

VecViz Value At Risk (VaR) Performance Report

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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-vecvizes-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.

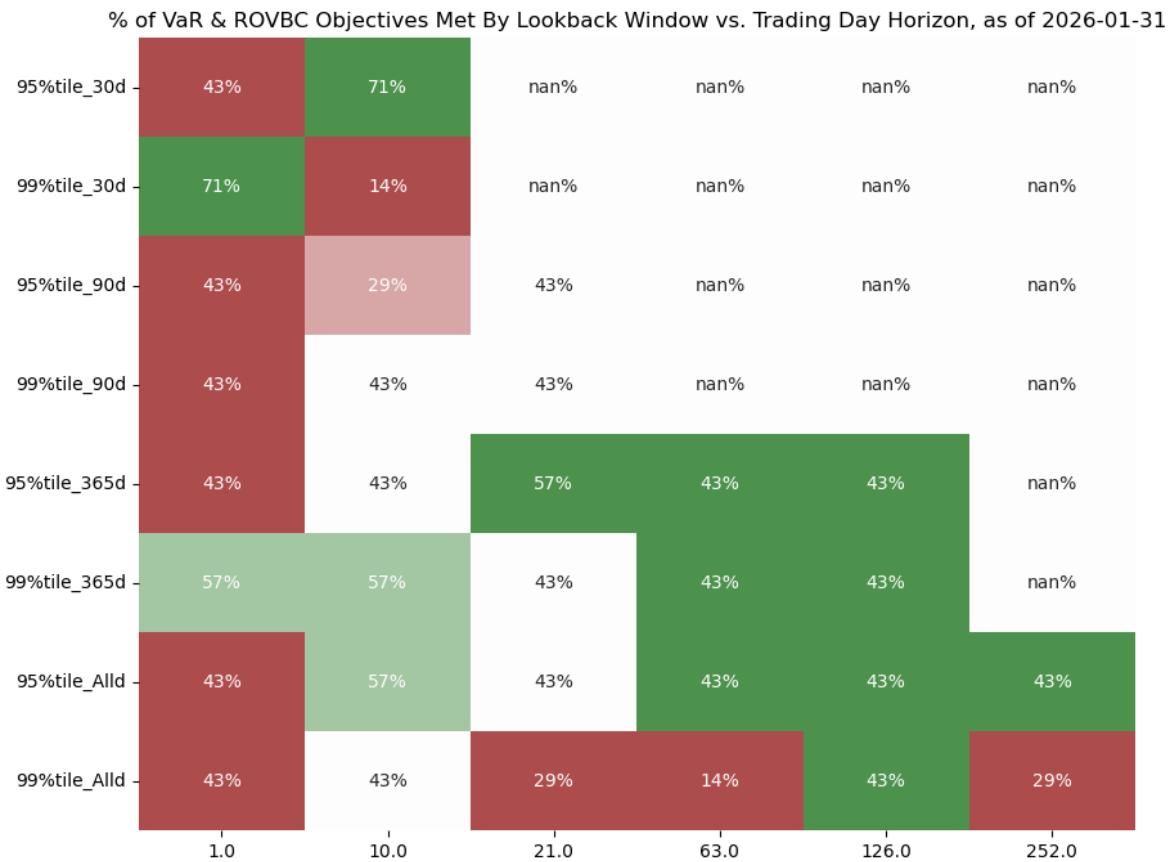
Thus, in summary, with the exception of the Kupiec and Christoferson tests, all metrics presented in this report are presented and are to be considered on a comparative basis. Are Vector Model VaR breakage rates closer to target than Sigma's? Does Vector Model ROVBC outperform Sigma ROVBC? Is the relative 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 2026-01-29 while 365D /90D/ 30D include the 365/90/30 days ended 2026-01-29, 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 2026-01-29. 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	4.98	0.03	9.24	0
Vector	95	10	15.13	0	0.02	0.88
Vector	95	21	0.72	0.4	0	0.99
Vector	95	63	1.86	0.17	0.43	0.51
Vector	95	126	0.32	0.57	0.17	0.68
Vector	95	252	0.05	0.83	nan	0
Vector	99	1	80.29	0	22.63	0
Vector	99	10	20.89	0	0.01	0.91
Vector	99	21	4.86	0.03	1.34	0.25
Vector	99	63	1.8	0.18	0	0.95
Vector	99	126	0.9	0.34	0.54	0.46
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 2026-01-29.

VaR and ROVBC Criteria	Average Score(%)
1. Closer to Target VaR Breakage Than Sigma (i.e., smaller MAE)	81.25
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	50
3. Less Volatile VaR Breakage Across Tickers Than Sigma	6.25
4. Higher ROVBC Than Sigma	46.88
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	100
6. Alpha of ROVBC vs Sigma > 0 , Across Tickers and Model Dates	6.25
7. Alpha of ROVBC vs Sigma > 0 , By Ticker, Across Model Dates	12.5
Overall Comparison to Sigma Average	43.3
Kupiec Test of VaR Proximity to Target	50
Christoferson Test of VaR Date Independence	66.6667

VaR and ROVBC Criteria by Fwd Hzn	1D	10D	21D	63D	126D	252D
1. Closer to Target VaR Breakage Than Sigma	100	62.5	83.33	75	100	50
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	100	62.5	50	0	0	0
3. Less Volatile VaR Breakage Across Tickers Than Sigma	12.5	12.5	0	0	0	0
4. Higher ROVBC Than Sigma	0	37.5	50	75	100	100
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	100	100	100	100	100	100
6. Alpha of ROVBC vs Sigma > 0 , Across Tickers and Model Dates	0	25	0	0	0	0
7. Alpha of ROVBC vs Sigma > 0 , By Ticker, Across Model Dates	25	12.5	16.67	0	0	0
TotalScore	48.21	44.64	42.86	35.71	42.86	35.71



VaR and ROVBC Criteria Across Lookback Window	30D	90D	365D	AllD
1. Closer to Target VaR Breakage Than Sigma	50	100	90	75
2. Less Volatile VaR Breakage Across Model Dates Than Sigma	75	33.33	60	41.67
3. Less Volatile VaR Breakage Across Tickers Than Sigma	25	16.67	0	0
4. Higher ROVBC Than Sigma	25	16.67	60	58.33
5. Higher ROVBC Than Sigma, Adj. for Avg. VM-Sigma VaR Diff.	100	100	100	100
6. Alpha of ROVBC vs Sigma >0, Across Tickers and Model Dates	25	0	10	0
7. Alpha of ROVBC vs Sigma >0, By Ticker, Across Model Dates	50	16.67	10	0
TotalScore	50	40.48	47.14	39.29



