

VecViz Opportunity At Risk (OaR) Performance Report

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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 $\sim 60,000$ 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-vecvz-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.

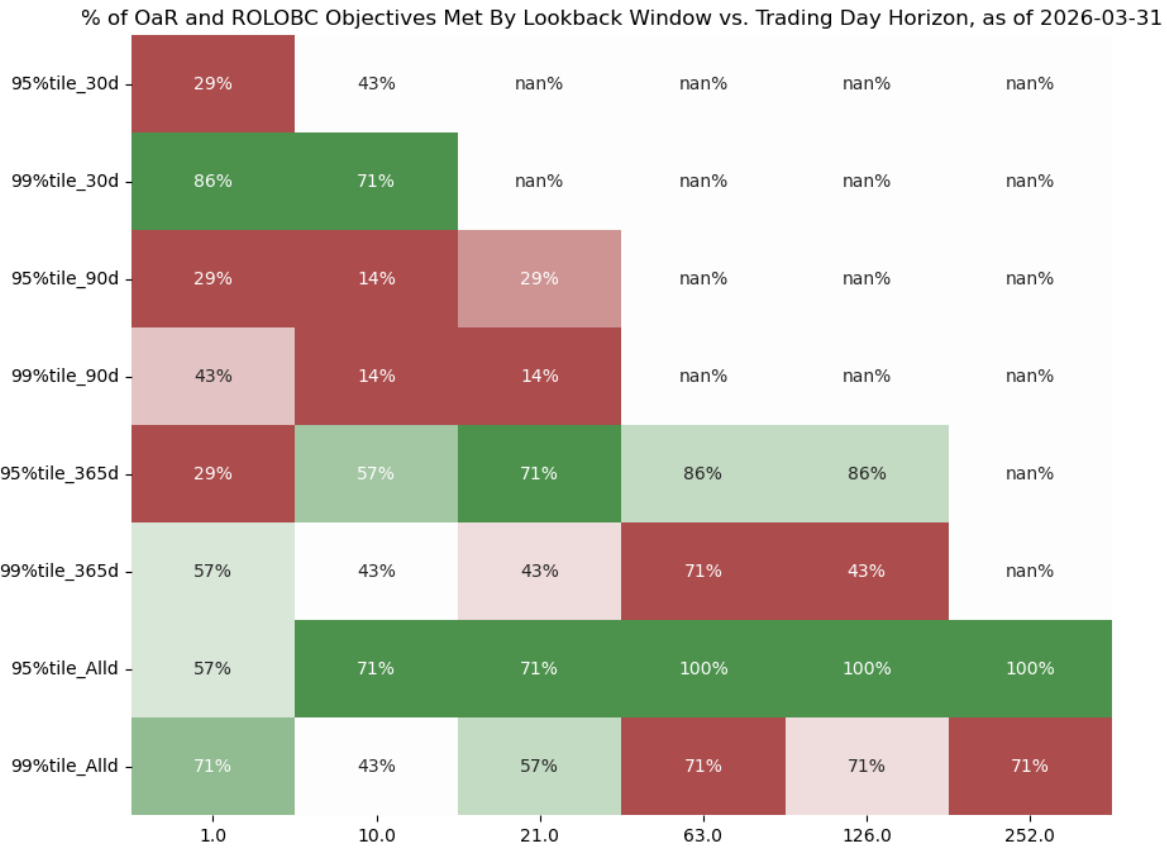
Thus, in summary, with the exception of the Kupiec and Christoferson tests, all metrics presented in this report are presented and are to be considered on a comparative basis. Are Vector Model OaR breakage rates closer to target than Sigma’s? Does Vector Model ROLOBC outperform Sigma ROLOBC? Is the relative 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 2026-03-30 while 365D /90D/ 30D include the 365/90/30 days ended 2026-03-30, 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_chStat 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 2026-03-30. 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_chStat	OaR_pValChr
Vector	95	1	179.45	0	3.76	0.05
Vector	95	10	37.1	0	3.68	0.06
Vector	95	21	33.51	0	0.7	0.4
Vector	95	63	4.36	0.04	0.15	0.7
Vector	95	126	0.71	0.4	nan	0
Vector	95	252	2.09	0.15	nan	0
Vector	99	1	9.61	0	3.1	0.08
Vector	99	10	43.41	0	4.08	0.04
Vector	99	21	23.98	0	2.01	0.16
Vector	99	63	6.93	0.01	2.35	0.13
Vector	99	126	8.74	0	0.17	0.68
Vector	99	252	8.33	0	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 2026-03-30.



OaR and ROLOBC Criteria	Average Score(%)
1. Closer to Target OaR Breakage Than Sigma	40.62
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	93.75
3. Less Volatile OaR Breakage Across Tickers Than Sigma	43.75
4. Higher ROLOBC Than Sigma	68.75
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	34.38
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	53.12
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	68.75
Overall Comparison to Sigma Average	57.59
Kupiec Test of VaR Proximity to Target	16.6667
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	87.5	25	16.67	25	25	50
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	100	75	100	100	100	100
3. Less Volatile OaR Breakage Across Tickers Than Sigma	25	25	0	100	100	100
4. Higher ROLOBC Than Sigma	50	50	66.67	100	100	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	12.5	37.5	33.33	50	50	50
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	25	37.5	50	100	75	100
7. Alpha of ROLOBC vs Sigma >0, By Ticker, Across Model Dates	50	62.5	66.67	100	75	100
TotalScore	50	44.64	47.62	82.14	75	85.71

OaR and ROLOBC Criteria Across Lookback Window	30D	90D	365D	AllD
1. Closer to Target OaR Breakage Than Sigma	75	66.67	10	41.67
2. Less Volatile OaR Breakage Across Model Dates Than Sigma	100	83.33	90	100
3. Less Volatile OaR Breakage Across Tickers Than Sigma	75	16.67	40	50
4. Higher ROLOBC Than Sigma	0	0	100	100
5. Higher ROLOBC Than Sigma, Adj. for Avg. VM-Sigma OaR Diff.	50	0	40	41.67
6. Alpha of ROLOBC vs Sigma >0, Across Tickers and Model Dates	50	0	50	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	80	100
TotalScore	57.14	23.81	58.57	73.81



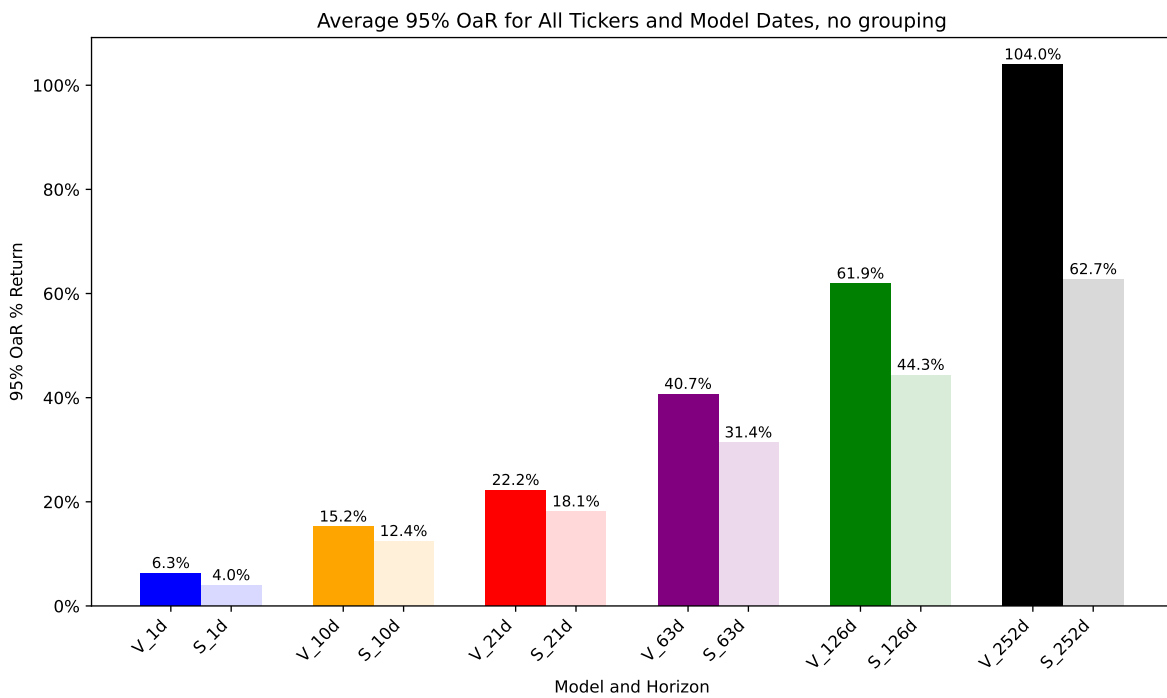
95% Opportunity At Risk (OaR)

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.

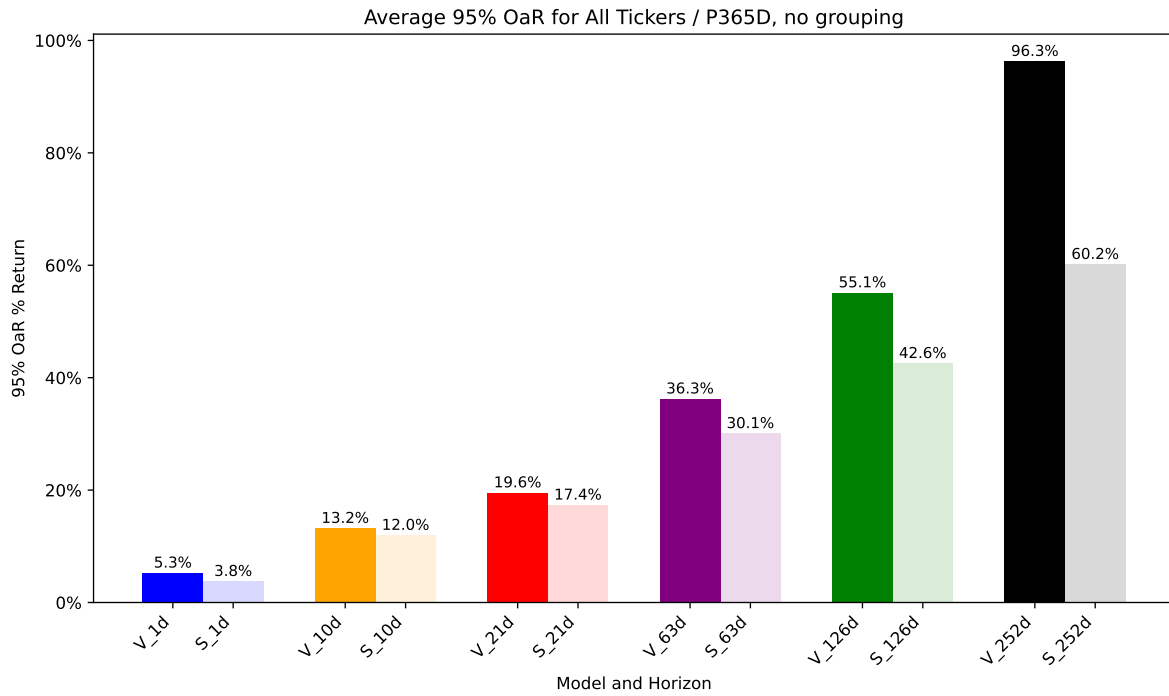
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-03-30



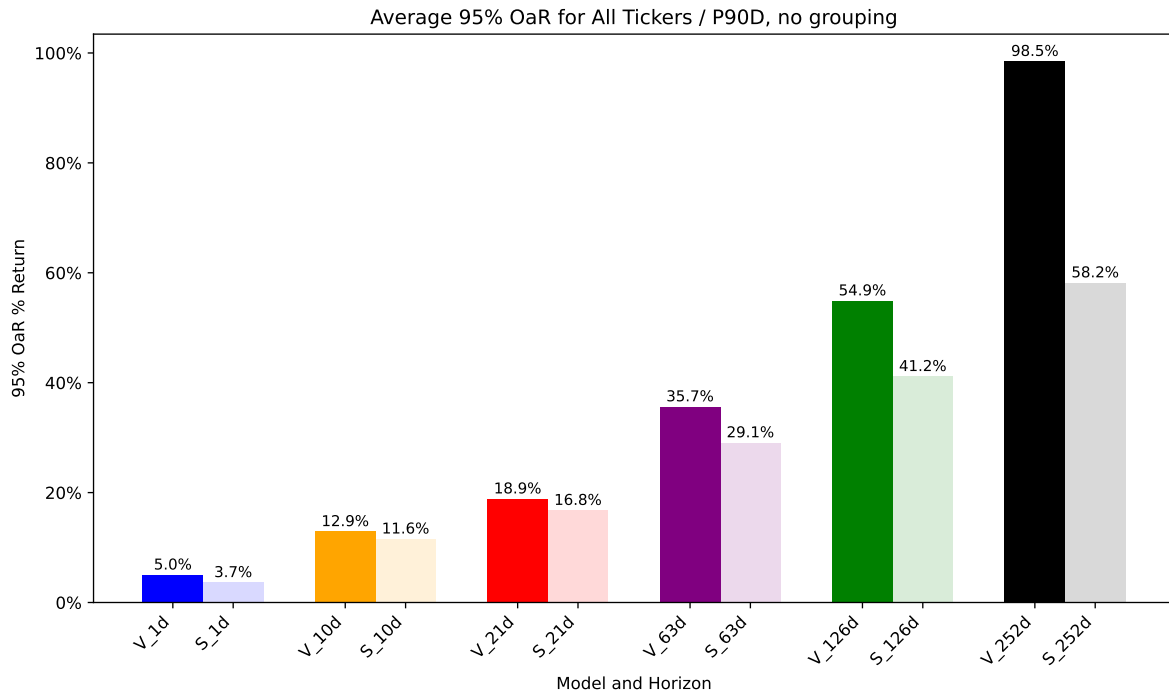
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-03-30 through 2025-04-01



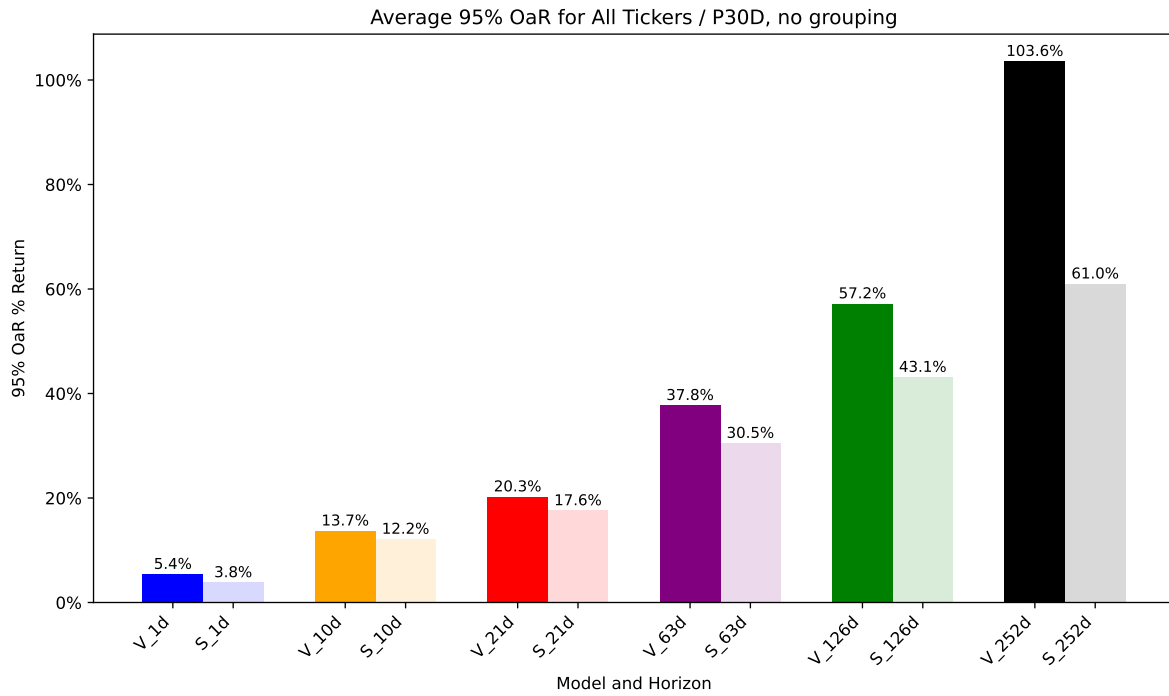
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-30 through 2026-01-02



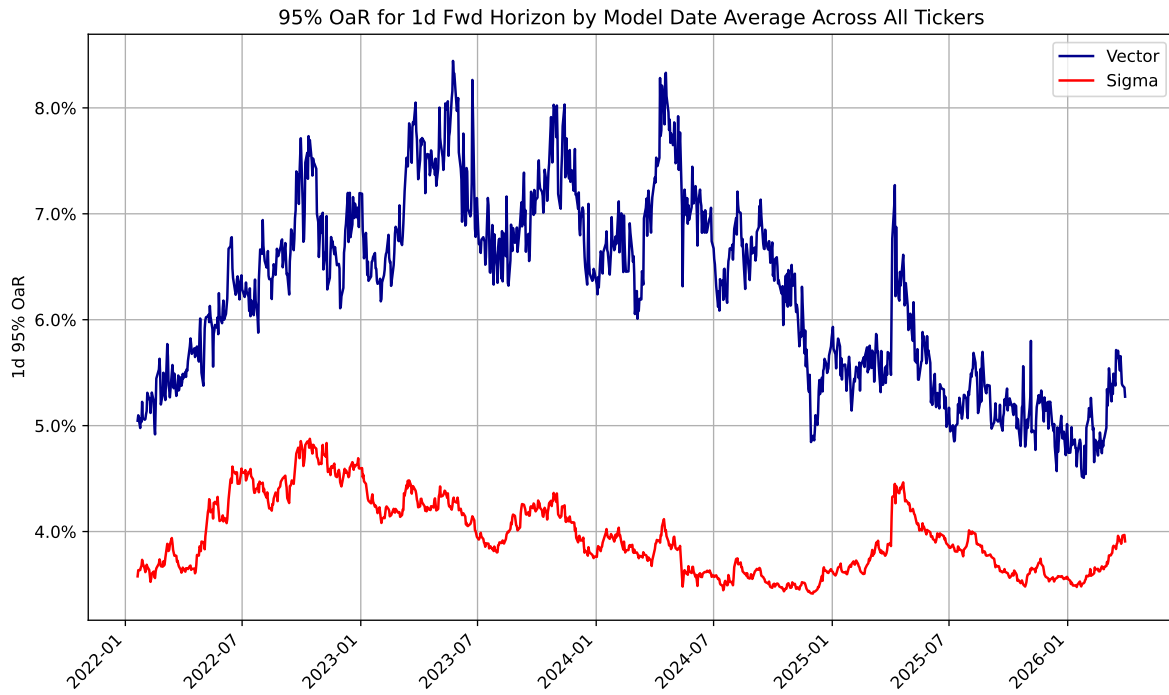
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-03-30 through 2026-03-02

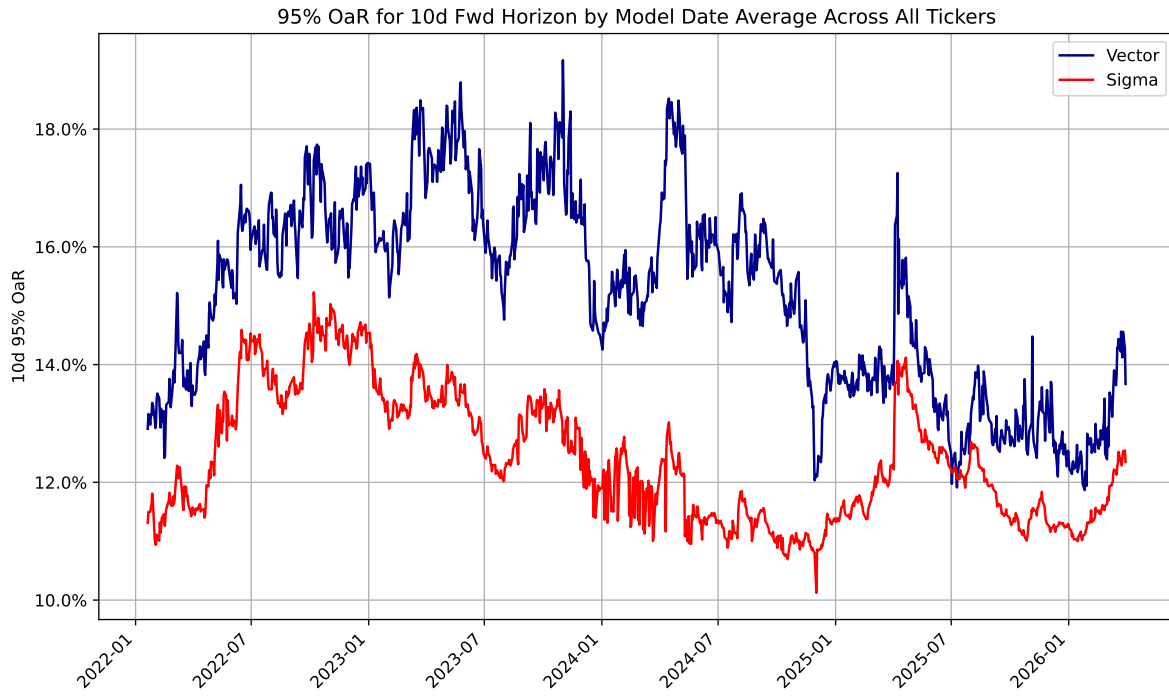


Daily Levels

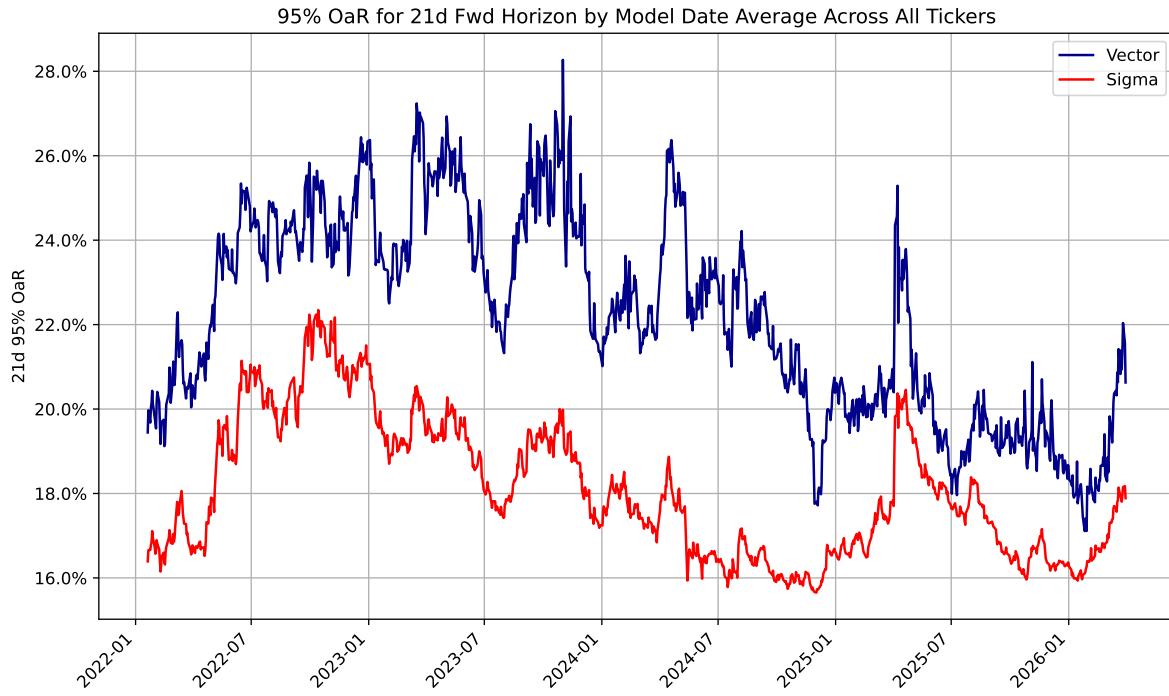
1d Horizon



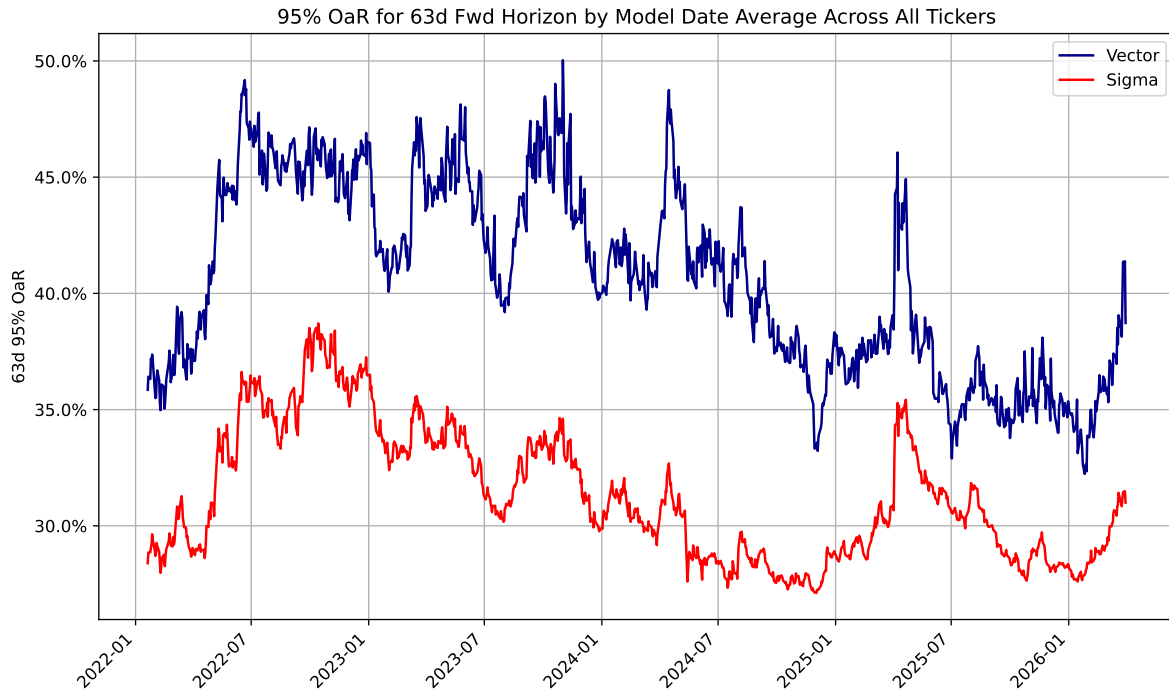
10d Horizon



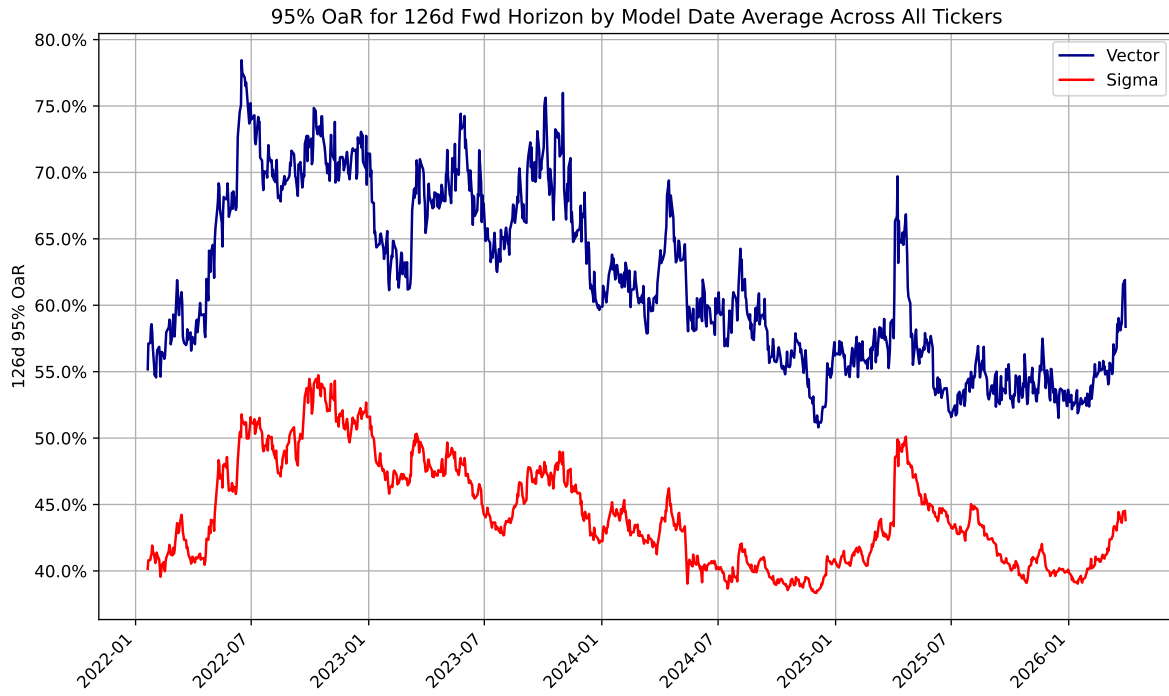
21d Horizon



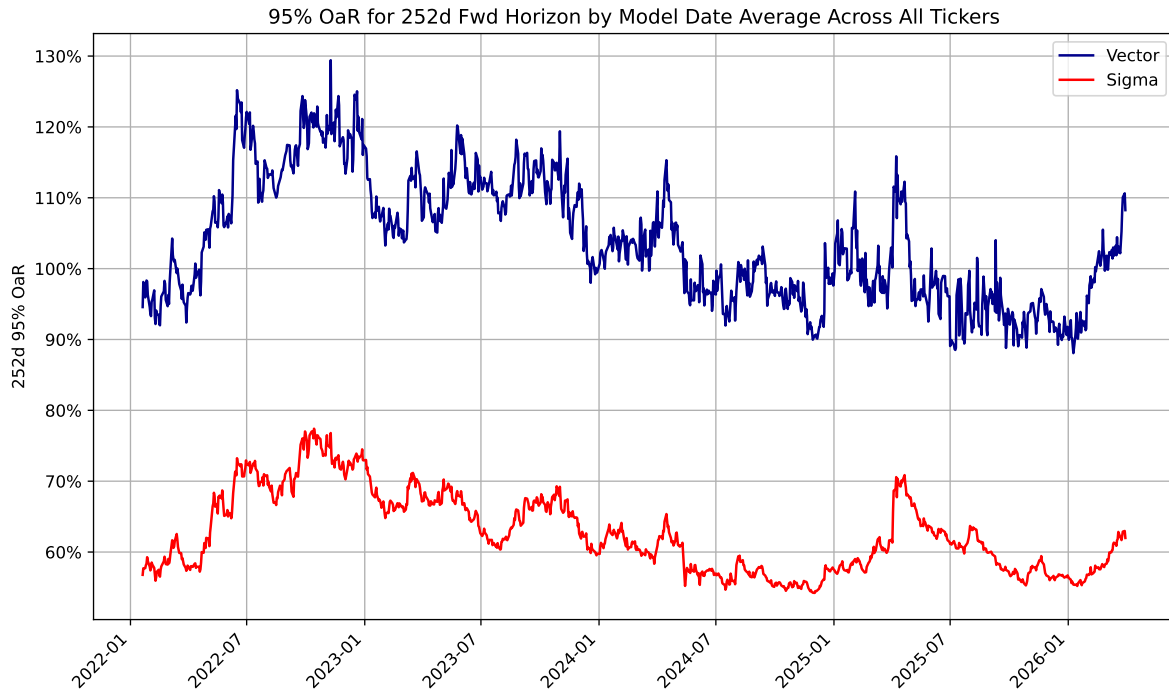
63d Horizon



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.

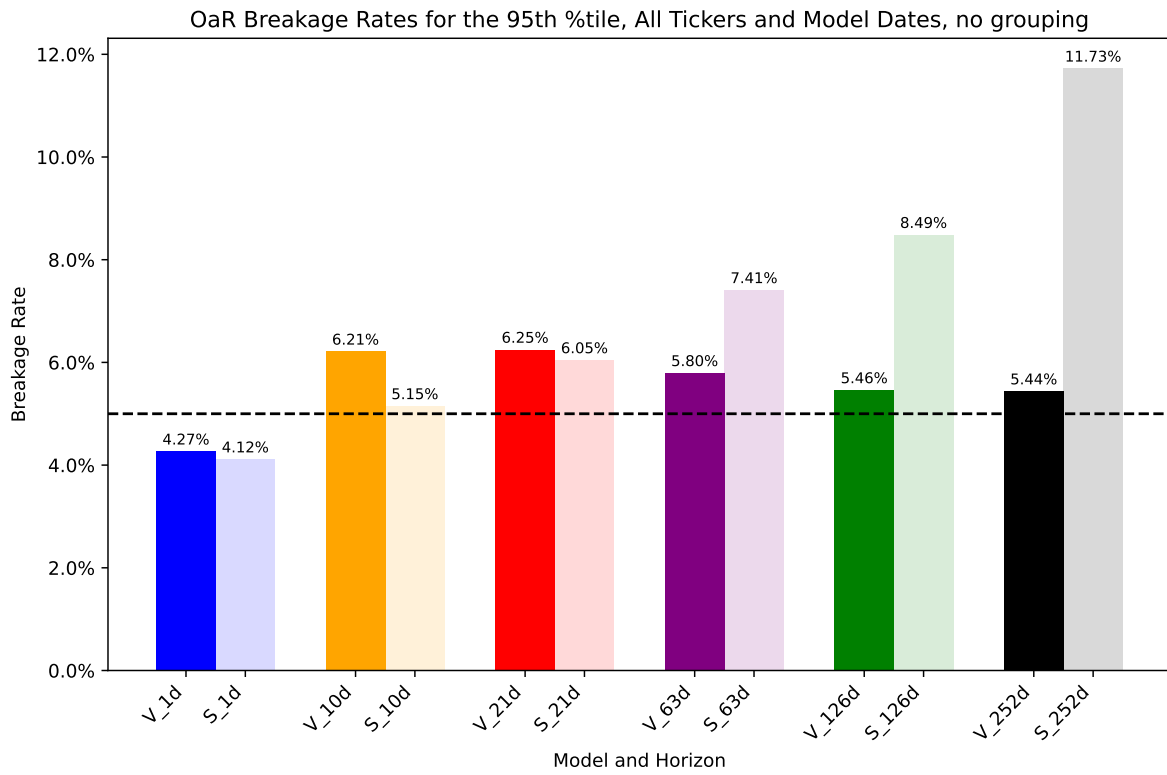
ROLOBC comparisons are made on the basis of outright ROLOBC and the alpha of Vector Model ROLOBC to underlying ticker returns (the proxy for Sigma ROLOBC). As discussed in the Introduction, ROLOBC for Sigma is presumed to be the return of the underlying ticker, and for the Vector Model it is based on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

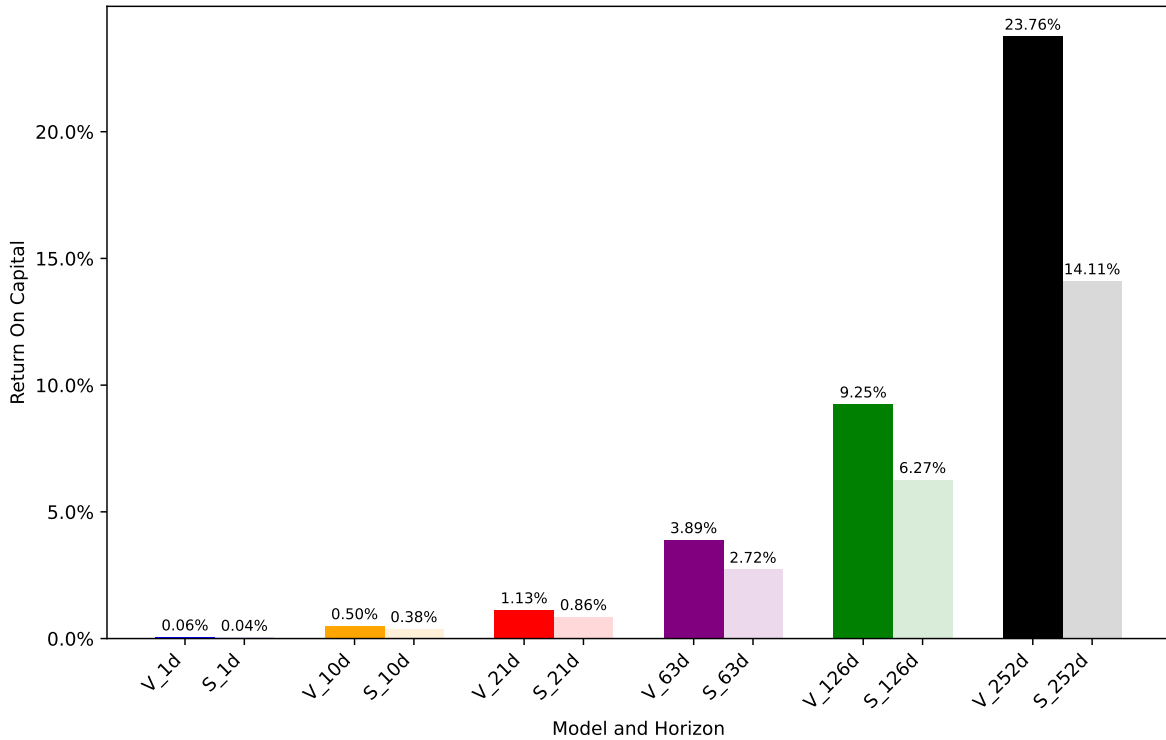


All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-03-30



Return on Long OaR Based Capital for the 95th %tile, All Tickers and Model Dates, no grouping



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

	1d	10d	21d	63d	126d	252d
intercept	-0.00%	0.04%	0.09%	0.25%	0.62%	2.39%
intercept_p_value	62.23%	0.22%	0.00%	0.00%	0.00%	0.00%
slope	144.24%	119.21%	121.23%	133.89%	137.68%	151.52%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

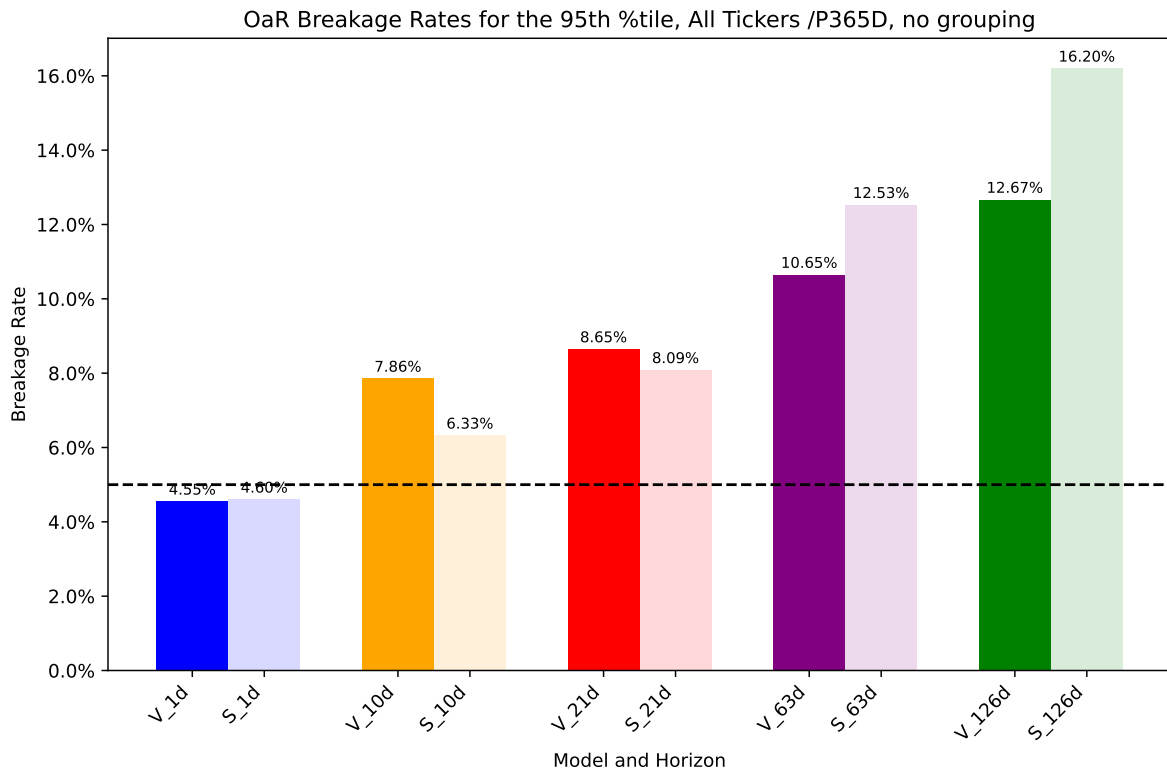
Average Alpha (intercept) and Beta (slope) of Vector Model ROLIBC regressed upon corresponding actual returns, by ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.04%	-0.19%	-0.53%	-2.23%	-4.27%	-5.19%
intercept_p_value	0.00%	0.14%	0.01%	0.00%	0.00%	0.09%
slope	165.65%	150.18%	166.11%	180.86%	178.39%	163.39%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

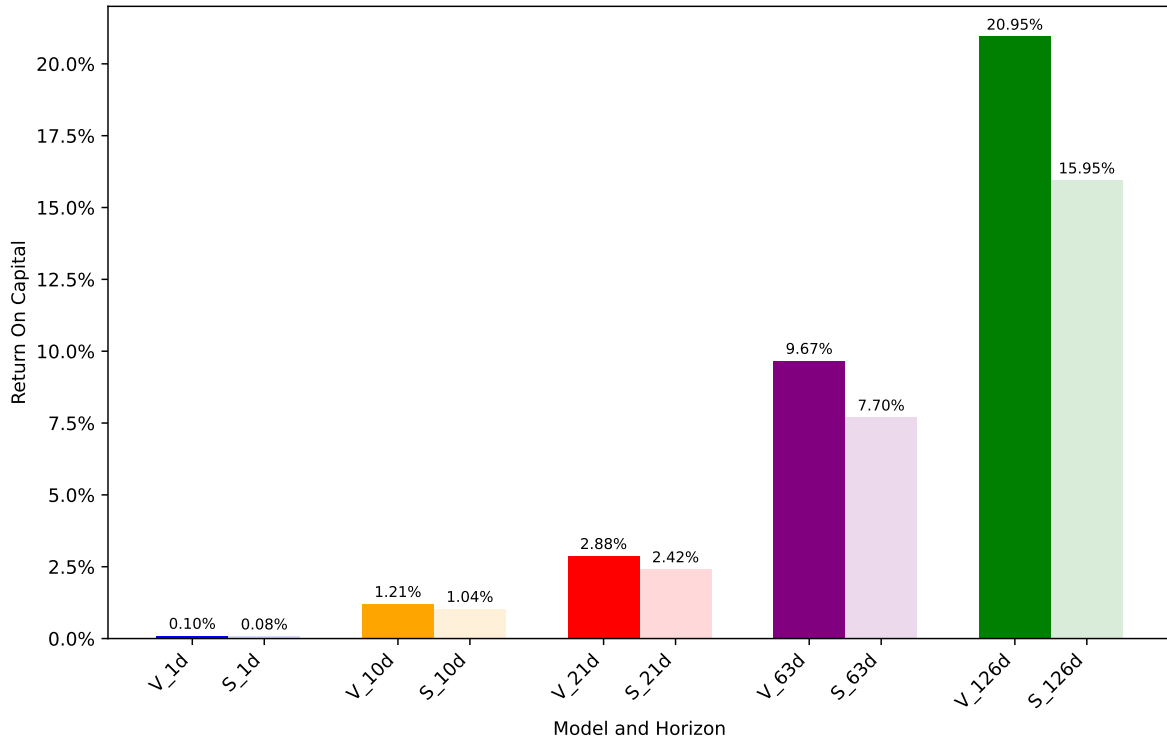


Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-03-30 through 2025-04-01



Return on Long OaR Based Capital for the 95th %tile, All Tickers /P365D, no grouping



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

	1d	10d	21d	63d	126d
intercept	-0.01%	0.05%	0.09%	0.19%	1.14%
intercept_p_value	22.88%	4.01%	0.53%	1.36%	0.00%
slope	139.52%	112.18%	115.31%	123.16%	124.24%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

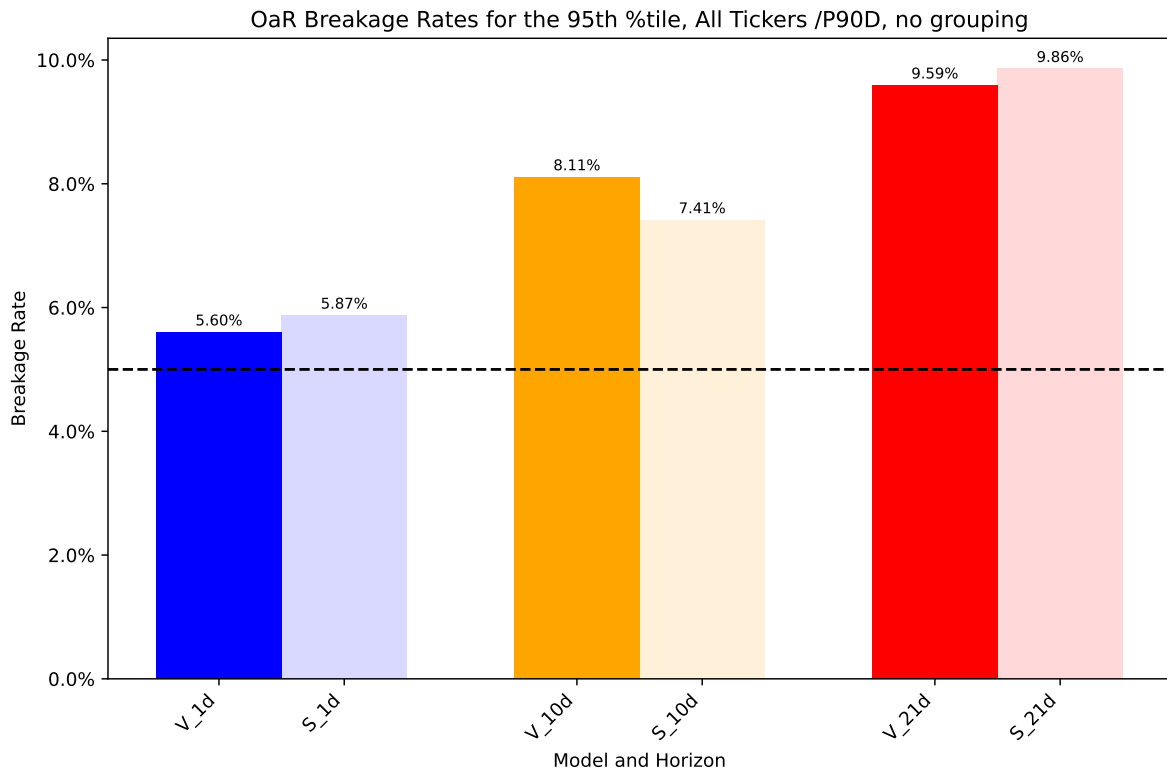
Average Alpha (intercept) and Beta (slope) of Vector Model ROLIBC regressed upon corresponding actual returns, by ticker across P365D:

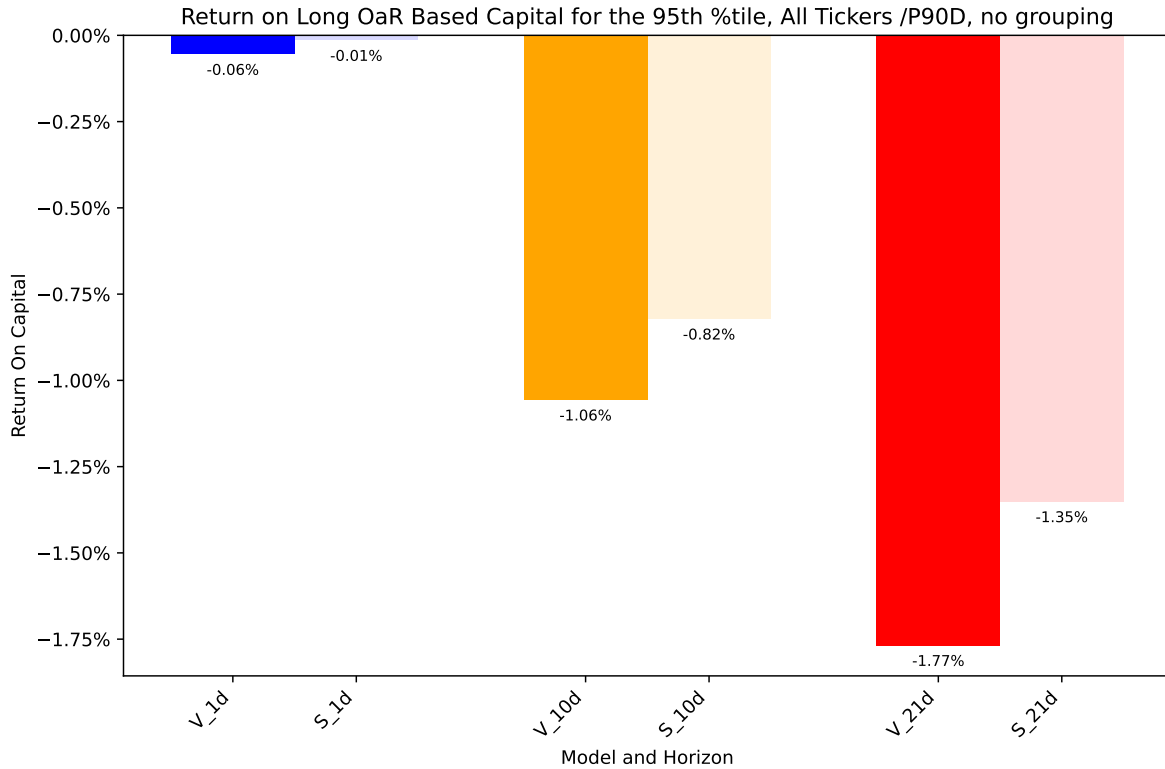
	1d	10d	21d	63d	126d
intercept	-0.01%	-0.15%	-0.33%	-1.34%	-3.89%
intercept_p_value	42.36%	8.76%	6.42%	1.63%	0.59%
slope	95.75%	122.34%	127.43%	134.18%	153.25%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-30 through 2026-01-02





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

	1d	10d	21d
intercept	-0.04%	-0.19%	-0.36%
intercept_p_value	4.55%	0.00%	0.00%
slope	127.61%	105.43%	104.42%
slope_p_value	0.00%	0.00%	0.00%

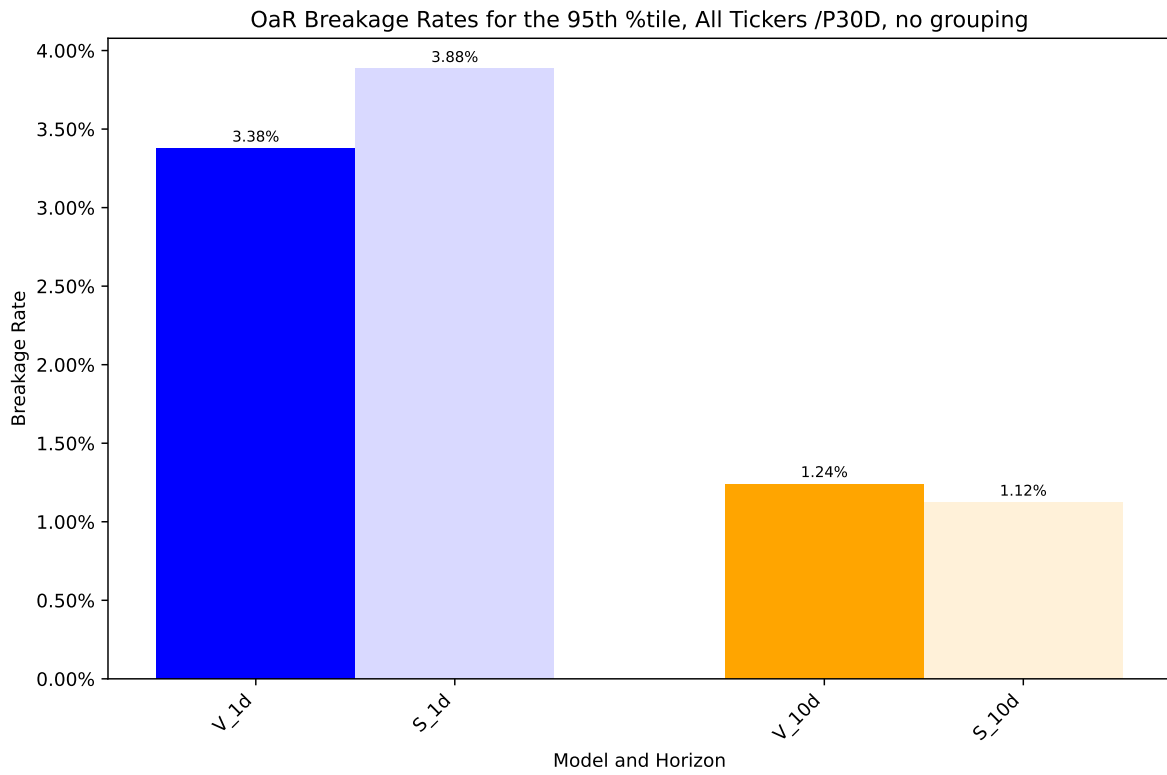
Average Alpha (intercept) and Beta (slope) of Vector Model ROLIBC regressed upon corresponding actual returns, by ticker across P90D:

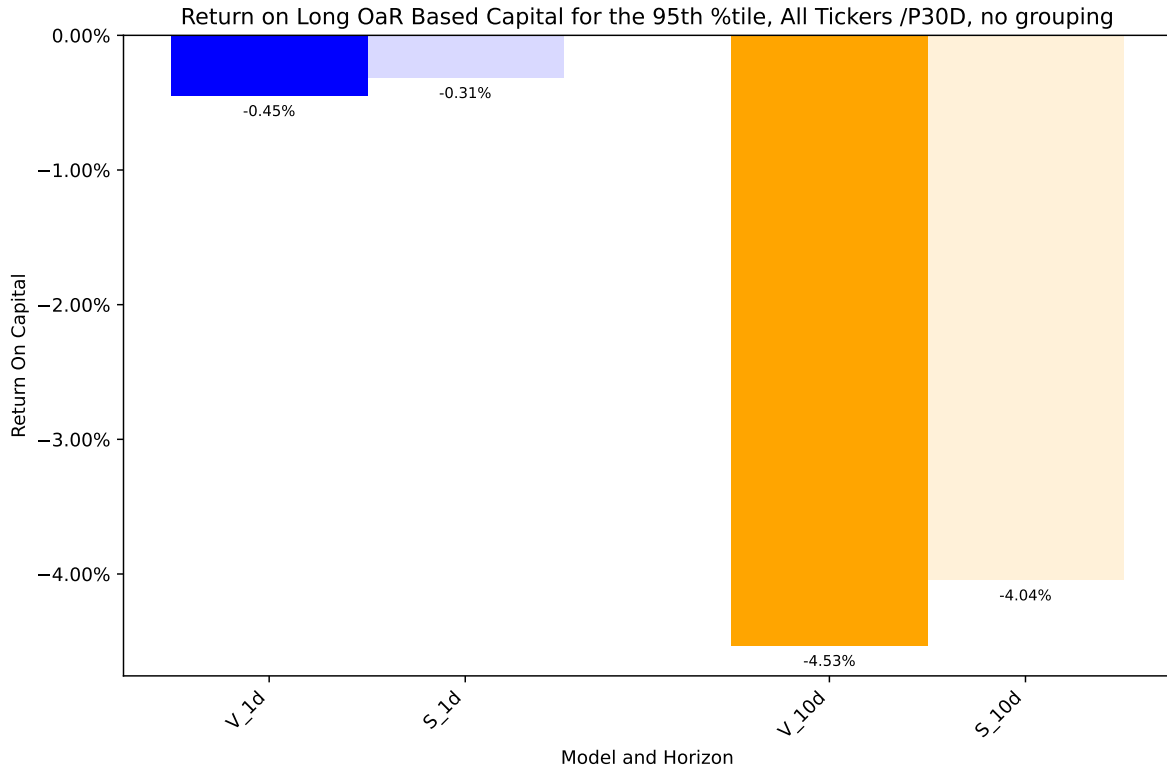
	1d	10d	21d
intercept	-0.04%	-0.05%	0.04%
intercept_p_value	3.96%	75.25%	89.66%
slope	104.47%	118.40%	125.91%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-03-30 through 2026-03-02





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

	1d	10d
intercept	-0.02%	-0.02%
intercept_p_value	54.91%	85.70%
slope	136.77%	111.52%
slope_p_value	0.00%	0.00%

