VecViz Value At Risk (VaR) Performance Report

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1 November 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.

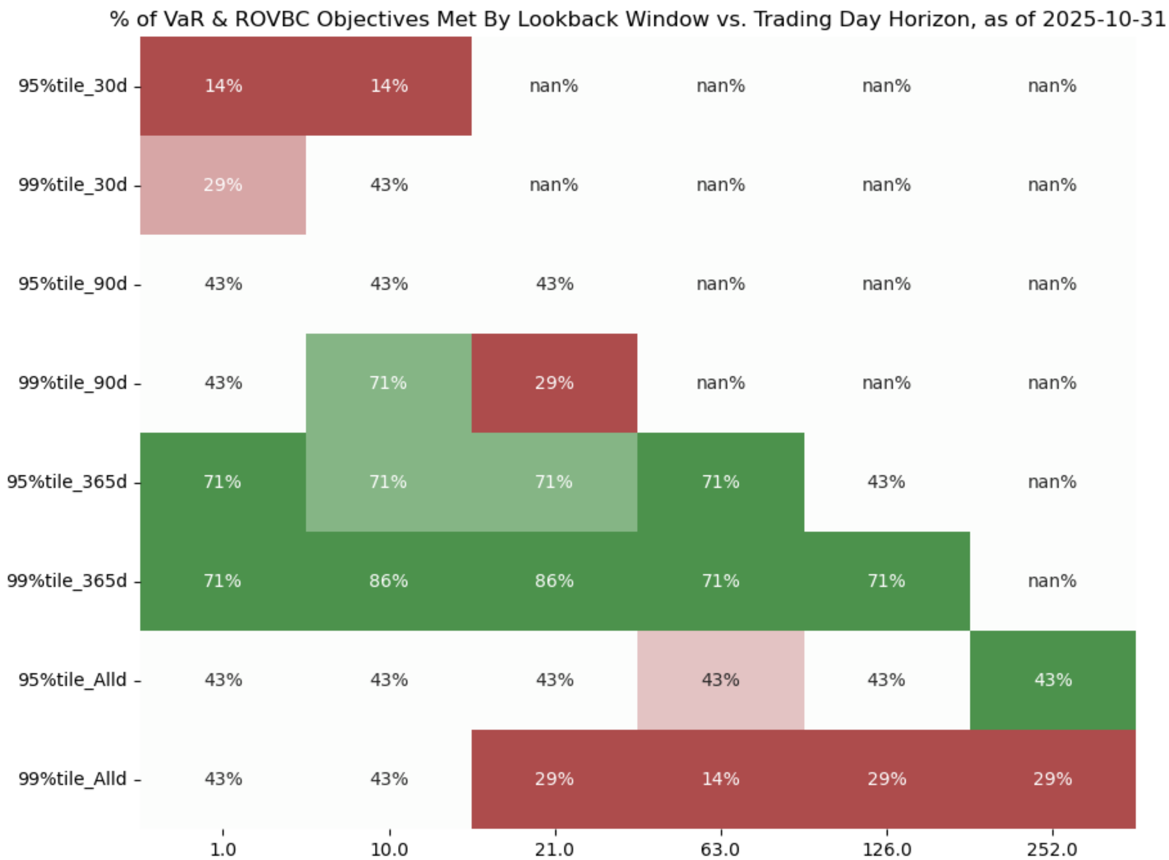
9) All analytics presented in this report assumes that prices are floored at $0.01/share.

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 2025-10-30 while 365D /90D/ 30D include the 365/90/30 days ended 2025-10-30, respectively.

Sigma Comparison Report Card:



Vector Model Statistical Testing Report Card:

The Kupiec Proportion of Failures test statistic (listed as 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 2025-10-30. Note that for horizon periods greater than 1d we exclude enough model dates to assure no overlap between observation periods.

Model	Pctile	Horizon	VaR_kStat	VaR_pValK	VaR_chrStat	VaR_pValChr
Vector	95	1	2.22	0.14	9.73	0
Vector	95	10	15.88	0	0.03	0.87
Vector	95	21	0.52	0.47	0.04	0.84
Vector	95	63	1.07	0.3	0.19	0.67
Vector	95	126	0.54	0.46	0.6	0.44
Vector	95	252	0.05	0.83	nan	0
Vector	99	1	86.67	0	27.03	0
Vector	99	10	17.02	0	0	0.96
Vector	99	21	5.28	0.02	1.1	0.29
Vector	99	63	2.14	0.14	0.08	0.78
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 2025-10-30.

VaR and ROVBC Criteria	Average Score(%)
1. Closer to Target VaR Breakage Than Sigma (i.e., smaller MAE)	65.62
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	56.25
3. Less Volatile VaR Breakage Across Tickers Than Sigma	3.12
4. Higher ROVBC Than Sigma	56.25
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	93.75
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	28.12
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	31.25
Overall Comparison to Sigma Average	47.77
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	87.5	50	66.67	75	50	50
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	100	75	50	0	25	0
3. Less Volatile VaR Breakage Across Tickers Than Sigma	0	12.5	0	0	0	0
4. Higher ROVBC Than Sigma	12.5	50	66.67	75	100	100
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	75	100	100	100	100	100
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	12.5	37.5	33.33	50	25	0
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	25	37.5	33.33	50	25	0
TotalScore	44.64	51.79	50	50	46.43	35.71

VaR and ROVBC Criteria Across Lookback Window	30D	90D	365D	AllD
1. Closer to Target VaR Breakage Than Sigma	25	100	70	58.33
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	75	50	70	41.67
3. Less Volatile VaR Breakage Across Tickers Than Sigma	25	0	0	0
4. Higher ROVBC Than Sigma	0	33.33	90	58.33
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	50	100	100	100
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	0	16.67	80	0
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	0	16.67	90	0
TotalScore	25	45.24	71.43	36.9

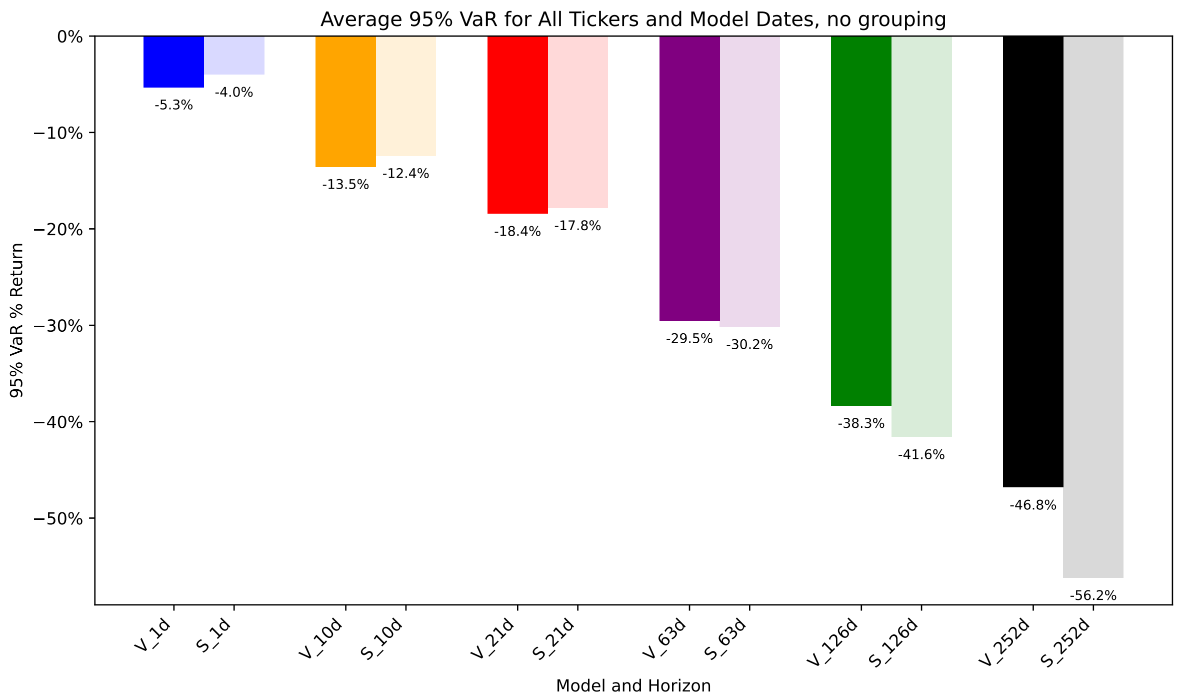
95% Value at Risk (VaR)

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.

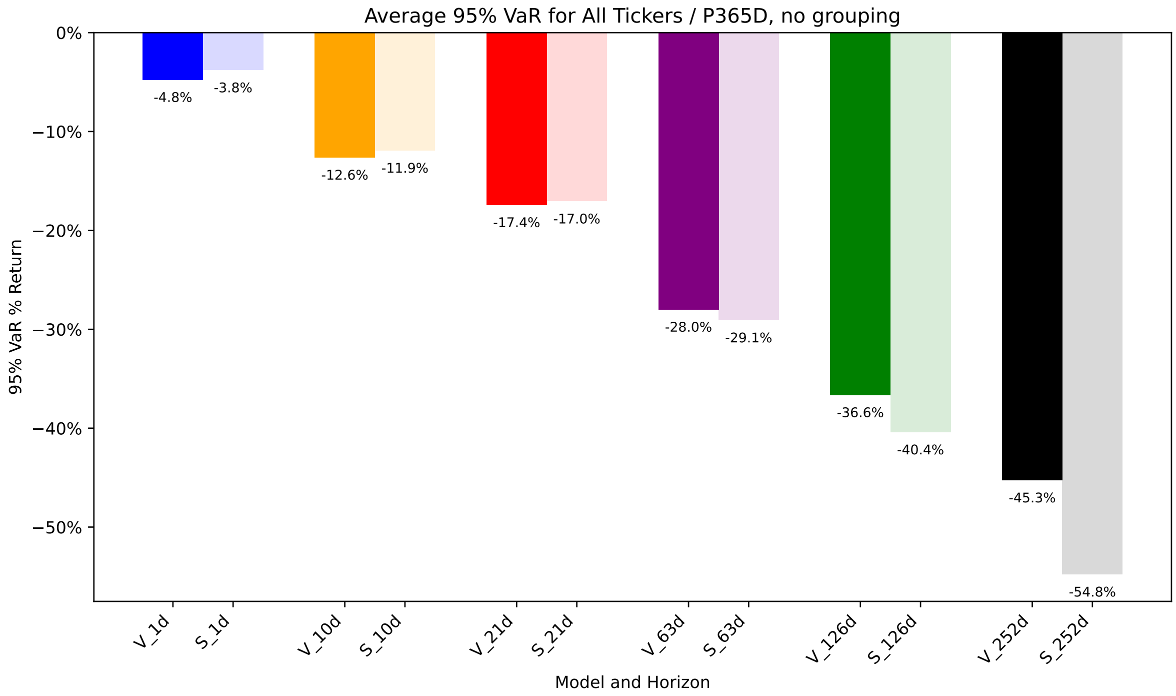
All Out of Sample Model Dates

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



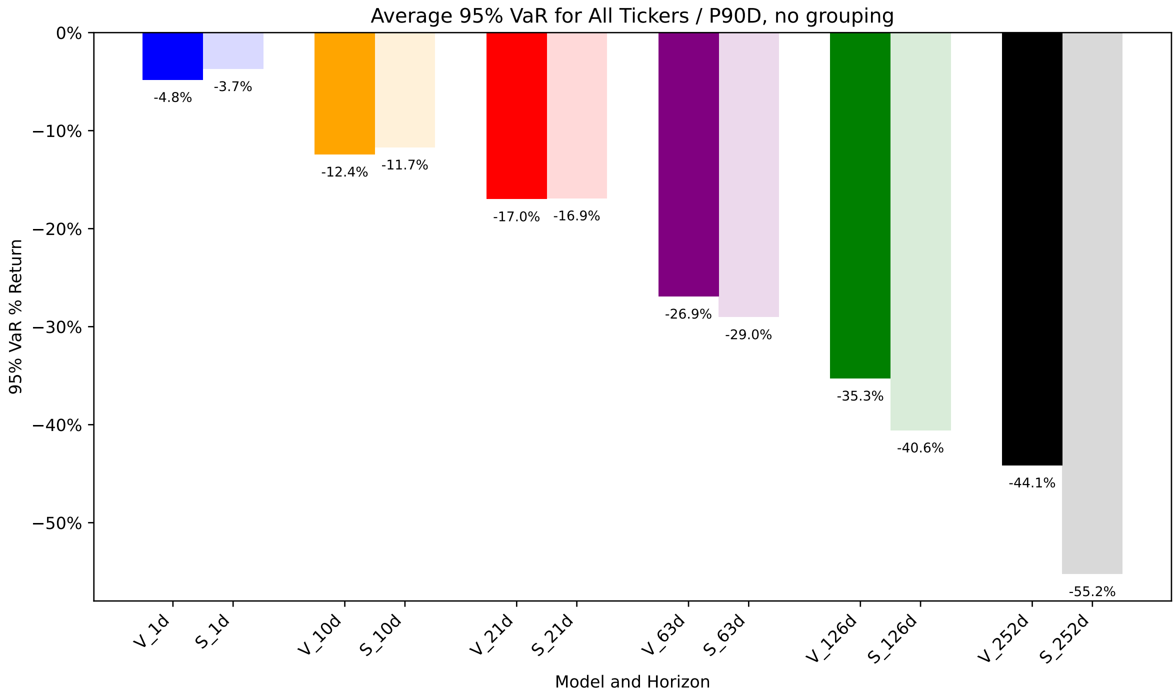
Prior 365 Calendar Days (P365D)

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



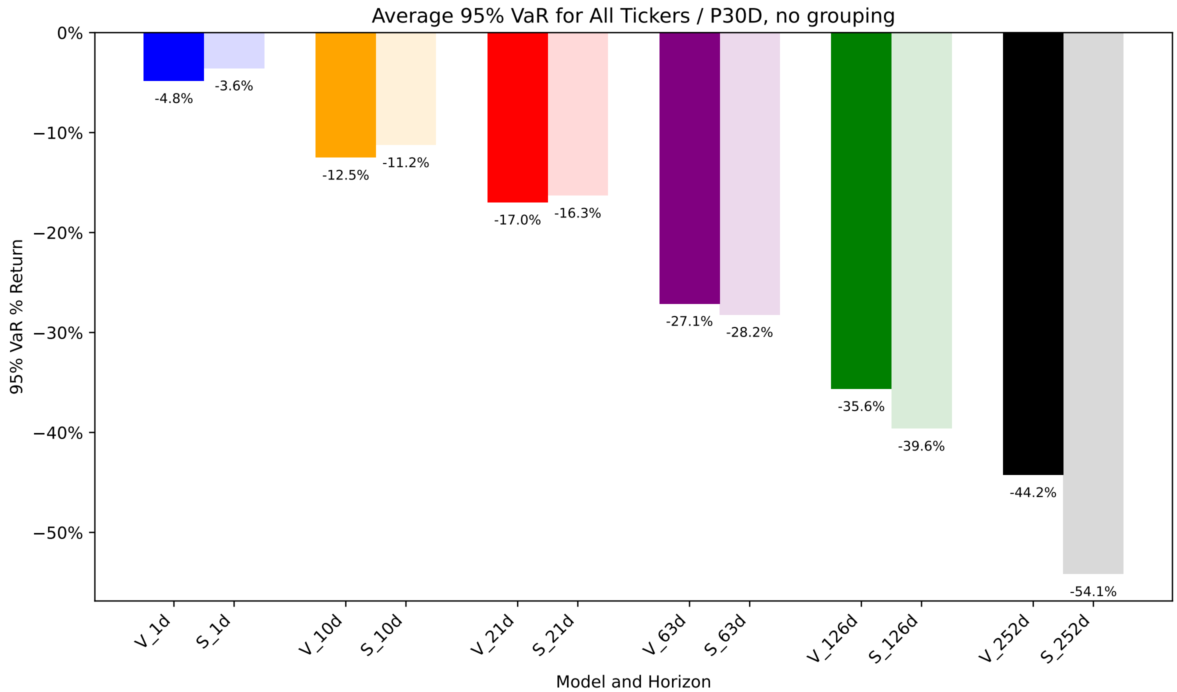
Prior 90 Calendar Days (P90D)

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



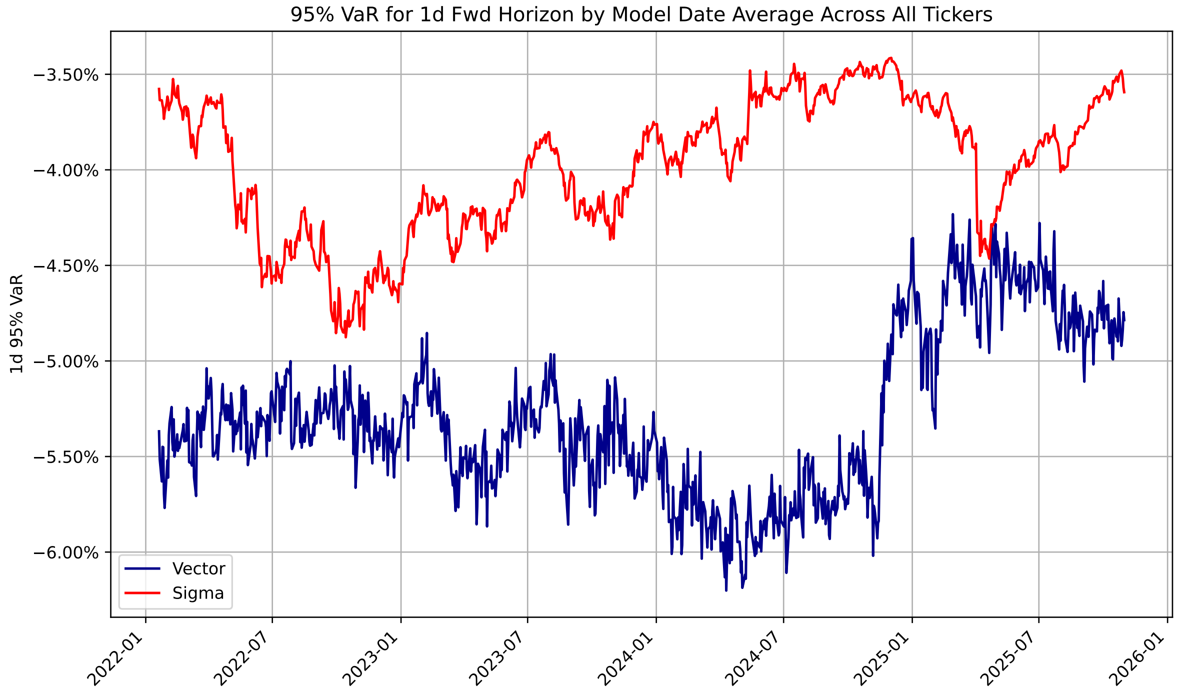
Prior 30 Calendar Days (P30D)

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

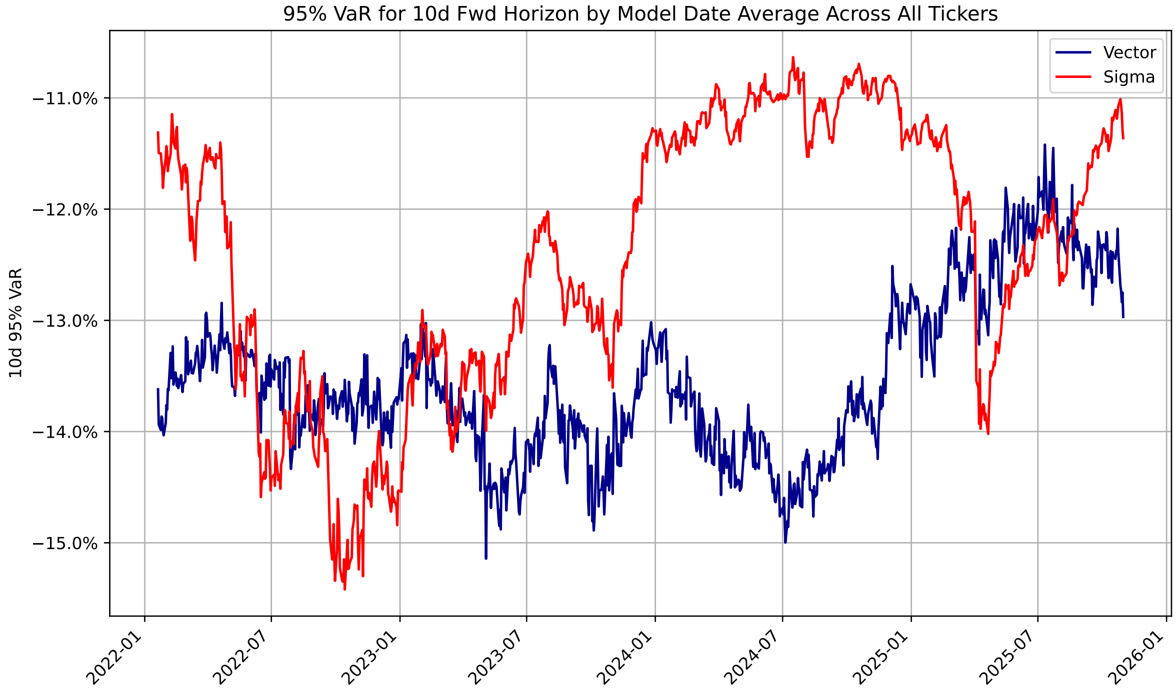


Daily Levels

1d Horizon

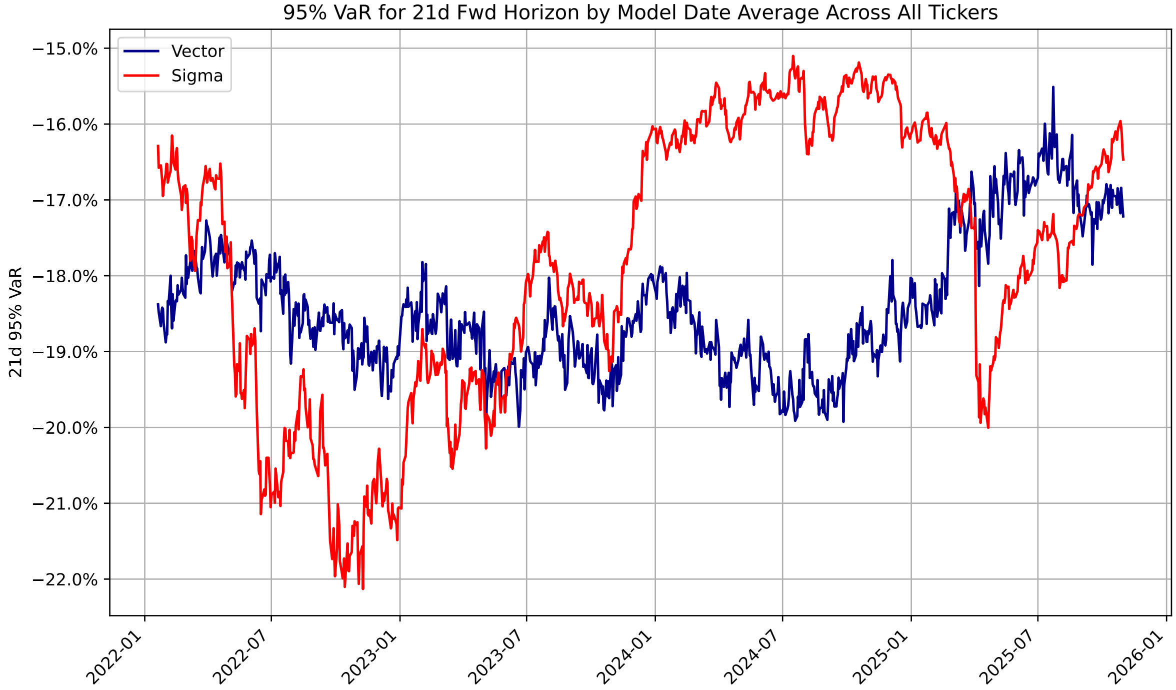


10d Horizon



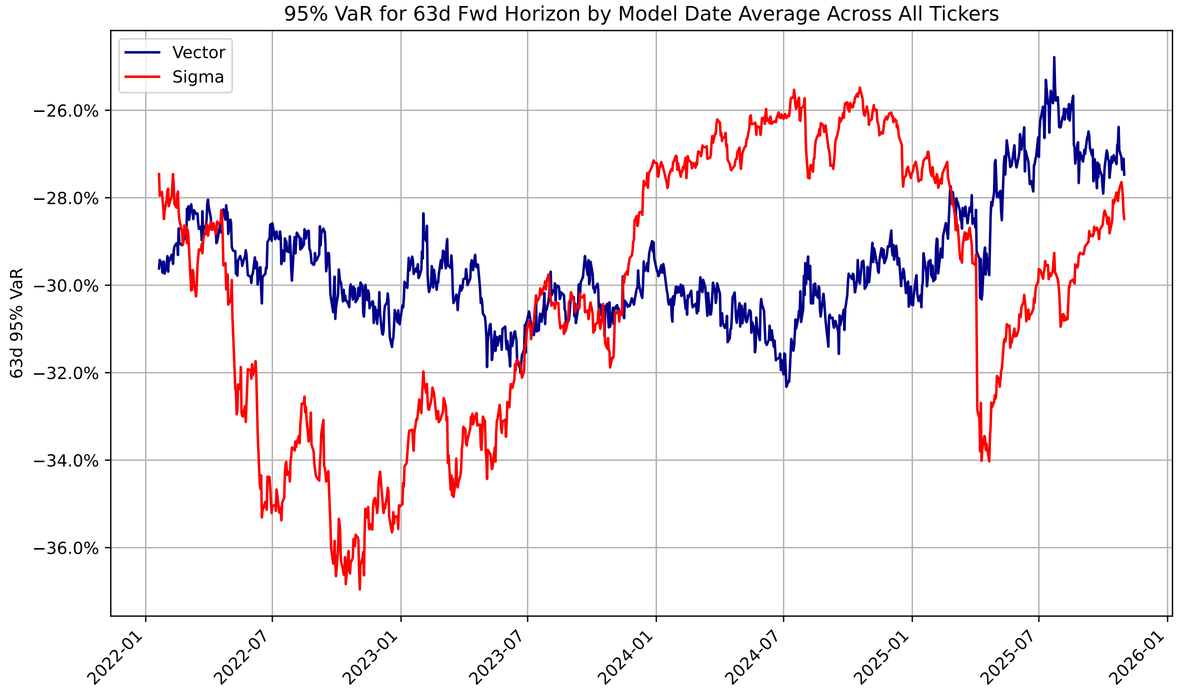
95% VaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 95% VaR
−11.0%
−12.0%
−13.0%
−14.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

21d Horizon

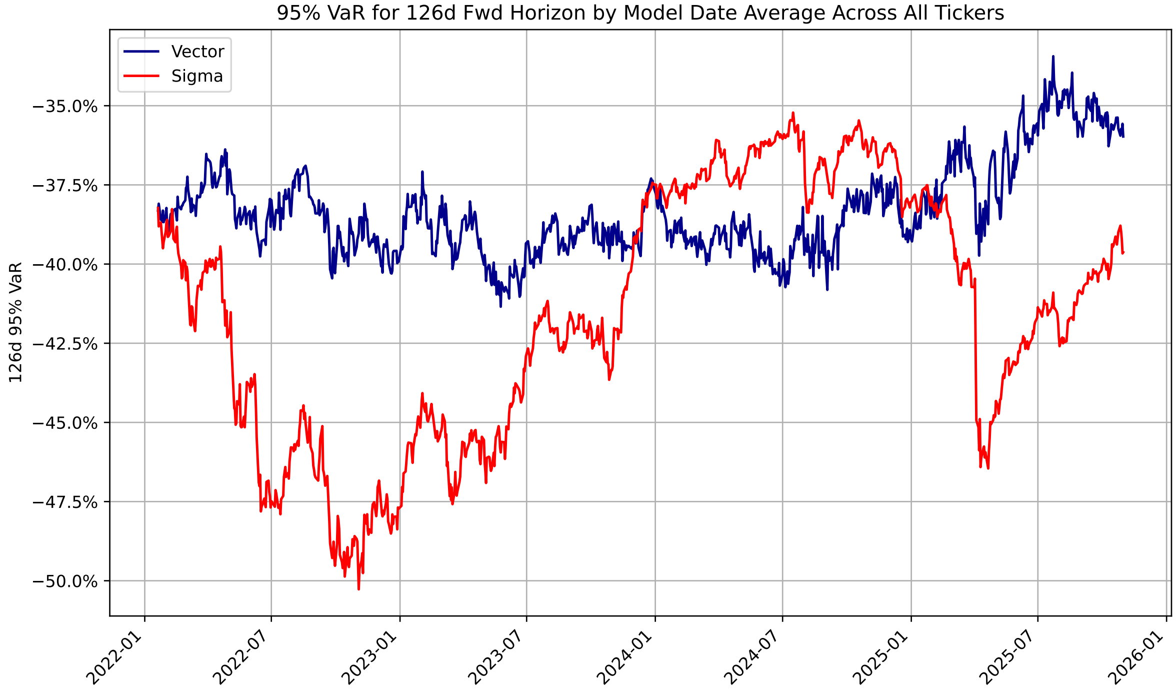


95% VaR for 21d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
21d 95% VaR
−15.0%
−16.0%
−17.0%
−18.0%
−19.0%
−20.0%
−21.0%
−22.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

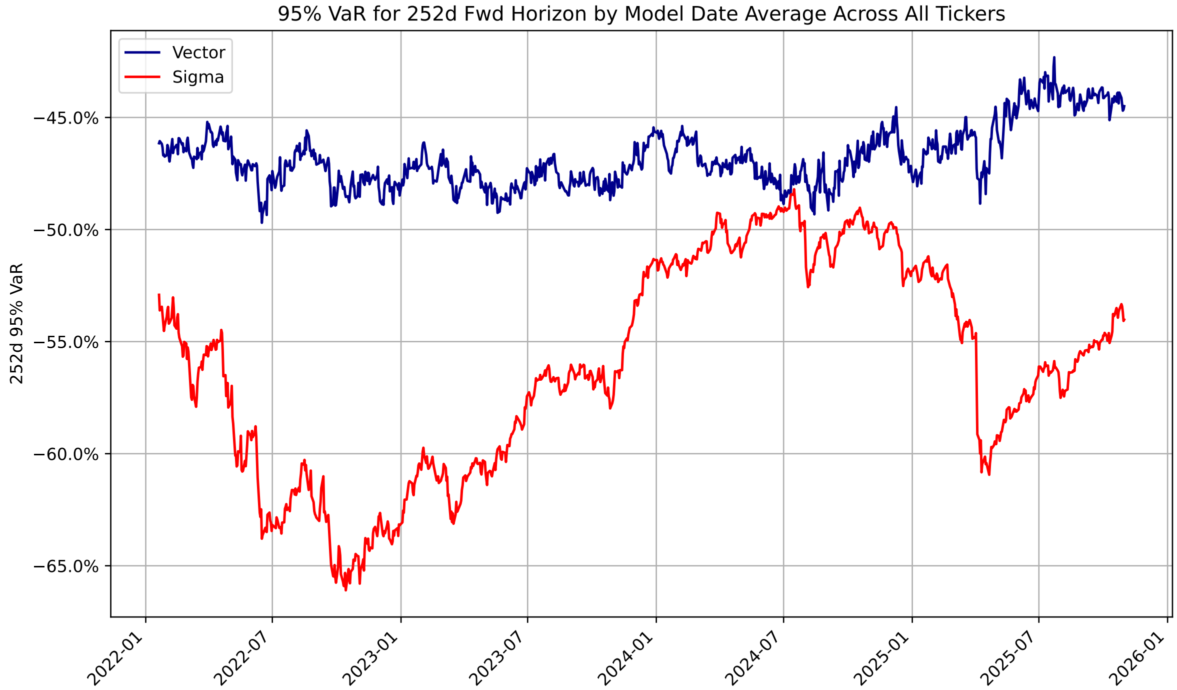
63d Horizon


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
2026-01

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.

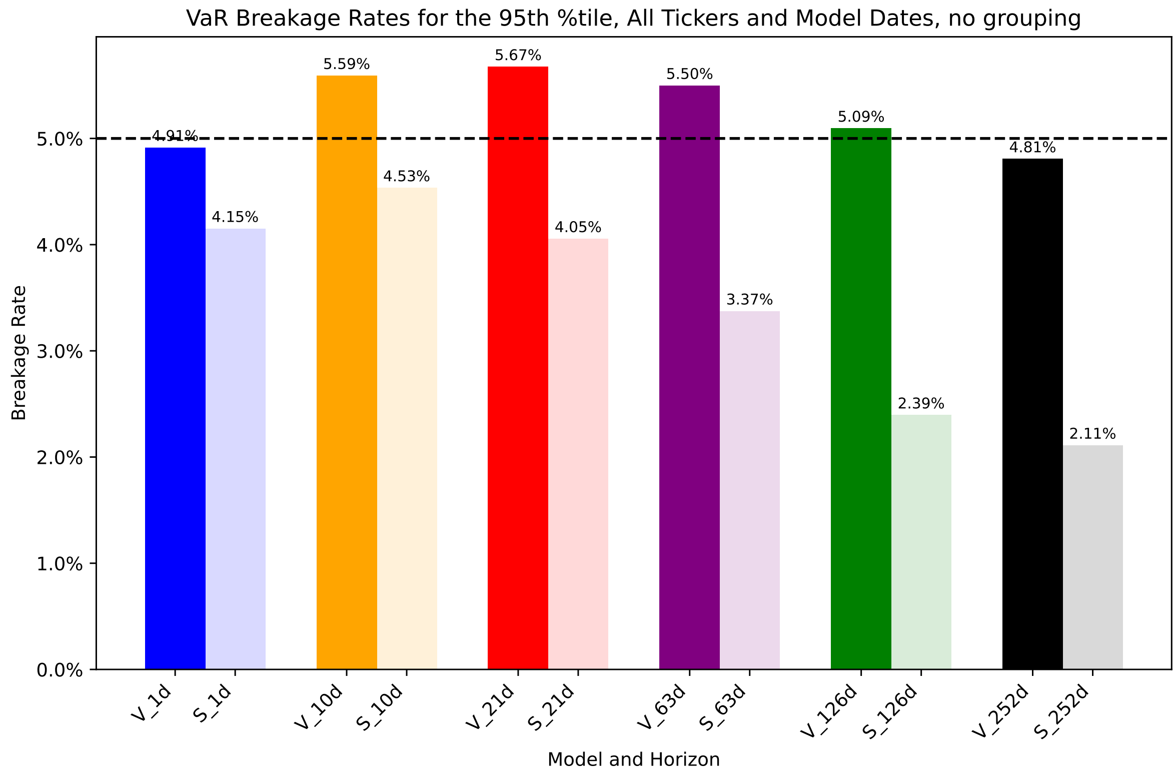
Vector Model ROVBC can be evalauated on the basis of outright levels relative to Sigma and alpha relative to Sigma ROVBC (which, as discussed previously, is assigned the underlying ticker price returns). We advise keeping proximity of VaR breakage rates to targetted levels in mind when comparing outright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

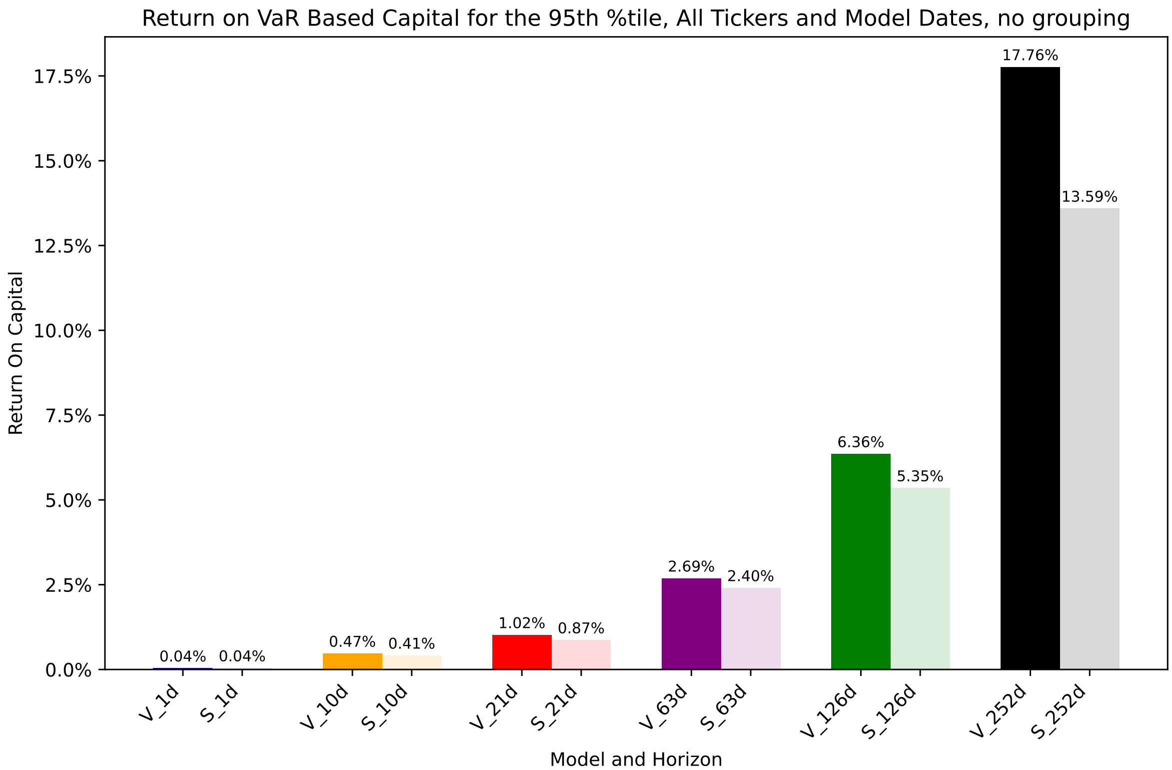
Alpha allows us to isolate ROVBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROVBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by VaR differentials between tickers and / or between dates. Thus we also present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





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

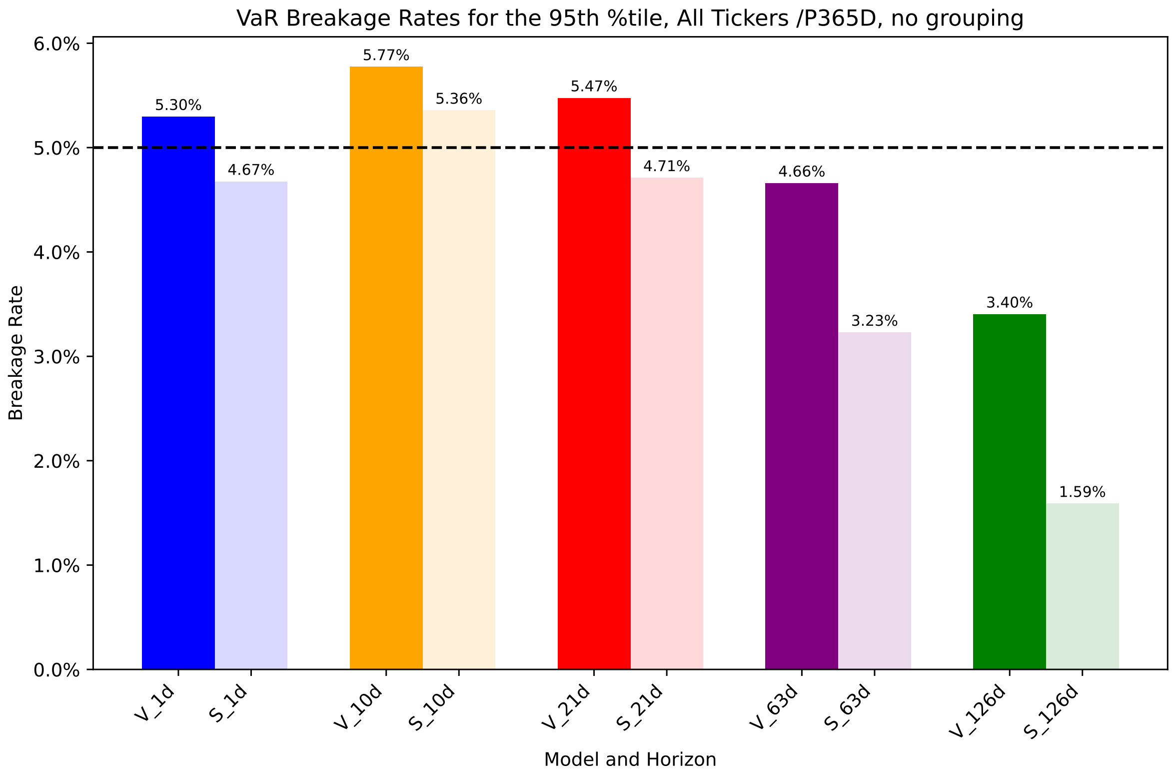
	1d	10d	21d	63d	126d	252d
intercept	-0.01%	-0.07%	-0.14%	-0.55%	-1.24%	-2.47%
intercept_p_value	1.49%	0.01%	0.00%	0.00%	0.00%	0.00%
slope	118.89%	129.64%	133.19%	134.74%	141.98%	148.88%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

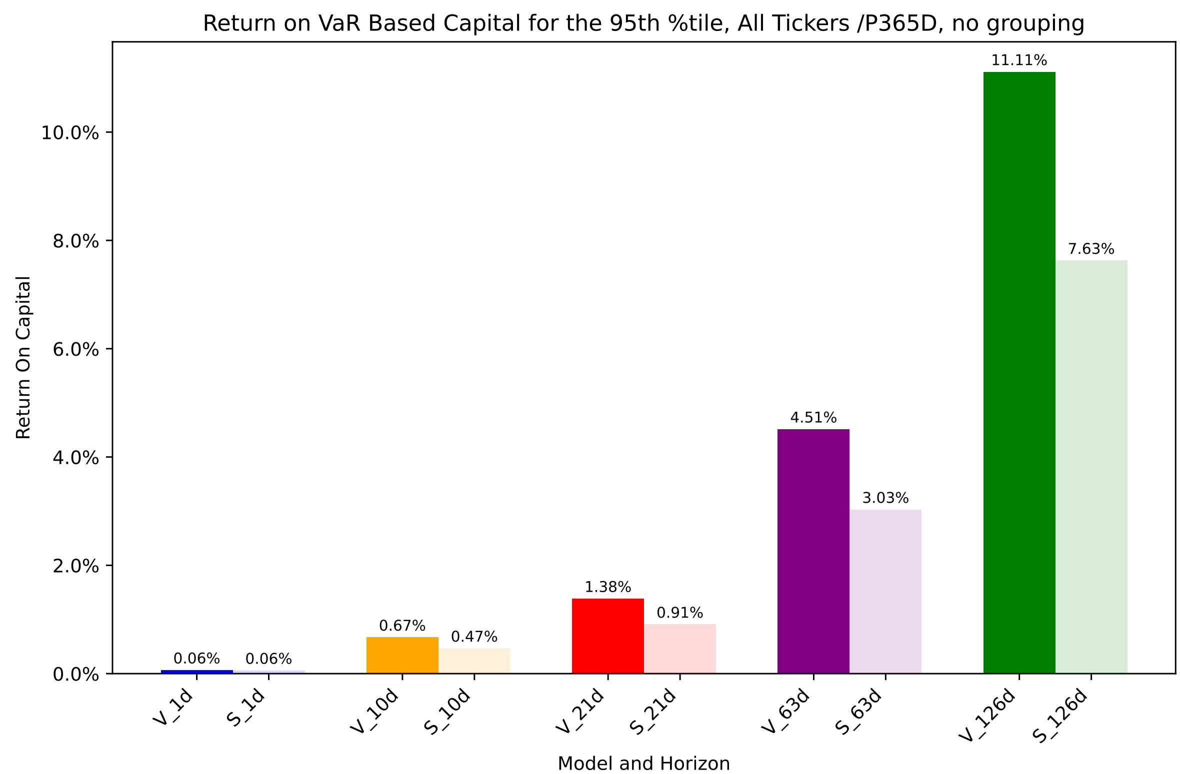
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.04%	-0.17%	-0.47%	-1.85%	-3.62%	-5.04%
intercept_p_value	0.00%	0.93%	0.13%	0.01%	0.00%	0.20%
slope	161.83%	147.24%	163.85%	177.37%	175.99%	161.83%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 365 Calendar Days (P365D)

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





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

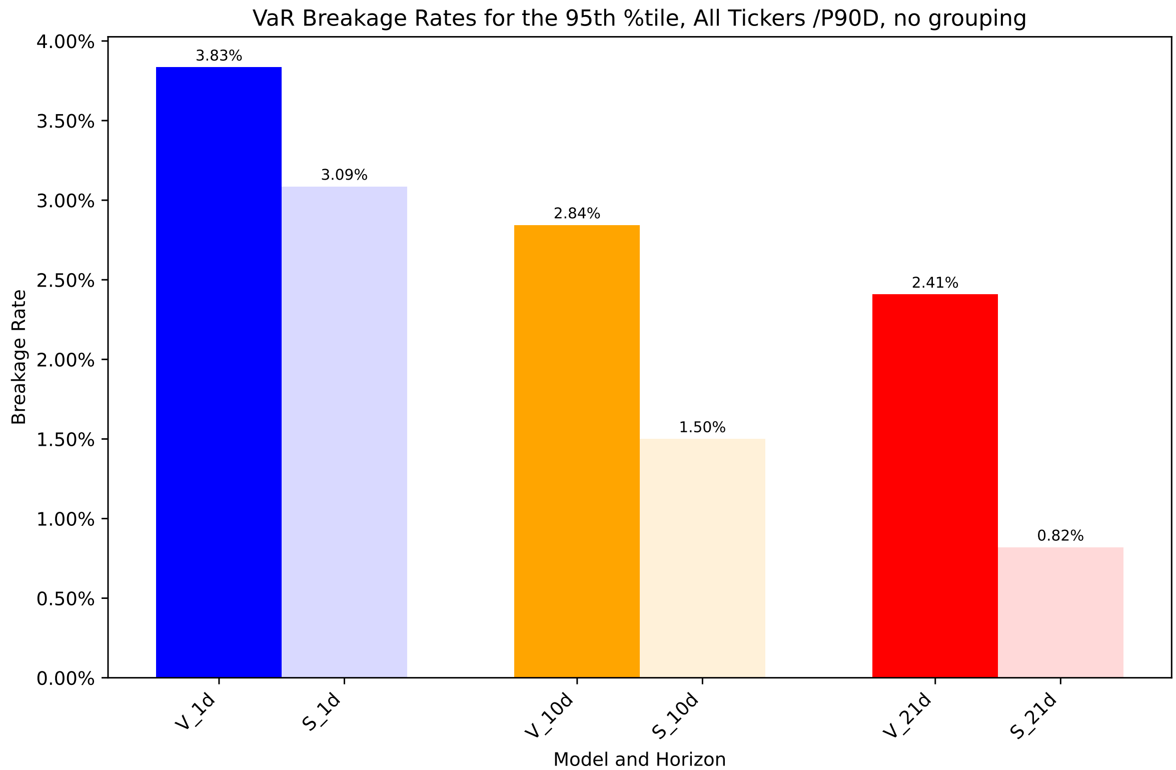
	1d	10d	21d	63d	126d
intercept	-0.00%	0.12%	0.28%	0.61%	-0.59%
intercept_p_value	95.42%	0.00%	0.00%	0.00%	0.00%
slope	112.88%	117.98%	121.21%	128.71%	153.38%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

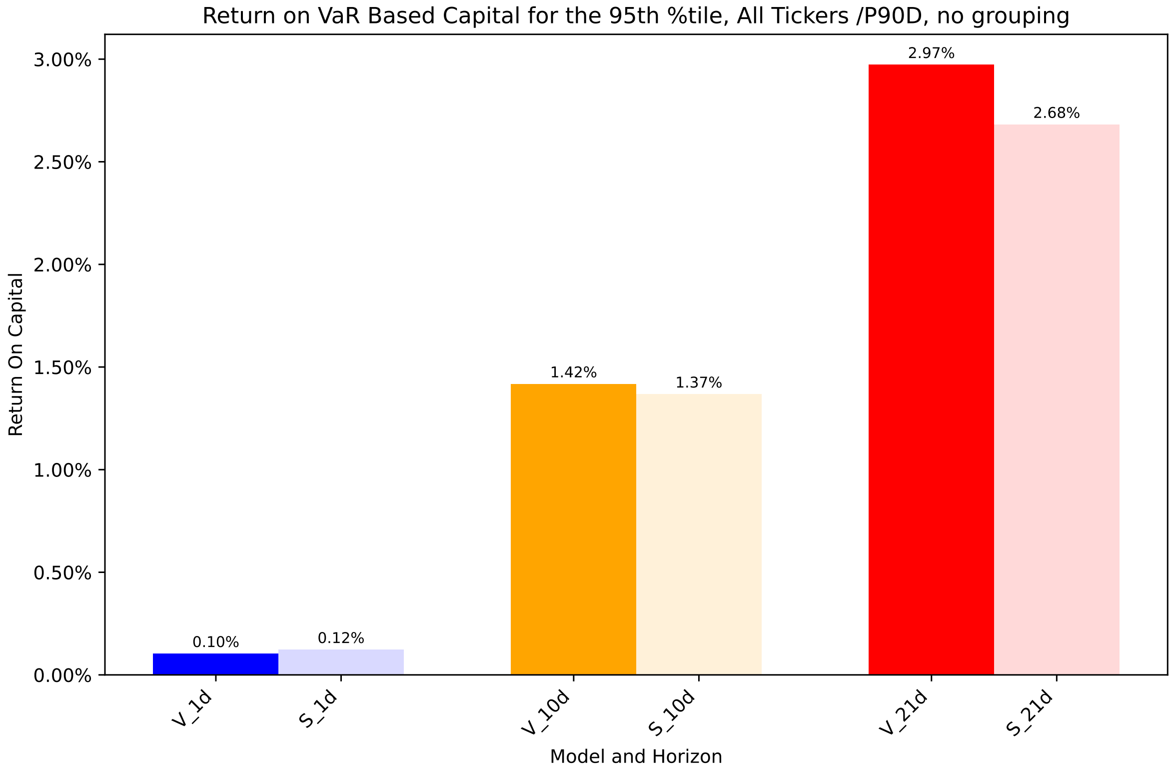
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P365D:

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

Prior 90 Calendar Days (P90D)

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





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

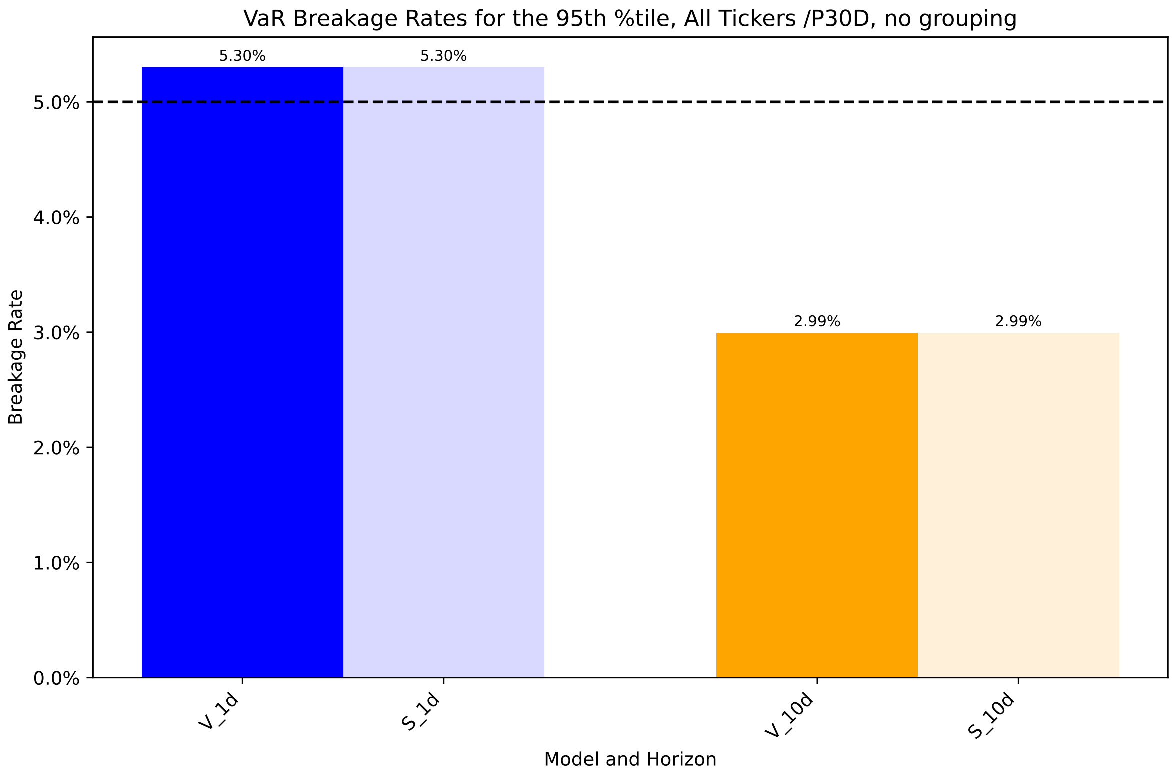
	1d	10d	21d
intercept	-0.02%	-0.06%	-0.07%
intercept_p_value	22.67%	16.79%	33.86%
slope	99.15%	108.28%	113.63%
slope_p_value	0.00%	0.00%	0.00%

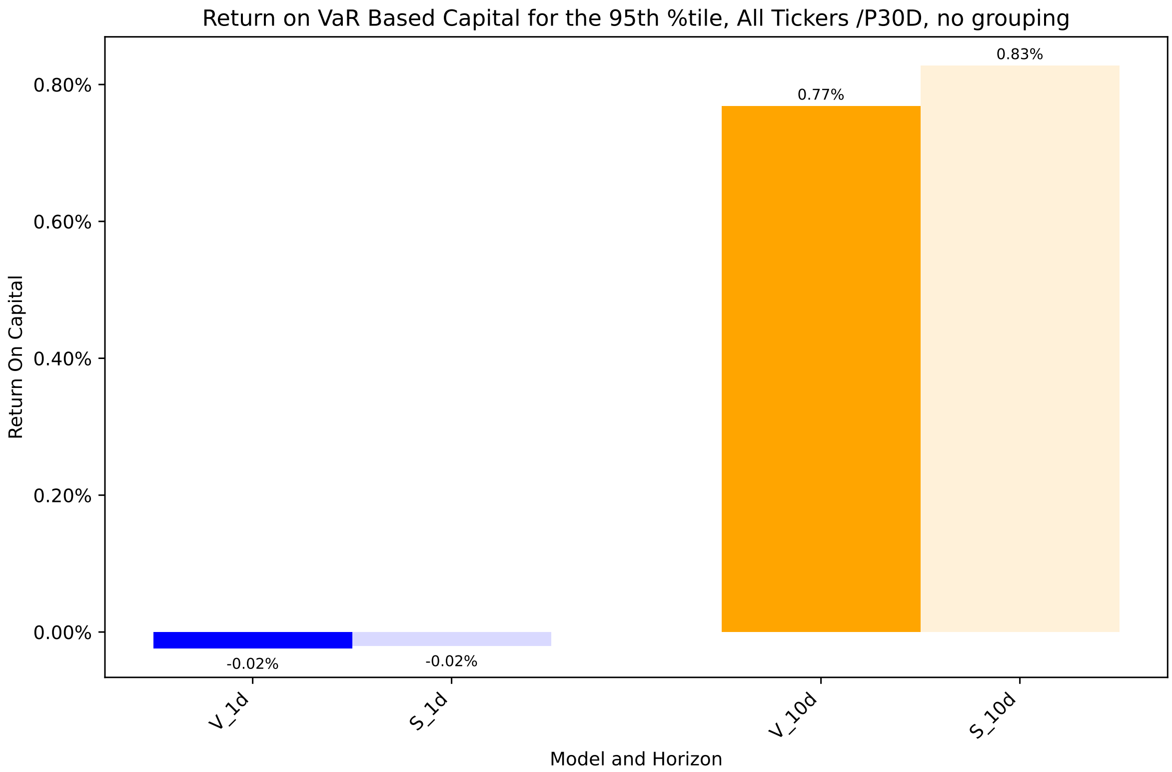
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P90D:

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

Prior 30 Calendar Days (P30D)

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





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

	1d	10d
intercept	-0.00%	-0.08%
intercept_p_value	88.60%	48.57%
slope	98.22%	102.26%
slope_p_value	0.00%	0.00%

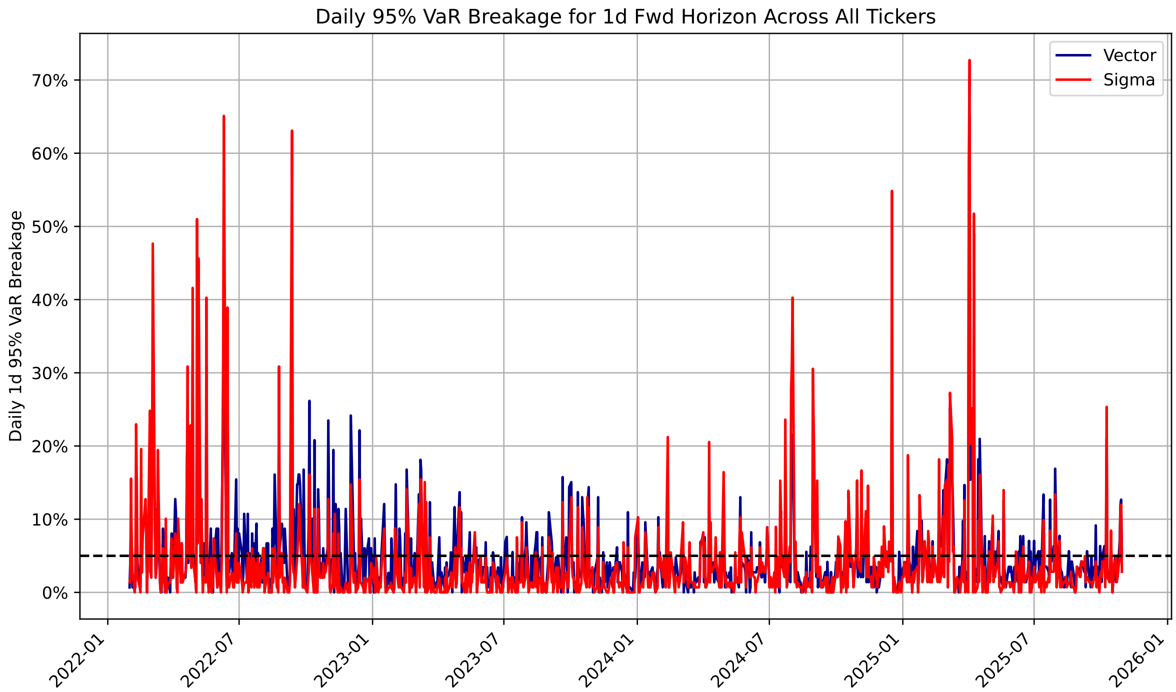
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P30D:

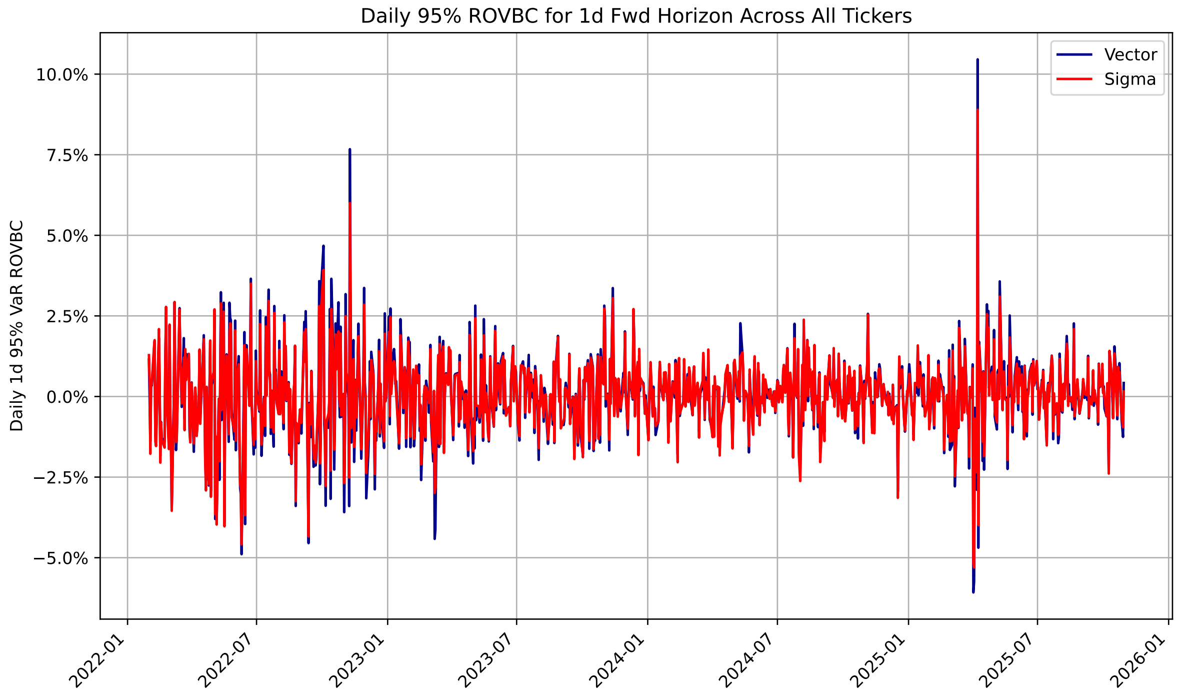
	1d	10d
intercept	-0.01%	-0.09%
intercept_p_value	82.26%	74.26%
slope	87.46%	104.18%
slope_p_value	0.00%	0.00%

Daily Performance

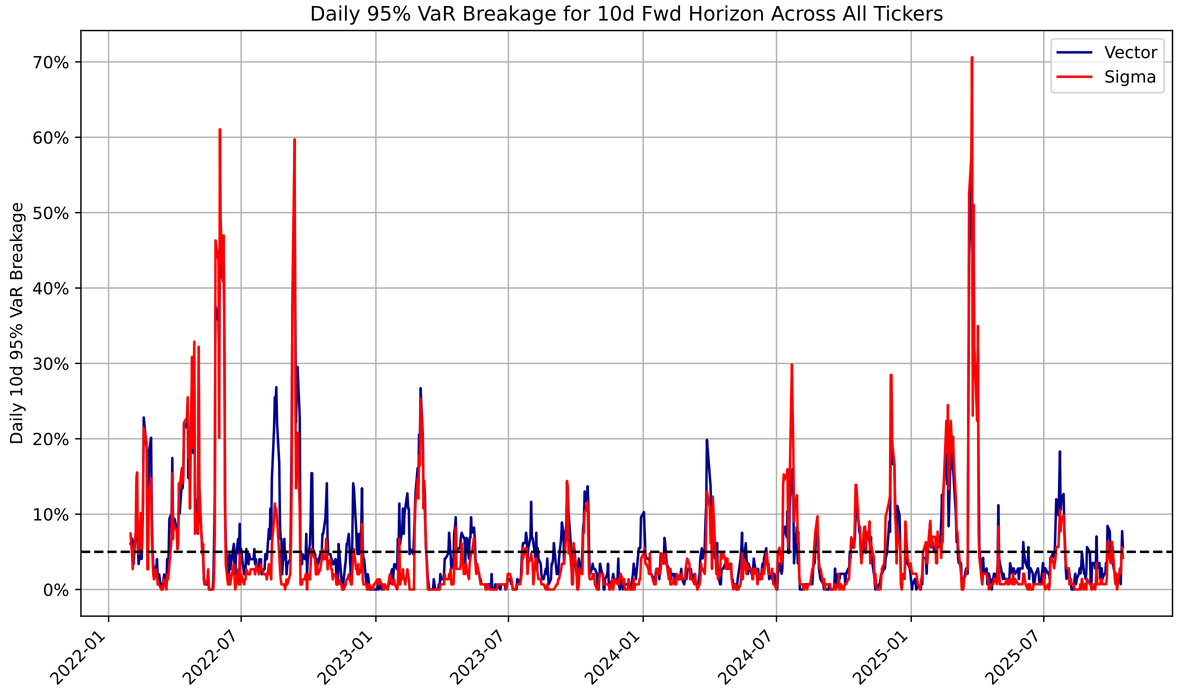
Here we look at the daily breakage and ROVBC statitics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROVBC outliers.

