VecViz Value At Risk (VaR) Performance Report

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2 August 2025

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Introduction

Value at Risk, or VaR, as discussed in this report, is an estimate of the maximum amount an investor could lose by being long a ticker at the end of a specified forward time horizon, at a specified level of probability. An accurate VaR measure forecasts losses that are exceeded by actual losses 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 VaR 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 VaR Estimates

The metrics used in this report to evaluate VaR performance via comparison to Sigma include the mean absolute error (MAE) of breakage rates to the specified probability, Return on VaR Based Capital (ROVBC), and the alpha of Vector Model ROVBC 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 VaR "Report Card" section of this report.

We supplement this comparative analysis with two additional tests of Vector Model VaR that are well established in the quantitative finance literature: the Kupiec Test of breakage consistency with the specified probability and the Christoferson test of breakage independence. Results of these tests are also summarized in the Report Card section.

VaR Breakage Ratios

VaR Breakage refers to forward returns being below the VaR 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 VaR would generate 50 breaks. Therefore, we compare Vector Model VaR 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 VaR breakage proximity to target.

However, an ideal VaR estimate wouldn't have all those breaks concentrated in just a couple days or just a few tickers. The breaks generated by an ideal VaR estimate would also be independent with respect to model dates and tickers. Therefore, we also compare the Vector Model's VaR 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 VaR 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.

ROVBC and its drivers

The metric "ROVBC" requires some explanation. Return on VaR Based Capital, or ROVBC, attempts to capture the impact on investor returns of using the Vector Model VaR instead of Sigma VaR to size positions, assuming the investor has a fixed risk budget per ticker.

ROVBC 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 Sigma VaR / Vector VaR, subject to a cap and floor (we use 300% and 33.33%). So, for example, if Sigma said VaR for ticker XYZ was -2.00% and the Vector Model said VaR for XYZ was -4.00%, the Vector Model ROVBC for XYZ would be half of Sigma's. Likewise, if the Vector Model said VaR for XYZ was -1.00% the Vector Model's ROVBC for XYZ would be double Sigma's. No cost of borrowing or crediting for uninvested funds is incorporated in ROVBC.

For the Vector Model ROVBC to be higher than Sigma's it signifies that either (1) Vector Model VaR was more deeply negative than Sigma's VaR and the ticker traded lower, or (2) Sigma VaR was more deeply negative than the Vector Model's VaR and the ticker traded higher.

Addressing The Tradeoff Between VaR Breakage and ROVBC

All else equal, assuming a positive drift higher in average asset prices over time, the model with more deeply negative average VaR levels will have lower breakage rates but also lower ROVBC, and vice versa. Thus, relative ROVBC 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 ROVBC to Sigma ROVBC "Adj. for Avg. VM-Sigma VaR Diff." (adjusted for average Vector Model - Sigma VaR differentials). Specifically, we multiply average aggregate Sigma ROVBC by the ratio of average aggregate Sigma VaR to average aggregate Vector Model VaR. This multiplication almost entirely eliminates the influence of systematic VaR differentials on the relationship between Vector Model and Sigma ROVBC.

The bias that remains reflects only the aforementioned capping and flooring when calculating Vector Model ROVBC.

We also provide a more elegant, though less transparent metric that addresses this concern - the alpha of Vector Model ROVBC to Sigma ROVBC (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 ROVBC on the underlying ticker forward returns for corresponding TMD’s. It represents the expected Vector Model ROVBC when Sigma ROVBC, i.e., the underlying ticker return, is 0.00%.

Determining the drivers of ROVBC alpha

A ROVBC Alpha greater than 0.00 across TMD’s indicates that Vector Model VaR moved favorably from a market timing and / or ticker selection perspective. We present that statistic alongside an average ROVBC 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.

ROVBC Beta

ROVBC Beta represents the expected sensitivity of Vector Model ROVBC to Sigma ROVBC, i.e., the underlying ticker return. It is the slope of the aforementioned ordinary least squares regression of Vector Model ROVBC on Sigma ROVBC. Like outright ROVBC, 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 ROVBC beta to Sigma ROVBC in the context of how well each model’s VaR breakage rates compare to targeted levels. For example, if the Sigma model VaR breakage is well below target and the Vector Model’s VaR breakage is close to target, then Vector Model VaR levels are likely less deeply negative than Sigma’s and the beta of Vector Model ROVBC to Sigma ROVBC should be expected to be > 1.00.

A ROVBC Beta greater than 1.00 across TMD’s indicates that Vector Model VaR was less negative than Sigma VaR 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 VaR was less deeply negative than Sigma VaR on more volatile days. If this second beta is less than the overall beta then it indicates that Vector Model VaR tended to be less deeply negative than Sigma VaR 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 VaR analytics are daily closing prices obtained from QuoteMedia.

The Vector Model was trained upon ~ 60,000 ticker model dates (TMD's) representing ~550 tickers (including equities, currencies, and commodities) and ~ 120 model dates spanning from March 9, 2002 to February 3, 2021. The Out of Sample period starts on 1/31/2022, nearly a full one year from the last model date included in the training data. All VaR 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 VaR 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% VaR is assumed to be -1.645 sigma's lower than the current price and 99% VaR 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 VaR.

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

Using this report

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

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

1) Past performance is no guarantee of future results. None of the content in this report is investment advice or an offer to buy or sell securities. VecViz is not a SEC investment advisor or broker-dealer. The staff of VecViz actively transacts in securities tied to many of the tickers discussed in this report.
   See VecViz's Terms and Conditions for more context and detail at https://vecviz.com/terms-and-conditions/

2) Read ""Let me warn you..." of the limitations of VecViz's Analytics.", a blog entry on vecviz.com (https://vecviz.com/let-me-warn-you-of-the-limitations-of-vecvizs-analytics/)

3) There are many volatility models that the Vector Model could be compared to beyond Sigma. Thus, even if this report causes you to conclude that the Vector Model's VaR outperforms Sigma VaR, you should not necessarily conclude that Vector Model VaR 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 ROVBC 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 VaR of -15% may have declined 99% the day after the VaR 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 ROVBC 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 VaR breakage and ROVBC returns are calculated similarly.

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

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

8) Note that VaR 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.

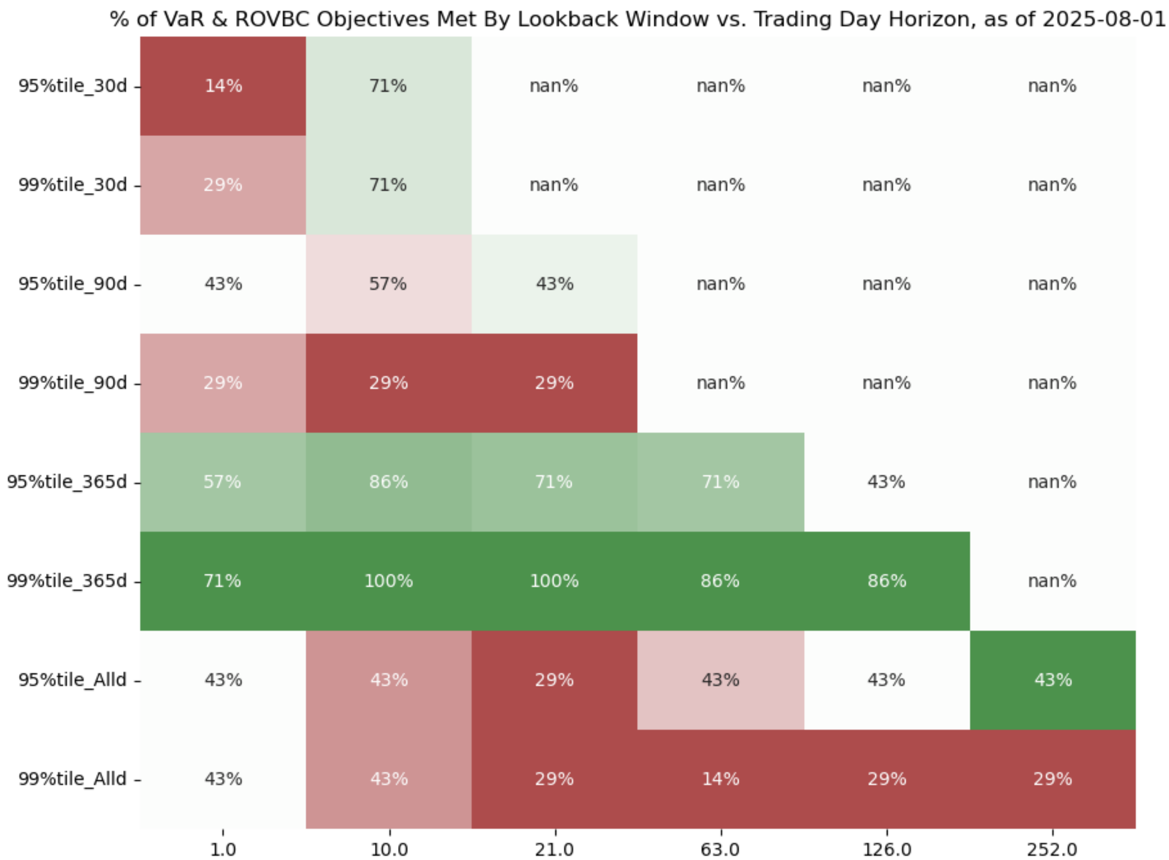
9) All analytics presented in this report assumes that prices are floored at $0.01/share.

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 VaR breakage rates closer to target than Sigma's? Does Vector Model ROVBC outperform Sigma ROVBC? 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 questions this report is structured to answer.

Value at Risk (VaR) Report Cards

Period examined: AllD = 2022-01-31 through 2025-07-31 while 365D /90D/ 30D include the 365/90/30 days ended 2025-07-31, respectively.

Sigma Comparison Report Card:



Vector Model Statistical Testing Report Card:

The Kupiec Proportion of Failures test statistic (listed as VaR_kStat in the table below), and its probability (VaR_pValK) are used to test the null hypothesis that the Vector Model's VaR breakage rate is consistent with expectations. The test statistic is calculated by comparing the number of VaR 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 VaR breakage rate is consistent with expectations.

The Christoferson VaR Violation Independence test statistic (listed as VaR_chrStat in the table below) and its probability (VaR_pValChr) are used to test the null hypothesis that the VaR 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 the Vector Model's VaR breakage is independent.

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

Period examined: 2022-01-31 through 2025-07-31. Note that for horizon periods greater than 1d we exclude enough model dates to assure no overlap between observation periods.

Model	Pctile	Horizon	VaR_kStat	VaR_pValK	VaR_chrStat	VaR_pValChr
Vector	95	1	0.02	0.9	8.89	0
Vector	95	10	20.9	0	0	0.94
Vector	95	21	2.12	0.15	0	0.95
Vector	95	63	1.88	0.17	0.39	0.53
Vector	95	126	0.54	0.46	0.6	0.44
Vector	95	252	0.05	0.83	nan	0
Vector	99	1	89.79	0	28.35	0
Vector	99	10	18.14	0	0.03	0.86
Vector	99	21	6.94	0.01	1.63	0.2
Vector	99	63	2.53	0.11	-0	1
Vector	99	126	0.71	0.4	nan	0
Vector	99	252	7.06	0.01	nan	0

Combined Summary Report Card By Objective:

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

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

Period examined: 2022-01-31 through 2025-07-31.

VaR and ROVBC Criteria	Average Score(%)
1. Closer to Target VaR Breakage Than Sigma (i.e., smaller MAE)	62.5
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	43.75
3. Less Volatile VaR Breakage Across Tickers Than Sigma	15.62
4. Higher ROVBC Than Sigma	65.62
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	90.62
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	34.38
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	40.62
Overall Comparison to Sigma Average	50.45
Kupiec Test of VaR Proximity to Target	58.3333
Christoferson Test of VaR Date Independence	58.3333

VaR and ROVBC Criteria by Fwd Hzn	1D	10D	21D	63D	126D	252D
1. Closer to Target VaR Breakage Than Sigma	62.5	75	50	50	75	50
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	75	50	50	25	0	0
3. Less Volatile VaR Breakage Across Tickers Than Sigma	0	25	16.67	25	25	0
4. Higher ROVBC Than Sigma	37.5	75	66.67	75	75	100
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	75	100	100	100	75	100
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	12.5	50	33.33	50	50	0
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	25	62.5	33.33	50	50	0
TotalScore	41.07	62.5	50	53.57	50	35.71

VaR and ROVBC Criteria Across Lookback Window	30D	90D	365D	AllD
1. Closer to Target VaR Breakage Than Sigma	50	83.33	70	50
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	25	16.67	70	41.67
3. Less Volatile VaR Breakage Across Tickers Than Sigma	25	0	40	0
4. Higher ROVBC Than Sigma	75	50	80	58.33
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	50	100	90	100
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	50	0	90	0
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	50	16.67	100	0
TotalScore	46.43	38.1	77.14	35.71

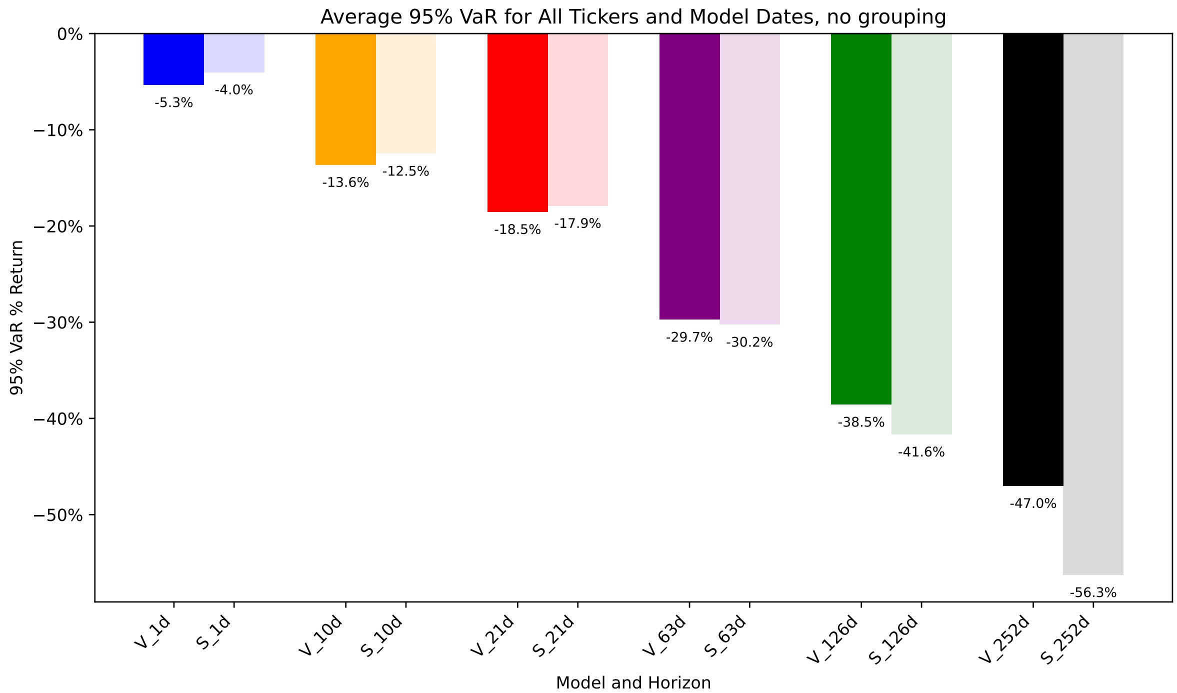
95% Value at Risk (VaR)

Historic Average Levels

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

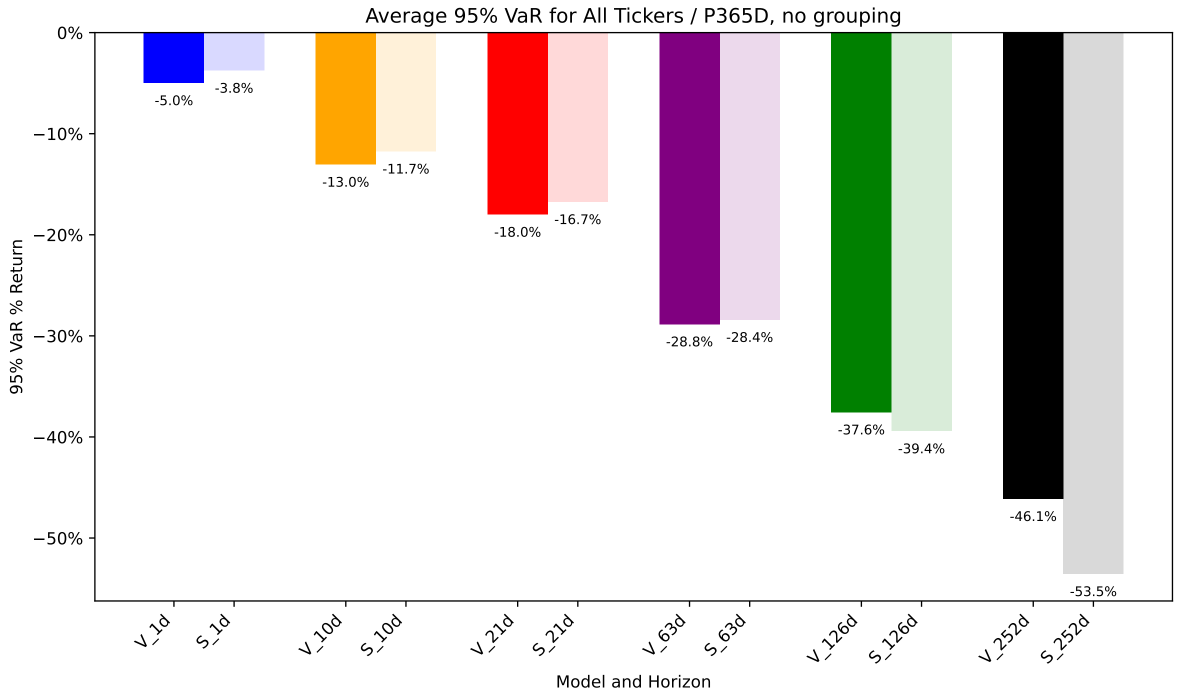
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-07-31



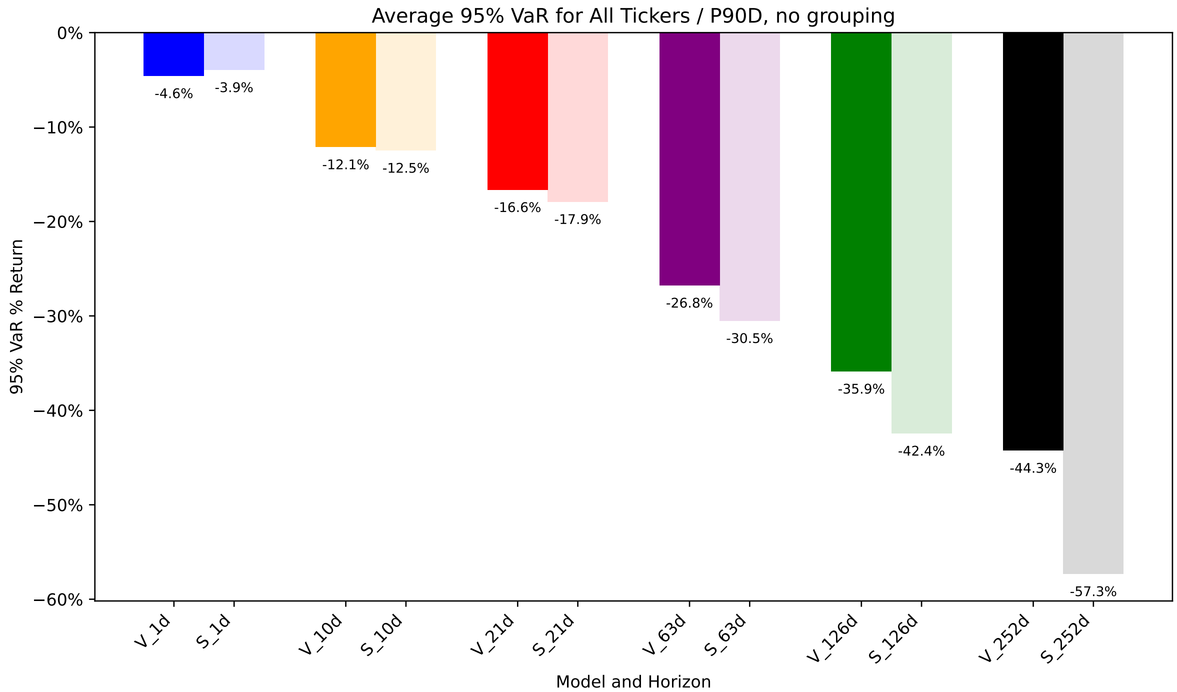
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-07-31 through 2024-08-02



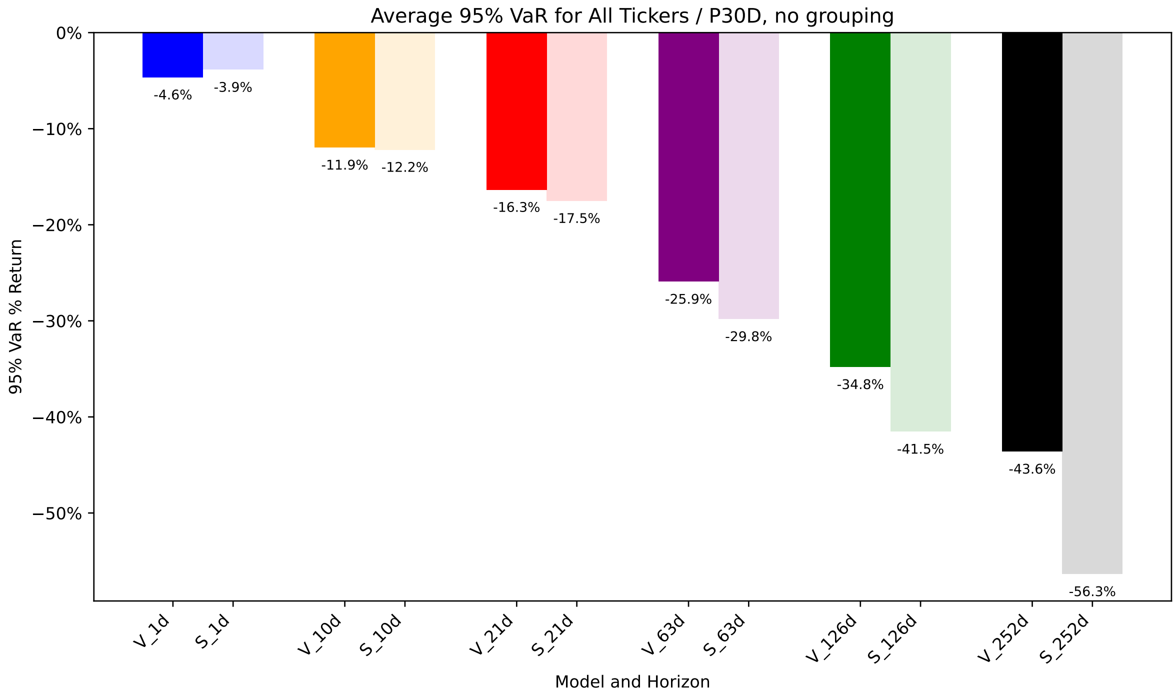
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-07-31 through 2025-05-05



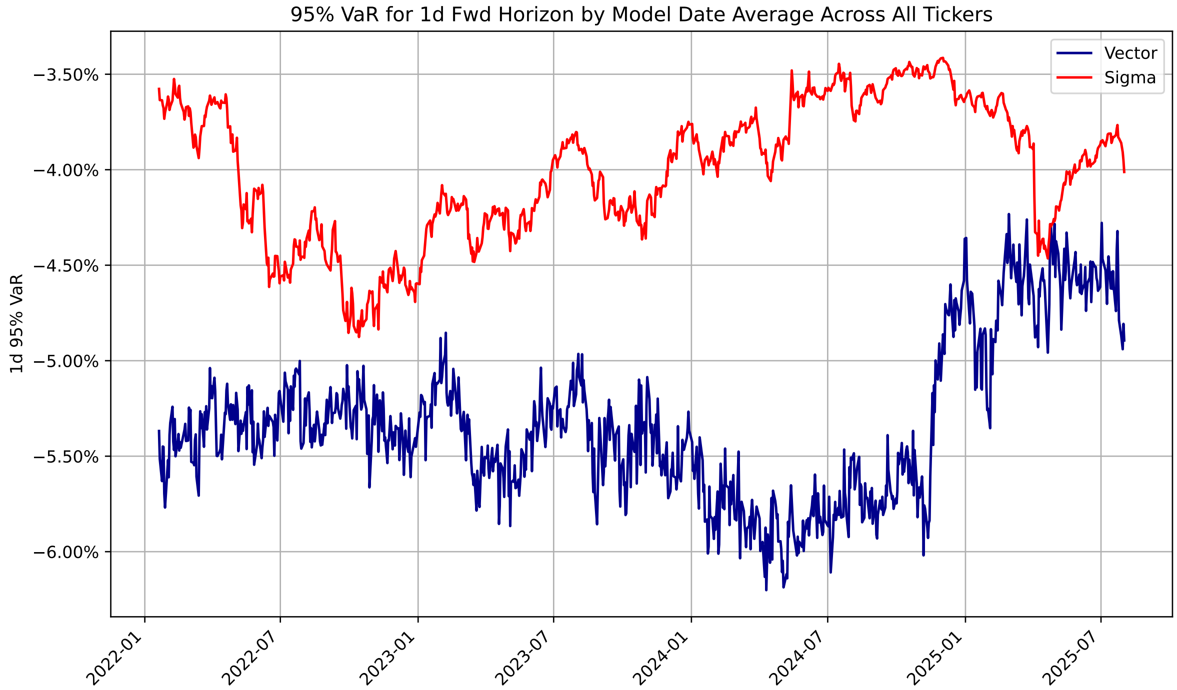
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-07-31 through 2025-07-03

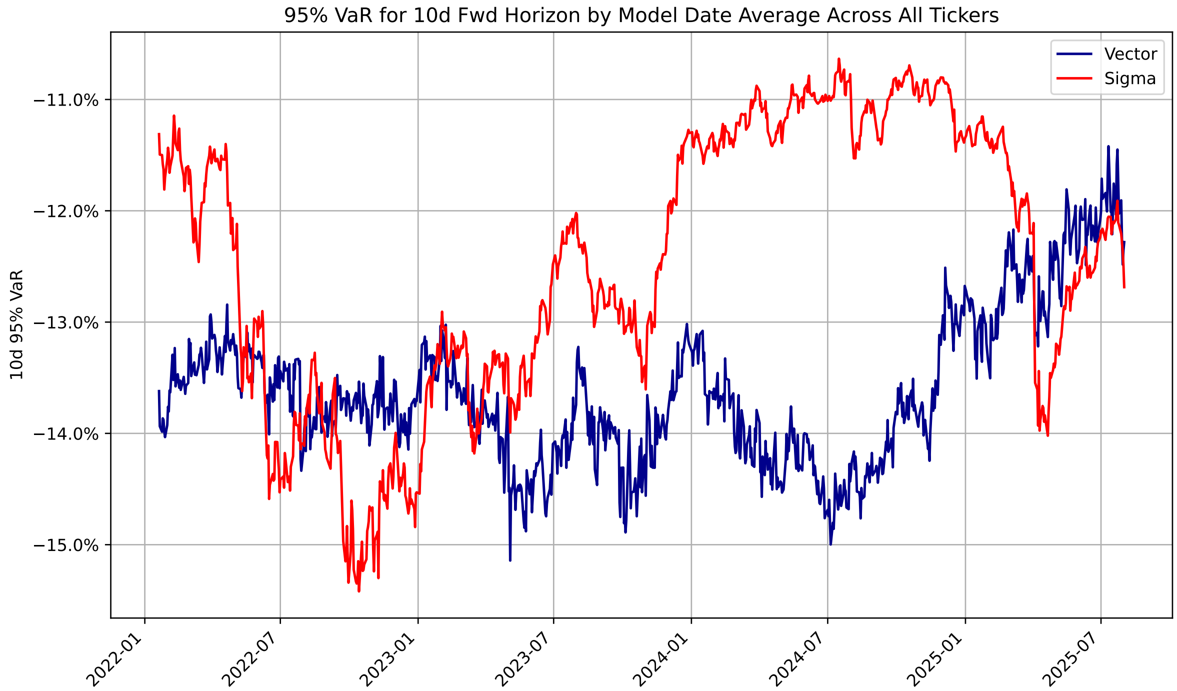


Daily Levels

1d Horizon

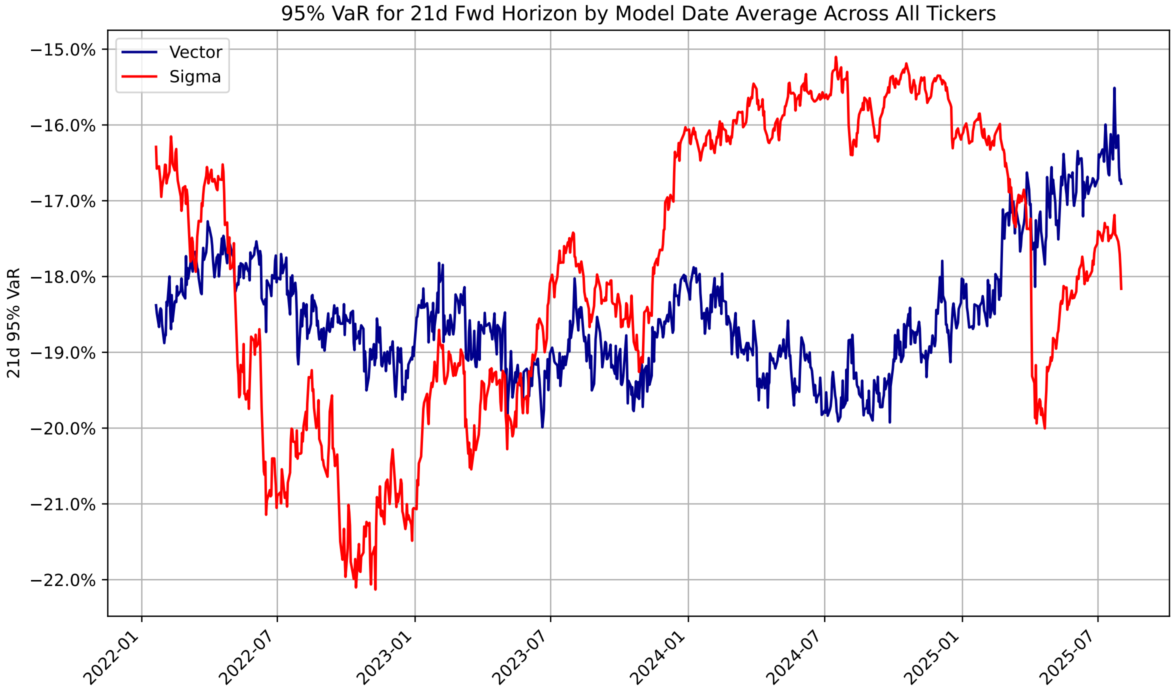


10d Horizon

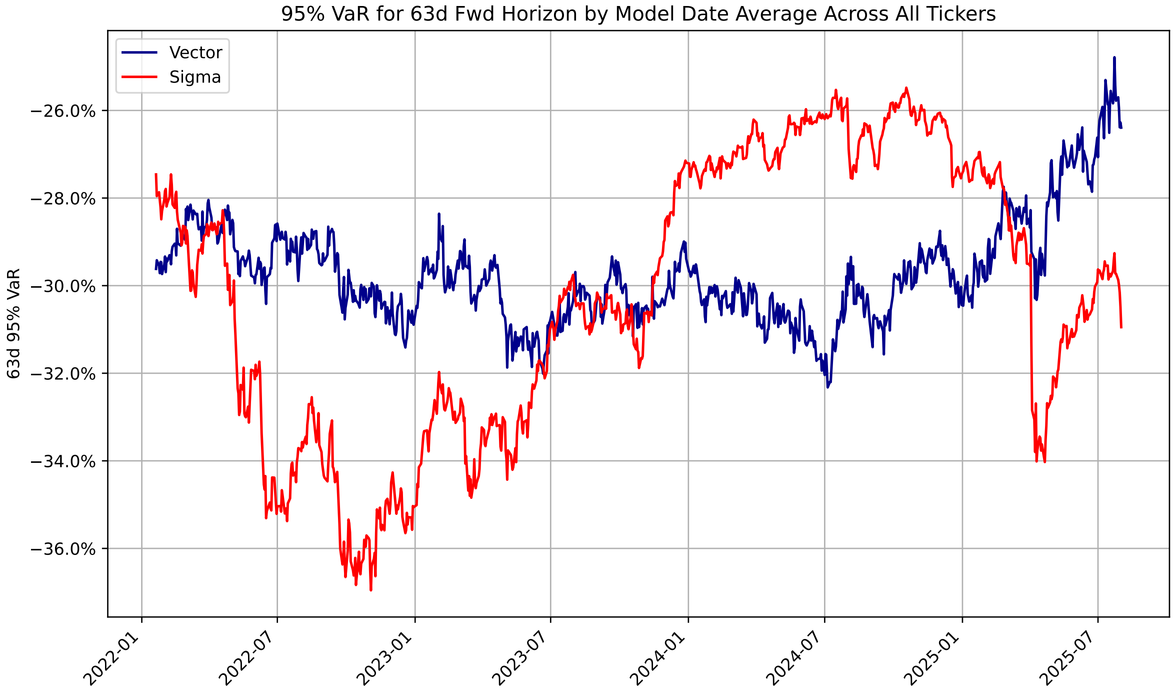


95% VaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 95% VaR
−11.0%
−12.0%
−13.0%
−14.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

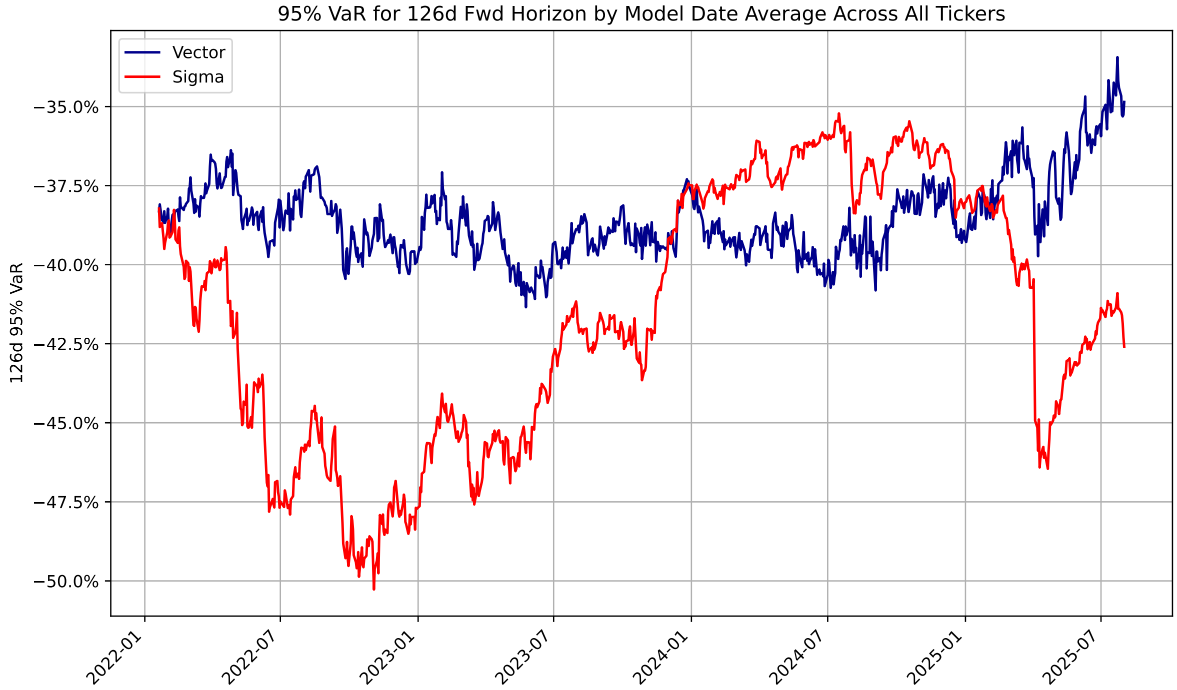

95% VaR for 21d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
21d 95% VaR
−15.0%
−16.0%
−17.0%
−18.0%
−19.0%
−20.0%
−21.0%
−22.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

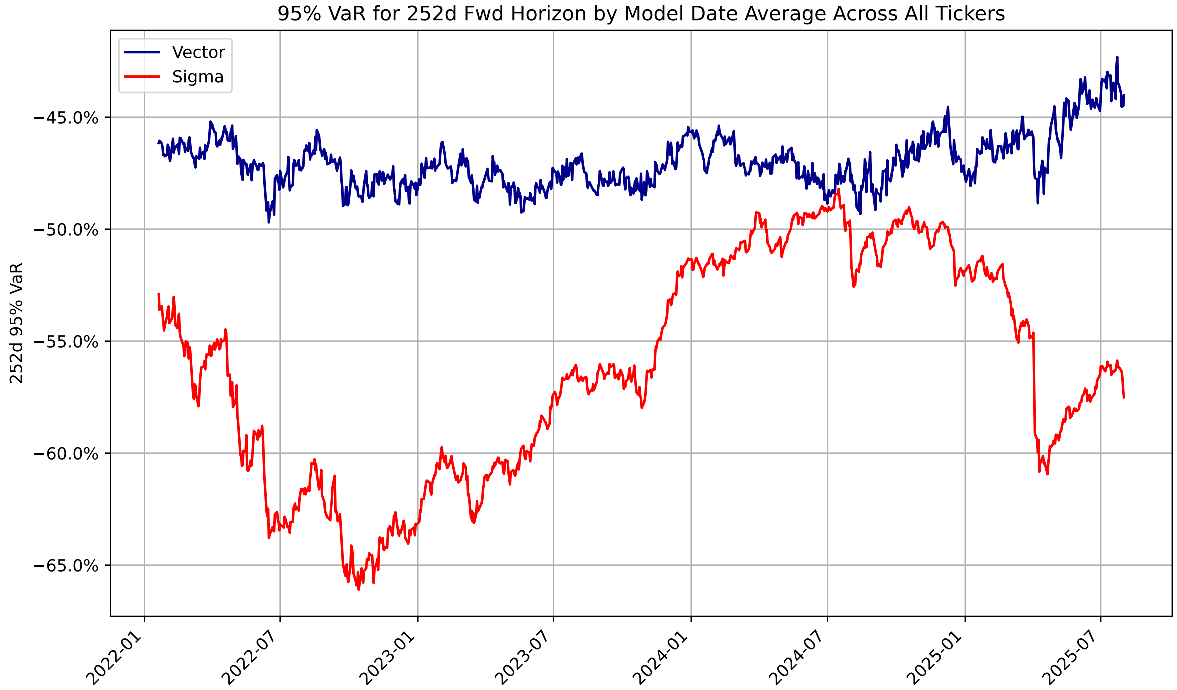


95% VaR for 63d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
63d 95% VaR
−26.0%
−28.0%
−30.0%
−32.0%
−34.0%
−36.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

126d Horizon



252d Horizon



Performance Summary

Here we compare the performance of 95% VaR 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 VaR breakage rates and Return on VaR based Capital (ROVBC), presenting the average results across tickers and model dates for model dates in the period indicated.

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

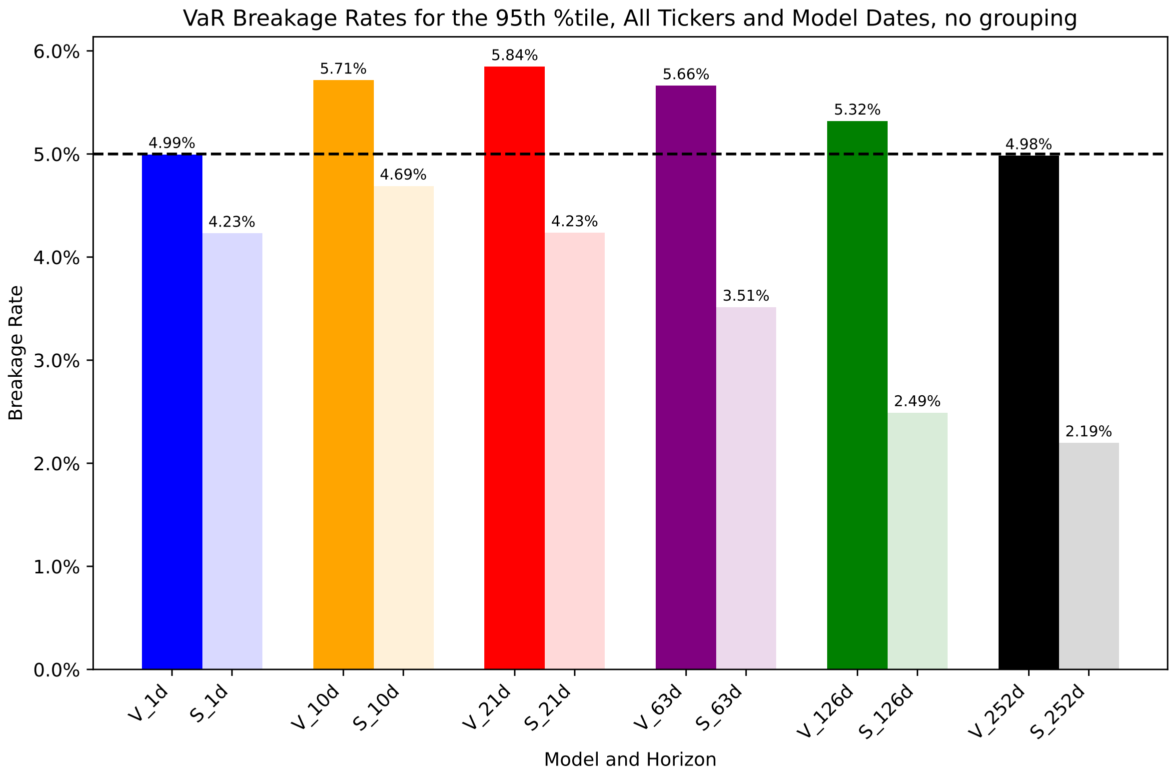
Vector Model ROVBC can be evalauated on the basis of outright levels relative to Sigma and alpha relative to Sigma ROVBC (which, as discussed previously, is assigned the underlying ticker price returns). We advise keeping proximity of VaR breakage rates to targetted levels in mind when comparing outright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

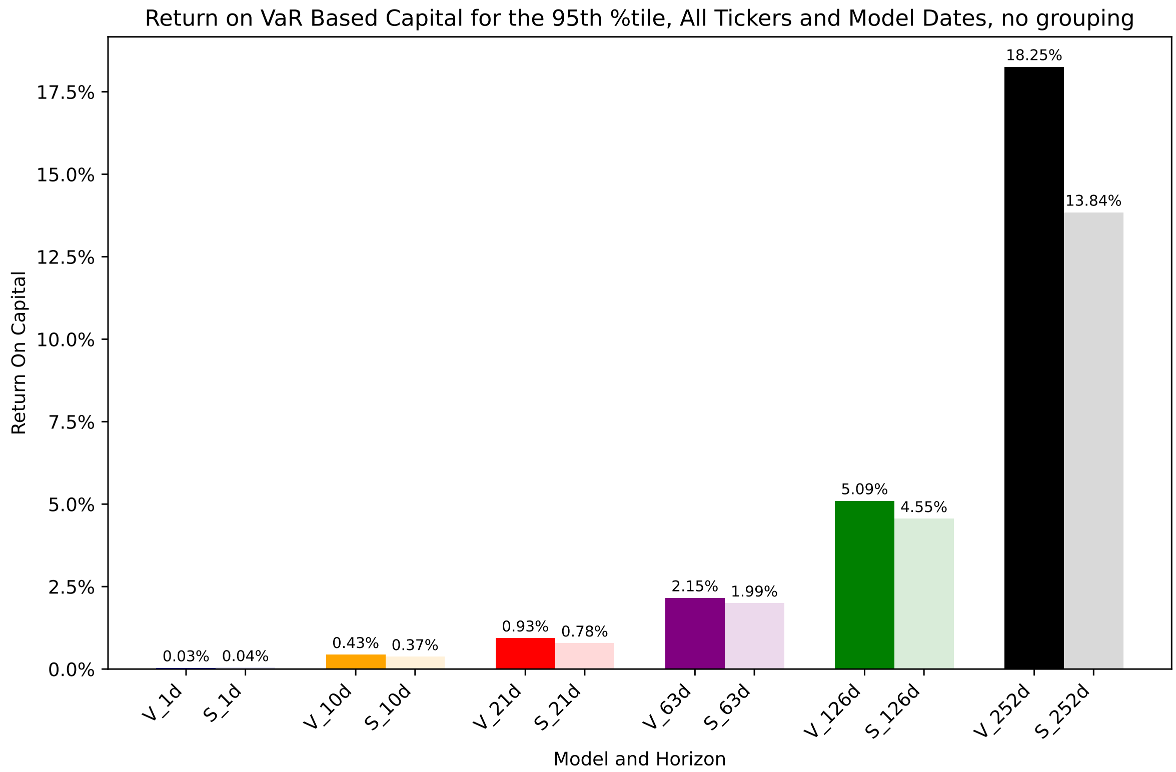
Alpha allows us to isolate ROVBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROVBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by VaR differentials between tickers and / or between dates. Thus we also present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

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

All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-07-31





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

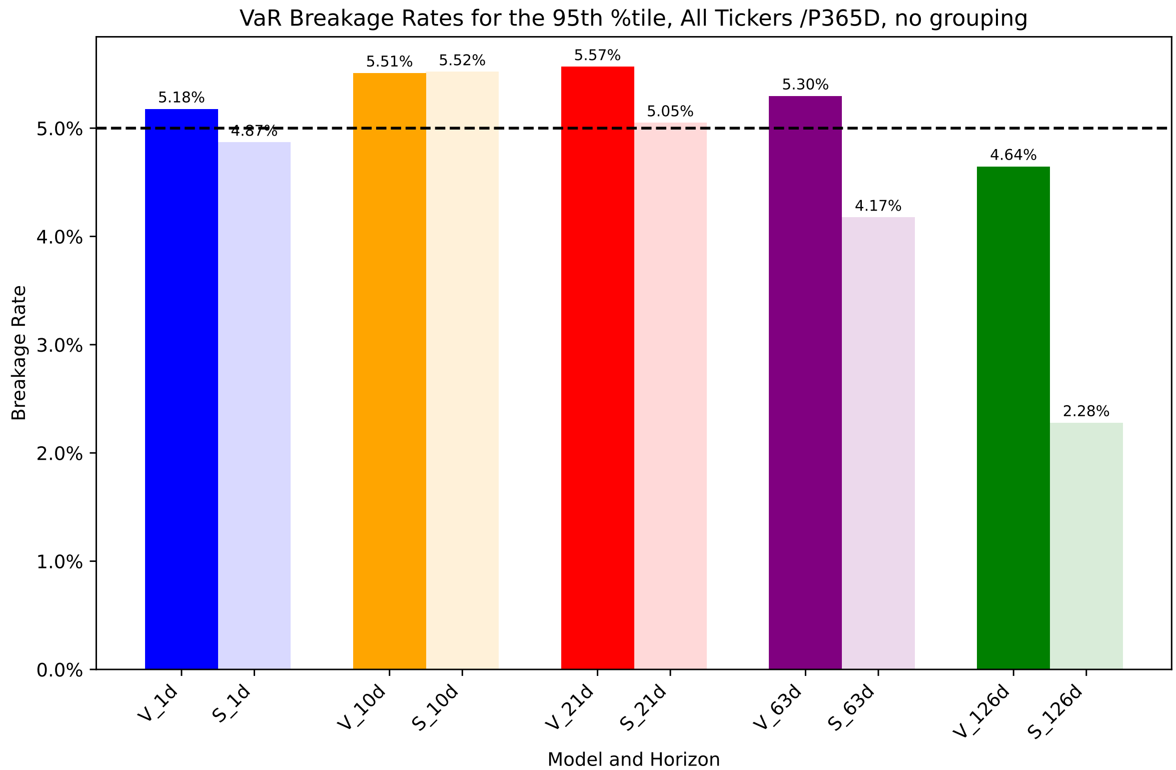
	1d	10d	21d	63d	126d	252d
intercept	-0.01%	-0.05%	-0.11%	-0.54%	-1.26%	-2.54%
intercept_p_value	4.38%	0.53%	0.00%	0.00%	0.00%	0.00%
slope	119.92%	130.67%	134.16%	135.19%	139.45%	150.22%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

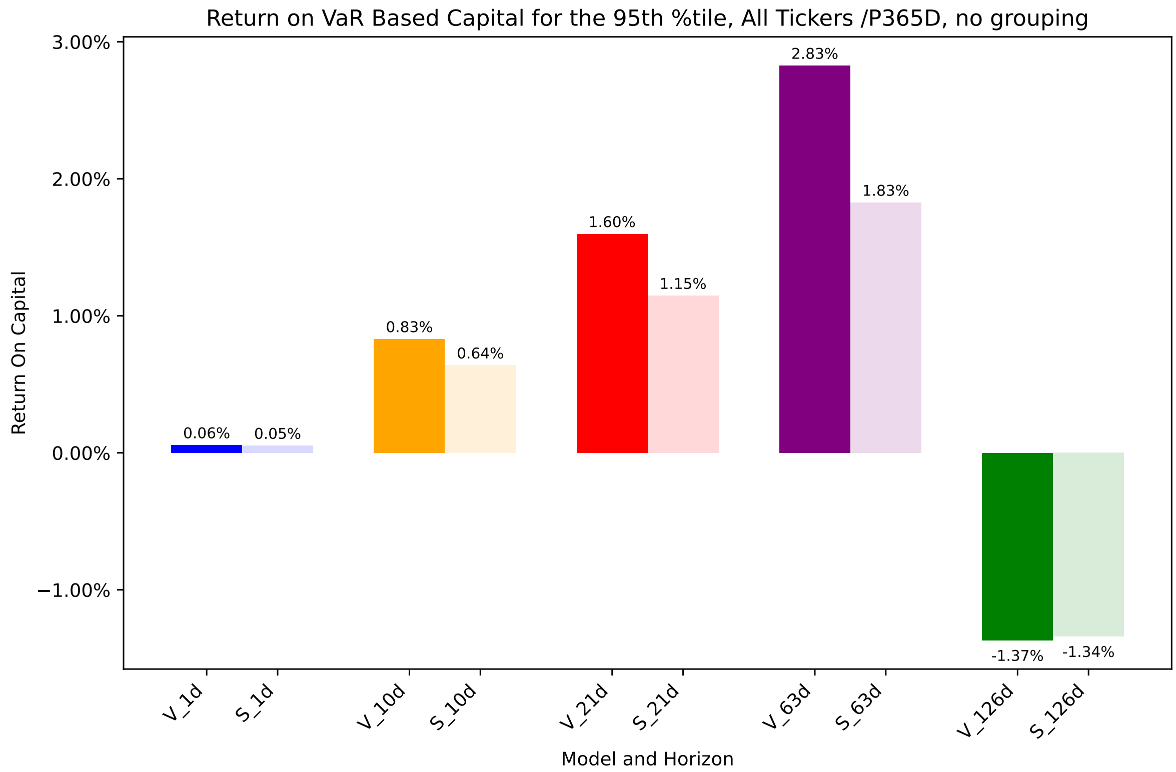
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.03%	-0.14%	-0.40%	-1.61%	-3.41%	-5.00%
intercept_p_value	0.02%	3.49%	0.58%	0.07%	0.01%	0.33%
slope	162.00%	147.06%	163.13%	174.87%	174.84%	162.60%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-07-31 through 2024-08-02





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

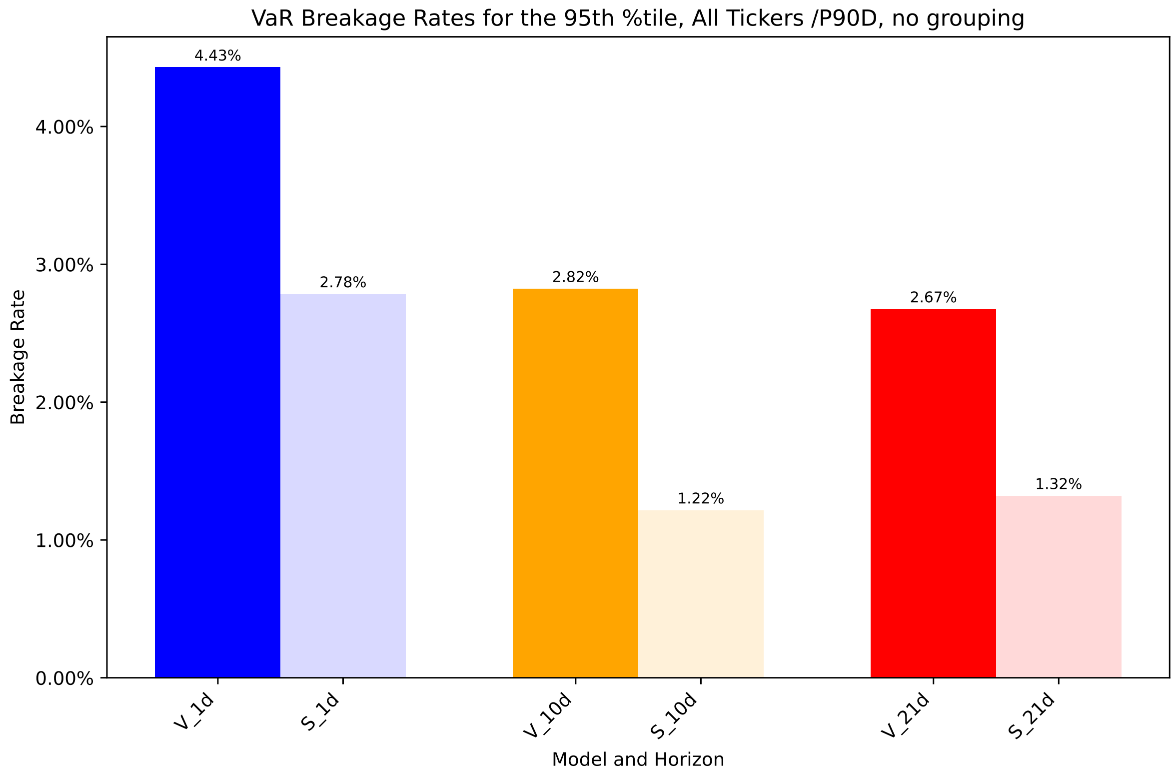
	1d	10d	21d	63d	126d
intercept	-0.00%	0.09%	0.20%	0.55%	0.20%
intercept_p_value	79.57%	0.03%	0.00%	0.00%	0.76%
slope	112.42%	115.35%	121.77%	124.88%	117.13%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

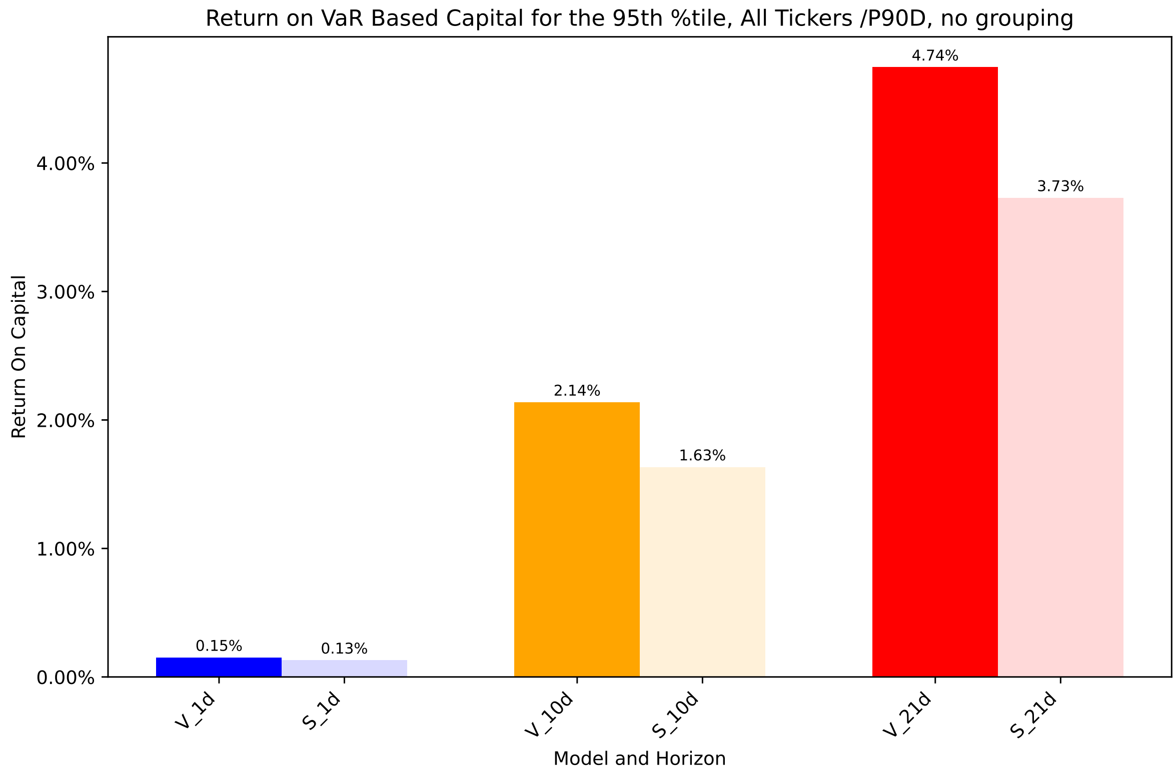
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P365D:

	1d	10d	21d	63d	126d
intercept	0.01%	0.12%	0.25%	0.74%	0.15%
intercept_p_value	59.92%	12.10%	13.34%	5.93%	76.14%
slope	97.67%	110.95%	117.44%	113.55%	114.04%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-07-31 through 2025-05-05