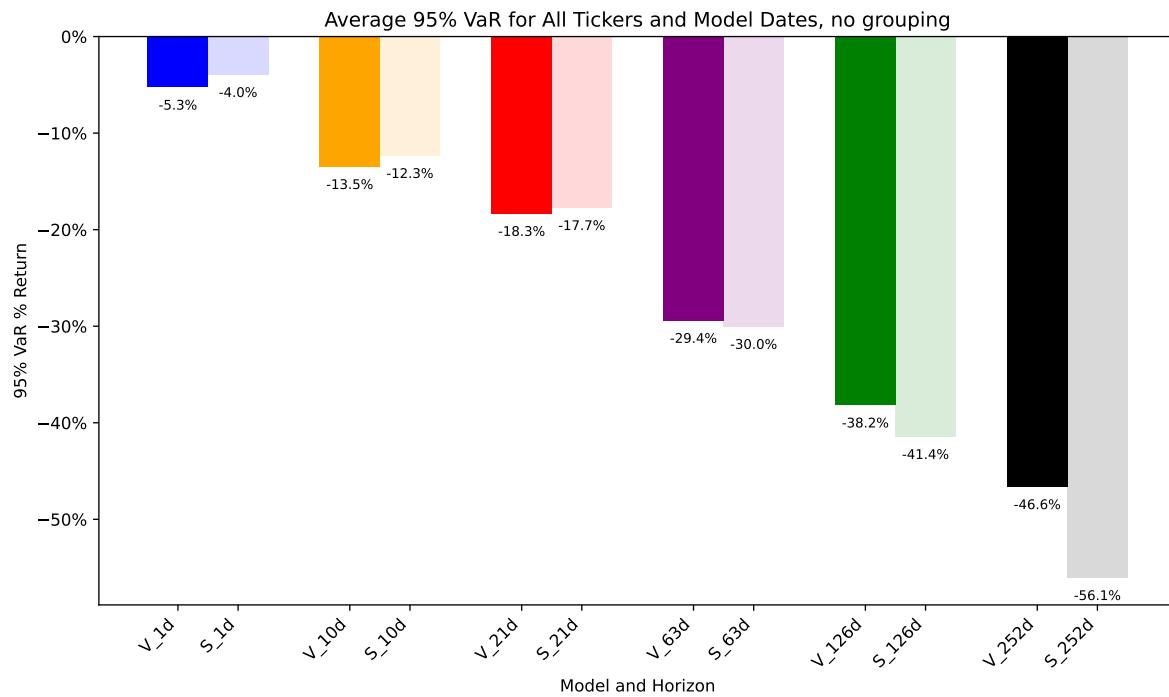
95% Value at Risk (VaR)

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.

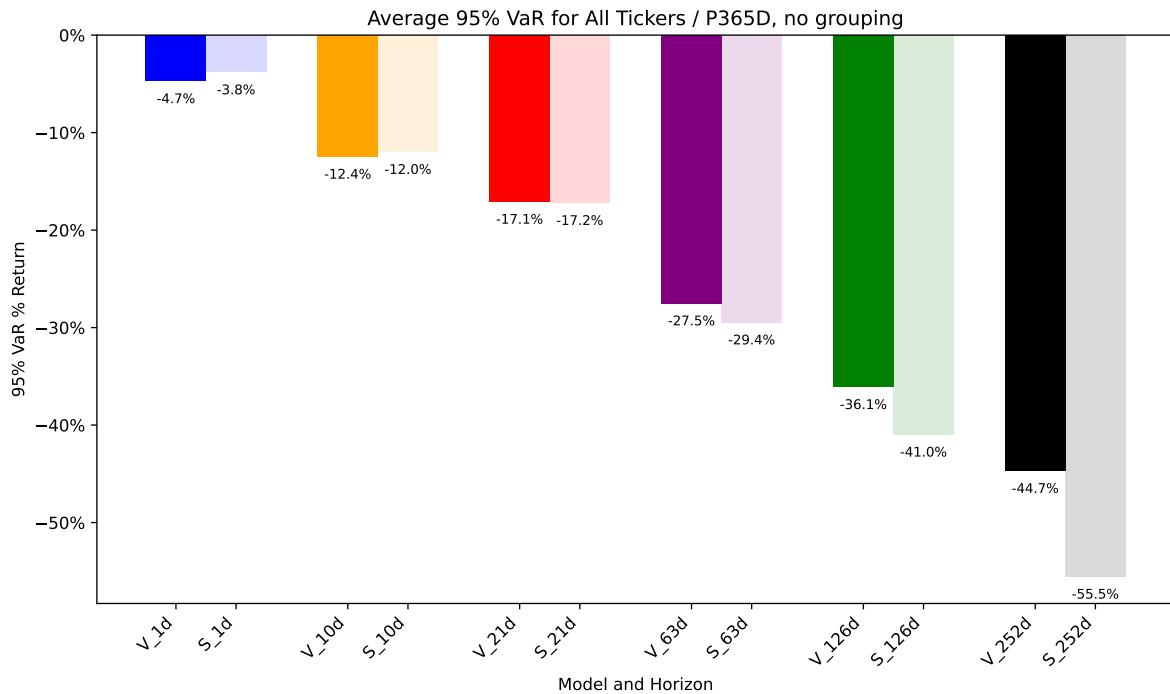
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-01-29



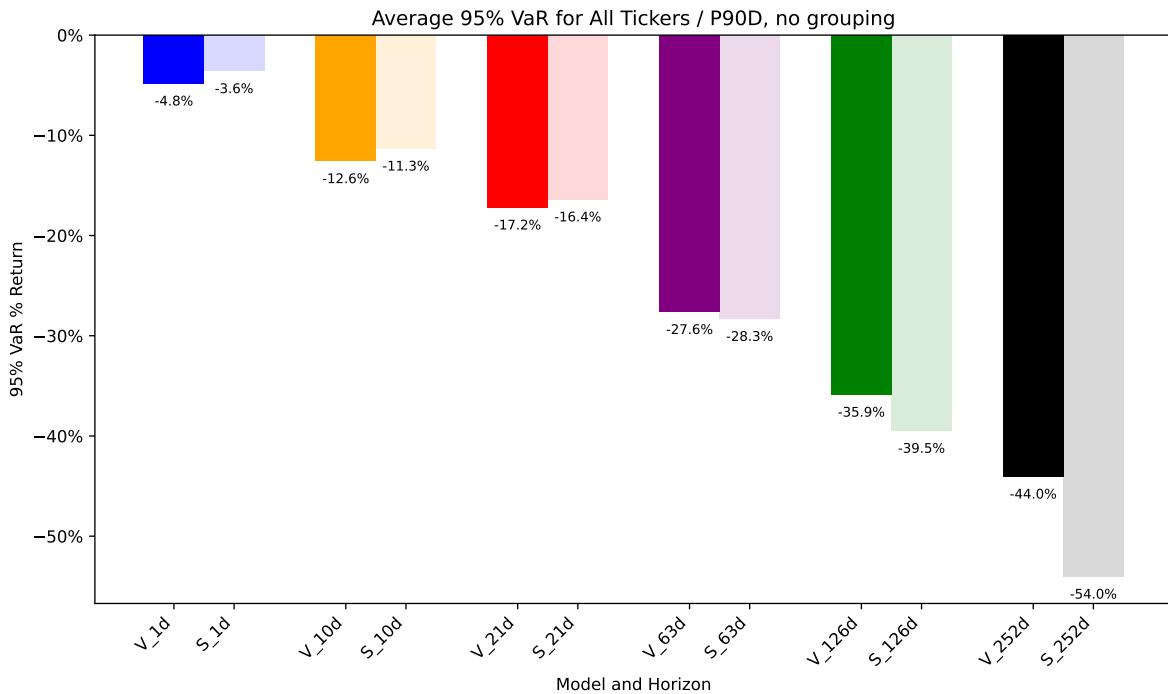
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-01-29 through 2025-02-03