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

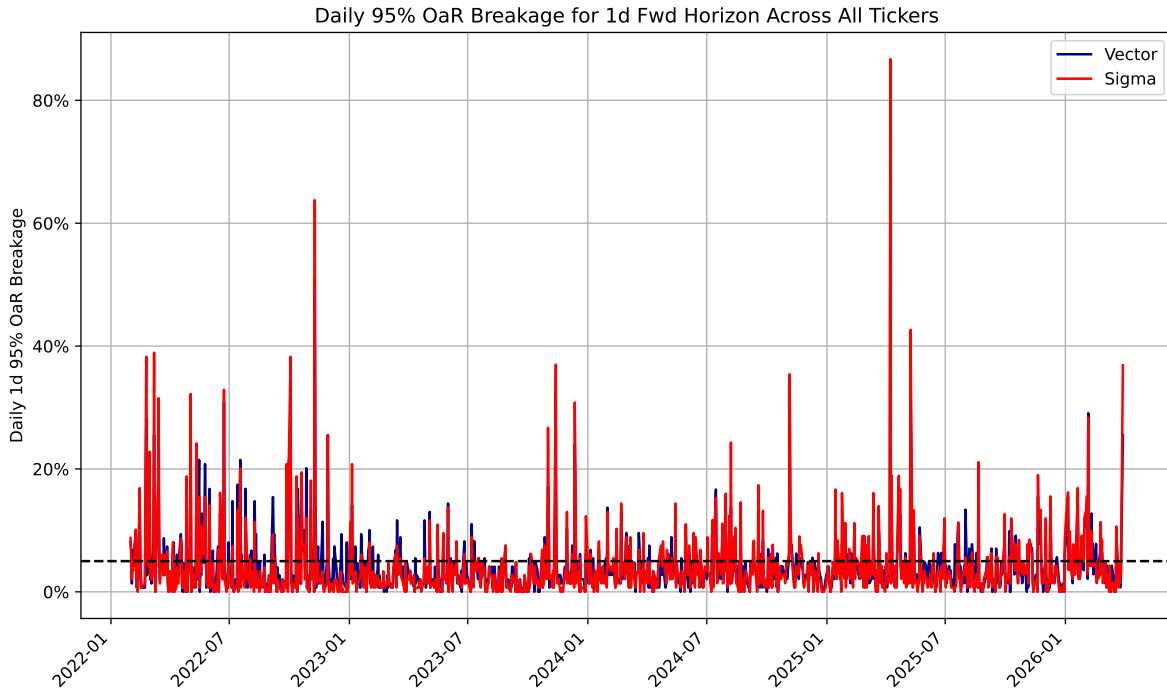
	1d	10d
intercept	-0.01%	0.12%
intercept_p_value	69.11%	72.09%
slope	106.04%	115.23%
slope_p_value	0.00%	0.00%

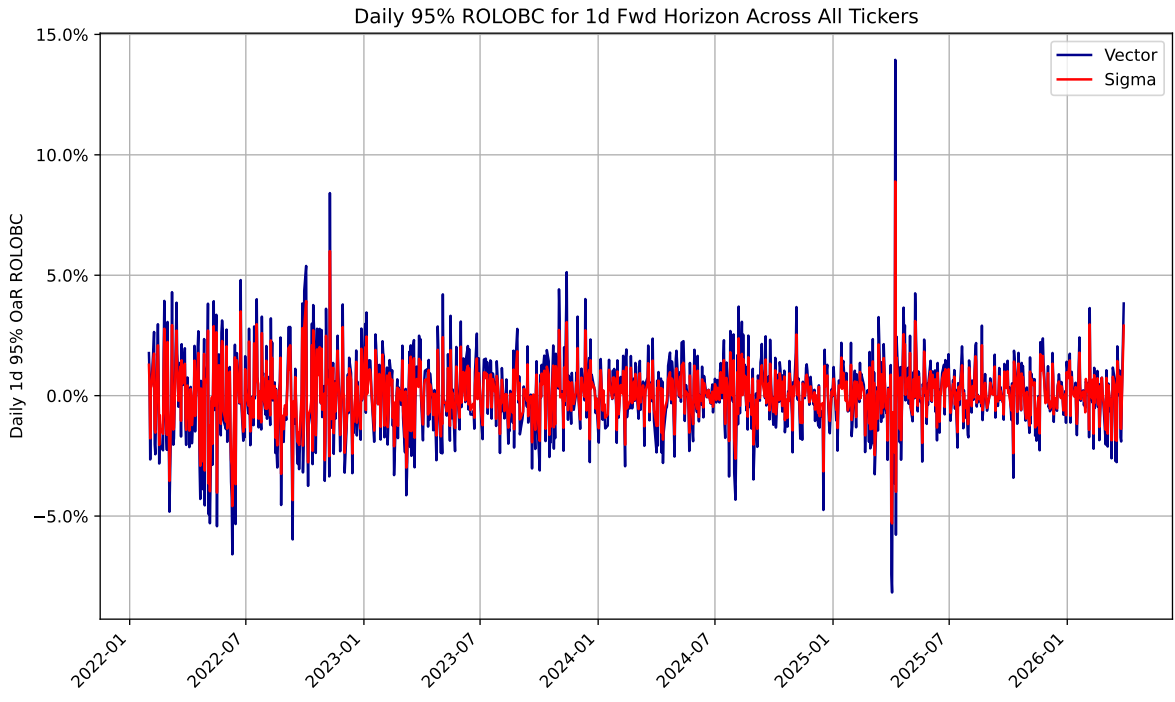


Daily Performance

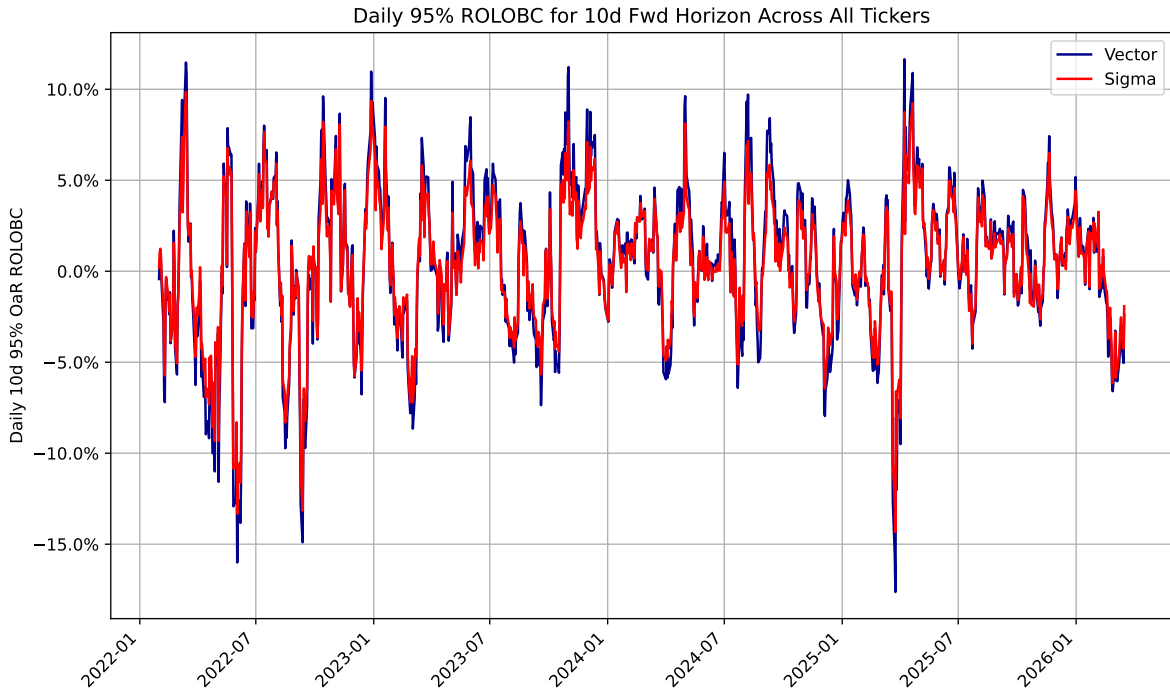
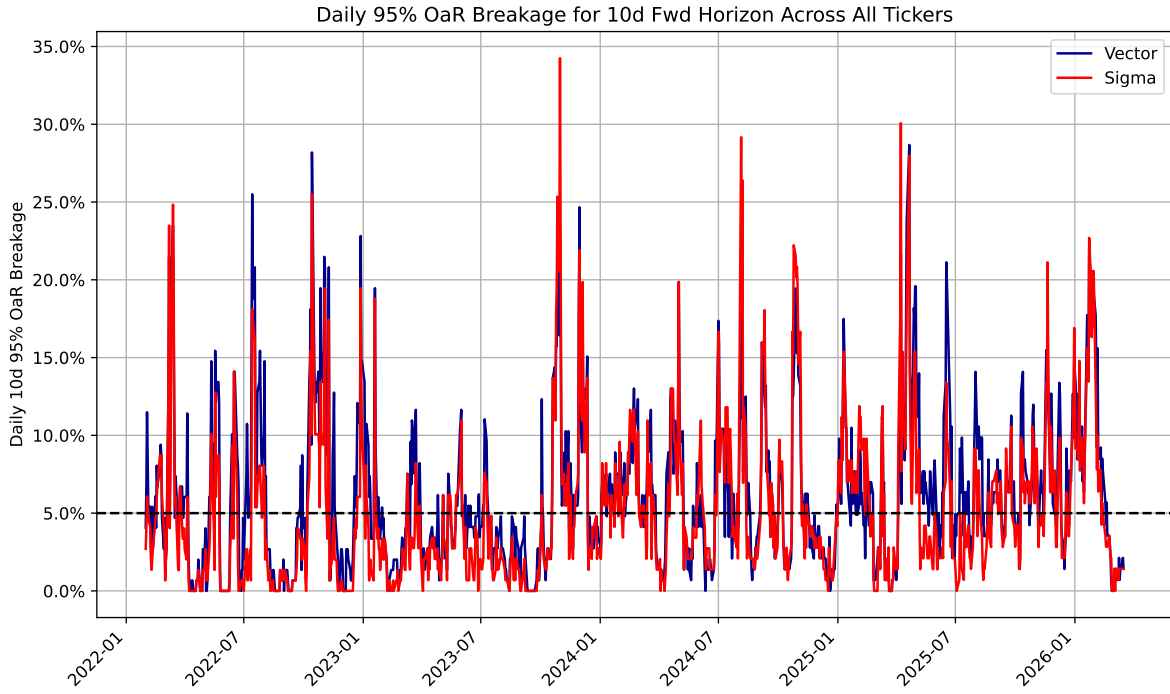
Here we look at the daily breakage and ROLOBC statistics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROLOBC outliers.

1d Horizon

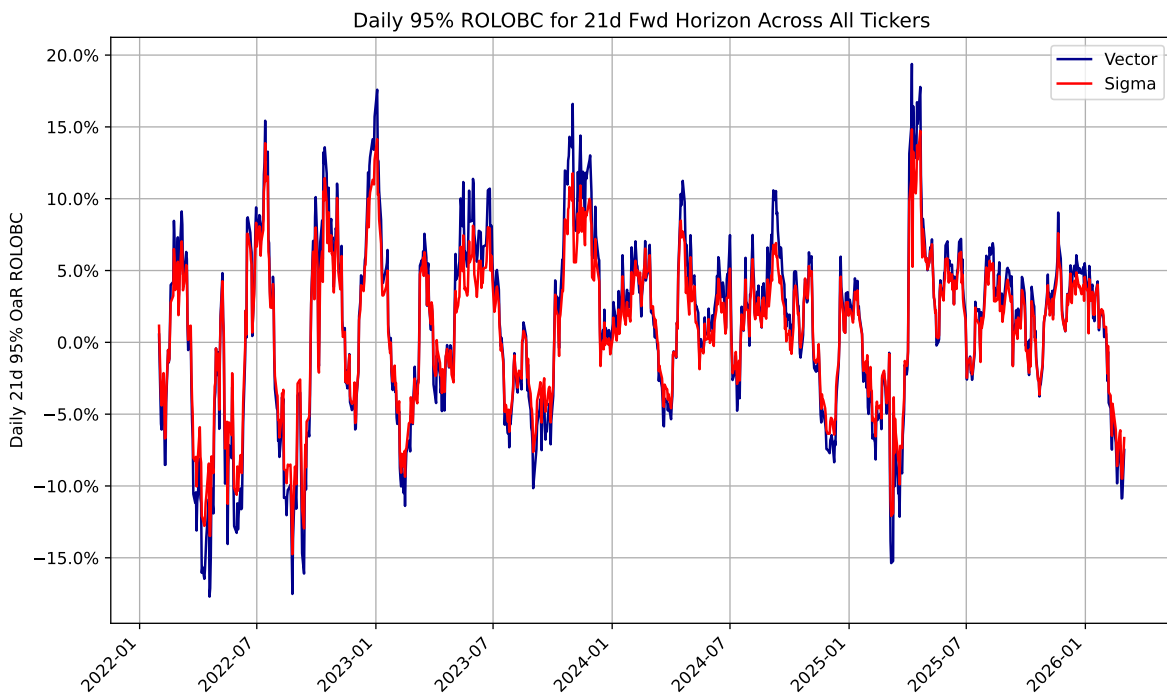
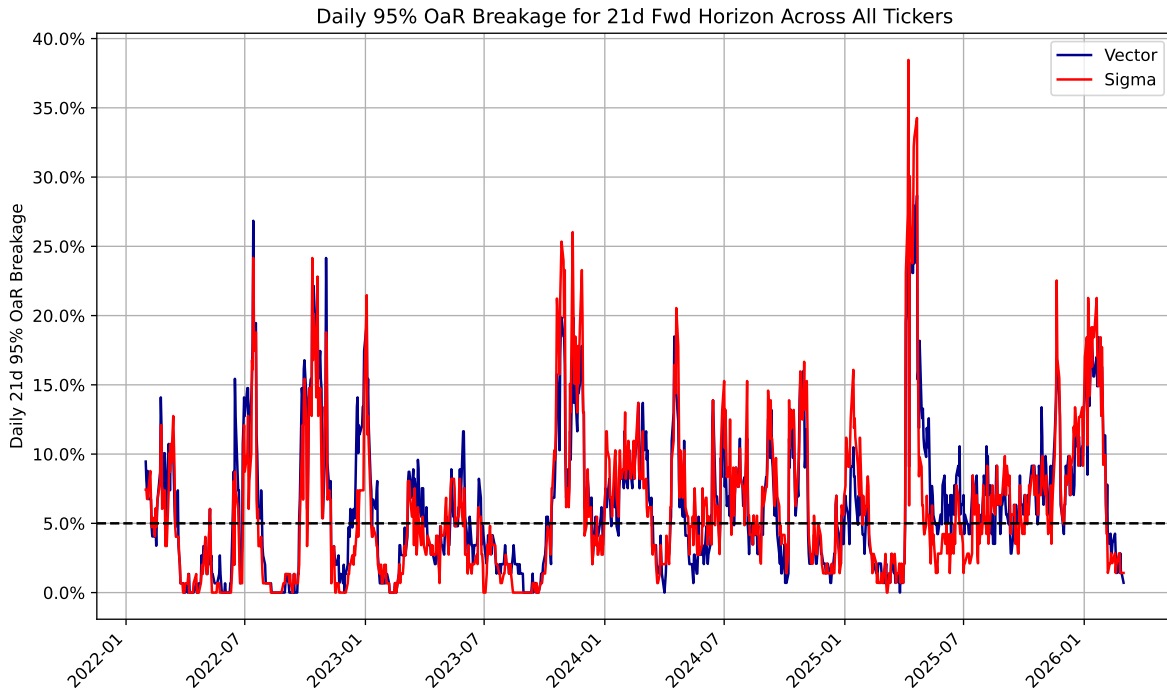




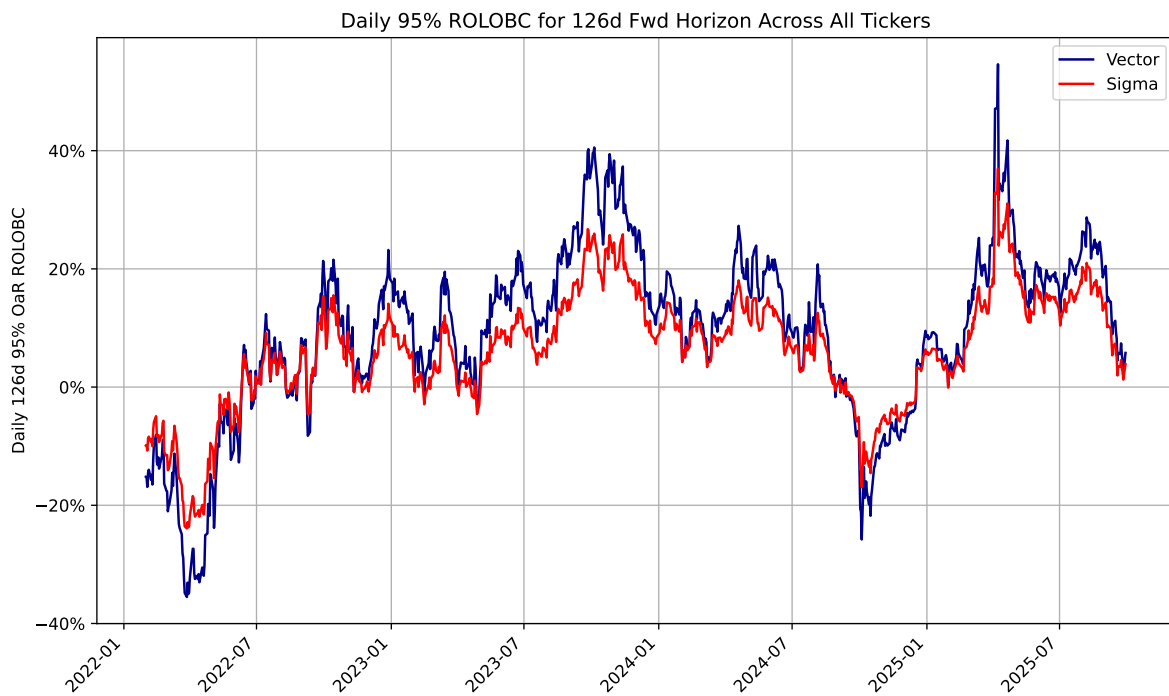
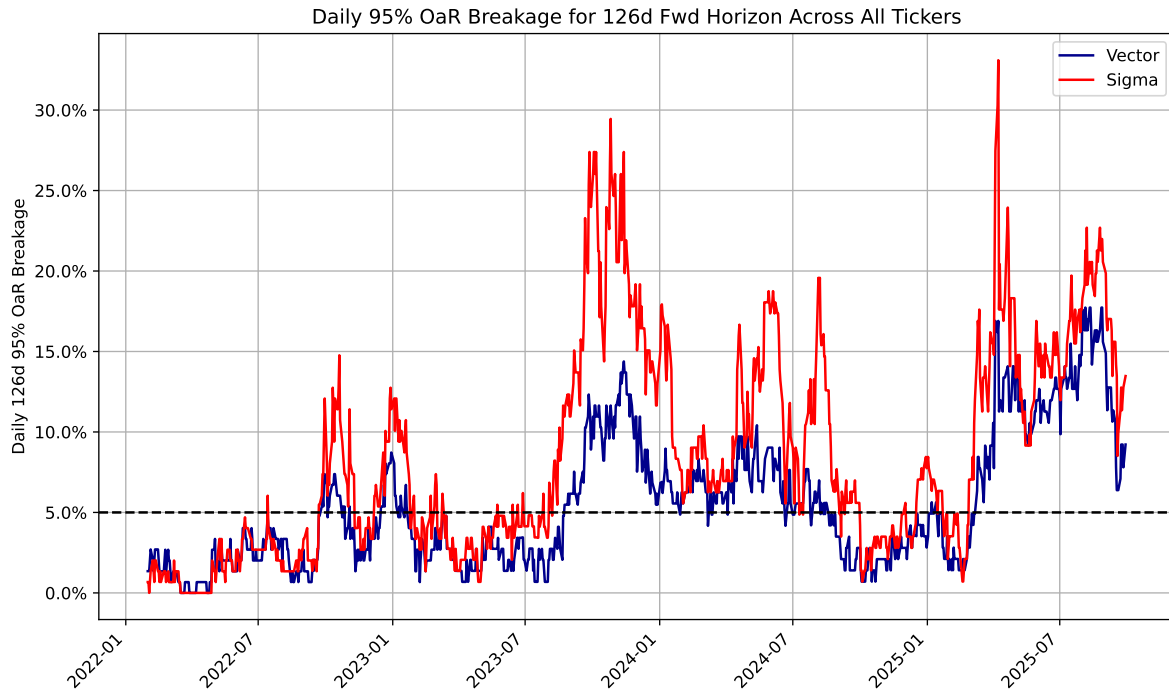
10d Horizon



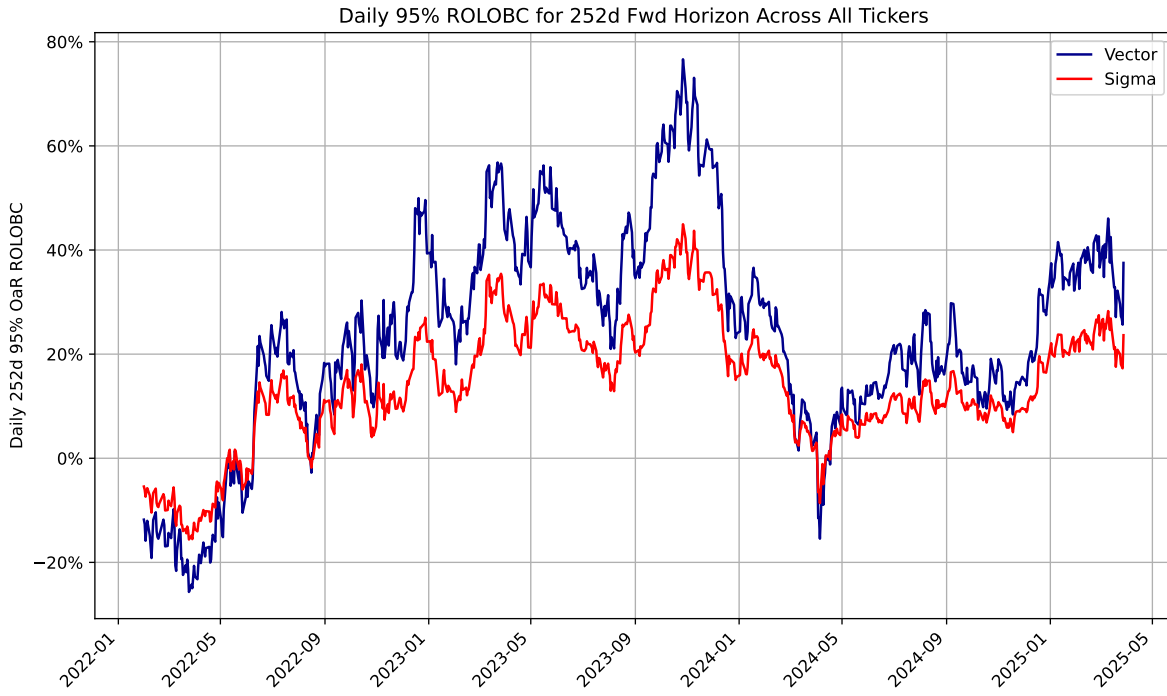
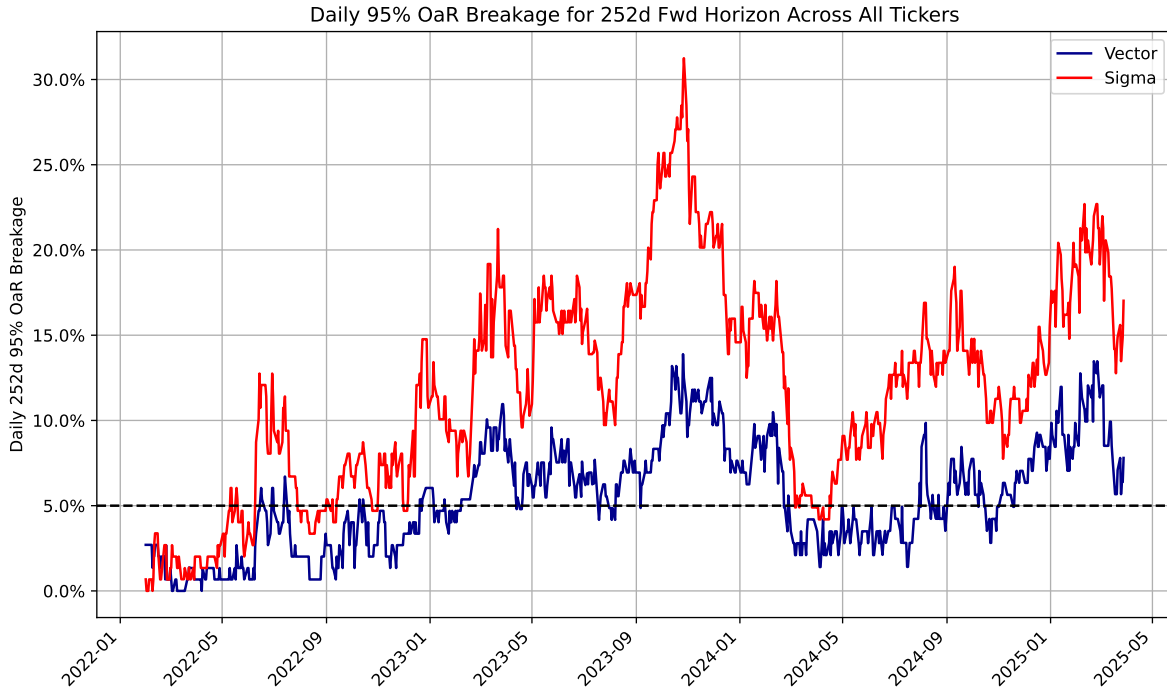
21d Horizon



63d Horizon



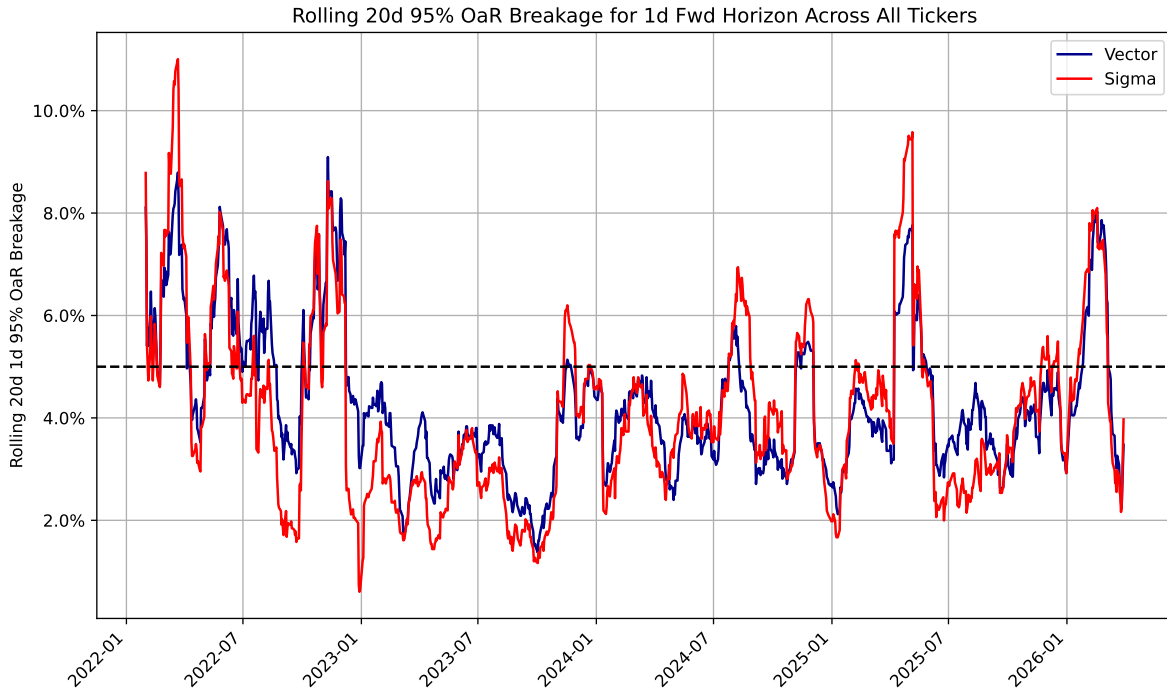
252d Horizon

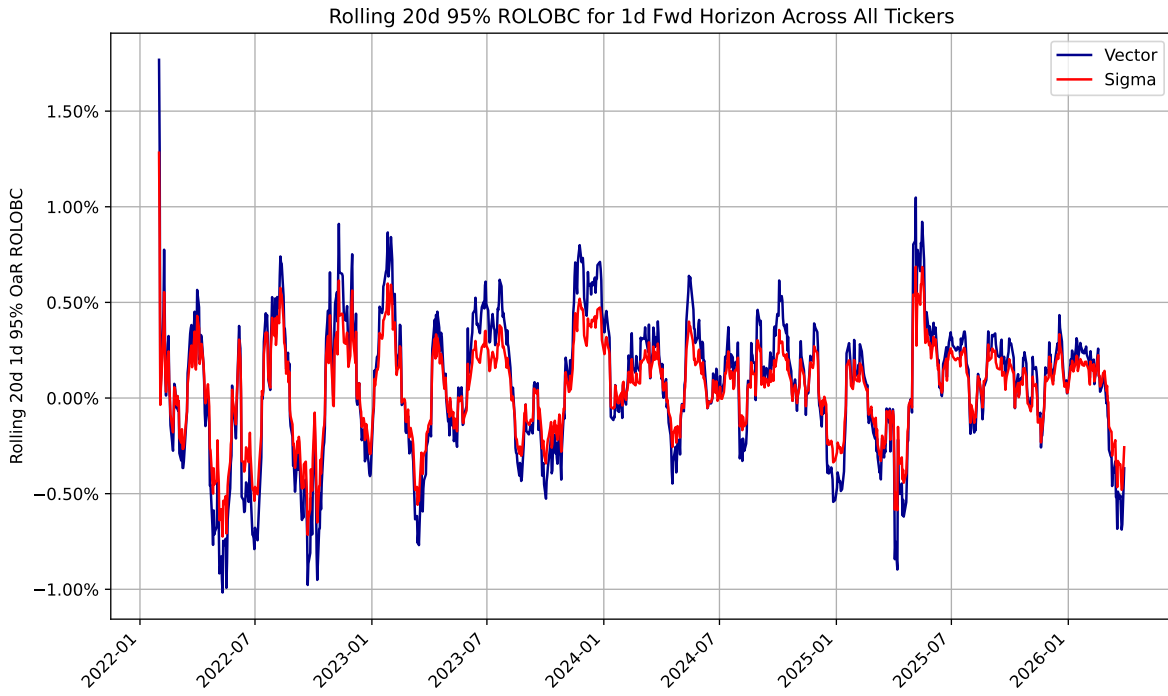


Rolling 20d Performance

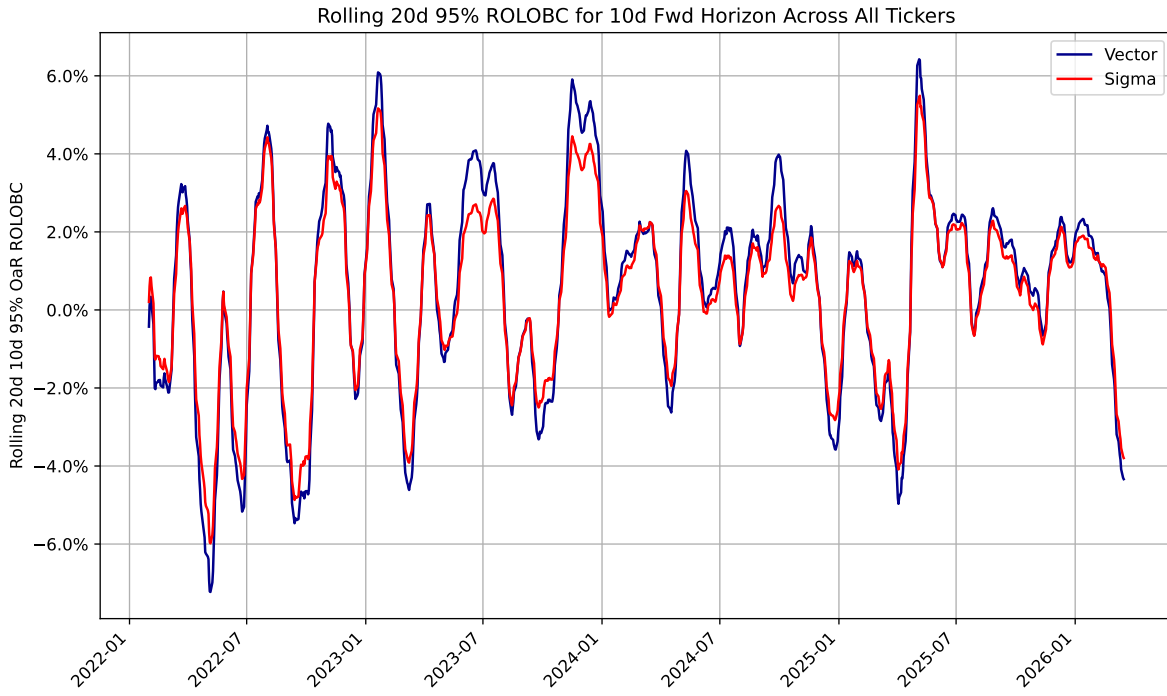
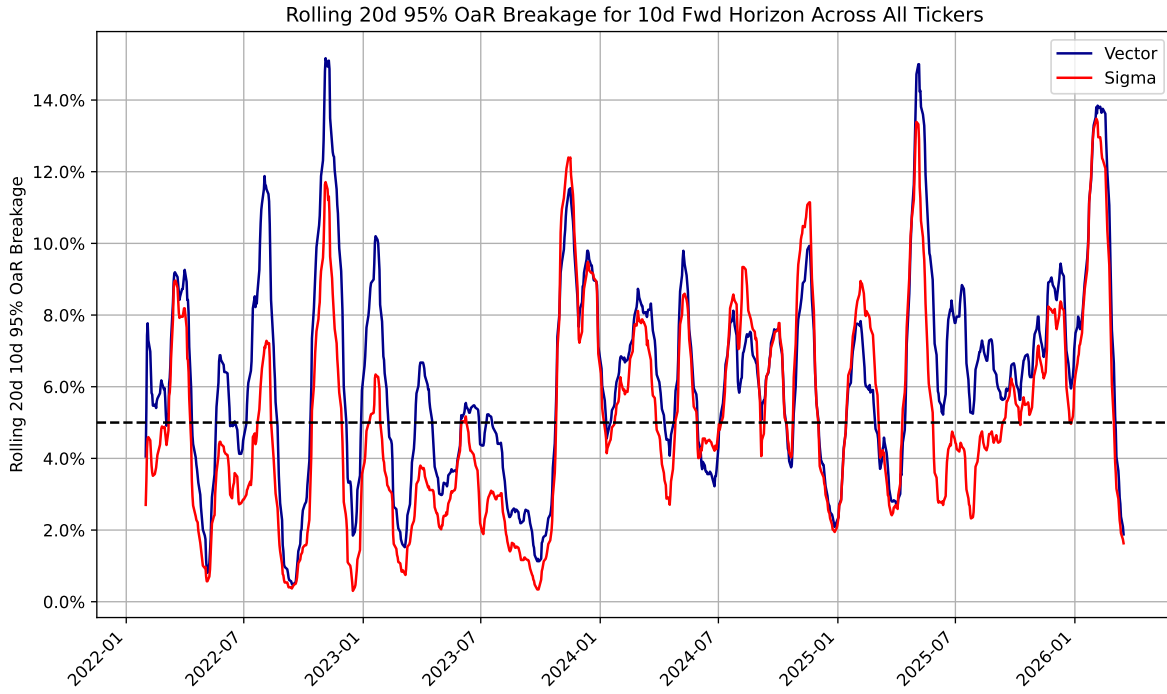
Here we look at 20 day rolling moving averages of the breakage and ROLOBC statistics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

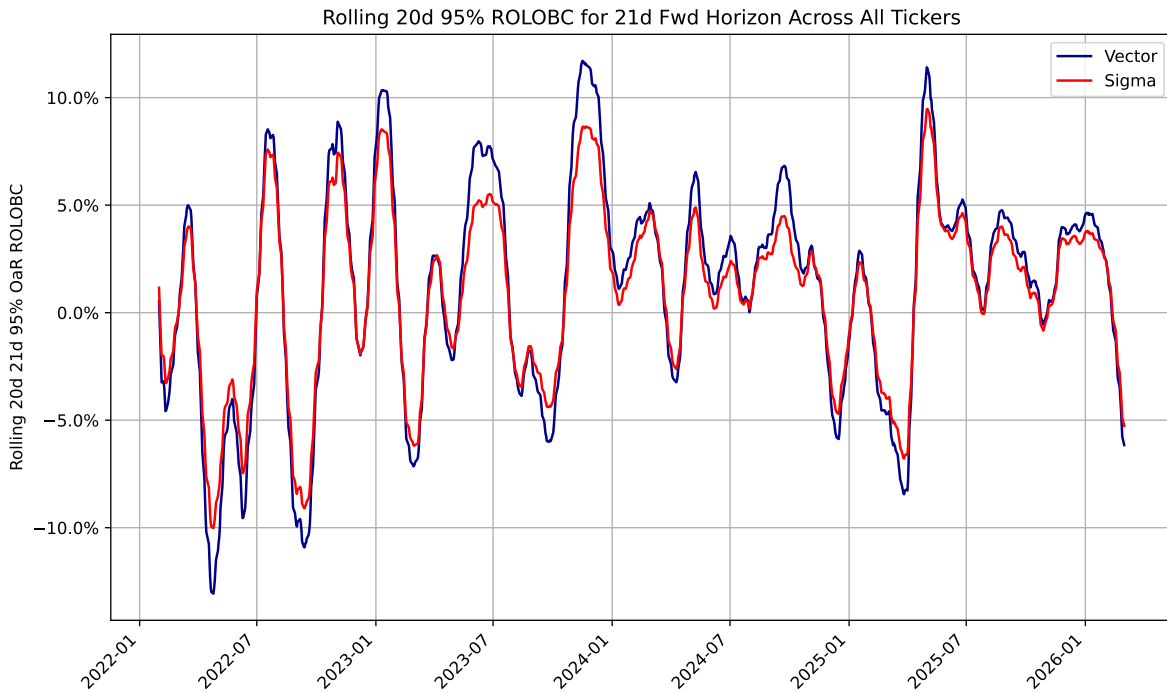
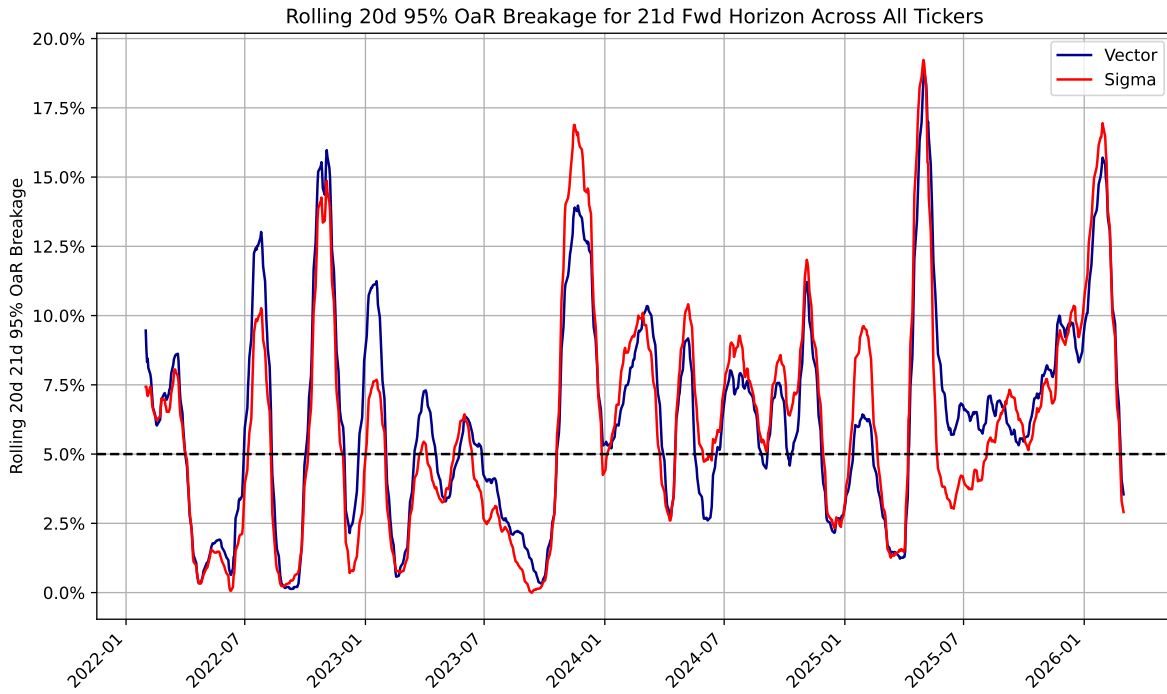




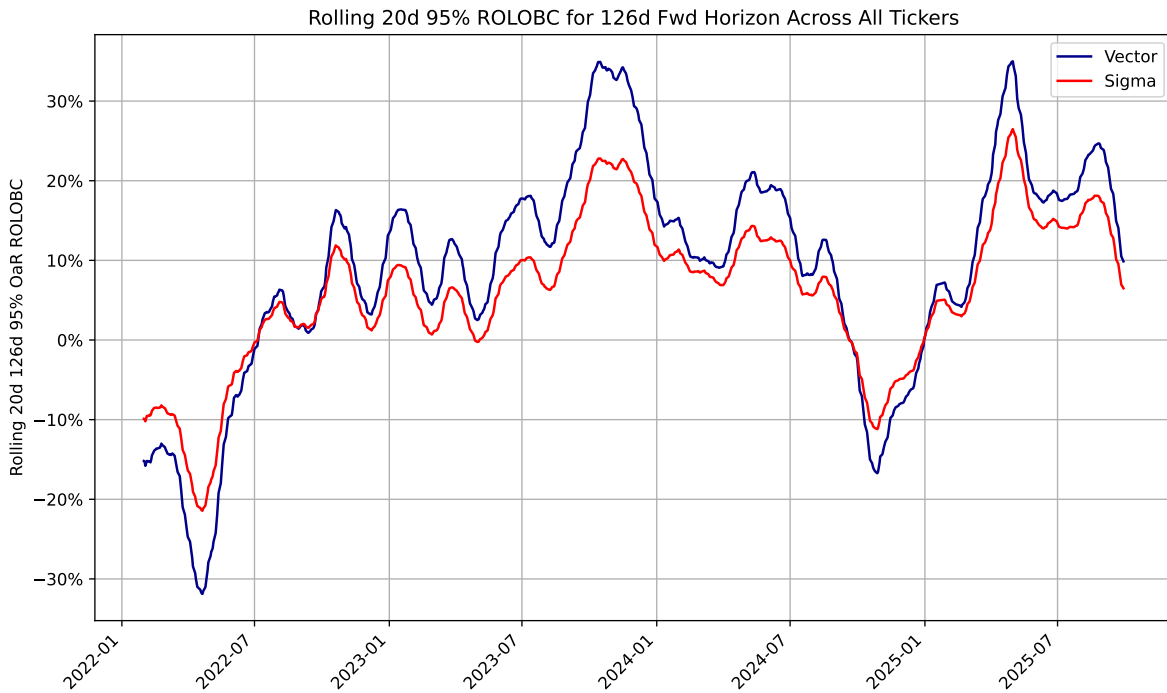
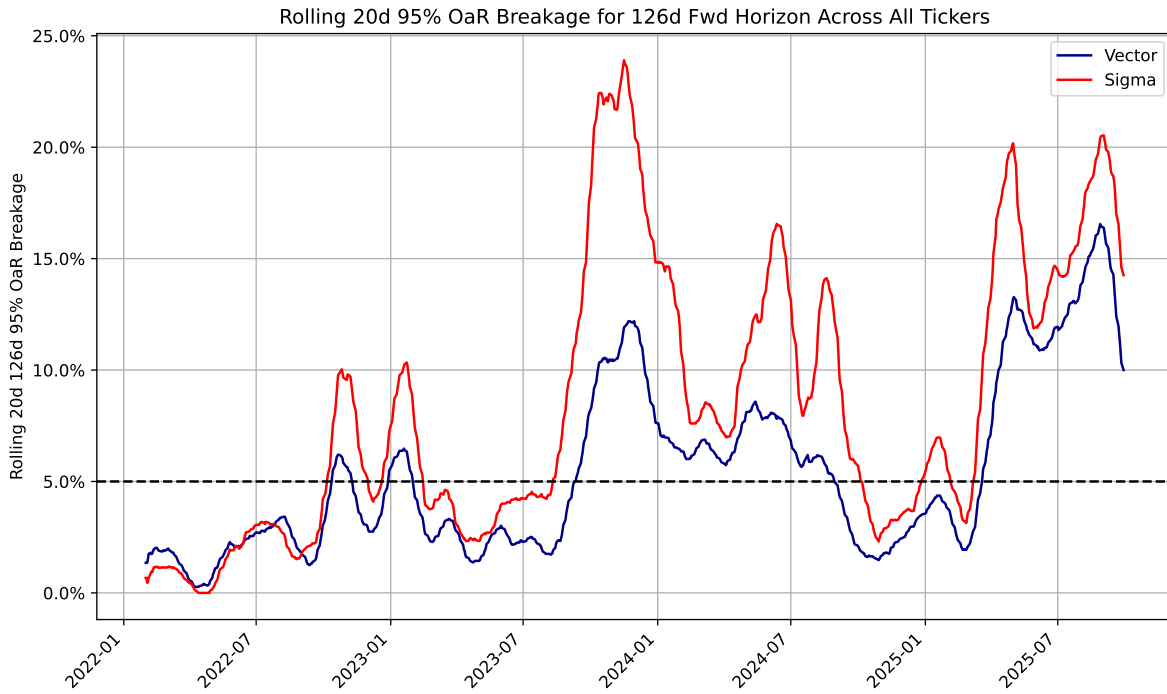
10d Horizon



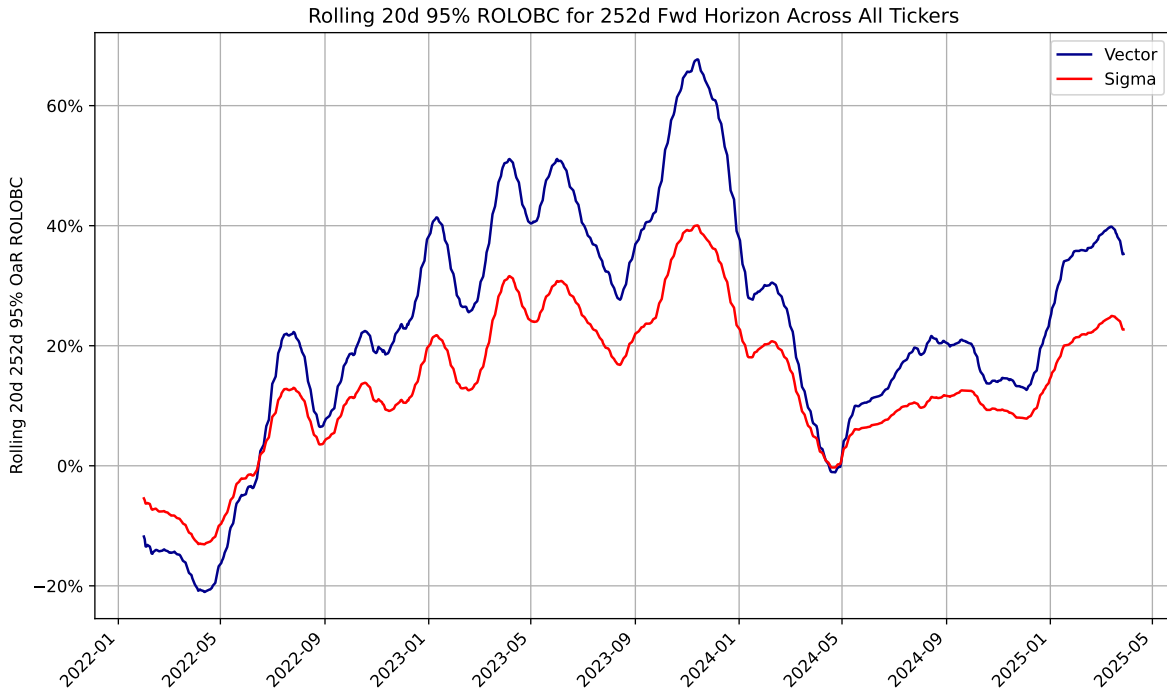
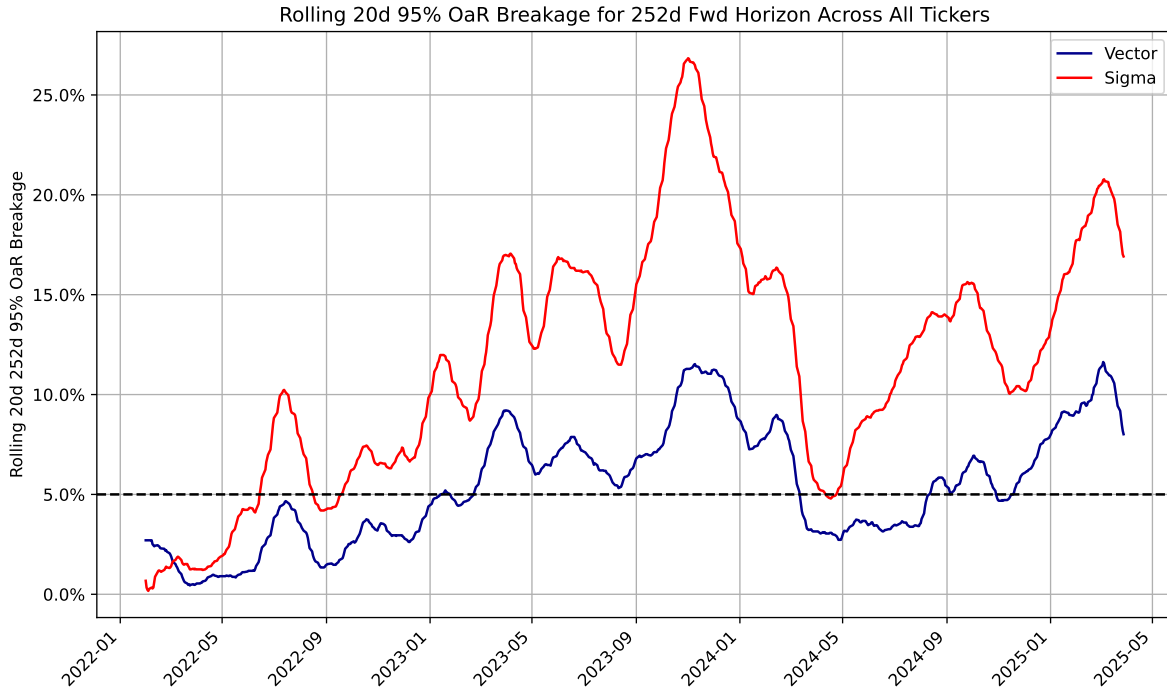
21d Horizon



63d Horizon



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	SBNY	16.55%	VST	8.91%
1.0	MSTR	15.42%	SLV	8.44%
1.0	SIVBQ	12.95%	GLD	7.85%
1.0	SLV	12.75%	WDC	7.76%
1.0	GME	11.78%	MU	7.47%
1.0	FRCB	10.07%	AVGO	6.51%
1.0	CHTR	9.96%	MSTR	6.51%
1.0	GNRC	9.96%	NVDA	6.42%
1.0	VST	9.87%	NEM	6.23%
1.0	AVGO	9.67%	AMAT	6.13%
1.0	META	9.58%	B	5.75%
1.0	B	9.2%	GBTC	5.75%
1.0	HLT	8.52%	CAH	5.75%
1.0	GILD	8.52%	PWR	5.65%
1.0	ZTS	8.14%	TEVA	5.65%
1.0	NFLX	7.95%	FCX	5.56%
1.0	BUD	7.85%	PHM	5.56%
1.0	AA	7.76%	XOM	5.46%
1.0	ORCL	7.57%	AZN	5.46%
1.0	CMA	7.37%	NVS	5.46%
1.0	TEVA	7.28%	TRGP	5.46%
1.0	WDC	7.09%	DHI	5.36%
1.0	INTU	7.09%	HLT	5.36%
1.0	ACGL	6.99%	IRM	5.36%
1.0	BALL	6.9%	ON	5.36%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	MSTR	18.84%	SLV	12.96%
10.0	SLV	17.41%	VST	11.69%
10.0	META	17.0%	GLD	11.59%
10.0	TEVA	15.65%	CAH	11.11%
10.0	WDC	15.65%	LLY	10.72%
10.0	B	15.56%	NVDA	10.34%
10.0	VST	15.36%	MU	10.24%
10.0	AVGO	14.78%	ORCL	10.05%
10.0	HCA	14.49%	B	9.95%
10.0	KALU	14.49%	WDC	9.86%
10.0	GILD	14.4%	NVS	9.47%
10.0	SIVBQ	13.97%	GS	9.37%
10.0	CHTR	13.14%	TRGP	9.28%
10.0	IRM	13.14%	TEVA	9.28%
10.0	GME	12.95%	IRM	8.89%
10.0	TRGP	12.46%	GE	8.12%
10.0	GNRC	12.46%	AVGO	7.73%
10.0	NVS	12.37%	MSTR	7.73%
10.0	GWV	11.98%	TSLA	7.63%
10.0	ORCL	11.69%	GWV	7.54%
10.0	GLD	11.59%	GILD	7.44%
10.0	NEM	11.21%	MUB	7.35%
10.0	EXPE	11.01%	INTC	7.34%
10.0	SBNY	10.66%	MRK	7.25%
10.0	BUD	10.34%	NEM	7.25%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	AVGO	20.02%	GLD	16.99%
21.0	MSTR	19.53%	CAH	15.53%
21.0	META	16.89%	TRGP	13.96%
21.0	B	16.6%	LLY	13.09%
21.0	VST	16.41%	ORCL	12.89%
21.0	TEVA	16.21%	MSTR	12.89%
21.0	TRGP	15.92%	VST	12.6%
21.0	KALU	15.53%	GE	12.4%
21.0	NVS	15.43%	TEVA	12.4%
21.0	SLV	14.66%	NVDA	12.21%
21.0	WDC	14.55%	SLV	12.12%
21.0	GNRC	14.55%	IRM	11.62%
21.0	CHTR	14.55%	WDC	11.52%
21.0	NEM	13.77%	GS	11.52%
21.0	GILD	13.67%	MU	11.43%
21.0	ORCL	13.67%	NVS	11.43%
21.0	IRM	13.57%	AMGN	11.23%
21.0	ISRG	13.57%	CCL	10.74%
21.0	HCA	13.38%	AVGO	10.55%
21.0	BUD	13.18%	GWV	10.55%
21.0	GME	12.99%	X	10.4%
21.0	EXPE	12.79%	PWR	10.35%
21.0	GWV	12.6%	TSLA	10.35%
21.0	ETRN	12.14%	B	10.35%
21.0	SIVBQ	11.85%	NEM	9.67%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	AVGO	29.94%	NVDA	26.78%
63.0	VST	25.25%	GLD	26.78%
63.0	META	24.03%	VST	24.95%
63.0	MSTR	21.59%	WDC	24.75%
63.0	WDC	21.38%	CAH	23.52%
63.0	GILD	19.65%	TRGP	22.3%
63.0	GLD	18.74%	MU	20.77%
63.0	TEVA	18.64%	LLY	20.37%
63.0	EXPE	18.02%	AVGO	19.55%
63.0	SLV	17.33%	TEVA	19.35%
63.0	ETRN	16.7%	GBTC	18.84%
63.0	NEM	16.29%	SLV	17.23%
63.0	BUD	15.89%	ORCL	17.11%
63.0	KALU	15.68%	GE	17.11%
63.0	IRM	15.27%	ETRN	16.15%
63.0	TRGP	14.66%	THC	16.09%
63.0	CAH	14.56%	MSTR	14.97%
63.0	MU	14.56%	B	14.87%
63.0	B	14.36%	GILD	14.87%
63.0	HCA	13.75%	NEM	14.36%
63.0	ORCL	13.44%	PHM	13.95%
63.0	CHTR	13.03%	GOOGL	13.95%
63.0	MSI	12.93%	MRK	13.85%
63.0	WFC	12.42%	CMG	13.54%
63.0	THC	11.51%	AMD	13.34%
63.0	SIVBQ	11.11%	HSBC	13.34%
63.0	NVS	10.59%	META	12.93%
63.0	GNRC	10.39%	CCL	12.53%
63.0	GOOGL	10.39%	NVS	12.22%
63.0	LW	10.08%	GS	12.22%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	VST	37.87%	GLD	46.57%
126.0	AVGO	34.6%	NVDA	40.91%
126.0	MSTR	31.34%	VST	37.76%
126.0	GLD	30.58%	GE	35.91%
126.0	TRGP	24.48%	AVGO	32.97%
126.0	TEVA	24.37%	CAH	32.43%
126.0	META	23.39%	TRGP	28.73%
126.0	GILD	22.96%	MSTR	25.9%
126.0	WDC	22.85%	LLY	25.57%
126.0	IRM	22.42%	NEM	24.92%
126.0	NEM	21.11%	WDC	24.59%
126.0	CAH	19.7%	GILD	24.48%
126.0	GOOGL	19.15%	TEVA	24.16%
126.0	TMUS	19.04%	MU	23.5%
126.0	LW	17.41%	ORCL	22.74%
126.0	NVDA	17.41%	PHM	22.42%
126.0	EXPE	16.43%	GS	21.44%
126.0	GE	15.67%	THC	20.89%
126.0	SLV	15.67%	HSBC	18.93%
126.0	MSI	15.23%	GBTC	18.72%
126.0	LLY	14.58%	META	18.5%
126.0	MU	13.71%	IRM	18.39%
126.0	B	13.6%	TMUS	17.74%
126.0	HCA	12.3%	SLV	17.3%
126.0	KALU	11.53%	AMAT	16.97%
126.0	WFC	11.21%	PWR	16.32%
126.0	THC	10.88%	ACGL	16.1%
126.0	ELAN	10.6%	B	15.89%
126.0	ORCL	9.79%	JPM	15.78%
126.0	CMA	9.67%	GOOGL	15.13%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
252.0	AVGO	62.3%	GE	74.91%
252.0	VST	59.77%	AVGO	72.13%
252.0	MSTR	46.15%	VST	57.12%
252.0	GLD	43.63%	NVDA	55.74%
252.0	NVDA	34.8%	GLD	52.96%
252.0	META	32.79%	MSTR	46.03%
252.0	TRGP	32.66%	PHM	45.4%
252.0	IRM	29.63%	GS	43.0%
252.0	TEVA	26.61%	LLY	42.75%
252.0	CAH	26.1%	JPM	40.86%
252.0	LLY	23.58%	CAH	40.35%
252.0	GILD	23.33%	GBTC	40.23%
252.0	GS	19.92%	META	39.6%
252.0	WDC	18.92%	TRGP	36.57%
252.0	GE	18.66%	NFLX	34.8%
252.0	TMUS	18.03%	ORCL	34.8%
252.0	NEM	16.39%	TMUS	34.05%
252.0	TDG	16.39%	COST	32.53%
252.0	GWV	15.38%	ACGL	32.16%
252.0	SLV	14.75%	TEVA	31.27%
252.0	B	14.38%	HSBC	31.02%
252.0	THC	12.36%	TDG	30.9%
252.0	GOOGL	11.22%	PWR	30.64%
252.0	ORCL	10.59%	GILD	28.75%
252.0	LW	10.59%	WDC	27.99%
252.0	MSI	9.58%	MU	27.99%
252.0	MU	8.7%	IRM	25.85%
252.0	WFC	8.7%	THC	25.6%
252.0	EXPE	8.58%	MS	22.82%
252.0	HSBC	8.45%	GWV	22.45%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	28.57%	AA	19.05%
1.0	PWR	23.81%	GLD	14.29%
1.0	AA	19.05%	HYG	14.29%
1.0	VFC	14.29%	XOM	14.29%
1.0	GLD	14.29%	OXY	14.29%
1.0	GSK	14.29%	EMB	14.29%
1.0	TXN	14.29%	HSBC	14.29%
1.0	KALU	14.29%	INTC	14.29%
1.0	META	14.29%	WDC	14.29%
1.0	INTU	9.52%	BA	9.52%
1.0	INTC	9.52%	MOS	9.52%
1.0	UNH	9.52%	BHP	9.52%
1.0	ORCL	9.52%	BBY	9.52%
1.0	LNC	9.52%	FCX	9.52%
1.0	GE	9.52%	CCL	9.52%
1.0	FITB	9.52%	AZN	9.52%
1.0	MRK	9.52%	HLT	9.52%
1.0	CSTM	9.52%	AMZN	9.52%
1.0	THC	9.52%	RIO	9.52%
1.0	TSLA	9.52%	CSTM	9.52%
1.0	HLT	9.52%	AMAT	9.52%
1.0	FCX	9.52%	SNY	9.52%
1.0	B	9.52%	INTU	4.76%
1.0	AMAT	9.52%	IRM	4.76%
1.0	BBY	9.52%	AAP	4.76%
1.0	GOOGL	4.76%	SPY	4.76%
1.0	AMGN	4.76%	JPM	4.76%
1.0	RIO	4.76%	HD	4.76%
1.0	GNRC	4.76%	T	4.76%
1.0	BUD	4.76%	GWV	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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	XOM	58.33%	OXY	66.67%
10.0	WDC	41.67%	XOM	50.0%
10.0	SNY	33.33%	WDC	25.0%
10.0	OXY	16.67%	SNY	8.33%
10.0	EXPE	16.67%	MU	8.33%
10.0	PWR	8.33%	AA	0.0%
10.0	MU	0.0%	MSTR	0.0%
10.0	MUB	0.0%	MUB	0.0%
10.0	NAVI	0.0%	NAVI	0.0%
10.0	NEM	0.0%	NEM	0.0%
10.0	NFLX	0.0%	NFLX	0.0%
10.0	NWL	0.0%	NVS	0.0%
10.0	NVDA	0.0%	NVDA	0.0%
10.0	NVS	0.0%	MSFT	0.0%
10.0	MSI	0.0%	NWL	0.0%
10.0	ON	0.0%	ON	0.0%
10.0	ORCL	0.0%	ORCL	0.0%
10.0	ORLY	0.0%	ORLY	0.0%
10.0	MSTR	0.0%	MSI	0.0%
10.0	AA	0.0%	MS	0.0%
10.0	MSFT	0.0%	PEP	0.0%
10.0	LQD	0.0%	MRK	0.0%
10.0	KALU	0.0%	MOS	0.0%
10.0	KEY	0.0%	MNST	0.0%
10.0	KHC	0.0%	META	0.0%
10.0	LEN	0.0%	LW	0.0%
10.0	LLY	0.0%	LVS	0.0%
10.0	LNC	0.0%	LUMN	0.0%
10.0	LUMN	0.0%	LQD	0.0%
10.0	PCG	0.0%	LNC	0.0%