1d Horizon

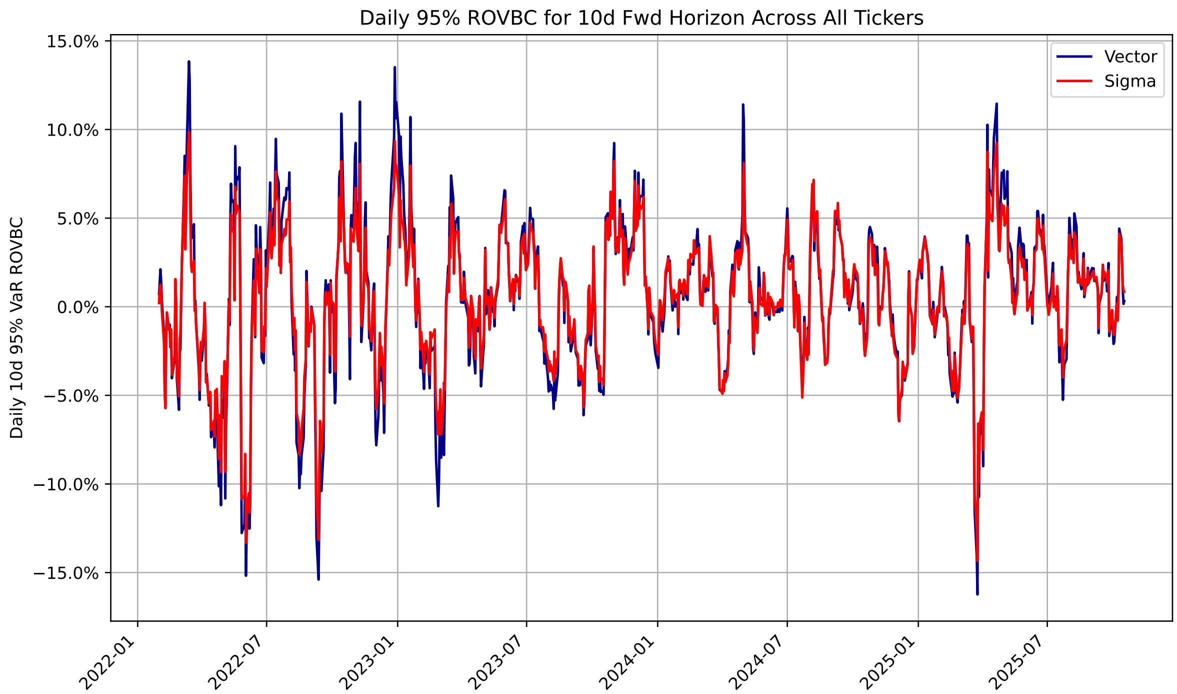



Daily 95% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 95% VaR ROVBC
10.0%
7.5%
5.0%
2.5%
0.0%
−2.5%
−5.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

10d Horizon

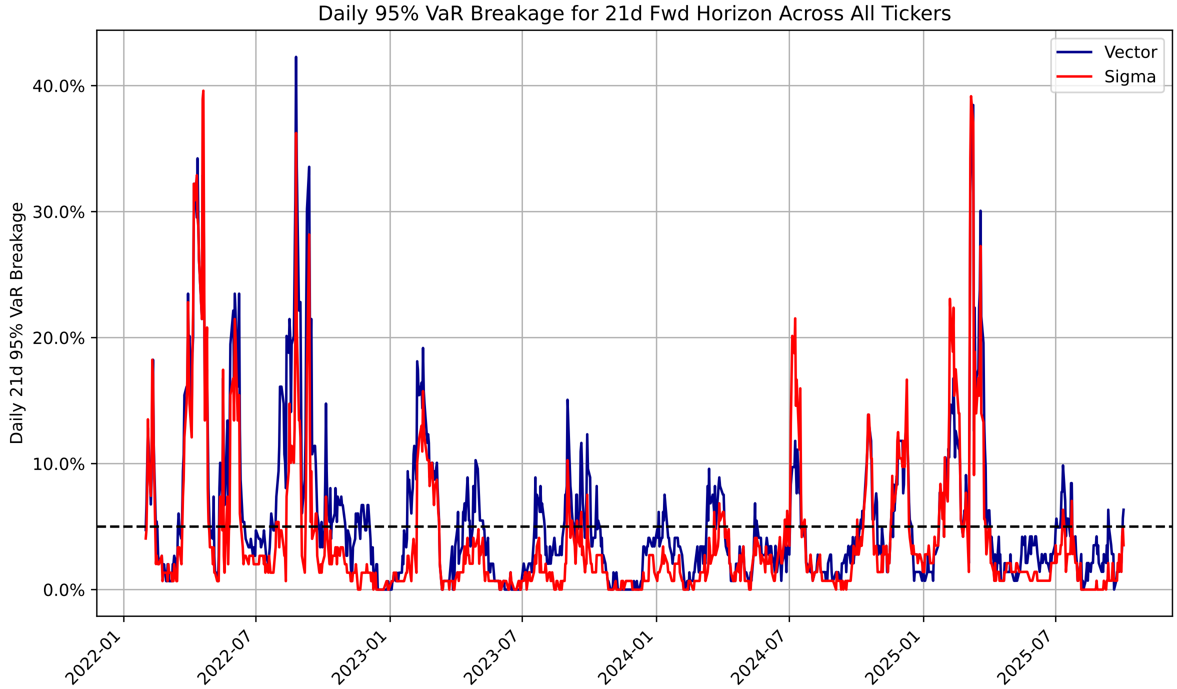


Daily 95% VaR Breakage for 10d Fwd Horizon Across All Tickers
Daily 10d 95% VaR Breakage
70%
60%
50%
40%
30%
20%
10%
0%
Vector
Sigma
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

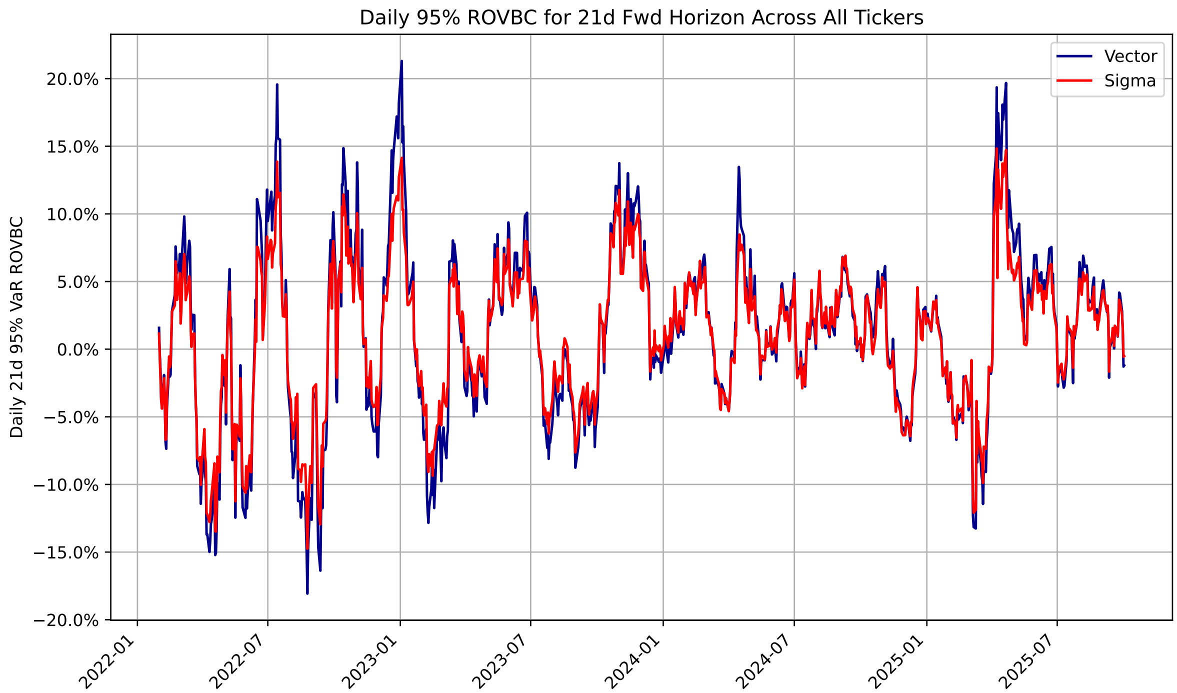


Daily 95% ROVBC for 10d Fwd Horizon Across All Tickers
Daily 10d 95% VaR ROVBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
Vector
Sigma
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

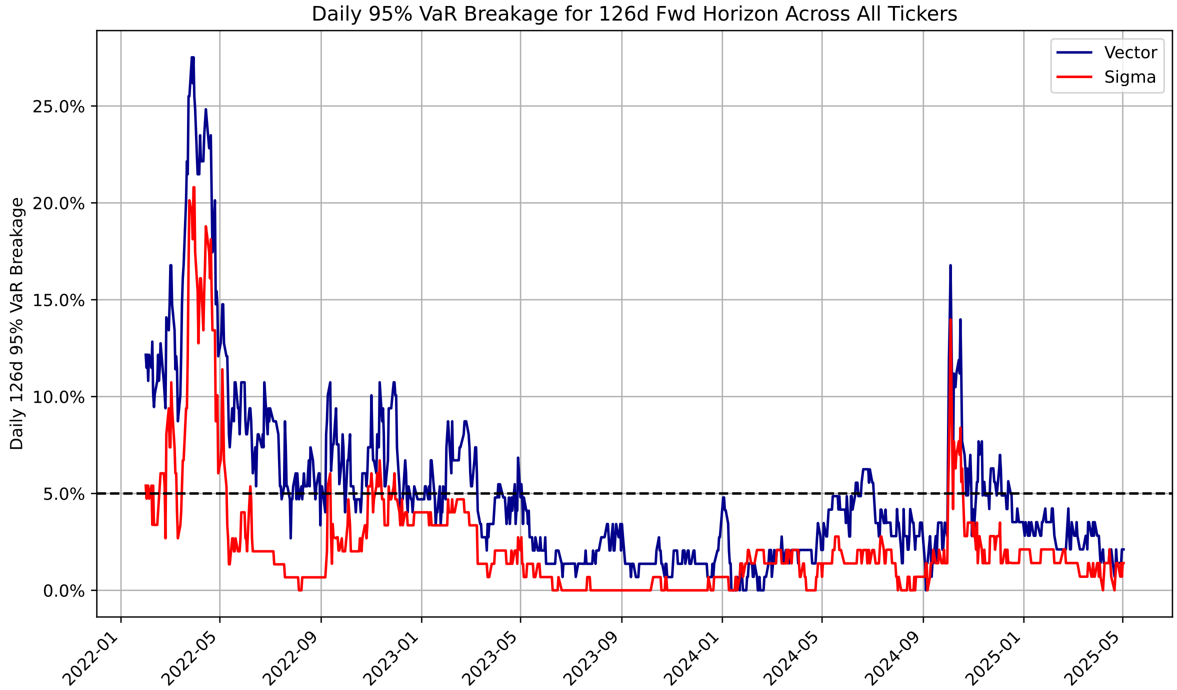


Daily 95% VaR Breakage for 21d Fwd Horizon Across All Tickers
Daily 21d 95% VaR Breakage
40.0%
30.0%
20.0%
10.0%
0.0%
Vector
Sigma
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

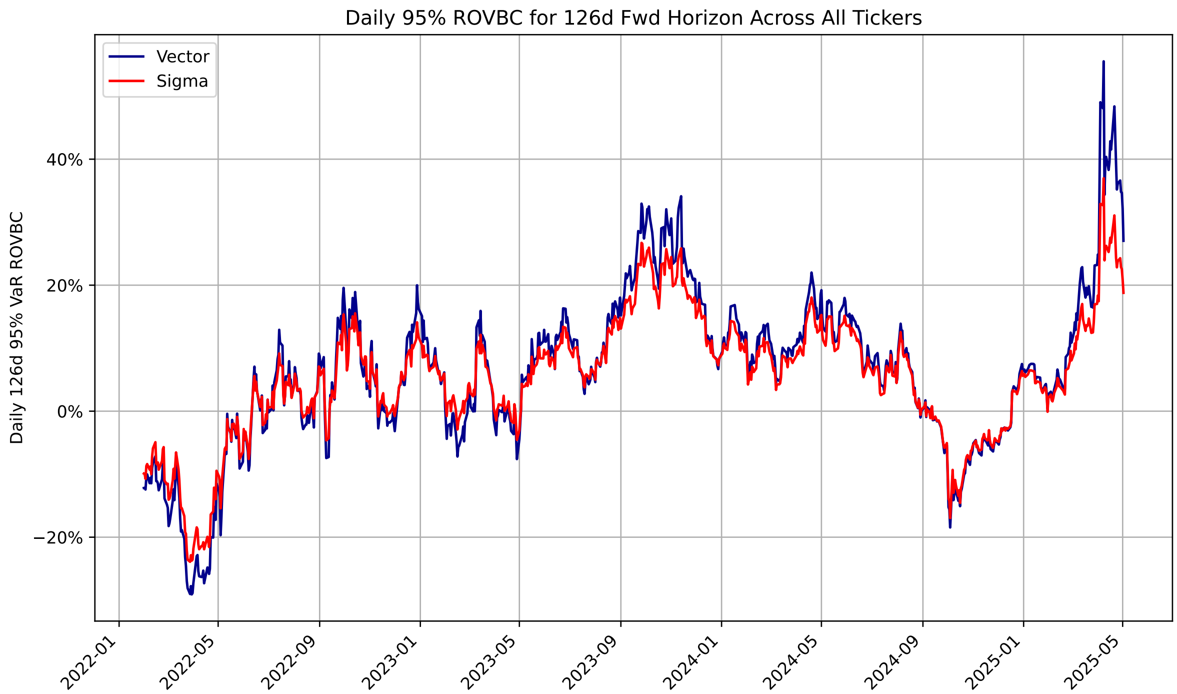


Daily 95% ROVBC for 21d Fwd Horizon Across All Tickers
Daily 21d 95% VaR ROVBC
20.0%
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
−20.0%
Vector
Sigma
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

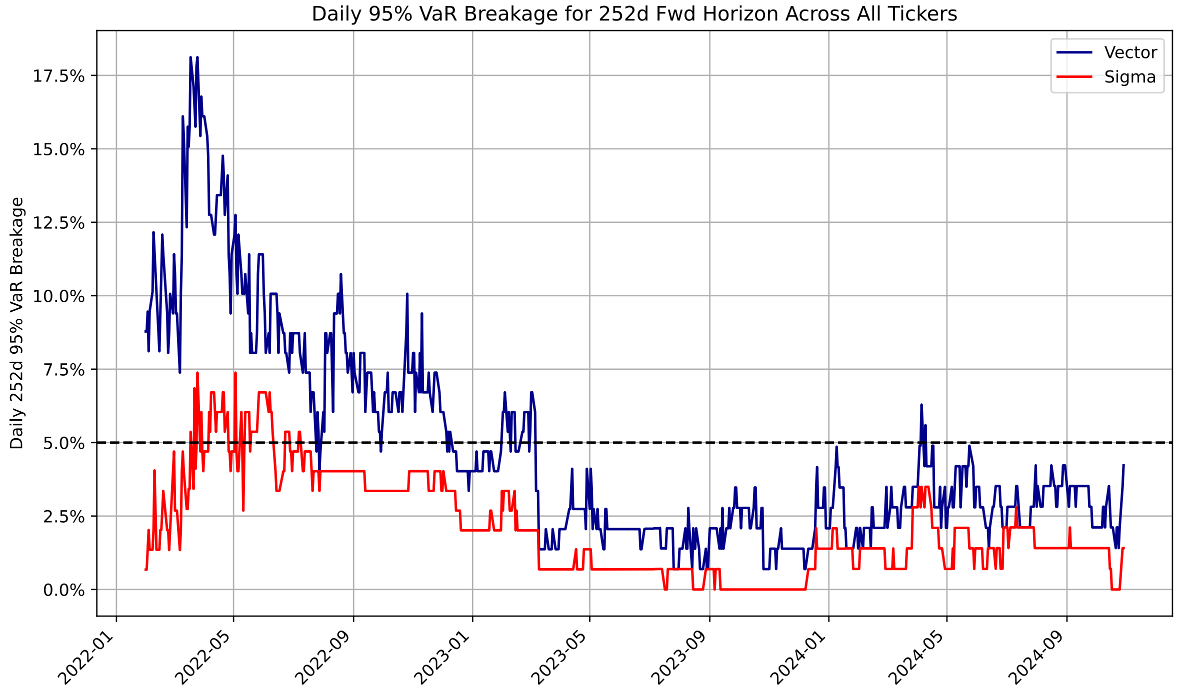


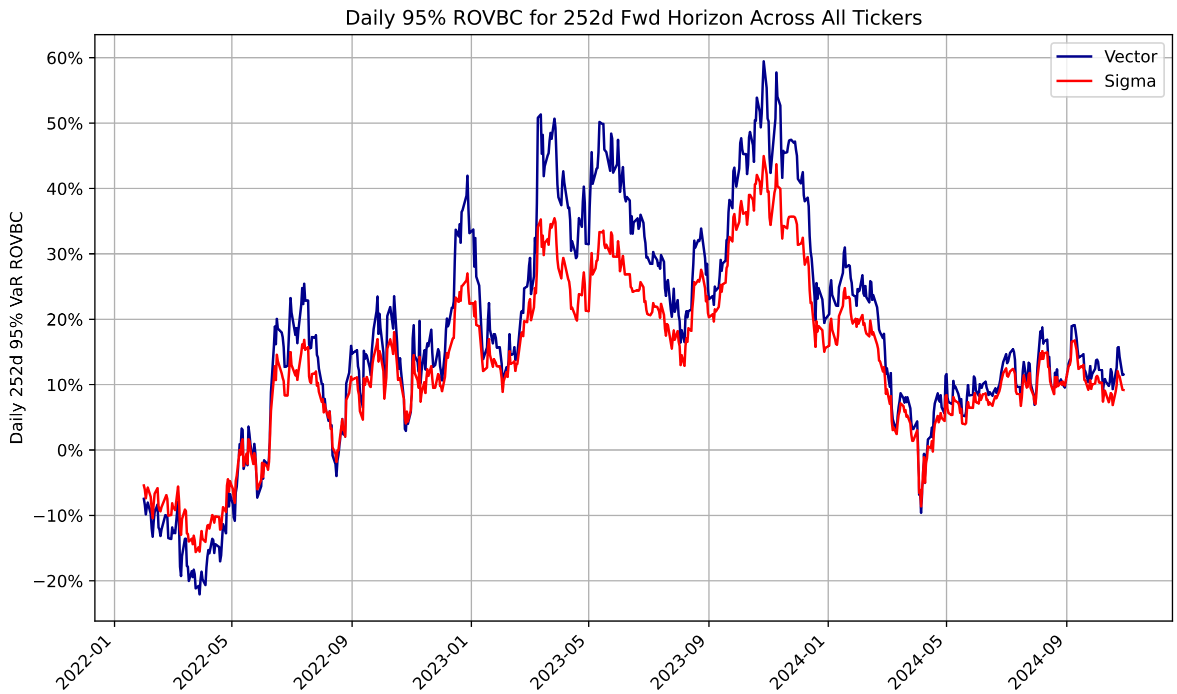
Daily 95% VaR Breakage for 126d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 126d 95% VaR Breakage
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



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

252d Horizon

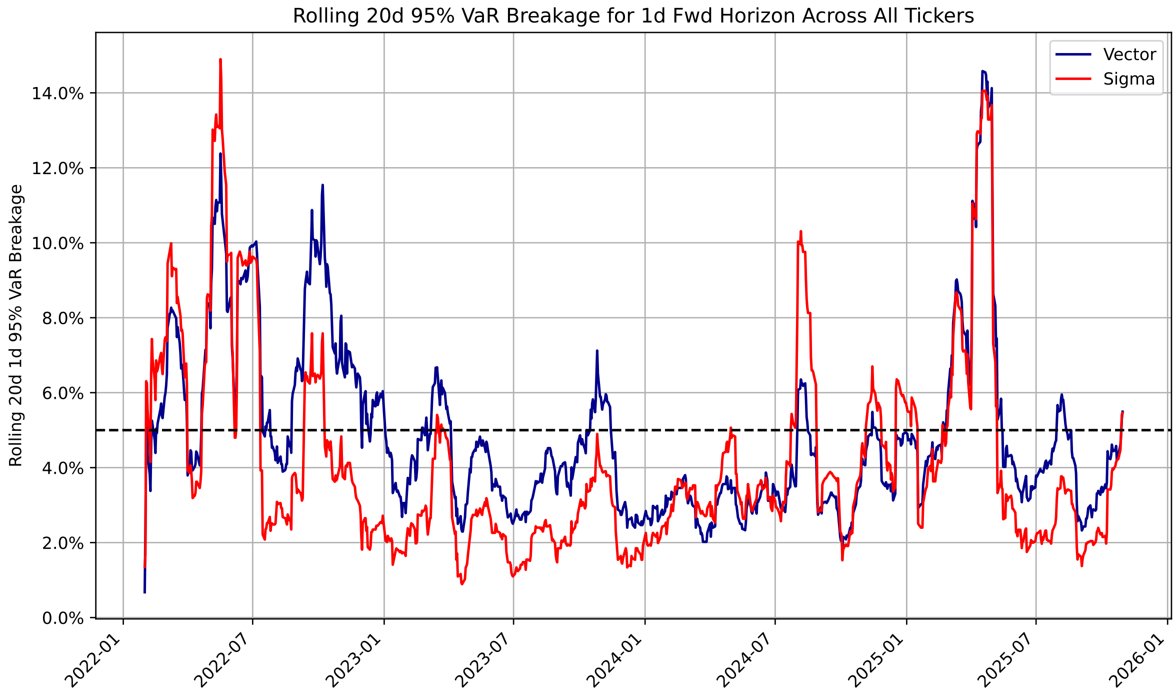


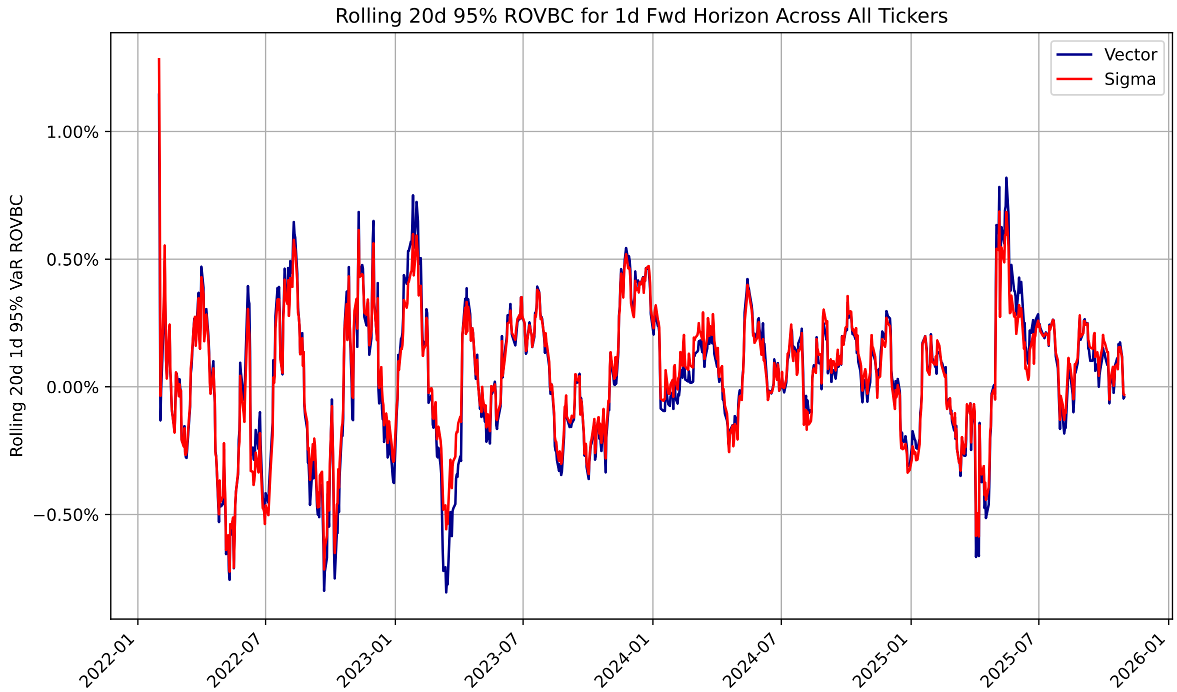


Rolling 20d Performance

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

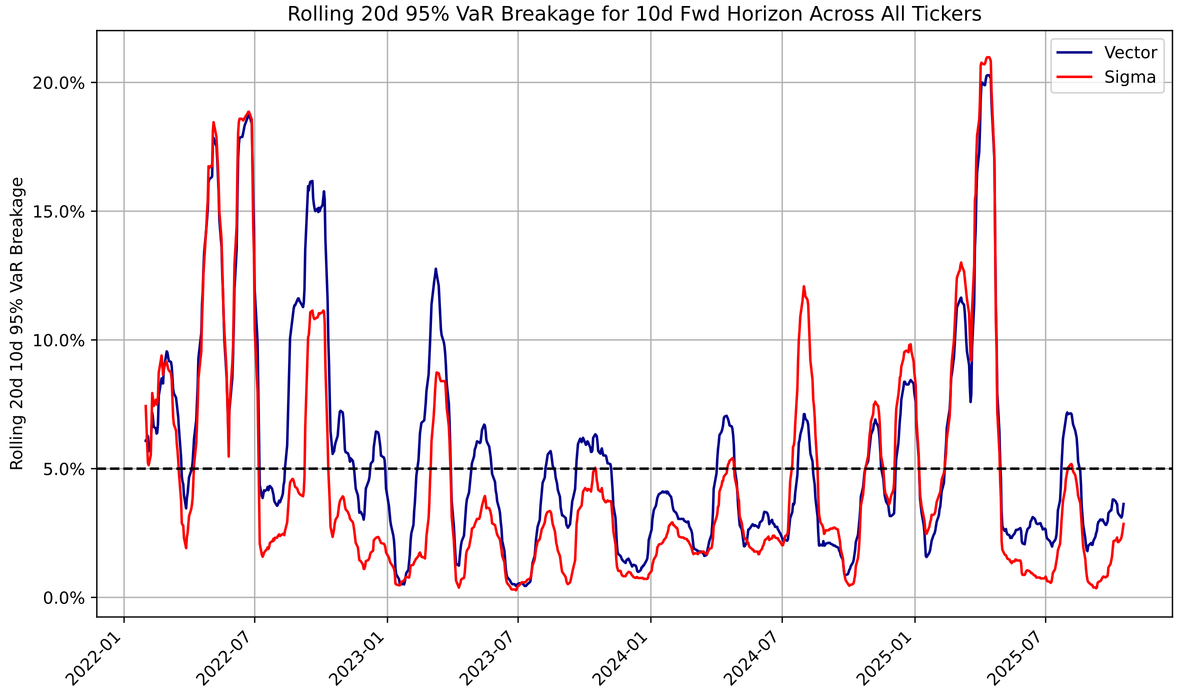
1d Horizon



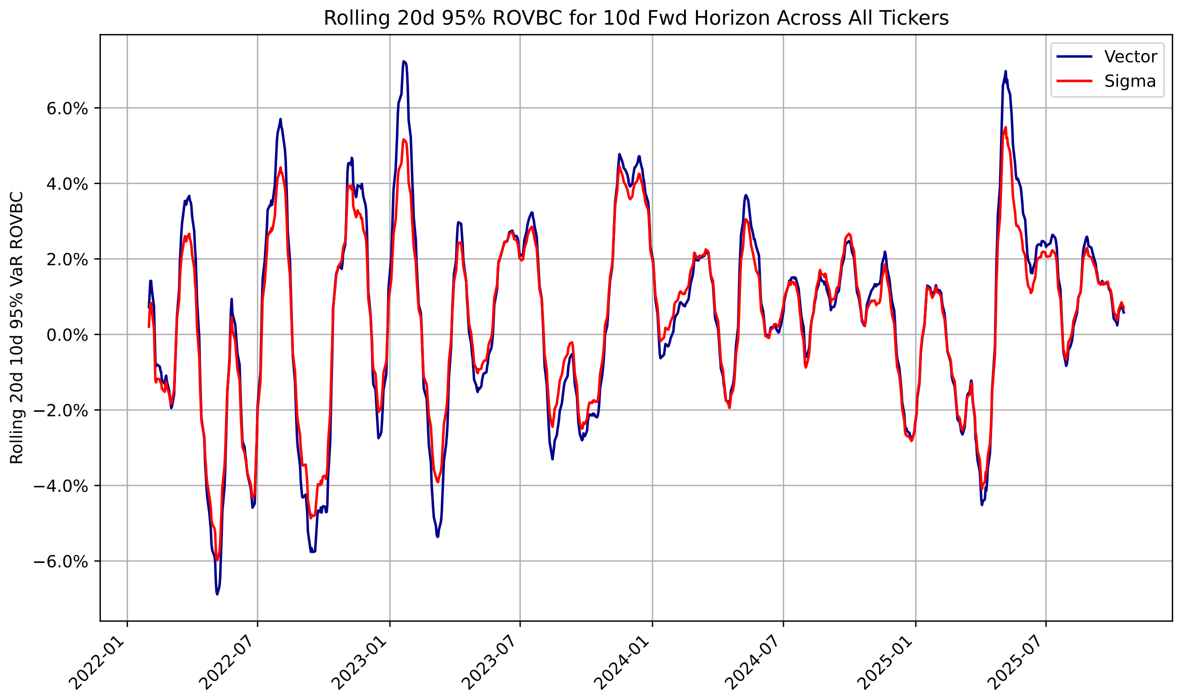


Rolling 20d 95% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 1d 95% VaR ROVBC
1.00%
0.50%
0.00%
−0.50%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

10d Horizon

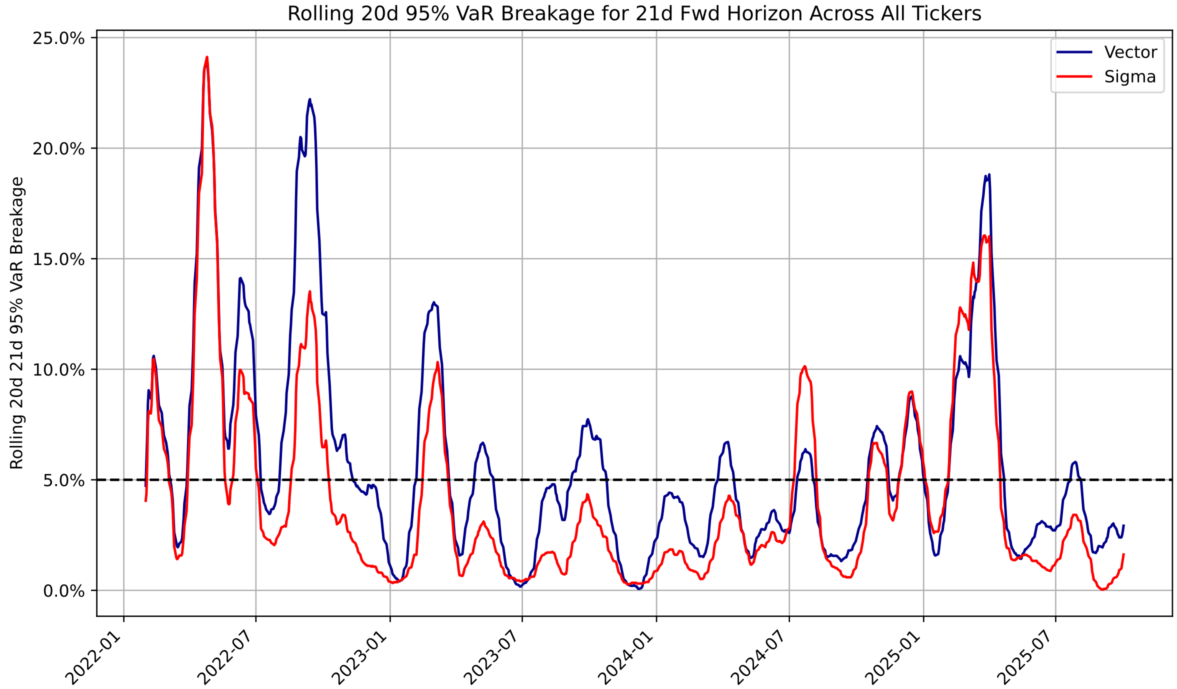


Rolling 20d 95% VaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 95% VaR Breakage
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

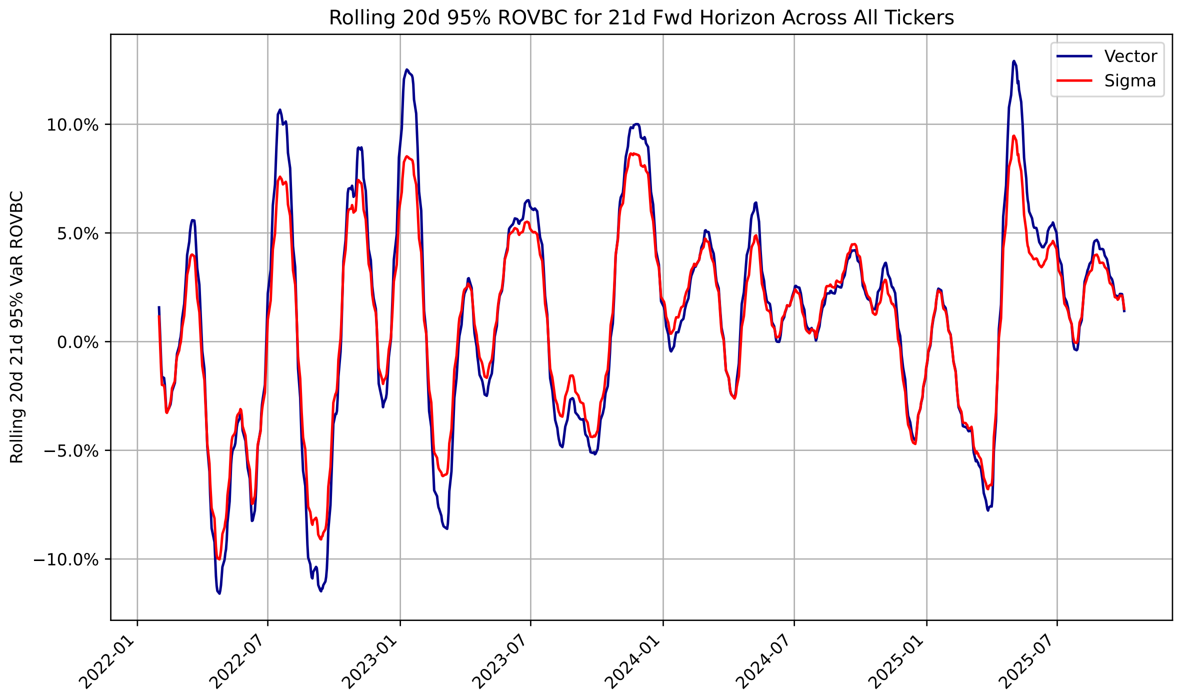


Rolling 20d 95% ROVBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 10d 95% VaR ROVBC
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

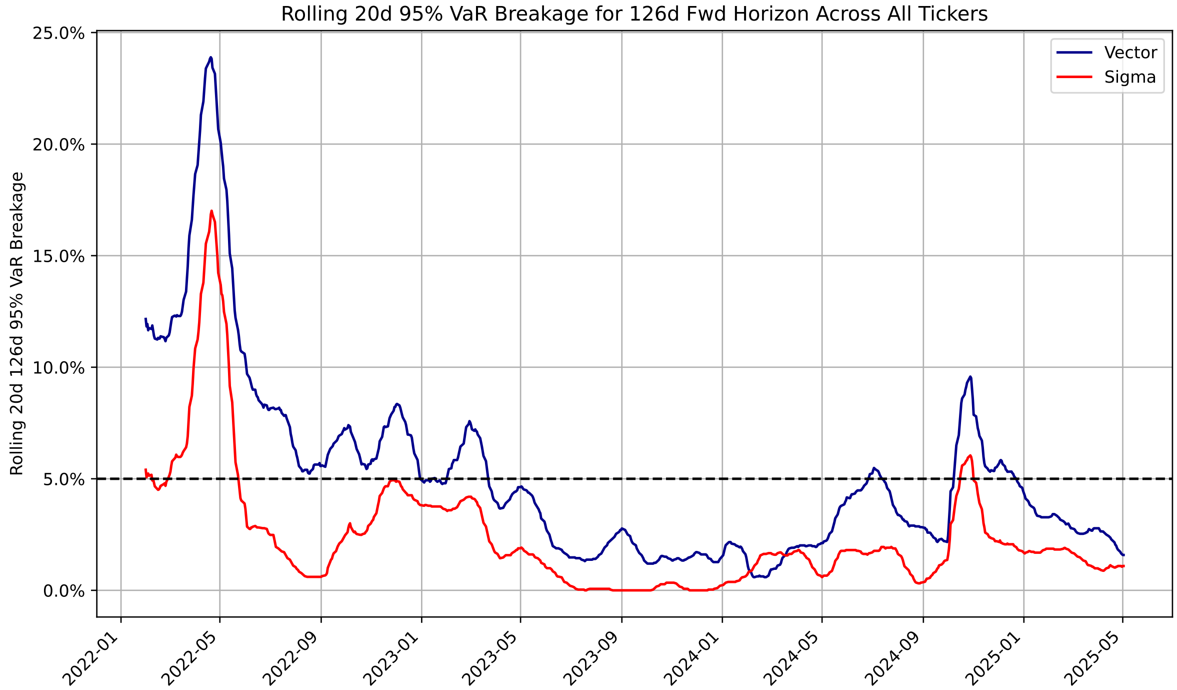


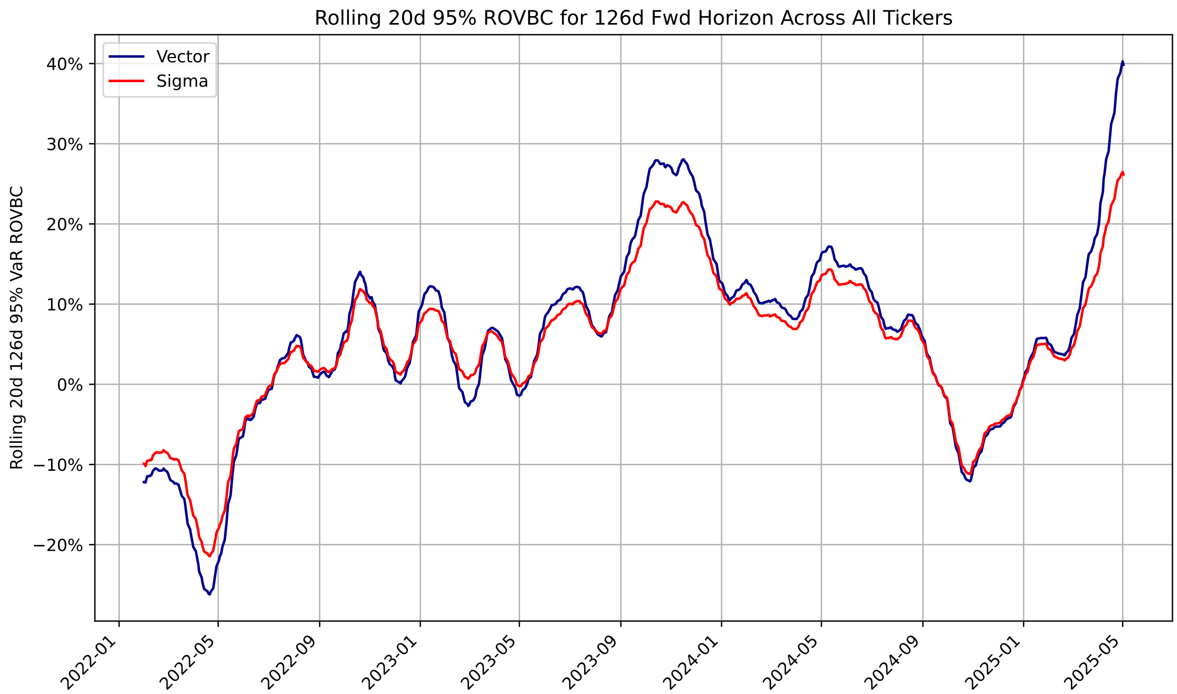
Rolling 20d 95% VaR Breakage for 21d Fwd Horizon Across All Tickers
Rolling 20d 21d 95% VaR Breakage
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma



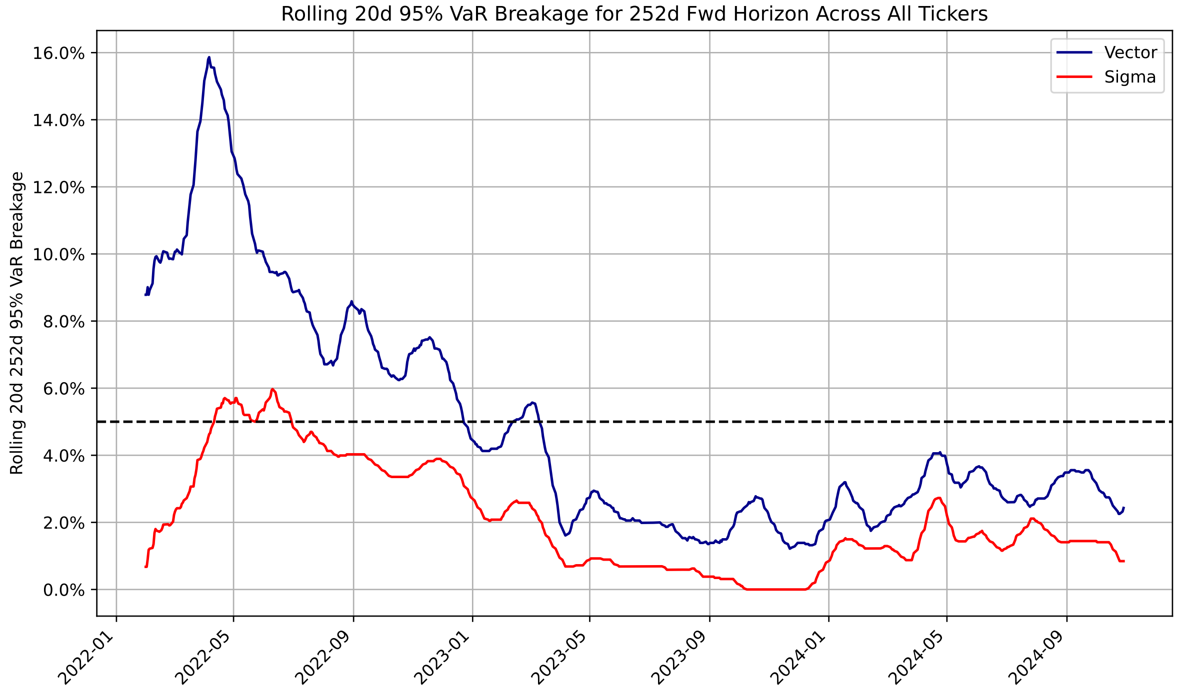
Rolling 20d 95% ROVBC for 21d Fwd Horizon Across All Tickers
Rolling 20d 21d 95% VaR ROVBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
Vector
Sigma

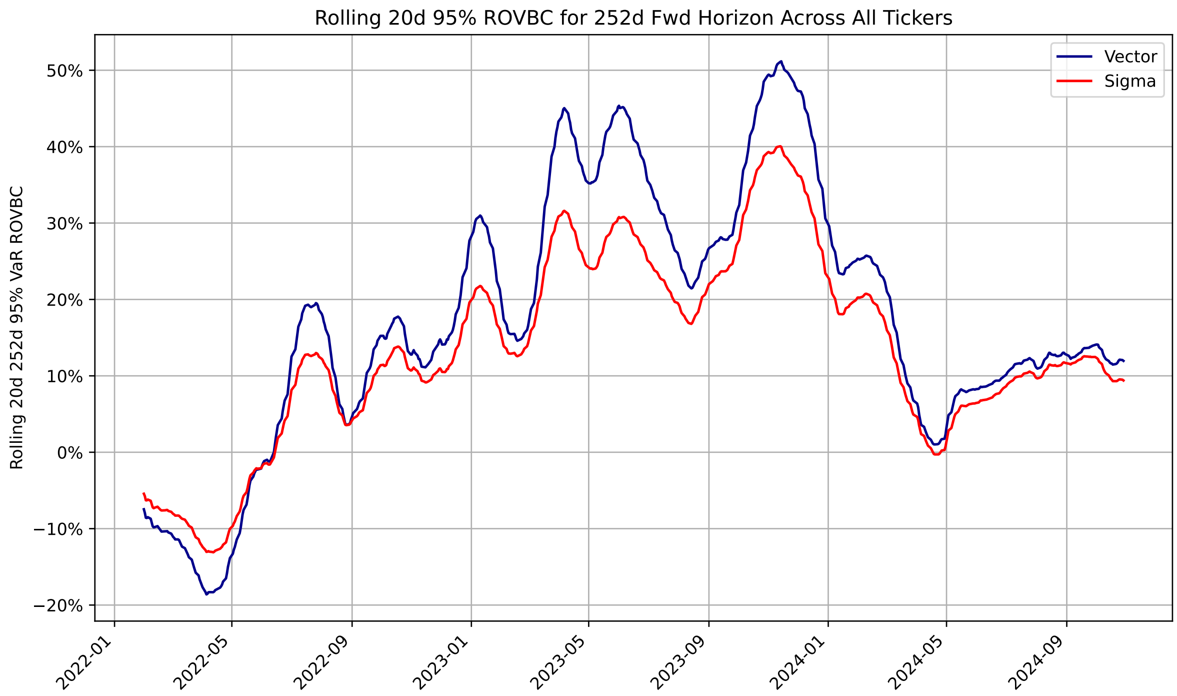
63d Horizon


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


Rolling 20d 95% ROVBC for 126d Fwd Horizon Across All Tickers
Rolling 20d 126d 95% VaR ROVBC
40%
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
2025-05
Vector
Sigma

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 2025-10-30

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	17.41%	VST	6.16%
1.0	CHTR	16.24%	AAPL	5.94%
1.0	LQD	15.29%	ACGL	5.94%
1.0	FRCB	13.67%	PHM	5.94%
1.0	ZTS	12.1%	TRGP	5.84%
1.0	B	11.78%	SIVBQ	5.76%
1.0	AAP	11.25%	GLD	5.63%
1.0	MSTR	11.15%	TXN	5.52%
1.0	GME	10.83%	NVDA	5.52%
1.0	META	10.62%	PEP	5.52%
1.0	UAA	10.62%	MUB	5.42%
1.0	AMZN	10.51%	VZ	5.41%
1.0	SBUX	9.66%	NVS	5.41%
1.0	SLV	9.46%	GOOGL	5.31%
1.0	GNRC	9.45%	IRM	5.31%
1.0	ISRG	9.13%	ON	5.31%
1.0	BUD	8.7%	AZN	5.31%
1.0	VFC	8.6%	AMD	5.2%
1.0	BALL	8.49%	XOM	5.2%
1.0	MUB	8.4%	LEN	5.2%
1.0	KEY	8.28%	VCSH	5.1%
1.0	VCSH	8.28%	BXP	5.1%
1.0	AMC	8.17%	NEM	5.1%

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 2025-10-30

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	SBNY	40.44%	MUB	12.34%
10.0	SIVBQ	22.43%	SIVBQ	10.66%
10.0	AAP	20.26%	SBNY	9.93%
10.0	CHTR	19.83%	FRCB	8.46%
10.0	TSLA	18.44%	AAP	8.25%
10.0	ZTS	16.29%	FRA	7.61%
10.0	B	15.54%	BAC	7.61%
10.0	AMC	15.33%	UNH	7.29%
10.0	FRCB	13.97%	CHTR	7.18%
10.0	GME	13.61%	CVS	7.18%
10.0	LQD	13.61%	CTLT	6.94%
10.0	BUD	13.08%	BMY	6.86%
10.0	KALU	12.65%	AZN	6.75%
10.0	CVS	11.68%	WFC	6.75%
10.0	TLT	11.47%	BALL	6.75%
10.0	META	11.15%	LW	6.54%
10.0	NEM	11.15%	MS	6.54%
10.0	SLV	11.05%	NWL	6.32%
10.0	JAZZ	10.72%	GSK	6.22%
10.0	VFC	10.72%	NEM	6.11%
10.0	GNRC	10.61%	CLF	6.11%
10.0	PRGO	10.5%	AA	6.11%
10.0	GSK	10.5%	X	6.09%
10.0	MSTR	10.4%	EMB	5.79%
10.0	CTLT	9.93%	CMG	5.79%

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 2025-10-30

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	SBNY	56.67%	MUB	13.25%
21.0	CHTR	24.08%	SIVBQ	12.96%
21.0	SIVBQ	23.33%	FRCB	11.48%
21.0	AAP	20.93%	AAP	9.65%
21.0	TSLA	18.22%	CHTR	9.0%
21.0	ZTS	16.81%	SBNY	8.89%
21.0	B	16.27%	LW	8.79%
21.0	BUD	15.73%	GSK	8.35%
21.0	CVS	15.29%	CTLT	7.73%
21.0	LQD	15.18%	CVS	7.59%
21.0	AMC	14.97%	EMB	7.49%
21.0	GSK	14.64%	BMY	7.05%
21.0	FRCB	14.44%	ABBV	7.05%
21.0	KALU	14.1%	FIS	6.94%
21.0	PRGO	13.99%	UNH	6.83%
21.0	GNRC	13.45%	AZN	6.72%
21.0	TLT	13.23%	LQD	6.4%
21.0	VCSH	13.02%	VCSH	6.4%
21.0	NEM	12.58%	FRA	6.29%
21.0	CTLT	12.57%	CNC	6.18%
21.0	VFC	12.26%	VZ	6.07%
21.0	BXP	12.04%	NWL	6.07%
21.0	JAZZ	10.63%	PCG	6.07%
21.0	SNY	10.52%	BAC	5.97%
21.0	META	10.52%	WDC	5.97%

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 2025-10-30

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	CHTR	35.0%	FRCB	24.81%
63.0	AAP	33.18%	CHTR	14.09%
63.0	FRCB	29.26%	MUB	11.83%
63.0	VFC	20.0%	GSK	11.02%
63.0	AMC	17.61%	CTLT	10.7%
63.0	BIIB	16.36%	NEM	10.57%
63.0	BHC	16.14%	CNC	9.55%
63.0	B	15.91%	UNH	9.2%
63.0	TSLA	15.8%	BMY	8.41%
63.0	GNRC	15.8%	LW	8.41%
63.0	KALU	15.57%	VFC	7.84%
63.0	BUD	15.57%	LQD	7.61%
63.0	CTLT	14.66%	CVS	7.61%
63.0	TLT	14.55%	ZION	7.51%
63.0	NEM	14.2%	IEP	7.39%
63.0	GSK	14.09%	BXP	7.39%
63.0	LQD	13.64%	AAP	7.39%
63.0	AMZN	13.07%	BHC	7.39%
63.0	CNC	12.84%	KEY	7.39%
63.0	BMY	12.16%	HCA	6.93%
63.0	FIS	12.16%	BALL	6.7%
63.0	BXP	11.82%	NWL	6.7%
63.0	CVS	11.7%	VCSH	6.59%
63.0	CMA	11.02%	TLT	6.59%
63.0	FITB	10.91%	CMA	6.36%
63.0	VCSH	10.91%	CYH	6.25%
63.0	KEY	10.45%	LEN	6.25%
63.0	META	9.89%	NFLX	6.14%