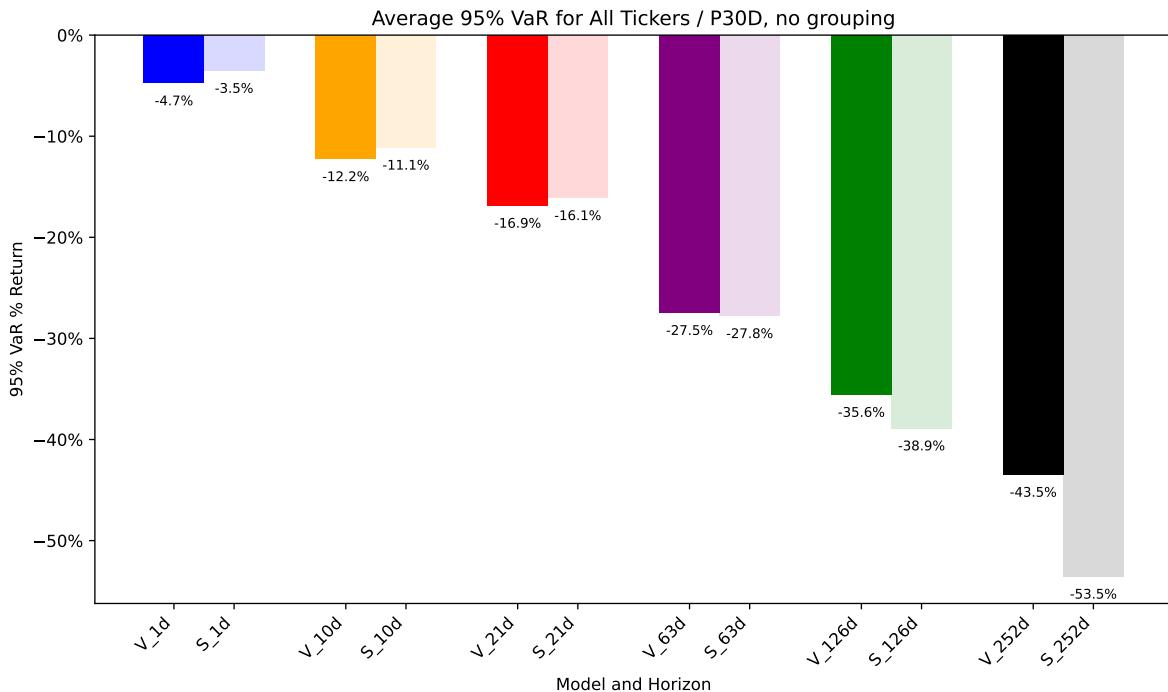
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-01-29 through 2025-11-03



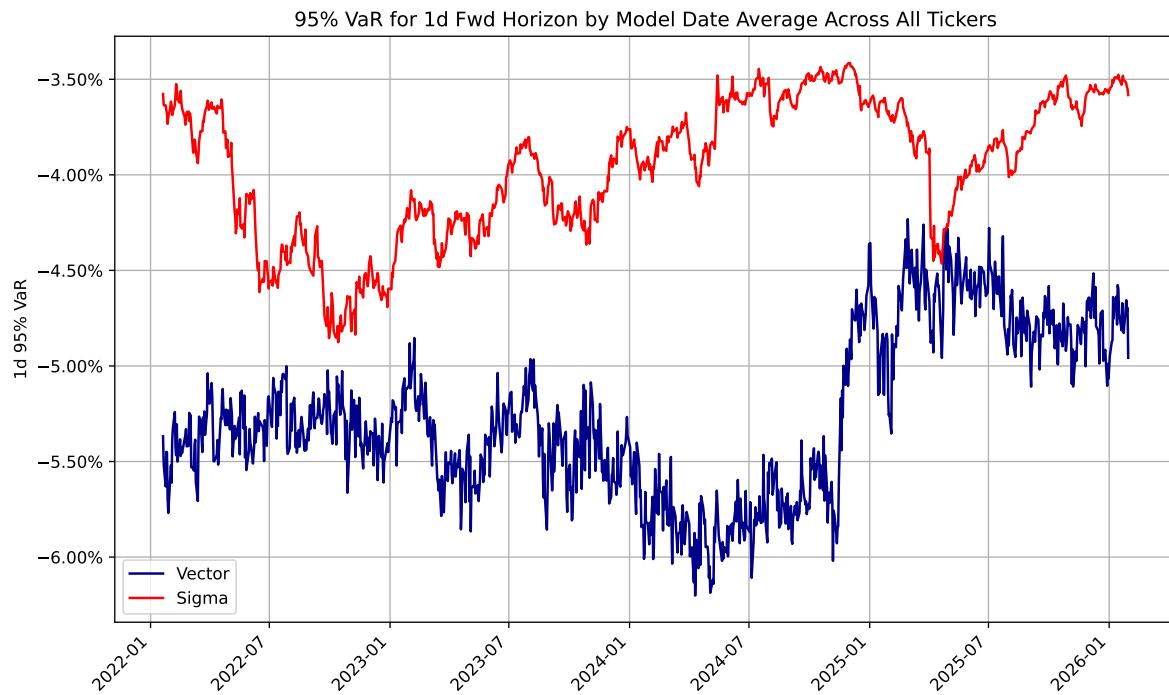
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-01-29 through 2026-01-02