P90D: 1d

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

Period examined: All model dates from 2026-03-30 through 2026-01-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	30.0%	SLV	26.67%
1.0	AA	26.67%	XOM	23.33%
1.0	GLD	25.0%	WDC	21.67%
1.0	FCX	18.33%	RIO	21.67%
1.0	SLV	18.33%	CSTM	18.33%
1.0	PWR	18.33%	GLD	18.33%
1.0	GILD	16.67%	AA	18.33%
1.0	GNRC	16.67%	AMAT	16.67%
1.0	CSTM	16.67%	MU	16.67%
1.0	GE	15.0%	BHP	16.67%
1.0	AMAT	13.33%	NEM	15.0%
1.0	INTC	13.33%	INTC	15.0%
1.0	TXN	13.33%	FSUGY	11.67%
1.0	UNH	13.33%	FCX	11.67%
1.0	XOM	13.33%	HSBC	10.0%
1.0	BUD	13.33%	FITB	10.0%
1.0	VFC	11.67%	NVS	10.0%
1.0	CDNS	11.67%	CSCO	10.0%
1.0	FITB	11.67%	GNRC	10.0%
1.0	TMUS	11.67%	AZN	10.0%
1.0	HON	11.67%	EXPE	8.33%
1.0	MU	11.67%	AMD	8.33%
1.0	GSK	10.0%	IRM	8.33%
1.0	KALU	10.0%	KALU	8.33%
1.0	LNC	10.0%	GWG	8.33%
1.0	PCG	10.0%	GSK	8.33%
1.0	ON	10.0%	T	8.33%
1.0	MSI	10.0%	GILD	8.33%
1.0	NVS	10.0%	AZO	8.33%
1.0	SBUX	10.0%	MS	8.33%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	XOM	49.02%	XOM	43.14%
10.0	WDC	47.06%	OXY	33.33%
10.0	BUD	39.22%	GILD	31.37%
10.0	GILD	37.25%	WDC	29.41%
10.0	TRGP	33.33%	GNRC	25.49%
10.0	GNRC	33.33%	BHP	25.49%
10.0	GLD	31.37%	T	23.53%
10.0	NVS	27.45%	GSK	23.53%
10.0	TMUS	27.45%	PCG	23.53%
10.0	FCX	27.45%	VZ	23.53%
10.0	THC	27.45%	BUD	21.57%
10.0	GSK	25.49%	TRGP	21.57%
10.0	UAA	23.53%	MSI	19.61%
10.0	HON	23.53%	BALL	19.61%
10.0	PCG	23.53%	THC	19.61%
10.0	VZ	23.53%	RIO	19.61%
10.0	TXN	23.53%	SLV	19.61%
10.0	PWR	21.57%	NFLX	19.61%
10.0	MSI	21.57%	NEM	19.61%
10.0	BALL	21.57%	IRM	19.61%
10.0	MU	21.57%	AMAT	17.65%
10.0	T	19.61%	MU	17.65%
10.0	HSBC	17.65%	CZR	17.65%
10.0	PEP	17.65%	PEP	17.65%
10.0	NFLX	17.65%	TXN	17.65%
10.0	CZR	17.65%	TMUS	17.65%
10.0	SLV	17.65%	HSBC	17.65%
10.0	AZN	15.69%	NVS	17.65%
10.0	EXPE	15.69%	CSCO	15.69%
10.0	CHTR	15.69%	GLD	15.69%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	XOM	57.5%	OXY	70.0%
21.0	BALL	52.5%	VZ	55.0%
21.0	GNRC	52.5%	XOM	55.0%
21.0	THC	52.5%	TRGP	52.5%
21.0	MSI	52.5%	BALL	52.5%
21.0	VZ	52.5%	MSI	50.0%
21.0	PWR	52.5%	GNRC	50.0%
21.0	HON	52.5%	PEP	47.5%
21.0	TMUS	50.0%	BHP	47.5%
21.0	BUD	50.0%	T	45.0%
21.0	UAA	50.0%	BUD	45.0%
21.0	NVS	50.0%	GSK	45.0%
21.0	PCG	50.0%	NVS	45.0%
21.0	GSK	50.0%	THC	42.5%
21.0	TRGP	47.5%	NFLX	40.0%
21.0	WDC	42.5%	PWR	40.0%
21.0	GLD	40.0%	IRM	40.0%
21.0	GILD	35.0%	PCG	35.0%
21.0	AMGN	32.5%	GILD	35.0%
21.0	NFLX	30.0%	RIO	32.5%
21.0	AAP	30.0%	TMUS	32.5%
21.0	T	30.0%	HON	32.5%
21.0	PEP	30.0%	WDC	27.5%
21.0	TXN	25.0%	AMGN	25.0%
21.0	OXY	25.0%	CSTM	22.5%
21.0	MU	22.5%	CZR	20.0%
21.0	FCX	20.0%	GLD	17.5%
21.0	CHTR	20.0%	GWV	17.5%
21.0	HSBC	17.5%	HCA	17.5%
21.0	EXPE	17.5%	HSBC	17.5%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	SLV	20.08%	SLV	18.47%
1.0	WDC	18.8%	WDC	14.4%
1.0	GILD	17.6%	NEM	12.4%
1.0	AA	13.2%	GLD	12.0%
1.0	MU	12.4%	MU	11.2%
1.0	GLD	12.0%	AA	10.8%
1.0	NVS	11.6%	B	10.0%
1.0	BUD	10.4%	AZN	9.6%
1.0	NEM	10.4%	CSTM	8.8%
1.0	TXN	10.0%	RIO	8.8%
1.0	CLF	10.0%	INTC	8.8%
1.0	TSLA	10.0%	AMAT	8.4%
1.0	INTC	9.2%	XOM	8.4%
1.0	VFC	9.2%	BHP	8.0%
1.0	META	9.2%	KALU	8.0%
1.0	AMZN	8.8%	HLT	7.6%
1.0	PWR	8.4%	NVS	7.6%
1.0	KALU	8.4%	AZO	7.2%
1.0	GNRC	8.4%	HSBC	7.2%
1.0	CMA	8.1%	AMD	7.2%
1.0	GWV	8.0%	CAH	6.8%
1.0	UNH	8.0%	DHI	6.8%
1.0	FCX	7.2%	GILD	6.8%
1.0	EXPE	7.2%	PHM	6.8%
1.0	AAP	6.8%	AMGN	6.8%
1.0	NFLX	6.8%	BIIB	6.8%
1.0	ORCL	6.8%	WYNN	6.4%
1.0	CSTM	6.8%	GWV	6.4%
1.0	ORLY	6.8%	ELAN	6.4%
1.0	ZTS	6.8%	CSCO	6.4%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	WDC	43.15%	SLV	31.67%
10.0	SLV	34.58%	B	25.31%
10.0	MU	27.8%	WDC	23.65%
10.0	KALU	26.56%	MU	22.82%
10.0	NVS	26.14%	X	22.73%
10.0	GILD	23.65%	GLD	18.67%
10.0	X	22.73%	NEM	15.35%
10.0	TXN	22.41%	AMAT	14.94%
10.0	NEM	21.58%	GNRC	14.52%
10.0	GLD	21.58%	INTC	14.11%
10.0	B	21.16%	LVS	13.28%
10.0	GNRC	19.92%	KALU	13.28%
10.0	THC	19.09%	GOOGL	12.86%
10.0	GOOGL	18.26%	XOM	12.86%
10.0	AMZN	18.26%	BHP	12.86%
10.0	HCA	17.84%	TEVA	12.45%
10.0	AVGO	17.84%	NVS	12.45%
10.0	FCX	17.84%	AZN	11.62%
10.0	BUD	17.43%	ORCL	11.62%
10.0	EXPE	17.01%	HSBC	11.2%
10.0	CMA	15.42%	CAH	11.2%
10.0	INTC	14.52%	GSK	10.79%
10.0	HON	13.69%	AA	10.37%
10.0	TSLA	13.28%	RIO	10.37%
10.0	TEVA	13.28%	CCL	10.37%
10.0	AAP	12.86%	HCA	10.37%
10.0	INTU	11.62%	AMD	10.37%
10.0	AA	11.62%	MRK	10.37%
10.0	VFC	11.62%	JAZZ	9.96%
10.0	AZN	11.62%	LLY	9.96%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	WDC	53.91%	X	51.52%
21.0	X	45.45%	WDC	36.96%
21.0	MU	43.48%	MU	36.52%
21.0	KALU	35.65%	B	36.09%
21.0	SLV	35.37%	SLV	32.31%
21.0	NVS	33.04%	GLD	25.22%
21.0	AVGO	30.87%	NEM	25.22%
21.0	NEM	30.0%	GNRC	22.17%
21.0	TXN	29.13%	ORCL	21.74%
21.0	B	26.52%	KALU	20.0%
21.0	GLD	25.65%	GOOGL	19.13%
21.0	EXPE	24.78%	HSBC	18.7%
21.0	CMA	23.68%	RIO	18.26%
21.0	GNRC	22.17%	TEVA	17.83%
21.0	HCA	21.3%	AMD	17.83%
21.0	AAP	20.87%	CAH	17.39%
21.0	BUD	20.43%	CCL	17.39%
21.0	HON	19.57%	CSTM	17.39%
21.0	GOOGL	19.13%	LVS	16.52%
21.0	GILD	19.13%	INTC	15.22%
21.0	ELAN	17.83%	THC	15.22%
21.0	ORCL	17.39%	XOM	14.78%
21.0	INTC	16.52%	PWR	14.35%
21.0	THC	16.52%	BHP	14.35%
21.0	FCX	16.52%	ELAN	13.91%
21.0	PWR	16.09%	HON	13.91%
21.0	VZ	15.22%	GE	13.91%
21.0	HSBC	14.35%	HCA	13.48%
21.0	RIO	13.91%	AMAT	13.48%
21.0	ISRG	13.91%	IRM	13.04%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	WDC	92.55%	WDC	97.87%
63.0	SLV	74.33%	B	73.94%
63.0	MU	73.4%	MU	70.21%
63.0	B	63.83%	SLV	65.78%
63.0	GLD	52.66%	NEM	62.77%
63.0	NEM	50.53%	GLD	55.32%
63.0	KALU	50.53%	GOOGL	55.32%
63.0	EXPE	44.15%	CAH	42.02%
63.0	CMA	39.86%	KALU	40.96%
63.0	AVGO	39.36%	TEVA	40.43%
63.0	GOOGL	37.77%	AMD	39.36%
63.0	NVS	35.64%	AMAT	36.17%
63.0	AA	33.51%	GNRC	35.64%
63.0	ELAN	31.91%	AA	34.04%
63.0	ORCL	31.38%	RIO	32.98%
63.0	TEVA	30.85%	ORCL	31.38%
63.0	JAZZ	29.79%	HSBC	30.32%
63.0	INTC	29.26%	CSTM	30.32%
63.0	GILD	28.72%	INTC	27.66%
63.0	HCA	25.53%	FCX	25.0%
63.0	FCX	25.0%	XOM	25.0%
63.0	AAP	24.47%	MRK	24.47%
63.0	GNRC	24.47%	ELAN	22.87%
63.0	TXN	22.34%	WYNN	22.87%
63.0	XOM	21.28%	TRGP	22.34%
63.0	VZ	21.28%	LVS	22.34%
63.0	GSK	19.68%	GSK	20.74%
63.0	WYNN	18.62%	NVS	20.21%
63.0	HSBC	18.62%	GS	20.21%
63.0	BUD	17.55%	VZ	19.68%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	MU	100.0%	WDC	100.0%
126.0	WDC	100.0%	SLV	100.0%
126.0	SLV	99.2%	MU	100.0%
126.0	GLD	92.8%	GLD	96.0%
126.0	B	91.2%	B	93.6%
126.0	NEM	89.6%	NEM	92.8%
126.0	GOOGL	84.0%	GOOGL	84.8%
126.0	CMA	83.53%	CAH	80.8%
126.0	ELAN	73.6%	ELAN	73.6%
126.0	JAZZ	67.2%	JAZZ	72.8%
126.0	INTC	61.6%	INTC	68.0%
126.0	AVGO	59.2%	TEVA	66.4%
126.0	KALU	58.4%	AMAT	62.4%
126.0	AA	56.0%	RIO	60.8%
126.0	NVS	54.4%	CMA	56.47%
126.0	EXPE	49.6%	HSBC	56.0%
126.0	HCA	48.0%	AA	56.0%
126.0	TEVA	44.0%	KALU	50.4%
126.0	GILD	42.4%	AMD	48.0%
126.0	HSBC	40.0%	AZN	46.4%
126.0	CSTM	36.8%	LVS	42.4%
126.0	WYNN	30.4%	CSTM	42.4%
126.0	AAPL	29.6%	GSK	40.8%
126.0	GSK	28.8%	MRK	40.8%
126.0	AMD	28.8%	HCA	39.2%
126.0	RIO	28.0%	PWR	36.8%
126.0	GE	24.8%	EXPE	36.8%
126.0	XOM	23.2%	NVS	36.8%
126.0	GS	22.4%	BIIB	35.2%
126.0	ORCL	21.6%	GS	33.6%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NVDA	0.39%	MSTR	0.29%
1.0	X	0.38%	NVDA	0.24%
1.0	AVGO	0.35%	VST	0.24%
1.0	VST	0.33%	WDC	0.21%
1.0	GE	0.31%	AVGO	0.2%
1.0	CCL	0.28%	MU	0.19%
1.0	TSLA	0.27%	PWR	0.19%
1.0	GBTC	0.27%	X	0.17%
1.0	MU	0.26%	GME	0.16%
1.0	LLY	0.25%	TRGP	0.16%
1.0	B	0.25%	TEVA	0.16%
1.0	AMD	0.23%	GE	0.15%
1.0	CAH	0.23%	LLY	0.15%
1.0	PWR	0.23%	CAH	0.15%
1.0	AMAT	0.21%	SLV	0.14%
1.0	WDC	0.21%	GBTC	0.14%
1.0	TRGP	0.21%	THC	0.13%
1.0	THC	0.2%	AMAT	0.13%
1.0	TDG	0.17%	ETRN	0.12%
1.0	SLV	0.17%	NFLX	0.12%
1.0	PHM	0.16%	AMD	0.11%
1.0	JAZZ	0.15%	PHM	0.1%
1.0	DHI	0.14%	META	0.1%
1.0	ETRN	0.14%	GS	0.1%
1.0	FCX	0.14%	B	0.1%
1.0	GLD	0.14%	GLD	0.1%
1.0	LVS	0.14%	IRM	0.09%
1.0	AZO	0.14%	HSBC	0.09%
1.0	ORLY	0.13%	GOOGL	0.09%
1.0	COST	0.13%	XOM	0.09%



All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NVDA	4.8%	MSTR	2.97%
10.0	AVGO	3.11%	NVDA	2.39%
10.0	TSLA	2.98%	VST	2.34%
10.0	LLY	2.92%	WDC	2.21%
10.0	VST	2.64%	MU	2.02%
10.0	PWR	2.54%	AVGO	1.95%
10.0	CCL	2.49%	PWR	1.85%
10.0	MU	2.32%	TEVA	1.64%
10.0	AMAT	2.24%	X	1.58%
10.0	GBTC	2.18%	TRGP	1.54%
10.0	GE	2.08%	LLY	1.5%
10.0	CAH	1.93%	GE	1.49%
10.0	AMD	1.85%	CAH	1.47%
10.0	WDC	1.75%	ETRN	1.41%
10.0	MSTR	1.7%	GME	1.39%
10.0	X	1.67%	SLV	1.34%
10.0	SLV	1.62%	GBTC	1.33%
10.0	TEVA	1.58%	THC	1.3%
10.0	PHM	1.53%	AMAT	1.24%
10.0	ETRN	1.52%	NFLX	1.22%
10.0	THC	1.44%	META	1.17%
10.0	AZO	1.4%	AMD	1.06%
10.0	TRGP	1.36%	PHM	1.01%
10.0	HLT	1.33%	TSLA	0.98%
10.0	CDNS	1.29%	IRM	0.97%
10.0	GS	1.26%	GS	0.95%
10.0	JPM	1.16%	GLD	0.93%
10.0	LVS	1.13%	B	0.93%
10.0	COST	1.13%	GOOGL	0.89%
10.0	GME	1.11%	ORCL	0.89%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	NVDA	10.05%	MSTR	6.83%
21.0	TSLA	7.34%	NVDA	5.26%
21.0	VST	5.95%	VST	5.1%
21.0	AMAT	5.67%	WDC	4.68%
21.0	PWR	5.65%	MU	4.25%
21.0	LLY	5.5%	AVGO	4.16%
21.0	CCL	5.45%	PWR	3.95%
21.0	GBTC	5.38%	TEVA	3.61%
21.0	MU	5.01%	ETRN	3.5%
21.0	AVGO	4.68%	GE	3.36%
21.0	MSTR	4.67%	LLY	3.23%
21.0	GE	4.51%	TRGP	3.2%
21.0	CAH	4.43%	CAH	3.19%
21.0	AMD	4.25%	X	3.17%
21.0	TEVA	3.84%	GBTC	2.99%
21.0	PHM	3.83%	SLV	2.93%
21.0	WDC	3.56%	THC	2.88%
21.0	X	3.55%	META	2.75%
21.0	SLV	3.43%	NFLX	2.74%
21.0	AZO	3.36%	AMAT	2.63%
21.0	ETRN	3.28%	TSLA	2.37%
21.0	THC	3.18%	AMD	2.32%
21.0	PCG	3.16%	PHM	2.26%
21.0	TRGP	3.1%	GME	2.22%
21.0	CDNS	3.0%	IRM	2.13%
21.0	DHI	2.94%	GS	2.08%
21.0	HLT	2.57%	GLD	2.05%
21.0	GS	2.56%	ORCL	2.05%
21.0	GLD	2.53%	B	2.02%
21.0	JPM	2.5%	GOOGL	1.97%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	NVDA	32.77%	MSTR	20.46%
63.0	MSTR	28.15%	NVDA	17.99%
63.0	CCL	19.9%	VST	16.93%
63.0	MU	19.33%	WDC	16.24%
63.0	VST	19.21%	MU	14.63%
63.0	GBTC	19.16%	AVGO	13.35%
63.0	AMAT	18.47%	GE	11.03%
63.0	PWR	17.17%	TEVA	10.9%
63.0	LLY	17.16%	GBTC	10.84%
63.0	WDC	14.32%	PWR	10.84%
63.0	CAH	14.27%	ETRN	10.28%
63.0	AMD	13.91%	META	10.06%
63.0	GE	13.87%	LLY	9.96%
63.0	PHM	13.49%	CAH	9.68%
63.0	TSLA	12.69%	SLV	9.6%
63.0	TEVA	12.41%	NFLX	9.0%
63.0	AVGO	12.37%	THC	8.76%
63.0	THC	11.25%	TRGP	8.52%
63.0	SLV	11.09%	AMAT	8.21%
63.0	TRGP	10.91%	PHM	8.12%
63.0	DHI	10.48%	AMD	7.78%
63.0	B	9.94%	GS	7.14%
63.0	GOOGL	9.72%	ORCL	7.08%
63.0	ETRN	9.32%	CCL	7.03%
63.0	NFLX	8.88%	GOOGL	6.99%
63.0	QQQ	8.8%	HSBC	6.59%
63.0	JPM	8.76%	B	6.53%
63.0	GS	8.74%	TSLA	6.4%
63.0	CDNS	8.41%	GLD	6.38%
63.0	PCG	8.31%	GILD	6.08%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	NVDA	85.22%	MSTR	53.49%
126.0	GBTC	55.12%	NVDA	45.68%
126.0	MU	53.8%	VST	38.21%
126.0	MSTR	52.71%	WDC	37.27%
126.0	VST	46.13%	MU	33.67%
126.0	AMAT	41.46%	GBTC	31.62%
126.0	GE	39.29%	AVGO	30.79%
126.0	AMD	38.28%	GE	26.54%
126.0	PWR	35.98%	META	24.54%
126.0	PHM	35.78%	NFLX	23.96%
126.0	NFLX	34.7%	TEVA	21.83%
126.0	CCL	34.44%	PWR	21.76%
126.0	THC	33.0%	THC	21.42%
126.0	WDC	32.94%	LLY	20.18%
126.0	LLY	30.62%	CAH	19.96%
126.0	AVGO	29.85%	SLV	19.42%
126.0	ORCL	29.28%	AMD	19.01%
126.0	CAH	27.0%	ETRN	18.49%
126.0	DHI	26.49%	PHM	18.07%
126.0	TSLA	25.54%	ORCL	18.02%
126.0	B	23.63%	AMAT	17.47%
126.0	QQQ	23.62%	TRGP	17.25%
126.0	AMZN	23.62%	GOOGL	15.91%
126.0	SLV	23.6%	GS	15.4%
126.0	META	23.33%	B	15.01%
126.0	TEVA	22.64%	CCL	14.83%
126.0	MS	22.57%	JPM	13.44%
126.0	JPM	22.24%	TSLA	13.42%
126.0	GOOGL	21.05%	GLD	13.39%
126.0	GS	20.72%	HSBC	13.39%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	NVDA	237.58%	MSTR	181.08%
252.0	GBTC	196.29%	NVDA	122.08%
252.0	MSTR	179.32%	VST	111.17%
252.0	MU	117.63%	GBTC	98.8%
252.0	NFLX	116.29%	AVGO	75.46%
252.0	VST	114.27%	META	66.62%
252.0	GE	112.64%	GE	61.91%
252.0	AVGO	97.02%	NFLX	61.23%
252.0	PHM	95.3%	WDC	57.95%
252.0	CCL	88.04%	MU	56.5%
252.0	LLY	87.19%	THC	48.74%
252.0	PWR	87.05%	PWR	45.17%
252.0	THC	82.47%	PHM	43.8%
252.0	META	79.09%	LLY	43.34%
252.0	AMD	78.17%	TRGP	40.25%
252.0	WDC	74.91%	CAH	39.06%
252.0	AMAT	71.48%	TEVA	39.02%
252.0	AMZN	65.41%	ORCL	37.98%
252.0	QQQ	63.16%	CCL	37.54%
252.0	JPM	63.04%	ETRN	35.78%
252.0	CDNS	61.64%	SLV	34.55%
252.0	ORCL	60.68%	AMD	34.19%
252.0	DHI	59.42%	AMAT	31.83%
252.0	ISRG	57.37%	TDG	31.69%
252.0	GOOGL	57.25%	GS	31.69%
252.0	MS	57.16%	JPM	31.36%
252.0	CAH	56.72%	GOOGL	30.3%
252.0	TRGP	56.07%	ISRG	30.1%
252.0	COST	55.8%	HSBC	29.27%
252.0	VNO	55.67%	GLD	28.61%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	OXY	1.46%	OXY	0.89%
1.0	XOM	0.82%	XOM	0.46%
1.0	AA	0.54%	EXPE	0.44%
1.0	BBY	0.3%	CZR	0.39%
1.0	AMD	0.28%	AA	0.24%
1.0	EXPE	0.26%	BBY	0.23%
1.0	LNC	0.26%	TRGP	0.23%
1.0	T	0.23%	INTU	0.19%
1.0	LUMN	0.21%	AMD	0.18%
1.0	BAC	0.18%	T	0.17%
1.0	CZR	0.17%	LNC	0.16%
1.0	TRGP	0.14%	LUMN	0.15%
1.0	INTU	0.13%	WDC	0.14%
1.0	PWR	0.08%	SNY	0.06%
1.0	JAZZ	0.08%	VZ	0.03%
1.0	SNY	0.08%	AMZN	0.02%
1.0	NFLX	0.06%	HLT	0.0%
1.0	WYNN	0.05%	AAP	-0.01%
1.0	MOS	0.03%	ORCL	-0.02%
1.0	COST	0.0%	JAZZ	-0.02%
1.0	MS	-0.0%	COST	-0.03%
1.0	VZ	-0.01%	ZION	-0.03%
1.0	AZN	-0.01%	VCSH	-0.03%
1.0	AMZN	-0.01%	NFLX	-0.04%
1.0	AMAT	-0.02%	MRK	-0.04%
1.0	LQD	-0.04%	HYG	-0.04%
1.0	BMJ	-0.04%	JPM	-0.05%
1.0	ZION	-0.05%	MS	-0.05%
1.0	VCSH	-0.05%	INTC	-0.05%
1.0	JPM	-0.05%	FRA	-0.06%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	OXY	16.08%	OXY	11.13%
10.0	XOM	6.15%	WDC	8.78%
10.0	WDC	5.5%	XOM	6.82%
10.0	AMD	3.53%	AMD	2.29%
10.0	ELAN	2.55%	TRGP	2.02%
10.0	T	2.49%	LNC	1.97%
10.0	AMAT	1.66%	ELAN	1.72%
10.0	LNC	1.64%	SNY	1.71%
10.0	TRGP	1.22%	T	1.54%
10.0	CSCO	1.1%	EXPE	1.32%
10.0	MU	0.73%	AMAT	1.13%
10.0	EXPE	0.63%	CSCO	0.67%
10.0	SNY	0.6%	CZR	0.39%
10.0	MS	0.56%	MS	0.33%
10.0	LUMN	0.49%	LUMN	-0.07%
10.0	JAZZ	-0.1%	JAZZ	-0.13%
10.0	MRK	-0.12%	MRK	-0.25%
10.0	WFC	-0.31%	PWR	-0.25%
10.0	PWR	-0.34%	ON	-0.29%
10.0	ZION	-0.39%	ZION	-0.49%
10.0	HLT	-0.4%	VCSH	-0.53%
10.0	KEY	-0.6%	JPM	-0.54%
10.0	ON	-0.63%	HLT	-0.58%
10.0	VZ	-0.69%	HYG	-0.75%
10.0	GBTC	-0.87%	GS	-0.79%
10.0	CZR	-0.89%	BIIB	-0.82%
10.0	GS	-0.96%	VZ	-0.93%
10.0	BIIB	-0.96%	MUB	-1.12%
10.0	VCSH	-1.07%	GBTC	-1.12%
10.0	BBY	-1.08%	WYNN	-1.19%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	OXY	1.58%	WDC	0.76%
1.0	AMAT	0.91%	OXY	0.74%
1.0	SLV	0.86%	GNRC	0.6%
1.0	XOM	0.72%	AAP	0.56%
1.0	BHP	0.64%	XOM	0.56%
1.0	COST	0.58%	TRGP	0.5%
1.0	VZ	0.58%	AMAT	0.46%
1.0	INTC	0.56%	CSTM	0.42%
1.0	AAP	0.54%	PWR	0.4%
1.0	GNRC	0.54%	VZ	0.38%
1.0	HON	0.5%	IRM	0.37%
1.0	TRGP	0.48%	AA	0.34%
1.0	AA	0.48%	INTC	0.31%
1.0	IRM	0.47%	BHP	0.3%
1.0	MU	0.46%	T	0.29%
1.0	CSTM	0.45%	CZR	0.29%
1.0	T	0.45%	UAA	0.27%
1.0	PWR	0.43%	SLV	0.27%
1.0	MOS	0.4%	COST	0.26%
1.0	BMY	0.38%	FCX	0.26%
1.0	CAH	0.34%	RIO	0.25%
1.0	VST	0.34%	HON	0.25%
1.0	PEP	0.33%	GILD	0.25%
1.0	RIO	0.31%	MSI	0.23%
1.0	JAZZ	0.29%	BMY	0.22%
1.0	NEM	0.28%	MRK	0.21%
1.0	GWG	0.27%	MU	0.21%
1.0	FCX	0.26%	GME	0.21%
1.0	ACGL	0.26%	ON	0.2%
1.0	AZN	0.25%	GSK	0.19%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	OXY	10.89%	OXY	7.83%
10.0	T	6.26%	WDC	7.64%
10.0	GNRC	5.87%	GNRC	6.41%
10.0	TRGP	5.64%	TRGP	6.29%
10.0	XOM	5.24%	XOM	5.67%
10.0	AMAT	5.15%	PWR	5.23%
10.0	VZ	5.09%	VZ	4.84%
10.0	IRM	4.77%	AAP	4.36%
10.0	PWR	4.76%	AMAT	3.84%
10.0	BHP	4.43%	MU	3.73%
10.0	SLV	4.16%	T	3.68%
10.0	AAP	4.02%	MSI	3.22%
10.0	WDC	3.74%	IRM	3.12%
10.0	CSTM	3.34%	CSTM	2.86%
10.0	COST	2.91%	GILD	2.77%
10.0	INTC	2.7%	CZR	2.77%
10.0	PEP	2.63%	CMA	2.48%
10.0	HON	2.49%	PCG	2.29%
10.0	MSI	2.46%	JAZZ	2.07%
10.0	GILD	2.25%	HON	1.88%
10.0	CSCO	2.06%	BHP	1.85%
10.0	CMA	1.93%	GME	1.83%
10.0	AMGN	1.6%	BALL	1.79%
10.0	LW	1.55%	UAA	1.78%
10.0	CZR	1.51%	PEP	1.7%
10.0	AZO	1.51%	GSK	1.62%
10.0	MU	1.49%	CHTR	1.56%
10.0	JAZZ	1.45%	TMUS	1.5%
10.0	ELAN	1.4%	MRK	1.49%
10.0	RIO	1.39%	COST	1.46%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	OXY	24.72%	OXY	17.37%
21.0	TRGP	16.48%	GNRC	15.57%
21.0	GNRC	15.54%	TRGP	14.55%
21.0	T	13.37%	VZ	13.27%
21.0	CSTM	13.3%	WDC	12.42%
21.0	BHP	11.72%	PWR	12.03%
21.0	IRM	11.44%	XOM	10.92%
21.0	PWR	11.11%	CZR	10.0%
21.0	VZ	10.86%	AAP	9.47%
21.0	XOM	10.73%	T	9.14%
21.0	MSI	9.21%	MSI	8.82%
21.0	CZR	8.61%	PCG	8.59%
21.0	PEP	8.27%	IRM	8.27%
21.0	AAP	7.3%	CSTM	6.98%
21.0	AMAT	6.51%	THC	6.53%
21.0	WDC	6.4%	CHTR	6.35%
21.0	CHTR	6.37%	AMAT	6.35%
21.0	GILD	6.11%	GILD	6.19%
21.0	BIIB	5.97%	TMUS	6.15%
21.0	HON	5.59%	BALL	5.75%
21.0	HCA	5.41%	UAA	5.5%
21.0	THC	5.27%	NFLX	5.47%
21.0	COST	5.24%	GSK	5.31%
21.0	PCG	5.13%	JAZZ	5.29%
21.0	JAZZ	4.6%	MU	4.84%
21.0	TMUS	4.51%	PEP	4.77%
21.0	AMGN	4.35%	BHP	4.75%
21.0	GWV	4.28%	HON	4.61%
21.0	BMV	4.16%	BMV	4.26%
21.0	CSCO	4.16%	AMGN	4.25%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	LUMN	1.11%	WDC	0.85%
1.0	AMAT	0.73%	MU	0.62%
1.0	AMD	0.73%	X	0.59%
1.0	MU	0.7%	CSTM	0.41%
1.0	WDC	0.68%	SLV	0.39%
1.0	X	0.61%	AMAT	0.39%
1.0	B	0.59%	ELAN	0.38%
1.0	CSTM	0.58%	AA	0.38%
1.0	SLV	0.57%	LUMN	0.37%
1.0	AVGO	0.47%	NEM	0.37%
1.0	ELAN	0.47%	INTC	0.36%
1.0	INTC	0.44%	AMD	0.35%
1.0	LVS	0.43%	B	0.33%
1.0	PWR	0.43%	PWR	0.33%
1.0	TEVA	0.42%	KALU	0.32%
1.0	NVDA	0.41%	TEVA	0.31%
1.0	AA	0.4%	AVGO	0.29%
1.0	CLF	0.4%	GOOGL	0.26%
1.0	CAH	0.4%	ON	0.24%
1.0	BHP	0.37%	GNRC	0.23%
1.0	KALU	0.36%	AAP	0.23%
1.0	NEM	0.36%	FCX	0.23%
1.0	FSUGY	0.36%	CMA	0.23%
1.0	VST	0.36%	NVDA	0.22%
1.0	RIO	0.33%	JAZZ	0.2%
1.0	GNRC	0.32%	GS	0.19%
1.0	JAZZ	0.3%	RIO	0.19%
1.0	GE	0.29%	CAH	0.19%
1.0	BIIB	0.29%	TSLA	0.19%
1.0	CCL	0.29%	BHP	0.18%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	LUMN	10.84%	WDC	9.6%
10.0	AMAT	7.85%	MU	7.79%
10.0	X	7.68%	X	6.56%
10.0	MU	7.4%	CSTM	4.62%
10.0	WDC	6.27%	ELAN	4.5%
10.0	AMD	5.91%	AMAT	4.26%
10.0	SLV	5.84%	AMD	4.0%
10.0	CSTM	5.63%	SLV	3.94%
10.0	NVDA	5.44%	INTC	3.9%
10.0	ELAN	4.64%	LUMN	3.85%
10.0	LVS	4.18%	AA	3.84%
10.0	TEVA	4.05%	KALU	3.51%
10.0	INTC	4.01%	PWR	3.43%
10.0	CYH	3.83%	TEVA	3.42%
10.0	PWR	3.64%	NEM	3.38%
10.0	BHP	3.64%	B	3.3%
10.0	B	3.6%	GNRC	2.99%
10.0	AA	3.59%	CMA	2.94%
10.0	NEM	3.32%	AVGO	2.93%
10.0	CAH	3.24%	GOOGL	2.86%
10.0	BIIB	3.11%	AAP	2.57%
10.0	GNRC	3.06%	ON	2.56%
10.0	AVGO	3.04%	FCX	2.53%
10.0	AAP	2.92%	JAZZ	2.45%
10.0	FSUGY	2.79%	NVDA	2.29%
10.0	RIO	2.65%	THC	2.25%
10.0	GS	2.55%	GS	2.2%
10.0	HSBC	2.53%	LVS	2.2%
10.0	CLF	2.52%	EXPE	2.16%
10.0	KALU	2.44%	CAH	2.1%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	AMAT	19.72%	WDC	21.02%
21.0	MU	17.9%	MU	18.03%
21.0	LUMN	16.65%	X	14.28%
21.0	AMD	15.54%	CSTM	10.46%
21.0	WDC	15.1%	ELAN	10.03%
21.0	CSTM	14.99%	SLV	9.37%
21.0	X	14.86%	AMAT	9.19%
21.0	SLV	11.99%	AA	9.14%
21.0	NVDA	11.95%	AMD	8.96%
21.0	TEVA	10.1%	INTC	8.66%
21.0	ELAN	10.09%	LUMN	8.18%
21.0	B	9.8%	B	8.06%
21.0	LVS	9.62%	KALU	7.84%
21.0	BIIB	9.12%	TEVA	7.78%
21.0	AA	8.95%	NEM	7.54%
21.0	BHP	8.49%	PWR	7.39%
21.0	GNRC	8.36%	GNRC	6.83%
21.0	CAH	8.34%	GOOGL	6.51%
21.0	INTC	8.31%	CMA	6.43%
21.0	PWR	7.94%	AVGO	6.32%
21.0	NEM	7.37%	AAP	5.88%
21.0	GOOGL	6.14%	THC	5.76%
21.0	PHM	5.95%	FCX	5.7%
21.0	CYH	5.92%	ON	5.37%
21.0	AAP	5.83%	NVDA	5.36%
21.0	THC	5.82%	JAZZ	5.25%
21.0	RIO	5.74%	LVS	4.92%
21.0	GE	5.27%	GE	4.9%
21.0	OXY	5.22%	CAH	4.8%
21.0	ON	5.2%	GS	4.67%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MU	71.89%	WDC	77.46%
63.0	WDC	68.8%	MU	63.93%
63.0	LUMN	66.89%	SLV	37.28%
63.0	AMAT	66.46%	B	34.84%
63.0	B	48.72%	AA	33.15%
63.0	SLV	44.46%	INTC	32.42%
63.0	AMD	43.97%	LUMN	31.83%
63.0	CSTM	42.94%	CSTM	30.08%
63.0	TEVA	38.57%	NEM	29.92%
63.0	NEM	33.41%	ELAN	29.73%
63.0	CAH	31.61%	AMAT	29.62%
63.0	BIIB	31.58%	AMD	28.68%
63.0	AA	31.25%	TEVA	28.15%
63.0	BHP	31.02%	KALU	25.58%
63.0	ELAN	30.93%	GOOGL	25.4%
63.0	GOOGL	30.86%	CMA	20.02%
63.0	INTC	30.63%	GNRC	19.28%
63.0	NVDA	27.82%	FCX	18.75%
63.0	GNRC	25.74%	CLF	18.56%
63.0	LVS	25.59%	AVGO	17.77%
63.0	RIO	24.4%	JAZZ	17.75%
63.0	LLY	22.9%	PWR	17.69%
63.0	FSUGY	22.39%	VFC	16.34%
63.0	CLF	22.09%	EXPE	16.22%
63.0	PWR	21.54%	GS	16.21%
63.0	PHM	19.51%	RIO	16.03%
63.0	TRGP	18.28%	LVS	15.74%
63.0	FCX	18.21%	NVDA	15.52%
63.0	HSBC	17.67%	ON	15.22%
63.0	KALU	17.5%	HSBC	14.43%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	MU	223.9%	WDC	222.14%
126.0	WDC	206.61%	MU	179.83%
126.0	AMAT	158.71%	B	90.05%
126.0	LUMN	148.15%	LUMN	88.11%
126.0	B	137.88%	INTC	88.02%
126.0	AMD	120.41%	SLV	87.29%
126.0	SLV	116.37%	AA	73.7%
126.0	INTC	97.92%	AMD	72.05%
126.0	TEVA	95.19%	ELAN	69.82%
126.0	AA	78.38%	AMAT	69.01%
126.0	ELAN	77.0%	NEM	68.36%
126.0	GOOGL	76.83%	TEVA	67.93%
126.0	BIIB	73.54%	GOOGL	63.35%
126.0	NEM	71.35%	CSTM	58.1%
126.0	CSTM	69.3%	KALU	49.6%
126.0	LLY	65.93%	JAZZ	43.47%
126.0	BHP	64.02%	CMA	43.41%
126.0	CAH	62.05%	CLF	41.29%
126.0	LVS	55.77%	AVGO	38.56%
126.0	NVDA	53.8%	EXPE	38.15%
126.0	RIO	51.28%	VFC	36.99%
126.0	FSUGY	51.2%	TSLA	35.7%
126.0	KALU	48.36%	PWR	35.67%
126.0	PWR	46.37%	RIO	34.47%
126.0	JAZZ	44.29%	BIIB	33.51%
126.0	CLF	44.24%	GLD	33.37%
126.0	AZN	41.8%	LVS	32.98%
126.0	MS	41.75%	CAH	32.89%
126.0	TSLA	41.22%	GS	31.02%
126.0	MRK	39.15%	GSK	30.36%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	SIVBQ	-0.8%	SIVBQ	-0.78%
1.0	IEP	-0.42%	SBNY	-0.45%
1.0	SBNY	-0.38%	FRCB	-0.23%
1.0	NWL	-0.26%	AMC	-0.22%
1.0	UAA	-0.22%	IEP	-0.15%
1.0	CZR	-0.21%	NWL	-0.12%
1.0	GT	-0.17%	PRGO	-0.09%
1.0	FRCB	-0.17%	AAP	-0.08%
1.0	AMC	-0.15%	CHTR	-0.07%
1.0	PRGO	-0.12%	FIS	-0.07%
1.0	BXP	-0.12%	VFC	-0.06%
1.0	LNC	-0.11%	BHC	-0.06%
1.0	CHTR	-0.1%	GT	-0.05%
1.0	FIS	-0.08%	UAA	-0.05%
1.0	TLT	-0.08%	BXP	-0.05%
1.0	NAVI	-0.08%	ADBE	-0.05%
1.0	BALL	-0.07%	CNC	-0.05%
1.0	GNRC	-0.07%	NAVI	-0.05%
1.0	AAP	-0.07%	CZR	-0.04%
1.0	BIIB	-0.07%	TLT	-0.04%
1.0	ADBE	-0.06%	CMCSA	-0.04%
1.0	ZTS	-0.06%	ZTS	-0.03%
1.0	UNH	-0.05%	KHC	-0.03%
1.0	CMCSA	-0.05%	UNH	-0.03%
1.0	CNC	-0.05%	BALL	-0.03%
1.0	VFC	-0.05%	LNC	-0.02%
1.0	KHC	-0.05%	CVS	-0.02%
1.0	CTLT	-0.03%	FRA	-0.02%
1.0	HD	-0.03%	CTLT	-0.01%
1.0	BA	-0.03%	LQD	-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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	SIVBQ	-4.46%	SBNY	-4.05%
10.0	IEP	-2.8%	SIVBQ	-3.9%
10.0	SBNY	-2.19%	AMC	-2.25%
10.0	CZR	-2.06%	FRCB	-2.19%
10.0	NWL	-1.73%	IEP	-1.43%
10.0	AMC	-1.71%	NWL	-1.22%
10.0	FRCB	-1.26%	PRGO	-0.99%
10.0	UAA	-0.94%	AAP	-0.83%
10.0	PRGO	-0.87%	VFC	-0.75%
10.0	FIS	-0.77%	CHTR	-0.65%
10.0	BXP	-0.76%	UAA	-0.63%
10.0	VFC	-0.75%	GT	-0.62%
10.0	ADBE	-0.66%	FIS	-0.62%
10.0	BALL	-0.62%	CZR	-0.59%
10.0	NAVI	-0.59%	NAVI	-0.56%
10.0	KHC	-0.58%	BXP	-0.55%
10.0	AAP	-0.56%	CNC	-0.54%
10.0	CHTR	-0.51%	BHC	-0.53%
10.0	CNC	-0.45%	ADBE	-0.45%
10.0	LNC	-0.45%	TLT	-0.42%
10.0	TLT	-0.44%	CMCSA	-0.4%
10.0	INTU	-0.4%	ZTS	-0.39%
10.0	ZTS	-0.38%	KHC	-0.37%
10.0	UNH	-0.34%	LNC	-0.32%
10.0	GNRC	-0.33%	UNH	-0.32%
10.0	CMCSA	-0.27%	BALL	-0.27%
10.0	FRA	-0.25%	CYH	-0.23%
10.0	BIIB	-0.24%	BBY	-0.22%
10.0	GT	-0.24%	MOS	-0.21%
10.0	CLF	-0.22%	FRA	-0.2%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	SIVBQ	-9.97%	SBNY	-11.16%
21.0	IEP	-6.35%	SIVBQ	-9.37%
21.0	SBNY	-6.13%	FRCB	-6.02%
21.0	CZR	-4.92%	AMC	-5.0%
21.0	FRCB	-3.78%	IEP	-3.06%
21.0	NWL	-3.36%	NWL	-2.5%
21.0	AMC	-3.07%	PRGO	-2.02%
21.0	PRGO	-1.97%	AAP	-1.64%
21.0	VFC	-1.85%	VFC	-1.55%
21.0	ADBE	-1.48%	BHC	-1.34%
21.0	UAA	-1.4%	CHTR	-1.33%
21.0	BXP	-1.34%	CZR	-1.29%
21.0	KHC	-1.29%	BXP	-1.18%
21.0	NAVI	-1.29%	NAVI	-1.17%
21.0	AAP	-1.19%	FIS	-1.11%
21.0	CLF	-1.12%	UAA	-1.05%
21.0	INTU	-1.11%	GT	-1.04%
21.0	CHTR	-1.1%	CNC	-0.97%
21.0	BALL	-1.09%	TLT	-0.85%
21.0	BHC	-1.04%	KHC	-0.8%
21.0	FIS	-1.02%	ZTS	-0.79%
21.0	TLT	-0.99%	LNC	-0.77%
21.0	CNC	-0.95%	CMCSA	-0.73%
21.0	LUMN	-0.9%	ADBE	-0.71%
21.0	GNRC	-0.76%	UNH	-0.6%
21.0	VZ	-0.65%	BALL	-0.47%
21.0	CYH	-0.57%	BBY	-0.45%
21.0	UNH	-0.56%	MOS	-0.4%
21.0	ZTS	-0.55%	FRA	-0.38%
21.0	BBY	-0.54%	CVS	-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 2026-03-30

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	-20.59%	FRCB	-24.04%
63.0	FRCB	-18.2%	AMC	-16.58%
63.0	NWL	-13.09%	IEP	-10.16%
63.0	CZR	-8.86%	NWL	-7.73%
63.0	AMC	-8.59%	CZR	-5.59%
63.0	VFC	-7.33%	AAP	-5.57%
63.0	PRGO	-6.64%	PRGO	-5.5%
63.0	GNRC	-5.71%	CHTR	-4.22%
63.0	AAP	-5.59%	VFC	-3.9%
63.0	UAA	-4.74%	BHC	-3.57%
63.0	CHTR	-4.17%	MOS	-3.39%
63.0	KHC	-3.72%	BXP	-3.04%
63.0	BALL	-3.64%	UAA	-2.84%
63.0	ADBE	-3.57%	FIS	-2.82%
63.0	CLF	-3.25%	KHC	-2.81%
63.0	BHC	-2.93%	NAVI	-2.73%
63.0	BBY	-2.66%	CNC	-2.66%
63.0	TLT	-2.55%	TLT	-2.32%
63.0	NAVI	-2.49%	ZTS	-2.22%
63.0	FIS	-2.44%	CMCSA	-2.2%
63.0	ZTS	-2.16%	UNH	-2.09%
63.0	BXP	-2.1%	CLF	-1.91%
63.0	VZ	-1.97%	GT	-1.69%
63.0	CYH	-1.94%	ADBE	-1.69%
63.0	CVS	-1.93%	LNC	-1.65%
63.0	CMCSA	-1.78%	BBY	-1.46%
63.0	UNH	-1.72%	BALL	-1.36%
63.0	MOS	-1.59%	CVS	-0.98%



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 2026-03-30

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	-41.71%	AMC	-29.18%
126.0	NWL	-38.25%	IEP	-19.83%
126.0	VFC	-20.07%	NWL	-17.82%
126.0	AMC	-17.72%	AAP	-11.84%
126.0	PRGO	-14.79%	PRGO	-10.54%
126.0	AAP	-13.01%	CZR	-10.18%
126.0	CZR	-12.4%	VFC	-7.99%
126.0	GNRC	-11.85%	CHTR	-7.8%
126.0	UAA	-9.69%	MOS	-7.66%
126.0	CHTR	-8.95%	UAA	-7.51%
126.0	MOS	-8.3%	CNC	-7.17%
126.0	GT	-8.0%	KHC	-5.8%
126.0	KHC	-7.69%	CTLT	-5.69%
126.0	FIS	-7.61%	BHC	-4.98%
126.0	BALL	-7.52%	GT	-4.67%
126.0	CTLT	-6.66%	BXP	-4.63%
126.0	CLF	-6.53%	FIS	-4.61%
126.0	BHC	-6.33%	CMCSA	-4.39%
126.0	TLT	-5.5%	NAVI	-4.21%
126.0	CVS	-5.48%	TLT	-4.12%
126.0	UNH	-5.3%	UNH	-4.06%
126.0	CNC	-5.17%	ZTS	-3.87%
126.0	VZ	-4.83%	BALL	-3.28%
126.0	CMCSA	-4.58%	BMV	-3.0%
126.0	ADBE	-4.43%	CLF	-2.76%
126.0	BBY	-4.18%	CVS	-1.8%
126.0	NAVI	-3.67%	OXY	-1.71%