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 2025-10-30

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	CHTR	35.62%	GSK	15.79%
126.0	VFC	33.9%	IEP	15.54%
126.0	AAP	32.56%	AAP	15.06%
126.0	AMC	22.64%	UNH	12.48%
126.0	GSK	18.85%	CTLT	10.5%
126.0	BMY	18.48%	CNC	10.16%
126.0	BIIB	18.36%	VZ	9.91%
126.0	GNRC	17.99%	CSTM	8.94%
126.0	TSLA	16.28%	INTC	8.81%
126.0	TLT	16.03%	MRK	8.69%
126.0	IEP	15.67%	MUB	8.58%
126.0	ZION	14.07%	BHC	8.32%
126.0	CNC	13.95%	BALL	8.2%
126.0	CVS	13.83%	LEN	7.96%
126.0	BXP	13.71%	NEM	6.73%
126.0	UNH	13.22%	EMB	6.5%
126.0	BHC	13.1%	LW	6.49%
126.0	CTLT	12.76%	VCSH	6.24%
126.0	NEM	12.61%	KEY	6.12%
126.0	OXY	12.12%	BIIB	5.88%
126.0	MRK	10.89%	LQD	5.39%
126.0	B	10.89%	ELAN	5.22%
126.0	VCSH	10.77%	BXP	5.14%
126.0	BUD	10.16%	LUMN	5.14%
126.0	AMZN	10.04%	CHTR	4.77%
126.0	CMA	9.91%	IRM	4.77%
126.0	SNY	9.06%	VFC	4.53%

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 2025-10-30

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	61.79%	IEP	35.17%
252.0	AMC	42.55%	AAP	19.97%
252.0	BIIB	39.36%	MRK	15.34%
252.0	CHTR	34.88%	UNH	14.76%
252.0	IEP	33.29%	BMY	14.47%
252.0	VFC	27.35%	GSK	14.04%
252.0	CMA	22.14%	LUMN	13.17%
252.0	ZION	22.01%	LW	12.59%
252.0	OXY	19.25%	CNC	11.14%
252.0	FIS	16.35%	BXP	8.97%
252.0	GSK	15.2%	VZ	7.53%
252.0	CVS	14.91%	VNO	5.5%
252.0	MRK	14.18%	CTLT	5.27%
252.0	BXP	14.04%	INTC	4.63%
252.0	CTLT	13.79%	CSTM	3.18%
252.0	BMY	12.3%	CLF	2.6%
252.0	TLT	11.72%	LNC	2.32%
252.0	UNH	11.43%	ELAN	2.21%
252.0	VNO	11.14%	CVS	2.03%
252.0	ELAN	10.03%	EMB	1.74%
252.0	BHC	9.84%	PEP	1.74%
252.0	CLF	9.41%	WDC	1.45%
252.0	NWL	8.68%	BALL	1.16%
252.0	UAA	8.39%	NWL	1.01%
252.0	CNC	7.38%	ZION	0.89%
252.0	LNC	7.24%	TLT	0.72%
252.0	EXPE	7.24%	OXY	0.72%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	33.33%	NEM	23.81%
1.0	TXN	28.57%	VZ	19.05%
1.0	MSTR	28.57%	GLD	19.05%
1.0	LLY	23.81%	AA	14.29%
1.0	TDG	23.81%	SLV	14.29%
1.0	LNC	23.81%	AAP	14.29%
1.0	META	19.05%	BA	14.29%
1.0	AMZN	19.05%	HON	14.29%
1.0	AZO	14.29%	WYNN	14.29%
1.0	NEM	14.29%	LVS	14.29%
1.0	AAP	14.29%	WDC	14.29%
1.0	VZ	14.29%	GNRC	14.29%
1.0	HON	14.29%	POST	14.29%
1.0	GWW	14.29%	CLF	14.29%
1.0	KALU	14.29%	TXN	14.29%
1.0	CLF	14.29%	TRGP	9.52%
1.0	PEP	14.29%	HLT	9.52%
1.0	GLD	14.29%	T	9.52%
1.0	SBUX	14.29%	FITB	9.52%
1.0	AMC	14.29%	TFC	9.52%
1.0	KEY	9.52%	KEY	9.52%
1.0	FITB	9.52%	KALU	9.52%
1.0	DHI	9.52%	CZR	9.52%
1.0	VICI	9.52%	KHC	9.52%
1.0	MSI	9.52%	LNC	9.52%
1.0	KHC	9.52%	META	9.52%
1.0	LVS	9.52%	MNST	9.52%
1.0	CVS	9.52%	MOS	9.52%
1.0	NAVI	9.52%	MSI	9.52%
1.0	ON	9.52%	NVDA	9.52%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	NFLX	58.33%	NEM	41.67%
10.0	CZR	33.33%	MOS	41.67%
10.0	TXN	33.33%	SLV	33.33%
10.0	NVS	25.0%	ORLY	33.33%
10.0	AMC	25.0%	AZO	25.0%
10.0	GLD	25.0%	HSBC	25.0%
10.0	MOS	25.0%	CZR	16.67%
10.0	ZTS	16.67%	VZ	16.67%
10.0	META	16.67%	GBTC	16.67%
10.0	CMG	16.67%	CMG	16.67%
10.0	CHTR	16.67%	GLD	16.67%
10.0	NEM	16.67%	ZION	16.67%
10.0	MSTR	16.67%	NFLX	16.67%
10.0	VZ	16.67%	NVS	16.67%
10.0	AAP	16.67%	ORCL	8.33%
10.0	KEY	8.33%	FITB	8.33%
10.0	MSI	8.33%	NWL	8.33%
10.0	LLY	8.33%	TFC	8.33%
10.0	SBUX	8.33%	DHI	8.33%
10.0	NAVI	8.33%	GNRC	8.33%
10.0	CMCSA	8.33%	BIIB	8.33%
10.0	AMZN	8.33%	MSI	8.33%
10.0	PRGO	8.33%	WYNN	8.33%
10.0	ORLY	0.0%	LVS	8.33%
10.0	ORCL	0.0%	VICI	8.33%
10.0	ON	0.0%	OXY	0.0%
10.0	LEN	0.0%	NVDA	0.0%
10.0	NWL	0.0%	LLY	0.0%
10.0	OXY	0.0%	LNC	0.0%
10.0	LW	0.0%	LQD	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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	25.4%	ORCL	12.7%
1.0	TDG	20.63%	NEM	7.94%
1.0	META	20.63%	GNRC	7.94%
1.0	TXN	19.05%	VZ	7.94%
1.0	LLY	17.46%	T	7.94%
1.0	GWW	17.46%	POST	7.94%
1.0	AMZN	14.29%	COST	6.35%
1.0	PRGO	12.7%	GLD	6.35%
1.0	CMCSA	12.7%	AAP	6.35%
1.0	MSTR	11.11%	KHC	6.35%
1.0	ISRG	11.11%	CAH	6.35%
1.0	LNC	9.52%	BXP	6.35%
1.0	GNRC	9.52%	MNST	6.35%
1.0	PEP	9.52%	MOS	6.35%
1.0	PCG	9.52%	FCX	6.35%
1.0	CVS	7.94%	FIS	6.35%
1.0	POST	7.94%	B	6.35%
1.0	BHC	7.94%	WFC	6.35%
1.0	CLF	7.94%	AMD	6.35%
1.0	CDNS	7.94%	TXN	6.35%
1.0	SBUX	6.35%	SLV	4.84%
1.0	AAP	6.35%	OXY	4.76%
1.0	AMGN	6.35%	VNO	4.76%
1.0	TSLA	6.35%	WYNN	4.76%
1.0	VZ	6.35%	WDC	4.76%
1.0	AMC	6.35%	HLT	4.76%
1.0	NAVI	6.35%	HON	4.76%
1.0	B	6.35%	INTU	4.76%
1.0	AZO	6.35%	LEN	4.76%
1.0	MSI	4.76%	NVS	4.76%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	META	29.63%	T	18.52%
10.0	TXN	25.93%	MOS	14.81%
10.0	ZTS	24.07%	FCX	12.96%
10.0	CMCSA	24.07%	VZ	11.11%
10.0	TDG	20.37%	POST	11.11%
10.0	VZ	18.52%	CZR	9.26%
10.0	GNRC	18.52%	NEM	9.26%
10.0	AMZN	16.67%	SLV	7.55%
10.0	T	14.81%	UAA	7.41%
10.0	AMC	14.81%	HSBC	7.41%
10.0	CZR	14.81%	ORLY	7.41%
10.0	PRGO	12.96%	LVS	7.41%
10.0	NFLX	12.96%	AZO	5.56%
10.0	AAP	11.11%	OXY	5.56%
10.0	POST	9.26%	NVS	3.7%
10.0	FCX	9.26%	LEN	3.7%
10.0	ISRG	9.26%	ZION	3.7%
10.0	UAA	7.41%	FITB	3.7%
10.0	GWW	7.41%	CMG	3.7%
10.0	SNY	7.41%	MSI	3.7%
10.0	OXY	7.41%	HD	3.7%
10.0	NVS	7.41%	WYNN	3.7%
10.0	LLY	5.56%	NFLX	3.7%
10.0	GLD	5.56%	SNY	3.7%
10.0	HD	5.56%	GBTC	3.7%
10.0	LEN	5.56%	GNRC	3.7%
10.0	MOS	5.56%	GLD	3.7%
10.0	BUD	5.56%	ORCL	1.85%
10.0	MSTR	3.7%	AZN	1.85%
10.0	KEY	3.7%	NWL	1.85%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	CMCSA	48.84%	T	39.53%
21.0	ZTS	46.51%	ORLY	11.63%
21.0	TDG	41.86%	MOS	11.63%
21.0	T	25.58%	AZO	9.3%
21.0	GNRC	23.26%	VZ	9.3%
21.0	VZ	20.93%	CZR	6.98%
21.0	META	18.6%	ZION	4.65%
21.0	NWL	13.95%	VICI	4.65%
21.0	CZR	11.63%	DHI	2.33%
21.0	TXN	11.63%	HD	2.33%
21.0	FCX	11.63%	BALL	2.33%
21.0	AMZN	11.63%	CMG	2.33%
21.0	PRGO	9.3%	TDG	2.33%
21.0	DHI	6.98%	FITB	2.33%
21.0	SNY	6.98%	FIS	2.33%
21.0	GWW	6.98%	FCX	2.33%
21.0	BXP	4.65%	NEM	0.0%
21.0	AMC	4.65%	ORCL	0.0%
21.0	CMG	2.33%	NWL	0.0%
21.0	MSI	2.33%	NVS	0.0%
21.0	AAP	2.33%	NVDA	0.0%
21.0	CHTR	2.33%	NFLX	0.0%
21.0	LEN	2.33%	OXY	0.0%
21.0	AMGN	2.33%	ON	0.0%
21.0	VICI	2.33%	AA	0.0%
21.0	TLT	0.0%	NAVI	0.0%
21.0	ORCL	0.0%	META	0.0%
21.0	NVS	0.0%	LLY	0.0%
21.0	WDC	0.0%	LNC	0.0%
21.0	NVDA	0.0%	LQD	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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	20.08%	AAPL	8.43%
1.0	TSLA	19.68%	TRGP	8.03%
1.0	AMZN	16.06%	HLT	8.03%
1.0	SBUX	15.66%	ORCL	8.03%
1.0	TXN	14.86%	PEP	7.63%
1.0	META	14.86%	TXN	7.63%
1.0	LLY	14.06%	GLD	7.23%
1.0	B	13.25%	HCA	7.23%
1.0	TDG	12.85%	BMY	7.23%
1.0	MSFT	12.45%	POST	7.23%
1.0	AAP	12.05%	OXY	6.83%
1.0	CLF	12.05%	GSK	6.83%
1.0	UNH	12.05%	KHC	6.83%
1.0	NAVI	11.24%	LEN	6.83%
1.0	CDNS	11.24%	GILD	6.83%
1.0	PEP	11.24%	T	6.83%
1.0	AMGN	11.24%	AMGN	6.43%
1.0	VZ	10.44%	UNH	6.43%
1.0	ISRG	10.44%	TMUS	6.43%
1.0	GWW	10.04%	IRM	6.43%
1.0	MU	9.64%	ISRG	6.43%
1.0	BHC	8.84%	NVS	6.43%
1.0	AMC	8.84%	PHM	6.43%
1.0	KHC	8.84%	SPY	6.02%
1.0	INTC	8.84%	LLY	6.02%
1.0	GOOGL	8.84%	FIS	6.02%
1.0	CMCSA	8.84%	AAP	6.02%
1.0	CVS	8.43%	HON	6.02%
1.0	QCOM	8.43%	ON	6.02%
1.0	ON	8.43%	VNO	6.02%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	TSLA	22.92%	UNH	15.83%
10.0	UNH	21.67%	PCG	12.08%
10.0	ZTS	21.25%	AAPL	11.25%
10.0	TXN	17.08%	TRGP	11.25%
10.0	BUD	17.08%	LVS	10.83%
10.0	AAP	16.67%	FITB	10.0%
10.0	CMCSA	16.25%	LLY	10.0%
10.0	META	16.25%	MRK	9.58%
10.0	AMC	15.83%	TXN	9.58%
10.0	CZR	15.42%	VFC	9.17%
10.0	GNRC	14.17%	MUB	8.79%
10.0	CHTR	14.17%	BAC	8.75%
10.0	SBUX	13.75%	IRM	8.75%
10.0	NAVI	13.75%	SBUX	8.75%
10.0	VZ	12.92%	FIS	8.75%
10.0	CVS	12.92%	BBY	8.33%
10.0	CMA	12.92%	TFC	8.33%
10.0	AMGN	12.5%	LEN	8.33%
10.0	AMZN	12.08%	GWW	8.33%
10.0	LLY	11.67%	UAA	7.92%
10.0	KALU	11.67%	FRA	7.92%
10.0	TDG	11.25%	CNC	7.92%
10.0	VFC	11.25%	HLT	7.92%
10.0	INTC	11.25%	WDC	7.92%
10.0	WDC	10.83%	MOS	7.92%
10.0	KEY	10.42%	GS	7.5%
10.0	ON	10.42%	MSI	7.5%
10.0	CDNS	10.42%	AA	7.5%
10.0	JAZZ	9.58%	CZR	7.5%
10.0	CLF	9.17%	ABBV	7.5%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	UNH	31.0%	UNH	25.33%
21.0	ZTS	30.57%	PCG	18.34%
21.0	BUD	23.58%	VFC	13.97%
21.0	CHTR	21.83%	LVS	13.1%
21.0	CMCSA	20.96%	CPRT	12.23%
21.0	GNRC	19.21%	FIS	11.79%
21.0	TSLA	19.21%	CMG	11.79%
21.0	ON	17.9%	IRM	11.35%
21.0	VFC	17.03%	FRA	10.92%
21.0	TDG	16.59%	HLT	10.48%
21.0	META	15.72%	WDC	10.04%
21.0	NAVI	15.28%	TEVA	9.61%
21.0	TXN	14.85%	MRK	9.61%
21.0	CVS	14.85%	BMY	9.61%
21.0	WDC	14.85%	CNC	9.17%
21.0	SBUX	14.41%	CHTR	9.17%
21.0	CZR	13.97%	NWL	9.17%
21.0	AMGN	13.1%	BBY	9.17%
21.0	CMA	12.23%	TRGP	8.73%
21.0	PCG	12.23%	SBUX	8.73%
21.0	AMC	11.79%	CCL	8.73%
21.0	NWL	11.79%	MUB	8.33%
21.0	CNC	11.35%	JAZZ	8.3%
21.0	GOOGL	10.92%	ISRG	8.3%
21.0	BBY	10.92%	ABBV	8.3%
21.0	ADBE	10.92%	CZR	7.86%
21.0	KALU	10.92%	OXY	7.86%
21.0	BHC	10.48%	PEP	7.86%
21.0	LLY	10.04%	SPY	7.86%
21.0	AA	10.04%	META	7.42%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	UNH	43.85%	UNH	42.25%
63.0	CNC	33.69%	CNC	33.69%
63.0	CHTR	33.69%	CHTR	27.81%
63.0	VFC	29.95%	WDC	24.6%
63.0	ON	28.34%	VFC	22.99%
63.0	GNRC	28.34%	PCG	19.79%
63.0	BUD	28.34%	CPRT	17.11%
63.0	WDC	25.13%	NWL	16.58%
63.0	BMY	24.6%	IRM	16.58%
63.0	BHC	23.53%	LEN	14.97%
63.0	TDG	22.46%	CCL	13.9%
63.0	NWL	22.46%	TEVA	13.37%
63.0	PCG	18.72%	CMG	11.23%
63.0	GOOGL	18.72%	BMY	8.56%
63.0	CMCSA	17.11%	FIS	8.56%
63.0	PRGO	16.04%	LVS	8.02%
63.0	SBUX	15.51%	MSI	8.02%
63.0	CMA	12.3%	FRA	7.49%
63.0	AAP	12.3%	PWR	7.49%
63.0	FITB	11.76%	JAZZ	7.49%
63.0	LW	10.7%	TRGP	6.95%
63.0	AAPL	9.63%	SBUX	6.42%
63.0	ADBE	9.63%	CMCSA	5.88%
63.0	PEP	9.63%	FITB	5.88%
63.0	AMC	9.09%	BUD	5.88%
63.0	VST	8.56%	BAC	5.88%
63.0	TXN	8.56%	AAPL	5.88%
63.0	BBY	8.56%	OXY	5.88%
63.0	ELAN	7.49%	BBY	5.88%
63.0	AMZN	6.95%	MRK	4.81%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	UNH	87.1%	UNH	78.23%
126.0	CNC	69.35%	CNC	66.94%
126.0	BMY	61.29%	PCG	25.81%
126.0	VFC	60.48%	LEN	15.32%
126.0	NWL	38.71%	VFC	12.1%
126.0	ON	24.19%	PEP	12.1%
126.0	GNRC	24.19%	CPRT	6.45%
126.0	CHTR	23.39%	NWL	2.42%
126.0	PEP	19.35%	BIIB	1.61%
126.0	BHC	18.55%	BHC	1.61%
126.0	CLF	12.1%	TRGP	1.61%
126.0	LW	8.87%	MUB	0.81%
126.0	LUMN	6.45%	MRK	0.81%
126.0	MRK	5.65%	MU	0.0%
126.0	BIIB	5.65%	ON	0.0%
126.0	CMCSA	4.84%	NVS	0.0%
126.0	PRGO	4.84%	ORCL	0.0%
126.0	UAA	4.03%	NVDA	0.0%
126.0	SBUX	3.23%	NFLX	0.0%
126.0	BXP	1.61%	NEM	0.0%
126.0	NVDA	0.0%	ORLY	0.0%
126.0	PHM	0.0%	NAVI	0.0%
126.0	LLY	0.0%	OXY	0.0%
126.0	PCG	0.0%	AA	0.0%
126.0	OXY	0.0%	MSTR	0.0%
126.0	ORLY	0.0%	POST	0.0%
126.0	ORCL	0.0%	MSI	0.0%
126.0	LNC	0.0%	MSFT	0.0%
126.0	LQD	0.0%	MS	0.0%
126.0	NVS	0.0%	MOS	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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	0.61%	MSTR	0.39%
1.0	GME	0.41%	NVDA	0.28%
1.0	NFLX	0.27%	VST	0.28%
1.0	META	0.23%	AVGO	0.24%
1.0	ORCL	0.19%	GBTC	0.2%
1.0	AVGO	0.18%	PWR	0.18%
1.0	WDC	0.18%	GME	0.18%
1.0	MU	0.18%	GE	0.17%
1.0	AAPL	0.17%	X	0.17%
1.0	NVDA	0.17%	WDC	0.16%
1.0	CDNS	0.17%	ORCL	0.16%
1.0	PWR	0.17%	MU	0.15%
1.0	INTU	0.16%	LLY	0.15%
1.0	GOOGL	0.15%	THC	0.15%
1.0	AMD	0.15%	CAH	0.15%
1.0	GWW	0.14%	AMD	0.14%
1.0	VST	0.13%	NFLX	0.14%
1.0	AMZN	0.13%	TEVA	0.13%
1.0	B	0.12%	TRGP	0.12%
1.0	X	0.12%	META	0.12%
1.0	XOM	0.11%	ETRN	0.12%
1.0	CLF	0.11%	TSLA	0.12%
1.0	THC	0.1%	PHM	0.11%
1.0	CAH	0.1%	CDNS	0.11%
1.0	GE	0.1%	CCL	0.1%
1.0	LLY	0.1%	IRM	0.1%
1.0	HCA	0.1%	GS	0.1%
1.0	ORLY	0.1%	GOOGL	0.1%
1.0	AA	0.1%	SLV	0.1%
1.0	HD	0.09%	TDG	0.1%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	7.35%	MSTR	3.99%
10.0	GME	5.77%	VST	2.8%
10.0	META	2.73%	NVDA	2.75%
10.0	NFLX	2.37%	AVGO	2.29%
10.0	MU	2.31%	GBTC	1.93%
10.0	VST	2.2%	PWR	1.77%
10.0	AVGO	2.15%	GE	1.7%
10.0	WDC	2.11%	ORCL	1.59%
10.0	ORCL	2.11%	X	1.58%
10.0	NVDA	2.1%	LLY	1.53%
10.0	TEVA	1.94%	GME	1.53%
10.0	SLV	1.57%	NFLX	1.52%
10.0	PWR	1.55%	MU	1.51%
10.0	GE	1.55%	META	1.51%
10.0	GOOGL	1.45%	WDC	1.48%
10.0	GBTC	1.4%	THC	1.44%
10.0	AMD	1.38%	ETRN	1.41%
10.0	AAPL	1.35%	CAH	1.36%
10.0	CDNS	1.33%	AMD	1.33%
10.0	CAH	1.28%	TEVA	1.33%
10.0	GWW	1.27%	TSLA	1.25%
10.0	ETRN	1.23%	TRGP	1.18%
10.0	X	1.21%	PHM	1.13%
10.0	THC	1.2%	CDNS	1.1%
10.0	GS	1.19%	IRM	1.06%
10.0	AMZN	1.15%	CCL	1.0%
10.0	CTLT	1.08%	GS	0.98%
10.0	HCA	1.07%	ORLY	0.96%
10.0	INTU	1.04%	SLV	0.94%
10.0	ABBV	0.97%	TDG	0.94%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	18.8%	MSTR	9.1%
21.0	GME	9.04%	VST	6.15%
21.0	META	7.43%	NVDA	5.94%
21.0	NFLX	5.77%	AVGO	4.8%
21.0	WDC	5.1%	GBTC	4.3%
21.0	AVGO	4.92%	PWR	3.75%
21.0	TEVA	4.88%	GE	3.69%
21.0	ORCL	4.84%	ORCL	3.57%
21.0	MU	4.82%	ETRN	3.5%
21.0	VST	4.72%	NFLX	3.42%
21.0	NVDA	4.65%	META	3.37%
21.0	GBTC	4.3%	LLY	3.2%
21.0	PWR	3.58%	X	3.17%
21.0	GE	3.57%	WDC	3.11%
21.0	ETRN	3.51%	THC	2.99%
21.0	TSLA	3.39%	MU	2.91%
21.0	GOOGL	3.2%	TEVA	2.9%
21.0	SLV	2.98%	TSLA	2.89%
21.0	THC	2.77%	AMD	2.81%
21.0	GS	2.74%	CAH	2.8%
21.0	CAH	2.73%	PHM	2.51%
21.0	AMD	2.71%	TRGP	2.47%
21.0	GWW	2.67%	GME	2.43%
21.0	CTLT	2.65%	CDNS	2.31%
21.0	AMZN	2.59%	IRM	2.27%
21.0	GILD	2.49%	CCL	2.25%
21.0	CDNS	2.25%	GS	2.13%
21.0	AAPL	2.23%	ORLY	2.07%
21.0	HCA	2.19%	SLV	1.96%
21.0	LLY	2.12%	TDG	1.9%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	45.99%	MSTR	27.38%
63.0	META	26.52%	VST	20.27%
63.0	NFLX	21.61%	NVDA	19.98%
63.0	WDC	18.44%	AVGO	14.82%
63.0	VST	18.43%	GBTC	14.68%
63.0	NVDA	16.69%	META	12.2%
63.0	ORCL	16.52%	NFLX	11.98%
63.0	AVGO	16.07%	GE	11.66%
63.0	GE	12.67%	ORCL	10.91%
63.0	GBTC	12.57%	ETRN	10.28%
63.0	ETRN	11.21%	PWR	10.23%
63.0	CTLT	11.11%	PHM	9.06%
63.0	TEVA	10.1%	THC	9.01%
63.0	AMD	9.31%	WDC	8.96%
63.0	MU	9.13%	LLY	8.59%
63.0	THC	9.12%	CAH	8.09%
63.0	PWR	8.71%	CCL	7.94%
63.0	CAH	8.31%	MU	7.42%
63.0	GS	8.27%	AMD	7.36%
63.0	GME	8.26%	TEVA	7.36%
63.0	GOOGL	8.21%	TRGP	7.22%
63.0	SLV	8.13%	DHI	6.9%
63.0	GILD	7.65%	CDNS	6.87%
63.0	DHI	7.48%	GS	6.76%
63.0	LLY	7.39%	TSLA	6.58%
63.0	MSI	7.37%	ORLY	6.35%
63.0	TSLA	7.33%	JPM	6.29%
63.0	GWW	7.25%	TDG	6.02%
63.0	NEM	7.07%	X	5.91%
63.0	PHM	6.9%	IRM	5.78%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	130.71%	MSTR	67.34%
126.0	META	66.96%	NVDA	49.24%
126.0	NFLX	55.24%	VST	44.1%
126.0	NVDA	48.99%	GBTC	38.75%
126.0	VST	44.83%	AVGO	31.52%
126.0	AVGO	41.4%	NFLX	29.76%
126.0	GBTC	37.72%	META	28.85%
126.0	ORCL	34.61%	GE	27.37%
126.0	WDC	32.61%	ORCL	21.84%
126.0	GE	29.0%	THC	21.51%
126.0	MU	22.87%	PWR	20.7%
126.0	TEVA	22.03%	PHM	19.11%
126.0	AMD	21.82%	ETRN	18.49%
126.0	LLY	21.08%	LLY	18.19%
126.0	THC	20.86%	CAH	17.95%
126.0	CAH	20.58%	TRGP	16.82%
126.0	ISRG	18.84%	CCL	16.09%
126.0	GILD	18.22%	TEVA	15.23%
126.0	PWR	17.52%	MU	15.22%
126.0	TDG	17.1%	TDG	15.0%
126.0	ETRN	16.95%	WDC	14.63%
126.0	INTU	16.5%	AMD	14.49%
126.0	SLV	16.2%	JPM	14.11%
126.0	AMZN	15.37%	GS	13.98%
126.0	MSI	15.16%	CDNS	13.71%
126.0	GS	15.05%	ORLY	13.38%
126.0	BA	14.85%	ISRG	13.27%
126.0	GWW	14.71%	DHI	13.15%
126.0	GOOGL	14.55%	IRM	13.06%
126.0	LEN	14.44%	GWW	12.92%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	MSTR	401.79%	MSTR	215.16%
252.0	META	169.46%	NVDA	134.21%
252.0	VST	150.2%	VST	125.4%
252.0	NFLX	136.33%	GBTC	115.0%
252.0	NVDA	133.47%	META	75.98%
252.0	GBTC	121.82%	AVGO	75.83%
252.0	AVGO	108.79%	NFLX	69.69%
252.0	ORCL	70.7%	GE	61.36%
252.0	GE	67.04%	PHM	48.79%
252.0	LLY	63.75%	THC	48.22%
252.0	AMZN	60.42%	LLY	45.93%
252.0	ISRG	58.82%	TRGP	45.7%
252.0	THC	56.96%	PWR	42.61%
252.0	TEVA	55.67%	ORCL	42.57%
252.0	TDG	49.57%	CCL	40.52%
252.0	INTU	48.48%	TDG	36.35%
252.0	AMD	46.0%	ETRN	35.78%
252.0	CAH	44.74%	ISRG	34.93%
252.0	TRGP	44.5%	TEVA	34.58%
252.0	TSLA	43.34%	CAH	34.45%
252.0	WDC	42.81%	JPM	32.46%
252.0	MSI	42.43%	IRM	31.44%
252.0	GOOGL	41.56%	GWW	30.16%
252.0	LEN	40.24%	GS	29.43%
252.0	GILD	39.91%	DHI	29.41%
252.0	ETRN	38.77%	CDNS	28.87%
252.0	EXPE	38.68%	MU	28.85%
252.0	GWW	37.95%	COST	28.73%
252.0	PHM	37.34%	ACGL	28.45%
252.0	PWR	37.2%	AMZN	28.11%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CLF	2.29%	LUMN	2.44%
1.0	AMD	1.95%	AMD	2.17%
1.0	CYH	1.73%	CYH	1.4%
1.0	QCOM	1.4%	MU	0.99%
1.0	ISRG	1.22%	ISRG	0.95%
1.0	MU	0.93%	CAH	0.94%
1.0	LUMN	0.83%	WDC	0.75%
1.0	LLY	0.67%	KALU	0.74%
1.0	ON	0.65%	GOOGL	0.66%
1.0	AMZN	0.65%	AMZN	0.48%
1.0	CMA	0.62%	CMA	0.48%
1.0	LNC	0.6%	AVGO	0.47%
1.0	GWW	0.58%	FSUGY	0.46%
1.0	CAH	0.54%	LVS	0.44%
1.0	WDC	0.52%	BHC	0.4%
1.0	FSUGY	0.51%	GILD	0.39%
1.0	BAC	0.5%	WFC	0.39%
1.0	HON	0.42%	RIO	0.39%
1.0	FCX	0.4%	ELAN	0.39%
1.0	WFC	0.37%	QCOM	0.38%
1.0	INTC	0.36%	BBY	0.37%
1.0	GOOGL	0.36%	HCA	0.37%
1.0	LVS	0.35%	INTC	0.36%
1.0	HCA	0.35%	FCX	0.36%
1.0	GILD	0.34%	NVDA	0.36%
1.0	AA	0.32%	AA	0.36%
1.0	GSK	0.29%	GSK	0.35%
1.0	CSTM	0.28%	PWR	0.34%
1.0	AAPL	0.28%	CSCO	0.33%
1.0	AVGO	0.26%	BAC	0.29%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	ISRG	44.8%	LUMN	24.02%
10.0	CYH	18.19%	CYH	20.05%
10.0	MU	12.1%	AMD	16.19%
10.0	KALU	12.01%	ISRG	15.78%
10.0	AMD	10.65%	MU	11.36%
10.0	QCOM	10.35%	KALU	10.35%
10.0	LUMN	9.5%	LVS	9.11%
10.0	BBY	8.01%	BBY	7.37%
10.0	ON	7.56%	ELAN	7.12%
10.0	CVS	7.33%	GOOGL	6.59%
10.0	AA	6.76%	AA	6.35%
10.0	LVS	6.41%	GNRC	6.17%
10.0	WFC	6.22%	CSTM	6.1%
10.0	GNRC	6.04%	WDC	5.83%
10.0	ELAN	5.45%	CAH	5.78%
10.0	WDC	5.4%	HCA	5.7%
10.0	CSTM	5.26%	FSUGY	5.45%
10.0	VFC	5.21%	QCOM	5.39%
10.0	AAPL	5.15%	INTC	5.16%
10.0	SBUX	4.57%	WFC	5.02%
10.0	CLF	4.51%	ON	4.86%
10.0	HCA	4.46%	VFC	4.59%
10.0	GILD	4.21%	RIO	4.57%
10.0	RIO	4.08%	AVGO	4.43%
10.0	AMZN	4.07%	AAPL	4.19%
10.0	INTC	4.04%	AMAT	3.92%
10.0	BAC	3.94%	THC	3.9%
10.0	CAH	3.92%	BAC	3.79%
10.0	FSUGY	3.9%	CVS	3.43%
10.0	GOOGL	3.84%	MS	3.38%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	INTC	1.56%	LUMN	1.73%
1.0	CLF	1.43%	INTC	1.23%
1.0	MU	1.33%	MU	1.21%
1.0	UNH	1.1%	WDC	1.12%
1.0	GOOGL	1.05%	CYH	0.79%
1.0	TSLA	1.05%	ELAN	0.76%
1.0	WDC	0.91%	AMD	0.68%
1.0	QCOM	0.85%	B	0.66%
1.0	LUMN	0.8%	TSLA	0.66%
1.0	CVS	0.76%	GOOGL	0.6%
1.0	AAPL	0.64%	UNH	0.58%
1.0	CYH	0.62%	CNC	0.53%
1.0	AMD	0.57%	CLF	0.51%
1.0	CNC	0.51%	AAPL	0.47%
1.0	CMA	0.48%	SLV	0.45%
1.0	BAC	0.42%	TEVA	0.44%
1.0	B	0.39%	AMAT	0.43%
1.0	CSTM	0.39%	AA	0.42%
1.0	HCA	0.38%	THC	0.41%
1.0	GWW	0.37%	CVS	0.39%
1.0	AA	0.36%	KALU	0.39%
1.0	LLY	0.35%	HCA	0.38%
1.0	ELAN	0.35%	AVGO	0.38%
1.0	BHC	0.35%	BHC	0.38%
1.0	EXPE	0.34%	NEM	0.37%
1.0	PCG	0.33%	BBY	0.37%
1.0	RIO	0.31%	GSK	0.36%
1.0	GSK	0.28%	QCOM	0.35%
1.0	ON	0.28%	CAH	0.32%
1.0	AMZN	0.28%	CSTM	0.32%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	TSLA	15.99%	LUMN	16.47%
10.0	WDC	15.38%	INTC	12.71%
10.0	INTC	14.65%	MU	12.31%
10.0	MU	13.49%	WDC	10.93%
10.0	UNH	13.35%	AMD	7.84%
10.0	GOOGL	8.4%	CYH	7.83%
10.0	CVS	8.36%	B	6.67%
10.0	CLF	7.93%	UNH	6.51%
10.0	LUMN	7.5%	TSLA	6.33%
10.0	ISRG	7.29%	CLF	6.14%
10.0	LW	6.51%	ELAN	5.92%
10.0	CNC	6.31%	CNC	5.82%
10.0	CYH	6.31%	GOOGL	5.52%
10.0	QCOM	5.41%	AMAT	4.89%
10.0	VFC	5.19%	SLV	4.66%
10.0	AAPL	5.1%	AA	4.51%
10.0	AMD	4.99%	CVS	4.28%
10.0	AA	4.92%	THC	4.27%
10.0	JAZZ	4.89%	NEM	4.13%
10.0	ELAN	4.62%	VFC	4.04%
10.0	B	4.05%	LW	3.88%
10.0	LLY	3.92%	JAZZ	3.71%
10.0	KALU	3.92%	LLY	3.68%
10.0	BBY	3.6%	GLD	3.65%
10.0	CMA	3.42%	BBY	3.46%
10.0	WYNN	3.41%	AAPL	3.46%
10.0	AMAT	3.31%	KALU	3.45%
10.0	GSK	3.27%	CSTM	3.45%
10.0	SLV	3.2%	AVGO	3.45%
10.0	HCA	3.18%	HCA	3.37%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	WDC	44.74%	LUMN	33.51%
21.0	TSLA	39.84%	MU	30.55%
21.0	INTC	37.79%	INTC	29.21%
21.0	MU	34.89%	WDC	27.52%
21.0	UNH	29.41%	AMD	19.42%
21.0	GOOGL	22.04%	B	16.5%
21.0	LUMN	19.34%	TSLA	15.41%
21.0	CVS	18.6%	AMAT	15.28%
21.0	CNC	17.28%	CLF	14.73%
21.0	AMAT	16.01%	CNC	14.18%
21.0	B	12.8%	SLV	13.69%
21.0	CLF	12.01%	UNH	13.1%
21.0	CYH	11.97%	CYH	12.71%
21.0	AA	11.94%	GOOGL	12.07%
21.0	AMD	11.33%	NEM	11.45%
21.0	LLY	10.71%	ELAN	11.12%
21.0	LW	10.59%	AA	9.79%
21.0	JAZZ	10.57%	GLD	9.59%
21.0	SLV	10.27%	ORCL	9.58%
21.0	IRM	9.31%	LW	8.57%
21.0	AAPL	8.99%	LLY	8.54%
21.0	NEM	8.91%	AVGO	8.14%
21.0	QCOM	8.85%	CVS	7.91%
21.0	VFC	7.51%	THC	7.91%
21.0	ELAN	7.13%	JAZZ	7.41%
21.0	AVGO	7.12%	AAPL	6.89%
21.0	PCG	6.93%	TEVA	6.58%
21.0	GSK	6.72%	IRM	6.57%
21.0	BBY	6.57%	PWR	6.55%
21.0	THC	6.45%	GSK	6.48%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	AAP	0.65%	WDC	0.4%
1.0	MU	0.59%	MU	0.4%
1.0	WDC	0.46%	AVGO	0.38%
1.0	INTC	0.41%	TSLA	0.33%
1.0	MSTR	0.38%	AMD	0.3%
1.0	PWR	0.38%	INTC	0.29%
1.0	TSLA	0.37%	X	0.29%
1.0	GOOGL	0.35%	VST	0.28%
1.0	ORCL	0.33%	ELAN	0.28%
1.0	GME	0.32%	NEM	0.26%
1.0	B	0.29%	LUMN	0.26%
1.0	AMZN	0.27%	GE	0.26%
1.0	QCOM	0.27%	B	0.25%
1.0	ELAN	0.27%	ORCL	0.24%
1.0	AMD	0.26%	GBTC	0.22%
1.0	NEM	0.24%	GOOGL	0.22%
1.0	NVDA	0.23%	AAP	0.22%
1.0	CDNS	0.23%	MSTR	0.22%
1.0	BA	0.22%	CAH	0.21%
1.0	QQQ	0.21%	NVDA	0.21%
1.0	LUMN	0.21%	GS	0.19%
1.0	X	0.2%	PWR	0.19%
1.0	SLV	0.18%	CSTM	0.18%
1.0	CVS	0.18%	HSBC	0.18%
1.0	NFLX	0.18%	SLV	0.18%
1.0	EXPE	0.17%	NFLX	0.18%
1.0	LNC	0.17%	EXPE	0.16%
1.0	GE	0.16%	CVS	0.16%
1.0	META	0.16%	GLD	0.16%
1.0	GS	0.16%	MS	0.16%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	7.55%	MU	3.82%
10.0	WDC	6.75%	WDC	3.73%
10.0	TSLA	4.47%	AVGO	3.6%
10.0	AAP	4.12%	NEM	2.99%
10.0	NEM	3.82%	AMD	2.95%
10.0	ORCL	3.35%	INTC	2.74%
10.0	INTC	3.28%	B	2.69%
10.0	CVS	3.11%	X	2.64%
10.0	META	3.09%	TSLA	2.56%
10.0	AVGO	3.03%	ELAN	2.53%
10.0	ELAN	3.01%	GE	2.46%
10.0	PWR	2.8%	AAP	2.29%
10.0	AMD	2.74%	ORCL	2.26%
10.0	GOOGL	2.65%	VST	2.24%
10.0	GE	2.6%	CSTM	1.96%
10.0	MSTR	2.55%	GOOGL	1.89%
10.0	X	2.47%	SLV	1.89%
10.0	B	2.42%	CVS	1.89%
10.0	GME	2.3%	BA	1.87%
10.0	SLV	2.25%	GLD	1.82%
10.0	NVDA	2.22%	HSBC	1.78%
10.0	VST	2.22%	NFLX	1.72%
10.0	QQQ	2.15%	WYNN	1.7%
10.0	EXPE	2.12%	GBTC	1.7%
10.0	MSFT	2.06%	CTLT	1.69%
10.0	BA	2.06%	PWR	1.6%
10.0	ABBV	2.05%	NVDA	1.53%
10.0	AMZN	2.03%	CAH	1.51%
10.0	GS	1.91%	GS	1.5%
10.0	TEVA	1.81%	THC	1.31%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	WDC	17.29%	MU	8.18%
21.0	MU	16.64%	WDC	8.12%
21.0	TSLA	11.32%	AVGO	8.07%
21.0	NEM	9.75%	NEM	7.06%
21.0	AVGO	7.74%	B	6.43%
21.0	CVS	7.22%	AMD	6.28%
21.0	B	6.96%	INTC	5.46%
21.0	ORCL	6.96%	ELAN	5.44%
21.0	PWR	6.95%	GE	5.34%
21.0	META	6.82%	ORCL	5.23%
21.0	INTC	6.73%	X	5.04%
21.0	ELAN	6.55%	TSLA	4.76%
21.0	AAP	6.54%	AAP	4.6%
21.0	GOOGL	5.96%	SLV	4.57%
21.0	GE	5.86%	VST	4.3%
21.0	SLV	5.14%	CTLT	4.27%
21.0	BA	5.1%	GLD	4.09%
21.0	AMD	4.86%	GOOGL	4.02%
21.0	X	4.72%	BA	3.97%
21.0	GS	4.54%	CVS	3.89%
21.0	AMZN	4.35%	CSTM	3.86%
21.0	NVDA	4.35%	HSBC	3.83%
21.0	TEVA	4.09%	NFLX	3.55%
21.0	MSFT	3.93%	WYNN	3.37%
21.0	WYNN	3.91%	NVDA	3.25%
21.0	THC	3.87%	PWR	3.21%
21.0	QQQ	3.82%	THC	3.18%
21.0	ABBV	3.76%	GS	3.07%
21.0	EXPE	3.4%	GBTC	2.94%
21.0	CSTM	3.36%	AMAT	2.91%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	WDC	65.98%	WDC	27.1%
63.0	NEM	43.17%	NEM	25.41%
63.0	B	36.78%	B	22.68%
63.0	MU	35.38%	AVGO	21.62%
63.0	ORCL	33.9%	MU	20.9%
63.0	CVS	28.94%	ORCL	20.43%
63.0	ELAN	26.86%	ELAN	19.34%
63.0	GE	24.32%	GE	18.03%
63.0	AVGO	23.69%	AMD	17.98%
63.0	TSLA	22.9%	X	16.98%
63.0	AAP	20.55%	AAP	15.82%
63.0	NVDA	19.35%	VST	13.83%
63.0	SLV	18.59%	CVS	13.62%
63.0	AMD	18.42%	INTC	13.62%
63.0	META	17.98%	NVDA	12.91%
63.0	PWR	17.8%	SLV	12.86%
63.0	THC	17.33%	CSTM	12.79%
63.0	INTC	17.27%	WYNN	12.63%
63.0	GS	17.26%	THC	12.13%
63.0	CSTM	15.81%	HSBC	11.92%
63.0	BA	15.71%	BA	11.92%
63.0	ABBV	13.68%	GLD	11.81%
63.0	VST	13.25%	NFLX	11.58%
63.0	X	13.17%	GS	10.26%
63.0	BUD	12.76%	GOOGL	10.19%
63.0	WYNN	12.66%	PWR	9.88%
63.0	KALU	12.43%	CCL	9.77%
63.0	GOOGL	12.3%	HCA	9.13%
63.0	DHI	11.75%	MOS	9.06%
63.0	CCL	11.68%	CAH	8.93%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	WDC	157.75%	WDC	66.58%
126.0	ELAN	118.83%	NEM	52.95%
126.0	MU	101.06%	AVGO	52.36%
126.0	NEM	85.35%	MU	51.61%
126.0	B	75.68%	ELAN	50.76%
126.0	ORCL	75.35%	ORCL	50.16%
126.0	AVGO	66.45%	AMD	47.15%
126.0	GE	57.13%	GE	42.96%
126.0	THC	52.77%	B	41.04%
126.0	AMD	51.3%	VST	36.38%
126.0	AAP	51.0%	CSTM	35.14%
126.0	NVDA	47.36%	AAP	34.34%
126.0	BA	46.47%	NVDA	33.87%
126.0	PWR	45.51%	THC	33.61%
126.0	CVS	43.02%	PWR	31.11%
126.0	SLV	42.51%	BA	31.02%
126.0	VST	42.1%	NFLX	30.36%
126.0	CSTM	39.38%	MOS	29.5%
126.0	META	37.17%	WYNN	28.98%
126.0	GNRC	36.1%	SLV	25.87%
126.0	INTC	34.26%	X	25.82%
126.0	GS	33.12%	CAH	24.0%
126.0	NFLX	28.56%	CCL	23.61%
126.0	BUD	28.14%	GS	23.55%
126.0	TSLA	27.8%	HSBC	23.4%
126.0	CCL	25.81%	GLD	23.26%
126.0	KALU	25.41%	MSFT	22.21%
126.0	MSFT	25.18%	GBTC	21.72%
126.0	WYNN	24.8%	HCA	20.71%
126.0	MSTR	23.47%	INTC	20.26%

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 2025-10-30

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	IEP	-0.16%	IEP	-0.16%
1.0	AMC	-0.15%	AMC	-0.14%
1.0	CHTR	-0.14%	NWL	-0.14%
1.0	CYH	-0.13%	AAP	-0.11%
1.0	FIS	-0.13%	VFC	-0.1%
1.0	LUMN	-0.11%	UAA	-0.09%
1.0	CNC	-0.08%	CZR	-0.08%
1.0	UAA	-0.08%	CHTR	-0.07%
1.0	T	-0.07%	GT	-0.06%
1.0	VFC	-0.07%	BALL	-0.06%
1.0	AAP	-0.07%	CNC	-0.05%
1.0	ELAN	-0.06%	CMCSA	-0.05%
1.0	PRGO	-0.06%	FIS	-0.04%
1.0	BXP	-0.06%	PRGO	-0.04%
1.0	TLT	-0.06%	BHC	-0.04%
1.0	GSK	-0.06%	TLT	-0.04%
1.0	GT	-0.05%	KHC	-0.03%
1.0	VZ	-0.05%	BXP	-0.02%
1.0	CSTM	-0.05%	BMY	-0.02%
1.0	USB	-0.04%	VZ	-0.02%
1.0	CMCSA	-0.04%	ADBE	-0.02%
1.0	EMB	-0.04%	ZTS	-0.02%
1.0	BMY	-0.04%	BIIB	-0.02%
1.0	PEP	-0.03%	CTLT	-0.01%
1.0	KEY	-0.03%	CVS	-0.01%
1.0	CZR	-0.03%	NAVI	-0.01%
1.0	NAVI	-0.03%	TFC	-0.01%

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 2025-10-30

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	AMC	-3.22%	FRCB	-2.19%
10.0	FRCB	-3.12%	IEP	-1.52%
10.0	IEP	-1.71%	AMC	-1.51%
10.0	CHTR	-1.45%	NWL	-1.14%
10.0	AAP	-1.38%	UAA	-1.02%
10.0	VFC	-1.18%	VFC	-0.99%
10.0	NWL	-0.99%	CZR	-0.96%
10.0	PRGO	-0.88%	AAP	-0.91%
10.0	FIS	-0.85%	CHTR	-0.64%
10.0	GT	-0.77%	GT	-0.63%
10.0	GSK	-0.76%	CNC	-0.61%
10.0	CNC	-0.76%	BALL	-0.52%
10.0	TLT	-0.7%	CMCSA	-0.45%
10.0	VZ	-0.61%	BHC	-0.42%
10.0	BXP	-0.6%	TLT	-0.41%
10.0	BIIB	-0.6%	PRGO	-0.39%
10.0	BHC	-0.54%	FIS	-0.38%
10.0	BMY	-0.52%	BMY	-0.32%
10.0	LUMN	-0.5%	BXP	-0.28%
10.0	BALL	-0.46%	KHC	-0.27%
10.0	CYH	-0.4%	BIIB	-0.26%
10.0	CMCSA	-0.38%	ZION	-0.24%
10.0	ZION	-0.33%	VZ	-0.23%
10.0	LNC	-0.3%	LNC	-0.22%
10.0	LQD	-0.25%	ZTS	-0.22%
10.0	UAA	-0.17%	NAVI	-0.2%
10.0	EMB	-0.14%	TFC	-0.18%
10.0	T	-0.13%	ADBE	-0.14%

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 2025-10-30

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	-6.8%	AMC	-3.59%
21.0	AAP	-3.32%	IEP	-3.28%
21.0	NWL	-3.19%	NWL	-2.48%
21.0	IEP	-3.0%	VFC	-2.17%
21.0	VFC	-2.82%	CZR	-2.01%
21.0	CHTR	-2.61%	UAA	-1.98%
21.0	PRGO	-1.67%	AAP	-1.85%
21.0	CNC	-1.53%	CHTR	-1.24%
21.0	GSK	-1.5%	GT	-1.24%
21.0	BHC	-1.45%	CNC	-1.17%
21.0	FIS	-1.41%	BHC	-1.16%
21.0	TLT	-1.36%	BALL	-1.1%
21.0	BMY	-1.23%	CMCSA	-0.87%
21.0	GT	-1.04%	TLT	-0.86%
21.0	BIIB	-1.03%	PRGO	-0.85%
21.0	CMCSA	-1.02%	BMY	-0.72%
21.0	LNC	-1.02%	KHC	-0.66%
21.0	BXP	-0.9%	BXP	-0.64%
21.0	CYH	-0.84%	FIS	-0.63%
21.0	BALL	-0.78%	LNC	-0.58%
21.0	CZR	-0.69%	BIIB	-0.49%
21.0	VZ	-0.69%	ZTS	-0.47%
21.0	ZION	-0.55%	NAVI	-0.47%
21.0	LUMN	-0.52%	VZ	-0.46%
21.0	ZTS	-0.45%	TFC	-0.37%
21.0	LQD	-0.4%	AA	-0.34%
21.0	KHC	-0.3%	ZION	-0.29%

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 2025-10-30

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	-29.36%	AMC	-14.11%
63.0	VFC	-11.27%	IEP	-10.84%
63.0	AAP	-10.8%	NWL	-7.47%
63.0	IEP	-10.79%	VFC	-6.66%
63.0	NWL	-8.03%	CZR	-6.04%
63.0	CHTR	-7.21%	UAA	-5.5%
63.0	CNC	-6.75%	AAP	-5.33%
63.0	CZR	-4.07%	CNC	-4.96%
63.0	BHC	-4.02%	CHTR	-3.56%
63.0	TLT	-3.98%	AA	-3.28%
63.0	PRGO	-3.95%	BHC	-3.27%
63.0	FIS	-3.67%	BALL	-3.03%
63.0	MOS	-3.56%	PRGO	-2.95%
63.0	BIIB	-3.08%	MOS	-2.83%
63.0	BMY	-3.04%	TLT	-2.5%
63.0	GSK	-3.03%	GT	-2.49%
63.0	BALL	-3.01%	BMY	-2.43%
63.0	UNH	-2.91%	KHC	-2.36%
63.0	CMCSA	-2.83%	BXP	-2.26%
63.0	UAA	-2.7%	CMCSA	-2.16%
63.0	KHC	-2.46%	CLF	-2.08%
63.0	LNC	-2.38%	BIIB	-1.78%
63.0	GT	-2.0%	UNH	-1.76%
63.0	CLF	-1.73%	FIS	-1.69%
63.0	ON	-1.72%	LNC	-1.56%
63.0	AA	-1.31%	NAVI	-1.4%
63.0	JAZZ	-1.14%	CVS	-1.39%

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 2025-10-30

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	-50.26%	AMC	-27.08%
126.0	VFC	-28.73%	IEP	-21.19%
126.0	IEP	-24.31%	NWL	-16.38%
126.0	AAP	-22.09%	VFC	-13.89%
126.0	NWL	-19.53%	AAP	-12.75%
126.0	CNC	-13.42%	CZR	-9.58%
126.0	BHC	-12.0%	CNC	-9.48%
126.0	CHTR	-9.87%	UAA	-8.06%
126.0	CZR	-9.07%	CLF	-7.28%
126.0	PRGO	-8.68%	AA	-6.78%
126.0	MOS	-8.49%	BHC	-6.29%
126.0	AA	-7.86%	PRGO	-5.95%
126.0	BMY	-7.59%	CTLT	-5.69%
126.0	TLT	-7.4%	MOS	-5.66%
126.0	CLF	-7.12%	BMY	-5.51%
126.0	UAA	-7.05%	KHC	-5.11%
126.0	UNH	-6.61%	TLT	-4.82%
126.0	BIIB	-6.22%	UNH	-4.79%
126.0	JAZZ	-5.75%	CHTR	-4.49%
126.0	KHC	-5.49%	BXP	-4.3%
126.0	LNC	-5.32%	BALL	-4.25%
126.0	GSK	-5.02%	BIIB	-4.22%
126.0	OXY	-4.23%	CVS	-4.08%
126.0	BALL	-4.06%	GT	-3.34%
126.0	CMCSA	-4.02%	LNC	-3.32%
126.0	BXP	-3.11%	INTC	-3.26%
126.0	FIS	-2.97%	CMCSA	-3.16%