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

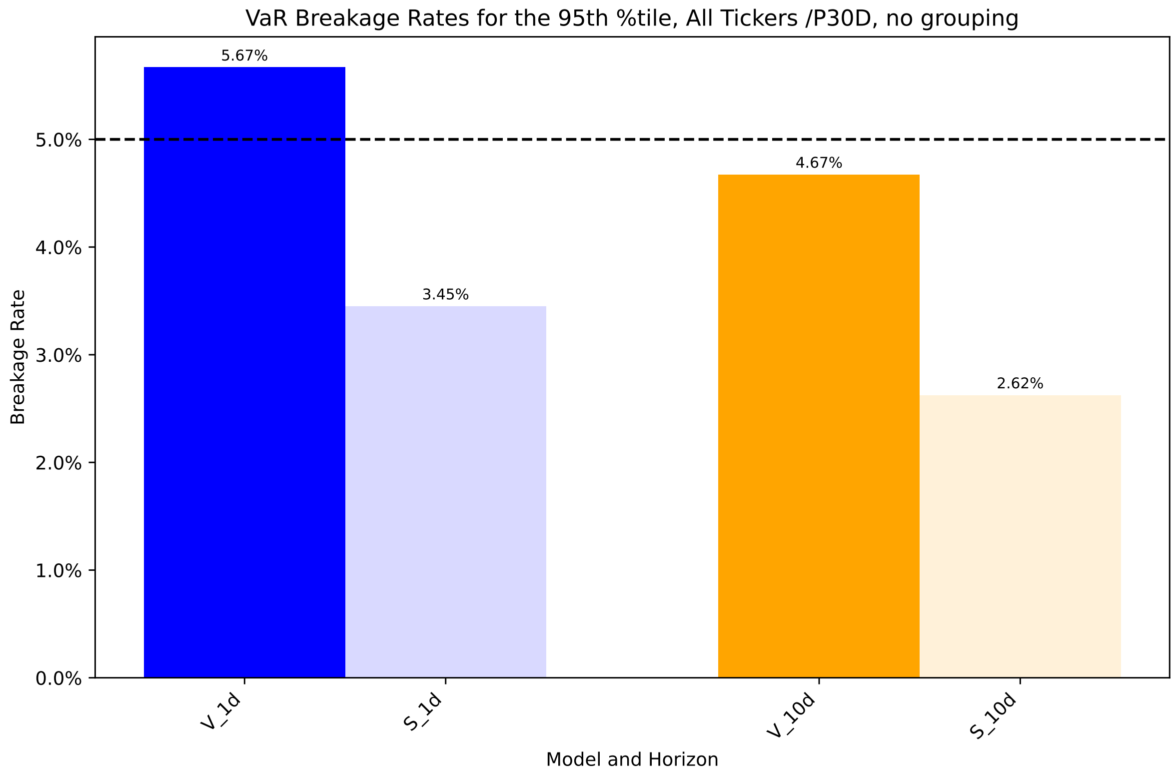
	1d	10d	21d
intercept	-0.02%	-0.03%	-0.12%
intercept_p_value	28.09%	61.28%	15.48%
slope	133.54%	132.52%	130.44%
slope_p_value	0.00%	0.00%	0.00%

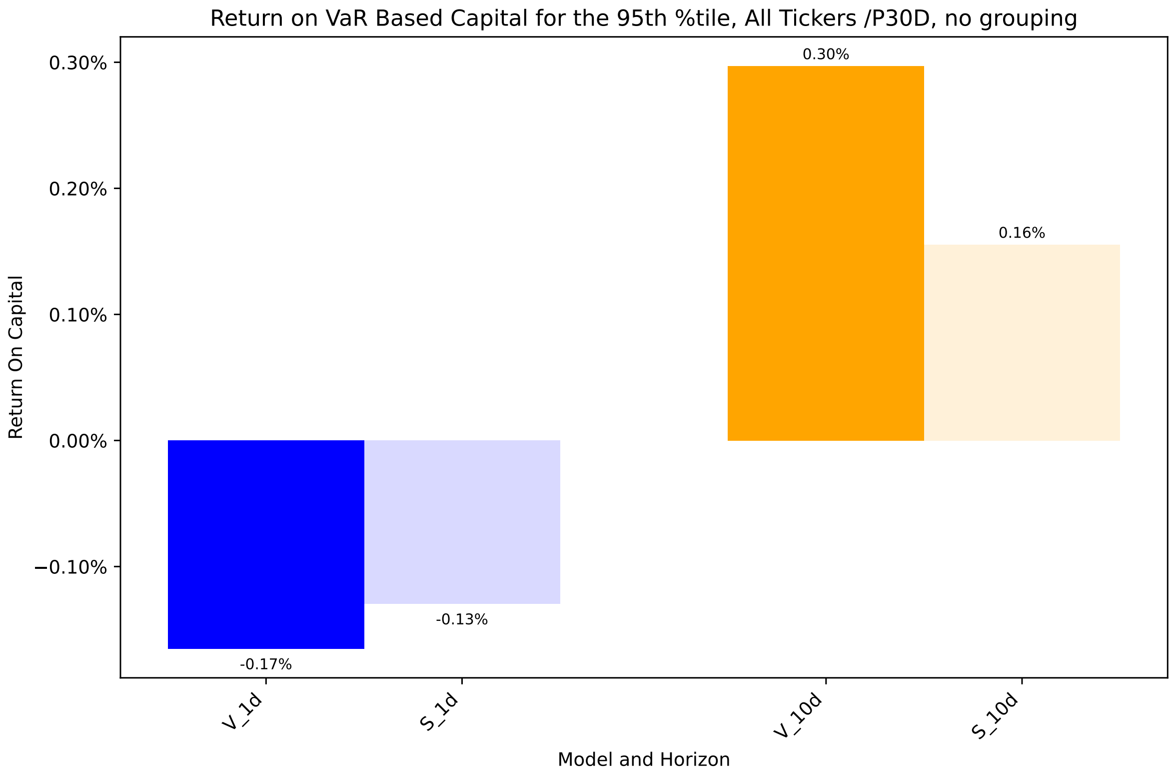
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P90D:

	1d	10d	21d
intercept	-0.02%	0.01%	-0.11%
intercept_p_value	33.80%	96.75%	73.57%
slope	129.55%	129.50%	129.01%
slope_p_value	0.00%	0.00%	0.00%

Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-07-31 through 2025-07-03





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

	1d	10d
intercept	-0.01%	0.09%
intercept_p_value	67.40%	41.57%
slope	117.15%	131.74%
slope_p_value	0.00%	0.00%

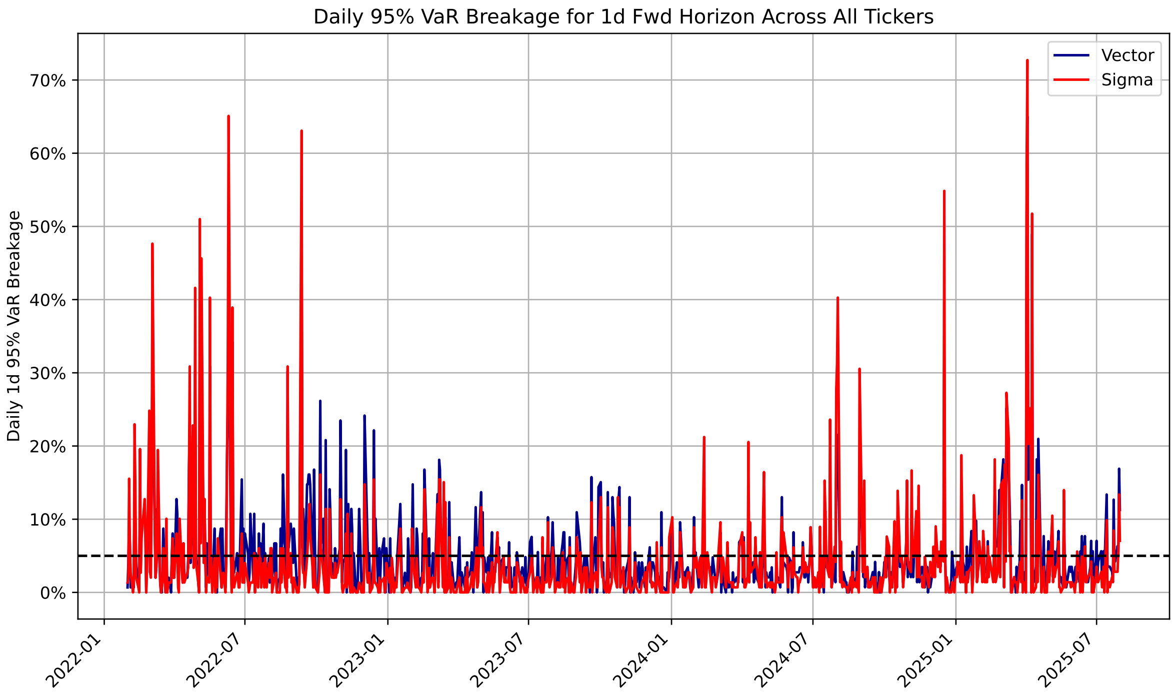
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P30D:

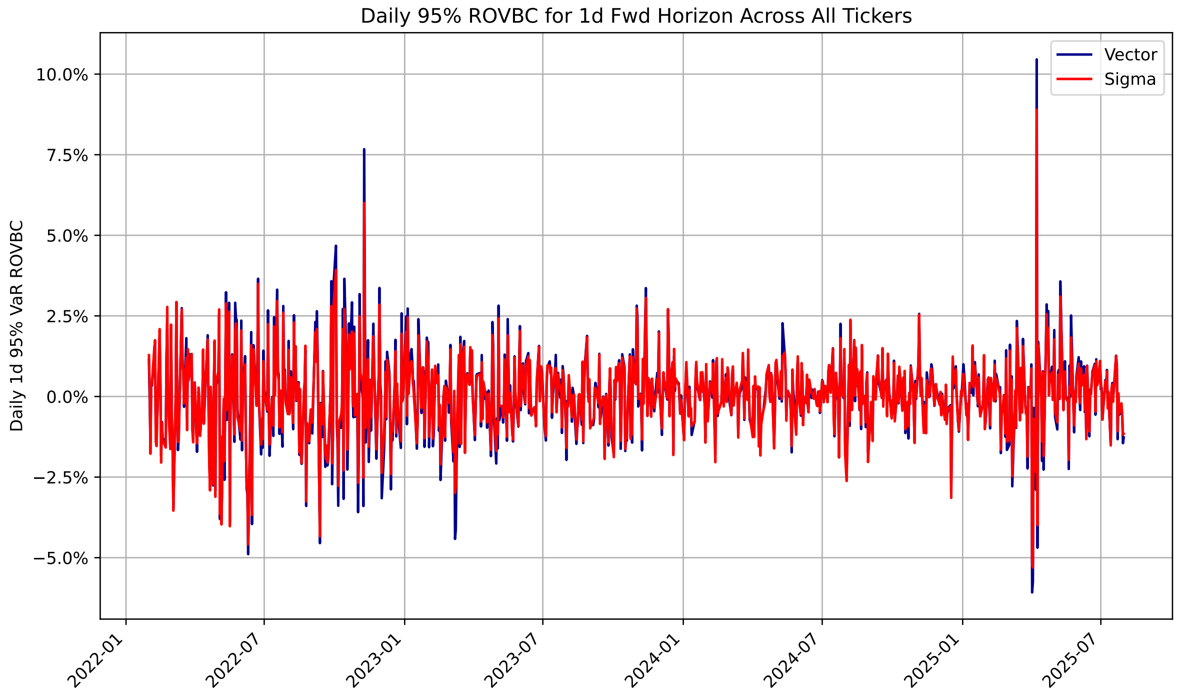
	1d	10d
intercept	-0.02%	0.11%
intercept_p_value	50.85%	62.80%
slope	113.20%	121.43%
slope_p_value	0.00%	0.00%

Daily Performance

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

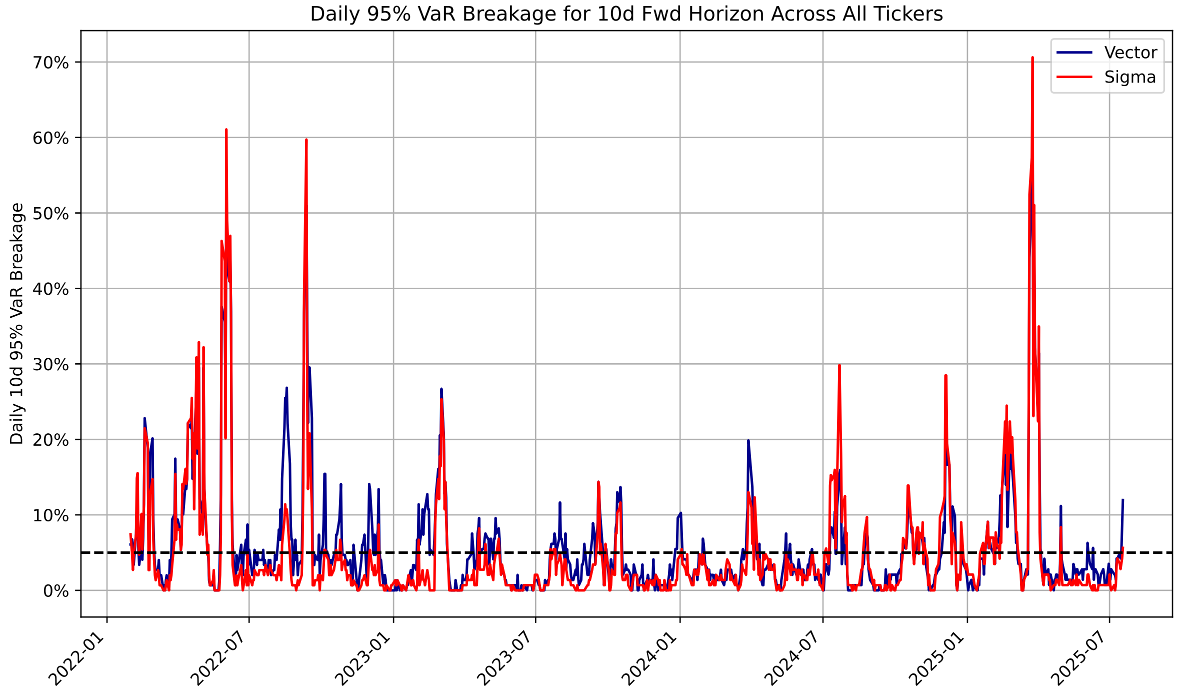
1d Horizon



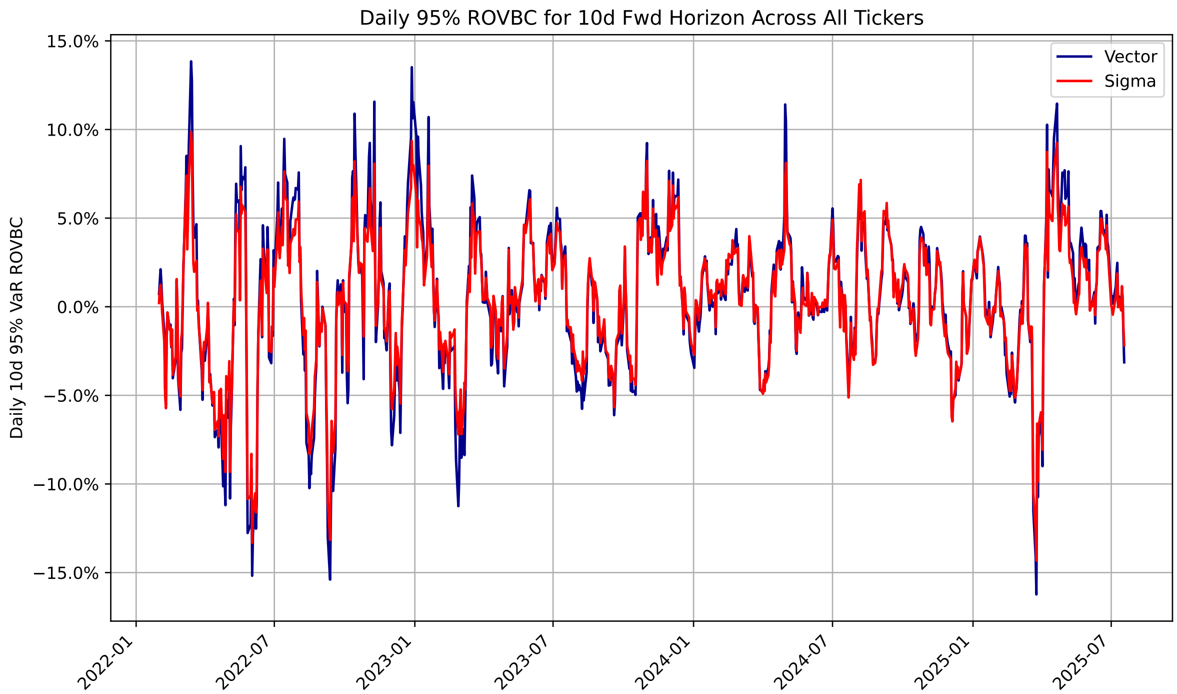


Daily 95% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 95% VaR ROVBC
10.0%
7.5%
5.0%
2.5%
0.0%
−2.5%
−5.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

10d Horizon

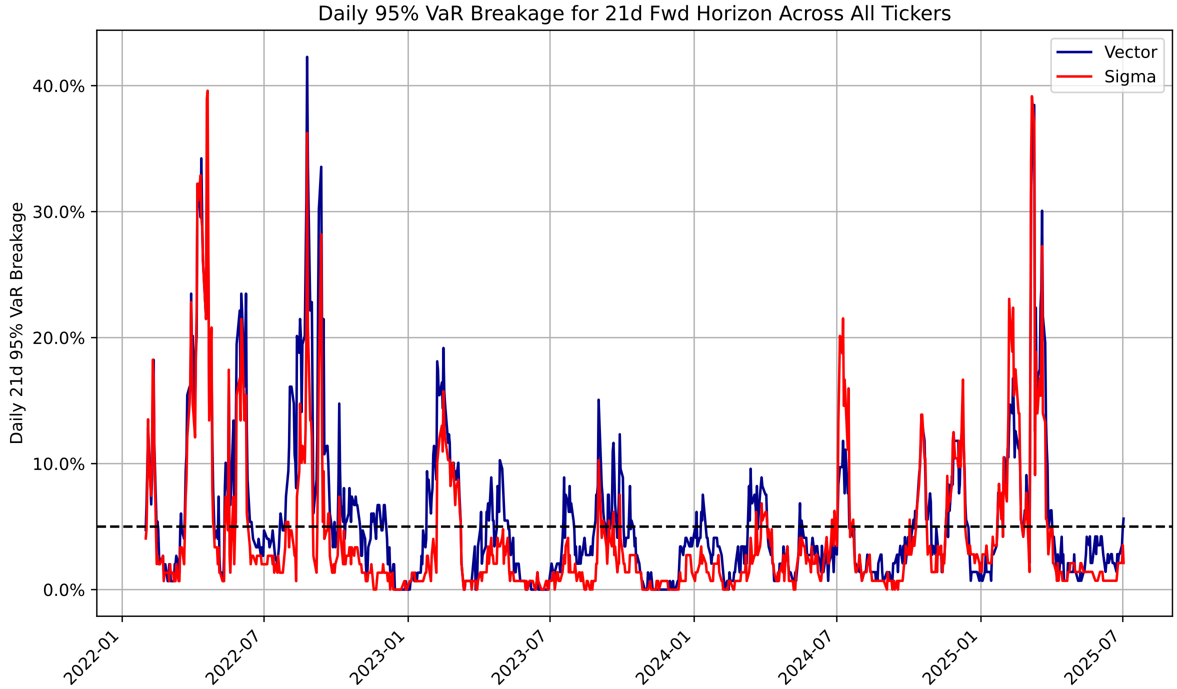


Daily 95% VaR Breakage for 10d Fwd Horizon Across All Tickers
Daily 10d 95% VaR Breakage
70%
60%
50%
40%
30%
20%
10%
0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

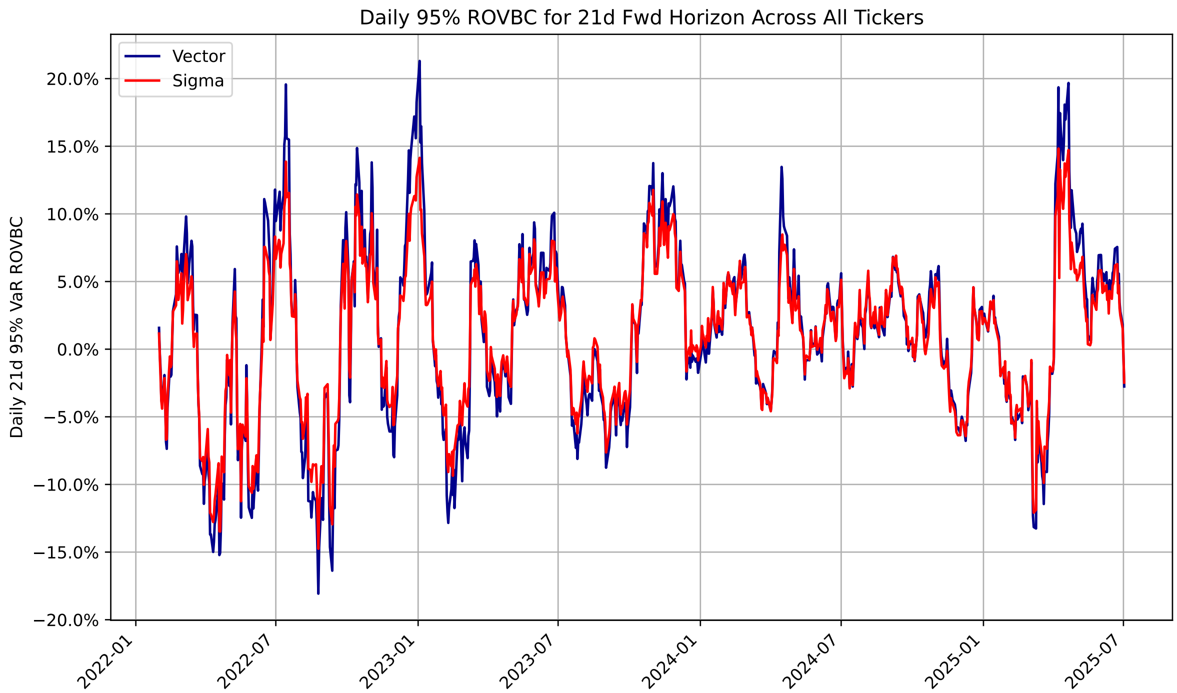


Daily 95% ROVBC for 10d Fwd Horizon Across All Tickers
Daily 10d 95% VaR ROVBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

21d Horizon

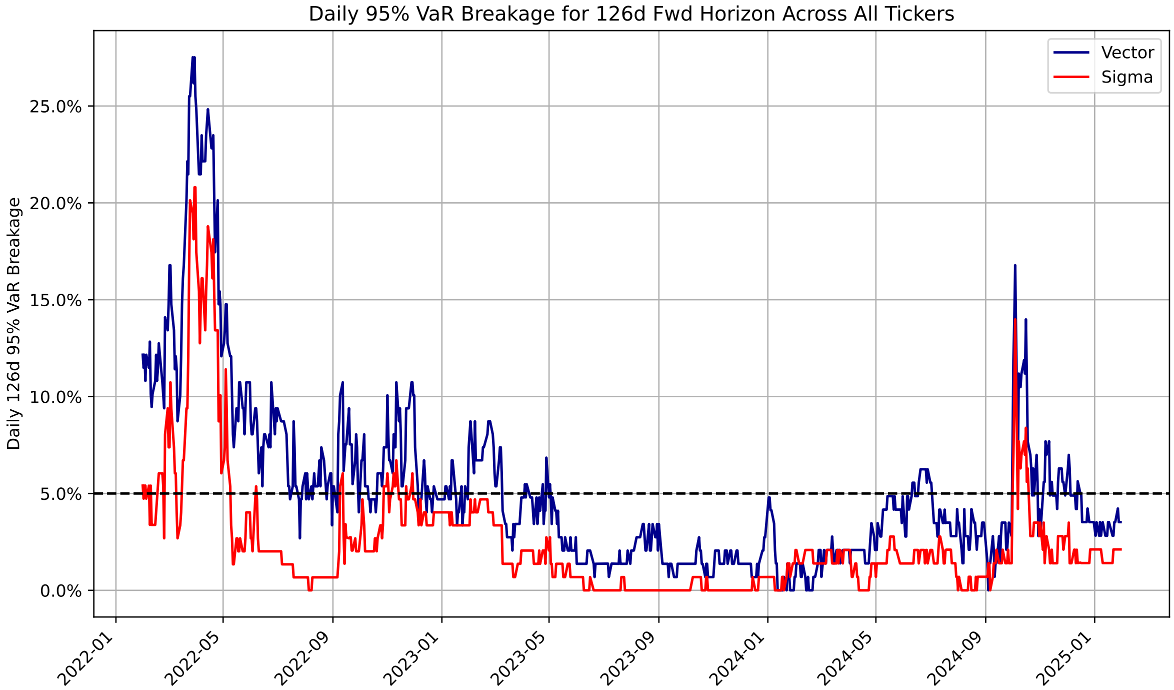


Daily 95% VaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 95% VaR Breakage
40.0%
30.0%
20.0%
10.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

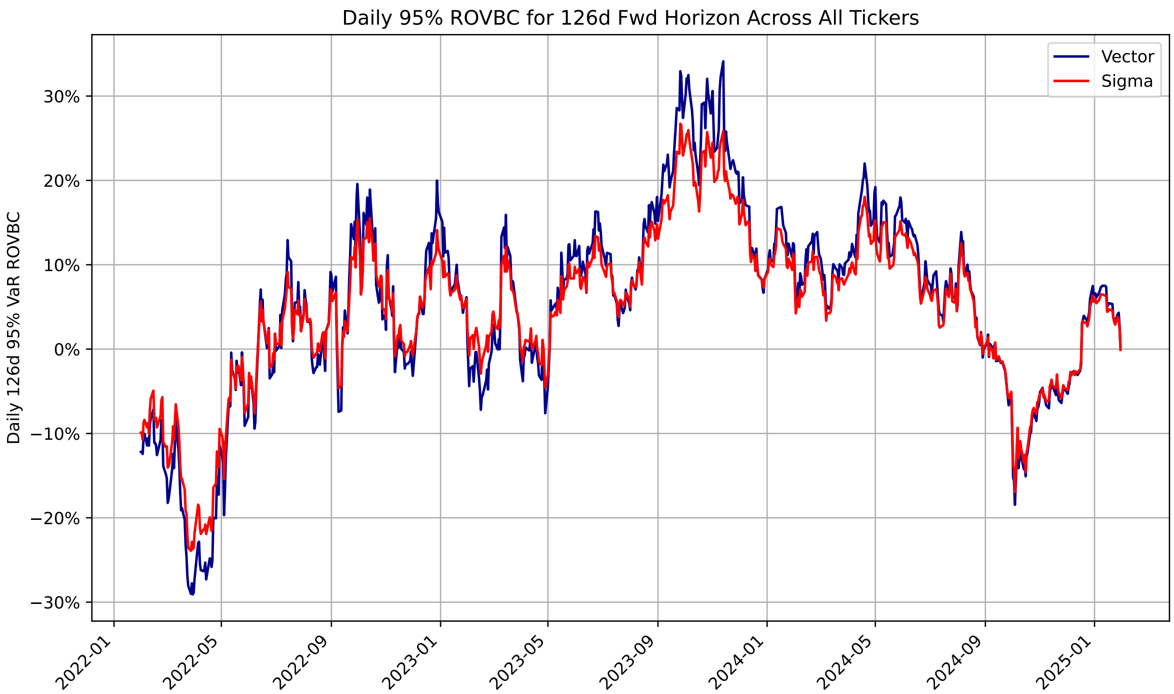


Daily 95% ROVBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 95% VaR ROVBC
20.0%
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
−20.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

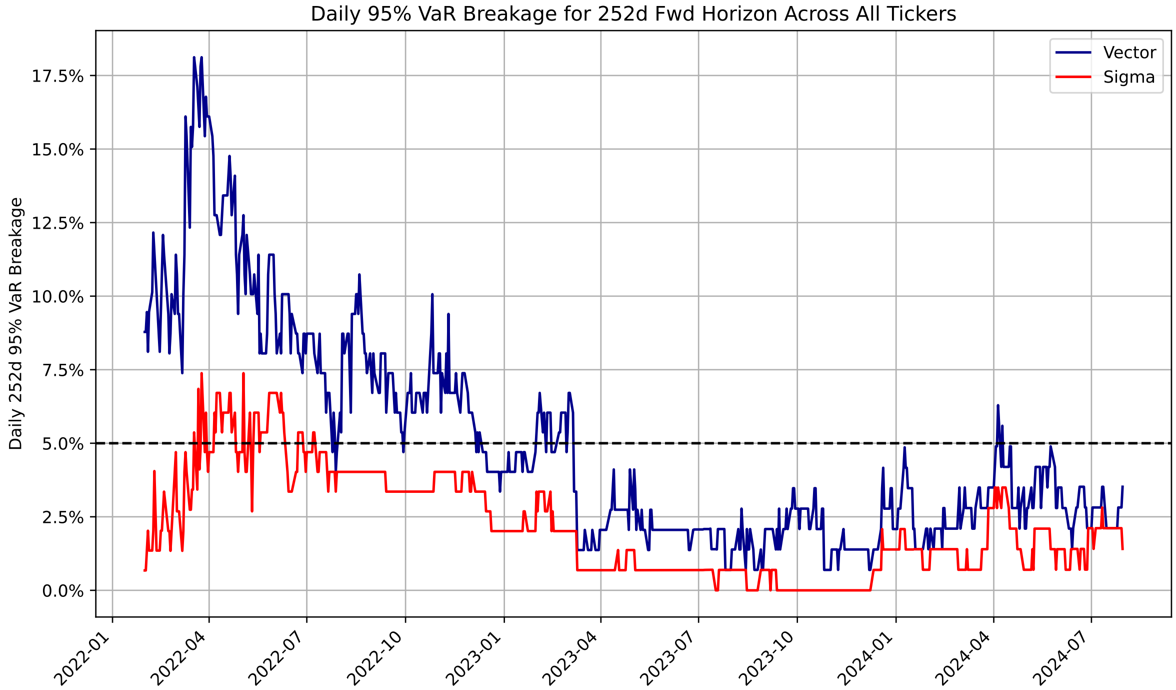


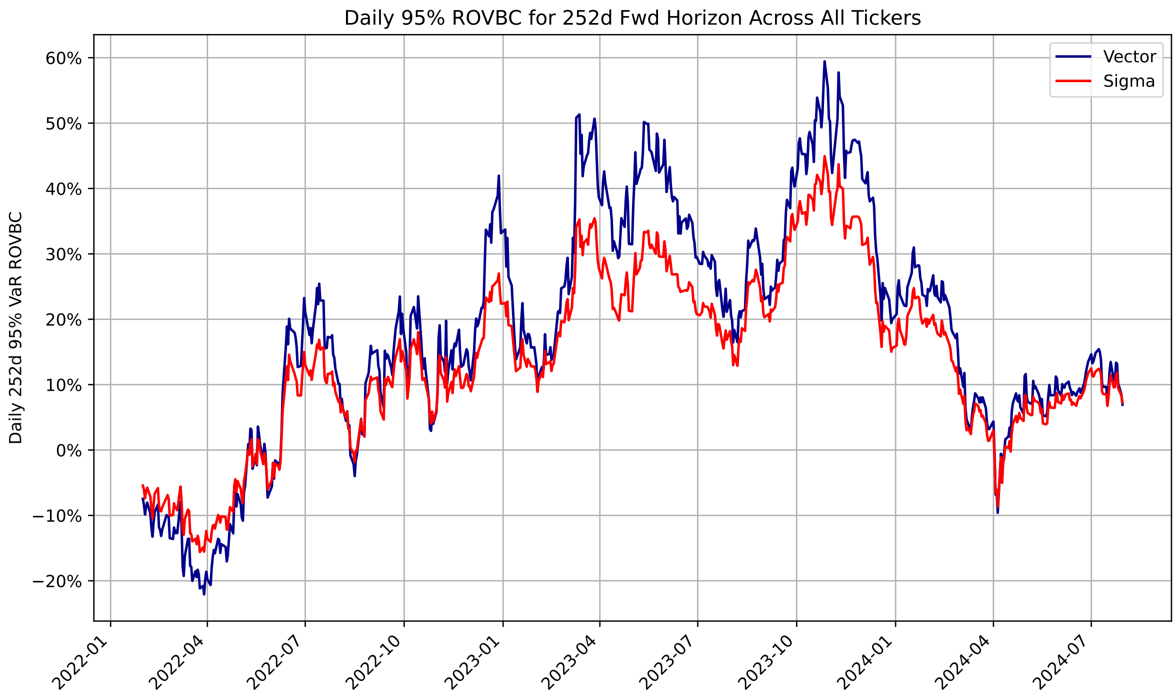
Daily 95% VaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 95% VaR Breakage
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01



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

252d Horizon

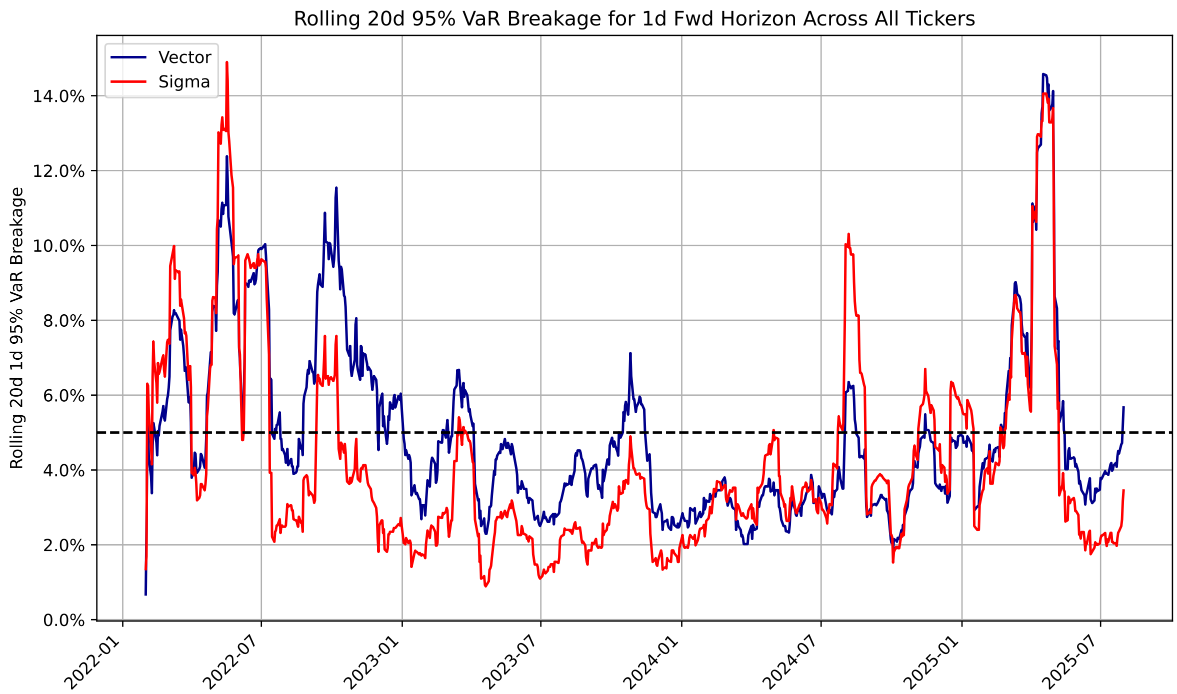


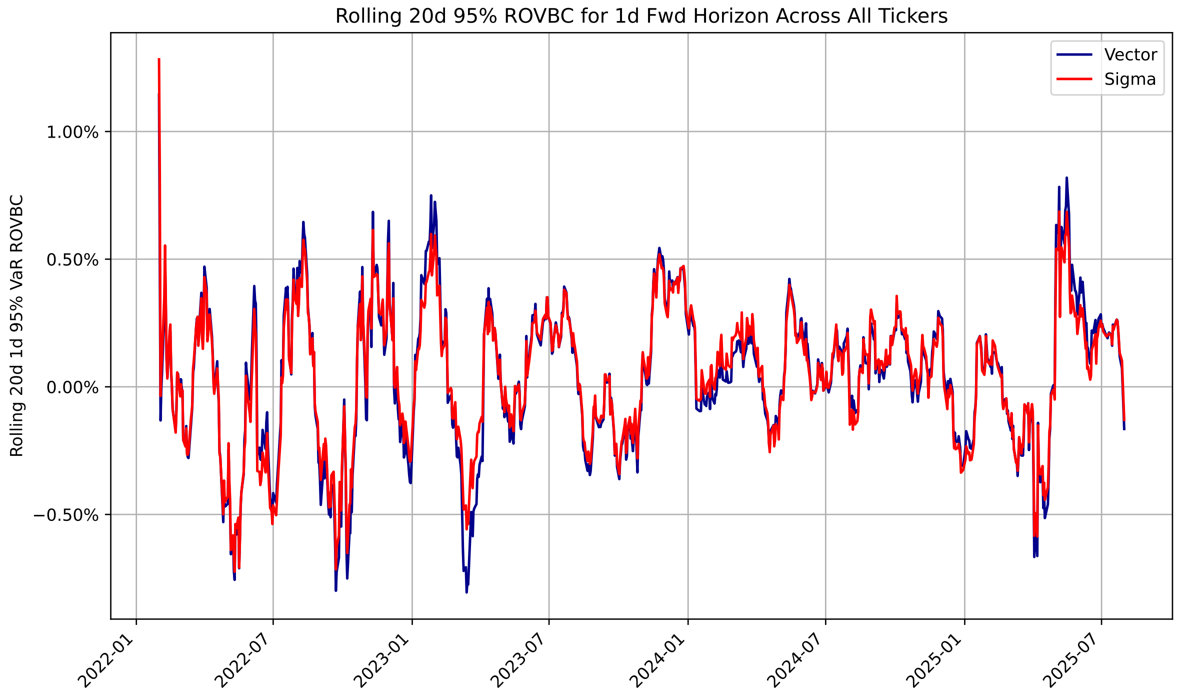


Rolling 20d Performance

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

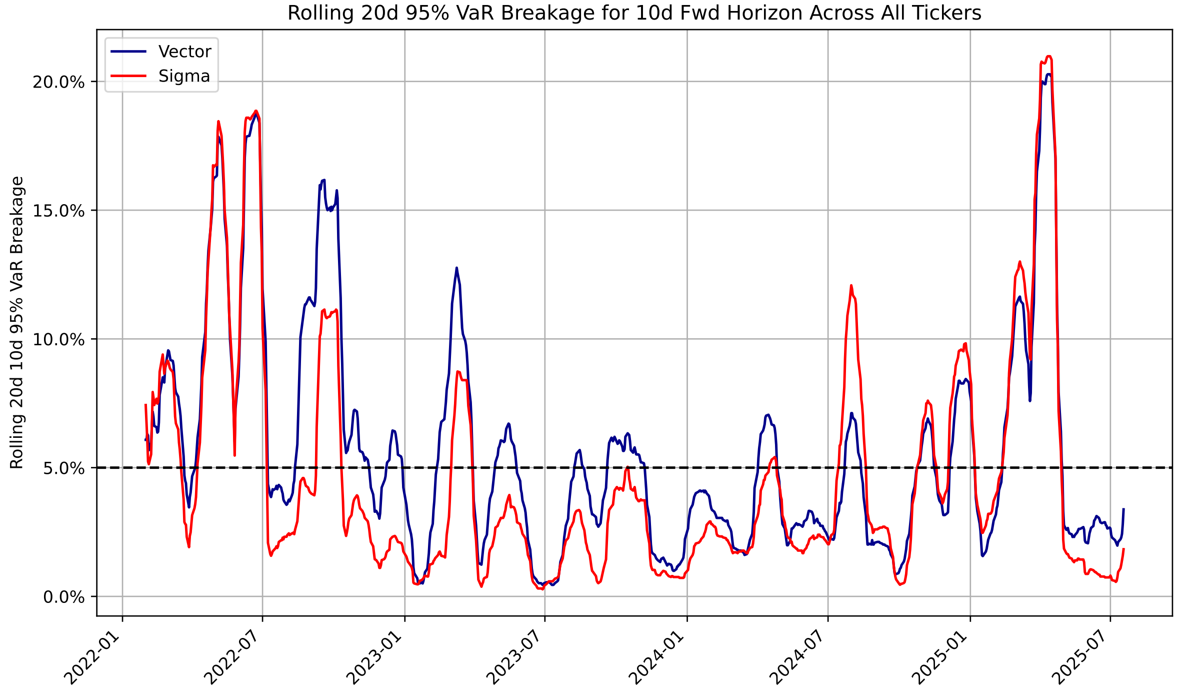
1d Horizon



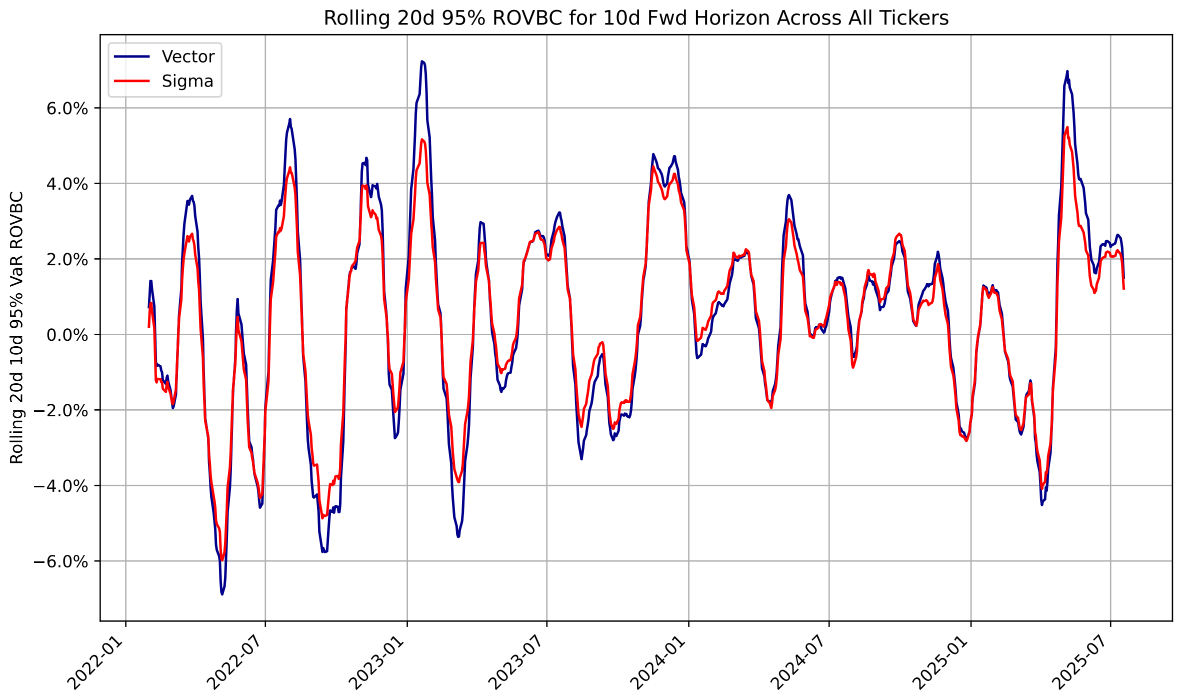


Rolling 20d 95% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 95% VaR ROVBC
1.00%
0.50%
0.00%
−0.50%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

10d Horizon

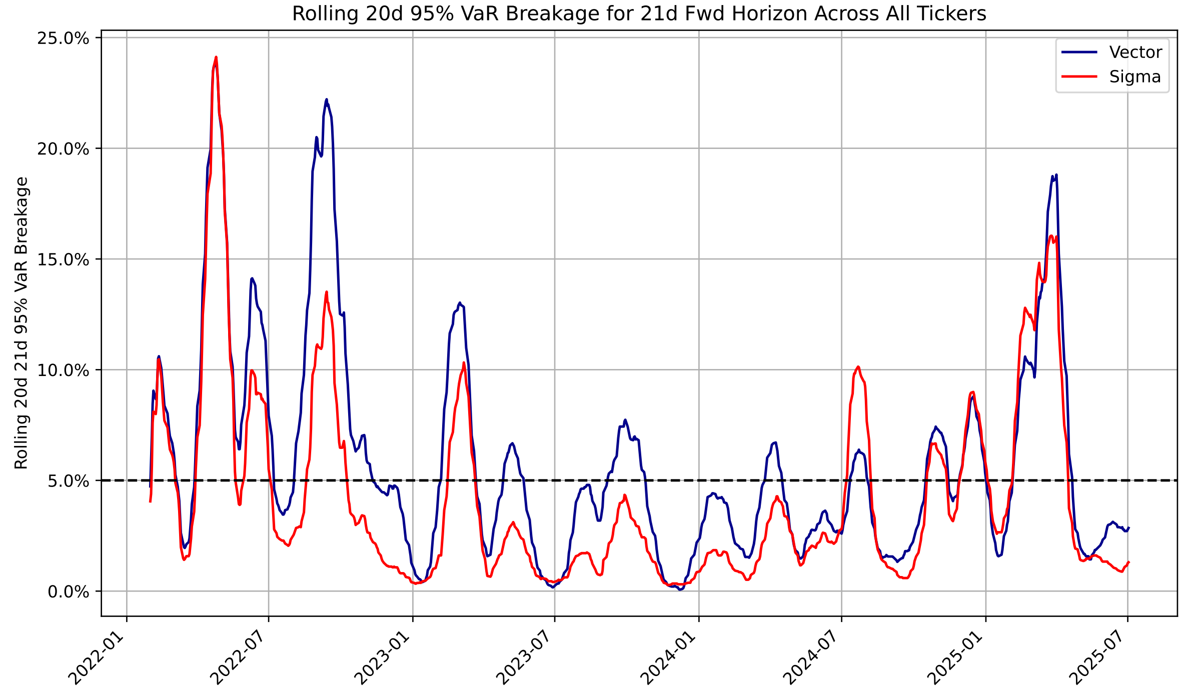


Rolling 20d 95% VaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 95% VaR Breakage
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

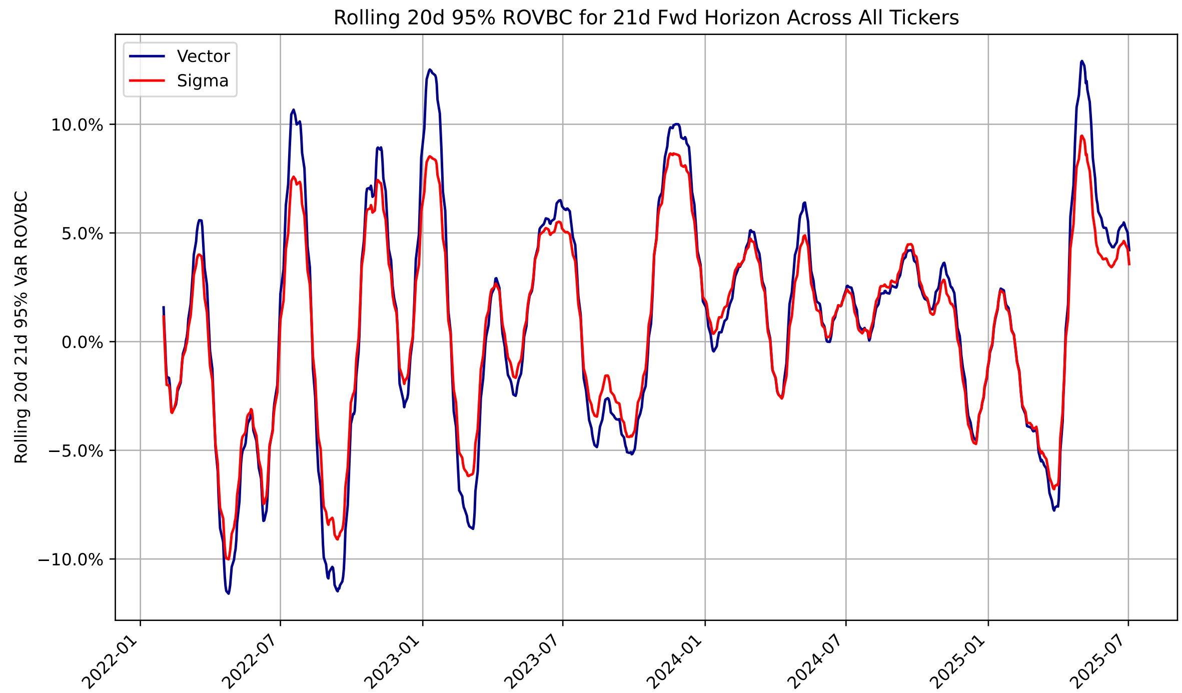


Rolling 20d 95% ROVBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 95% VaR ROVBC
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

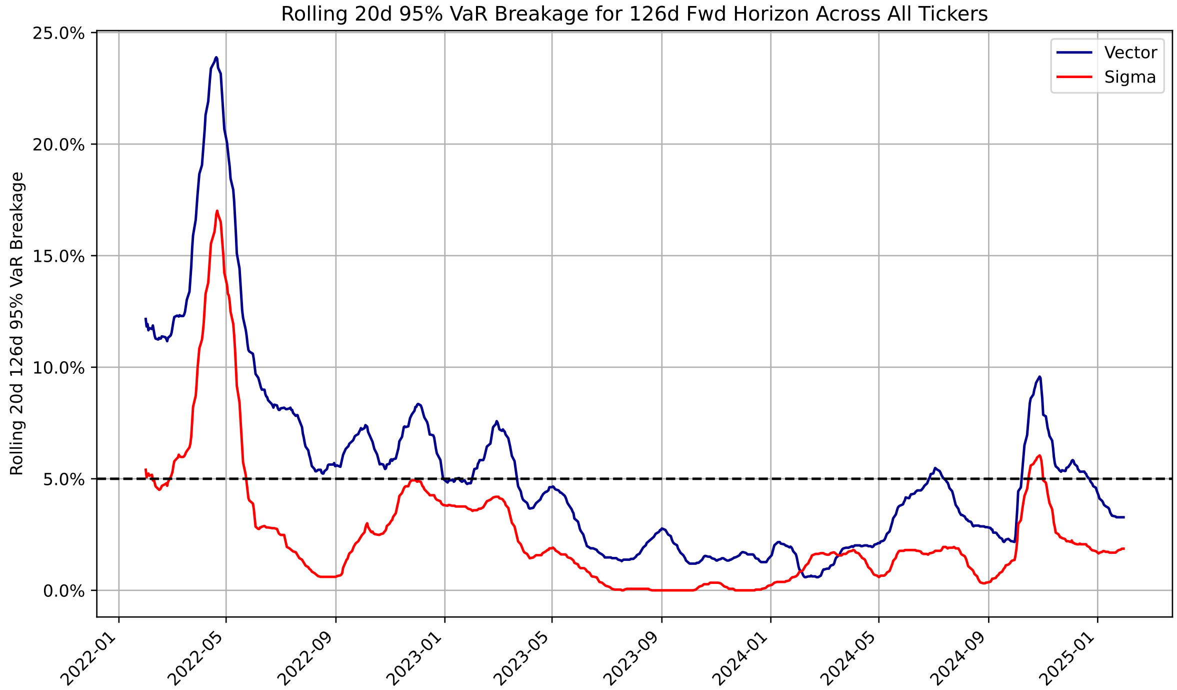


Rolling 20d 95% VaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 95% VaR Breakage
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

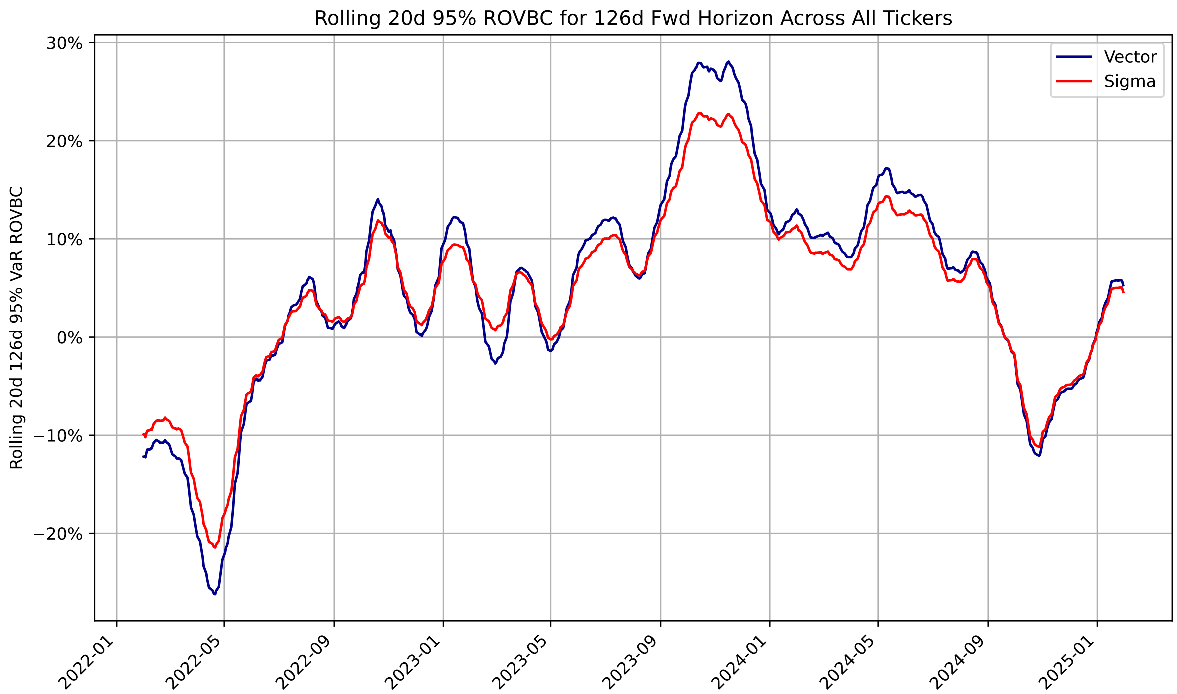


Rolling 20d 95% ROVBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 95% VaR ROVBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

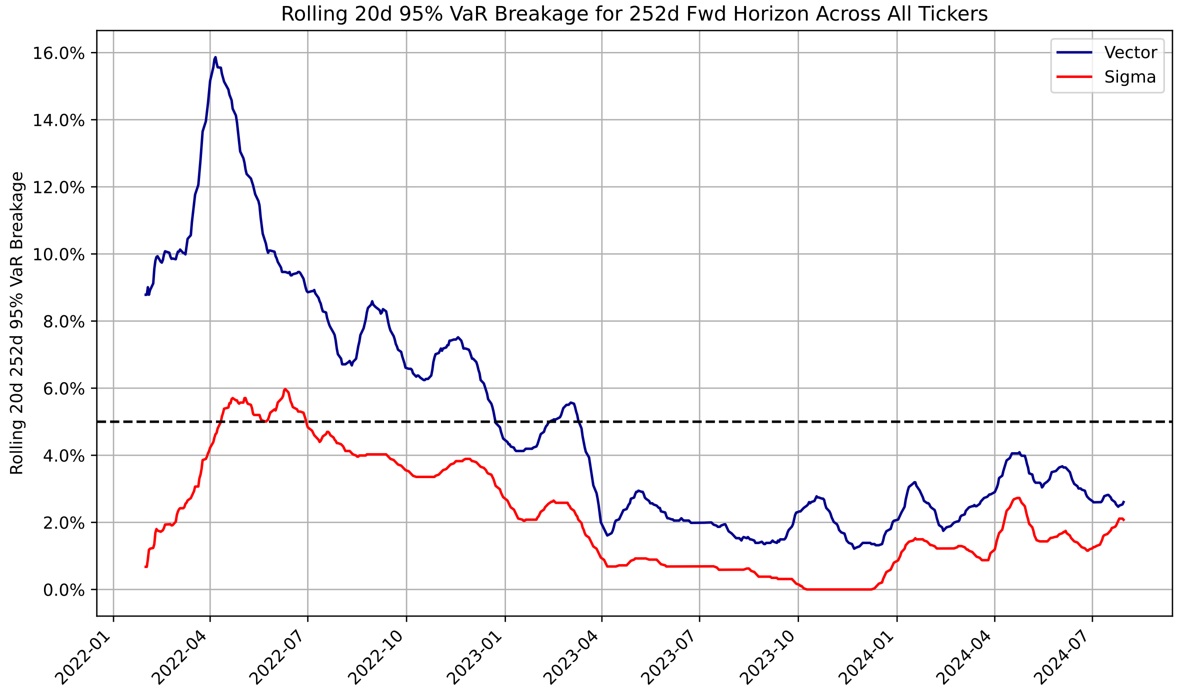


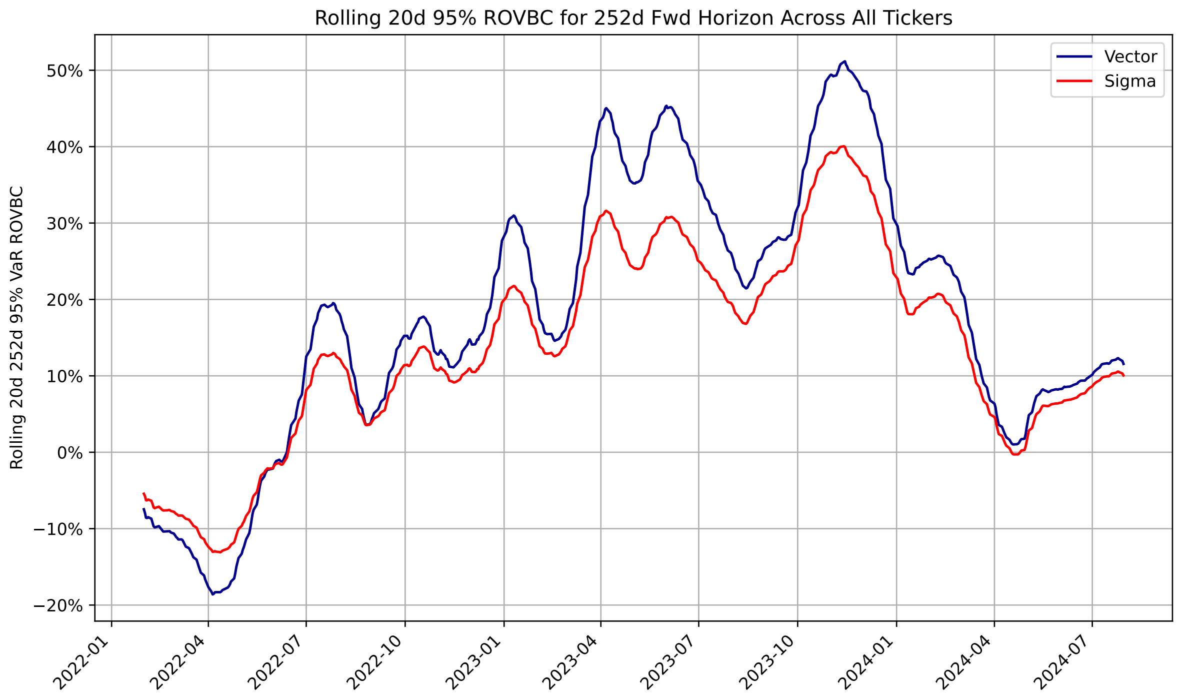
Rolling 20d 95% VaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 126d 95% VaR Breakage
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01



