63.0	NVS	5.88%	CMA	0.53%
63.0	VZ	5.88%	THC	0.53%
63.0	GE	5.35%	MRK	0.0%
63.0	KALU	4.28%	ON	0.0%
63.0	SNY	4.28%	NWL	0.0%
63.0	AAPL	4.28%	NVS	0.0%
63.0	HON	3.74%	NAVI	0.0%
63.0	MU	3.21%	MUB	0.0%
63.0	BAC	2.67%	MSTR	0.0%
63.0	TFC	2.67%	MSI	0.0%
63.0	WFC	2.67%	IEP	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	AVGO	40.32%	AVGO	22.58%
126.0	AAP	33.87%	BUD	20.97%
126.0	GILD	19.35%	GILD	5.65%
126.0	ORLY	7.26%	MSTR	1.61%
126.0	CMA	6.45%	WDC	1.61%
126.0	MSTR	4.84%	AA	0.0%
126.0	BAC	4.03%	MOS	0.0%
126.0	META	4.03%	MRK	0.0%
126.0	WDC	3.23%	MSI	0.0%
126.0	KALU	3.23%	MUB	0.0%
126.0	BUD	3.23%	META	0.0%
126.0	WFC	2.42%	NAVI	0.0%
126.0	CCL	2.42%	NVS	0.0%
126.0	EXPE	2.42%	NWL	0.0%
126.0	TSLA	1.61%	ON	0.0%
126.0	HD	0.81%	ORLY	0.0%
126.0	KEY	0.81%	OXY	0.0%
126.0	LLY	0.0%	MNST	0.0%
126.0	IRM	0.0%	LVS	0.0%
126.0	ON	0.0%	LW	0.0%
126.0	NWL	0.0%	PEP	0.0%
126.0	HYG	0.0%	LQD	0.0%
126.0	NAVI	0.0%	LNC	0.0%
126.0	MUB	0.0%	LLY	0.0%
126.0	IEP	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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	MOS	-4.03%	NVDA	-1.91%
1.0	VCSH	-3.82%	LVS	-1.8%
1.0	HYG	-3.82%	WYNN	-1.8%
1.0	EMB	-3.72%	LLY	-1.7%
1.0	GE	-3.61%	CCL	-1.7%
1.0	DHI	-3.4%	PHM	-1.59%
1.0	ON	-3.29%	HSBC	-1.59%
1.0	PHM	-3.18%	MUB	-1.49%
1.0	HSBC	-3.18%	GE	-1.49%
1.0	CCL	-3.08%	HYG	-1.49%
1.0	MS	-2.97%	AMD	-1.38%
1.0	MUB	-2.87%	MNST	-1.38%
1.0	AZN	-2.87%	PWR	-1.38%
1.0	VNO	-2.87%	VCSH	-1.38%
1.0	TLT	-2.87%	MU	-1.38%
1.0	X	-2.72%	VNO	-1.27%
1.0	CAH	-2.65%	COST	-1.27%
1.0	BHP	-2.65%	GSK	-1.27%
1.0	LVS	-2.65%	T	-1.27%
1.0	LLY	-2.55%	MS	-1.27%
1.0	NVDA	-2.55%	MOS	-1.27%
1.0	T	-2.55%	USB	-1.27%
1.0	AMD	-2.44%	LUMN	-1.27%
1.0	CMG	-2.44%	ABBV	-1.27%
1.0	AMAT	-2.44%	FITB	-1.17%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	MUB	-7.3%	NVDA	-4.39%
10.0	LLY	-6.86%	LLY	-3.75%
10.0	CCL	-5.25%	MUB	-3.43%
10.0	NVDA	-5.25%	X	-3.22%
10.0	MS	-4.72%	GBTC	-3.11%
10.0	T	-4.72%	TMUS	-3.11%
10.0	CDNS	-4.39%	DHI	-2.89%
10.0	CYH	-3.97%	CPRT	-2.79%
10.0	CSCO	-3.75%	LUMN	-2.36%
10.0	AMD	-3.75%	AMD	-2.25%
10.0	COST	-3.64%	CCL	-2.14%
10.0	VCSH	-3.43%	PWR	-2.14%
10.0	PHM	-3.32%	PHM	-2.14%
10.0	GE	-3.22%	GLD	-2.04%
10.0	LUMN	-3.22%	MS	-1.93%
10.0	CAH	-3.22%	LVS	-1.93%
10.0	CPRT	-3.22%	CDNS	-1.82%
10.0	DHI	-3.22%	THC	-1.71%
10.0	JPM	-3.11%	GE	-1.71%
10.0	MOS	-3.11%	UNH	-1.71%
10.0	BA	-3.11%	WYNN	-1.71%
10.0	VNO	-3.11%	T	-1.61%
10.0	FSUGY	-3.0%	COST	-1.5%
10.0	CMG	-3.0%	CMG	-1.5%
10.0	GSK	-2.79%	MOS	-1.5%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	MUB	-8.58%	NVDA	-5.64%
21.0	CCL	-8.57%	GE	-4.88%
21.0	GLD	-8.35%	GBTC	-4.56%
21.0	LLY	-7.81%	ETRN	-4.38%
21.0	COST	-7.27%	DHI	-3.9%
21.0	MS	-7.16%	TMUS	-3.69%
21.0	DHI	-6.83%	MUB	-3.58%
21.0	PHM	-6.29%	WYNN	-3.58%
21.0	NVDA	-6.29%	LLY	-3.36%
21.0	GE	-5.75%	PWR	-3.25%
21.0	JPM	-5.21%	AMD	-3.15%
21.0	CDNS	-4.99%	MOS	-3.15%
21.0	AZN	-4.99%	LUMN	-3.04%
21.0	PWR	-4.88%	GLD	-2.82%
21.0	AMAT	-4.77%	X	-2.78%
21.0	GBTC	-4.56%	BA	-2.71%
21.0	AMD	-4.56%	THC	-2.39%
21.0	LEN	-4.56%	AMGN	-2.28%
21.0	CAH	-4.34%	TSLA	-2.28%
21.0	CPRT	-4.12%	TEVA	-2.17%
21.0	CMG	-4.12%	CCL	-2.17%
21.0	T	-4.12%	CAH	-2.17%
21.0	VNO	-4.01%	LVS	-2.06%
21.0	TSLA	-3.69%	AMAT	-1.95%
21.0	VCSH	-3.47%	PHM	-1.95%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	NVDA	-20.11%	NVDA	-12.5%
63.0	DHI	-12.27%	GBTC	-9.66%
63.0	GBTC	-12.27%	LLY	-7.73%
63.0	CMG	-11.36%	GLD	-7.39%
63.0	CCL	-10.8%	GE	-6.59%
63.0	VNO	-10.8%	DHI	-6.48%
63.0	PHM	-10.23%	VST	-6.02%
63.0	AMD	-10.0%	ETRN	-5.99%
63.0	GLD	-10.0%	GILD	-5.23%
63.0	JPM	-9.32%	MUB	-5.01%
63.0	LVS	-8.86%	AMD	-4.89%
63.0	LLY	-8.64%	PHM	-4.77%
63.0	GE	-8.52%	MRK	-4.55%
63.0	HLT	-7.5%	THC	-4.43%
63.0	COST	-7.16%	TRGP	-4.43%
63.0	T	-7.16%	CCL	-4.2%
63.0	CPRT	-7.05%	MU	-3.98%
63.0	THC	-7.05%	MS	-3.64%
63.0	MU	-6.93%	ACGL	-3.52%
63.0	NFLX	-6.7%	TMUS	-3.52%
63.0	PWR	-6.59%	B	-3.3%
63.0	LUMN	-6.36%	MSTR	-3.07%
63.0	MUB	-5.8%	MSFT	-2.73%
63.0	VCSH	-5.57%	LUMN	-2.73%
63.0	ABBV	-5.57%	COST	-2.5%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	NVDA	-26.07%	NVDA	-20.44%
126.0	GE	-22.77%	GE	-15.54%
126.0	PHM	-22.4%	THC	-13.71%
126.0	GLD	-17.87%	LLY	-12.73%
126.0	JPM	-17.5%	GLD	-12.12%
126.0	T	-15.67%	GBTC	-11.38%
126.0	GS	-15.67%	TMUS	-10.89%
126.0	COST	-15.18%	TRGP	-9.67%
126.0	GBTC	-14.81%	MU	-9.42%
126.0	ORCL	-14.32%	GILD	-8.94%
126.0	PWR	-14.2%	CMG	-7.71%
126.0	NFLX	-12.97%	ACGL	-7.71%
126.0	THC	-12.24%	ORCL	-6.98%
126.0	MS	-11.87%	PHM	-6.73%
126.0	MSFT	-11.14%	X	-5.26%
126.0	HSBC	-11.14%	PWR	-4.41%
126.0	MU	-11.02%	COST	-4.16%
126.0	AMAT	-10.77%	TSLA	-3.79%
126.0	CMG	-10.4%	AMD	-3.55%
126.0	LLY	-10.4%	B	-3.3%