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 2026-03-30

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	-86.69%	AMC	-55.01%
252.0	NWL	-77.29%	IEP	-41.37%
252.0	AMC	-48.51%	NWL	-31.23%
252.0	AAP	-37.32%	AAP	-27.49%
252.0	VFC	-33.63%	VFC	-22.41%
252.0	CZR	-31.62%	CZR	-18.23%
252.0	CLF	-30.14%	CNC	-17.85%
252.0	UAA	-26.17%	PRGO	-17.41%
252.0	UNH	-23.57%	UAA	-15.69%
252.0	PRGO	-23.57%	MOS	-14.3%
252.0	MOS	-21.5%	CLF	-13.18%
252.0	CNC	-21.33%	KHC	-11.31%
252.0	GT	-18.88%	CHTR	-10.57%
252.0	CVS	-18.7%	UNH	-10.36%
252.0	BHC	-18.2%	BMY	-9.77%
252.0	GNRC	-17.55%	BHC	-9.47%
252.0	KHC	-15.33%	BIIB	-8.41%
252.0	FIS	-13.61%	OXY	-8.15%
252.0	AA	-13.46%	GT	-7.54%
252.0	CYH	-12.32%	TLT	-7.52%
252.0	CHTR	-12.32%	NAVI	-7.23%
252.0	BALL	-12.12%	CVS	-6.37%
252.0	BMY	-11.93%	CTLT	-6.24%
252.0	TLT	-11.64%	CYH	-6.08%
252.0	CTLT	-10.5%	BXP	-5.16%
252.0	OXY	-9.77%	CMCSA	-4.92%
252.0	NAVI	-6.21%	PEP	-4.76%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	GT	-2.37%	CNC	-1.37%
1.0	NWL	-1.9%	CLF	-1.37%
1.0	PRGO	-1.68%	NWL	-1.17%
1.0	PHM	-1.65%	LEN	-1.12%
1.0	TDG	-1.63%	THC	-1.02%
1.0	UAA	-1.55%	GT	-1.0%
1.0	CNC	-1.55%	B	-0.96%
1.0	B	-1.53%	UAA	-0.93%
1.0	MU	-1.35%	GE	-0.91%
1.0	LEN	-1.31%	MU	-0.83%
1.0	BHC	-1.22%	SLV	-0.77%
1.0	BA	-1.19%	NEM	-0.77%
1.0	BHP	-1.19%	GNRC	-0.74%
1.0	NEM	-1.15%	AMC	-0.73%
1.0	CAH	-1.1%	CPRT	-0.67%
1.0	ZTS	-1.08%	BA	-0.65%
1.0	CPRT	-1.03%	CYH	-0.65%
1.0	CMG	-1.02%	FCX	-0.65%
1.0	PCG	-1.0%	AZO	-0.64%
1.0	THC	-0.98%	CMG	-0.62%
1.0	SLV	-0.93%	CVS	-0.6%
1.0	DHI	-0.93%	TDG	-0.6%
1.0	AZO	-0.93%	PHM	-0.59%
1.0	LLY	-0.92%	META	-0.59%
1.0	MSI	-0.87%	GLD	-0.59%
1.0	CCL	-0.81%	BUD	-0.59%
1.0	CLF	-0.8%	BHP	-0.59%
1.0	VICI	-0.76%	PRGO	-0.57%
1.0	ELAN	-0.76%	HD	-0.56%
1.0	MSFT	-0.75%	HCA	-0.56%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	GT	-26.31%	NWL	-15.57%
10.0	NWL	-19.75%	CNC	-14.01%
10.0	B	-15.94%	CLF	-13.98%
10.0	PHM	-15.52%	THC	-13.92%
10.0	TDG	-14.72%	SLV	-13.58%
10.0	META	-13.73%	B	-13.28%
10.0	BA	-13.12%	GT	-12.05%
10.0	CPRT	-12.9%	NEM	-11.5%
10.0	AVGO	-12.74%	AMC	-10.74%
10.0	AZO	-12.42%	CYH	-10.5%
10.0	LLY	-11.79%	GLD	-9.82%
10.0	MOS	-11.5%	UAA	-9.64%
10.0	NEM	-11.21%	GE	-9.43%
10.0	HCA	-11.16%	META	-9.1%
10.0	VICI	-11.06%	ADBE	-9.06%
10.0	KHC	-10.9%	BA	-8.92%
10.0	PRGO	-9.77%	FCX	-8.79%
10.0	SLV	-9.59%	CPRT	-8.75%
10.0	CMG	-9.47%	LEN	-8.45%
10.0	ADBE	-9.41%	HCA	-8.1%
10.0	CNC	-9.16%	KALU	-7.79%
10.0	NVDA	-9.05%	LLY	-7.72%
10.0	CAH	-8.99%	AZO	-7.69%
10.0	BHP	-8.77%	TDG	-7.63%
10.0	MSFT	-8.49%	ABBV	-7.48%
10.0	BHC	-8.44%	CVS	-7.05%
10.0	PCG	-8.4%	KHC	-6.89%
10.0	FCX	-8.26%	HD	-6.75%
10.0	CLF	-7.85%	PHM	-6.66%
10.0	QQQ	-7.84%	PRGO	-6.65%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	GT	-1.16%	AMC	-0.77%
1.0	NAVI	-1.12%	NAVI	-0.7%
1.0	VNO	-1.09%	CLF	-0.69%
1.0	BHC	-1.07%	INTU	-0.57%
1.0	ADBE	-1.0%	FIS	-0.54%
1.0	GBTC	-0.8%	ADBE	-0.5%
1.0	PRGO	-0.76%	QCOM	-0.47%
1.0	ORCL	-0.7%	GT	-0.44%
1.0	MSFT	-0.67%	BHC	-0.44%
1.0	LNC	-0.67%	BXP	-0.42%
1.0	LVS	-0.64%	ORCL	-0.42%
1.0	AMC	-0.62%	GBTC	-0.4%
1.0	TDG	-0.6%	VNO	-0.4%
1.0	CCL	-0.59%	MSFT	-0.39%
1.0	FIS	-0.56%	PRGO	-0.38%
1.0	JPM	-0.54%	LNC	-0.36%
1.0	BA	-0.47%	CNC	-0.34%
1.0	WYNN	-0.45%	ISRG	-0.32%
1.0	MSTR	-0.45%	UNH	-0.31%
1.0	CLF	-0.41%	WYNN	-0.28%
1.0	INTU	-0.41%	LVS	-0.28%
1.0	CMG	-0.4%	WFC	-0.28%
1.0	BXP	-0.39%	LEN	-0.27%
1.0	AVGO	-0.39%	EXPE	-0.26%
1.0	QCOM	-0.39%	TDG	-0.25%
1.0	LEN	-0.38%	TSLA	-0.25%
1.0	NVDA	-0.36%	CMG	-0.24%
1.0	ISRG	-0.36%	CCL	-0.24%
1.0	CPRT	-0.35%	LLY	-0.23%
1.0	LLY	-0.34%	BAC	-0.22%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	GT	-12.81%	AMC	-8.48%
10.0	AMC	-11.74%	NAVI	-8.13%
10.0	BHC	-9.61%	CLF	-7.91%
10.0	NAVI	-9.53%	PRGO	-7.07%
10.0	VNO	-8.3%	BHC	-6.84%
10.0	ADBE	-7.77%	GT	-6.23%
10.0	GBTC	-6.92%	INTU	-5.63%
10.0	PRGO	-6.69%	FIS	-5.6%
10.0	FIS	-5.79%	QCOM	-5.44%
10.0	CPRT	-5.36%	ADBE	-5.39%
10.0	CCL	-5.06%	CNC	-5.38%
10.0	TDG	-5.02%	VNO	-5.19%
10.0	LUMN	-4.91%	GBTC	-5.11%
10.0	B	-4.87%	ORCL	-5.07%
10.0	MSFT	-4.86%	BXP	-4.59%
10.0	AVGO	-4.84%	MSFT	-4.36%
10.0	CMG	-4.8%	LNC	-4.2%
10.0	EXPE	-4.75%	UNH	-4.06%
10.0	ORCL	-4.58%	LEN	-3.85%
10.0	LLY	-4.57%	CCL	-3.77%
10.0	LNC	-4.53%	B	-3.71%
10.0	BA	-4.46%	EXPE	-3.68%
10.0	CLF	-4.26%	ISRG	-3.67%
10.0	QCOM	-4.03%	CMG	-3.63%
10.0	ISRG	-3.77%	MSTR	-3.44%
10.0	BAC	-3.61%	WFC	-3.41%
10.0	MSTR	-3.57%	TDG	-3.29%
10.0	UNH	-3.53%	CPRT	-3.24%
10.0	BXP	-3.51%	BA	-3.22%
10.0	LVS	-3.35%	LLY	-3.17%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	VNO	-20.9%	CLF	-19.54%
21.0	GT	-19.62%	AMC	-17.53%
21.0	AMC	-19.2%	NAVI	-17.52%
21.0	BHC	-18.27%	PRGO	-16.57%
21.0	NAVI	-18.19%	GT	-13.45%
21.0	GBTC	-18.05%	BHC	-12.07%
21.0	ADBE	-15.98%	GBTC	-11.24%
21.0	CPRT	-15.73%	VNO	-11.15%
21.0	LUMN	-15.0%	BXP	-10.8%
21.0	PRGO	-14.14%	LUMN	-10.63%
21.0	B	-12.94%	FIS	-10.49%
21.0	AMD	-12.03%	QCOM	-10.34%
21.0	EXPE	-11.21%	LNC	-10.25%
21.0	MSFT	-10.87%	CNC	-10.22%
21.0	LNC	-10.56%	INTU	-9.85%
21.0	ORCL	-10.45%	ORCL	-9.34%
21.0	CMG	-9.63%	ADBE	-9.23%
21.0	UNH	-9.55%	MSFT	-8.44%
21.0	LEN	-9.31%	UNH	-7.92%
21.0	CCL	-8.8%	CMG	-7.91%
21.0	CLF	-8.76%	EXPE	-7.88%
21.0	MS	-8.49%	LEN	-7.81%
21.0	BA	-8.41%	WFC	-7.48%
21.0	BXP	-8.39%	B	-7.46%
21.0	GS	-8.38%	CCL	-7.45%
21.0	FIS	-8.01%	TDG	-7.42%
21.0	ISRG	-7.99%	CPRT	-7.36%
21.0	QCOM	-7.75%	SLV	-7.15%
21.0	LLY	-7.74%	MSTR	-6.98%
21.0	WFC	-7.45%	BA	-6.97%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	MSTR	-0.6%	AMC	-0.36%
1.0	PRGO	-0.47%	PRGO	-0.33%
1.0	UNH	-0.38%	MSTR	-0.25%
1.0	VNO	-0.33%	UNH	-0.21%
1.0	AMC	-0.32%	CPRT	-0.2%
1.0	CNC	-0.31%	CHTR	-0.18%
1.0	GT	-0.31%	FIS	-0.17%
1.0	CPRT	-0.31%	ADBE	-0.16%
1.0	FIS	-0.26%	CMG	-0.16%
1.0	ADBE	-0.25%	NWL	-0.16%
1.0	CMG	-0.24%	CNC	-0.15%
1.0	UAA	-0.23%	NAVI	-0.14%
1.0	IEP	-0.22%	VNO	-0.12%
1.0	CMCSA	-0.21%	INTU	-0.11%
1.0	CHTR	-0.21%	ZTS	-0.11%
1.0	NAVI	-0.2%	KHC	-0.11%
1.0	LNC	-0.18%	CMCSA	-0.08%
1.0	KHC	-0.15%	TMUS	-0.08%
1.0	GBTC	-0.14%	LEN	-0.08%
1.0	TMUS	-0.14%	BXP	-0.08%
1.0	LEN	-0.13%	GT	-0.07%
1.0	PCG	-0.11%	VICI	-0.06%
1.0	VICI	-0.11%	FRA	-0.06%
1.0	ZTS	-0.1%	TDG	-0.06%
1.0	INTU	-0.08%	GBTC	-0.06%
1.0	BXP	-0.08%	POST	-0.06%
1.0	SNY	-0.08%	IEP	-0.05%
1.0	FRA	-0.08%	LW	-0.05%
1.0	MSI	-0.08%	QCOM	-0.04%
1.0	NWL	-0.07%	AZO	-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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	MSTR	-3.88%	AMC	-3.65%
10.0	AMC	-3.67%	PRGO	-3.39%
10.0	PRGO	-3.51%	MSTR	-2.45%
10.0	CPRT	-2.82%	UNH	-2.34%
10.0	UNH	-2.37%	CPRT	-2.1%
10.0	CNC	-1.9%	CNC	-1.68%
10.0	VNO	-1.84%	FIS	-1.44%
10.0	ADBE	-1.7%	CHTR	-1.42%
10.0	KHC	-1.69%	ADBE	-1.41%
10.0	GT	-1.63%	CMG	-1.38%
10.0	CMG	-1.51%	NAVI	-1.18%
10.0	NAVI	-1.44%	KHC	-1.17%
10.0	FIS	-1.3%	GT	-1.13%
10.0	CHTR	-1.24%	VNO	-0.99%
10.0	TMUS	-1.04%	ZTS	-0.99%
10.0	VICI	-0.91%	NWL	-0.81%
10.0	GBTC	-0.75%	INTU	-0.8%
10.0	FRA	-0.69%	LW	-0.77%
10.0	TDG	-0.61%	TMUS	-0.72%
10.0	SNY	-0.56%	POST	-0.67%
10.0	ZTS	-0.56%	CMCSA	-0.64%
10.0	IEP	-0.55%	BXP	-0.52%
10.0	CMCSA	-0.49%	VICI	-0.47%
10.0	ORLY	-0.47%	FRA	-0.46%
10.0	ISRG	-0.36%	LEN	-0.44%
10.0	BXP	-0.28%	SNY	-0.43%
10.0	POST	-0.25%	GBTC	-0.43%
10.0	TLT	-0.21%	TDG	-0.36%
10.0	MSFT	-0.19%	IEP	-0.28%
10.0	HD	-0.18%	AZO	-0.24%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	MSTR	-9.84%	AMC	-7.38%
21.0	PRGO	-7.24%	PRGO	-6.92%
21.0	CPRT	-6.88%	MSTR	-5.85%
21.0	AMC	-5.57%	CPRT	-4.45%
21.0	VNO	-4.3%	UNH	-3.85%
21.0	UNH	-3.47%	FIS	-3.27%
21.0	ADBE	-3.4%	CHTR	-2.99%
21.0	CMG	-3.16%	ADBE	-2.62%
21.0	CNC	-3.03%	CMG	-2.61%
21.0	KHC	-2.99%	CNC	-2.58%
21.0	FIS	-2.4%	NAVI	-2.44%
21.0	CHTR	-2.39%	GT	-2.25%
21.0	GT	-2.31%	KHC	-2.23%
21.0	NAVI	-2.27%	VNO	-2.12%
21.0	GBTC	-1.9%	ZTS	-2.01%
21.0	TMUS	-1.88%	INTU	-1.62%
21.0	VICI	-1.71%	TMUS	-1.37%
21.0	INTU	-1.56%	LW	-1.31%
21.0	IEP	-1.45%	GBTC	-1.26%
21.0	FRA	-1.38%	BXP	-1.26%
21.0	SNY	-1.2%	SNY	-1.2%
21.0	LW	-1.13%	POST	-1.17%
21.0	ISRG	-1.12%	CMCSA	-1.01%
21.0	CMCSA	-1.09%	FRA	-0.96%
21.0	ZTS	-0.97%	VICI	-0.95%
21.0	BXP	-0.94%	NWL	-0.89%
21.0	GME	-0.61%	IEP	-0.66%
21.0	POST	-0.55%	TDG	-0.59%
21.0	ORLY	-0.45%	LEN	-0.59%
21.0	NFLX	-0.24%	QCOM	-0.24%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	-47.47%	MSTR	-23.13%
63.0	PRGO	-22.78%	AMC	-21.33%
63.0	CPRT	-18.1%	PRGO	-19.71%
63.0	NFLX	-16.4%	CHTR	-15.52%
63.0	ADBE	-12.02%	CPRT	-12.11%
63.0	FIS	-11.86%	FIS	-10.97%
63.0	CMG	-10.82%	ADBE	-9.86%
63.0	CHTR	-10.3%	CMG	-9.03%
63.0	INTU	-9.73%	INTU	-8.88%
63.0	VNO	-9.72%	ZTS	-7.61%
63.0	AMC	-8.61%	NAVI	-7.11%
63.0	GBTC	-7.7%	VNO	-6.76%
63.0	GT	-6.63%	GBTC	-6.54%
63.0	KHC	-6.51%	NFLX	-6.54%
63.0	TMUS	-6.38%	KHC	-5.21%
63.0	UNH	-5.96%	TMUS	-5.2%
63.0	CZR	-5.57%	GT	-4.95%
63.0	NAVI	-5.52%	NWL	-4.69%
63.0	CMCSA	-5.45%	UNH	-4.5%
63.0	VICI	-5.14%	LW	-4.3%
63.0	ZTS	-4.92%	CMCSA	-4.21%
63.0	POST	-3.24%	CNC	-4.13%
63.0	FRA	-3.21%	GME	-3.81%
63.0	LW	-2.62%	CZR	-3.6%
63.0	GME	-2.61%	VICI	-3.26%
63.0	SNY	-2.54%	POST	-3.08%
63.0	ORCL	-2.14%	MOS	-3.0%
63.0	BXP	-1.77%	FRA	-2.9%
63.0	IEP	-1.75%	SNY	-2.82%
63.0	NWL	-1.59%	IEP	-2.71%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	MSTR	-86.78%	MSTR	-47.53%
126.0	PRGO	-55.02%	PRGO	-41.4%
126.0	CMG	-38.23%	AMC	-37.1%
126.0	CPRT	-35.89%	CHTR	-32.89%
126.0	GT	-35.66%	NWL	-24.26%
126.0	NWL	-33.13%	CMG	-22.93%
126.0	MOS	-31.1%	CPRT	-22.81%
126.0	FIS	-30.72%	FIS	-20.54%
126.0	NFLX	-29.8%	GT	-17.78%
126.0	INTU	-26.83%	ZTS	-17.73%
126.0	CHTR	-21.06%	INTU	-17.26%
126.0	CZR	-20.98%	ADBE	-16.86%
126.0	ADBE	-20.89%	MOS	-16.41%
126.0	VNO	-18.95%	GBTC	-15.18%
126.0	AMC	-17.49%	NFLX	-15.01%
126.0	TMUS	-17.4%	NAVI	-14.81%
126.0	VICI	-14.66%	CZR	-14.31%
126.0	ZTS	-14.42%	TMUS	-14.11%
126.0	KHC	-13.69%	CMCSA	-14.08%
126.0	CMCSA	-13.6%	VNO	-12.41%
126.0	GBTC	-12.86%	KHC	-11.76%
126.0	IEP	-11.61%	VICI	-9.86%
126.0	T	-10.75%	GME	-8.29%
126.0	NAVI	-10.18%	FRA	-8.04%
126.0	GME	-8.36%	IEP	-7.97%
126.0	TDG	-8.12%	TDG	-7.38%
126.0	POST	-7.35%	T	-7.11%
126.0	COST	-6.83%	POST	-6.27%
126.0	FRA	-6.59%	UAA	-5.23%
126.0	UNH	-5.68%	MSI	-4.08%



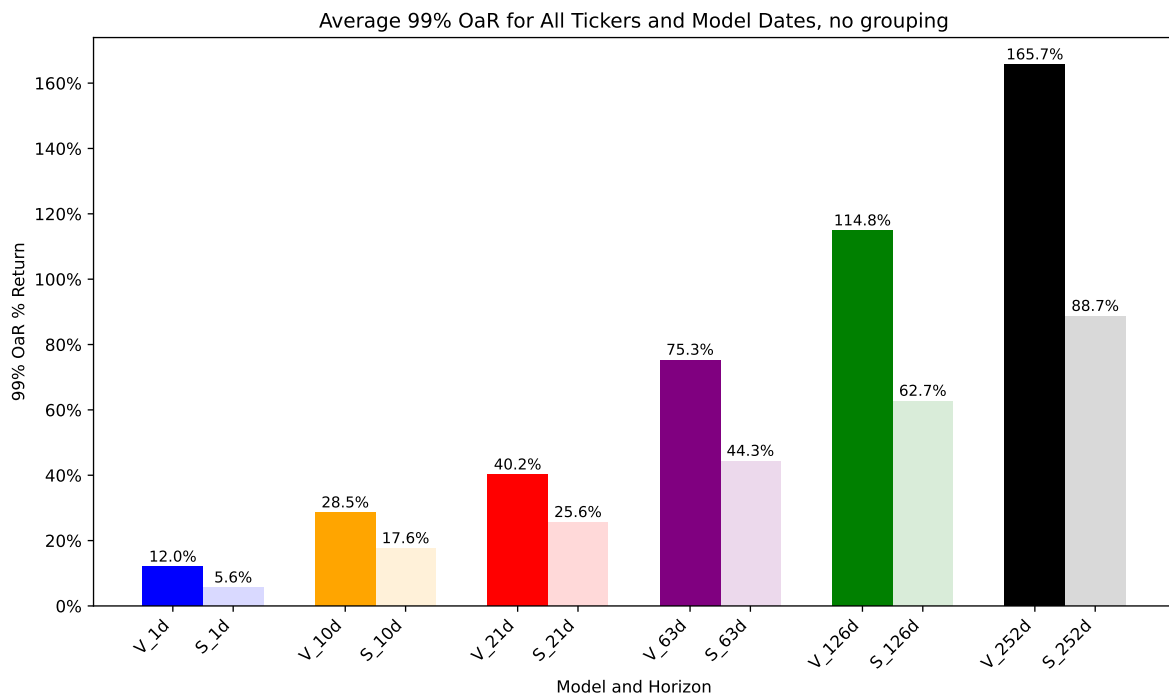
99% Opportunity At Risk (OaR)

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.

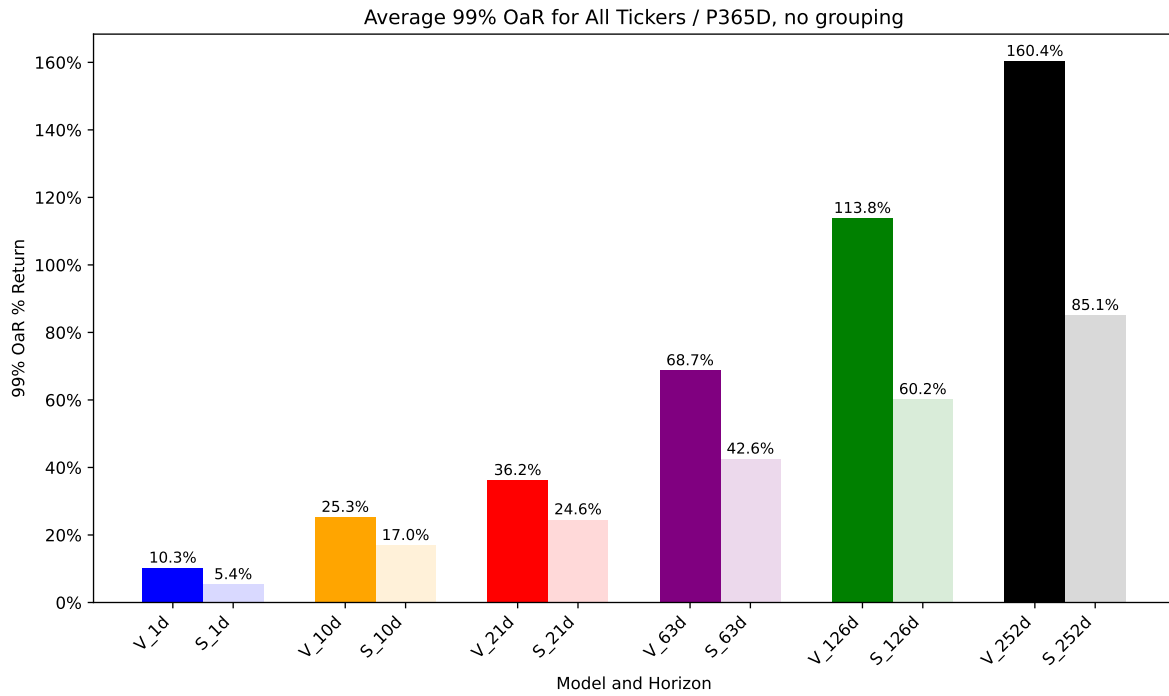
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-03-30



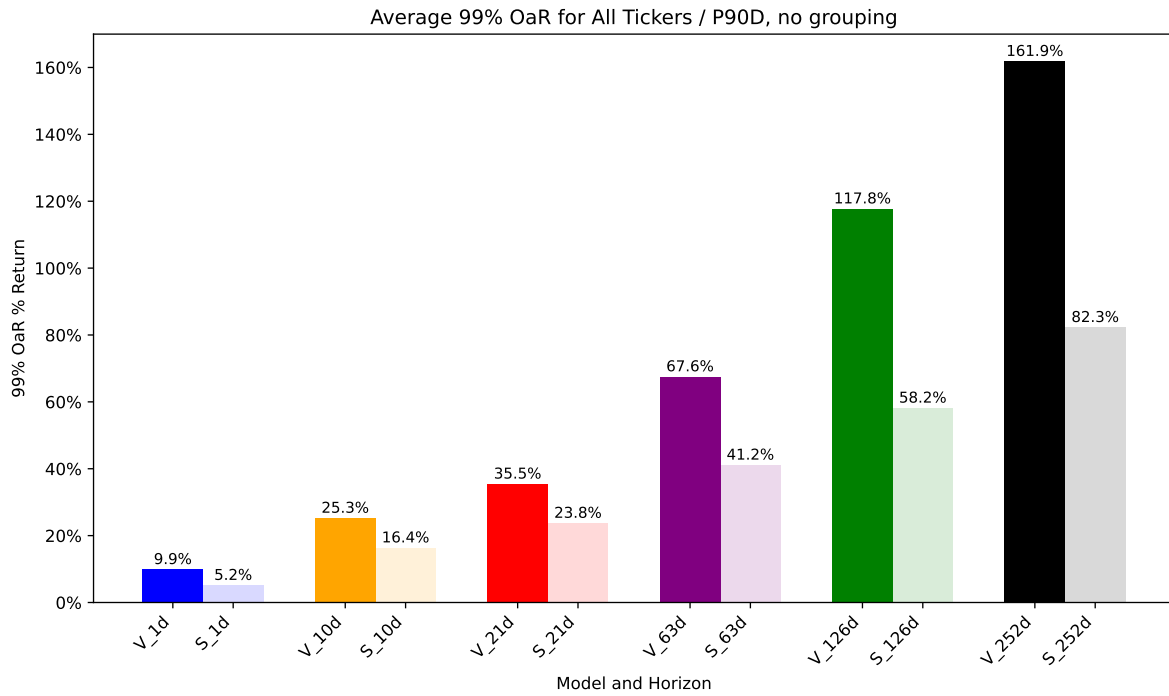
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-03-30 through 2025-04-01



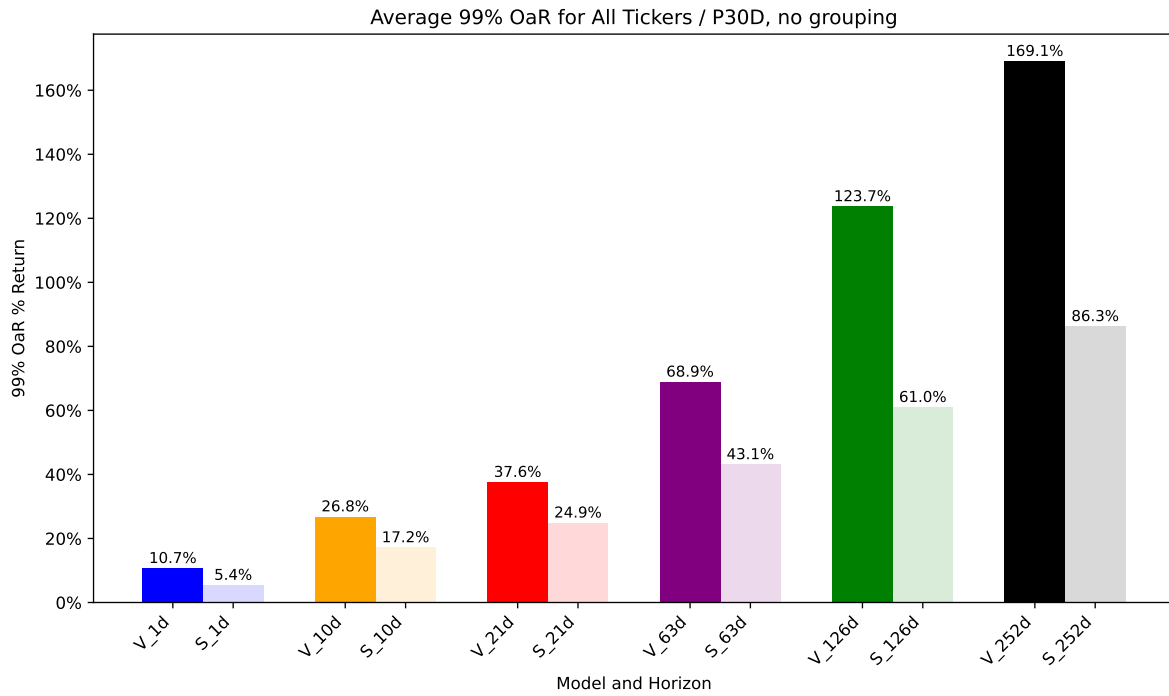
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-30 through 2026-01-02



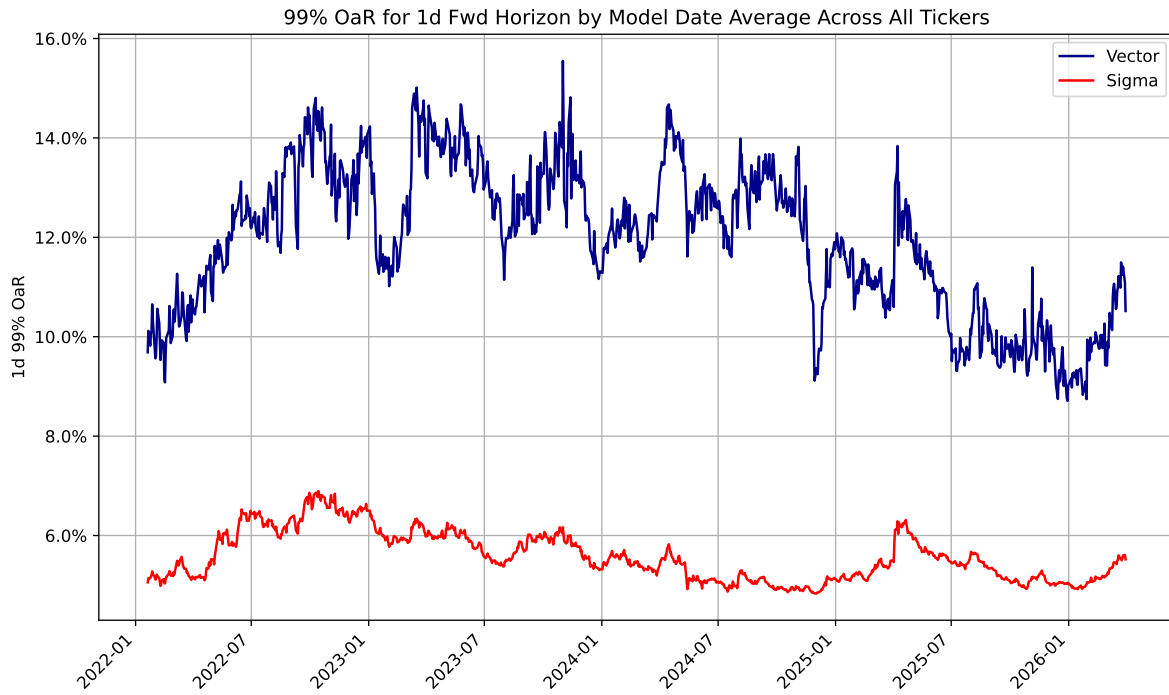
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-03-30 through 2026-03-02

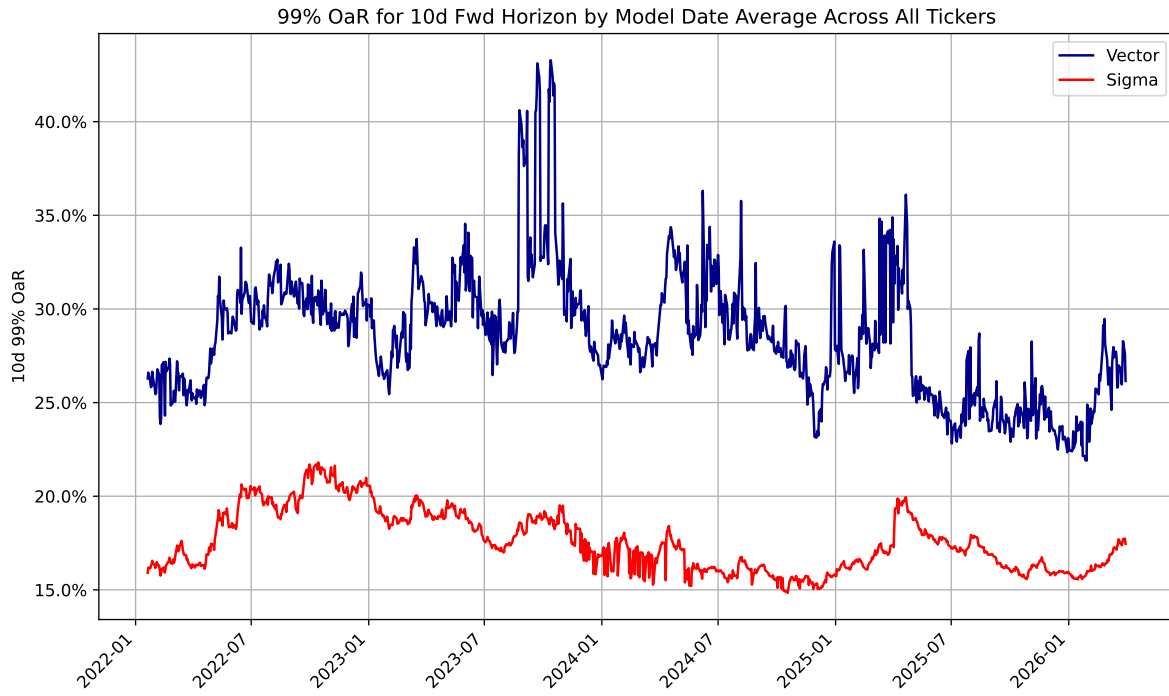


Daily Levels

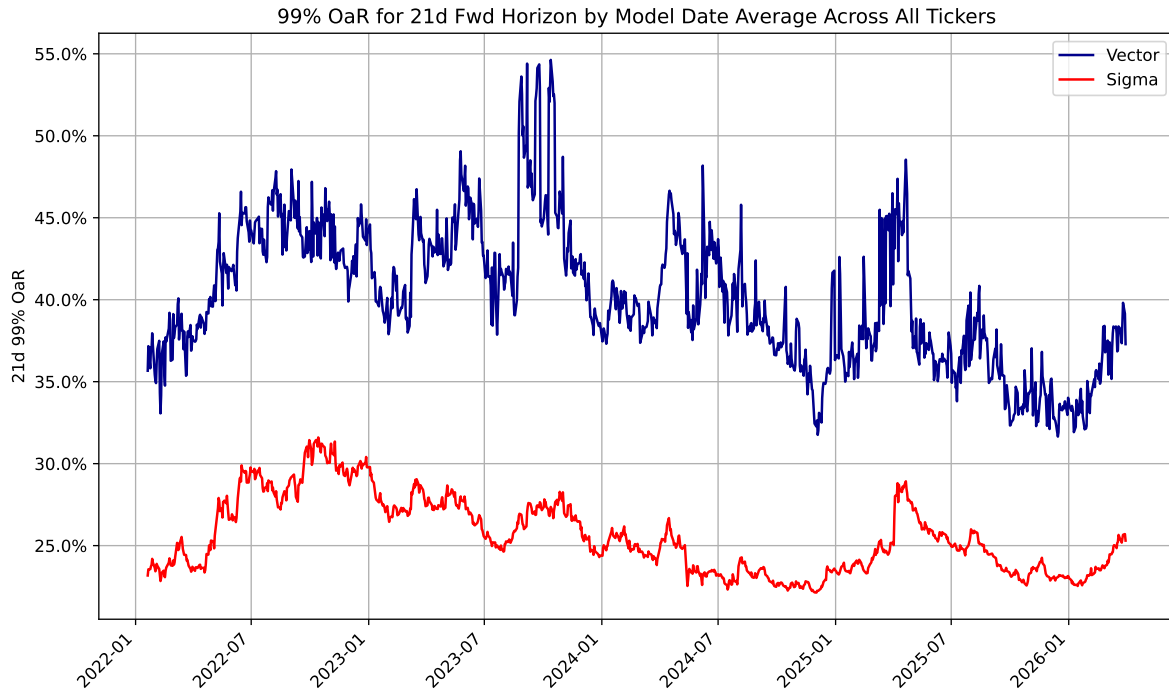
1d Horizon



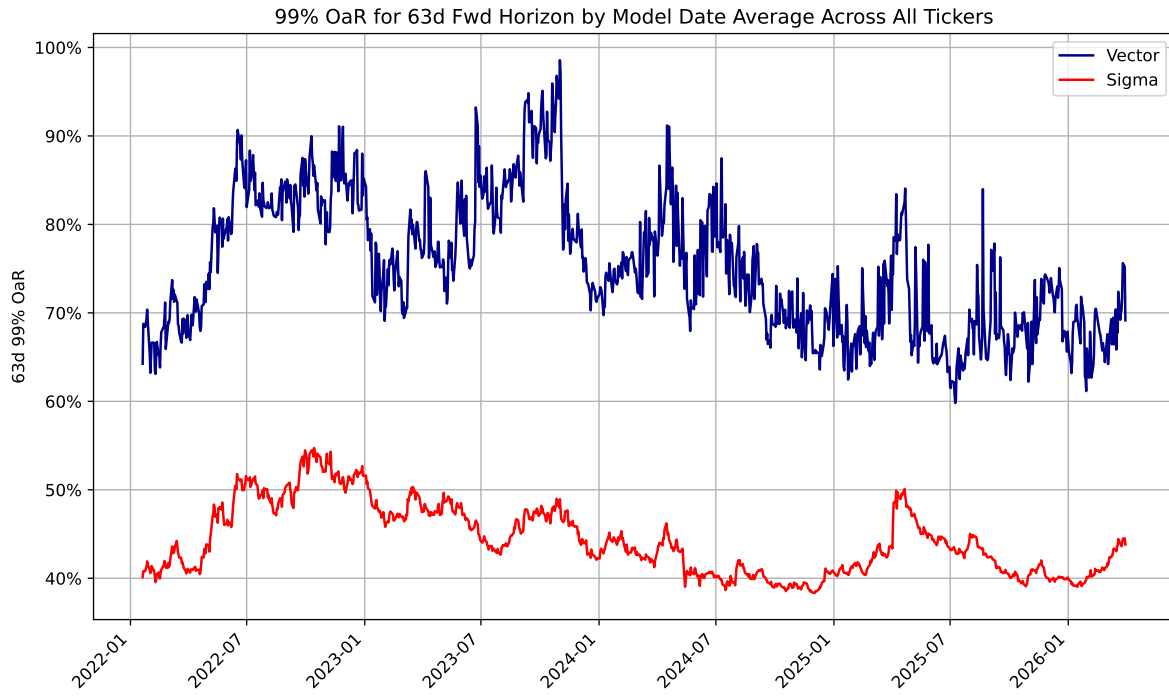
10d Horizon



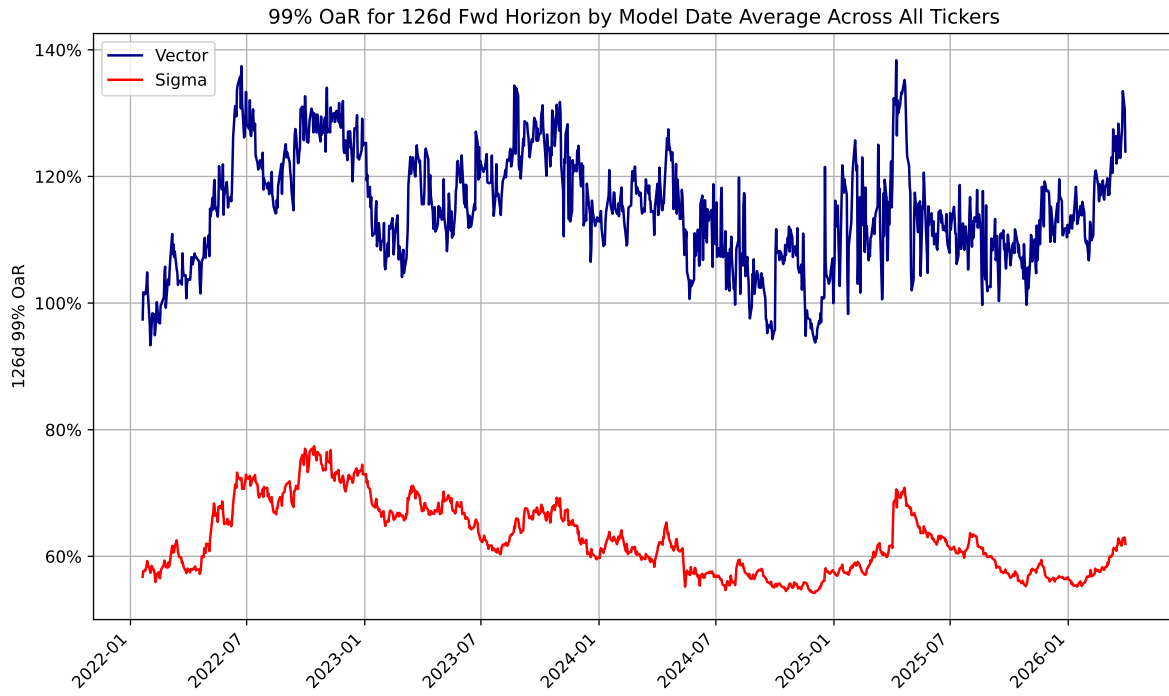
21d Horizon



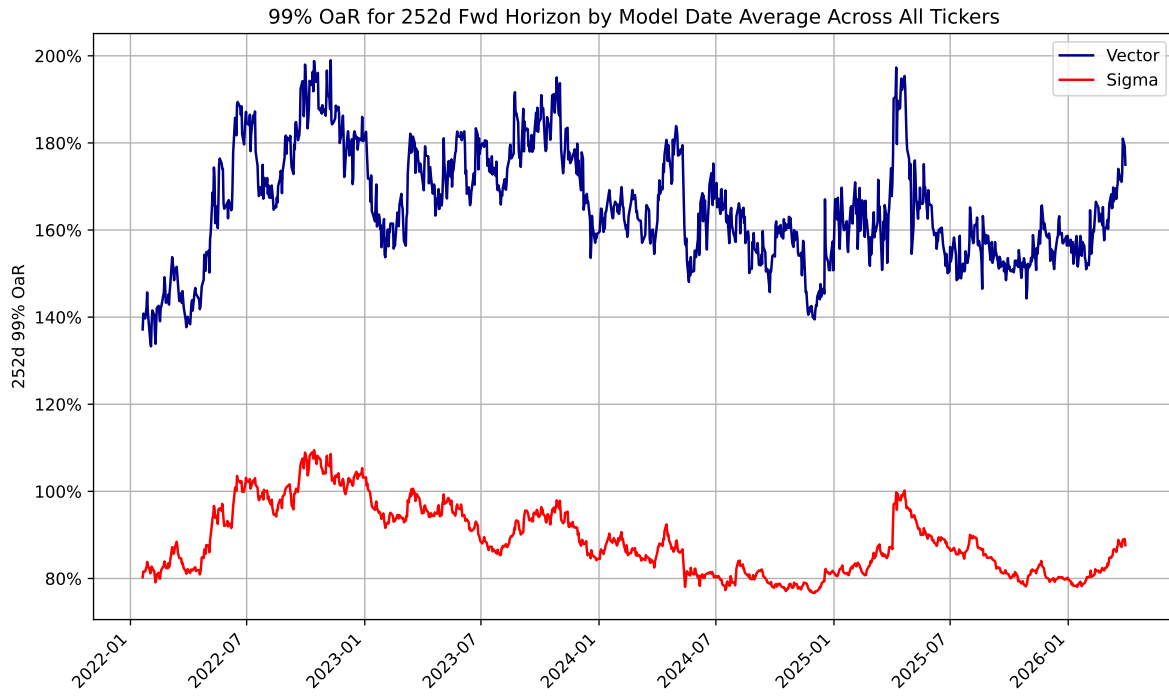
63d Horizon



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 facilitate 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 evaluated 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.

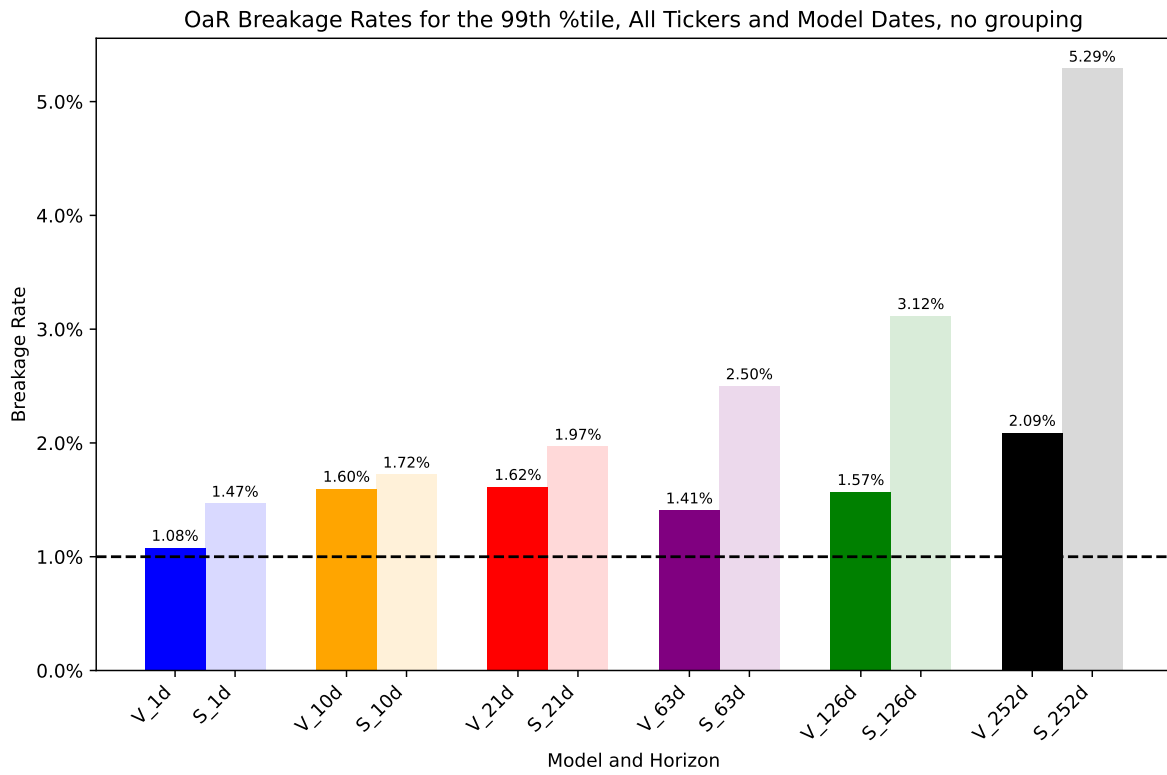
Alpha allows us to isolate ROLOBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROLOBC multiplier for the Vector Model and 1.00x. Alpha across TMD’s could be driven by OaR differentials between tickers and / or between dates. Thus we also 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 Model OaR relative to Sigma across time as opposed to OaRiation in Vector Model OaR relative to Sigma between tickers.

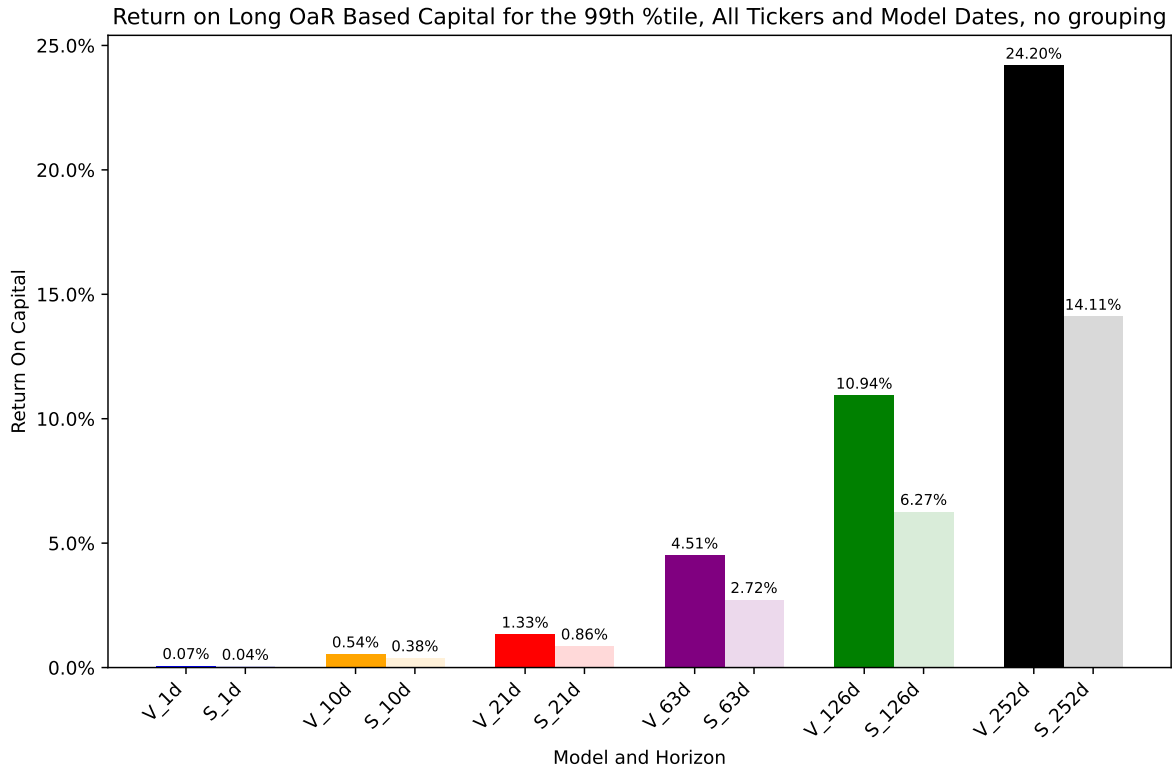
Results for each horizon reflect the average for all model estimates for that horizon from all model dates for which forward performance is known. Note that periods for all horizons > 1d overlap.



All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-03-30





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

	1d	10d	21d	63d	126d	252d
intercept	0.00%	-0.03%	0.04%	0.10%	0.23%	1.04%
intercept_p_value	84.12%	11.88%	7.04%	1.80%	0.02%	0.00%
slope	177.51%	147.99%	150.59%	162.04%	170.90%	164.15%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

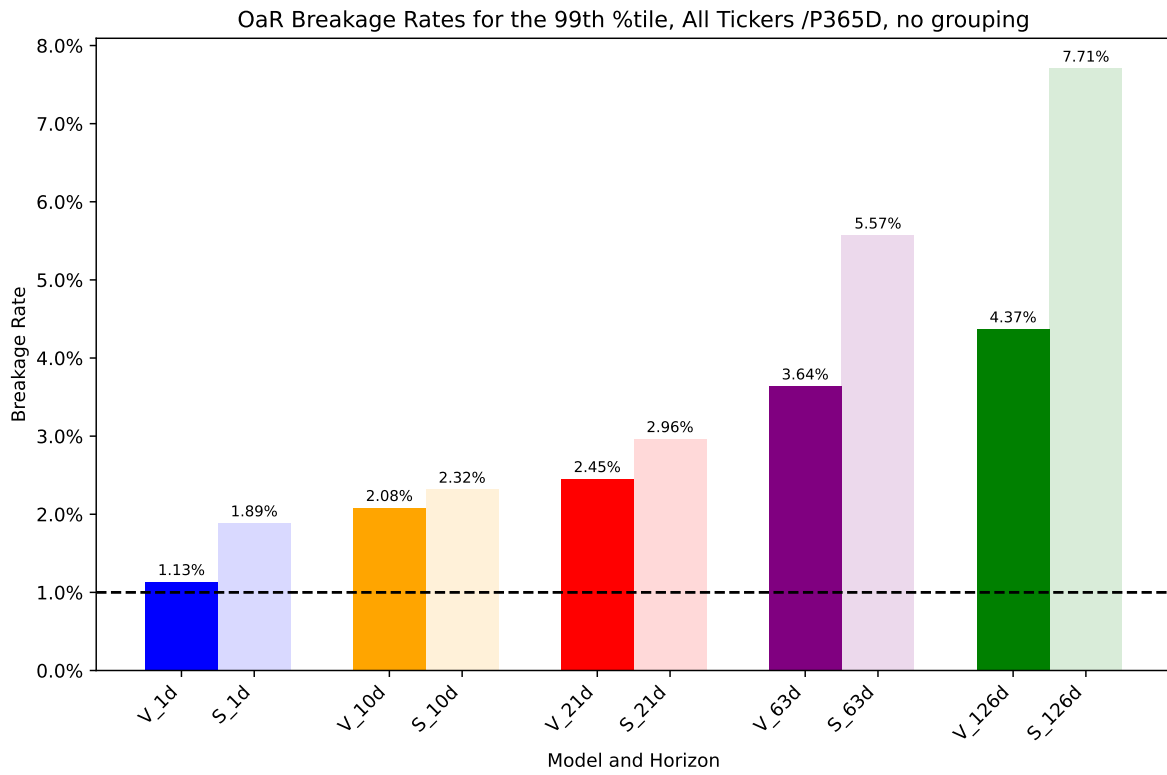
Average Alpha (intercept) and Beta (slope) of Vector Model ROLIBC regressed upon corresponding actual returns, by ticker across Model Dates:

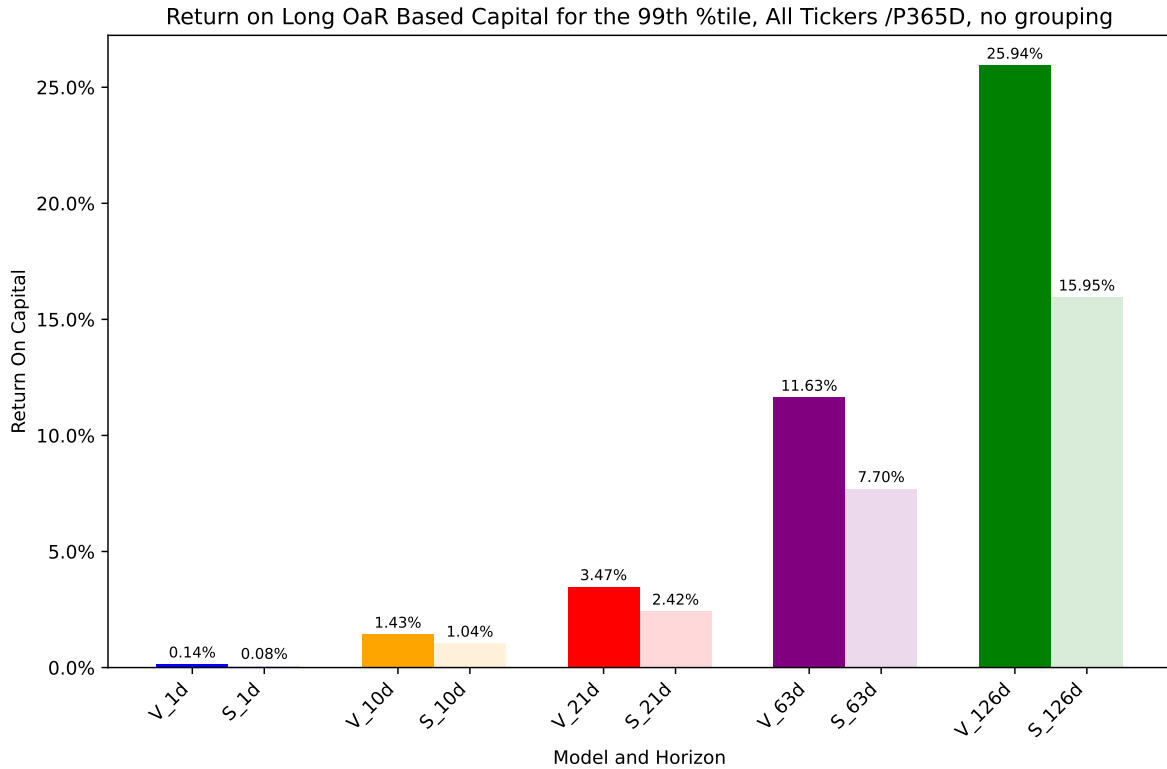
	1d	10d	21d	63d	126d	252d
intercept	-0.04%	-0.19%	-0.53%	-2.23%	-4.27%	-5.19%
intercept_p_value	0.00%	0.14%	0.01%	0.00%	0.00%	0.09%
slope	165.65%	150.18%	166.11%	180.86%	178.39%	163.39%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-03-30 through 2025-04-01





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

	1d	10d	21d	63d	126d
intercept	-0.00%	-0.08%	-0.02%	0.05%	-0.23%
intercept_p_value	75.22%	0.64%	56.28%	60.36%	30.21%
slope	176.41%	144.70%	144.69%	150.38%	164.05%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

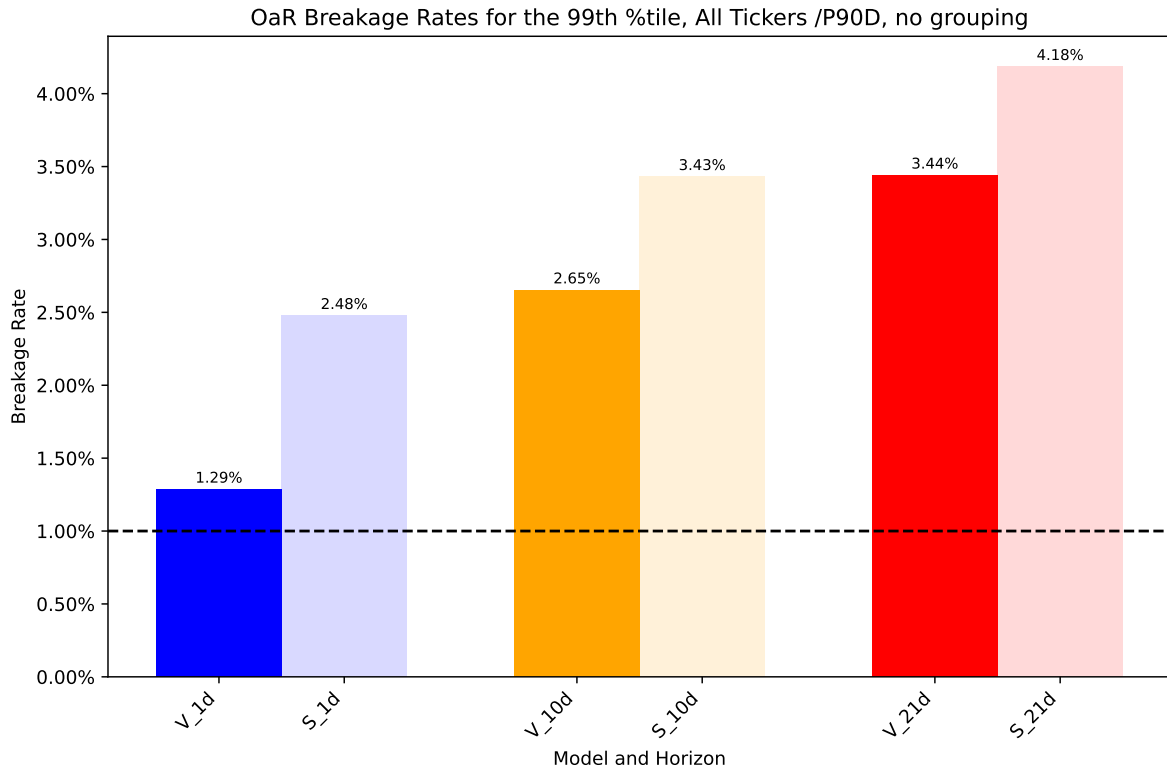
Average Alpha (intercept) and Beta (slope) of Vector Model ROLIBC regressed upon corresponding actual returns, by ticker across P365D:

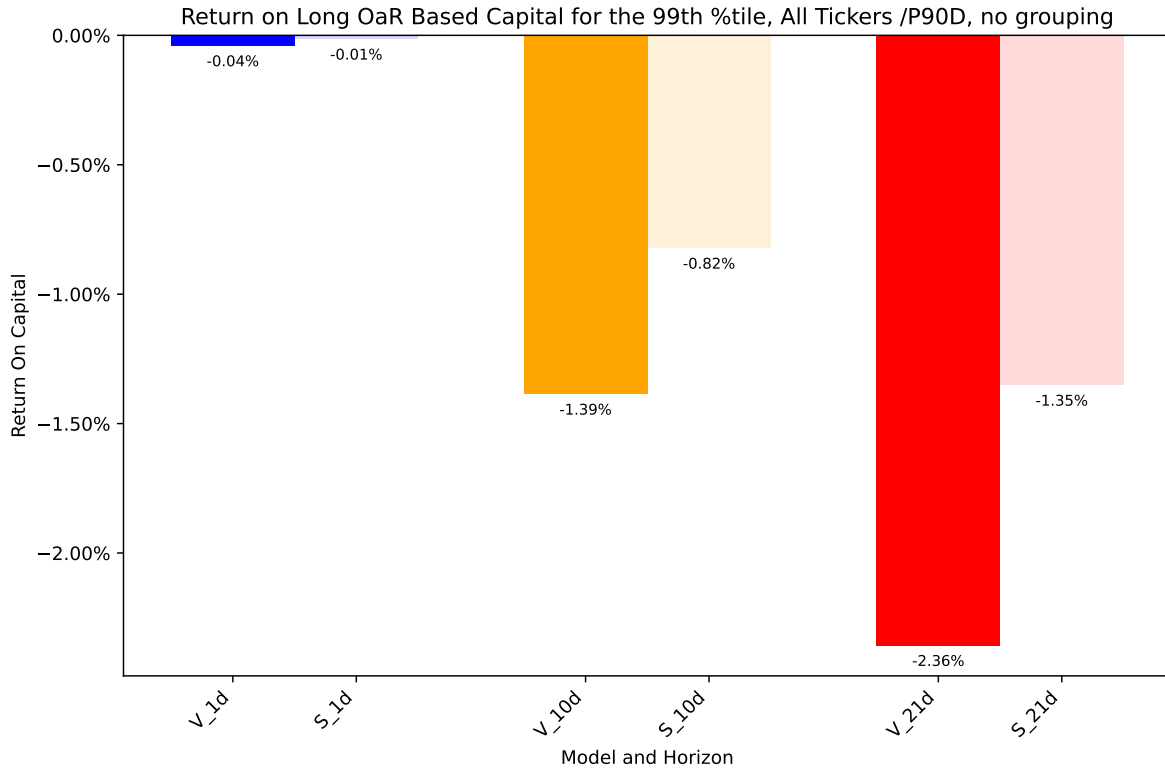
	1d	10d	21d	63d	126d
intercept	-0.01%	-0.15%	-0.33%	-1.34%	-3.89%
intercept_p_value	42.36%	8.76%	6.42%	1.63%	0.59%
slope	95.75%	122.34%	127.43%	134.18%	153.25%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-30 through 2026-01-02





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

	1d	10d	21d
intercept	-0.02%	-0.24%	-0.50%
intercept_p_value	44.52%	0.01%	0.00%
slope	164.56%	139.47%	137.35%
slope_p_value	0.00%	0.00%	0.00%

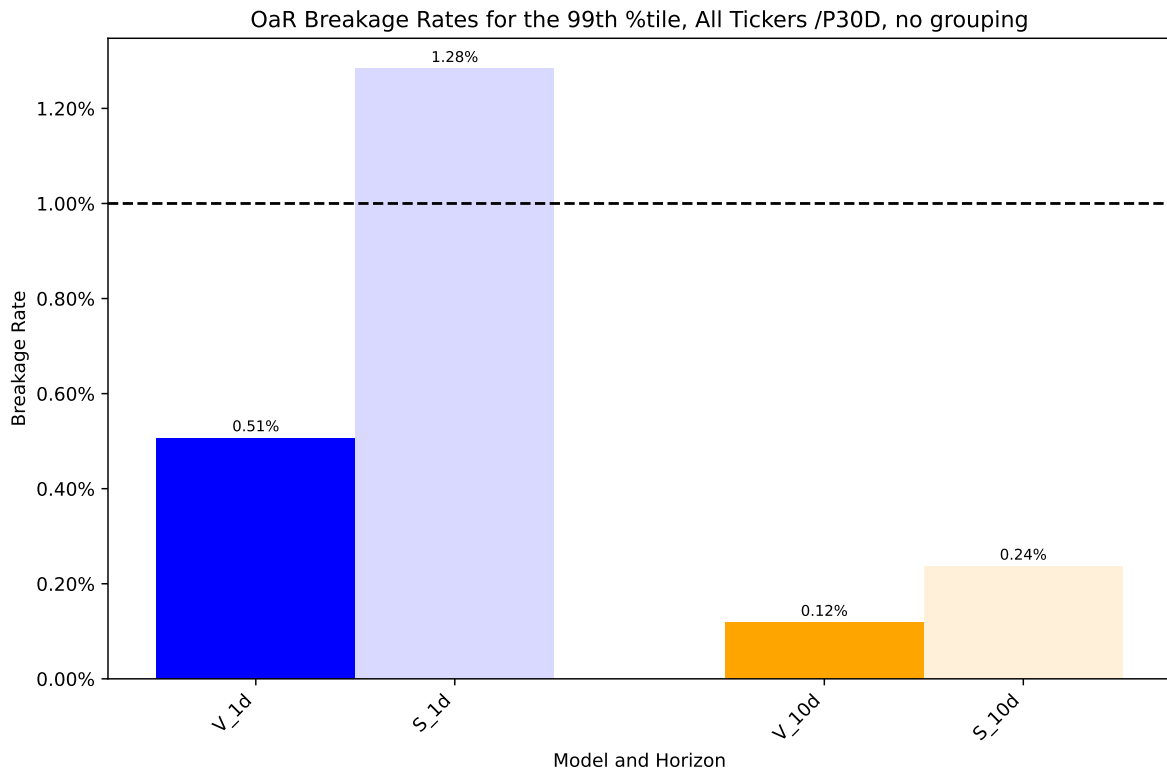
Average Alpha (intercept) and Beta (slope) of Vector Model ROLIBC regressed upon corresponding actual returns, by ticker across P90D:

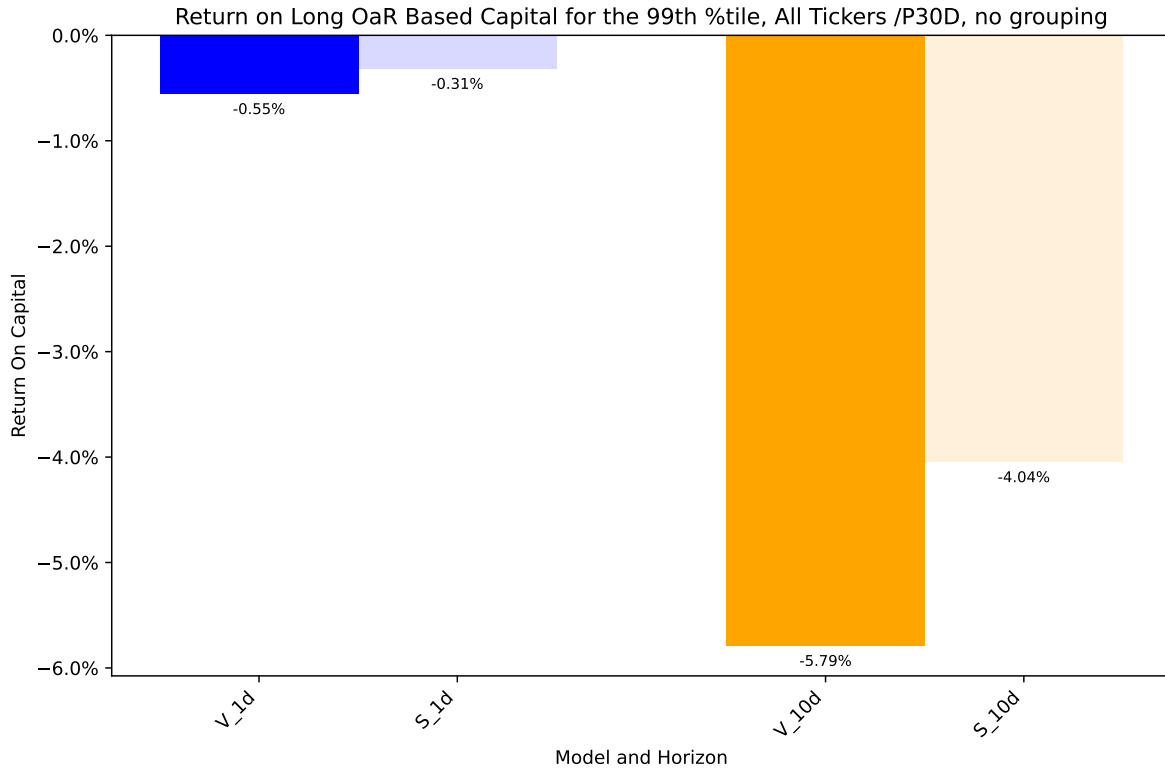
	1d	10d	21d
intercept	-0.04%	-0.05%	0.04%
intercept_p_value	3.96%	75.25%	89.66%
slope	104.47%	118.40%	125.91%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-03-30 through 2026-03-02





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

	1d	10d
intercept	0.01%	0.39%
intercept_p_value	72.99%	0.87%
slope	180.06%	152.84%
slope_p_value	0.00%	0.00%

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

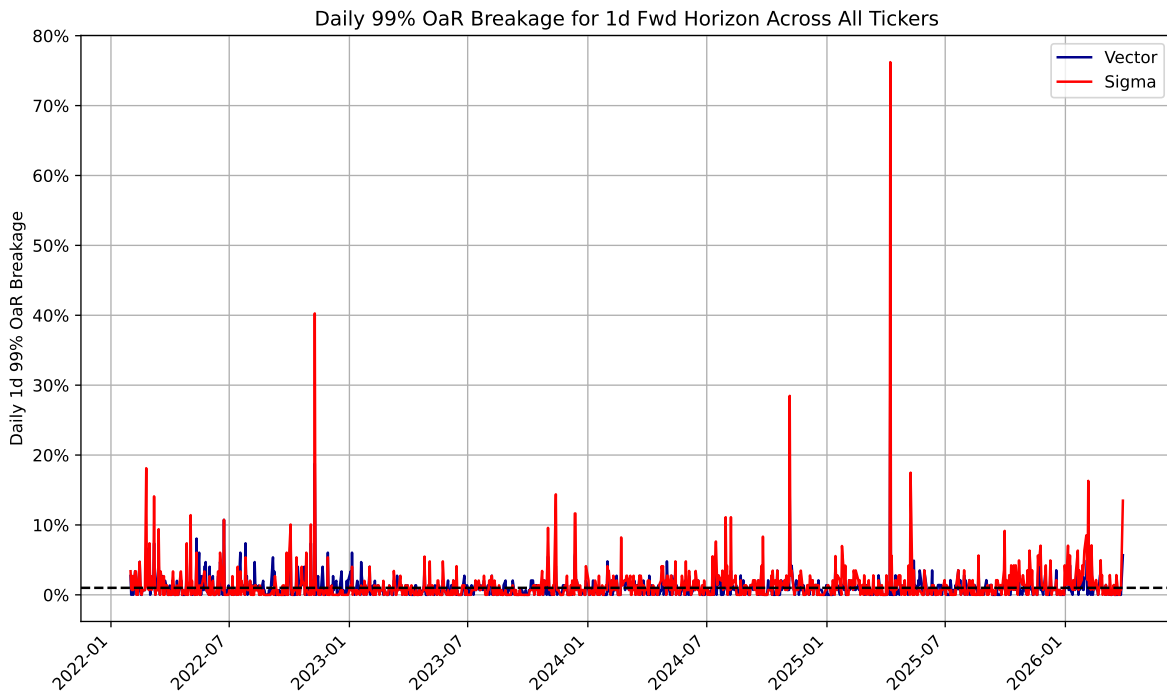
	1d	10d
intercept	-0.01%	0.12%
intercept_p_value	69.11%	72.09%
slope	106.04%	115.23%
slope_p_value	0.00%	0.00%

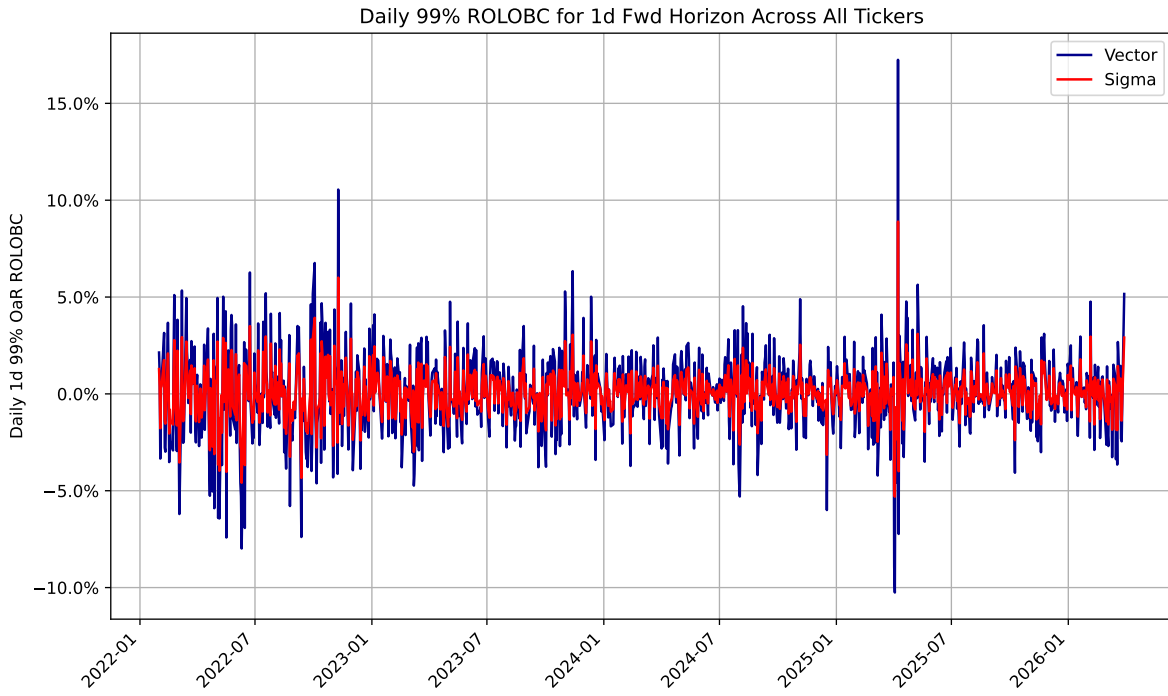


Daily Performance

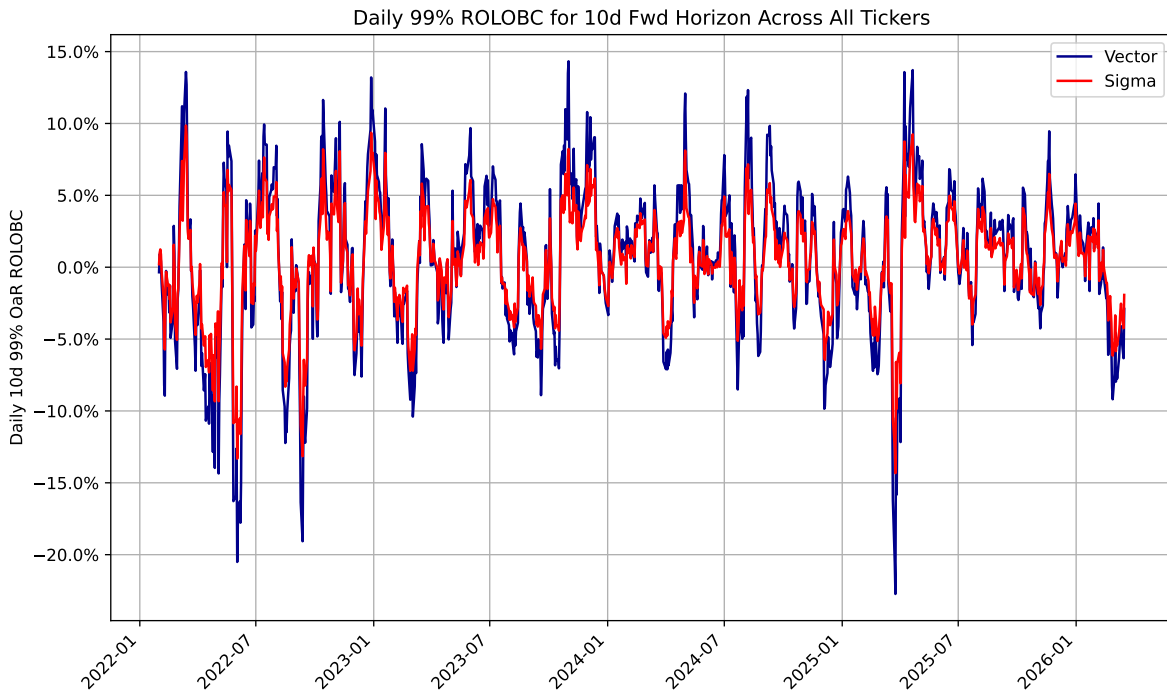
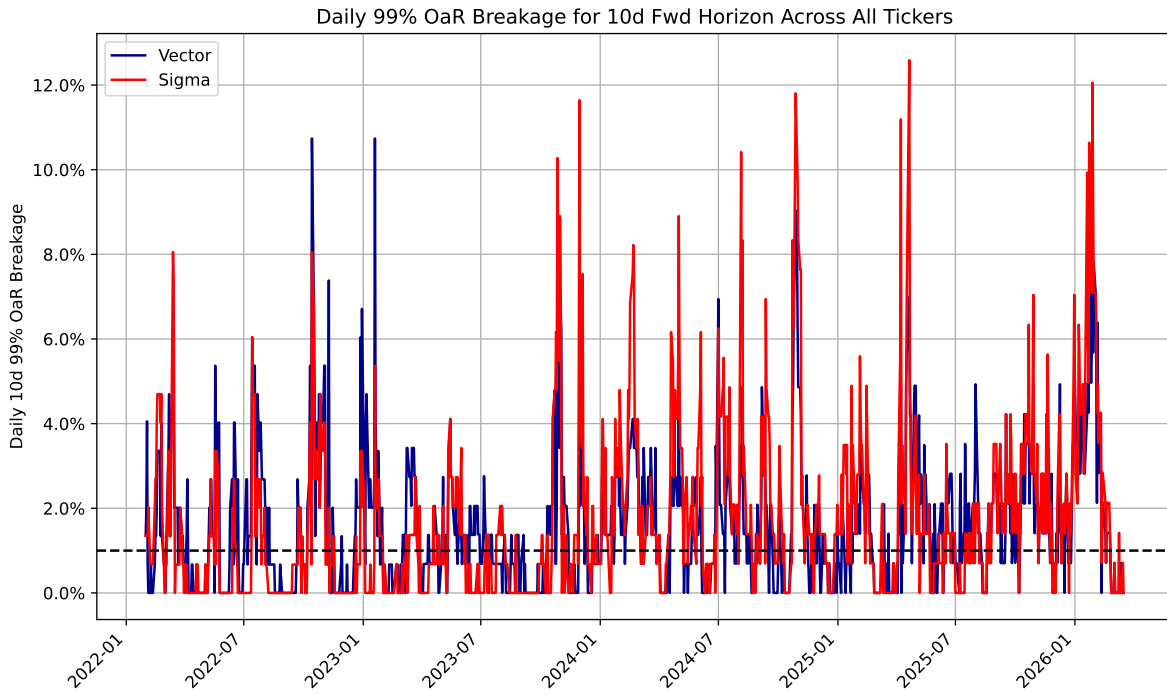
Here we look at the daily breakage and ROLOBC statistics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROLOBC outliers.

1d Horizon

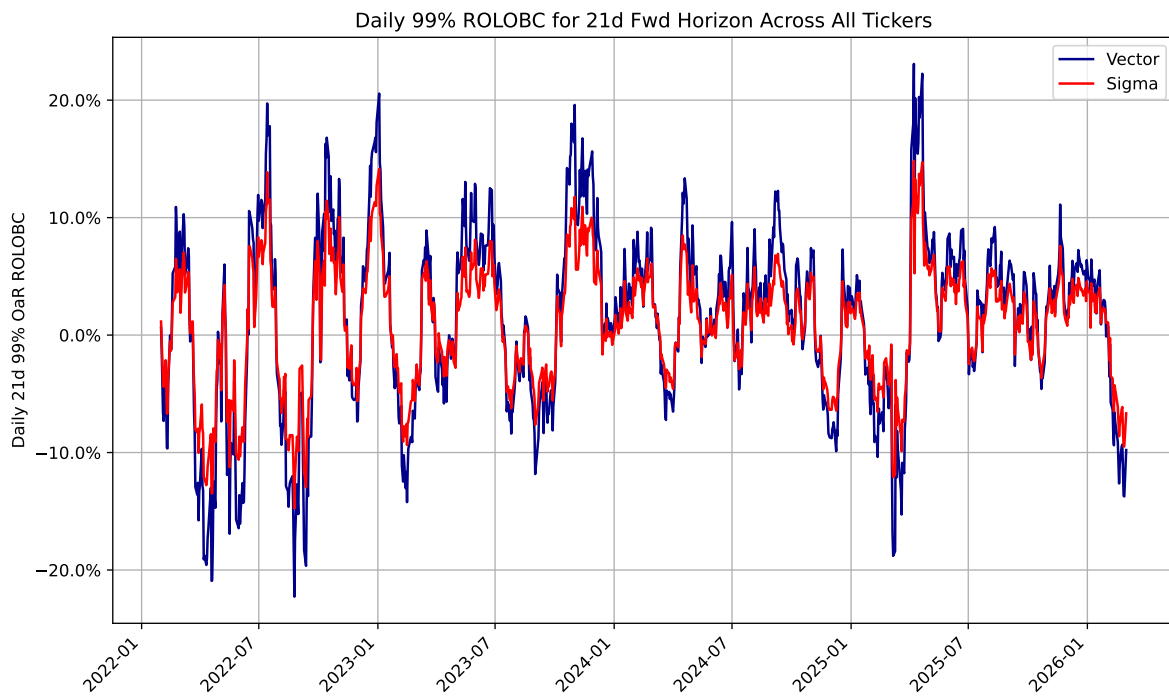
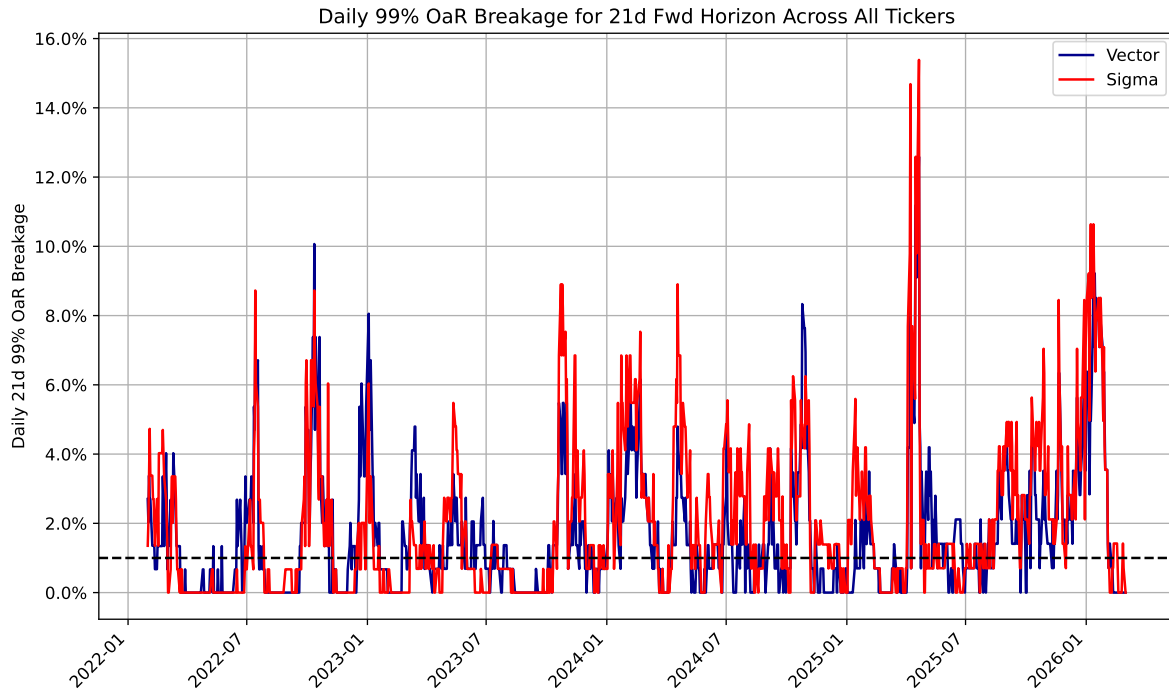




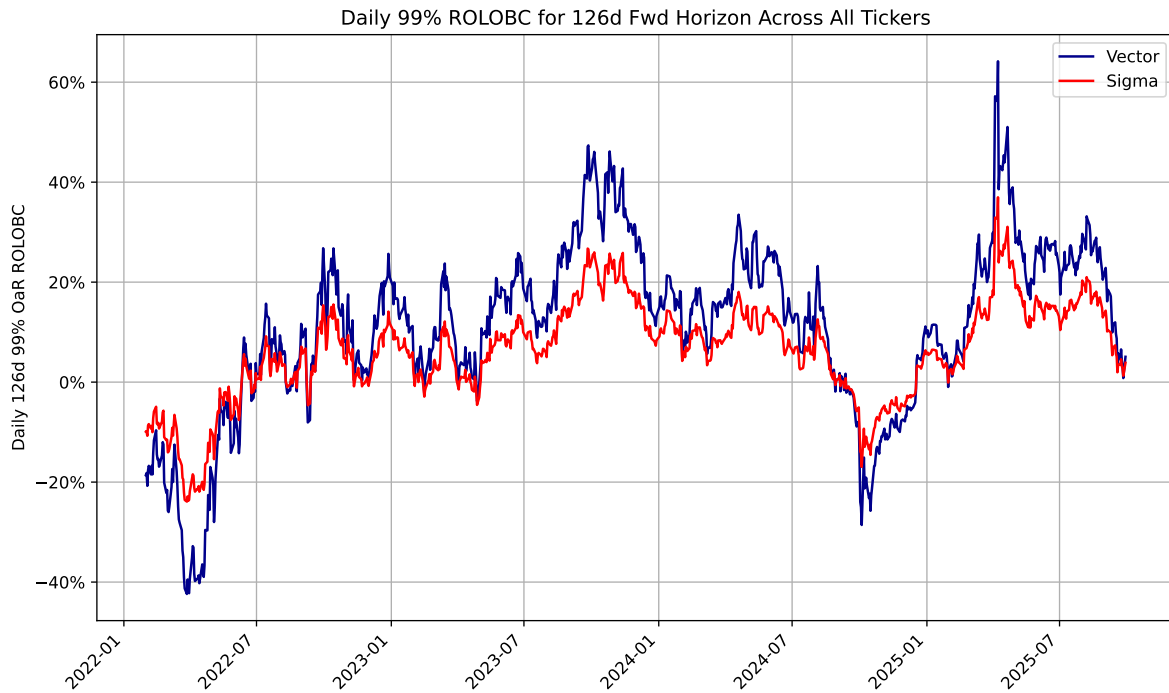
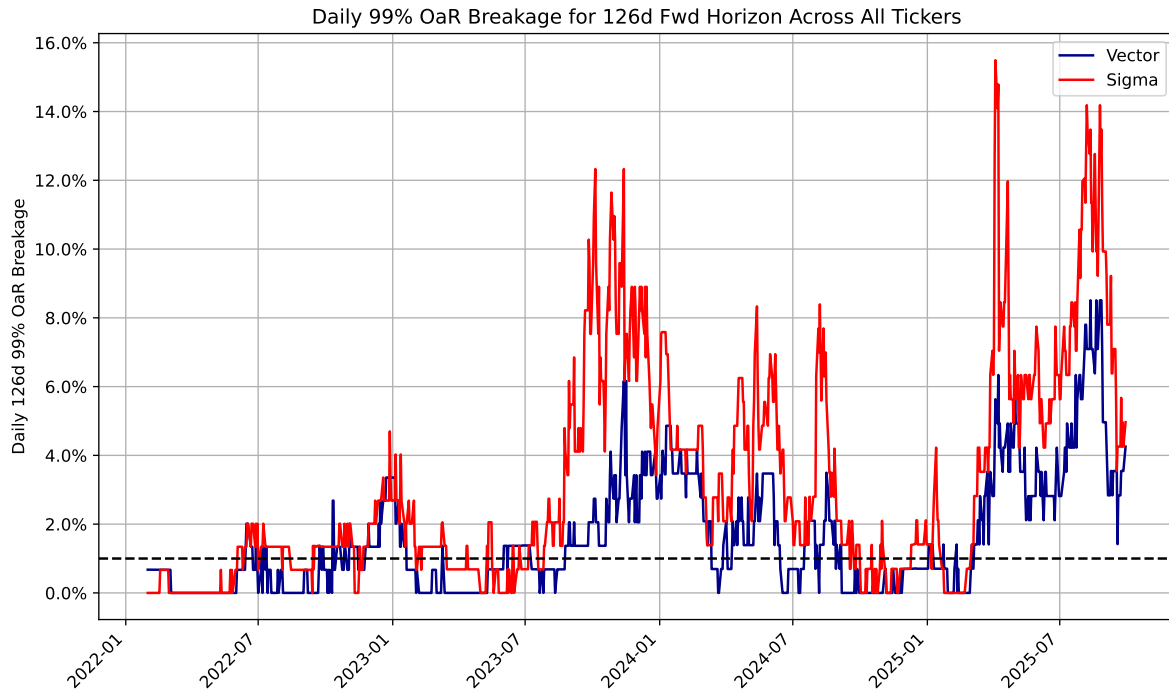
10d Horizon



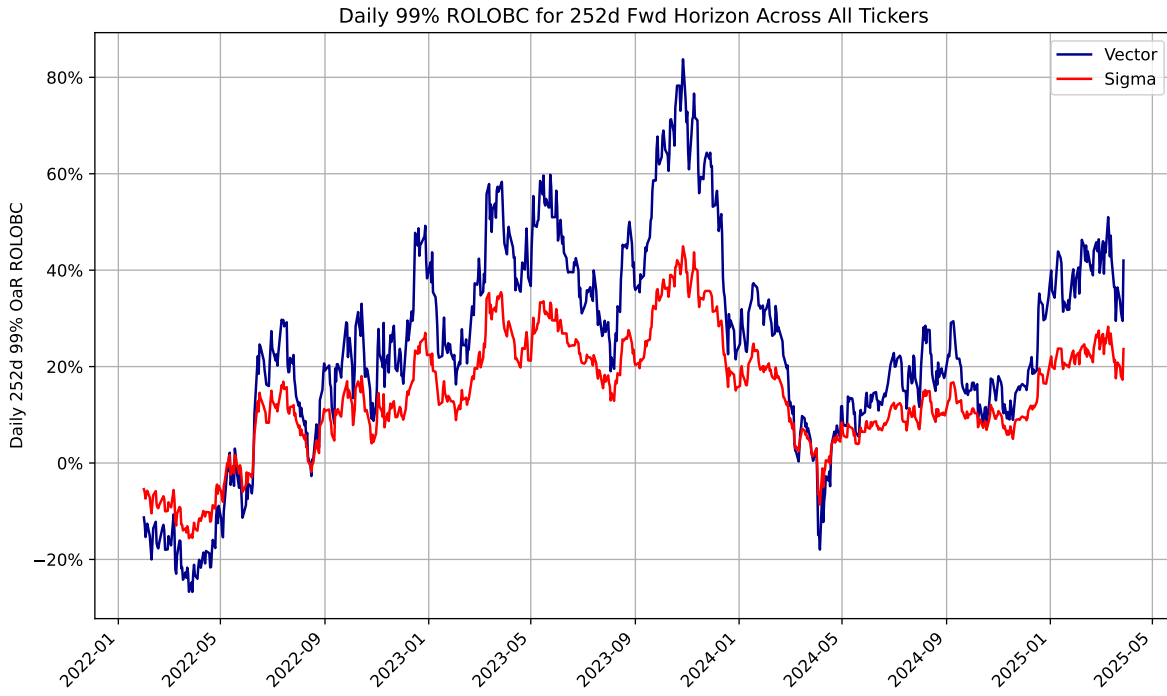
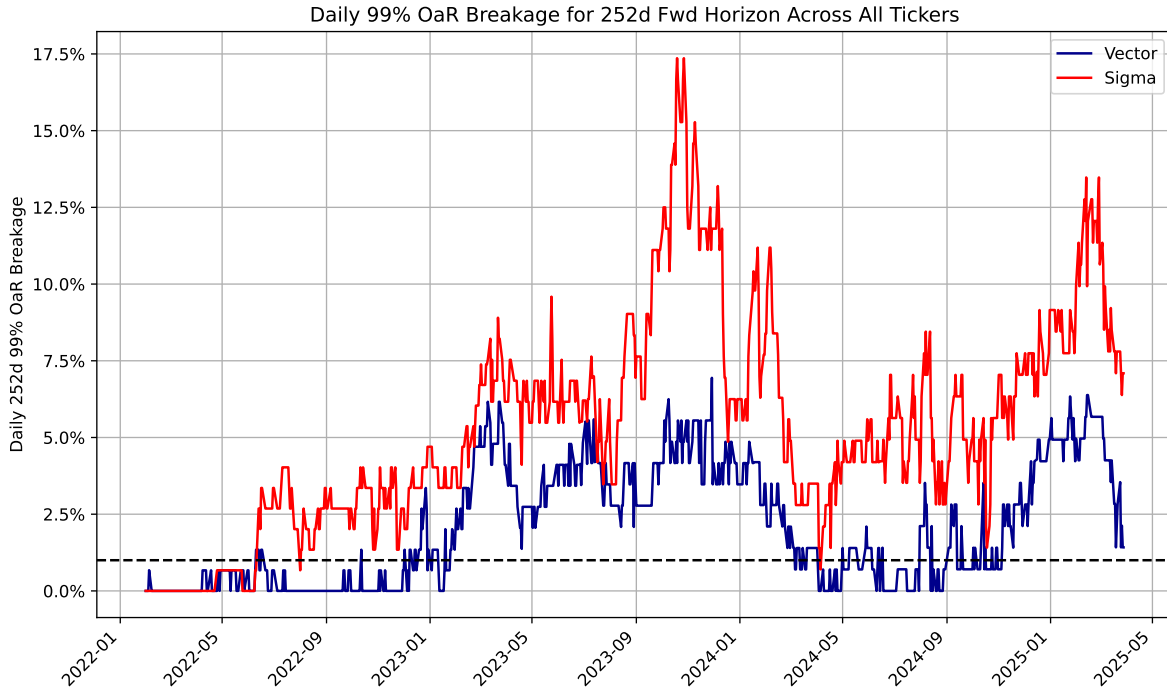
21d Horizon



63d Horizon



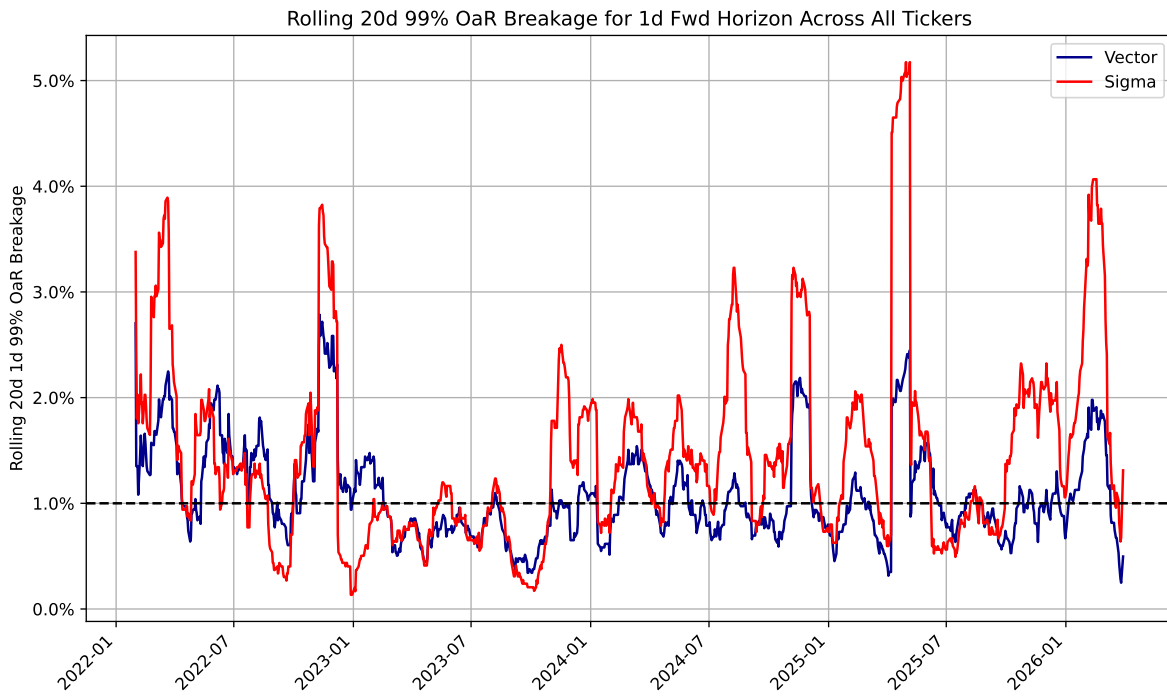
252d Horizon

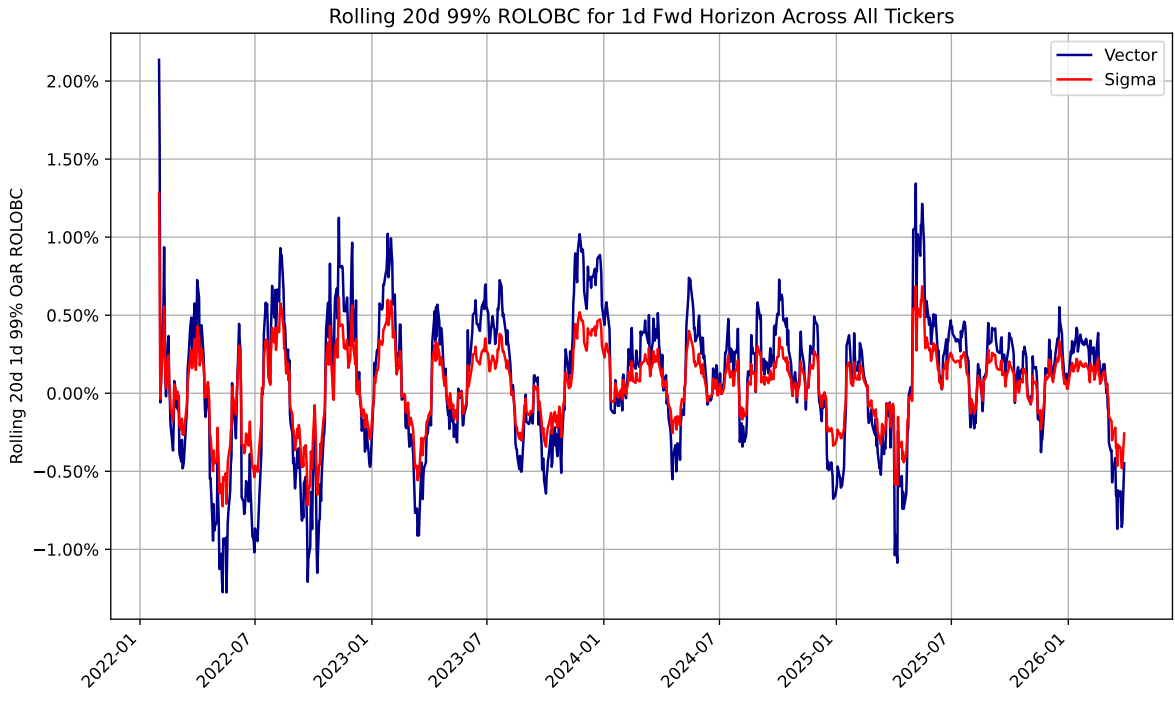


Rolling 20d Performance

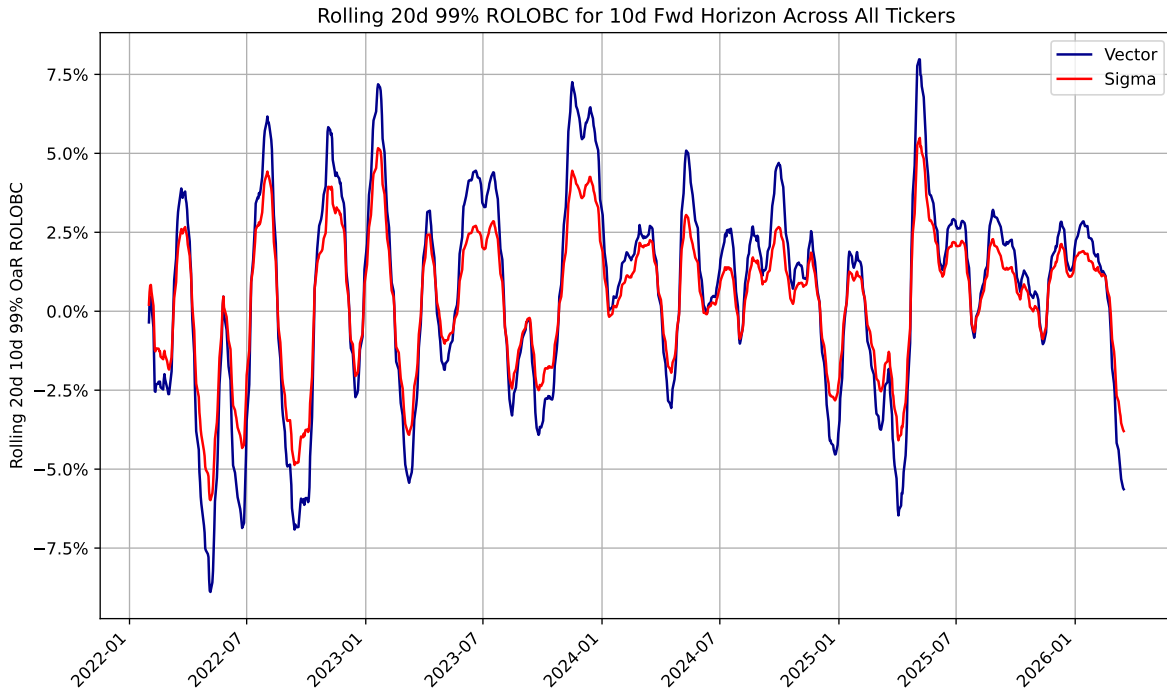
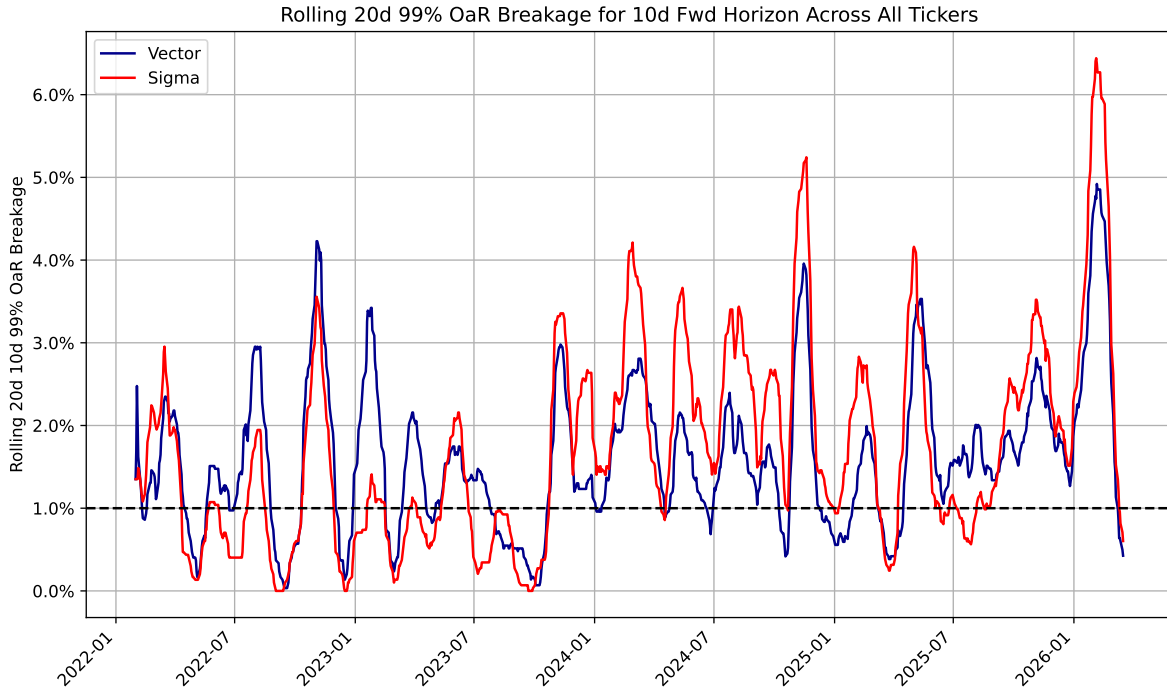
Here we look at 20 day rolling moving averages of the breakage and ROLOBC statistics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

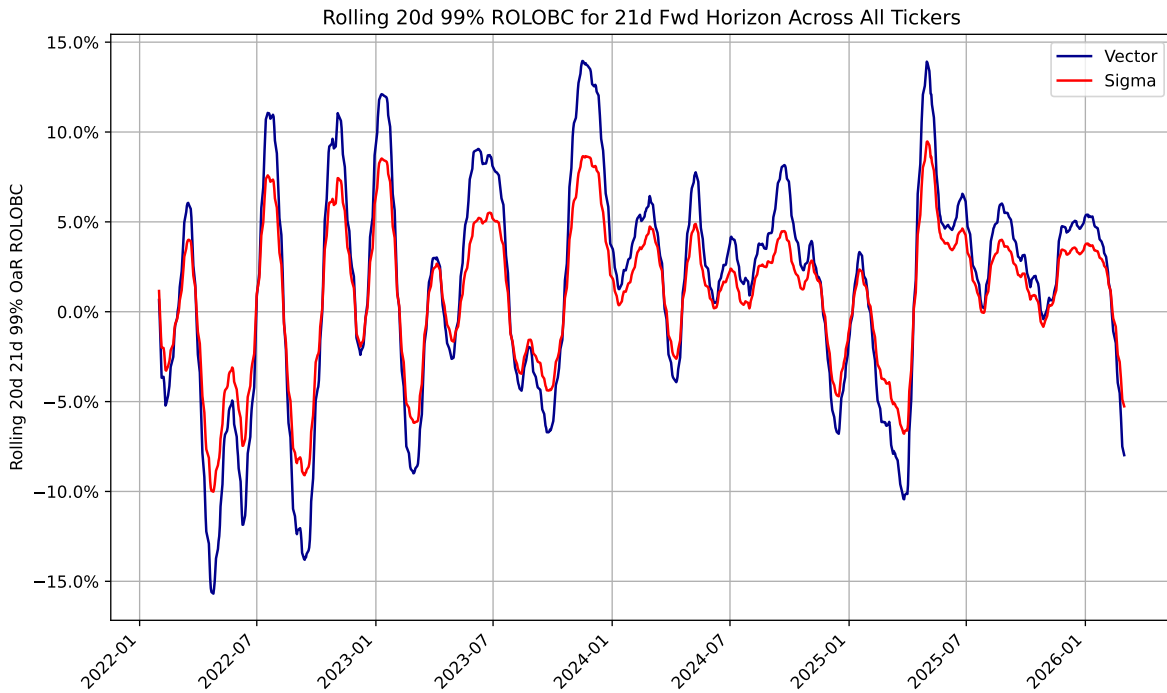
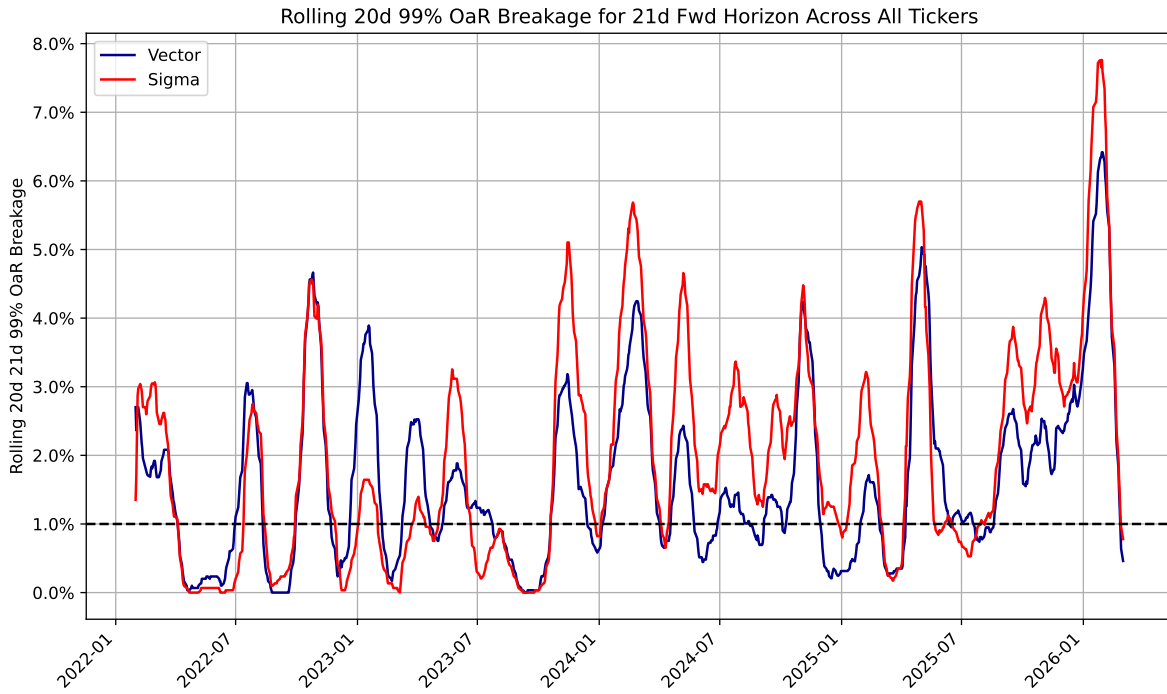




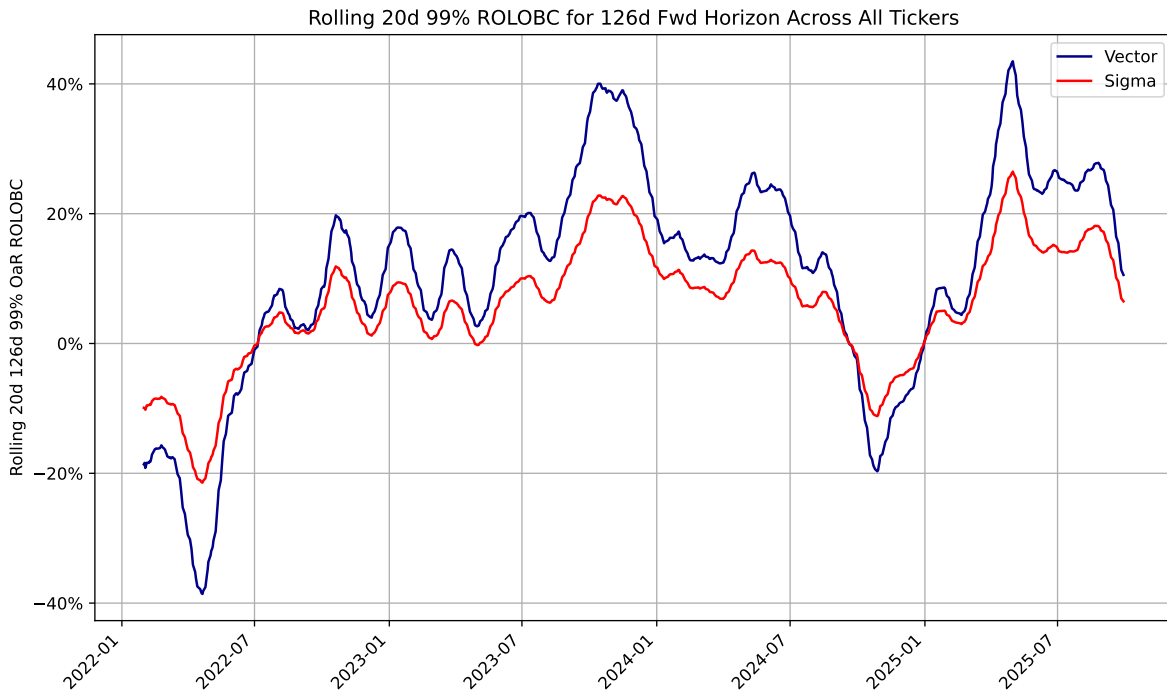
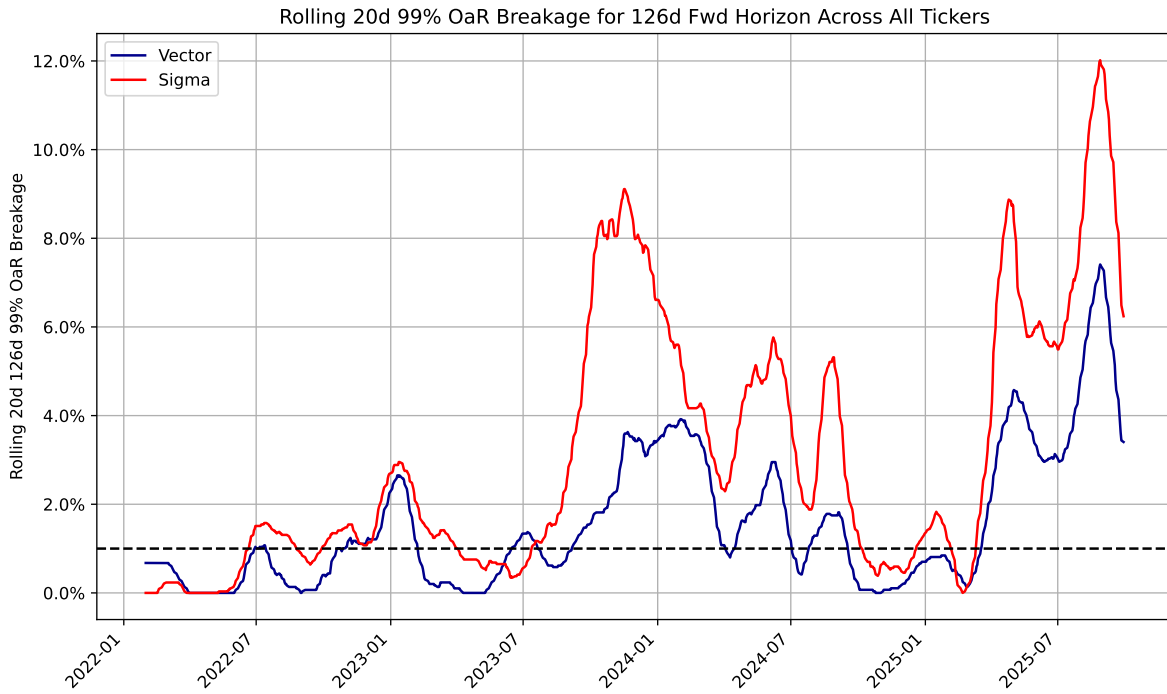
10d Horizon



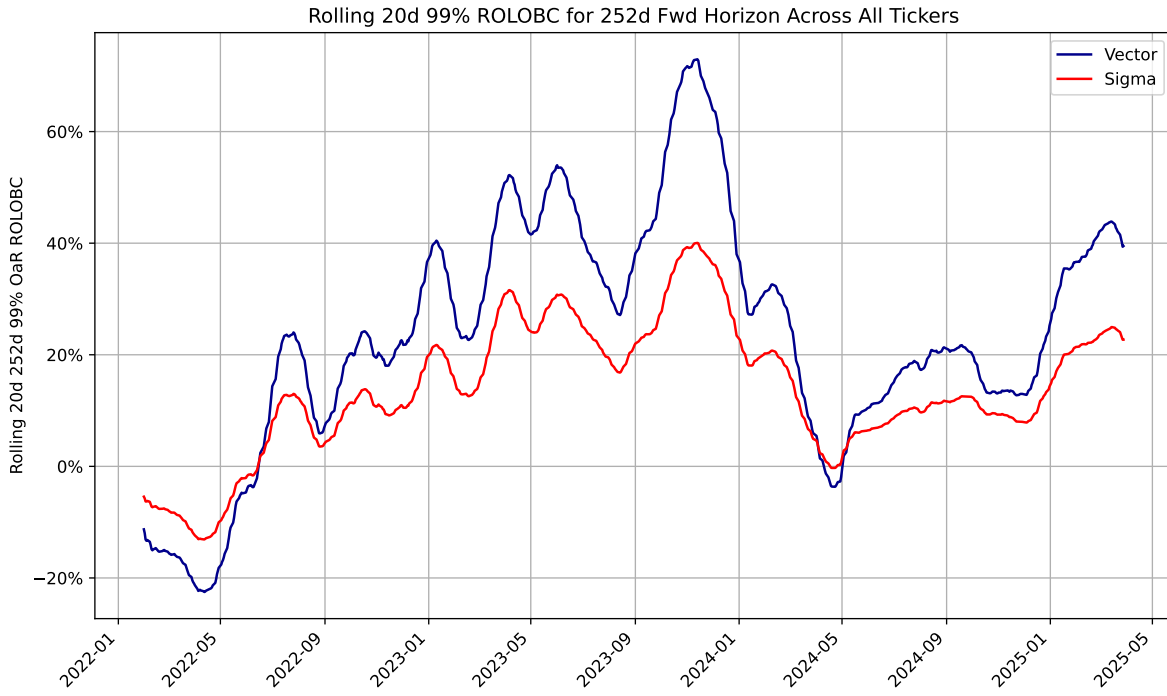
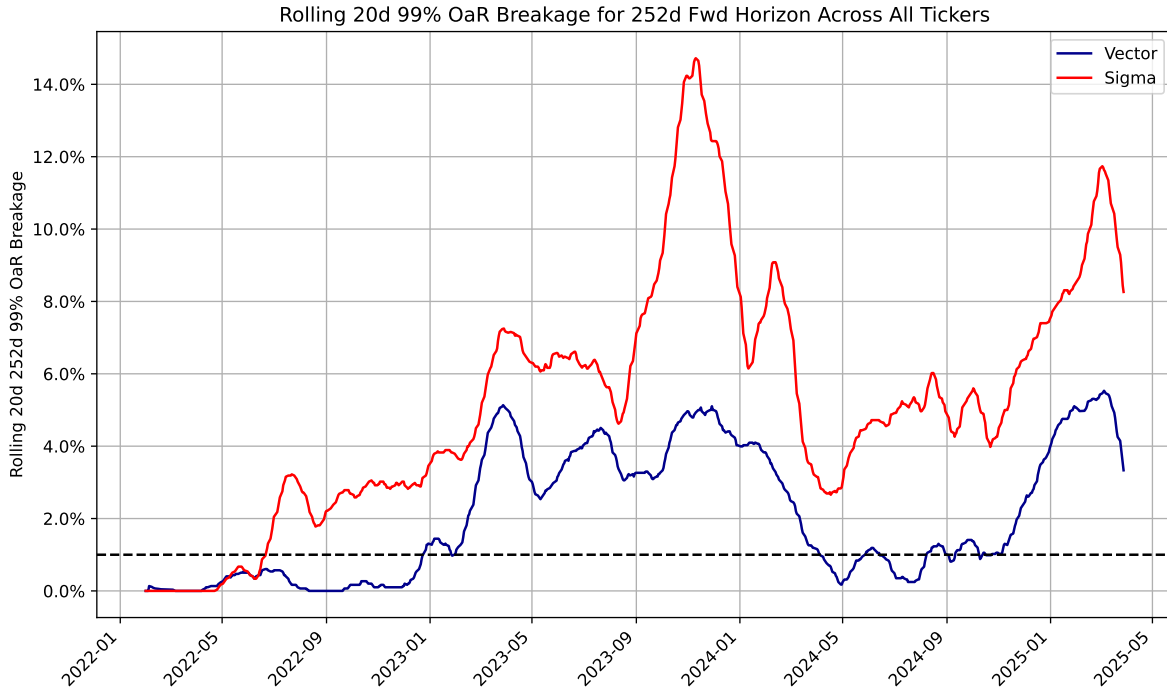
21d Horizon