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

252d Horizon





Top 30 Tickers By VaR Breakage

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	SBNY	30.22%	SBNY	7.91%
1.0	SIVBQ	19.06%	FRCB	6.47%
1.0	TSLA	18.22%	VST	6.38%
1.0	CHTR	17.31%	AAPL	6.15%
1.0	LQD	16.17%	ACGL	6.15%
1.0	FRCB	13.67%	TRGP	6.04%
1.0	B	12.19%	PHM	6.04%
1.0	GME	11.62%	MUB	5.82%
1.0	AAP	11.62%	SIVBQ	5.76%
1.0	UAA	11.28%	AZN	5.69%
1.0	MSTR	11.16%	PEP	5.69%
1.0	ZTS	11.16%	NVDA	5.69%
1.0	AMZN	10.25%	GOOGL	5.69%
1.0	SLV	10.02%	GLD	5.58%
1.0	META	9.91%	IRM	5.58%
1.0	SBUX	9.91%	TXN	5.47%
1.0	GNRC	9.45%	UNH	5.47%
1.0	BUD	9.11%	LQD	5.47%
1.0	MUB	9.01%	NVS	5.47%
1.0	VFC	9.0%	XOM	5.35%
1.0	ISRG	9.0%	VCSH	5.35%
1.0	BALL	9.0%	ON	5.35%
1.0	VCSH	8.88%	GSK	5.24%
1.0	KEY	8.66%	LEN	5.24%
1.0	TLT	8.66%	VZ	5.24%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	SBNY	40.44%	MUB	13.25%
10.0	SIVBQ	22.43%	SIVBQ	10.66%
10.0	AAP	20.71%	SBNY	9.93%
10.0	CHTR	20.37%	AAP	8.75%
10.0	TSLA	19.45%	FRCB	8.46%
10.0	B	16.69%	FRA	8.17%
10.0	ZTS	16.0%	BAC	8.17%
10.0	AMC	15.07%	UNH	7.83%
10.0	GME	14.61%	CVS	7.71%
10.0	LQD	14.61%	BMY	7.36%
10.0	FRCB	13.97%	WFC	7.25%
10.0	KALU	12.89%	AZN	7.13%
10.0	BUD	12.77%	CHTR	7.13%
10.0	CVS	12.54%	MS	7.02%
10.0	TLT	12.31%	LW	7.02%
10.0	SLV	11.85%	CTLT	6.94%
10.0	NEM	11.74%	GSK	6.67%
10.0	VFC	11.51%	NWL	6.67%
10.0	JAZZ	11.39%	CLF	6.56%
10.0	GSK	11.28%	BALL	6.56%
10.0	MSTR	10.93%	AA	6.56%
10.0	GNRC	10.24%	EMB	6.22%
10.0	META	10.13%	BHC	6.21%
10.0	SNY	10.01%	MU	6.21%
10.0	VCSH	10.01%	X	6.09%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	SBNY	56.67%	MUB	14.24%
21.0	CHTR	24.01%	SIVBQ	12.96%
21.0	SIVBQ	23.33%	FRCB	11.48%
21.0	AAP	22.14%	AAP	10.37%
21.0	TSLA	19.58%	LW	9.44%
21.0	B	17.48%	GSK	8.97%
21.0	LQD	16.32%	SBNY	8.89%
21.0	CVS	16.32%	CVS	8.16%
21.0	ZTS	15.73%	EMB	8.05%
21.0	GSK	15.73%	CHTR	7.93%
21.0	AMC	15.15%	CTLT	7.73%
21.0	BUD	14.69%	ABBV	7.58%
21.0	FRCB	14.44%	BMY	7.58%
21.0	TLT	14.22%	UNH	7.34%
21.0	VCSH	13.99%	AZN	7.23%
21.0	KALU	13.87%	LQD	6.88%
21.0	NEM	13.52%	VCSH	6.88%
21.0	GNRC	13.29%	FRA	6.76%
21.0	VFC	13.17%	CNC	6.64%
21.0	PRGO	12.82%	PCG	6.53%
21.0	CTLT	12.57%	NWL	6.53%
21.0	BXP	12.47%	FIS	6.41%
21.0	JAZZ	11.42%	BAC	6.41%
21.0	BIIB	11.07%	WDC	6.41%
21.0	SNY	10.96%	VFC	6.18%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	SBNY	85.56%	SBNY	30.37%
63.0	SIVBQ	41.85%	SIVBQ	30.0%
63.0	AAP	35.54%	FRCB	24.81%
63.0	CHTR	30.76%	MUB	12.76%
63.0	FRCB	29.26%	GSK	11.89%
63.0	VFC	21.57%	NEM	11.4%
63.0	BIIB	17.65%	CTLT	10.7%
63.0	BHC	17.4%	UNH	9.31%
63.0	B	17.16%	LW	9.07%
63.0	GNRC	17.03%	BMY	9.07%
63.0	AMC	16.91%	CHTR	8.82%
63.0	TSLA	16.91%	VFC	8.46%
63.0	KALU	16.79%	CVS	8.21%
63.0	TLT	15.69%	LQD	8.21%
63.0	NEM	15.32%	ZION	8.1%
63.0	GSK	15.2%	BXP	7.97%
63.0	LQD	14.71%	IEP	7.97%
63.0	CTLT	14.66%	BHC	7.97%
63.0	AMZN	14.09%	AAP	7.97%
63.0	BMY	13.11%	KEY	7.97%
63.0	FIS	12.87%	HCA	7.48%
63.0	BXP	12.75%	NWL	7.23%
63.0	CVS	12.62%	BALL	7.23%
63.0	CMA	11.89%	VCSH	7.11%
63.0	FITB	11.76%	TLT	7.11%
63.0	VCSH	11.76%	CMA	6.86%
63.0	KEY	11.27%	CYH	6.74%
63.0	BUD	11.15%	LEN	6.74%
63.0	META	10.42%	NFLX	6.62%
63.0	ZION	10.35%	PCG	6.5%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	SBNY	100.0%	SIVBQ	47.78%
126.0	SIVBQ	63.7%	SBNY	44.81%
126.0	FRCB	44.07%	FRCB	43.7%
126.0	AAP	35.33%	GSK	17.13%
126.0	CHTR	34.93%	IEP	16.87%
126.0	VFC	34.66%	AAP	16.33%
126.0	AMC	24.57%	VZ	10.76%
126.0	GSK	20.45%	CTLT	10.5%
126.0	BIIB	19.92%	CSTM	9.69%
126.0	GNRC	19.52%	INTC	9.56%
126.0	TSLA	17.66%	MRK	9.43%
126.0	TLT	17.4%	MUB	9.31%
126.0	IEP	17.0%	BHC	9.03%
126.0	BMY	15.41%	BALL	8.9%
126.0	ZION	15.29%	LEN	8.63%
126.0	CVS	15.01%	UNH	8.63%
126.0	BXP	14.87%	NEM	7.3%
126.0	BHC	14.08%	EMB	7.05%
126.0	NEM	13.68%	LW	7.04%
126.0	OXY	13.15%	VCSH	6.77%
126.0	CTLT	12.76%	KEY	6.64%
126.0	B	11.82%	BIIB	6.37%
126.0	MRK	11.82%	LQD	5.84%
126.0	VCSH	11.69%	ELAN	5.68%
126.0	BUD	11.02%	LUMN	5.58%
126.0	AMZN	10.89%	BXP	5.58%
126.0	CMA	10.76%	CHTR	5.18%
126.0	SNY	9.83%	IRM	5.18%
126.0	CLF	9.3%	CLF	4.78%
126.0	LQD	9.3%	HYG	4.65%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
252.0	SBNY	100.0%	SIVBQ	90.74%
252.0	SIVBQ	90.74%	FRCB	90.0%
252.0	FRCB	90.37%	SBNY	79.63%
252.0	AAP	68.1%	IEP	38.76%
252.0	AMC	46.89%	AAP	22.01%
252.0	BIIB	38.92%	MRK	16.91%
252.0	CHTR	38.28%	BMY	15.95%
252.0	IEP	36.68%	GSK	15.47%
252.0	VFC	29.98%	LUMN	14.51%
252.0	CMA	24.4%	LW	13.88%
252.0	ZION	24.31%	BXP	9.89%
252.0	OXY	18.98%	VZ	8.29%
252.0	FIS	18.02%	UNH	7.5%
252.0	GSK	16.75%	VNO	6.06%
252.0	CVS	16.43%	CTLT	5.27%
252.0	BXP	15.47%	INTC	5.1%
252.0	CTLT	13.79%	CSTM	3.51%
252.0	BMY	13.56%	CNC	3.51%
252.0	TLT	12.92%	CLF	2.87%
252.0	VNO	12.28%	LNC	2.55%
252.0	MRK	11.64%	ELAN	2.44%
252.0	ELAN	11.07%	CVS	2.23%
252.0	BHC	10.85%	EMB	1.91%
252.0	CLF	10.37%	PEP	1.91%
252.0	NWL	9.25%	WDC	1.59%
252.0	LNC	7.97%	BALL	1.28%
252.0	EXPE	7.97%	NWL	1.12%
252.0	GNRC	7.66%	ZION	0.98%
252.0	AMZN	7.02%	TLT	0.8%
252.0	PRGO	7.02%	OXY	0.8%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	VST	35.0%	CHTR	20.0%
1.0	LLY	30.0%	NVS	15.0%
1.0	NAVI	25.0%	GILD	15.0%
1.0	VZ	25.0%	GSK	15.0%
1.0	UNH	25.0%	KALU	15.0%
1.0	SBUX	25.0%	BUD	10.0%
1.0	CMCSA	25.0%	BAC	10.0%
1.0	HCA	20.0%	TXN	10.0%
1.0	ADBE	20.0%	UNH	10.0%
1.0	CHTR	20.0%	HLT	10.0%
1.0	AMC	20.0%	BMY	10.0%
1.0	BUD	20.0%	HCA	10.0%
1.0	MU	20.0%	BHP	10.0%
1.0	JPM	20.0%	BHC	10.0%
1.0	CLF	15.0%	KHC	10.0%
1.0	ISRG	15.0%	THC	10.0%
1.0	META	15.0%	NFLX	10.0%
1.0	NFLX	15.0%	MNST	10.0%
1.0	TSLA	15.0%	WFC	10.0%
1.0	CDNS	15.0%	NEM	10.0%
1.0	ZTS	15.0%	NAVI	10.0%
1.0	AMZN	15.0%	CMG	10.0%
1.0	AMAT	15.0%	PEP	5.0%
1.0	B	10.0%	PHM	5.0%
1.0	TXN	10.0%	GWW	5.0%
1.0	NVS	10.0%	QCOM	5.0%
1.0	HON	10.0%	RIO	5.0%
1.0	QCOM	10.0%	HD	5.0%
1.0	BMY	10.0%	HON	5.0%
1.0	KALU	10.0%	SBUX	5.0%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	UNH	90.91%	TXN	72.73%
10.0	TXN	72.73%	CMG	63.64%
10.0	CHTR	54.55%	CYH	54.55%
10.0	CVS	45.45%	CHTR	54.55%
10.0	NAVI	45.45%	HCA	27.27%
10.0	HCA	45.45%	NAVI	18.18%
10.0	CMG	45.45%	BUD	18.18%
10.0	KALU	36.36%	THC	18.18%
10.0	CMCSA	36.36%	KALU	18.18%
10.0	BUD	27.27%	HON	9.09%
10.0	AMC	27.27%	GWW	9.09%
10.0	INTC	18.18%	NVS	9.09%
10.0	AAP	18.18%	LW	0.0%
10.0	BMY	9.09%	LLY	0.0%
10.0	SBUX	9.09%	PCG	0.0%
10.0	SNY	9.09%	OXY	0.0%
10.0	CNC	9.09%	ORLY	0.0%
10.0	GWW	9.09%	ORCL	0.0%
10.0	HON	9.09%	ON	0.0%
10.0	ZTS	9.09%	NWL	0.0%
10.0	CYH	9.09%	KHC	0.0%
10.0	TSLA	9.09%	NVDA	0.0%
10.0	VZ	9.09%	NFLX	0.0%
10.0	AMZN	9.09%	LEN	0.0%
10.0	TMUS	0.0%	NEM	0.0%
10.0	WFC	0.0%	MU	0.0%
10.0	NWL	0.0%	MUB	0.0%
10.0	NVS	0.0%	META	0.0%
10.0	NVDA	0.0%	LNC	0.0%
10.0	NFLX	0.0%	MSTR	0.0%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	SBUX	26.23%	GSK	13.11%
1.0	TSLA	24.59%	GILD	9.84%
1.0	LLY	24.59%	UNH	9.84%
1.0	ZTS	21.31%	BMY	8.2%
1.0	UNH	19.67%	MRK	8.2%
1.0	TDG	18.03%	NEM	8.2%
1.0	VZ	16.39%	ZTS	6.56%
1.0	AAP	14.75%	HCA	6.56%
1.0	VST	13.11%	GLD	6.56%
1.0	ADBE	13.11%	HLT	6.56%
1.0	AMC	13.11%	AAP	6.56%
1.0	NAVI	11.48%	NVS	6.56%
1.0	B	11.48%	SNY	6.56%
1.0	AMZN	11.48%	CHTR	6.56%
1.0	QQQ	11.48%	ACGL	6.56%
1.0	BUD	11.48%	AZN	6.56%
1.0	CDNS	11.48%	B	4.92%
1.0	UAA	9.84%	CMA	4.92%
1.0	INTC	9.84%	ABBV	4.92%
1.0	CNC	9.84%	XOM	4.92%
1.0	ISRG	9.84%	WFC	4.92%
1.0	AMGN	9.84%	KALU	4.92%
1.0	CMCSA	8.2%	KHC	4.92%
1.0	NEM	8.2%	LEN	4.92%
1.0	META	8.2%	LLY	4.92%
1.0	HCA	8.2%	NAVI	4.92%
1.0	TLT	8.2%	AMGN	4.92%
1.0	CHTR	8.2%	CVS	4.92%
1.0	JPM	8.2%	NFLX	4.92%
1.0	MU	8.2%	CNC	4.92%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	UNH	32.69%	CNC	23.08%
10.0	AMC	28.85%	PCG	21.15%
10.0	CNC	28.85%	CPRT	19.23%
10.0	TSLA	28.85%	TXN	15.38%
10.0	ZTS	23.08%	CMG	13.46%
10.0	PCG	17.31%	UNH	11.54%
10.0	CVS	17.31%	CYH	11.54%
10.0	CDNS	17.31%	CHTR	11.54%
10.0	GME	15.38%	TMUS	5.77%
10.0	AAP	15.38%	HCA	5.77%
10.0	CPRT	15.38%	NVS	3.85%
10.0	VZ	15.38%	COST	3.85%
10.0	TXN	15.38%	NAVI	3.85%
10.0	BUD	13.46%	BUD	3.85%
10.0	CHTR	11.54%	THC	3.85%
10.0	ADBE	11.54%	KALU	3.85%
10.0	HCA	9.62%	HON	1.92%
10.0	CMG	9.62%	GWW	1.92%
10.0	NAVI	9.62%	MNST	1.92%
10.0	LLY	7.69%	T	1.92%
10.0	CMCSA	7.69%	GSK	1.92%
10.0	KALU	7.69%	VNO	1.92%
10.0	AMGN	5.77%	LQD	0.0%
10.0	CYH	3.85%	LW	0.0%
10.0	BHP	3.85%	NWL	0.0%
10.0	INTC	3.85%	ON	0.0%
10.0	BMY	1.92%	ORCL	0.0%
10.0	OXY	1.92%	ORLY	0.0%
10.0	GWW	1.92%	NVDA	0.0%
10.0	AMZN	1.92%	OXY	0.0%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	CNC	56.1%	CNC	51.22%
21.0	UNH	48.78%	PCG	48.78%
21.0	PCG	43.9%	CPRT	36.59%
21.0	ZTS	41.46%	CMG	17.07%
21.0	TSLA	39.02%	CHTR	14.63%
21.0	ADBE	34.15%	UNH	14.63%
21.0	AMC	21.95%	BUD	4.88%
21.0	CVS	21.95%	AA	0.0%
21.0	CHTR	19.51%	NFLX	0.0%
21.0	CPRT	19.51%	NVDA	0.0%
21.0	AAP	7.32%	NVS	0.0%
21.0	BUD	7.32%	NWL	0.0%
21.0	CMCSA	4.88%	ORCL	0.0%
21.0	CYH	4.88%	ON	0.0%
21.0	CMG	2.44%	NAVI	0.0%
21.0	NAVI	2.44%	ORLY	0.0%
21.0	TXN	2.44%	OXY	0.0%
21.0	SNY	2.44%	PEP	0.0%
21.0	NEM	0.0%	PHM	0.0%
21.0	NFLX	0.0%	NEM	0.0%
21.0	NVDA	0.0%	MUB	0.0%
21.0	WFC	0.0%	PRGO	0.0%
21.0	NWL	0.0%	LW	0.0%
21.0	ON	0.0%	KHC	0.0%
21.0	ORCL	0.0%	LEN	0.0%
21.0	ORLY	0.0%	LLY	0.0%
21.0	OXY	0.0%	LNC	0.0%
21.0	ZION	0.0%	LQD	0.0%
21.0	NVS	0.0%	LUMN	0.0%
21.0	MUB	0.0%	LVS	0.0%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	TSLA	22.49%	AAPL	9.24%
1.0	SBUX	15.26%	TRGP	8.84%
1.0	ZTS	14.86%	HCA	8.84%
1.0	AMZN	14.46%	GSK	8.43%
1.0	INTC	14.06%	IRM	8.03%
1.0	UNH	14.06%	AZN	7.63%
1.0	B	13.65%	PEP	7.63%
1.0	MSFT	13.65%	TXN	7.63%
1.0	AAP	12.45%	HLT	7.23%
1.0	CLF	12.45%	PHM	7.23%
1.0	QCOM	11.24%	SPY	7.23%
1.0	GSK	11.24%	BMY	7.23%
1.0	NAVI	11.24%	TMUS	7.23%
1.0	TXN	10.84%	OXY	7.23%
1.0	MU	10.84%	LLY	7.23%
1.0	AMGN	10.84%	UNH	7.23%
1.0	VZ	10.84%	LEN	7.23%
1.0	CHTR	10.44%	GILD	7.23%
1.0	CDNS	10.44%	NVS	6.83%
1.0	LLY	10.04%	KHC	6.83%
1.0	META	10.04%	PCG	6.83%
1.0	LQD	10.04%	AMGN	6.83%
1.0	KHC	10.04%	XOM	6.83%
1.0	PEP	9.64%	QQQ	6.83%
1.0	CNC	9.24%	T	6.43%
1.0	BUD	9.24%	NVDA	6.43%
1.0	ON	9.24%	THC	6.43%
1.0	TDG	8.84%	CNC	6.43%
1.0	BHC	8.43%	GOOGL	6.43%
1.0	KEY	8.03%	ACGL	6.43%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	TSLA	25.83%	UNH	15.83%
10.0	UNH	19.17%	CNC	13.33%
10.0	ZTS	19.17%	AZN	13.33%
10.0	AAP	18.75%	PCG	12.08%
10.0	CVS	16.67%	IRM	11.67%
10.0	BUD	16.67%	AAPL	11.25%
10.0	GSK	13.75%	LLY	10.83%
10.0	VFC	12.92%	TRGP	10.83%
10.0	CMA	12.92%	VFC	10.0%
10.0	VZ	12.5%	MRK	9.58%
10.0	CLF	12.5%	FITB	9.17%
10.0	SBUX	12.08%	LVS	9.17%
10.0	CZR	12.08%	ABBV	9.17%
10.0	CHTR	11.67%	MUB	8.79%
10.0	NAVI	11.67%	HON	8.75%
10.0	INTC	11.25%	TXN	8.75%
10.0	CNC	10.83%	SBUX	8.75%
10.0	B	10.83%	CPRT	8.75%
10.0	AMC	10.83%	CVS	8.75%
10.0	WDC	10.83%	BAC	8.75%
10.0	CSTM	10.42%	WFC	8.75%
10.0	TXN	10.42%	BBY	8.33%
10.0	KEY	10.0%	NVS	8.33%
10.0	CDNS	10.0%	GSK	8.33%
10.0	GNRC	10.0%	LEN	8.33%
10.0	JAZZ	10.0%	AAP	8.33%
10.0	AMGN	9.58%	AA	7.92%
10.0	META	9.58%	OXY	7.92%
10.0	LQD	9.58%	PHM	7.92%
10.0	BMY	9.17%	GS	7.92%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	UNH	27.07%	UNH	25.33%
21.0	ZTS	25.76%	PCG	18.34%
21.0	BUD	24.89%	CNC	16.16%
21.0	GSK	21.83%	AZN	16.16%
21.0	TSLA	20.09%	VFC	13.97%
21.0	CVS	18.34%	LVS	13.1%
21.0	CSTM	18.34%	BUD	13.1%
21.0	VFC	17.03%	ABBV	12.66%
21.0	ON	16.59%	CPRT	12.23%
21.0	CHTR	16.16%	MRK	11.35%
21.0	AAP	15.72%	IRM	11.35%
21.0	AMGN	15.28%	FRA	10.92%
21.0	CZR	15.28%	CSTM	10.92%
21.0	GNRC	14.85%	HLT	10.48%
21.0	WDC	14.85%	BIIB	10.04%
21.0	SBUX	14.41%	WDC	10.04%
21.0	B	14.41%	PEP	9.61%
21.0	CNC	13.97%	BMY	9.61%
21.0	OXY	13.54%	TEVA	9.61%
21.0	LQD	12.66%	NWL	9.17%
21.0	PCG	12.23%	BBY	9.17%
21.0	AZN	12.23%	SBUX	8.73%
21.0	NAVI	12.23%	CVS	8.73%
21.0	CMA	12.23%	GSK	8.73%
21.0	META	12.23%	TRGP	8.73%
21.0	NEM	11.35%	CCL	8.73%
21.0	GOOGL	10.92%	MUB	8.33%
21.0	ADBE	10.92%	JAZZ	8.3%
21.0	BBY	10.92%	AAP	8.3%
21.0	BHC	10.48%	ISRG	8.3%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	UNH	39.04%	UNH	39.57%
63.0	VFC	29.95%	LEN	29.41%
63.0	ON	28.34%	PCG	28.34%
63.0	GNRC	28.34%	WDC	24.6%
63.0	BUD	26.2%	VFC	22.99%
63.0	CNC	25.13%	CNC	20.86%
63.0	WDC	25.13%	BUD	20.86%
63.0	BMY	24.6%	IRM	20.32%
63.0	BHC	23.53%	AZN	17.11%
63.0	PCG	22.99%	HCA	16.58%
63.0	NWL	22.46%	NWL	16.58%
63.0	PEP	21.39%	NVS	14.97%
63.0	GSK	20.86%	NEM	14.97%
63.0	BIIB	19.79%	GSK	14.44%
63.0	GOOGL	18.72%	CCL	13.9%
63.0	AAP	18.72%	TEVA	13.37%
63.0	CSTM	18.72%	DHI	11.76%
63.0	NEM	17.65%	PEP	10.7%
63.0	KHC	17.11%	ACGL	9.63%
63.0	SBUX	15.51%	CYH	9.63%
63.0	HCA	13.9%	BMY	8.56%
63.0	AMGN	13.37%	CPRT	8.56%
63.0	B	12.83%	LVS	8.02%
63.0	CLF	12.83%	CSTM	8.02%
63.0	CMA	12.3%	MSI	8.02%
63.0	FITB	11.76%	CMCSA	8.02%
63.0	CVS	11.23%	PHM	8.02%
63.0	LW	10.7%	PWR	7.49%
63.0	AAPL	9.63%	FRA	7.49%
63.0	MRK	9.63%	FIS	7.49%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	VFC	55.65%	LEN	52.42%
126.0	UNH	44.35%	UNH	52.42%
126.0	GNRC	42.74%	IRM	31.45%
126.0	BIIB	41.94%	PCG	27.42%
126.0	MRK	37.9%	PEP	20.97%
126.0	PEP	37.1%	CNC	17.74%
126.0	NWL	35.48%	BIIB	17.74%
126.0	CNC	35.48%	MRK	13.71%
126.0	BMY	33.06%	WDC	12.1%
126.0	CLF	26.61%	DHI	11.29%
126.0	UAA	25.81%	PHM	9.68%
126.0	BHC	25.0%	BBY	9.68%
126.0	ON	24.19%	LVS	8.87%
126.0	WDC	21.77%	VFC	6.45%
126.0	CZR	20.97%	MUB	4.07%
126.0	DHI	16.94%	OXY	3.23%
126.0	KHC	13.71%	CSTM	3.23%
126.0	OXY	12.9%	BALL	3.23%
126.0	NAVI	10.48%	NWL	2.42%
126.0	BUD	10.48%	CYH	2.42%
126.0	LW	8.87%	FCX	2.42%
126.0	ELAN	8.87%	ACGL	2.42%
126.0	CYH	8.06%	BHP	1.61%
126.0	LEN	7.26%	BHC	1.61%
126.0	WYNN	7.26%	WYNN	1.61%
126.0	AMD	7.26%	FRA	1.61%
126.0	BXP	6.45%	TRGP	1.61%
126.0	LUMN	6.45%	TXN	0.81%
126.0	AAP	4.84%	AMD	0.81%
126.0	BALL	4.84%	MU	0.0%

Top 30 Tickers By ROVBC

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	0.7%	MSTR	0.45%
1.0	GME	0.44%	VST	0.31%
1.0	META	0.29%	NVDA	0.28%
1.0	NFLX	0.29%	AVGO	0.22%
1.0	ORCL	0.2%	GBTC	0.22%
1.0	CDNS	0.19%	GME	0.19%
1.0	AVGO	0.18%	PWR	0.18%
1.0	INTU	0.18%	GE	0.17%
1.0	NVDA	0.17%	X	0.17%
1.0	PWR	0.17%	NFLX	0.16%
1.0	VST	0.16%	ORCL	0.15%
1.0	AAPL	0.14%	LLY	0.15%
1.0	TDG	0.13%	META	0.15%
1.0	WDC	0.13%	TRGP	0.14%
1.0	GWW	0.13%	CAH	0.14%
1.0	XOM	0.12%	THC	0.13%
1.0	AMZN	0.12%	CDNS	0.12%
1.0	X	0.12%	TDG	0.12%
1.0	AMD	0.11%	ETRN	0.12%
1.0	ORLY	0.11%	PHM	0.12%
1.0	GBTC	0.1%	CCL	0.11%
1.0	THC	0.1%	TEVA	0.11%
1.0	GE	0.1%	ORLY	0.1%
1.0	HD	0.1%	AMD	0.1%
1.0	AZO	0.09%	TMUS	0.1%
1.0	CAH	0.09%	IRM	0.1%
1.0	MU	0.09%	GS	0.09%
1.0	MSI	0.09%	JPM	0.09%
1.0	B	0.09%	WDC	0.09%
1.0	BA	0.09%	AZO	0.09%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	8.51%	MSTR	4.67%
10.0	GME	6.14%	VST	3.03%
10.0	META	2.92%	NVDA	2.83%
10.0	NFLX	2.59%	AVGO	2.19%
10.0	VST	2.3%	GBTC	2.14%
10.0	ORCL	2.14%	PWR	1.8%
10.0	AVGO	2.12%	NFLX	1.67%
10.0	NVDA	2.11%	GE	1.66%
10.0	TEVA	1.88%	GME	1.62%
10.0	PWR	1.64%	META	1.6%
10.0	MU	1.57%	X	1.58%
10.0	GBTC	1.52%	LLY	1.55%
10.0	GE	1.49%	ORCL	1.52%
10.0	SLV	1.49%	ETRN	1.41%
10.0	CDNS	1.38%	CAH	1.38%
10.0	GWW	1.34%	TRGP	1.35%
10.0	CAH	1.31%	THC	1.22%
10.0	AMZN	1.25%	TDG	1.21%
10.0	WDC	1.23%	TEVA	1.2%
10.0	ETRN	1.23%	CDNS	1.18%
10.0	GS	1.23%	PHM	1.15%
10.0	INTU	1.22%	CCL	1.1%
10.0	X	1.21%	IRM	1.07%
10.0	AMD	1.11%	ORLY	1.02%
10.0	OXY	1.09%	GWW	1.0%
10.0	CTLT	1.08%	GS	0.96%
10.0	AAPL	1.08%	TSLA	0.92%
10.0	THC	1.06%	JPM	0.9%
10.0	HLT	1.03%	AMD	0.89%
10.0	LLY	1.0%	TMUS	0.89%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	21.19%	MSTR	10.52%
21.0	GME	9.52%	VST	6.54%
21.0	META	8.04%	NVDA	6.11%
21.0	NFLX	6.3%	GBTC	4.66%
21.0	ORCL	4.92%	AVGO	4.6%
21.0	VST	4.9%	PWR	3.79%
21.0	AVGO	4.82%	NFLX	3.79%
21.0	TEVA	4.79%	META	3.61%
21.0	GBTC	4.64%	GE	3.59%
21.0	NVDA	4.55%	ETRN	3.5%
21.0	PWR	3.76%	ORCL	3.34%
21.0	ETRN	3.51%	LLY	3.25%
21.0	GE	3.49%	X	3.17%
21.0	MU	3.32%	CAH	2.98%
21.0	GWW	3.03%	TRGP	2.85%
21.0	CAH	2.89%	THC	2.69%
21.0	AMZN	2.85%	TEVA	2.62%
21.0	WDC	2.84%	GME	2.54%
21.0	GS	2.76%	TDG	2.48%
21.0	SLV	2.65%	CCL	2.47%
21.0	CTLT	2.65%	PHM	2.45%
21.0	THC	2.51%	CDNS	2.4%
21.0	INTU	2.48%	IRM	2.28%
21.0	GILD	2.47%	GWW	2.2%
21.0	LLY	2.35%	TSLA	2.2%
21.0	TRGP	2.2%	GS	2.08%
21.0	CDNS	2.14%	ORLY	2.07%
21.0	HLT	2.14%	ISRG	1.91%
21.0	X	2.1%	JPM	1.89%
21.0	XOM	2.06%	AZO	1.82%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	52.07%	MSTR	30.81%
63.0	META	27.24%	VST	20.68%
63.0	NFLX	23.44%	NVDA	19.7%
63.0	VST	18.69%	GBTC	15.44%
63.0	NVDA	15.49%	AVGO	13.64%
63.0	AVGO	14.82%	NFLX	13.02%
63.0	ORCL	13.93%	META	12.42%
63.0	GBTC	13.31%	GE	11.19%
63.0	GE	12.17%	ETRN	10.28%
63.0	ETRN	11.21%	PWR	10.22%
63.0	CTLT	11.11%	LLY	9.37%
63.0	TEVA	10.09%	CAH	8.86%
63.0	WDC	10.0%	ORCL	8.76%
63.0	GME	9.59%	THC	8.52%
63.0	CAH	9.05%	PHM	8.09%
63.0	THC	8.76%	TRGP	7.99%
63.0	GWW	8.32%	TDG	7.29%
63.0	PWR	8.09%	TEVA	7.04%
63.0	LLY	8.07%	CCL	7.02%
63.0	TDG	7.78%	GWW	6.59%
63.0	GILD	7.67%	CDNS	6.54%
63.0	ISRG	7.49%	ISRG	6.34%
63.0	INTU	6.92%	IRM	6.31%
63.0	MSI	6.9%	JPM	6.03%
63.0	GS	6.88%	ORLY	5.92%
63.0	SLV	6.6%	X	5.91%
63.0	TRGP	6.58%	GS	5.89%
63.0	AMD	6.5%	ACGL	5.85%
63.0	MU	5.92%	CMG	5.43%
63.0	PHM	5.82%	TMUS	5.36%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	140.47%	MSTR	72.31%
126.0	META	68.89%	NVDA	48.54%
126.0	NFLX	57.96%	VST	43.23%
126.0	NVDA	46.1%	GBTC	39.65%
126.0	VST	42.73%	NFLX	30.36%
126.0	GBTC	39.25%	META	29.34%
126.0	AVGO	36.46%	AVGO	27.95%
126.0	ORCL	26.44%	GE	25.76%
126.0	GE	25.72%	LLY	20.46%
126.0	LLY	23.7%	TRGP	19.42%
126.0	TEVA	22.02%	THC	19.33%
126.0	ISRG	20.98%	PHM	18.63%
126.0	CAH	20.79%	ETRN	18.49%
126.0	GILD	19.05%	PWR	18.32%
126.0	TDG	18.8%	CAH	17.93%
126.0	ETRN	16.95%	ORCL	16.74%
126.0	INTU	16.92%	TDG	16.34%
126.0	GWW	16.2%	ISRG	15.33%
126.0	MSI	16.05%	TEVA	14.72%
126.0	TMUS	15.66%	GWW	14.22%
126.0	TRGP	15.61%	CCL	13.76%
126.0	AMD	15.52%	ACGL	13.55%
126.0	AMZN	15.47%	JPM	13.41%
126.0	THC	15.42%	ORLY	13.34%
126.0	LEN	15.02%	IRM	13.26%
126.0	ORLY	14.56%	MSI	12.4%
126.0	CDNS	13.28%	COST	12.32%
126.0	AZO	13.04%	X	12.31%
126.0	SLV	12.87%	CMG	12.26%
126.0	HCA	12.78%	CDNS	12.22%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	MSTR	428.45%	MSTR	224.9%
252.0	META	179.89%	NVDA	142.83%
252.0	VST	153.92%	VST	126.9%
252.0	NVDA	141.9%	GBTC	118.26%
252.0	NFLX	138.99%	META	79.88%
252.0	GBTC	124.86%	AVGO	73.22%
252.0	AVGO	109.19%	NFLX	69.3%
252.0	LLY	71.83%	GE	61.18%
252.0	ORCL	69.87%	PHM	54.19%
252.0	GE	65.59%	LLY	52.22%
252.0	ISRG	65.09%	THC	51.02%
252.0	AMZN	64.07%	TRGP	49.48%
252.0	TEVA	61.12%	PWR	42.53%
252.0	THC	61.04%	TDG	40.08%
252.0	TDG	54.66%	ORCL	39.22%
252.0	INTU	52.36%	ISRG	38.83%
252.0	TRGP	48.5%	TEVA	37.59%
252.0	AMD	47.77%	CCL	37.26%
252.0	MSI	46.5%	IRM	36.16%
252.0	LEN	46.31%	ETRN	35.78%
252.0	CAH	44.94%	CAH	33.77%
252.0	GWW	42.33%	GWW	33.57%
252.0	GOOGL	41.43%	DHI	33.55%
252.0	PHM	41.42%	ACGL	33.04%
252.0	DHI	40.22%	JPM	31.54%
252.0	WDC	39.5%	CMG	31.21%
252.0	AMAT	39.29%	COST	30.88%
252.0	ACGL	39.01%	MSI	29.72%
252.0	ETRN	38.77%	CPRT	29.43%
252.0	COST	38.06%	CDNS	28.71%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CDNS	1.93%	GNRC	1.31%
1.0	AMD	1.6%	AMD	1.11%
1.0	GNRC	1.54%	WDC	0.79%
1.0	NVDA	1.38%	CLF	0.77%
1.0	LW	0.93%	DHI	0.75%
1.0	META	0.86%	CDNS	0.72%
1.0	DHI	0.69%	ORLY	0.53%
1.0	TDG	0.63%	NVDA	0.51%
1.0	FSUGY	0.62%	FSUGY	0.47%
1.0	MSFT	0.53%	GE	0.44%
1.0	VST	0.41%	VST	0.43%
1.0	NEM	0.4%	LVS	0.41%
1.0	WDC	0.36%	LW	0.41%
1.0	ORLY	0.36%	PHM	0.38%
1.0	LVS	0.35%	AVGO	0.35%
1.0	RIO	0.34%	LNC	0.34%
1.0	LEN	0.32%	MSFT	0.33%
1.0	LNC	0.3%	LEN	0.3%
1.0	GOOGL	0.28%	GOOGL	0.29%
1.0	SLV	0.27%	META	0.29%
1.0	IEP	0.25%	IEP	0.28%
1.0	EXPE	0.24%	JAZZ	0.26%
1.0	PHM	0.24%	NEM	0.26%
1.0	GE	0.24%	CMA	0.24%
1.0	AAP	0.21%	EXPE	0.22%
1.0	PWR	0.19%	AZN	0.22%
1.0	JAZZ	0.19%	TDG	0.2%
1.0	AZN	0.18%	GBTC	0.18%
1.0	AZO	0.18%	AAP	0.17%
1.0	CMA	0.17%	ABBV	0.17%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	LW	20.87%	CLF	16.98%
10.0	CDNS	16.18%	AMD	13.37%
10.0	AMD	15.85%	LW	9.63%
10.0	NVDA	14.97%	GNRC	8.78%
10.0	CLF	14.13%	DHI	7.85%
10.0	VST	9.67%	FSUGY	7.33%
10.0	NEM	9.35%	WDC	6.9%
10.0	AMC	9.1%	GOOGL	6.52%
10.0	GNRC	8.86%	CDNS	6.31%
10.0	PWR	8.51%	CMA	6.24%
10.0	TSLA	8.35%	ORLY	5.59%
10.0	CMA	8.05%	NEM	5.28%
10.0	DHI	7.64%	NVDA	5.18%
10.0	TDG	7.48%	PWR	4.89%
10.0	WDC	7.44%	AVGO	4.55%
10.0	AMZN	7.3%	GE	4.48%
10.0	GOOGL	6.34%	PEP	4.42%
10.0	FSUGY	6.34%	RIO	4.31%
10.0	JAZZ	5.79%	KHC	4.3%
10.0	BHP	5.18%	PHM	4.09%
10.0	PEP	4.38%	JAZZ	3.87%
10.0	AAP	4.36%	ORCL	3.81%
10.0	JPM	4.35%	BHP	3.69%
10.0	ORLY	4.08%	VST	3.22%
10.0	EXPE	3.93%	LVS	3.21%
10.0	ORCL	3.9%	EXPE	3.15%
10.0	QQQ	3.79%	TMUS	3.08%
10.0	MSFT	3.64%	AMC	3.03%
10.0	GE	3.38%	TSLA	3.0%
10.0	KHC	3.38%	PCG	2.98%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	AAP	2.85%	AAP	1.09%
1.0	AMD	1.11%	AMD	0.91%
1.0	GNRC	1.04%	X	0.9%
1.0	MU	0.96%	WDC	0.89%
1.0	ON	0.95%	GNRC	0.88%
1.0	BHC	0.93%	ORCL	0.84%
1.0	META	0.89%	NVDA	0.71%
1.0	AMC	0.88%	ON	0.69%
1.0	VST	0.87%	VST	0.69%
1.0	WDC	0.85%	CCL	0.68%
1.0	ORCL	0.82%	ELAN	0.65%
1.0	NVDA	0.73%	AVGO	0.62%
1.0	AMZN	0.61%	LVS	0.53%
1.0	CDNS	0.59%	MU	0.46%
1.0	AVGO	0.58%	WYNN	0.46%
1.0	B	0.57%	GE	0.43%
1.0	QQQ	0.56%	GS	0.4%
1.0	LW	0.51%	CLF	0.39%
1.0	MSFT	0.49%	META	0.39%
1.0	AA	0.48%	INTU	0.35%
1.0	X	0.48%	PWR	0.34%
1.0	ELAN	0.47%	DHI	0.34%
1.0	CCL	0.46%	CSTM	0.33%
1.0	CLF	0.43%	GBTC	0.31%
1.0	NEM	0.41%	CMA	0.31%
1.0	TDG	0.4%	MSFT	0.31%
1.0	PWR	0.4%	NEM	0.3%
1.0	LVS	0.39%	BA	0.3%
1.0	GOOGL	0.35%	BHC	0.28%
1.0	CSTM	0.35%	AMAT	0.27%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AAP	26.4%	AAP	14.08%
10.0	WDC	14.46%	X	13.61%
10.0	X	13.81%	ORCL	9.53%
10.0	ORCL	12.35%	AMD	9.14%
10.0	AMC	11.18%	WDC	8.45%
10.0	MU	10.71%	CLF	7.91%
10.0	AMD	9.88%	BHC	7.06%
10.0	ON	9.37%	CCL	6.99%
10.0	BHC	8.94%	NVDA	6.9%
10.0	VST	8.46%	ON	6.84%
10.0	PWR	7.68%	VST	6.12%
10.0	NVDA	7.48%	AVGO	5.9%
10.0	CLF	7.32%	GNRC	5.89%
10.0	GNRC	7.27%	MU	4.79%
10.0	AMZN	6.95%	LVS	4.6%
10.0	QQQ	6.73%	GS	4.22%
10.0	NEM	6.15%	GE	4.14%
10.0	CCL	5.88%	ELAN	4.06%
10.0	TDG	5.88%	PWR	4.0%
10.0	AVGO	5.47%	WYNN	3.99%
10.0	MSFT	5.47%	CSTM	3.91%
10.0	META	5.29%	INTU	3.82%
10.0	LW	5.25%	KALU	3.81%
10.0	GE	5.09%	NEM	3.78%
10.0	GOOGL	4.84%	AMC	3.73%
10.0	AA	4.83%	GOOGL	3.69%
10.0	SBUX	4.79%	CMA	3.35%
10.0	AMGN	4.61%	DHI	3.22%
10.0	B	4.26%	BA	3.16%
10.0	GS	4.19%	SLV	3.13%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	AAP	49.59%	X	28.78%
21.0	WDC	33.53%	AAP	26.65%
21.0	ORCL	30.6%	ORCL	24.32%
21.0	ON	29.62%	BHC	20.86%
21.0	MU	28.6%	CLF	20.11%
21.0	X	28.45%	AMD	19.82%
21.0	BHC	26.2%	WDC	18.62%
21.0	AMD	20.15%	ON	17.57%
21.0	PWR	18.32%	CCL	16.06%
21.0	GNRC	18.31%	NVDA	14.78%
21.0	CLF	16.87%	VST	13.09%
21.0	CCL	15.17%	MU	12.94%
21.0	NEM	14.55%	GNRC	12.92%
21.0	MSFT	14.15%	AVGO	12.07%
21.0	VST	13.53%	LVS	11.3%
21.0	QQQ	13.41%	WYNN	10.66%
21.0	SBUX	13.19%	KALU	10.12%
21.0	TXN	12.81%	GS	9.96%
21.0	META	12.78%	CSTM	9.0%
21.0	TDG	12.22%	AMAT	8.96%
21.0	AMZN	12.08%	PWR	8.62%
21.0	NVDA	11.67%	ELAN	8.45%
21.0	GS	11.66%	ZION	8.27%
21.0	AVGO	11.32%	NEM	7.86%
21.0	KALU	10.81%	KEY	7.65%
21.0	CSTM	10.61%	FCX	7.53%
21.0	AA	10.6%	DHI	7.25%
21.0	B	10.29%	SLV	7.21%
21.0	WYNN	10.23%	GE	7.17%
21.0	SLV	9.96%	CMA	7.12%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	0.88%	MSTR	0.55%
1.0	BHC	0.43%	VST	0.53%
1.0	PWR	0.42%	AVGO	0.35%
1.0	GME	0.42%	CCL	0.32%
1.0	ORCL	0.37%	GBTC	0.28%
1.0	META	0.36%	ORCL	0.28%
1.0	AMZN	0.34%	NFLX	0.28%
1.0	AAP	0.33%	TSLA	0.25%
1.0	CDNS	0.29%	NVDA	0.25%
1.0	PRGO	0.29%	PWR	0.23%
1.0	MU	0.27%	GE	0.23%
1.0	NFLX	0.27%	EXPE	0.21%
1.0	WDC	0.26%	X	0.21%
1.0	SLV	0.25%	META	0.2%
1.0	EXPE	0.24%	GS	0.19%
1.0	ELAN	0.24%	CAH	0.18%
1.0	LNC	0.23%	WDC	0.18%
1.0	NVDA	0.23%	CDNS	0.18%
1.0	NEM	0.22%	WFC	0.17%
1.0	GNRC	0.22%	MS	0.17%
1.0	BA	0.21%	HSBC	0.17%
1.0	GBTC	0.21%	WYNN	0.17%
1.0	B	0.21%	GILD	0.17%
1.0	QQQ	0.18%	JPM	0.17%
1.0	VFC	0.18%	GNRC	0.16%
1.0	GS	0.17%	AMD	0.16%
1.0	VST	0.17%	LVS	0.16%
1.0	GE	0.17%	CSCO	0.16%
1.0	GILD	0.17%	T	0.16%
1.0	TDG	0.16%	VNO	0.14%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	10.88%	MSTR	6.05%
10.0	MU	5.13%	VST	4.98%
10.0	GME	4.05%	CCL	3.46%
10.0	ORCL	3.98%	AVGO	3.42%
10.0	PWR	3.73%	GBTC	3.25%
10.0	VST	3.67%	ORCL	3.0%
10.0	META	3.66%	NFLX	2.88%
10.0	WDC	3.42%	TSLA	2.82%
10.0	AMZN	3.33%	NVDA	2.44%
10.0	EXPE	3.29%	GE	2.27%
10.0	TSLA	2.95%	PWR	2.24%
10.0	CCL	2.91%	WFC	2.07%
10.0	AVGO	2.88%	EXPE	2.06%
10.0	SLV	2.69%	WYNN	2.02%
10.0	BHC	2.63%	CAH	1.92%
10.0	GS	2.41%	HSBC	1.92%
10.0	NEM	2.38%	GS	1.92%
10.0	NVDA	2.35%	MS	1.9%
10.0	GILD	2.31%	GILD	1.86%
10.0	GE	2.28%	X	1.83%
10.0	GBTC	2.21%	CSCO	1.77%
10.0	MSFT	2.15%	JPM	1.7%
10.0	NFLX	2.14%	META	1.7%
10.0	B	2.11%	BA	1.62%
10.0	QQQ	2.03%	BHC	1.59%
10.0	CDNS	2.03%	LVS	1.57%
10.0	AAP	1.82%	T	1.57%
10.0	BA	1.82%	GT	1.52%
10.0	WFC	1.8%	WDC	1.51%
10.0	ELAN	1.72%	MOS	1.5%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	27.4%	MSTR	13.84%
21.0	MU	10.7%	VST	10.58%
21.0	TSLA	9.25%	CCL	7.21%
21.0	PWR	8.55%	GBTC	6.99%
21.0	ORCL	8.33%	AVGO	6.84%
21.0	WDC	8.13%	ORCL	6.43%
21.0	META	7.87%	NFLX	6.22%
21.0	GME	7.41%	TSLA	5.92%
21.0	AVGO	6.84%	GE	4.61%
21.0	CCL	6.7%	PWR	4.47%
21.0	VST	6.43%	WYNN	4.37%
21.0	AMZN	6.22%	WFC	4.19%
21.0	EXPE	6.1%	NVDA	4.18%
21.0	GBTC	5.76%	CAH	3.98%
21.0	GS	5.13%	GS	3.91%
21.0	GE	5.13%	GILD	3.89%
21.0	GILD	4.95%	MS	3.86%
21.0	NFLX	4.79%	HSBC	3.81%
21.0	BHC	4.69%	EXPE	3.71%
21.0	KALU	4.53%	META	3.6%
21.0	SLV	4.4%	X	3.54%
21.0	NEM	4.07%	CSCO	3.43%
21.0	WFC	4.04%	T	3.38%
21.0	BA	3.99%	JPM	3.28%
21.0	WYNN	3.85%	LVS	3.26%
21.0	NVDA	3.8%	BA	3.18%
21.0	ELAN	3.76%	BHC	3.11%
21.0	MSFT	3.75%	MOS	3.04%
21.0	JPM	3.56%	AMZN	2.91%
21.0	AAP	3.31%	GT	2.85%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	76.42%	MSTR	50.46%
63.0	TSLA	39.94%	VST	27.94%
63.0	WDC	23.62%	GBTC	23.71%
63.0	VST	23.56%	NFLX	21.27%
63.0	ORCL	21.34%	TSLA	20.42%
63.0	MU	19.1%	AVGO	18.81%
63.0	CCL	18.4%	CCL	17.86%
63.0	AVGO	18.3%	CAH	13.12%
63.0	NFLX	17.92%	GE	12.41%
63.0	GE	17.77%	ORCL	12.12%
63.0	GBTC	17.77%	WFC	12.0%
63.0	GME	17.14%	PWR	11.9%
63.0	META	17.13%	HSBC	11.65%
63.0	PWR	16.53%	MOS	11.42%
63.0	KALU	15.58%	BA	10.95%
63.0	BA	15.53%	GILD	10.6%
63.0	GS	15.08%	GS	10.5%
63.0	EXPE	14.08%	GT	10.33%
63.0	GILD	12.92%	MS	10.27%
63.0	CVS	12.89%	T	10.19%
63.0	NVDA	11.92%	JPM	9.46%
63.0	CAH	10.68%	NVDA	9.45%
63.0	WFC	10.23%	CSCO	9.1%
63.0	JPM	9.91%	GLD	9.07%
63.0	THC	9.71%	X	9.05%
63.0	BUD	9.69%	META	8.96%
63.0	MS	9.57%	EXPE	8.7%
63.0	NEM	9.17%	GME	8.25%
63.0	B	8.91%	AAP	8.24%
63.0	SLV	8.91%	MNST	7.82%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	90.31%	MSTR	58.42%
126.0	NFLX	39.88%	NFLX	40.26%
126.0	GILD	35.1%	GBTC	29.24%
126.0	CVS	35.08%	VST	28.75%
126.0	NEM	32.76%	HSBC	26.15%
126.0	GE	28.69%	GILD	25.5%
126.0	VST	27.4%	GE	25.43%
126.0	BA	27.16%	CAH	25.04%
126.0	AVGO	24.55%	T	24.82%
126.0	B	24.22%	AVGO	23.86%
126.0	GBTC	23.6%	GLD	21.32%
126.0	META	23.02%	BA	18.05%
126.0	HSBC	22.73%	MOS	17.61%
126.0	AZO	22.64%	WFC	17.1%
126.0	CAH	22.3%	CVS	16.88%
126.0	BUD	21.13%	GT	15.7%
126.0	TSLA	19.63%	ORLY	15.45%
126.0	GLD	18.35%	TMUS	15.33%
126.0	SLV	18.32%	CSCO	15.21%
126.0	T	16.67%	AZO	15.1%
126.0	GS	14.8%	NEM	14.82%
126.0	EXPE	14.28%	JPM	14.52%
126.0	MOS	13.85%	MNST	14.19%
126.0	WFC	13.16%	X	13.74%
126.0	MNST	12.0%	META	13.24%
126.0	CCL	11.8%	BUD	13.04%
126.0	GT	10.63%	GS	12.54%
126.0	ORLY	10.45%	CCL	12.42%
126.0	TMUS	10.35%	SLV	11.78%
126.0	X	9.74%	MS	10.59%