126.0	CPRT	-10.28%	JPM	-3.18%
126.0	HLT	-9.79%	VST	-3.18%
126.0	CSCO	-9.67%	NFLX	-3.06%
126.0	VNO	-9.55%	WFC	-2.94%
126.0	MRK	-8.45%	WDC	-2.57%

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 2025-10-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
252.0	GE	-59.04%	GE	-35.02%
252.0	PHM	-47.9%	GLD	-30.82%
252.0	GBTC	-39.94%	GBTC	-29.52%
252.0	JPM	-39.07%	PHM	-26.77%
252.0	NFLX	-36.61%	AVGO	-21.71%
252.0	COST	-33.57%	LLY	-21.42%
252.0	ACGL	-29.23%	COST	-18.96%
252.0	PWR	-28.36%	TMUS	-18.81%
252.0	ORCL	-27.35%	NVDA	-18.81%
252.0	NVDA	-24.02%	GS	-18.52%
252.0	T	-22.87%	ACGL	-17.22%
252.0	MS	-22.72%	TRGP	-17.22%
252.0	LLY	-22.0%	NFLX	-15.92%
252.0	GS	-20.69%	CAH	-14.91%
252.0	AVGO	-20.41%	VST	-12.88%
252.0	CPRT	-20.41%	JPM	-12.59%
252.0	DHI	-19.25%	META	-11.87%
252.0	ISRG	-18.96%	T	-11.58%
252.0	TMUS	-18.38%	THC	-11.29%
252.0	MU	-17.37%	HSBC	-9.12%
252.0	CMG	-17.08%	PWR	-8.1%
252.0	TDG	-16.64%	ORCL	-7.53%
252.0	HSBC	-14.76%	ETRN	-7.18%
252.0	WFC	-13.89%	MSI	-7.09%
252.0	CAH	-13.89%	MS	-6.51%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	B	-14.29%	LUMN	-23.81%
1.0	LUMN	-9.52%	AMD	-19.05%
1.0	PEP	-9.52%	NEM	-14.29%
1.0	GOOGL	-9.52%	SLV	-9.52%
1.0	MS	-9.52%	PEP	-9.52%
1.0	ZION	-9.52%	B	-9.52%
1.0	BMY	-4.76%	GSK	-4.76%
1.0	TLT	-4.76%	GS	-4.76%
1.0	EMB	-4.76%	CLF	-4.76%
1.0	CCL	-4.76%	SNY	-4.76%
1.0	ELAN	-4.76%	CYH	-4.76%
1.0	MU	-4.76%	CNC	-4.76%
1.0	GSK	-4.76%	COST	-4.76%
1.0	GS	-4.76%	RIO	-4.76%
1.0	RIO	-4.76%	CSTM	-4.76%
1.0	COST	-4.76%	PWR	-4.76%
1.0	POST	-4.76%	ON	-4.76%
1.0	CYH	-4.76%	BMY	-4.76%
1.0	PHM	-4.76%	HLT	-4.76%
1.0	BHP	-4.76%	HCA	-4.76%
1.0	GE	-4.76%	HSBC	-4.76%
1.0	HSBC	-4.76%	AAPL	-4.76%
1.0	ORCL	-4.76%	WYNN	-4.76%
1.0	WYNN	-4.76%	MS	-4.76%
1.0	KALU	-4.76%	AVGO	-4.76%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	AMD	-33.33%	LVS	-50.0%
10.0	PEP	-25.0%	LUMN	-41.67%
10.0	LUMN	-25.0%	CYH	-33.33%
10.0	CYH	-16.67%	AMD	-16.67%
10.0	BAC	-16.67%	GNRC	-8.33%
10.0	RIO	-8.33%	PEP	-8.33%
10.0	LVS	-8.33%	CLF	-8.33%
10.0	NVDA	-8.33%	NWL	0.0%
10.0	NVS	0.0%	NVS	0.0%
10.0	NEM	0.0%	ON	0.0%
10.0	NAVI	0.0%	MU	0.0%
10.0	MRK	0.0%	ORCL	0.0%
10.0	MUB	0.0%	NVDA	0.0%
10.0	MSTR	0.0%	NFLX	0.0%
10.0	NWL	0.0%	NEM	0.0%
10.0	MSI	0.0%	NAVI	0.0%
10.0	MSFT	0.0%	ORLY	0.0%
10.0	MOS	0.0%	MUB	0.0%
10.0	AA	0.0%	MSTR	0.0%
10.0	ORCL	0.0%	MS	0.0%
10.0	META	0.0%	MSFT	0.0%
10.0	LW	0.0%	OXY	0.0%
10.0	LQD	0.0%	MRK	0.0%
10.0	LNC	0.0%	MOS	0.0%
10.0	LLY	0.0%	MNST	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	LUMN	-9.52%	LUMN	-9.52%
1.0	AMAT	-6.35%	AMD	-6.35%
1.0	CAH	-6.35%	NEM	-6.35%
1.0	BIIB	-6.35%	B	-6.35%
1.0	B	-6.35%	BIIB	-4.76%
1.0	IRM	-4.76%	AVGO	-4.76%
1.0	GSK	-4.76%	SLV	-3.23%
1.0	HSBC	-4.76%	MRK	-3.17%
1.0	ZION	-4.76%	PHM	-3.17%
1.0	MNST	-4.76%	PEP	-3.17%
1.0	PHM	-4.76%	GSK	-3.17%
1.0	POST	-4.76%	BMY	-3.17%
1.0	MU	-4.76%	CSTM	-3.17%
1.0	AVGO	-4.76%	INTC	-3.17%
1.0	PWR	-4.76%	BHC	-3.17%
1.0	AMGN	-4.76%	LEN	-3.17%
1.0	TEVA	-4.76%	AMAT	-3.17%
1.0	TLT	-3.17%	AAPL	-3.17%
1.0	HYG	-3.17%	ABBV	-3.17%
1.0	LLY	-3.17%	MU	-1.59%
1.0	PRGO	-3.17%	SNY	-1.59%
1.0	MOS	-3.17%	DHI	-1.59%
1.0	DHI	-3.17%	LVS	-1.59%
1.0	COST	-3.17%	RIO	-1.59%
1.0	MS	-3.17%	FITB	-1.59%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	AMAT	-22.22%	B	-22.22%
10.0	B	-18.52%	AMD	-18.52%
10.0	GLD	-14.81%	ORCL	-16.67%
10.0	AVGO	-12.96%	LVS	-11.11%
10.0	MRK	-11.11%	AMAT	-9.26%
10.0	AMD	-9.26%	LUMN	-9.26%
10.0	MUB	-9.26%	BHC	-9.26%
10.0	LUMN	-9.26%	CYH	-7.41%
10.0	PEP	-9.26%	AZN	-7.41%
10.0	LLY	-7.41%	SLV	-5.66%
10.0	NEM	-7.41%	MUB	-3.7%
10.0	HSBC	-5.56%	AVGO	-3.7%
10.0	BIIB	-3.7%	MU	-3.7%
10.0	BHC	-3.7%	CMA	-3.7%
10.0	LEN	-3.7%	GNRC	-1.85%
10.0	VNO	-3.7%	CLF	-1.85%
10.0	AA	-3.7%	PEP	-1.85%
10.0	LW	-3.7%	UNH	-1.85%
10.0	AZN	-3.7%	LLY	-1.85%
10.0	CYH	-3.7%	NEM	0.0%
10.0	DHI	-1.85%	NWL	0.0%
10.0	MNST	-1.85%	ON	0.0%
10.0	NVDA	-1.85%	ORLY	0.0%
10.0	RIO	-1.85%	OXY	0.0%
10.0	PHM	-1.85%	NAVI	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	GLD	-48.84%	AMD	-46.51%
21.0	AMAT	-41.86%	B	-37.21%
21.0	ORCL	-37.21%	ORCL	-20.93%
21.0	B	-25.58%	AMAT	-18.6%
21.0	AMD	-23.26%	GLD	-16.28%
21.0	MU	-18.6%	LUMN	-11.63%
21.0	NEM	-16.28%	WDC	-9.3%
21.0	MUB	-16.28%	MU	-9.3%
21.0	LUMN	-13.95%	UNH	-4.65%
21.0	UNH	-6.98%	CAH	-4.65%
21.0	AZN	-6.98%	CLF	-2.33%
21.0	SLV	-4.76%	NEM	-2.33%
21.0	AA	-4.65%	NVDA	0.0%
21.0	LEN	-4.65%	ON	0.0%
21.0	PHM	-4.65%	NFLX	0.0%
21.0	HSBC	-4.65%	MSI	0.0%
21.0	DHI	-4.65%	NAVI	0.0%
21.0	CAH	-4.65%	ORLY	0.0%
21.0	LLY	-2.33%	MUB	0.0%
21.0	PWR	-2.33%	MSTR	0.0%
21.0	BIIB	-2.33%	NWL	0.0%
21.0	MSTR	0.0%	AA	0.0%
21.0	MSI	0.0%	MRK	0.0%
21.0	NAVI	0.0%	MS	0.0%