63d Horizon



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	SIVBQ	6.83%	SLV	4.31%
1.0	GME	4.98%	VST	4.02%
1.0	AVGO	4.6%	WDC	3.54%
1.0	VST	4.31%	MU	2.97%
1.0	MSTR	4.31%	AVGO	2.97%
1.0	FRCB	3.6%	MSTR	2.87%
1.0	TSLA	3.45%	B	2.59%
1.0	META	3.45%	SIVBQ	2.52%
1.0	B	3.35%	NVDA	2.49%
1.0	WDC	3.16%	NEM	2.49%
1.0	SLV	3.07%	GLD	2.49%
1.0	HLT	3.07%	CCL	2.3%
1.0	TEVA	2.78%	PWR	2.2%
1.0	BALL	2.68%	PHM	2.2%
1.0	CHTR	2.68%	LLY	2.2%
1.0	ACGL	2.68%	AMD	2.11%
1.0	GILD	2.59%	GOOGL	2.11%
1.0	NFLX	2.59%	AMGN	2.01%
1.0	INTU	2.59%	HSBC	2.01%
1.0	SBNY	2.52%	AA	1.92%
1.0	AA	2.39%	IRM	1.92%
1.0	ZTS	2.39%	GILD	1.92%
1.0	OXY	2.2%	GSK	1.92%
1.0	BUD	2.2%	TEVA	1.92%
1.0	CMA	2.19%	INTC	1.92%
1.0	GWV	2.01%	GS	1.82%
1.0	ORCL	1.92%	UNH	1.82%
1.0	GLD	1.92%	KALU	1.82%
1.0	AMC	1.92%	SBNY	1.8%
1.0	JAZZ	1.82%	FRCB	1.8%



All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	MSTR	10.92%	VST	6.96%
10.0	SIVBQ	9.93%	SLV	6.0%
10.0	VST	7.63%	NVDA	5.22%
10.0	AVGO	7.54%	ORCL	5.02%
10.0	WDC	6.76%	TEVA	4.83%
10.0	META	6.38%	X	4.53%
10.0	GME	5.99%	MU	4.44%
10.0	CHTR	5.7%	WDC	4.35%
10.0	GWV	5.12%	GLD	4.25%
10.0	GILD	4.83%	AVGO	4.15%
10.0	SLV	4.45%	LLY	4.15%
10.0	GNRC	4.06%	GWV	3.96%
10.0	ISRG	4.06%	CAH	3.96%
10.0	ETRN	3.97%	TMUS	3.67%
10.0	NVS	3.96%	IRM	3.48%
10.0	ORCL	3.96%	MSTR	3.48%
10.0	VZ	3.96%	GILD	3.38%
10.0	EXPE	3.86%	TRGP	3.29%
10.0	SBNY	3.68%	B	3.19%
10.0	B	3.67%	AMGN	3.19%
10.0	IRM	3.67%	MUB	3.09%
10.0	TSLA	3.67%	THC	3.09%
10.0	ZTS	3.57%	GBTC	3.0%
10.0	KALU	3.48%	TSLA	3.0%
10.0	HCA	3.48%	NFLX	2.8%
10.0	CAH	3.38%	POST	2.8%
10.0	XOM	3.38%	ELAN	2.74%
10.0	GLD	3.29%	GNRC	2.71%
10.0	CMA	3.12%	CPRT	2.71%
10.0	NFLX	3.09%	DHI	2.71%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	MSTR	11.52%	VST	8.79%
21.0	SIVBQ	9.63%	NVDA	8.3%
21.0	CHTR	7.81%	TEVA	7.42%
21.0	VST	7.42%	SLV	6.74%
21.0	GWV	7.03%	CAH	6.45%
21.0	AVGO	7.03%	MU	6.25%
21.0	WDC	6.93%	MSTR	5.76%
21.0	SLV	6.16%	LLY	5.66%
21.0	GILD	6.05%	TRGP	5.47%
21.0	B	5.66%	WDC	5.47%
21.0	META	5.66%	ORCL	5.37%
21.0	GNRC	5.57%	GILD	5.27%
21.0	KALU	5.47%	B	5.18%
21.0	GME	5.37%	GE	5.18%
21.0	ISRG	4.98%	ETRN	4.55%
21.0	MU	4.59%	GBTC	4.39%
21.0	ORCL	4.1%	AVGO	4.39%
21.0	TRGP	4.0%	TSLA	4.39%
21.0	VZ	3.91%	X	4.35%
21.0	CAH	3.91%	GWV	4.3%
21.0	BUD	3.81%	GLD	4.2%
21.0	WFC	3.42%	MOS	3.91%
21.0	TEVA	3.42%	AMGN	3.81%
21.0	XOM	3.22%	TMUS	3.81%
21.0	NVDA	3.22%	THC	3.81%
21.0	BALL	3.03%	MUB	3.62%
21.0	NEM	2.83%	DHI	3.52%
21.0	GLD	2.83%	BUD	3.42%
21.0	NVS	2.83%	PWR	3.32%
21.0	THC	2.73%	LUMN	3.32%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	WDC	14.05%	NVDA	16.9%
63.0	AVGO	12.22%	VST	16.09%
63.0	VST	10.69%	WDC	15.99%
63.0	SLV	10.4%	MU	14.97%
63.0	MU	9.37%	SLV	11.93%
63.0	MSTR	8.15%	GLD	11.61%
63.0	SIVBQ	7.78%	B	11.41%
63.0	KALU	7.54%	MSTR	10.9%
63.0	ORCL	7.43%	GBTC	9.47%
63.0	EXPE	5.91%	TRGP	9.06%
63.0	NVDA	5.7%	CAH	9.06%
63.0	GME	5.6%	LLY	7.94%
63.0	IRM	5.5%	IRM	7.54%
63.0	GLD	5.19%	ORCL	7.43%
63.0	AA	5.09%	GILD	7.03%
63.0	WFC	4.79%	TMUS	6.62%
63.0	TRGP	4.48%	GOOGL	6.42%
63.0	B	3.97%	AVGO	6.21%
63.0	NEM	3.87%	GE	6.01%
63.0	GOOGL	3.87%	ETRN	5.99%
63.0	BUD	3.77%	DHI	5.8%
63.0	META	3.67%	MRK	5.7%
63.0	TMUS	3.46%	NEM	5.5%
63.0	LW	3.36%	KALU	5.09%
63.0	CTLT	3.23%	TEVA	4.99%
63.0	HSBC	2.85%	CCL	4.99%
63.0	GILD	2.65%	ACGL	4.79%
63.0	NVS	2.65%	AA	4.79%
63.0	FCX	2.55%	MUB	4.49%
63.0	TSLA	2.44%	PHM	4.38%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	VST	25.14%	VST	27.97%
126.0	MSTR	16.54%	NVDA	26.12%
126.0	AVGO	15.23%	MU	21.55%
126.0	IRM	13.17%	GLD	19.48%
126.0	WDC	12.19%	WDC	18.5%
126.0	MU	11.86%	TRGP	18.39%
126.0	TRGP	9.79%	MSTR	14.91%
126.0	GOOGL	9.47%	B	14.8%
126.0	SLV	9.36%	GE	14.58%
126.0	META	8.81%	NEM	14.36%
126.0	NVDA	7.94%	THC	13.71%
126.0	NEM	6.86%	SLV	12.95%
126.0	MSI	6.64%	GOOGL	12.51%
126.0	GLD	6.53%	TMUS	11.75%
126.0	EXPE	6.2%	IRM	11.64%
126.0	LW	5.11%	LLY	11.32%
126.0	B	5.01%	CAH	10.77%
126.0	TEVA	4.68%	GBTC	10.12%
126.0	NVS	4.57%	GILD	10.01%
126.0	BUD	4.24%	ACGL	9.68%
126.0	KALU	3.7%	TEVA	9.36%
126.0	ACGL	2.83%	ORCL	9.03%
126.0	ORCL	2.72%	AVGO	7.62%
126.0	CAH	2.61%	META	7.51%
126.0	OXY	2.5%	CMG	6.86%
126.0	GSK	2.29%	AA	5.98%
126.0	TDG	2.18%	AMD	5.98%
126.0	GILD	2.18%	PHM	5.98%
126.0	TMUS	2.07%	AMAT	5.55%
126.0	ELAN	1.77%	X	5.26%



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 2026-03-30

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
252.0	VST	40.48%	VST	51.7%
252.0	AVGO	37.96%	NVDA	49.68%
252.0	MSTR	35.18%	AVGO	48.05%
252.0	NVDA	33.29%	GLD	45.4%
252.0	IRM	19.17%	MSTR	35.31%
252.0	GLD	14.0%	GE	34.93%
252.0	LLY	12.48%	LLY	31.15%
252.0	NEM	11.6%	CAH	26.36%
252.0	WDC	11.35%	GBTC	25.98%
252.0	B	9.08%	PHM	23.33%
252.0	SLV	8.7%	TRGP	21.69%
252.0	MU	7.69%	HSBC	19.04%
252.0	TEVA	7.57%	TMUS	18.28%
252.0	GWV	7.44%	GS	18.28%
252.0	TRGP	6.68%	MU	17.53%
252.0	MSI	6.68%	COST	16.52%
252.0	META	5.93%	IRM	16.39%
252.0	LW	3.91%	META	16.27%
252.0	ORCL	2.4%	TEVA	15.38%
252.0	GILD	2.4%	ACGL	15.26%
252.0	WFC	2.14%	WDC	15.01%
252.0	TMUS	1.89%	NFLX	14.5%
252.0	THC	1.89%	B	14.0%
252.0	NVS	1.77%	NEM	12.86%
252.0	ORLY	1.51%	MSI	12.86%
252.0	GE	1.51%	GOOGL	12.36%
252.0	GOOGL	1.51%	THC	12.23%
252.0	EXPE	1.26%	JPM	11.98%
252.0	TDG	1.13%	SLV	11.6%
252.0	JPM	1.01%	PWR	10.72%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	AA	4.76%	AA	9.52%
1.0	VFC	4.76%	HSEC	9.52%
1.0	ORCL	4.76%	CSTM	9.52%
1.0	EXPE	4.76%	BHP	9.52%
1.0	ON	4.76%	OXY	9.52%
1.0	PWR	4.76%	MOS	9.52%
1.0	NFLX	4.76%	IRM	4.76%
1.0	SLV	4.76%	EXPE	4.76%
1.0	GLD	4.76%	SPY	4.76%
1.0	THC	4.76%	RIO	4.76%
1.0	TSLA	4.76%	META	4.76%
1.0	META	4.76%	QQQ	4.76%
1.0	GSK	4.76%	CZR	4.76%
1.0	ADBE	4.76%	ELAN	4.76%
1.0	WDC	4.76%	EMB	4.76%
1.0	LW	0.0%	FCX	4.76%
1.0	MNST	0.0%	INTU	4.76%
1.0	KHC	0.0%	FRA	4.76%
1.0	LEN	0.0%	CCL	4.76%
1.0	LLY	0.0%	ORLY	4.76%
1.0	NWL	0.0%	ON	4.76%
1.0	NVS	0.0%	GOOGL	4.76%
1.0	NVDA	0.0%	GS	4.76%
1.0	LNC	0.0%	JPM	4.76%
1.0	NEM	0.0%	HYG	4.76%
1.0	NAVI	0.0%	TEVA	4.76%
1.0	MUB	0.0%	PWR	4.76%
1.0	LQD	0.0%	BBY	4.76%
1.0	MU	0.0%	XOM	4.76%
1.0	MSTR	0.0%	B	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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	XOM	8.33%	OXY	16.67%
10.0	WDC	8.33%	XOM	8.33%
10.0	AA	0.0%	WDC	8.33%
10.0	NVDA	0.0%	AA	0.0%
10.0	MSTR	0.0%	NVDA	0.0%
10.0	MU	0.0%	MSTR	0.0%
10.0	MUB	0.0%	MU	0.0%
10.0	NAVI	0.0%	MUB	0.0%
10.0	NEM	0.0%	NAVI	0.0%
10.0	NFLX	0.0%	NEM	0.0%
10.0	NWL	0.0%	NFLX	0.0%
10.0	NVS	0.0%	NWL	0.0%
10.0	MSFT	0.0%	NVS	0.0%
10.0	ON	0.0%	MSFT	0.0%
10.0	ORCL	0.0%	ON	0.0%
10.0	ORLY	0.0%	ORCL	0.0%
10.0	OXY	0.0%	ORLY	0.0%
10.0	PCG	0.0%	PCG	0.0%
10.0	MSI	0.0%	MSI	0.0%
10.0	MS	0.0%	MS	0.0%
10.0	PHM	0.0%	PHM	0.0%
10.0	MRK	0.0%	MRK	0.0%
10.0	MOS	0.0%	MOS	0.0%
10.0	MNST	0.0%	MNST	0.0%
10.0	META	0.0%	META	0.0%
10.0	LW	0.0%	LW	0.0%
10.0	LVS	0.0%	LVS	0.0%
10.0	LUMN	0.0%	LUMN	0.0%
10.0	LQD	0.0%	LQD	0.0%
10.0	LNC	0.0%	LNC	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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	16.67%	WDC	15.0%
1.0	GILD	10.0%	SLV	15.0%
1.0	GLD	8.33%	CSTM	11.67%
1.0	GNRC	8.33%	BHP	10.0%
1.0	NFLX	8.33%	RIO	8.33%
1.0	MU	6.67%	OXY	6.67%
1.0	AA	6.67%	T	6.67%
1.0	SLV	5.0%	CCL	6.67%
1.0	MSI	5.0%	GILD	6.67%
1.0	PWR	5.0%	HSEC	6.67%
1.0	FCX	5.0%	INTC	6.67%
1.0	ORCL	5.0%	CZR	6.67%
1.0	HCA	3.33%	CSCO	6.67%
1.0	PCG	3.33%	PWR	5.0%
1.0	CSTM	3.33%	AA	5.0%
1.0	CLF	3.33%	MU	5.0%
1.0	THC	3.33%	META	5.0%
1.0	CCL	3.33%	GLD	5.0%
1.0	GSK	3.33%	GS	5.0%
1.0	TXN	3.33%	GSK	5.0%
1.0	UAA	3.33%	NEM	5.0%
1.0	BALL	3.33%	CMA	5.0%
1.0	NVS	3.33%	HCA	5.0%
1.0	IEP	3.33%	KALU	5.0%
1.0	ADBE	3.33%	B	5.0%
1.0	AMGN	3.33%	BIIB	5.0%
1.0	META	1.67%	AMAT	5.0%
1.0	PEP	1.67%	VZ	5.0%
1.0	LUMN	1.67%	XOM	5.0%
1.0	MRK	1.67%	IRM	5.0%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	WDC	37.25%	GILD	23.53%
10.0	BUD	27.45%	GNRC	21.57%
10.0	GILD	23.53%	GSK	21.57%
10.0	PCG	21.57%	BALL	19.61%
10.0	THC	19.61%	VZ	19.61%
10.0	VZ	19.61%	T	19.61%
10.0	BALL	19.61%	XOM	19.61%
10.0	UAA	17.65%	MSI	17.65%
10.0	TMUS	17.65%	THC	17.65%
10.0	GLD	17.65%	SLV	17.65%
10.0	NFLX	15.69%	PEP	15.69%
10.0	GNRC	13.73%	PCG	15.69%
10.0	XOM	13.73%	NFLX	15.69%
10.0	SLV	9.8%	WDC	13.73%
10.0	GSK	9.8%	IRM	13.73%
10.0	EXPE	7.84%	CSCO	11.76%
10.0	HON	7.84%	BHP	11.76%
10.0	MU	7.84%	GWV	11.76%
10.0	CZR	7.84%	GLD	11.76%
10.0	MRK	7.84%	RIO	9.8%
10.0	TXN	3.92%	OXY	9.8%
10.0	JAZZ	3.92%	POST	9.8%
10.0	AMAT	3.92%	CZR	7.84%
10.0	AZN	3.92%	INTU	7.84%
10.0	TDG	3.92%	CHTR	7.84%
10.0	CHTR	3.92%	COST	7.84%
10.0	SBUX	3.92%	TMUS	7.84%
10.0	INTC	3.92%	AMAT	7.84%
10.0	IRM	3.92%	AZN	7.84%
10.0	GME	1.96%	AZO	7.84%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	BALL	52.5%	VZ	45.0%
21.0	THC	50.0%	BALL	40.0%
21.0	VZ	47.5%	GSK	40.0%
21.0	TMUS	40.0%	MSI	32.5%
21.0	WDC	37.5%	GNRC	32.5%
21.0	BUD	37.5%	GILD	32.5%
21.0	GILD	30.0%	PEP	30.0%
21.0	GNRC	27.5%	T	30.0%
21.0	XOM	27.5%	TRGP	30.0%
21.0	GLD	22.5%	XOM	27.5%
21.0	UAA	20.0%	OXY	27.5%
21.0	NVS	12.5%	PCG	22.5%
21.0	HON	12.5%	THC	22.5%
21.0	AAP	10.0%	WDC	20.0%
21.0	GSK	10.0%	BHP	20.0%
21.0	MU	7.5%	RIO	20.0%
21.0	RIO	7.5%	NVS	20.0%
21.0	PCG	5.0%	BUD	17.5%
21.0	TXN	5.0%	HON	15.0%
21.0	TRGP	5.0%	CSCO	10.0%
21.0	FCX	5.0%	GWV	7.5%
21.0	MSI	2.5%	CSTM	7.5%
21.0	MRK	2.5%	CZR	5.0%
21.0	PWR	2.5%	TMUS	5.0%
21.0	AZN	2.5%	TXN	5.0%
21.0	SBUX	2.5%	GLD	5.0%
21.0	NEM	0.0%	POST	5.0%
21.0	NAVI	0.0%	NFLX	5.0%
21.0	NFLX	0.0%	COST	2.5%
21.0	NVDA	0.0%	MU	2.5%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
1.0	WDC	11.2%	SLV	9.24%
1.0	GILD	7.2%	WDC	8.4%
1.0	TSLA	6.4%	NEM	6.0%
1.0	GLD	5.2%	B	6.0%
1.0	AA	4.4%	GLD	4.8%
1.0	PCG	4.4%	MU	4.8%
1.0	SLV	4.02%	CSTM	4.4%
1.0	NVS	3.6%	AA	4.0%
1.0	MU	3.6%	CCL	4.0%
1.0	CMA	2.86%	INTC	4.0%
1.0	TXN	2.8%	X	3.77%
1.0	ORCL	2.8%	HSBC	3.6%
1.0	NEM	2.8%	PHM	3.6%
1.0	AAP	2.8%	AMD	3.6%
1.0	GNRC	2.8%	BHP	3.6%
1.0	ZTS	2.8%	LUMN	3.6%
1.0	AMZN	2.8%	RIO	3.2%
1.0	CLF	2.4%	BIIB	3.2%
1.0	VZ	2.4%	CSCO	3.2%
1.0	AMC	2.4%	JAZZ	2.8%
1.0	META	2.0%	GOOGL	2.8%
1.0	AVGO	2.0%	DHI	2.8%
1.0	HON	2.0%	AMAT	2.8%
1.0	GWV	2.0%	OXY	2.8%
1.0	NFLX	2.0%	PEP	2.8%
1.0	CCL	2.0%	KALU	2.8%
1.0	THC	2.0%	LVS	2.8%
1.0	X	1.89%	GILD	2.8%
1.0	ON	1.6%	AMGN	2.8%
1.0	ELAN	1.6%	AZN	2.8%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
10.0	WDC	25.73%	X	22.73%
10.0	SLV	11.67%	SLV	18.33%
10.0	KALU	11.2%	WDC	12.45%
10.0	GLD	9.96%	B	10.37%
10.0	AVGO	8.71%	MU	10.37%
10.0	INTC	8.3%	GNRC	9.96%
10.0	NVS	8.3%	ORCL	8.71%
10.0	MU	7.88%	INTC	7.88%
10.0	GILD	7.88%	NFLX	7.47%
10.0	AAP	7.88%	GLD	7.05%
10.0	AA	7.47%	THC	6.64%
10.0	GNRC	7.47%	ELAN	6.64%
10.0	THC	7.47%	GOOGL	6.22%
10.0	BUD	7.05%	CAH	5.81%
10.0	ELAN	7.05%	AA	5.81%
10.0	TSLA	7.05%	TEVA	5.81%
10.0	TXN	7.05%	GILD	5.81%
10.0	HCA	6.64%	JAZZ	5.39%
10.0	CMA	6.47%	AAP	5.39%
10.0	EXPE	5.39%	AMAT	5.39%
10.0	JAZZ	4.98%	GSK	4.98%
10.0	CAH	4.98%	CCL	4.98%
10.0	AMZN	4.56%	WYNN	4.98%
10.0	PCG	4.56%	AZN	4.56%
10.0	HON	4.56%	LVS	4.56%
10.0	GOOGL	4.56%	AMD	4.56%
10.0	META	4.56%	XOM	4.56%
10.0	X	4.55%	T	4.15%
10.0	NEM	4.15%	MSFT	4.15%
10.0	VZ	4.15%	LUMN	4.15%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
21.0	WDC	30.0%	SLV	25.76%
21.0	SLV	22.27%	WDC	22.61%
21.0	MU	20.43%	B	21.74%
21.0	KALU	17.83%	MU	19.13%
21.0	AVGO	12.17%	ORCL	13.04%
21.0	THC	11.74%	GNRC	13.04%
21.0	GNRC	11.3%	CAH	12.61%
21.0	GLD	10.87%	AMD	9.57%
21.0	TXN	10.87%	GLD	9.57%
21.0	B	9.57%	TEVA	9.57%
21.0	JAZZ	9.13%	JAZZ	9.13%
21.0	GOOGL	9.13%	INTC	9.13%
21.0	BALL	9.13%	AA	9.13%
21.0	AA	9.13%	XOM	8.26%
21.0	AAP	8.7%	RIO	7.83%
21.0	INTC	8.7%	THC	7.83%
21.0	VZ	8.26%	VZ	7.83%
21.0	GILD	8.26%	BALL	7.39%
21.0	CAH	7.83%	GSK	6.96%
21.0	BUD	7.39%	WYNN	6.52%
21.0	TMUS	6.96%	MSFT	6.09%
21.0	CHTR	6.09%	LVS	6.09%
21.0	NVS	5.65%	ISRG	6.09%
21.0	HON	5.65%	AMAT	6.09%
21.0	CMA	5.26%	X	6.06%
21.0	FCX	5.22%	AAP	5.65%
21.0	EXPE	5.22%	GOOGL	5.65%
21.0	XOM	4.78%	MSI	5.65%
21.0	ISRG	4.78%	GILD	5.65%
21.0	WFC	4.35%	PEP	5.22%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
63.0	WDC	71.81%	WDC	78.19%
63.0	SLV	51.34%	B	59.57%
63.0	MU	48.94%	MU	56.38%
63.0	AVGO	34.57%	SLV	56.15%
63.0	KALU	34.04%	CAH	34.57%
63.0	AA	26.6%	GOOGL	33.51%
63.0	GLD	25.0%	GLD	32.45%
63.0	ORCL	22.87%	NEM	28.72%
63.0	NEM	20.21%	KALU	25.53%
63.0	B	19.68%	AA	25.0%
63.0	EXPE	15.43%	TEVA	23.4%
63.0	NVS	13.83%	ORCL	22.87%
63.0	FCX	13.3%	XOM	20.21%
63.0	GOOGL	12.23%	RIO	18.09%
63.0	HSBC	11.17%	GNRC	17.55%
63.0	GSK	10.64%	HSBC	15.43%
63.0	WYNN	9.04%	AMD	11.7%
63.0	XOM	7.98%	CSTM	11.7%
63.0	JAZZ	7.45%	AMAT	11.7%
63.0	GNRC	6.38%	NVS	11.7%
63.0	CCL	6.38%	MSFT	11.17%
63.0	TXN	6.38%	BALL	10.64%
63.0	META	4.26%	INTC	10.64%
63.0	INTC	3.72%	CCL	10.11%
63.0	VZ	3.19%	FCX	10.11%
63.0	WFC	3.19%	BHP	9.04%
63.0	HON	2.66%	LUMN	7.45%
63.0	GS	2.66%	DHI	7.45%
63.0	ELAN	2.66%	AAP	6.91%
63.0	AAP	2.13%	OXY	6.38%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	OaRBreak_V	Ticker_S	OaRBreak_S
126.0	MU	87.2%	WDC	100.0%
126.0	WDC	70.4%	MU	99.2%
126.0	SLV	68.8%	SLV	95.2%
126.0	AVGO	59.2%	B	92.8%
126.0	GOOGL	55.2%	NEM	82.4%
126.0	NEM	40.0%	GOOGL	82.4%
126.0	GLD	36.8%	GLD	64.0%
126.0	NVS	33.6%	CAH	48.0%
126.0	B	32.8%	AA	44.0%
126.0	KALU	27.2%	TEVA	41.6%
126.0	GSK	16.8%	RIO	35.2%
126.0	ORCL	16.0%	AMAT	33.6%
126.0	CMA	12.94%	AMD	32.0%
126.0	ELAN	12.8%	ELAN	24.8%
126.0	EXPE	11.2%	ORCL	19.2%
126.0	HSBC	8.8%	INTC	18.4%
126.0	RIO	8.0%	KALU	18.4%
126.0	AMD	7.2%	GSK	16.0%
126.0	XOM	5.6%	HSBC	16.0%
126.0	HCA	5.6%	JAZZ	13.6%
126.0	GS	4.8%	XOM	12.8%
126.0	AA	1.6%	CSTM	12.0%
126.0	GILD	0.8%	GE	8.8%
126.0	ON	0.0%	AVGO	8.8%
126.0	LQD	0.0%	MRK	8.0%
126.0	LVS	0.0%	NVS	8.0%
126.0	NWL	0.0%	LVS	6.4%
126.0	ORLY	0.0%	EXPE	5.6%
126.0	NVDA	0.0%	MNST	5.6%
126.0	OXY	0.0%	GS	4.8%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NVDA	0.52%	MSTR	0.29%
1.0	X	0.45%	NVDA	0.24%
1.0	GBTC	0.39%	VST	0.24%
1.0	PWR	0.37%	WDC	0.21%
1.0	GE	0.36%	AVGO	0.2%
1.0	AVGO	0.36%	MU	0.19%
1.0	LLY	0.34%	PWR	0.19%
1.0	VST	0.34%	X	0.17%
1.0	CAH	0.32%	GME	0.16%
1.0	TRGP	0.27%	TRGP	0.16%
1.0	MU	0.27%	TEVA	0.16%
1.0	WDC	0.26%	GE	0.15%
1.0	SLV	0.26%	LLY	0.15%
1.0	CCL	0.25%	CAH	0.15%
1.0	B	0.23%	SLV	0.14%
1.0	AMAT	0.23%	GBTC	0.14%
1.0	TSLA	0.23%	THC	0.13%
1.0	AMD	0.23%	AMAT	0.13%
1.0	MSTR	0.22%	ETRN	0.12%
1.0	THC	0.21%	NFLX	0.12%
1.0	JAZZ	0.19%	AMD	0.11%
1.0	TDG	0.19%	PHM	0.1%
1.0	HLT	0.18%	META	0.1%
1.0	PHM	0.18%	GS	0.1%
1.0	ORLY	0.18%	B	0.1%
1.0	CDNS	0.17%	GLD	0.1%
1.0	GS	0.17%	IRM	0.09%
1.0	HCA	0.17%	HSBC	0.09%
1.0	LVS	0.17%	GOOGL	0.09%
1.0	ETRN	0.17%	XOM	0.09%



All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NVDA	5.42%	MSTR	2.97%
10.0	LLY	3.41%	NVDA	2.39%
10.0	PWR	3.11%	VST	2.34%
10.0	AVGO	3.07%	WDC	2.21%
10.0	GBTC	2.88%	MU	2.02%
10.0	TSLA	2.8%	AVGO	1.95%
10.0	VST	2.8%	PWR	1.85%
10.0	MSTR	2.8%	TEVA	1.64%
10.0	AMAT	2.75%	X	1.58%
10.0	MU	2.66%	TRGP	1.54%
10.0	TEVA	2.61%	LLY	1.5%
10.0	WDC	2.61%	GE	1.49%
10.0	CCL	2.59%	CAH	1.47%
10.0	GE	2.47%	ETRN	1.41%
10.0	CAH	2.2%	GME	1.39%
10.0	X	2.09%	SLV	1.34%
10.0	THC	2.02%	GBTC	1.33%
10.0	SLV	1.94%	THC	1.3%
10.0	TRGP	1.9%	AMAT	1.24%
10.0	PHM	1.81%	NFLX	1.22%
10.0	CSTM	1.77%	META	1.17%
10.0	GS	1.68%	AMD	1.06%
10.0	AZO	1.62%	PHM	1.01%
10.0	ACGL	1.56%	TSLA	0.98%
10.0	COST	1.53%	IRM	0.97%
10.0	DHI	1.4%	GS	0.95%
10.0	GLD	1.37%	GLD	0.93%
10.0	NEM	1.36%	B	0.93%
10.0	JPM	1.35%	GOOGL	0.89%
10.0	PCG	1.34%	ORCL	0.89%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	NVDA	11.0%	MSTR	6.83%
21.0	ETRN	7.53%	NVDA	5.26%
21.0	VST	7.44%	VST	5.1%
21.0	GBTC	7.14%	WDC	4.68%
21.0	TSLA	7.04%	MU	4.25%
21.0	MSTR	6.81%	AVGO	4.16%
21.0	PWR	6.09%	PWR	3.95%
21.0	AMAT	5.93%	TEVA	3.61%
21.0	CCL	5.89%	ETRN	3.5%
21.0	LLY	5.78%	GE	3.36%
21.0	GE	5.57%	LLY	3.23%
21.0	AMD	5.47%	TRGP	3.2%
21.0	AVGO	5.36%	CAH	3.19%
21.0	TEVA	5.25%	X	3.17%
21.0	MU	5.14%	GBTC	2.99%
21.0	CAH	4.99%	SLV	2.93%
21.0	WDC	4.68%	THC	2.88%
21.0	X	4.44%	META	2.75%
21.0	PHM	4.08%	NFLX	2.74%
21.0	THC	3.92%	AMAT	2.63%
21.0	TRGP	3.85%	TSLA	2.37%
21.0	SLV	3.84%	AMD	2.32%
21.0	CDNS	3.78%	PHM	2.26%
21.0	PCG	3.56%	GME	2.22%
21.0	AZO	3.52%	IRM	2.13%
21.0	DHI	3.27%	GS	2.08%
21.0	LUMN	3.25%	GLD	2.05%
21.0	CSTM	3.21%	ORCL	2.05%
21.0	AA	3.17%	B	2.02%
21.0	GS	3.06%	GOOGL	1.97%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	NVDA	36.82%	MSTR	20.46%
63.0	GBTC	31.67%	NVDA	17.99%
63.0	MSTR	27.69%	VST	16.93%
63.0	VST	23.77%	WDC	16.24%
63.0	PWR	22.25%	MU	14.63%
63.0	LLY	21.57%	AVGO	13.35%
63.0	GE	20.55%	GE	11.03%
63.0	MU	19.73%	TEVA	10.9%
63.0	CCL	19.52%	GBTC	10.84%
63.0	AMD	19.02%	PWR	10.84%
63.0	WDC	18.85%	ETRN	10.28%
63.0	ETRN	18.76%	META	10.06%
63.0	AMAT	17.86%	LLY	9.96%
63.0	PHM	17.58%	CAH	9.68%
63.0	TEVA	17.33%	SLV	9.6%
63.0	CAH	16.27%	NFLX	9.0%
63.0	B	15.95%	THC	8.76%
63.0	LUMN	14.87%	TRGP	8.52%
63.0	AVGO	14.49%	AMAT	8.21%
63.0	THC	12.0%	PHM	8.12%
63.0	TSLA	12.0%	AMD	7.78%
63.0	TRGP	11.9%	GS	7.14%
63.0	SLV	11.73%	ORCL	7.08%
63.0	JPM	11.49%	CCL	7.03%
63.0	MS	11.28%	GOOGL	6.99%
63.0	META	11.13%	HSBC	6.59%
63.0	X	10.99%	B	6.53%
63.0	GOOGL	10.93%	TSLA	6.4%
63.0	GS	10.81%	GLD	6.38%
63.0	DHI	9.48%	GILD	6.08%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	NVDA	91.04%	MSTR	53.49%
126.0	GBTC	82.94%	NVDA	45.68%
126.0	MSTR	62.55%	VST	38.21%
126.0	WDC	56.79%	WDC	37.27%
126.0	MU	55.47%	MU	33.67%
126.0	VST	51.55%	GBTC	31.62%
126.0	GE	50.9%	AVGO	30.79%
126.0	AMD	46.31%	GE	26.54%
126.0	LLY	45.14%	META	24.54%
126.0	PWR	44.56%	NFLX	23.96%
126.0	PHM	42.82%	TEVA	21.83%
126.0	THC	41.04%	PWR	21.76%
126.0	CCL	40.65%	THC	21.42%
126.0	AMAT	38.82%	LLY	20.18%
126.0	NFLX	36.8%	CAH	19.96%
126.0	ORCL	34.93%	SLV	19.42%
126.0	AVGO	34.83%	AMD	19.01%
126.0	CAH	34.42%	ETRN	18.49%
126.0	B	33.9%	PHM	18.07%
126.0	TEVA	33.42%	ORCL	18.02%
126.0	LUMN	30.88%	AMAT	17.47%
126.0	JPM	30.76%	TRGP	17.25%
126.0	TSLA	28.76%	GOOGL	15.91%
126.0	META	28.63%	GS	15.4%
126.0	MS	27.87%	B	15.01%
126.0	DHI	25.67%	CCL	14.83%
126.0	SLV	25.6%	JPM	13.44%
126.0	X	25.56%	TSLA	13.42%
126.0	GOOGL	25.34%	GLD	13.39%
126.0	GS	24.97%	HSBC	13.39%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
252.0	GBTC	223.37%	MSTR	181.08%
252.0	NVDA	206.3%	NVDA	122.08%
252.0	MSTR	201.26%	VST	111.17%
252.0	GE	144.94%	GBTC	98.8%
252.0	VST	124.25%	AVGO	75.46%
252.0	MU	115.01%	META	66.62%
252.0	PHM	111.36%	GE	61.91%
252.0	CCL	110.62%	NFLX	61.23%
252.0	THC	106.07%	WDC	57.95%
252.0	NFLX	101.71%	MU	56.5%
252.0	META	94.52%	THC	48.74%
252.0	AVGO	93.43%	PWR	45.17%
252.0	TRGP	83.24%	PHM	43.8%
252.0	WDC	82.07%	LLY	43.34%
252.0	AMAT	76.04%	TRGP	40.25%
252.0	PWR	75.86%	CAH	39.06%
252.0	LLY	69.72%	TEVA	39.02%
252.0	X	68.34%	ORCL	37.98%
252.0	ORCL	67.7%	CCL	37.54%
252.0	AMD	65.71%	ETRN	35.78%
252.0	CAH	65.63%	SLV	34.55%
252.0	MS	61.92%	AMD	34.19%
252.0	GS	59.49%	AMAT	31.83%
252.0	QQQ	59.04%	TDG	31.69%
252.0	JPM	58.28%	GS	31.69%
252.0	TEVA	58.25%	JPM	31.36%
252.0	SLV	57.86%	GOOGL	30.3%
252.0	GOOGL	56.65%	ISRG	30.1%
252.0	HSBC	55.17%	HSBC	29.27%
252.0	GLD	50.15%	GLD	28.61%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	OXY	2.25%	OXY	0.89%
1.0	AA	1.27%	XOM	0.46%
1.0	XOM	0.77%	EXPE	0.44%
1.0	BBY	0.61%	CZR	0.39%
1.0	T	0.45%	AA	0.24%
1.0	TRGP	0.41%	BBY	0.23%
1.0	AMD	0.4%	TRGP	0.23%
1.0	LNC	0.4%	INTU	0.19%
1.0	LUMN	0.4%	AMD	0.18%
1.0	INTU	0.31%	T	0.17%
1.0	CSTM	0.28%	LNC	0.16%
1.0	CZR	0.27%	LUMN	0.15%
1.0	AZN	0.17%	WDC	0.14%
1.0	BAC	0.09%	SNY	0.06%
1.0	SNY	0.09%	VZ	0.03%
1.0	EXPE	0.08%	AMZN	0.02%
1.0	JAZZ	0.08%	HLT	0.0%
1.0	GBTC	0.06%	AAP	-0.01%
1.0	VZ	0.05%	ORCL	-0.02%
1.0	NFLX	0.04%	JAZZ	-0.02%
1.0	MS	0.04%	COST	-0.03%
1.0	MOS	0.03%	ZION	-0.03%
1.0	ZION	0.01%	VCSH	-0.03%
1.0	HLT	0.0%	NFLX	-0.04%
1.0	LQD	-0.01%	MRK	-0.04%
1.0	COST	-0.01%	HYG	-0.04%
1.0	AMAT	-0.03%	JPM	-0.05%
1.0	AMZN	-0.03%	MS	-0.05%
1.0	INTC	-0.03%	INTC	-0.05%
1.0	JPM	-0.03%	FRA	-0.06%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	OXY	21.71%	OXY	11.13%
10.0	WDC	11.48%	WDC	8.78%
10.0	XOM	8.25%	XOM	6.82%
10.0	AMD	4.45%	AMD	2.29%
10.0	AMAT	3.89%	TRGP	2.02%
10.0	LNC	3.21%	LNC	1.97%
10.0	TRGP	3.01%	ELAN	1.72%
10.0	T	2.92%	SNY	1.71%
10.0	ELAN	2.72%	T	1.54%
10.0	SNY	2.07%	EXPE	1.32%
10.0	CSCO	1.76%	AMAT	1.13%
10.0	ZION	0.78%	CSCO	0.67%
10.0	MS	0.57%	CZR	0.39%
10.0	EXPE	0.45%	MS	0.33%
10.0	LUMN	-0.0%	LUMN	-0.07%
10.0	PWR	-0.13%	JAZZ	-0.13%
10.0	JAZZ	-0.21%	MRK	-0.25%
10.0	CZR	-0.31%	PWR	-0.25%
10.0	MRK	-0.35%	ON	-0.29%
10.0	ON	-0.44%	ZION	-0.49%
10.0	GS	-0.68%	VCSH	-0.53%
10.0	JPM	-0.7%	JPM	-0.54%
10.0	HLT	-0.73%	HLT	-0.58%
10.0	KEY	-0.77%	HYG	-0.75%
10.0	BBY	-0.96%	GS	-0.79%
10.0	GBTC	-1.01%	BIIB	-0.82%
10.0	VCSH	-1.01%	VZ	-0.93%
10.0	LQD	-1.11%	MUB	-1.12%
10.0	WYNN	-1.17%	GBTC	-1.12%
10.0	VFC	-1.17%	WYNN	-1.19%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	OXY	1.85%	WDC	0.76%
1.0	CSTM	1.49%	OXY	0.74%
1.0	AMAT	1.39%	GNRC	0.6%
1.0	SLV	1.34%	AAP	0.56%
1.0	AA	1.0%	XOM	0.56%
1.0	INTC	0.9%	TRGP	0.5%
1.0	BHP	0.88%	AMAT	0.46%
1.0	XOM	0.83%	CSTM	0.42%
1.0	VZ	0.79%	PWR	0.4%
1.0	T	0.76%	VZ	0.38%
1.0	TRGP	0.7%	IRM	0.37%
1.0	GNRC	0.68%	AA	0.34%
1.0	COST	0.63%	INTC	0.31%
1.0	AAP	0.61%	BHP	0.3%
1.0	IRM	0.6%	T	0.29%
1.0	RIO	0.55%	CZR	0.29%
1.0	HON	0.54%	UAA	0.27%
1.0	PWR	0.52%	SLV	0.27%
1.0	FCX	0.45%	COST	0.26%
1.0	PEP	0.41%	FCX	0.26%
1.0	AZN	0.41%	RIO	0.25%
1.0	JAZZ	0.39%	HON	0.25%
1.0	MOS	0.37%	GILD	0.25%
1.0	GWV	0.37%	MSI	0.23%
1.0	AMGN	0.36%	BMV	0.22%
1.0	BMV	0.35%	MRK	0.21%
1.0	NEM	0.34%	MU	0.21%
1.0	AZO	0.28%	GME	0.21%
1.0	BALL	0.27%	ON	0.2%
1.0	HSBC	0.27%	GSK	0.19%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	OXY	14.48%	OXY	7.83%
10.0	GNRC	11.99%	WDC	7.64%
10.0	TRGP	8.72%	GNRC	6.41%
10.0	CSTM	7.85%	TRGP	6.29%
10.0	PWR	7.6%	XOM	5.67%
10.0	T	6.93%	PWR	5.23%
10.0	XOM	6.24%	VZ	4.84%
10.0	MSI	6.23%	AAP	4.36%
10.0	AMAT	6.18%	AMAT	3.84%
10.0	BHP	5.87%	MU	3.73%
10.0	AAP	5.05%	T	3.68%
10.0	VZ	5.0%	MSI	3.22%
10.0	SLV	4.88%	IRM	3.12%
10.0	WDC	4.73%	CSTM	2.86%
10.0	IRM	4.5%	GILD	2.77%
10.0	PEP	4.46%	CZR	2.77%
10.0	COST	4.2%	CMA	2.48%
10.0	GSK	3.34%	PCG	2.29%
10.0	MU	3.01%	JAZZ	2.07%
10.0	CMA	2.56%	HON	1.88%
10.0	INTC	2.56%	BHP	1.85%
10.0	HON	2.24%	GME	1.83%
10.0	HCA	2.21%	BALL	1.79%
10.0	CSCO	2.2%	UAA	1.78%
10.0	TXN	2.11%	PEP	1.7%
10.0	CZR	2.07%	GSK	1.62%
10.0	JAZZ	1.92%	CHTR	1.56%
10.0	AMGN	1.91%	TMUS	1.5%
10.0	AZO	1.89%	MRK	1.49%
10.0	CHTR	1.86%	COST	1.46%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	OXY	28.63%	OXY	17.37%
21.0	PCG	24.66%	GNRC	15.57%
21.0	GNRC	19.77%	TRGP	14.55%
21.0	CSTM	18.36%	VZ	13.27%
21.0	GSK	17.96%	WDC	12.42%
21.0	CHTR	17.28%	PWR	12.03%
21.0	TRGP	17.13%	XOM	10.92%
21.0	T	16.14%	CZR	10.0%
21.0	MSI	13.97%	AAP	9.47%
21.0	XOM	13.68%	T	9.14%
21.0	CZR	13.26%	MSI	8.82%
21.0	IRM	12.52%	PCG	8.59%
21.0	VZ	12.21%	IRM	8.27%
21.0	PWR	11.98%	CSTM	6.98%
21.0	BHP	11.57%	THC	6.53%
21.0	PEP	11.27%	CHTR	6.35%
21.0	NFLX	8.48%	AMAT	6.35%
21.0	AAP	7.76%	GILD	6.19%
21.0	HCA	7.44%	TMUS	6.15%
21.0	AMAT	6.73%	BALL	5.75%
21.0	WDC	6.21%	UAA	5.5%
21.0	COST	5.48%	NFLX	5.47%
21.0	GILD	5.48%	GSK	5.31%
21.0	TXN	5.18%	JAZZ	5.29%
21.0	THC	5.13%	MU	4.84%
21.0	JAZZ	4.85%	PEP	4.77%
21.0	CSCO	4.69%	BHP	4.75%
21.0	BMY	4.69%	HON	4.61%
21.0	RIO	4.66%	BMY	4.26%
21.0	HON	4.59%	AMGN	4.25%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	X	1.12%	WDC	0.85%
1.0	LUMN	1.04%	MU	0.62%
1.0	SLV	0.94%	X	0.59%
1.0	AMAT	0.91%	CSTM	0.41%
1.0	CSTM	0.89%	SLV	0.39%
1.0	AMD	0.83%	AMAT	0.39%
1.0	WDC	0.8%	ELAN	0.38%
1.0	MU	0.75%	AA	0.38%
1.0	INTC	0.66%	LUMN	0.37%
1.0	B	0.64%	NEM	0.37%
1.0	CLF	0.61%	INTC	0.36%
1.0	NVDA	0.6%	AMD	0.35%
1.0	ELAN	0.58%	B	0.33%
1.0	NEM	0.57%	PWR	0.33%
1.0	AA	0.56%	KALU	0.32%
1.0	PWR	0.56%	TEVA	0.31%
1.0	CAH	0.52%	AVGO	0.29%
1.0	LVS	0.51%	GOOGL	0.26%
1.0	CYH	0.51%	ON	0.24%
1.0	BHP	0.49%	GNRC	0.23%
1.0	RIO	0.46%	AAP	0.23%
1.0	KALU	0.44%	FCX	0.23%
1.0	AVGO	0.44%	CMA	0.23%
1.0	TEVA	0.43%	NVDA	0.22%
1.0	FSUGY	0.4%	JAZZ	0.2%
1.0	GE	0.39%	GS	0.19%
1.0	CCL	0.39%	RIO	0.19%
1.0	GOOGL	0.38%	CAH	0.19%
1.0	JAZZ	0.37%	TSLA	0.19%
1.0	GS	0.36%	BHP	0.18%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	X	13.7%	WDC	9.6%
10.0	LUMN	12.28%	MU	7.79%
10.0	AMAT	9.37%	X	6.56%
10.0	CSTM	9.04%	CSTM	4.62%
10.0	MU	8.52%	ELAN	4.5%
10.0	WDC	7.87%	AMAT	4.26%
10.0	SLV	7.16%	AMD	4.0%
10.0	NVDA	6.09%	SLV	3.94%
10.0	TEVA	5.58%	INTC	3.9%
10.0	AMD	5.57%	LUMN	3.85%
10.0	BHP	5.13%	AA	3.84%
10.0	PWR	5.12%	KALU	3.51%
10.0	GNRC	5.0%	PWR	3.43%
10.0	ELAN	4.81%	TEVA	3.42%
10.0	BIIB	4.7%	NEM	3.38%
10.0	LVS	4.56%	B	3.3%
10.0	AA	4.48%	GNRC	2.99%
10.0	B	4.36%	CMA	2.94%
10.0	INTC	4.27%	AVGO	2.93%
10.0	NEM	4.11%	GOOGL	2.86%
10.0	CAH	3.73%	AAP	2.57%
10.0	CYH	3.64%	ON	2.56%
10.0	GS	3.55%	FCX	2.53%
10.0	AVGO	3.48%	JAZZ	2.45%
10.0	CLF	3.34%	NVDA	2.29%
10.0	GOOGL	3.3%	THC	2.25%
10.0	GE	3.24%	GS	2.2%
10.0	CMA	3.17%	LVS	2.2%
10.0	RIO	2.99%	EXPE	2.16%
10.0	AAP	2.98%	CAH	2.1%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	LUMN	26.35%	WDC	21.02%
21.0	X	19.89%	MU	18.03%
21.0	WDC	18.39%	X	14.28%
21.0	AMAT	18.39%	CSTM	10.46%
21.0	MU	17.94%	ELAN	10.03%
21.0	CSTM	17.92%	SLV	9.37%
21.0	AMD	17.65%	AMAT	9.19%
21.0	TEVA	14.65%	AA	9.14%
21.0	SLV	13.47%	AMD	8.96%
21.0	LVS	13.29%	INTC	8.66%
21.0	ELAN	12.4%	LUMN	8.18%
21.0	NVDA	11.84%	B	8.06%
21.0	B	11.37%	KALU	7.84%
21.0	AA	11.08%	TEVA	7.78%
21.0	BIIB	10.2%	NEM	7.54%
21.0	BHP	10.07%	PWR	7.39%
21.0	GNRC	9.94%	GNRC	6.83%
21.0	CAH	9.32%	GOOGL	6.51%
21.0	GOOGL	9.03%	CMA	6.43%
21.0	NEM	9.02%	AVGO	6.32%
21.0	GE	9.01%	AAP	5.88%
21.0	PWR	8.82%	THC	5.76%
21.0	INTC	8.65%	FCX	5.7%
21.0	ON	8.45%	ON	5.37%
21.0	CYH	7.93%	NVDA	5.36%
21.0	CLF	7.72%	JAZZ	5.25%
21.0	RIO	6.8%	LVS	4.92%
21.0	GSK	6.72%	GE	4.9%
21.0	CCL	6.56%	CAH	4.8%
21.0	OXY	6.45%	GS	4.67%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	WDC	96.34%	WDC	77.46%
63.0	LUMN	93.59%	MU	63.93%
63.0	MU	75.95%	SLV	37.28%
63.0	B	69.63%	B	34.84%
63.0	AMD	67.11%	AA	33.15%
63.0	AMAT	61.18%	INTC	32.42%
63.0	TEVA	56.81%	LUMN	31.83%
63.0	INTC	48.26%	CSTM	30.08%
63.0	CSTM	47.25%	NEM	29.92%
63.0	SLV	46.35%	ELAN	29.73%
63.0	NEM	43.65%	AMAT	29.62%
63.0	ELAN	40.68%	AMD	28.68%
63.0	BHP	37.34%	TEVA	28.15%
63.0	GOOGL	33.89%	KALU	25.58%
63.0	AA	33.64%	GOOGL	25.4%
63.0	LLY	31.96%	CMA	20.02%
63.0	LVS	31.61%	GNRC	19.28%
63.0	CAH	31.51%	FCX	18.75%
63.0	FSUGY	31.43%	CLF	18.56%
63.0	RIO	31.33%	AVGO	17.77%
63.0	NVDA	28.89%	JAZZ	17.75%
63.0	BIIB	27.8%	PWR	17.69%
63.0	PWR	24.29%	VFC	16.34%
63.0	KALU	23.7%	EXPE	16.22%
63.0	MS	23.52%	GS	16.21%
63.0	GNRC	23.14%	RIO	16.03%
63.0	GE	22.87%	LVS	15.74%
63.0	GS	22.02%	NVDA	15.52%
63.0	CLF	21.06%	ON	15.22%
63.0	CMA	20.68%	HSBC	14.43%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	WDC	380.41%	WDC	222.14%
126.0	MU	232.13%	MU	179.83%
126.0	LUMN	208.47%	B	90.05%
126.0	B	202.62%	LUMN	88.11%
126.0	AMD	168.05%	INTC	88.02%
126.0	INTC	154.69%	SLV	87.29%
126.0	AMAT	149.63%	AA	73.7%
126.0	TEVA	138.58%	AMD	72.05%
126.0	NEM	122.52%	ELAN	69.82%
126.0	SLV	120.14%	AMAT	69.01%
126.0	AA	99.08%	NEM	68.36%
126.0	CSTM	93.58%	TEVA	67.93%
126.0	ELAN	92.35%	GOOGL	63.35%
126.0	GOOGL	84.92%	CSTM	58.1%
126.0	CAH	81.07%	KALU	49.6%
126.0	LLY	80.79%	JAZZ	43.47%
126.0	PWR	75.4%	CMA	43.41%
126.0	BHP	74.13%	CLF	41.29%
126.0	FSUGY	70.94%	AVGO	38.56%
126.0	CLF	68.25%	EXPE	38.15%
126.0	BIIB	68.04%	VFC	36.99%
126.0	LVS	64.28%	TSLA	35.7%
126.0	NVDA	55.04%	PWR	35.67%
126.0	JAZZ	51.79%	RIO	34.47%
126.0	MS	50.51%	BIIB	33.51%
126.0	EXPE	49.63%	GLD	33.37%
126.0	RIO	48.35%	LVS	32.98%
126.0	KALU	46.91%	CAH	32.89%
126.0	GLD	44.48%	GS	31.02%
126.0	GE	44.44%	GSK	30.36%



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 2026-03-30

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	SIVBQ	-0.91%	SIVBQ	-0.78%
1.0	IEP	-0.44%	SBNY	-0.45%
1.0	NWL	-0.43%	FRCB	-0.23%
1.0	SBNY	-0.39%	AMC	-0.22%
1.0	AMC	-0.22%	IEP	-0.15%
1.0	FRCB	-0.19%	NWL	-0.12%
1.0	GT	-0.18%	PRGO	-0.09%
1.0	UAA	-0.17%	AAP	-0.08%
1.0	CZR	-0.16%	CHTR	-0.07%
1.0	FIS	-0.16%	FIS	-0.07%
1.0	PRGO	-0.14%	VFC	-0.06%
1.0	CHTR	-0.13%	BHC	-0.06%
1.0	BXP	-0.13%	GT	-0.05%
1.0	NAVI	-0.11%	UAA	-0.05%
1.0	ADBE	-0.09%	BXP	-0.05%
1.0	ZTS	-0.09%	ADBE	-0.05%
1.0	AAP	-0.08%	CNC	-0.05%
1.0	INTU	-0.08%	NAVI	-0.05%
1.0	BALL	-0.08%	CZR	-0.04%
1.0	KHC	-0.07%	TLT	-0.04%
1.0	CTLT	-0.07%	CMCSA	-0.04%
1.0	TLT	-0.07%	ZTS	-0.03%
1.0	GNRC	-0.06%	KHC	-0.03%
1.0	CMCSA	-0.06%	UNH	-0.03%
1.0	BIIB	-0.06%	BALL	-0.03%
1.0	UNH	-0.05%	LNC	-0.02%
1.0	CNC	-0.04%	CVS	-0.02%
1.0	LNC	-0.03%	FRA	-0.02%
1.0	VNO	-0.02%	CTLT	-0.01%
1.0	HD	-0.02%	LQD	-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 2026-03-30

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	-3.33%	AMC	-2.25%
10.0	NWL	-3.06%	FRCB	-2.19%
10.0	AMC	-3.0%	IEP	-1.43%
10.0	CZR	-1.87%	NWL	-1.22%
10.0	FRCB	-1.67%	PRGO	-0.99%
10.0	GT	-1.51%	AAP	-0.83%
10.0	PRGO	-1.25%	VFC	-0.75%
10.0	CYH	-1.05%	CHTR	-0.65%
10.0	CNC	-1.05%	UAA	-0.63%
10.0	BXP	-0.98%	GT	-0.62%
10.0	AAP	-0.97%	FIS	-0.62%
10.0	UAA	-0.93%	CZR	-0.59%
10.0	VFC	-0.9%	NAVI	-0.56%
10.0	FIS	-0.84%	BXP	-0.55%
10.0	VNO	-0.83%	CNC	-0.54%
10.0	ADBE	-0.69%	BHC	-0.53%
10.0	CLF	-0.67%	ADBE	-0.45%
10.0	NAVI	-0.66%	TLT	-0.42%
10.0	INTU	-0.64%	CMCSA	-0.4%
10.0	KHC	-0.59%	ZTS	-0.39%
10.0	CHTR	-0.54%	KHC	-0.37%
10.0	ZTS	-0.53%	LNC	-0.32%
10.0	BALL	-0.46%	UNH	-0.32%
10.0	VZ	-0.46%	BALL	-0.27%
10.0	BBY	-0.44%	CYH	-0.23%
10.0	HD	-0.4%	BBY	-0.22%
10.0	TLT	-0.32%	MOS	-0.21%
10.0	FRA	-0.31%	FRA	-0.2%