Bottom 30 Tickers By ROVBC

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	SIVBQ	-1.87%	SIVBQ	-0.78%
1.0	SBNY	-1.06%	SBNY	-0.45%
1.0	FRCB	-0.39%	FRCB	-0.23%
1.0	CYH	-0.18%	IEP	-0.16%
1.0	LUMN	-0.17%	AMC	-0.15%
1.0	IEP	-0.17%	VFC	-0.13%
1.0	AMC	-0.14%	NWL	-0.12%
1.0	CHTR	-0.14%	AAP	-0.11%
1.0	CNC	-0.13%	LUMN	-0.1%
1.0	FIS	-0.11%	CNC	-0.09%
1.0	TSLA	-0.1%	BHC	-0.07%
1.0	ELAN	-0.1%	CZR	-0.07%
1.0	GSK	-0.08%	UAA	-0.06%
1.0	VFC	-0.08%	CHTR	-0.06%
1.0	CVS	-0.08%	INTC	-0.06%
1.0	CSTM	-0.08%	UNH	-0.06%
1.0	AAP	-0.08%	TLT	-0.05%
1.0	BXP	-0.07%	CVS	-0.04%
1.0	TLT	-0.07%	BALL	-0.04%
1.0	T	-0.07%	BIIB	-0.04%
1.0	VZ	-0.06%	BXP	-0.04%
1.0	BHC	-0.06%	CYH	-0.04%
1.0	USB	-0.05%	CMCSA	-0.03%
1.0	UNH	-0.04%	GSK	-0.03%
1.0	EMB	-0.04%	BMY	-0.03%
1.0	BMY	-0.04%	LNC	-0.03%
1.0	PEP	-0.04%	ELAN	-0.03%
1.0	KEY	-0.04%	GT	-0.03%
1.0	INTC	-0.04%	FIS	-0.02%
1.0	GT	-0.03%	ADBE	-0.02%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	SBNY	-10.1%	SBNY	-4.05%
10.0	SIVBQ	-7.85%	SIVBQ	-3.9%
10.0	FRCB	-3.12%	FRCB	-2.19%
10.0	AMC	-2.94%	IEP	-1.49%
10.0	IEP	-1.72%	AMC	-1.45%
10.0	VFC	-1.58%	VFC	-1.3%
10.0	AAP	-1.41%	NWL	-1.04%
10.0	CNC	-1.18%	CNC	-0.98%
10.0	CHTR	-1.14%	AAP	-0.91%
10.0	GSK	-1.04%	CZR	-0.74%
10.0	LUMN	-0.94%	UAA	-0.69%
10.0	NWL	-0.84%	LUMN	-0.62%
10.0	BIIB	-0.82%	TLT	-0.5%
10.0	TLT	-0.82%	INTC	-0.49%
10.0	CYH	-0.75%	BHC	-0.48%
10.0	FIS	-0.74%	BIIB	-0.46%
10.0	BXP	-0.72%	UNH	-0.45%
10.0	CVS	-0.68%	CVS	-0.44%
10.0	PRGO	-0.54%	CYH	-0.43%
10.0	BHC	-0.54%	CHTR	-0.41%
10.0	GT	-0.52%	LNC	-0.4%
10.0	VZ	-0.5%	BXP	-0.37%
10.0	BMY	-0.49%	BALL	-0.36%
10.0	ELAN	-0.41%	GSK	-0.32%
10.0	LNC	-0.39%	CMCSA	-0.31%
10.0	UNH	-0.37%	BMY	-0.28%
10.0	BALL	-0.35%	ELAN	-0.27%
10.0	ZION	-0.35%	AA	-0.26%
10.0	LQD	-0.29%	GT	-0.23%
10.0	EMB	-0.19%	BBY	-0.23%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	SBNY	-29.82%	SBNY	-11.16%
21.0	SIVBQ	-18.52%	SIVBQ	-9.37%
21.0	FRCB	-10.1%	FRCB	-6.02%
21.0	AMC	-6.55%	AMC	-3.58%
21.0	VFC	-3.62%	IEP	-3.26%
21.0	AAP	-3.41%	VFC	-2.78%
21.0	IEP	-2.97%	NWL	-2.33%
21.0	NWL	-2.77%	CNC	-1.87%
21.0	CNC	-2.34%	AAP	-1.82%
21.0	GSK	-2.03%	CZR	-1.57%
21.0	TLT	-1.62%	UAA	-1.32%
21.0	CHTR	-1.5%	BHC	-1.23%
21.0	LUMN	-1.49%	LUMN	-1.05%
21.0	BIIB	-1.44%	INTC	-1.05%
21.0	LNC	-1.44%	TLT	-1.05%
21.0	BHC	-1.41%	LNC	-0.99%
21.0	CVS	-1.31%	AA	-0.88%
21.0	CYH	-1.22%	BIIB	-0.87%
21.0	FIS	-1.18%	BXP	-0.83%
21.0	BXP	-1.16%	CVS	-0.81%
21.0	BMY	-1.12%	UNH	-0.81%
21.0	UNH	-0.98%	BALL	-0.75%
21.0	PRGO	-0.97%	CHTR	-0.64%
21.0	ELAN	-0.73%	BMY	-0.63%
21.0	VZ	-0.6%	CMCSA	-0.57%
21.0	LW	-0.58%	GSK	-0.56%
21.0	GT	-0.58%	KHC	-0.49%
21.0	ZION	-0.55%	CYH	-0.44%
21.0	BALL	-0.5%	BBY	-0.41%
21.0	LQD	-0.49%	VZ	-0.38%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	SBNY	-109.2%	SBNY	-37.59%
63.0	SIVBQ	-74.52%	SIVBQ	-33.73%
63.0	FRCB	-50.1%	FRCB	-24.04%
63.0	AMC	-29.99%	AMC	-14.66%
63.0	AAP	-15.43%	IEP	-11.41%
63.0	VFC	-13.96%	VFC	-8.25%
63.0	IEP	-11.26%	NWL	-7.79%
63.0	NWL	-8.38%	AAP	-7.65%
63.0	BHC	-6.49%	CLF	-5.74%
63.0	CLF	-5.42%	CZR	-5.51%
63.0	UNH	-5.03%	BHC	-5.37%
63.0	TLT	-4.7%	AA	-4.76%
63.0	CNC	-4.59%	INTC	-4.13%
63.0	BIIB	-4.19%	UAA	-4.04%
63.0	LNC	-4.19%	CNC	-3.64%
63.0	GSK	-4.04%	LNC	-3.2%
63.0	CHTR	-3.48%	LUMN	-3.04%
63.0	AA	-3.45%	TLT	-2.93%
63.0	MOS	-3.38%	BXP	-2.79%
63.0	JAZZ	-3.22%	BIIB	-2.75%
63.0	CZR	-3.08%	CVS	-2.74%
63.0	FIS	-2.86%	UNH	-2.6%
63.0	BMY	-2.86%	BALL	-2.58%
63.0	INTC	-2.75%	MOS	-2.41%
63.0	BALL	-2.57%	BMY	-2.34%
63.0	KHC	-2.46%	KHC	-2.34%
63.0	ELAN	-2.39%	GNRC	-2.19%
63.0	ON	-2.26%	JAZZ	-2.0%
63.0	PRGO	-2.14%	BHP	-1.9%
63.0	LUMN	-1.88%	PRGO	-1.88%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	SBNY	-181.89%	SIVBQ	-65.15%
126.0	SIVBQ	-152.22%	SBNY	-64.8%
126.0	FRCB	-117.46%	FRCB	-51.17%
126.0	AMC	-53.87%	AMC	-29.0%
126.0	AAP	-30.58%	IEP	-22.23%
126.0	VFC	-30.03%	AAP	-18.41%
126.0	IEP	-25.47%	NWL	-16.71%
126.0	NWL	-19.77%	VFC	-14.2%
126.0	BHC	-14.96%	CLF	-10.65%
126.0	MOS	-10.74%	CZR	-9.08%
126.0	AA	-10.6%	AA	-8.35%
126.0	CLF	-10.57%	MOS	-8.1%
126.0	ELAN	-10.28%	BHC	-7.59%
126.0	CZR	-8.43%	INTC	-6.88%
126.0	TLT	-7.95%	UAA	-6.85%
126.0	CNC	-7.89%	CNC	-6.35%
126.0	LNC	-7.54%	ELAN	-6.16%
126.0	PRGO	-7.45%	LUMN	-5.98%
126.0	BIIB	-7.33%	CTLT	-5.69%
126.0	JAZZ	-7.0%	CVS	-5.66%
126.0	GSK	-6.56%	GNRC	-5.42%
126.0	CHTR	-6.38%	BXP	-5.29%
126.0	UAA	-5.93%	PRGO	-5.26%
126.0	BMY	-5.61%	BIIB	-5.19%
126.0	CVS	-5.54%	TLT	-5.18%
126.0	LUMN	-5.32%	LNC	-5.04%
126.0	INTC	-5.29%	BALL	-4.6%
126.0	KHC	-4.77%	KHC	-4.56%
126.0	BXP	-4.74%	BMY	-4.43%
126.0	OXY	-4.57%	JAZZ	-3.7%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	SBNY	-265.02%	SBNY	-95.75%
252.0	SIVBQ	-218.68%	SIVBQ	-95.29%
252.0	FRCB	-185.83%	FRCB	-91.61%
252.0	AMC	-103.33%	AMC	-56.25%
252.0	AAP	-78.36%	IEP	-44.68%
252.0	IEP	-56.71%	AAP	-40.67%
252.0	VFC	-42.63%	NWL	-27.96%
252.0	NWL	-37.51%	VFC	-23.59%
252.0	MOS	-28.77%	MOS	-20.33%
252.0	BIIB	-28.17%	CLF	-17.62%
252.0	AA	-25.58%	CVS	-16.97%
252.0	CLF	-23.83%	CZR	-14.16%
252.0	CVS	-23.66%	PRGO	-12.39%
252.0	UAA	-20.63%	AA	-11.95%
252.0	PRGO	-19.77%	UAA	-11.51%
252.0	CZR	-19.69%	CNC	-11.41%
252.0	OXY	-18.95%	INTC	-11.15%
252.0	BHC	-17.95%	BIIB	-11.12%
252.0	JAZZ	-15.17%	BMY	-10.68%
252.0	TLT	-14.46%	JAZZ	-9.19%
252.0	CHTR	-12.24%	BHC	-9.17%
252.0	CNC	-11.07%	TLT	-8.4%
252.0	KHC	-10.62%	KHC	-8.21%
252.0	BMY	-10.49%	OXY	-7.78%
252.0	BHP	-8.83%	GT	-7.6%
252.0	LNC	-8.14%	CTLT	-6.24%
252.0	INTC	-8.02%	BHP	-5.85%
252.0	ELAN	-7.39%	LNC	-4.87%
252.0	GT	-7.37%	PEP	-4.29%
252.0	BXP	-5.41%	CHTR	-4.28%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CHTR	-2.4%	CHTR	-2.09%
1.0	UNH	-2.28%	CYH	-1.42%
1.0	BUD	-2.04%	CMG	-1.41%
1.0	TXN	-1.81%	UNH	-1.26%
1.0	CMG	-1.42%	CNC	-1.19%
1.0	MU	-1.4%	BHC	-1.02%
1.0	SBUX	-1.22%	NWL	-0.98%
1.0	NAVI	-1.09%	LUMN	-0.97%
1.0	UAA	-1.08%	BUD	-0.88%
1.0	BHC	-1.08%	TXN	-0.82%
1.0	CNC	-1.05%	MU	-0.71%
1.0	AMAT	-0.99%	NAVI	-0.71%
1.0	ISRG	-0.95%	CZR	-0.68%
1.0	TSLA	-0.88%	FCX	-0.63%
1.0	NWL	-0.85%	KALU	-0.62%
1.0	ADBE	-0.83%	INTC	-0.58%
1.0	FCX	-0.79%	BBY	-0.57%
1.0	GWW	-0.71%	GWW	-0.56%
1.0	CYH	-0.7%	ISRG	-0.55%
1.0	CMCSA	-0.69%	NFLX	-0.5%
1.0	QCOM	-0.68%	TEVA	-0.48%
1.0	CLF	-0.68%	CMCSA	-0.47%
1.0	ZTS	-0.64%	HON	-0.46%
1.0	CZR	-0.63%	CSTM	-0.44%
1.0	INTC	-0.62%	GT	-0.44%
1.0	CSTM	-0.62%	QCOM	-0.43%
1.0	AMZN	-0.56%	USB	-0.43%
1.0	LUMN	-0.55%	AA	-0.42%
1.0	BAC	-0.49%	ADBE	-0.41%
1.0	VZ	-0.48%	MSTR	-0.41%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	CHTR	-24.2%	CHTR	-16.6%
10.0	UNH	-22.56%	CYH	-14.45%
10.0	TXN	-19.76%	CMG	-13.86%
10.0	CNC	-18.13%	CNC	-13.3%
10.0	NAVI	-13.07%	TXN	-10.67%
10.0	CVS	-10.23%	UNH	-8.71%
10.0	MU	-9.6%	NAVI	-8.46%
10.0	CYH	-9.07%	THC	-8.01%
10.0	INTC	-8.55%	MU	-7.3%
10.0	CMG	-8.18%	NFLX	-6.28%
10.0	HCA	-7.81%	INTC	-6.25%
10.0	BUD	-7.34%	HCA	-5.99%
10.0	CMCSA	-6.92%	CVS	-5.94%
10.0	AMAT	-5.99%	BBY	-5.17%
10.0	NFLX	-5.65%	FCX	-4.6%
10.0	ZTS	-5.64%	CZR	-4.54%
10.0	KALU	-5.36%	ISRG	-4.48%
10.0	FCX	-5.24%	MSTR	-4.31%
10.0	BBY	-5.13%	HON	-4.2%
10.0	THC	-4.77%	AMAT	-3.82%
10.0	MSTR	-4.6%	KALU	-3.41%
10.0	ISRG	-4.59%	CMCSA	-3.38%
10.0	CZR	-4.26%	NVS	-3.27%
10.0	HON	-3.85%	COST	-3.25%
10.0	NVS	-3.16%	ZTS	-3.22%
10.0	COST	-2.94%	CAH	-3.12%
10.0	SBUX	-2.4%	GT	-2.85%
10.0	BIIB	-2.0%	TRGP	-2.76%
10.0	FITB	-1.99%	LUMN	-2.7%
10.0	GT	-1.94%	CPRT	-2.36%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CNC	-2.07%	CNC	-1.15%
1.0	UNH	-1.07%	UNH	-0.8%
1.0	CHTR	-0.7%	CHTR	-0.6%
1.0	BUD	-0.58%	CPRT	-0.46%
1.0	ZTS	-0.56%	PCG	-0.28%
1.0	GME	-0.51%	SNY	-0.24%
1.0	CPRT	-0.32%	CMG	-0.23%
1.0	LLY	-0.3%	BUD	-0.21%
1.0	CMG	-0.3%	GME	-0.21%
1.0	GWW	-0.28%	GWW	-0.2%
1.0	ISRG	-0.26%	BMY	-0.18%
1.0	BMY	-0.26%	ISRG	-0.15%
1.0	CVS	-0.24%	LUMN	-0.15%
1.0	NAVI	-0.22%	ADBE	-0.14%
1.0	UAA	-0.2%	POST	-0.11%
1.0	PCG	-0.19%	GT	-0.11%
1.0	ADBE	-0.17%	CYH	-0.1%
1.0	BBY	-0.12%	LLY	-0.1%
1.0	INTC	-0.1%	ZTS	-0.1%
1.0	ACGL	-0.1%	CVS	-0.1%
1.0	VZ	-0.1%	COST	-0.1%
1.0	GT	-0.1%	CMCSA	-0.09%
1.0	KHC	-0.1%	CZR	-0.08%
1.0	AMAT	-0.09%	ACGL	-0.07%
1.0	SNY	-0.08%	TEVA	-0.07%
1.0	TEVA	-0.07%	TMUS	-0.06%
1.0	CMCSA	-0.06%	BBY	-0.06%
1.0	COST	-0.06%	KHC	-0.06%
1.0	CYH	-0.06%	MRK	-0.05%
1.0	IRM	-0.06%	IRM	-0.04%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	CNC	-16.99%	CNC	-13.09%
10.0	UNH	-7.79%	CPRT	-5.26%
10.0	CHTR	-5.41%	UNH	-4.37%
10.0	CPRT	-3.35%	CHTR	-3.92%
10.0	PCG	-3.16%	PCG	-3.77%
10.0	ADBE	-3.09%	GME	-2.49%
10.0	CVS	-2.73%	CYH	-2.49%
10.0	GME	-2.42%	ISRG	-1.8%
10.0	VFC	-2.21%	VFC	-1.48%
10.0	ISRG	-2.0%	CMG	-1.36%
10.0	ZTS	-1.58%	COST	-1.35%
10.0	BBY	-1.53%	ACGL	-1.24%
10.0	CYH	-1.46%	ADBE	-1.22%
10.0	COST	-1.28%	BBY	-1.0%
10.0	VZ	-1.13%	SNY	-0.98%
10.0	ACGL	-1.07%	ZTS	-0.96%
10.0	SNY	-0.89%	TEVA	-0.91%
10.0	CMG	-0.84%	CVS	-0.84%
10.0	HCA	-0.83%	HCA	-0.7%
10.0	TEVA	-0.71%	POST	-0.62%
10.0	POST	-0.58%	GWW	-0.51%
10.0	BUD	-0.56%	CMCSA	-0.36%
10.0	GWW	-0.53%	TMUS	-0.33%
10.0	TMUS	-0.34%	MNST	-0.29%
10.0	CMCSA	-0.33%	GT	-0.26%
10.0	GT	-0.32%	VZ	-0.25%
10.0	MNST	-0.07%	MUB	-0.11%
10.0	MUB	-0.06%	BUD	-0.01%
10.0	LLY	-0.0%	TLT	0.0%
10.0	BMY	0.03%	BMY	0.03%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	CNC	-39.03%	CNC	-27.94%
21.0	GME	-15.98%	CPRT	-10.66%
21.0	UNH	-12.01%	PCG	-10.65%
21.0	ADBE	-10.49%	GME	-9.71%
21.0	CHTR	-9.23%	UNH	-5.8%
21.0	PCG	-8.67%	CYH	-5.62%
21.0	ZTS	-7.75%	CHTR	-5.5%
21.0	CPRT	-6.69%	ADBE	-4.4%
21.0	TSLA	-5.79%	ISRG	-3.73%
21.0	CYH	-5.54%	COST	-3.23%
21.0	VFC	-3.91%	ACGL	-3.08%
21.0	ISRG	-3.47%	VFC	-3.0%
21.0	ACGL	-3.19%	ZTS	-2.93%
21.0	SNY	-2.96%	SNY	-2.77%
21.0	COST	-2.47%	TEVA	-2.26%
21.0	TEVA	-2.12%	TSLA	-1.92%
21.0	TMUS	-2.03%	MNST	-1.84%
21.0	HCA	-1.76%	TMUS	-1.76%
21.0	GWW	-1.71%	GWW	-1.71%
21.0	VZ	-1.7%	HCA	-1.46%
21.0	CVS	-1.55%	POST	-1.42%
21.0	BUD	-1.55%	VZ	-1.42%
21.0	BBY	-1.31%	BBY	-1.13%
21.0	POST	-1.29%	BUD	-0.69%
21.0	MNST	-0.98%	GT	-0.52%
21.0	RIO	-0.73%	GSK	-0.46%
21.0	GT	-0.34%	MUB	-0.13%
21.0	GSK	-0.3%	CMCSA	-0.12%
21.0	BMY	-0.25%	BMY	-0.12%
21.0	MUB	-0.11%	HD	-0.02%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CNC	-0.53%	CNC	-0.37%
1.0	UNH	-0.37%	UNH	-0.32%
1.0	AMC	-0.35%	IEP	-0.21%
1.0	CSTM	-0.32%	CYH	-0.19%
1.0	CYH	-0.31%	AMC	-0.16%
1.0	NAVI	-0.23%	BIIB	-0.16%
1.0	CLF	-0.16%	ADBE	-0.14%
1.0	PEP	-0.16%	LEN	-0.14%
1.0	CZR	-0.15%	MRK	-0.14%
1.0	BUD	-0.14%	NWL	-0.13%
1.0	IEP	-0.14%	CHTR	-0.1%
1.0	KHC	-0.13%	KHC	-0.1%
1.0	CMG	-0.11%	PCG	-0.09%
1.0	ISRG	-0.1%	PEP	-0.09%
1.0	BIIB	-0.1%	OXY	-0.09%
1.0	BBY	-0.1%	CZR	-0.09%
1.0	MRK	-0.09%	ZTS	-0.07%
1.0	CHTR	-0.08%	CMCSA	-0.07%
1.0	BALL	-0.07%	BBY	-0.06%
1.0	ZTS	-0.07%	CMG	-0.06%
1.0	GSK	-0.07%	LUMN	-0.06%
1.0	INTC	-0.06%	NAVI	-0.05%
1.0	ON	-0.06%	TLT	-0.04%
1.0	CMA	-0.05%	DHI	-0.04%
1.0	LEN	-0.05%	SNY	-0.04%
1.0	ACGL	-0.04%	BALL	-0.04%
1.0	UAA	-0.04%	CPRT	-0.04%
1.0	CPRT	-0.04%	AMGN	-0.03%
1.0	LUMN	-0.04%	ACGL	-0.03%
1.0	CVS	-0.04%	IRM	-0.03%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	CNC	-4.36%	CNC	-3.65%
10.0	AMC	-3.17%	UNH	-2.6%
10.0	UNH	-2.08%	IEP	-1.8%
10.0	BIIB	-1.9%	BIIB	-1.71%
10.0	IEP	-1.3%	LEN	-1.49%
10.0	CYH	-1.26%	AMC	-1.44%
10.0	CLF	-1.23%	ADBE	-1.3%
10.0	ADBE	-1.09%	MRK	-1.21%
10.0	ZTS	-1.04%	CYH	-1.09%
10.0	KHC	-1.03%	PCG	-0.92%
10.0	ON	-0.78%	OXY	-0.83%
10.0	PEP	-0.76%	KHC	-0.8%
10.0	GSK	-0.75%	ZTS	-0.75%
10.0	BALL	-0.74%	PEP	-0.73%
10.0	MRK	-0.74%	BBY	-0.58%
10.0	CSTM	-0.7%	DHI	-0.57%
10.0	LEN	-0.69%	CZR	-0.5%
10.0	CHTR	-0.58%	CMCSA	-0.5%
10.0	CZR	-0.57%	TLT	-0.44%
10.0	CMG	-0.52%	CMG	-0.4%
10.0	CPRT	-0.42%	ACGL	-0.39%
10.0	BBY	-0.38%	AZN	-0.35%
10.0	OXY	-0.38%	ON	-0.34%
10.0	LLY	-0.38%	VFC	-0.34%
10.0	RIO	-0.37%	NWL	-0.25%
10.0	TLT	-0.37%	SNY	-0.2%
10.0	DHI	-0.35%	BALL	-0.18%
10.0	VZ	-0.33%	AMGN	-0.18%
10.0	LUMN	-0.33%	CPRT	-0.18%
10.0	POST	-0.32%	IRM	-0.18%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	CNC	-8.92%	CNC	-7.19%
21.0	UNH	-5.5%	UNH	-5.26%
21.0	BIIB	-4.06%	BIIB	-3.76%
21.0	ADBE	-3.18%	IEP	-3.74%
21.0	CLF	-3.14%	LEN	-3.65%
21.0	ZTS	-2.95%	AMC	-3.37%
21.0	AMC	-2.65%	ADBE	-3.06%
21.0	ON	-2.54%	MRK	-2.82%
21.0	KHC	-2.33%	PCG	-2.34%
21.0	GSK	-2.3%	KHC	-2.04%
21.0	MRK	-2.13%	DHI	-2.01%
21.0	CYH	-2.1%	OXY	-1.98%
21.0	CZR	-2.09%	PEP	-1.87%
21.0	IEP	-1.92%	CYH	-1.8%
21.0	CSTM	-1.78%	BBY	-1.51%
21.0	LEN	-1.73%	ZTS	-1.5%
21.0	PEP	-1.72%	ACGL	-1.25%
21.0	OXY	-1.69%	AZN	-1.19%
21.0	PCG	-1.58%	ON	-1.14%
21.0	NWL	-1.18%	VFC	-1.1%
21.0	BBY	-1.17%	CZR	-1.06%
21.0	LLY	-1.17%	TLT	-1.06%
21.0	LW	-1.16%	CMCSA	-1.04%
21.0	DHI	-1.12%	CLF	-1.0%
21.0	TLT	-1.1%	LLY	-0.93%
21.0	ACGL	-1.08%	SNY	-0.72%
21.0	NAVI	-0.85%	NWL	-0.66%
21.0	LUMN	-0.73%	PHM	-0.65%
21.0	RIO	-0.7%	IRM	-0.57%
21.0	POST	-0.54%	GSK	-0.56%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	UNH	-26.9%	UNH	-17.47%
63.0	CLF	-17.7%	LEN	-14.36%
63.0	ON	-17.36%	IEP	-13.62%
63.0	CNC	-15.31%	BIIB	-12.74%
63.0	BIIB	-14.8%	CNC	-12.65%
63.0	MRK	-10.93%	CLF	-11.99%
63.0	CZR	-10.48%	AMC	-11.48%
63.0	IEP	-10.05%	MRK	-10.85%
63.0	KHC	-9.19%	DHI	-10.71%
63.0	ADBE	-9.05%	CYH	-9.81%
63.0	LUMN	-8.95%	CZR	-9.45%
63.0	PEP	-8.67%	ADBE	-9.44%
63.0	BBY	-8.32%	BBY	-8.72%
63.0	CYH	-7.88%	PEP	-8.22%
63.0	OXY	-7.61%	KHC	-8.21%
63.0	LW	-7.48%	PCG	-7.49%
63.0	LEN	-7.38%	LUMN	-7.2%
63.0	AMC	-6.5%	PHM	-6.95%
63.0	ZTS	-6.27%	ON	-6.9%
63.0	DHI	-5.99%	OXY	-6.69%
63.0	PCG	-5.87%	VFC	-6.15%
63.0	NWL	-4.97%	ZTS	-5.38%
63.0	CMCSA	-4.96%	ACGL	-5.37%
63.0	VFC	-4.66%	LW	-4.86%
63.0	NAVI	-4.02%	FSUGY	-4.71%
63.0	TLT	-3.92%	LLY	-4.68%
63.0	BALL	-3.75%	CMCSA	-4.49%
63.0	LLY	-3.36%	BALL	-4.38%
63.0	FSUGY	-3.34%	UAA	-3.88%
63.0	BHP	-3.26%	NWL	-3.81%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	NWL	-44.3%	LEN	-31.18%
126.0	VFC	-41.52%	LUMN	-30.98%
126.0	LUMN	-39.28%	AMC	-30.01%
126.0	ON	-39.16%	NWL	-29.94%
126.0	CLF	-38.59%	UNH	-29.25%
126.0	UAA	-34.87%	ON	-29.2%
126.0	GNRC	-33.71%	CLF	-25.2%
126.0	CZR	-30.75%	BIIB	-24.6%
126.0	LW	-30.67%	IEP	-24.29%
126.0	AMC	-29.87%	DHI	-23.11%
126.0	BIIB	-29.11%	CZR	-22.52%
126.0	CNC	-28.07%	CYH	-22.2%
126.0	UNH	-27.56%	UAA	-21.97%
126.0	BHC	-27.44%	MRK	-21.57%
126.0	MRK	-25.49%	VFC	-21.53%
126.0	IEP	-23.29%	ADBE	-20.75%
126.0	CYH	-22.18%	LW	-20.56%
126.0	WDC	-20.83%	CNC	-19.77%
126.0	AA	-20.59%	BBY	-19.58%
126.0	BBY	-19.97%	PCG	-18.97%
126.0	LEN	-19.12%	AA	-18.69%
126.0	DHI	-18.39%	WDC	-18.39%
126.0	OXY	-18.25%	BHC	-17.56%
126.0	AMD	-18.2%	PHM	-17.52%
126.0	BXP	-17.83%	GNRC	-16.97%
126.0	PEP	-16.42%	IRM	-16.72%
126.0	KHC	-16.29%	AMD	-15.06%
126.0	ADBE	-15.51%	PEP	-14.84%
126.0	ZTS	-13.54%	OXY	-14.63%
126.0	FSUGY	-13.13%	KHC	-13.75%

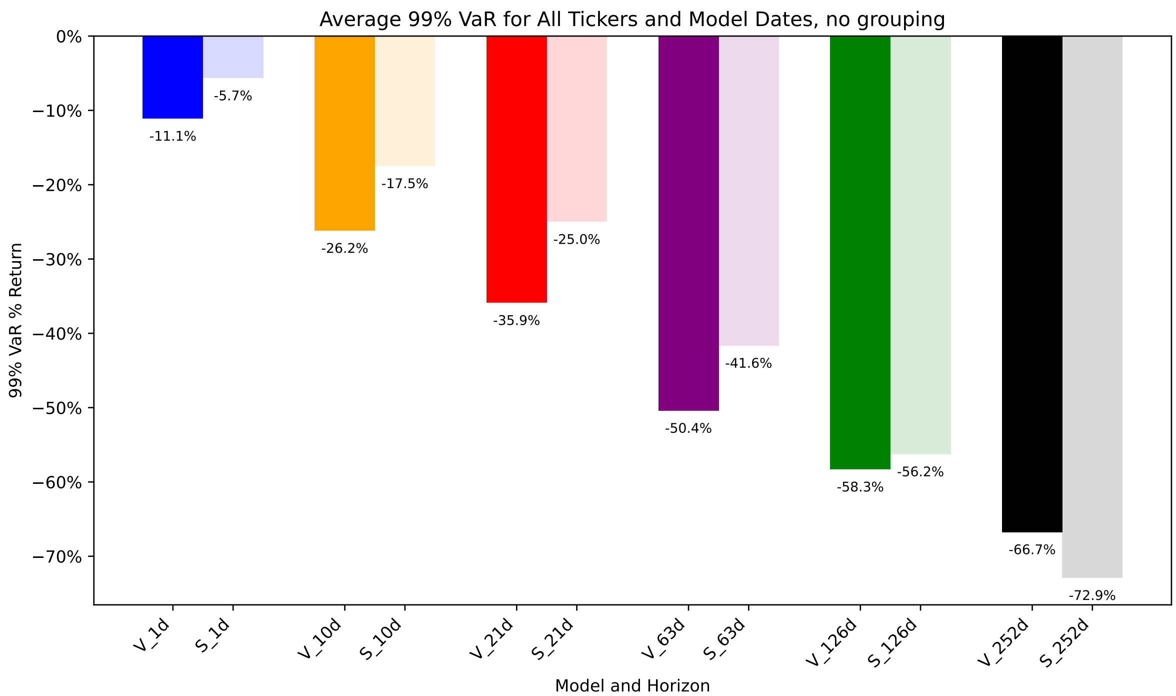
99% Value at Risk (VaR)

Historic Average Levels

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

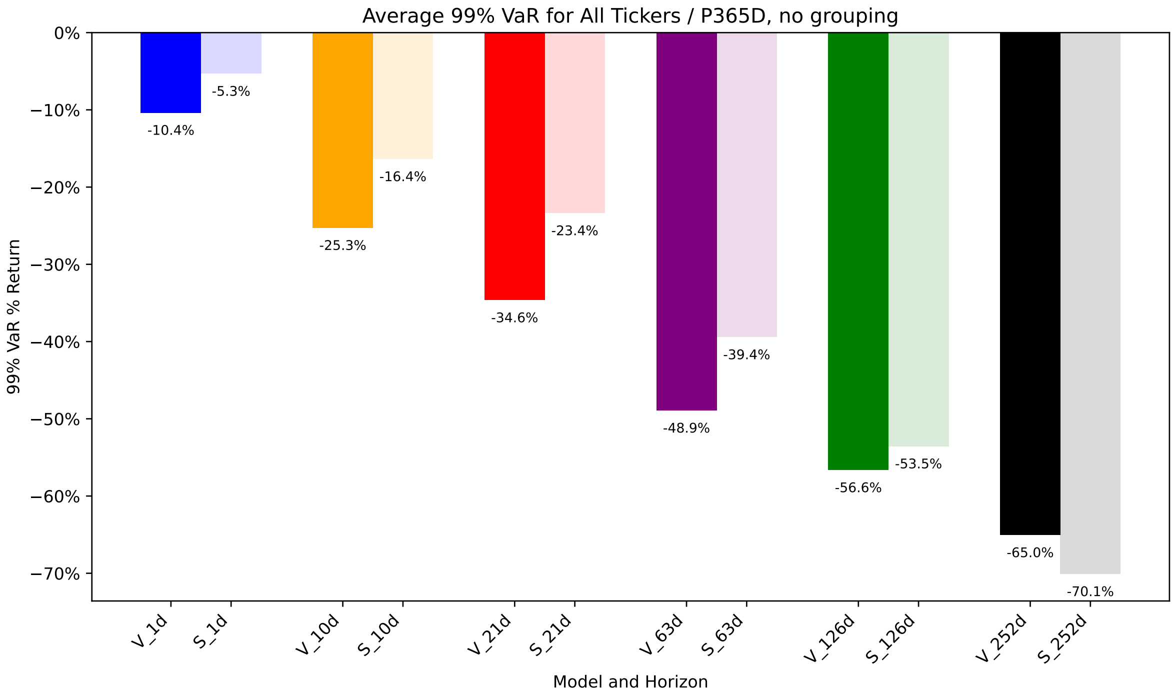
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-07-31



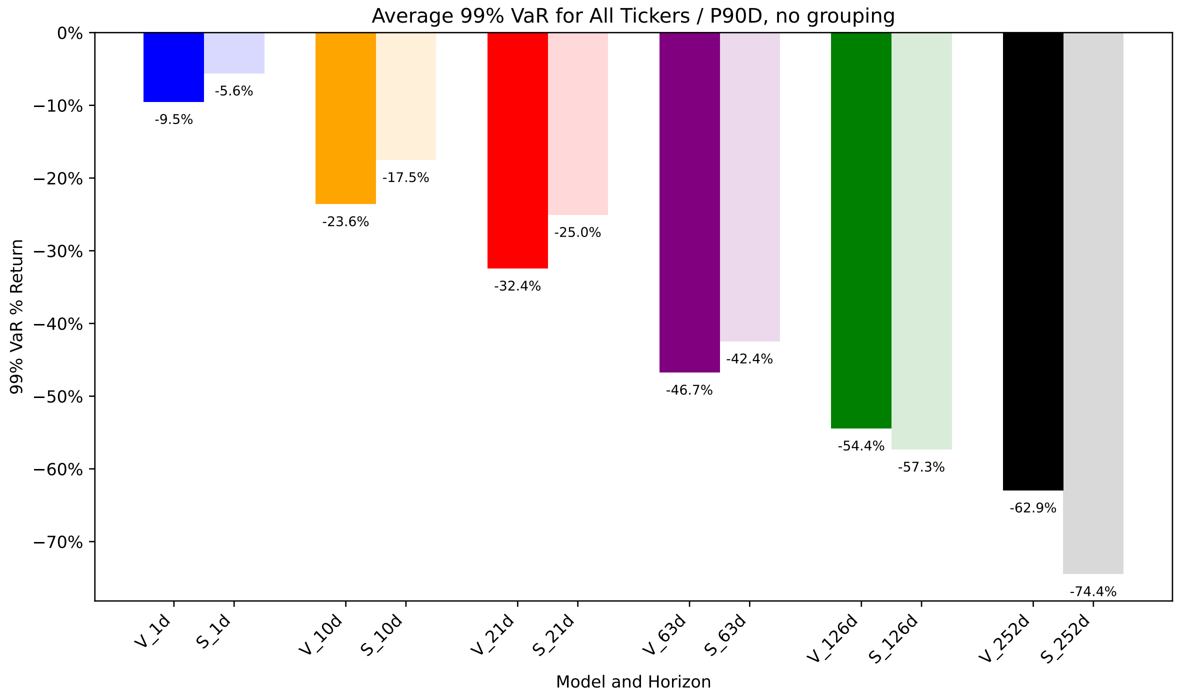
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-07-31 through 2024-08-02



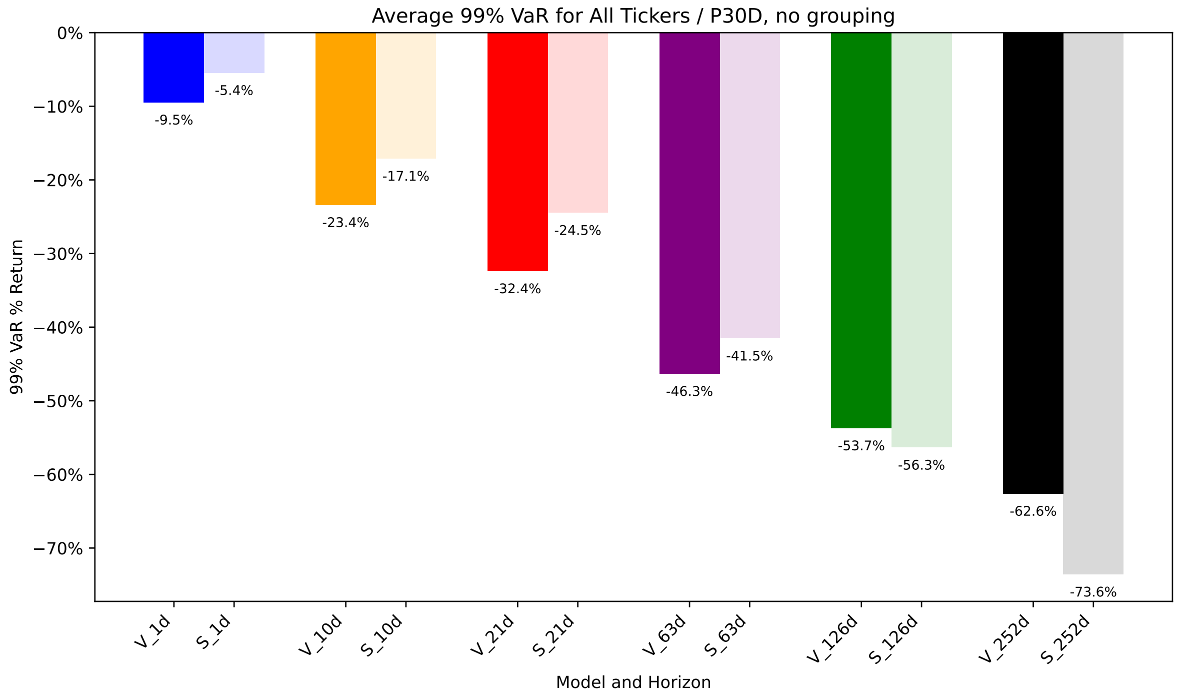
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-07-31 through 2025-05-05



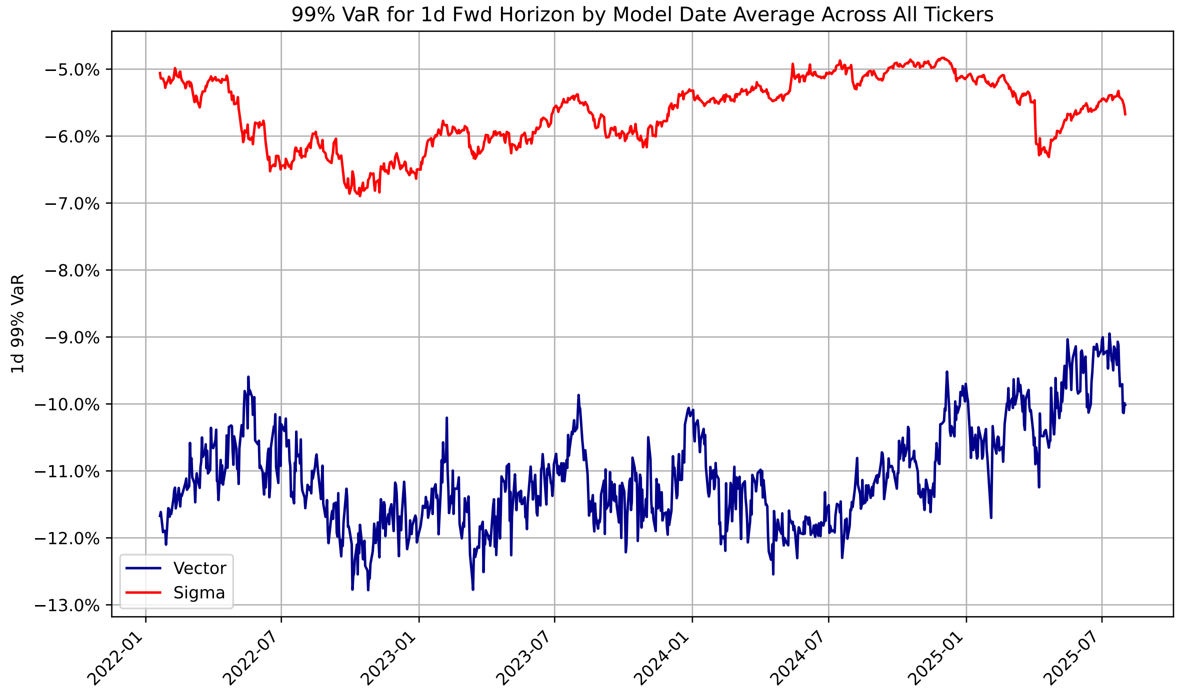
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-07-31 through 2025-07-03

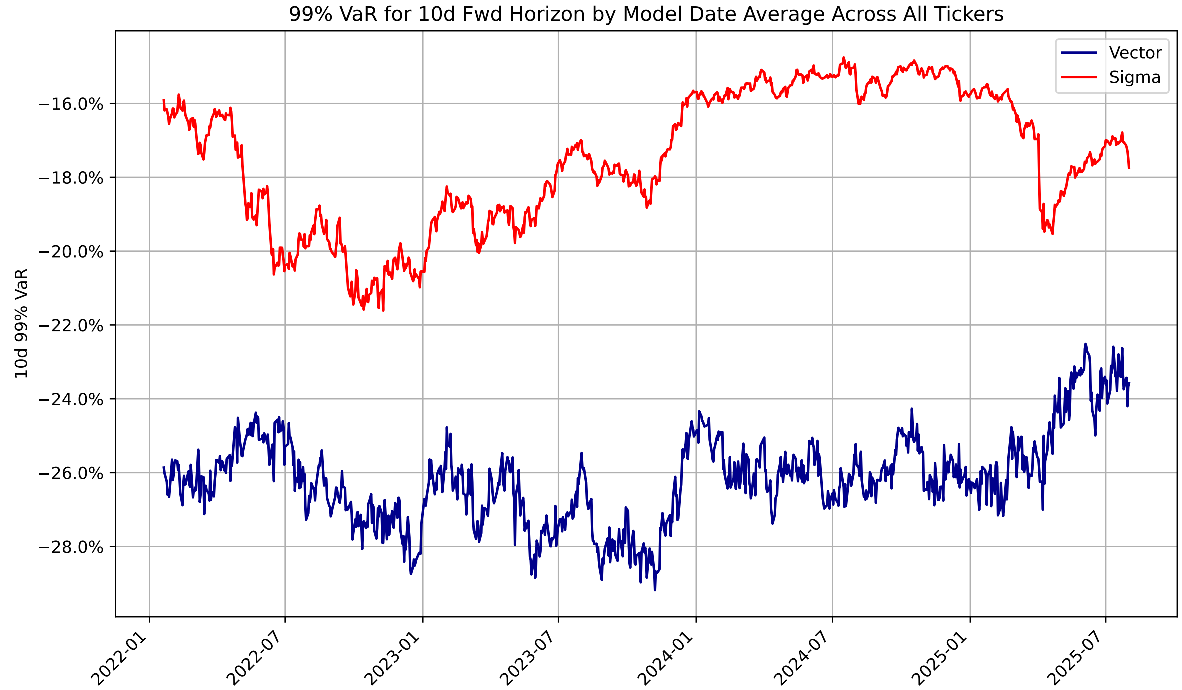


Daily Levels

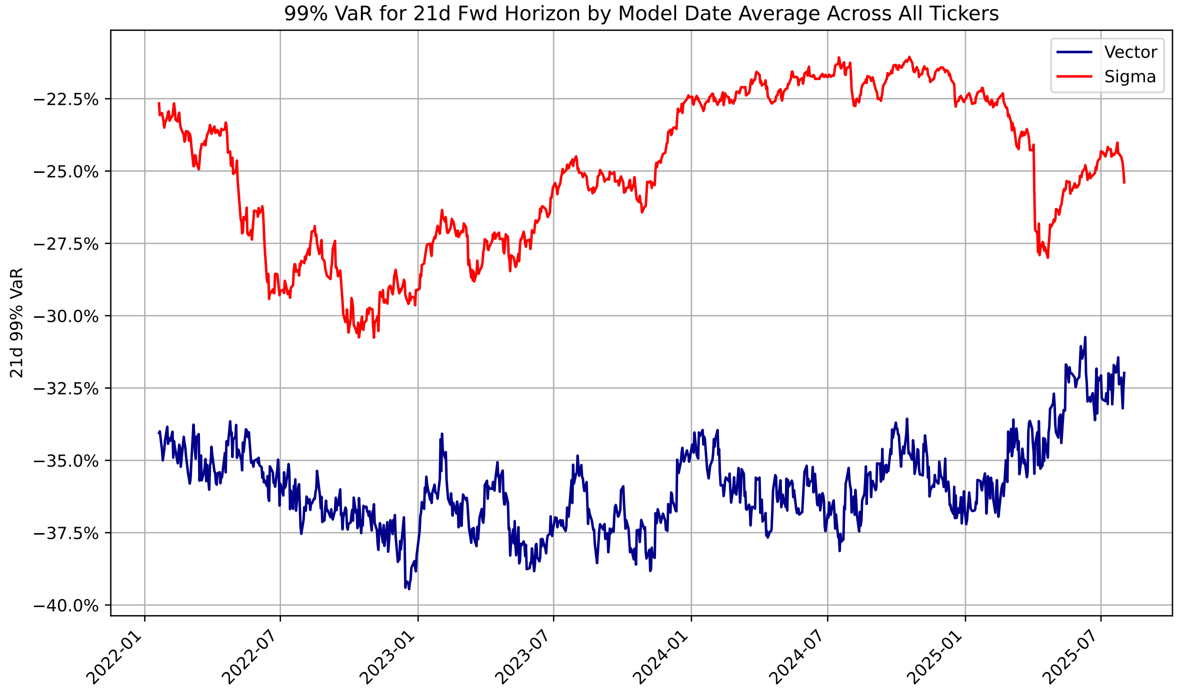
1d Horizon



10d Horizon

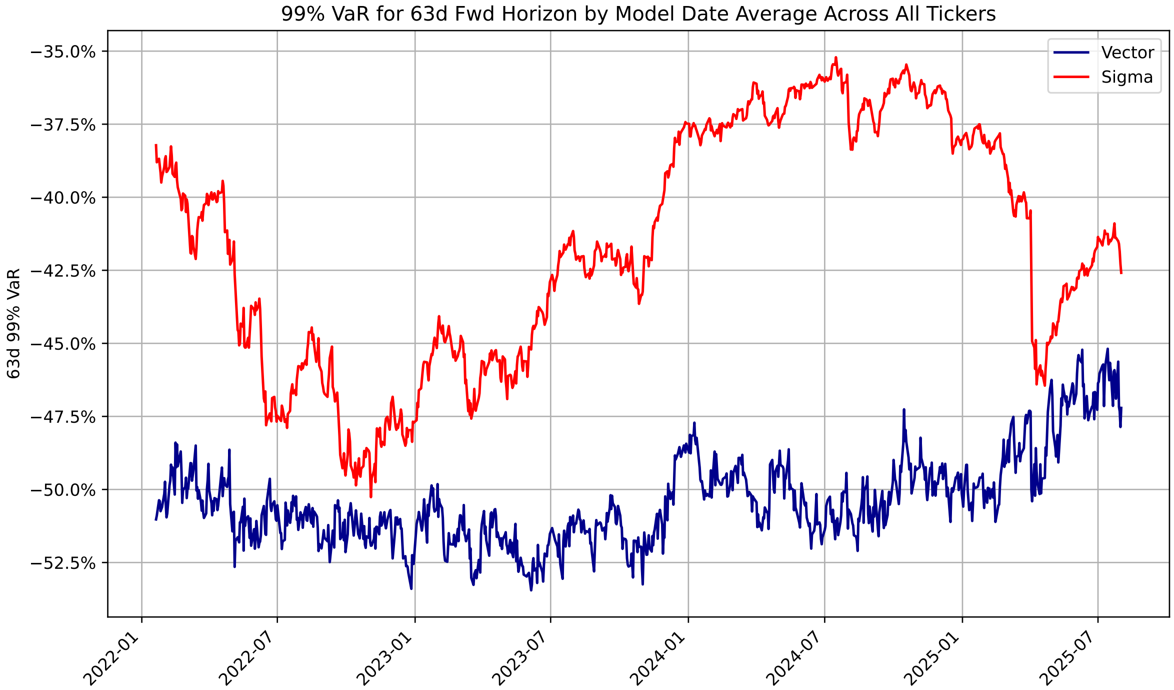

99% VaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 99% VaR
−16.0%
−18.0%
−20.0%
−22.0%
−24.0%
−26.0%
−28.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon



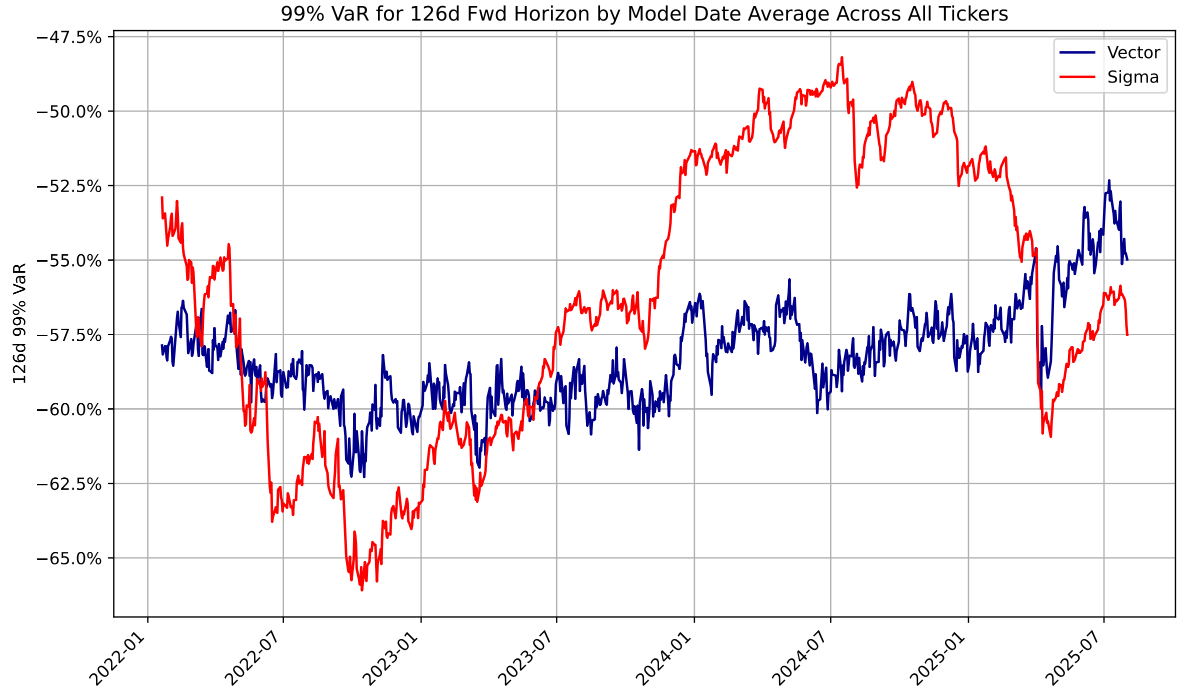
99% VaR for 21d Fwd Horizon by Model Date Average Across All Tickers
21d 99% VaR
−22.5%
−25.0%
−27.5%
−30.0%
−32.5%
−35.0%
−37.5%
−40.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

63d Horizon

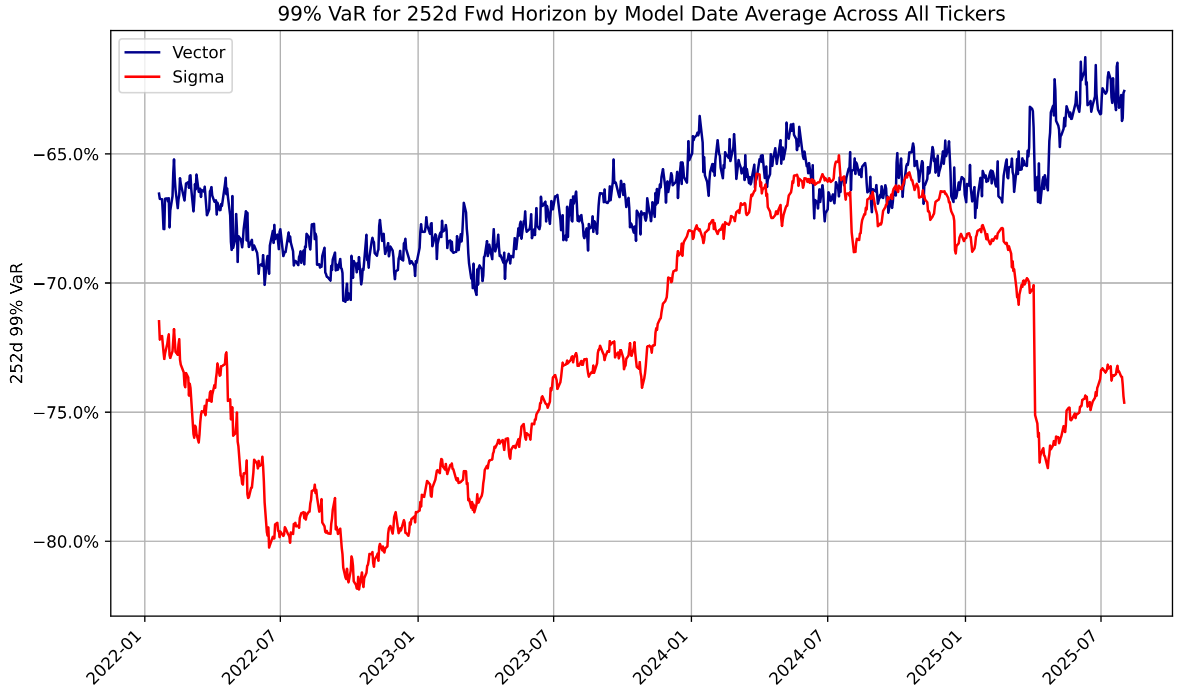


99% VaR for 63d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
63d 99% VaR
−35.0%
−37.5%
−40.0%
−42.5%
−45.0%
−47.5%
−50.0%
−52.5%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

126d Horizon



252d Horizon



Performance Summary

Here we compare the performance of 99% VaR 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 VaR breakage rates and Return on VaR based Capital (ROVBC), presenting the average results across tickers and model dates for model dates in the period indicated.

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

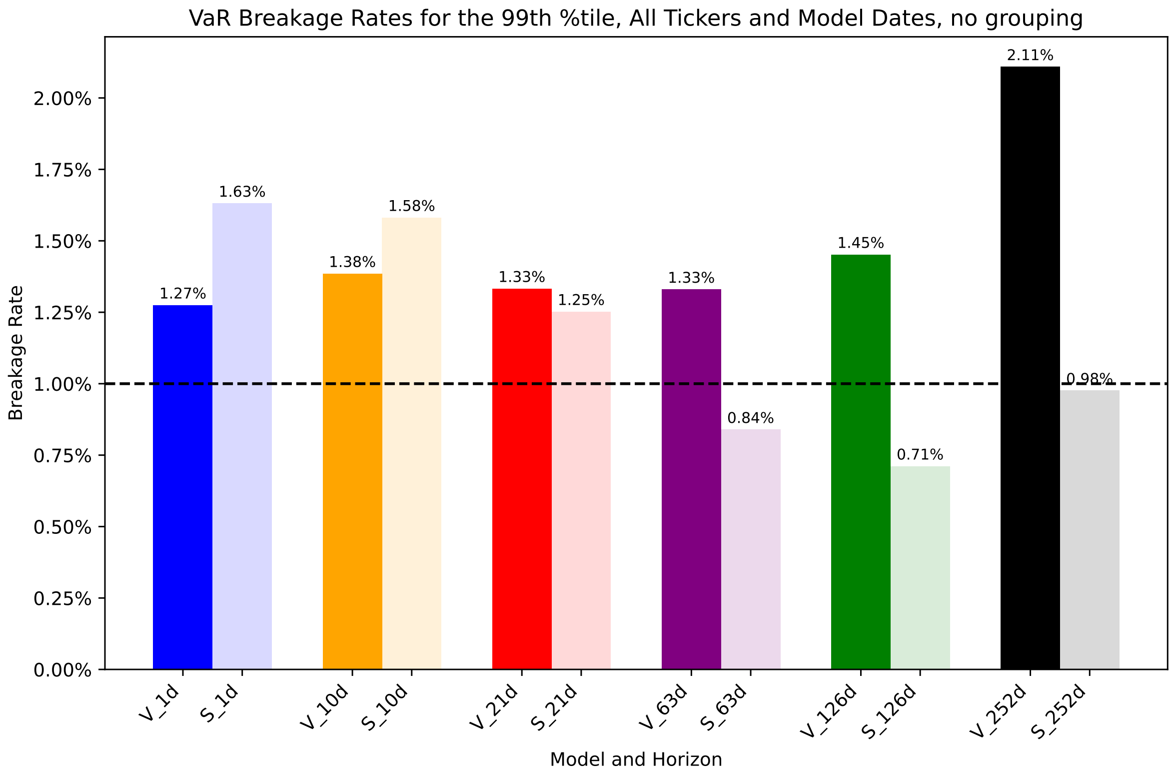
Vector Model ROVBC can be evalauated on the basis of outright levels relative to Sigma and alpha relative to Sigma ROVBC (which, as discussed previously, is assigned the underlying ticker price returns). We advise keeping proximity of VaR breakage rates to targetted levels in mind when comparing outright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

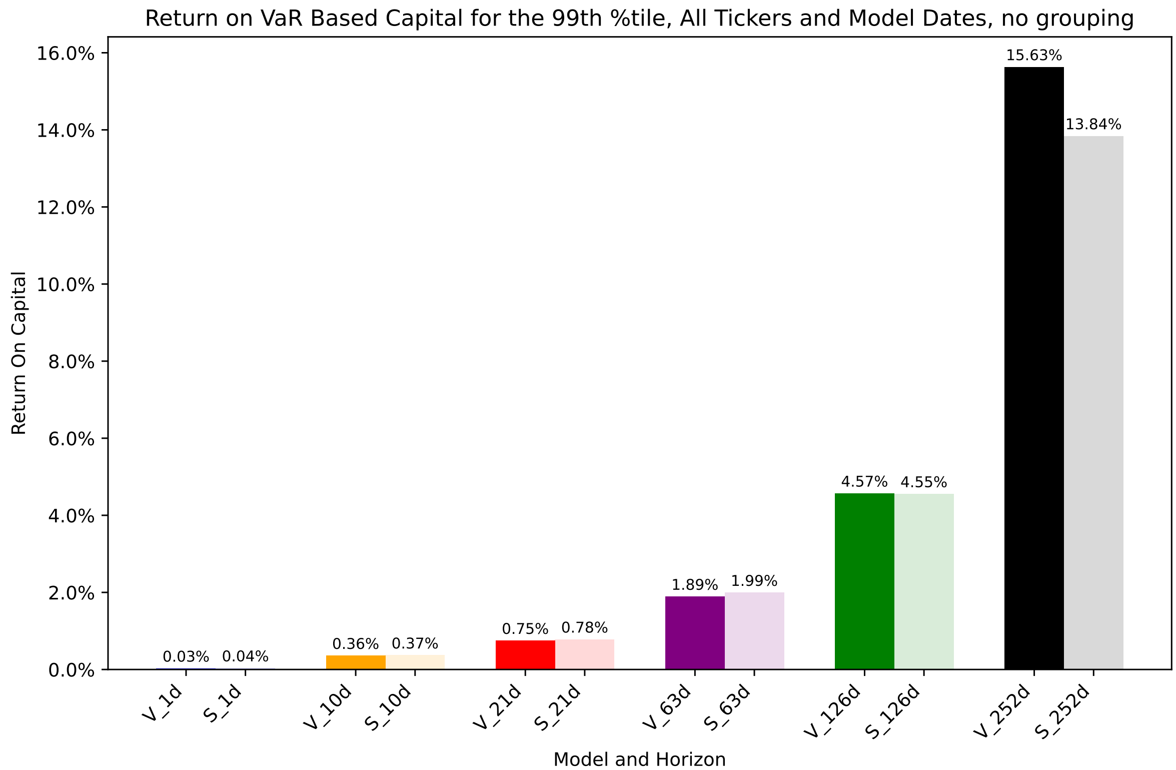
Alpha allows us to isolate ROVBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROVBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by VaR differentials between tickers and / or between dates. Thus we also present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

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

All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2025-07-31



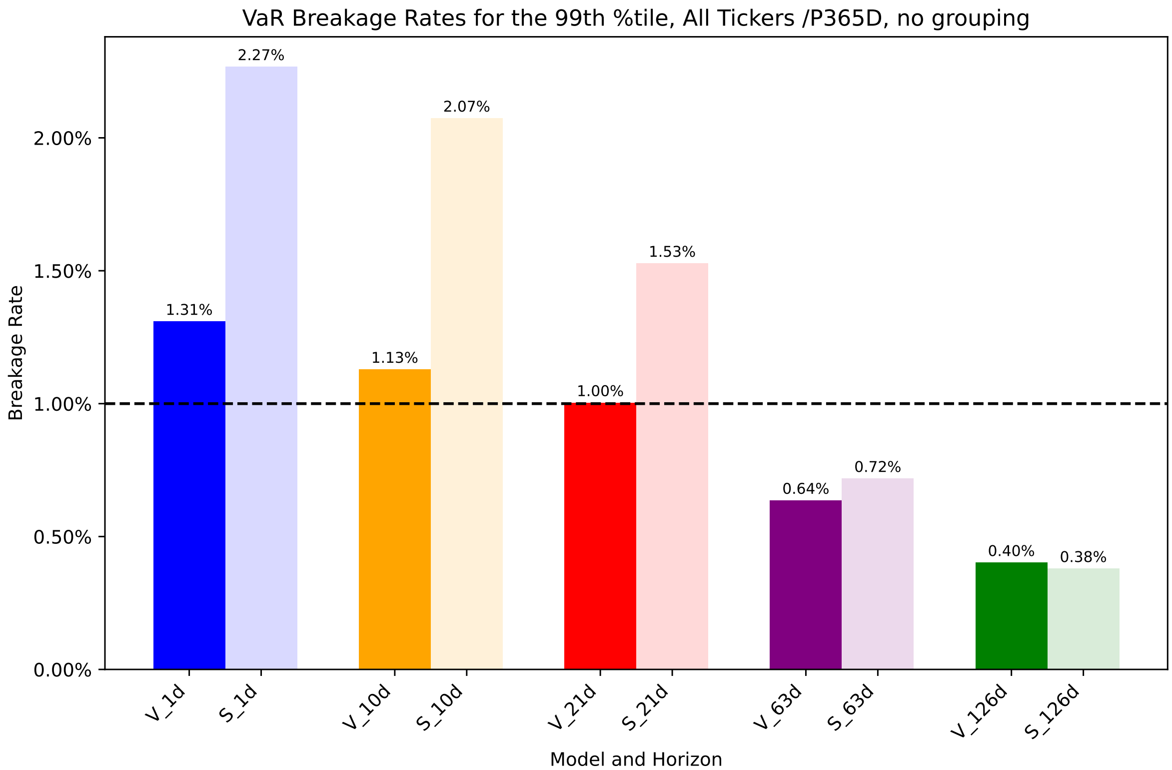


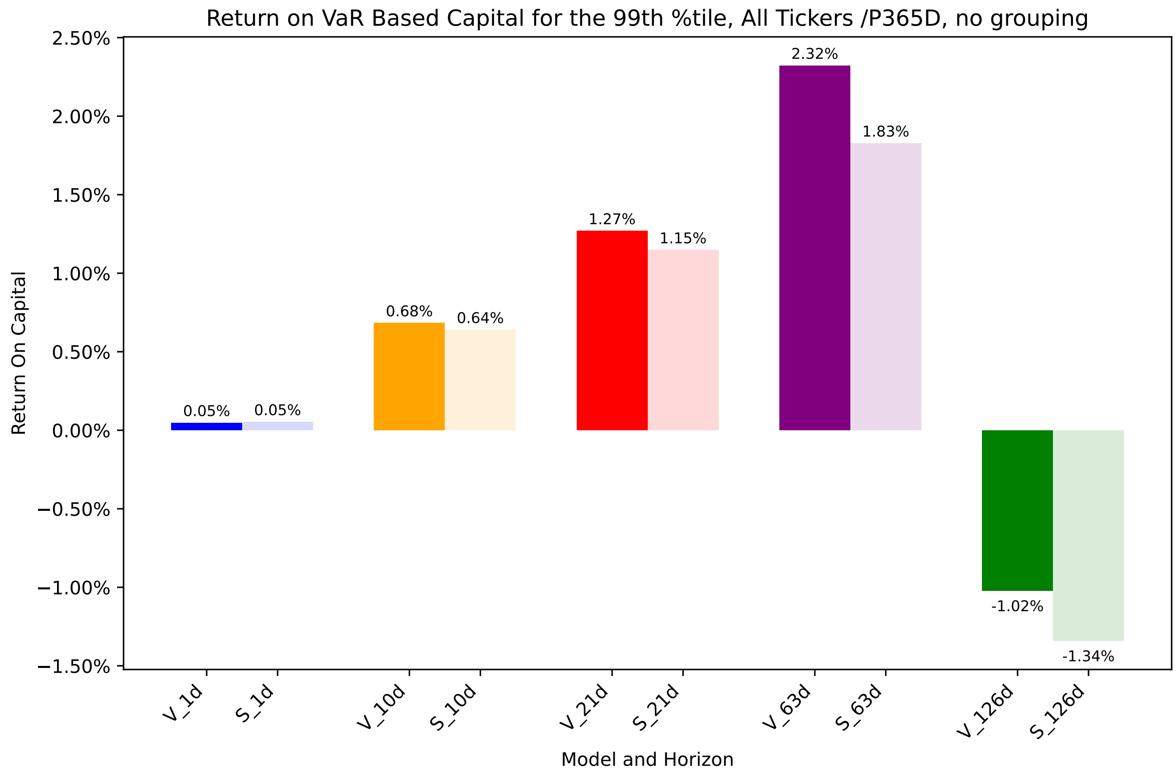

```
Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon
corresponding actual returns across TMD's:
                       1d      10d      21d      63d     126d     252d
intercept          -0.00%   -0.03%   -0.10%   -0.30%   -0.79%   -0.89%
intercept_p_value  35.85%    5.53%    0.00%    0.00%    0.00%    0.00%
slope              90.65%  105.43%  108.60%  110.10%  117.67%  119.36%
slope_p_value       0.00%    0.00%    0.00%    0.00%    0.00%    0.00%
```

```
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon
corresponding actual returns, by ticker across Model Dates:
                        1d      10d      21d      63d     126d     252d
intercept           -0.03%   -0.14%   -0.40%   -1.61%   -3.41%   -5.00%
intercept_p_value    0.02%    3.49%    0.58%    0.07%    0.01%    0.33%
slope              162.00%  147.06%  163.13%  174.87%  174.84%  162.60%
slope_p_value        0.00%    0.00%    0.00%    0.00%    0.00%    0.00%
```

Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-07-31 through 2024-08-02





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

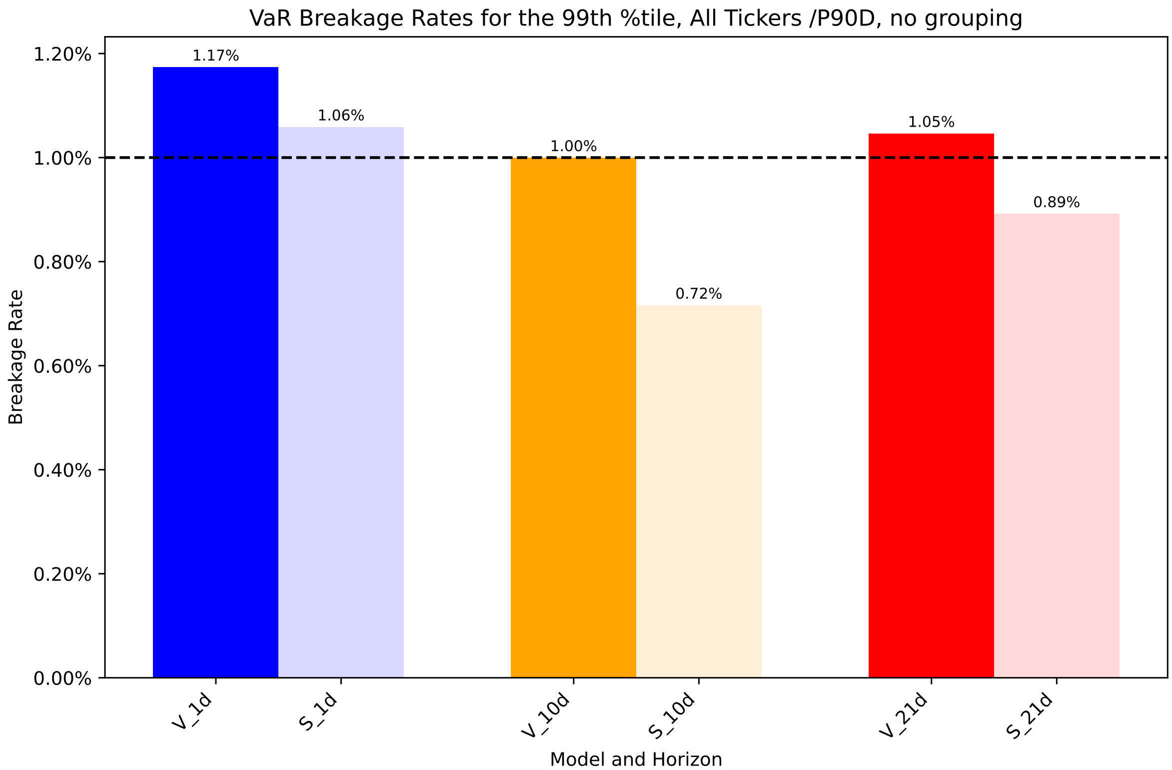
	1d	10d	21d	63d	126d
intercept	0.01%	0.13%	0.19%	0.54%	0.33%
intercept_p_value	40.13%	0.00%	0.00%	0.00%	0.00%
slope	77.44%	86.73%	94.16%	97.47%	100.66%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

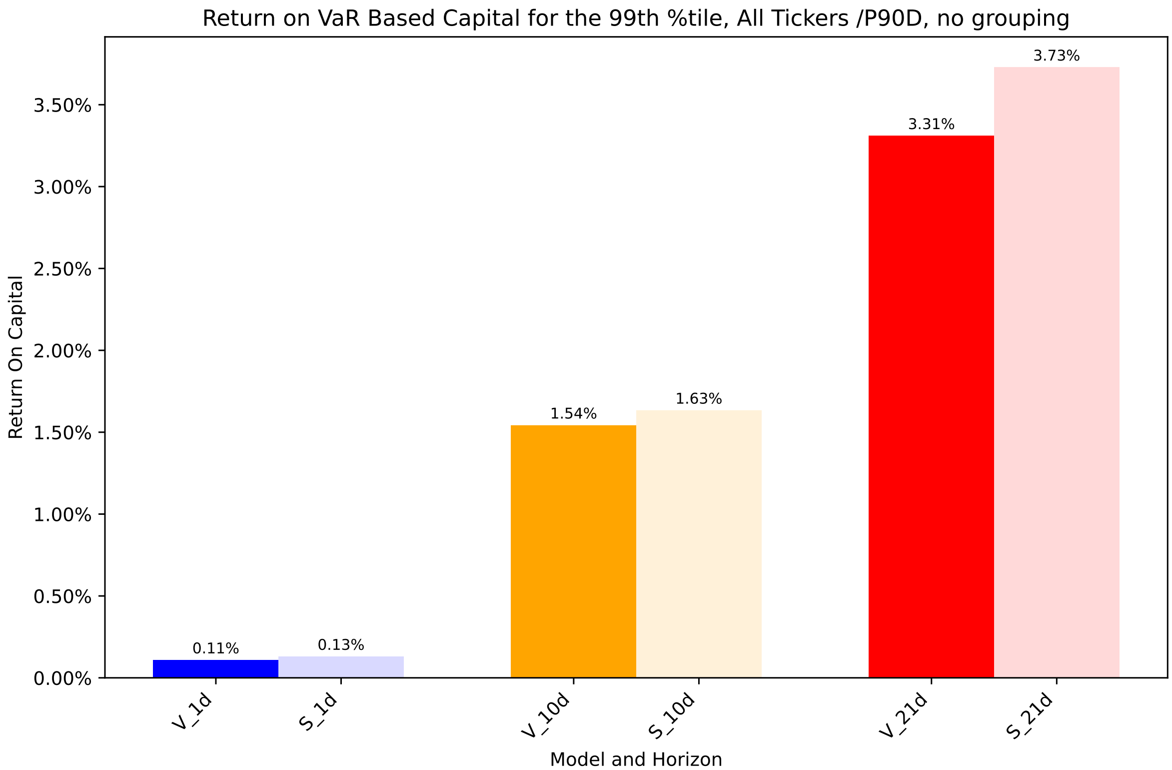
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P365D:

	1d	10d	21d	63d	126d
intercept	0.01%	0.12%	0.25%	0.74%	0.15%
intercept_p_value	59.92%	12.10%	13.34%	5.93%	76.14%
slope	97.67%	110.95%	117.44%	113.55%	114.04%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2025-07-31 through 2025-05-05



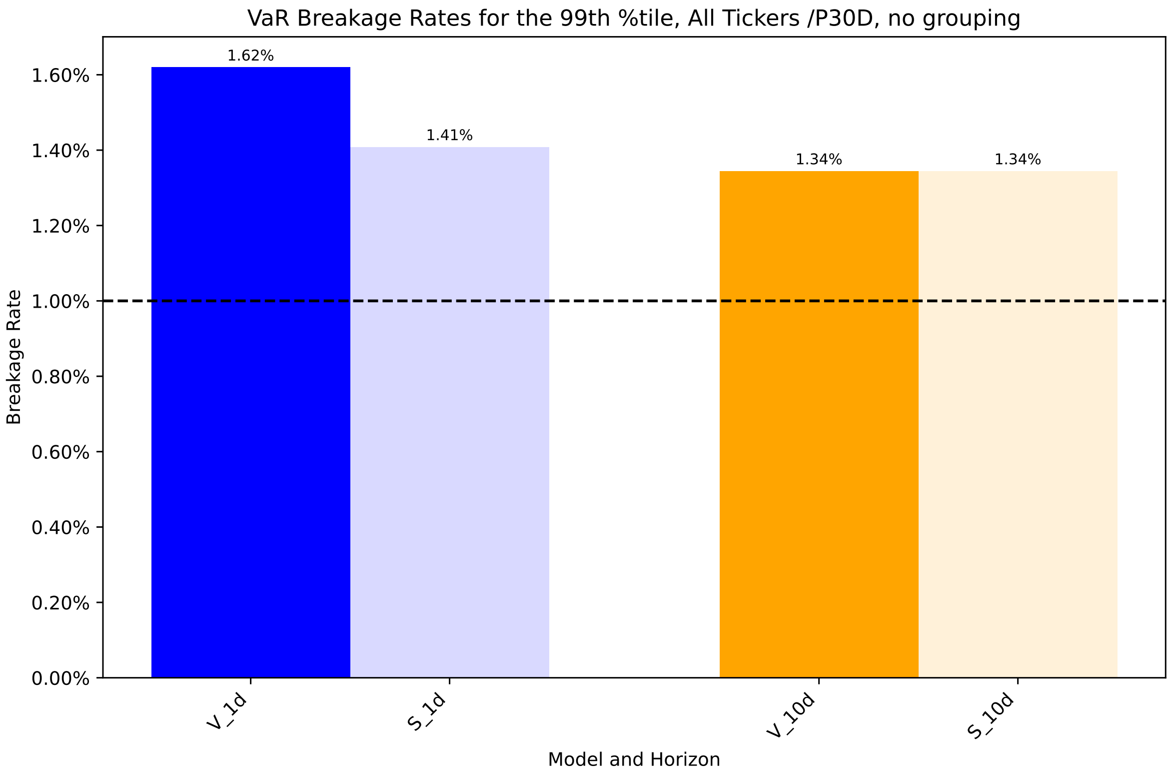


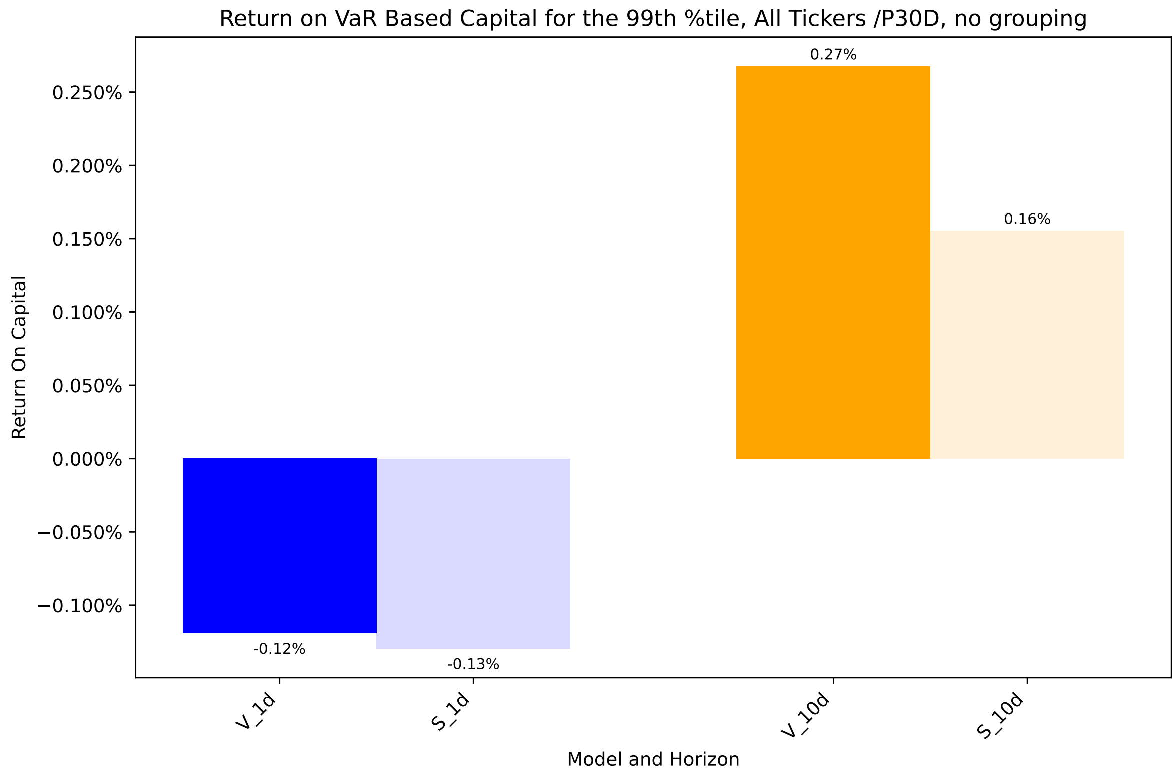

```
Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon
corresponding actual returns across P90D:
                      1d      10d      21d
intercept          -0.01%   -0.09%   -0.60%
intercept_p_value  51.20%    5.54%    0.00%
slope              92.52%  100.15%  104.86%
slope_p_value       0.00%    0.00%    0.00%


Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon
corresponding actual returns, by ticker across P90D:
                       1d      10d      21d
intercept           -0.02%    0.01%   -0.11%
intercept_p_value   33.80%   96.75%   73.57%
slope              129.55%  129.50%  129.01%
slope_p_value        0.00%    0.00%    0.00%
```

Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2025-07-31 through 2025-07-03





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

	1d	10d
intercept	-0.01%	0.11%
intercept_p_value	77.72%	24.07%
slope	86.13%	98.65%
slope_p_value	0.00%	0.00%

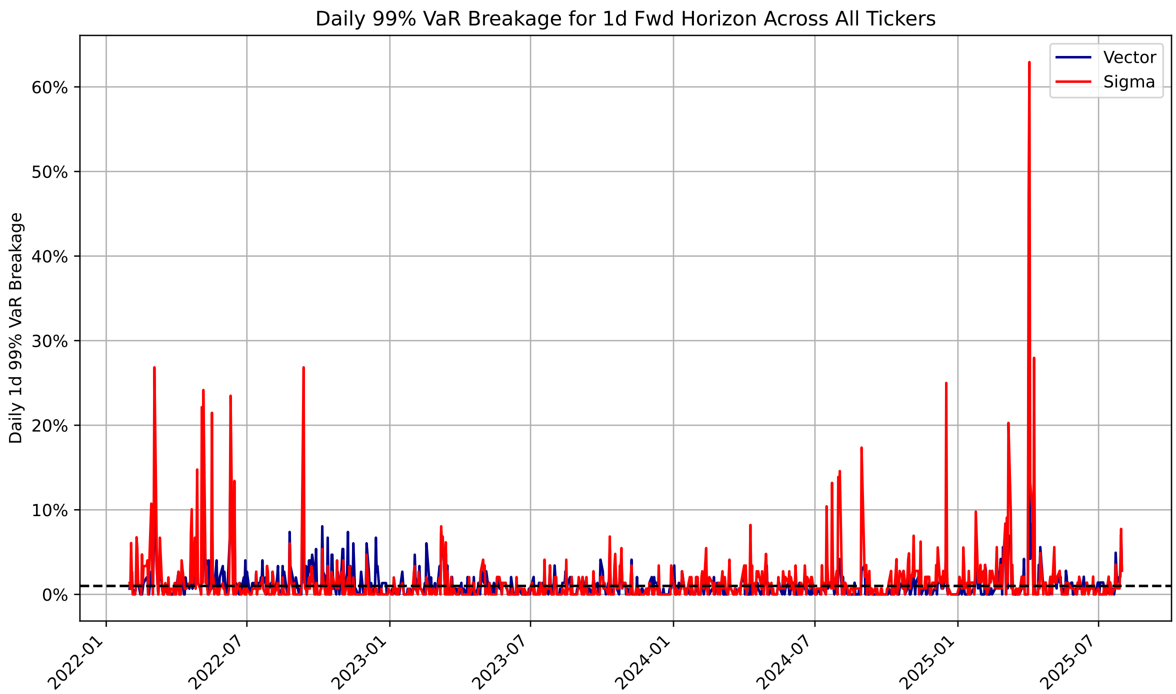
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P30D:

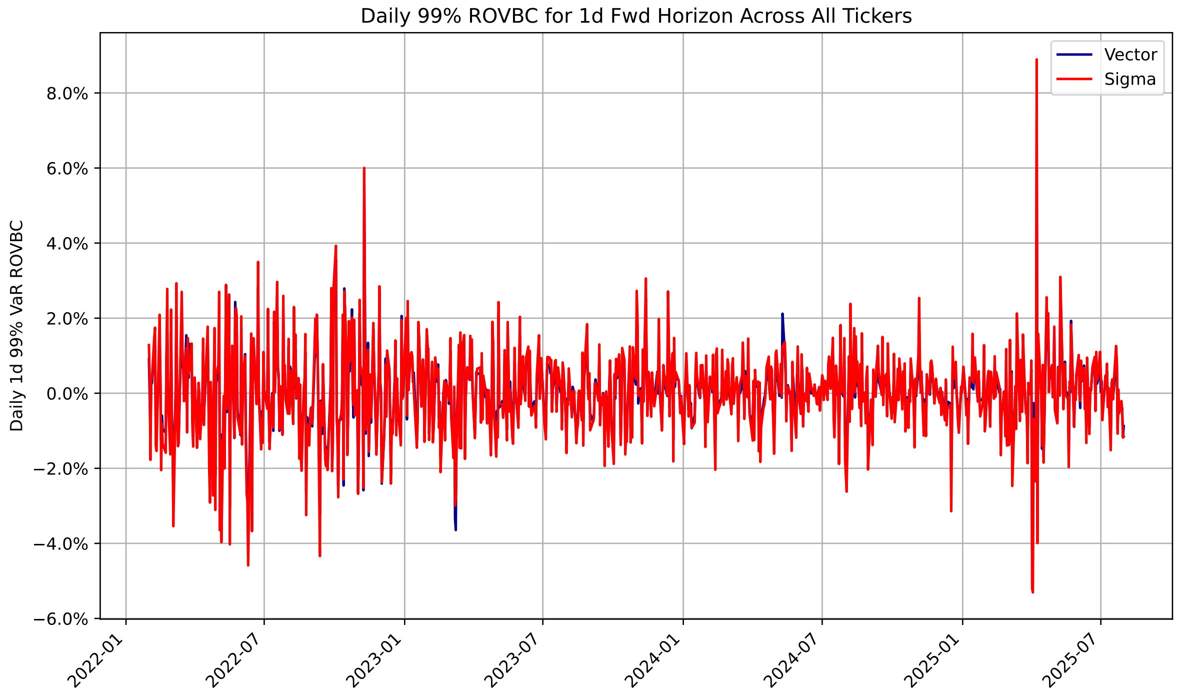
	1d	10d
intercept	-0.02%	0.11%
intercept_p_value	50.85%	62.80%
slope	113.20%	121.43%
slope_p_value	0.00%	0.00%

Daily Performance

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

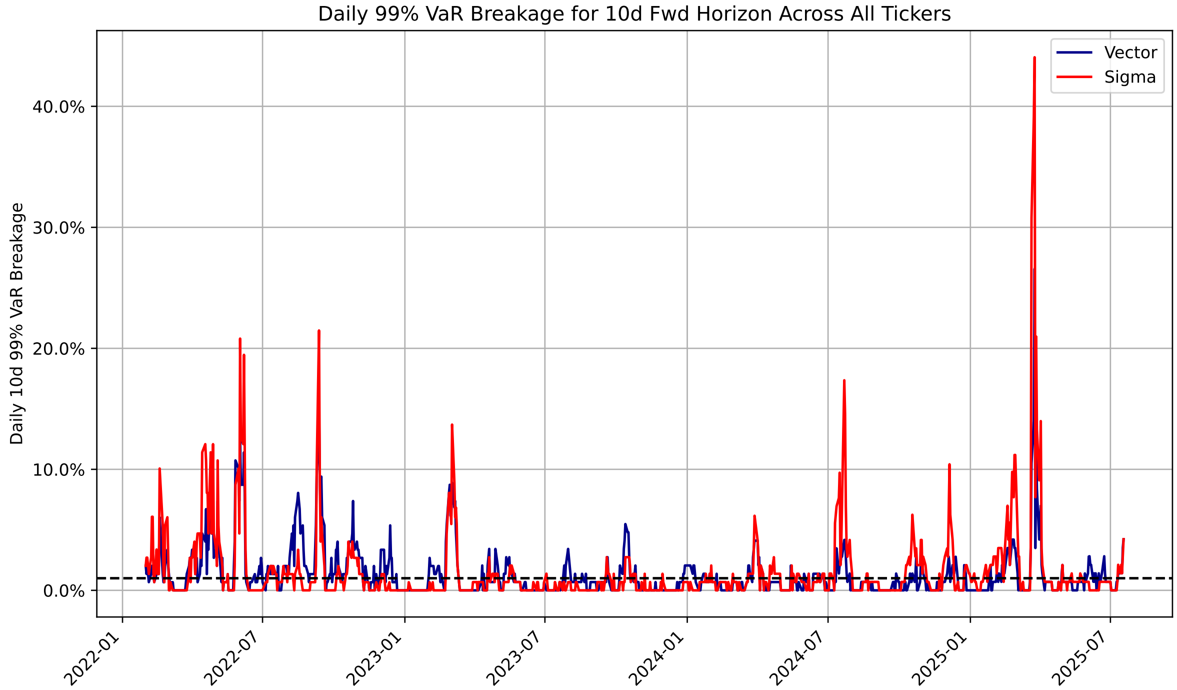
1d Horizon



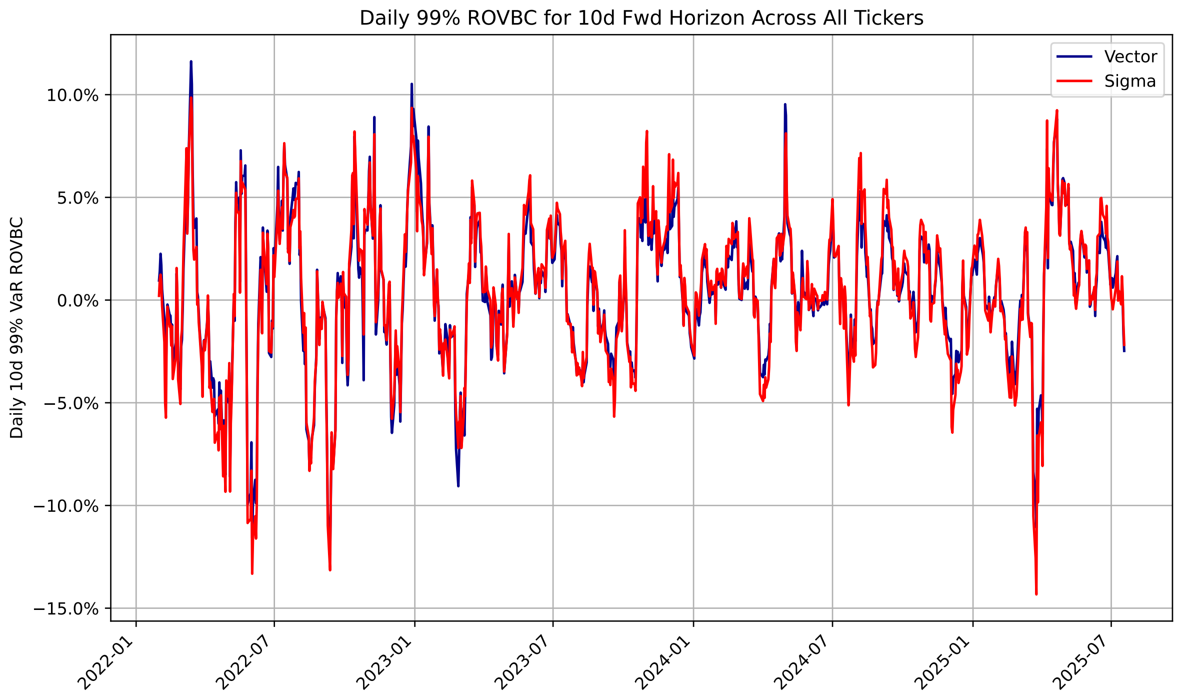


Daily 99% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 99% VaR ROVBC
8.0%
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

10d Horizon

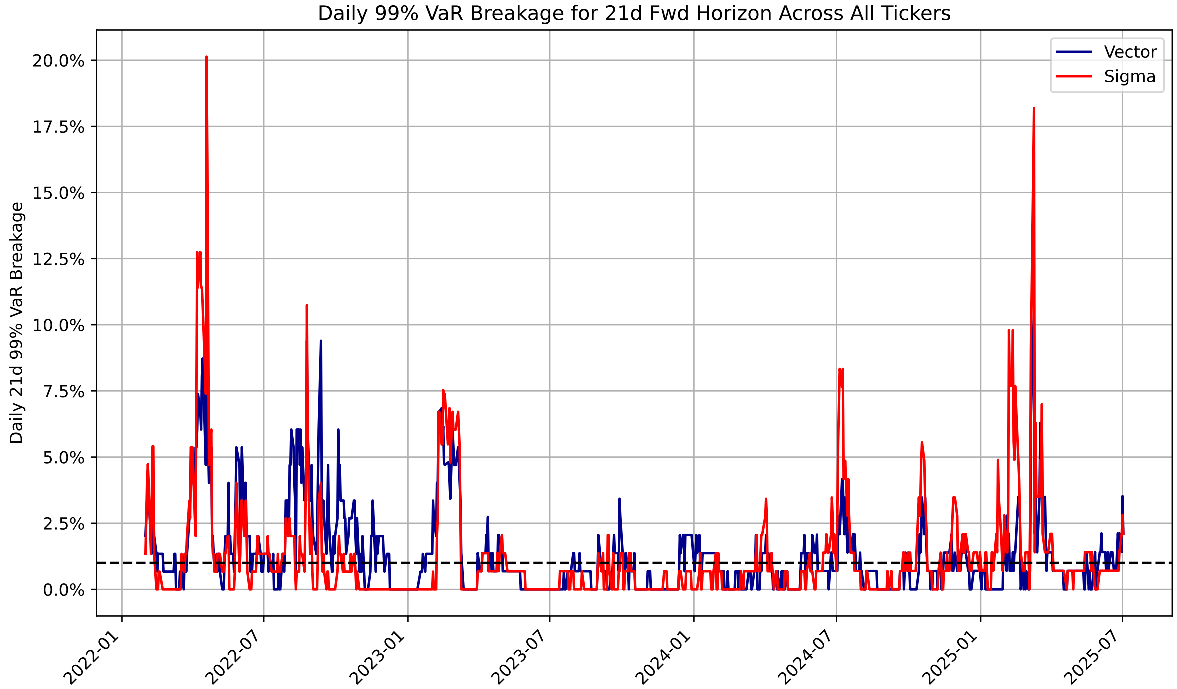


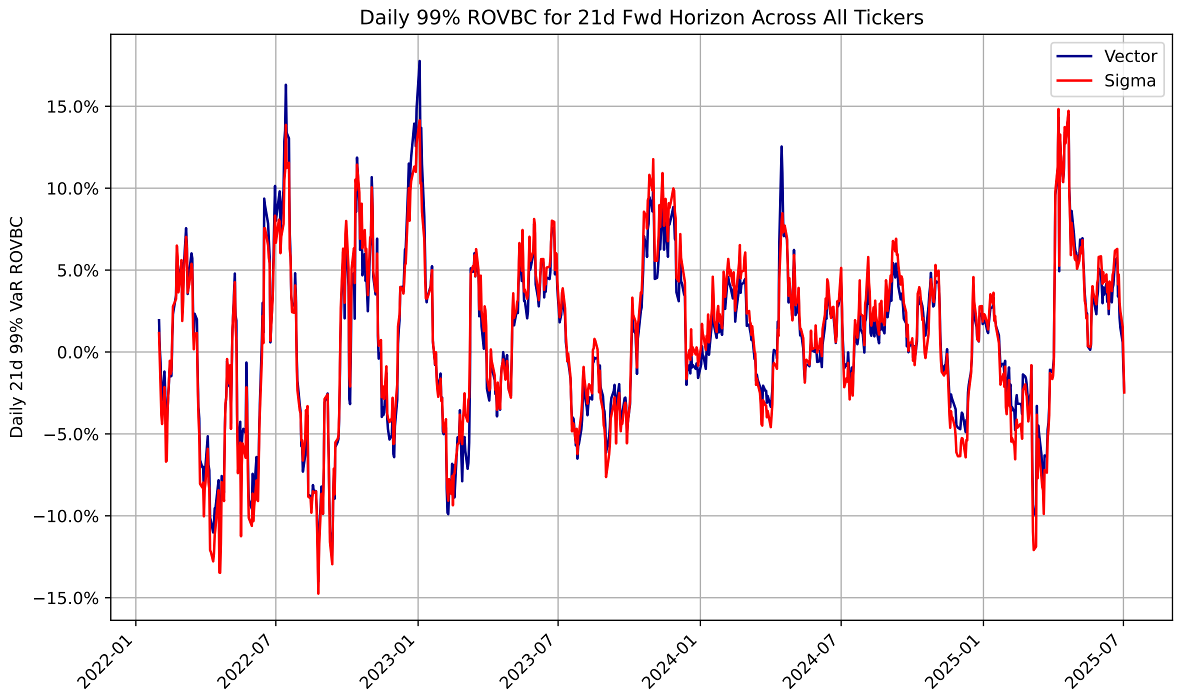
Daily 99% VaR Breakage for 10d Fwd Horizon Across All Tickers
Daily 10d 99% VaR Breakage
40.0%
30.0%
20.0%
10.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma



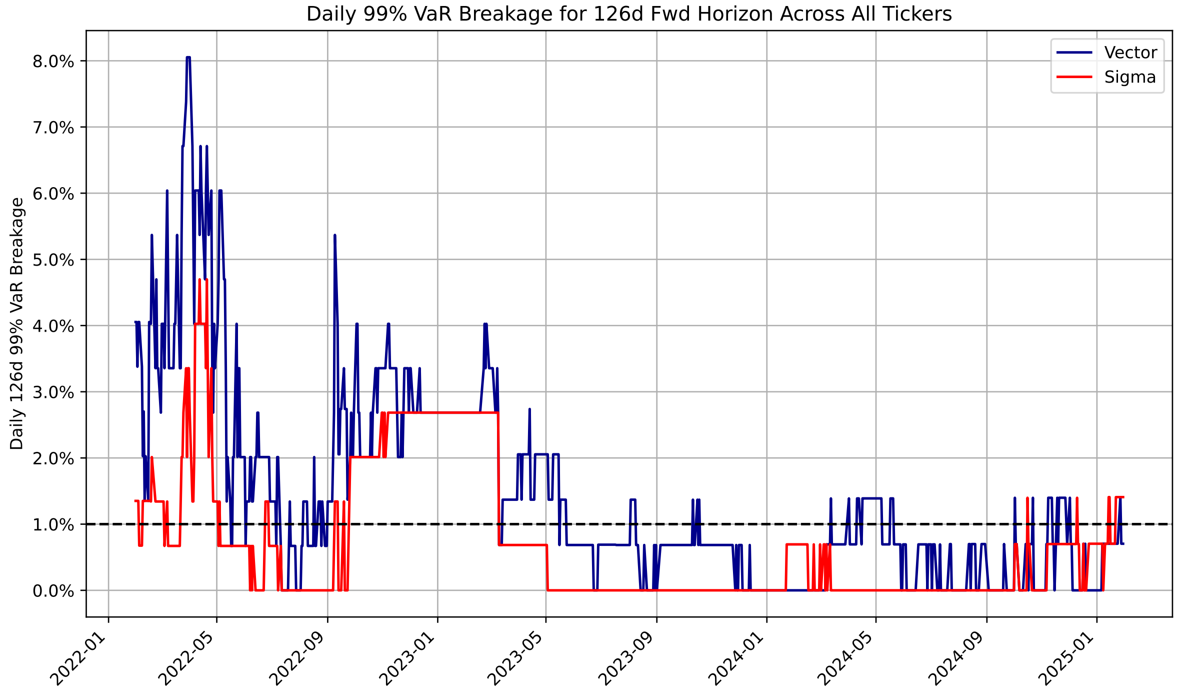
Daily 99% ROVBC for 10d Fwd Horizon Across All Tickers
Daily 10d 99% VaR ROVBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

21d Horizon

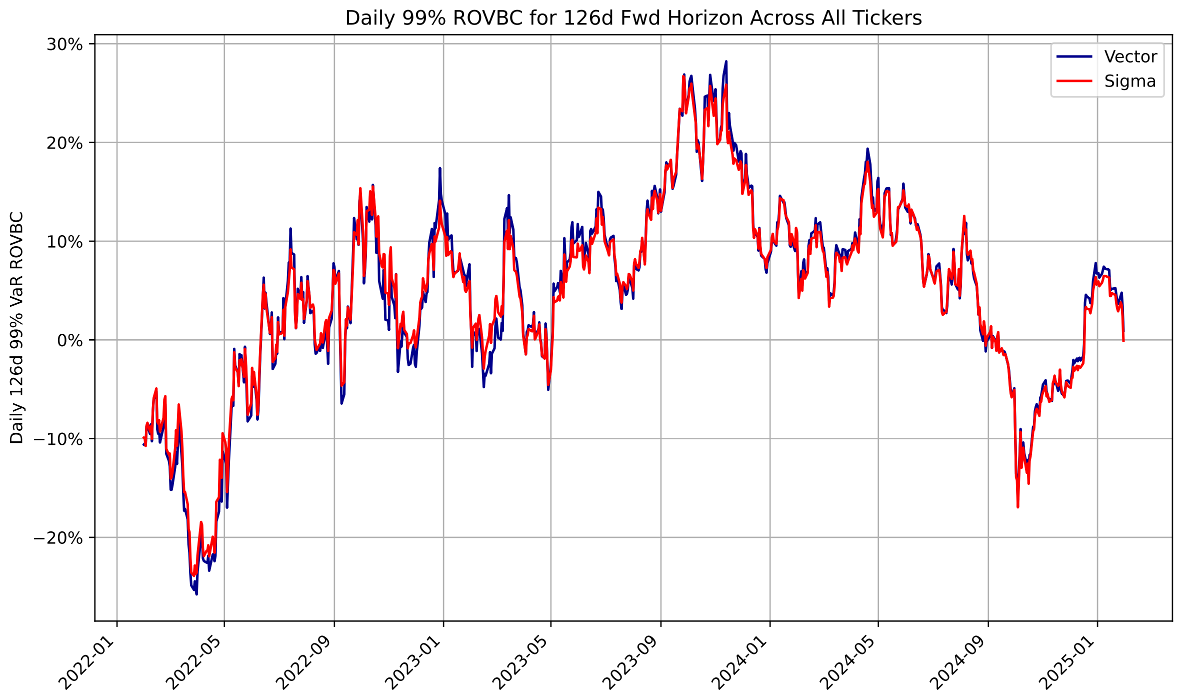

Daily 99% VaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 99% VaR Breakage
20.0%
17.5%
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07


Daily 99% ROVBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 99% VaR ROVBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

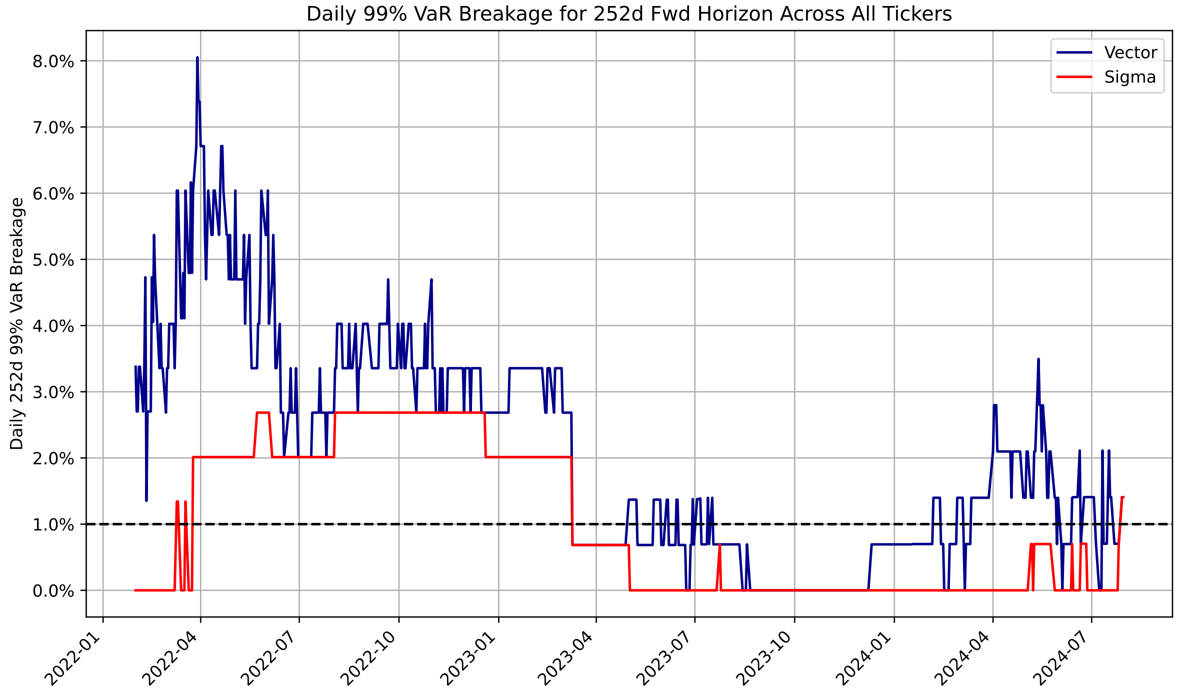


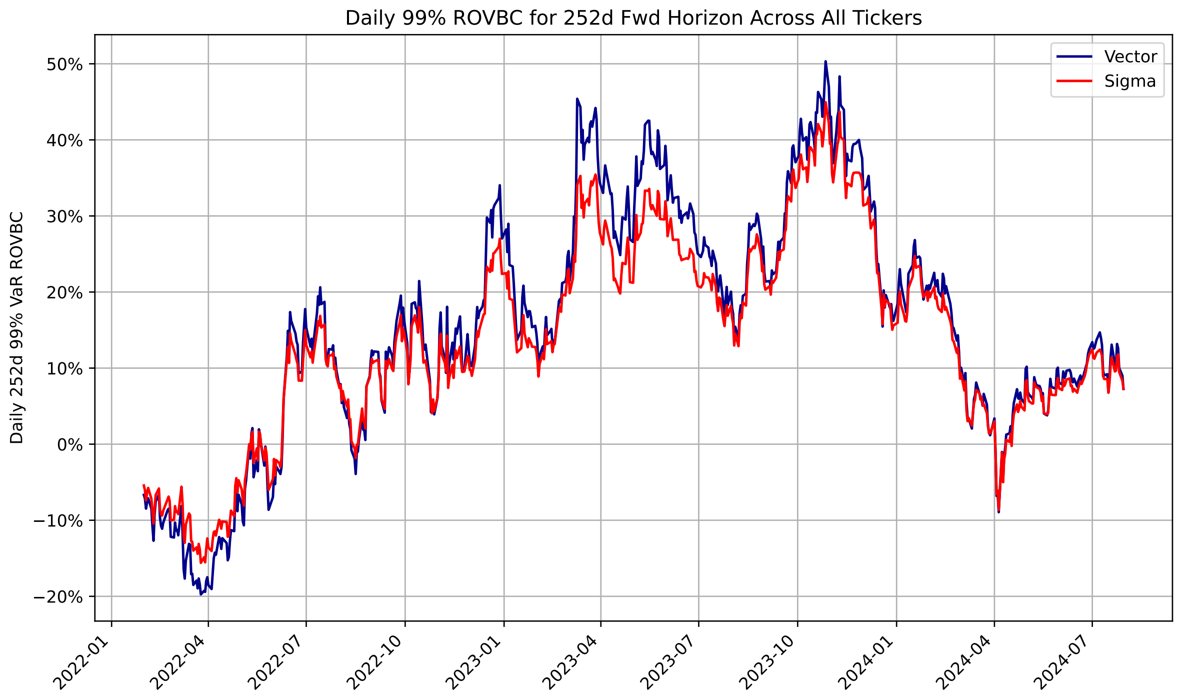
Daily 99% VaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 99% VaR Breakage
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01



Daily 99% ROVBC for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 99% VaR ROVBC
30%
20%
10%
0%
−10%
−20%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01

252d Horizon

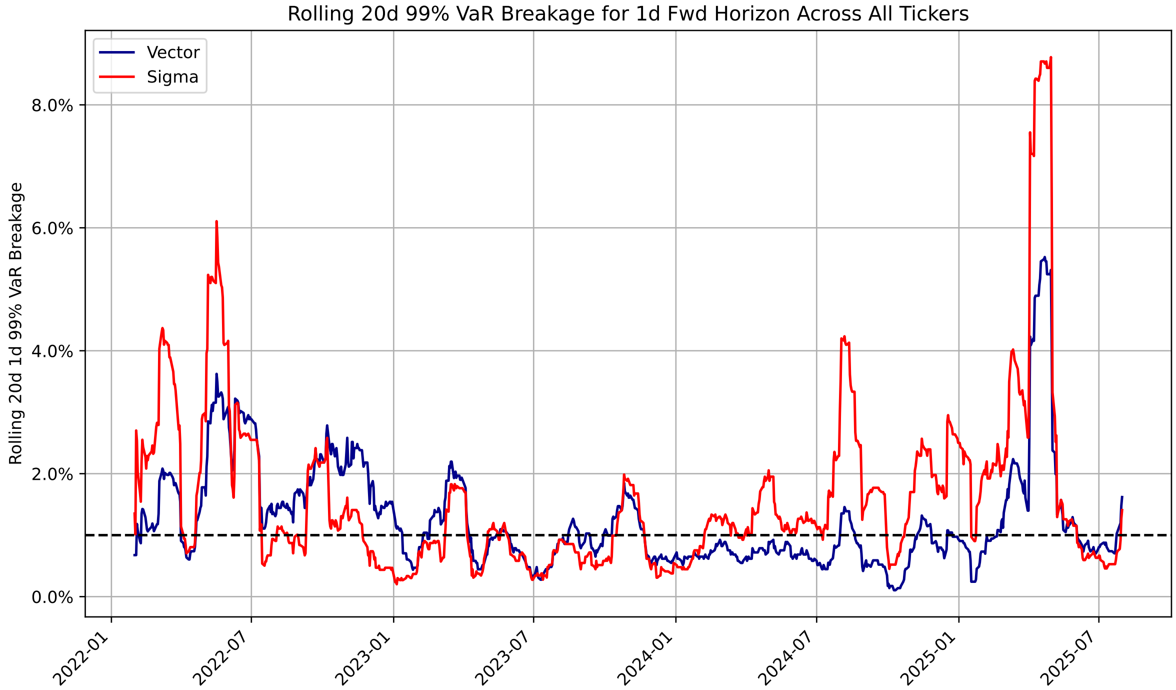


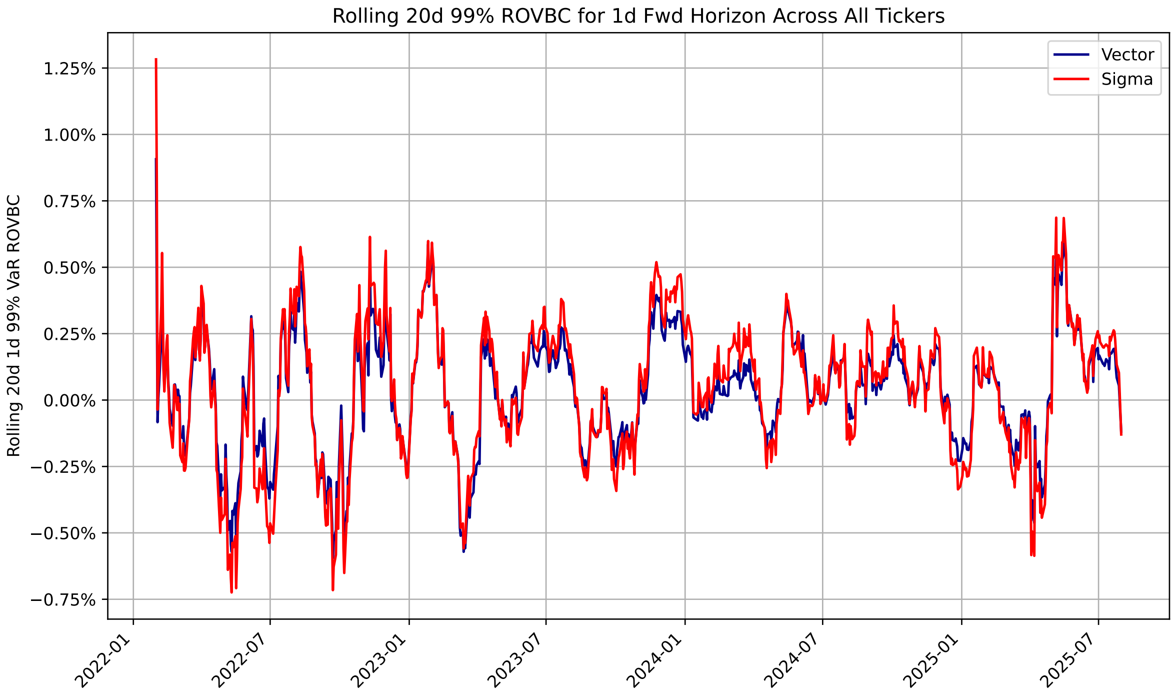


Rolling 20d Performance

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

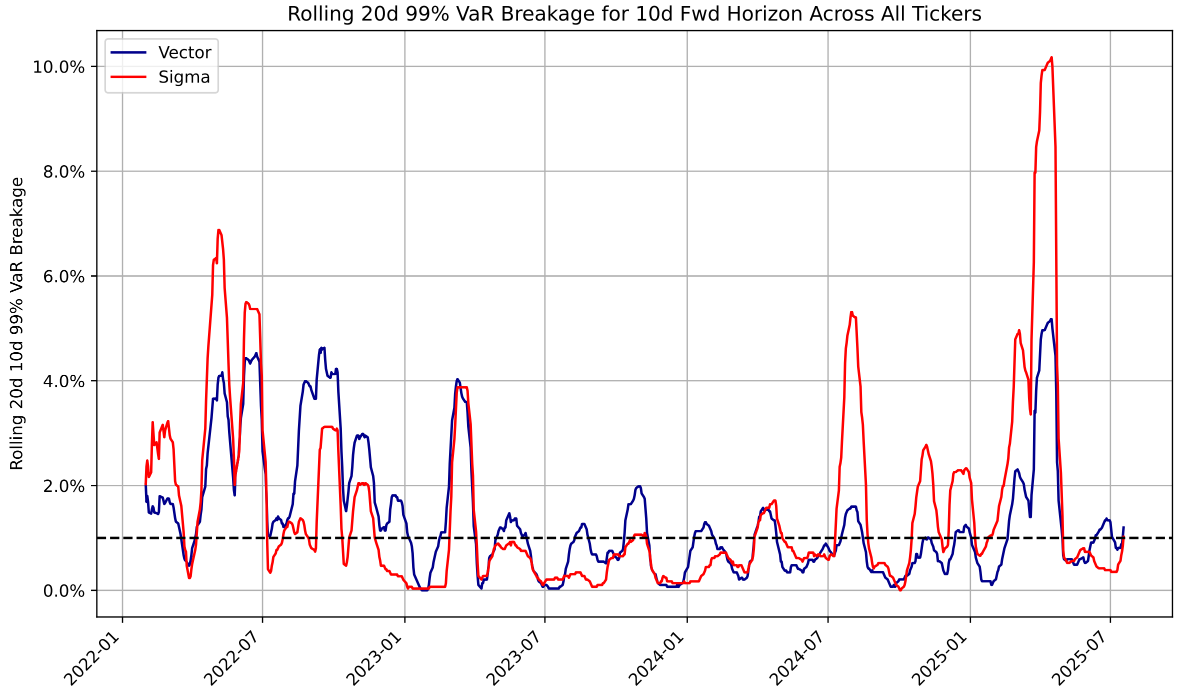
1d Horizon



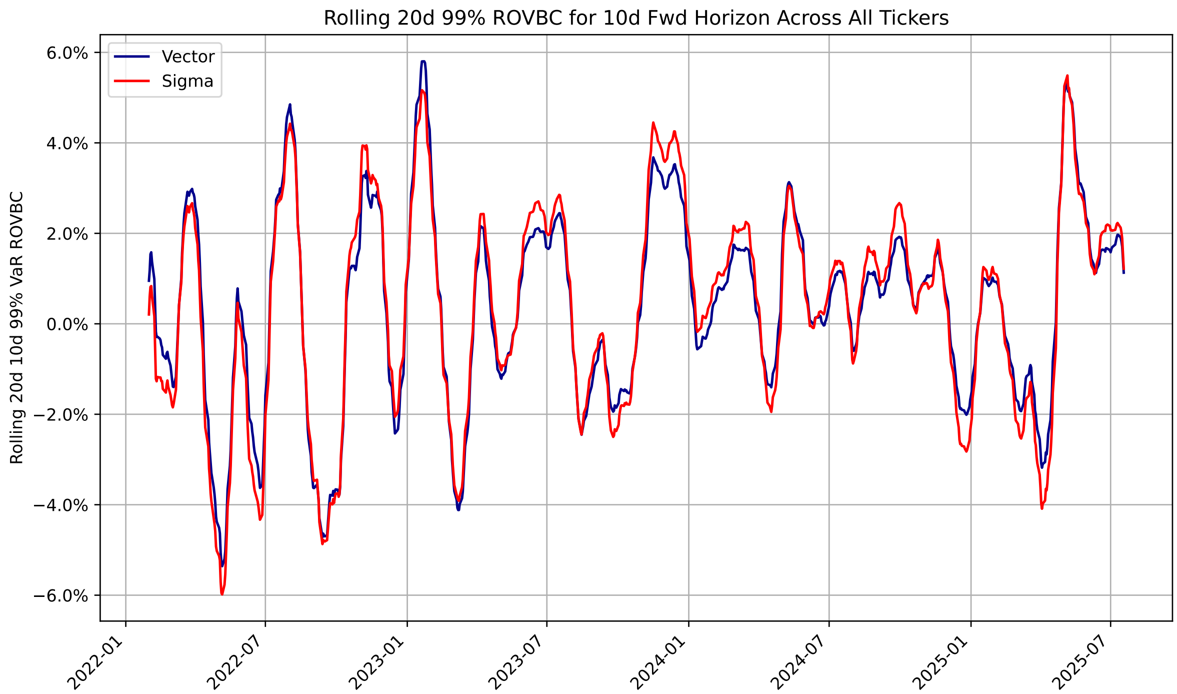


Rolling 20d 99% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 99% VaR ROVBC
1.25%
1.00%
0.75%
0.50%
0.25%
0.00%
−0.25%
−0.50%
−0.75%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

10d Horizon

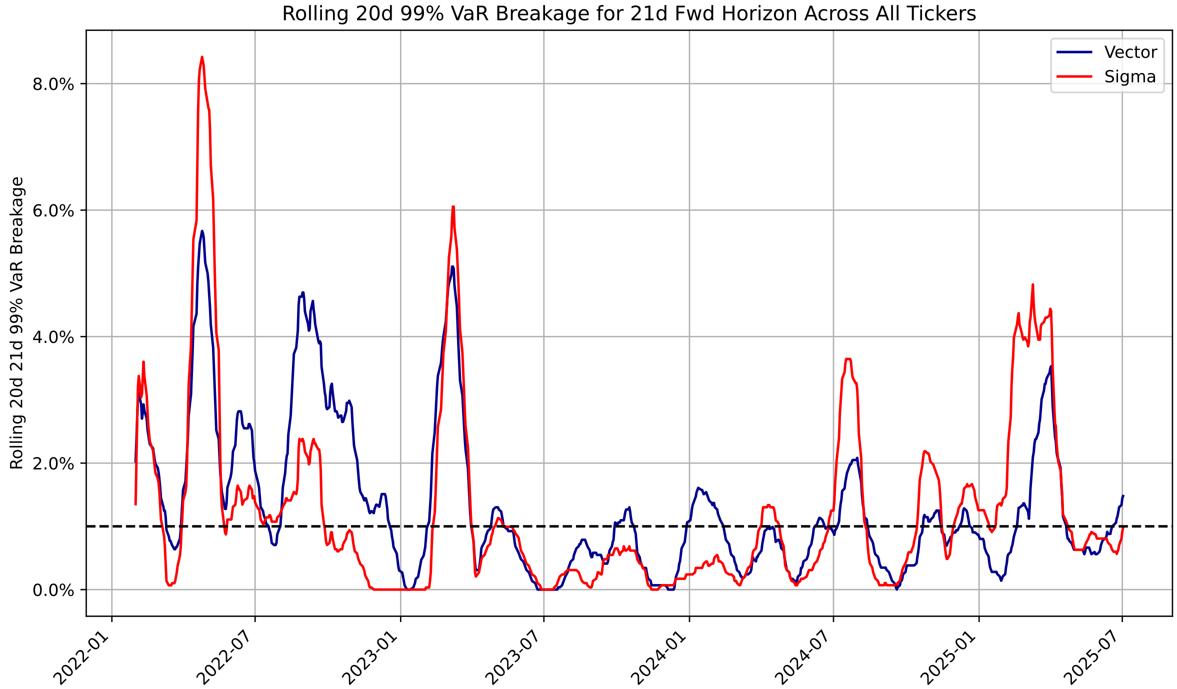


Rolling 20d 99% VaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 99% VaR Breakage
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

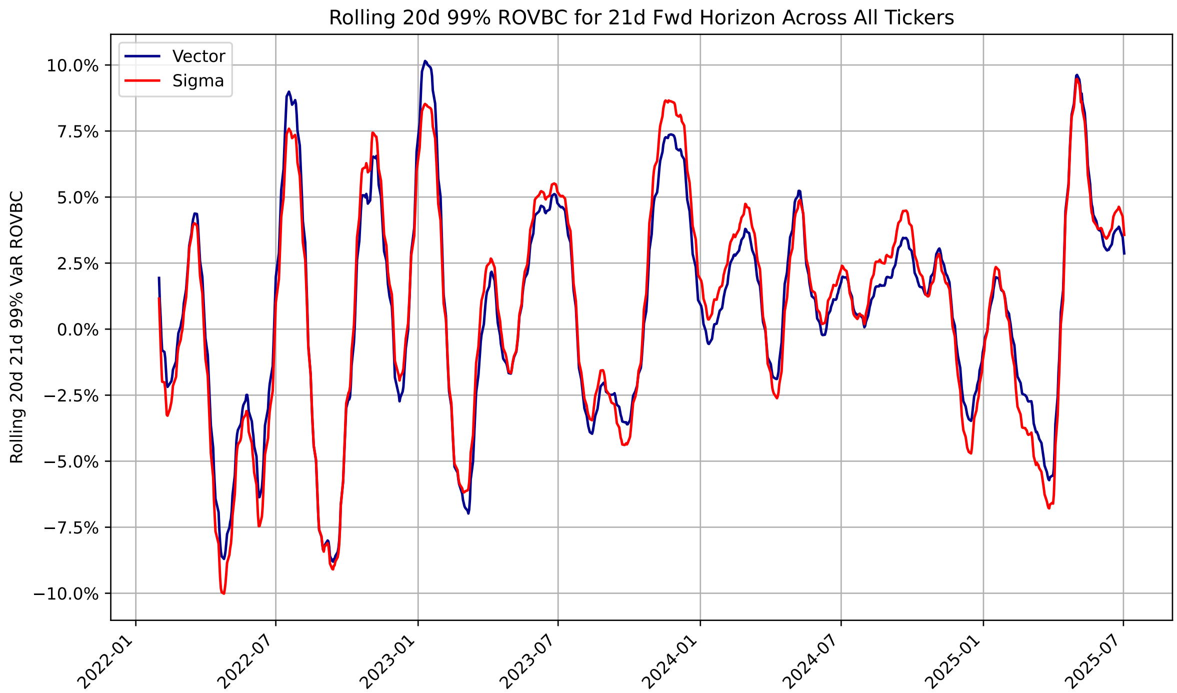


Rolling 20d 99% ROVBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 99% VaR ROVBC
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

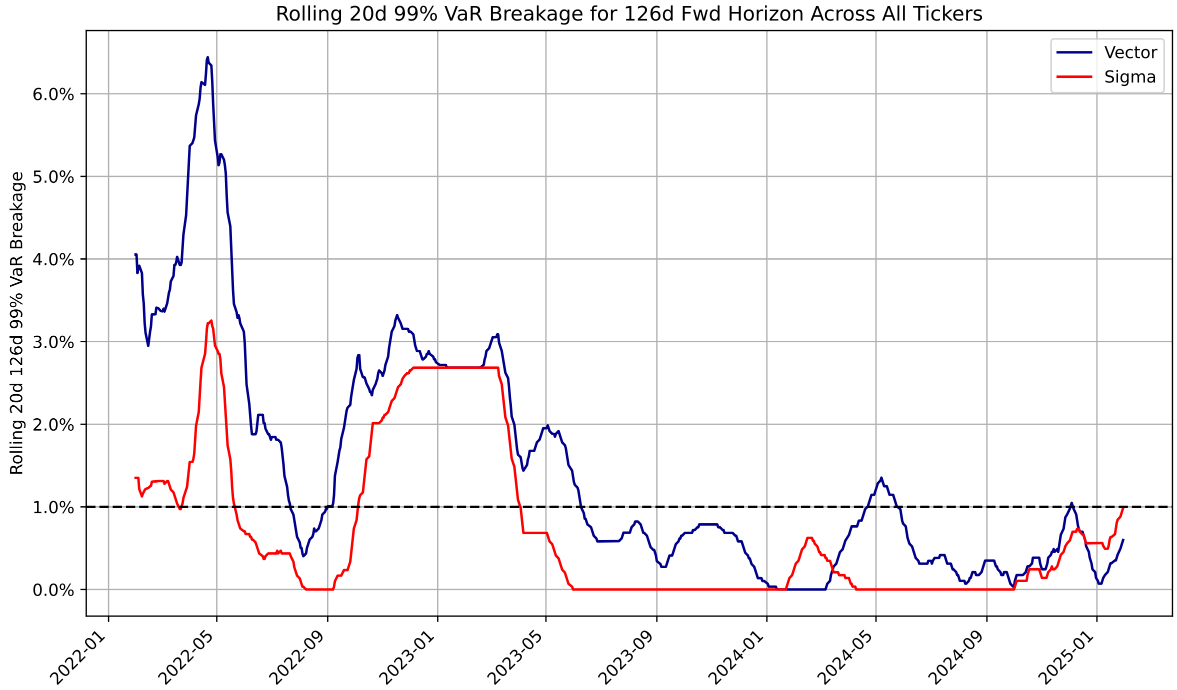


Rolling 20d 99% VaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 99% VaR Breakage
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

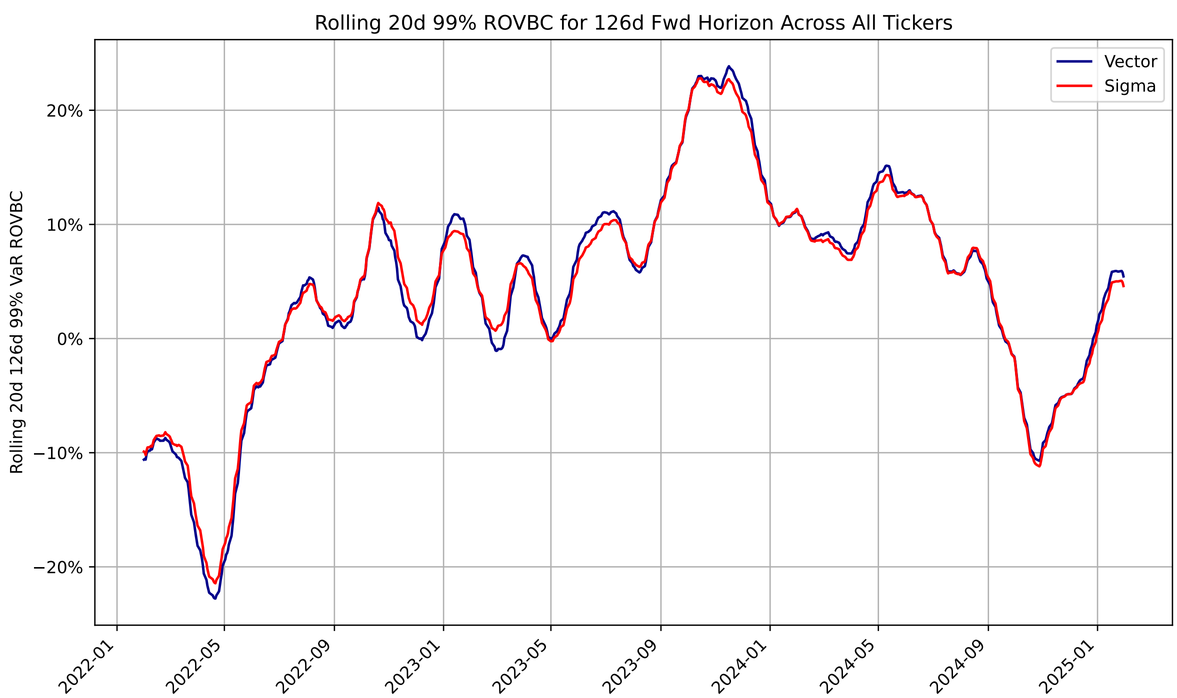


Rolling 20d 99% ROVBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 99% VaR ROVBC
10.0%
7.5%
5.0%
2.5%
0.0%
−2.5%
−5.0%
−7.5%
−10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