21.0	MNST	0.0%	OXY	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	POST	-5.62%	HSBC	-2.81%
1.0	MOS	-5.62%	JAZZ	-2.81%
1.0	VICI	-5.22%	PHM	-2.81%
1.0	HSBC	-5.22%	LVS	-2.81%
1.0	BIIB	-5.22%	WYNN	-2.81%
1.0	COST	-5.22%	GT	-2.81%
1.0	ACGL	-5.22%	LUMN	-2.81%
1.0	X	-4.55%	X	-2.6%
1.0	GLD	-4.42%	PEP	-2.41%
1.0	TRGP	-4.42%	CCL	-2.01%
1.0	AZO	-4.42%	GOOGL	-2.01%
1.0	CAH	-4.02%	COST	-2.01%
1.0	LLY	-4.02%	AMD	-2.01%
1.0	BHP	-4.02%	AAPL	-2.01%
1.0	PEP	-4.02%	ORLY	-2.01%
1.0	DHI	-4.02%	BIIB	-2.01%
1.0	JAZZ	-3.61%	CLF	-1.61%
1.0	VCSH	-3.61%	CSTM	-1.61%
1.0	PHM	-3.61%	MNST	-1.61%
1.0	TLT	-3.61%	LQD	-1.61%
1.0	KHC	-3.61%	CVS	-1.61%
1.0	AZN	-3.61%	ORCL	-1.61%
1.0	RIO	-3.61%	BHP	-1.61%
1.0	LUMN	-3.61%	MOS	-1.61%
1.0	LVS	-3.61%	RIO	-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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	T	-10.0%	ORCL	-8.33%
10.0	MOS	-9.58%	NFLX	-7.5%
10.0	BA	-7.92%	X	-5.52%
10.0	LVS	-7.92%	TMUS	-5.42%
10.0	LLY	-7.5%	B	-5.0%
10.0	COST	-7.5%	TRGP	-5.0%
10.0	PEP	-6.25%	CPRT	-5.0%
10.0	JAZZ	-5.42%	AMD	-4.17%
10.0	GLD	-5.42%	HLT	-3.75%
10.0	AMAT	-5.42%	HSBC	-3.33%
10.0	CSCO	-4.17%	T	-3.33%
10.0	MRK	-4.17%	LVS	-3.33%
10.0	VICI	-4.17%	CCL	-3.33%
10.0	CAH	-3.75%	WYNN	-3.33%
10.0	HSBC	-3.75%	CYH	-3.33%
10.0	AZO	-3.33%	COST	-3.33%
10.0	NFLX	-3.33%	MSFT	-2.92%
10.0	AMD	-3.33%	POST	-2.92%
10.0	XOM	-3.33%	BHC	-2.5%
10.0	BHP	-3.33%	JAZZ	-2.5%
10.0	MUB	-2.93%	GBTC	-2.5%
10.0	GT	-2.92%	LLY	-2.08%
10.0	GSK	-2.92%	LUMN	-2.08%
10.0	TFC	-2.92%	TEVA	-2.08%
10.0	LNC	-2.92%	AMAT	-2.08%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	GLD	-21.83%	ORCL	-10.04%
21.0	AMD	-10.92%	B	-9.17%
21.0	COST	-10.92%	AMD	-9.17%
21.0	MOS	-10.04%	NFLX	-7.42%
21.0	LVS	-8.73%	TEVA	-7.42%
21.0	NFLX	-7.86%	TMUS	-7.42%
21.0	AMAT	-7.86%	GLD	-6.99%
21.0	BA	-7.42%	WYNN	-6.55%
21.0	AZN	-6.99%	T	-5.24%
21.0	HLT	-6.99%	MOS	-5.24%
21.0	CCL	-6.11%	HLT	-4.8%
21.0	CPRT	-6.11%	MSFT	-4.8%
21.0	HSBC	-5.68%	COST	-4.8%
21.0	T	-5.24%	BA	-4.8%
21.0	LNC	-5.24%	BUD	-4.37%
21.0	TRGP	-4.8%	TRGP	-3.49%
21.0	ORCL	-4.8%	AMAT	-3.49%
21.0	MNST	-4.37%	DHI	-2.62%
21.0	LEN	-4.37%	PWR	-2.62%
21.0	MS	-4.37%	CAH	-2.18%
21.0	PHM	-3.93%	LUMN	-2.18%
21.0	DHI	-3.93%	HSBC	-1.75%
21.0	MUB	-3.51%	GBTC	-1.75%
21.0	CSTM	-3.49%	CDNS	-1.75%
21.0	CDNS	-3.49%	QQQ	-1.75%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	GLD	-27.81%	GLD	-20.86%
63.0	T	-21.39%	B	-16.58%
63.0	LVS	-20.32%	GOOGL	-14.97%
63.0	MOS	-19.79%	MSFT	-12.83%
63.0	NFLX	-17.65%	AMD	-11.76%
63.0	HSBC	-17.11%	CAH	-10.7%
63.0	AMD	-17.11%	PWR	-9.09%
63.0	NVDA	-14.44%	GNRC	-8.02%
63.0	DHI	-13.37%	DHI	-7.49%
63.0	GOOGL	-12.83%	HSBC	-6.95%
63.0	PWR	-11.76%	NFLX	-5.88%
63.0	PHM	-11.23%	T	-5.88%
63.0	INTU	-11.23%	BA	-5.35%
63.0	THC	-10.7%	MOS	-4.81%
63.0	BA	-10.16%	AAP	-4.81%
63.0	TMUS	-10.16%	HLT	-4.81%
63.0	HLT	-9.63%	WDC	-4.28%
63.0	MNST	-9.09%	GE	-4.28%
63.0	GNRC	-8.56%	INTC	-3.74%
63.0	VST	-8.56%	CCL	-3.74%
63.0	X	-7.61%	TMUS	-3.74%
63.0	SPY	-7.49%	GS	-3.21%
63.0	CCL	-6.95%	LVS	-3.21%
63.0	JPM	-6.95%	CVS	-2.67%
63.0	ORCL	-5.88%	LUMN	-2.67%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	HSBC	-47.58%	GLD	-54.03%
126.0	MSFT	-45.97%	GOOGL	-26.61%
126.0	THC	-31.45%	B	-21.77%
126.0	NFLX	-30.65%	ORCL	-16.94%
126.0	PWR	-28.23%	CAH	-15.32%
126.0	SPY	-27.42%	ELAN	-14.52%
126.0	QQQ	-27.42%	AMD	-11.29%
126.0	ORCL	-26.61%	GE	-9.68%
126.0	GLD	-24.19%	SLV	-8.06%
126.0	MS	-23.39%	NEM	-7.26%
126.0	T	-22.58%	NFLX	-4.84%
126.0	NVDA	-19.35%	WYNN	-4.84%
126.0	B	-16.94%	MSFT	-4.84%
126.0	WYNN	-16.13%	PWR	-4.03%
126.0	ELAN	-16.13%	QQQ	-4.03%
126.0	GS	-15.32%	GS	-4.03%
126.0	JPM	-15.32%	THC	-3.23%
126.0	GE	-14.52%	HSBC	-3.23%
126.0	NVS	-14.52%	SPY	-3.23%
126.0	GNRC	-12.9%	MU	-2.42%
126.0	LVS	-12.1%	NVDA	-1.61%
126.0	BA	-11.29%	MS	-0.81%
126.0	MOS	-8.06%	JPM	-0.81%
126.0	AMAT	-8.06%	GNRC	-0.81%
126.0	CDNS	-8.06%	AAPL	-0.81%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	CCL	0.23%	NVDA	0.31%
1.0	X	0.21%	X	0.29%
1.0	TSLA	0.2%	GBTC	0.28%
1.0	GBTC	0.19%	GE	0.22%
1.0	NVDA	0.19%	AVGO	0.21%
1.0	AVGO	0.17%	PWR	0.2%
1.0	GE	0.16%	LLY	0.2%
1.0	B	0.16%	CCL	0.18%
1.0	AMD	0.14%	TSLA	0.16%
1.0	TDG	0.12%	CAH	0.16%
1.0	LLY	0.11%	TDG	0.15%
1.0	JAZZ	0.09%	ORCL	0.14%
1.0	LVS	0.09%	B	0.13%
1.0	VST	0.09%	LVS	0.13%
1.0	ON	0.09%	CDNS	0.13%
1.0	DHI	0.09%	VST	0.13%
1.0	MSFT	0.09%	JAZZ	0.13%
1.0	BHC	0.08%	AMD	0.13%
1.0	VNO	0.08%	WYNN	0.12%
1.0	AZO	0.08%	WDC	0.12%
1.0	LW	0.08%	ON	0.11%
1.0	SBNY	0.07%	ORLY	0.11%
1.0	MU	0.07%	TRGP	0.11%
1.0	PHM	0.07%	MU	0.11%
1.0	THC	0.07%	AZO	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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	NVDA	2.7%	NVDA	3.42%