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 2026-03-30

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	-6.32%	FRCB	-6.02%
21.0	NWL	-5.09%	AMC	-5.0%
21.0	FRCB	-4.48%	IEP	-3.06%
21.0	AMC	-3.8%	NWL	-2.5%
21.0	CZR	-3.51%	PRGO	-2.02%
21.0	GT	-2.34%	AAP	-1.64%
21.0	PRGO	-2.33%	VFC	-1.55%
21.0	VFC	-2.32%	BHC	-1.34%
21.0	AAP	-2.15%	CHTR	-1.33%
21.0	ADBE	-2.0%	CZR	-1.29%
21.0	BXP	-1.85%	BXP	-1.18%
21.0	UAA	-1.54%	NAVI	-1.17%
21.0	BBY	-1.41%	FIS	-1.11%
21.0	BALL	-1.38%	UAA	-1.05%
21.0	FIS	-1.38%	GT	-1.04%
21.0	NAVI	-1.35%	CNC	-0.97%
21.0	CNC	-1.22%	TLT	-0.85%
21.0	CLF	-1.18%	KHC	-0.8%
21.0	INTU	-1.17%	ZTS	-0.79%
21.0	KHC	-1.12%	LNC	-0.77%
21.0	CHTR	-1.01%	CMCSA	-0.73%
21.0	GNRC	-0.94%	ADBE	-0.71%
21.0	TLT	-0.89%	UNH	-0.6%
21.0	CYH	-0.74%	BALL	-0.47%
21.0	CVS	-0.73%	BBY	-0.45%
21.0	KEY	-0.71%	MOS	-0.4%
21.0	ZTS	-0.7%	FRA	-0.38%
21.0	FRA	-0.65%	CVS	-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 2026-03-30

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	-22.17%	AMC	-16.58%
63.0	NWL	-16.24%	IEP	-10.16%
63.0	AMC	-11.97%	NWL	-7.73%
63.0	PRGO	-9.09%	CZR	-5.59%
63.0	BHC	-8.54%	AAP	-5.57%
63.0	VFC	-8.13%	PRGO	-5.5%
63.0	CLF	-7.96%	CHTR	-4.22%
63.0	CZR	-7.95%	VFC	-3.9%
63.0	AAP	-7.34%	BHC	-3.57%
63.0	GNRC	-7.06%	MOS	-3.39%
63.0	UAA	-6.93%	BXP	-3.04%
63.0	CYH	-4.82%	UAA	-2.84%
63.0	FIS	-4.56%	FIS	-2.82%
63.0	KHC	-4.47%	KHC	-2.81%
63.0	CHTR	-4.09%	NAVI	-2.73%
63.0	BBY	-3.82%	CNC	-2.66%
63.0	CVS	-3.76%	TLT	-2.32%
63.0	BALL	-3.73%	ZTS	-2.22%
63.0	MOS	-3.41%	CMCSA	-2.2%
63.0	GT	-3.3%	UNH	-2.09%
63.0	ZTS	-3.07%	CLF	-1.91%
63.0	TLT	-3.04%	GT	-1.69%
63.0	ADBE	-2.82%	ADBE	-1.69%
63.0	BXP	-2.37%	LNC	-1.65%
63.0	NAVI	-2.35%	BBY	-1.46%
63.0	UNH	-2.34%	BALL	-1.36%
63.0	FRA	-2.08%	CVS	-0.98%



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 2026-03-30

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	NWL	-42.98%	AMC	-29.18%
126.0	IEP	-42.64%	IEP	-19.83%
126.0	AMC	-38.56%	NWL	-17.82%
126.0	VFC	-22.99%	AAP	-11.84%
126.0	PRGO	-20.92%	PRGO	-10.54%
126.0	UAA	-16.0%	CZR	-10.18%
126.0	AAP	-15.37%	VFC	-7.99%
126.0	CZR	-14.73%	CHTR	-7.8%
126.0	BHC	-12.71%	MOS	-7.66%
126.0	CNC	-12.41%	UAA	-7.51%
126.0	CLF	-11.77%	CNC	-7.17%
126.0	CTLT	-11.71%	KHC	-5.8%
126.0	MOS	-11.46%	CTLT	-5.69%
126.0	CHTR	-11.28%	BHC	-4.98%
126.0	GNRC	-11.22%	GT	-4.67%
126.0	GT	-9.68%	BXP	-4.63%
126.0	BALL	-9.21%	FIS	-4.61%
126.0	FIS	-8.54%	CMCSA	-4.39%
126.0	KHC	-8.01%	NAVI	-4.21%
126.0	UNH	-7.37%	TLT	-4.12%
126.0	TLT	-6.42%	UNH	-4.06%
126.0	GME	-5.69%	ZTS	-3.87%
126.0	ZTS	-5.66%	BALL	-3.28%
126.0	BBY	-4.39%	BMY	-3.0%
126.0	NAVI	-4.32%	CLF	-2.76%
126.0	CMCSA	-4.2%	CVS	-1.8%
126.0	VZ	-4.01%	OXY	-1.71%



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 2026-03-30

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	-93.24%	AMC	-55.01%
252.0	NWL	-80.15%	IEP	-41.37%
252.0	AMC	-68.95%	NWL	-31.23%
252.0	AAP	-45.86%	AAP	-27.49%
252.0	VFC	-42.05%	VFC	-22.41%
252.0	CLF	-37.7%	CZR	-18.23%
252.0	CZR	-37.04%	CNC	-17.85%
252.0	PRGO	-34.51%	PRGO	-17.41%
252.0	UAA	-31.11%	UAA	-15.69%
252.0	MOS	-28.92%	MOS	-14.3%
252.0	CNC	-26.45%	CLF	-13.18%
252.0	BHC	-24.63%	KHC	-11.31%
252.0	GT	-23.39%	CHTR	-10.57%
252.0	UNH	-20.91%	UNH	-10.36%
252.0	KHC	-19.62%	BMY	-9.77%
252.0	CTLT	-19.6%	BHC	-9.47%
252.0	OXY	-18.28%	BIIB	-8.41%
252.0	CHTR	-14.95%	OXY	-8.15%
252.0	GNRC	-13.14%	GT	-7.54%
252.0	BMY	-12.76%	TLT	-7.52%
252.0	TLT	-12.76%	NAVI	-7.23%
252.0	CVS	-11.33%	CVS	-6.37%
252.0	BIIB	-10.61%	CTLT	-6.24%
252.0	BALL	-9.57%	CYH	-6.08%
252.0	FIS	-8.99%	BXP	-5.16%
252.0	CYH	-8.55%	CMCSA	-4.92%
252.0	CMCSA	-8.08%	PEP	-4.76%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NWL	-3.45%	CNC	-1.37%
1.0	MU	-2.98%	CLF	-1.37%
1.0	GT	-2.98%	NWL	-1.17%
1.0	B	-2.59%	LEN	-1.12%
1.0	SLV	-2.19%	THC	-1.02%
1.0	TDG	-1.84%	GT	-1.0%
1.0	CNC	-1.8%	B	-0.96%
1.0	PRGO	-1.71%	UAA	-0.93%
1.0	BHP	-1.66%	GE	-0.91%
1.0	VICI	-1.6%	MU	-0.83%
1.0	PHM	-1.57%	SLV	-0.77%
1.0	UAA	-1.51%	NEM	-0.77%
1.0	AZO	-1.47%	GNRC	-0.74%
1.0	DHI	-1.4%	AMC	-0.73%
1.0	LEN	-1.39%	CPRT	-0.67%
1.0	THC	-1.37%	BA	-0.65%
1.0	BA	-1.31%	CYH	-0.65%
1.0	CPRT	-1.31%	FCX	-0.65%
1.0	CLF	-1.21%	AZO	-0.64%
1.0	META	-1.2%	CMG	-0.62%
1.0	PCG	-1.16%	CVS	-0.6%
1.0	ZTS	-1.12%	TDG	-0.6%
1.0	CAH	-1.12%	PHM	-0.59%
1.0	CMG	-1.12%	META	-0.59%
1.0	LLY	-1.06%	GLD	-0.59%
1.0	CHTR	-1.04%	BUD	-0.59%
1.0	NEM	-1.02%	BHP	-0.59%
1.0	BUD	-0.98%	PRGO	-0.57%
1.0	ON	-0.97%	HD	-0.56%
1.0	HCA	-0.91%	HCA	-0.56%



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 2026-03-30 through 2026-03-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	NWL	-46.47%	NWL	-15.57%
10.0	GT	-32.72%	CNC	-14.01%
10.0	B	-28.35%	CLF	-13.98%
10.0	LLY	-23.01%	THC	-13.92%
10.0	PHM	-18.75%	SLV	-13.58%
10.0	AMC	-18.18%	B	-13.28%
10.0	ADBE	-16.97%	GT	-12.05%
10.0	NEM	-16.13%	NEM	-11.5%
10.0	AZO	-16.13%	AMC	-10.74%
10.0	CLF	-15.96%	CYH	-10.5%
10.0	SLV	-15.76%	GLD	-9.82%
10.0	CPRT	-15.16%	UAA	-9.64%
10.0	VICI	-14.72%	GE	-9.43%
10.0	BA	-14.13%	META	-9.1%
10.0	TDG	-13.67%	ADBE	-9.06%
10.0	BUD	-13.13%	BA	-8.92%
10.0	AVGO	-12.83%	FCX	-8.79%
10.0	META	-12.06%	CPRT	-8.75%
10.0	KHC	-11.84%	LEN	-8.45%
10.0	MOS	-11.6%	HCA	-8.1%
10.0	PRGO	-11.53%	KALU	-7.79%
10.0	NVDA	-10.72%	LLY	-7.72%
10.0	GLD	-10.57%	AZO	-7.69%
10.0	NVS	-10.55%	TDG	-7.63%
10.0	BHP	-10.42%	ABBV	-7.48%
10.0	BHC	-10.41%	CVS	-7.05%
10.0	CNC	-10.18%	KHC	-6.89%
10.0	CAH	-10.02%	HD	-6.75%
10.0	MSFT	-9.96%	PHM	-6.66%
10.0	HCA	-9.77%	PRGO	-6.65%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	NAVI	-1.44%	AMC	-0.77%
1.0	GT	-1.32%	NAVI	-0.7%
1.0	AMC	-1.27%	CLF	-0.69%
1.0	BHC	-1.1%	INTU	-0.57%
1.0	VNO	-1.06%	FIS	-0.54%
1.0	FIS	-0.93%	ADBE	-0.5%
1.0	ADBE	-0.93%	QCOM	-0.47%
1.0	MSFT	-0.91%	GT	-0.44%
1.0	ORCL	-0.85%	BHC	-0.44%
1.0	PRGO	-0.8%	BXP	-0.42%
1.0	TDG	-0.76%	ORCL	-0.42%
1.0	NWL	-0.74%	GBTC	-0.4%
1.0	LNC	-0.74%	VNO	-0.4%
1.0	CVS	-0.62%	MSFT	-0.39%
1.0	INTU	-0.61%	PRGO	-0.38%
1.0	QCOM	-0.6%	LNC	-0.36%
1.0	LVS	-0.59%	CNC	-0.34%
1.0	ISRG	-0.58%	ISRG	-0.32%
1.0	LEN	-0.53%	UNH	-0.31%
1.0	BA	-0.52%	WYNN	-0.28%
1.0	CMG	-0.49%	LVS	-0.28%
1.0	CLF	-0.49%	WFC	-0.28%
1.0	AVGO	-0.49%	LEN	-0.27%
1.0	WYNN	-0.46%	EXPE	-0.26%
1.0	JPM	-0.45%	TDG	-0.25%
1.0	CCL	-0.44%	TSLA	-0.25%
1.0	CDNS	-0.44%	CMG	-0.24%
1.0	EXPE	-0.44%	CCL	-0.24%
1.0	CPRT	-0.43%	LLY	-0.23%
1.0	WFC	-0.43%	BAC	-0.22%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	AMC	-18.42%	AMC	-8.48%
10.0	GT	-16.5%	NAVI	-8.13%
10.0	BHC	-13.81%	CLF	-7.91%
10.0	VNO	-12.11%	PRGO	-7.07%
10.0	ADBE	-11.83%	BHC	-6.84%
10.0	NWL	-11.38%	GT	-6.23%
10.0	GBTC	-11.02%	INTU	-5.63%
10.0	NAVI	-10.35%	FIS	-5.6%
10.0	LLY	-9.33%	QCOM	-5.44%
10.0	CLF	-9.18%	ADBE	-5.39%
10.0	B	-8.8%	CNC	-5.38%
10.0	PRGO	-8.79%	VNO	-5.19%
10.0	MSFT	-6.52%	GBTC	-5.11%
10.0	EXPE	-6.13%	ORCL	-5.07%
10.0	LUMN	-6.08%	BXP	-4.59%
10.0	ORCL	-5.87%	MSFT	-4.36%
10.0	CPRT	-5.84%	LNC	-4.2%
10.0	LEN	-5.83%	UNH	-4.06%
10.0	CCL	-5.7%	LEN	-3.85%
10.0	ISRG	-5.7%	CCL	-3.77%
10.0	MS	-5.54%	B	-3.71%
10.0	FIS	-5.27%	EXPE	-3.68%
10.0	AVGO	-5.12%	ISRG	-3.67%
10.0	PHM	-4.95%	CMG	-3.63%
10.0	CMG	-4.83%	MSTR	-3.44%
10.0	LNC	-4.75%	WFC	-3.41%
10.0	BA	-4.65%	TDG	-3.29%
10.0	INTU	-4.53%	CPRT	-3.24%
10.0	GOOGL	-4.49%	BA	-3.22%
10.0	TDG	-4.45%	LLY	-3.17%



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 2026-03-30 through 2026-01-02

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	AMC	-33.92%	CLF	-19.54%
21.0	GT	-30.67%	AMC	-17.53%
21.0	LUMN	-24.06%	NAVI	-17.52%
21.0	NAVI	-23.1%	PRGO	-16.57%
21.0	VNO	-22.89%	GT	-13.45%
21.0	GBTC	-22.72%	BHC	-12.07%
21.0	ADBE	-21.99%	GBTC	-11.24%
21.0	BHC	-21.62%	VNO	-11.15%
21.0	CLF	-20.63%	BXP	-10.8%
21.0	PRGO	-19.36%	LUMN	-10.63%
21.0	AMD	-17.64%	FIS	-10.49%
21.0	ORCL	-16.5%	QCOM	-10.34%
21.0	CPRT	-15.48%	LNC	-10.25%
21.0	B	-15.08%	CNC	-10.22%
21.0	EXPE	-13.75%	INTU	-9.85%
21.0	LLY	-13.02%	ORCL	-9.34%
21.0	FSUGY	-12.98%	ADBE	-9.23%
21.0	UNH	-12.48%	MSFT	-8.44%
21.0	MS	-12.3%	UNH	-7.92%
21.0	BXP	-11.85%	CMG	-7.91%
21.0	GS	-11.43%	EXPE	-7.88%
21.0	LNC	-11.01%	LEN	-7.81%
21.0	LEN	-10.97%	WFC	-7.48%
21.0	NWL	-10.53%	B	-7.46%
21.0	MSFT	-10.48%	CCL	-7.45%
21.0	TDG	-10.07%	TDG	-7.42%
21.0	FIS	-10.03%	CPRT	-7.36%
21.0	WFC	-9.72%	SLV	-7.15%
21.0	BA	-9.59%	MSTR	-6.98%
21.0	CMG	-9.36%	BA	-6.97%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
1.0	PRGO	-0.66%	AMC	-0.36%
1.0	AMC	-0.5%	PRGO	-0.33%
1.0	CPRT	-0.43%	MSTR	-0.25%
1.0	MSTR	-0.43%	UNH	-0.21%
1.0	FIS	-0.38%	CPRT	-0.2%
1.0	VNO	-0.36%	CHTR	-0.18%
1.0	UNH	-0.35%	FIS	-0.17%
1.0	CNC	-0.34%	ADBE	-0.16%
1.0	CHTR	-0.33%	CMG	-0.16%
1.0	NAVI	-0.3%	NWL	-0.16%
1.0	IEP	-0.28%	CNC	-0.15%
1.0	CMG	-0.27%	NAVI	-0.14%
1.0	NWL	-0.27%	VNO	-0.12%
1.0	ADBE	-0.26%	INTU	-0.11%
1.0	CMCSA	-0.23%	ZTS	-0.11%
1.0	GT	-0.21%	KHC	-0.11%
1.0	UAA	-0.2%	CMCSA	-0.08%
1.0	VICI	-0.2%	TMUS	-0.08%
1.0	KHC	-0.19%	LEN	-0.08%
1.0	INTU	-0.16%	BXP	-0.08%
1.0	TMUS	-0.14%	GT	-0.07%
1.0	LEN	-0.13%	VICI	-0.06%
1.0	AMZN	-0.12%	FRA	-0.06%
1.0	FRA	-0.12%	TDG	-0.06%
1.0	PCG	-0.12%	GBTC	-0.06%
1.0	MSFT	-0.09%	POST	-0.06%
1.0	MSI	-0.08%	IEP	-0.05%
1.0	TDG	-0.08%	LW	-0.05%
1.0	BXP	-0.08%	QCOM	-0.04%
1.0	ZTS	-0.08%	AZO	-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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
10.0	AMC	-6.41%	AMC	-3.65%
10.0	PRGO	-5.13%	PRGO	-3.39%
10.0	GT	-3.79%	MSTR	-2.45%
10.0	CNC	-3.76%	UNH	-2.34%
10.0	CPRT	-3.16%	CPRT	-2.1%
10.0	VNO	-3.06%	CNC	-1.68%
10.0	UNH	-2.39%	FIS	-1.44%
10.0	MSTR	-2.39%	CHTR	-1.42%
10.0	CMG	-2.19%	ADBE	-1.41%
10.0	KHC	-2.13%	CMG	-1.38%
10.0	ADBE	-2.04%	NAVI	-1.18%
10.0	NAVI	-1.51%	KHC	-1.17%
10.0	FIS	-1.45%	GT	-1.13%
10.0	NWL	-1.4%	VNO	-0.99%
10.0	GBTC	-1.21%	ZTS	-0.99%
10.0	CHTR	-1.14%	NWL	-0.81%
10.0	TMUS	-1.04%	INTU	-0.8%
10.0	VICI	-0.92%	LW	-0.77%
10.0	IEP	-0.91%	TMUS	-0.72%
10.0	CMCSA	-0.82%	POST	-0.67%
10.0	FRA	-0.76%	CMCSA	-0.64%
10.0	CVS	-0.71%	BXP	-0.52%
10.0	SNY	-0.62%	VICI	-0.47%
10.0	INTU	-0.59%	FRA	-0.46%
10.0	ORLY	-0.59%	LEN	-0.44%
10.0	ZTS	-0.52%	SNY	-0.43%
10.0	ISRG	-0.47%	GBTC	-0.43%
10.0	GME	-0.42%	TDG	-0.36%
10.0	BXP	-0.4%	IEP	-0.28%
10.0	MSFT	-0.39%	AZO	-0.24%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
21.0	MSTR	-11.82%	AMC	-7.38%
21.0	AMC	-9.76%	PRGO	-6.92%
21.0	PRGO	-8.86%	MSTR	-5.85%
21.0	CPRT	-6.65%	CPRT	-4.45%
21.0	ADBE	-4.79%	UNH	-3.85%
21.0	GT	-4.52%	FIS	-3.27%
21.0	VNO	-4.43%	CHTR	-2.99%
21.0	CNC	-4.23%	ADBE	-2.62%
21.0	CMG	-4.19%	CMG	-2.61%
21.0	FIS	-3.63%	CNC	-2.58%
21.0	UNH	-3.55%	NAVI	-2.44%
21.0	KHC	-3.19%	GT	-2.25%
21.0	NAVI	-3.1%	KHC	-2.23%
21.0	GBTC	-2.84%	VNO	-2.12%
21.0	TMUS	-2.46%	ZTS	-2.01%
21.0	IEP	-1.8%	INTU	-1.62%
21.0	GME	-1.64%	TMUS	-1.37%
21.0	FRA	-1.52%	LW	-1.31%
21.0	VICI	-1.49%	GBTC	-1.26%
21.0	SNY	-1.39%	BXP	-1.26%
21.0	CMCSA	-1.35%	SNY	-1.2%
21.0	BXP	-1.23%	POST	-1.17%
21.0	NFLX	-1.18%	CMCSA	-1.01%
21.0	ZTS	-0.98%	FRA	-0.96%
21.0	INTU	-0.92%	VICI	-0.95%
21.0	CHTR	-0.9%	NWL	-0.89%
21.0	TDG	-0.83%	IEP	-0.66%
21.0	POST	-0.78%	TDG	-0.59%
21.0	ISRG	-0.59%	LEN	-0.59%
21.0	ORLY	-0.35%	QCOM	-0.24%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
63.0	MSTR	-51.86%	MSTR	-23.13%
63.0	PRGO	-29.44%	AMC	-21.33%
63.0	NFLX	-21.37%	PRGO	-19.71%
63.0	AMC	-17.13%	CHTR	-15.52%
63.0	CPRT	-16.84%	CPRT	-12.11%
63.0	FIS	-15.33%	FIS	-10.97%
63.0	ADBE	-14.83%	ADBE	-9.86%
63.0	VNO	-13.99%	CMG	-9.03%
63.0	CHTR	-10.97%	INTU	-8.88%
63.0	NWL	-9.3%	ZTS	-7.61%
63.0	CMG	-8.98%	NAVI	-7.11%
63.0	GT	-8.72%	VNO	-6.76%
63.0	KHC	-8.31%	GBTC	-6.54%
63.0	GBTC	-7.91%	NFLX	-6.54%
63.0	INTU	-7.45%	KHC	-5.21%
63.0	TMUS	-7.08%	TMUS	-5.2%
63.0	ZTS	-6.17%	GT	-4.95%
63.0	VICI	-5.66%	NWL	-4.69%
63.0	CZR	-5.6%	UNH	-4.5%
63.0	CMCSA	-5.56%	LW	-4.3%
63.0	NAVI	-4.81%	CMCSA	-4.21%
63.0	UNH	-4.01%	CNC	-4.13%
63.0	GME	-3.99%	GME	-3.81%
63.0	FRA	-3.28%	CZR	-3.6%
63.0	POST	-3.23%	VICI	-3.26%
63.0	IEP	-2.99%	POST	-3.08%
63.0	T	-2.95%	MOS	-3.0%
63.0	TDG	-2.92%	FRA	-2.9%
63.0	CNC	-2.73%	SNY	-2.82%
63.0	SNY	-2.36%	IEP	-2.71%



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 2026-03-30 through 2025-04-01

Horizon	Ticker_V	ROLOBC_V	Ticker_S	ROLOBC_S
126.0	AMC	-102.2%	MSTR	-47.53%
126.0	PRGO	-83.47%	PRGO	-41.4%
126.0	NWL	-63.72%	AMC	-37.1%
126.0	MSTR	-63.57%	CHTR	-32.89%
126.0	MOS	-44.13%	NWL	-24.26%
126.0	GT	-44.07%	CMG	-22.93%
126.0	CMG	-40.41%	CPRT	-22.81%
126.0	INTU	-39.14%	FIS	-20.54%
126.0	FIS	-36.44%	GT	-17.78%
126.0	NFLX	-34.7%	ZTS	-17.73%
126.0	CPRT	-32.5%	INTU	-17.26%
126.0	ZTS	-24.96%	ADBE	-16.86%
126.0	CZR	-23.22%	MOS	-16.41%
126.0	ADBE	-21.77%	GBTC	-15.18%
126.0	VNO	-21.61%	NFLX	-15.01%
126.0	TMUS	-20.14%	NAVI	-14.81%
126.0	CHTR	-20.13%	CZR	-14.31%
126.0	GBTC	-17.06%	TMUS	-14.11%
126.0	VICI	-16.39%	CMCSA	-14.08%
126.0	CMCSA	-15.62%	VNO	-12.41%
126.0	KHC	-13.82%	KHC	-11.76%
126.0	T	-13.53%	VICI	-9.86%
126.0	GME	-13.31%	GME	-8.29%
126.0	NAVI	-12.57%	FRA	-8.04%
126.0	TDG	-11.96%	IEP	-7.97%
126.0	IEP	-11.74%	TDG	-7.38%
126.0	AZO	-9.96%	T	-7.11%
126.0	COST	-9.24%	POST	-6.27%
126.0	POST	-7.92%	UAA	-5.23%
126.0	CNC	-7.39%	MSI	-4.08%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	SBNY	12.59%	SIVBQ	4.32%
1.0	GME	10.06%	GME	3.74%
1.0	MSTR	8.91%	META	2.39%
1.0	SIVBQ	7.91%	TSLA	2.2%
1.0	CHTR	7.09%	HLT	1.92%
1.0	META	6.7%	FRCB	1.8%
1.0	GNRC	6.03%	AMC	1.63%
1.0	FRCB	5.76%	AVGO	1.63%
1.0	NFLX	5.17%	BALL	1.63%
1.0	BUD	4.6%	NFLX	1.44%
1.0	ZTS	4.41%	MSTR	1.44%
1.0	SLV	4.31%	INTU	1.34%
1.0	VFC	4.12%	ACGL	1.25%
1.0	FRA	4.02%	CHTR	1.25%
1.0	CMA	3.98%	BUD	1.15%
1.0	CLF	3.74%	ZTS	1.05%
1.0	GILD	3.54%	SPY	0.86%
1.0	INTU	3.54%	TEVA	0.86%
1.0	AMC	3.54%	CMA	0.8%
1.0	ORCL	3.54%	B	0.77%
1.0	B	3.45%	SBNY	0.72%
1.0	BALL	3.35%	GILD	0.67%
1.0	HLT	3.16%	AAP	0.57%
1.0	AVGO	3.16%	FRA	0.57%
1.0	AAP	2.87%	OXY	0.48%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	SIVBQ	12.13%	SIVBQ	9.56%
10.0	META	11.79%	MSTR	7.44%
10.0	MSTR	11.11%	GME	4.93%
10.0	SBNY	10.66%	META	4.54%
10.0	GME	9.66%	CHTR	4.06%
10.0	KALU	9.28%	SBNY	3.68%
10.0	HCA	9.08%	AVGO	3.38%
10.0	BALL	8.21%	ZTS	3.09%
10.0	CHTR	8.12%	KALU	2.61%
10.0	FRCB	8.09%	CMA	2.51%
10.0	AVGO	7.05%	AMC	2.51%
10.0	GILD	6.96%	WDC	2.42%
10.0	GNRC	6.86%	VZ	2.32%
10.0	CMA	6.63%	ETRN	2.15%
10.0	TEVA	6.38%	HCA	2.13%
10.0	WDC	5.8%	XOM	1.84%
10.0	AMC	5.7%	BALL	1.74%
10.0	HD	5.7%	NVS	1.64%
10.0	BXP	5.6%	EXPE	1.64%
10.0	B	5.6%	ISRG	1.64%
10.0	VFC	5.51%	TXN	1.55%
10.0	TDG	5.31%	FRCB	1.47%
10.0	EXPE	5.22%	GILD	1.45%
10.0	ZTS	4.93%	GNRC	1.35%
10.0	SLV	4.45%	GWV	1.16%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	META	11.23%	SIVBQ	9.26%
21.0	GME	10.94%	CHTR	7.03%
21.0	AVGO	9.47%	MSTR	5.76%
21.0	FRCB	8.89%	KALU	4.2%
21.0	KALU	8.5%	GME	3.61%
21.0	CMA	8.43%	META	3.52%
21.0	GNRC	8.4%	ISRG	2.83%
21.0	SIVBQ	8.15%	GWV	2.73%
21.0	CHTR	7.91%	AVGO	2.64%
21.0	ZTS	6.93%	GNRC	2.64%
21.0	EXPE	6.93%	ZTS	2.25%
21.0	MSTR	6.64%	CMA	2.13%
21.0	B	6.25%	VZ	1.86%
21.0	HCA	6.15%	SBNY	1.85%
21.0	ISRG	5.76%	LW	1.76%
21.0	AMC	5.57%	AMC	1.56%
21.0	SBNY	5.56%	AAPL	1.56%
21.0	LW	5.47%	WDC	1.46%
21.0	BALL	5.18%	NEM	1.46%
21.0	VZ	4.98%	SNY	1.37%
21.0	NAVI	4.98%	EXPE	1.37%
21.0	GILD	4.79%	BALL	1.37%
21.0	VFC	4.59%	HD	1.37%
21.0	BUD	4.59%	GOOGL	1.27%
21.0	TDG	4.39%	ORLY	0.98%



All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	CHTR	11.3%	SIVBQ	7.78%
63.0	SIVBQ	11.11%	AVGO	6.01%
63.0	META	11.1%	EXPE	4.89%
63.0	AVGO	10.39%	GME	4.79%
63.0	EXPE	10.18%	LW	3.36%
63.0	LW	8.45%	CTLT	3.23%
63.0	CMA	6.69%	KALU	2.44%
63.0	MSTR	6.62%	GSK	1.73%
63.0	BUD	5.91%	WFC	1.43%
63.0	GME	5.91%	CHTR	1.12%
63.0	VFC	4.99%	BXP	1.12%
63.0	GILD	4.79%	HD	0.81%
63.0	CTLT	4.69%	GWV	0.71%
63.0	KALU	4.68%	JAZZ	0.71%
63.0	SNY	4.38%	TXN	0.61%
63.0	BALL	3.67%	CMA	0.53%
63.0	IRM	3.67%	AMC	0.51%
63.0	HCA	3.67%	FCX	0.51%
63.0	GNRC	3.56%	VFC	0.41%
63.0	XOM	3.56%	AZO	0.41%
63.0	BXP	2.65%	AA	0.31%
63.0	JAZZ	2.24%	KHC	0.31%
63.0	AAP	2.24%	SNY	0.31%
63.0	ZTS	2.24%	BUD	0.31%
63.0	FRCB	2.22%	ZTS	0.2%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	LW	12.3%	AVGO	7.62%
126.0	VFC	9.58%	EXPE	5.33%
126.0	EXPE	7.18%	LW	5.11%
126.0	GME	5.77%	NVS	3.26%
126.0	MSTR	5.44%	BUD	2.83%
126.0	BALL	5.11%	MSI	2.5%
126.0	META	4.9%	OXY	1.74%
126.0	AAP	4.57%	MSTR	1.63%
126.0	XOM	4.35%	IRM	1.52%
126.0	BXP	4.24%	META	1.31%
126.0	CMA	4.21%	KALU	1.2%
126.0	CHTR	4.13%	VFC	1.2%
126.0	GOOGL	4.03%	BALL	1.2%
126.0	IRM	4.03%	CMA	1.14%
126.0	HCA	2.29%	GME	1.09%
126.0	CTLT	1.78%	ETRN	1.02%
126.0	AVGO	1.63%	HCA	0.87%
126.0	KALU	1.63%	GSK	0.11%
126.0	TMUS	1.31%	ORLY	0.0%
126.0	NWL	1.2%	ZTS	0.0%
126.0	BAC	1.09%	FRCB	0.0%
126.0	GNRC	0.98%	PCG	0.0%
126.0	KHC	0.87%	FSUGY	0.0%
126.0	AMC	0.87%	FRA	0.0%
126.0	OXY	0.54%	FITB	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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
252.0	EXPE	5.8%	LW	3.91%
252.0	IRM	3.78%	GWW	3.91%
252.0	GME	3.53%	IRM	2.77%
252.0	GNRC	3.15%	ORLY	1.51%
252.0	VST	2.65%	EXPE	1.26%
252.0	OXY	1.64%	GNRC	0.76%
252.0	BA	1.64%	XOM	0.13%
252.0	BALL	1.51%	WRK	0.0%
252.0	CHTR	0.63%	AAP	0.0%
252.0	AAPL	0.38%	MRK	0.0%
252.0	MSTR	0.13%	MOS	0.0%
252.0	EMB	0.0%	WYNN	0.0%
252.0	MOS	0.0%	LVS	0.0%
252.0	ZTS	0.0%	LUMN	0.0%
252.0	CZR	0.0%	LQD	0.0%
252.0	CYH	0.0%	LNC	0.0%
252.0	MUB	0.0%	KHC	0.0%
252.0	CTLT	0.0%	KEY	0.0%
252.0	NAVI	0.0%	JAZZ	0.0%
252.0	LVS	0.0%	X	0.0%
252.0	FRCB	0.0%	MUB	0.0%
252.0	LUMN	0.0%	INTU	0.0%
252.0	LQD	0.0%	INTC	0.0%
252.0	FRA	0.0%	IEP	0.0%
252.0	FSUGY	0.0%	HYG	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 2026-03-30 through 2026-03-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	PWR	19.05%	ORCL	4.76%
1.0	VFC	14.29%	THC	4.76%
1.0	WDC	14.29%	TSLA	4.76%
1.0	MRK	9.52%	GLD	4.76%
1.0	KALU	9.52%	SLV	4.76%
1.0	THC	9.52%	VFC	4.76%
1.0	TXN	9.52%	GSK	4.76%
1.0	UNH	9.52%	NFLX	4.76%
1.0	TSLA	9.52%	ADBE	4.76%
1.0	META	9.52%	NEM	0.0%
1.0	GSK	9.52%	NAVI	0.0%
1.0	AMGN	4.76%	MUB	0.0%
1.0	GE	4.76%	MU	0.0%
1.0	ORCL	4.76%	NVDA	0.0%
1.0	LLY	4.76%	MSTR	0.0%
1.0	FITB	4.76%	MSI	0.0%
1.0	NVS	4.76%	NVS	0.0%
1.0	HON	4.76%	NWL	0.0%
1.0	BUD	4.76%	MSFT	0.0%
1.0	NFLX	4.76%	MS	0.0%
1.0	CYH	4.76%	ISRG	0.0%
1.0	TMUS	4.76%	MRK	0.0%
1.0	TRGP	4.76%	MNST	0.0%
1.0	B	4.76%	ON	0.0%
1.0	INTU	4.76%	LW	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 2026-03-30 through 2026-03-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	SNY	25.0%	AA	0.0%
10.0	EXPE	16.67%	NVDA	0.0%
10.0	WDC	16.67%	MSTR	0.0%
10.0	XOM	8.33%	MU	0.0%
10.0	PWR	8.33%	MUB	0.0%
10.0	NVDA	0.0%	NAVI	0.0%
10.0	MSTR	0.0%	NEM	0.0%
10.0	MUB	0.0%	NFLX	0.0%
10.0	NAVI	0.0%	NVS	0.0%
10.0	NEM	0.0%	MSFT	0.0%
10.0	NFLX	0.0%	NWL	0.0%
10.0	AA	0.0%	ON	0.0%
10.0	NVS	0.0%	ORCL	0.0%
10.0	MSFT	0.0%	ORLY	0.0%
10.0	NWL	0.0%	PCG	0.0%
10.0	ON	0.0%	PEP	0.0%
10.0	ORCL	0.0%	MSI	0.0%
10.0	ORLY	0.0%	MS	0.0%
10.0	MSI	0.0%	AAP	0.0%
10.0	MRK	0.0%	LNC	0.0%
10.0	MS	0.0%	JPM	0.0%
10.0	LNC	0.0%	KALU	0.0%
10.0	JPM	0.0%	KEY	0.0%
10.0	KALU	0.0%	KHC	0.0%
10.0	KEY	0.0%	LEN	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 2026-03-30 through 2026-01-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	UNH	13.33%	NFLX	5.0%
1.0	VFC	11.67%	GNRC	5.0%
1.0	BUD	11.67%	ORCL	5.0%
1.0	PWR	11.67%	GLD	3.33%
1.0	GE	10.0%	GILD	3.33%
1.0	AA	8.33%	IEP	3.33%
1.0	TMUS	8.33%	ADBE	3.33%
1.0	GILD	8.33%	MSI	3.33%
1.0	CYH	8.33%	CLF	3.33%
1.0	MSI	8.33%	THC	1.67%
1.0	CLF	8.33%	FCX	1.67%
1.0	WDC	8.33%	CYH	1.67%
1.0	IEP	6.67%	MU	1.67%
1.0	NFLX	6.67%	PCG	1.67%
1.0	TRGP	6.67%	SBUX	1.67%
1.0	TXN	6.67%	TDG	1.67%
1.0	LNC	6.67%	AA	1.67%
1.0	PCG	6.67%	WDC	1.67%
1.0	FCX	6.67%	VFC	1.67%
1.0	CDNS	6.67%	TSLA	1.67%
1.0	HON	6.67%	UAA	1.67%
1.0	GLD	6.67%	TLT	0.0%
1.0	GNRC	6.67%	WFC	0.0%
1.0	SBUX	5.0%	LW	0.0%
1.0	THC	5.0%	LUMN	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 2026-03-30 through 2026-01-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	FCX	25.49%	WDC	23.53%
10.0	WDC	17.65%	BUD	23.53%
10.0	BUD	17.65%	UAA	13.73%
10.0	PWR	15.69%	TMUS	9.8%
10.0	GLD	15.69%	MRK	5.88%
10.0	UAA	13.73%	PCG	5.88%
10.0	TRGP	11.76%	GLD	5.88%
10.0	HON	11.76%	SBUX	3.92%
10.0	SBUX	11.76%	TDG	3.92%
10.0	TMUS	9.8%	EXPE	1.96%
10.0	NVS	9.8%	FCX	1.96%
10.0	TDG	7.84%	THC	1.96%
10.0	GNRC	7.84%	GE	1.96%
10.0	THC	7.84%	TRGP	1.96%
10.0	LEN	7.84%	ON	1.96%
10.0	EXPE	7.84%	GME	1.96%
10.0	TXN	5.88%	HON	1.96%
10.0	FITB	5.88%	HLT	1.96%
10.0	SNY	5.88%	JAZZ	1.96%
10.0	AMGN	5.88%	LQD	0.0%
10.0	GME	5.88%	MSTR	0.0%
10.0	XOM	5.88%	MSFT	0.0%
10.0	GILD	5.88%	MS	0.0%
10.0	CLF	3.92%	AAP	0.0%
10.0	CYH	3.92%	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 2026-03-30 through 2026-01-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	UAA	35.0%	TMUS	35.0%
21.0	GLD	22.5%	THC	27.5%
21.0	HON	20.0%	BUD	20.0%
21.0	FCX	17.5%	UAA	20.0%
21.0	TMUS	17.5%	GLD	17.5%
21.0	PCG	15.0%	WDC	17.5%
21.0	MU	15.0%	BALL	12.5%
21.0	EXPE	15.0%	AAP	10.0%
21.0	WDC	15.0%	MU	5.0%
21.0	PWR	12.5%	FCX	5.0%
21.0	SBUX	12.5%	MRK	2.5%
21.0	AAP	12.5%	SBUX	2.5%
21.0	TXN	10.0%	VZ	2.5%
21.0	THC	10.0%	MSFT	0.0%
21.0	JAZZ	10.0%	MS	0.0%
21.0	CHTR	7.5%	MSTR	0.0%
21.0	KEY	7.5%	MOS	0.0%
21.0	AMAT	7.5%	MUB	0.0%
21.0	AMGN	7.5%	MNST	0.0%
21.0	FITB	5.0%	NAVI	0.0%
21.0	NVS	5.0%	NEM	0.0%
21.0	BMV	5.0%	AA	0.0%
21.0	BUD	5.0%	LW	0.0%
21.0	GSK	5.0%	META	0.0%
21.0	MSTR	2.5%	NWL	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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	GILD	10.8%	TSLA	6.0%
1.0	BUD	8.0%	GILD	4.4%
1.0	VFC	8.0%	PCG	3.2%
1.0	TSLA	8.0%	WDC	2.8%
1.0	CLF	6.4%	AMC	2.4%
1.0	TXN	5.2%	AAP	2.0%
1.0	META	5.2%	ZTS	1.6%
1.0	UNH	4.8%	AMZN	1.6%
1.0	AMZN	4.8%	NVS	1.2%
1.0	WDC	4.4%	ORCL	1.2%
1.0	AMC	4.4%	NWL	1.2%
1.0	CMA	4.29%	CMA	0.95%
1.0	NVS	4.0%	IEP	0.8%
1.0	PWR	3.6%	VZ	0.8%
1.0	NFLX	3.6%	BUD	0.8%
1.0	ZTS	3.6%	GNRC	0.8%
1.0	NAVI	3.2%	VFC	0.8%
1.0	QQQ	3.2%	ADBE	0.8%
1.0	AAP	3.2%	TXN	0.8%
1.0	VZ	3.2%	MSI	0.4%
1.0	BXP	2.8%	JPM	0.4%
1.0	CHTR	2.8%	THC	0.4%
1.0	THC	2.8%	NFLX	0.4%
1.0	KEY	2.8%	HON	0.4%
1.0	VST	2.8%	CLF	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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	WDC	19.5%	WDC	13.28%
10.0	AMZN	14.94%	KALU	8.71%
10.0	GILD	14.11%	AVGO	7.88%
10.0	FCX	13.69%	TSLA	7.05%
10.0	NVS	13.69%	NVS	6.64%
10.0	KALU	13.28%	BUD	5.39%
10.0	TXN	12.86%	TXN	5.39%
10.0	AVGO	12.86%	HCA	4.98%
10.0	BUD	11.2%	CMA	3.98%
10.0	AMC	10.37%	HON	3.32%
10.0	VFC	9.96%	AMZN	3.32%
10.0	THC	9.54%	GLD	2.9%
10.0	EXPE	9.54%	UAA	2.9%
10.0	TSLA	9.13%	FCX	2.9%
10.0	TDG	9.13%	AAP	2.49%
10.0	SBUX	7.88%	META	2.49%
10.0	HCA	7.47%	TMUS	2.07%
10.0	CMA	7.46%	GILD	2.07%
10.0	BXP	7.05%	VFC	2.07%
10.0	HON	6.22%	VST	2.07%
10.0	NEM	6.22%	NAVI	2.07%
10.0	GOOGL	5.39%	KEY	2.07%
10.0	GNRC	5.39%	JPM	1.66%
10.0	AAPL	5.39%	AA	1.66%
10.0	VZ	5.39%	EXPE	1.66%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	AVGO	24.78%	KALU	13.91%
21.0	TXN	20.43%	AVGO	12.17%
21.0	NVS	20.0%	TXN	7.39%
21.0	EXPE	17.39%	WDC	7.39%
21.0	WDC	16.96%	TMUS	6.09%
21.0	CMA	16.32%	CMA	5.26%
21.0	KALU	15.65%	CHTR	4.78%
21.0	VFC	11.3%	FCX	4.35%
21.0	BUD	11.3%	WFC	4.35%
21.0	TDG	10.0%	BUD	4.35%
21.0	AMZN	9.13%	EXPE	4.35%
21.0	GILD	9.13%	ZTS	3.91%
21.0	AAP	8.26%	THC	3.91%
21.0	HCA	7.83%	GOOGL	3.48%
21.0	MU	6.96%	UAA	3.48%
21.0	AMC	6.52%	AMZN	3.04%
21.0	TSLA	6.09%	AAP	3.04%
21.0	UAA	6.09%	GILD	2.61%
21.0	ZTS	6.09%	TSLA	2.17%
21.0	HON	5.65%	HON	2.17%
21.0	SBUX	5.65%	BALL	1.74%
21.0	VZ	5.65%	KEY	1.74%
21.0	AAPL	5.65%	MU	1.3%
21.0	CVS	5.22%	NVS	1.3%
21.0	JPM	4.78%	GS	1.3%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	EXPE	34.57%	AVGO	32.45%
63.0	CMA	26.35%	EXPE	15.43%
63.0	AVGO	25.53%	GSK	9.04%
63.0	GILD	20.74%	KALU	8.51%
63.0	NVS	15.43%	JAZZ	3.19%
63.0	TSLA	14.89%	WYNN	3.19%
63.0	HCA	13.83%	WFC	3.19%
63.0	PCG	11.17%	FCX	3.19%
63.0	VFC	11.17%	TXN	3.19%
63.0	JAZZ	10.11%	META	2.13%
63.0	KALU	9.57%	NVS	2.13%
63.0	ELAN	9.04%	TSLA	1.6%
63.0	SLV	8.56%	GILD	1.6%
63.0	ORLY	7.98%	CVS	1.6%
63.0	AAP	7.45%	AA	1.6%
63.0	BUD	7.45%	AAPL	1.6%
63.0	THC	6.38%	BAC	1.06%
63.0	TXN	4.79%	CMA	0.68%
63.0	AAPL	4.79%	KEY	0.53%
63.0	MU	3.19%	PCG	0.53%
63.0	CHTR	3.19%	THC	0.53%
63.0	WFC	3.19%	LW	0.0%
63.0	BAC	2.66%	LQD	0.0%
63.0	MSFT	2.66%	LNC	0.0%
63.0	UNH	2.13%	VFC	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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	GILD	35.2%	AVGO	50.4%
126.0	AVGO	32.8%	NVS	25.6%
126.0	CMA	27.06%	CMA	11.76%
126.0	NVS	17.6%	KALU	8.8%
126.0	AAPL	14.4%	EXPE	5.6%
126.0	EXPE	12.8%	HCA	4.8%
126.0	AAP	10.4%	GILD	0.8%
126.0	PCG	9.6%	GSK	0.8%
126.0	BUD	9.6%	NFLX	0.0%
126.0	HCA	8.8%	NAVI	0.0%
126.0	KALU	8.0%	MUB	0.0%
126.0	WYNN	5.6%	LQD	0.0%
126.0	VFC	5.6%	NWL	0.0%
126.0	CCL	4.8%	MSI	0.0%
126.0	META	4.0%	MOS	0.0%
126.0	FCX	4.0%	META	0.0%
126.0	BAC	4.0%	LW	0.0%
126.0	TSLA	3.2%	MSTR	0.0%
126.0	WFC	2.4%	LLY	0.0%
126.0	CVS	1.6%	LNC	0.0%
126.0	AMZN	1.6%	ORLY	0.0%
126.0	KEY	0.8%	LEN	0.0%
126.0	LQD	0.0%	KHC	0.0%
126.0	LNC	0.0%	KEY	0.0%
126.0	LW	0.0%	AAP	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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	MOS	-4.12%	NVDA	-1.92%
1.0	EMB	-3.74%	CCL	-1.82%
1.0	HYG	-3.74%	PHM	-1.82%
1.0	VCSH	-3.54%	HSBC	-1.82%
1.0	BHP	-3.45%	WYNN	-1.72%
1.0	DHI	-3.35%	LVS	-1.72%
1.0	PHM	-3.35%	LLY	-1.63%
1.0	MS	-3.26%	MU	-1.63%
1.0	AZN	-3.07%	T	-1.53%
1.0	HSBC	-3.07%	AMD	-1.53%
1.0	CCL	-3.07%	GE	-1.53%
1.0	GE	-2.87%	HYG	-1.44%
1.0	TLT	-2.78%	BHP	-1.44%
1.0	ON	-2.78%	CSCO	-1.44%
1.0	VNO	-2.78%	MUB	-1.34%
1.0	CAH	-2.78%	INTC	-1.34%
1.0	AMAT	-2.78%	DHI	-1.34%
1.0	X	-2.72%	LUMN	-1.34%
1.0	MUB	-2.68%	MOS	-1.34%
1.0	LVS	-2.68%	MNST	-1.34%
1.0	CSCO	-2.68%	COST	-1.34%
1.0	AMD	-2.59%	SLV	-1.25%
1.0	T	-2.59%	NEM	-1.25%
1.0	COST	-2.39%	AMAT	-1.25%
1.0	NVDA	-2.39%	GSK	-1.25%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	MUB	-6.58%	NVDA	-3.96%
10.0	LLY	-5.99%	LLY	-3.38%
10.0	CCL	-5.02%	X	-3.22%
10.0	NVDA	-4.83%	MUB	-3.09%
10.0	MS	-4.73%	GBTC	-2.8%
10.0	T	-4.44%	DHI	-2.71%
10.0	CSCO	-4.15%	LUMN	-2.61%
10.0	COST	-4.15%	CPRT	-2.51%
10.0	AMAT	-4.06%	T	-2.42%
10.0	CDNS	-4.06%	TMUS	-2.32%
10.0	PHM	-4.06%	CCL	-2.22%
10.0	AMD	-3.77%	LVS	-2.13%
10.0	BA	-3.38%	AMD	-2.13%
10.0	BHP	-3.29%	PWR	-2.03%
10.0	CYH	-3.19%	MU	-2.03%
10.0	VCSH	-3.09%	COST	-1.93%
10.0	FSUGY	-3.09%	PHM	-1.93%
10.0	LUMN	-3.09%	TEVA	-1.93%
10.0	DHI	-3.09%	MS	-1.84%
10.0	GE	-3.09%	POST	-1.64%
10.0	CAH	-3.09%	CDNS	-1.64%
10.0	JPM	-3.0%	SLV	-1.55%
10.0	CPRT	-2.9%	UNH	-1.55%
10.0	MOS	-2.9%	WYNN	-1.55%
10.0	VNO	-2.8%	CSCO	-1.45%



All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	CCL	-8.59%	NVDA	-5.08%
21.0	LLY	-7.91%	GE	-4.39%
21.0	MUB	-7.72%	ETRN	-4.38%
21.0	COST	-7.52%	GBTC	-4.1%
21.0	MS	-6.64%	TEVA	-4.0%
21.0	DHI	-6.15%	LLY	-3.91%
21.0	NVDA	-5.66%	DHI	-3.52%
21.0	PHM	-5.66%	LUMN	-3.32%
21.0	GE	-5.66%	MUB	-3.23%
21.0	GLD	-5.18%	WYNN	-3.22%
21.0	AMAT	-5.18%	PWR	-2.93%
21.0	JPM	-4.79%	AMD	-2.93%
21.0	AZN	-4.59%	MOS	-2.83%
21.0	CDNS	-4.49%	LVS	-2.83%
21.0	T	-4.3%	X	-2.78%
21.0	AMD	-4.2%	CAH	-2.54%
21.0	GBTC	-4.1%	BA	-2.44%
21.0	CAH	-4.1%	T	-2.44%
21.0	LEN	-4.1%	AMAT	-2.34%
21.0	PWR	-3.91%	AMGN	-2.25%
21.0	CMG	-3.81%	CCL	-2.05%
21.0	CPRT	-3.71%	TSLA	-2.05%
21.0	LVS	-3.61%	TMUS	-1.95%
21.0	VNO	-3.61%	GSK	-1.95%
21.0	TSLA	-3.32%	COST	-1.86%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	NVDA	-18.02%	NVDA	-11.2%
63.0	LLY	-11.51%	GBTC	-8.66%
63.0	DHI	-11.0%	LLY	-7.94%
63.0	GBTC	-11.0%	CAH	-7.94%
63.0	AMD	-10.59%	B	-7.43%
63.0	CMG	-10.18%	GLD	-6.42%
63.0	AMAT	-9.78%	ETRN	-5.99%
63.0	VNO	-9.67%	GE	-5.91%
63.0	CCL	-9.67%	DHI	-5.8%
63.0	PHM	-9.16%	MU	-5.6%
63.0	CAH	-8.96%	VST	-5.4%
63.0	LVS	-8.35%	MRK	-4.99%
63.0	JPM	-8.35%	TRGP	-4.58%
63.0	GLD	-8.04%	MUB	-4.49%
63.0	TRGP	-7.64%	GILD	-4.38%
63.0	GE	-7.64%	AMD	-4.38%
63.0	LUMN	-7.33%	PHM	-4.28%
63.0	HLT	-7.03%	THC	-3.97%
63.0	T	-6.92%	CCL	-3.77%
63.0	COST	-6.42%	LUMN	-3.36%
63.0	CPRT	-6.31%	MS	-3.26%
63.0	MRK	-6.21%	TMUS	-3.16%
63.0	MU	-6.21%	ACGL	-3.16%
63.0	PWR	-6.01%	AMAT	-2.75%
63.0	NFLX	-6.01%	MSTR	-2.75%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	NVDA	-23.5%	NVDA	-18.17%
126.0	GE	-20.24%	GE	-13.82%
126.0	PHM	-19.91%	GLD	-12.95%
126.0	AMAT	-16.87%	THC	-12.19%
126.0	GLD	-16.0%	LLY	-11.32%
126.0	JPM	-15.56%	GBTC	-10.12%
126.0	PWR	-14.91%	B	-9.79%
126.0	GS	-14.36%	TMUS	-9.68%
126.0	T	-13.93%	MU	-9.68%
126.0	COST	-13.49%	TRGP	-8.6%
126.0	GBTC	-13.17%	CAH	-8.16%
126.0	ORCL	-12.95%	GILD	-7.83%
126.0	CAH	-12.73%	NEM	-7.51%
126.0	MRK	-11.53%	ACGL	-6.86%
126.0	NFLX	-11.53%	CMG	-6.86%
126.0	HSBC	-11.43%	WDC	-6.31%
126.0	LLY	-10.99%	ORCL	-6.31%
126.0	MS	-10.77%	PHM	-5.98%
126.0	THC	-10.01%	AA	-5.77%
126.0	MSFT	-9.9%	AMAT	-5.55%
126.0	MU	-9.79%	X	-5.26%
126.0	AMD	-9.47%	AMD	-5.01%
126.0	CMG	-9.25%	TEVA	-4.68%
126.0	CPRT	-9.14%	PWR	-3.92%
126.0	AZN	-9.14%	COST	-3.7%



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 2026-03-30

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
252.0	GE	-56.24%	GE	-33.42%
252.0	PHM	-41.74%	GLD	-31.4%
252.0	JPM	-35.56%	CAH	-25.85%
252.0	GBTC	-34.8%	GBTC	-25.73%
252.0	NFLX	-31.9%	PHM	-23.33%
252.0	COST	-29.26%	HSBC	-18.92%
252.0	PWR	-28.12%	LLY	-18.66%
252.0	ACGL	-25.47%	GS	-18.03%
252.0	ORCL	-24.21%	COST	-16.52%
252.0	GS	-23.08%	TMUS	-16.39%
252.0	MS	-22.82%	NVDA	-16.39%
252.0	HSBC	-22.57%	TRGP	-15.01%
252.0	NVDA	-20.93%	ACGL	-15.01%
252.0	T	-19.92%	NFLX	-13.87%
252.0	MU	-19.29%	VST	-11.22%
252.0	LLY	-19.17%	JPM	-10.97%
252.0	CPRT	-17.78%	GOOGL	-10.84%
252.0	CSCO	-17.65%	PWR	-10.72%
252.0	DHI	-16.77%	THC	-10.34%
252.0	ISRG	-16.52%	META	-10.34%
252.0	TMUS	-16.02%	T	-10.09%
252.0	AMAT	-15.51%	AVGO	-10.09%
252.0	CMG	-14.88%	MU	-9.84%
252.0	TDG	-14.5%	TEVA	-7.82%
252.0	CAH	-14.25%	ETRN	-7.18%