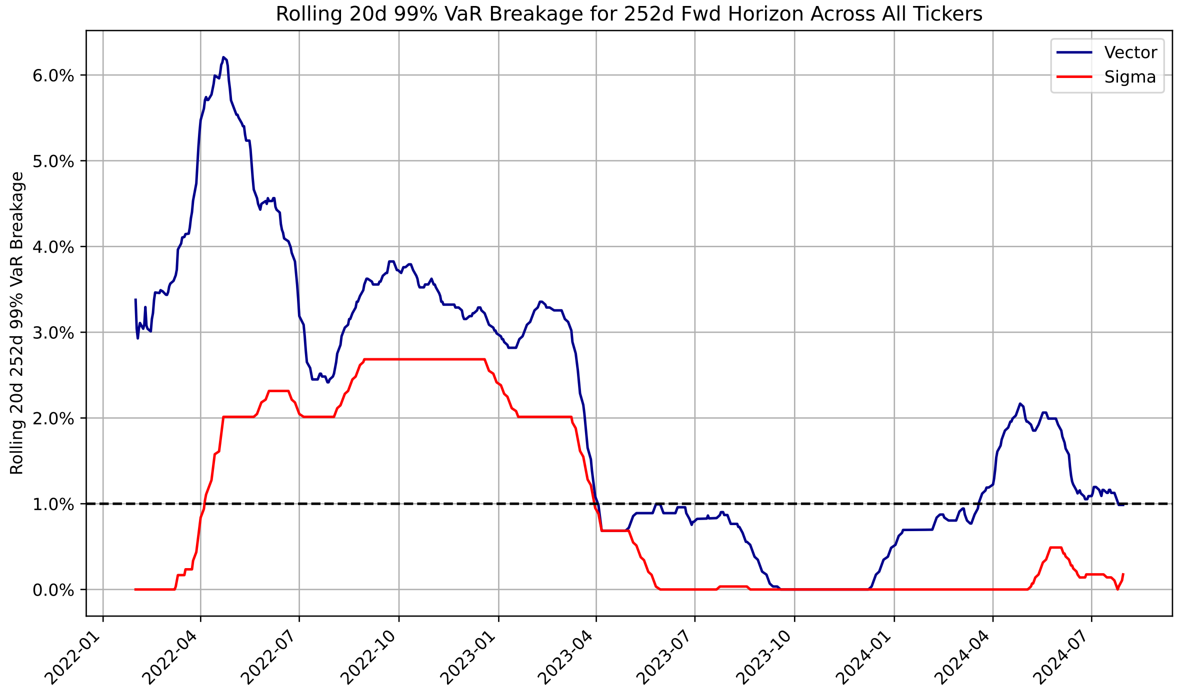


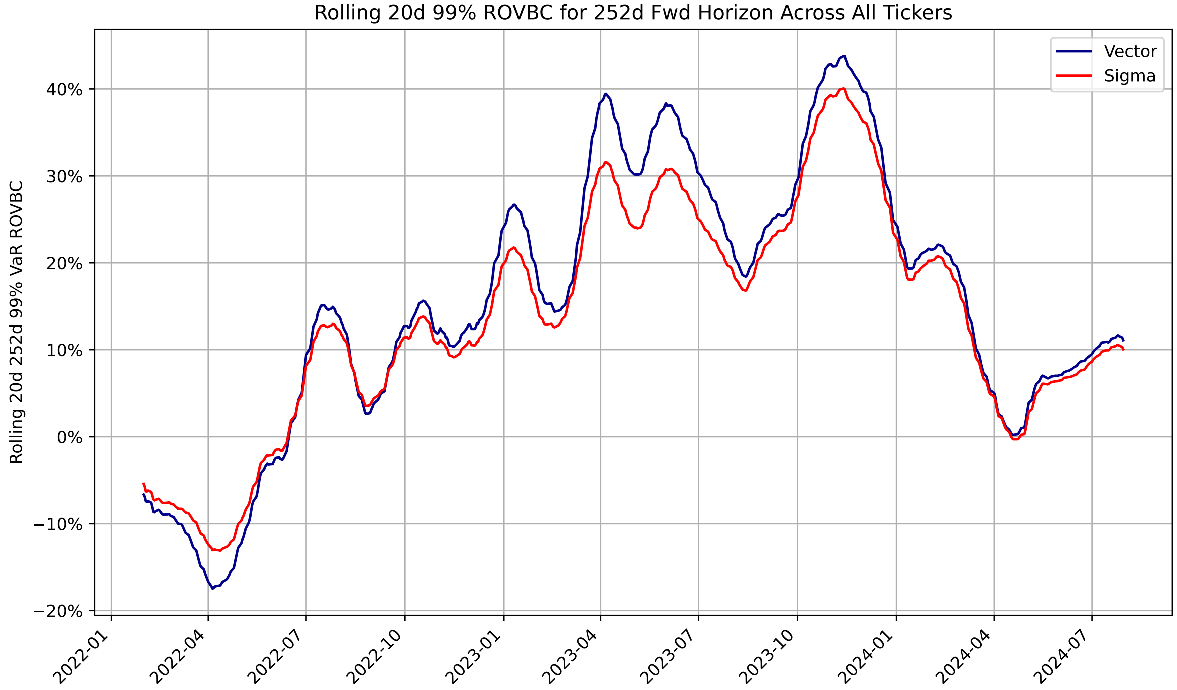
Rolling 20d 99% VaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 126d 99% VaR Breakage
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01



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

252d Horizon





Top 30 Tickers By VaR Breakage

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	SBNY	15.47%	SBNY	3.6%
1.0	SIVBQ	10.43%	SIVBQ	2.88%
1.0	TSLA	8.31%	TRGP	2.73%
1.0	LQD	6.72%	QCOM	2.73%
1.0	B	5.92%	PEP	2.51%
1.0	FRCB	5.76%	SPY	2.51%
1.0	ZTS	5.35%	UNH	2.51%
1.0	GME	4.78%	IRM	2.51%
1.0	JAZZ	3.76%	HSBC	2.39%
1.0	AAP	3.76%	VST	2.39%
1.0	MSTR	3.64%	QQQ	2.39%
1.0	CHTR	3.53%	WFC	2.39%
1.0	BUD	3.3%	ACGL	2.39%
1.0	ISRG	3.3%	GOOGL	2.39%
1.0	FRA	3.08%	NVS	2.28%
1.0	AMC	3.08%	NVDA	2.28%
1.0	CDNS	3.08%	VCSH	2.28%
1.0	GNRC	2.96%	CMG	2.28%
1.0	VZ	2.85%	TXN	2.16%
1.0	SLV	2.62%	PCG	2.16%
1.0	EXPE	2.62%	GS	2.16%
1.0	KALU	2.51%	THC	2.16%
1.0	QCOM	2.39%	TMUS	2.16%
1.0	BXP	2.05%	KHC	2.16%
1.0	GSK	2.05%	PWR	2.16%
1.0	CMCSA	1.94%	ZTS	2.16%
1.0	META	1.94%	VZ	2.16%
1.0	CMA	1.82%	ABBV	2.16%
1.0	PRGO	1.82%	FRCB	2.16%
1.0	AMZN	1.82%	FRA	2.05%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	SBNY	17.65%	SIVBQ	5.51%
10.0	SIVBQ	12.87%	MUB	4.95%
10.0	TSLA	9.55%	CTLT	4.08%
10.0	AMC	9.21%	AAP	3.8%
10.0	CHTR	9.09%	CHTR	3.8%
10.0	AAP	8.63%	PCG	3.8%
10.0	B	6.44%	UNH	3.45%
10.0	LQD	6.33%	LW	3.45%
10.0	ZTS	4.72%	SBNY	3.31%
10.0	KALU	4.6%	FRCB	3.31%
10.0	CVS	4.6%	BAC	3.22%
10.0	MSTR	4.14%	FIS	3.22%
10.0	GNRC	4.03%	ABBV	3.11%
10.0	ISRG	3.68%	WDC	3.11%
10.0	CTLT	3.67%	GSK	2.99%
10.0	VCSH	3.57%	CVS	2.88%
10.0	GSK	3.45%	FRA	2.88%
10.0	GME	3.45%	IEP	2.88%
10.0	BHC	3.45%	TRGP	2.76%
10.0	SNY	3.45%	BHC	2.76%
10.0	FRCB	3.31%	EMB	2.53%
10.0	EXPE	3.11%	WFC	2.53%
10.0	UNH	2.88%	COST	2.53%
10.0	NEM	2.88%	BALL	2.53%
10.0	EMB	2.65%	AZN	2.53%
10.0	LW	2.65%	EXPE	2.42%
10.0	OXY	2.53%	KALU	2.42%
10.0	META	2.53%	FITB	2.42%
10.0	JAZZ	2.42%	SBUX	2.42%
10.0	BIIB	2.42%	CNC	2.42%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	SBNY	21.48%	SIVBQ	7.04%
21.0	SIVBQ	14.07%	SBNY	5.56%
21.0	CHTR	12.82%	FRCB	5.56%
21.0	AMC	10.14%	LW	5.24%
21.0	VCSH	8.39%	GSK	5.13%
21.0	TSLA	8.28%	MUB	4.9%
21.0	FRCB	6.67%	CTLT	3.59%
21.0	AAP	5.71%	WDC	3.38%
21.0	GNRC	5.36%	CNC	3.26%
21.0	LQD	5.13%	PCG	3.26%
21.0	B	5.01%	CHTR	3.15%
21.0	BIIB	4.31%	AAP	3.15%
21.0	BHC	4.31%	SNY	3.15%
21.0	UNH	4.31%	NEM	3.03%
21.0	GSK	4.2%	IEP	3.03%
21.0	KALU	4.08%	UNH	3.03%
21.0	NEM	3.85%	INTC	2.8%
21.0	BUD	3.85%	COST	2.68%
21.0	CMA	3.61%	VFC	2.68%
21.0	ZTS	3.61%	BHC	2.68%
21.0	CTLT	3.59%	EMB	2.57%
21.0	CNC	3.5%	FRA	2.56%
21.0	KEY	3.26%	AMZN	2.56%
21.0	CVS	3.03%	NFLX	2.45%
21.0	META	3.03%	ZION	2.37%
21.0	ZION	2.96%	AZN	2.33%
21.0	EMB	2.8%	TFC	2.33%
21.0	FIS	2.68%	VCSH	2.33%
21.0	AMZN	2.68%	CMA	2.33%
21.0	BMY	2.56%	KEY	2.21%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	SBNY	48.89%	SIVBQ	20.37%
63.0	SIVBQ	25.19%	FRCB	20.0%
63.0	FRCB	20.74%	SBNY	20.0%
63.0	CHTR	17.77%	IEP	7.72%
63.0	AMC	12.01%	GSK	7.6%
63.0	AAP	9.93%	BHC	7.48%
63.0	VCSH	8.95%	UNH	5.64%
63.0	ZION	6.98%	MUB	4.79%
63.0	LQD	6.86%	CTLT	4.25%
63.0	GNRC	6.25%	PCG	3.8%
63.0	GSK	5.39%	EMB	3.31%
63.0	B	5.27%	KEY	3.19%
63.0	UNH	5.15%	NEM	3.19%
63.0	BUD	4.66%	USB	2.94%
63.0	MSTR	4.66%	BUD	2.7%
63.0	BHC	4.53%	VZ	2.7%
63.0	CMA	4.29%	CMA	2.7%
63.0	BMY	4.04%	CNC	2.7%
63.0	TLT	3.8%	VCSH	2.7%
63.0	KEY	3.68%	ZION	2.62%
63.0	ON	3.31%	HCA	2.21%
63.0	META	3.31%	VFC	2.21%
63.0	EMB	2.82%	X	2.17%
63.0	BIIB	2.7%	TFC	1.84%
63.0	BXP	2.7%	AZN	1.84%
63.0	NEM	2.7%	LQD	1.72%
63.0	CTLT	2.64%	SNY	1.72%
63.0	VNO	2.57%	CLF	1.59%
63.0	NWL	2.08%	WDC	1.59%
63.0	FRA	2.08%	AA	1.59%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	SBNY	68.52%	SIVBQ	43.7%
126.0	SIVBQ	45.19%	FRCB	43.33%
126.0	FRCB	43.33%	SBNY	42.22%
126.0	AAP	23.24%	IEP	16.47%
126.0	CHTR	19.65%	GSK	12.48%
126.0	AMC	19.26%	UNH	4.52%
126.0	GSK	9.83%	BHC	3.59%
126.0	BXP	7.84%	BALL	3.19%
126.0	VCSH	7.7%	LW	2.79%
126.0	VFC	7.44%	EMB	2.39%
126.0	CTLT	6.14%	NEM	2.39%
126.0	GNRC	5.31%	PCG	1.86%
126.0	TLT	4.65%	CNC	1.59%
126.0	BHC	4.65%	VZ	1.59%
126.0	CMA	4.52%	VCSH	1.33%
126.0	UNH	4.25%	MUB	0.8%
126.0	OXY	3.85%	IRM	0.8%
126.0	ZION	3.38%	CHTR	0.66%
126.0	B	2.92%	CTLT	0.48%
126.0	VNO	2.39%	INTC	0.4%
126.0	NEM	2.12%	HYG	0.13%
126.0	LQD	2.12%	LEN	0.13%
126.0	SNY	1.86%	NFLX	0.0%
126.0	ON	1.86%	ON	0.0%
126.0	META	1.73%	NWL	0.0%
126.0	BIIB	1.59%	NVS	0.0%
126.0	EMB	1.33%	ORCL	0.0%
126.0	FIS	1.06%	ORLY	0.0%
126.0	HYG	0.93%	NVDA	0.0%
126.0	CNC	0.8%	OXY	0.0%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
252.0	SBNY	94.81%	SIVBQ	90.37%
252.0	SIVBQ	90.37%	FRCB	90.0%
252.0	FRCB	89.63%	SBNY	68.89%
252.0	AMC	35.09%	IEP	31.26%
252.0	AAP	33.97%	MRK	3.03%
252.0	BIIB	17.22%	CNC	0.48%
252.0	CHTR	14.04%	UNH	0.32%
252.0	BXP	13.4%	LW	0.16%
252.0	VFC	12.44%	NWL	0.0%
252.0	OXY	8.45%	NEM	0.0%
252.0	CMA	8.29%	NFLX	0.0%
252.0	MRK	7.97%	NVDA	0.0%
252.0	VNO	6.54%	NVS	0.0%
252.0	ZION	6.04%	AA	0.0%
252.0	CTLT	3.85%	ON	0.0%
252.0	BHC	3.51%	MUB	0.0%
252.0	KEY	3.03%	ORCL	0.0%
252.0	GNRC	2.87%	ORLY	0.0%
252.0	BMY	2.39%	OXY	0.0%
252.0	VCSH	2.39%	PCG	0.0%
252.0	UNH	2.07%	PEP	0.0%
252.0	EMB	1.44%	NAVI	0.0%
252.0	FIS	1.44%	MSTR	0.0%
252.0	GSK	1.12%	MU	0.0%
252.0	ELAN	0.98%	LUMN	0.0%
252.0	TLT	0.96%	KEY	0.0%
252.0	FITB	0.64%	KHC	0.0%
252.0	NEM	0.32%	LEN	0.0%
252.0	CVS	0.16%	LLY	0.0%
252.0	CNC	0.16%	LNC	0.0%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	LLY	20.0%	THC	10.0%
1.0	VZ	15.0%	MNST	10.0%
1.0	UNH	15.0%	BUD	10.0%
1.0	AMC	10.0%	GSK	10.0%
1.0	CMCSA	10.0%	RIO	5.0%
1.0	BUD	10.0%	NFLX	5.0%
1.0	B	10.0%	NAVI	5.0%
1.0	ZTS	10.0%	NEM	5.0%
1.0	TXN	10.0%	CHTR	5.0%
1.0	TSLA	10.0%	TEVA	5.0%
1.0	SNY	5.0%	GWW	5.0%
1.0	INTC	5.0%	CMCSA	5.0%
1.0	VST	5.0%	CMG	5.0%
1.0	CMG	5.0%	SNY	5.0%
1.0	FCX	5.0%	CSTM	5.0%
1.0	GWW	5.0%	NVS	5.0%
1.0	HCA	5.0%	CYH	5.0%
1.0	HON	5.0%	LUMN	5.0%
1.0	AAP	5.0%	NWL	5.0%
1.0	SBUX	5.0%	QCOM	5.0%
1.0	JPM	5.0%	FCX	5.0%
1.0	KALU	5.0%	GILD	5.0%
1.0	CHTR	5.0%	OXY	5.0%
1.0	NAVI	5.0%	BXP	5.0%
1.0	NVS	5.0%	BMY	5.0%
1.0	QCOM	5.0%	AZN	5.0%
1.0	CMA	5.0%	LLY	5.0%
1.0	ISRG	5.0%	WFC	5.0%
1.0	CDNS	5.0%	KALU	5.0%
1.0	AMZN	5.0%	MRK	5.0%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	CHTR	54.55%	CMG	63.64%
10.0	TXN	54.55%	CHTR	54.55%
10.0	UNH	36.36%	TXN	27.27%
10.0	BUD	18.18%	BUD	18.18%
10.0	AMC	18.18%	CYH	18.18%
10.0	KALU	9.09%	KALU	9.09%
10.0	MUB	0.0%	ORLY	0.0%
10.0	NAVI	0.0%	OXY	0.0%
10.0	NEM	0.0%	ORCL	0.0%
10.0	NFLX	0.0%	ON	0.0%
10.0	NVDA	0.0%	NWL	0.0%
10.0	MSTR	0.0%	MU	0.0%
10.0	NVS	0.0%	NVS	0.0%
10.0	NWL	0.0%	NVDA	0.0%
10.0	ON	0.0%	NFLX	0.0%
10.0	ORCL	0.0%	NEM	0.0%
10.0	ORLY	0.0%	PCG	0.0%
10.0	OXY	0.0%	PEP	0.0%
10.0	PCG	0.0%	NAVI	0.0%
10.0	MU	0.0%	MUB	0.0%
10.0	MSFT	0.0%	MSTR	0.0%
10.0	MSI	0.0%	MSI	0.0%
10.0	LUMN	0.0%	LUMN	0.0%
10.0	KEY	0.0%	KEY	0.0%
10.0	KHC	0.0%	KHC	0.0%
10.0	LEN	0.0%	LEN	0.0%
10.0	LLY	0.0%	LLY	0.0%
10.0	LNC	0.0%	LNC	0.0%
10.0	LQD	0.0%	LQD	0.0%
10.0	LVS	0.0%	LVS	0.0%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	LLY	14.75%	SNY	4.92%
1.0	ZTS	13.11%	GSK	4.92%
1.0	UNH	11.48%	MRK	4.92%
1.0	TSLA	11.48%	THC	4.92%
1.0	VZ	8.2%	AZN	4.92%
1.0	AAP	8.2%	BMY	4.92%
1.0	AMC	6.56%	ZTS	3.28%
1.0	TXN	4.92%	JAZZ	3.28%
1.0	SBUX	4.92%	CYH	3.28%
1.0	BUD	4.92%	LLY	3.28%
1.0	CDNS	4.92%	MNST	3.28%
1.0	B	4.92%	CNC	3.28%
1.0	TDG	3.28%	NEM	3.28%
1.0	CNC	3.28%	GILD	3.28%
1.0	AMGN	3.28%	BUD	3.28%
1.0	CMCSA	3.28%	BXP	3.28%
1.0	LQD	3.28%	VCSH	3.28%
1.0	VST	3.28%	ABBV	3.28%
1.0	BMY	3.28%	AZO	3.28%
1.0	FCX	1.64%	UNH	3.28%
1.0	GME	1.64%	LUMN	1.64%
1.0	GWW	1.64%	VFC	1.64%
1.0	HCA	1.64%	KHC	1.64%
1.0	EXPE	1.64%	KALU	1.64%
1.0	HON	1.64%	VNO	1.64%
1.0	GOOGL	1.64%	TDG	1.64%
1.0	KALU	1.64%	AAP	1.64%
1.0	INTC	1.64%	HON	1.64%
1.0	JAZZ	1.64%	GWW	1.64%
1.0	JPM	1.64%	WFC	1.64%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	AMC	26.92%	CPRT	19.23%
10.0	CNC	21.15%	CNC	19.23%
10.0	UNH	19.23%	CMG	13.46%
10.0	TSLA	17.31%	PCG	13.46%
10.0	ZTS	11.54%	CHTR	11.54%
10.0	CHTR	11.54%	UNH	9.62%
10.0	TXN	11.54%	TXN	5.77%
10.0	ADBE	7.69%	BUD	3.85%
10.0	PCG	5.77%	CYH	3.85%
10.0	BUD	5.77%	KALU	1.92%
10.0	AAP	1.92%	NAVI	0.0%
10.0	KALU	1.92%	ON	0.0%
10.0	VNO	0.0%	NWL	0.0%
10.0	MSFT	0.0%	ORLY	0.0%
10.0	ORLY	0.0%	NVS	0.0%
10.0	ORCL	0.0%	OXY	0.0%
10.0	ON	0.0%	NVDA	0.0%
10.0	NWL	0.0%	PEP	0.0%
10.0	NVS	0.0%	NFLX	0.0%
10.0	NVDA	0.0%	NEM	0.0%
10.0	NFLX	0.0%	ORCL	0.0%
10.0	NEM	0.0%	MU	0.0%
10.0	NAVI	0.0%	MUB	0.0%
10.0	MUB	0.0%	LW	0.0%
10.0	MU	0.0%	KHC	0.0%
10.0	MSTR	0.0%	LEN	0.0%
10.0	MSI	0.0%	LLY	0.0%
10.0	MS	0.0%	LNC	0.0%
10.0	XOM	0.0%	LQD	0.0%
10.0	MRK	0.0%	LUMN	0.0%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	CNC	51.22%	CNC	51.22%
21.0	UNH	31.71%	CPRT	36.59%
21.0	AMC	21.95%	PCG	17.07%
21.0	CHTR	14.63%	CHTR	9.76%
21.0	ZTS	7.32%	CMG	7.32%
21.0	PCG	7.32%	BUD	4.88%
21.0	BUD	4.88%	AA	0.0%
21.0	CYH	4.88%	ON	0.0%
21.0	AAP	2.44%	NFLX	0.0%
21.0	TSLA	2.44%	NVDA	0.0%
21.0	LUMN	0.0%	NVS	0.0%
21.0	NEM	0.0%	NWL	0.0%
21.0	PHM	0.0%	ORLY	0.0%
21.0	PEP	0.0%	ORCL	0.0%
21.0	LEN	0.0%	NAVI	0.0%
21.0	OXY	0.0%	OXY	0.0%
21.0	ORLY	0.0%	PEP	0.0%
21.0	ORCL	0.0%	PHM	0.0%
21.0	ON	0.0%	NEM	0.0%
21.0	NWL	0.0%	MUB	0.0%
21.0	NVS	0.0%	PRGO	0.0%
21.0	LLY	0.0%	LW	0.0%
21.0	NVDA	0.0%	KHC	0.0%
21.0	NFLX	0.0%	LEN	0.0%
21.0	NAVI	0.0%	LLY	0.0%
21.0	LVS	0.0%	LNC	0.0%
21.0	LNC	0.0%	LQD	0.0%
21.0	MUB	0.0%	LUMN	0.0%
21.0	MU	0.0%	LVS	0.0%
21.0	POST	0.0%	META	0.0%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	TSLA	7.23%	UNH	5.22%
1.0	VZ	6.02%	TMUS	4.82%
1.0	B	6.02%	AZN	4.42%
1.0	ZTS	6.02%	TRGP	4.42%
1.0	UNH	5.62%	IRM	4.42%
1.0	TXN	5.62%	TXN	4.42%
1.0	QCOM	5.62%	GS	4.02%
1.0	NAVI	5.22%	HLT	4.02%
1.0	AMGN	5.22%	PCG	4.02%
1.0	LLY	4.82%	KHC	4.02%
1.0	LQD	4.42%	QQQ	4.02%
1.0	HCA	4.02%	THC	4.02%
1.0	AMC	3.61%	PEP	3.61%
1.0	CDNS	3.61%	SPY	3.61%
1.0	SBUX	3.61%	ZTS	3.61%
1.0	CMCSA	3.21%	LLY	3.61%
1.0	AAP	3.21%	MSI	3.21%
1.0	MSTR	3.21%	NVS	3.21%
1.0	MU	2.81%	MS	3.21%
1.0	MSFT	2.81%	CNC	3.21%
1.0	BUD	2.81%	CCL	3.21%
1.0	GOOGL	2.81%	JPM	3.21%
1.0	GSK	2.81%	HSBC	3.21%
1.0	AMZN	2.81%	NVDA	3.21%
1.0	CVS	2.41%	OXY	3.21%
1.0	EXPE	2.41%	AAPL	3.21%
1.0	GNRC	2.41%	VCSH	3.21%
1.0	CMA	2.41%	WFC	3.21%
1.0	CHTR	2.41%	AMGN	3.21%
1.0	TDG	2.01%	AMAT	3.21%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	UNH	10.42%	UNH	11.25%
10.0	AMC	10.0%	PCG	8.75%
10.0	ZTS	9.17%	AZN	7.5%
10.0	TSLA	7.92%	ABBV	7.08%
10.0	CVS	6.67%	CNC	6.67%
10.0	AAP	6.67%	VFC	6.25%
10.0	CHTR	5.83%	TRGP	6.25%
10.0	CNC	5.42%	BBY	5.42%
10.0	TXN	5.0%	WDC	5.42%
10.0	CZR	4.17%	BAC	5.0%
10.0	CMA	4.17%	CSTM	5.0%
10.0	B	4.17%	CVS	5.0%
10.0	BUD	3.75%	MUB	4.6%
10.0	CLF	3.75%	JAZZ	4.58%
10.0	NAVI	3.33%	FRA	4.58%
10.0	EXPE	3.33%	BUD	4.58%
10.0	KALU	3.33%	JPM	4.17%
10.0	BHC	3.33%	OXY	4.17%
10.0	GNRC	2.92%	TXN	4.17%
10.0	MU	2.92%	SBUX	4.17%
10.0	LLY	2.92%	NWL	4.17%
10.0	BMY	2.92%	MRK	4.17%
10.0	NEM	2.92%	MS	4.17%
10.0	FITB	2.5%	CPRT	4.17%
10.0	OXY	2.5%	AAPL	4.17%
10.0	JAZZ	2.08%	CCL	4.17%
10.0	GSK	2.08%	COST	3.75%
10.0	VFC	2.08%	HSBC	3.75%
10.0	LQD	2.08%	GS	3.75%
10.0	ON	2.08%	FIS	3.75%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	UNH	16.16%	PCG	12.23%
21.0	BUD	10.92%	CNC	11.35%
21.0	CNC	9.17%	UNH	11.35%
21.0	CVS	7.42%	VFC	8.3%
21.0	BMY	6.99%	WDC	7.86%
21.0	AMC	6.55%	CPRT	7.86%
21.0	GNRC	6.11%	AZN	7.42%
21.0	ON	6.11%	HLT	6.99%
21.0	CMA	5.68%	BUD	6.55%
21.0	CHTR	5.68%	JAZZ	6.11%
21.0	AAP	5.68%	TEVA	5.68%
21.0	ZTS	4.8%	FRA	5.24%
21.0	BHC	4.8%	LVS	5.24%
21.0	GSK	4.37%	OXY	4.8%
21.0	KALU	3.49%	BMY	4.37%
21.0	CZR	3.49%	MRK	4.37%
21.0	WDC	3.49%	IRM	3.93%
21.0	AMGN	3.06%	ABBV	3.93%
21.0	CSTM	2.62%	CCL	3.93%
21.0	NEM	2.62%	NEM	3.93%
21.0	LQD	2.18%	JPM	3.93%
21.0	HCA	2.18%	NWL	3.49%
21.0	KHC	1.75%	ISRG	3.49%
21.0	JAZZ	1.31%	CSTM	3.49%
21.0	OXY	1.31%	HCA	3.06%
21.0	PCG	1.31%	COST	3.06%
21.0	ELAN	1.31%	LEN	3.06%
21.0	QCOM	1.31%	MSI	2.62%
21.0	SBUX	1.31%	CVS	2.62%
21.0	CYH	1.31%	FIS	2.62%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	UNH	22.46%	UNH	24.6%
63.0	BUD	20.32%	PCG	16.58%
63.0	ON	14.44%	BUD	11.76%
63.0	CNC	7.49%	CNC	11.76%
63.0	WDC	6.95%	VFC	9.63%
63.0	GNRC	4.81%	AZN	8.02%
63.0	CVS	2.67%	WDC	6.95%
63.0	GSK	2.67%	IRM	4.28%
63.0	LQD	2.14%	HCA	2.67%
63.0	B	1.07%	TEVA	1.6%
63.0	FITB	1.07%	LVS	1.6%
63.0	BMY	1.07%	AAPL	1.07%
63.0	CHTR	0.53%	FRA	1.07%
63.0	UAA	0.53%	SPY	0.53%
63.0	CMCSA	0.53%	CCL	0.53%
63.0	AAP	0.53%	NAVI	0.0%
63.0	GOOGL	0.53%	NEM	0.0%
63.0	HCA	0.53%	NFLX	0.0%
63.0	CLF	0.53%	NVS	0.0%
63.0	ORLY	0.0%	NVDA	0.0%
63.0	ORCL	0.0%	NWL	0.0%
63.0	LVS	0.0%	ON	0.0%
63.0	OXY	0.0%	ORCL	0.0%
63.0	NWL	0.0%	ORLY	0.0%
63.0	NVS	0.0%	OXY	0.0%
63.0	NVDA	0.0%	MUB	0.0%
63.0	LW	0.0%	AA	0.0%
63.0	LUMN	0.0%	MU	0.0%
63.0	META	0.0%	MSTR	0.0%
63.0	PCG	0.0%	MSI	0.0%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	UNH	25.81%	UNH	27.42%
126.0	ON	11.29%	PCG	11.29%
126.0	CNC	4.84%	CNC	9.68%
126.0	BIIB	4.03%	IRM	4.84%
126.0	CLF	2.42%	LEN	0.81%
126.0	MRK	2.42%	AA	0.0%
126.0	PEP	1.61%	NVS	0.0%
126.0	GNRC	1.61%	MUB	0.0%
126.0	OXY	1.61%	NAVI	0.0%
126.0	UAA	1.61%	NEM	0.0%
126.0	NFLX	0.0%	NFLX	0.0%
126.0	MUB	0.0%	NVDA	0.0%
126.0	NAVI	0.0%	ON	0.0%
126.0	NEM	0.0%	NWL	0.0%
126.0	AA	0.0%	MSTR	0.0%
126.0	NVDA	0.0%	ORCL	0.0%
126.0	MU	0.0%	ORLY	0.0%
126.0	NWL	0.0%	OXY	0.0%
126.0	ORCL	0.0%	PEP	0.0%
126.0	ORLY	0.0%	MU	0.0%
126.0	PCG	0.0%	MSFT	0.0%
126.0	NVS	0.0%	MSI	0.0%
126.0	MSTR	0.0%	POST	0.0%
126.0	POST	0.0%	MS	0.0%
126.0	MSI	0.0%	MRK	0.0%
126.0	MSFT	0.0%	MOS	0.0%
126.0	MS	0.0%	MNST	0.0%
126.0	MOS	0.0%	META	0.0%
126.0	MNST	0.0%	LW	0.0%
126.0	META	0.0%	LVS	0.0%

Top 30 Tickers By ROVBC

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	0.52%	MSTR	0.45%
1.0	GME	0.49%	VST	0.31%
1.0	META	0.17%	NVDA	0.28%
1.0	ORCL	0.17%	AVGO	0.22%
1.0	INTU	0.16%	GBTC	0.22%
1.0	NFLX	0.16%	GME	0.19%
1.0	AVGO	0.16%	PWR	0.18%
1.0	VST	0.15%	GE	0.17%
1.0	NVDA	0.15%	X	0.17%
1.0	AAPL	0.12%	NFLX	0.16%
1.0	TDG	0.12%	ORCL	0.15%
1.0	GNRC	0.12%	LLY	0.15%
1.0	PWR	0.12%	META	0.15%
1.0	MU	0.11%	TRGP	0.14%
1.0	CDNS	0.11%	CAH	0.14%
1.0	UAA	0.1%	THC	0.13%
1.0	X	0.1%	CDNS	0.12%
1.0	GWW	0.09%	TDG	0.12%
1.0	THC	0.09%	ETRN	0.12%
1.0	XOM	0.09%	PHM	0.12%
1.0	GE	0.09%	CCL	0.11%
1.0	ON	0.09%	TEVA	0.11%
1.0	NWL	0.08%	ORLY	0.1%
1.0	AMZN	0.08%	AMD	0.1%
1.0	TMUS	0.08%	TMUS	0.1%
1.0	LLY	0.08%	IRM	0.1%
1.0	GBTC	0.08%	GS	0.09%
1.0	AMD	0.07%	JPM	0.09%
1.0	MSFT	0.07%	WDC	0.09%
1.0	TEVA	0.07%	AZO	0.09%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	8.09%	MSTR	4.67%
10.0	GME	4.82%	VST	3.03%
10.0	NVDA	2.06%	NVDA	2.83%
10.0	META	1.96%	AVGO	2.19%
10.0	VST	1.94%	GBTC	2.14%
10.0	NFLX	1.83%	PWR	1.8%
10.0	ORCL	1.53%	NFLX	1.67%
10.0	MU	1.47%	GE	1.66%
10.0	WDC	1.38%	GME	1.62%
10.0	AVGO	1.38%	META	1.6%
10.0	PWR	1.37%	X	1.58%
10.0	GBTC	1.35%	LLY	1.55%
10.0	TEVA	1.34%	ORCL	1.52%
10.0	ETRN	1.26%	ETRN	1.41%
10.0	GE	1.2%	CAH	1.38%
10.0	INTU	1.11%	TRGP	1.35%
10.0	SLV	1.08%	THC	1.22%
10.0	CTLT	1.06%	TDG	1.21%
10.0	CAH	1.05%	TEVA	1.2%
10.0	LLY	1.04%	CDNS	1.18%
10.0	AAPL	1.03%	PHM	1.15%
10.0	XOM	0.94%	CCL	1.1%
10.0	X	0.9%	IRM	1.07%
10.0	GS	0.89%	ORLY	1.02%
10.0	AMD	0.88%	GWW	1.0%
10.0	TDG	0.87%	GS	0.96%
10.0	HLT	0.87%	TSLA	0.92%
10.0	TMUS	0.85%	JPM	0.9%
10.0	THC	0.84%	AMD	0.89%
10.0	GNRC	0.83%	TMUS	0.89%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	18.86%	MSTR	10.52%
21.0	GME	8.7%	VST	6.54%
21.0	META	5.47%	NVDA	6.11%
21.0	NFLX	5.16%	GBTC	4.66%
21.0	VST	4.69%	AVGO	4.6%
21.0	NVDA	4.14%	PWR	3.79%
21.0	GBTC	3.84%	NFLX	3.79%
21.0	AVGO	3.47%	META	3.61%
21.0	ORCL	3.16%	GE	3.59%
21.0	TEVA	3.13%	ETRN	3.5%
21.0	PWR	2.79%	ORCL	3.34%
21.0	CTLT	2.71%	LLY	3.25%
21.0	GE	2.65%	X	3.17%
21.0	ETRN	2.53%	CAH	2.98%
21.0	WDC	2.41%	TRGP	2.85%
21.0	MU	2.38%	THC	2.69%
21.0	CAH	2.27%	TEVA	2.62%
21.0	LLY	2.21%	GME	2.54%
21.0	XOM	2.21%	TDG	2.48%
21.0	INTU	2.16%	CCL	2.47%
21.0	THC	2.1%	PHM	2.45%
21.0	CCL	2.04%	CDNS	2.4%
21.0	AMD	2.03%	IRM	2.28%
21.0	X	1.96%	GWW	2.2%
21.0	TMUS	1.82%	TSLA	2.2%
21.0	SLV	1.81%	GS	2.08%
21.0	TRGP	1.74%	ORLY	2.07%
21.0	IRM	1.7%	ISRG	1.91%
21.0	TDG	1.67%	JPM	1.89%
21.0	GS	1.64%	AZO	1.82%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	39.48%	MSTR	30.81%
63.0	META	23.11%	VST	20.68%
63.0	VST	17.84%	NVDA	19.7%
63.0	NVDA	16.86%	GBTC	15.44%
63.0	NFLX	14.93%	AVGO	13.64%
63.0	AVGO	14.11%	NFLX	13.02%
63.0	GBTC	12.56%	META	12.42%
63.0	CTLT	10.43%	GE	11.19%
63.0	ETRN	10.07%	ETRN	10.28%
63.0	ORCL	9.68%	PWR	10.22%
63.0	GME	8.66%	LLY	9.37%
63.0	GE	8.55%	CAH	8.86%
63.0	LLY	8.46%	ORCL	8.76%
63.0	CAH	8.0%	THC	8.52%
63.0	TEVA	7.85%	PHM	8.09%
63.0	PWR	7.59%	TRGP	7.99%
63.0	THC	7.52%	TDG	7.29%
63.0	GILD	7.07%	TEVA	7.04%
63.0	WDC	7.04%	CCL	7.02%
63.0	AMZN	6.92%	GWW	6.59%
63.0	ISRG	6.57%	CDNS	6.54%
63.0	CCL	6.51%	ISRG	6.34%
63.0	TMUS	6.5%	IRM	6.31%
63.0	TDG	6.06%	JPM	6.03%
63.0	GS	5.45%	ORLY	5.92%
63.0	AMD	5.14%	X	5.91%
63.0	TRGP	4.98%	GS	5.89%
63.0	MU	4.97%	ACGL	5.85%
63.0	SLV	4.82%	CMG	5.43%
63.0	GWW	4.8%	TMUS	5.36%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	94.85%	MSTR	72.31%
126.0	META	59.74%	NVDA	48.54%
126.0	NVDA	45.48%	VST	43.23%
126.0	VST	39.87%	GBTC	39.65%
126.0	GBTC	39.82%	NFLX	30.36%
126.0	NFLX	38.38%	META	29.34%
126.0	AVGO	35.37%	AVGO	27.95%
126.0	LLY	25.89%	GE	25.76%
126.0	ORCL	20.45%	LLY	20.46%
126.0	GE	20.35%	TRGP	19.42%
126.0	ISRG	19.92%	THC	19.33%
126.0	TEVA	19.79%	PHM	18.63%
126.0	CAH	19.02%	ETRN	18.49%
126.0	GILD	18.62%	PWR	18.32%
126.0	AMZN	18.42%	CAH	17.93%
126.0	ETRN	18.14%	ORCL	16.74%
126.0	TDG	17.19%	TDG	16.34%
126.0	THC	15.79%	ISRG	15.33%
126.0	TMUS	15.3%	TEVA	14.72%
126.0	PWR	14.29%	GWW	14.22%
126.0	TRGP	14.15%	CCL	13.76%
126.0	GOOGL	13.79%	ACGL	13.55%
126.0	INTU	13.49%	JPM	13.41%
126.0	GWW	13.31%	ORLY	13.34%
126.0	MSI	13.06%	IRM	13.26%
126.0	TSLA	12.83%	MSI	12.4%
126.0	ORLY	12.25%	COST	12.32%
126.0	AZO	12.17%	X	12.31%
126.0	AMD	12.16%	CMG	12.26%
126.0	PHM	11.74%	CDNS	12.22%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	MSTR	265.0%	MSTR	224.9%
252.0	VST	156.22%	NVDA	142.83%
252.0	NVDA	138.8%	VST	126.9%
252.0	META	131.16%	GBTC	118.26%
252.0	GBTC	118.64%	META	79.88%
252.0	AVGO	106.12%	AVGO	73.22%
252.0	NFLX	94.0%	NFLX	69.3%
252.0	ISRG	64.74%	GE	61.18%
252.0	AMZN	63.35%	PHM	54.19%
252.0	GE	62.01%	LLY	52.22%
252.0	ORCL	60.95%	THC	51.02%
252.0	THC	59.75%	TRGP	49.48%
252.0	TDG	54.38%	PWR	42.53%
252.0	TEVA	49.94%	TDG	40.08%
252.0	INTU	49.68%	ORCL	39.22%
252.0	PHM	48.3%	ISRG	38.83%
252.0	LLY	45.51%	TEVA	37.59%
252.0	TRGP	44.26%	CCL	37.26%
252.0	COST	43.37%	IRM	36.16%
252.0	CAH	42.83%	ETRN	35.78%
252.0	GOOGL	42.76%	CAH	33.77%
252.0	GWW	41.71%	GWW	33.57%
252.0	MSI	40.57%	DHI	33.55%
252.0	LEN	39.13%	ACGL	33.04%
252.0	IRM	37.63%	JPM	31.54%
252.0	PWR	37.37%	CMG	31.21%
252.0	TMUS	37.05%	COST	30.88%
252.0	CCL	36.99%	MSI	29.72%
252.0	ETRN	35.77%	CPRT	29.43%
252.0	DHI	34.25%	CDNS	28.71%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CDNS	1.97%	GNRC	1.31%
1.0	NVDA	1.24%	AMD	1.11%
1.0	GNRC	1.16%	WDC	0.79%
1.0	AMD	0.8%	CLF	0.77%
1.0	TDG	0.64%	DHI	0.75%
1.0	WDC	0.51%	CDNS	0.72%
1.0	LW	0.47%	ORLY	0.53%
1.0	NEM	0.41%	NVDA	0.51%
1.0	DHI	0.39%	FSUGY	0.47%
1.0	FSUGY	0.37%	GE	0.44%
1.0	LEN	0.28%	VST	0.43%
1.0	ORLY	0.27%	LVS	0.41%
1.0	GE	0.27%	LW	0.41%
1.0	PHM	0.25%	PHM	0.38%
1.0	GOOGL	0.23%	AVGO	0.35%
1.0	MSFT	0.19%	LNC	0.34%
1.0	AAP	0.18%	MSFT	0.33%
1.0	PWR	0.18%	LEN	0.3%
1.0	EXPE	0.16%	GOOGL	0.29%
1.0	WYNN	0.14%	META	0.29%
1.0	AZN	0.14%	IEP	0.28%
1.0	LVS	0.14%	JAZZ	0.26%
1.0	MSI	0.13%	NEM	0.26%
1.0	SLV	0.13%	CMA	0.24%
1.0	JAZZ	0.12%	EXPE	0.22%
1.0	ABBV	0.12%	AZN	0.22%
1.0	LNC	0.12%	TDG	0.2%
1.0	AVGO	0.12%	GBTC	0.18%
1.0	ON	0.11%	AAP	0.17%
1.0	BA	0.11%	ABBV	0.17%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	NVDA	15.51%	CLF	16.98%
10.0	AMD	14.25%	AMD	13.37%
10.0	CLF	12.63%	LW	9.63%
10.0	LW	10.73%	GNRC	8.78%
10.0	AMC	9.1%	DHI	7.85%
10.0	PWR	8.96%	FSUGY	7.33%
10.0	GNRC	7.14%	WDC	6.9%
10.0	FSUGY	6.92%	GOOGL	6.52%
10.0	CMA	6.77%	CDNS	6.31%
10.0	AAP	6.22%	CMA	6.24%
10.0	TSLA	6.2%	ORLY	5.59%
10.0	NEM	5.8%	NEM	5.28%
10.0	WDC	5.56%	NVDA	5.18%
10.0	CDNS	5.06%	PWR	4.89%
10.0	TDG	4.87%	AVGO	4.55%
10.0	ORCL	4.73%	GE	4.48%
10.0	JAZZ	4.72%	PEP	4.42%
10.0	GOOGL	4.67%	RIO	4.31%
10.0	GE	4.36%	KHC	4.3%
10.0	BHP	3.65%	PHM	4.09%
10.0	EXPE	3.43%	JAZZ	3.87%
10.0	MSFT	3.3%	ORCL	3.81%
10.0	DHI	3.18%	BHP	3.69%
10.0	AVGO	3.08%	VST	3.22%
10.0	PHM	2.66%	LVS	3.21%
10.0	IEP	2.54%	EXPE	3.15%
10.0	ORLY	2.45%	TMUS	3.08%
10.0	SLV	2.38%	AMC	3.03%
10.0	AA	2.38%	TSLA	3.0%
10.0	LEN	2.37%	PCG	2.98%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	AAP	1.07%	AAP	1.09%
1.0	AMC	1.05%	AMD	0.91%
1.0	MU	0.91%	X	0.9%
1.0	GNRC	0.91%	WDC	0.89%
1.0	WDC	0.84%	GNRC	0.88%
1.0	ON	0.74%	ORCL	0.84%
1.0	AMD	0.66%	NVDA	0.71%
1.0	ORCL	0.63%	ON	0.69%
1.0	ELAN	0.61%	VST	0.69%
1.0	NVDA	0.6%	CCL	0.68%
1.0	CDNS	0.57%	ELAN	0.65%
1.0	AMZN	0.56%	AVGO	0.62%
1.0	BHC	0.51%	LVS	0.53%
1.0	X	0.51%	MU	0.46%
1.0	AVGO	0.47%	WYNN	0.46%
1.0	QQQ	0.42%	GE	0.43%
1.0	VST	0.4%	GS	0.4%
1.0	CSTM	0.4%	CLF	0.39%
1.0	PWR	0.37%	META	0.39%
1.0	TSLA	0.37%	INTU	0.35%
1.0	AA	0.36%	PWR	0.34%
1.0	B	0.33%	DHI	0.34%
1.0	NEM	0.33%	CSTM	0.33%
1.0	CCL	0.32%	GBTC	0.31%
1.0	GE	0.31%	CMA	0.31%
1.0	META	0.31%	MSFT	0.31%
1.0	MSFT	0.31%	NEM	0.3%
1.0	TDG	0.3%	BA	0.3%
1.0	AMGN	0.29%	BHC	0.28%
1.0	TXN	0.28%	AMAT	0.27%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AAP	14.9%	AAP	14.08%
10.0	X	12.98%	X	13.61%
10.0	AMC	11.18%	ORCL	9.53%
10.0	WDC	10.99%	AMD	9.14%
10.0	MU	9.51%	WDC	8.45%
10.0	ON	8.9%	CLF	7.91%
10.0	NVDA	8.37%	BHC	7.06%
10.0	BHC	8.23%	CCL	6.99%
10.0	AMD	7.88%	NVDA	6.9%
10.0	ORCL	7.39%	ON	6.84%
10.0	PWR	7.35%	VST	6.12%
10.0	GNRC	5.93%	AVGO	5.9%
10.0	CLF	5.87%	GNRC	5.89%
10.0	GE	5.31%	MU	4.79%
10.0	NEM	4.99%	LVS	4.6%
10.0	AVGO	4.94%	GS	4.22%
10.0	CCL	4.87%	GE	4.14%
10.0	AMGN	3.92%	ELAN	4.06%
10.0	MSFT	3.64%	PWR	4.0%
10.0	B	3.6%	WYNN	3.99%
10.0	WYNN	3.55%	CSTM	3.91%
10.0	TDG	3.52%	INTU	3.82%
10.0	FCX	3.48%	KALU	3.81%
10.0	CMA	3.39%	NEM	3.78%
10.0	GS	3.37%	AMC	3.73%
10.0	AMZN	3.24%	GOOGL	3.69%
10.0	ELAN	3.21%	CMA	3.35%
10.0	CSTM	3.11%	DHI	3.22%
10.0	GOOGL	3.01%	BA	3.16%
10.0	QQQ	2.9%	SLV	3.13%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	AAP	36.9%	X	28.78%
21.0	X	33.19%	AAP	26.65%
21.0	WDC	24.92%	ORCL	24.32%
21.0	BHC	24.23%	BHC	20.86%
21.0	ON	24.07%	CLF	20.11%
21.0	MU	18.31%	AMD	19.82%
21.0	ORCL	16.48%	WDC	18.62%
21.0	CCL	14.55%	ON	17.57%
21.0	CLF	14.03%	CCL	16.06%
21.0	GNRC	13.93%	NVDA	14.78%
21.0	AMD	13.74%	VST	13.09%
21.0	NVDA	12.81%	MU	12.94%
21.0	NEM	12.21%	GNRC	12.92%
21.0	AVGO	10.74%	AVGO	12.07%
21.0	PWR	10.14%	LVS	11.3%
21.0	KALU	9.42%	WYNN	10.66%
21.0	AMC	9.12%	KALU	10.12%
21.0	GS	8.24%	GS	9.96%
21.0	WYNN	8.23%	CSTM	9.0%
21.0	IEP	8.09%	AMAT	8.96%
21.0	KEY	8.09%	PWR	8.62%
21.0	ELAN	7.99%	ELAN	8.45%
21.0	AA	7.96%	ZION	8.27%
21.0	LVS	7.82%	NEM	7.86%
21.0	B	7.72%	KEY	7.65%
21.0	GE	7.51%	FCX	7.53%
21.0	SBUX	7.43%	DHI	7.25%
21.0	CSTM	7.42%	SLV	7.21%
21.0	AMGN	7.13%	GE	7.17%
21.0	FCX	7.01%	CMA	7.12%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	0.68%	MSTR	0.55%
1.0	MU	0.38%	VST	0.53%
1.0	ORCL	0.32%	AVGO	0.35%
1.0	PWR	0.27%	CCL	0.32%
1.0	VST	0.26%	GBTC	0.28%
1.0	META	0.25%	ORCL	0.28%
1.0	CDNS	0.23%	NFLX	0.28%
1.0	AMZN	0.23%	TSLA	0.25%
1.0	EXPE	0.23%	NVDA	0.25%
1.0	GME	0.21%	PWR	0.23%
1.0	MSFT	0.19%	GE	0.23%
1.0	NVDA	0.18%	EXPE	0.21%
1.0	NFLX	0.18%	X	0.21%
1.0	NEM	0.18%	META	0.2%
1.0	GNRC	0.18%	GS	0.19%
1.0	SLV	0.17%	CAH	0.18%
1.0	AVGO	0.17%	WDC	0.18%
1.0	GS	0.17%	CDNS	0.18%
1.0	WDC	0.17%	WFC	0.17%
1.0	GILD	0.17%	MS	0.17%
1.0	WFC	0.16%	HSBC	0.17%
1.0	LNC	0.16%	WYNN	0.17%
1.0	PRGO	0.15%	GILD	0.17%
1.0	TDG	0.15%	JPM	0.17%
1.0	ELAN	0.15%	GNRC	0.16%
1.0	QQQ	0.14%	AMD	0.16%
1.0	GE	0.14%	LVS	0.16%
1.0	GBTC	0.14%	CSCO	0.16%
1.0	WYNN	0.13%	T	0.16%
1.0	UAA	0.13%	VNO	0.14%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	11.47%	MSTR	6.05%
10.0	MU	4.92%	VST	4.98%
10.0	TSLA	3.26%	CCL	3.46%
10.0	WDC	3.26%	AVGO	3.42%
10.0	PWR	3.2%	GBTC	3.25%
10.0	VST	2.99%	ORCL	3.0%
10.0	NVDA	2.73%	NFLX	2.88%
10.0	ORCL	2.63%	TSLA	2.82%
10.0	GME	2.49%	NVDA	2.44%
10.0	EXPE	2.35%	GE	2.27%
10.0	META	2.34%	PWR	2.24%
10.0	GE	2.29%	WFC	2.07%
10.0	AVGO	2.01%	EXPE	2.06%
10.0	BHC	1.96%	WYNN	2.02%
10.0	CCL	1.87%	CAH	1.92%
10.0	SLV	1.86%	HSBC	1.92%
10.0	GBTC	1.83%	GS	1.92%
10.0	NFLX	1.82%	MS	1.9%
10.0	GS	1.74%	GILD	1.86%
10.0	CVS	1.73%	X	1.83%
10.0	BA	1.65%	CSCO	1.77%
10.0	ELAN	1.6%	JPM	1.7%
10.0	AMZN	1.58%	META	1.7%
10.0	NEM	1.58%	BA	1.62%
10.0	AMD	1.56%	BHC	1.59%
10.0	X	1.55%	LVS	1.57%
10.0	GILD	1.47%	T	1.57%
10.0	WFC	1.4%	GT	1.52%
10.0	ABBV	1.39%	WDC	1.51%
10.0	LNC	1.37%	MOS	1.5%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	27.48%	MSTR	13.84%
21.0	TSLA	9.43%	VST	10.58%
21.0	MU	8.2%	CCL	7.21%
21.0	VST	7.41%	GBTC	6.99%
21.0	PWR	5.94%	AVGO	6.84%
21.0	WDC	5.89%	ORCL	6.43%
21.0	META	5.78%	NFLX	6.22%
21.0	AVGO	5.48%	TSLA	5.92%
21.0	ORCL	5.45%	GE	4.61%
21.0	GME	5.15%	PWR	4.47%
21.0	GBTC	4.97%	WYNN	4.37%
21.0	CCL	4.75%	WFC	4.19%
21.0	GE	4.69%	NVDA	4.18%
21.0	GS	4.18%	CAH	3.98%
21.0	NVDA	4.12%	GS	3.91%
21.0	BHC	3.69%	GILD	3.89%
21.0	CVS	3.62%	MS	3.86%
21.0	AAP	3.52%	HSBC	3.81%
21.0	GILD	3.43%	EXPE	3.71%
21.0	EXPE	3.43%	META	3.6%
21.0	NFLX	3.33%	X	3.54%
21.0	BA	3.27%	CSCO	3.43%
21.0	KALU	3.18%	T	3.38%
21.0	X	3.0%	JPM	3.28%
21.0	NEM	2.99%	LVS	3.26%
21.0	AMZN	2.86%	BA	3.18%
21.0	SLV	2.75%	BHC	3.11%
21.0	JPM	2.73%	MOS	3.04%
21.0	CAH	2.47%	AMZN	2.91%
21.0	WYNN	2.39%	GT	2.85%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	56.48%	MSTR	50.46%
63.0	VST	30.76%	VST	27.94%
63.0	TSLA	19.97%	GBTC	23.71%
63.0	AVGO	19.79%	NFLX	21.27%
63.0	GBTC	17.89%	TSLA	20.42%
63.0	NFLX	17.63%	AVGO	18.81%
63.0	GS	14.84%	CCL	17.86%
63.0	META	14.64%	CAH	13.12%
63.0	WDC	14.39%	GE	12.41%
63.0	GE	14.36%	ORCL	12.12%
63.0	CCL	13.89%	WFC	12.0%
63.0	PWR	13.84%	PWR	11.9%
63.0	NVDA	13.34%	HSBC	11.65%
63.0	MU	12.78%	MOS	11.42%
63.0	ORCL	11.99%	BA	10.95%
63.0	GILD	11.32%	GILD	10.6%
63.0	BA	11.14%	GS	10.5%
63.0	CVS	10.42%	GT	10.33%
63.0	KALU	10.29%	MS	10.27%
63.0	CAH	10.28%	T	10.19%
63.0	MS	9.63%	JPM	9.46%
63.0	AAP	9.49%	NVDA	9.45%
63.0	GME	9.11%	CSCO	9.1%
63.0	THC	8.99%	GLD	9.07%
63.0	B	7.87%	X	9.05%
63.0	EXPE	7.7%	META	8.96%
63.0	AZO	7.26%	EXPE	8.7%
63.0	SLV	7.17%	GME	8.25%
63.0	GT	7.07%	AAP	8.24%
63.0	NEM	6.87%	MNST	7.82%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	64.87%	MSTR	58.42%
126.0	NFLX	45.95%	NFLX	40.26%
126.0	CVS	32.26%	GBTC	29.24%
126.0	GILD	30.1%	VST	28.75%
126.0	VST	29.6%	HSBC	26.15%
126.0	GBTC	28.21%	GILD	25.5%
126.0	AVGO	25.72%	GE	25.43%
126.0	NEM	25.4%	CAH	25.04%
126.0	GE	23.84%	T	24.82%
126.0	B	23.27%	AVGO	23.86%
126.0	AZO	22.96%	GLD	21.32%
126.0	META	22.67%	BA	18.05%
126.0	CAH	21.37%	MOS	17.61%
126.0	BA	21.04%	WFC	17.1%
126.0	HSBC	19.61%	CVS	16.88%
126.0	GLD	18.79%	GT	15.7%
126.0	GS	15.54%	ORLY	15.45%
126.0	GT	14.91%	TMUS	15.33%
126.0	SLV	14.9%	CSCO	15.21%
126.0	T	14.5%	AZO	15.1%
126.0	TSLA	13.04%	NEM	14.82%
126.0	TMUS	12.87%	JPM	14.52%
126.0	WFC	12.78%	MNST	14.19%
126.0	MOS	12.04%	X	13.74%
126.0	ORLY	11.38%	META	13.24%
126.0	MNST	11.27%	BUD	13.04%
126.0	X	10.35%	GS	12.54%
126.0	CCL	9.3%	CCL	12.42%
126.0	EXPE	9.12%	SLV	11.78%
126.0	TDG	8.13%	MS	10.59%