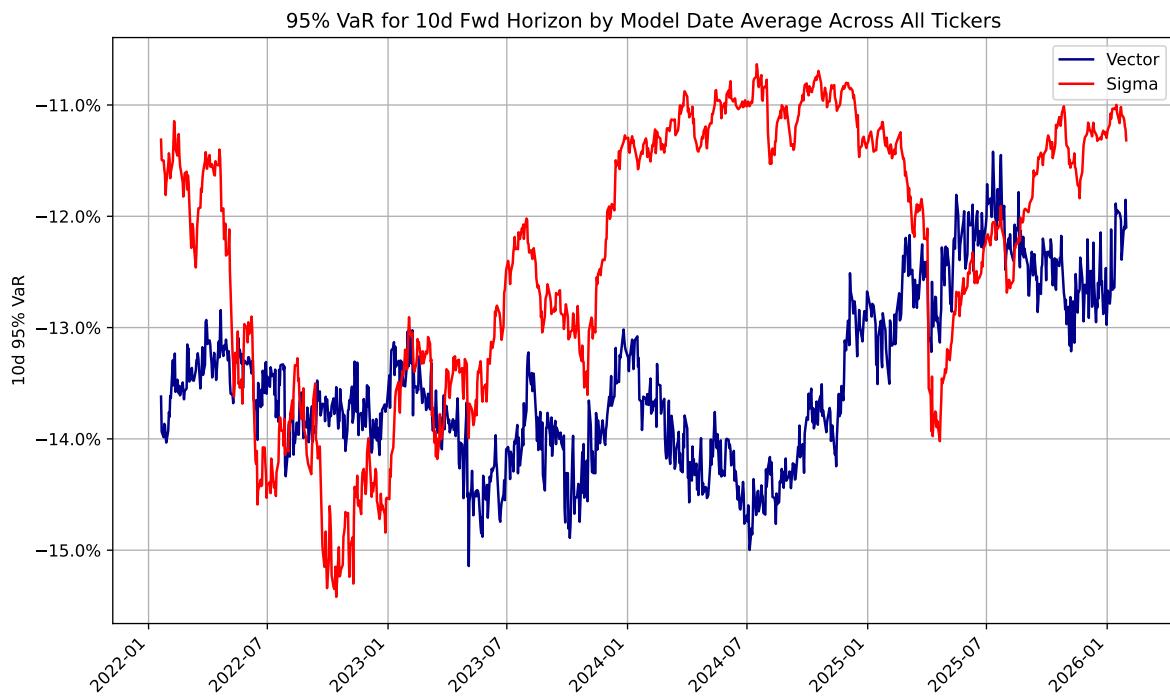


Daily Levels

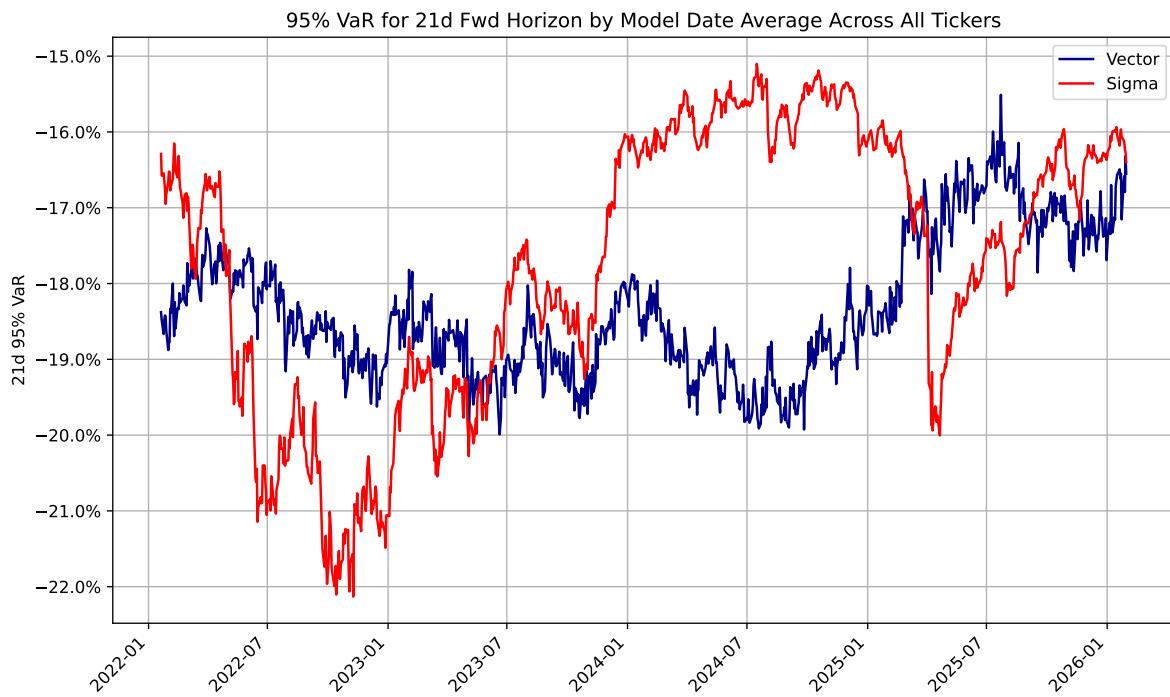
1d Horizon



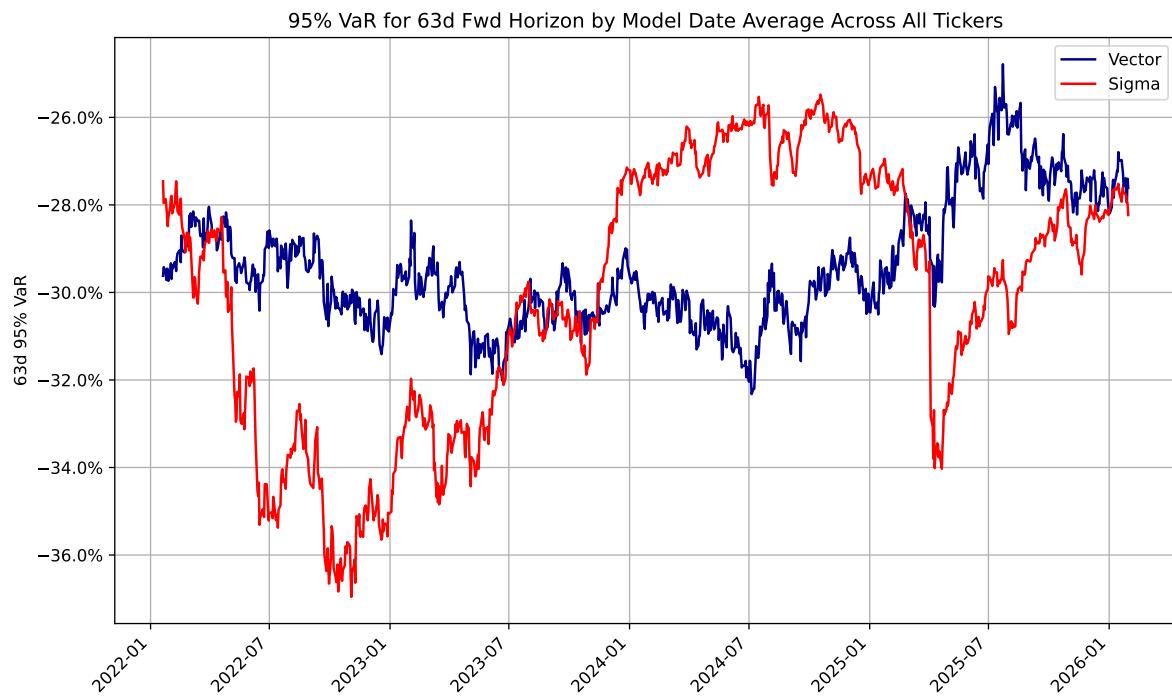
10d Horizon



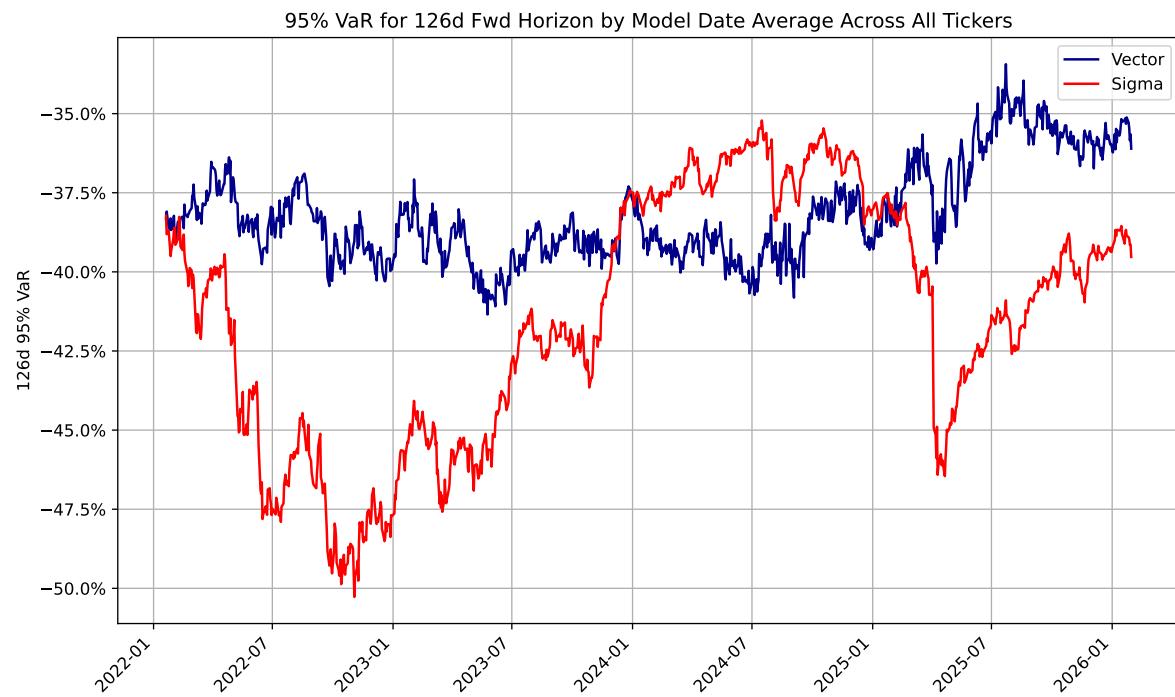
21d Horizon



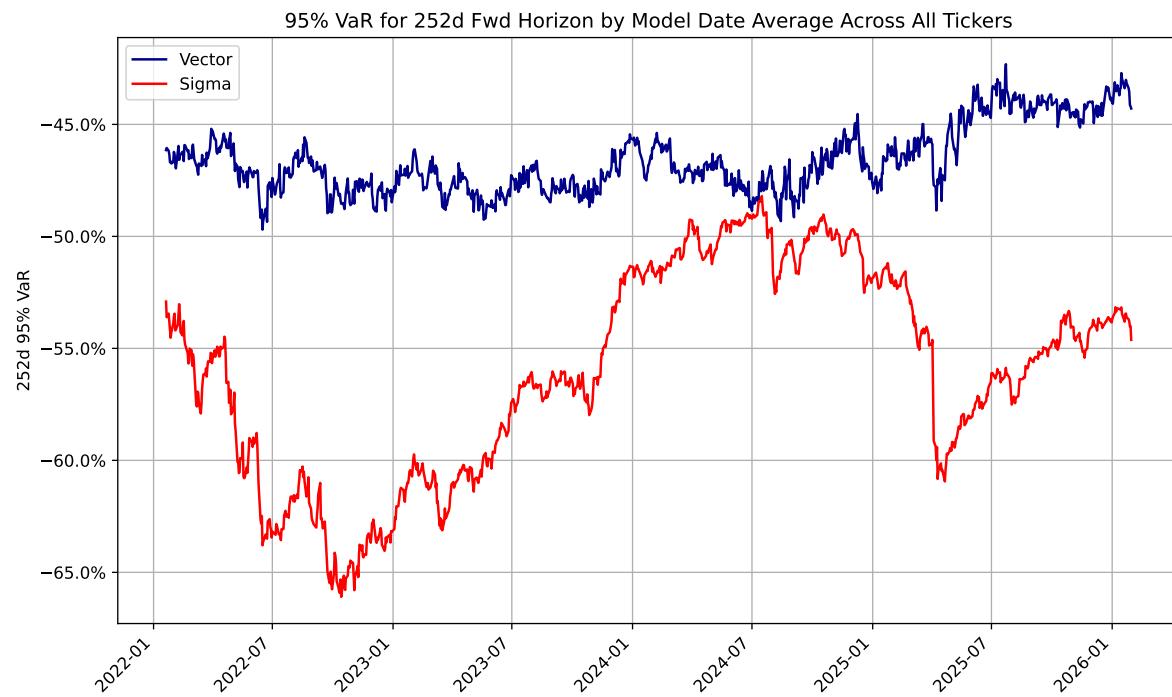
63d Horizon



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 facilitate 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 