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 2025-10-30

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	-97.36%	AMC	-54.63%
252.0	AAP	-66.87%	IEP	-44.22%
252.0	IEP	-55.13%	AAP	-34.02%
252.0	VFC	-41.9%	NWL	-28.0%
252.0	NWL	-37.84%	VFC	-23.4%
252.0	BIIB	-29.64%	CLF	-16.68%
252.0	UAA	-26.63%	MOS	-16.46%
252.0	MOS	-24.71%	CZR	-16.29%
252.0	AA	-23.86%	CNC	-15.5%
252.0	CZR	-23.64%	UAA	-13.87%
252.0	CLF	-22.84%	CVS	-13.05%
252.0	PRGO	-20.73%	PRGO	-12.76%
252.0	OXY	-20.05%	BIIB	-12.63%
252.0	CVS	-17.12%	AA	-11.25%
252.0	CNC	-16.87%	BMY	-10.5%
252.0	BHC	-16.17%	KHC	-9.77%
252.0	CHTR	-14.95%	OXY	-8.68%
252.0	TLT	-13.91%	TLT	-8.37%
252.0	KHC	-12.79%	BHC	-8.29%
252.0	JAZZ	-12.36%	GT	-7.3%
252.0	BMY	-10.83%	CYH	-6.93%
252.0	CYH	-8.31%	JAZZ	-6.88%
252.0	BHP	-8.13%	INTC	-6.65%
252.0	GT	-7.07%	CTLT	-6.24%
252.0	BXP	-6.1%	CHTR	-5.97%
252.0	UNH	-5.65%	UNH	-5.73%
252.0	BALL	-5.3%	BHP	-5.44%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	TXN	-1.63%	NWL	-1.78%
1.0	AMC	-1.55%	CZR	-1.27%
1.0	META	-1.49%	AAP	-1.23%
1.0	CMG	-1.47%	MSTR	-1.19%
1.0	MSTR	-1.45%	MOS	-1.09%
1.0	NWL	-1.35%	CMG	-1.04%
1.0	CZR	-1.25%	GME	-0.92%
1.0	VFC	-0.92%	AMC	-0.9%
1.0	AZO	-0.9%	AZO	-0.69%
1.0	GME	-0.87%	CHTR	-0.65%
1.0	SBUX	-0.8%	DHI	-0.64%
1.0	AAP	-0.75%	TXN	-0.56%
1.0	CHTR	-0.71%	PHM	-0.54%
1.0	DHI	-0.58%	META	-0.5%
1.0	FIS	-0.58%	WYNN	-0.5%
1.0	MOS	-0.54%	ORLY	-0.5%
1.0	CNC	-0.52%	UAA	-0.46%
1.0	PRGO	-0.48%	MSI	-0.44%
1.0	UAA	-0.46%	GBTC	-0.44%
1.0	MSI	-0.42%	TMUS	-0.42%
1.0	NFLX	-0.42%	VICI	-0.41%
1.0	TMUS	-0.38%	CMCSA	-0.41%
1.0	VICI	-0.38%	GT	-0.41%
1.0	VZ	-0.36%	ORCL	-0.4%
1.0	ZTS	-0.34%	VZ	-0.4%
1.0	CMCSA	-0.32%	T	-0.4%
1.0	T	-0.31%	ABBV	-0.38%
1.0	VST	-0.3%	VNO	-0.36%
1.0	POST	-0.3%	VFC	-0.36%
1.0	ABBV	-0.29%	BA	-0.35%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	-20.25%	MSTR	-10.84%
10.0	AMC	-17.1%	MOS	-9.52%
10.0	CZR	-11.99%	CZR	-8.41%
10.0	CHTR	-11.65%	CHTR	-8.06%
10.0	TXN	-11.07%	AMC	-6.11%
10.0	MOS	-6.67%	GBTC	-5.83%
10.0	NFLX	-5.56%	AZO	-5.4%
10.0	CNC	-5.3%	ORCL	-5.36%
10.0	CMCSA	-5.04%	CNC	-4.88%
10.0	OXY	-5.01%	VST	-4.72%
10.0	CMG	-4.9%	ZION	-4.62%
10.0	GME	-4.83%	ACGL	-4.58%
10.0	VZ	-4.78%	NFLX	-4.51%
10.0	VST	-4.44%	PHM	-4.48%
10.0	NWL	-4.33%	NWL	-4.39%
10.0	ORCL	-4.2%	GME	-4.37%
10.0	AZO	-3.78%	OXY	-4.36%
10.0	UAA	-3.17%	TXN	-4.09%
10.0	KEY	-3.09%	ORLY	-4.09%
10.0	MSI	-3.09%	CMCSA	-3.46%
10.0	T	-2.82%	NEM	-3.41%
10.0	ACGL	-2.78%	VZ	-3.4%
10.0	PRGO	-2.69%	CMG	-3.38%
10.0	LLY	-2.56%	MSI	-3.06%
10.0	FRA	-2.5%	B	-3.04%
10.0	VNO	-2.49%	UAA	-2.9%
10.0	FITB	-2.45%	TRGP	-2.88%
10.0	NVS	-2.38%	DHI	-2.83%
10.0	TMUS	-2.34%	T	-2.8%
10.0	FIS	-2.33%	VNO	-2.75%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	UAA	-1.11%	UAA	-0.56%
1.0	TDG	-1.11%	GT	-0.53%
1.0	MSTR	-0.83%	MSTR	-0.52%
1.0	META	-0.75%	NWL	-0.5%
1.0	PRGO	-0.67%	CMG	-0.44%
1.0	CMG	-0.62%	PRGO	-0.39%
1.0	TXN	-0.57%	MOS	-0.37%
1.0	GNRC	-0.42%	FIS	-0.35%
1.0	NWL	-0.4%	BALL	-0.31%
1.0	CMCSA	-0.4%	CZR	-0.31%
1.0	CZR	-0.39%	TDG	-0.3%
1.0	FIS	-0.37%	META	-0.27%
1.0	AMC	-0.36%	INTU	-0.24%
1.0	GT	-0.32%	CMCSA	-0.24%
1.0	AZO	-0.24%	GNRC	-0.21%
1.0	VST	-0.23%	TMUS	-0.21%
1.0	ZTS	-0.21%	VICI	-0.19%
1.0	TMUS	-0.18%	TXN	-0.18%
1.0	MOS	-0.18%	T	-0.17%
1.0	BALL	-0.18%	CHTR	-0.16%
1.0	INTU	-0.16%	VST	-0.16%
1.0	CHTR	-0.16%	IEP	-0.16%
1.0	VICI	-0.15%	SBUX	-0.15%
1.0	T	-0.15%	AAP	-0.15%
1.0	CCL	-0.14%	BA	-0.14%
1.0	MSI	-0.13%	HON	-0.13%
1.0	CDNS	-0.11%	AMC	-0.13%
1.0	KHC	-0.11%	AZO	-0.11%
1.0	POST	-0.1%	VZ	-0.11%
1.0	VFC	-0.09%	MSI	-0.11%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	-8.8%	MSTR	-5.41%
10.0	AMC	-4.64%	GT	-4.25%
10.0	UAA	-4.09%	UAA	-3.16%
10.0	TXN	-3.78%	CZR	-2.34%
10.0	META	-3.63%	IEP	-2.21%
10.0	TDG	-3.57%	TMUS	-2.01%
10.0	CMCSA	-3.52%	CMCSA	-1.93%
10.0	GNRC	-3.18%	T	-1.87%
10.0	GT	-2.95%	BALL	-1.86%
10.0	PRGO	-2.8%	MOS	-1.84%
10.0	CZR	-2.8%	TXN	-1.83%
10.0	VZ	-2.73%	PRGO	-1.67%
10.0	CHTR	-2.39%	INTU	-1.65%
10.0	CMG	-2.05%	FIS	-1.57%
10.0	T	-1.93%	VZ	-1.56%
10.0	TMUS	-1.78%	KHC	-1.52%
10.0	IEP	-1.78%	AMC	-1.43%
10.0	SBUX	-1.66%	CMG	-1.39%
10.0	NWL	-1.52%	VICI	-1.31%
10.0	KHC	-1.42%	TRGP	-1.31%
10.0	MOS	-1.26%	SBUX	-1.3%
10.0	FIS	-1.26%	CHTR	-1.26%
10.0	BALL	-1.25%	TDG	-1.25%
10.0	CDNS	-1.24%	META	-1.19%
10.0	NFLX	-1.15%	AAP	-1.13%
10.0	FRA	-1.1%	BA	-1.08%
10.0	AAP	-1.06%	NFLX	-1.02%
10.0	BHC	-1.02%	FRA	-1.01%
10.0	VICI	-1.01%	CPRT	-1.01%
10.0	INTU	-1.01%	GBTC	-0.98%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	-12.5%	GT	-9.52%
21.0	CMCSA	-11.19%	MSTR	-8.74%
21.0	NWL	-10.66%	CZR	-5.69%
21.0	TDG	-9.48%	TXN	-5.63%
21.0	TXN	-8.73%	TMUS	-5.26%
21.0	CZR	-8.15%	CMCSA	-5.23%
21.0	GNRC	-7.67%	UAA	-5.02%
21.0	META	-7.35%	T	-4.79%
21.0	BHC	-6.84%	BHC	-4.53%
21.0	PRGO	-6.69%	BALL	-4.51%
21.0	ZTS	-6.42%	PRGO	-4.37%
21.0	TMUS	-5.75%	NWL	-4.05%
21.0	GT	-5.48%	KHC	-4.0%
21.0	SBUX	-5.21%	VZ	-3.95%
21.0	UAA	-4.77%	SBUX	-3.64%
21.0	VZ	-4.57%	TDG	-3.61%
21.0	T	-4.19%	IEP	-3.43%
21.0	CMG	-4.06%	CPRT	-3.31%
21.0	BMY	-4.04%	AAP	-3.16%
21.0	AAP	-3.59%	GNRC	-3.12%
21.0	AMC	-3.48%	VICI	-3.07%
21.0	BALL	-3.3%	BA	-3.04%
21.0	IEP	-3.21%	BMY	-3.02%
21.0	CPRT	-3.2%	FIS	-2.89%
21.0	KHC	-3.19%	INTU	-2.86%
21.0	NAVI	-3.08%	MOS	-2.85%
21.0	CHTR	-3.02%	TRGP	-2.76%
21.0	VICI	-2.69%	META	-2.68%
21.0	INTU	-2.68%	CMG	-2.61%
21.0	OXY	-2.52%	ZTS	-2.57%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	UAA	-0.51%	NWL	-0.29%
1.0	AMC	-0.42%	CZR	-0.22%
1.0	CZR	-0.36%	CMG	-0.22%
1.0	CNC	-0.32%	UAA	-0.18%
1.0	CMG	-0.28%	AMC	-0.16%
1.0	NAVI	-0.21%	CMCSA	-0.16%
1.0	VFC	-0.15%	CNC	-0.16%
1.0	KHC	-0.15%	UNH	-0.15%
1.0	TXN	-0.14%	IEP	-0.15%
1.0	NWL	-0.14%	CHTR	-0.15%
1.0	TDG	-0.13%	FIS	-0.12%
1.0	CYH	-0.12%	ADBE	-0.12%
1.0	FIS	-0.11%	KHC	-0.11%
1.0	PEP	-0.11%	LEN	-0.1%
1.0	IEP	-0.1%	ZTS	-0.08%
1.0	CMCSA	-0.1%	BALL	-0.08%
1.0	ZTS	-0.1%	ON	-0.07%
1.0	ON	-0.1%	PCG	-0.07%
1.0	CHTR	-0.09%	BHC	-0.07%
1.0	SBUX	-0.08%	VFC	-0.07%
1.0	UNH	-0.07%	PRGO	-0.07%
1.0	CPRT	-0.07%	TXN	-0.06%
1.0	BALL	-0.07%	SBUX	-0.06%
1.0	BUD	-0.06%	CPRT	-0.06%
1.0	BBY	-0.06%	MRK	-0.05%
1.0	ADBE	-0.06%	LW	-0.05%
1.0	ACGL	-0.05%	BMY	-0.05%
1.0	GT	-0.05%	OXY	-0.05%
1.0	ISRG	-0.05%	IRM	-0.04%
1.0	USB	-0.04%	PEP	-0.04%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AMC	-4.56%	UAA	-2.4%
10.0	CZR	-2.72%	CZR	-2.14%
10.0	CHTR	-2.69%	NWL	-1.85%
10.0	UAA	-2.52%	CMCSA	-1.61%
10.0	CNC	-2.25%	CNC	-1.59%
10.0	CMCSA	-1.73%	IEP	-1.58%
10.0	NWL	-1.63%	AMC	-1.57%
10.0	ADBE	-1.4%	CHTR	-1.54%
10.0	CMG	-1.35%	UNH	-1.47%
10.0	IEP	-1.33%	CMG	-1.43%
10.0	BMY	-1.28%	ADBE	-1.31%
10.0	KHC	-1.2%	FIS	-1.06%
10.0	BHC	-1.13%	LEN	-1.05%
10.0	BALL	-1.11%	KHC	-1.02%
10.0	ON	-1.05%	BMY	-0.9%
10.0	NAVI	-0.95%	BALL	-0.77%
10.0	ZTS	-0.94%	CPRT	-0.76%
10.0	PRGO	-0.86%	PCG	-0.75%
10.0	GT	-0.76%	BHC	-0.73%
10.0	SBUX	-0.73%	ON	-0.73%
10.0	CPRT	-0.72%	GT	-0.71%
10.0	VZ	-0.66%	GWW	-0.7%
10.0	FIS	-0.64%	ZTS	-0.69%
10.0	BIIB	-0.52%	PRGO	-0.66%
10.0	TDG	-0.43%	TXN	-0.62%
10.0	LLY	-0.43%	LW	-0.59%
10.0	PEP	-0.4%	OXY	-0.58%
10.0	GNRC	-0.39%	TRGP	-0.53%
10.0	TXN	-0.35%	NAVI	-0.52%
10.0	POST	-0.28%	ACGL	-0.5%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	CHTR	-6.2%	UAA	-5.27%
21.0	CZR	-6.19%	CZR	-4.14%
21.0	NWL	-5.44%	NWL	-4.1%
21.0	AMC	-4.76%	AMC	-3.69%
21.0	UAA	-4.29%	CMCSA	-3.29%
21.0	CMCSA	-4.26%	UNH	-3.1%
21.0	CNC	-4.18%	CMG	-3.08%
21.0	ON	-3.52%	ADBE	-3.03%
21.0	ADBE	-3.51%	IEP	-2.96%
21.0	ZTS	-3.44%	CHTR	-2.94%
21.0	BMY	-3.38%	CNC	-2.79%
21.0	BHC	-2.97%	LEN	-2.44%
21.0	NAVI	-2.5%	FIS	-2.18%
21.0	CMG	-2.32%	BMY	-2.17%
21.0	PRGO	-2.26%	KHC	-2.04%
21.0	IEP	-1.88%	GT	-2.04%
21.0	KHC	-1.78%	CPRT	-2.02%
21.0	LW	-1.74%	BALL	-1.86%
21.0	GNRC	-1.52%	ON	-1.8%
21.0	CPRT	-1.48%	PCG	-1.78%
21.0	BALL	-1.39%	PRGO	-1.75%
21.0	FIS	-1.25%	TRGP	-1.72%
21.0	GT	-1.21%	GWW	-1.72%
21.0	GWW	-1.13%	ZTS	-1.65%
21.0	ACGL	-1.03%	BHC	-1.4%
21.0	BIIB	-0.82%	OXY	-1.28%
21.0	TDG	-0.79%	NAVI	-1.28%
21.0	LLY	-0.77%	LW	-1.25%
21.0	TRGP	-0.74%	SBUX	-1.11%
21.0	PCG	-0.69%	MRK	-1.07%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	CNC	-20.65%	UAA	-15.83%
63.0	NWL	-18.78%	NWL	-15.74%
63.0	UNH	-17.62%	CNC	-14.87%
63.0	CHTR	-16.11%	UNH	-12.74%
63.0	UAA	-15.52%	CMG	-11.39%
63.0	ADBE	-13.65%	CZR	-11.03%
63.0	ON	-12.5%	AMC	-9.87%
63.0	CZR	-12.21%	ADBE	-9.23%
63.0	BMY	-11.17%	CHTR	-8.74%
63.0	CMCSA	-11.05%	VFC	-8.38%
63.0	AMC	-9.72%	BMY	-7.05%
63.0	VFC	-8.46%	CPRT	-7.04%
63.0	CMG	-8.07%	CMCSA	-7.03%
63.0	ZTS	-7.9%	IEP	-6.31%
63.0	PRGO	-7.48%	FIS	-5.91%
63.0	GME	-6.68%	PCG	-5.86%
63.0	IEP	-6.11%	TRGP	-5.22%
63.0	PCG	-5.37%	MRK	-5.02%
63.0	LW	-4.86%	KHC	-4.94%
63.0	KHC	-4.62%	ZTS	-4.73%
63.0	FIS	-4.51%	ISRG	-4.69%
63.0	CPRT	-4.17%	PRGO	-4.62%
63.0	MRK	-3.88%	LW	-4.47%
63.0	GWW	-3.84%	GWW	-4.46%
63.0	NAVI	-3.75%	GME	-4.25%
63.0	BALL	-3.43%	AA	-3.72%
63.0	TDG	-3.18%	BBY	-3.67%
63.0	BHC	-3.18%	LEN	-3.66%
63.0	BIIB	-2.82%	BALL	-3.56%
63.0	ISRG	-2.59%	ON	-3.43%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	CNC	-56.67%	UNH	-39.01%
126.0	UNH	-48.52%	CNC	-34.68%
126.0	VFC	-46.71%	NWL	-27.32%
126.0	NWL	-40.05%	VFC	-25.39%
126.0	BMY	-32.15%	UAA	-23.32%
126.0	UAA	-24.58%	BMY	-17.87%
126.0	CHTR	-22.12%	CZR	-17.86%
126.0	CZR	-19.3%	CMG	-17.24%
126.0	CMCSA	-16.97%	CPRT	-15.4%
126.0	AMC	-15.48%	ADBE	-14.97%
126.0	CMG	-14.58%	PCG	-14.15%
126.0	SBUX	-14.16%	AMC	-13.88%
126.0	ADBE	-13.87%	TRGP	-13.37%
126.0	IEP	-13.1%	KHC	-11.91%
126.0	KHC	-12.68%	IEP	-11.81%
126.0	MRK	-11.81%	MRK	-11.38%
126.0	ZTS	-11.05%	CHTR	-11.32%
126.0	BHC	-10.3%	CMCSA	-11.17%
126.0	PRGO	-9.64%	SBUX	-9.26%
126.0	LW	-9.46%	BHC	-9.21%
126.0	BBY	-8.65%	BBY	-8.37%
126.0	CPRT	-8.53%	ZTS	-7.6%
126.0	PCG	-8.21%	LEN	-7.51%
126.0	GME	-7.73%	AA	-7.23%
126.0	PEP	-7.52%	LW	-7.16%
126.0	BIIB	-6.91%	ISRG	-6.92%
126.0	ON	-6.12%	PEP	-6.72%
126.0	SNY	-6.05%	OXY	-6.46%
126.0	TRGP	-5.93%	GME	-6.04%
126.0	LLY	-5.8%	PRGO	-5.76%

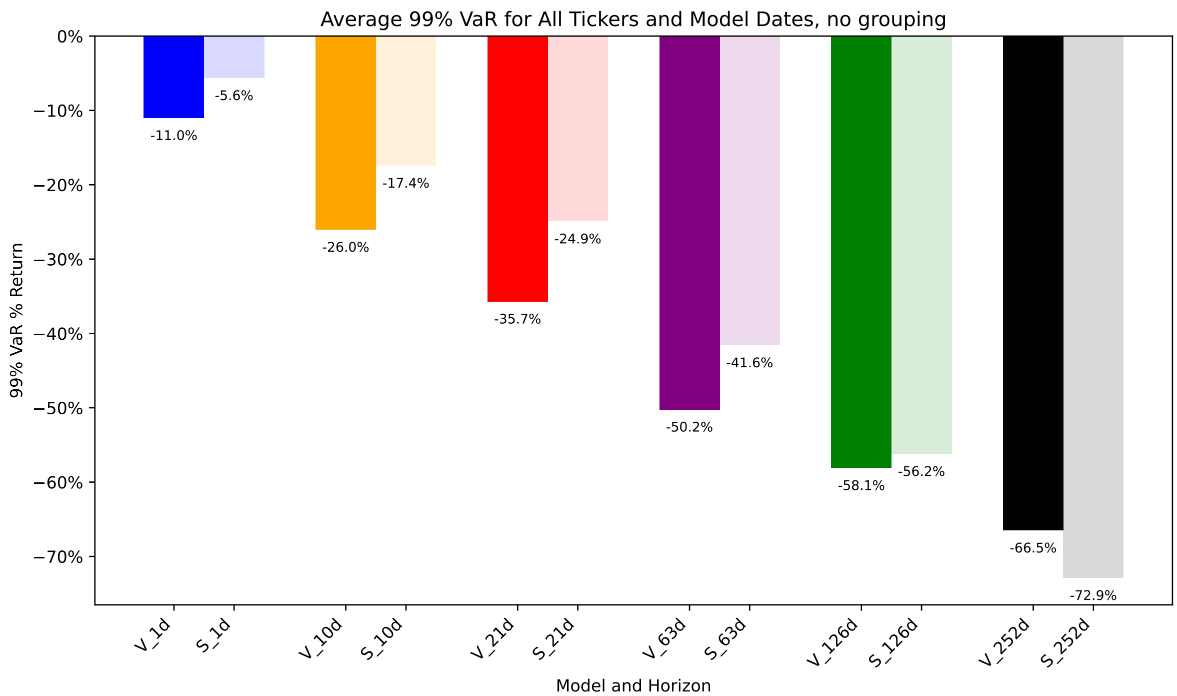
99% Value at Risk (VaR)

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.

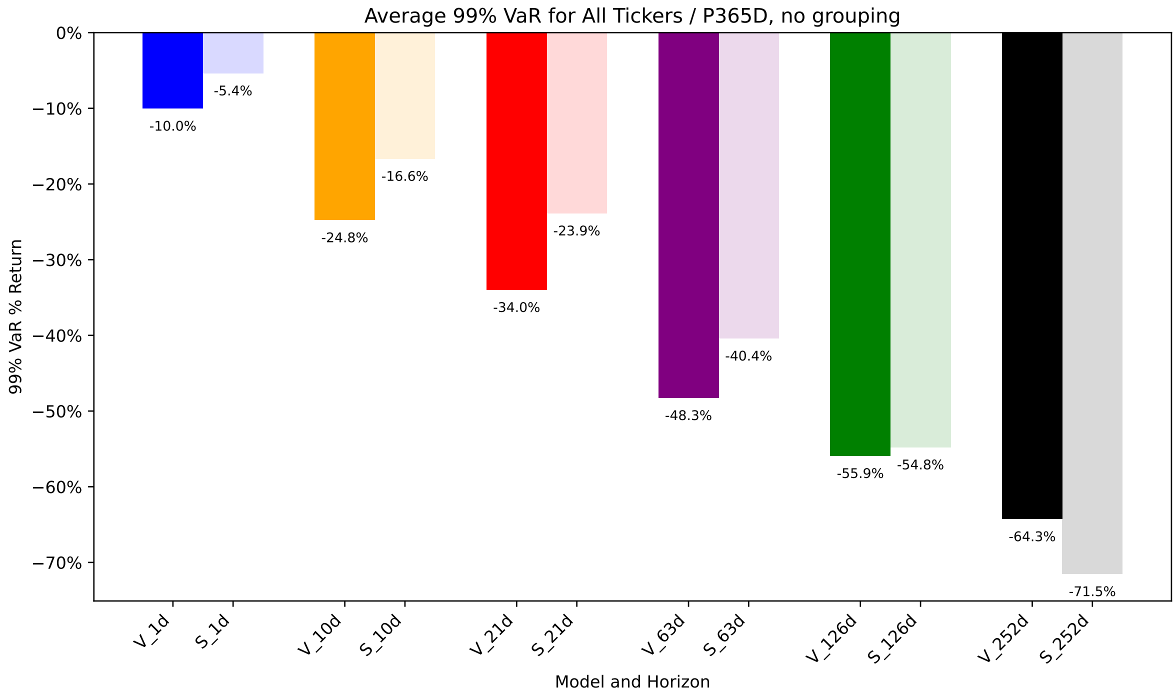
All Out of Sample Model Dates

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



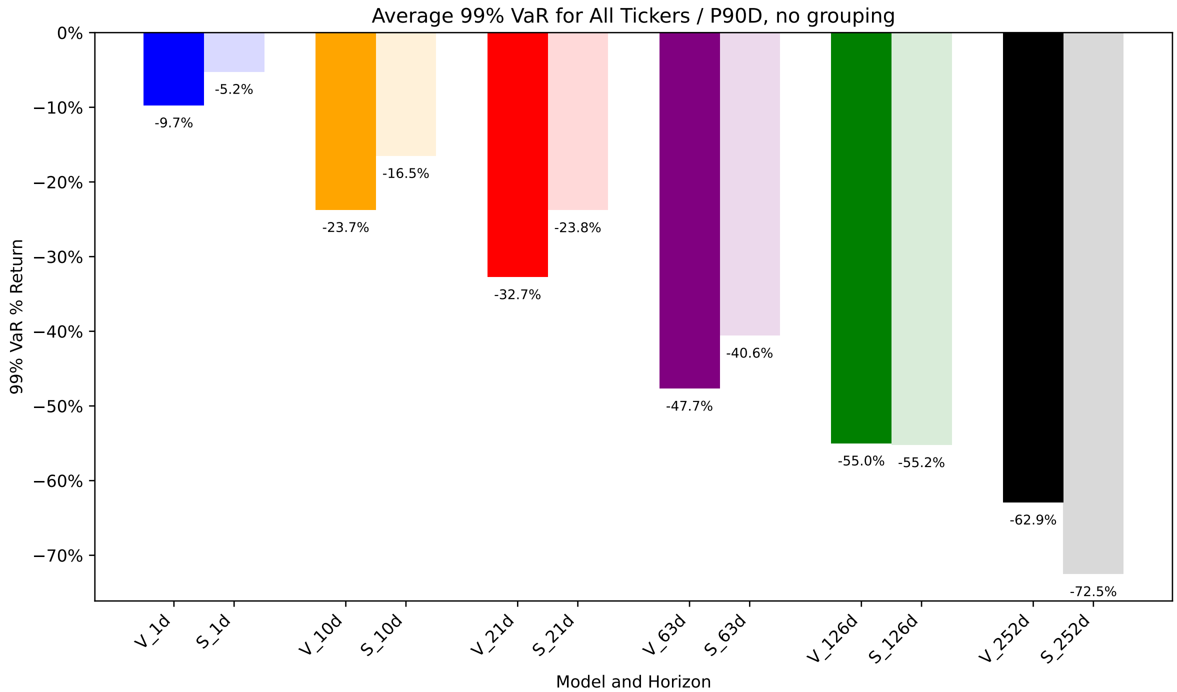
Prior 365 Calendar Days (P365D)

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



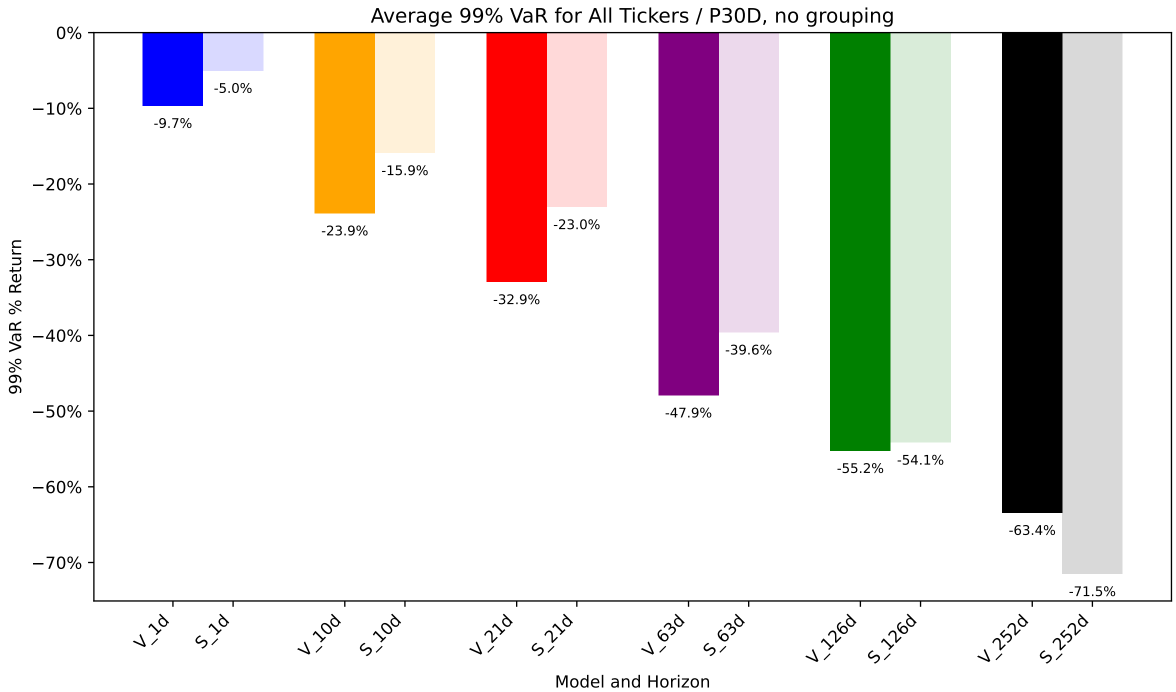
Prior 90 Calendar Days (P90D)

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



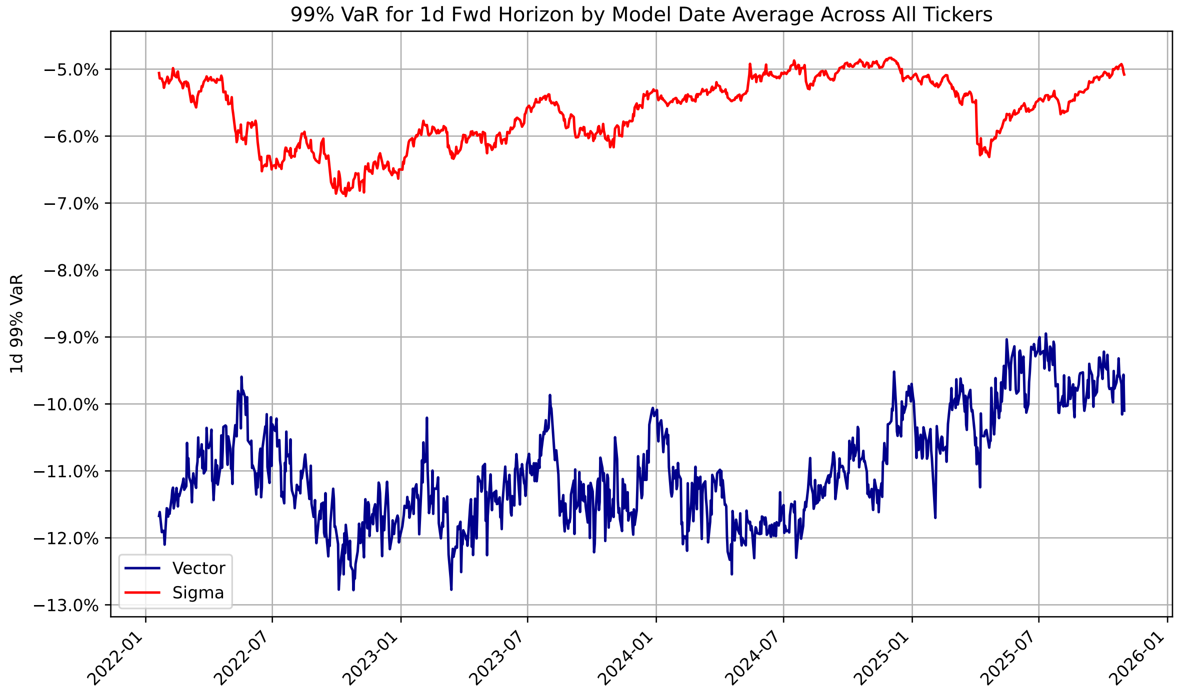
Prior 30 Calendar Days (P30D)

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

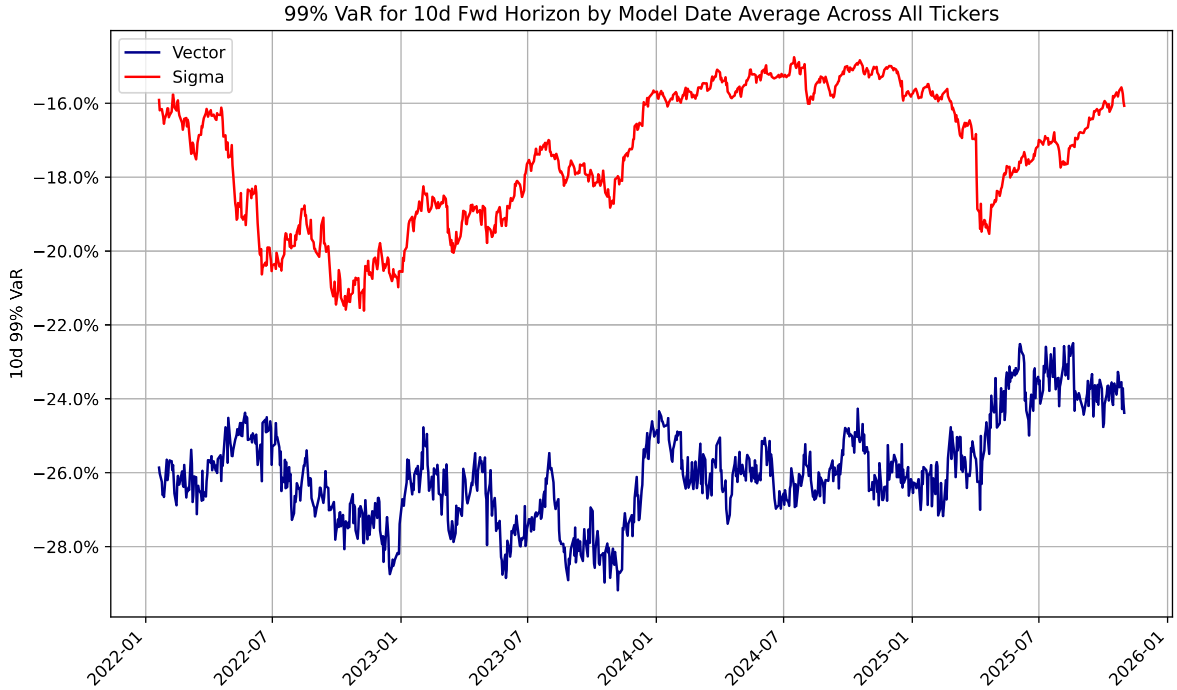


Daily Levels

1d Horizon

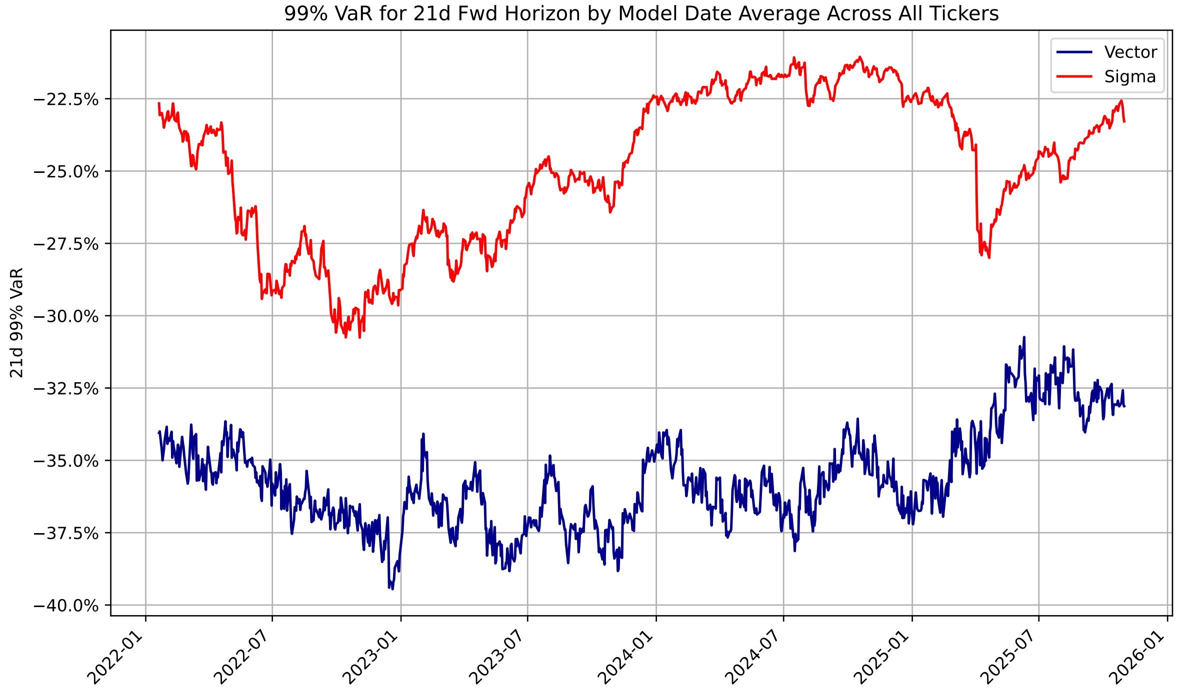


10d Horizon



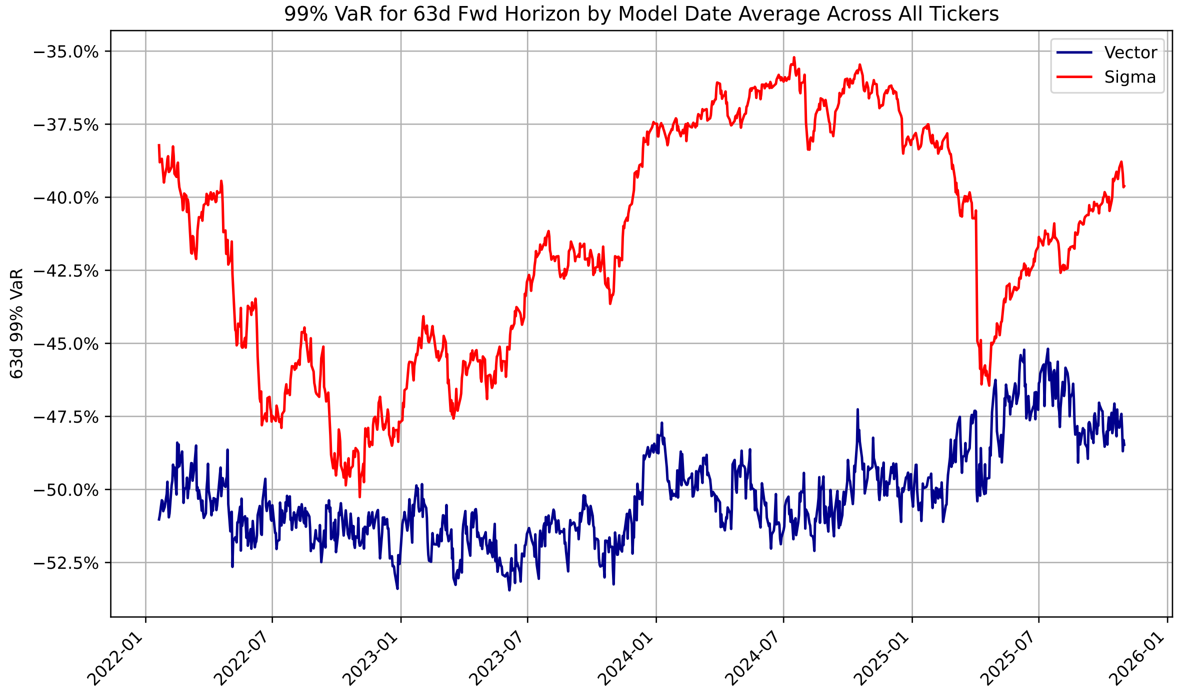
99% VaR for 10d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
10d 99% VaR
−16.0%
−18.0%
−20.0%
−22.0%
−24.0%
−26.0%
−28.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

21d Horizon

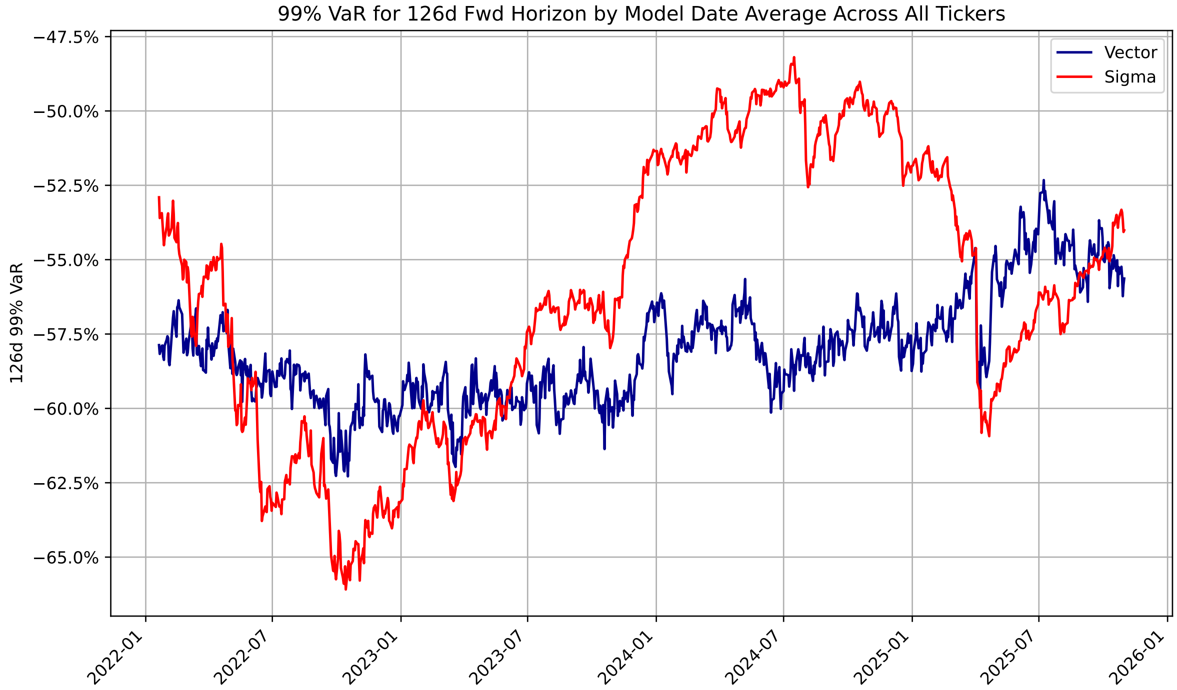


99% VaR for 21d Fwd Horizon by Model Date Average Across All Tickers
Vector
Sigma
21d 99% VaR
−22.5%
−25.0%
−27.5%
−30.0%
−32.5%
−35.0%
−37.5%
−40.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

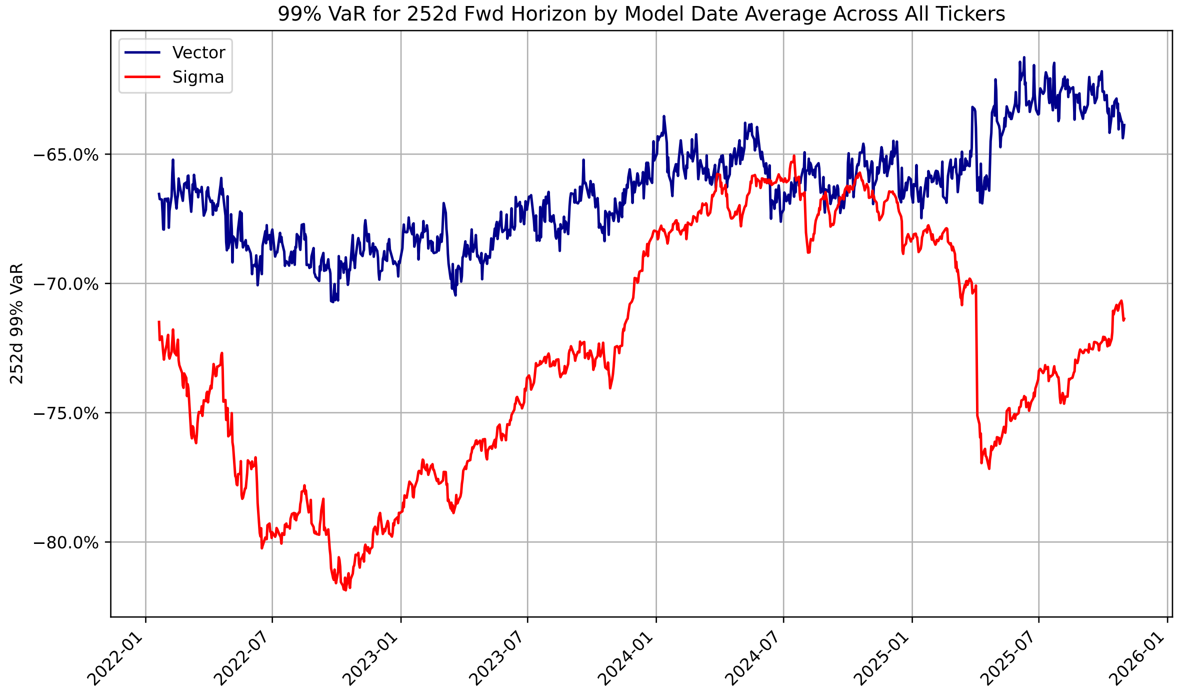
63d Horizon


99% VaR for 63d Fwd Horizon by Model Date Average Across All Tickers
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
2026-01
Vector
Sigma

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.

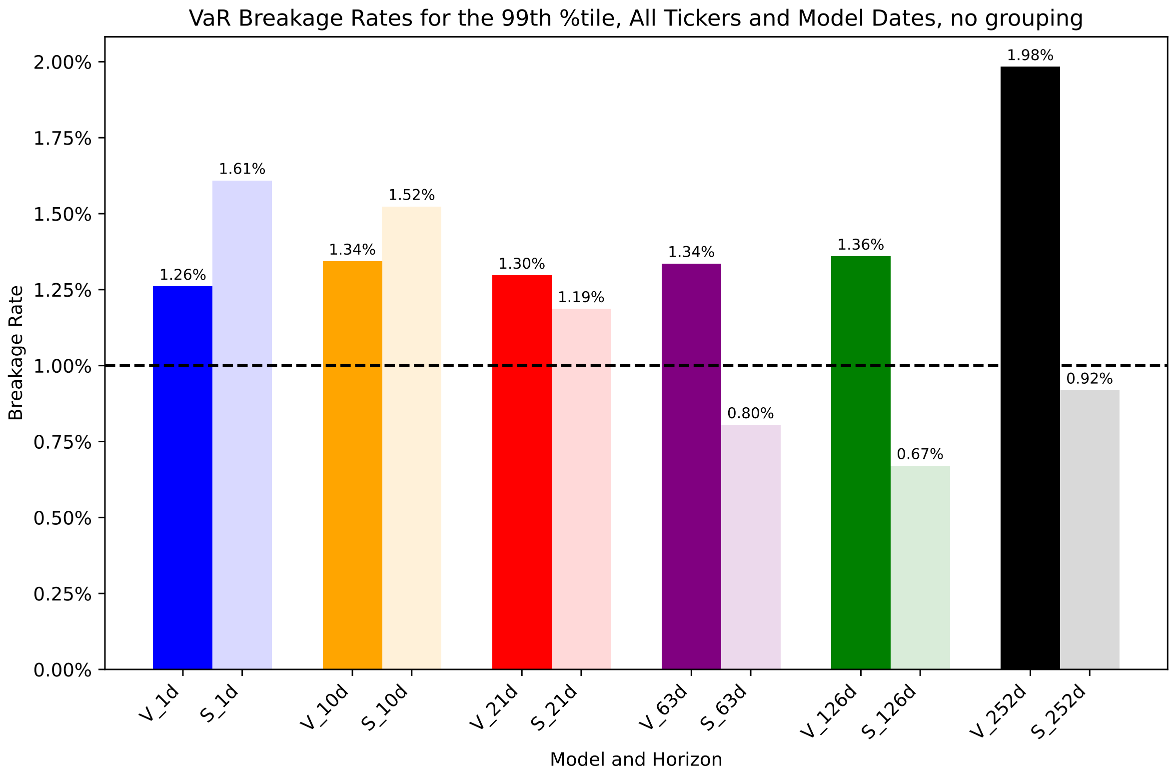
Vector Model ROVBC can be evalauated on the basis of outright levels relative to Sigma and alpha relative to Sigma ROVBC (which, as discussed previously, is assigned the underlying ticker price returns). We advise keeping proximity of VaR breakage rates to targetted levels in mind when comparing outright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

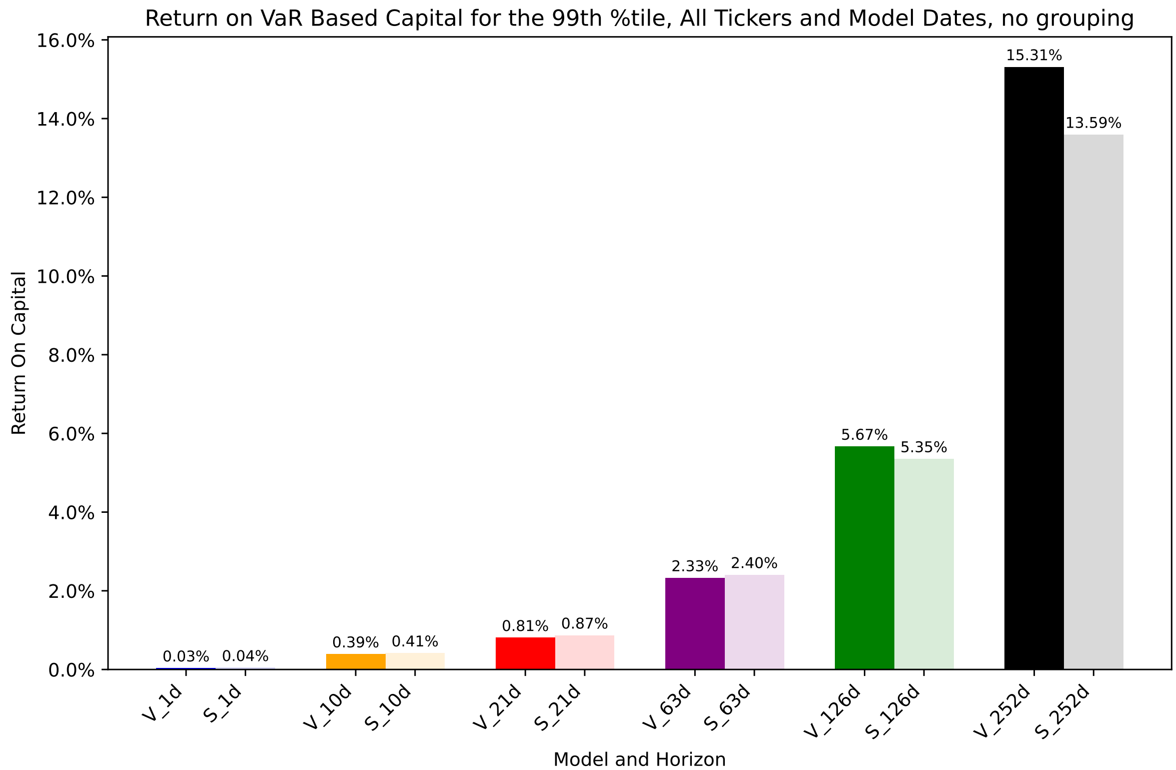
Alpha allows us to isolate ROVBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROVBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by VaR differentials between tickers and / or between dates. Thus we also present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





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

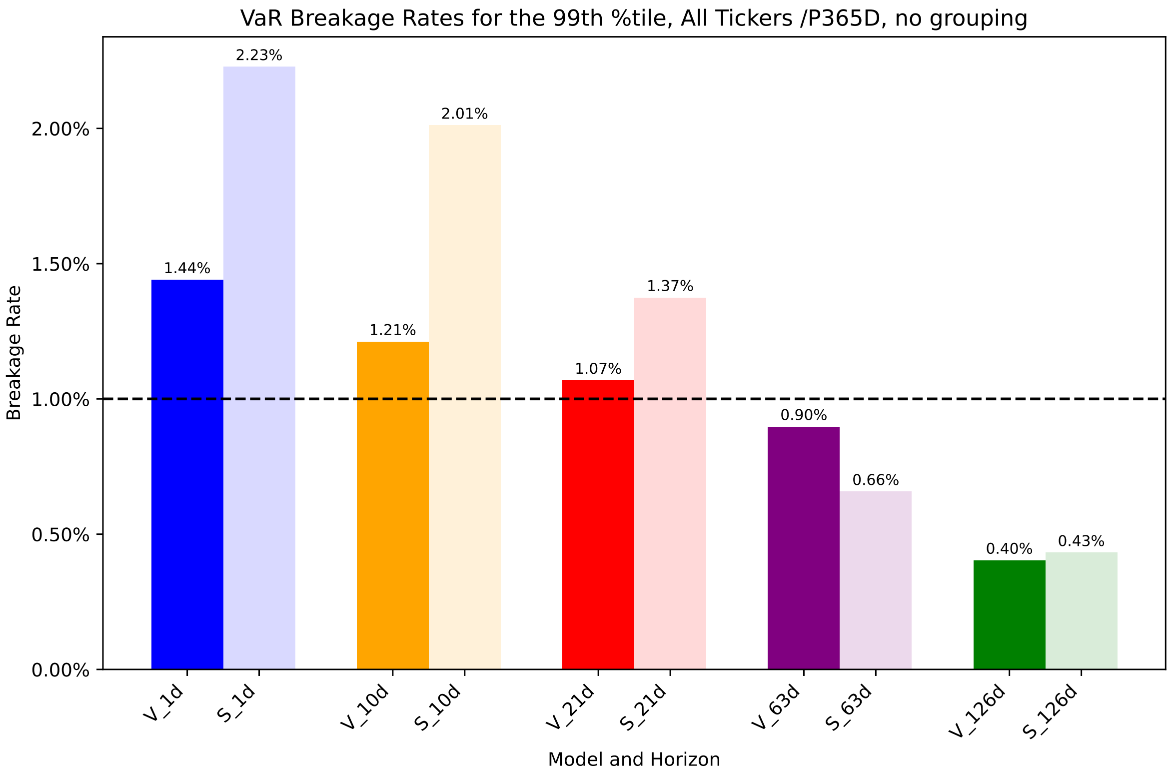
	1d	10d	21d	63d	126d	252d
intercept	-0.01%	-0.04%	-0.13%	-0.32%	-0.72%	-0.86%
intercept_p_value	23.88%	0.52%	0.00%	0.00%	0.00%	0.00%
slope	89.82%	104.32%	107.38%	109.89%	119.43%	118.99%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

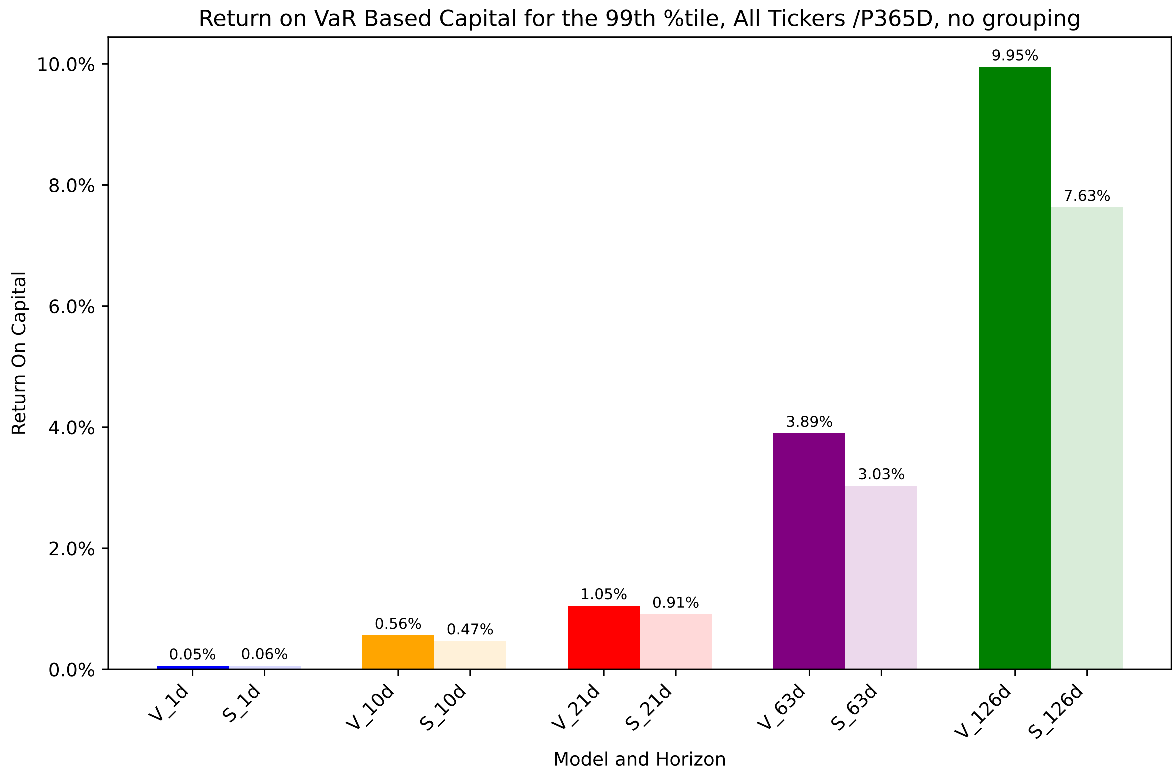
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.04%	-0.17%	-0.47%	-1.85%	-3.62%	-5.04%
intercept_p_value	0.00%	0.93%	0.13%	0.01%	0.00%	0.20%
slope	161.83%	147.24%	163.85%	177.37%	175.99%	161.83%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Prior 365 Calendar Days (P365D)

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





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

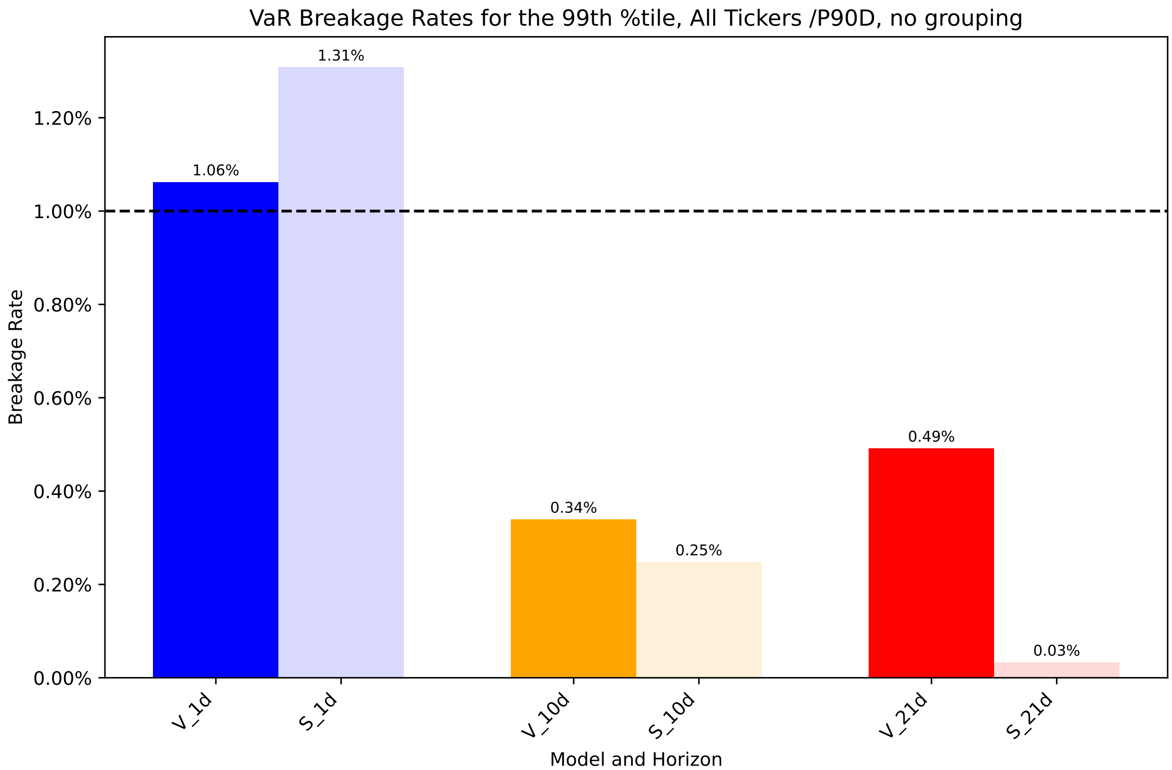
	1d	10d	21d	63d	126d
intercept	0.01%	0.15%	0.22%	0.73%	0.31%
intercept_p_value	31.66%	0.00%	0.00%	0.00%	0.16%
slope	78.45%	88.34%	90.55%	104.34%	126.33%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