Bottom 30 Tickers By ROVBC

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	SIVBQ	-1.97%	SIVBQ	-0.78%
1.0	SBNY	-0.75%	SBNY	-0.45%
1.0	FRCB	-0.29%	FRCB	-0.23%
1.0	CNC	-0.15%	IEP	-0.16%
1.0	AAP	-0.15%	AMC	-0.15%
1.0	LUMN	-0.14%	VFC	-0.13%
1.0	IEP	-0.11%	NWL	-0.12%
1.0	VFC	-0.11%	AAP	-0.11%
1.0	BHC	-0.1%	LUMN	-0.1%
1.0	CHTR	-0.08%	CNC	-0.09%
1.0	FIS	-0.08%	BHC	-0.07%
1.0	AMC	-0.07%	CZR	-0.07%
1.0	BXP	-0.07%	UAA	-0.06%
1.0	INTC	-0.07%	CHTR	-0.06%
1.0	TLT	-0.06%	INTC	-0.06%
1.0	ELAN	-0.05%	UNH	-0.06%
1.0	GSK	-0.05%	TLT	-0.05%
1.0	BMY	-0.04%	CVS	-0.04%
1.0	VZ	-0.04%	BALL	-0.04%
1.0	UNH	-0.04%	BIIB	-0.04%
1.0	PRGO	-0.04%	BXP	-0.04%
1.0	BIIB	-0.04%	CYH	-0.04%
1.0	CVS	-0.03%	CMCSA	-0.03%
1.0	LQD	-0.03%	GSK	-0.03%
1.0	B	-0.03%	BMY	-0.03%
1.0	T	-0.02%	LNC	-0.03%
1.0	TSLA	-0.02%	ELAN	-0.03%
1.0	CMCSA	-0.02%	GT	-0.03%
1.0	GT	-0.02%	FIS	-0.02%
1.0	TFC	-0.02%	ADBE	-0.02%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	SIVBQ	-7.57%	SBNY	-4.05%
10.0	SBNY	-6.83%	SIVBQ	-3.9%
10.0	FRCB	-2.21%	FRCB	-2.19%
10.0	AMC	-2.02%	IEP	-1.49%
10.0	AAP	-1.37%	AMC	-1.45%
10.0	CNC	-1.19%	VFC	-1.3%
10.0	VFC	-1.11%	NWL	-1.04%
10.0	IEP	-1.03%	CNC	-0.98%
10.0	NWL	-0.9%	AAP	-0.91%
10.0	GSK	-0.74%	CZR	-0.74%
10.0	BHC	-0.59%	UAA	-0.69%
10.0	LUMN	-0.54%	LUMN	-0.62%
10.0	UNH	-0.54%	TLT	-0.5%
10.0	TLT	-0.51%	INTC	-0.49%
10.0	TFC	-0.5%	BHC	-0.48%
10.0	CHTR	-0.47%	BIIB	-0.46%
10.0	BXP	-0.46%	UNH	-0.45%
10.0	BMY	-0.42%	CVS	-0.44%
10.0	CYH	-0.39%	CYH	-0.43%
10.0	PRGO	-0.38%	CHTR	-0.41%
10.0	LQD	-0.36%	LNC	-0.4%
10.0	FIS	-0.33%	BXP	-0.37%
10.0	BIIB	-0.33%	BALL	-0.36%
10.0	ZION	-0.28%	GSK	-0.32%
10.0	GT	-0.27%	CMCSA	-0.31%
10.0	CMCSA	-0.22%	BMY	-0.28%
10.0	ADBE	-0.21%	ELAN	-0.27%
10.0	VZ	-0.21%	AA	-0.26%
10.0	EMB	-0.2%	GT	-0.23%
10.0	ELAN	-0.18%	BBY	-0.23%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	SBNY	-21.4%	SBNY	-11.16%
21.0	SIVBQ	-15.08%	SIVBQ	-9.37%
21.0	AMC	-7.68%	FRCB	-6.02%
21.0	FRCB	-6.98%	AMC	-3.58%
21.0	VFC	-2.65%	IEP	-3.26%
21.0	CNC	-2.4%	VFC	-2.78%
21.0	NWL	-2.23%	NWL	-2.33%
21.0	IEP	-1.95%	CNC	-1.87%
21.0	BHC	-1.72%	AAP	-1.82%
21.0	AAP	-1.52%	CZR	-1.57%
21.0	ELAN	-1.5%	UAA	-1.32%
21.0	UNH	-1.15%	BHC	-1.23%
21.0	TLT	-1.14%	LUMN	-1.05%
21.0	GSK	-1.04%	INTC	-1.05%
21.0	BIIB	-0.96%	TLT	-1.05%
21.0	ZION	-0.96%	LNC	-0.99%
21.0	PRGO	-0.91%	AA	-0.88%
21.0	BMY	-0.8%	BIIB	-0.87%
21.0	BALL	-0.73%	BXP	-0.83%
21.0	LNC	-0.7%	CVS	-0.81%
21.0	BXP	-0.65%	UNH	-0.81%
21.0	LQD	-0.61%	BALL	-0.75%
21.0	CZR	-0.59%	CHTR	-0.64%
21.0	FIS	-0.55%	BMY	-0.63%
21.0	TFC	-0.54%	CMCSA	-0.57%
21.0	CHTR	-0.52%	GSK	-0.56%
21.0	GT	-0.5%	KHC	-0.49%
21.0	LW	-0.5%	CYH	-0.44%
21.0	FITB	-0.48%	BBY	-0.41%
21.0	VZ	-0.39%	VZ	-0.38%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	SBNY	-80.29%	SBNY	-37.59%
63.0	SIVBQ	-67.12%	SIVBQ	-33.73%
63.0	FRCB	-40.48%	FRCB	-24.04%
63.0	AMC	-26.26%	AMC	-14.66%
63.0	VFC	-9.17%	IEP	-11.41%
63.0	IEP	-8.34%	VFC	-8.25%
63.0	AAP	-8.12%	NWL	-7.79%
63.0	NWL	-7.03%	AAP	-7.65%
63.0	BHC	-5.21%	CLF	-5.74%
63.0	CLF	-5.05%	CZR	-5.51%
63.0	AA	-4.19%	BHC	-5.37%
63.0	CHTR	-3.61%	AA	-4.76%
63.0	MOS	-3.57%	INTC	-4.13%
63.0	TLT	-3.4%	UAA	-4.04%
63.0	CZR	-3.27%	CNC	-3.64%
63.0	LNC	-3.14%	LNC	-3.2%
63.0	BIIB	-3.03%	LUMN	-3.04%
63.0	UNH	-2.68%	TLT	-2.93%
63.0	CNC	-2.65%	BXP	-2.79%
63.0	BMY	-2.53%	BIIB	-2.75%
63.0	BALL	-2.46%	CVS	-2.74%
63.0	JAZZ	-2.39%	UNH	-2.6%
63.0	UAA	-2.33%	BALL	-2.58%
63.0	ELAN	-2.28%	MOS	-2.41%
63.0	LUMN	-1.95%	BMY	-2.34%
63.0	KHC	-1.89%	KHC	-2.34%
63.0	INTC	-1.62%	GNRC	-2.19%
63.0	GSK	-1.26%	JAZZ	-2.0%
63.0	PEP	-1.18%	BHP	-1.9%
63.0	CMCSA	-1.03%	PRGO	-1.88%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	SBNY	-152.34%	SIVBQ	-65.15%
126.0	SIVBQ	-133.25%	SBNY	-64.8%
126.0	FRCB	-104.15%	FRCB	-51.17%
126.0	AMC	-43.3%	AMC	-29.0%
126.0	AAP	-26.9%	IEP	-22.23%
126.0	VFC	-18.61%	AAP	-18.41%
126.0	NWL	-17.64%	NWL	-16.71%
126.0	IEP	-16.45%	VFC	-14.2%
126.0	AA	-12.54%	CLF	-10.65%
126.0	CLF	-10.88%	CZR	-9.08%
126.0	MOS	-10.59%	AA	-8.35%
126.0	CHTR	-9.85%	MOS	-8.1%
126.0	BHC	-9.62%	BHC	-7.59%
126.0	CZR	-9.42%	INTC	-6.88%
126.0	ELAN	-8.57%	UAA	-6.85%
126.0	UAA	-6.47%	CNC	-6.35%
126.0	TLT	-6.45%	ELAN	-6.16%
126.0	JAZZ	-5.99%	LUMN	-5.98%
126.0	GNRC	-5.84%	CTLT	-5.69%
126.0	CNC	-5.46%	CVS	-5.66%
126.0	LUMN	-5.29%	GNRC	-5.42%
126.0	PRGO	-5.28%	BXP	-5.29%
126.0	FIS	-4.84%	PRGO	-5.26%
126.0	BALL	-4.63%	BIIB	-5.19%
126.0	BIIB	-4.57%	TLT	-5.18%
126.0	BMY	-4.5%	LNC	-5.04%
126.0	KHC	-4.09%	BALL	-4.6%
126.0	LNC	-4.06%	KHC	-4.56%
126.0	INTC	-4.02%	BMY	-4.43%
126.0	OXY	-3.88%	JAZZ	-3.7%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	SBNY	-189.18%	SBNY	-95.75%
252.0	SIVBQ	-167.74%	SIVBQ	-95.29%
252.0	FRCB	-141.18%	FRCB	-91.61%
252.0	AMC	-74.81%	AMC	-56.25%
252.0	AAP	-71.59%	IEP	-44.68%
252.0	VFC	-34.75%	AAP	-40.67%
252.0	IEP	-32.8%	NWL	-27.96%
252.0	NWL	-32.3%	VFC	-23.59%
252.0	BIIB	-24.98%	MOS	-20.33%
252.0	AA	-22.68%	CLF	-17.62%
252.0	MOS	-21.19%	CVS	-16.97%
252.0	CLF	-20.85%	CZR	-14.16%
252.0	CZR	-17.86%	PRGO	-12.39%
252.0	CVS	-17.81%	AA	-11.95%
252.0	OXY	-17.17%	UAA	-11.51%
252.0	PRGO	-16.28%	CNC	-11.41%
252.0	JAZZ	-15.56%	INTC	-11.15%
252.0	CHTR	-13.5%	BIIB	-11.12%
252.0	UAA	-12.77%	BMY	-10.68%
252.0	BMY	-12.6%	JAZZ	-9.19%
252.0	CNC	-12.37%	BHC	-9.17%
252.0	BHC	-11.47%	TLT	-8.4%
252.0	TLT	-11.2%	KHC	-8.21%
252.0	BHP	-9.14%	OXY	-7.78%
252.0	INTC	-9.1%	GT	-7.6%
252.0	KHC	-8.4%	CTLT	-6.24%
252.0	ELAN	-7.97%	BHP	-5.85%
252.0	GT	-7.92%	LNC	-4.87%
252.0	CTLT	-6.82%	PEP	-4.29%
252.0	FIS	-4.91%	CHTR	-4.28%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	UNH	-2.44%	CHTR	-2.09%
1.0	CHTR	-1.56%	CYH	-1.42%
1.0	TXN	-1.42%	CMG	-1.41%
1.0	BUD	-1.36%	UNH	-1.26%
1.0	CNC	-1.08%	CNC	-1.19%
1.0	INTC	-0.91%	BHC	-1.02%
1.0	QCOM	-0.9%	NWL	-0.98%
1.0	MU	-0.78%	LUMN	-0.97%
1.0	CMCSA	-0.78%	BUD	-0.88%
1.0	NAVI	-0.74%	TXN	-0.82%
1.0	ZTS	-0.62%	MU	-0.71%
1.0	FCX	-0.61%	NAVI	-0.71%
1.0	ISRG	-0.6%	CZR	-0.68%
1.0	SBUX	-0.6%	FCX	-0.63%
1.0	CZR	-0.57%	KALU	-0.62%
1.0	BHC	-0.57%	INTC	-0.58%
1.0	NWL	-0.55%	BBY	-0.57%
1.0	VZ	-0.52%	GWW	-0.56%
1.0	CMG	-0.51%	ISRG	-0.55%
1.0	TSLA	-0.5%	NFLX	-0.5%
1.0	GWW	-0.5%	TEVA	-0.48%
1.0	ADBE	-0.48%	CMCSA	-0.47%
1.0	CYH	-0.46%	HON	-0.46%
1.0	JPM	-0.42%	CSTM	-0.44%
1.0	UAA	-0.4%	GT	-0.44%
1.0	HON	-0.39%	QCOM	-0.43%
1.0	KALU	-0.38%	USB	-0.43%
1.0	LUMN	-0.37%	AA	-0.42%
1.0	AMAT	-0.36%	ADBE	-0.41%
1.0	GME	-0.34%	MSTR	-0.41%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	UNH	-22.21%	CHTR	-16.6%
10.0	CHTR	-20.95%	CYH	-14.45%
10.0	TXN	-13.23%	CMG	-13.86%
10.0	CNC	-10.03%	CNC	-13.3%
10.0	CYH	-9.29%	TXN	-10.67%
10.0	CMG	-7.42%	UNH	-8.71%
10.0	CVS	-6.56%	NAVI	-8.46%
10.0	CMCSA	-6.53%	THC	-8.01%
10.0	ZTS	-6.27%	MU	-7.3%
10.0	MU	-4.74%	NFLX	-6.28%
10.0	CZR	-4.69%	INTC	-6.25%
10.0	ISRG	-4.67%	HCA	-5.99%
10.0	INTC	-4.63%	CVS	-5.94%
10.0	MSTR	-4.32%	BBY	-5.17%
10.0	THC	-4.23%	FCX	-4.6%
10.0	HON	-4.15%	CZR	-4.54%
10.0	NAVI	-4.08%	ISRG	-4.48%
10.0	NFLX	-4.02%	MSTR	-4.31%
10.0	HCA	-3.94%	HON	-4.2%
10.0	AMAT	-3.81%	AMAT	-3.82%
10.0	BUD	-3.46%	KALU	-3.41%
10.0	KALU	-3.17%	CMCSA	-3.38%
10.0	BBY	-2.95%	NVS	-3.27%
10.0	NVS	-2.47%	COST	-3.25%
10.0	FITB	-1.87%	ZTS	-3.22%
10.0	COST	-1.74%	CAH	-3.12%
10.0	LUMN	-1.55%	GT	-2.85%
10.0	XOM	-1.54%	TRGP	-2.76%
10.0	FCX	-1.53%	LUMN	-2.7%
10.0	USB	-1.48%	CPRT	-2.36%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CNC	-1.9%	CNC	-1.15%
1.0	UNH	-1.05%	UNH	-0.8%
1.0	ZTS	-0.52%	CHTR	-0.6%
1.0	CHTR	-0.39%	CPRT	-0.46%
1.0	GME	-0.35%	PCG	-0.28%
1.0	BUD	-0.34%	SNY	-0.24%
1.0	LLY	-0.25%	CMG	-0.23%
1.0	CPRT	-0.21%	BUD	-0.21%
1.0	GWW	-0.2%	GME	-0.21%
1.0	NAVI	-0.19%	GWW	-0.2%
1.0	BMY	-0.17%	BMY	-0.18%
1.0	INTC	-0.17%	ISRG	-0.15%
1.0	VZ	-0.14%	LUMN	-0.15%
1.0	ADBE	-0.14%	ADBE	-0.14%
1.0	PCG	-0.13%	POST	-0.11%
1.0	CYH	-0.12%	GT	-0.11%
1.0	ACGL	-0.12%	CYH	-0.1%
1.0	ISRG	-0.11%	LLY	-0.1%
1.0	BBY	-0.1%	ZTS	-0.1%
1.0	CVS	-0.09%	CVS	-0.1%
1.0	CMG	-0.08%	COST	-0.1%
1.0	CMCSA	-0.07%	CMCSA	-0.09%
1.0	FIS	-0.07%	CZR	-0.08%
1.0	LUMN	-0.06%	ACGL	-0.07%
1.0	TMUS	-0.05%	TEVA	-0.07%
1.0	COST	-0.05%	TMUS	-0.06%
1.0	MRK	-0.04%	BBY	-0.06%
1.0	VFC	-0.04%	KHC	-0.06%
1.0	GT	-0.04%	MRK	-0.05%
1.0	NWL	-0.04%	IRM	-0.04%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	CNC	-14.82%	CNC	-13.09%
10.0	UNH	-7.69%	CPRT	-5.26%
10.0	CHTR	-4.88%	UNH	-4.37%
10.0	PCG	-2.78%	CHTR	-3.92%
10.0	ADBE	-2.73%	PCG	-3.77%
10.0	GME	-2.58%	GME	-2.49%
10.0	CPRT	-2.15%	CYH	-2.49%
10.0	ZTS	-1.7%	ISRG	-1.8%
10.0	CYH	-1.69%	VFC	-1.48%
10.0	VFC	-1.4%	CMG	-1.36%
10.0	ISRG	-1.34%	COST	-1.35%
10.0	TSLA	-1.02%	ACGL	-1.24%
10.0	CVS	-1.02%	ADBE	-1.22%
10.0	CMG	-0.82%	BBY	-1.0%
10.0	COST	-0.74%	SNY	-0.98%
10.0	SNY	-0.71%	ZTS	-0.96%
10.0	ACGL	-0.71%	TEVA	-0.91%
10.0	TEVA	-0.67%	CVS	-0.84%
10.0	POST	-0.41%	HCA	-0.7%
10.0	GWW	-0.39%	POST	-0.62%
10.0	CMCSA	-0.34%	GWW	-0.51%
10.0	VZ	-0.3%	CMCSA	-0.36%
10.0	HCA	-0.24%	TMUS	-0.33%
10.0	BMY	-0.23%	MNST	-0.29%
10.0	GT	-0.18%	GT	-0.26%
10.0	TMUS	-0.15%	VZ	-0.25%
10.0	IRM	-0.12%	MUB	-0.11%
10.0	BBY	-0.12%	BUD	-0.01%
10.0	MUB	-0.07%	TLT	0.0%
10.0	RIO	-0.05%	BMY	0.03%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	CNC	-39.68%	CNC	-27.94%
21.0	GME	-15.29%	CPRT	-10.66%
21.0	UNH	-11.29%	PCG	-10.65%
21.0	CHTR	-9.26%	GME	-9.71%
21.0	PCG	-8.81%	UNH	-5.8%
21.0	ADBE	-6.9%	CYH	-5.62%
21.0	ZTS	-6.53%	CHTR	-5.5%
21.0	CYH	-5.19%	ADBE	-4.4%
21.0	TSLA	-4.46%	ISRG	-3.73%
21.0	CPRT	-4.28%	COST	-3.23%
21.0	VFC	-3.5%	ACGL	-3.08%
21.0	SNY	-3.21%	VFC	-3.0%
21.0	TEVA	-2.01%	ZTS	-2.93%
21.0	ISRG	-1.59%	SNY	-2.77%
21.0	HCA	-1.46%	TEVA	-2.26%
21.0	COST	-1.43%	TSLA	-1.92%
21.0	TMUS	-1.41%	MNST	-1.84%
21.0	GWW	-1.22%	TMUS	-1.76%
21.0	ACGL	-1.2%	GWW	-1.71%
21.0	BUD	-1.08%	HCA	-1.46%
21.0	VZ	-1.02%	POST	-1.42%
21.0	MNST	-0.74%	VZ	-1.42%
21.0	POST	-0.69%	BBY	-1.13%
21.0	BBY	-0.46%	BUD	-0.69%
21.0	BMY	-0.36%	GT	-0.52%
21.0	RIO	-0.25%	GSK	-0.46%
21.0	GT	-0.21%	MUB	-0.13%
21.0	MUB	-0.11%	CMCSA	-0.12%
21.0	T	-0.07%	BMY	-0.12%
21.0	HD	-0.03%	HD	-0.02%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CNC	-0.52%	CNC	-0.37%
1.0	UNH	-0.26%	UNH	-0.32%
1.0	AMC	-0.18%	IEP	-0.21%
1.0	NAVI	-0.17%	CYH	-0.19%
1.0	CYH	-0.17%	AMC	-0.16%
1.0	CLF	-0.15%	BIIB	-0.16%
1.0	INTC	-0.13%	ADBE	-0.14%
1.0	CHTR	-0.11%	LEN	-0.14%
1.0	IEP	-0.11%	MRK	-0.14%
1.0	ZTS	-0.09%	NWL	-0.13%
1.0	CZR	-0.08%	CHTR	-0.1%
1.0	KHC	-0.07%	KHC	-0.1%
1.0	BIIB	-0.07%	PCG	-0.09%
1.0	MRK	-0.07%	PEP	-0.09%
1.0	CSTM	-0.06%	OXY	-0.09%
1.0	NWL	-0.05%	CZR	-0.09%
1.0	BMY	-0.05%	ZTS	-0.07%
1.0	LEN	-0.05%	CMCSA	-0.07%
1.0	PEP	-0.05%	BBY	-0.06%
1.0	CMG	-0.05%	CMG	-0.06%
1.0	LUMN	-0.04%	LUMN	-0.06%
1.0	OXY	-0.04%	NAVI	-0.05%
1.0	ACGL	-0.04%	TLT	-0.04%
1.0	TXN	-0.04%	DHI	-0.04%
1.0	HCA	-0.04%	SNY	-0.04%
1.0	BALL	-0.03%	BALL	-0.04%
1.0	USB	-0.03%	CPRT	-0.04%
1.0	BBY	-0.03%	AMGN	-0.03%
1.0	BUD	-0.02%	ACGL	-0.03%
1.0	TLT	-0.02%	IRM	-0.03%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	CNC	-3.95%	CNC	-3.65%
10.0	UNH	-2.44%	UNH	-2.6%
10.0	AMC	-1.23%	IEP	-1.8%
10.0	CLF	-1.2%	BIIB	-1.71%
10.0	BIIB	-0.99%	LEN	-1.49%
10.0	ADBE	-0.88%	AMC	-1.44%
10.0	ZTS	-0.81%	ADBE	-1.3%
10.0	CYH	-0.74%	MRK	-1.21%
10.0	CHTR	-0.68%	CYH	-1.09%
10.0	KHC	-0.61%	PCG	-0.92%
10.0	MRK	-0.57%	OXY	-0.83%
10.0	BMY	-0.52%	KHC	-0.8%
10.0	IEP	-0.47%	ZTS	-0.75%
10.0	ACGL	-0.42%	PEP	-0.73%
10.0	PCG	-0.42%	BBY	-0.58%
10.0	ON	-0.39%	DHI	-0.57%
10.0	CZR	-0.39%	CZR	-0.5%
10.0	LEN	-0.39%	CMCSA	-0.5%
10.0	OXY	-0.37%	TLT	-0.44%
10.0	CMG	-0.36%	CMG	-0.4%
10.0	LLY	-0.34%	ACGL	-0.39%
10.0	RIO	-0.33%	AZN	-0.35%
10.0	PEP	-0.31%	ON	-0.34%
10.0	TLT	-0.31%	VFC	-0.34%
10.0	CMCSA	-0.28%	NWL	-0.25%
10.0	CPRT	-0.24%	SNY	-0.2%
10.0	POST	-0.23%	BALL	-0.18%
10.0	BALL	-0.22%	AMGN	-0.18%
10.0	LUMN	-0.2%	CPRT	-0.18%
10.0	GSK	-0.12%	IRM	-0.18%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	CNC	-8.57%	CNC	-7.19%
21.0	UNH	-5.59%	UNH	-5.26%
21.0	AMC	-2.12%	BIIB	-3.76%
21.0	BIIB	-2.07%	IEP	-3.74%
21.0	MRK	-2.06%	LEN	-3.65%
21.0	CLF	-1.96%	AMC	-3.37%
21.0	CYH	-1.73%	ADBE	-3.06%
21.0	ZTS	-1.72%	MRK	-2.82%
21.0	ADBE	-1.68%	PCG	-2.34%
21.0	KHC	-1.62%	KHC	-2.04%
21.0	OXY	-1.61%	DHI	-2.01%
21.0	ON	-1.57%	OXY	-1.98%
21.0	CZR	-1.56%	PEP	-1.87%
21.0	PCG	-1.51%	CYH	-1.8%
21.0	LW	-1.26%	BBY	-1.51%
21.0	PEP	-1.2%	ZTS	-1.5%
21.0	LEN	-1.17%	ACGL	-1.25%
21.0	TLT	-0.91%	AZN	-1.19%
21.0	GSK	-0.88%	ON	-1.14%
21.0	ELAN	-0.77%	VFC	-1.1%
21.0	LUMN	-0.71%	CZR	-1.06%
21.0	IEP	-0.69%	TLT	-1.06%
21.0	BMY	-0.63%	CMCSA	-1.04%
21.0	ACGL	-0.57%	CLF	-1.0%
21.0	RIO	-0.55%	LLY	-0.93%
21.0	LLY	-0.52%	SNY	-0.72%
21.0	POST	-0.51%	NWL	-0.66%
21.0	DHI	-0.43%	PHM	-0.65%
21.0	AZN	-0.39%	IRM	-0.57%
21.0	CMCSA	-0.34%	GSK	-0.56%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	UNH	-15.74%	UNH	-17.47%
63.0	CLF	-13.16%	LEN	-14.36%
63.0	IEP	-13.09%	IEP	-13.62%
63.0	ON	-11.06%	BIIB	-12.74%
63.0	BIIB	-10.19%	CNC	-12.65%
63.0	AMC	-9.87%	CLF	-11.99%
63.0	CNC	-9.55%	AMC	-11.48%
63.0	MRK	-9.18%	MRK	-10.85%
63.0	KHC	-7.78%	DHI	-10.71%
63.0	LUMN	-7.71%	CYH	-9.81%
63.0	LW	-7.25%	CZR	-9.45%
63.0	ADBE	-7.05%	ADBE	-9.44%
63.0	OXY	-6.98%	BBY	-8.72%
63.0	CZR	-6.63%	PEP	-8.22%
63.0	PEP	-6.45%	KHC	-8.21%
63.0	LEN	-6.42%	PCG	-7.49%
63.0	ZTS	-6.41%	LUMN	-7.2%
63.0	BBY	-6.36%	PHM	-6.95%
63.0	DHI	-6.11%	ON	-6.9%
63.0	CYH	-6.04%	OXY	-6.69%
63.0	GNRC	-4.33%	VFC	-6.15%
63.0	BALL	-4.11%	ZTS	-5.38%
63.0	CMCSA	-3.97%	ACGL	-5.37%
63.0	LLY	-3.78%	LW	-4.86%
63.0	TLT	-3.47%	FSUGY	-4.71%
63.0	FSUGY	-3.17%	LLY	-4.68%
63.0	PCG	-3.12%	CMCSA	-4.49%
63.0	QCOM	-2.95%	BALL	-4.38%
63.0	ACGL	-2.95%	UAA	-3.88%
63.0	SNY	-2.95%	NWL	-3.81%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	ON	-37.14%	LEN	-31.18%
126.0	LUMN	-36.94%	LUMN	-30.98%
126.0	CLF	-30.55%	AMC	-30.01%
126.0	NWL	-30.15%	NWL	-29.94%
126.0	AMC	-30.01%	UNH	-29.25%
126.0	LW	-28.88%	ON	-29.2%
126.0	VFC	-28.02%	CLF	-25.2%
126.0	UNH	-27.12%	BIIB	-24.6%
126.0	GNRC	-26.22%	IEP	-24.29%
126.0	AA	-25.07%	DHI	-23.11%
126.0	UAA	-24.71%	CZR	-22.52%
126.0	IEP	-24.32%	CYH	-22.2%
126.0	CZR	-23.61%	UAA	-21.97%
126.0	MRK	-22.61%	MRK	-21.57%
126.0	BIIB	-22.39%	VFC	-21.53%
126.0	CYH	-20.37%	ADBE	-20.75%
126.0	DHI	-18.71%	LW	-20.56%
126.0	WDC	-17.49%	CNC	-19.77%
126.0	BHC	-17.48%	BBY	-19.58%
126.0	LEN	-16.74%	PCG	-18.97%
126.0	CNC	-16.69%	AA	-18.69%
126.0	BXP	-16.21%	WDC	-18.39%
126.0	OXY	-15.76%	BHC	-17.56%
126.0	ADBE	-15.73%	PHM	-17.52%
126.0	ZTS	-15.08%	GNRC	-16.97%
126.0	PEP	-13.95%	IRM	-16.72%
126.0	KHC	-13.79%	AMD	-15.06%
126.0	BBY	-13.01%	PEP	-14.84%
126.0	CMCSA	-12.74%	OXY	-14.63%
126.0	ELAN	-12.74%	KHC	-13.75%

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

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	SBNY	22.3%	SBNY	11.87%
1.0	TSLA	13.44%	SIVBQ	7.55%
1.0	SIVBQ	13.31%	TSLA	6.61%
1.0	CHTR	12.64%	LQD	5.13%
1.0	LQD	10.71%	B	4.78%
1.0	GME	10.36%	GME	3.87%
1.0	UAA	8.54%	FRCB	3.6%
1.0	AMC	7.52%	ZTS	3.19%
1.0	B	7.52%	AMC	2.73%
1.0	AAP	7.29%	MSTR	2.28%
1.0	FRCB	7.19%	JAZZ	2.16%
1.0	MSTR	7.18%	AAP	2.16%
1.0	META	6.61%	GNRC	1.94%
1.0	SBUX	6.38%	BUD	1.94%
1.0	ZTS	6.15%	ISRG	1.82%
1.0	BALL	5.81%	CHTR	1.59%
1.0	GNRC	5.58%	KALU	1.59%
1.0	KEY	5.47%	EXPE	1.37%
1.0	SLV	5.47%	CDNS	1.37%
1.0	AMZN	5.24%	SLV	1.14%
1.0	BUD	5.13%	ELAN	1.04%
1.0	VFC	5.13%	FRA	1.03%
1.0	PRGO	5.01%	TLT	1.03%
1.0	NFLX	4.44%	PRGO	1.03%
1.0	JAZZ	4.33%	VZ	0.68%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	SBNY	30.51%	SBNY	14.34%
10.0	TSLA	14.73%	TSLA	9.32%
10.0	GME	14.27%	AMC	8.98%
10.0	AMC	13.92%	SIVBQ	7.35%
10.0	CHTR	13.23%	B	6.1%
10.0	B	12.08%	LQD	5.41%
10.0	AAP	11.97%	CHTR	5.29%
10.0	SIVBQ	11.76%	AAP	4.83%
10.0	ZTS	10.47%	ZTS	4.49%
10.0	BUD	9.21%	MSTR	3.34%
10.0	TLT	9.09%	GNRC	3.34%
10.0	LQD	9.09%	GME	3.11%
10.0	KALU	7.83%	KALU	2.19%
10.0	MSTR	7.59%	ISRG	2.19%
10.0	SLV	7.36%	VCSH	1.84%
10.0	JAZZ	7.13%	BIIB	1.84%
10.0	PRGO	6.56%	CVS	1.73%
10.0	VFC	6.33%	SNY	1.38%
10.0	NEM	5.75%	META	1.27%
10.0	META	5.75%	TLT	1.15%
10.0	FRCB	5.51%	OXY	1.15%
10.0	BIIB	5.41%	CMA	1.04%
10.0	OXY	5.29%	ORCL	0.81%
10.0	VZ	5.29%	NEM	0.81%
10.0	GNRC	5.06%	WYNN	0.81%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	SBNY	47.78%	SBNY	15.93%
21.0	CHTR	16.08%	AMC	10.02%
21.0	TSLA	15.15%	CHTR	9.67%
21.0	AMC	13.29%	TSLA	8.16%
21.0	ZTS	12.59%	SIVBQ	7.04%
21.0	B	12.35%	VCSH	6.06%
21.0	AAP	11.77%	GNRC	5.36%
21.0	TLT	10.84%	B	4.66%
21.0	SIVBQ	10.37%	LQD	3.96%
21.0	GME	10.26%	BIIB	3.85%
21.0	LQD	9.44%	ZTS	3.26%
21.0	BUD	9.21%	KALU	2.68%
21.0	PRGO	8.86%	AAP	2.56%
21.0	MSTR	8.74%	META	2.56%
21.0	KALU	8.51%	ORCL	1.98%
21.0	GNRC	8.51%	MSTR	1.98%
21.0	JAZZ	8.39%	GME	1.86%
21.0	CVS	8.16%	BUD	1.75%
21.0	BIIB	7.69%	BHC	1.63%
21.0	NEM	7.46%	UNH	1.28%
21.0	META	7.34%	FIS	1.28%
21.0	UAA	7.11%	CMA	1.28%
21.0	VCSH	7.11%	BHP	1.17%
21.0	VFC	6.99%	FRCB	1.11%
21.0	GSK	6.76%	ON	1.05%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	SBNY	55.19%	SBNY	28.89%
63.0	AAP	27.57%	CHTR	17.65%
63.0	CHTR	21.94%	AMC	12.01%
63.0	AMC	16.91%	AAP	8.95%
63.0	BIIB	16.05%	GNRC	6.25%
63.0	KALU	15.56%	VCSH	6.25%
63.0	TSLA	14.46%	LQD	5.15%
63.0	VFC	13.11%	SIVBQ	4.81%
63.0	B	12.99%	MSTR	4.66%
63.0	SIVBQ	11.85%	ZION	4.36%
63.0	GNRC	11.03%	B	4.04%
63.0	META	10.05%	BMY	4.04%
63.0	BHC	9.44%	TLT	3.55%
63.0	FIS	9.07%	ON	3.31%
63.0	AMZN	8.82%	META	3.31%
63.0	TLT	8.58%	BIIB	2.7%
63.0	MSTR	8.46%	BXP	2.7%
63.0	LQD	6.5%	VNO	2.57%
63.0	BUD	6.37%	NWL	2.08%
63.0	JAZZ	5.64%	BUD	1.96%
63.0	FITB	5.64%	CVS	1.59%
63.0	ZTS	5.39%	CMA	1.59%
63.0	LNC	5.39%	BA	1.35%
63.0	OXY	5.27%	FITB	1.23%
63.0	ON	5.15%	FRA	1.23%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	SBNY	55.19%	SBNY	26.3%
126.0	VFC	30.81%	AAP	23.24%
126.0	CHTR	29.75%	AMC	19.26%
126.0	AMC	24.57%	CHTR	18.99%
126.0	AAP	18.99%	BXP	7.84%
126.0	GNRC	18.86%	VFC	7.44%
126.0	TSLA	17.66%	VCSH	6.37%
126.0	SIVBQ	15.93%	CTLT	5.65%
126.0	TLT	13.94%	GNRC	5.31%
126.0	BIIB	13.55%	TLT	4.65%
126.0	OXY	12.62%	CMA	4.52%
126.0	BMY	12.35%	OXY	3.85%
126.0	CVS	11.69%	ZION	3.38%
126.0	ZION	10.96%	B	2.92%
126.0	AMZN	10.89%	VNO	2.39%
126.0	BUD	10.76%	LQD	2.12%
126.0	BXP	9.3%	ON	1.86%
126.0	FIS	8.5%	SNY	1.86%
126.0	B	8.1%	META	1.73%
126.0	NWL	7.84%	BIIB	1.59%
126.0	CCL	7.57%	SIVBQ	1.48%
126.0	META	7.3%	BHC	1.06%
126.0	EXPE	6.77%	FIS	1.06%
126.0	CMA	6.64%	HYG	0.8%
126.0	NEM	6.37%	CLF	0.8%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
252.0	AMC	46.89%	AMC	35.09%
252.0	AAP	46.09%	AAP	33.97%
252.0	BIIB	38.76%	SBNY	25.93%
252.0	CHTR	38.28%	BIIB	17.22%
252.0	VFC	29.98%	CHTR	14.04%
252.0	CMA	24.08%	BXP	13.4%
252.0	ZION	23.33%	VFC	12.44%
252.0	SBNY	20.37%	OXY	8.45%
252.0	OXY	18.18%	CMA	8.29%
252.0	FIS	18.02%	VNO	6.54%
252.0	CVS	14.19%	ZION	6.04%
252.0	TLT	12.12%	MRK	4.94%
252.0	BHC	10.21%	CTLT	3.85%
252.0	ELAN	8.63%	BHC	3.51%
252.0	CTLT	8.52%	KEY	3.03%
252.0	NWL	8.13%	GNRC	2.87%
252.0	EXPE	7.97%	BMY	2.39%
252.0	GNRC	7.66%	VCSH	2.39%
252.0	CLF	7.5%	UNH	1.75%
252.0	PRGO	7.02%	EMB	1.44%
252.0	AMZN	7.02%	FIS	1.44%
252.0	VNO	6.22%	GSK	1.12%
252.0	LQD	5.9%	ELAN	0.98%
252.0	BXP	5.58%	TLT	0.96%
252.0	LNC	5.42%	FITB	0.64%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	VST	35.0%	VZ	15.0%
1.0	VZ	25.0%	UNH	15.0%
1.0	LLY	25.0%	LLY	15.0%
1.0	SBUX	20.0%	ZTS	10.0%
1.0	MU	20.0%	TSLA	10.0%
1.0	ADBE	20.0%	AMC	10.0%
1.0	CMCSA	20.0%	B	10.0%
1.0	AMC	20.0%	CDNS	5.0%
1.0	CLF	15.0%	VST	5.0%
1.0	JPM	15.0%	TXN	5.0%
1.0	META	15.0%	SBUX	5.0%
1.0	ZTS	15.0%	JPM	5.0%
1.0	NAVI	15.0%	INTC	5.0%
1.0	UNH	15.0%	HCA	5.0%
1.0	CDNS	15.0%	CMCSA	5.0%
1.0	BUD	10.0%	CMA	5.0%
1.0	TDG	10.0%	ISRG	5.0%
1.0	TSLA	10.0%	AMAT	5.0%
1.0	HCA	10.0%	BALL	0.0%
1.0	UAA	10.0%	PWR	0.0%
1.0	ISRG	10.0%	POST	0.0%
1.0	AMAT	10.0%	PHM	0.0%
1.0	AMZN	10.0%	PCG	0.0%
1.0	AMGN	10.0%	ORLY	0.0%
1.0	AA	5.0%	ORCL	0.0%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	UNH	90.91%	UNH	36.36%
10.0	CVS	45.45%	TXN	27.27%
10.0	CMCSA	36.36%	AMC	18.18%
10.0	NAVI	27.27%	AA	0.0%
10.0	AMC	27.27%	NFLX	0.0%
10.0	KALU	18.18%	MSTR	0.0%
10.0	AAP	18.18%	MU	0.0%
10.0	INTC	18.18%	MUB	0.0%
10.0	HCA	18.18%	NAVI	0.0%
10.0	SBUX	9.09%	NEM	0.0%
10.0	CNC	9.09%	NVDA	0.0%
10.0	SNY	9.09%	MSFT	0.0%
10.0	BUD	9.09%	NVS	0.0%
10.0	BMY	9.09%	NWL	0.0%
10.0	TSLA	9.09%	ON	0.0%
10.0	ZTS	9.09%	ORCL	0.0%
10.0	AMZN	9.09%	ORLY	0.0%
10.0	VZ	9.09%	OXY	0.0%
10.0	ORCL	0.0%	PCG	0.0%
10.0	NWL	0.0%	MSI	0.0%
10.0	NVDA	0.0%	MRK	0.0%
10.0	NFLX	0.0%	MS	0.0%
10.0	NEM	0.0%	PHM	0.0%
10.0	WFC	0.0%	MOS	0.0%
10.0	MUB	0.0%	MNST	0.0%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	SBUX	24.59%	LLY	11.48%
1.0	TSLA	21.31%	TSLA	9.84%
1.0	LLY	19.67%	ZTS	9.84%
1.0	VZ	16.39%	UNH	8.2%
1.0	TDG	16.39%	VZ	8.2%
1.0	ZTS	14.75%	AMC	6.56%
1.0	AMC	13.11%	AAP	6.56%
1.0	VST	13.11%	SBUX	4.92%
1.0	QQQ	11.48%	VST	3.28%
1.0	UAA	9.84%	CDNS	3.28%
1.0	ADBE	9.84%	B	3.28%
1.0	UNH	9.84%	LQD	3.28%
1.0	AMZN	9.84%	TXN	3.28%
1.0	CDNS	9.84%	AMAT	1.64%
1.0	MU	8.2%	AMGN	1.64%
1.0	META	8.2%	CMCSA	1.64%
1.0	AAP	8.2%	TDG	1.64%
1.0	INTC	8.2%	BUD	1.64%
1.0	BUD	6.56%	HCA	1.64%
1.0	NAVI	6.56%	INTC	1.64%
1.0	JPM	6.56%	CMA	1.64%
1.0	CMCSA	6.56%	JPM	1.64%
1.0	ISRG	6.56%	MSI	0.0%
1.0	B	6.56%	MSTR	0.0%
1.0	LQD	4.92%	MU	0.0%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	AMC	28.85%	AMC	26.92%
10.0	TSLA	28.85%	TSLA	17.31%
10.0	ZTS	23.08%	ZTS	11.54%
10.0	UNH	21.15%	UNH	9.62%
10.0	CDNS	17.31%	ADBE	7.69%
10.0	CVS	17.31%	TXN	5.77%
10.0	VZ	15.38%	BUD	1.92%
10.0	AAP	15.38%	AAP	1.92%
10.0	GME	15.38%	CNC	1.92%
10.0	ADBE	11.54%	NVDA	0.0%
10.0	BUD	9.62%	MU	0.0%
10.0	CMCSA	7.69%	MUB	0.0%
10.0	LLY	7.69%	NAVI	0.0%
10.0	NAVI	5.77%	NEM	0.0%
10.0	AMGN	5.77%	NFLX	0.0%
10.0	CNC	5.77%	KHC	0.0%
10.0	INTC	3.85%	NVS	0.0%
10.0	KALU	3.85%	MSTR	0.0%
10.0	BHP	3.85%	ON	0.0%
10.0	HCA	3.85%	ORCL	0.0%
10.0	BXP	1.92%	ORLY	0.0%
10.0	SNY	1.92%	OXY	0.0%
10.0	TLT	1.92%	PEP	0.0%
10.0	SBUX	1.92%	NWL	0.0%
10.0	OXY	1.92%	MSFT	0.0%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	ZTS	41.46%	UNH	31.71%
21.0	TSLA	39.02%	AMC	21.95%
21.0	ADBE	34.15%	ZTS	7.32%
21.0	UNH	34.15%	CHTR	4.88%
21.0	AMC	21.95%	CYH	4.88%
21.0	CVS	21.95%	TSLA	2.44%
21.0	AAP	7.32%	AAP	2.44%
21.0	CNC	4.88%	LLY	0.0%
21.0	CHTR	4.88%	LEN	0.0%
21.0	CYH	4.88%	PEP	0.0%
21.0	CMCSA	4.88%	OXY	0.0%
21.0	BUD	2.44%	ORLY	0.0%
21.0	TXN	2.44%	ORCL	0.0%
21.0	SNY	2.44%	ON	0.0%
21.0	NAVI	2.44%	NWL	0.0%
21.0	NWL	0.0%	NVS	0.0%
21.0	NVS	0.0%	NVDA	0.0%
21.0	ON	0.0%	NFLX	0.0%
21.0	NVDA	0.0%	NEM	0.0%
21.0	ORCL	0.0%	NAVI	0.0%
21.0	ORLY	0.0%	MUB	0.0%
21.0	OXY	0.0%	MU	0.0%
21.0	NFLX	0.0%	MSTR	0.0%
21.0	PEP	0.0%	MSI	0.0%
21.0	NEM	0.0%	MSFT	0.0%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	TSLA	16.87%	B	4.42%
1.0	SBUX	11.65%	TSLA	4.42%
1.0	INTC	11.24%	VZ	4.02%
1.0	MSFT	9.24%	AMC	3.61%
1.0	ZTS	8.84%	LQD	2.81%
1.0	AMZN	8.43%	QCOM	2.81%
1.0	CLF	8.43%	ZTS	2.41%
1.0	B	8.03%	NAVI	2.41%
1.0	AAP	7.63%	AAP	2.01%
1.0	MU	7.23%	MSTR	2.01%
1.0	AMC	7.23%	AMGN	2.01%
1.0	UNH	6.83%	SBUX	1.61%
1.0	QCOM	6.43%	HCA	1.2%
1.0	VZ	6.02%	CMCSA	1.2%
1.0	CHTR	6.02%	GNRC	1.2%
1.0	LQD	6.02%	TXN	1.2%
1.0	META	5.62%	CMA	1.2%
1.0	NAVI	5.62%	INTC	1.2%
1.0	CDNS	5.22%	LLY	1.2%
1.0	BUD	4.82%	KEY	0.8%
1.0	KEY	4.42%	CHTR	0.8%
1.0	CMCSA	4.02%	CDNS	0.8%
1.0	AMGN	4.02%	GSK	0.4%
1.0	BHC	4.02%	UNH	0.4%
1.0	ON	4.02%	GME	0.4%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	TSLA	22.08%	AMC	10.0%
10.0	ZTS	14.17%	ZTS	9.17%
10.0	VZ	11.67%	TSLA	7.5%
10.0	AMC	10.83%	AAP	4.17%
10.0	BUD	10.42%	CMA	3.75%
10.0	AAP	10.42%	CLF	3.75%
10.0	INTC	9.17%	B	3.33%
10.0	CVS	7.92%	CHTR	3.33%
10.0	CMA	7.5%	NAVI	2.08%
10.0	CZR	7.5%	GNRC	2.08%
10.0	B	7.08%	CZR	2.08%
10.0	CHTR	7.08%	LQD	2.08%
10.0	KEY	6.67%	CVS	1.67%
10.0	NAVI	5.83%	ON	1.67%
10.0	ON	5.83%	KALU	1.25%
10.0	AMGN	5.42%	GSK	1.25%
10.0	GSK	5.42%	MU	0.83%
10.0	LQD	5.42%	SNY	0.83%
10.0	CLF	5.0%	TXN	0.83%
10.0	META	5.0%	ELAN	0.83%
10.0	GOOGL	4.58%	LLY	0.83%
10.0	GNRC	4.58%	BMY	0.42%
10.0	KALU	4.17%	EXPE	0.42%
10.0	MSTR	4.17%	QCOM	0.42%
10.0	NEM	3.75%	GE	0.42%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	ZTS	24.89%	AMC	6.55%
21.0	ON	16.59%	GNRC	6.11%
21.0	CHTR	13.54%	ON	6.11%
21.0	TSLA	13.54%	CMA	5.68%
21.0	GSK	13.1%	AAP	4.8%
21.0	CMA	11.79%	CVS	4.8%
21.0	BUD	11.79%	UNH	4.8%
21.0	B	11.35%	ZTS	4.8%
21.0	GNRC	10.92%	BUD	4.37%
21.0	LQD	10.04%	BHC	4.37%
21.0	NAVI	9.61%	CHTR	3.93%
21.0	CVS	9.61%	KALU	3.49%
21.0	CZR	9.17%	CZR	3.06%
21.0	INTC	9.17%	GSK	3.06%
21.0	AMC	8.3%	BMY	2.62%
21.0	AMGN	7.86%	LQD	2.18%
21.0	CSTM	7.42%	AMGN	2.18%
21.0	AAP	7.42%	ELAN	1.31%
21.0	ELAN	6.55%	QCOM	1.31%
21.0	GOOGL	6.11%	TSLA	0.87%
21.0	CLF	5.68%	B	0.44%
21.0	SBUX	5.68%	CLF	0.44%
21.0	KEY	5.68%	GOOGL	0.44%
21.0	ADBE	5.24%	NAVI	0.44%
21.0	OXY	5.24%	LNC	0.0%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	ON	25.67%	ON	14.44%
63.0	GNRC	23.53%	BUD	8.56%
63.0	BHC	22.46%	GNRC	4.81%
63.0	AAP	18.72%	CVS	2.67%
63.0	BMY	16.04%	GSK	2.67%
63.0	GOOGL	13.9%	LQD	2.14%
63.0	BIIB	12.83%	B	1.07%
63.0	CLF	12.83%	BMY	1.07%
63.0	CMA	12.3%	FITB	1.07%
63.0	KHC	11.23%	CHTR	0.53%
63.0	PEP	10.7%	CLF	0.53%
63.0	CSTM	10.7%	UAA	0.53%
63.0	LW	10.16%	GOOGL	0.53%
63.0	B	9.63%	AAP	0.53%
63.0	AMGN	9.63%	CMCSA	0.53%
63.0	LQD	9.09%	NEM	0.0%
63.0	SBUX	9.09%	MU	0.0%
63.0	ELAN	7.49%	NFLX	0.0%
63.0	VFC	6.95%	NVDA	0.0%
63.0	CVS	6.95%	NVS	0.0%
63.0	KEY	6.42%	NWL	0.0%
63.0	GSK	6.42%	NAVI	0.0%
63.0	NWL	5.88%	MUB	0.0%
63.0	META	5.88%	ORCL	0.0%
63.0	FITB	5.88%	AA	0.0%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	VFC	49.19%	ON	11.29%
126.0	GNRC	42.74%	BIIB	4.03%
126.0	BMY	33.06%	CLF	2.42%
126.0	NWL	33.06%	MRK	2.42%
126.0	CLF	26.61%	PEP	1.61%
126.0	UAA	25.81%	OXY	1.61%
126.0	MRK	24.19%	GNRC	1.61%
126.0	BIIB	24.19%	UAA	1.61%
126.0	ON	24.19%	NEM	0.0%
126.0	BHC	23.39%	MU	0.0%
126.0	CZR	20.97%	MUB	0.0%
126.0	CNC	17.74%	NAVI	0.0%
126.0	PEP	16.13%	AA	0.0%
126.0	KHC	13.71%	NFLX	0.0%
126.0	NAVI	10.48%	MSTR	0.0%
126.0	BUD	10.48%	NVS	0.0%
126.0	WDC	9.68%	NWL	0.0%
126.0	OXY	9.68%	ORCL	0.0%
126.0	ELAN	8.87%	ORLY	0.0%
126.0	LW	8.87%	NVDA	0.0%
126.0	LUMN	6.45%	MSFT	0.0%
126.0	BXP	6.45%	MSI	0.0%
126.0	AMD	6.45%	POST	0.0%
126.0	WYNN	5.65%	MS	0.0%
126.0	DHI	5.65%	MOS	0.0%