evaluated 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.

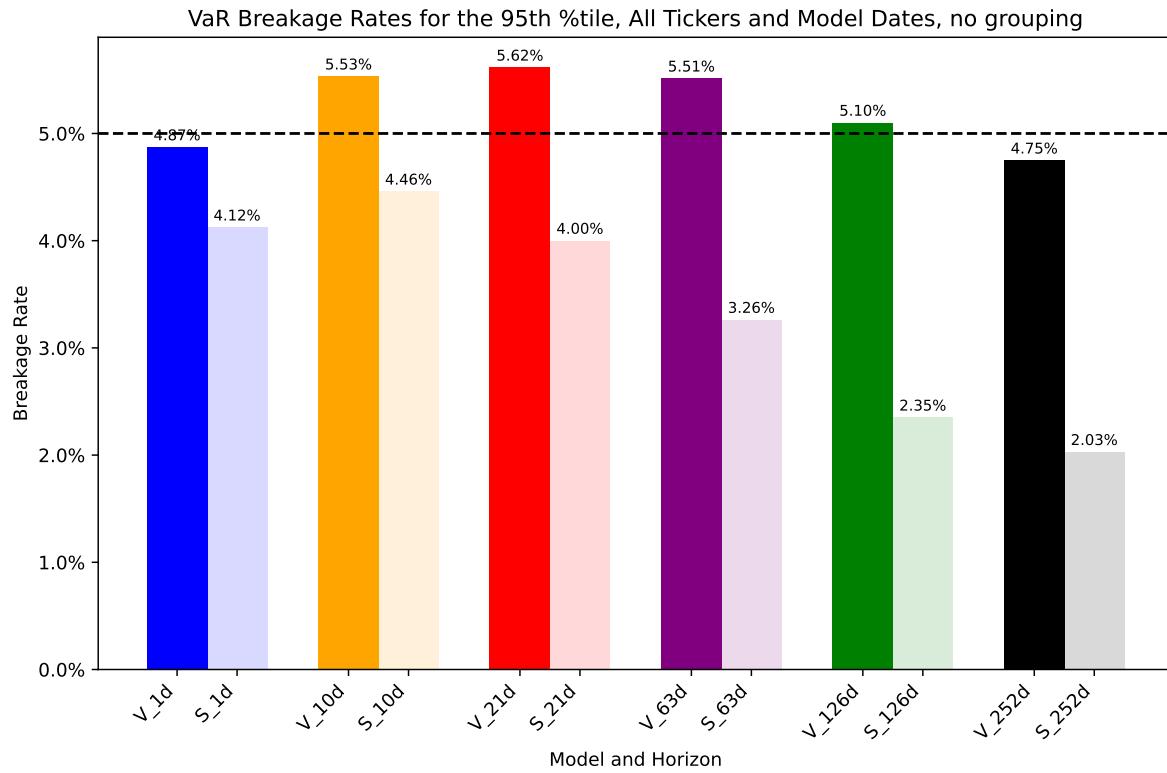
Alpha allows us to isolate ROVBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROVBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by VaR differentials between tickers and / or between dates. Thus we also present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