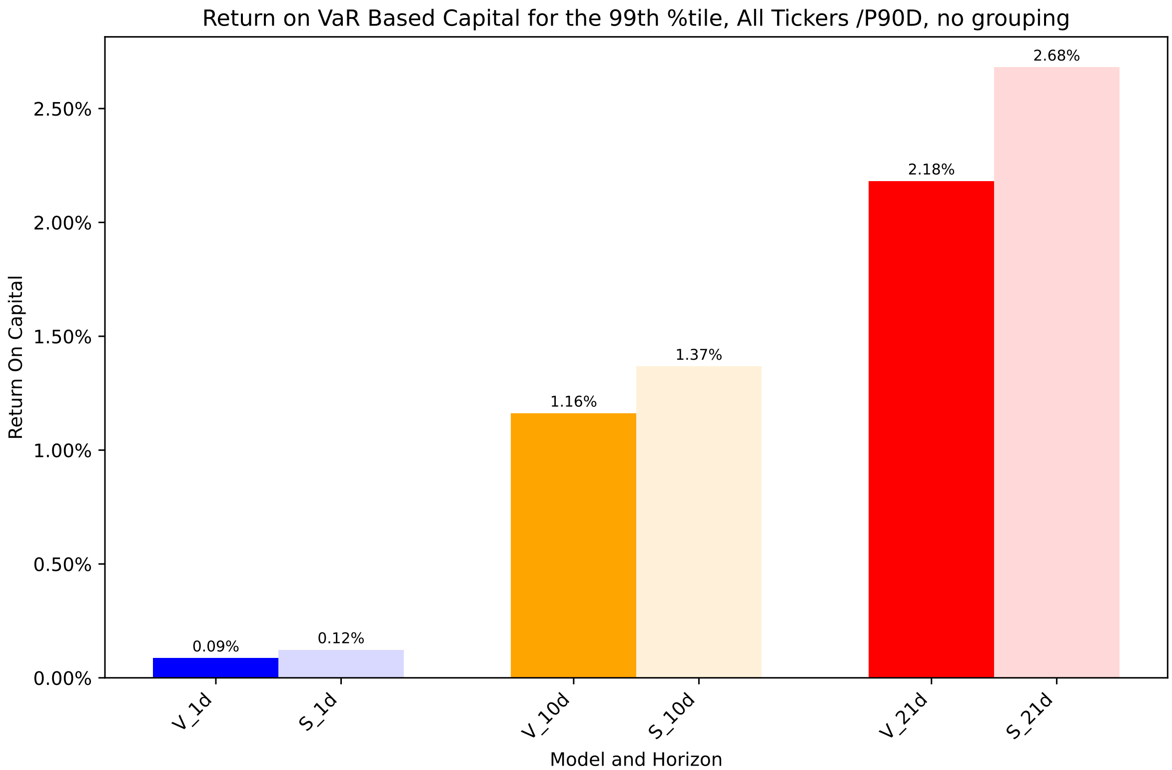
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P365D:

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

Prior 90 Calendar Days (P90D)

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





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

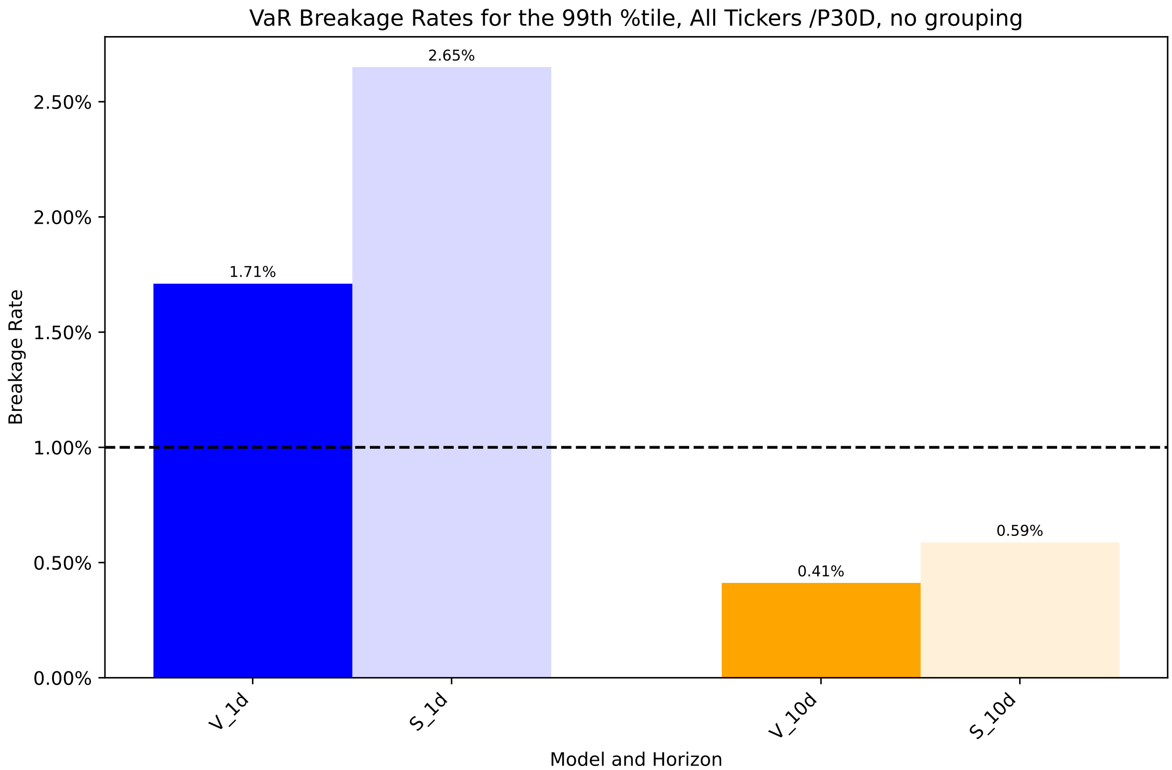
	1d	10d	21d
intercept	-0.00%	0.03%	-0.05%
intercept_p_value	70.14%	41.74%	39.65%
slope	74.09%	82.56%	83.29%
slope_p_value	0.00%	0.00%	0.00%

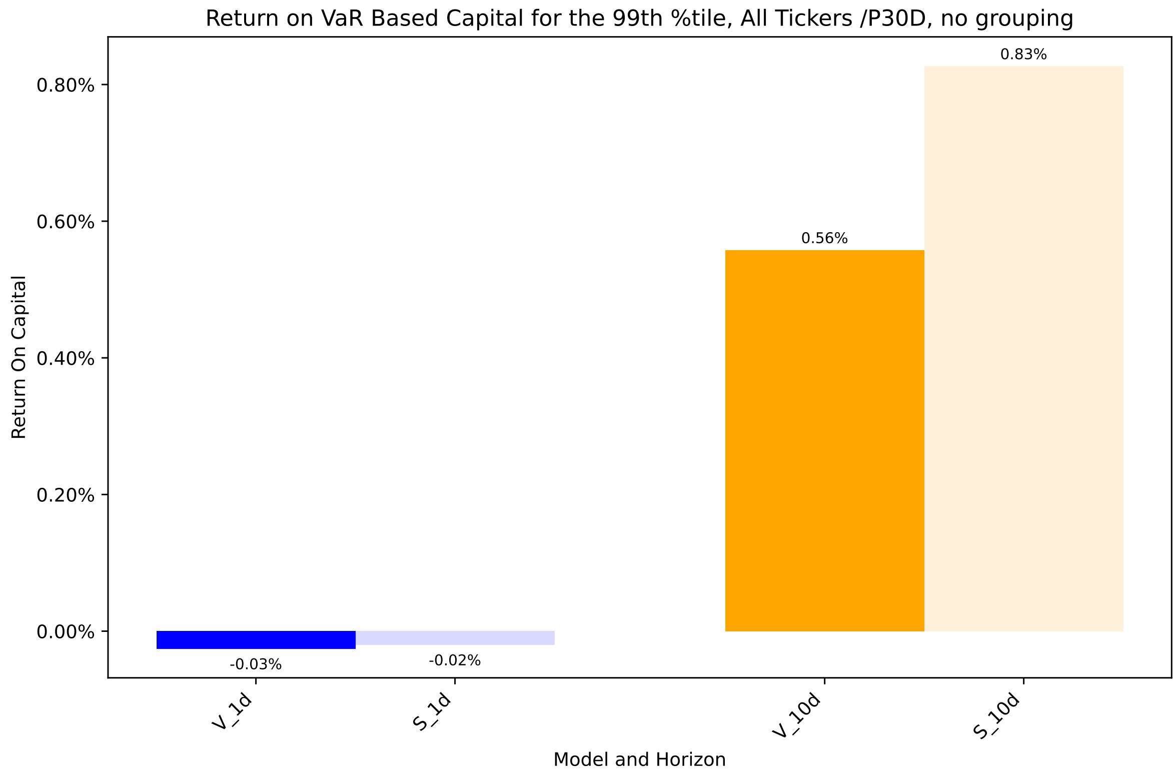
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P90D:

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

Prior 30 Calendar Days (P30D)

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





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

	1d	10d
intercept	-0.01%	-0.09%
intercept_p_value	62.03%	30.70%
slope	74.51%	78.88%
slope_p_value	0.00%	0.00%

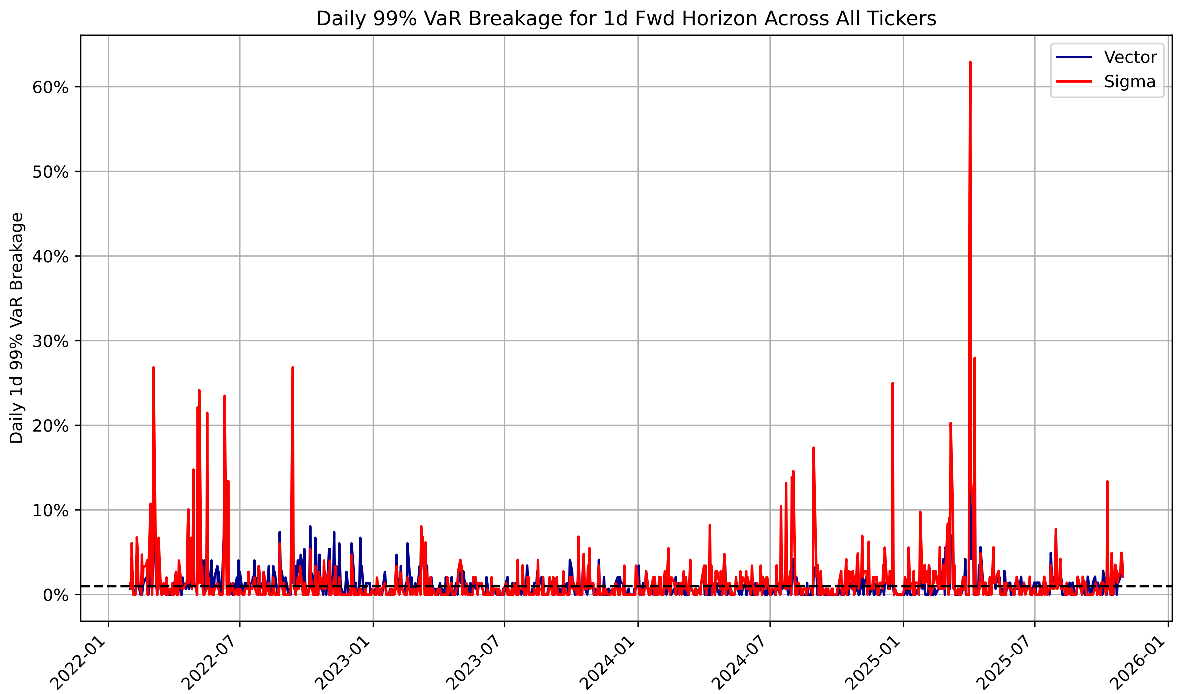
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P30D:

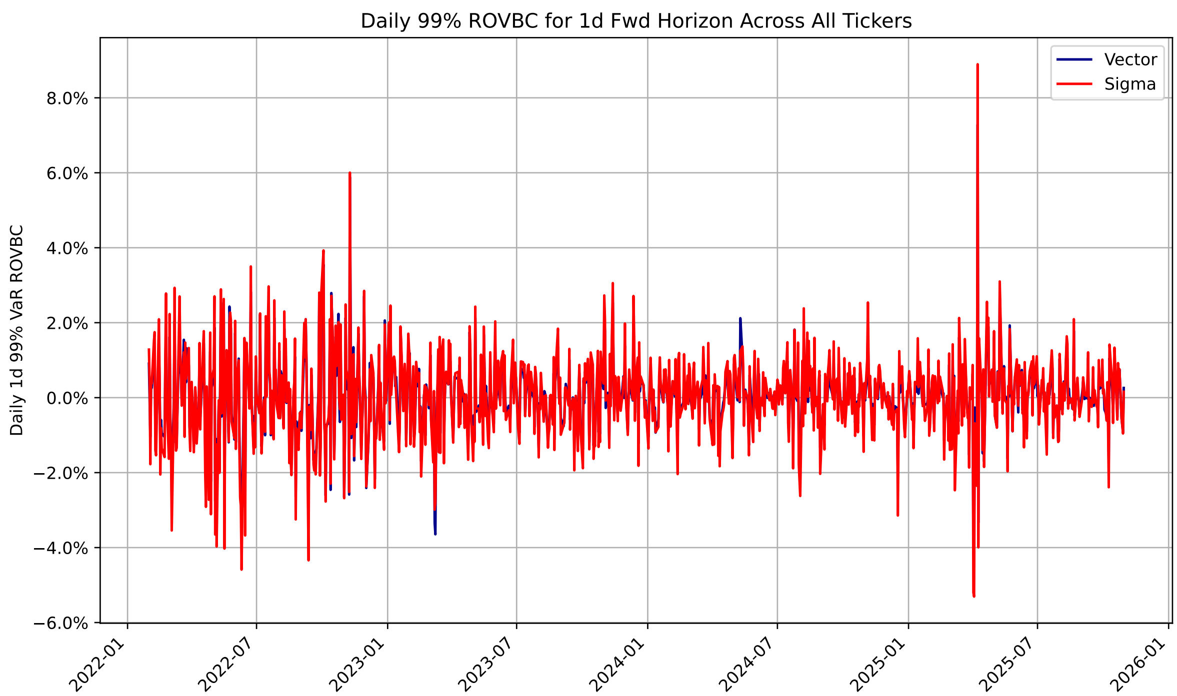
	1d	10d
intercept	-0.01%	-0.09%
intercept_p_value	82.26%	74.26%
slope	87.46%	104.18%
slope_p_value	0.00%	0.00%

Daily Performance

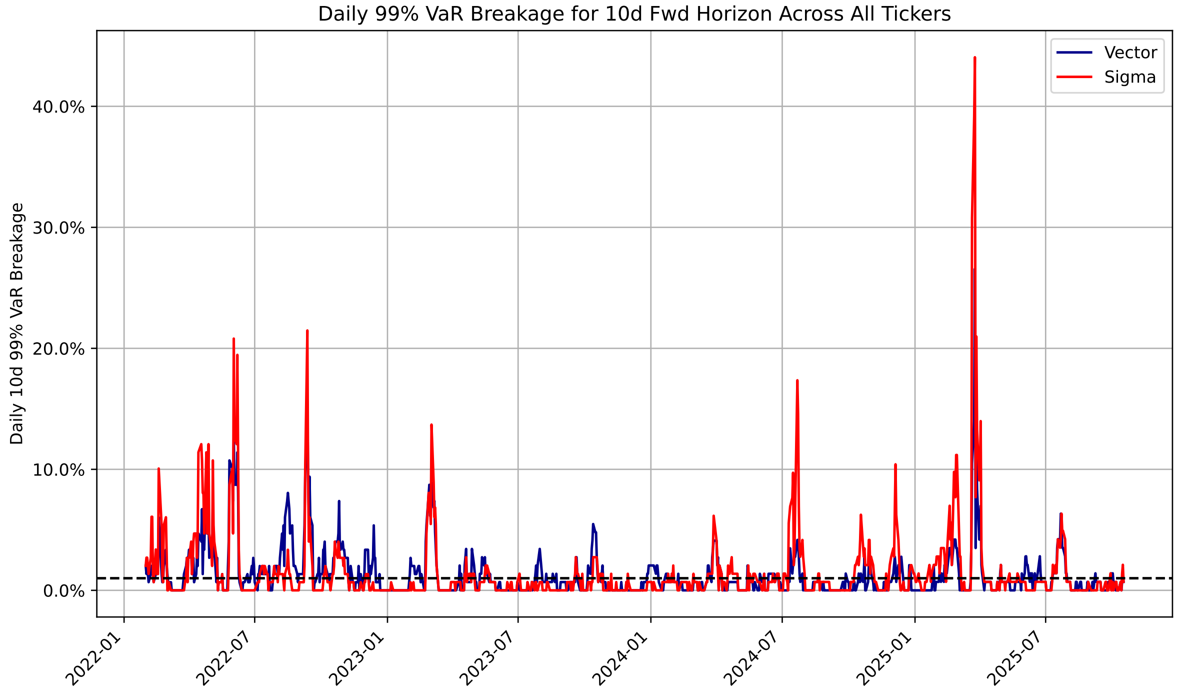
Here we look at the daily breakage and ROVBC statitics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROVBC outliers.

1d Horizon

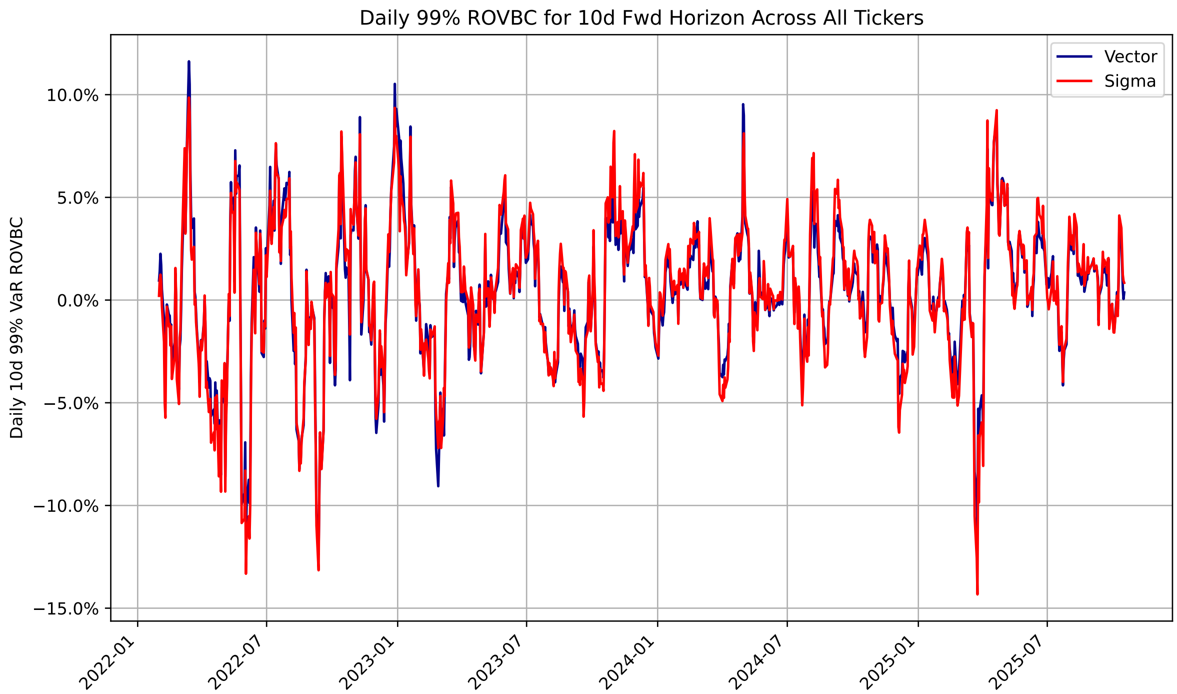



Daily 99% ROVBC for 1d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 1d 99% VaR ROVBC
8.0%
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01

10d Horizon

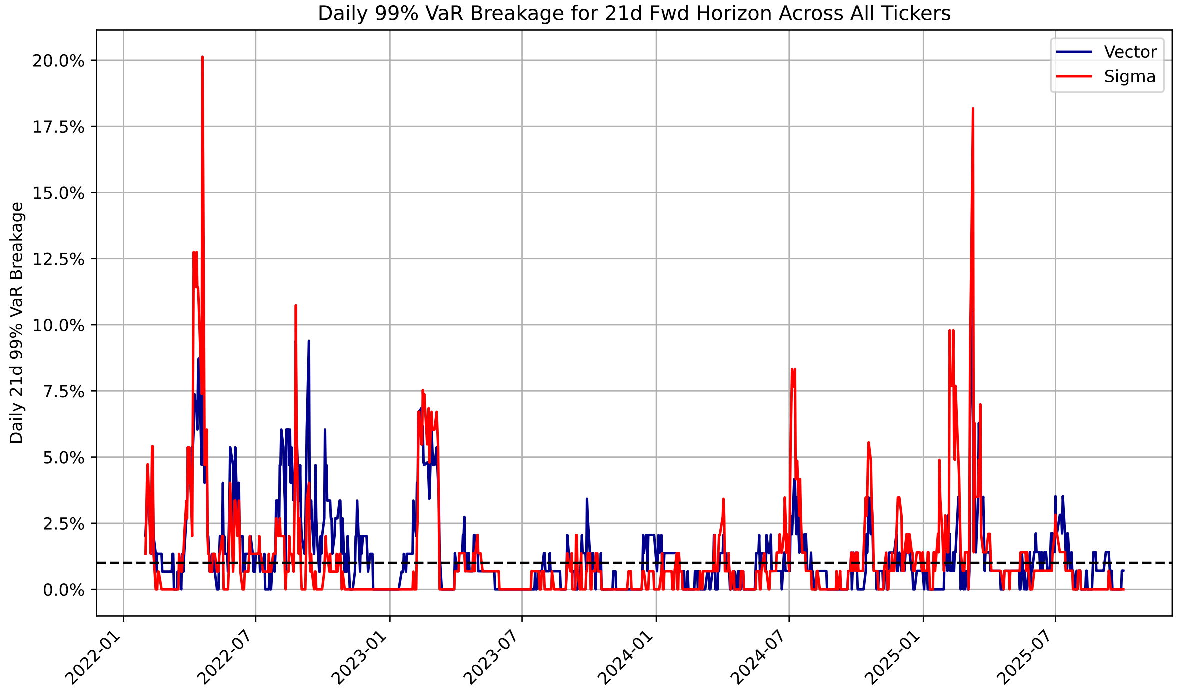


Daily 99% VaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 99% VaR Breakage
40.0%
30.0%
20.0%
10.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

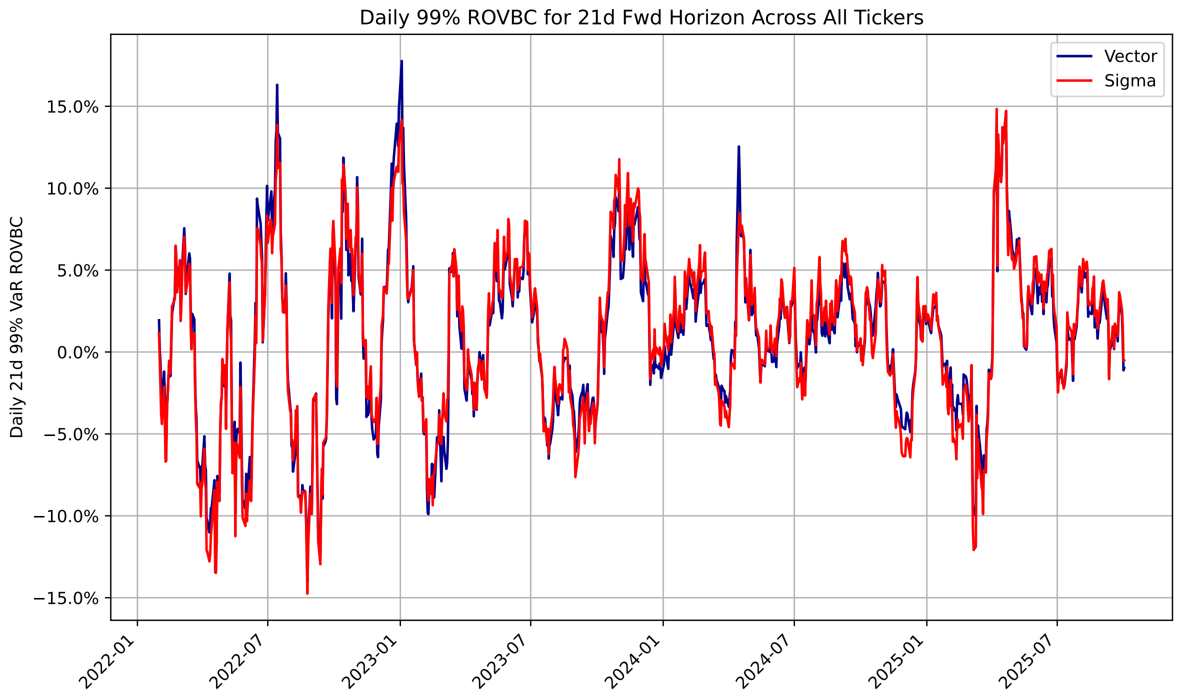


Daily 99% ROVBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 10d 99% VaR ROVBC
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

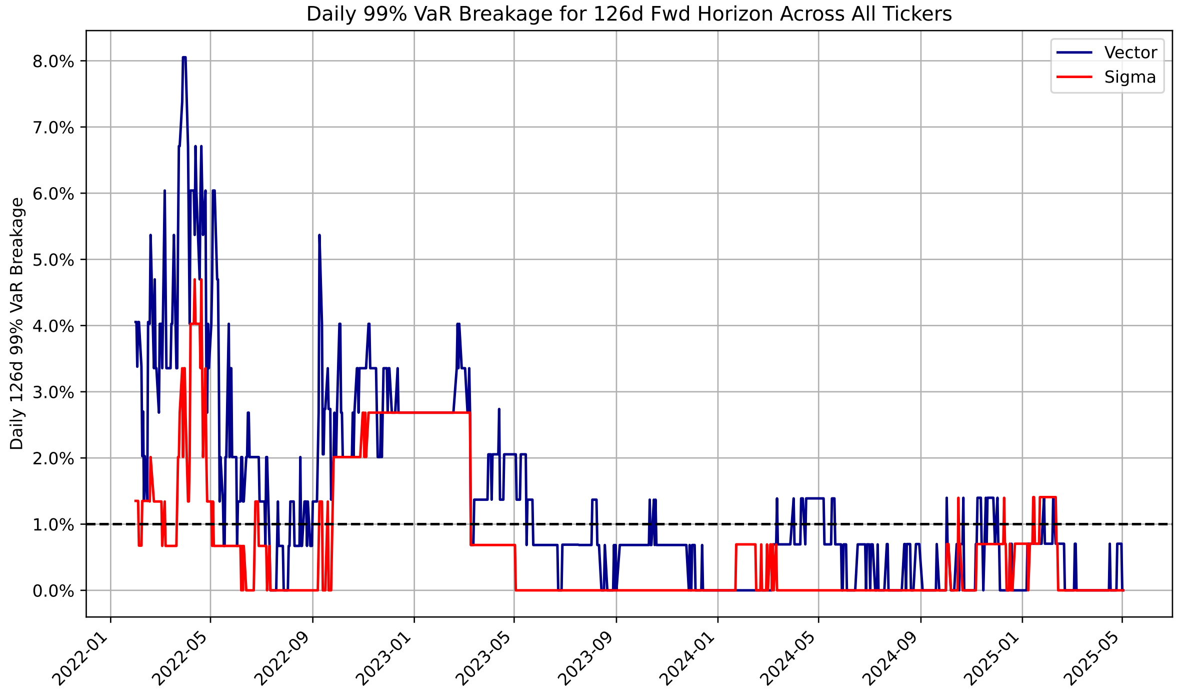


Daily 99% VaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 99% VaR Breakage
20.0%
17.5%
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

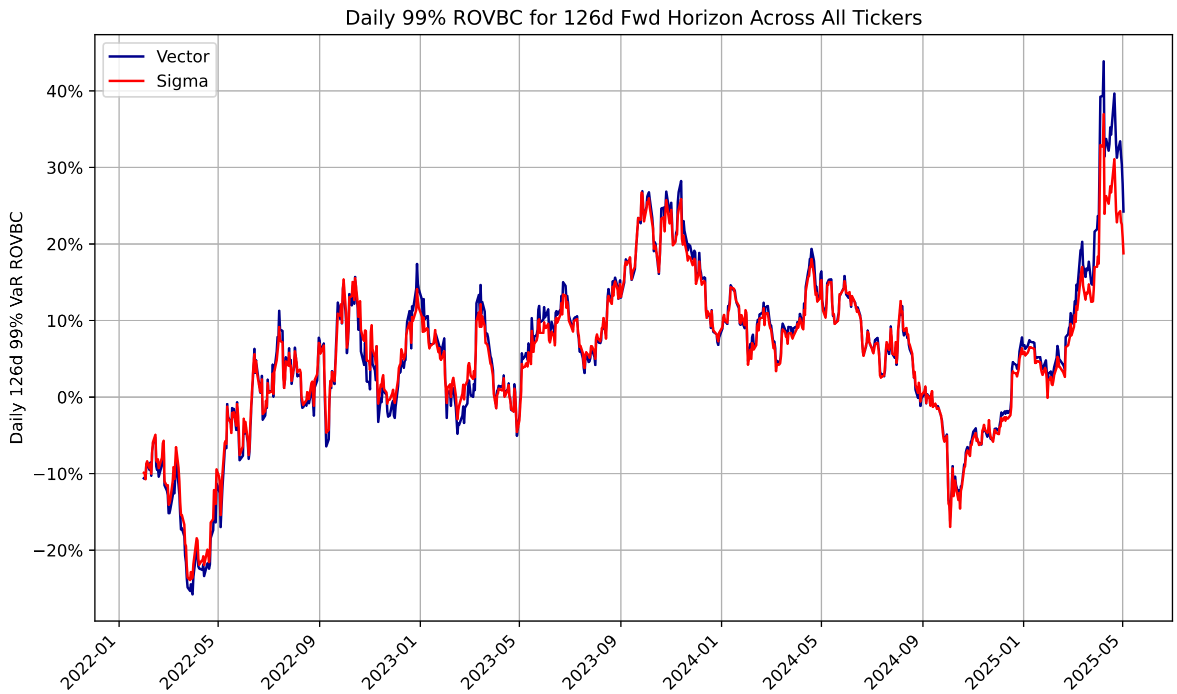


Daily 99% ROVBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Daily 21d 99% VaR ROVBC
15.0%
10.0%
5.0%
0.0%
−5.0%
−10.0%
−15.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

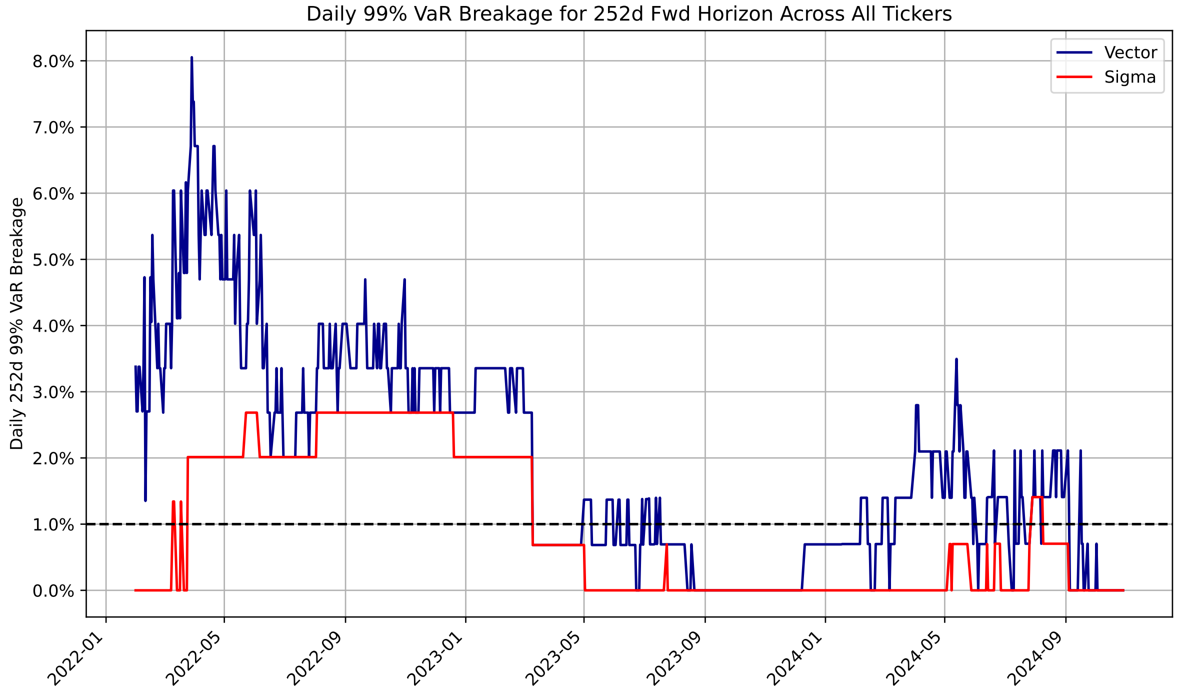


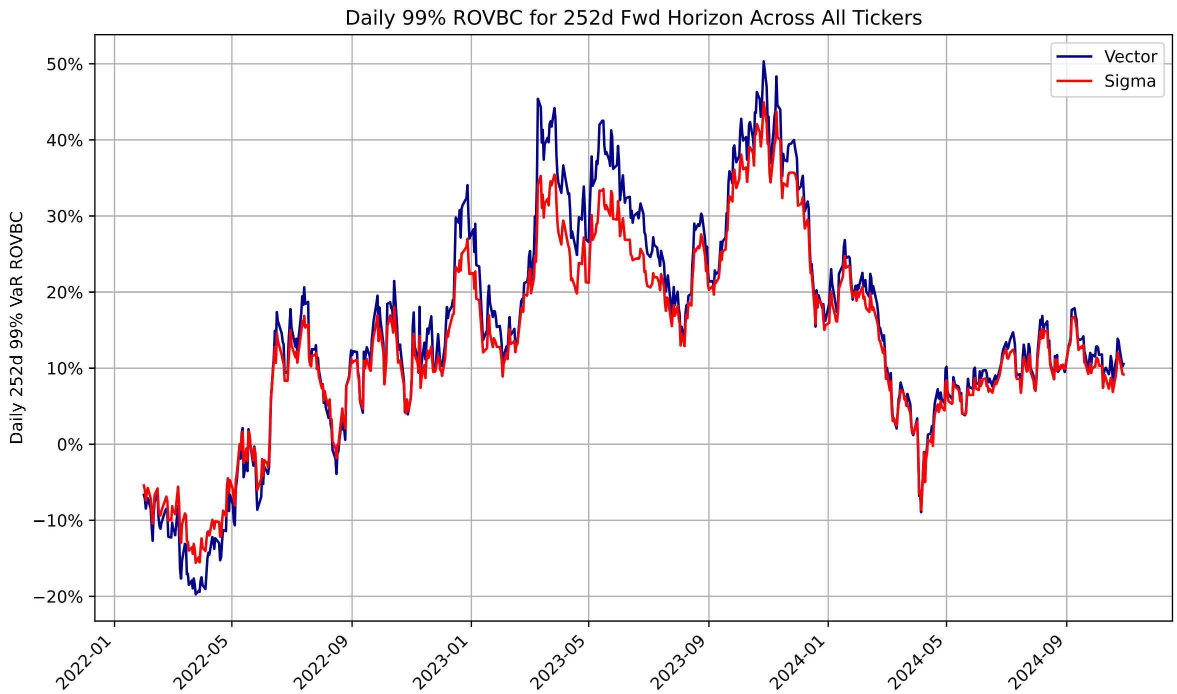
Daily 99% VaR Breakage for 126d Fwd Horizon Across All Tickers
Daily 126d 99% VaR Breakage
Vector
Sigma
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



Daily 99% ROVBC for 126d Fwd Horizon Across All Tickers
Daily 126d 99% VaR ROVBC
Vector
Sigma
40%
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
2025-05

252d Horizon

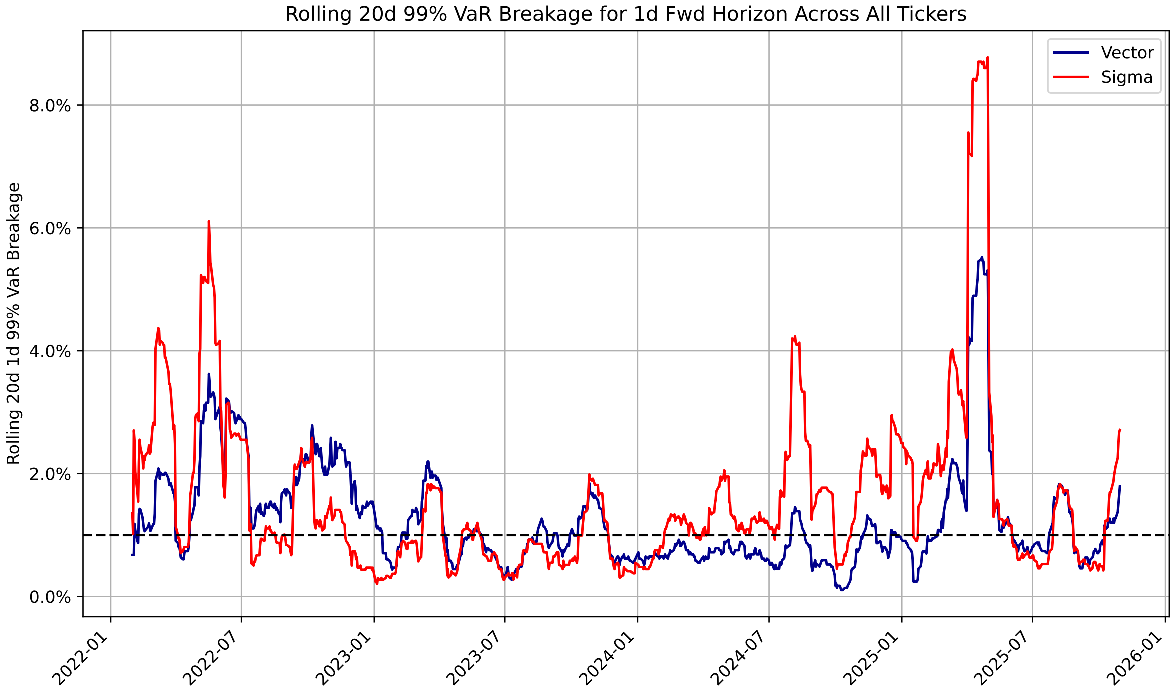


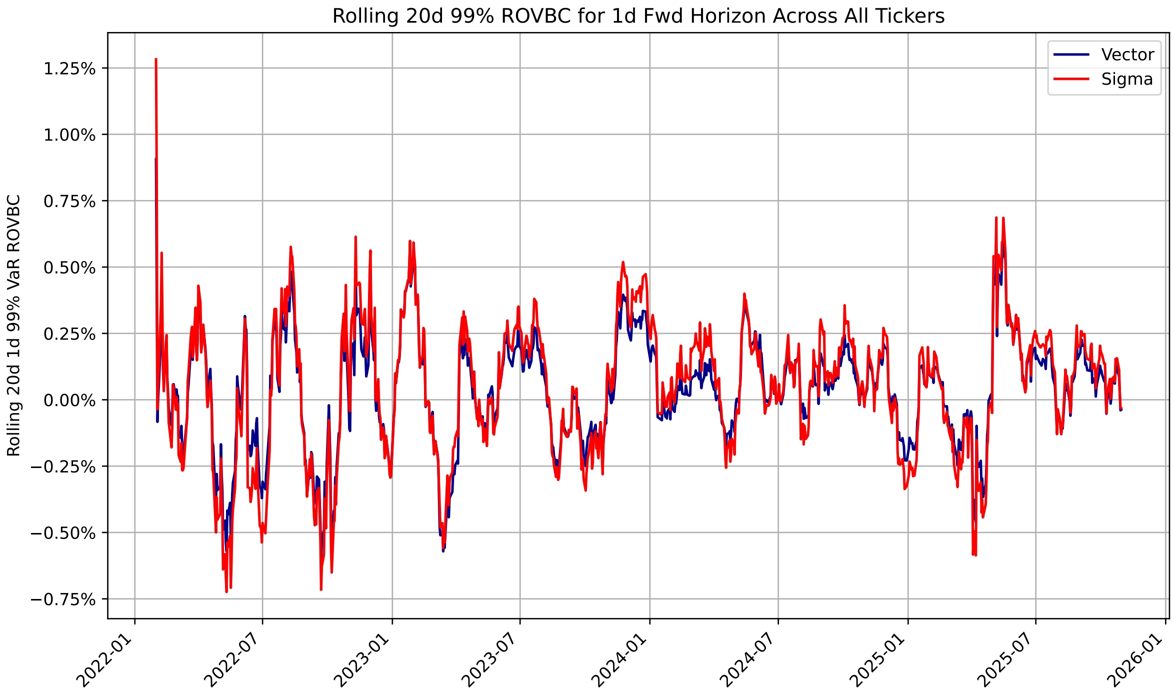


Rolling 20d Performance

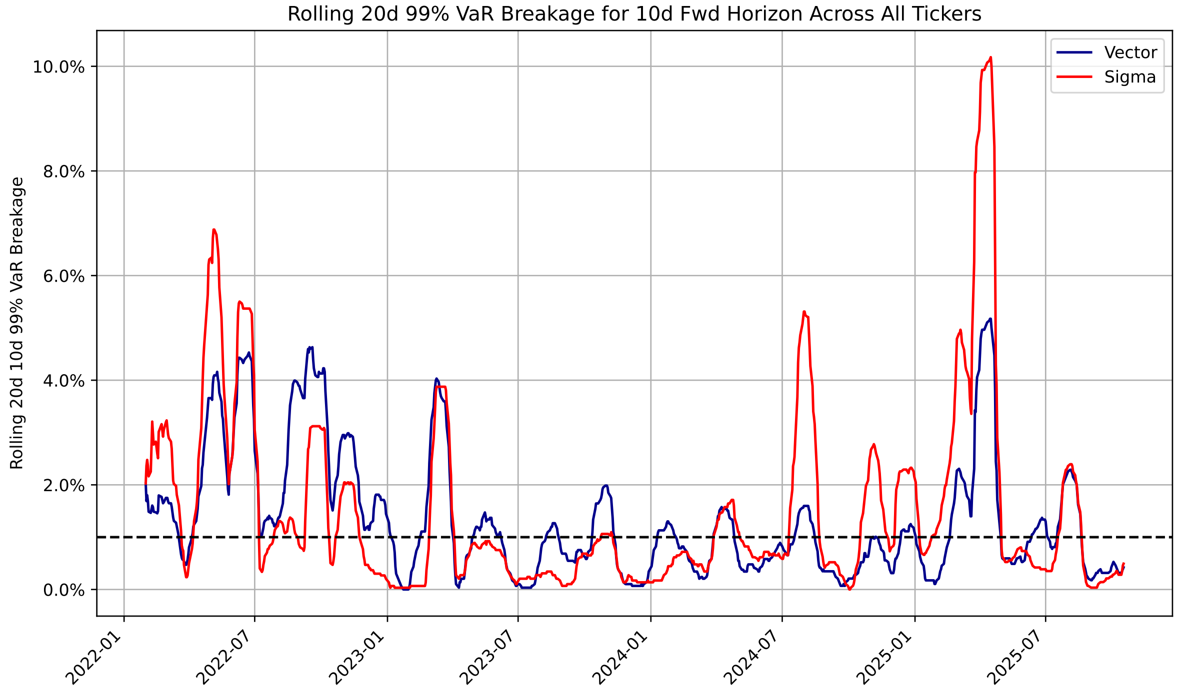
Here we look at 20 day rolling moving averages of the breakage and ROVBC statitics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

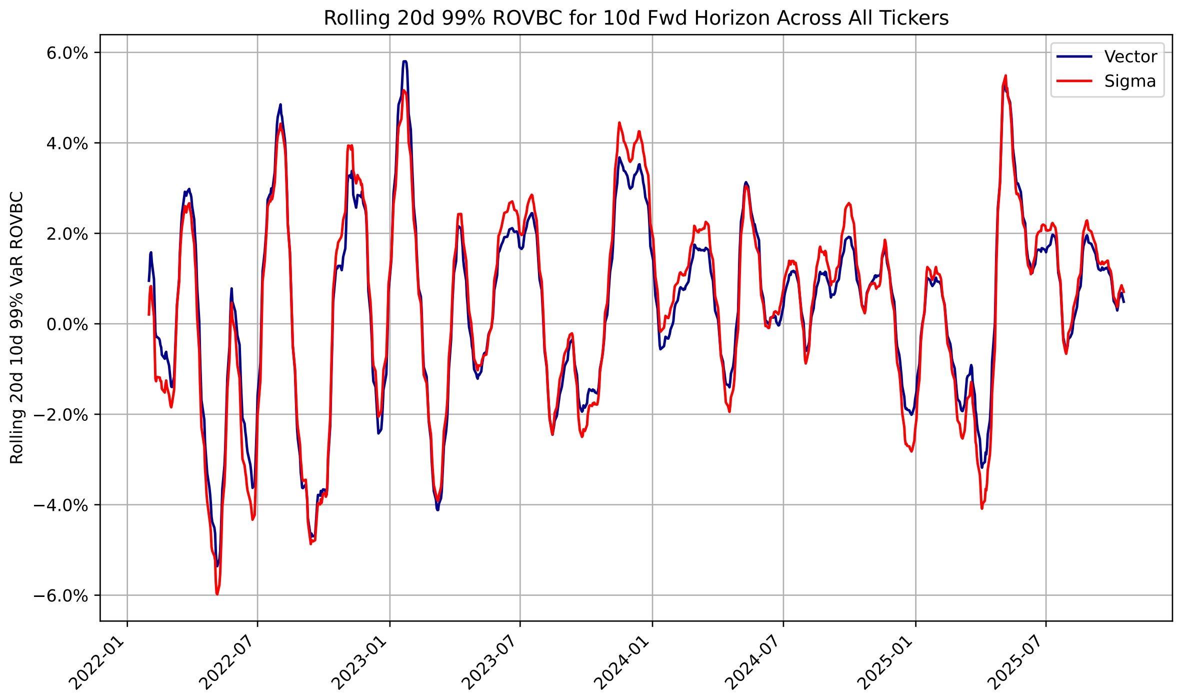



Rolling 20d 99% ROVBC for 1d Fwd Horizon Across All Tickers
Rolling 20d 1d 99% VaR ROVBC
1.25%
1.00%
0.75%
0.50%
0.25%
0.00%
−0.25%
−0.50%
−0.75%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07
2026-01
Vector
Sigma

10d Horizon

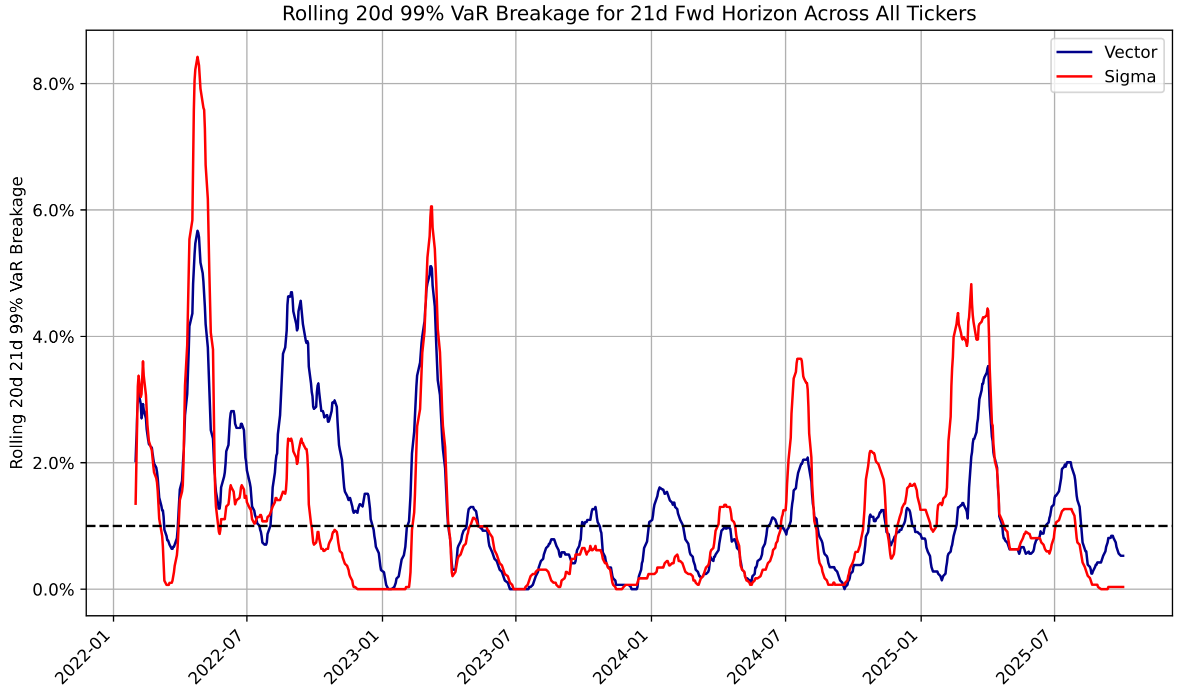


Rolling 20d 99% VaR Breakage for 10d Fwd Horizon Across All Tickers
Vector
Sigma
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
Rolling 20d 10d 99% VaR Breakage
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

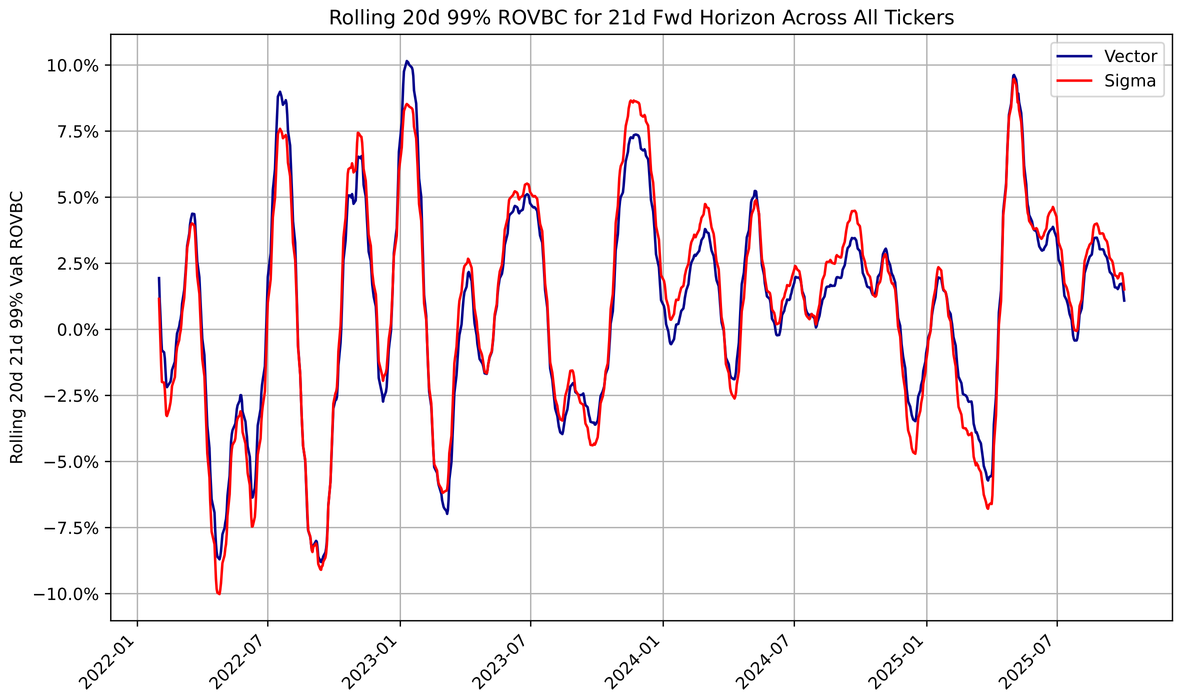


Rolling 20d 99% ROVBC for 10d Fwd Horizon Across All Tickers
Vector
Sigma
6.0%
4.0%
2.0%
0.0%
−2.0%
−4.0%
−6.0%
Rolling 20d 10d 99% VaR ROVBC
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

21d Horizon

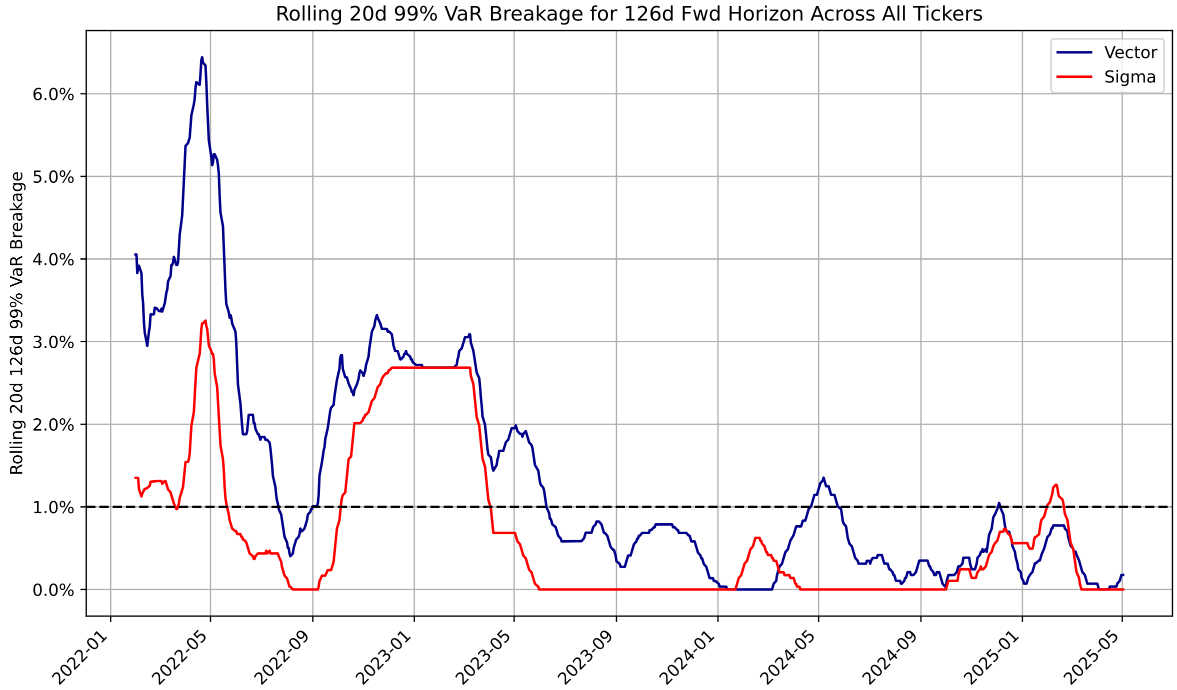


Rolling 20d 99% VaR Breakage for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 99% VaR Breakage
8.0%
6.0%
4.0%
2.0%
0.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

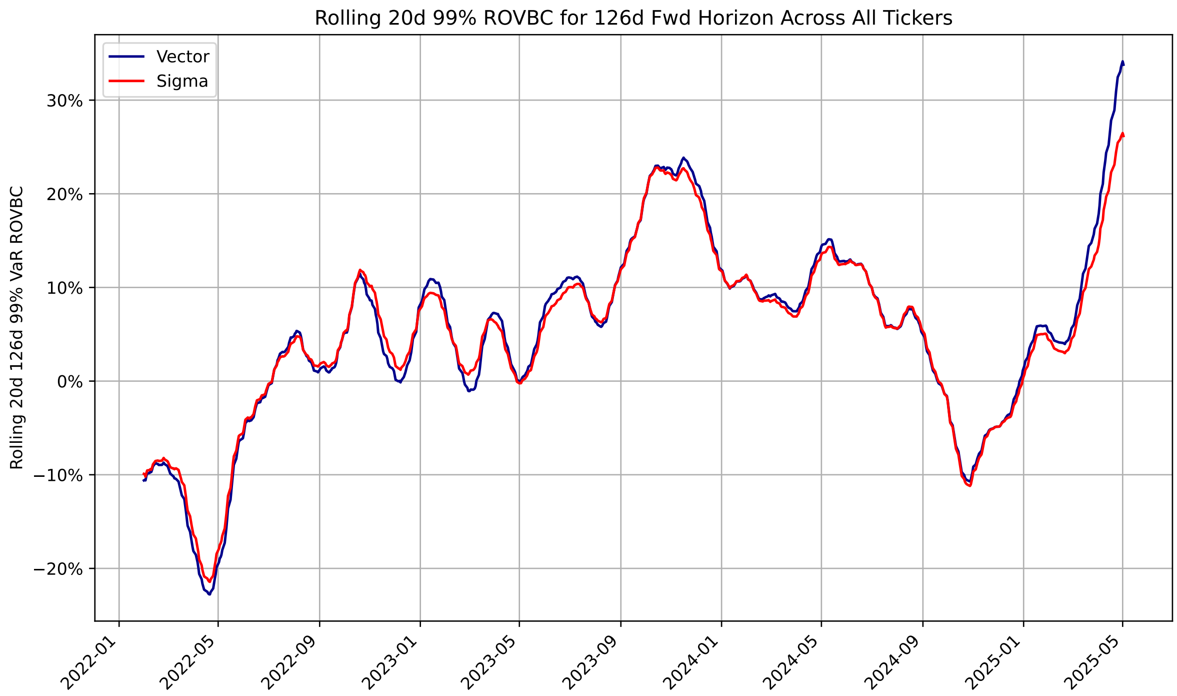


Rolling 20d 99% ROVBC for 21d Fwd Horizon Across All Tickers
Vector
Sigma
Rolling 20d 21d 99% VaR ROVBC
10.0%
7.5%
5.0%
2.5%
0.0%
−2.5%
−5.0%
−7.5%
−10.0%
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
2025-07