10.0	TSLA	2.16%	LLY	2.35%
10.0	CCL	1.92%	GBTC	2.12%
10.0	SBNY	1.86%	CCL	2.07%
10.0	LLY	1.61%	TSLA	1.99%
10.0	AVGO	1.31%	AVGO	1.36%
10.0	GBTC	1.15%	PWR	1.24%
10.0	AMD	0.95%	AZO	1.17%
10.0	FRCB	0.93%	PHM	1.08%
10.0	AZO	0.91%	AMAT	1.07%
10.0	BHC	0.88%	LUMN	1.05%
10.0	MSFT	0.85%	GE	1.02%
10.0	PWR	0.78%	DHI	1.0%
10.0	LVS	0.71%	PCG	0.98%
10.0	PHM	0.64%	WYNN	0.85%
10.0	AMAT	0.63%	T	0.84%
10.0	GE	0.59%	TEVA	0.77%
10.0	QQQ	0.57%	MSFT	0.75%
10.0	CDNS	0.57%	WDC	0.75%
10.0	AMC	0.56%	COST	0.74%
10.0	HLT	0.55%	AMD	0.72%
10.0	T	0.53%	THC	0.71%
10.0	DHI	0.52%	GS	0.68%
10.0	PCG	0.51%	VST	0.68%
10.0	ELAN	0.5%	CSTM	0.66%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	TSLA	5.5%	NVDA	6.39%
21.0	NVDA	5.3%	GBTC	5.16%
21.0	SBNY	5.03%	TSLA	5.15%
21.0	CCL	4.03%	CCL	4.36%
21.0	GBTC	3.0%	ETRN	4.03%
21.0	LLY	2.39%	AMD	3.81%
21.0	AZO	2.27%	LUMN	2.98%
21.0	AMAT	2.27%	SBNY	2.85%
21.0	PCG	2.25%	AMAT	2.8%
21.0	FRCB	2.24%	LLY	2.74%
21.0	AMD	2.22%	VST	2.67%
21.0	PWR	1.87%	CDNS	2.6%
21.0	DHI	1.74%	AA	2.53%
21.0	PHM	1.67%	PWR	2.31%
21.0	AMC	1.6%	AZO	2.24%
21.0	ELAN	1.59%	PHM	2.13%
21.0	MSFT	1.51%	GE	2.05%
21.0	CDNS	1.46%	PCG	2.05%
21.0	QQQ	1.42%	DHI	2.05%
21.0	VNO	1.25%	ELAN	1.96%
21.0	GE	1.17%	AMC	1.82%
21.0	WYNN	1.15%	MSFT	1.68%
21.0	VST	1.06%	TMUS	1.67%
21.0	JPM	0.98%	FRCB	1.54%
21.0	ORLY	0.94%	MSTR	1.47%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	NVDA	16.47%	GBTC	23.79%
63.0	CCL	14.29%	NVDA	20.97%
63.0	MSTR	13.1%	CCL	14.4%
63.0	SBNY	13.02%	MSTR	14.3%
63.0	GBTC	9.7%	PWR	12.08%
63.0	TSLA	6.69%	AMD	10.7%
63.0	AMC	6.31%	PHM	10.48%
63.0	PWR	6.28%	GE	9.7%
63.0	VNO	6.11%	ETRN	8.48%
63.0	PCG	5.94%	LLY	8.25%
63.0	FRCB	5.84%	LUMN	7.5%
63.0	PHM	5.77%	VST	7.46%
63.0	AMD	5.74%	B	7.36%
63.0	LLY	5.67%	MS	6.53%
63.0	DHI	5.56%	JPM	6.4%
63.0	ELAN	5.4%	TSLA	6.17%
63.0	QQQ	5.15%	ELAN	6.17%
63.0	MSFT	5.14%	T	6.04%
63.0	AMAT	5.07%	PCG	5.93%
63.0	AZO	4.51%	CDNS	5.83%
63.0	AMZN	4.12%	AMAT	5.52%
63.0	LVS	4.09%	TMUS	5.28%
63.0	CDNS	3.72%	VNO	5.21%
63.0	MU	3.57%	MSFT	5.19%
63.0	JPM	3.35%	QQQ	5.18%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	NVDA	43.53%	GBTC	58.72%
126.0	GBTC	26.18%	NVDA	49.6%
126.0	CCL	21.79%	CCL	28.72%
126.0	SBNY	19.0%	PHM	26.01%
126.0	PHM	18.75%	GE	25.69%
126.0	VNO	17.3%	PWR	21.96%
126.0	AMD	16.73%	THC	21.82%
126.0	AMZN	15.85%	LLY	20.58%
126.0	MU	15.56%	AMD	20.23%
126.0	AMAT	15.46%	ORCL	19.02%
126.0	PWR	15.22%	NFLX	17.91%
126.0	QQQ	15.2%	MS	17.64%
126.0	NFLX	14.69%	JPM	17.6%
126.0	DHI	14.55%	MU	17.28%
126.0	GE	13.03%	VNO	16.69%
126.0	THC	12.86%	TSLA	16.42%
126.0	TSLA	12.75%	VST	14.81%
126.0	MS	12.67%	AMZN	14.8%
126.0	ORCL	12.58%	DHI	14.11%
126.0	PCG	12.06%	T	13.51%
126.0	MSFT	11.6%	AMAT	13.32%
126.0	ELAN	10.87%	X	13.25%
126.0	AMC	9.85%	QQQ	13.15%
126.0	JPM	9.81%	INTU	13.15%
126.0	AZO	9.59%	MSTR	12.68%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
252.0	NVDA	128.2%	GBTC	143.05%
252.0	GBTC	111.14%	NVDA	95.23%
252.0	NFLX	63.09%	GE	90.39%
252.0	PHM	57.87%	CCL	81.66%
252.0	CCL	57.22%	PHM	75.14%
252.0	GE	55.25%	THC	57.85%
252.0	VNO	46.97%	TRGP	48.87%
252.0	AMZN	45.75%	NFLX	46.41%
252.0	MU	43.14%	MU	43.2%
252.0	LLY	42.88%	X	41.64%
252.0	PWR	41.38%	MS	37.29%
252.0	QQQ	39.97%	VNO	36.46%
252.0	CDNS	39.91%	QQQ	35.86%
252.0	MSFT	37.55%	AMAT	35.52%
252.0	DHI	37.19%	T	34.14%
252.0	COST	36.2%	ORCL	33.15%
252.0	INTU	34.4%	META	31.76%
252.0	MS	33.62%	MSFT	29.38%
252.0	ACGL	32.8%	PWR	28.04%
252.0	AMD	32.22%	COST	27.2%
252.0	ISRG	31.71%	JPM	27.05%
252.0	JPM	30.91%	CDNS	27.04%
252.0	THC	29.67%	GS	25.65%
252.0	AMAT	26.7%	TSLA	25.51%
252.0	AVGO	25.88%	LLY	25.47%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	LUMN	3.5%	LUMN	4.31%
1.0	AMD	2.34%	AMD	3.41%
1.0	CYH	1.85%	CYH	2.74%
1.0	LVS	0.99%	CAH	1.86%
1.0	CAH	0.91%	LVS	0.98%
1.0	NWL	0.76%	AVGO	0.94%
1.0	AVGO	0.67%	RIO	0.68%
1.0	PWR	0.47%	NVDA	0.65%
1.0	QQQ	0.47%	MU	0.64%
1.0	BHC	0.44%	FSUGY	0.6%
1.0	TDG	0.44%	GOOGL	0.58%
1.0	FSUGY	0.44%	INTC	0.57%
1.0	INTC	0.42%	PWR	0.54%
1.0	RIO	0.37%	BHC	0.49%
1.0	AMAT	0.32%	SLV	0.47%
1.0	TXN	0.31%	QQQ	0.45%
1.0	QCOM	0.31%	AA	0.43%
1.0	VST	0.3%	MS	0.39%
1.0	KALU	0.29%	BHP	0.36%
1.0	GME	0.29%	TDG	0.35%
1.0	PCG	0.29%	PEP	0.31%
1.0	GSK	0.28%	ON	0.3%
1.0	AA	0.26%	GSK	0.3%
1.0	CLF	0.26%	LLY	0.29%
1.0	SPY	0.25%	TXN	0.29%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	LUMN	35.03%	LUMN	48.03%
10.0	AMD	9.4%	AMD	14.73%
10.0	LVS	7.51%	LVS	10.49%
10.0	AVGO	6.97%	AVGO	8.67%
10.0	AMAT	5.93%	CYH	8.13%
10.0	CAH	5.46%	AMAT	7.8%
10.0	CYH	5.45%	RIO	6.41%
10.0	RIO	3.02%	CAH	6.01%
10.0	NVDA	2.71%	NVDA	4.32%
10.0	AMC	2.51%	MU	4.19%
10.0	NWL	2.43%	PEP	3.84%
10.0	TXN	2.28%	INTC	3.16%