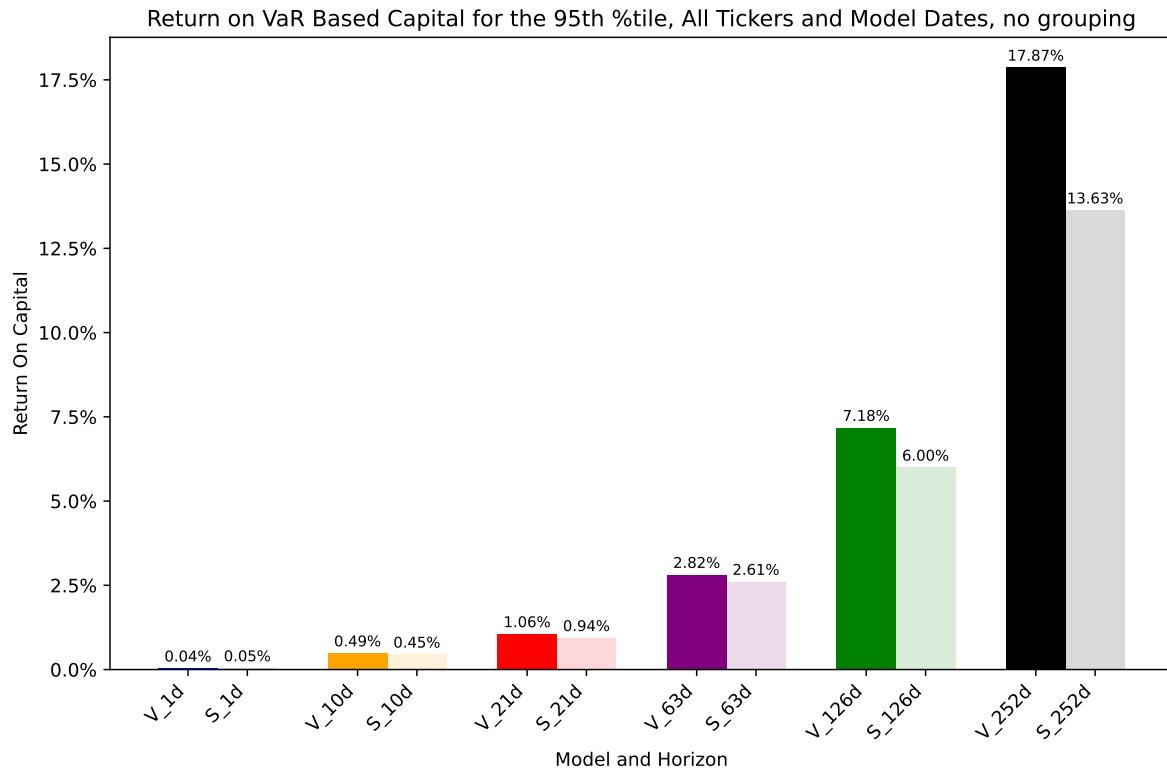
Results for each horizon reflect the average for all model estimates for that horizon from all model dates for which forward performance is known. Note that periods for all horizons $> 1d$ overlap.



All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-01-29





Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns across TMD's:

	1d	10d	21d	63d	126d	252d
intercept	-0.01%	-0.09%	-0.19%	-0.67%	-1.36%	-2.45%
intercept_p_value	0.51%	0.00%	0.00%	0.00%	0.00%	0.00%
slope	117.95%	128.76%	132.28%	133.78%	142.33%	149.01%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

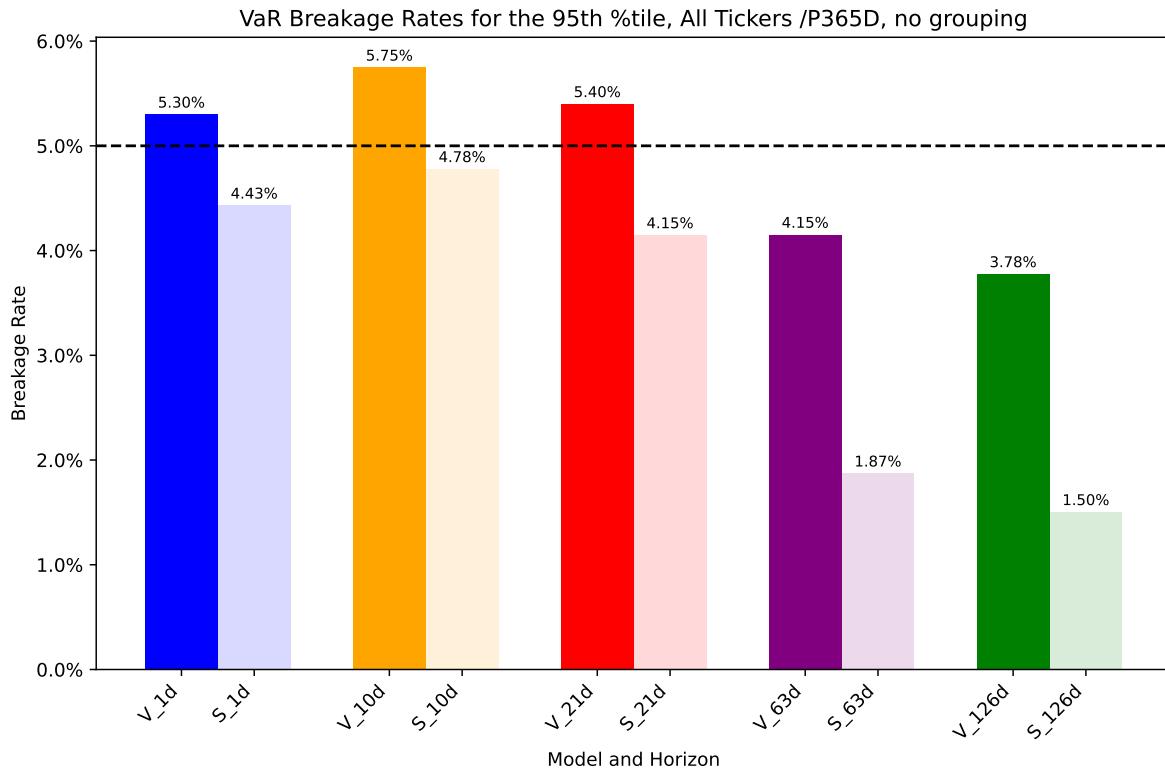
Average Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns, by ticker across Model Dates:

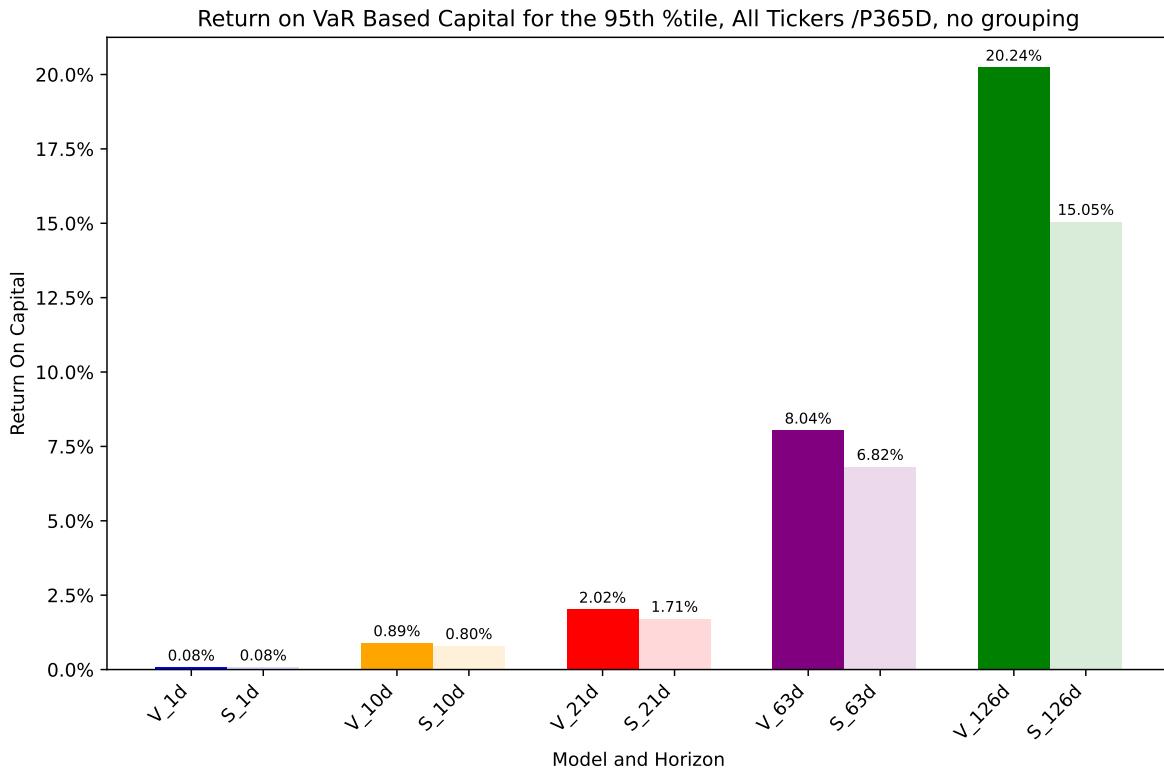
	1d	10d	21d	63d	126d	252d
intercept	-0.04%	-0.20%	-0.55%	-2.12%	-4.04%	-5.11%
intercept_p_value	0.00%	0.13%	0.01%	0.00%	0.00%	0.13%
slope	162.44%	147.01%	164.19%	179.27%	177.75%	162.38%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-01-29 through 2025-02-03





Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns across P365D:

	1d	10d	21d	63d	126d
intercept	-0.02%	-0.05%	-0.07%	-0.82%	-2.95%
intercept_p_value	11.65%	6.28%	6.64%	0.00%	0.00%
slope	113.35%	118.43%	122.04%	129.91%	154.03%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

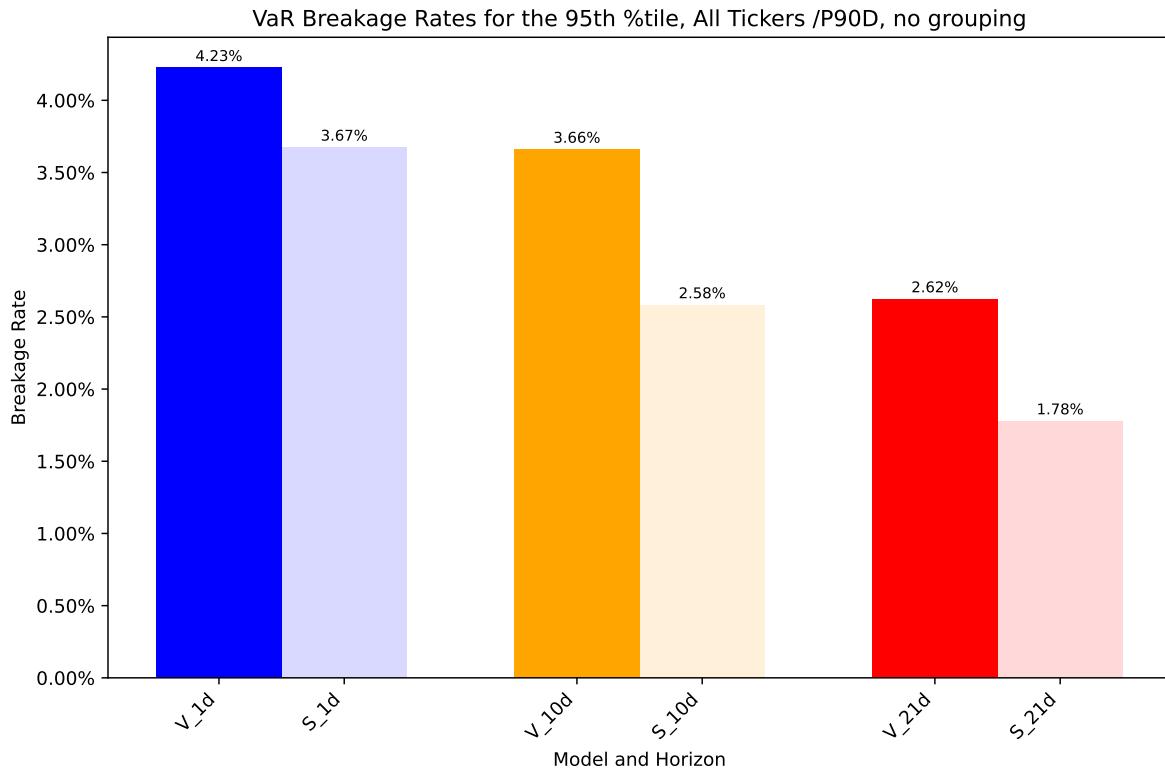
Average Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns, by ticker across P365D:

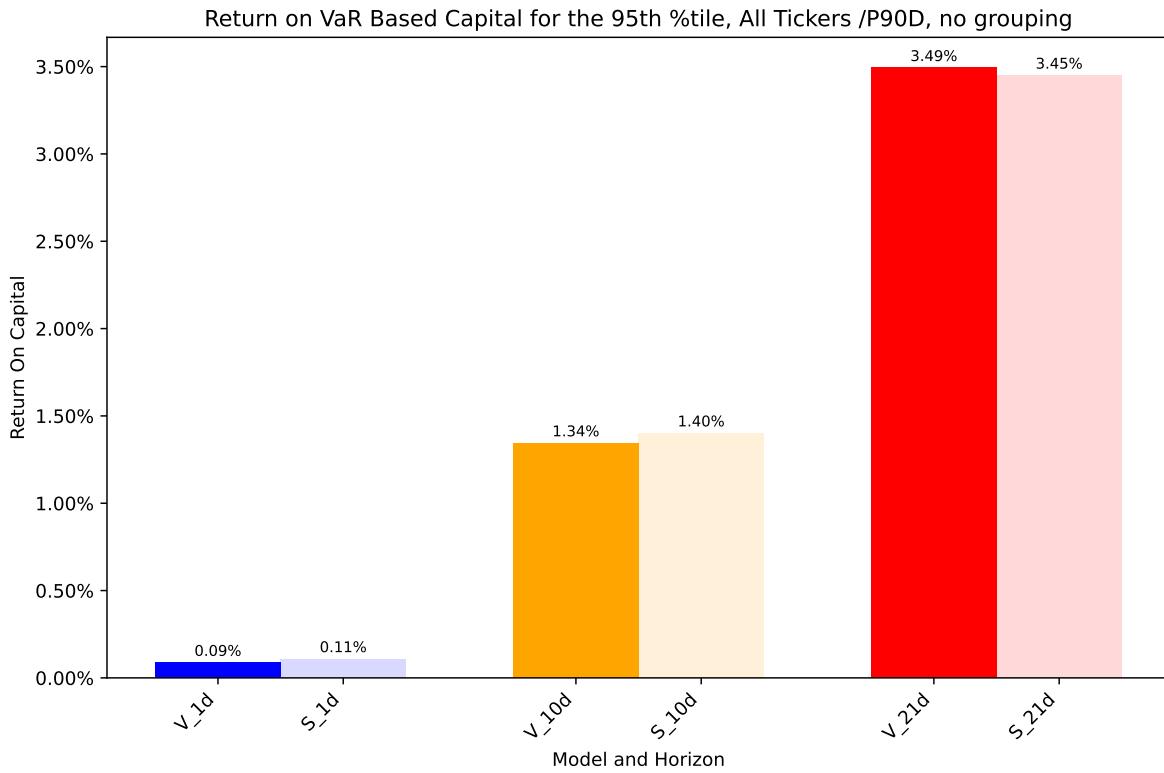
	1d	10d	21d	63d	126d
intercept	-0.00%	-0.01%	-0.07%	-1.31%	-3.31%
intercept_p_value	93.10%	94.14%	67.36%	1.62%	0.83%
slope	94.36%	112.60%	121.26%	136.26%	156.41%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-01-29 through 2025-11-03