63d Horizon

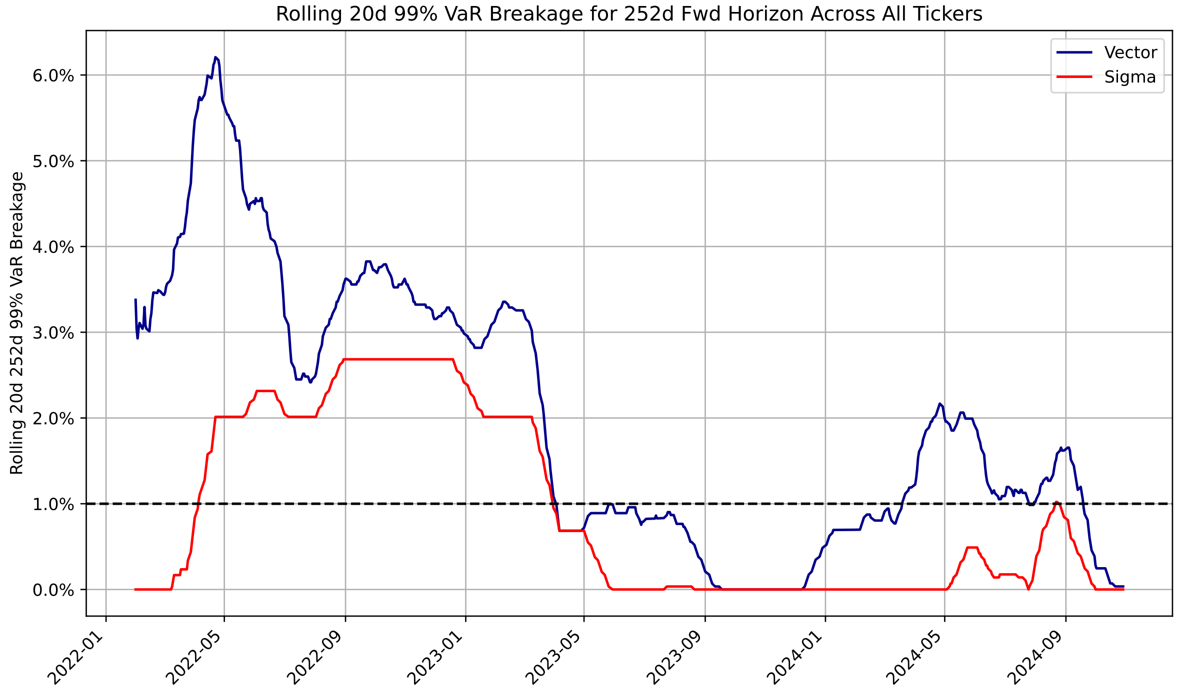


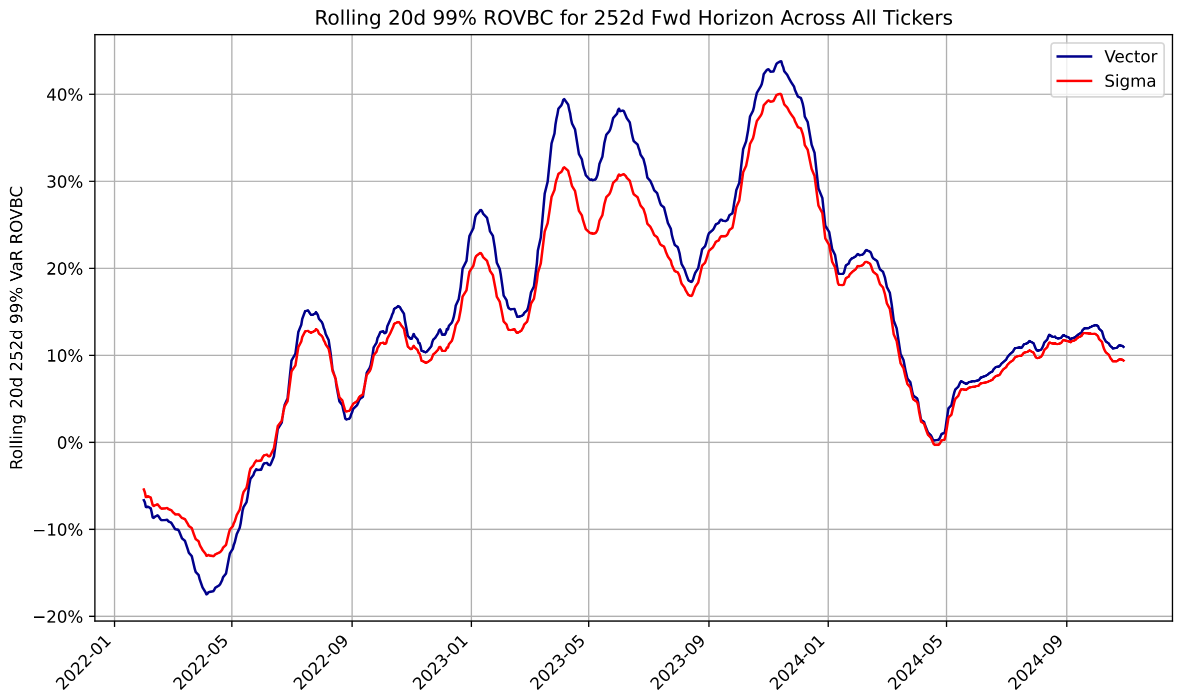
Rolling 20d 99% VaR Breakage for 126d Fwd Horizon Across All Tickers
Rolling 20d 126d 99% VaR Breakage
Vector
Sigma
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2022-01
2022-05
2022-09
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05



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

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 2025-10-30

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	8.07%	TRGP	2.65%
1.0	ZTS	6.37%	QCOM	2.65%
1.0	LQD	6.26%	SPY	2.44%
1.0	FRCB	5.76%	IRM	2.44%
1.0	B	5.52%	PEP	2.44%
1.0	GME	4.46%	QQQ	2.34%
1.0	MSTR	3.61%	UNH	2.34%
1.0	JAZZ	3.5%	HSBC	2.34%
1.0	AAP	3.5%	NVS	2.34%
1.0	CHTR	3.29%	GOOGL	2.23%
1.0	ISRG	3.29%	CMG	2.23%
1.0	CDNS	3.18%	VCSH	2.23%
1.0	AMC	3.18%	VZ	2.23%
1.0	GNRC	3.08%	VST	2.23%
1.0	BUD	3.08%	ACGL	2.23%
1.0	FRA	2.87%	WFC	2.23%
1.0	VZ	2.76%	KHC	2.23%
1.0	SLV	2.44%	FRCB	2.16%
1.0	EXPE	2.44%	ABBV	2.12%
1.0	QCOM	2.34%	PCG	2.12%
1.0	KALU	2.34%	NVDA	2.12%
1.0	CMCSA	2.12%	PWR	2.12%
1.0	META	2.02%	TXN	2.12%
1.0	BXP	2.02%	INTU	2.12%
1.0	PRGO	1.91%	THC	2.12%
1.0	TXN	1.91%	TMUS	2.12%
1.0	GSK	1.91%	GS	2.02%
1.0	OXY	1.8%	ZTS	2.02%

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 2025-10-30

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	SBNY	17.65%	SIVBQ	5.51%
10.0	SIVBQ	12.87%	MUB	4.61%
10.0	AMC	9.11%	CTLT	4.08%
10.0	TSLA	8.9%	CHTR	3.97%
10.0	CHTR	8.9%	PCG	3.54%
10.0	AAP	8.04%	AAP	3.54%
10.0	B	6.0%	FIS	3.43%
10.0	LQD	5.89%	FRCB	3.31%
10.0	ZTS	5.36%	SBNY	3.31%
10.0	KALU	4.61%	LW	3.22%
10.0	CVS	4.29%	UNH	3.22%
10.0	GNRC	3.97%	BAC	3.0%
10.0	MSTR	3.86%	WDC	2.89%
10.0	CTLT	3.67%	ABBV	2.89%
10.0	ISRG	3.43%	GSK	2.79%
10.0	VCSH	3.32%	FRA	2.68%
10.0	FRCB	3.31%	CVS	2.68%
10.0	GME	3.22%	IEP	2.68%
10.0	GSK	3.22%	TRGP	2.57%
10.0	SNY	3.22%	BHC	2.57%
10.0	BHC	3.22%	KALU	2.57%
10.0	UNH	3.0%	BALL	2.47%
10.0	EXPE	2.89%	EMB	2.36%
10.0	NEM	2.79%	COST	2.36%
10.0	BUD	2.68%	WFC	2.36%
10.0	EMB	2.47%	AZN	2.36%
10.0	LW	2.47%	CMG	2.36%
10.0	OXY	2.36%	EXPE	2.25%
10.0	META	2.36%	FITB	2.25%
10.0	CMA	2.25%	SBUX	2.25%

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 2025-10-30

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	SBNY	21.48%	SIVBQ	7.04%
21.0	SIVBQ	14.07%	FRCB	5.56%
21.0	CHTR	13.56%	SBNY	5.56%
21.0	AMC	10.09%	LW	4.88%
21.0	VCSH	7.81%	GSK	4.77%
21.0	TSLA	7.7%	MUB	4.56%
21.0	FRCB	6.67%	CHTR	4.56%
21.0	AAP	5.31%	CTLT	3.59%
21.0	GNRC	4.99%	WDC	3.15%
21.0	LQD	4.77%	CNC	3.04%
21.0	ZTS	4.66%	PCG	3.04%
21.0	B	4.66%	SNY	2.93%
21.0	UNH	4.66%	AAP	2.93%
21.0	BUD	4.56%	UNH	2.82%
21.0	BIIB	4.01%	IEP	2.82%
21.0	BHC	4.01%	NEM	2.82%
21.0	GSK	3.9%	INTC	2.6%
21.0	KALU	3.8%	CMG	2.49%
21.0	CTLT	3.59%	COST	2.49%
21.0	NEM	3.58%	BHC	2.49%
21.0	CMA	3.36%	VFC	2.49%
21.0	CNC	3.25%	EMB	2.39%
21.0	KEY	3.04%	AMZN	2.39%
21.0	META	2.82%	FRA	2.39%
21.0	CVS	2.82%	NFLX	2.28%
21.0	ZION	2.75%	ZION	2.2%
21.0	EMB	2.61%	AZN	2.17%
21.0	FIS	2.49%	TFC	2.17%
21.0	AMZN	2.49%	CMA	2.17%
21.0	BMY	2.39%	VCSH	2.17%

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 2025-10-30

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	CHTR	22.05%	SBNY	20.0%
63.0	FRCB	20.74%	IEP	7.16%
63.0	AMC	11.36%	GSK	7.05%
63.0	AAP	9.2%	BHC	6.93%
63.0	VCSH	8.3%	CNC	6.02%
63.0	ZION	6.47%	UNH	5.23%
63.0	LQD	6.36%	MUB	4.44%
63.0	CNC	6.14%	CTLT	4.25%
63.0	BUD	5.91%	PCG	3.52%
63.0	GNRC	5.8%	EMB	3.07%
63.0	UNH	5.23%	KEY	2.95%
63.0	GSK	5.0%	NEM	2.95%
63.0	B	4.89%	USB	2.73%
63.0	MSTR	4.32%	BUD	2.5%
63.0	BHC	4.2%	VZ	2.5%
63.0	CMA	3.98%	CMA	2.5%
63.0	BMY	3.75%	VCSH	2.5%
63.0	TLT	3.52%	ZION	2.42%
63.0	KEY	3.41%	X	2.17%
63.0	ON	3.07%	HCA	2.05%
63.0	META	3.07%	VFC	2.05%
63.0	CTLT	2.64%	TFC	1.7%
63.0	EMB	2.62%	AZN	1.7%
63.0	BIIB	2.5%	LQD	1.59%
63.0	BXP	2.5%	SNY	1.59%
63.0	NEM	2.5%	CLF	1.48%
63.0	VNO	2.39%	WDC	1.48%
63.0	TDG	2.27%	AA	1.48%

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 2025-10-30

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	21.42%	IEP	15.18%
126.0	CHTR	18.85%	GSK	11.51%
126.0	AMC	17.75%	UNH	5.26%
126.0	GSK	9.06%	BHC	3.3%
126.0	BXP	7.22%	BALL	2.94%
126.0	VCSH	7.1%	LW	2.57%
126.0	VFC	6.85%	CNC	2.33%
126.0	CTLT	6.14%	EMB	2.21%
126.0	UNH	5.75%	NEM	2.2%
126.0	GNRC	4.9%	PCG	1.71%
126.0	TLT	4.28%	VZ	1.47%
126.0	BHC	4.28%	VCSH	1.22%
126.0	CMA	4.16%	MUB	0.74%
126.0	OXY	3.55%	IRM	0.73%
126.0	ZION	3.11%	CHTR	0.61%
126.0	B	2.69%	CTLT	0.48%
126.0	VNO	2.2%	INTC	0.37%
126.0	NEM	1.96%	HYG	0.12%
126.0	LQD	1.96%	LEN	0.12%
126.0	SNY	1.71%	NFLX	0.0%
126.0	ON	1.71%	ON	0.0%
126.0	META	1.59%	NWL	0.0%
126.0	BIIB	1.47%	NVS	0.0%
126.0	EMB	1.23%	ORCL	0.0%
126.0	FIS	0.98%	ORLY	0.0%
126.0	HYG	0.86%	NVDA	0.0%
126.0	CNC	0.86%	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 2025-10-30

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	31.84%	IEP	28.36%
252.0	AAP	30.82%	CNC	3.91%
252.0	BIIB	15.77%	MRK	2.75%
252.0	CHTR	12.74%	UNH	1.3%
252.0	BXP	12.16%	LW	0.14%
252.0	VFC	11.29%	NWL	0.0%
252.0	OXY	7.67%	NEM	0.0%
252.0	CMA	7.53%	NFLX	0.0%
252.0	MRK	7.38%	NVDA	0.0%
252.0	VNO	5.93%	NVS	0.0%
252.0	UNH	5.5%	AA	0.0%
252.0	ZION	5.47%	ON	0.0%
252.0	CTLT	3.85%	MUB	0.0%
252.0	CNC	3.76%	ORCL	0.0%
252.0	BHC	3.18%	ORLY	0.0%
252.0	KEY	2.75%	OXY	0.0%
252.0	GNRC	2.6%	PCG	0.0%
252.0	BMY	2.17%	PEP	0.0%
252.0	VCSH	2.17%	NAVI	0.0%
252.0	UAA	1.88%	MSTR	0.0%
252.0	EMB	1.3%	MU	0.0%
252.0	FIS	1.3%	LUMN	0.0%
252.0	GSK	1.01%	KEY	0.0%
252.0	ELAN	0.88%	KHC	0.0%
252.0	TLT	0.87%	LEN	0.0%
252.0	FITB	0.58%	LLY	0.0%
252.0	NEM	0.29%	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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	33.33%	NEM	19.05%
1.0	TXN	14.29%	CLF	14.29%
1.0	TDG	14.29%	SLV	14.29%
1.0	KHC	9.52%	LVS	9.52%
1.0	META	9.52%	CMA	9.52%
1.0	MSI	9.52%	TFC	9.52%
1.0	MSTR	9.52%	T	9.52%
1.0	GWW	9.52%	FITB	9.52%
1.0	GLD	9.52%	KEY	9.52%
1.0	SBUX	9.52%	MSI	9.52%
1.0	CLF	9.52%	B	9.52%
1.0	BHC	9.52%	GLD	9.52%
1.0	LLY	9.52%	VZ	9.52%
1.0	AMC	9.52%	ZION	9.52%
1.0	FIS	4.76%	MNST	9.52%
1.0	CDNS	4.76%	WYNN	9.52%
1.0	MOS	4.76%	ORLY	4.76%
1.0	NFLX	4.76%	CVS	4.76%
1.0	NWL	4.76%	THC	4.76%
1.0	FITB	4.76%	CZR	4.76%
1.0	POST	4.76%	DHI	4.76%
1.0	QCOM	4.76%	OXY	4.76%
1.0	CZR	4.76%	NFLX	4.76%
1.0	CVS	4.76%	TDG	4.76%
1.0	VZ	4.76%	FIS	4.76%
1.0	CMG	4.76%	QCOM	4.76%
1.0	CYH	4.76%	SPY	4.76%
1.0	BBY	4.76%	POST	4.76%
1.0	VFC	4.76%	NVS	4.76%
1.0	BXP	4.76%	NWL	4.76%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	CZR	25.0%	SLV	25.0%
10.0	ZTS	8.33%	MOS	16.67%
10.0	NEM	8.33%	CMG	16.67%
10.0	AMC	8.33%	NEM	16.67%
10.0	MSI	8.33%	ZION	8.33%
10.0	NVDA	0.0%	AA	0.0%
10.0	MU	0.0%	NVS	0.0%
10.0	MUB	0.0%	MUB	0.0%
10.0	NAVI	0.0%	NAVI	0.0%
10.0	NFLX	0.0%	NFLX	0.0%
10.0	NWL	0.0%	NVDA	0.0%
10.0	NVS	0.0%	NWL	0.0%
10.0	ON	0.0%	MSTR	0.0%
10.0	ORCL	0.0%	ON	0.0%
10.0	ORLY	0.0%	ORCL	0.0%
10.0	OXY	0.0%	ORLY	0.0%
10.0	PCG	0.0%	OXY	0.0%
10.0	MSTR	0.0%	PCG	0.0%
10.0	MSFT	0.0%	MU	0.0%
10.0	PHM	0.0%	MSFT	0.0%
10.0	LQD	0.0%	MSI	0.0%
10.0	KALU	0.0%	LQD	0.0%
10.0	KEY	0.0%	KALU	0.0%
10.0	KHC	0.0%	KEY	0.0%
10.0	LEN	0.0%	KHC	0.0%
10.0	LLY	0.0%	LEN	0.0%
10.0	LNC	0.0%	LLY	0.0%
10.0	LUMN	0.0%	LNC	0.0%
10.0	MS	0.0%	LUMN	0.0%
10.0	LVS	0.0%	PHM	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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	20.63%	NEM	6.35%
1.0	TDG	9.52%	SLV	4.84%
1.0	GWW	7.94%	MSI	4.76%
1.0	TXN	6.35%	B	4.76%
1.0	TSLA	4.76%	TDG	4.76%
1.0	SNY	4.76%	CLF	4.76%
1.0	CMCSA	4.76%	ORCL	3.17%
1.0	AMC	4.76%	T	3.17%
1.0	PCG	4.76%	CMA	3.17%
1.0	CDNS	4.76%	CVS	3.17%
1.0	GNRC	4.76%	FCX	3.17%
1.0	LLY	4.76%	FIS	3.17%
1.0	KHC	3.17%	TFC	3.17%
1.0	CVS	3.17%	MOS	3.17%
1.0	GLD	3.17%	GLD	3.17%
1.0	MSI	3.17%	GNRC	3.17%
1.0	META	3.17%	LVS	3.17%
1.0	MOS	3.17%	MNST	3.17%
1.0	MSTR	3.17%	NVS	3.17%
1.0	PRGO	3.17%	CDNS	3.17%
1.0	SBUX	3.17%	INTU	3.17%
1.0	CLF	3.17%	KEY	3.17%
1.0	ISRG	3.17%	KHC	3.17%
1.0	BHC	3.17%	OXY	3.17%
1.0	UAA	1.59%	GSK	3.17%
1.0	BBY	1.59%	FITB	3.17%
1.0	FITB	1.59%	CAH	3.17%
1.0	FIS	1.59%	ZION	3.17%
1.0	FCX	1.59%	VZ	3.17%
1.0	ABBV	1.59%	WYNN	3.17%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	ZTS	16.67%	SLV	5.66%
10.0	CZR	11.11%	FCX	5.56%
10.0	AMC	5.56%	T	3.7%
10.0	CMCSA	3.7%	MOS	3.7%
10.0	TDG	3.7%	CMG	3.7%
10.0	GNRC	3.7%	NEM	3.7%
10.0	MSI	1.85%	POST	1.85%
10.0	NEM	1.85%	ZION	1.85%
10.0	LNC	0.0%	TDG	1.85%
10.0	NAVI	0.0%	WYNN	1.85%
10.0	KEY	0.0%	LVS	1.85%
10.0	PCG	0.0%	NFLX	0.0%
10.0	OXY	0.0%	NAVI	0.0%
10.0	ORLY	0.0%	NVS	0.0%
10.0	ORCL	0.0%	NVDA	0.0%
10.0	KHC	0.0%	MU	0.0%
10.0	ON	0.0%	NWL	0.0%
10.0	NWL	0.0%	ON	0.0%
10.0	NVS	0.0%	ORCL	0.0%
10.0	NVDA	0.0%	ORLY	0.0%
10.0	NFLX	0.0%	MUB	0.0%
10.0	LEN	0.0%	MSFT	0.0%
10.0	MUB	0.0%	MSTR	0.0%
10.0	LLY	0.0%	LQD	0.0%
10.0	MU	0.0%	KALU	0.0%
10.0	MSTR	0.0%	KEY	0.0%
10.0	PHM	0.0%	KHC	0.0%
10.0	MSFT	0.0%	LEN	0.0%
10.0	MS	0.0%	LLY	0.0%
10.0	MRK	0.0%	LNC	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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	ZTS	27.91%	TDG	2.33%
21.0	CMCSA	27.91%	T	2.33%
21.0	CZR	6.98%	AA	0.0%
21.0	AMC	4.65%	PEP	0.0%
21.0	TDG	2.33%	MSTR	0.0%
21.0	NVS	0.0%	MU	0.0%
21.0	MUB	0.0%	MUB	0.0%
21.0	NAVI	0.0%	NAVI	0.0%
21.0	NEM	0.0%	NEM	0.0%
21.0	NFLX	0.0%	NFLX	0.0%
21.0	NVDA	0.0%	NVDA	0.0%
21.0	ON	0.0%	NVS	0.0%
21.0	NWL	0.0%	NWL	0.0%
21.0	MSTR	0.0%	ON	0.0%
21.0	ORCL	0.0%	ORCL	0.0%
21.0	ORLY	0.0%	ORLY	0.0%
21.0	OXY	0.0%	OXY	0.0%
21.0	PCG	0.0%	MSI	0.0%
21.0	MU	0.0%	MSFT	0.0%
21.0	MSI	0.0%	MS	0.0%
21.0	PHM	0.0%	LNC	0.0%
21.0	LUMN	0.0%	JPM	0.0%
21.0	KEY	0.0%	KALU	0.0%
21.0	KHC	0.0%	KEY	0.0%
21.0	LEN	0.0%	KHC	0.0%
21.0	LLY	0.0%	LEN	0.0%
21.0	LNC	0.0%	LLY	0.0%
21.0	LQD	0.0%	LQD	0.0%
21.0	LVS	0.0%	MRK	0.0%
21.0	MSFT	0.0%	LUMN	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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	11.24%	UNH	4.42%
1.0	TSLA	7.63%	TRGP	4.42%
1.0	TXN	7.23%	TMUS	4.42%
1.0	LLY	6.02%	PEP	4.02%
1.0	VZ	5.62%	PCG	4.02%
1.0	UNH	5.62%	KHC	4.02%
1.0	B	5.22%	HLT	4.02%
1.0	AMGN	5.22%	MSI	4.02%
1.0	AMC	4.82%	IRM	4.02%
1.0	CDNS	4.82%	TXN	4.02%
1.0	QCOM	4.82%	QQQ	3.61%
1.0	NAVI	4.82%	OXY	3.61%
1.0	TDG	4.42%	NEM	3.61%
1.0	CMCSA	4.02%	GLD	3.61%
1.0	SBUX	4.02%	LLY	3.61%
1.0	LQD	3.61%	CCL	3.61%
1.0	HCA	3.61%	HSBC	3.21%
1.0	GNRC	3.61%	GS	3.21%
1.0	AMZN	3.21%	GSK	3.21%
1.0	CVS	3.21%	FIS	3.21%
1.0	MU	2.81%	ISRG	3.21%
1.0	META	2.81%	MNST	3.21%
1.0	AAP	2.81%	CDNS	3.21%
1.0	GOOGL	2.81%	TDG	3.21%
1.0	MSTR	2.81%	THC	3.21%
1.0	CMA	2.41%	VCSH	3.21%
1.0	MSFT	2.41%	ORCL	3.21%
1.0	GWW	2.41%	ZTS	3.21%
1.0	GSK	2.41%	AZN	3.21%
1.0	EXPE	2.41%	AMZN	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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	ZTS	12.5%	UNH	11.25%
10.0	AMC	12.08%	PCG	8.75%
10.0	UNH	11.67%	VFC	6.25%
10.0	CHTR	7.5%	TRGP	6.25%
10.0	TSLA	7.08%	ABBV	5.83%
10.0	CZR	6.67%	BBY	5.42%
10.0	BUD	5.83%	WDC	5.42%
10.0	TXN	5.83%	FIS	5.42%
10.0	CVS	5.42%	CMG	5.0%
10.0	CNC	4.58%	BAC	5.0%
10.0	TDG	4.58%	MUB	4.6%
10.0	KALU	4.58%	JAZZ	4.58%
10.0	CMA	4.17%	FRA	4.58%
10.0	LLY	4.17%	OXY	4.17%
10.0	AAP	3.75%	CPRT	4.17%
10.0	GNRC	3.75%	CCL	4.17%
10.0	ON	3.75%	CNC	4.17%
10.0	BHC	3.33%	SBUX	4.17%
10.0	CLF	3.33%	CHTR	4.17%
10.0	NAVI	3.33%	MS	4.17%
10.0	EXPE	3.33%	NWL	4.17%
10.0	MU	2.92%	MRK	4.17%
10.0	B	2.92%	TXN	4.17%
10.0	CMCSA	2.92%	JPM	4.17%
10.0	BMY	2.92%	AAPL	4.17%
10.0	OXY	2.5%	CVS	3.75%
10.0	FITB	2.5%	LVS	3.75%
10.0	JAZZ	2.08%	COST	3.75%
10.0	VFC	2.08%	FITB	3.75%
10.0	QCOM	1.67%	HSBC	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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	UNH	18.78%	PCG	12.23%
21.0	BUD	13.1%	UNH	11.35%
21.0	CHTR	12.23%	CNC	9.17%
21.0	ZTS	10.04%	VFC	8.3%
21.0	AMC	9.17%	CHTR	8.3%
21.0	CNC	9.17%	CPRT	7.86%
21.0	CMCSA	7.86%	WDC	7.86%
21.0	CVS	7.42%	HLT	6.99%
21.0	BMY	6.99%	JAZZ	6.11%
21.0	ON	6.11%	TEVA	5.68%
21.0	GNRC	6.11%	FRA	5.24%
21.0	CMA	5.68%	LVS	5.24%
21.0	CZR	4.8%	OXY	4.8%
21.0	BHC	4.8%	MRK	4.37%
21.0	WDC	3.49%	CMG	4.37%
21.0	KALU	3.49%	BMY	4.37%
21.0	AMGN	3.06%	JPM	3.93%
21.0	TDG	1.75%	IRM	3.93%
21.0	VFC	1.31%	CCL	3.93%
21.0	ELAN	1.31%	NWL	3.49%
21.0	JAZZ	1.31%	ABBV	3.49%
21.0	AAP	1.31%	ISRG	3.49%
21.0	TSLA	1.31%	LEN	3.06%
21.0	PCG	1.31%	COST	3.06%
21.0	QCOM	1.31%	FIS	2.62%
21.0	SBUX	1.31%	TRGP	2.62%
21.0	MUB	0.88%	MSI	2.62%
21.0	OXY	0.87%	CVS	2.62%
21.0	CYH	0.87%	PHM	2.18%
21.0	AA	0.87%	HSBC	2.18%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	CNC	26.74%	CNC	28.34%
63.0	CHTR	26.74%	UNH	24.6%
63.0	UNH	24.6%	PCG	12.83%
63.0	ON	14.44%	VFC	9.63%
63.0	TDG	9.63%	WDC	6.95%
63.0	BUD	8.56%	IRM	4.28%
63.0	WDC	6.95%	LVS	1.6%
63.0	GNRC	4.81%	TEVA	1.6%
63.0	BMY	1.07%	AAPL	1.07%
63.0	FITB	1.07%	FRA	1.07%
63.0	AMC	1.07%	CPRT	0.53%
63.0	UAA	0.53%	SPY	0.53%
63.0	GOOGL	0.53%	CCL	0.53%
63.0	CMCSA	0.53%	ON	0.0%
63.0	CYH	0.53%	ORCL	0.0%
63.0	ORLY	0.0%	NAVI	0.0%
63.0	PCG	0.0%	ORLY	0.0%
63.0	NVDA	0.0%	OXY	0.0%
63.0	NVS	0.0%	NWL	0.0%
63.0	NFLX	0.0%	NVS	0.0%
63.0	NWL	0.0%	NVDA	0.0%
63.0	OXY	0.0%	NFLX	0.0%
63.0	ORCL	0.0%	NEM	0.0%
63.0	AA	0.0%	AA	0.0%
63.0	NAVI	0.0%	MUB	0.0%
63.0	NEM	0.0%	META	0.0%
63.0	PHM	0.0%	LEN	0.0%
63.0	LNC	0.0%	LLY	0.0%
63.0	LQD	0.0%	LNC	0.0%
63.0	LUMN	0.0%	LQD	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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	UNH	37.9%	UNH	34.68%
126.0	ON	11.29%	CNC	15.32%
126.0	CHTR	4.84%	PCG	11.29%
126.0	CNC	1.61%	AA	0.0%
126.0	CLF	0.81%	NVDA	0.0%
126.0	UAA	0.81%	MU	0.0%
126.0	NAVI	0.0%	MUB	0.0%
126.0	NEM	0.0%	NAVI	0.0%
126.0	NFLX	0.0%	NEM	0.0%
126.0	NVDA	0.0%	NFLX	0.0%
126.0	NVS	0.0%	NWL	0.0%
126.0	AA	0.0%	NVS	0.0%
126.0	MU	0.0%	MSI	0.0%
126.0	NWL	0.0%	ON	0.0%
126.0	ORCL	0.0%	ORCL	0.0%
126.0	ORLY	0.0%	ORLY	0.0%
126.0	OXY	0.0%	OXY	0.0%
126.0	PCG	0.0%	PEP	0.0%
126.0	PEP	0.0%	MSTR	0.0%
126.0	MUB	0.0%	MSFT	0.0%
126.0	MSI	0.0%	POST	0.0%
126.0	MSTR	0.0%	LQD	0.0%
126.0	POST	0.0%	KALU	0.0%
126.0	KEY	0.0%	KEY	0.0%
126.0	KHC	0.0%	KHC	0.0%
126.0	LEN	0.0%	LEN	0.0%
126.0	LLY	0.0%	LLY	0.0%
126.0	LNC	0.0%	LNC	0.0%
126.0	LQD	0.0%	LUMN	0.0%
126.0	LUMN	0.0%	MS	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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	GME	0.46%	MSTR	0.39%
1.0	MSTR	0.45%	NVDA	0.28%
1.0	MU	0.17%	VST	0.28%
1.0	ORCL	0.17%	AVGO	0.24%
1.0	AVGO	0.16%	GBTC	0.2%
1.0	NVDA	0.15%	PWR	0.18%
1.0	NFLX	0.15%	GME	0.18%
1.0	AAPL	0.14%	GE	0.17%
1.0	INTU	0.14%	X	0.17%
1.0	VST	0.14%	WDC	0.16%
1.0	META	0.13%	ORCL	0.16%
1.0	GOOGL	0.12%	MU	0.15%
1.0	PWR	0.12%	LLY	0.15%
1.0	QCOM	0.12%	THC	0.15%
1.0	GWW	0.11%	CAH	0.15%
1.0	WDC	0.1%	AMD	0.14%
1.0	AMD	0.1%	NFLX	0.14%
1.0	X	0.1%	TEVA	0.13%
1.0	AMZN	0.1%	TRGP	0.12%
1.0	THC	0.09%	META	0.12%
1.0	CDNS	0.09%	ETRN	0.12%
1.0	GE	0.09%	TSLA	0.12%
1.0	LLY	0.09%	PHM	0.11%
1.0	GNRC	0.09%	CDNS	0.11%
1.0	XOM	0.08%	CCL	0.1%
1.0	TEVA	0.08%	IRM	0.1%
1.0	ON	0.08%	GS	0.1%
1.0	ABBV	0.07%	GOOGL	0.1%
1.0	IRM	0.07%	SLV	0.1%
1.0	HCA	0.07%	TDG	0.1%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	7.0%	MSTR	3.99%
10.0	GME	4.53%	VST	2.8%
10.0	WDC	2.06%	NVDA	2.75%
10.0	NVDA	2.05%	AVGO	2.29%
10.0	MU	1.98%	GBTC	1.93%
10.0	VST	1.8%	PWR	1.77%
10.0	META	1.77%	GE	1.7%
10.0	NFLX	1.68%	ORCL	1.59%
10.0	ORCL	1.52%	X	1.58%
10.0	AVGO	1.51%	LLY	1.53%
10.0	TEVA	1.4%	GME	1.53%
10.0	GE	1.27%	NFLX	1.52%
10.0	PWR	1.27%	MU	1.51%
10.0	ETRN	1.26%	META	1.51%
10.0	GBTC	1.24%	WDC	1.48%
10.0	AAPL	1.19%	THC	1.44%
10.0	SLV	1.14%	ETRN	1.41%
10.0	CTLT	1.06%	CAH	1.36%
10.0	CAH	1.02%	AMD	1.33%
10.0	LLY	1.01%	TEVA	1.33%
10.0	GOOGL	1.01%	TSLA	1.25%
10.0	AMD	1.0%	TRGP	1.18%
10.0	THC	0.98%	PHM	1.13%
10.0	INTU	0.96%	CDNS	1.1%
10.0	XOM	0.92%	IRM	1.06%
10.0	X	0.9%	CCL	1.0%
10.0	TSLA	0.9%	GS	0.98%
10.0	GS	0.87%	ORLY	0.96%
10.0	ABBV	0.85%	SLV	0.94%
10.0	GNRC	0.85%	TDG	0.94%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	16.42%	MSTR	9.1%
21.0	GME	8.16%	VST	6.15%
21.0	META	4.95%	NVDA	5.94%
21.0	NFLX	4.72%	AVGO	4.8%
21.0	VST	4.4%	GBTC	4.3%
21.0	NVDA	4.24%	PWR	3.75%
21.0	WDC	4.02%	GE	3.69%
21.0	AVGO	3.6%	ORCL	3.57%
21.0	GBTC	3.56%	ETRN	3.5%
21.0	TEVA	3.3%	NFLX	3.42%
21.0	MU	3.21%	META	3.37%
21.0	ORCL	3.12%	LLY	3.2%
21.0	GE	2.73%	X	3.17%
21.0	CTLT	2.71%	WDC	3.11%
21.0	PWR	2.7%	THC	2.99%
21.0	ETRN	2.53%	MU	2.91%
21.0	TSLA	2.47%	TEVA	2.9%
21.0	THC	2.34%	TSLA	2.89%
21.0	AMD	2.3%	AMD	2.81%
21.0	LLY	2.18%	CAH	2.8%
21.0	CAH	2.14%	PHM	2.51%
21.0	XOM	2.12%	TRGP	2.47%
21.0	SLV	2.08%	GME	2.43%
21.0	X	1.96%	CDNS	2.31%
21.0	CCL	1.87%	IRM	2.27%
21.0	IRM	1.85%	CCL	2.25%
21.0	GOOGL	1.85%	GS	2.13%
21.0	INTU	1.81%	ORLY	2.07%
21.0	HCA	1.77%	SLV	1.96%
21.0	AMAT	1.76%	TDG	1.9%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	33.83%	MSTR	27.38%
63.0	META	22.42%	VST	20.27%
63.0	NVDA	18.29%	NVDA	19.98%
63.0	VST	17.48%	AVGO	14.82%
63.0	AVGO	15.94%	GBTC	14.68%
63.0	NFLX	13.73%	META	12.2%
63.0	WDC	13.63%	NFLX	11.98%
63.0	ORCL	11.84%	GE	11.66%
63.0	GBTC	11.84%	ORCL	10.91%
63.0	CTLT	10.43%	ETRN	10.28%
63.0	ETRN	10.07%	PWR	10.23%
63.0	GE	8.98%	PHM	9.06%
63.0	PWR	8.21%	THC	9.01%
63.0	TEVA	8.05%	WDC	8.96%
63.0	LLY	7.76%	LLY	8.59%
63.0	MU	7.71%	CAH	8.09%
63.0	THC	7.65%	CCL	7.94%
63.0	GME	7.46%	MU	7.42%
63.0	CAH	7.34%	AMD	7.36%
63.0	GILD	6.96%	TEVA	7.36%
63.0	CCL	6.92%	TRGP	7.22%
63.0	AMZN	6.9%	DHI	6.9%
63.0	AMD	6.71%	CDNS	6.87%
63.0	TSLA	6.55%	GS	6.76%
63.0	SLV	6.21%	TSLA	6.58%
63.0	GS	6.2%	ORLY	6.35%
63.0	TMUS	6.07%	JPM	6.29%
63.0	NEM	5.86%	TDG	6.02%
63.0	GOOGL	5.85%	X	5.91%
63.0	ISRG	5.56%	IRM	5.78%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	88.36%	MSTR	67.34%
126.0	META	58.58%	NVDA	49.24%
126.0	NVDA	49.75%	VST	44.1%
126.0	VST	42.09%	GBTC	38.75%
126.0	AVGO	42.02%	AVGO	31.52%
126.0	GBTC	38.46%	NFLX	29.76%
126.0	NFLX	37.3%	META	28.85%
126.0	WDC	25.83%	GE	27.37%
126.0	ORCL	25.75%	ORCL	21.84%
126.0	LLY	22.97%	THC	21.51%
126.0	GE	22.66%	PWR	20.7%
126.0	THC	20.89%	PHM	19.11%
126.0	TEVA	19.69%	ETRN	18.49%
126.0	MU	18.98%	LLY	18.19%
126.0	PWR	18.92%	CAH	17.95%
126.0	CAH	18.8%	TRGP	16.82%
126.0	AMD	18.65%	CCL	16.09%
126.0	AMZN	18.19%	TEVA	15.23%
126.0	ETRN	18.14%	MU	15.22%
126.0	GILD	17.88%	TDG	15.0%
126.0	ISRG	17.8%	WDC	14.63%
126.0	GOOGL	15.72%	AMD	14.49%
126.0	TDG	15.71%	JPM	14.11%
126.0	TSLA	15.38%	GS	13.98%
126.0	CCL	13.85%	CDNS	13.71%
126.0	TMUS	13.64%	ORLY	13.38%
126.0	SLV	13.51%	ISRG	13.27%
126.0	INTU	13.47%	DHI	13.15%
126.0	PHM	13.32%	IRM	13.06%
126.0	AMAT	12.92%	GWW	12.92%

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 2025-10-30

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	MSTR	251.76%	MSTR	215.16%
252.0	VST	152.7%	NVDA	134.21%
252.0	NVDA	130.9%	VST	125.4%
252.0	META	125.15%	GBTC	115.0%
252.0	GBTC	115.35%	META	75.98%
252.0	AVGO	105.17%	AVGO	75.83%
252.0	NFLX	96.1%	NFLX	69.69%
252.0	GE	64.12%	GE	61.36%
252.0	ORCL	61.36%	PHM	48.79%
252.0	AMZN	60.09%	THC	48.22%
252.0	ISRG	58.48%	LLY	45.93%
252.0	THC	55.97%	TRGP	45.7%
252.0	TDG	49.31%	PWR	42.61%
252.0	INTU	46.11%	ORCL	42.57%
252.0	TEVA	45.61%	CCL	40.52%
252.0	PHM	43.53%	TDG	36.35%
252.0	GOOGL	42.89%	ETRN	35.78%
252.0	CAH	42.68%	ISRG	34.93%
252.0	TRGP	40.77%	TEVA	34.58%
252.0	CCL	40.0%	CAH	34.45%
252.0	COST	39.86%	JPM	32.46%
252.0	LLY	39.63%	IRM	31.44%
252.0	PWR	37.5%	GWW	30.16%
252.0	GWW	37.46%	GS	29.43%
252.0	MSI	37.01%	DHI	29.41%
252.0	GILD	36.73%	CDNS	28.87%
252.0	ETRN	35.77%	MU	28.85%
252.0	TMUS	35.15%	COST	28.73%
252.0	LEN	33.43%	ACGL	28.45%
252.0	IRM	33.17%	AMZN	28.11%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	AMD	1.55%	LUMN	2.44%
1.0	QCOM	1.37%	AMD	2.17%
1.0	ISRG	1.0%	CYH	1.4%
1.0	MU	0.93%	MU	0.99%
1.0	CLF	0.92%	ISRG	0.95%
1.0	LLY	0.84%	CAH	0.94%
1.0	LUMN	0.81%	WDC	0.75%
1.0	CYH	0.74%	KALU	0.74%
1.0	GWW	0.58%	GOOGL	0.66%
1.0	HON	0.49%	AMZN	0.48%
1.0	ON	0.48%	CMA	0.48%
1.0	LNC	0.44%	AVGO	0.47%
1.0	AA	0.41%	FSUGY	0.46%
1.0	FCX	0.4%	LVS	0.44%
1.0	CMA	0.38%	BHC	0.4%
1.0	CAH	0.38%	GILD	0.39%
1.0	FSUGY	0.37%	WFC	0.39%
1.0	WDC	0.35%	RIO	0.39%
1.0	AMZN	0.35%	ELAN	0.39%
1.0	WFC	0.31%	QCOM	0.38%
1.0	HCA	0.28%	BBY	0.37%
1.0	KALU	0.27%	HCA	0.37%
1.0	LVS	0.25%	INTC	0.36%
1.0	GSK	0.25%	FCX	0.36%
1.0	INTC	0.25%	NVDA	0.36%
1.0	PCG	0.22%	AA	0.36%
1.0	GLD	0.21%	GSK	0.35%
1.0	ZION	0.21%	PWR	0.34%
1.0	AMGN	0.2%	CSCO	0.33%
1.0	CVS	0.19%	BAC	0.29%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	ISRG	35.62%	LUMN	24.02%
10.0	CYH	12.93%	CYH	20.05%
10.0	KALU	10.71%	AMD	16.19%
10.0	LUMN	9.97%	ISRG	15.78%
10.0	MU	9.77%	MU	11.36%
10.0	QCOM	8.26%	KALU	10.35%
10.0	CVS	7.82%	LVS	9.11%
10.0	AA	6.81%	BBY	7.37%
10.0	WDC	5.95%	ELAN	7.12%
10.0	AMD	5.45%	GOOGL	6.59%
10.0	ON	5.43%	AA	6.35%
10.0	WFC	5.2%	GNRC	6.17%
10.0	GNRC	5.01%	CSTM	6.1%
10.0	LVS	4.52%	WDC	5.83%
10.0	CSTM	4.5%	CAH	5.78%
10.0	AMZN	4.46%	HCA	5.7%
10.0	SNY	4.19%	FSUGY	5.45%
10.0	BBY	3.93%	QCOM	5.39%
10.0	HCA	3.89%	INTC	5.16%
10.0	BUD	3.74%	WFC	5.02%
10.0	AVGO	3.61%	ON	4.86%
10.0	INTC	3.49%	VFC	4.59%
10.0	GE	3.24%	RIO	4.57%
10.0	GILD	3.16%	AVGO	4.43%
10.0	VFC	3.12%	AAPL	4.19%
10.0	RIO	3.11%	AMAT	3.92%
10.0	SBUX	2.98%	THC	3.9%
10.0	TSLA	2.82%	BAC	3.79%
10.0	CAH	2.78%	CVS	3.43%
10.0	GOOGL	2.78%	MS	3.38%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	INTC	1.12%	LUMN	1.73%
1.0	UNH	1.07%	INTC	1.23%
1.0	MU	1.0%	MU	1.21%
1.0	GOOGL	0.9%	WDC	1.12%
1.0	QCOM	0.83%	CYH	0.79%
1.0	WDC	0.82%	ELAN	0.76%
1.0	TSLA	0.81%	AMD	0.68%
1.0	LUMN	0.59%	B	0.66%
1.0	CLF	0.54%	TSLA	0.66%
1.0	CVS	0.52%	GOOGL	0.6%
1.0	AMD	0.51%	UNH	0.58%
1.0	AAPL	0.43%	CNC	0.53%
1.0	AMZN	0.43%	CLF	0.51%
1.0	GWW	0.39%	AAPL	0.47%
1.0	AA	0.37%	SLV	0.45%
1.0	CYH	0.36%	TEVA	0.44%
1.0	B	0.32%	AMAT	0.43%
1.0	PCG	0.32%	AA	0.42%
1.0	ELAN	0.3%	THC	0.41%
1.0	CSTM	0.3%	CVS	0.39%
1.0	EXPE	0.29%	KALU	0.39%
1.0	CNC	0.29%	HCA	0.38%
1.0	CMA	0.28%	AVGO	0.38%
1.0	HCA	0.23%	BHC	0.38%
1.0	LLY	0.22%	NEM	0.37%
1.0	TEVA	0.22%	BBY	0.37%
1.0	GSK	0.21%	GSK	0.36%
1.0	ON	0.2%	QCOM	0.35%
1.0	WFC	0.19%	CAH	0.32%
1.0	IRM	0.19%	CSTM	0.32%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	TSLA	14.72%	LUMN	16.47%
10.0	UNH	12.85%	INTC	12.71%
10.0	WDC	12.44%	MU	12.31%
10.0	INTC	9.94%	WDC	10.93%
10.0	MU	9.73%	AMD	7.84%
10.0	LUMN	7.12%	CYH	7.83%
10.0	CVS	6.94%	B	6.67%
10.0	GOOGL	6.02%	UNH	6.51%
10.0	ISRG	5.71%	TSLA	6.33%
10.0	CYH	5.17%	CLF	6.14%
10.0	CLF	4.9%	ELAN	5.92%
10.0	AA	4.75%	CNC	5.82%
10.0	QCOM	4.74%	GOOGL	5.52%
10.0	LW	4.35%	AMAT	4.89%
10.0	CNC	4.0%	SLV	4.66%
10.0	JAZZ	3.91%	AA	4.51%
10.0	B	3.89%	CVS	4.28%
10.0	KALU	3.41%	THC	4.27%
10.0	LLY	3.25%	NEM	4.13%
10.0	AMAT	3.24%	VFC	4.04%
10.0	BXP	3.21%	LW	3.88%
10.0	AVGO	3.17%	JAZZ	3.71%
10.0	AAPL	3.16%	LLY	3.68%
10.0	SNY	2.97%	GLD	3.65%
10.0	VFC	2.93%	BBY	3.46%
10.0	IRM	2.88%	AAPL	3.46%
10.0	ELAN	2.8%	KALU	3.45%
10.0	WYNN	2.78%	CSTM	3.45%
10.0	GSK	2.64%	AVGO	3.45%
10.0	NEM	2.57%	HCA	3.37%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	WDC	31.91%	LUMN	33.51%
21.0	UNH	25.39%	MU	30.55%
21.0	INTC	23.8%	INTC	29.21%
21.0	TSLA	22.38%	WDC	27.52%
21.0	MU	20.44%	AMD	19.42%
21.0	LUMN	18.21%	B	16.5%
21.0	CVS	15.85%	TSLA	15.41%
21.0	AMAT	14.78%	AMAT	15.28%
21.0	AA	13.06%	CLF	14.73%
21.0	LW	12.6%	CNC	14.18%
21.0	CYH	9.91%	SLV	13.69%
21.0	B	9.91%	UNH	13.1%
21.0	CNC	9.81%	CYH	12.71%
21.0	NEM	9.62%	GOOGL	12.07%
21.0	CLF	9.57%	NEM	11.45%
21.0	JAZZ	8.77%	ELAN	11.12%
21.0	IRM	8.75%	AA	9.79%
21.0	BXP	8.22%	GLD	9.59%
21.0	SLV	8.08%	ORCL	9.58%
21.0	GOOGL	7.12%	LW	8.57%
21.0	ELAN	7.07%	LLY	8.54%
21.0	AAPL	6.74%	AVGO	8.14%
21.0	VFC	6.62%	CVS	7.91%
21.0	LLY	6.61%	THC	7.91%
21.0	QCOM	6.16%	JAZZ	7.41%
21.0	AMD	6.09%	AAPL	6.89%
21.0	THC	6.07%	TEVA	6.58%
21.0	AVGO	5.65%	IRM	6.57%
21.0	TEVA	5.5%	PWR	6.55%
21.0	WYNN	5.19%	GSK	6.48%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MU	0.58%	WDC	0.4%
1.0	TSLA	0.38%	MU	0.4%
1.0	WDC	0.34%	AVGO	0.38%
1.0	ORCL	0.32%	TSLA	0.33%
1.0	GOOGL	0.31%	AMD	0.3%
1.0	AMZN	0.29%	INTC	0.29%
1.0	PWR	0.26%	X	0.29%
1.0	MSTR	0.24%	VST	0.28%
1.0	ELAN	0.21%	ELAN	0.28%
1.0	INTC	0.21%	NEM	0.26%
1.0	AMD	0.2%	LUMN	0.26%
1.0	NEM	0.2%	GE	0.26%
1.0	GME	0.2%	B	0.25%
1.0	NVDA	0.19%	ORCL	0.24%
1.0	QCOM	0.19%	GBTC	0.22%
1.0	B	0.18%	GOOGL	0.22%
1.0	AVGO	0.18%	AAP	0.22%
1.0	MSFT	0.18%	MSTR	0.22%
1.0	CVS	0.17%	CAH	0.21%
1.0	GS	0.16%	NVDA	0.21%
1.0	CDNS	0.16%	GS	0.19%
1.0	WFC	0.16%	PWR	0.19%
1.0	GE	0.16%	CSTM	0.18%
1.0	QQQ	0.15%	HSBC	0.18%
1.0	AAP	0.15%	SLV	0.18%
1.0	EXPE	0.15%	NFLX	0.18%
1.0	VST	0.14%	EXPE	0.16%
1.0	LNC	0.14%	CVS	0.16%
1.0	X	0.14%	GLD	0.16%
1.0	TEVA	0.14%	MS	0.16%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	6.5%	MU	3.82%
10.0	WDC	5.92%	WDC	3.73%
10.0	TSLA	4.72%	AVGO	3.6%
10.0	CVS	3.69%	NEM	2.99%
10.0	NEM	2.88%	AMD	2.95%
10.0	MSTR	2.86%	INTC	2.74%
10.0	GE	2.62%	B	2.69%
10.0	AVGO	2.53%	X	2.64%
10.0	NVDA	2.43%	TSLA	2.56%
10.0	PWR	2.41%	ELAN	2.53%
10.0	X	2.38%	GE	2.46%
10.0	INTC	2.24%	AAP	2.29%
10.0	ELAN	2.23%	ORCL	2.26%
10.0	ORCL	2.14%	VST	2.24%
10.0	AMD	2.07%	CSTM	1.96%
10.0	B	1.97%	GOOGL	1.89%
10.0	GOOGL	1.9%	SLV	1.89%
10.0	BA	1.82%	CVS	1.89%
10.0	ABBV	1.79%	BA	1.87%
10.0	EXPE	1.79%	GLD	1.82%
10.0	META	1.69%	HSBC	1.78%
10.0	CSTM	1.61%	NFLX	1.72%
10.0	AAP	1.61%	WYNN	1.7%
10.0	WYNN	1.55%	GBTC	1.7%
10.0	SLV	1.54%	CTLT	1.69%
10.0	QCOM	1.5%	PWR	1.6%
10.0	AMZN	1.44%	NVDA	1.53%
10.0	VST	1.4%	CAH	1.51%
10.0	GS	1.4%	GS	1.5%
10.0	GME	1.3%	THC	1.31%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	WDC	12.39%	MU	8.18%
21.0	MU	11.72%	WDC	8.12%
21.0	TSLA	8.09%	AVGO	8.07%
21.0	CVS	7.92%	NEM	7.06%
21.0	NEM	7.54%	B	6.43%
21.0	AAP	6.62%	AMD	6.28%
21.0	AVGO	6.39%	INTC	5.46%
21.0	B	5.96%	ELAN	5.44%
21.0	GE	5.22%	GE	5.34%
21.0	INTC	4.87%	ORCL	5.23%
21.0	PWR	4.83%	X	5.04%
21.0	X	4.63%	TSLA	4.76%
21.0	NVDA	4.45%	AAP	4.6%
21.0	CSTM	4.42%	SLV	4.57%
21.0	ORCL	4.42%	VST	4.3%
21.0	META	4.38%	CTLT	4.27%
21.0	BA	3.86%	GLD	4.09%
21.0	SLV	3.55%	GOOGL	4.02%
21.0	AMAT	3.44%	BA	3.97%
21.0	ABBV	3.42%	CVS	3.89%
21.0	GS	3.38%	CSTM	3.86%
21.0	VST	3.28%	HSBC	3.83%
21.0	AMD	3.28%	NFLX	3.55%
21.0	THC	3.09%	WYNN	3.37%
21.0	CTLT	2.99%	NVDA	3.25%
21.0	CCL	2.89%	PWR	3.21%
21.0	EXPE	2.81%	THC	3.18%
21.0	WYNN	2.72%	GS	3.07%
21.0	GSK	2.52%	GBTC	2.94%
21.0	TEVA	2.39%	AMAT	2.91%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	WDC	47.29%	WDC	27.1%
63.0	NEM	33.13%	NEM	25.41%
63.0	AVGO	27.59%	B	22.68%
63.0	MU	26.95%	AVGO	21.62%
63.0	CVS	26.58%	MU	20.9%
63.0	B	25.75%	ORCL	20.43%
63.0	AAP	22.91%	ELAN	19.34%
63.0	ORCL	22.08%	GE	18.03%
63.0	NVDA	21.7%	AMD	17.98%
63.0	ELAN	21.56%	X	16.98%
63.0	GE	19.4%	AAP	15.82%
63.0	INTC	18.62%	VST	13.83%
63.0	VST	17.98%	CVS	13.62%
63.0	SLV	15.15%	INTC	13.62%
63.0	THC	15.13%	NVDA	12.91%
63.0	META	14.44%	SLV	12.86%
63.0	PWR	14.4%	CSTM	12.79%
63.0	GS	13.18%	WYNN	12.63%
63.0	CSTM	12.36%	THC	12.13%
63.0	AMD	12.33%	HSBC	11.92%
63.0	ABBV	11.3%	BA	11.92%
63.0	BA	11.21%	GLD	11.81%
63.0	X	10.87%	NFLX	11.58%
63.0	WYNN	10.46%	GS	10.26%
63.0	CCL	10.35%	GOOGL	10.19%
63.0	TSLA	9.76%	PWR	9.88%
63.0	EXPE	9.18%	CCL	9.77%
63.0	AZO	8.96%	HCA	9.13%
63.0	DHI	8.88%	MOS	9.06%
63.0	NFLX	8.83%	CAH	8.93%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	WDC	123.29%	WDC	66.58%
126.0	AVGO	80.52%	NEM	52.95%
126.0	ELAN	78.73%	AVGO	52.36%
126.0	MU	78.16%	MU	51.61%
126.0	NEM	76.89%	ELAN	50.76%
126.0	B	59.25%	ORCL	50.16%
126.0	NVDA	57.24%	AMD	47.15%
126.0	ORCL	51.82%	GE	42.96%
126.0	THC	51.76%	B	41.04%
126.0	AMD	51.73%	VST	36.38%
126.0	PWR	45.28%	CSTM	35.14%
126.0	GE	43.34%	AAP	34.34%
126.0	VST	42.34%	NVDA	33.87%
126.0	CVS	41.16%	THC	33.61%
126.0	GNRC	37.93%	PWR	31.11%
126.0	BA	35.89%	BA	31.02%
126.0	AAP	35.77%	NFLX	30.36%
126.0	CSTM	35.37%	MOS	29.5%
126.0	META	34.84%	WYNN	28.98%
126.0	SLV	33.9%	SLV	25.87%
126.0	GS	32.29%	X	25.82%
126.0	NFLX	31.3%	CAH	24.0%
126.0	INTC	27.85%	CCL	23.61%
126.0	KALU	27.25%	GS	23.55%
126.0	MSFT	22.16%	HSBC	23.4%
126.0	WYNN	22.02%	GLD	23.26%
126.0	CAH	21.31%	MSFT	22.21%
126.0	MS	21.19%	GBTC	21.72%
126.0	CCL	21.13%	HCA	20.71%
126.0	MOS	20.19%	INTC	20.26%

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 2025-10-30

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	AAP	-0.14%	IEP	-0.16%
1.0	CNC	-0.12%	AMC	-0.14%
1.0	IEP	-0.11%	NWL	-0.14%
1.0	FIS	-0.09%	AAP	-0.11%
1.0	BHC	-0.09%	VFC	-0.1%
1.0	LUMN	-0.09%	UAA	-0.09%
1.0	VFC	-0.09%	CZR	-0.08%
1.0	AMC	-0.09%	CHTR	-0.07%
1.0	CHTR	-0.08%	GT	-0.06%
1.0	BXP	-0.06%	BALL	-0.06%
1.0	TLT	-0.05%	CNC	-0.05%
1.0	PRGO	-0.05%	CMCSA	-0.05%
1.0	CMCSA	-0.05%	FIS	-0.04%
1.0	GSK	-0.03%	PRGO	-0.04%
1.0	BMY	-0.03%	BHC	-0.04%
1.0	VZ	-0.03%	TLT	-0.04%
1.0	GT	-0.03%	KHC	-0.03%
1.0	T	-0.03%	BXP	-0.02%
1.0	BIIB	-0.03%	BMY	-0.02%
1.0	LQD	-0.03%	VZ	-0.02%
1.0	ELAN	-0.03%	ADBE	-0.02%
1.0	TXN	-0.02%	ZTS	-0.02%
1.0	NAVI	-0.02%	BIIB	-0.02%
1.0	USB	-0.01%	CTLT	-0.01%
1.0	KHC	-0.01%	CVS	-0.01%
1.0	TFC	-0.01%	NAVI	-0.01%
1.0	VCSH	-0.01%	TFC	-0.01%