10.0	EMB	2.19%	TSLA	2.97%
10.0	GME	2.1%	MS	2.92%
10.0	FSUGY	1.84%	QQQ	2.89%
10.0	SLV	1.64%	TDG	2.7%
10.0	QQQ	1.6%	ADBE	2.63%
10.0	AAP	1.57%	XOM	2.49%
10.0	ELAN	1.48%	FSUGY	2.37%
10.0	PEP	1.36%	EMB	2.32%
10.0	NFLX	1.26%	PWR	2.08%
10.0	BAC	1.17%	CSTM	2.06%
10.0	FIS	1.15%	ELAN	1.83%
10.0	XOM	1.13%	GME	1.73%
10.0	MS	1.0%	WFC	1.62%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	LUMN	2.92%	LUMN	3.27%
1.0	AMD	0.95%	AMD	1.37%
1.0	AVGO	0.89%	CYH	1.15%
1.0	AMAT	0.61%	MU	0.95%
1.0	CYH	0.57%	AVGO	0.94%
1.0	LLY	0.56%	ORCL	0.77%
1.0	B	0.47%	B	0.69%
1.0	NWL	0.46%	CAH	0.63%
1.0	BIIB	0.45%	BHC	0.6%
1.0	LVS	0.4%	LW	0.52%
1.0	MU	0.37%	LLY	0.52%
1.0	CAH	0.36%	RIO	0.5%
1.0	QQQ	0.35%	NVDA	0.5%
1.0	RIO	0.32%	AMAT	0.47%
1.0	LW	0.27%	BIIB	0.47%
1.0	PWR	0.26%	TEVA	0.44%
1.0	ORCL	0.26%	LVS	0.43%
1.0	TEVA	0.26%	PWR	0.42%
1.0	TDG	0.25%	INTC	0.42%
1.0	GSK	0.25%	SLV	0.42%
1.0	SPY	0.24%	CNC	0.38%
1.0	AA	0.23%	QQQ	0.37%
1.0	BHC	0.23%	CLF	0.35%
1.0	JAZZ	0.23%	BHP	0.33%
1.0	HSBC	0.2%	JAZZ	0.3%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	LUMN	24.86%	LUMN	32.63%
10.0	AMAT	7.97%	AMD	10.07%
10.0	AMD	6.74%	AMAT	10.05%
10.0	AVGO	5.4%	B	6.44%
10.0	BIIB	4.41%	AVGO	6.36%
10.0	NWL	3.97%	BIIB	5.32%
10.0	LLY	2.28%	LLY	5.31%
10.0	B	2.16%	ORCL	5.11%
10.0	NVDA	2.0%	CLF	4.08%
10.0	CAH	1.79%	TEVA	3.6%
10.0	CYH	1.76%	CYH	3.5%
10.0	MRK	1.53%	NWL	2.95%
10.0	RIO	1.51%	MRK	2.94%
10.0	PWR	1.48%	LW	2.72%
10.0	QQQ	1.27%	NVDA	2.56%
10.0	TEVA	1.22%	PWR	2.4%
10.0	LVS	1.18%	BHP	2.35%
10.0	MU	1.18%	CAH	2.31%
10.0	EMB	1.06%	NEM	2.28%
10.0	AAP	1.06%	RIO	2.16%
10.0	NEM	1.05%	GS	2.11%
10.0	TXN	1.01%	LEN	2.11%
10.0	BHP	1.0%	LNC	2.11%
10.0	ORCL	0.98%	QQQ	1.87%
10.0	GNRC	0.95%	MU	1.7%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	LUMN	29.6%	LUMN	66.9%
21.0	AMAT	28.92%	AMD	30.42%
21.0	AMD	25.32%	AMAT	22.44%
21.0	BIIB	9.18%	ORCL	17.5%
21.0	MU	8.65%	LLY	10.73%
21.0	NWL	8.41%	B	10.49%
21.0	B	8.1%	GE	10.34%
21.0	ORCL	7.42%	BIIB	9.83%
21.0	LLY	5.61%	UNH	8.44%
21.0	AVGO	5.14%	TEVA	8.42%
21.0	CAH	4.73%	IRM	6.93%
21.0	PWR	3.86%	CAH	6.5%
21.0	GLD	3.77%	NEM	6.34%
21.0	IRM	3.35%	NWL	5.79%
21.0	CNC	3.28%	AVGO	5.67%
21.0	UNH	2.96%	AA	5.03%
21.0	NVDA	2.27%	CLF	4.89%
21.0	GNRC	2.19%	TSLA	4.79%
21.0	TEVA	2.18%	MS	4.12%
21.0	QQQ	2.08%	GLD	4.07%
21.0	GE	1.99%	BAC	4.05%
21.0	EMB	1.95%	PWR	3.52%
21.0	RIO	1.94%	LW	3.29%
21.0	MRK	1.85%	CYH	3.27%
21.0	AAP	1.74%	FSUGY	3.18%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	LUMN	0.52%	LUMN	0.55%
1.0	AMD	0.32%	CLF	0.46%
1.0	AVGO	0.32%	AMD	0.41%
1.0	B	0.31%	ORCL	0.32%
1.0	CLF	0.25%	NFLX	0.31%
1.0	AAP	0.22%	B	0.31%
1.0	VST	0.22%	NVDA	0.31%
1.0	NVDA	0.21%	AVGO	0.3%
1.0	CCL	0.21%	X	0.3%
1.0	LW	0.2%	AAP	0.29%
1.0	TDG	0.19%	GBTC	0.26%
1.0	GBTC	0.19%	GE	0.26%
1.0	NFLX	0.17%	LW	0.26%
1.0	CTLT	0.17%	CAH	0.25%
1.0	LVS	0.17%	JAZZ	0.24%
1.0	AMAT	0.16%	MU	0.23%
1.0	JAZZ	0.15%	CTLT	0.22%
1.0	AZO	0.14%	AZO	0.21%
1.0	MOS	0.13%	JPM	0.21%
1.0	MS	0.13%	CCL	0.21%
1.0	GSK	0.12%	HCA	0.21%
1.0	HSBC	0.11%	VFC	0.2%
1.0	GNRC	0.11%	CVS	0.2%
1.0	CAH	0.11%	GLD	0.19%
1.0	GLD	0.11%	CDNS	0.19%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	LUMN	3.65%	LUMN	4.24%
10.0	NVDA	1.97%	AVGO	2.74%
10.0	MOS	1.51%	MOS	2.23%
10.0	AMD	1.27%	CSTM	2.17%
10.0	LVS	1.26%	NVDA	2.0%
10.0	COST	1.23%	B	1.92%
10.0	NWL	1.19%	CLF	1.77%
10.0	AVGO	1.12%	X	1.7%
10.0	AMC	1.07%	CTLT	1.7%
10.0	CLF	1.06%	WYNN	1.57%
10.0	NFLX	0.97%	AMD	1.54%
10.0	LW	0.97%	LLY	1.37%
10.0	CTLT	0.91%	AMAT	1.32%
10.0	LLY	0.91%	LVS	1.32%
10.0	VST	0.89%	GBTC	1.27%
10.0	CYH	0.88%	GLD	1.24%
10.0	AZO	0.79%	CCL	1.22%
10.0	CSTM	0.73%	WDC	1.13%
10.0	WYNN	0.69%	T	1.11%
10.0	AAP	0.63%	BUD	1.1%
10.0	GLD	0.62%	GE	1.09%
10.0	T	0.6%	BA	1.04%
10.0	GNRC	0.59%	LW	1.02%
10.0	CAH	0.54%	NEM	0.96%
10.0	AMAT	0.52%	GS	0.85%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	MOS	4.71%	LUMN	8.69%
21.0	AMD	4.13%	AMD	5.8%
21.0	LUMN	3.77%	MOS	5.76%
21.0	NVDA	3.59%	CLF	4.4%
21.0	AMAT	3.28%	B	4.11%
21.0	GNRC	2.52%	NVDA	3.51%
21.0	AMC	2.42%	LVS	2.97%
21.0	LVS	2.4%	ORCL	2.78%
21.0	CSTM	2.37%	CTLT	2.75%
21.0	B	1.97%	GNRC	2.69%
21.0	GLD	1.96%	WYNN	2.66%
21.0	BA	1.91%	AVGO	2.59%
21.0	CTLT	1.72%	AMAT	2.51%
21.0	COST	1.72%	GOOGL	2.51%
21.0	WYNN	1.6%	VST	2.44%
21.0	NFLX	1.57%	CSTM	2.24%
21.0	AZO	1.51%	LLY	2.12%
21.0	CYH	1.47%	GLD	2.09%
21.0	LLY	1.44%	BA	1.98%
21.0	VST	1.43%	BUD	1.94%
21.0	T	1.4%	TEVA	1.92%
21.0	PHM	1.37%	GE	1.88%
21.0	LW	1.25%	AZN	1.81%
21.0	CLF	1.19%	CDNS	1.71%
21.0	SBUX	1.09%	LW	1.54%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	MOS	20.03%	B	26.81%
63.0	NVDA	11.82%	AMD	19.88%
63.0	LUMN	11.66%	MOS	18.72%
63.0	LVS	7.34%	LUMN	15.56%
63.0	B	7.31%	NVDA	12.64%