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 2026-03-30 through 2026-03-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	XOM	-14.29%	BHP	-9.52%
1.0	HYG	-14.29%	OXY	-9.52%
1.0	EMB	-14.29%	HSBC	-9.52%
1.0	HSBC	-14.29%	CSTM	-9.52%
1.0	OXY	-14.29%	MOS	-9.52%
1.0	AZN	-9.52%	FCX	-4.76%
1.0	MOS	-9.52%	GS	-4.76%
1.0	BA	-9.52%	SPY	-4.76%
1.0	SNY	-4.76%	CCL	-4.76%
1.0	LVS	-4.76%	GOOGL	-4.76%
1.0	SBUX	-4.76%	AA	-4.76%
1.0	RIO	-4.76%	FRA	-4.76%
1.0	QQQ	-4.76%	CZR	-4.76%
1.0	PRGO	-4.76%	ELAN	-4.76%
1.0	PHM	-4.76%	EMB	-4.76%
1.0	GS	-4.76%	ORLY	-4.76%
1.0	ZION	-4.76%	RIO	-4.76%
1.0	DHI	-4.76%	QQQ	-4.76%
1.0	ORLY	-4.76%	TEVA	-4.76%
1.0	MS	-4.76%	XOM	-4.76%
1.0	MSFT	-4.76%	BA	-4.76%
1.0	NVDA	-4.76%	JPM	-4.76%
1.0	NEM	-4.76%	B	-4.76%
1.0	MUB	-4.76%	HYG	-4.76%
1.0	SPY	-4.76%	IRM	-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 2026-03-30 through 2026-03-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	OXY	-50.0%	OXY	-16.67%
10.0	MU	-8.33%	AA	0.0%
10.0	ON	0.0%	ORLY	0.0%
10.0	NWL	0.0%	ORCL	0.0%
10.0	NVS	0.0%	ON	0.0%
10.0	NVDA	0.0%	NWL	0.0%
10.0	NFLX	0.0%	NVS	0.0%
10.0	NEM	0.0%	NVDA	0.0%
10.0	NAVI	0.0%	NFLX	0.0%
10.0	MUB	0.0%	NEM	0.0%
10.0	MSTR	0.0%	NAVI	0.0%
10.0	MSI	0.0%	MUB	0.0%
10.0	MSFT	0.0%	MU	0.0%
10.0	MS	0.0%	MSTR	0.0%
10.0	MRK	0.0%	MSI	0.0%
10.0	ORCL	0.0%	MSFT	0.0%
10.0	MOS	0.0%	MS	0.0%
10.0	META	0.0%	MRK	0.0%
10.0	LW	0.0%	JPM	0.0%
10.0	LVS	0.0%	KALU	0.0%
10.0	LUMN	0.0%	KEY	0.0%
10.0	LQD	0.0%	KHC	0.0%
10.0	LNC	0.0%	LEN	0.0%
10.0	LLY	0.0%	LLY	0.0%
10.0	LEN	0.0%	PCG	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 2026-03-30 through 2026-01-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	RIO	-16.67%	SLV	-10.0%
1.0	BHP	-15.0%	BHP	-10.0%
1.0	NEM	-11.67%	RIO	-8.33%
1.0	XOM	-10.0%	CSTM	-8.33%
1.0	SLV	-8.33%	T	-6.67%
1.0	CSCO	-8.33%	OXY	-6.67%
1.0	EMB	-6.67%	HSBC	-6.67%
1.0	ORLY	-6.67%	CSCO	-6.67%
1.0	OXY	-6.67%	NEM	-5.0%
1.0	PHM	-6.67%	KALU	-5.0%
1.0	MOS	-6.67%	INTC	-5.0%
1.0	MS	-6.67%	GS	-5.0%
1.0	FSUGY	-5.0%	CZR	-5.0%
1.0	AAPL	-5.0%	CMA	-5.0%
1.0	COST	-5.0%	BIIB	-5.0%
1.0	HYG	-5.0%	IRM	-5.0%
1.0	CPRT	-5.0%	B	-5.0%
1.0	T	-5.0%	AMAT	-5.0%
1.0	BIIB	-5.0%	ORLY	-3.33%
1.0	HD	-5.0%	AMD	-3.33%
1.0	TFC	-5.0%	DHI	-3.33%
1.0	ELAN	-5.0%	GOOGL	-3.33%
1.0	B	-5.0%	TEVA	-3.33%
1.0	AZO	-5.0%	VZ	-3.33%
1.0	AZN	-5.0%	COST	-3.33%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	BHP	-23.53%	T	-19.61%
10.0	OXY	-19.61%	MSI	-17.65%
10.0	AZO	-11.76%	PEP	-15.69%
10.0	RIO	-9.8%	CSCO	-11.76%
10.0	ORLY	-9.8%	GWV	-11.76%
10.0	COST	-9.8%	GSK	-11.76%
10.0	PHM	-7.84%	BHP	-11.76%
10.0	MNST	-7.84%	OXY	-9.8%
10.0	AMD	-7.84%	POST	-9.8%
10.0	BIIB	-5.88%	IRM	-9.8%
10.0	CCL	-5.88%	RIO	-7.84%
10.0	INTU	-5.88%	AZO	-7.84%
10.0	TFC	-5.88%	INTU	-7.84%
10.0	NEM	-5.88%	GNRC	-7.84%
10.0	AMAT	-5.88%	COST	-7.84%
10.0	ACGL	-5.88%	SLV	-7.84%
10.0	CSCO	-5.88%	NVS	-5.88%
10.0	CAH	-3.92%	XOM	-5.88%
10.0	T	-3.92%	NEM	-5.88%
10.0	META	-3.92%	AZN	-3.92%
10.0	INTC	-3.92%	AMAT	-3.92%
10.0	IRM	-3.92%	CHTR	-3.92%
10.0	BAC	-3.92%	META	-1.96%
10.0	B	-3.92%	PWR	-1.96%
10.0	MOS	-1.96%	CMCSA	-1.96%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	BHP	-47.5%	PEP	-30.0%
21.0	OXY	-45.0%	MSI	-30.0%
21.0	IRM	-37.5%	GSK	-30.0%
21.0	CSTM	-22.5%	T	-30.0%
21.0	PEP	-17.5%	OXY	-27.5%
21.0	HCA	-17.5%	TRGP	-25.0%
21.0	T	-15.0%	BHP	-20.0%
21.0	RIO	-15.0%	PCG	-17.5%
21.0	INTU	-12.5%	RIO	-12.5%
21.0	AZO	-12.5%	CSCO	-10.0%
21.0	NFLX	-10.0%	CSTM	-7.5%
21.0	AZN	-10.0%	GWV	-7.5%
21.0	GWV	-10.0%	NVS	-7.5%
21.0	BIIB	-10.0%	NFLX	-5.0%
21.0	POST	-10.0%	POST	-5.0%
21.0	CSCO	-7.5%	GNRC	-5.0%
21.0	COST	-7.5%	CZR	-5.0%
21.0	TRGP	-5.0%	HON	-2.5%
21.0	INTC	-5.0%	GILD	-2.5%
21.0	GE	-5.0%	COST	-2.5%
21.0	NEM	-2.5%	NVDA	0.0%
21.0	MOS	-2.5%	KALU	0.0%
21.0	CZR	-2.5%	KEY	0.0%
21.0	HD	-2.5%	NEM	0.0%
21.0	CAH	-2.5%	KHC	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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
1.0	BHP	-7.2%	SLV	-5.22%
1.0	RIO	-6.8%	B	-4.8%
1.0	BIIB	-6.0%	BHP	-3.6%
1.0	MOS	-5.6%	CSTM	-3.6%
1.0	PHM	-5.2%	PHM	-3.6%
1.0	AZO	-5.2%	RIO	-3.2%
1.0	AZN	-4.8%	LUMN	-3.2%
1.0	XOM	-4.4%	BIIB	-3.2%
1.0	CAH	-4.4%	INTC	-3.2%
1.0	B	-4.4%	AMD	-3.2%
1.0	HSBC	-4.4%	HSBC	-3.2%
1.0	LVS	-4.0%	NEM	-3.2%
1.0	DHI	-4.0%	CSCO	-2.8%
1.0	AMAT	-4.0%	LVS	-2.8%
1.0	LUMN	-3.6%	PEP	-2.4%
1.0	BALL	-3.6%	OXY	-2.4%
1.0	MS	-3.6%	DHI	-2.4%
1.0	ACGL	-3.6%	AMAT	-2.4%
1.0	VICI	-3.2%	KALU	-2.4%
1.0	AMD	-3.2%	T	-2.4%
1.0	EMB	-3.2%	GS	-2.0%
1.0	COST	-3.2%	MRK	-2.0%
1.0	BYM	-3.2%	ORLY	-2.0%
1.0	FSUGY	-2.8%	MOS	-2.0%
1.0	OXY	-2.8%	LEN	-2.0%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
10.0	BHP	-12.03%	X	-18.18%
10.0	AMAT	-11.62%	ORCL	-7.88%
10.0	LVS	-8.71%	B	-7.88%
10.0	MOS	-7.47%	SLV	-6.67%
10.0	RIO	-7.05%	TEVA	-5.81%
10.0	BA	-7.05%	AMAT	-4.56%
10.0	PHM	-6.64%	LVS	-4.56%
10.0	MRK	-5.81%	AMD	-4.56%
10.0	CSCO	-5.39%	NFLX	-4.15%
10.0	AMD	-4.98%	CCL	-4.15%
10.0	COST	-4.56%	LUMN	-4.15%
10.0	B	-4.15%	T	-4.15%
10.0	PEP	-4.15%	PEP	-3.73%
10.0	OXY	-4.15%	MSI	-3.73%
10.0	CCL	-3.73%	CYH	-3.32%
10.0	AZO	-3.32%	BHP	-3.32%
10.0	LLY	-2.9%	MSFT	-2.9%
10.0	LUMN	-2.9%	HSBC	-2.9%
10.0	FSUGY	-2.49%	INTU	-2.9%
10.0	MUB	-2.49%	IRM	-2.9%
10.0	DHI	-2.49%	HLT	-2.9%
10.0	BMY	-2.49%	CSCO	-2.9%
10.0	CAH	-2.07%	WYNN	-2.9%
10.0	BHC	-2.07%	GSK	-2.49%
10.0	TFC	-2.07%	AZN	-2.49%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
21.0	CSTM	-14.78%	B	-12.17%
21.0	BHP	-14.35%	ORCL	-10.0%
21.0	LVS	-13.91%	TEVA	-9.57%
21.0	AMAT	-11.74%	AMD	-9.57%
21.0	AMD	-11.3%	WYNN	-6.52%
21.0	MOS	-10.0%	LVS	-6.09%
21.0	BA	-10.0%	AMAT	-6.09%
21.0	B	-9.57%	RIO	-6.09%
21.0	CCL	-9.13%	MOS	-5.22%
21.0	OXY	-8.26%	T	-5.22%
21.0	IRM	-8.26%	GSK	-5.22%
21.0	CSCO	-6.52%	MSI	-5.22%
21.0	PEP	-6.52%	PEP	-5.22%
21.0	X	-6.06%	NFLX	-4.78%
21.0	COST	-5.65%	MSFT	-4.78%
21.0	TEVA	-5.22%	LUMN	-4.78%
21.0	HLT	-4.78%	OXY	-4.78%
21.0	LEN	-4.35%	CAH	-4.78%
21.0	AZN	-4.35%	TRGP	-4.35%
21.0	ORCL	-4.35%	BA	-4.35%
21.0	RIO	-4.35%	HLT	-4.35%
21.0	HSBC	-4.35%	LLY	-3.91%
21.0	LLY	-4.35%	BHP	-3.91%
21.0	PHM	-3.91%	SLV	-3.49%
21.0	DHI	-3.91%	HSBC	-3.48%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
63.0	CAH	-37.77%	B	-39.89%
63.0	AMAT	-34.57%	CAH	-34.57%
63.0	AMD	-25.53%	TEVA	-23.4%
63.0	LVS	-22.34%	GOOGL	-21.28%
63.0	TRGP	-22.34%	RIO	-18.09%
63.0	RIO	-20.21%	XOM	-12.23%
63.0	CSTM	-19.68%	AMD	-11.7%
63.0	LLY	-19.68%	AMAT	-11.7%
63.0	GOOGL	-17.55%	CSTM	-11.7%
63.0	BHP	-14.36%	GNRC	-11.17%
63.0	BMY	-13.83%	MSFT	-10.11%
63.0	NVDA	-13.83%	BALL	-9.57%
63.0	DHI	-13.3%	BHP	-9.04%
63.0	NEM	-12.23%	NEM	-8.51%
63.0	MNST	-12.23%	DHI	-7.45%
63.0	HSBC	-11.7%	LUMN	-7.45%
63.0	LUMN	-11.7%	GLD	-7.45%
63.0	HLT	-11.17%	MU	-7.45%
63.0	GNRC	-11.17%	INTC	-6.91%
63.0	PHM	-11.17%	OXY	-6.38%
63.0	BIIB	-10.11%	WDC	-6.38%
63.0	B	-10.11%	MSI	-6.38%
63.0	TEVA	-9.57%	PWR	-5.85%
63.0	GW	-9.57%	LLY	-5.32%
63.0	GS	-9.57%	SLV	-4.81%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95OaRBreak_VmS	Ticker	99OaRBreak_VmS
126.0	CAH	-64.0%	B	-60.0%
126.0	AMAT	-61.6%	CAH	-48.0%
126.0	AZN	-46.4%	AA	-42.4%
126.0	LVS	-42.4%	NEM	-42.4%
126.0	BIIB	-35.2%	TEVA	-41.6%
126.0	RIO	-32.8%	AMAT	-33.6%
126.0	MRK	-29.6%	WDC	-29.6%
126.0	PWR	-28.8%	GOOGL	-27.2%
126.0	MNST	-28.0%	RIO	-27.2%
126.0	BHP	-25.6%	GLD	-27.2%
126.0	TEVA	-22.4%	SLV	-26.4%
126.0	TRGP	-21.6%	AMD	-24.8%
126.0	NVDA	-19.2%	INTC	-18.4%
126.0	AMD	-19.2%	JAZZ	-13.6%
126.0	MSFT	-16.8%	MU	-12.0%
126.0	QQQ	-16.8%	ELAN	-12.0%
126.0	HSEC	-16.0%	CSTM	-12.0%
126.0	SPY	-15.2%	GE	-8.8%
126.0	MS	-15.2%	MRK	-8.0%
126.0	LUMN	-13.6%	HSEC	-7.2%
126.0	LLY	-12.8%	XOM	-7.2%
126.0	GNRC	-12.8%	LVS	-6.4%
126.0	GSK	-12.0%	MNST	-5.6%
126.0	GS	-11.2%	PWR	-4.0%
126.0	XOM	-8.8%	QQQ	-4.0%



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

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	X	0.21%	X	0.29%
1.0	CCL	0.19%	NVDA	0.27%
1.0	TSLA	0.18%	GBTC	0.24%
1.0	GE	0.16%	GE	0.21%
1.0	AVGO	0.15%	LLY	0.19%
1.0	B	0.15%	PWR	0.19%
1.0	NVDA	0.15%	CAH	0.17%
1.0	GBTC	0.12%	AVGO	0.16%
1.0	AMD	0.12%	CCL	0.16%
1.0	JAZZ	0.1%	TSLA	0.14%
1.0	LLY	0.1%	JAZZ	0.14%
1.0	TDG	0.1%	B	0.13%
1.0	VST	0.1%	LVS	0.12%
1.0	LVS	0.09%	SLV	0.12%
1.0	AMAT	0.09%	TRGP	0.12%
1.0	CAH	0.08%	AMD	0.11%
1.0	DHI	0.08%	TDG	0.11%
1.0	AZO	0.07%	AMAT	0.11%
1.0	SBNY	0.07%	VST	0.11%
1.0	MU	0.07%	WYNN	0.1%
1.0	AMC	0.07%	HLT	0.1%
1.0	ON	0.07%	ORLY	0.1%
1.0	THC	0.06%	AZO	0.09%
1.0	MSFT	0.06%	CDNS	0.09%
1.0	FRCB	0.06%	CLF	0.09%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	NVDA	2.41%	NVDA	3.02%
10.0	TSLA	2.0%	LLY	1.92%
10.0	SBNY	1.86%	TSLA	1.82%
10.0	CCL	1.68%	CCL	1.79%
10.0	LLY	1.42%	GBTC	1.55%
10.0	AVGO	1.15%	AMAT	1.51%
10.0	AMAT	1.0%	PWR	1.26%
10.0	FRCB	0.93%	AVGO	1.12%
10.0	GBTC	0.85%	CSTM	1.08%
10.0	AMD	0.79%	AZO	1.01%
10.0	AZO	0.79%	GE	0.98%
10.0	BHC	0.77%	TEVA	0.97%
10.0	MSFT	0.72%	LUMN	0.88%
10.0	PWR	0.69%	T	0.86%
10.0	LVS	0.68%	PCG	0.82%
10.0	GE	0.59%	PHM	0.81%
10.0	T	0.57%	COST	0.8%
10.0	AMC	0.54%	ACGL	0.8%
10.0	PHM	0.52%	DHI	0.75%
10.0	HLT	0.51%	CAH	0.73%
10.0	ELAN	0.5%	GS	0.73%
10.0	QQQ	0.46%	THC	0.72%
10.0	CAH	0.46%	WYNN	0.71%
10.0	CDNS	0.46%	MU	0.64%
10.0	DHI	0.44%	JPM	0.61%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	SBNY	5.03%	NVDA	5.75%
21.0	TSLA	4.97%	TSLA	4.67%
21.0	NVDA	4.8%	GBTC	4.15%
21.0	CCL	3.56%	ETRN	4.03%
21.0	AMAT	3.05%	CCL	4.0%
21.0	GBTC	2.39%	AMAT	3.31%
21.0	LLY	2.27%	AMD	3.15%
21.0	FRCB	2.24%	LUMN	2.86%
21.0	PCG	1.96%	SBNY	2.85%
21.0	AMD	1.93%	LLY	2.56%
21.0	AZO	1.93%	PCG	2.36%
21.0	AMC	1.93%	VST	2.34%
21.0	PWR	1.7%	AA	2.26%
21.0	ELAN	1.6%	GE	2.21%
21.0	PHM	1.57%	PWR	2.13%
21.0	DHI	1.45%	AZO	2.09%
21.0	CAH	1.24%	CDNS	2.0%
21.0	QQQ	1.23%	ELAN	1.9%
21.0	CDNS	1.22%	CSTM	1.83%
21.0	LVS	1.15%	PHM	1.82%
21.0	GE	1.15%	CAH	1.8%
21.0	MSFT	1.15%	DHI	1.78%
21.0	CSTM	1.04%	LVS	1.67%
21.0	WYNN	0.99%	TEVA	1.64%
21.0	JPM	0.91%	FRCB	1.54%



All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	NVDA	14.78%	GBTC	20.83%
63.0	SBNY	13.02%	NVDA	18.83%
63.0	CCL	12.87%	CCL	12.49%
63.0	AMAT	10.25%	LUMN	11.95%
63.0	GBTC	8.32%	LLY	11.62%
63.0	AMC	7.99%	PWR	11.41%
63.0	MSTR	7.69%	AMD	11.24%
63.0	LLY	7.2%	AMAT	9.64%
63.0	PWR	6.33%	GE	9.52%
63.0	TSLA	6.29%	PHM	9.46%
63.0	AMD	6.13%	B	9.41%
63.0	FRCB	5.84%	ETRN	8.48%
63.0	ELAN	5.38%	MSTR	7.23%
63.0	PHM	5.38%	VST	6.84%
63.0	PCG	5.14%	CAH	6.59%
63.0	DHI	4.78%	TEVA	6.44%
63.0	MU	4.69%	MS	6.33%
63.0	VNO	4.67%	ELAN	6.12%
63.0	QQQ	4.63%	JPM	5.8%
63.0	CAH	4.59%	TSLA	5.6%
63.0	MSFT	4.03%	PCG	5.36%
63.0	AZO	3.96%	MU	5.09%
63.0	LVS	3.89%	X	5.07%
63.0	AMZN	3.75%	T	4.97%
63.0	B	3.4%	LVS	4.69%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	NVDA	39.54%	GBTC	51.32%
126.0	AMAT	23.99%	NVDA	45.36%
126.0	GBTC	23.49%	AMD	27.29%
126.0	MU	20.13%	CCL	25.82%
126.0	CCL	19.61%	LLY	24.96%
126.0	AMD	19.27%	PHM	24.76%
126.0	SBNY	19.0%	GE	24.36%
126.0	PHM	17.71%	LUMN	23.53%
126.0	VNO	14.23%	PWR	22.8%
126.0	PWR	14.23%	MU	21.8%
126.0	AMZN	14.1%	AMAT	21.36%
126.0	DHI	14.09%	THC	19.62%
126.0	QQQ	13.59%	WDC	19.52%
126.0	GE	12.75%	B	18.89%
126.0	TSLA	12.12%	JPM	17.32%
126.0	MS	11.63%	MS	16.93%
126.0	THC	11.58%	ORCL	16.91%
126.0	AMC	11.46%	TSLA	15.34%
126.0	ORCL	11.27%	CAH	14.47%
126.0	PCG	11.12%	AMZN	13.34%
126.0	NFLX	10.75%	VST	13.34%
126.0	LLY	10.44%	DHI	13.27%
126.0	ELAN	10.0%	X	13.25%
126.0	MSFT	9.97%	VNO	12.91%
126.0	JPM	8.8%	NFLX	12.84%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
252.0	NVDA	115.5%	GBTC	124.57%
252.0	GBTC	97.49%	NVDA	84.22%
252.0	MU	61.14%	GE	83.03%
252.0	NFLX	55.06%	CCL	73.08%
252.0	PHM	51.51%	PHM	67.57%
252.0	GE	50.73%	MU	58.51%
252.0	CCL	50.5%	THC	57.33%
252.0	AMD	43.97%	AMAT	44.21%
252.0	LLY	43.85%	TRGP	42.98%
252.0	PWR	41.88%	X	41.64%
252.0	AMZN	40.3%	NFLX	40.48%
252.0	QQQ	39.88%	MS	40.36%
252.0	AMAT	39.65%	QQQ	35.76%
252.0	VNO	39.09%	ELAN	31.73%
252.0	ELAN	37.85%	T	31.65%
252.0	CDNS	35.62%	AMD	31.52%
252.0	MS	35.6%	PWR	30.69%
252.0	MSFT	33.79%	ORCL	29.72%
252.0	THC	33.72%	VNO	28.58%
252.0	DHI	33.12%	META	27.9%
252.0	JPM	31.68%	GS	27.8%
252.0	COST	31.02%	MSFT	27.35%
252.0	ACGL	28.74%	JPM	26.92%
252.0	ISRG	27.27%	CAH	26.58%
252.0	INTU	26.99%	LLY	26.38%



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 2026-03-30 through 2026-03-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	CLF	0.57%	OXY	1.36%
1.0	OXY	0.57%	AA	1.03%
1.0	GE	0.46%	CSTM	0.5%
1.0	XOM	0.36%	BBY	0.39%
1.0	CYH	0.34%	AZN	0.32%
1.0	AMAT	0.31%	AMAT	0.31%
1.0	GNRC	0.31%	XOM	0.31%
1.0	AA	0.29%	GNRC	0.29%
1.0	VST	0.29%	T	0.27%
1.0	HON	0.28%	MOS	0.27%
1.0	MOS	0.28%	LUMN	0.24%
1.0	BAC	0.27%	UNH	0.24%
1.0	BXP	0.26%	LNC	0.24%
1.0	PWR	0.25%	AMD	0.23%
1.0	UNH	0.23%	BXP	0.22%
1.0	GWW	0.17%	CYH	0.21%
1.0	FCX	0.17%	GE	0.21%
1.0	META	0.15%	BAC	0.19%
1.0	GLD	0.14%	TRGP	0.19%
1.0	AZN	0.13%	HON	0.18%
1.0	NVS	0.13%	CLF	0.16%
1.0	TXN	0.12%	INTU	0.12%
1.0	WYNN	0.11%	TXN	0.12%
1.0	AMD	0.11%	GBTC	0.12%
1.0	JAZZ	0.1%	JAZZ	0.1%



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 2026-03-30 through 2026-03-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	THC	8.57%	OXY	10.59%
10.0	CLF	6.13%	THC	7.17%
10.0	CYH	5.95%	CNC	3.84%
10.0	OXY	4.95%	GNRC	3.52%
10.0	CNC	4.85%	CYH	2.98%
10.0	SLV	3.99%	GE	2.94%
10.0	AMC	3.71%	AMAT	2.76%
10.0	GNRC	3.62%	WDC	2.7%
10.0	GE	3.37%	HON	2.17%
10.0	UNH	2.91%	AMD	2.16%
10.0	HON	2.68%	VFC	2.07%
10.0	GLD	2.38%	UNH	2.06%
10.0	MU	2.34%	NFLX	1.99%
10.0	NFLX	2.2%	UAA	1.75%
10.0	KALU	2.08%	GME	1.67%
10.0	UAA	1.98%	XOM	1.43%
10.0	LW	1.77%	T	1.38%
10.0	AMGN	1.73%	ZION	1.28%
10.0	SBUX	1.71%	LNC	1.24%
10.0	LEN	1.65%	QCOM	1.21%
10.0	CSTM	1.51%	ABBV	1.13%
10.0	QCOM	1.44%	CSCO	1.09%
10.0	GME	1.36%	LW	1.09%
10.0	TMUS	1.32%	SBUX	1.06%
10.0	AMD	1.24%	BBY	1.04%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	OXY	0.84%	OXY	1.11%
1.0	SLV	0.59%	CSTM	1.07%
1.0	AMAT	0.45%	SLV	1.07%
1.0	VST	0.42%	AMAT	0.93%
1.0	BHP	0.34%	AA	0.67%
1.0	COST	0.32%	INTC	0.59%
1.0	MOS	0.31%	BHP	0.57%
1.0	CLF	0.28%	T	0.47%
1.0	CAH	0.27%	VZ	0.42%
1.0	HON	0.25%	COST	0.37%
1.0	INTC	0.25%	HON	0.29%
1.0	MU	0.24%	RIO	0.29%
1.0	ACGL	0.21%	MOS	0.28%
1.0	VZ	0.2%	XOM	0.28%
1.0	PEP	0.17%	AZN	0.27%
1.0	BMJ	0.16%	PEP	0.25%
1.0	INTU	0.16%	VST	0.24%
1.0	T	0.16%	IRM	0.23%
1.0	XOM	0.16%	AZO	0.23%
1.0	AMC	0.15%	AMGN	0.22%
1.0	BBY	0.15%	JAZZ	0.21%
1.0	AA	0.15%	GWW	0.21%
1.0	ORLY	0.14%	CLF	0.2%
1.0	AZO	0.13%	HSBC	0.2%
1.0	LW	0.12%	CAH	0.2%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	SLV	5.37%	OXY	6.65%
10.0	INTU	3.81%	SLV	6.09%
10.0	CLF	3.66%	GNRC	5.58%
10.0	OXY	3.06%	CSTM	4.99%
10.0	BHP	2.58%	BHP	4.02%
10.0	T	2.58%	T	3.25%
10.0	CNC	2.21%	MSI	3.0%
10.0	INTC	1.94%	PEP	2.76%
10.0	IRM	1.65%	COST	2.74%
10.0	LW	1.52%	TRGP	2.43%
10.0	AZO	1.51%	PWR	2.36%
10.0	COST	1.45%	AMAT	2.33%
10.0	CYH	1.43%	AZO	1.89%
10.0	QCOM	1.41%	INTC	1.81%
10.0	AMAT	1.31%	GSK	1.73%
10.0	AMZN	1.23%	HCA	1.69%
10.0	BXP	1.08%	POST	1.63%
10.0	KALU	1.06%	ACGL	1.54%
10.0	POST	1.06%	CNC	1.47%
10.0	GE	0.94%	LW	1.47%
10.0	PEP	0.93%	IRM	1.38%
10.0	NEM	0.88%	TXN	1.37%
10.0	CSCO	0.8%	CYH	1.18%
10.0	WFC	0.77%	INTU	1.1%
10.0	ACGL	0.72%	QCOM	1.04%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	CLF	10.78%	PCG	16.07%
21.0	OXY	7.35%	GSK	12.66%
21.0	BHP	6.97%	CSTM	11.38%
21.0	CSTM	6.32%	OXY	11.26%
21.0	T	4.23%	CHTR	10.93%
21.0	PEP	3.5%	T	7.0%
21.0	CNC	3.38%	BHP	6.82%
21.0	INTU	3.33%	PEP	6.51%
21.0	IRM	3.17%	MSI	5.15%
21.0	BIIB	2.93%	TXN	4.56%
21.0	AMZN	2.88%	IRM	4.25%
21.0	POST	2.74%	GNRC	4.2%
21.0	QCOM	2.59%	AZO	3.79%
21.0	FIS	2.48%	HCA	3.62%
21.0	PRGO	2.44%	INTU	3.4%
21.0	COST	2.43%	CZR	3.26%
21.0	BXP	2.4%	POST	3.08%
21.0	INTC	2.3%	NFLX	3.01%
21.0	CAH	2.17%	CAH	2.82%
21.0	GWV	2.16%	XOM	2.76%
21.0	ACGL	2.07%	RIO	2.68%
21.0	SLV	1.99%	COST	2.67%
21.0	TRGP	1.93%	TRGP	2.59%
21.0	CSCO	1.82%	CSCO	2.35%
21.0	TXN	1.81%	QCOM	2.32%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	LUMN	0.74%	LUMN	0.68%
1.0	AMD	0.37%	SLV	0.55%
1.0	AMAT	0.34%	X	0.53%
1.0	LVS	0.27%	AMAT	0.52%
1.0	CLF	0.26%	CSTM	0.49%
1.0	B	0.26%	AMD	0.48%
1.0	VST	0.21%	CLF	0.48%
1.0	CAH	0.21%	NVDA	0.39%
1.0	BHP	0.19%	CYH	0.37%
1.0	NVDA	0.19%	LVS	0.35%
1.0	FSUGY	0.19%	CAH	0.33%
1.0	AVGO	0.18%	B	0.31%
1.0	SLV	0.18%	BHP	0.31%
1.0	CSTM	0.17%	INTC	0.3%
1.0	RIO	0.14%	RIO	0.27%
1.0	GE	0.14%	GE	0.24%
1.0	BIIB	0.14%	PWR	0.23%
1.0	ACGL	0.13%	FSUGY	0.23%
1.0	LW	0.13%	CCL	0.22%
1.0	CCL	0.12%	MRK	0.21%
1.0	TEVA	0.11%	BIIB	0.21%
1.0	CYH	0.11%	NEM	0.2%
1.0	BMY	0.1%	LW	0.2%
1.0	JAZZ	0.1%	ELAN	0.19%
1.0	PWR	0.1%	VFC	0.18%



P365D: 10d

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

Period examined: All model dates from 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	LUMN	6.99%	LUMN	8.44%
10.0	AMAT	3.59%	X	7.14%
10.0	NVDA	3.15%	AMAT	5.11%
10.0	CYH	2.08%	CSTM	4.42%
10.0	NWL	2.07%	NVDA	3.81%
10.0	LVS	1.98%	SLV	3.22%
10.0	AMD	1.91%	BHP	3.17%
10.0	SLV	1.9%	BIIB	2.8%
10.0	BHP	1.68%	MOS	2.42%
10.0	MOS	1.39%	LVS	2.36%
10.0	PHM	1.23%	TEVA	2.16%
10.0	BIIB	1.21%	GNRC	2.01%
10.0	CLF	1.18%	CLF	2.01%
10.0	CAH	1.15%	CYH	1.9%
10.0	X	1.12%	PWR	1.69%
10.0	FSUGY	1.03%	CAH	1.63%
10.0	CSTM	1.01%	AMD	1.57%
10.0	MRK	0.75%	LNC	1.51%
10.0	BMY	0.73%	LW	1.47%
10.0	RIO	0.72%	GS	1.35%
10.0	INTU	0.67%	WYNN	1.34%
10.0	LW	0.66%	GE	1.16%
10.0	TEVA	0.63%	RIO	1.07%
10.0	LLY	0.55%	FSUGY	1.06%
10.0	HSBC	0.55%	B	1.05%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	AMAT	10.53%	LUMN	18.17%
21.0	LUMN	8.47%	AMAT	9.2%
21.0	NVDA	6.59%	AMD	8.7%
21.0	AMD	6.58%	LVS	8.37%
21.0	BIIB	4.84%	CSTM	7.46%
21.0	LVS	4.71%	TEVA	6.87%
21.0	CSTM	4.53%	NVDA	6.48%
21.0	NWL	4.35%	BIIB	5.92%
21.0	MOS	4.3%	BHP	5.8%
21.0	BHP	4.22%	X	5.6%
21.0	PHM	3.65%	MOS	5.33%
21.0	CAH	3.54%	CAH	4.52%
21.0	SLV	2.62%	CLF	4.41%
21.0	TEVA	2.31%	CYH	4.14%
21.0	CYH	2.13%	GE	4.11%
21.0	LNC	2.07%	SLV	4.1%
21.0	BA	2.03%	LNC	3.77%
21.0	AMC	1.81%	B	3.31%
21.0	TFC	1.77%	GNRC	3.11%
21.0	B	1.74%	ON	3.08%
21.0	CLF	1.71%	ZION	3.02%
21.0	QQQ	1.54%	GSK	2.78%
21.0	GNRC	1.53%	NWL	2.62%
21.0	RIO	1.46%	OXY	2.55%
21.0	HLT	1.39%	GOOGL	2.51%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	AMAT	36.84%	LUMN	61.76%
63.0	LUMN	35.05%	AMD	38.43%
63.0	BIIB	17.39%	B	34.79%
63.0	CAH	17.26%	AMAT	31.55%
63.0	BHP	16.99%	TEVA	28.66%
63.0	AMD	15.29%	BHP	23.31%
63.0	B	13.88%	LLY	20.81%
63.0	CSTM	12.86%	WDC	18.89%
63.0	AMC	12.72%	FSUGY	17.55%
63.0	NVDA	12.31%	CSTM	17.17%
63.0	LLY	11.75%	CAH	17.16%
63.0	PHM	10.45%	LVS	15.87%
63.0	TEVA	10.42%	INTC	15.84%
63.0	LVS	9.85%	RIO	15.29%
63.0	TRGP	8.73%	NEM	13.73%
63.0	FSUGY	8.52%	BIIB	13.6%
63.0	RIO	8.37%	LNC	13.53%
63.0	MU	7.96%	OXY	13.39%
63.0	LNC	7.62%	NVDA	13.37%
63.0	SLV	7.18%	MU	12.02%
63.0	GNRC	6.46%	ELAN	10.95%
63.0	GOOGL	5.45%	MS	10.82%
63.0	CHTR	5.22%	PHM	9.88%
63.0	VST	4.27%	GE	9.28%
63.0	BA	4.22%	SLV	9.08%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	AMAT	89.7%	WDC	158.26%
126.0	LUMN	60.04%	LUMN	120.36%
126.0	AMD	48.36%	B	112.57%
126.0	B	47.84%	AMD	96.0%
126.0	MU	44.08%	AMAT	80.62%
126.0	BIIB	40.03%	TEVA	70.65%
126.0	BHP	38.75%	INTC	66.67%
126.0	LLY	35.76%	NEM	54.16%
126.0	CAH	29.16%	MU	52.3%
126.0	SLV	29.08%	LLY	50.61%
126.0	TEVA	27.26%	BHP	48.86%
126.0	NVDA	25.52%	CAH	48.18%
126.0	LVS	22.79%	FSUGY	41.48%
126.0	FSUGY	21.74%	PWR	39.73%
126.0	AMC	19.61%	CSTM	35.47%
126.0	RIO	16.81%	BIIB	34.52%
126.0	AZN	15.62%	SLV	32.85%
126.0	TRGP	14.84%	LVS	31.31%
126.0	MS	14.79%	CLF	26.96%
126.0	DHI	14.53%	NVDA	26.77%
126.0	GOOGL	13.48%	AA	25.38%
126.0	PHM	12.96%	LNC	23.94%
126.0	CHTR	11.83%	MS	23.55%
126.0	CSTM	11.2%	JPM	22.94%
126.0	LNC	10.83%	ELAN	22.52%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	IEP	-0.27%	NWL	-0.3%
1.0	MSTR	-0.24%	IEP	-0.29%
1.0	UAA	-0.17%	SIVBQ	-0.14%
1.0	CZR	-0.17%	GT	-0.12%
1.0	NWL	-0.13%	UAA	-0.12%
1.0	GT	-0.12%	CZR	-0.12%
1.0	GNRC	-0.09%	FIS	-0.09%
1.0	LNC	-0.09%	GNRC	-0.09%
1.0	NFLX	-0.07%	INTU	-0.08%
1.0	BIIB	-0.07%	BXP	-0.07%
1.0	BXP	-0.07%	META	-0.07%
1.0	META	-0.06%	MSTR	-0.07%
1.0	ORCL	-0.06%	NAVI	-0.06%
1.0	BA	-0.05%	BIIB	-0.06%
1.0	AAPL	-0.05%	CHTR	-0.06%
1.0	BALL	-0.05%	CTLT	-0.06%
1.0	TEVA	-0.04%	ZTS	-0.05%
1.0	TLT	-0.04%	PRGO	-0.05%
1.0	SBUX	-0.04%	BALL	-0.05%
1.0	GME	-0.04%	ADBE	-0.04%
1.0	HD	-0.03%	KHC	-0.04%
1.0	CHTR	-0.03%	BA	-0.03%
1.0	NAVI	-0.03%	TEVA	-0.03%
1.0	PRGO	-0.03%	TLT	-0.03%
1.0	INTU	-0.03%	AAPL	-0.03%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	CZR	-1.47%	IEP	-1.9%
10.0	IEP	-1.37%	NWL	-1.84%
10.0	MSTR	-1.27%	SIVBQ	-1.44%
10.0	ORCL	-0.69%	CZR	-1.28%
10.0	META	-0.63%	GT	-0.89%
10.0	GNRC	-0.57%	GME	-0.85%
10.0	SIVBQ	-0.56%	CYH	-0.82%
10.0	NFLX	-0.54%	AMC	-0.75%
10.0	GOOGL	-0.54%	VNO	-0.72%
10.0	NWL	-0.51%	ORCL	-0.69%
10.0	WDC	-0.46%	INTU	-0.66%
10.0	INTU	-0.42%	ETRN	-0.55%
10.0	MS	-0.38%	META	-0.55%
10.0	AA	-0.38%	CLF	-0.55%
10.0	BALL	-0.35%	CNC	-0.51%
10.0	UAA	-0.3%	VZ	-0.5%
10.0	AAPL	-0.3%	BXP	-0.43%
10.0	GME	-0.29%	NFLX	-0.42%
10.0	HCA	-0.27%	HD	-0.41%
10.0	BIIB	-0.23%	ON	-0.39%
10.0	CMA	-0.23%	BAC	-0.34%
10.0	ADBE	-0.22%	RIO	-0.31%
10.0	ISRG	-0.21%	UAA	-0.3%
10.0	KALU	-0.21%	KALU	-0.29%
10.0	BXP	-0.21%	OXY	-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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	CZR	-3.63%	IEP	-3.26%
21.0	IEP	-3.29%	GME	-2.6%
21.0	MSTR	-2.17%	NWL	-2.59%
21.0	GME	-1.7%	CZR	-2.22%
21.0	LUMN	-1.29%	SIVBQ	-2.05%
21.0	GNRC	-1.27%	GNRC	-1.45%
21.0	INTU	-1.25%	INTU	-1.31%
21.0	META	-1.19%	GT	-1.3%
21.0	WDC	-1.12%	ADBE	-1.29%
21.0	ORCL	-1.01%	CLF	-0.96%
21.0	CLF	-0.9%	BBY	-0.96%
21.0	NWL	-0.87%	BALL	-0.91%
21.0	ADBE	-0.77%	NFLX	-0.85%
21.0	KALU	-0.76%	META	-0.79%
21.0	VZ	-0.75%	KEY	-0.79%
21.0	BALL	-0.62%	VFC	-0.77%
21.0	SIVBQ	-0.6%	VZ	-0.73%
21.0	AAPL	-0.58%	HD	-0.68%
21.0	FSUGY	-0.55%	BXP	-0.67%
21.0	BAC	-0.54%	FITB	-0.64%
21.0	KHC	-0.49%	KALU	-0.63%
21.0	ISRG	-0.48%	ISRG	-0.6%
21.0	CMA	-0.47%	BAC	-0.55%
21.0	NFLX	-0.45%	AAP	-0.51%
21.0	OXY	-0.44%	UAA	-0.49%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	IEP	-10.43%	SIVBQ	-17.54%
63.0	GNRC	-6.72%	IEP	-12.0%
63.0	NWL	-5.36%	NWL	-8.5%
63.0	META	-4.67%	GNRC	-8.07%
63.0	VFC	-3.43%	CLF	-6.05%
63.0	CZR	-3.27%	BHC	-4.97%
63.0	GME	-3.09%	CYH	-4.64%
63.0	SIVBQ	-2.85%	GME	-4.43%
63.0	BALL	-2.28%	VFC	-4.23%
63.0	WDC	-1.93%	UAA	-4.09%
63.0	UAA	-1.9%	PRGO	-3.59%
63.0	ADBE	-1.88%	CVS	-2.78%
63.0	CYH	-1.77%	AA	-2.47%
63.0	VZ	-1.63%	BALL	-2.37%
63.0	AA	-1.61%	CZR	-2.37%
63.0	ON	-1.43%	BBY	-2.36%
63.0	CLF	-1.34%	KEY	-2.07%
63.0	KALU	-1.29%	AAP	-1.77%
63.0	INTU	-1.26%	FIS	-1.73%
63.0	OXY	-1.22%	VZ	-1.72%
63.0	BBY	-1.2%	KHC	-1.66%
63.0	PRGO	-1.14%	GT	-1.6%
63.0	AVGO	-0.97%	FRA	-1.38%
63.0	ETRN	-0.97%	ADBE	-1.13%
63.0	CVS	-0.96%	CTLT	-1.06%



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 2026-03-30

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	IEP	-21.88%	FRCB	-74.45%
126.0	NWL	-20.43%	NWL	-25.16%
126.0	SIVBQ	-14.35%	SIVBQ	-23.49%
126.0	VFC	-12.08%	IEP	-22.82%
126.0	GNRC	-11.91%	VFC	-15.0%
126.0	FRCB	-7.86%	GNRC	-11.28%
126.0	WDC	-4.33%	PRGO	-10.38%
126.0	PRGO	-4.24%	AMC	-9.38%
126.0	BALL	-4.24%	CLF	-9.01%
126.0	CLF	-3.77%	UAA	-8.49%
126.0	CVS	-3.68%	BHC	-7.73%
126.0	GME	-3.45%	GME	-7.24%
126.0	VZ	-3.45%	CTLT	-6.01%
126.0	GT	-3.32%	BALL	-5.93%
126.0	ADBE	-3.06%	SBNY	-5.31%
126.0	CYH	-3.03%	CNC	-5.24%
126.0	FIS	-3.0%	GT	-5.0%
126.0	ON	-2.98%	CZR	-4.55%
126.0	BBY	-2.94%	FIS	-3.93%
126.0	IRM	-2.84%	MOS	-3.8%
126.0	CMA	-2.38%	AAP	-3.53%
126.0	CZR	-2.22%	CHTR	-3.48%
126.0	UAA	-2.18%	UNH	-3.31%
126.0	KHC	-1.88%	BBY	-3.15%
126.0	KEY	-1.77%	KEY	-3.15%



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 2026-03-30

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	NWL	-46.06%	SIVBQ	-55.92%
252.0	IEP	-45.32%	IEP	-51.87%
252.0	GNRC	-19.69%	NWL	-48.92%
252.0	CLF	-16.96%	CLF	-24.52%
252.0	CZR	-13.4%	VFC	-19.64%
252.0	SBNY	-13.3%	CZR	-18.82%
252.0	UNH	-13.22%	AAP	-18.38%
252.0	CVS	-12.33%	PRGO	-17.1%
252.0	GT	-11.33%	GT	-15.85%
252.0	VFC	-11.22%	UAA	-15.42%
252.0	FIS	-10.92%	GNRC	-15.28%
252.0	UAA	-10.48%	BHC	-15.16%
252.0	AAP	-9.83%	MOS	-14.62%
252.0	AA	-9.62%	AMC	-13.95%
252.0	BHC	-8.73%	CTLT	-13.37%
252.0	BALL	-8.35%	UNH	-10.56%
252.0	MOS	-7.2%	OXY	-10.12%
252.0	KEY	-6.78%	CNC	-8.6%
252.0	IRM	-6.45%	KHC	-8.32%
252.0	CYH	-6.24%	KEY	-7.32%
252.0	PRGO	-6.16%	FSUGY	-6.86%
252.0	GME	-5.56%	LNC	-6.37%
252.0	ON	-4.8%	FIS	-6.31%



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 2026-03-30 through 2026-03-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	GT	-1.37%	NWL	-2.28%
1.0	PRGO	-1.11%	MU	-2.15%
1.0	PHM	-1.06%	GT	-1.98%
1.0	TDG	-1.04%	B	-1.63%
1.0	BHC	-0.79%	SLV	-1.42%
1.0	NWL	-0.73%	TDG	-1.24%
1.0	CAH	-0.71%	PRGO	-1.14%
1.0	ZTS	-0.69%	VICI	-1.11%
1.0	UAA	-0.62%	BHP	-1.07%
1.0	PCG	-0.61%	PHM	-0.98%
1.0	BHP	-0.6%	DHI	-0.86%
1.0	WDC	-0.6%	AZO	-0.83%
1.0	B	-0.57%	PCG	-0.77%
1.0	BA	-0.54%	WDC	-0.74%
1.0	MU	-0.52%	CAH	-0.73%
1.0	NAVI	-0.48%	ZTS	-0.73%
1.0	SPY	-0.47%	CHTR	-0.7%
1.0	QQQ	-0.47%	ON	-0.7%
1.0	LLY	-0.46%	BA	-0.66%
1.0	AAP	-0.42%	CPRT	-0.64%
1.0	MSFT	-0.4%	META	-0.61%
1.0	ELAN	-0.4%	LLY	-0.59%
1.0	CMG	-0.4%	UAA	-0.58%
1.0	DHI	-0.38%	HSBC	-0.53%
1.0	NEM	-0.38%	SPY	-0.5%



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 2026-03-30 through 2026-03-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	GT	-14.27%	NWL	-30.9%
10.0	PHM	-8.87%	GT	-20.67%
10.0	AVGO	-8.19%	LLY	-15.29%
10.0	TDG	-7.09%	B	-15.07%
10.0	NVDA	-5.22%	PHM	-12.09%
10.0	MOS	-5.05%	VICI	-8.58%
10.0	VICI	-4.92%	AZO	-8.44%
10.0	AZO	-4.73%	AVGO	-8.28%
10.0	META	-4.64%	ADBE	-7.91%
10.0	CAH	-4.58%	AMC	-7.44%
10.0	PCG	-4.54%	NVDA	-6.89%
10.0	QQQ	-4.5%	BUD	-6.84%
10.0	BA	-4.2%	CPRT	-6.41%
10.0	NWL	-4.19%	TDG	-6.03%
10.0	CPRT	-4.15%	PCG	-5.62%
10.0	LLY	-4.08%	CAH	-5.61%
10.0	KHC	-4.01%	VNO	-5.6%
10.0	EMB	-3.77%	GOOGL	-5.42%
10.0	SPY	-3.73%	SPY	-5.38%
10.0	WDC	-3.28%	BA	-5.22%
10.0	BHC	-3.18%	MOS	-5.15%
10.0	PRGO	-3.12%	BHC	-5.15%
10.0	HCA	-3.06%	KHC	-4.96%
10.0	CMG	-2.91%	PRGO	-4.88%
10.0	B	-2.66%	NVS	-4.73%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	WDC	-0.73%	GT	-0.88%
1.0	GT	-0.72%	WDC	-0.88%
1.0	VNO	-0.69%	NAVI	-0.74%
1.0	BHC	-0.63%	VNO	-0.66%
1.0	UAA	-0.6%	BHC	-0.65%
1.0	ADBE	-0.5%	NWL	-0.64%
1.0	NAVI	-0.43%	UAA	-0.59%
1.0	GBTC	-0.4%	MSFT	-0.53%
1.0	JPM	-0.38%	TDG	-0.51%
1.0	PRGO	-0.38%	AMC	-0.5%
1.0	LVS	-0.36%	CVS	-0.47%
1.0	CCL	-0.35%	CSCO	-0.45%
1.0	TDG	-0.35%	ADBE	-0.43%
1.0	LNC	-0.32%	MU	-0.43%
1.0	LUMN	-0.29%	ORCL	-0.43%
1.0	MSFT	-0.29%	PRGO	-0.42%
1.0	ORCL	-0.28%	FIS	-0.4%
1.0	BA	-0.26%	LNC	-0.38%
1.0	NVDA	-0.26%	ON	-0.33%
1.0	IEP	-0.26%	AVGO	-0.32%
1.0	ON	-0.24%	BA	-0.32%
1.0	MSTR	-0.23%	LVS	-0.31%
1.0	GME	-0.23%	JPM	-0.3%
1.0	AVGO	-0.23%	CDNS	-0.3%
1.0	CHTR	-0.2%	LEN	-0.26%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	GT	-6.58%	GT	-10.27%
10.0	WDC	-3.89%	AMC	-9.94%
10.0	AMC	-3.26%	NWL	-8.99%
10.0	VNO	-3.11%	BHC	-6.97%
10.0	AVGO	-2.99%	VNO	-6.92%
10.0	UAA	-2.9%	ADBE	-6.45%
10.0	BHC	-2.77%	LLY	-6.16%
10.0	ADBE	-2.39%	GBTC	-5.91%
10.0	MU	-2.24%	B	-5.09%
10.0	CPRT	-2.12%	BUD	-4.49%
10.0	NFLX	-2.1%	PHM	-3.72%
10.0	LUMN	-2.0%	UAA	-3.46%
10.0	BUD	-1.97%	AVGO	-3.28%
10.0	NVDA	-1.9%	AMD	-3.2%
10.0	GBTC	-1.81%	LUMN	-3.18%
10.0	PCG	-1.8%	MS	-3.0%
10.0	PHM	-1.76%	WDC	-2.9%
10.0	TDG	-1.74%	CPRT	-2.6%
10.0	FITB	-1.57%	EXPE	-2.45%
10.0	BALL	-1.55%	GOOGL	-2.42%
10.0	QQQ	-1.42%	CVS	-2.3%
10.0	NAVI	-1.4%	DHI	-2.22%
10.0	LLY	-1.4%	NAVI	-2.22%
10.0	CCL	-1.29%	MSFT	-2.16%
10.0	CZR	-1.26%	CDNS	-2.06%



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 2026-03-30 through 2026-01-02

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	VNO	-9.75%	GT	-17.22%
21.0	CPRT	-8.38%	AMC	-16.39%
21.0	UAA	-7.93%	LUMN	-13.44%
21.0	GBTC	-6.81%	ADBE	-12.76%
21.0	ADBE	-6.75%	VNO	-11.74%
21.0	BHC	-6.2%	GBTC	-11.47%
21.0	GT	-6.17%	AMD	-10.89%
21.0	WDC	-6.02%	BUD	-10.34%
21.0	B	-5.48%	BHC	-9.55%
21.0	MU	-5.47%	FSUGY	-8.56%
21.0	AMD	-5.28%	CPRT	-8.13%
21.0	BUD	-4.39%	B	-7.62%
21.0	LUMN	-4.37%	NWL	-7.54%
21.0	PCG	-3.46%	LLY	-7.48%
21.0	EXPE	-3.33%	ORCL	-7.16%
21.0	BALL	-3.23%	UAA	-6.94%
21.0	AVGO	-2.93%	WDC	-6.21%
21.0	QQQ	-2.65%	EXPE	-5.87%
21.0	FITB	-2.58%	NAVI	-5.58%
21.0	USB	-2.51%	MS	-5.54%
21.0	MSFT	-2.42%	CDNS	-5.0%
21.0	VZ	-2.41%	USB	-4.95%
21.0	NFLX	-2.22%	GS	-4.66%
21.0	GOOGL	-2.21%	UNH	-4.56%
21.0	NWL	-2.2%	MU	-4.47%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
1.0	MSTR	-0.35%	PRGO	-0.32%
1.0	UAA	-0.27%	VNO	-0.24%
1.0	GT	-0.24%	UAA	-0.24%
1.0	LNC	-0.21%	CPRT	-0.23%
1.0	VNO	-0.2%	IEP	-0.23%
1.0	UNH	-0.17%	FIS	-0.21%
1.0	IEP	-0.17%	CNC	-0.19%
1.0	WDC	-0.16%	AMZN	-0.18%
1.0	CNC	-0.16%	MSTR	-0.17%
1.0	PRGO	-0.14%	NAVI	-0.16%
1.0	PCG	-0.13%	CHTR	-0.15%
1.0	CMCSA	-0.13%	CMCSA	-0.15%
1.0	CZR	-0.13%	AMC	-0.15%
1.0	ORCL	-0.12%	UNH	-0.14%
1.0	ON	-0.12%	GT	-0.14%
1.0	CPRT	-0.11%	PCG	-0.14%
1.0	FIS	-0.1%	VICI	-0.13%
1.0	ADBE	-0.09%	NWL	-0.11%
1.0	GBTC	-0.09%	CMG	-0.11%
1.0	JPM	-0.09%	MSI	-0.09%
1.0	GME	-0.09%	ADBE	-0.09%
1.0	MSI	-0.08%	ORCL	-0.09%
1.0	CMG	-0.08%	MSFT	-0.09%
1.0	GILD	-0.08%	CSCO	-0.08%
1.0	AMZN	-0.07%	KHC	-0.08%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
10.0	WDC	-3.33%	AMC	-2.76%
10.0	MSTR	-1.43%	GT	-2.66%
10.0	ORCL	-1.2%	CNC	-2.09%
10.0	ON	-1.15%	VNO	-2.07%
10.0	EXPE	-1.14%	PRGO	-1.74%
10.0	KALU	-1.08%	WDC	-1.73%
10.0	FCX	-0.88%	EXPE	-1.15%
10.0	GOOGL	-0.85%	KALU	-1.08%
10.0	VNO	-0.85%	CVS	-1.07%
10.0	VFC	-0.81%	CPRT	-1.06%
10.0	TSLA	-0.8%	KHC	-0.97%
10.0	CPRT	-0.72%	ORCL	-0.89%
10.0	CMA	-0.66%	CMG	-0.81%
10.0	CZR	-0.66%	GBTC	-0.78%
10.0	UAA	-0.6%	TSLA	-0.74%
10.0	HCA	-0.55%	NFLX	-0.72%
10.0	KHC	-0.52%	UAA	-0.71%
10.0	GILD	-0.52%	IEP	-0.63%
10.0	GT	-0.5%	ADBE	-0.63%
10.0	AMZN	-0.46%	GME	-0.6%
10.0	VICI	-0.44%	NWL	-0.59%
10.0	ORLY	-0.43%	VST	-0.58%
10.0	ISRG	-0.41%	CZR	-0.55%
10.0	AAPL	-0.4%	ORLY	-0.55%
10.0	FITB	-0.39%	BUD	-0.53%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
21.0	WDC	-5.92%	MSTR	-5.97%
21.0	MSTR	-3.99%	WDC	-2.63%
21.0	KALU	-2.65%	AMC	-2.38%
21.0	EXPE	-2.54%	VNO	-2.31%
21.0	CPRT	-2.43%	GT	-2.26%
21.0	AVGO	-2.21%	CPRT	-2.19%
21.0	VNO	-2.18%	ADBE	-2.18%
21.0	ORCL	-2.09%	ORCL	-2.04%
21.0	VFC	-1.97%	PRGO	-1.95%
21.0	CMA	-1.78%	EXPE	-1.84%
21.0	CZR	-1.47%	CNC	-1.65%
21.0	ISRG	-1.38%	CVS	-1.61%
21.0	UAA	-1.35%	KALU	-1.59%
21.0	TSLA	-1.31%	GBTC	-1.58%
21.0	FCX	-1.15%	CMG	-1.57%
21.0	BUD	-1.12%	UAA	-1.56%
21.0	AAPL	-0.82%	GME	-1.54%
21.0	IEP	-0.79%	NFLX	-1.49%
21.0	ADBE	-0.78%	VFC	-1.16%
21.0	VICI	-0.76%	IEP	-1.14%
21.0	KHC	-0.76%	TMUS	-1.09%
21.0	TXN	-0.7%	KHC	-0.96%
21.0	GBTC	-0.64%	T	-0.88%
21.0	GILD	-0.64%	BUD	-0.86%
21.0	NVS	-0.63%	ISRG	-0.85%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
63.0	MSTR	-24.34%	MSTR	-28.73%
63.0	ORCL	-10.34%	NFLX	-14.83%
63.0	NFLX	-9.86%	PRGO	-9.73%
63.0	WDC	-8.65%	VNO	-7.23%
63.0	AVGO	-8.28%	AVGO	-6.58%
63.0	KALU	-8.08%	ORCL	-6.28%
63.0	VFC	-6.51%	VFC	-5.79%
63.0	CPRT	-6.0%	ADBE	-4.97%
63.0	EXPE	-5.26%	CPRT	-4.73%
63.0	CMA	-3.86%	NWL	-4.61%
63.0	NVS	-3.34%	FIS	-4.36%
63.0	BUD	-3.19%	GT	-3.77%
63.0	PRGO	-3.07%	KHC	-3.1%
63.0	VNO	-2.97%	WYNN	-2.45%
63.0	GILD	-2.69%	VICI	-2.39%
63.0	TSLA	-2.35%	EXPE	-2.32%
63.0	TXN	-2.18%	T	-2.18%
63.0	ADBE	-2.16%	TSLA	-2.07%
63.0	ORLY	-2.14%	CZR	-2.0%
63.0	CZR	-1.96%	GILD	-1.94%
63.0	ISRG	-1.91%	TMUS	-1.88%
63.0	AA	-1.9%	KALU	-1.87%
63.0	VICI	-1.88%	CDNS	-1.72%
63.0	CMG	-1.79%	NVS	-1.51%
63.0	INTC	-1.79%	GBTC	-1.37%



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 2026-03-30 through 2025-04-01

Hzn	Ticker	95ROLOBC_VmS	Ticker	99ROLOBC_VmS
126.0	MSTR	-39.26%	AMC	-65.09%
126.0	AVGO	-18.69%	PRGO	-42.07%
126.0	GT	-17.88%	NWL	-39.45%
126.0	WDC	-15.54%	MOS	-27.72%
126.0	CMG	-15.3%	GT	-26.29%
126.0	NFLX	-14.8%	INTU	-21.88%
126.0	MOS	-14.69%	NFLX	-19.69%
126.0	PRGO	-13.63%	CMG	-17.48%
126.0	CPRT	-13.08%	MSTR	-16.05%
126.0	VFC	-12.58%	FIS	-15.9%
126.0	FIS	-10.18%	AVGO	-15.7%
126.0	INTU	-9.57%	CPRT	-9.69%
126.0	NWL	-8.87%	VNO	-9.2%
126.0	CMA	-6.98%	CNC	-9.09%
126.0	CZR	-6.67%	CZR	-8.91%
126.0	EXPE	-6.65%	ZTS	-7.23%
126.0	VNO	-6.54%	VICI	-6.53%
126.0	NVS	-5.61%	T	-6.42%
126.0	VICI	-4.8%	AZO	-6.14%
126.0	GILD	-4.32%	TMUS	-6.04%
126.0	ADBE	-4.03%	COST	-5.63%
126.0	T	-3.65%	GME	-5.02%
126.0	IEP	-3.64%	ADBE	-4.92%
126.0	TMUS	-3.29%	MSFT	-4.75%
126.0	BUD	-3.23%	NVS	-4.66%



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 probability of the Kupiec statistic occurring is obtained from the chi-squared distribution. The lower the statistic, the higher the p-Value, and the more likely that Sigma's OaR breakage 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 statistic, 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 2026-03-30. 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	265.56	0	9	0
Sigma	95	10	0.61	0.44	2.32	0.13
Sigma	95	21	21.1	0	0.09	0.77
Sigma	95	63	23.7	0	0.25	0.61
Sigma	95	126	5.86	0.02	0.54	0.46
Sigma	95	252	36.82	0	nan	0
Sigma	99	1	293.71	0	19.01	0
Sigma	99	10	60.04	0	0.9	0.34
Sigma	99	21	52.18	0	1.99	0.16
Sigma	99	63	46.69	0	nan	0
Sigma	99	126	28.65	0	0.17	0.68
Sigma	99	252	51.06	0	nan	0