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 2025-10-30

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	AMC	-2.36%	FRCB	-2.19%
10.0	FRCB	-2.21%	IEP	-1.52%
10.0	AAP	-1.3%	AMC	-1.51%
10.0	IEP	-1.04%	NWL	-1.14%
10.0	NWL	-0.92%	UAA	-1.02%
10.0	CNC	-0.9%	VFC	-0.99%
10.0	VFC	-0.87%	CZR	-0.96%
10.0	CHTR	-0.74%	AAP	-0.91%
10.0	BHC	-0.67%	CHTR	-0.64%
10.0	GSK	-0.52%	GT	-0.63%
10.0	CMCSA	-0.5%	CNC	-0.61%
10.0	PRGO	-0.5%	BALL	-0.52%
10.0	GT	-0.48%	CMCSA	-0.45%
10.0	TFC	-0.47%	BHC	-0.42%
10.0	FIS	-0.45%	TLT	-0.41%
10.0	CZR	-0.45%	PRGO	-0.39%
10.0	BMY	-0.43%	FIS	-0.38%
10.0	TLT	-0.43%	BMY	-0.32%
10.0	UAA	-0.34%	BXP	-0.28%
10.0	BXP	-0.33%	KHC	-0.27%
10.0	LQD	-0.31%	BIIB	-0.26%
10.0	VZ	-0.28%	ZION	-0.24%
10.0	ZION	-0.26%	VZ	-0.23%
10.0	BALL	-0.25%	LNC	-0.22%
10.0	BIIB	-0.25%	ZTS	-0.22%
10.0	ADBE	-0.24%	NAVI	-0.2%
10.0	MOS	-0.2%	TFC	-0.18%
10.0	EMB	-0.16%	ADBE	-0.14%

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 2025-10-30

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	-7.9%	FRCB	-6.02%
21.0	FRCB	-6.98%	AMC	-3.59%
21.0	NWL	-2.22%	IEP	-3.28%
21.0	IEP	-2.03%	NWL	-2.48%
21.0	VFC	-1.99%	VFC	-2.17%
21.0	BHC	-1.92%	CZR	-2.01%
21.0	CNC	-1.82%	UAA	-1.98%
21.0	CHTR	-1.45%	AAP	-1.85%
21.0	AAP	-1.44%	CHTR	-1.24%
21.0	PRGO	-1.22%	GT	-1.24%
21.0	CZR	-1.19%	CNC	-1.17%
21.0	GT	-1.03%	BHC	-1.16%
21.0	CMCSA	-0.96%	BALL	-1.1%
21.0	ZION	-0.95%	CMCSA	-0.87%
21.0	BALL	-0.95%	TLT	-0.86%
21.0	TLT	-0.94%	PRGO	-0.85%
21.0	BMY	-0.87%	BMY	-0.72%
21.0	FIS	-0.8%	KHC	-0.66%
21.0	ELAN	-0.8%	BXP	-0.64%
21.0	BIIB	-0.77%	FIS	-0.63%
21.0	GSK	-0.68%	LNC	-0.58%
21.0	UAA	-0.57%	BIIB	-0.49%
21.0	TFC	-0.52%	ZTS	-0.47%
21.0	LQD	-0.52%	NAVI	-0.47%
21.0	FITB	-0.44%	VZ	-0.46%
21.0	VZ	-0.43%	TFC	-0.37%
21.0	ADBE	-0.4%	AA	-0.34%
21.0	LNC	-0.34%	ZION	-0.29%

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 2025-10-30

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	-25.68%	AMC	-14.11%
63.0	IEP	-8.11%	IEP	-10.84%
63.0	VFC	-7.03%	NWL	-7.47%
63.0	NWL	-6.8%	VFC	-6.66%
63.0	CHTR	-6.51%	CZR	-6.04%
63.0	CNC	-4.6%	UAA	-5.5%
63.0	AAP	-4.55%	AAP	-5.33%
63.0	CZR	-4.09%	CNC	-4.96%
63.0	MOS	-3.56%	CHTR	-3.56%
63.0	UAA	-3.5%	AA	-3.28%
63.0	BHC	-3.17%	BHC	-3.27%
63.0	TLT	-2.81%	BALL	-3.03%
63.0	BALL	-2.7%	PRGO	-2.95%
63.0	BMY	-2.69%	MOS	-2.83%
63.0	BIIB	-2.29%	TLT	-2.5%
63.0	CMCSA	-2.14%	GT	-2.49%
63.0	KHC	-1.93%	BMY	-2.43%
63.0	AA	-1.8%	KHC	-2.36%
63.0	PRGO	-1.78%	BXP	-2.26%
63.0	CLF	-1.57%	CMCSA	-2.16%
63.0	FIS	-1.46%	CLF	-2.08%
63.0	LNC	-1.35%	BIIB	-1.78%
63.0	UNH	-1.32%	UNH	-1.76%
63.0	GT	-1.31%	FIS	-1.69%
63.0	ADBE	-0.94%	LNC	-1.56%
63.0	NAVI	-0.65%	NAVI	-1.4%
63.0	GSK	-0.59%	CVS	-1.39%

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 2025-10-30

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	-40.38%	AMC	-27.08%
126.0	AAP	-20.34%	IEP	-21.19%
126.0	VFC	-18.04%	NWL	-16.38%
126.0	NWL	-17.23%	VFC	-13.89%
126.0	IEP	-15.86%	AAP	-12.75%
126.0	CHTR	-12.4%	CZR	-9.58%
126.0	AA	-10.64%	CNC	-9.48%
126.0	CZR	-10.13%	UAA	-8.06%
126.0	MOS	-8.52%	CLF	-7.28%
126.0	CNC	-8.14%	AA	-6.78%
126.0	UAA	-7.7%	BHC	-6.29%
126.0	BHC	-7.63%	PRGO	-5.95%
126.0	CLF	-7.49%	CTLT	-5.69%
126.0	TLT	-6.05%	MOS	-5.66%
126.0	PRGO	-5.92%	BMY	-5.51%
126.0	BMY	-5.62%	KHC	-5.11%
126.0	UNH	-5.6%	TLT	-4.82%
126.0	JAZZ	-5.0%	UNH	-4.79%
126.0	FIS	-4.84%	CHTR	-4.49%
126.0	KHC	-4.57%	BXP	-4.3%
126.0	BALL	-4.18%	BALL	-4.25%
126.0	CMCSA	-3.79%	BIIB	-4.22%
126.0	BIIB	-3.68%	CVS	-4.08%
126.0	OXY	-3.56%	GT	-3.34%
126.0	GT	-2.76%	LNC	-3.32%
126.0	LNC	-2.58%	INTC	-3.26%
126.0	CTLT	-2.25%	CMCSA	-3.16%

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 2025-10-30

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	-71.48%	AMC	-54.63%
252.0	AAP	-62.14%	IEP	-44.22%
252.0	VFC	-34.37%	AAP	-34.02%
252.0	IEP	-33.44%	NWL	-28.0%
252.0	NWL	-31.99%	VFC	-23.4%
252.0	BIIB	-25.33%	CLF	-16.68%
252.0	AA	-21.13%	MOS	-16.46%
252.0	CZR	-20.45%	CZR	-16.29%
252.0	CLF	-20.01%	CNC	-15.5%
252.0	OXY	-18.43%	UAA	-13.87%
252.0	UAA	-17.64%	CVS	-13.05%
252.0	MOS	-17.28%	PRGO	-12.76%
252.0	CNC	-17.04%	BIIB	-12.63%
252.0	PRGO	-16.85%	AA	-11.25%
252.0	CHTR	-16.17%	BMY	-10.5%
252.0	JAZZ	-12.54%	KHC	-9.77%
252.0	BMY	-12.39%	OXY	-8.68%
252.0	CVS	-11.59%	TLT	-8.37%
252.0	TLT	-10.91%	BHC	-8.29%
252.0	KHC	-10.76%	GT	-7.3%
252.0	BHC	-10.24%	CYH	-6.93%
252.0	BHP	-8.44%	JAZZ	-6.88%
252.0	GT	-7.59%	INTC	-6.65%
252.0	UNH	-7.1%	CTLT	-6.24%
252.0	CYH	-7.03%	CHTR	-5.97%
252.0	CTLT	-6.82%	UNH	-5.73%
252.0	FIS	-6.35%	BHP	-5.44%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	AMC	-1.6%	NWL	-1.78%
1.0	NWL	-1.31%	CZR	-1.27%
1.0	MSTR	-1.31%	AAP	-1.23%
1.0	CZR	-1.27%	MSTR	-1.19%
1.0	CMG	-1.1%	MOS	-1.09%
1.0	AAP	-1.04%	CMG	-1.04%
1.0	META	-0.92%	GME	-0.92%
1.0	TXN	-0.85%	AMC	-0.9%
1.0	GME	-0.79%	AZO	-0.69%
1.0	SBUX	-0.71%	CHTR	-0.65%
1.0	FIS	-0.57%	DHI	-0.64%
1.0	MOS	-0.55%	TXN	-0.56%
1.0	VFC	-0.54%	PHM	-0.54%
1.0	VZ	-0.47%	META	-0.5%
1.0	MSI	-0.47%	WYNN	-0.5%
1.0	CHTR	-0.43%	ORLY	-0.5%
1.0	AZO	-0.39%	UAA	-0.46%
1.0	CMCSA	-0.36%	MSI	-0.44%
1.0	CNC	-0.35%	GBTC	-0.44%
1.0	ZTS	-0.32%	TMUS	-0.42%
1.0	PRGO	-0.31%	VICI	-0.41%
1.0	UAA	-0.31%	CMCSA	-0.41%
1.0	BXP	-0.3%	GT	-0.41%
1.0	DHI	-0.3%	ORCL	-0.4%
1.0	TDG	-0.29%	VZ	-0.4%
1.0	TMUS	-0.28%	T	-0.4%
1.0	VICI	-0.25%	ABBV	-0.38%
1.0	ABBV	-0.23%	VNO	-0.36%
1.0	NFLX	-0.23%	VFC	-0.36%
1.0	T	-0.21%	BA	-0.35%

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 2025-10-30 through 2025-10-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	-19.88%	MSTR	-10.84%
10.0	AMC	-16.87%	MOS	-9.52%
10.0	CZR	-13.12%	CZR	-8.41%
10.0	CHTR	-7.58%	CHTR	-8.06%
10.0	GME	-5.9%	AMC	-6.11%
10.0	CMCSA	-5.44%	GBTC	-5.83%
10.0	OXY	-5.06%	AZO	-5.4%
10.0	TXN	-4.95%	ORCL	-5.36%
10.0	ORCL	-4.74%	CNC	-4.88%
10.0	CNC	-3.66%	VST	-4.72%
10.0	NFLX	-3.6%	ZION	-4.62%
10.0	MOS	-3.52%	ACGL	-4.58%
10.0	MSI	-3.51%	NFLX	-4.51%
10.0	VZ	-3.13%	PHM	-4.48%
10.0	UAA	-2.78%	NWL	-4.39%
10.0	NEM	-2.77%	GME	-4.37%
10.0	AZO	-2.65%	OXY	-4.36%
10.0	ZION	-2.47%	TXN	-4.09%
10.0	VNO	-2.39%	ORLY	-4.09%
10.0	CMG	-2.36%	CMCSA	-3.46%
10.0	GBTC	-2.35%	NEM	-3.41%
10.0	NWL	-2.22%	VZ	-3.4%
10.0	FIS	-2.06%	CMG	-3.38%
10.0	FRA	-2.05%	MSI	-3.06%
10.0	LLY	-1.96%	B	-3.04%
10.0	T	-1.89%	UAA	-2.9%
10.0	NVS	-1.88%	TRGP	-2.88%
10.0	FITB	-1.78%	DHI	-2.83%
10.0	ACGL	-1.75%	T	-2.8%
10.0	VST	-1.74%	VNO	-2.75%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	TDG	-0.8%	UAA	-0.56%
1.0	MSTR	-0.47%	GT	-0.53%
1.0	NWL	-0.45%	MSTR	-0.52%
1.0	META	-0.44%	NWL	-0.5%
1.0	CMG	-0.41%	CMG	-0.44%
1.0	GNRC	-0.4%	PRGO	-0.39%
1.0	UAA	-0.39%	MOS	-0.37%
1.0	CMCSA	-0.39%	FIS	-0.35%
1.0	AMC	-0.35%	BALL	-0.31%
1.0	TXN	-0.3%	CZR	-0.31%
1.0	CZR	-0.3%	TDG	-0.3%
1.0	FIS	-0.29%	META	-0.27%
1.0	PRGO	-0.28%	INTU	-0.24%
1.0	GT	-0.2%	CMCSA	-0.24%
1.0	MOS	-0.18%	GNRC	-0.21%
1.0	ZTS	-0.18%	TMUS	-0.21%
1.0	CDNS	-0.17%	VICI	-0.19%
1.0	INTU	-0.14%	TXN	-0.18%
1.0	MSI	-0.14%	T	-0.17%
1.0	TMUS	-0.13%	CHTR	-0.16%
1.0	VICI	-0.12%	VST	-0.16%
1.0	BALL	-0.11%	IEP	-0.16%
1.0	CHTR	-0.1%	SBUX	-0.15%
1.0	T	-0.1%	AAP	-0.15%
1.0	AAP	-0.1%	BA	-0.14%
1.0	IEP	-0.09%	HON	-0.13%
1.0	VST	-0.08%	AMC	-0.13%
1.0	SBUX	-0.08%	AZO	-0.11%
1.0	AZO	-0.07%	VZ	-0.11%
1.0	CCL	-0.07%	MSI	-0.11%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	-8.32%	MSTR	-5.41%
10.0	AMC	-4.78%	GT	-4.25%
10.0	CMCSA	-3.5%	UAA	-3.16%
10.0	CZR	-2.99%	CZR	-2.34%
10.0	UAA	-2.59%	IEP	-2.21%
10.0	TDG	-2.44%	TMUS	-2.01%
10.0	META	-2.32%	CMCSA	-1.93%
10.0	BHC	-2.29%	T	-1.87%
10.0	GT	-2.26%	BALL	-1.86%
10.0	GNRC	-2.15%	MOS	-1.84%
10.0	TXN	-1.66%	TXN	-1.83%
10.0	VZ	-1.54%	PRGO	-1.67%
10.0	CHTR	-1.32%	INTU	-1.65%
10.0	ZTS	-1.31%	FIS	-1.57%
10.0	FIS	-1.31%	VZ	-1.56%
10.0	BALL	-1.3%	KHC	-1.52%
10.0	PRGO	-1.27%	AMC	-1.43%
10.0	IEP	-1.27%	CMG	-1.39%
10.0	TMUS	-1.22%	VICI	-1.31%
10.0	CDNS	-1.16%	TRGP	-1.31%
10.0	CMG	-1.14%	SBUX	-1.3%
10.0	T	-1.13%	CHTR	-1.26%
10.0	SBUX	-1.01%	TDG	-1.25%
10.0	FRA	-0.91%	META	-1.19%
10.0	KHC	-0.87%	AAP	-1.13%
10.0	AAP	-0.82%	BA	-1.08%
10.0	OXY	-0.76%	NFLX	-1.02%
10.0	VICI	-0.75%	FRA	-1.01%
10.0	NFLX	-0.75%	CPRT	-1.01%
10.0	MOS	-0.67%	GBTC	-0.98%

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 2025-10-30 through 2025-08-04

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	-15.47%	GT	-9.52%
21.0	CMCSA	-12.4%	MSTR	-8.74%
21.0	BHC	-8.27%	CZR	-5.69%
21.0	CZR	-7.83%	TXN	-5.63%
21.0	ZTS	-7.72%	TMUS	-5.26%
21.0	GT	-6.03%	CMCSA	-5.23%
21.0	META	-5.77%	UAA	-5.02%
21.0	GNRC	-5.22%	T	-4.79%
21.0	PRGO	-4.73%	BHC	-4.53%
21.0	UAA	-4.66%	BALL	-4.51%
21.0	AMC	-4.62%	PRGO	-4.37%
21.0	TDG	-4.2%	NWL	-4.05%
21.0	TXN	-4.13%	KHC	-4.0%
21.0	TMUS	-3.99%	VZ	-3.95%
21.0	SBUX	-3.6%	SBUX	-3.64%
21.0	BALL	-3.06%	TDG	-3.61%
21.0	KHC	-2.98%	IEP	-3.43%
21.0	VZ	-2.94%	CPRT	-3.31%
21.0	IEP	-2.93%	AAP	-3.16%
21.0	T	-2.91%	GNRC	-3.12%
21.0	BMY	-2.91%	VICI	-3.07%
21.0	OXY	-2.68%	BA	-3.04%
21.0	CPRT	-2.55%	BMY	-3.02%
21.0	CHTR	-2.27%	FIS	-2.89%
21.0	FIS	-2.26%	INTU	-2.86%
21.0	AAP	-2.12%	MOS	-2.85%
21.0	NFLX	-1.97%	TRGP	-2.76%
21.0	CCL	-1.75%	META	-2.68%
21.0	INTU	-1.65%	CMG	-2.61%
21.0	BA	-1.53%	ZTS	-2.57%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	CNC	-0.4%	NWL	-0.29%
1.0	AMC	-0.25%	CZR	-0.22%
1.0	CZR	-0.22%	CMG	-0.22%
1.0	NAVI	-0.17%	UAA	-0.18%
1.0	NWL	-0.17%	AMC	-0.16%
1.0	CMG	-0.17%	CMCSA	-0.16%
1.0	TXN	-0.14%	CNC	-0.16%
1.0	BHC	-0.12%	UNH	-0.15%
1.0	UAA	-0.12%	IEP	-0.15%
1.0	CHTR	-0.12%	CHTR	-0.15%
1.0	ZTS	-0.11%	FIS	-0.12%
1.0	FIS	-0.1%	ADBE	-0.12%
1.0	CMCSA	-0.09%	KHC	-0.11%
1.0	IEP	-0.09%	LEN	-0.1%
1.0	KHC	-0.08%	ZTS	-0.08%
1.0	TDG	-0.06%	BALL	-0.08%
1.0	BMY	-0.06%	ON	-0.07%
1.0	CLF	-0.06%	PCG	-0.07%
1.0	BBY	-0.05%	BHC	-0.07%
1.0	ACGL	-0.05%	VFC	-0.07%
1.0	VFC	-0.05%	PRGO	-0.07%
1.0	CYH	-0.04%	TXN	-0.06%
1.0	USB	-0.04%	SBUX	-0.06%
1.0	CPRT	-0.04%	CPRT	-0.06%
1.0	ADBE	-0.03%	MRK	-0.05%
1.0	POST	-0.02%	LW	-0.05%
1.0	PEP	-0.02%	BMY	-0.05%
1.0	XOM	-0.02%	OXY	-0.05%
1.0	OXY	-0.02%	IRM	-0.04%
1.0	VICI	-0.02%	PEP	-0.04%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AMC	-2.65%	UAA	-2.4%
10.0	CNC	-2.39%	CZR	-2.14%
10.0	CHTR	-2.3%	NWL	-1.85%
10.0	CZR	-2.16%	CMCSA	-1.61%
10.0	CMCSA	-1.77%	CNC	-1.59%
10.0	BHC	-1.66%	IEP	-1.58%
10.0	BMY	-1.32%	AMC	-1.57%
10.0	UAA	-1.21%	CHTR	-1.54%
10.0	ON	-0.97%	UNH	-1.47%
10.0	ADBE	-0.95%	CMG	-1.43%
10.0	ZTS	-0.94%	ADBE	-1.31%
10.0	CMG	-0.93%	FIS	-1.06%
10.0	NWL	-0.81%	LEN	-1.05%
10.0	BALL	-0.64%	KHC	-1.02%
10.0	FIS	-0.62%	BMY	-0.9%
10.0	KHC	-0.59%	BALL	-0.77%
10.0	IEP	-0.58%	CPRT	-0.76%
10.0	GT	-0.58%	PCG	-0.75%
10.0	ACGL	-0.52%	BHC	-0.73%
10.0	CPRT	-0.5%	ON	-0.73%
10.0	TDG	-0.42%	GT	-0.71%
10.0	PRGO	-0.36%	GWW	-0.7%
10.0	GWW	-0.34%	ZTS	-0.69%
10.0	TXN	-0.34%	PRGO	-0.66%
10.0	VFC	-0.29%	TXN	-0.62%
10.0	PCG	-0.28%	LW	-0.59%
10.0	VZ	-0.27%	OXY	-0.58%
10.0	FRA	-0.21%	TRGP	-0.53%
10.0	CLF	-0.21%	NAVI	-0.52%
10.0	TRGP	-0.21%	ACGL	-0.5%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	CHTR	-5.59%	UAA	-5.27%
21.0	CNC	-5.48%	CZR	-4.14%
21.0	CZR	-4.91%	NWL	-4.1%
21.0	AMC	-4.42%	AMC	-3.69%
21.0	CMCSA	-4.36%	CMCSA	-3.29%
21.0	BHC	-3.73%	UNH	-3.1%
21.0	UAA	-3.28%	CMG	-3.08%
21.0	BMY	-2.7%	ADBE	-3.03%
21.0	ZTS	-2.69%	IEP	-2.96%
21.0	ON	-2.34%	CHTR	-2.94%
21.0	NWL	-2.2%	CNC	-2.79%
21.0	ADBE	-2.02%	LEN	-2.44%
21.0	GNRC	-1.83%	FIS	-2.18%
21.0	CMG	-1.7%	BMY	-2.17%
21.0	GT	-1.64%	KHC	-2.04%
21.0	UNH	-1.45%	GT	-2.04%
21.0	KHC	-1.39%	CPRT	-2.02%
21.0	BALL	-1.25%	BALL	-1.86%
21.0	FIS	-1.25%	ON	-1.8%
21.0	PRGO	-1.07%	PCG	-1.78%
21.0	FITB	-1.05%	PRGO	-1.75%
21.0	CPRT	-1.03%	TRGP	-1.72%
21.0	GWW	-1.0%	GWW	-1.72%
21.0	PCG	-0.95%	ZTS	-1.65%
21.0	IEP	-0.9%	BHC	-1.4%
21.0	OXY	-0.76%	OXY	-1.28%
21.0	TRGP	-0.73%	NAVI	-1.28%
21.0	NAVI	-0.68%	LW	-1.25%
21.0	ZION	-0.66%	SBUX	-1.11%
21.0	PEP	-0.52%	MRK	-1.07%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	CNC	-15.42%	UAA	-15.83%
63.0	NWL	-14.25%	NWL	-15.74%
63.0	CHTR	-13.11%	CNC	-14.87%
63.0	AMC	-12.12%	UNH	-12.74%
63.0	CZR	-10.59%	CMG	-11.39%
63.0	UAA	-10.26%	CZR	-11.03%
63.0	ADBE	-9.87%	AMC	-9.87%
63.0	UNH	-9.32%	ADBE	-9.23%
63.0	CMCSA	-8.96%	CHTR	-8.74%
63.0	BMY	-7.72%	VFC	-8.38%
63.0	CMG	-7.41%	BMY	-7.05%
63.0	ON	-7.1%	CPRT	-7.04%
63.0	IEP	-6.98%	CMCSA	-7.03%
63.0	ZTS	-5.51%	IEP	-6.31%
63.0	GME	-5.27%	FIS	-5.91%
63.0	LW	-4.59%	PCG	-5.86%
63.0	KHC	-4.5%	TRGP	-5.22%
63.0	GWW	-4.09%	MRK	-5.02%
63.0	FITB	-3.88%	KHC	-4.94%
63.0	CPRT	-3.54%	ZTS	-4.73%
63.0	FIS	-3.49%	ISRG	-4.69%
63.0	MRK	-3.43%	PRGO	-4.62%
63.0	VFC	-3.33%	LW	-4.47%
63.0	SBUX	-3.06%	GWW	-4.46%
63.0	BALL	-3.04%	GME	-4.25%
63.0	PCG	-2.94%	AA	-3.72%
63.0	ISRG	-2.74%	BBY	-3.67%
63.0	PRGO	-2.66%	LEN	-3.66%
63.0	NAVI	-2.49%	BALL	-3.56%
63.0	BBY	-2.36%	ON	-3.43%

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 2025-10-30 through 2024-11-01

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	UNH	-40.74%	UNH	-39.01%
126.0	VFC	-29.37%	CNC	-34.68%
126.0	CNC	-28.1%	NWL	-27.32%
126.0	NWL	-26.28%	VFC	-25.39%
126.0	UAA	-21.89%	UAA	-23.32%
126.0	CZR	-20.83%	BMY	-17.87%
126.0	BMY	-20.2%	CZR	-17.86%
126.0	CHTR	-18.56%	CMG	-17.24%
126.0	AMC	-14.64%	CPRT	-15.4%
126.0	CMG	-14.19%	ADBE	-14.97%
126.0	CMCSA	-13.85%	PCG	-14.15%
126.0	ADBE	-13.02%	AMC	-13.88%
126.0	IEP	-11.86%	TRGP	-13.37%
126.0	SBUX	-11.38%	KHC	-11.91%
126.0	MRK	-11.09%	IEP	-11.81%
126.0	AA	-10.84%	MRK	-11.38%
126.0	ZTS	-10.45%	CHTR	-11.32%
126.0	KHC	-9.59%	CMCSA	-11.17%
126.0	CPRT	-9.39%	SBUX	-9.26%
126.0	ON	-8.16%	BHC	-9.21%
126.0	LW	-7.65%	BBY	-8.37%
126.0	LLY	-6.82%	ZTS	-7.6%
126.0	PCG	-6.62%	LEN	-7.51%
126.0	TRGP	-6.61%	AA	-7.23%
126.0	GME	-6.4%	LW	-7.16%
126.0	PEP	-6.15%	ISRG	-6.92%
126.0	BHC	-5.92%	PEP	-6.72%
126.0	BBY	-5.29%	OXY	-6.46%
126.0	GWW	-5.12%	GME	-6.04%
126.0	OXY	-5.02%	PRGO	-5.76%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	SBNY	22.3%	SBNY	11.87%
1.0	SIVBQ	13.31%	SIVBQ	7.55%
1.0	TSLA	12.95%	TSLA	6.48%
1.0	CHTR	11.89%	LQD	4.78%
1.0	LQD	10.19%	ZTS	4.35%
1.0	GME	9.66%	B	4.14%
1.0	UAA	7.96%	GME	3.61%
1.0	AMC	7.43%	FRCB	3.6%
1.0	ZTS	7.32%	AMC	2.87%
1.0	META	7.32%	MSTR	2.34%
1.0	MSTR	7.32%	AAP	2.02%
1.0	FRCB	7.19%	JAZZ	1.91%
1.0	B	7.01%	GNRC	1.91%
1.0	AAP	6.79%	BUD	1.8%
1.0	SBUX	6.26%	ISRG	1.8%
1.0	AMZN	5.52%	KALU	1.49%
1.0	PRGO	5.41%	CHTR	1.49%
1.0	GNRC	5.31%	CDNS	1.38%
1.0	BALL	5.2%	EXPE	1.27%
1.0	KEY	5.1%	PRGO	1.06%
1.0	SLV	4.89%	ELAN	0.97%
1.0	VFC	4.88%	TLT	0.96%
1.0	BUD	4.88%	FRA	0.96%
1.0	JAZZ	4.25%	SLV	0.74%
1.0	NFLX	4.25%	VZ	0.53%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	SBNY	30.51%	SBNY	14.34%
10.0	AMC	14.26%	AMC	8.9%
10.0	TSLA	14.04%	TSLA	8.68%
10.0	GME	13.29%	SIVBQ	7.35%
10.0	CHTR	12.65%	B	5.68%
10.0	AAP	12.0%	ZTS	5.14%
10.0	SIVBQ	11.76%	LQD	5.04%
10.0	B	11.25%	CHTR	4.93%
10.0	ZTS	11.15%	AAP	4.5%
10.0	BUD	8.9%	GNRC	3.32%
10.0	TLT	8.47%	MSTR	3.11%
10.0	LQD	8.47%	GME	2.89%
10.0	KALU	7.5%	KALU	2.04%
10.0	MSTR	7.29%	ISRG	2.04%
10.0	META	7.07%	VCSH	1.71%
10.0	PRGO	6.75%	BIIB	1.71%
10.0	JAZZ	6.75%	CVS	1.61%
10.0	SLV	6.44%	SNY	1.29%
10.0	VFC	5.89%	CZR	1.18%
10.0	GNRC	5.57%	META	1.18%
10.0	FRCB	5.51%	OXY	1.07%
10.0	VZ	5.36%	TLT	1.07%
10.0	AMZN	5.25%	CMA	0.96%
10.0	NEM	5.04%	ORCL	0.75%
10.0	OXY	5.04%	BUD	0.75%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	SBNY	47.78%	SBNY	15.93%
21.0	CHTR	15.08%	AMC	9.98%
21.0	TSLA	14.1%	CHTR	9.0%
21.0	ZTS	13.88%	TSLA	7.59%
21.0	AMC	13.23%	SIVBQ	7.04%
21.0	B	11.5%	VCSH	5.64%
21.0	AAP	11.28%	GNRC	4.99%
21.0	SIVBQ	10.37%	B	4.34%
21.0	TLT	10.09%	ZTS	4.34%
21.0	BUD	9.87%	LQD	3.69%
21.0	PRGO	9.87%	BIIB	3.58%
21.0	GME	9.54%	KALU	2.49%
21.0	GNRC	9.0%	BUD	2.49%
21.0	LQD	8.79%	AAP	2.39%
21.0	KALU	8.68%	META	2.39%
21.0	MSTR	8.13%	CMCSA	1.95%
21.0	JAZZ	7.81%	ORCL	1.84%
21.0	CVS	7.7%	UNH	1.84%
21.0	META	7.7%	MSTR	1.84%
21.0	TDG	7.59%	GME	1.74%
21.0	BIIB	7.16%	BHC	1.52%
21.0	NEM	6.94%	FIS	1.19%
21.0	VCSH	6.62%	CMA	1.19%
21.0	VFC	6.51%	FRCB	1.11%
21.0	BXP	6.51%	CZR	1.08%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	SBNY	55.19%	SBNY	28.89%
63.0	AAP	25.8%	CHTR	21.93%
63.0	CHTR	20.91%	AMC	11.36%
63.0	AMC	17.61%	AAP	8.3%
63.0	BIIB	14.89%	VCSH	5.8%
63.0	KALU	14.43%	GNRC	5.8%
63.0	TSLA	13.52%	SIVBQ	4.81%
63.0	VFC	12.16%	LQD	4.77%
63.0	B	12.05%	MSTR	4.32%
63.0	SIVBQ	11.85%	ZION	4.04%
63.0	GNRC	10.23%	B	3.75%
63.0	BUD	9.89%	BMY	3.75%
63.0	META	9.55%	BUD	3.41%
63.0	BHC	8.75%	TLT	3.3%
63.0	FIS	8.41%	META	3.07%
63.0	MSTR	8.41%	ON	3.07%
63.0	AMZN	8.18%	BXP	2.5%
63.0	TLT	7.95%	BIIB	2.5%
63.0	TDG	7.5%	VNO	2.39%
63.0	PRGO	7.39%	TDG	2.27%
63.0	LQD	6.02%	NWL	1.93%
63.0	ZTS	5.45%	CMA	1.48%
63.0	JAZZ	5.23%	CVS	1.48%
63.0	FITB	5.23%	BA	1.25%
63.0	LNC	5.0%	FRA	1.14%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	SBNY	55.19%	SBNY	26.3%
126.0	CHTR	30.84%	AAP	21.42%
126.0	VFC	29.38%	CHTR	18.24%
126.0	AMC	22.64%	AMC	17.75%
126.0	AAP	17.5%	BXP	7.22%
126.0	GNRC	17.38%	VFC	6.85%
126.0	TSLA	16.28%	VCSH	5.88%
126.0	SIVBQ	15.93%	CTLT	5.65%
126.0	BMY	15.67%	GNRC	4.9%
126.0	TLT	12.85%	TLT	4.28%
126.0	BIIB	12.48%	CMA	4.16%
126.0	OXY	11.63%	OXY	3.55%
126.0	CVS	10.77%	ZION	3.11%
126.0	ZION	10.09%	B	2.69%
126.0	AMZN	10.04%	VNO	2.2%
126.0	BUD	9.91%	LQD	1.96%
126.0	BXP	8.57%	ON	1.71%
126.0	FIS	7.83%	SNY	1.71%
126.0	NWL	7.83%	META	1.59%
126.0	B	7.47%	SIVBQ	1.48%
126.0	CCL	6.98%	BIIB	1.47%
126.0	META	6.73%	FIS	0.98%
126.0	EXPE	6.24%	BHC	0.98%
126.0	CMA	6.12%	CLF	0.73%
126.0	NEM	5.88%	HYG	0.73%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
252.0	AMC	42.55%	AMC	31.84%
252.0	AAP	41.82%	AAP	30.82%
252.0	BIIB	39.22%	SBNY	25.93%
252.0	CHTR	34.88%	BIIB	15.77%
252.0	VFC	27.35%	CHTR	12.74%
252.0	CMA	21.85%	BXP	12.16%
252.0	ZION	21.12%	VFC	11.29%
252.0	SBNY	20.37%	OXY	7.67%
252.0	OXY	18.52%	CMA	7.53%
252.0	FIS	16.35%	VNO	5.93%
252.0	CVS	12.88%	ZION	5.47%
252.0	TLT	11.0%	MRK	4.63%
252.0	BHC	9.26%	UNH	4.2%
252.0	CTLT	8.52%	CTLT	3.85%
252.0	UAA	8.39%	BHC	3.18%
252.0	ELAN	7.82%	KEY	2.75%
252.0	NWL	7.67%	GNRC	2.6%
252.0	EXPE	7.24%	VCSH	2.17%
252.0	KHC	7.09%	BMY	2.17%
252.0	GNRC	6.95%	UAA	1.88%
252.0	CLF	6.8%	FIS	1.3%
252.0	AMZN	6.37%	EMB	1.3%
252.0	PRGO	6.37%	GSK	1.01%
252.0	VNO	5.64%	ELAN	0.88%
252.0	LQD	5.35%	TLT	0.87%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	ZTS	33.33%	ZTS	33.33%
1.0	MSTR	23.81%	TXN	9.52%
1.0	LLY	23.81%	LLY	9.52%
1.0	TDG	19.05%	MSTR	9.52%
1.0	TXN	14.29%	SBUX	9.52%
1.0	AMC	14.29%	BHC	9.52%
1.0	LNC	14.29%	TDG	9.52%
1.0	GWW	14.29%	GWW	9.52%
1.0	BHC	9.52%	AMC	9.52%
1.0	SBUX	9.52%	KHC	4.76%
1.0	PEP	9.52%	CYH	4.76%
1.0	META	9.52%	META	4.76%
1.0	CNC	9.52%	LEN	0.0%
1.0	ISRG	9.52%	MSFT	0.0%
1.0	AMZN	9.52%	MS	0.0%
1.0	CHTR	4.76%	MRK	0.0%
1.0	NAVI	4.76%	MOS	0.0%
1.0	FRA	4.76%	LW	0.0%
1.0	CVS	4.76%	LUMN	0.0%
1.0	CSTM	4.76%	LQD	0.0%
1.0	PRGO	4.76%	LNC	0.0%
1.0	QCOM	4.76%	XOM	0.0%
1.0	CMCSA	4.76%	VICI	0.0%
1.0	LQD	4.76%	WFC	0.0%
1.0	BUD	4.76%	KALU	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 2025-10-30 through 2025-10-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	NFLX	41.67%	CZR	25.0%
10.0	TXN	33.33%	ZTS	8.33%
10.0	AMC	25.0%	MSI	8.33%
10.0	ZTS	16.67%	AMC	8.33%
10.0	AAP	16.67%	NVDA	0.0%
10.0	CZR	16.67%	MSTR	0.0%
10.0	CHTR	16.67%	MU	0.0%
10.0	MSTR	16.67%	MUB	0.0%
10.0	META	16.67%	NAVI	0.0%
10.0	NVS	8.33%	NFLX	0.0%
10.0	PRGO	8.33%	NVS	0.0%
10.0	CMCSA	8.33%	MS	0.0%
10.0	NAVI	8.33%	NWL	0.0%
10.0	SBUX	8.33%	ON	0.0%
10.0	GLD	8.33%	ORCL	0.0%
10.0	LLY	8.33%	ORLY	0.0%
10.0	KEY	8.33%	OXY	0.0%
10.0	AMZN	8.33%	MSFT	0.0%
10.0	LW	0.0%	MRK	0.0%
10.0	JAZZ	0.0%	PEP	0.0%
10.0	JPM	0.0%	MNST	0.0%
10.0	KALU	0.0%	META	0.0%
10.0	NVDA	0.0%	LW	0.0%
10.0	KHC	0.0%	LVS	0.0%
10.0	LEN	0.0%	LUMN	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	ZTS	23.81%	ZTS	20.63%
1.0	META	17.46%	GWW	7.94%
1.0	TDG	15.87%	TXN	4.76%
1.0	LLY	15.87%	TSLA	4.76%
1.0	GWW	15.87%	TDG	4.76%
1.0	TXN	12.7%	CMCSA	4.76%
1.0	PRGO	11.11%	AMC	4.76%
1.0	CMCSA	11.11%	MSTR	3.17%
1.0	MSTR	9.52%	LLY	3.17%
1.0	AMZN	9.52%	PCG	3.17%
1.0	BHC	6.35%	BHC	3.17%
1.0	TSLA	6.35%	SBUX	3.17%
1.0	PEP	6.35%	SNY	3.17%
1.0	PCG	6.35%	META	1.59%
1.0	ISRG	6.35%	PRGO	1.59%
1.0	AMC	6.35%	GNRC	1.59%
1.0	SBUX	4.76%	CYH	1.59%
1.0	NAVI	4.76%	CDNS	1.59%
1.0	LNC	4.76%	ISRG	1.59%
1.0	CDNS	4.76%	BBY	0.0%
1.0	CVS	4.76%	HLT	0.0%
1.0	GOOGL	4.76%	MUB	0.0%
1.0	JAZZ	3.17%	MU	0.0%
1.0	CSTM	3.17%	AMZN	0.0%
1.0	LQD	3.17%	MSFT	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	META	29.63%	ZTS	16.67%
10.0	TXN	25.93%	CZR	11.11%
10.0	ZTS	24.07%	AMC	5.56%
10.0	CMCSA	24.07%	CMCSA	3.7%
10.0	TDG	18.52%	GNRC	3.7%
10.0	AMZN	16.67%	MSI	1.85%
10.0	AMC	14.81%	TDG	1.85%
10.0	GNRC	14.81%	NAVI	0.0%
10.0	PRGO	11.11%	MSTR	0.0%
10.0	NFLX	9.26%	MU	0.0%
10.0	AAP	9.26%	MUB	0.0%
10.0	ISRG	9.26%	NVDA	0.0%
10.0	VZ	7.41%	NFLX	0.0%
10.0	GWW	7.41%	MS	0.0%
10.0	CZR	5.56%	NVS	0.0%
10.0	BUD	5.56%	NWL	0.0%
10.0	LLY	5.56%	ON	0.0%
10.0	NVS	3.7%	ORCL	0.0%
10.0	MSTR	3.7%	MSFT	0.0%
10.0	AMGN	3.7%	MRK	0.0%
10.0	SNY	3.7%	OXY	0.0%
10.0	SBUX	3.7%	MNST	0.0%
10.0	CHTR	3.7%	META	0.0%
10.0	KEY	3.7%	LW	0.0%
10.0	HD	1.85%	LUMN	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	CMCSA	48.84%	ZTS	27.91%
21.0	ZTS	46.51%	CMCSA	27.91%
21.0	TDG	39.53%	CZR	6.98%
21.0	GNRC	23.26%	AMC	4.65%
21.0	META	18.6%	NVS	0.0%
21.0	NWL	13.95%	MU	0.0%
21.0	AMZN	11.63%	MUB	0.0%
21.0	VZ	11.63%	NAVI	0.0%
21.0	TXN	11.63%	NEM	0.0%
21.0	FCX	9.3%	NFLX	0.0%
21.0	PRGO	9.3%	NVDA	0.0%
21.0	SNY	6.98%	ON	0.0%
21.0	GWW	6.98%	NWL	0.0%
21.0	AMC	4.65%	MSI	0.0%
21.0	DHI	4.65%	ORCL	0.0%
21.0	BXP	4.65%	ORLY	0.0%
21.0	CZR	4.65%	OXY	0.0%
21.0	MSI	2.33%	PCG	0.0%
21.0	CHTR	2.33%	MSTR	0.0%
21.0	AMGN	2.33%	MSFT	0.0%
21.0	AAP	2.33%	PHM	0.0%
21.0	LEN	2.33%	LQD	0.0%
21.0	NVDA	0.0%	KALU	0.0%
21.0	NVS	0.0%	KEY	0.0%
21.0	NEM	0.0%	KHC	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	TSLA	15.26%	ZTS	8.03%
1.0	ZTS	14.46%	TSLA	5.62%
1.0	SBUX	11.65%	AMC	4.82%
1.0	AMZN	10.44%	VZ	3.61%
1.0	META	10.04%	TXN	3.21%
1.0	AMC	8.84%	NAVI	2.81%
1.0	TDG	8.43%	AMGN	2.41%
1.0	MSFT	8.43%	CMCSA	2.41%
1.0	LLY	8.03%	B	2.41%
1.0	B	8.03%	LLY	2.41%
1.0	CDNS	7.23%	GNRC	2.01%
1.0	CLF	7.23%	SBUX	2.01%
1.0	NAVI	7.23%	LQD	2.01%
1.0	TXN	7.23%	AAP	2.01%
1.0	GWW	6.43%	QCOM	2.01%
1.0	MU	6.02%	MSTR	1.61%
1.0	AAP	6.02%	CDNS	1.61%
1.0	INTC	6.02%	TDG	1.2%
1.0	PRGO	5.62%	UNH	1.2%
1.0	UNH	5.62%	BHC	1.2%
1.0	VZ	5.62%	CVS	0.8%
1.0	AMGN	4.82%	HCA	0.8%
1.0	LQD	4.82%	CMA	0.4%
1.0	CMCSA	4.82%	CHTR	0.4%
1.0	CHTR	4.42%	MU	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	TSLA	19.17%	ZTS	12.5%
10.0	ZTS	16.67%	AMC	12.08%
10.0	AMC	15.83%	TSLA	6.67%
10.0	AAP	12.5%	CZR	4.58%
10.0	META	11.67%	CMA	3.75%
10.0	BUD	11.67%	AAP	3.33%
10.0	VZ	9.58%	CHTR	3.33%
10.0	CMCSA	9.17%	CLF	3.33%
10.0	INTC	9.17%	GNRC	2.92%
10.0	AMGN	8.33%	B	2.92%
10.0	CZR	7.92%	BUD	2.92%
10.0	GNRC	7.92%	ON	2.92%
10.0	CVS	7.92%	NAVI	2.08%
10.0	NAVI	7.92%	CVS	1.67%
10.0	CMA	7.5%	TXN	1.67%
10.0	TXN	7.5%	KALU	1.25%
10.0	CHTR	7.5%	LLY	1.25%
10.0	AMZN	7.5%	CMCSA	0.83%
10.0	KEY	7.08%	TDG	0.83%
10.0	B	6.67%	ELAN	0.83%
10.0	CDNS	6.25%	SNY	0.83%
10.0	ON	6.25%	MU	0.83%
10.0	UNH	5.83%	UNH	0.42%
10.0	GOOGL	5.42%	QCOM	0.42%
10.0	TDG	5.0%	LQD	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	ZTS	29.69%	BUD	11.79%
21.0	ON	17.9%	ZTS	10.04%
21.0	BUD	16.59%	AMC	9.17%
21.0	GNRC	15.28%	CMCSA	7.86%
21.0	CMCSA	13.54%	UNH	7.42%
21.0	CHTR	12.66%	GNRC	6.11%
21.0	TSLA	12.66%	ON	6.11%
21.0	TDG	12.66%	CMA	5.68%
21.0	CMA	11.79%	CVS	4.8%
21.0	AMC	11.79%	CZR	4.37%
21.0	NAVI	10.48%	BHC	4.37%
21.0	CVS	9.17%	CHTR	3.93%
21.0	INTC	9.17%	KALU	3.49%
21.0	B	8.73%	BMY	2.62%
21.0	TXN	8.73%	AMGN	2.18%
21.0	AMGN	8.3%	ELAN	1.31%
21.0	META	8.3%	QCOM	1.31%
21.0	PRGO	7.86%	AAP	1.31%
21.0	AAP	6.99%	CYH	0.87%
21.0	ELAN	6.55%	TSLA	0.87%
21.0	GOOGL	6.11%	TDG	0.87%
21.0	CZR	6.11%	NAVI	0.44%
21.0	UNH	5.68%	GOOGL	0.44%
21.0	SBUX	5.68%	CLF	0.44%
21.0	KEY	5.68%	MSTR	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	ON	25.67%	CHTR	26.74%
63.0	GNRC	23.53%	ON	14.44%
63.0	BUD	22.46%	TDG	9.63%
63.0	BHC	22.46%	BUD	8.56%
63.0	TDG	21.39%	GNRC	4.81%
63.0	PRGO	16.04%	FITB	1.07%
63.0	BMY	16.04%	AMC	1.07%
63.0	GOOGL	13.9%	BMY	1.07%
63.0	AAP	12.3%	UAA	0.53%
63.0	CMA	12.3%	CMCSA	0.53%
63.0	CMCSA	11.23%	GOOGL	0.53%
63.0	LW	10.16%	CYH	0.53%
63.0	AMC	9.09%	MOS	0.0%
63.0	SBUX	9.09%	MRK	0.0%
63.0	ADBE	8.02%	OXY	0.0%
63.0	ELAN	7.49%	ORLY	0.0%
63.0	META	6.95%	ORCL	0.0%
63.0	VFC	6.95%	KHC	0.0%
63.0	KEY	6.42%	NWL	0.0%
63.0	CLF	5.88%	LEN	0.0%
63.0	CHTR	5.88%	NVS	0.0%
63.0	NWL	5.88%	LLY	0.0%
63.0	FITB	5.88%	NVDA	0.0%
63.0	TXN	5.88%	NFLX	0.0%
63.0	GWW	5.35%	LNC	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	BMY	61.29%	ON	11.29%
126.0	VFC	48.39%	CHTR	4.84%
126.0	NWL	36.29%	UNH	3.23%
126.0	ON	24.19%	UAA	0.81%
126.0	GNRC	24.19%	CLF	0.81%
126.0	CHTR	23.39%	NVDA	0.0%
126.0	BHC	16.94%	MU	0.0%
126.0	CLF	12.1%	MUB	0.0%
126.0	LW	8.87%	NAVI	0.0%
126.0	UNH	8.87%	NEM	0.0%
126.0	PEP	7.26%	NFLX	0.0%
126.0	LUMN	6.45%	AA	0.0%
126.0	PRGO	4.84%	MSI	0.0%
126.0	CMCSA	4.84%	NVS	0.0%
126.0	MRK	4.84%	NWL	0.0%
126.0	UAA	4.03%	ORCL	0.0%
126.0	BIIB	4.03%	ORLY	0.0%
126.0	SBUX	3.23%	OXY	0.0%
126.0	CNC	2.42%	PEP	0.0%
126.0	BXP	1.61%	MSTR	0.0%
126.0	LQD	0.0%	MSFT	0.0%
126.0	PHM	0.0%	POST	0.0%
126.0	KHC	0.0%	LQD	0.0%
126.0	OXY	0.0%	KALU	0.0%
126.0	ORLY	0.0%	KEY	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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	PHM	-5.2%	QQQ	-2.34%
1.0	NVDA	-4.99%	TRGP	-2.34%
1.0	TRGP	-4.67%	IRM	-2.12%
1.0	MS	-4.14%	NVDA	-2.12%
1.0	MOS	-3.93%	CMG	-2.02%
1.0	IRM	-3.72%	THC	-2.02%
1.0	VNO	-3.72%	PEP	-1.91%
1.0	THC	-3.61%	PCG	-1.8%
1.0	CAH	-3.61%	CAH	-1.8%
1.0	PCG	-3.5%	SPY	-1.8%
1.0	AMAT	-3.5%	HSBC	-1.8%
1.0	HYG	-3.5%	MNST	-1.8%
1.0	VST	-3.4%	GS	-1.8%
1.0	CCL	-3.18%	VST	-1.8%
1.0	QQQ	-3.18%	PHM	-1.8%
1.0	MNST	-2.97%	LEN	-1.7%
1.0	X	-2.95%	EMB	-1.59%
1.0	GLD	-2.87%	MS	-1.59%
1.0	AMD	-2.87%	MOS	-1.59%
1.0	WRK	-2.79%	DHI	-1.59%
1.0	FSUGY	-2.76%	HLT	-1.59%
1.0	CSCO	-2.76%	AMAT	-1.59%
1.0	CPRT	-2.76%	PWR	-1.59%
1.0	DHI	-2.65%	AMD	-1.49%
1.0	LEN	-2.55%	HYG	-1.49%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	MS	-5.68%	MUB	-4.29%
10.0	MUB	-4.72%	PCG	-3.22%
10.0	NVDA	-4.61%	BAC	-2.89%
10.0	CSCO	-4.07%	ABBV	-2.79%
10.0	TRGP	-3.97%	TRGP	-2.57%
10.0	X	-3.94%	WDC	-2.36%
10.0	BAC	-3.86%	COST	-2.36%
10.0	HON	-3.54%	CMG	-2.25%
10.0	AZN	-3.54%	WRK	-2.17%
10.0	QQQ	-3.43%	SBUX	-2.04%
10.0	HLT	-3.32%	VST	-2.04%
10.0	IRM	-3.32%	JPM	-2.04%
10.0	COST	-3.32%	MRK	-2.04%
10.0	WRK	-3.17%	AZN	-1.93%
10.0	VST	-3.11%	MS	-1.93%
10.0	CMG	-3.11%	X	-1.91%
10.0	MOS	-3.11%	IRM	-1.82%
10.0	PCG	-3.11%	WFC	-1.82%
10.0	THC	-3.11%	HCA	-1.82%
10.0	MNST	-3.0%	BBY	-1.82%
10.0	MU	-3.0%	USB	-1.71%
10.0	PHM	-3.0%	HLT	-1.71%
10.0	AMAT	-2.89%	CSTM	-1.5%
10.0	PWR	-2.79%	FCX	-1.39%
10.0	VNO	-2.68%	CYH	-1.39%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	MUB	-8.58%	MUB	-4.23%
21.0	ABBV	-4.77%	LW	-3.69%
21.0	CMG	-4.66%	PCG	-2.71%
21.0	QQQ	-4.45%	CMG	-2.49%
21.0	MS	-4.45%	COST	-2.39%
21.0	COST	-4.12%	AZN	-2.06%
21.0	TRGP	-3.9%	USB	-2.06%
21.0	TEVA	-3.69%	CPRT	-1.95%
21.0	WRK	-3.57%	HLT	-1.84%
21.0	CPRT	-3.47%	WDC	-1.84%
21.0	IRM	-3.47%	INTC	-1.74%
21.0	FSUGY	-3.15%	TEVA	-1.74%
21.0	SPY	-3.04%	ADBE	-1.41%
21.0	PEP	-2.93%	ABBV	-1.41%
21.0	MNST	-2.82%	FRA	-1.41%
21.0	AZN	-2.82%	LVS	-1.41%
21.0	CSCO	-2.71%	FCX	-1.3%
21.0	THC	-2.71%	TRGP	-1.3%
21.0	NVDA	-2.49%	TFC	-1.3%
21.0	HLT	-2.39%	X	-1.21%
21.0	USB	-2.39%	HSBC	-1.19%
21.0	PWR	-2.28%	MU	-1.19%
21.0	LVS	-2.17%	IRM	-1.19%
21.0	GT	-2.17%	BAC	-1.08%
21.0	ORLY	-2.17%	MS	-0.98%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	MUB	-5.92%	IEP	-7.16%
63.0	LEN	-4.89%	MUB	-4.44%
63.0	USB	-4.55%	PCG	-3.52%
63.0	CMG	-3.86%	BHC	-2.73%
63.0	IRM	-3.75%	USB	-2.73%
63.0	CPRT	-3.64%	X	-2.17%
63.0	X	-3.44%	GSK	-2.05%
63.0	CSCO	-3.41%	VFC	-2.05%
63.0	TRGP	-3.18%	HCA	-1.93%
63.0	FSUGY	-2.61%	VZ	-1.93%
63.0	AZN	-2.5%	AZN	-1.7%
63.0	SPY	-2.5%	CTLT	-1.61%
63.0	DHI	-2.39%	TFC	-1.59%
63.0	GE	-2.16%	AA	-1.48%
63.0	ACGL	-2.05%	CLF	-1.36%
63.0	THC	-2.05%	IRM	-0.91%
63.0	QQQ	-1.82%	HYG	-0.8%
63.0	MSI	-1.7%	SNY	-0.8%
63.0	MS	-1.7%	MU	-0.57%
63.0	NVDA	-1.7%	LW	-0.57%
63.0	PHM	-1.59%	EMB	-0.46%
63.0	PWR	-1.59%	NEM	-0.45%
63.0	LUMN	-1.48%	LVS	-0.34%
63.0	LW	-1.36%	FSUGY	-0.23%
63.0	TEVA	-1.25%	MOS	-0.23%

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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	MUB	-7.23%	IEP	-15.18%
126.0	LEN	-6.85%	BALL	-2.94%
126.0	LW	-4.77%	LW	-2.57%
126.0	IRM	-4.77%	GSK	-2.45%
126.0	PCG	-4.16%	PCG	-1.71%
126.0	VZ	-3.06%	CNC	-1.47%
126.0	LUMN	-2.94%	VZ	-1.47%
126.0	BALL	-2.94%	EMB	-0.98%
126.0	INTC	-1.96%	MUB	-0.74%
126.0	FSUGY	-1.59%	IRM	-0.73%
126.0	PHM	-1.47%	INTC	-0.37%
126.0	CSTM	-1.35%	NEM	-0.24%
126.0	BBY	-1.35%	LEN	-0.12%
126.0	LVS	-1.35%	MU	0.0%
126.0	WRK	-1.03%	MSI	0.0%
126.0	CPRT	-0.98%	MSFT	0.0%
126.0	X	-0.97%	NFLX	0.0%
126.0	NVDA	-0.73%	NVDA	0.0%
126.0	GOOGL	-0.49%	NAVI	0.0%
126.0	CSCO	-0.49%	MS	0.0%
126.0	ACGL	-0.37%	AA	0.0%
126.0	EMB	-0.25%	MNST	0.0%
126.0	SPY	-0.24%	NVS	0.0%
126.0	TRGP	-0.24%	LUMN	0.0%
126.0	ABBV	-0.12%	LNC	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 2025-10-30