63.0	T	7.17%	LNC	12.44%
63.0	GOOGL	7.1%	GE	12.11%
63.0	LNC	6.66%	LVS	11.39%
63.0	CSTM	6.6%	T	10.73%
63.0	VST	6.31%	ORLY	10.54%
63.0	X	5.8%	HSBC	9.39%
63.0	BA	5.76%	JPM	9.2%
63.0	GNRC	5.7%	MSTR	8.5%
63.0	PHM	5.42%	NFLX	8.03%
63.0	GLD	5.02%	X	7.79%
63.0	NFLX	4.88%	GOOGL	7.76%
63.0	AMC	4.81%	ELAN	7.16%
63.0	CLF	4.33%	MS	7.16%
63.0	HSBC	3.94%	GLD	6.98%
63.0	AMD	3.87%	INTC	6.66%
63.0	PWR	3.86%	CSTM	6.19%
63.0	LW	3.78%	LEN	6.09%
63.0	THC	3.6%	FSUGY	6.07%
63.0	CHTR	3.54%	CLF	6.06%
63.0	TDG	3.54%	BA	6.04%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	MOS	58.86%	MOS	59.0%
126.0	NVDA	36.25%	AMD	58.77%
126.0	AMD	34.37%	ORCL	52.82%
126.0	ORCL	34.33%	CSTM	42.24%
126.0	BA	28.39%	PWR	39.85%
126.0	MS	23.04%	THC	37.86%
126.0	THC	22.77%	BA	33.53%
126.0	B	20.36%	NVDA	33.52%
126.0	AMAT	19.97%	JPM	32.93%
126.0	NFLX	19.84%	HSBC	31.99%
126.0	ELAN	19.46%	MS	31.35%
126.0	QQQ	18.87%	GE	30.25%
126.0	JPM	18.57%	NFLX	29.97%
126.0	PWR	18.29%	B	27.23%
126.0	X	17.49%	INTU	25.74%
126.0	T	15.79%	VST	22.34%
126.0	MSFT	15.0%	X	20.28%
126.0	SPY	13.19%	T	20.12%
126.0	TDG	13.15%	ELAN	18.67%
126.0	DHI	12.7%	GBTC	18.14%
126.0	LUMN	11.76%	LVS	17.02%
126.0	VST	11.03%	QQQ	16.74%
126.0	LVS	10.9%	PHM	16.52%
126.0	INTU	10.81%	LUMN	16.07%
126.0	GNRC	10.53%	TDG	15.81%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	IEP	-0.27%	NWL	-0.32%
1.0	MSTR	-0.24%	IEP	-0.29%
1.0	UAA	-0.18%	SIVBQ	-0.14%
1.0	CZR	-0.17%	GT	-0.14%
1.0	NWL	-0.16%	CZR	-0.13%
1.0	GT	-0.14%	UAA	-0.12%
1.0	GNRC	-0.09%	GNRC	-0.09%
1.0	LNC	-0.08%	BIIB	-0.08%
1.0	TEVA	-0.08%	FIS	-0.08%
1.0	BIIB	-0.08%	BXP	-0.08%
1.0	BXP	-0.08%	TEVA	-0.07%
1.0	META	-0.07%	INTU	-0.07%
1.0	OXY	-0.06%	BALL	-0.07%
1.0	NFLX	-0.06%	META	-0.07%
1.0	BALL	-0.05%	INTC	-0.07%
1.0	AAPL	-0.05%	ZTS	-0.06%
1.0	BA	-0.05%	OXY	-0.06%
1.0	TLT	-0.04%	CTLT	-0.06%
1.0	HD	-0.04%	KHC	-0.05%
1.0	SBUX	-0.03%	VZ	-0.05%
1.0	ZTS	-0.03%	CHTR	-0.05%
1.0	AA	-0.03%	MSTR	-0.03%
1.0	ORCL	-0.03%	AAPL	-0.03%
1.0	INTU	-0.03%	PEP	-0.03%
1.0	GME	-0.03%	USB	-0.02%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	CZR	-1.56%	IEP	-1.99%
10.0	IEP	-1.44%	NWL	-1.58%
10.0	MSTR	-1.36%	SIVBQ	-1.44%
10.0	NWL	-0.72%	CZR	-1.4%
10.0	META	-0.68%	GT	-1.0%
10.0	INTU	-0.66%	CYH	-0.95%
10.0	GNRC	-0.62%	GME	-0.91%
10.0	SIVBQ	-0.56%	INTU	-0.75%
10.0	GOOGL	-0.56%	OXY	-0.69%
10.0	NFLX	-0.48%	CNC	-0.62%
10.0	MS	-0.46%	GNRC	-0.61%
10.0	ORCL	-0.42%	META	-0.58%
10.0	OXY	-0.4%	VZ	-0.57%
10.0	AA	-0.34%	ETRN	-0.55%
10.0	BXP	-0.33%	BXP	-0.5%
10.0	AAPL	-0.32%	HD	-0.48%
10.0	BALL	-0.29%	CLF	-0.48%
10.0	GME	-0.29%	RIO	-0.46%
10.0	HCA	-0.27%	ON	-0.36%
10.0	SLV	-0.25%	BAC	-0.34%
10.0	INTC	-0.24%	VNO	-0.3%
10.0	TEVA	-0.23%	NFLX	-0.28%
10.0	VZ	-0.22%	HCA	-0.28%
10.0	CLF	-0.22%	FIS	-0.28%
10.0	ISRG	-0.22%	KALU	-0.27%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	CZR	-3.93%	IEP	-3.38%
21.0	IEP	-3.47%	GME	-2.86%
21.0	GME	-1.87%	NWL	-2.74%
21.0	MSTR	-1.8%	CZR	-2.65%
21.0	LUMN	-1.51%	SIVBQ	-2.05%
21.0	INTU	-1.42%	GT	-2.02%
21.0	GNRC	-1.41%	GNRC	-1.77%
21.0	META	-1.39%	INTU	-1.53%
21.0	NWL	-1.21%	KEY	-1.13%
21.0	CLF	-1.16%	BBY	-1.04%
21.0	OXY	-0.85%	META	-1.0%
21.0	VZ	-0.75%	CLF	-0.94%
21.0	FSUGY	-0.61%	RIO	-0.91%
21.0	BAC	-0.6%	BALL	-0.91%
21.0	AAPL	-0.6%	OXY	-0.85%
21.0	SIVBQ	-0.6%	ADBE	-0.82%
21.0	BALL	-0.58%	VZ	-0.78%
21.0	KALU	-0.57%	HD	-0.76%
21.0	ADBE	-0.55%	FITB	-0.75%
21.0	WDC	-0.55%	BXP	-0.7%
21.0	KHC	-0.45%	VFC	-0.63%
21.0	CYH	-0.45%	BAC	-0.61%
21.0	CMA	-0.39%	AAP	-0.6%
21.0	INTC	-0.37%	ISRG	-0.58%
21.0	BXP	-0.35%	CYH	-0.54%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	IEP	-11.41%	SIVBQ	-17.54%
63.0	GNRC	-7.96%	IEP	-13.02%
63.0	NWL	-6.21%	GNRC	-9.15%
63.0	META	-5.65%	NWL	-7.84%
63.0	CZR	-3.64%	CLF	-5.75%
63.0	GME	-3.51%	CYH	-5.59%
63.0	VFC	-2.94%	UAA	-5.07%
63.0	SIVBQ	-2.85%	BHC	-4.92%
63.0	BALL	-2.7%	GME	-4.82%
63.0	UAA	-2.16%	VFC	-3.88%
63.0	ON	-1.98%	PRGO	-3.34%
63.0	CYH	-1.94%	CVS	-3.33%
63.0	OXY	-1.76%	KEY	-3.32%
63.0	ADBE	-1.75%	BALL	-3.08%
63.0	VZ	-1.53%	AA	-2.72%
63.0	CLF	-1.53%	GT	-2.7%
63.0	BBY	-1.36%	BBY	-2.58%
63.0	AA	-1.33%	CZR	-2.53%
63.0	BHP	-1.23%	AAP	-2.5%
63.0	HD	-1.14%	ZION	-1.95%
63.0	CVS	-1.05%	VZ	-1.9%
63.0	IRM	-1.04%	INTC	-1.46%
63.0	INTU	-1.0%	FIS	-1.46%
63.0	BAC	-0.99%	FRA	-1.44%
63.0	PRGO	-0.97%	KHC	-1.38%

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 2025-10-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	IEP	-24.19%	FRCB	-74.45%
126.0	NWL	-21.62%	IEP	-25.24%
126.0	SIVBQ	-14.35%	SIVBQ	-23.49%
126.0	GNRC	-13.68%	NWL	-22.35%
126.0	VFC	-11.84%	VFC	-17.85%
126.0	LUMN	-7.96%	GNRC	-12.78%
126.0	FRCB	-7.86%	CLF	-12.66%
126.0	WDC	-5.09%	UAA	-11.22%