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

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	PHM	-5.35%	TRGP	-2.39%
1.0	NVDA	-5.24%	QQQ	-2.39%
1.0	TRGP	-4.78%	NVDA	-2.28%
1.0	MS	-4.33%	CMG	-2.16%
1.0	PCG	-4.21%	PCG	-2.16%
1.0	MOS	-3.99%	IRM	-2.16%
1.0	IRM	-3.99%	THC	-2.05%
1.0	HYG	-3.76%	PEP	-1.94%
1.0	THC	-3.76%	PHM	-1.94%
1.0	VNO	-3.64%	VST	-1.94%
1.0	VST	-3.64%	GS	-1.94%
1.0	CCL	-3.53%	LEN	-1.82%
1.0	CAH	-3.53%	SPY	-1.82%
1.0	AMAT	-3.53%	HSBC	-1.82%
1.0	QQQ	-3.42%	EMB	-1.71%
1.0	FSUGY	-3.08%	MS	-1.71%
1.0	AMD	-2.96%	CAH	-1.71%
1.0	GLD	-2.96%	MNST	-1.71%
1.0	X	-2.95%	MOS	-1.71%
1.0	CSCO	-2.85%	HLT	-1.71%
1.0	CPRT	-2.85%	DHI	-1.59%
1.0	DHI	-2.85%	PWR	-1.59%
1.0	WRK	-2.79%	MRK	-1.59%
1.0	MNST	-2.73%	ACGL	-1.59%
1.0	GS	-2.62%	HYG	-1.59%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	MS	-6.1%	MUB	-4.61%
10.0	MUB	-5.07%	PCG	-3.45%
10.0	NVDA	-4.95%	BAC	-3.11%
10.0	CSCO	-4.37%	ABBV	-2.99%
10.0	BAC	-4.14%	TRGP	-2.76%
10.0	TRGP	-4.14%	COST	-2.53%
10.0	X	-3.94%	WDC	-2.53%
10.0	AZN	-3.91%	VST	-2.19%
10.0	HON	-3.8%	MRK	-2.19%
10.0	QQQ	-3.68%	SBUX	-2.19%
10.0	IRM	-3.57%	JPM	-2.19%
10.0	COST	-3.57%	WRK	-2.17%
10.0	HLT	-3.57%	AZN	-2.07%
10.0	PCG	-3.45%	MS	-2.07%
10.0	VST	-3.34%	HCA	-1.96%
10.0	THC	-3.34%	WFC	-1.96%
10.0	MU	-3.22%	BBY	-1.96%
10.0	CMG	-3.22%	IRM	-1.96%
10.0	MNST	-3.22%	X	-1.91%
10.0	PHM	-3.22%	CMG	-1.84%
10.0	WRK	-3.17%	USB	-1.84%
10.0	AMAT	-3.11%	HLT	-1.84%
10.0	PWR	-2.99%	CSTM	-1.61%
10.0	ABBV	-2.88%	QQQ	-1.5%
10.0	VNO	-2.88%	CCL	-1.5%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	MUB	-9.22%	MUB	-4.55%
21.0	ABBV	-5.13%	LW	-3.96%
21.0	MS	-4.78%	PCG	-2.91%
21.0	QQQ	-4.78%	COST	-2.56%
21.0	COST	-4.43%	AZN	-2.21%
21.0	TRGP	-4.2%	USB	-2.21%
21.0	TEVA	-3.96%	CPRT	-2.1%
21.0	CPRT	-3.73%	HLT	-1.98%
21.0	IRM	-3.73%	WDC	-1.98%
21.0	WRK	-3.57%	CMG	-1.86%
21.0	CMG	-3.38%	TEVA	-1.86%
21.0	FSUGY	-3.38%	INTC	-1.86%
21.0	SPY	-3.26%	ABBV	-1.52%
21.0	PEP	-3.15%	FRA	-1.52%
21.0	MNST	-3.03%	ADBE	-1.52%
21.0	AZN	-3.03%	LVS	-1.52%
21.0	CSCO	-2.91%	TRGP	-1.4%
21.0	THC	-2.91%	TFC	-1.4%
21.0	NVDA	-2.68%	FCX	-1.4%
21.0	USB	-2.56%	IRM	-1.28%
21.0	HLT	-2.56%	MU	-1.28%
21.0	PWR	-2.45%	HSBC	-1.28%
21.0	LVS	-2.33%	X	-1.21%
21.0	AMAT	-2.21%	BAC	-1.17%
21.0	LUMN	-1.98%	MS	-1.05%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	MUB	-6.38%	IEP	-7.72%
63.0	LEN	-5.27%	MUB	-4.79%
63.0	USB	-4.9%	PCG	-3.8%
63.0	IRM	-4.04%	BHC	-2.94%
63.0	CSCO	-3.68%	USB	-2.94%
63.0	X	-3.44%	GSK	-2.21%
63.0	TRGP	-3.43%	VFC	-2.21%
63.0	FSUGY	-2.82%	X	-2.17%
63.0	AZN	-2.7%	HCA	-2.08%
63.0	SPY	-2.7%	VZ	-2.08%
63.0	CMG	-2.7%	AZN	-1.84%
63.0	DHI	-2.57%	TFC	-1.72%
63.0	GE	-2.33%	CTLT	-1.61%
63.0	THC	-2.21%	AA	-1.59%
63.0	ACGL	-2.21%	CLF	-1.47%
63.0	CPRT	-1.96%	CNC	-0.98%
63.0	QQQ	-1.96%	IRM	-0.98%
63.0	MS	-1.84%	SNY	-0.86%
63.0	MSI	-1.84%	HYG	-0.86%
63.0	NVDA	-1.84%	MU	-0.61%
63.0	PWR	-1.72%	LW	-0.61%
63.0	PHM	-1.72%	EMB	-0.49%
63.0	LUMN	-1.59%	NEM	-0.49%
63.0	LW	-1.47%	UNH	-0.49%
63.0	SLV	-1.35%	LVS	-0.37%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	MUB	-7.85%	IEP	-16.47%
126.0	LEN	-7.44%	BALL	-3.19%
126.0	LW	-5.18%	LW	-2.79%
126.0	IRM	-5.18%	GSK	-2.66%
126.0	PCG	-4.52%	PCG	-1.86%
126.0	VZ	-3.32%	VZ	-1.59%
126.0	LUMN	-3.19%	EMB	-1.06%
126.0	BALL	-3.19%	MUB	-0.8%
126.0	INTC	-2.12%	IRM	-0.8%
126.0	FSUGY	-1.73%	CNC	-0.8%
126.0	PHM	-1.59%	INTC	-0.4%
126.0	CSTM	-1.46%	NEM	-0.27%
126.0	BBY	-1.46%	UNH	-0.27%
126.0	LVS	-1.46%	LEN	-0.13%
126.0	UNH	-1.33%	NAVI	0.0%
126.0	WRK	-1.03%	NFLX	0.0%
126.0	X	-0.97%	MU	0.0%
126.0	NVDA	-0.8%	MSI	0.0%
126.0	CSCO	-0.53%	NVDA	0.0%
126.0	GOOGL	-0.53%	NVS	0.0%
126.0	ACGL	-0.4%	MSFT	0.0%
126.0	EMB	-0.27%	AA	0.0%
126.0	SPY	-0.27%	MOS	0.0%
126.0	TRGP	-0.27%	MNST	0.0%
126.0	ABBV	-0.13%	LVS	0.0%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
252.0	LUMN	-14.19%	IEP	-31.26%
252.0	LW	-13.88%	FRCB	-0.37%
252.0	VZ	-7.34%	CNC	-0.32%
252.0	MRK	-5.26%	LW	-0.16%
252.0	CNC	-3.03%	ORLY	0.0%
252.0	BMY	-2.39%	ORCL	0.0%
252.0	CSTM	-2.23%	ON	0.0%
252.0	IEP	-2.07%	NWL	0.0%
252.0	PEP	-1.44%	NVS	0.0%
252.0	INTC	-0.8%	NVDA	0.0%
252.0	UNH	-0.48%	NFLX	0.0%
252.0	JPM	0.0%	NAVI	0.0%
252.0	ORLY	0.0%	MUB	0.0%
252.0	ORCL	0.0%	MU	0.0%
252.0	HON	0.0%	MSTR	0.0%
252.0	ON	0.0%	MSI	0.0%
252.0	NVS	0.0%	MSFT	0.0%
252.0	NVDA	0.0%	MS	0.0%
252.0	NFLX	0.0%	IRM	0.0%
252.0	NAVI	0.0%	PCG	0.0%
252.0	MUB	0.0%	MNST	0.0%
252.0	HSBC	0.0%	META	0.0%
252.0	MU	0.0%	LVS	0.0%
252.0	MSI	0.0%	LUMN	0.0%
252.0	MSFT	0.0%	LQD	0.0%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	GILD	-10.0%	GSK	-10.0%
1.0	THC	-10.0%	MNST	-10.0%
1.0	HLT	-10.0%	THC	-10.0%
1.0	MNST	-10.0%	GILD	-5.0%
1.0	BHP	-10.0%	CYH	-5.0%
1.0	IRM	-5.0%	OXY	-5.0%
1.0	CMG	-5.0%	NFLX	-5.0%
1.0	KHC	-5.0%	PEP	-5.0%
1.0	TRGP	-5.0%	NEM	-5.0%
1.0	KALU	-5.0%	BXP	-5.0%
1.0	PHM	-5.0%	RIO	-5.0%
1.0	LUMN	-5.0%	MRK	-5.0%
1.0	BXP	-5.0%	CSTM	-5.0%
1.0	ZION	-5.0%	TEVA	-5.0%
1.0	MOS	-5.0%	NWL	-5.0%
1.0	TLT	-5.0%	AZN	-5.0%
1.0	SLV	-5.0%	LUMN	-5.0%
1.0	BA	-5.0%	HSBC	-5.0%
1.0	GSK	-5.0%	WFC	-5.0%
1.0	ORLY	-5.0%	LW	0.0%
1.0	NVS	-5.0%	KALU	0.0%
1.0	NWL	-5.0%	NVS	0.0%
1.0	MSTR	-5.0%	NVDA	0.0%
1.0	T	0.0%	KEY	0.0%
1.0	HD	0.0%	KHC	0.0%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	CYH	-45.45%	CMG	-63.64%
10.0	THC	-18.18%	CYH	-18.18%
10.0	CMG	-18.18%	AA	0.0%
10.0	NVS	-9.09%	MSTR	0.0%
10.0	NWL	0.0%	MU	0.0%
10.0	ORCL	0.0%	MUB	0.0%
10.0	NVDA	0.0%	NAVI	0.0%
10.0	NFLX	0.0%	NEM	0.0%
10.0	MRK	0.0%	NFLX	0.0%
10.0	MUB	0.0%	NVDA	0.0%
10.0	MU	0.0%	NVS	0.0%
10.0	MSTR	0.0%	NWL	0.0%
10.0	MSI	0.0%	ON	0.0%
10.0	MSFT	0.0%	ORCL	0.0%
10.0	MS	0.0%	ORLY	0.0%
10.0	ON	0.0%	MSI	0.0%
10.0	NEM	0.0%	OXY	0.0%
10.0	AA	0.0%	MSFT	0.0%
10.0	MNST	0.0%	MRK	0.0%
10.0	META	0.0%	JPM	0.0%
10.0	LW	0.0%	KALU	0.0%
10.0	LVS	0.0%	KEY	0.0%
10.0	LUMN	0.0%	KHC	0.0%
10.0	LQD	0.0%	LEN	0.0%
10.0	LNC	0.0%	LLY	0.0%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	HLT	-6.56%	MRK	-4.92%
1.0	GSK	-6.56%	THC	-4.92%
1.0	GLD	-6.56%	GSK	-4.92%
1.0	THC	-4.92%	BXP	-3.28%
1.0	PHM	-4.92%	GILD	-3.28%
1.0	BHP	-4.92%	SNY	-3.28%
1.0	GILD	-4.92%	MNST	-3.28%
1.0	MOS	-3.28%	AZO	-3.28%
1.0	MNST	-3.28%	VCSH	-3.28%
1.0	CAH	-3.28%	AZN	-3.28%
1.0	BIIB	-3.28%	CLF	-1.64%
1.0	ZION	-3.28%	RIO	-1.64%
1.0	BA	-3.28%	POST	-1.64%
1.0	IRM	-3.28%	JAZZ	-1.64%
1.0	ORLY	-3.28%	CSTM	-1.64%
1.0	VCSH	-3.28%	GLD	-1.64%
1.0	AZN	-3.28%	CYH	-1.64%
1.0	MRK	-1.64%	PEP	-1.64%
1.0	HYG	-1.64%	PCG	-1.64%
1.0	T	-1.64%	OXY	-1.64%
1.0	TRGP	-1.64%	NEM	-1.64%
1.0	EMB	-1.64%	CAH	-1.64%
1.0	GE	-1.64%	COST	-1.64%
1.0	GME	-1.64%	NFLX	-1.64%
1.0	LEN	-1.64%	BMY	-1.64%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	CYH	-7.69%	CPRT	-19.23%
10.0	TMUS	-5.77%	CMG	-13.46%
10.0	CMG	-3.85%	PCG	-7.69%
10.0	PCG	-3.85%	CYH	-3.85%
10.0	CPRT	-3.85%	KEY	0.0%
10.0	THC	-3.85%	JPM	0.0%
10.0	COST	-1.92%	ORLY	0.0%
10.0	NVS	-1.92%	ORCL	0.0%
10.0	VNO	-1.92%	ON	0.0%
10.0	GSK	-1.92%	NWL	0.0%
10.0	MNST	-1.92%	NVS	0.0%
10.0	T	-1.92%	NVDA	0.0%
10.0	AA	0.0%	NFLX	0.0%
10.0	MSI	0.0%	NEM	0.0%
10.0	NEM	0.0%	NAVI	0.0%
10.0	MU	0.0%	MUB	0.0%
10.0	MUB	0.0%	MU	0.0%
10.0	NFLX	0.0%	MSTR	0.0%
10.0	NVDA	0.0%	MSI	0.0%
10.0	MSTR	0.0%	OXY	0.0%
10.0	MSFT	0.0%	MS	0.0%
10.0	MOS	0.0%	MRK	0.0%
10.0	MRK	0.0%	MOS	0.0%
10.0	LW	0.0%	MNST	0.0%
10.0	LVS	0.0%	META	0.0%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	CPRT	-17.07%	CPRT	-36.59%
21.0	CMG	-14.63%	PCG	-9.76%
21.0	PCG	-4.88%	CMG	-7.32%
21.0	KALU	0.0%	OXY	0.0%
21.0	OXY	0.0%	ORLY	0.0%
21.0	ORLY	0.0%	ORCL	0.0%
21.0	ORCL	0.0%	ON	0.0%
21.0	ON	0.0%	NWL	0.0%
21.0	NWL	0.0%	NVS	0.0%
21.0	NVS	0.0%	MSI	0.0%
21.0	NVDA	0.0%	NFLX	0.0%
21.0	NFLX	0.0%	NEM	0.0%
21.0	NEM	0.0%	NAVI	0.0%
21.0	MUB	0.0%	MUB	0.0%
21.0	MU	0.0%	MU	0.0%
21.0	MSTR	0.0%	MSTR	0.0%
21.0	MSI	0.0%	NVDA	0.0%
21.0	JPM	0.0%	MSFT	0.0%
21.0	MSFT	0.0%	MRK	0.0%
21.0	JAZZ	0.0%	JPM	0.0%
21.0	MOS	0.0%	KALU	0.0%
21.0	MNST	0.0%	KEY	0.0%
21.0	META	0.0%	KHC	0.0%
21.0	LW	0.0%	LEN	0.0%
21.0	LVS	0.0%	LLY	0.0%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	TRGP	-8.03%	TMUS	-4.42%
1.0	PHM	-7.23%	TRGP	-4.42%
1.0	GLD	-6.02%	THC	-4.02%
1.0	NVDA	-6.02%	QQQ	-4.02%
1.0	PCG	-5.62%	GS	-4.02%
1.0	LEN	-5.22%	HLT	-4.02%
1.0	SPY	-5.22%	PCG	-4.02%
1.0	TMUS	-5.22%	IRM	-3.61%
1.0	IRM	-4.82%	SPY	-3.21%
1.0	MS	-4.82%	PEP	-3.21%
1.0	CAH	-4.82%	HSBC	-3.21%
1.0	THC	-4.82%	VCSH	-3.21%
1.0	HSBC	-4.82%	NVDA	-3.21%
1.0	HLT	-4.42%	CAH	-2.81%
1.0	HYG	-4.02%	MSI	-2.81%
1.0	VCSH	-4.02%	GLD	-2.81%
1.0	AZN	-4.02%	MRK	-2.81%
1.0	GS	-4.02%	VNO	-2.81%
1.0	VNO	-4.02%	JPM	-2.81%
1.0	X	-3.67%	X	-2.75%
1.0	T	-3.61%	RIO	-2.41%
1.0	QQQ	-3.61%	KHC	-2.41%
1.0	LUMN	-3.21%	MNST	-2.41%
1.0	MOS	-3.21%	MS	-2.41%
1.0	MSI	-3.21%	LUMN	-2.41%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	TRGP	-10.83%	PCG	-7.5%
10.0	LEN	-8.33%	ABBV	-6.67%
10.0	PHM	-7.92%	TRGP	-6.25%
10.0	NVDA	-7.5%	AZN	-5.83%
10.0	IRM	-7.5%	BBY	-5.42%
10.0	MSI	-7.08%	BAC	-4.58%
10.0	PCG	-7.08%	MUB	-4.18%
10.0	GS	-6.25%	MRK	-4.17%
10.0	HON	-6.25%	CPRT	-4.17%
10.0	HD	-5.83%	CSTM	-4.17%
10.0	TMUS	-5.83%	NWL	-4.17%
10.0	AAPL	-5.83%	VFC	-4.17%
10.0	CSCO	-5.83%	WDC	-4.17%
10.0	COST	-5.83%	JPM	-3.75%
10.0	SPY	-5.83%	FIS	-3.75%
10.0	CPRT	-5.42%	SPY	-3.75%
10.0	QQQ	-5.0%	HLT	-3.75%
10.0	LVS	-5.0%	COST	-3.75%
10.0	BAC	-5.0%	AAPL	-3.75%
10.0	HYG	-4.58%	XOM	-3.75%
10.0	THC	-4.58%	ISRG	-3.75%
10.0	JPM	-4.58%	LNC	-3.33%
10.0	DHI	-4.58%	LVS	-3.33%
10.0	AZN	-4.58%	HSBC	-3.33%
10.0	USB	-4.17%	MS	-3.33%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	LVS	-10.48%	PCG	-10.92%
21.0	IRM	-9.17%	CPRT	-7.86%
21.0	TRGP	-8.73%	VFC	-6.99%
21.0	CPRT	-8.73%	HLT	-6.99%
21.0	ISRG	-8.3%	AZN	-6.99%
21.0	TEVA	-7.86%	TEVA	-5.68%
21.0	FIS	-7.86%	LVS	-5.24%
21.0	COST	-7.42%	FRA	-5.24%
21.0	MSI	-7.42%	JAZZ	-4.8%
21.0	LEN	-7.42%	WDC	-4.37%
21.0	SPY	-6.99%	JPM	-3.93%
21.0	ABBV	-6.99%	CCL	-3.93%
21.0	QQQ	-6.55%	IRM	-3.93%
21.0	AMZN	-6.55%	MRK	-3.93%
21.0	PCG	-6.11%	ABBV	-3.93%
21.0	PHM	-6.11%	NWL	-3.49%
21.0	HD	-5.68%	OXY	-3.49%
21.0	FRA	-5.68%	ISRG	-3.49%
21.0	MS	-5.68%	COST	-3.06%
21.0	TMUS	-5.24%	LEN	-3.06%
21.0	TFC	-5.24%	NVS	-2.62%
21.0	ACGL	-4.8%	MSI	-2.62%
21.0	XOM	-4.8%	FIS	-2.62%
21.0	CMG	-4.8%	TRGP	-2.62%
21.0	LNC	-4.37%	SPY	-2.18%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	LEN	-29.41%	PCG	-16.58%
63.0	IRM	-17.65%	VFC	-9.63%
63.0	CCL	-11.76%	AZN	-8.02%
63.0	TEVA	-11.76%	CNC	-4.28%
63.0	AZN	-11.76%	IRM	-4.28%
63.0	DHI	-11.23%	HCA	-2.14%
63.0	ACGL	-9.63%	UNH	-2.14%
63.0	NVS	-9.09%	TEVA	-1.6%
63.0	CPRT	-8.56%	LVS	-1.6%
63.0	MSI	-8.02%	FRA	-1.07%
63.0	PHM	-8.02%	AAPL	-1.07%
63.0	PWR	-7.49%	CCL	-0.53%
63.0	FIS	-7.49%	SPY	-0.53%
63.0	TRGP	-6.95%	NAVI	0.0%
63.0	FRA	-6.95%	NEM	0.0%
63.0	BAC	-5.88%	NFLX	0.0%
63.0	PCG	-5.35%	LEN	0.0%
63.0	CMG	-4.81%	KALU	0.0%
63.0	SPY	-4.81%	NVS	0.0%
63.0	CYH	-3.74%	NWL	0.0%
63.0	MUB	-2.69%	ORCL	0.0%
63.0	HCA	-2.67%	ORLY	0.0%
63.0	QQQ	-2.67%	MUB	0.0%
63.0	LVS	-2.14%	NVDA	0.0%
63.0	ORCL	-2.14%	MSTR	0.0%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	LEN	-45.16%	PCG	-11.29%
126.0	IRM	-31.45%	IRM	-4.84%
126.0	PCG	-27.42%	CNC	-4.84%
126.0	PHM	-9.68%	UNH	-1.61%
126.0	BBY	-8.87%	LEN	-0.81%
126.0	LVS	-8.87%	ORCL	0.0%
126.0	UNH	-8.06%	NWL	0.0%
126.0	MUB	-4.07%	NVS	0.0%
126.0	ACGL	-2.42%	NVDA	0.0%
126.0	CSTM	-2.42%	MSFT	0.0%
126.0	BHP	-1.61%	NEM	0.0%
126.0	TRGP	-1.61%	NAVI	0.0%
126.0	TXN	-0.81%	MUB	0.0%
126.0	FCX	-0.81%	MU	0.0%
126.0	NEM	0.0%	MSTR	0.0%
126.0	NVDA	0.0%	MSI	0.0%
126.0	NVS	0.0%	ORLY	0.0%
126.0	MU	0.0%	NFLX	0.0%
126.0	ORCL	0.0%	AA	0.0%
126.0	MSTR	0.0%	MNST	0.0%
126.0	NFLX	0.0%	META	0.0%
126.0	MSI	0.0%	LW	0.0%
126.0	ISRG	0.0%	LVS	0.0%
126.0	MOS	0.0%	LUMN	0.0%
126.0	MNST	0.0%	LQD	0.0%

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

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	MSTR	0.26%	GME	0.31%
1.0	GME	0.25%	NWL	0.2%
1.0	NWL	0.15%	UAA	0.16%
1.0	META	0.14%	GNRC	0.1%
1.0	NFLX	0.13%	INTU	0.1%
1.0	INTU	0.12%	BALL	0.09%
1.0	AAPL	0.1%	CZR	0.09%
1.0	AA	0.09%	AAPL	0.09%
1.0	HD	0.08%	AMC	0.08%
1.0	ZTS	0.07%	MSTR	0.07%
1.0	XOM	0.07%	CTLT	0.06%
1.0	CZR	0.06%	QCOM	0.05%
1.0	CDNS	0.06%	IEP	0.05%
1.0	BHP	0.06%	ZTS	0.05%
1.0	UAA	0.06%	AA	0.04%
1.0	B	0.05%	HD	0.04%
1.0	VFC	0.05%	CMA	0.04%
1.0	AMZN	0.05%	SBUX	0.04%
1.0	ORCL	0.05%	FRA	0.03%
1.0	GNRC	0.05%	ON	0.03%
1.0	BA	0.05%	XOM	0.03%
1.0	FSUGY	0.04%	MU	0.03%
1.0	TFC	0.04%	BHP	0.03%
1.0	GWW	0.04%	SNY	0.03%
1.0	WDC	0.04%	LNC	0.03%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	GME	4.51%	MSTR	3.42%
10.0	MSTR	3.84%	GME	3.2%
10.0	META	1.32%	CTLT	1.11%
10.0	CTLT	1.13%	GNRC	0.92%
10.0	CZR	1.09%	MU	0.69%
10.0	UAA	1.06%	CMA	0.69%
10.0	NFLX	0.91%	AAPL	0.66%
10.0	MU	0.79%	UAA	0.64%
10.0	SLV	0.76%	CZR	0.61%
10.0	OXY	0.71%	AA	0.54%
10.0	AAPL	0.7%	WDC	0.54%
10.0	TEVA	0.68%	INTU	0.5%
10.0	ORCL	0.62%	IEP	0.46%
10.0	INTU	0.61%	XOM	0.44%
10.0	INTC	0.57%	INTC	0.43%
10.0	HD	0.56%	META	0.36%
10.0	AA	0.56%	SLV	0.35%
10.0	AMZN	0.54%	ABBV	0.33%
10.0	BA	0.54%	CVS	0.3%
10.0	XOM	0.49%	LNC	0.3%
10.0	SNY	0.46%	KEY	0.29%
10.0	GNRC	0.45%	CSTM	0.28%
10.0	GOOGL	0.45%	FSUGY	0.28%
10.0	WDC	0.39%	ZTS	0.28%
10.0	ABBV	0.36%	QCOM	0.28%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	MSTR	10.67%	MSTR	8.34%
21.0	GME	6.98%	GME	6.16%
21.0	META	4.44%	CTLT	2.74%
21.0	CTLT	2.68%	META	1.86%
21.0	NFLX	2.51%	AA	1.73%
21.0	TEVA	2.16%	GNRC	1.55%
21.0	UAA	1.93%	UAA	1.45%
21.0	MU	1.79%	NFLX	1.38%
21.0	CZR	1.59%	IEP	1.31%
21.0	ORCL	1.58%	CMA	1.21%
21.0	AA	1.44%	XOM	1.13%
21.0	AMZN	1.36%	KALU	1.03%
21.0	SLV	1.25%	INTC	1.01%
21.0	WDC	1.18%	CZR	0.97%
21.0	INTU	1.18%	CLF	0.93%
21.0	INTC	1.13%	INTU	0.86%
21.0	GNRC	1.09%	MU	0.85%
21.0	OXY	1.07%	CSTM	0.77%
21.0	XOM	0.98%	WDC	0.75%
21.0	HD	0.97%	FSUGY	0.74%
21.0	AAPL	0.96%	ZTS	0.72%
21.0	KALU	0.94%	CVS	0.7%
21.0	GOOGL	0.93%	LUMN	0.67%
21.0	SBUX	0.89%	SBUX	0.59%
21.0	KEY	0.87%	ABBV	0.55%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	MSTR	21.27%	META	10.69%
63.0	META	14.82%	CTLT	10.61%
63.0	CTLT	11.29%	MSTR	8.67%
63.0	NFLX	10.42%	GME	4.87%
63.0	WDC	6.02%	CMA	4.62%
63.0	GME	5.81%	KALU	3.66%
63.0	ORCL	5.18%	IEP	3.07%
63.0	CMA	4.92%	WDC	3.06%
63.0	GNRC	3.72%	AMZN	2.64%
63.0	KALU	3.4%	INTC	2.51%
63.0	SLV	3.14%	GNRC	2.44%
63.0	TEVA	3.06%	CZR	2.24%
63.0	UAA	2.84%	NEM	2.04%
63.0	INTU	2.74%	WRK	2.02%
63.0	XOM	2.72%	BXP	1.95%
63.0	BA	2.57%	NFLX	1.91%
63.0	WRK	2.52%	CVS	1.89%
63.0	HD	2.51%	XOM	1.84%
63.0	CZR	2.43%	GILD	1.81%
63.0	GILD	2.41%	UAA	1.72%
63.0	SBUX	2.39%	ZTS	1.69%
63.0	GOOGL	2.12%	USB	1.57%
63.0	AAPL	2.05%	GOOGL	1.49%
63.0	AMD	1.87%	CYH	1.47%
63.0	NEM	1.86%	SNY	1.43%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	MSTR	68.16%	META	30.4%
126.0	META	39.55%	MSTR	22.54%
126.0	NFLX	27.6%	AMZN	8.33%
126.0	ORCL	9.69%	NFLX	8.02%
126.0	INTU	8.78%	AVGO	7.42%
126.0	AVGO	8.5%	GILD	7.15%
126.0	GME	8.09%	GOOGL	6.46%
126.0	GILD	7.58%	IEP	5.78%
126.0	TEVA	7.31%	BA	5.76%
126.0	BA	7.27%	LLY	5.43%
126.0	AMD	7.25%	INTU	5.35%
126.0	LVS	6.59%	WRK	5.32%
126.0	CTLT	6.59%	TEVA	5.07%
126.0	LEN	6.26%	ISRG	4.6%
126.0	XOM	6.05%	GME	4.59%
126.0	ISRG	5.65%	LVS	4.32%
126.0	AMZN	5.39%	AMD	3.89%
126.0	WRK	5.06%	TSLA	3.86%
126.0	GOOGL	5.01%	XOM	3.74%
126.0	SLV	4.96%	ORCL	3.71%
126.0	AAPL	4.95%	CSTM	3.54%
126.0	WDC	4.41%	KALU	3.5%
126.0	GNRC	4.38%	CTLT	3.44%
126.0	ADBE	3.82%	B	3.23%
126.0	MSI	3.64%	TMUS	3.11%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
252.0	MSTR	203.55%	META	51.28%
252.0	META	100.01%	MSTR	40.1%
252.0	NFLX	69.69%	AMZN	34.88%
252.0	AVGO	35.97%	AVGO	32.9%
252.0	AMZN	35.6%	VST	29.32%
252.0	INTU	31.74%	INTU	29.06%
252.0	ORCL	30.65%	ISRG	25.92%
252.0	VST	27.02%	NFLX	24.7%
252.0	ISRG	26.26%	ORCL	21.72%
252.0	TEVA	23.52%	GOOGL	20.62%
252.0	AMD	20.0%	GILD	16.11%
252.0	LLY	19.61%	TDG	14.3%
252.0	GOOGL	19.29%	COST	12.49%
252.0	WDC	19.01%	TEVA	12.34%
252.0	GILD	18.79%	IEP	11.88%
252.0	LEN	18.42%	TMUS	11.69%
252.0	GNRC	18.13%	LEN	11.24%
252.0	CTLT	18.05%	MSI	10.85%
252.0	GME	16.88%	LW	10.08%
252.0	MSI	16.77%	QQQ	9.35%
252.0	EXPE	16.63%	CAH	9.06%
252.0	BA	16.2%	THC	8.73%
252.0	TSLA	14.61%	WRK	8.43%
252.0	TDG	14.58%	HD	8.3%
252.0	AMAT	11.67%	GWW	8.14%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	CDNS	1.2%	CDNS	1.25%
1.0	NVDA	0.87%	CYH	0.97%
1.0	CYH	0.72%	CMG	0.9%
1.0	META	0.57%	NVDA	0.73%
1.0	LW	0.52%	LUMN	0.6%
1.0	AMD	0.49%	CHTR	0.53%
1.0	TDG	0.42%	BHC	0.45%
1.0	LUMN	0.42%	TDG	0.44%
1.0	THC	0.27%	NWL	0.43%
1.0	RIO	0.27%	BBY	0.33%
1.0	VFC	0.25%	GT	0.3%
1.0	SLV	0.25%	TEVA	0.26%
1.0	SNY	0.24%	THC	0.26%
1.0	GNRC	0.23%	WFC	0.25%
1.0	GT	0.21%	CPRT	0.25%
1.0	TEVA	0.19%	KALU	0.24%
1.0	MSFT	0.19%	SNY	0.23%
1.0	USB	0.19%	VFC	0.21%
1.0	CPRT	0.19%	TRGP	0.2%
1.0	MNST	0.18%	CAH	0.18%
1.0	KALU	0.18%	ELAN	0.18%
1.0	CAH	0.17%	USB	0.18%
1.0	TRGP	0.17%	NFLX	0.18%
1.0	ELAN	0.16%	ZION	0.17%
1.0	FSUGY	0.16%	MSTR	0.17%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	LW	11.24%	NVDA	10.33%
10.0	CDNS	9.87%	CMG	6.44%
10.0	NVDA	9.78%	AMC	6.07%
10.0	VST	6.44%	AAP	5.65%
10.0	AMC	6.07%	CYH	5.16%
10.0	CMG	5.69%	NAVI	4.38%
10.0	CYH	5.38%	PWR	4.07%
10.0	TSLA	5.34%	THC	3.78%
10.0	AMZN	4.85%	CNC	3.27%
10.0	TDG	4.65%	TSLA	3.19%
10.0	NEM	4.07%	FCX	3.07%
10.0	AAP	3.79%	MU	2.56%
10.0	PWR	3.62%	NFLX	2.26%
10.0	THC	3.24%	BBY	2.22%
10.0	AMD	2.48%	HCA	2.05%
10.0	QQQ	2.32%	TDG	2.04%
10.0	JPM	1.96%	CAH	1.93%
10.0	JAZZ	1.92%	INTC	1.62%
10.0	CMA	1.81%	COST	1.51%
10.0	CAH	1.61%	TRGP	1.47%
10.0	BHP	1.5%	GT	1.45%
10.0	MSFT	1.44%	CPRT	1.41%
10.0	TRGP	1.36%	BIIB	1.29%
10.0	SPY	1.27%	LUMN	1.15%
10.0	LUMN	1.25%	LW	1.1%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	AAP	1.76%	AMC	0.81%
1.0	BHC	0.65%	MU	0.45%
1.0	AMC	0.64%	AMZN	0.31%
1.0	MU	0.5%	CDNS	0.31%
1.0	META	0.5%	CPRT	0.25%
1.0	AMZN	0.36%	BHC	0.23%
1.0	QQQ	0.34%	SNY	0.21%
1.0	LW	0.33%	CHTR	0.21%
1.0	CDNS	0.33%	QQQ	0.2%
1.0	B	0.32%	AMGN	0.18%
1.0	TDG	0.27%	TSLA	0.17%
1.0	ON	0.26%	TDG	0.17%
1.0	AA	0.24%	PCG	0.16%
1.0	AMGN	0.22%	CMG	0.15%
1.0	AMD	0.19%	TEVA	0.12%
1.0	MSTR	0.19%	MSTR	0.11%
1.0	MSFT	0.19%	AA	0.11%
1.0	VST	0.19%	B	0.09%
1.0	SNY	0.16%	LW	0.09%
1.0	LUMN	0.16%	POST	0.09%
1.0	GNRC	0.15%	LUMN	0.09%
1.0	HLT	0.15%	CZR	0.08%
1.0	CPRT	0.14%	GSK	0.08%
1.0	IEP	0.12%	GT	0.08%
1.0	WFC	0.12%	EXPE	0.07%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	AAP	12.33%	AMC	7.45%
10.0	AMC	7.45%	MU	4.72%
10.0	WDC	6.01%	PWR	3.36%
10.0	MU	5.92%	CPRT	3.11%
10.0	QQQ	4.39%	WDC	2.53%
10.0	AMZN	4.09%	ON	2.06%
10.0	PWR	3.68%	AMGN	1.76%
10.0	TDG	3.34%	NVDA	1.47%
10.0	LW	3.28%	CZR	1.25%
10.0	ORCL	2.82%	NEM	1.21%
10.0	SBUX	2.79%	BHC	1.17%
10.0	MSFT	2.59%	GE	1.17%
10.0	ON	2.53%	QCOM	1.13%
10.0	AMGN	2.45%	PCG	0.99%
10.0	NEM	2.37%	TDG	0.98%
10.0	META	2.34%	FCX	0.95%
10.0	VST	2.33%	BBY	0.89%
10.0	CDNS	2.19%	AAP	0.83%
10.0	AA	2.13%	CYH	0.8%
10.0	CPRT	1.91%	MSFT	0.76%
10.0	BHC	1.88%	SBUX	0.72%
10.0	TSLA	1.87%	B	0.67%
10.0	GNRC	1.38%	EXPE	0.65%
10.0	B	1.33%	COST	0.6%
10.0	JAZZ	1.22%	IEP	0.58%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	AAP	22.94%	AAP	10.25%
21.0	MU	15.66%	ON	6.49%
21.0	WDC	14.9%	CPRT	6.38%
21.0	ON	12.04%	WDC	6.29%
21.0	PWR	9.7%	AMC	6.08%
21.0	QQQ	8.51%	IEP	5.38%
21.0	MSFT	7.88%	MU	5.37%
21.0	SBUX	7.81%	X	4.42%
21.0	TDG	6.88%	NEM	4.35%
21.0	NEM	6.69%	BHC	3.36%
21.0	ORCL	6.28%	AMGN	2.75%
21.0	AMC	6.08%	AA	2.46%
21.0	META	6.07%	BXP	2.41%
21.0	AMZN	5.96%	MSTR	2.36%
21.0	TXN	5.72%	ISRG	2.14%
21.0	GNRC	5.39%	CZR	2.13%
21.0	BHC	5.34%	SBUX	2.05%
21.0	AA	5.11%	ACGL	1.87%
21.0	AMGN	5.1%	PCG	1.84%
21.0	CPRT	3.97%	COST	1.8%
21.0	CDNS	3.69%	QCOM	1.8%
21.0	B	3.66%	PWR	1.52%
21.0	IEP	3.41%	MNST	1.11%
21.0	GOOGL	3.21%	B	1.1%
21.0	QCOM	3.05%	GNRC	1.01%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	BHC	0.37%	MU	0.26%
1.0	MSTR	0.33%	ADBE	0.16%
1.0	GME	0.31%	PRGO	0.14%
1.0	PRGO	0.28%	MSTR	0.13%
1.0	AAP	0.27%	VFC	0.11%
1.0	AMZN	0.22%	QCOM	0.11%
1.0	VFC	0.2%	AMZN	0.11%
1.0	PWR	0.19%	IEP	0.11%
1.0	META	0.16%	GME	0.11%
1.0	MU	0.15%	PCG	0.1%
1.0	ELAN	0.14%	BIIB	0.09%
1.0	QCOM	0.14%	LEN	0.09%
1.0	SLV	0.14%	TEVA	0.09%
1.0	B	0.12%	CMCSA	0.09%
1.0	LNC	0.11%	MSFT	0.08%
1.0	ADBE	0.11%	NWL	0.08%
1.0	CDNS	0.11%	ABBV	0.07%
1.0	NWL	0.11%	ON	0.07%
1.0	LW	0.1%	LW	0.07%
1.0	LEN	0.09%	MRK	0.07%
1.0	PCG	0.09%	UNH	0.06%
1.0	NEM	0.09%	SNY	0.06%
1.0	ORCL	0.09%	SLV	0.06%
1.0	QQQ	0.08%	ELAN	0.06%
1.0	WDC	0.08%	CDNS	0.05%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	MSTR	4.82%	MSTR	5.42%
10.0	MU	3.72%	MU	3.52%
10.0	GME	3.22%	WDC	1.74%
10.0	META	1.96%	GME	1.66%
10.0	WDC	1.91%	IEP	1.33%
10.0	AMZN	1.83%	ABBV	1.19%
10.0	PWR	1.49%	LEN	1.1%
10.0	VFC	1.44%	CVS	1.1%
10.0	EXPE	1.23%	QCOM	0.96%
10.0	SLV	1.22%	PWR	0.96%
10.0	B	1.18%	VFC	0.87%
10.0	ABBV	1.14%	UAA	0.81%
10.0	MSFT	1.06%	BIIB	0.73%
10.0	BHC	1.04%	ELAN	0.68%
10.0	QQQ	1.0%	MRK	0.64%
10.0	NEM	0.98%	META	0.64%
10.0	ORCL	0.98%	DHI	0.59%
10.0	TEVA	0.97%	FCX	0.57%
10.0	UAA	0.9%	BBY	0.55%
10.0	INTC	0.84%	TEVA	0.54%
10.0	ELAN	0.81%	PCG	0.5%
10.0	AAP	0.8%	AA	0.5%
10.0	LEN	0.8%	AZN	0.49%
10.0	AMGN	0.74%	AMGN	0.47%
10.0	AA	0.72%	OXY	0.46%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	MSTR	13.56%	MSTR	13.65%
21.0	MU	7.93%	MU	5.42%
21.0	GME	5.73%	TSLA	3.51%
21.0	WDC	5.52%	GME	3.46%
21.0	META	4.27%	WDC	3.28%
21.0	PWR	4.07%	IEP	3.06%
21.0	TSLA	3.33%	LEN	2.48%
21.0	AMZN	3.31%	META	2.18%
21.0	EXPE	2.39%	CVS	2.03%
21.0	VFC	2.26%	ABBV	1.83%
21.0	ELAN	2.23%	UAA	1.75%
21.0	TEVA	2.12%	BIIB	1.69%
21.0	KALU	1.97%	VFC	1.59%
21.0	LEN	1.93%	DHI	1.59%
21.0	ORCL	1.9%	AA	1.5%
21.0	IEP	1.82%	PWR	1.47%
21.0	UAA	1.76%	ADBE	1.38%
21.0	B	1.73%	CSTM	1.35%
21.0	NEM	1.71%	AMGN	1.3%
21.0	SLV	1.68%	BBY	1.27%
21.0	AMGN	1.67%	AMC	1.25%
21.0	TXN	1.67%	BXP	1.24%
21.0	BHC	1.58%	IRM	1.23%
21.0	MSFT	1.58%	BUD	1.06%
21.0	AMAT	1.33%	QCOM	1.03%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	MSTR	25.97%	WDC	11.36%
63.0	WDC	20.59%	LEN	7.94%
63.0	TSLA	19.52%	MU	7.19%
63.0	MU	13.51%	MSTR	6.02%
63.0	KALU	10.2%	B	6.0%
63.0	ORCL	9.22%	CVS	5.79%
63.0	GME	8.89%	META	5.68%
63.0	CVS	8.27%	THC	5.59%
63.0	META	8.18%	KALU	4.91%
63.0	B	7.04%	BHC	4.9%
63.0	LEN	6.98%	UAA	4.65%
63.0	ELAN	6.7%	DHI	4.59%
63.0	AMAT	6.45%	PHM	4.52%
63.0	THC	6.3%	PCG	4.37%
63.0	EXPE	5.38%	GS	4.34%
63.0	GE	5.37%	NVDA	3.89%
63.0	BUD	5.11%	IRM	3.77%
63.0	AMC	4.98%	CYH	3.77%
63.0	IRM	4.88%	AMAT	3.61%
63.0	AA	4.81%	VFC	3.51%
63.0	DHI	4.72%	ABBV	3.18%
63.0	PHM	4.71%	CNC	3.1%
63.0	PWR	4.62%	AA	3.03%
63.0	GS	4.58%	CMA	2.95%
63.0	BA	4.58%	CZR	2.82%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	MSTR	31.9%	CVS	15.37%
126.0	CVS	18.2%	B	15.22%
126.0	NEM	17.94%	LEN	14.44%
126.0	B	16.17%	NEM	10.58%
126.0	TSLA	12.81%	PCG	10.09%
126.0	LEN	12.06%	META	9.43%
126.0	META	9.78%	AZO	7.86%
126.0	GILD	9.6%	IRM	7.31%
126.0	BA	9.11%	BBY	6.57%
126.0	PCG	8.51%	MSTR	6.46%
126.0	BUD	8.08%	TSLA	6.22%
126.0	AZO	7.54%	PHM	6.17%
126.0	PHM	7.42%	TEVA	5.9%
126.0	SLV	6.54%	NFLX	5.7%
126.0	IRM	6.32%	LVS	5.09%
126.0	ADBE	5.24%	ADBE	5.02%
126.0	TEVA	4.77%	GILD	4.6%
126.0	DHI	4.72%	DHI	4.4%
126.0	CSTM	4.61%	MSI	4.09%
126.0	EXPE	4.39%	CSTM	3.8%
126.0	ACGL	3.98%	CMG	3.31%
126.0	CHTR	3.92%	SLV	3.12%
126.0	CMG	3.76%	CNC	3.08%
126.0	TXN	3.65%	GS	3.01%
126.0	MSI	3.49%	BA	2.99%

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

All TMD: 1d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	SIVBQ	-1.1%	SIVBQ	-1.19%
1.0	SBNY	-0.61%	SBNY	-0.3%
1.0	TSLA	-0.17%	VST	-0.16%
1.0	FRCB	-0.16%	GBTC	-0.14%
1.0	VST	-0.15%	NVDA	-0.14%
1.0	CYH	-0.15%	TSLA	-0.1%
1.0	GBTC	-0.12%	GE	-0.08%
1.0	NVDA	-0.11%	CCL	-0.07%
1.0	ETRN	-0.09%	CAH	-0.07%
1.0	CSTM	-0.09%	LLY	-0.07%
1.0	T	-0.09%	X	-0.07%
1.0	FIS	-0.09%	TRGP	-0.07%
1.0	CCL	-0.08%	ETRN	-0.07%
1.0	LUMN	-0.08%	AVGO	-0.06%
1.0	CHTR	-0.08%	B	-0.06%
1.0	LLY	-0.07%	PWR	-0.06%
1.0	GE	-0.07%	PHM	-0.06%
1.0	ELAN	-0.07%	ACGL	-0.06%
1.0	GILD	-0.06%	FRCB	-0.06%
1.0	TRGP	-0.06%	CNC	-0.06%
1.0	PHM	-0.06%	FIS	-0.05%
1.0	X	-0.05%	LVS	-0.05%
1.0	WFC	-0.05%	T	-0.05%
1.0	GSK	-0.05%	GLD	-0.05%
1.0	AMAT	-0.04%	GILD	-0.04%

All TMD: 10d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	SBNY	-6.06%	SIVBQ	-3.67%
10.0	SIVBQ	-3.94%	SBNY	-2.79%
10.0	AMC	-1.49%	VST	-1.09%
10.0	TSLA	-1.1%	TSLA	-0.88%
10.0	FRCB	-0.93%	AVGO	-0.82%
10.0	CHTR	-0.73%	GBTC	-0.78%
10.0	VST	-0.72%	NVDA	-0.77%
10.0	GSK	-0.72%	X	-0.68%
10.0	NVDA	-0.72%	PHM	-0.57%
10.0	CCL	-0.66%	AMC	-0.56%
10.0	GBTC	-0.61%	TRGP	-0.56%
10.0	FIS	-0.55%	LLY	-0.51%
10.0	LLY	-0.55%	CCL	-0.49%
10.0	AAP	-0.5%	AAP	-0.47%
10.0	PHM	-0.5%	GE	-0.46%
10.0	TRGP	-0.49%	CMG	-0.46%
10.0	PRGO	-0.39%	PWR	-0.43%
10.0	X	-0.37%	ISRG	-0.43%
10.0	BIIB	-0.37%	GSK	-0.42%
10.0	BXP	-0.35%	ORLY	-0.42%
10.0	VZ	-0.34%	COST	-0.41%
10.0	ISRG	-0.34%	ACGL	-0.39%
10.0	CPRT	-0.33%	CPRT	-0.38%
10.0	TLT	-0.32%	CDNS	-0.38%
10.0	LUMN	-0.32%	THC	-0.38%

All TMD: 21d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	SBNY	-18.66%	SBNY	-10.24%
21.0	SIVBQ	-9.14%	SIVBQ	-5.7%
21.0	FRCB	-4.08%	AMC	-4.1%
21.0	AMC	-2.97%	NVDA	-1.97%
21.0	VST	-1.64%	VST	-1.84%
21.0	AAP	-1.59%	PHM	-1.28%
21.0	NVDA	-1.56%	X	-1.22%
21.0	GSK	-1.47%	ELAN	-1.14%
21.0	CCL	-1.36%	COST	-1.13%
21.0	X	-1.07%	AVGO	-1.12%
21.0	FIS	-0.93%	TRGP	-1.11%
21.0	LLY	-0.9%	CDNS	-1.1%
21.0	CHTR	-0.86%	LLY	-1.03%
21.0	VFC	-0.84%	PWR	-1.0%
21.0	PHM	-0.8%	ETRN	-0.97%
21.0	TSLA	-0.78%	FRCB	-0.96%
21.0	CYH	-0.78%	ORLY	-0.95%
21.0	TDG	-0.7%	GE	-0.94%
21.0	IRM	-0.67%	CMG	-0.87%
21.0	TRGP	-0.65%	TSLA	-0.86%
21.0	ACGL	-0.65%	HSBC	-0.86%
21.0	LW	-0.65%	GBTC	-0.82%
21.0	CPRT	-0.63%	TDG	-0.81%
21.0	VNO	-0.63%	ACGL	-0.79%
21.0	GLD	-0.62%	MSFT	-0.76%

All TMD: 63d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	SBNY	-71.61%	SBNY	-42.7%
63.0	SIVBQ	-40.79%	SIVBQ	-33.39%
63.0	FRCB	-26.06%	FRCB	-16.44%
63.0	AMC	-15.34%	AMC	-11.6%
63.0	AAP	-7.78%	PHM	-3.99%
63.0	VFC	-5.71%	TRGP	-3.01%
63.0	NVDA	-4.2%	GBTC	-2.88%
63.0	ON	-3.16%	NVDA	-2.84%
63.0	VNO	-2.83%	VST	-2.84%
63.0	GSK	-2.57%	CDNS	-2.73%
63.0	UNH	-2.43%	CPRT	-2.64%
63.0	PHM	-2.26%	GE	-2.64%
63.0	FIS	-2.22%	PWR	-2.63%
63.0	PWR	-2.14%	DHI	-2.4%
63.0	GBTC	-2.13%	COST	-2.33%
63.0	CHTR	-2.11%	CHTR	-2.24%
63.0	VST	-1.98%	JPM	-2.12%
63.0	TSLA	-1.96%	ORLY	-1.95%
63.0	CPRT	-1.89%	GWW	-1.79%
63.0	TLT	-1.76%	IRM	-1.77%
63.0	CCL	-1.71%	GLD	-1.69%
63.0	BIIB	-1.44%	MNST	-1.64%
63.0	TRGP	-1.41%	MSFT	-1.57%
63.0	MSFT	-1.35%	PCG	-1.57%
63.0	X	-1.32%	ACGL	-1.55%

All TMD: 126d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	SBNY	-117.09%	SBNY	-87.54%
126.0	SIVBQ	-87.07%	SIVBQ	-68.1%
126.0	FRCB	-66.29%	FRCB	-52.98%
126.0	AMC	-24.87%	AMC	-14.3%
126.0	VFC	-15.83%	AAP	-8.49%
126.0	AAP	-12.17%	CHTR	-7.22%
126.0	BHC	-7.38%	PHM	-6.89%
126.0	PHM	-6.77%	JPM	-5.41%
126.0	PWR	-5.83%	GE	-5.4%
126.0	CCL	-4.82%	CPRT	-5.37%
126.0	JPM	-4.53%	TRGP	-5.26%
126.0	CPRT	-4.49%	CDNS	-4.42%
126.0	ELAN	-4.12%	VFC	-4.41%
126.0	THC	-3.91%	AA	-4.19%
126.0	TRGP	-3.81%	MS	-4.1%
126.0	CHTR	-3.75%	PWR	-4.03%
126.0	JAZZ	-3.31%	ACGL	-4.0%
126.0	IEP	-3.24%	THC	-3.54%
126.0	MS	-3.22%	VST	-3.35%
126.0	GSK	-3.14%	NVDA	-3.06%
126.0	NWL	-3.06%	FIS	-2.94%
126.0	TLT	-2.77%	GS	-2.73%
126.0	MOS	-2.64%	PCG	-2.55%
126.0	LNC	-2.5%	DHI	-2.52%
126.0	HLT	-2.45%	MOS	-2.49%

All TMD: 252d

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

Period examined: All model dates from 2022-01-31 through 2025-07-31

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
252.0	SBNY	-169.28%	SBNY	-93.43%
252.0	SIVBQ	-123.39%	SIVBQ	-72.45%
252.0	FRCB	-94.22%	FRCB	-49.57%
252.0	AMC	-47.08%	AAP	-30.92%
252.0	AAP	-37.7%	AMC	-18.56%
252.0	VFC	-19.04%	BIIB	-13.87%
252.0	BIIB	-17.05%	VFC	-11.16%
252.0	AA	-13.63%	AA	-10.74%
252.0	PHM	-12.76%	OXY	-9.39%
252.0	IEP	-12.03%	CHTR	-9.21%
252.0	OXY	-11.17%	FIS	-7.63%
252.0	NWL	-9.55%	JPM	-7.52%
252.0	UAA	-9.12%	CPRT	-6.86%
252.0	BHC	-8.78%	LLY	-6.71%
252.0	MOS	-8.44%	JAZZ	-6.37%
252.0	CHTR	-7.96%	MS	-6.11%
252.0	JPM	-7.65%	PHM	-5.89%
252.0	PRGO	-7.37%	ACGL	-5.4%
252.0	PWR	-7.26%	TRGP	-5.22%
252.0	CVS	-6.69%	PWR	-5.15%
252.0	MS	-6.34%	KEY	-5.11%
252.0	CLF	-6.21%	ELAN	-4.69%
252.0	TLT	-6.06%	ZION	-4.4%
252.0	JAZZ	-5.98%	NWL	-4.34%
252.0	CCL	-5.54%	GS	-4.15%

P30D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	CLF	-1.45%	UNH	-1.19%
1.0	BUD	-1.16%	CLF	-0.96%
1.0	UNH	-1.03%	TXN	-0.6%
1.0	TXN	-0.99%	BUD	-0.48%
1.0	SBUX	-0.83%	QCOM	-0.47%
1.0	AMAT	-0.74%	VZ	-0.45%
1.0	TSLA	-0.72%	VST	-0.37%
1.0	UAA	-0.71%	DHI	-0.36%
1.0	MU	-0.69%	TSLA	-0.34%
1.0	AMZN	-0.46%	INTC	-0.33%
1.0	WDC	-0.43%	JPM	-0.32%
1.0	VZ	-0.41%	AMD	-0.31%
1.0	ADBE	-0.41%	CMCSA	-0.31%
1.0	ISRG	-0.4%	WDC	-0.28%
1.0	NAVI	-0.38%	LVS	-0.28%
1.0	CHTR	-0.31%	ORLY	-0.26%
1.0	LLY	-0.31%	META	-0.26%
1.0	ZTS	-0.26%	ZTS	-0.24%
1.0	QCOM	-0.25%	AVGO	-0.23%
1.0	AVGO	-0.23%	LNC	-0.22%
1.0	CMCSA	-0.22%	SBUX	-0.21%
1.0	GE	-0.2%	CMA	-0.2%
1.0	BIIB	-0.19%	LLY	-0.18%
1.0	ORLY	-0.17%	GE	-0.18%
1.0	CSTM	-0.17%	IEP	-0.17%

P30D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-07-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	UNH	-13.85%	UNH	-13.51%
10.0	TXN	-9.1%	DHI	-4.67%
10.0	CHTR	-7.6%	CHTR	-4.35%
10.0	BUD	-5.32%	CLF	-4.35%
10.0	CNC	-4.83%	ORLY	-3.15%
10.0	NAVI	-4.61%	CMCSA	-3.15%
10.0	CVS	-4.29%	ZTS	-3.04%
10.0	CMCSA	-3.53%	PEP	-2.78%
10.0	CLF	-2.85%	RIO	-2.67%
10.0	ZTS	-2.42%	TXN	-2.56%
10.0	MU	-2.31%	KHC	-2.16%
10.0	INTC	-2.3%	PCG	-1.99%
10.0	AMAT	-2.17%	VST	-1.98%
10.0	AVGO	-2.16%	GOOGL	-1.85%
10.0	KALU	-1.95%	GNRC	-1.64%
10.0	HCA	-1.82%	INTU	-1.62%
10.0	PCG	-1.76%	AVGO	-1.48%
10.0	RIO	-1.55%	BUD	-1.44%
10.0	ORLY	-1.51%	PHM	-1.43%
10.0	PHM	-1.51%	LVS	-1.38%
10.0	SBUX	-1.36%	WDC	-1.34%
10.0	GBTC	-1.35%	GBTC	-1.3%
10.0	GE	-1.1%	CDNS	-1.25%
10.0	HSBC	-1.09%	NWL	-1.19%
10.0	FSUGY	-1.0%	TMUS	-1.15%

P90D: 1d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	CNC	-0.92%	CNC	-0.75%
1.0	ZTS	-0.46%	ZTS	-0.42%
1.0	UAA	-0.43%	X	-0.39%
1.0	X	-0.42%	CCL	-0.36%
1.0	BUD	-0.37%	LVS	-0.34%
1.0	AMAT	-0.36%	VST	-0.28%
1.0	GME	-0.3%	AMD	-0.25%
1.0	UNH	-0.28%	UNH	-0.25%
1.0	NAVI	-0.23%	INTU	-0.25%
1.0	CCL	-0.23%	ORCL	-0.21%
1.0	WYNN	-0.21%	GBTC	-0.21%
1.0	LLY	-0.2%	WYNN	-0.2%
1.0	ELAN	-0.18%	NAVI	-0.2%
1.0	GBTC	-0.17%	UAA	-0.2%
1.0	MOS	-0.16%	CLF	-0.19%
1.0	LVS	-0.14%	DHI	-0.17%
1.0	CVS	-0.14%	JPM	-0.17%
1.0	MS	-0.13%	MOS	-0.17%
1.0	GE	-0.12%	LLY	-0.15%
1.0	ISRG	-0.11%	AVGO	-0.15%
1.0	PHM	-0.1%	GME	-0.14%
1.0	GS	-0.1%	GS	-0.13%
1.0	CHTR	-0.1%	BUD	-0.13%
1.0	HSBC	-0.1%	MS	-0.13%
1.0	BA	-0.08%	INTC	-0.12%

P90D: 10d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	CNC	-3.9%	VST	-3.65%
10.0	UNH	-3.42%	UNH	-3.32%
10.0	CVS	-1.89%	INTU	-2.17%
10.0	ADBE	-1.86%	ORCL	-2.15%
10.0	GBTC	-1.72%	CCL	-2.12%
10.0	CHTR	-1.49%	TSLA	-2.08%
10.0	LVS	-1.48%	LVS	-2.06%
10.0	AMAT	-1.12%	CLF	-2.04%
10.0	CCL	-1.1%	GBTC	-1.74%
10.0	MOS	-0.99%	CNC	-1.72%
10.0	BA	-0.93%	BA	-1.56%
10.0	MS	-0.92%	ADBE	-1.51%
10.0	CSCO	-0.92%	AMAT	-1.49%
10.0	HSBC	-0.9%	ZION	-1.49%
10.0	VZ	-0.88%	MOS	-1.42%
10.0	PHM	-0.8%	DHI	-1.31%
10.0	BALL	-0.79%	AMD	-1.26%
10.0	VFC	-0.73%	TFC	-1.19%
10.0	LLY	-0.67%	CSCO	-1.12%
10.0	NWL	-0.65%	PEP	-1.06%
10.0	ZTS	-0.61%	CHTR	-0.96%
10.0	CLF	-0.6%	AVGO	-0.96%
10.0	WYNN	-0.56%	KALU	-0.92%
10.0	BUD	-0.55%	MS	-0.92%
10.0	BBY	-0.53%	ORLY	-0.89%

P90D: 21d

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

Period examined: All model dates from 2025-07-31 through 2025-05-05

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	CNC	-11.09%	CNC	-11.74%
21.0	GME	-6.27%	ORCL	-7.84%
21.0	UNH	-6.21%	VST	-6.57%
21.0	ADBE	-6.09%	AMD	-6.08%
21.0	ZTS	-4.82%	CLF	-6.08%
21.0	TSLA	-3.87%	GME	-5.58%
21.0	CHTR	-3.73%	UNH	-5.5%
21.0	LVS	-3.7%	ZION	-4.6%
21.0	CLF	-3.23%	CHTR	-3.76%
21.0	NVDA	-3.11%	ZTS	-3.61%
21.0	GBTC	-2.67%	LVS	-3.48%
21.0	BA	-2.44%	MS	-3.4%
21.0	MS	-2.43%	TFC	-3.15%
21.0	PHM	-2.36%	GBTC	-3.11%
21.0	CSCO	-2.08%	INTU	-3.05%
21.0	HSBC	-1.79%	CSCO	-2.89%
21.0	CVS	-1.68%	BA	-2.81%
21.0	AMAT	-1.55%	FITB	-2.57%
21.0	BALL	-1.38%	TSLA	-2.54%
21.0	TFC	-1.32%	DHI	-2.5%
21.0	MOS	-1.28%	ADBE	-2.5%
21.0	NWL	-1.12%	WYNN	-2.44%
21.0	USB	-1.09%	HSBC	-2.22%
21.0	ELAN	-1.07%	AMAT	-2.19%
21.0	ORLY	-1.01%	GOOGL	-2.15%

P365D: 1d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	VST	-0.36%	VST	-0.27%
1.0	CSTM	-0.31%	CCL	-0.2%
1.0	AVGO	-0.26%	AVGO	-0.18%
1.0	TSLA	-0.2%	INTC	-0.15%
1.0	AMC	-0.19%	GBTC	-0.15%
1.0	NAVI	-0.18%	CNC	-0.15%
1.0	CMA	-0.17%	TSLA	-0.13%
1.0	CNC	-0.16%	CLF	-0.13%
1.0	CCL	-0.16%	NAVI	-0.12%
1.0	ISRG	-0.15%	HSBC	-0.11%
1.0	CLF	-0.14%	LVS	-0.11%
1.0	UAA	-0.12%	CAH	-0.11%
1.0	CYH	-0.12%	T	-0.1%
1.0	BUD	-0.12%	NFLX	-0.1%
1.0	CAH	-0.1%	X	-0.09%
1.0	HSBC	-0.09%	GE	-0.09%
1.0	MS	-0.09%	CMA	-0.09%
1.0	GLD	-0.08%	GLD	-0.09%
1.0	CVS	-0.08%	MOS	-0.08%
1.0	INTC	-0.08%	MS	-0.08%
1.0	TRGP	-0.08%	AMD	-0.08%
1.0	TMUS	-0.08%	CSCO	-0.08%
1.0	VNO	-0.08%	TRGP	-0.08%
1.0	PEP	-0.07%	JPM	-0.07%
1.0	MOS	-0.07%	TMUS	-0.07%

P365D: 10d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	AMC	-1.73%	VST	-1.99%
10.0	VST	-1.31%	CCL	-1.59%
10.0	CLF	-1.29%	GBTC	-1.43%
10.0	GBTC	-1.04%	AVGO	-1.4%
10.0	CSTM	-0.93%	CLF	-1.26%
10.0	GT	-0.85%	NFLX	-1.07%
10.0	GLD	-0.75%	CSCO	-1.06%
10.0	NFLX	-0.75%	T	-1.05%
10.0	CSCO	-0.72%	LVS	-1.05%
10.0	CNC	-0.72%	GT	-1.0%
10.0	HSBC	-0.69%	AAP	-0.89%
10.0	TRGP	-0.67%	MOS	-0.82%
10.0	T	-0.66%	HSBC	-0.78%
10.0	VZ	-0.63%	WYNN	-0.75%
10.0	GSK	-0.61%	ORLY	-0.72%
10.0	MOS	-0.59%	CMA	-0.71%
10.0	TMUS	-0.57%	GLD	-0.71%
10.0	BALL	-0.55%	TRGP	-0.7%
10.0	LVS	-0.55%	WFC	-0.68%
10.0	CCL	-0.55%	INTU	-0.67%
10.0	AVGO	-0.54%	CDNS	-0.65%
10.0	MS	-0.5%	CAH	-0.61%
10.0	CHTR	-0.48%	BMY	-0.59%
10.0	ISRG	-0.46%	CHTR	-0.58%
10.0	ON	-0.44%	MS	-0.55%

P365D: 21d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	VST	-4.16%	VST	-3.18%
21.0	CSTM	-2.17%	NFLX	-2.89%
21.0	CLF	-2.14%	CCL	-2.46%
21.0	GSK	-1.74%	T	-2.3%
21.0	CNC	-1.73%	ELAN	-2.3%
21.0	HSBC	-1.53%	HSBC	-2.26%
21.0	ZTS	-1.44%	WFC	-2.19%
21.0	NFLX	-1.44%	CSCO	-2.15%
21.0	T	-1.4%	GBTC	-2.02%
21.0	ON	-1.4%	WYNN	-1.98%
21.0	GLD	-1.36%	LVS	-1.69%
21.0	GT	-1.31%	GT	-1.68%
21.0	CSCO	-1.25%	MS	-1.53%
21.0	GBTC	-1.23%	MOS	-1.51%
21.0	MOS	-1.23%	CAH	-1.51%
21.0	LVS	-1.21%	CNC	-1.38%
21.0	TRGP	-1.13%	AVGO	-1.36%
21.0	TMUS	-1.07%	ORLY	-1.33%
21.0	CZR	-1.03%	MSFT	-1.27%
21.0	MNST	-1.02%	GLD	-1.2%
21.0	ORLY	-0.96%	TRGP	-1.13%
21.0	CAH	-0.85%	MNST	-1.06%
21.0	CMA	-0.83%	ORCL	-0.98%
21.0	COST	-0.8%	CLF	-0.97%
21.0	MS	-0.74%	INTU	-0.96%

P365D: 63d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	ON	-10.46%	WFC	-6.02%
63.0	UNH	-9.44%	GBTC	-5.82%
63.0	GBTC	-5.94%	T	-5.6%
63.0	CLF	-5.71%	CSCO	-5.4%
63.0	AAP	-5.26%	HSBC	-5.33%
63.0	GT	-5.04%	MOS	-4.84%
63.0	CSCO	-4.58%	ON	-4.16%
63.0	VST	-4.39%	CCL	-3.96%
63.0	GOOGL	-4.12%	NFLX	-3.65%
63.0	MOS	-4.12%	GT	-3.26%
63.0	MNST	-3.93%	MSFT	-3.21%
63.0	T	-3.78%	GOOGL	-3.2%
63.0	NFLX	-3.35%	X	-3.16%
63.0	HSBC	-3.31%	MNST	-3.15%
63.0	LVS	-3.14%	ORLY	-3.08%
63.0	CDNS	-3.0%	ZION	-3.01%
63.0	INTU	-2.98%	GNRC	-2.99%
63.0	GLD	-2.97%	GLD	-2.97%
63.0	ORLY	-2.95%	CAH	-2.83%
63.0	CNC	-2.66%	JPM	-2.73%
63.0	LW	-2.61%	WYNN	-2.59%
63.0	CAH	-2.44%	LW	-2.39%
63.0	TMUS	-2.4%	COST	-2.33%
63.0	AMZN	-2.17%	CDNS	-2.32%
63.0	MSFT	-2.16%	QQQ	-2.08%

P365D: 126d

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

Period examined: All model dates from 2025-07-31 through 2024-08-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	VFC	-19.99%	T	-10.32%
126.0	GNRC	-16.73%	GNRC	-9.25%
126.0	NWL	-14.36%	LW	-8.32%
126.0	CLF	-13.39%	CSCO	-8.16%
126.0	UAA	-12.9%	JPM	-7.95%
126.0	LW	-10.11%	ON	-7.93%
126.0	ON	-9.96%	HSBC	-6.54%
126.0	BHC	-9.88%	VFC	-6.49%
126.0	CNC	-8.3%	AA	-6.39%
126.0	LUMN	-8.29%	LUMN	-5.95%
126.0	CZR	-8.23%	BUD	-5.61%
126.0	T	-8.15%	MOS	-5.57%
126.0	JPM	-7.64%	CLF	-5.35%
126.0	CSCO	-6.55%	MS	-5.2%
126.0	BXP	-6.0%	ELAN	-4.48%
126.0	GBTC	-5.65%	BXP	-4.37%
126.0	GT	-5.07%	WFC	-4.32%
126.0	ORLY	-5.01%	COST	-4.16%
126.0	TMUS	-4.98%	ZTS	-4.15%
126.0	BMY	-4.96%	ORLY	-4.07%
126.0	BIIB	-4.51%	CAH	-3.66%
126.0	MS	-4.14%	X	-3.38%
126.0	X	-4.0%	CCL	-3.13%
126.0	WFC	-3.94%	MNST	-2.92%
126.0	MRK	-3.92%	QCOM	-2.8%

Appendix 5: Kupiec and Christoferson Tests for Sigma

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

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

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

Period examined: 2022-01-31 through 2025-07-31. Note that for horizon periods greater than 1d we exclude enough model dates to assure no overlap between observation periods.

Model	Pctile	Horizon	VaR_kStat	VaR_pValK	VaR_chrStat	VaR_pValChr
Sigma	95	1	169.59	0	7.42	0.01
Sigma	95	10	1.24	0.27	0.38	0.54
Sigma	95	21	38.43	0	0.3	0.59
Sigma	95	63	14.45	0	nan	0
Sigma	95	126	23.71	0	nan	0
Sigma	95	252	14.5	0	nan	0
Sigma	99	1	432.88	0	29.43	0
Sigma	99	10	45.9	0	0.4	0.53
Sigma	99	21	0.21	0.64	1.33	0.25
Sigma	99	63	0.1	0.75	1.2	0.27
Sigma	99	126	0.15	0.7	nan	0
Sigma	99	252	0.51	0.48	nan	0