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
252.0	LUMN	-12.88%	IEP	-28.36%
252.0	LW	-12.59%	FRCB	-0.37%
252.0	VZ	-6.66%	LW	-0.14%
252.0	CNC	-3.76%	CNC	-0.14%
252.0	UNH	-3.33%	NWL	0.0%
252.0	BMY	-2.17%	NVS	0.0%
252.0	CSTM	-2.03%	NVDA	0.0%
252.0	IEP	-1.88%	NFLX	0.0%
252.0	PEP	-1.3%	ORCL	0.0%
252.0	MRK	-1.16%	MUB	0.0%
252.0	INTC	-0.72%	MU	0.0%
252.0	CMG	-0.29%	MSTR	0.0%
252.0	PCG	-0.14%	MSI	0.0%
252.0	ORLY	0.0%	MSFT	0.0%
252.0	HON	0.0%	ORLY	0.0%
252.0	ORCL	0.0%	MS	0.0%
252.0	HSBC	0.0%	ON	0.0%
252.0	ON	0.0%	NAVI	0.0%
252.0	NVS	0.0%	AA	0.0%
252.0	NVDA	0.0%	META	0.0%
252.0	NFLX	0.0%	LVS	0.0%
252.0	NAVI	0.0%	LUMN	0.0%
252.0	LEN	0.0%	LQD	0.0%
252.0	LLY	0.0%	LNC	0.0%
252.0	MU	0.0%	LLY	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 2025-10-30 through 2025-10-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	AA	-14.29%	NEM	-19.05%
1.0	WYNN	-14.29%	SLV	-14.29%
1.0	BA	-14.29%	ZION	-9.52%
1.0	WFC	-9.52%	KEY	-9.52%
1.0	PHM	-9.52%	WYNN	-9.52%
1.0	ORCL	-9.52%	CMA	-9.52%
1.0	TRGP	-9.52%	TFC	-9.52%
1.0	NEM	-9.52%	T	-9.52%
1.0	GNRC	-9.52%	LVS	-9.52%
1.0	MNST	-9.52%	MNST	-9.52%
1.0	SLV	-9.52%	B	-9.52%
1.0	VNO	-9.52%	COST	-4.76%
1.0	ACGL	-9.52%	SPY	-4.76%
1.0	HLT	-9.52%	NAVI	-4.76%
1.0	AMAT	-9.52%	QQQ	-4.76%
1.0	WDC	-9.52%	CCL	-4.76%
1.0	PWR	-4.76%	CLF	-4.76%
1.0	ZION	-4.76%	PWR	-4.76%
1.0	CPRT	-4.76%	GSK	-4.76%
1.0	CSCO	-4.76%	GNRC	-4.76%
1.0	ORLY	-4.76%	FITB	-4.76%
1.0	NVDA	-4.76%	NVS	-4.76%
1.0	LVS	-4.76%	OXY	-4.76%
1.0	MSFT	-4.76%	ORLY	-4.76%
1.0	JPM	-4.76%	DHI	-4.76%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	ORLY	-33.33%	SLV	-25.0%
10.0	SLV	-33.33%	MOS	-16.67%
10.0	NEM	-25.0%	CMG	-16.67%
10.0	HSBC	-25.0%	NEM	-8.33%
10.0	AZO	-25.0%	ZION	-8.33%
10.0	ZION	-16.67%	ON	0.0%
10.0	GBTC	-16.67%	NWL	0.0%
10.0	MOS	-16.67%	NVS	0.0%
10.0	VICI	-8.33%	MSTR	0.0%
10.0	BIIB	-8.33%	NVDA	0.0%
10.0	TFC	-8.33%	NFLX	0.0%
10.0	ORCL	-8.33%	ORLY	0.0%
10.0	GNRC	-8.33%	NAVI	0.0%
10.0	LVS	-8.33%	MUB	0.0%
10.0	WYNN	-8.33%	MU	0.0%
10.0	DHI	-8.33%	OXY	0.0%
10.0	NWL	-8.33%	ORCL	0.0%
10.0	FITB	-8.33%	MSFT	0.0%
10.0	MSI	0.0%	MS	0.0%
10.0	MUB	0.0%	MRK	0.0%
10.0	MU	0.0%	JAZZ	0.0%
10.0	ISRG	0.0%	JPM	0.0%
10.0	ON	0.0%	KALU	0.0%
10.0	JAZZ	0.0%	KEY	0.0%
10.0	NVDA	0.0%	KHC	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	ORCL	-12.7%	NEM	-6.35%
1.0	MNST	-6.35%	SLV	-4.84%
1.0	AA	-4.76%	B	-4.76%
1.0	T	-4.76%	ORCL	-3.17%
1.0	BA	-4.76%	CAH	-3.17%
1.0	VNO	-4.76%	T	-3.17%
1.0	CAH	-4.76%	GSK	-3.17%
1.0	HLT	-4.76%	CMA	-3.17%
1.0	WYNN	-4.76%	NVS	-3.17%
1.0	LEN	-4.76%	INTU	-3.17%
1.0	SLV	-3.23%	ZION	-3.17%
1.0	GBTC	-3.17%	MNST	-3.17%
1.0	NEM	-3.17%	KEY	-3.17%
1.0	TEVA	-3.17%	WYNN	-3.17%
1.0	LUMN	-3.17%	LVS	-3.17%
1.0	ORLY	-3.17%	TFC	-3.17%
1.0	PHM	-3.17%	FIS	-1.59%
1.0	MOS	-3.17%	DHI	-1.59%
1.0	FIS	-3.17%	PWR	-1.59%
1.0	JPM	-3.17%	FCX	-1.59%
1.0	AMAT	-3.17%	CSCO	-1.59%
1.0	TRGP	-3.17%	FITB	-1.59%
1.0	WFC	-3.17%	IRM	-1.59%
1.0	BALL	-3.17%	OXY	-1.59%
1.0	ACGL	-3.17%	ORLY	-1.59%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	MOS	-9.26%	SLV	-5.66%
10.0	SLV	-7.55%	FCX	-5.56%
10.0	ORLY	-7.41%	MOS	-3.7%
10.0	LVS	-7.41%	T	-3.7%
10.0	HSBC	-7.41%	CMG	-3.7%
10.0	AZO	-5.56%	LVS	-1.85%
10.0	NEM	-5.56%	NEM	-1.85%
10.0	GBTC	-3.7%	ZION	-1.85%
10.0	FITB	-3.7%	POST	-1.85%
10.0	FCX	-3.7%	WYNN	-1.85%
10.0	T	-3.7%	NFLX	0.0%
10.0	ZION	-3.7%	MU	0.0%
10.0	GT	-1.85%	NVS	0.0%
10.0	FIS	-1.85%	NWL	0.0%
10.0	DHI	-1.85%	NAVI	0.0%
10.0	MSI	-1.85%	MUB	0.0%
10.0	POST	-1.85%	ON	0.0%
10.0	CAH	-1.85%	NVDA	0.0%
10.0	INTU	-1.85%	MSTR	0.0%
10.0	KHC	-1.85%	MS	0.0%
10.0	BIIB	-1.85%	ORCL	0.0%
10.0	ORCL	-1.85%	JAZZ	0.0%
10.0	TFC	-1.85%	JPM	0.0%
10.0	VICI	-1.85%	KALU	0.0%
10.0	WYNN	-1.85%	KEY	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	T	-13.95%	T	-2.33%
21.0	ORLY	-11.63%	AA	0.0%
21.0	MOS	-11.63%	MSTR	0.0%
21.0	AZO	-9.3%	MU	0.0%
21.0	ZION	-4.65%	MUB	0.0%
21.0	FIS	-2.33%	NAVI	0.0%
21.0	FITB	-2.33%	NEM	0.0%
21.0	BALL	-2.33%	MSI	0.0%
21.0	HD	-2.33%	NFLX	0.0%
21.0	VICI	-2.33%	NVS	0.0%
21.0	KHC	0.0%	NWL	0.0%
21.0	ISRG	0.0%	ON	0.0%
21.0	NVS	0.0%	ORCL	0.0%
21.0	NVDA	0.0%	ORLY	0.0%
21.0	NFLX	0.0%	OXY	0.0%
21.0	NEM	0.0%	NVDA	0.0%
21.0	NAVI	0.0%	PCG	0.0%
21.0	MUB	0.0%	MSFT	0.0%
21.0	MU	0.0%	MRK	0.0%
21.0	MSTR	0.0%	JPM	0.0%
21.0	JAZZ	0.0%	KALU	0.0%
21.0	JPM	0.0%	KEY	0.0%
21.0	MSFT	0.0%	KHC	0.0%
21.0	MRK	0.0%	LEN	0.0%
21.0	KALU	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	TRGP	-7.23%	TRGP	-4.42%
1.0	PHM	-6.02%	TMUS	-4.02%
1.0	GLD	-6.02%	HLT	-4.02%
1.0	CAH	-5.62%	QQQ	-3.61%
1.0	VNO	-5.22%	PEP	-3.61%
1.0	HLT	-5.22%	VCSH	-3.21%
1.0	LEN	-5.22%	CAH	-3.21%
1.0	TMUS	-4.82%	GS	-3.21%
1.0	HSBC	-4.02%	IRM	-3.21%
1.0	NVDA	-4.02%	THC	-3.21%
1.0	SPY	-4.02%	MNST	-3.21%
1.0	HYG	-3.61%	HSBC	-3.21%
1.0	MOS	-3.61%	COST	-2.81%
1.0	ORCL	-3.61%	PCG	-2.81%
1.0	OXY	-3.61%	CCL	-2.81%
1.0	MS	-3.61%	FIS	-2.81%
1.0	T	-3.61%	GLD	-2.81%
1.0	THC	-3.61%	MRK	-2.81%
1.0	VCSH	-3.61%	INTU	-2.81%
1.0	GBTC	-3.61%	MSI	-2.81%
1.0	X	-3.25%	VNO	-2.81%
1.0	CSCO	-3.21%	NEM	-2.81%
1.0	FIS	-3.21%	X	-2.6%
1.0	GILD	-3.21%	KHC	-2.41%
1.0	WYNN	-3.21%	SPY	-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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	TRGP	-11.25%	PCG	-7.5%
10.0	LEN	-7.08%	TRGP	-6.25%
10.0	MSI	-7.08%	BBY	-5.42%
10.0	LVS	-6.67%	ABBV	-5.42%
10.0	PCG	-6.67%	FIS	-5.42%
10.0	GS	-5.83%	CMG	-5.0%
10.0	FIS	-5.83%	BAC	-4.58%
10.0	CSCO	-5.83%	MUB	-4.18%
10.0	COST	-5.83%	VFC	-4.17%
10.0	SPY	-5.83%	MRK	-4.17%
10.0	TMUS	-5.83%	WDC	-4.17%
10.0	PHM	-5.83%	NWL	-4.17%
10.0	AAPL	-5.83%	CPRT	-4.17%
10.0	MOS	-5.42%	ISRG	-3.75%
10.0	HD	-5.42%	COST	-3.75%
10.0	QQQ	-5.0%	SPY	-3.75%
10.0	NVDA	-5.0%	HLT	-3.75%
10.0	BAC	-5.0%	XOM	-3.75%
10.0	IRM	-4.58%	AAPL	-3.75%
10.0	HYG	-4.58%	LVS	-3.75%
10.0	HLT	-4.17%	JPM	-3.75%
10.0	HON	-4.17%	CCL	-3.33%
10.0	HSBC	-4.17%	SBUX	-3.33%
10.0	MS	-4.17%	MS	-3.33%
10.0	USB	-4.17%	TEVA	-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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	FIS	-10.92%	PCG	-10.92%
21.0	CMG	-10.92%	CPRT	-7.86%
21.0	LVS	-10.48%	VFC	-6.99%
21.0	IRM	-9.17%	HLT	-6.99%
21.0	CPRT	-8.73%	TEVA	-5.68%
21.0	TRGP	-8.73%	FRA	-5.24%
21.0	ISRG	-8.3%	LVS	-5.24%
21.0	TEVA	-7.86%	JAZZ	-4.8%
21.0	COST	-7.42%	CMG	-4.37%
21.0	SPY	-6.99%	WDC	-4.37%
21.0	LEN	-6.99%	OXY	-3.93%
21.0	MSI	-6.99%	CCL	-3.93%
21.0	QQQ	-6.55%	IRM	-3.93%
21.0	HD	-6.11%	MRK	-3.93%
21.0	PCG	-6.11%	JPM	-3.93%
21.0	PHM	-5.68%	ISRG	-3.49%
21.0	MS	-5.68%	NWL	-3.49%
21.0	FRA	-5.68%	ABBV	-3.49%
21.0	TMUS	-5.24%	COST	-3.06%
21.0	MRK	-5.24%	LEN	-3.06%
21.0	TFC	-5.24%	MSI	-2.62%
21.0	ABBV	-5.24%	FIS	-2.62%
21.0	XOM	-4.8%	TRGP	-2.62%
21.0	JPM	-4.37%	PHM	-2.18%
21.0	LNC	-4.37%	BAC	-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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	CPRT	-17.11%	PCG	-12.83%
63.0	LEN	-14.97%	VFC	-9.63%
63.0	IRM	-13.9%	IRM	-4.28%
63.0	TEVA	-11.76%	CNC	-1.6%
63.0	CCL	-11.76%	TEVA	-1.6%
63.0	CMG	-11.23%	LVS	-1.6%
63.0	MSI	-8.02%	AAPL	-1.07%
63.0	PWR	-7.49%	FRA	-1.07%
63.0	FIS	-7.49%	CCL	-0.53%
63.0	TRGP	-6.95%	SPY	-0.53%
63.0	FRA	-6.95%	CPRT	-0.53%
63.0	BAC	-5.88%	LQD	0.0%
63.0	SPY	-4.81%	ORLY	0.0%
63.0	MRK	-4.81%	KALU	0.0%
63.0	MUB	-2.69%	ORCL	0.0%
63.0	QQQ	-2.67%	KEY	0.0%
63.0	ORCL	-2.14%	NWL	0.0%
63.0	LVS	-2.14%	NVS	0.0%
63.0	PHM	-1.6%	NVDA	0.0%
63.0	HLT	-1.6%	NFLX	0.0%
63.0	HON	-1.07%	NEM	0.0%
63.0	PCG	-1.07%	KHC	0.0%
63.0	USB	-1.07%	LEN	0.0%
63.0	MS	-1.07%	NAVI	0.0%
63.0	DHI	-1.07%	LLY	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 2025-10-30 through 2024-11-01

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	PCG	-25.81%	CNC	-13.71%
126.0	LEN	-15.32%	PCG	-11.29%
126.0	CPRT	-6.45%	MSI	0.0%
126.0	TRGP	-1.61%	MSTR	0.0%
126.0	MUB	-0.81%	MU	0.0%
126.0	MS	0.0%	MUB	0.0%
126.0	MSFT	0.0%	NAVI	0.0%
126.0	MSI	0.0%	NEM	0.0%
126.0	MSTR	0.0%	AA	0.0%
126.0	AA	0.0%	NVDA	0.0%
126.0	NAVI	0.0%	NVS	0.0%
126.0	NEM	0.0%	NWL	0.0%
126.0	NFLX	0.0%	ORCL	0.0%
126.0	NVDA	0.0%	ORLY	0.0%
126.0	NVS	0.0%	OXY	0.0%
126.0	MOS	0.0%	MSFT	0.0%
126.0	MU	0.0%	NFLX	0.0%
126.0	META	0.0%	MS	0.0%
126.0	LVS	0.0%	MOS	0.0%
126.0	LQD	0.0%	JAZZ	0.0%
126.0	LNC	0.0%	JPM	0.0%
126.0	LLY	0.0%	KALU	0.0%
126.0	KHC	0.0%	KEY	0.0%
126.0	KEY	0.0%	KHC	0.0%
126.0	KALU	0.0%	LEN	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 2025-10-30

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	GME	0.24%	GME	0.29%
1.0	MSTR	0.22%	NWL	0.19%
1.0	NWL	0.14%	UAA	0.16%
1.0	NFLX	0.12%	BALL	0.1%
1.0	INTU	0.12%	INTU	0.1%
1.0	AAPL	0.11%	CZR	0.09%
1.0	META	0.11%	GNRC	0.09%
1.0	AA	0.08%	QCOM	0.08%
1.0	HD	0.08%	AAPL	0.08%
1.0	CLF	0.07%	MSTR	0.07%
1.0	QCOM	0.06%	CTLT	0.06%
1.0	CDNS	0.06%	AMC	0.06%
1.0	ZTS	0.06%	IEP	0.05%
1.0	GWW	0.06%	UNH	0.05%
1.0	XOM	0.06%	ZTS	0.05%
1.0	BHP	0.05%	HD	0.04%
1.0	CZR	0.05%	SBUX	0.04%
1.0	GOOGL	0.05%	CMA	0.04%
1.0	BA	0.05%	ON	0.04%
1.0	UNH	0.05%	AA	0.04%
1.0	AMZN	0.05%	SNY	0.03%
1.0	INTC	0.05%	GT	0.03%
1.0	SNY	0.04%	FRA	0.03%
1.0	TFC	0.04%	GWW	0.03%
1.0	FITB	0.04%	KEY	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 2025-10-30

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	GME	4.24%	MSTR	3.01%
10.0	MSTR	3.37%	GME	3.0%
10.0	META	1.22%	CTLT	1.11%
10.0	CTLT	1.13%	GNRC	0.76%
10.0	CZR	0.98%	UAA	0.68%
10.0	NFLX	0.85%	CMA	0.62%
10.0	UAA	0.85%	AAPL	0.58%
10.0	MU	0.8%	WDC	0.58%
10.0	AAPL	0.75%	INTU	0.55%
10.0	OXY	0.67%	AA	0.53%
10.0	SLV	0.63%	CZR	0.51%
10.0	INTC	0.63%	IEP	0.49%
10.0	INTU	0.63%	MU	0.48%
10.0	WDC	0.62%	CVS	0.46%
10.0	TEVA	0.61%	XOM	0.41%
10.0	GOOGL	0.6%	QCOM	0.34%
10.0	AA	0.54%	BALL	0.27%
10.0	SNY	0.54%	KEY	0.27%
10.0	BA	0.52%	FCX	0.27%
10.0	ORCL	0.52%	META	0.27%
10.0	AMZN	0.5%	OXY	0.26%
10.0	HD	0.49%	WRK	0.26%
10.0	XOM	0.46%	SBUX	0.25%
10.0	GWW	0.41%	NAVI	0.25%
10.0	UNH	0.38%	KALU	0.24%

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 2025-10-30

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	MSTR	9.7%	MSTR	7.32%
21.0	GME	6.61%	GME	5.73%
21.0	META	4.06%	CTLT	2.74%
21.0	CTLT	2.68%	AA	1.8%
21.0	NFLX	2.35%	META	1.57%
21.0	WDC	1.99%	UAA	1.41%
21.0	TEVA	1.98%	NFLX	1.3%
21.0	UAA	1.91%	IEP	1.25%
21.0	MU	1.91%	CVS	1.15%
21.0	INTC	1.47%	GNRC	1.11%
21.0	AA	1.47%	CMA	1.1%
21.0	GOOGL	1.41%	XOM	1.07%
21.0	CZR	1.32%	KALU	0.98%
21.0	ORCL	1.27%	INTU	0.92%
21.0	AMZN	1.23%	WDC	0.9%
21.0	INTU	1.15%	CZR	0.82%
21.0	SLV	1.02%	INTC	0.68%
21.0	OXY	1.0%	CSTM	0.65%
21.0	AAPL	0.98%	CLF	0.6%
21.0	XOM	0.94%	SBUX	0.56%
21.0	HD	0.89%	FSUGY	0.51%
21.0	BA	0.82%	CYH	0.51%
21.0	KEY	0.81%	NAVI	0.49%
21.0	KALU	0.8%	AAPL	0.47%
21.0	GILD	0.79%	ZTS	0.46%

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 2025-10-30

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	MSTR	18.61%	CTLT	10.61%
63.0	META	14.32%	META	10.22%
63.0	CTLT	11.29%	MSTR	6.45%
63.0	NFLX	9.63%	WDC	4.67%
63.0	WDC	9.48%	GME	4.37%
63.0	ORCL	5.61%	CMA	4.07%
63.0	GME	5.16%	KALU	3.49%
63.0	CMA	5.07%	INTC	3.27%
63.0	GNRC	4.52%	CVS	3.08%
63.0	NEM	4.26%	NEM	3.05%
63.0	SLV	3.29%	GNRC	2.8%
63.0	KALU	3.23%	IEP	2.72%
63.0	GOOGL	2.89%	AMZN	2.53%
63.0	UAA	2.81%	WRK	2.02%
63.0	TEVA	2.74%	UAA	2.01%
63.0	B	2.63%	CZR	1.94%
63.0	INTU	2.63%	BXP	1.84%
63.0	XOM	2.6%	NFLX	1.76%
63.0	WRK	2.52%	XOM	1.63%
63.0	HD	2.42%	GILD	1.59%
63.0	BA	2.33%	ZTS	1.49%
63.0	GILD	2.28%	CYH	1.49%
63.0	AAPL	2.27%	AA	1.47%
63.0	SBUX	2.26%	USB	1.39%
63.0	CVS	2.2%	SLV	1.38%

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 2025-10-30

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	MSTR	63.37%	META	29.73%
126.0	META	38.11%	MSTR	21.01%
126.0	NFLX	25.48%	WDC	11.2%
126.0	WDC	17.98%	AVGO	10.5%
126.0	ORCL	12.77%	AMZN	7.9%
126.0	AVGO	9.88%	NFLX	7.54%
126.0	GNRC	8.31%	GILD	6.66%
126.0	BA	7.91%	GOOGL	5.72%
126.0	INTU	7.85%	BA	5.69%
126.0	MU	7.64%	IEP	5.33%
126.0	GME	7.48%	WRK	5.32%
126.0	AMD	7.32%	KALU	5.19%
126.0	GILD	7.0%	INTU	4.82%
126.0	TEVA	6.81%	LLY	4.78%
126.0	CTLT	6.59%	NEM	4.64%
126.0	SLV	6.22%	ISRG	4.53%
126.0	ELAN	5.74%	TEVA	4.46%
126.0	ISRG	5.57%	GME	4.23%
126.0	XOM	5.57%	AMD	4.15%
126.0	LEN	5.55%	ORCL	3.91%
126.0	NEM	5.26%	GNRC	3.82%
126.0	AMZN	5.07%	INTC	3.78%
126.0	WRK	5.06%	MU	3.75%
126.0	LVS	4.95%	TSLA	3.74%
126.0	AAPL	4.81%	CVS	3.59%

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 2025-10-30

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
252.0	MSTR	186.64%	META	49.16%
252.0	META	93.47%	MSTR	36.6%
252.0	NFLX	66.64%	AMZN	31.98%
252.0	AVGO	32.95%	AVGO	29.34%
252.0	AMZN	32.32%	VST	27.3%
252.0	INTU	28.96%	INTU	26.59%
252.0	ORCL	28.12%	NFLX	26.41%
252.0	VST	24.8%	ISRG	23.55%
252.0	ISRG	23.89%	ORCL	18.78%
252.0	TSLA	21.96%	GOOGL	18.69%
252.0	TEVA	21.09%	GILD	16.42%
252.0	GNRC	19.89%	TDG	12.96%
252.0	GILD	19.6%	COST	11.13%
252.0	WDC	18.84%	TEVA	11.03%
252.0	AMD	18.66%	IEP	10.78%
252.0	CTLT	18.05%	LEN	10.77%
252.0	LLY	17.82%	TMUS	10.52%
252.0	LEN	17.58%	MSI	9.63%
252.0	GOOGL	17.36%	LW	8.98%
252.0	EXPE	17.01%	WRK	8.43%
252.0	BA	15.83%	CAH	8.23%
252.0	GME	15.82%	SLV	8.01%
252.0	MSI	15.05%	EXPE	7.9%
252.0	TDG	13.22%	BA	7.76%
252.0	AMAT	10.64%	THC	7.74%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	CLF	2.13%	QCOM	0.99%
1.0	QCOM	1.02%	CLF	0.75%
1.0	HON	0.61%	HON	0.68%
1.0	MOS	0.55%	LLY	0.59%
1.0	AAP	0.47%	MOS	0.54%
1.0	GWW	0.45%	ZION	0.51%
1.0	ON	0.44%	NWL	0.47%
1.0	NWL	0.43%	GWW	0.45%
1.0	LLY	0.41%	NAVI	0.41%
1.0	LNC	0.39%	PHM	0.36%
1.0	WYNN	0.36%	DHI	0.34%
1.0	ZION	0.35%	ORLY	0.32%
1.0	CYH	0.32%	WYNN	0.29%
1.0	PHM	0.31%	AZO	0.29%
1.0	GBTC	0.29%	GBTC	0.29%
1.0	ORLY	0.28%	ORCL	0.28%
1.0	ISRG	0.27%	ON	0.27%
1.0	ORCL	0.26%	GT	0.26%
1.0	GT	0.24%	LNC	0.23%
1.0	KEY	0.22%	CHTR	0.22%
1.0	BAC	0.22%	BALL	0.2%
1.0	BA	0.18%	T	0.19%
1.0	AMZN	0.16%	AAP	0.19%
1.0	TRGP	0.16%	BA	0.18%
1.0	CVS	0.16%	VNO	0.18%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	ISRG	29.02%	ISRG	19.84%
10.0	QCOM	4.96%	MOS	5.99%
10.0	CVS	3.9%	CVS	4.39%
10.0	GBTC	3.71%	GBTC	3.49%
10.0	CLF	3.33%	VST	2.98%
10.0	MOS	2.85%	PHM	2.97%
10.0	ON	2.7%	QCOM	2.87%
10.0	PHM	2.68%	ACGL	2.82%
10.0	ZION	2.36%	AZO	2.75%
10.0	AMZN	2.11%	ORLY	2.69%
10.0	ORLY	1.83%	AMZN	2.5%
10.0	ACGL	1.8%	NWL	2.17%
10.0	KALU	1.66%	ZION	2.15%
10.0	AZO	1.62%	SNY	2.04%
10.0	SNY	1.58%	DHI	1.88%
10.0	TRGP	1.54%	TRGP	1.71%
10.0	GWW	1.51%	B	1.66%
10.0	SBUX	1.45%	GWW	1.31%
10.0	B	1.23%	CNC	1.22%
10.0	WFC	1.21%	SLV	1.2%
10.0	NEM	1.18%	BUD	1.14%
10.0	BUD	1.16%	VICI	1.11%
10.0	ORCL	1.15%	TMUS	1.03%
10.0	HON	1.1%	CMG	1.02%
10.0	ZTS	1.04%	AZN	1.0%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	CLF	0.92%	UNH	0.49%
1.0	UNH	0.52%	QCOM	0.48%
1.0	QCOM	0.5%	GT	0.33%
1.0	GOOGL	0.45%	GWW	0.31%
1.0	TSLA	0.39%	GOOGL	0.3%
1.0	CVS	0.36%	HON	0.26%
1.0	INTC	0.33%	PCG	0.21%
1.0	GWW	0.29%	BALL	0.21%
1.0	CMA	0.25%	MOS	0.19%
1.0	PCG	0.22%	AMZN	0.18%
1.0	GT	0.22%	UAA	0.16%
1.0	VZ	0.2%	VZ	0.16%
1.0	MOS	0.19%	TSLA	0.15%
1.0	HON	0.19%	CVS	0.13%
1.0	AAPL	0.18%	PRGO	0.11%
1.0	ON	0.17%	INTU	0.1%
1.0	BAC	0.17%	ZION	0.09%
1.0	SNY	0.16%	ON	0.09%
1.0	AAP	0.14%	BA	0.09%
1.0	BALL	0.13%	VST	0.08%
1.0	LLY	0.13%	TMUS	0.08%
1.0	MU	0.11%	HD	0.08%
1.0	IRM	0.11%	SBUX	0.07%
1.0	NWL	0.1%	ORLY	0.07%
1.0	IEP	0.09%	VICI	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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	TSLA	9.66%	TSLA	8.39%
10.0	UNH	6.84%	UNH	6.34%
10.0	ISRG	5.15%	ISRG	3.57%
10.0	WDC	4.45%	CVS	2.66%
10.0	CVS	4.09%	GT	1.99%
10.0	GOOGL	2.88%	SNY	1.87%
10.0	LW	2.63%	QCOM	1.85%
10.0	QCOM	2.52%	WDC	1.51%
10.0	INTC	1.94%	AMZN	1.48%
10.0	SNY	1.84%	AMGN	1.28%
10.0	GWW	1.8%	FCX	1.19%
10.0	CLF	1.79%	MOS	1.17%
10.0	AAPL	1.64%	INTU	1.08%
10.0	GT	1.29%	BXP	0.97%
10.0	JAZZ	1.18%	IEP	0.94%
10.0	MU	1.17%	NWL	0.87%
10.0	ON	1.17%	TMUS	0.8%
10.0	VFC	1.15%	DHI	0.79%
10.0	WYNN	1.08%	T	0.74%
10.0	PCG	1.04%	TRGP	0.71%
10.0	WFC	0.99%	KHC	0.66%
10.0	AMGN	0.88%	GBTC	0.63%
10.0	FCX	0.78%	HON	0.6%
10.0	CMA	0.73%	GME	0.6%
10.0	GME	0.68%	BA	0.59%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	TSLA	24.43%	UNH	12.29%
21.0	WDC	17.21%	CVS	7.94%
21.0	UNH	16.3%	TSLA	6.97%
21.0	CVS	10.69%	WDC	4.38%
21.0	GOOGL	9.97%	BXP	4.1%
21.0	INTC	8.58%	LW	4.03%
21.0	ISRG	4.49%	AMGN	3.94%
21.0	MU	4.34%	GT	3.48%
21.0	QCOM	4.27%	AA	3.27%
21.0	GT	4.03%	ISRG	3.0%
21.0	SNY	3.31%	NWL	2.83%
21.0	PCG	3.23%	IRM	2.19%
21.0	JAZZ	3.16%	AMZN	2.03%
21.0	CNC	3.09%	MOS	2.0%
21.0	GME	3.0%	VICI	1.97%
21.0	IRM	2.74%	T	1.88%
21.0	WYNN	2.74%	SNY	1.83%
21.0	AMGN	2.4%	WYNN	1.79%
21.0	LLY	2.16%	QCOM	1.58%
21.0	AA	2.15%	BA	1.51%
21.0	AAPL	2.1%	TXN	1.5%
21.0	LW	2.02%	HON	1.46%
21.0	BXP	1.91%	BALL	1.44%
21.0	VFC	1.69%	JAZZ	1.37%
21.0	DHI	1.53%	TMUS	1.27%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	AAP	0.43%	MU	0.18%
1.0	GME	0.24%	AMZN	0.18%
1.0	QCOM	0.21%	UNH	0.18%
1.0	MU	0.19%	PRGO	0.15%
1.0	PWR	0.19%	GWW	0.15%
1.0	BHC	0.18%	PCG	0.14%
1.0	MSTR	0.17%	GME	0.13%
1.0	AMZN	0.17%	QCOM	0.12%
1.0	PRGO	0.16%	NWL	0.12%
1.0	NWL	0.15%	ON	0.11%
1.0	PCG	0.14%	LEN	0.1%
1.0	CDNS	0.13%	IRM	0.09%
1.0	GOOGL	0.13%	GOOGL	0.09%
1.0	INTC	0.12%	ADBE	0.09%
1.0	LW	0.12%	LW	0.09%
1.0	GWW	0.11%	ABBV	0.08%
1.0	SNY	0.1%	VZ	0.08%
1.0	QQQ	0.1%	ORCL	0.08%
1.0	HON	0.1%	SNY	0.08%
1.0	LEN	0.09%	MSFT	0.07%
1.0	ORCL	0.09%	CMCSA	0.07%
1.0	VZ	0.09%	PWR	0.07%
1.0	ABBV	0.09%	BALL	0.06%
1.0	BA	0.09%	IEP	0.06%
1.0	UNH	0.08%	AA	0.06%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	MU	3.73%	MU	2.68%
10.0	WDC	3.01%	WDC	2.19%
10.0	GME	2.06%	TSLA	2.16%
10.0	TSLA	1.9%	CVS	1.8%
10.0	META	1.9%	MSTR	1.68%
10.0	AAP	1.84%	UNH	1.35%
10.0	UNH	1.74%	FCX	1.27%
10.0	AMZN	1.49%	UAA	1.2%
10.0	MSTR	1.37%	QCOM	1.14%
10.0	CVS	1.23%	GME	1.06%
10.0	QQQ	1.21%	NWL	1.04%
10.0	PWR	1.2%	LEN	1.03%
10.0	LW	1.14%	IEP	1.0%
10.0	ORCL	1.1%	AMZN	0.91%
10.0	ABBV	1.08%	NVDA	0.9%
10.0	ISRG	1.04%	ABBV	0.81%
10.0	MSFT	1.01%	PWR	0.81%
10.0	QCOM	1.01%	SNY	0.78%
10.0	TEVA	0.9%	IRM	0.75%
10.0	LEN	0.86%	ISRG	0.71%
10.0	SNY	0.84%	AMGN	0.71%
10.0	EXPE	0.83%	AA	0.68%
10.0	NEM	0.83%	VNO	0.63%
10.0	CDNS	0.8%	LW	0.55%
10.0	GOOGL	0.76%	SBUX	0.53%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	WDC	9.17%	WDC	4.27%
21.0	MU	8.46%	CVS	4.03%
21.0	TSLA	6.57%	MU	3.54%
21.0	META	4.15%	TSLA	3.33%
21.0	PWR	3.74%	IRM	2.24%
21.0	CVS	3.33%	LEN	2.24%
21.0	AMZN	3.27%	IEP	2.07%
21.0	NEM	2.68%	AAP	2.02%
21.0	UNH	2.45%	UAA	1.99%
21.0	MSTR	2.21%	NWL	1.9%
21.0	LEN	1.96%	AMGN	1.81%
21.0	AAP	1.94%	AA	1.75%
21.0	GOOGL	1.93%	VFC	1.75%
21.0	AMGN	1.9%	MSTR	1.74%
21.0	QQQ	1.88%	META	1.7%
21.0	GME	1.83%	UNH	1.65%
21.0	TEVA	1.8%	PWR	1.62%
21.0	ORCL	1.73%	FCX	1.46%
21.0	QCOM	1.73%	BBY	1.39%
21.0	VFC	1.7%	CMG	1.38%
21.0	MSFT	1.67%	TXN	1.36%
21.0	IRM	1.56%	BXP	1.23%
21.0	GS	1.47%	NVDA	1.2%
21.0	KALU	1.46%	AMZN	1.18%
21.0	DHI	1.35%	QCOM	1.11%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	WDC	38.88%	WDC	20.19%
63.0	NEM	17.76%	CVS	12.96%
63.0	TSLA	17.27%	NVDA	8.79%
63.0	CVS	15.32%	NEM	7.71%
63.0	MU	14.48%	AAP	7.09%
63.0	B	14.1%	META	6.07%
63.0	ORCL	13.46%	MU	6.05%
63.0	META	9.61%	AA	6.05%
63.0	KALU	9.17%	AVGO	5.97%
63.0	PWR	7.92%	UAA	5.56%
63.0	ELAN	7.52%	VFC	5.06%
63.0	DHI	7.11%	INTC	5.0%
63.0	GS	7.0%	PWR	4.52%
63.0	NVDA	6.44%	DHI	4.24%
63.0	GE	6.29%	MSI	4.18%
63.0	BUD	6.08%	VST	4.15%
63.0	ABBV	5.98%	TSLA	4.13%
63.0	AMAT	5.91%	CMG	3.99%
63.0	SLV	5.73%	LEN	3.9%
63.0	LEN	5.43%	BHC	3.84%
63.0	THC	5.19%	KALU	3.73%
63.0	AAP	4.74%	ABBV	3.6%
63.0	BA	3.79%	CPRT	3.51%
63.0	IRM	3.77%	UNH	3.43%
63.0	AA	3.73%	AAPL	3.23%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	WDC	91.17%	WDC	56.71%
126.0	ELAN	68.07%	AVGO	28.16%
126.0	MU	49.44%	ELAN	27.97%
126.0	B	34.64%	MU	26.55%
126.0	NEM	32.41%	NEM	23.94%
126.0	ORCL	25.19%	GNRC	23.44%
126.0	CVS	24.03%	NVDA	23.37%
126.0	GNRC	21.61%	CVS	22.17%
126.0	THC	19.16%	B	18.2%
126.0	META	18.33%	THC	18.15%
126.0	AAP	16.66%	META	16.0%
126.0	SLV	16.63%	PWR	14.18%
126.0	BA	15.45%	KALU	13.73%
126.0	PWR	14.4%	GS	8.74%
126.0	GE	14.17%	SLV	8.03%
126.0	AVGO	14.09%	INTC	7.6%
126.0	INTC	14.0%	PCG	7.53%
126.0	DHI	13.81%	TRGP	6.76%
126.0	NVDA	13.5%	CNC	6.58%
126.0	TSLA	11.95%	CPRT	6.01%
126.0	KALU	11.89%	VST	5.96%
126.0	BUD	11.56%	AMAT	5.52%
126.0	MSTR	11.22%	PHM	5.32%
126.0	GS	9.57%	LEN	5.31%
126.0	AMAT	9.3%	BA	4.87%

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 2025-10-30

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	FRCB	-0.16%	VST	-0.14%
1.0	CYH	-0.15%	NVDA	-0.13%
1.0	VST	-0.14%	GBTC	-0.13%
1.0	TSLA	-0.14%	LUMN	-0.11%
1.0	LUMN	-0.14%	GE	-0.08%
1.0	NVDA	-0.11%	TSLA	-0.08%
1.0	GBTC	-0.11%	CAH	-0.08%
1.0	ETRN	-0.09%	AVGO	-0.08%
1.0	ELAN	-0.09%	B	-0.08%
1.0	T	-0.08%	CCL	-0.07%
1.0	FIS	-0.08%	CNC	-0.07%
1.0	CSTM	-0.08%	X	-0.07%
1.0	CCL	-0.08%	ETRN	-0.07%
1.0	GE	-0.07%	LLY	-0.07%
1.0	CHTR	-0.07%	PWR	-0.06%
1.0	GILD	-0.06%	PHM	-0.06%
1.0	LLY	-0.06%	TRGP	-0.06%
1.0	PHM	-0.05%	THC	-0.06%
1.0	AMAT	-0.05%	FRCB	-0.06%
1.0	X	-0.05%	ELAN	-0.06%
1.0	AVGO	-0.05%	ACGL	-0.05%
1.0	GSK	-0.05%	LVS	-0.05%
1.0	CAH	-0.05%	GLD	-0.05%

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 2025-10-30

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	-1.71%	VST	-1.0%
10.0	FRCB	-0.93%	AMC	-0.86%
10.0	CHTR	-0.81%	AVGO	-0.78%
10.0	LUMN	-0.77%	NVDA	-0.7%
10.0	GSK	-0.66%	GBTC	-0.69%
10.0	NVDA	-0.65%	X	-0.68%
10.0	CCL	-0.64%	PHM	-0.53%
10.0	LLY	-0.62%	LLY	-0.52%
10.0	VST	-0.61%	PWR	-0.49%
10.0	TDG	-0.56%	TRGP	-0.48%
10.0	GBTC	-0.53%	TDG	-0.47%
10.0	PRGO	-0.49%	THC	-0.46%
10.0	PHM	-0.47%	GLD	-0.46%
10.0	FIS	-0.47%	CCL	-0.45%
10.0	AAP	-0.47%	LUMN	-0.43%
10.0	TSLA	-0.45%	GE	-0.43%
10.0	TRGP	-0.41%	GSK	-0.42%
10.0	VZ	-0.38%	CDNS	-0.4%
10.0	X	-0.37%	AAP	-0.39%
10.0	B	-0.35%	ORLY	-0.39%
10.0	GLD	-0.35%	COST	-0.38%
10.0	BIIB	-0.34%	CMG	-0.37%
10.0	CYH	-0.34%	B	-0.37%

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 2025-10-30

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	-4.31%
21.0	AMC	-3.21%	VST	-1.75%
21.0	AAP	-1.47%	NVDA	-1.7%
21.0	VST	-1.43%	ELAN	-1.4%
21.0	CHTR	-1.37%	X	-1.22%
21.0	GSK	-1.35%	PHM	-1.2%
21.0	NVDA	-1.29%	AVGO	-1.19%
21.0	CCL	-1.26%	PWR	-1.05%
21.0	TDG	-1.22%	CDNS	-1.03%
21.0	LLY	-1.07%	COST	-1.02%
21.0	X	-1.07%	LLY	-1.02%
21.0	LUMN	-1.07%	ORLY	-0.98%
21.0	GLD	-0.83%	ETRN	-0.97%
21.0	PRGO	-0.82%	FRCB	-0.96%
21.0	FIS	-0.78%	GLD	-0.96%
21.0	PHM	-0.76%	GE	-0.95%
21.0	NWL	-0.7%	TRGP	-0.95%
21.0	ELAN	-0.69%	HSBC	-0.93%
21.0	VFC	-0.66%	DHI	-0.84%
21.0	CYH	-0.64%	TDG	-0.84%
21.0	ACGL	-0.61%	BHC	-0.76%
21.0	CPRT	-0.6%	PCG	-0.75%
21.0	VNO	-0.58%	MSFT	-0.74%

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 2025-10-30

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	-15.25%	AMC	-11.58%
63.0	AAP	-5.47%	PHM	-3.79%
63.0	VFC	-4.61%	CHTR	-2.95%
63.0	CHTR	-3.65%	GBTC	-2.84%
63.0	NVDA	-3.29%	VST	-2.78%
63.0	VNO	-2.59%	TRGP	-2.74%
63.0	ON	-2.53%	GE	-2.68%
63.0	GSK	-2.18%	CDNS	-2.6%
63.0	PHM	-2.16%	ORLY	-2.21%
63.0	GBTC	-2.11%	CPRT	-2.12%
63.0	FIS	-1.98%	COST	-2.02%
63.0	VST	-1.84%	PWR	-2.01%
63.0	CNC	-1.78%	GLD	-1.97%
63.0	PWR	-1.52%	DHI	-1.93%
63.0	CPRT	-1.5%	JPM	-1.88%
63.0	TLT	-1.48%	MNST	-1.78%
63.0	CCL	-1.44%	TDG	-1.75%
63.0	MNST	-1.44%	HSBC	-1.72%
63.0	GLD	-1.34%	PCG	-1.71%
63.0	X	-1.32%	GWW	-1.71%
63.0	BIIB	-1.3%	NVDA	-1.69%
63.0	ORLY	-1.28%	IRM	-1.67%

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 2025-10-30

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	-23.18%	AMC	-13.3%
126.0	VFC	-14.84%	CHTR	-7.91%
126.0	AAP	-9.34%	AAP	-7.59%
126.0	PHM	-5.91%	PHM	-5.8%
126.0	BHC	-5.7%	GE	-4.71%
126.0	CHTR	-5.38%	JPM	-4.56%
126.0	CCL	-4.05%	CDNS	-4.38%
126.0	CNC	-3.95%	TRGP	-4.36%
126.0	JPM	-3.49%	CPRT	-4.31%
126.0	CPRT	-3.45%	VFC	-4.15%
126.0	PWR	-3.18%	AA	-3.86%
126.0	NWL	-3.15%	ACGL	-3.67%
126.0	IEP	-3.12%	MS	-2.99%
126.0	TRGP	-2.96%	MOS	-2.86%
126.0	MOS	-2.83%	CSCO	-2.73%
126.0	PRGO	-2.73%	HSBC	-2.51%
126.0	GSK	-2.69%	FIS	-2.5%
126.0	JAZZ	-2.66%	GLD	-2.27%
126.0	CSCO	-2.66%	CCL	-2.24%
126.0	TLT	-2.58%	DHI	-2.18%
126.0	HLT	-2.37%	PCG	-2.13%
126.0	GLD	-2.25%	MSFT	-2.11%

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 2025-10-30

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	-42.72%	AAP	-28.12%
252.0	AAP	-32.85%	AMC	-16.84%
252.0	VFC	-18.5%	BIIB	-12.7%
252.0	BIIB	-17.01%	VFC	-10.96%
252.0	UAA	-12.76%	CHTR	-10.2%
252.0	AA	-12.61%	AA	-9.88%
252.0	PHM	-11.44%	OXY	-9.75%
252.0	OXY	-11.37%	JPM	-8.34%
252.0	IEP	-10.91%	MS	-7.53%
252.0	NWL	-9.84%	FIS	-7.17%
252.0	CHTR	-8.98%	LLY	-6.3%
252.0	JPM	-8.43%	CPRT	-5.99%
252.0	MOS	-8.24%	JAZZ	-5.66%
252.0	PRGO	-7.97%	PHM	-5.26%
252.0	BHC	-7.88%	PWR	-5.11%
252.0	MS	-7.4%	TRGP	-4.93%
252.0	CZR	-7.34%	ACGL	-4.77%
252.0	CCL	-6.48%	CSCO	-4.6%
252.0	CLF	-6.16%	KEY	-4.28%
252.0	TLT	-5.54%	ELAN	-4.23%
252.0	JAZZ	-5.48%	CZR	-4.16%
252.0	PWR	-5.41%	ZION	-4.1%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	LUMN	-1.62%	LUMN	-1.63%
1.0	TXN	-1.08%	AMC	-0.7%
1.0	META	-0.99%	CYH	-0.67%
1.0	AMC	-0.65%	AMD	-0.62%
1.0	VFC	-0.56%	CAH	-0.56%
1.0	KALU	-0.48%	GOOGL	-0.49%
1.0	SBUX	-0.48%	BHC	-0.48%
1.0	CMG	-0.43%	KALU	-0.47%
1.0	CAH	-0.4%	META	-0.41%
1.0	CNC	-0.4%	SBUX	-0.4%
1.0	FIS	-0.31%	TDG	-0.39%
1.0	GOOGL	-0.3%	WDC	-0.39%
1.0	NFLX	-0.28%	BBY	-0.34%
1.0	TDG	-0.27%	AVGO	-0.3%
1.0	ZTS	-0.27%	FIS	-0.3%
1.0	MSTR	-0.27%	TXN	-0.29%
1.0	NVDA	-0.26%	GILD	-0.28%
1.0	WDC	-0.23%	ELAN	-0.25%
1.0	AMD	-0.23%	ZTS	-0.25%
1.0	ELAN	-0.22%	CNC	-0.23%
1.0	AZO	-0.22%	RIO	-0.22%
1.0	AVGO	-0.21%	NVDA	-0.2%
1.0	RIO	-0.2%	LVS	-0.19%
1.0	PRGO	-0.18%	VFC	-0.18%
1.0	MS	-0.18%	MS	-0.18%

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 2025-10-30 through 2025-10-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	LUMN	-14.52%	LUMN	-14.04%
10.0	AMC	-10.99%	AMC	-10.76%
10.0	MSTR	-9.41%	AMD	-10.75%
10.0	TXN	-6.97%	MSTR	-9.04%
10.0	AMD	-5.55%	CYH	-7.12%
10.0	CHTR	-3.59%	ELAN	-4.74%
10.0	CZR	-3.58%	CZR	-4.71%
10.0	GOOGL	-2.75%	LVS	-4.59%
10.0	LVS	-2.7%	GOOGL	-3.81%
10.0	AMAT	-1.89%	BBY	-3.44%
10.0	CAH	-1.86%	FSUGY	-3.06%
10.0	CYH	-1.86%	CAH	-3.0%
10.0	THC	-1.75%	AAPL	-2.34%
10.0	MS	-1.72%	PEP	-2.13%
10.0	PRGO	-1.7%	THC	-2.03%
10.0	CSCO	-1.69%	BAC	-1.99%
10.0	ELAN	-1.67%	CMCSA	-1.99%
10.0	AVGO	-1.59%	MS	-1.98%
10.0	CMCSA	-1.58%	CSCO	-1.97%
10.0	FSUGY	-1.55%	HCA	-1.82%
10.0	LLY	-1.55%	AMAT	-1.8%
10.0	CMG	-1.51%	INTC	-1.67%
10.0	VZ	-1.38%	CSTM	-1.6%
10.0	QQQ	-1.26%	MU	-1.59%
10.0	HCA	-1.24%	GME	-1.54%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	LUMN	-0.93%	LUMN	-1.14%
1.0	TDG	-0.8%	TDG	-0.5%
1.0	UAA	-0.55%	ELAN	-0.46%
1.0	META	-0.48%	CYH	-0.42%
1.0	ELAN	-0.41%	B	-0.34%
1.0	TXN	-0.39%	BBY	-0.34%
1.0	VFC	-0.32%	BHC	-0.34%
1.0	MSTR	-0.31%	WDC	-0.3%
1.0	PRGO	-0.29%	SLV	-0.28%
1.0	B	-0.27%	THC	-0.26%
1.0	THC	-0.26%	AMAT	-0.25%
1.0	AVGO	-0.24%	AVGO	-0.24%
1.0	SLV	-0.23%	CNC	-0.24%
1.0	KALU	-0.23%	KALU	-0.23%
1.0	AMC	-0.22%	TEVA	-0.23%
1.0	WDC	-0.2%	AMC	-0.22%
1.0	GNRC	-0.2%	MU	-0.21%
1.0	TEVA	-0.2%	NEM	-0.21%
1.0	NEM	-0.19%	GNRC	-0.19%
1.0	AMAT	-0.18%	CAH	-0.18%
1.0	CMG	-0.18%	AMD	-0.17%
1.0	CYH	-0.17%	META	-0.17%
1.0	FSUGY	-0.16%	BIIB	-0.17%
1.0	CMCSA	-0.16%	VFC	-0.15%
1.0	MS	-0.15%	HCA	-0.15%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	LUMN	-8.97%	LUMN	-9.35%
10.0	MSTR	-3.39%	AMD	-5.48%
10.0	AMC	-3.21%	AMC	-3.34%
10.0	AMD	-2.85%	ELAN	-3.11%
10.0	B	-2.62%	MSTR	-2.91%
10.0	META	-2.45%	INTC	-2.77%
10.0	TDG	-2.32%	B	-2.77%
10.0	GNRC	-2.26%	CYH	-2.66%
10.0	TXN	-1.95%	MU	-2.58%
10.0	GLD	-1.75%	SLV	-2.41%
10.0	CMCSA	-1.59%	BHC	-2.31%
10.0	AMAT	-1.58%	GLD	-2.04%
10.0	THC	-1.58%	CNC	-1.82%
10.0	CYH	-1.52%	THC	-1.81%
10.0	SLV	-1.46%	AMAT	-1.65%
10.0	ELAN	-1.3%	BIIB	-1.61%
10.0	VZ	-1.16%	CMCSA	-1.57%
10.0	PRGO	-1.13%	NEM	-1.56%
10.0	CHTR	-1.13%	ORCL	-1.5%
10.0	ORCL	-1.05%	BBY	-1.42%
10.0	BHC	-1.04%	PWR	-1.3%
10.0	NEM	-1.03%	ABBV	-1.25%
10.0	PWR	-0.98%	CLF	-1.24%
10.0	MS	-0.97%	GNRC	-1.24%
10.0	UAA	-0.93%	CSTM	-1.22%

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 2025-10-30 through 2025-08-04

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	LUMN	-14.17%	LUMN	-15.3%
21.0	AMD	-8.09%	AMD	-13.33%
21.0	NWL	-6.62%	MU	-10.11%
21.0	CMCSA	-5.97%	CMCSA	-7.17%
21.0	TDG	-5.87%	MSTR	-6.73%
21.0	GLD	-5.16%	B	-6.59%
21.0	ORCL	-4.76%	GLD	-6.39%
21.0	META	-4.67%	ORCL	-6.14%
21.0	GNRC	-4.55%	SLV	-5.61%
21.0	ELAN	-3.99%	INTC	-5.41%
21.0	ZTS	-3.85%	CLF	-5.16%
21.0	MSTR	-3.77%	ZTS	-5.15%
21.0	B	-3.7%	GOOGL	-4.95%
21.0	SLV	-3.42%	CNC	-4.38%
21.0	TXN	-3.1%	ELAN	-4.05%
21.0	CLF	-2.72%	BHC	-3.73%
21.0	NEM	-2.54%	BIIB	-3.19%
21.0	CZR	-2.46%	META	-3.08%
21.0	PRGO	-2.32%	AMC	-2.97%
21.0	BHC	-2.31%	MNST	-2.91%
21.0	NVDA	-2.26%	ABBV	-2.83%
21.0	PWR	-2.23%	CYH	-2.8%
21.0	AMC	-1.84%	NVDA	-2.75%
21.0	MNST	-1.8%	RIO	-2.5%
21.0	SBUX	-1.57%	AVGO	-2.48%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	UAA	-0.33%	CNC	-0.24%
1.0	AVGO	-0.27%	AVGO	-0.2%
1.0	VST	-0.26%	LUMN	-0.17%
1.0	AMC	-0.26%	CLF	-0.16%
1.0	NAVI	-0.19%	X	-0.15%
1.0	CYH	-0.18%	GBTC	-0.15%
1.0	CNC	-0.17%	NAVI	-0.14%
1.0	TDG	-0.15%	VST	-0.13%
1.0	CZR	-0.14%	CAH	-0.12%
1.0	CCL	-0.11%	CCL	-0.12%
1.0	CAH	-0.11%	HSBC	-0.11%
1.0	HSBC	-0.11%	CYH	-0.1%
1.0	X	-0.1%	CTLT	-0.1%
1.0	GLD	-0.1%	GE	-0.1%
1.0	ISRG	-0.1%	AMD	-0.1%
1.0	AMAT	-0.09%	GLD	-0.09%
1.0	GE	-0.09%	HCA	-0.09%
1.0	CTLT	-0.09%	INTC	-0.09%
1.0	BUD	-0.09%	AMC	-0.09%
1.0	VFC	-0.08%	TDG	-0.08%
1.0	CMA	-0.08%	TXN	-0.08%
1.0	KALU	-0.08%	MS	-0.07%
1.0	MS	-0.08%	KALU	-0.07%
1.0	TXN	-0.08%	NFLX	-0.07%
1.0	CSTM	-0.07%	AAP	-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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	AMC	-2.99%	CLF	-1.36%
10.0	LUMN	-1.29%	LUMN	-1.18%
10.0	CHTR	-1.15%	AMC	-1.08%
10.0	GLD	-1.0%	AVGO	-1.07%
10.0	CLF	-0.9%	GLD	-1.03%
10.0	GNRC	-0.83%	BHC	-0.93%
10.0	LLY	-0.83%	AMD	-0.88%
10.0	GBTC	-0.73%	GBTC	-0.85%
10.0	CTLT	-0.69%	VST	-0.84%
10.0	HSBC	-0.68%	CNC	-0.8%
10.0	CSTM	-0.66%	CHTR	-0.77%
10.0	CNC	-0.66%	B	-0.72%
10.0	VZ	-0.59%	HSBC	-0.72%
10.0	NFLX	-0.59%	AAP	-0.68%
10.0	CZR	-0.58%	CTLT	-0.64%
10.0	AVGO	-0.57%	CDNS	-0.63%
10.0	RIO	-0.54%	CMA	-0.63%
10.0	TDG	-0.51%	MNST	-0.61%
10.0	CMA	-0.44%	NFLX	-0.57%
10.0	MNST	-0.44%	RIO	-0.54%
10.0	NAVI	-0.43%	T	-0.52%
10.0	T	-0.42%	CSCO	-0.52%
10.0	BHC	-0.39%	ORLY	-0.51%
10.0	BMY	-0.38%	TDG	-0.5%
10.0	CSCO	-0.34%	INTC	-0.5%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	CHTR	-3.25%	ELAN	-3.37%
21.0	CLF	-2.4%	AMD	-3.0%
21.0	GNRC	-2.21%	CNC	-2.69%
21.0	GLD	-2.17%	CHTR	-2.64%
21.0	CZR	-2.04%	GNRC	-2.51%
21.0	LUMN	-1.93%	HSBC	-2.37%
21.0	ZTS	-1.79%	GLD	-2.33%
21.0	ON	-1.72%	BHC	-2.33%
21.0	LLY	-1.67%	LUMN	-2.0%
21.0	VST	-1.63%	NFLX	-1.87%
21.0	HSBC	-1.58%	CLF	-1.81%
21.0	BHC	-1.57%	GOOGL	-1.74%
21.0	CTLT	-1.51%	AVGO	-1.67%
21.0	AMD	-1.42%	MNST	-1.39%
21.0	CNC	-1.4%	MSFT	-1.34%
21.0	NWL	-1.34%	ORLY	-1.28%
21.0	NAVI	-1.22%	CTLT	-1.28%
21.0	BMY	-1.2%	T	-1.18%
21.0	CMA	-1.2%	GBTC	-1.15%
21.0	AMC	-1.07%	CSCO	-1.1%
21.0	TDG	-1.03%	CMCSA	-1.07%
21.0	MNST	-1.01%	ZTS	-1.04%
21.0	CMCSA	-0.97%	VST	-1.02%
21.0	GBTC	-0.89%	SLV	-1.02%
21.0	MOS	-0.89%	CAH	-1.0%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	ON	-9.08%	X	-6.11%
63.0	CHTR	-7.37%	AMD	-5.65%
63.0	CNC	-5.78%	HSBC	-5.52%
63.0	MNST	-5.05%	GOOGL	-4.96%
63.0	UNH	-4.87%	GLD	-4.8%
63.0	GLD	-4.83%	MNST	-4.42%
63.0	TDG	-4.6%	CHTR	-4.37%
63.0	ADBE	-4.42%	ORLY	-4.03%
63.0	BMY	-4.11%	T	-4.02%
63.0	CMCSA	-4.02%	FITB	-3.96%
63.0	X	-3.81%	ON	-3.67%
63.0	HSBC	-3.69%	MOS	-3.42%
63.0	ORLY	-3.61%	TDG	-3.41%
63.0	MOS	-3.44%	CSCO	-2.93%
63.0	ZTS	-3.17%	GBTC	-2.9%
63.0	LUMN	-3.11%	MSFT	-2.85%
63.0	NWL	-3.04%	LVS	-2.78%
63.0	PRGO	-2.86%	HCA	-2.77%
63.0	CSCO	-2.53%	NFLX	-2.76%
63.0	CLF	-2.46%	MSTR	-2.48%
63.0	GME	-2.43%	AMC	-2.26%
63.0	LVS	-2.39%	WYNN	-2.17%
63.0	T	-2.26%	CMCSA	-1.93%
63.0	INTU	-2.24%	CAH	-1.81%
63.0	NFLX	-2.11%	WFC	-1.56%

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 2025-10-30 through 2024-11-01

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	CNC	-21.99%	MOS	-9.31%
126.0	VFC	-21.32%	ON	-8.1%
126.0	BMY	-14.29%	CHTR	-7.24%
126.0	NWL	-12.72%	HSBC	-7.01%
126.0	CHTR	-10.81%	WYNN	-6.96%
126.0	UNH	-9.52%	T	-6.35%
126.0	MNST	-7.17%	X	-6.19%
126.0	GBTC	-6.7%	HCA	-6.02%
126.0	HCA	-6.69%	CSCO	-5.91%
126.0	MOS	-6.63%	MNST	-5.23%
126.0	GLD	-6.33%	BUD	-5.22%
126.0	X	-6.31%	ORLY	-5.21%
126.0	LUMN	-6.14%	GBTC	-4.61%
126.0	LVS	-6.07%	GLD	-4.54%
126.0	ON	-6.07%	QQQ	-4.44%
126.0	CMCSA	-5.81%	VFC	-3.99%
126.0	CSCO	-5.07%	LVS	-3.86%
126.0	ORLY	-5.05%	BAC	-3.74%
126.0	SBUX	-4.89%	AA	-3.61%
126.0	HSBC	-4.36%	FITB	-3.16%
126.0	QQQ	-4.35%	LUMN	-3.04%
126.0	CLF	-4.34%	CZR	-2.97%
126.0	T	-4.2%	ZTS	-2.85%
126.0	WYNN	-4.18%	CAH	-2.69%
126.0	PRGO	-3.88%	CMCSA	-2.69%

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 2025-10-30. Note that for horizon periods greater than 1d we exclude enough model dates to assure no overlap between observation periods.

Model	Pctile	Horizon	VaR_kStat	VaR_pValK	VaR_chrStat	VaR_pValChr
Sigma	95	1	221.37	0	9.54	0
Sigma	95	10	4.68	0.03	0.33	0.57
Sigma	95	21	49.21	0	0.2	0.66
Sigma	95	63	19.88	0	nan	0
Sigma	95	126	23.71	0	nan	0
Sigma	95	252	14.5	0	nan	0
Sigma	99	1	434.06	0	33.91	0
Sigma	99	10	39.47	0	0.41	0.52
Sigma	99	21	0.01	0.94	1.24	0.26
Sigma	99	63	0.4	0.53	1.42	0.23
Sigma	99	126	0.15	0.7	nan	0
Sigma	99	252	0.51	0.48	nan	0