126.0	BALL	-5.03%	BHC	-9.24%
126.0	CLF	-4.37%	INTC	-8.4%
126.0	ON	-4.14%	GME	-7.3%
126.0	CVS	-3.95%	BALL	-7.15%
126.0	VZ	-3.95%	CNC	-6.07%
126.0	GME	-3.81%	CTLT	-6.01%
126.0	CYH	-3.59%	CHTR	-5.63%
126.0	BBY	-3.25%	PRGO	-5.38%
126.0	IRM	-3.08%	SBNY	-5.31%
126.0	ADBE	-2.86%	KEY	-5.31%
126.0	CHTR	-2.85%	AAP	-4.78%
126.0	TEVA	-2.84%	CZR	-3.93%
126.0	PRGO	-2.81%	CVS	-3.92%
126.0	UAA	-2.71%	UNH	-3.72%
126.0	AA	-2.65%	AA	-3.7%
126.0	KEY	-2.45%	BBY	-3.55%
126.0	CMA	-2.02%	CMA	-2.9%

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 2025-10-30

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	-48.61%	SIVBQ	-55.92%
252.0	NWL	-44.94%	IEP	-55.29%
252.0	GNRC	-23.55%	NWL	-46.16%
252.0	CLF	-20.35%	CLF	-29.5%
252.0	CVS	-15.83%	AAP	-21.47%
252.0	SBNY	-13.3%	GNRC	-19.02%
252.0	CZR	-12.4%	CZR	-18.55%
252.0	AA	-11.26%	VFC	-18.46%
252.0	VFC	-11.18%	MOS	-16.88%
252.0	GT	-10.74%	GT	-15.83%
252.0	AAP	-10.7%	BHC	-14.87%
252.0	UAA	-9.77%	CTLT	-13.37%
252.0	BALL	-9.39%	UAA	-13.2%
252.0	KEY	-8.65%	OXY	-10.32%
252.0	MOS	-8.37%	LNC	-9.95%
252.0	UNH	-7.63%	INTC	-9.87%
252.0	BHC	-7.53%	PRGO	-9.52%
252.0	ON	-7.1%	KEY	-9.48%
252.0	CYH	-6.88%	CSTM	-9.13%
252.0	FIS	-6.62%	FSUGY	-9.03%
252.0	GME	-6.62%	CVS	-8.02%
252.0	IRM	-6.49%	KHC	-7.44%
252.0	CMA	-4.93%	BALL	-7.41%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	MOS	-1.84%	MOS	-1.66%
1.0	UAA	-0.89%	CZR	-1.15%
1.0	GT	-0.79%	DHI	-1.14%
1.0	CZR	-0.78%	AZO	-1.1%
1.0	MSTR	-0.76%	MSTR	-1.06%
1.0	PHM	-0.68%	CHTR	-0.93%
1.0	NEM	-0.67%	VICI	-0.83%
1.0	VNO	-0.6%	GT	-0.81%
1.0	KEY	-0.43%	PHM	-0.78%
1.0	ORLY	-0.42%	UAA	-0.77%
1.0	AZO	-0.4%	CMG	-0.76%
1.0	VICI	-0.4%	ORCL	-0.73%
1.0	CMG	-0.38%	ORLY	-0.72%
1.0	ORCL	-0.38%	NEM	-0.7%
1.0	JPM	-0.37%	VNO	-0.59%
1.0	BALL	-0.36%	LEN	-0.49%
1.0	DHI	-0.33%	KEY	-0.43%
1.0	IEP	-0.29%	CMCSA	-0.38%
1.0	MRK	-0.29%	OXY	-0.37%
1.0	WYNN	-0.28%	T	-0.36%
1.0	UNH	-0.24%	IEP	-0.34%
1.0	MSI	-0.23%	B	-0.34%
1.0	BA	-0.23%	NFLX	-0.33%
1.0	BIIB	-0.23%	ZION	-0.33%
1.0	CMCSA	-0.22%	MRK	-0.31%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	ORCL	-9.35%	ORCL	-11.44%
10.0	ISRG	-8.97%	MSTR	-10.36%
10.0	MSTR	-5.87%	ACGL	-7.71%
10.0	MOS	-4.97%	MOS	-6.67%
10.0	KALU	-4.35%	CZR	-5.8%
10.0	ACGL	-3.88%	OXY	-4.24%
10.0	CZR	-3.52%	ORLY	-4.17%
10.0	ORLY	-2.76%	AZO	-3.68%
10.0	PHM	-2.64%	KALU	-3.38%
10.0	WDC	-2.61%	PHM	-3.13%
10.0	VFC	-2.55%	NFLX	-3.08%
10.0	THC	-2.18%	CMG	-3.04%
10.0	HCA	-2.07%	B	-2.76%
10.0	AZO	-2.03%	DHI	-2.63%
10.0	GILD	-1.97%	T	-2.56%
10.0	VICI	-1.96%	VICI	-2.38%
10.0	B	-1.79%	KEY	-2.2%
10.0	T	-1.67%	VNO	-2.01%
10.0	ON	-1.59%	GT	-1.98%
10.0	DHI	-1.53%	MSI	-1.96%
10.0	VNO	-1.28%	TEVA	-1.94%
10.0	GT	-1.27%	CHTR	-1.87%
10.0	AMZN	-1.08%	HCA	-1.81%
10.0	SBUX	-0.98%	PCG	-1.59%
10.0	OXY	-0.96%	NEM	-1.54%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	GT	-0.95%	GT	-1.06%
1.0	UAA	-0.8%	UAA	-0.63%
1.0	MOS	-0.64%	MOS	-0.57%
1.0	CZR	-0.42%	MSTR	-0.53%
1.0	MSTR	-0.35%	CZR	-0.44%
1.0	UNH	-0.24%	FIS	-0.43%
1.0	BALL	-0.23%	VICI	-0.38%
1.0	OXY	-0.21%	CMG	-0.37%
1.0	VFC	-0.21%	INTU	-0.33%
1.0	PRGO	-0.2%	IEP	-0.31%
1.0	VICI	-0.18%	PRGO	-0.29%
1.0	FIS	-0.18%	AZO	-0.25%
1.0	CMG	-0.17%	CMCSA	-0.21%
1.0	COST	-0.16%	BALL	-0.2%
1.0	JPM	-0.16%	CHTR	-0.18%
1.0	INTU	-0.15%	CPRT	-0.16%
1.0	WYNN	-0.15%	ORLY	-0.16%
1.0	T	-0.13%	NFLX	-0.16%
1.0	AMZN	-0.11%	OXY	-0.15%
1.0	ORLY	-0.11%	VFC	-0.13%
1.0	HCA	-0.1%	AMZN	-0.13%
1.0	BA	-0.1%	COST	-0.11%
1.0	GWW	-0.09%	BA	-0.1%
1.0	ISRG	-0.08%	T	-0.1%
1.0	FITB	-0.08%	UNH	-0.1%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	GT	-5.77%	GT	-8.49%
10.0	WDC	-3.9%	MSTR	-4.53%
10.0	MSTR	-2.83%	IEP	-3.0%
10.0	INTC	-2.68%	T	-2.65%
10.0	GOOGL	-2.26%	WDC	-2.45%
10.0	VFC	-1.86%	CZR	-2.36%
10.0	CZR	-1.72%	OXY	-2.1%
10.0	KHC	-1.59%	NFLX	-2.0%
10.0	CLF	-1.56%	BALL	-1.91%
10.0	ISRG	-1.52%	CMG	-1.78%
10.0	TSLA	-1.21%	KHC	-1.71%
10.0	UNH	-1.12%	ORLY	-1.42%
10.0	KALU	-1.1%	GOOGL	-1.36%
10.0	VICI	-1.05%	VFC	-1.3%
10.0	HCA	-1.05%	BHC	-1.3%
10.0	BALL	-1.01%	VICI	-1.28%
10.0	AAPL	-0.98%	MOS	-1.21%
10.0	COST	-0.98%	INTC	-1.09%
10.0	BXP	-0.96%	ACGL	-1.06%
10.0	ORLY	-0.95%	KALU	-1.04%
10.0	THC	-0.95%	GME	-0.94%
10.0	EXPE	-0.95%	BA	-0.88%
10.0	CVS	-0.91%	AZO	-0.88%
10.0	T	-0.87%	CCL	-0.85%
10.0	MOS	-0.81%	FIS	-0.82%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	GT	-16.86%	GT	-19.04%
21.0	MSTR	-5.59%	T	-9.36%
21.0	WDC	-5.39%	MSTR	-8.83%
21.0	GOOGL	-4.35%	BHC	-5.73%
21.0	CZR	-4.22%	IEP	-4.22%
21.0	INTC	-3.83%	BA	-4.06%
21.0	BHC	-3.47%	GME	-3.87%
21.0	KHC	-2.91%	TMUS	-3.77%
21.0	VFC	-2.65%	INTC	-3.7%
21.0	TMUS	-2.56%	UAA	-3.63%
21.0	ISRG	-2.49%	GOOGL	-2.98%
21.0	AAPL	-2.35%	KHC	-2.97%
21.0	GME	-2.14%	CZR	-2.87%
21.0	CVS	-2.06%	NFLX	-2.82%
21.0	TSLA	-2.04%	BALL	-2.77%
21.0	BALL	-2.02%	ISRG	-2.31%
21.0	CPRT	-1.95%	FIS	-2.26%
21.0	COST	-1.94%	THC	-2.23%
21.0	VICI	-1.93%	CCL	-2.18%
21.0	CLF	-1.85%	OXY	-2.01%
21.0	BA	-1.78%	COST	-1.7%
21.0	THC	-1.73%	MOS	-1.58%
21.0	KALU	-1.6%	BMY	-1.55%
21.0	BXP	-1.59%	CDNS	-1.54%
21.0	T	-1.54%	PRGO	-1.54%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	MSTR	-0.76%	MSTR	-0.57%
1.0	IEP	-0.29%	IEP	-0.31%
1.0	UAA	-0.26%	UAA	-0.26%
1.0	PCG	-0.24%	FIS	-0.26%
1.0	LNC	-0.21%	NWL	-0.24%
1.0	UNH	-0.2%	AMZN	-0.24%
1.0	LEN	-0.18%	PCG	-0.22%
1.0	CZR	-0.18%	CMG	-0.21%
1.0	FIS	-0.15%	CMCSA	-0.19%
1.0	CMCSA	-0.15%	UNH	-0.17%
1.0	AMZN	-0.15%	CZR	-0.17%
1.0	CNC	-0.15%	KHC	-0.17%
1.0	BXP	-0.14%	TEVA	-0.15%
1.0	TEVA	-0.13%	CNC	-0.15%
1.0	OXY	-0.12%	OXY	-0.14%
1.0	CMG	-0.1%	LEN	-0.14%
1.0	PWR	-0.1%	BXP	-0.13%
1.0	BIIB	-0.09%	GME	-0.12%
1.0	GT	-0.09%	VZ	-0.11%
1.0	ORCL	-0.08%	ISRG	-0.1%
1.0	ON	-0.08%	CMA	-0.09%
1.0	GME	-0.08%	CHTR	-0.08%
1.0	CMA	-0.08%	GWW	-0.08%
1.0	CYH	-0.08%	DHI	-0.07%
1.0	ISRG	-0.07%	IRM	-0.07%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	MSTR	-3.11%	IEP	-2.41%
10.0	IEP	-1.64%	GT	-2.19%
10.0	FIS	-1.49%	CNC	-2.12%
10.0	ON	-1.03%	OXY	-1.73%
10.0	TSLA	-0.94%	VNO	-1.69%
10.0	ORCL	-0.84%	PCG	-1.63%
10.0	GOOGL	-0.82%	UAA	-1.58%
10.0	PCG	-0.81%	TSLA	-1.58%
10.0	AMZN	-0.8%	PRGO	-1.48%
10.0	INTC	-0.73%	FIS	-1.47%
10.0	ISRG	-0.67%	ON	-1.3%
10.0	OXY	-0.67%	MSTR	-1.16%
10.0	CZR	-0.66%	CMG	-1.13%
10.0	WDC	-0.65%	CZR	-1.06%
10.0	UAA	-0.65%	CYH	-1.05%
10.0	BIIB	-0.63%	KHC	-1.01%
10.0	FITB	-0.62%	FITB	-0.91%
10.0	LNC	-0.56%	GME	-0.84%
10.0	LEN	-0.54%	BXP	-0.84%
10.0	SPY	-0.51%	BHC	-0.81%
10.0	VNO	-0.51%	THC	-0.78%
10.0	FCX	-0.5%	CMCSA	-0.71%
10.0	BBY	-0.49%	MS	-0.62%
10.0	MS	-0.47%	NWL	-0.61%
10.0	GME	-0.47%	GILD	-0.59%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	MSTR	-4.17%	PCG	-4.63%
21.0	IEP	-3.1%	IEP	-3.87%
21.0	GT	-2.98%	FIS	-3.26%
21.0	PCG	-2.37%	TSLA	-3.23%
21.0	WDC	-2.36%	GT	-3.01%
21.0	FIS	-2.13%	FITB	-2.72%
21.0	OXY	-2.1%	OXY	-2.63%
21.0	ON	-1.92%	PRGO	-2.38%
21.0	TSLA	-1.67%	UAA	-2.35%
21.0	CZR	-1.64%	GME	-1.97%
21.0	BHC	-1.4%	CMG	-1.83%
21.0	AMZN	-1.35%	BHC	-1.67%
21.0	CMA	-1.2%	VNO	-1.64%
21.0	CMG	-1.2%	EXPE	-1.61%
21.0	INTC	-1.16%	BBY	-1.59%
21.0	FITB	-1.13%	CNC	-1.59%
21.0	DHI	-1.13%	ON	-1.46%
21.0	GILD	-1.1%	NWL	-1.43%
21.0	ISRG	-1.01%	MU	-1.41%
21.0	AAPL	-0.98%	CZR	-1.39%
21.0	LEN	-0.97%	CMCSA	-1.31%
21.0	HCA	-0.94%	KHC	-1.29%
21.0	UAA	-0.94%	ISRG	-1.28%
21.0	GME	-0.93%	USB	-1.26%
21.0	CMCSA	-0.91%	KALU	-1.13%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	OXY	-8.48%	NWL	-12.94%
63.0	ON	-8.2%	PCG	-10.51%
63.0	TSLA	-8.09%	UAA	-9.05%
63.0	NWL	-7.63%	TSLA	-7.73%
63.0	AVGO	-7.08%	FIS	-7.62%
63.0	PCG	-7.03%	ADBE	-7.54%
63.0	ZION	-5.21%	PRGO	-7.32%
63.0	CMG	-5.08%	ZION	-7.15%
63.0	CZR	-4.93%	ON	-7.02%
63.0	WDC	-4.68%	CZR	-6.75%
63.0	FITB	-4.52%	CMG	-6.58%
63.0	IEP	-3.89%	UNH	-6.36%
63.0	UAA	-3.86%	VFC	-5.85%
63.0	UNH	-3.73%	OXY	-5.58%
63.0	ADBE	-3.66%	IEP	-5.26%
63.0	VFC	-3.52%	FITB	-5.04%
63.0	AAPL	-3.29%	TEVA	-4.55%
63.0	CMA	-2.69%	AMZN	-4.44%
63.0	INTC	-2.68%	CMCSA	-3.85%
63.0	FIS	-2.59%	AVGO	-3.64%
63.0	GILD	-2.52%	VNO	-3.23%
63.0	ELAN	-2.37%	BHC	-3.06%
63.0	BBY	-2.37%	GT	-2.77%
63.0	BUD	-2.29%	CMA	-2.66%
63.0	EXPE	-2.1%	KHC	-2.63%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	WDC	-27.89%	UNH	-46.29%
126.0	UNH	-25.16%	CNC	-42.78%
126.0	PCG	-21.71%	NWL	-29.2%
126.0	AVGO	-20.88%	VFC	-29.15%
126.0	ADBE	-17.78%	UAA	-28.33%
126.0	VFC	-17.19%	PCG	-26.82%
126.0	NWL	-16.2%	ADBE	-22.67%
126.0	IEP	-12.17%	IEP	-14.41%
126.0	CMG	-11.36%	CMG	-13.67%
126.0	OXY	-10.8%	OXY	-12.77%
126.0	TRGP	-10.78%	AMC	-12.05%
126.0	AAP	-10.72%	CZR	-11.31%
126.0	UAA	-9.8%	AVGO	-10.71%
126.0	ON	-7.85%	BHC	-10.67%
126.0	CZR	-7.56%	CPRT	-9.46%
126.0	BBY	-7.5%	ON	-9.43%
126.0	BHC	-6.86%	LLY	-8.96%
126.0	CPRT	-6.75%	TRGP	-8.52%
126.0	FIS	-4.27%	BBY	-8.0%
126.0	MRK	-4.16%	FIS	-6.5%
126.0	LLY	-3.92%	GWW	-6.0%
126.0	CMA	-3.92%	PRGO	-5.69%
126.0	PRGO	-3.86%	BMY	-5.48%
126.0	TSLA	-3.68%	CMCSA	-5.22%
126.0	FITB	-3.03%	MRK	-5.17%

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 2025-10-30. 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	308.29	0	5.23	0.02
Sigma	95	10	5.03	0.02	1.62	0.2
Sigma	95	21	9.51	0	0.29	0.59
Sigma	95	63	15.04	0	0.58	0.45
Sigma	95	126	0.02	0.89	0.2	0.66
Sigma	95	252	11.36	0	nan	0
Sigma	99	1	195.89	0	10.93	0
Sigma	99	10	31.63	0	0.38	0.54
Sigma	99	21	23.13	0	1.08	0.3
Sigma	99	63	28.53	0	nan	0
Sigma	99	126	6.1	0.01	0.6	0.44
Sigma	99	252	23.94	0	nan	0