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

	1d	10d	21d
intercept	-0.02%	-0.22%	-0.28%
intercept_p_value	19.43%	0.00%	0.05%
slope	99.11%	111.35%	109.30%
slope_p_value	0.00%	0.00%	0.00%

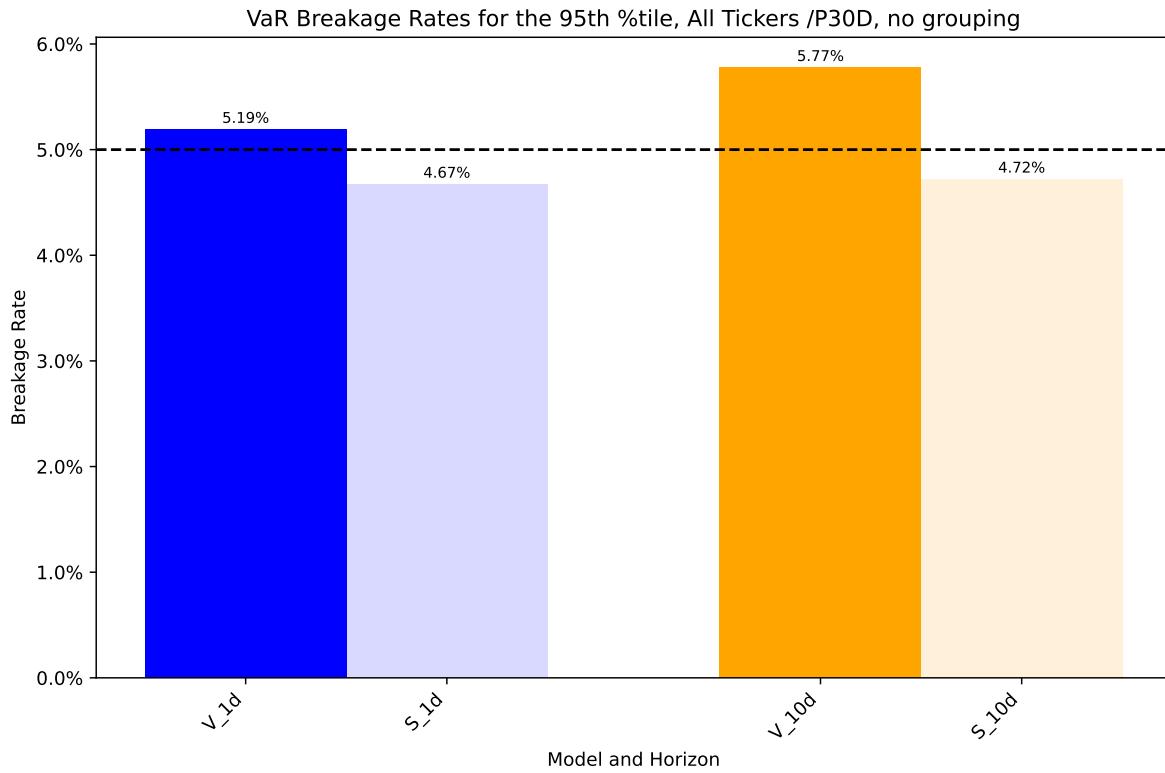
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P90D:

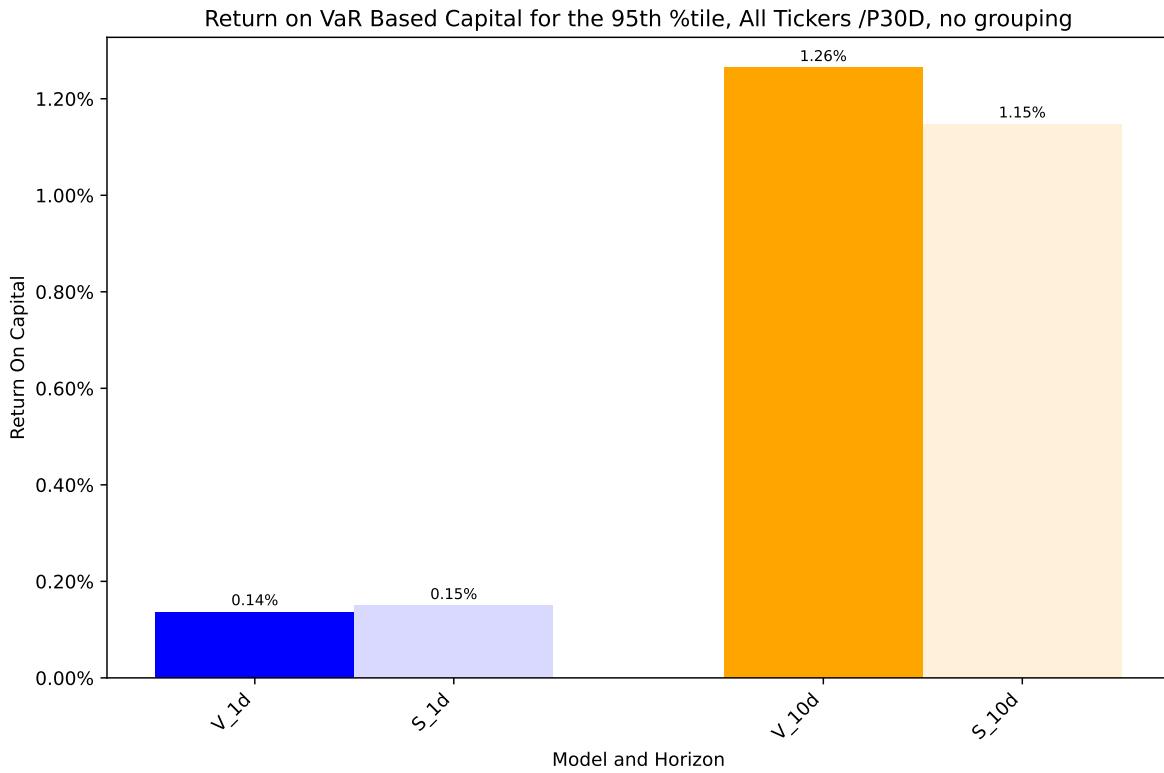
	1d	10d	21d
intercept	-0.02%	-0.08%	-0.09%
intercept_p_value	43.50%	66.82%	78.86%
slope	94.45%	101.68%	103.97%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-01-29 through 2026-01-02





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

	1d	10d
intercept	-0.02%	0.04%
intercept_p_value	63.07%	67.47%
slope	101.72%	106.26%
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:

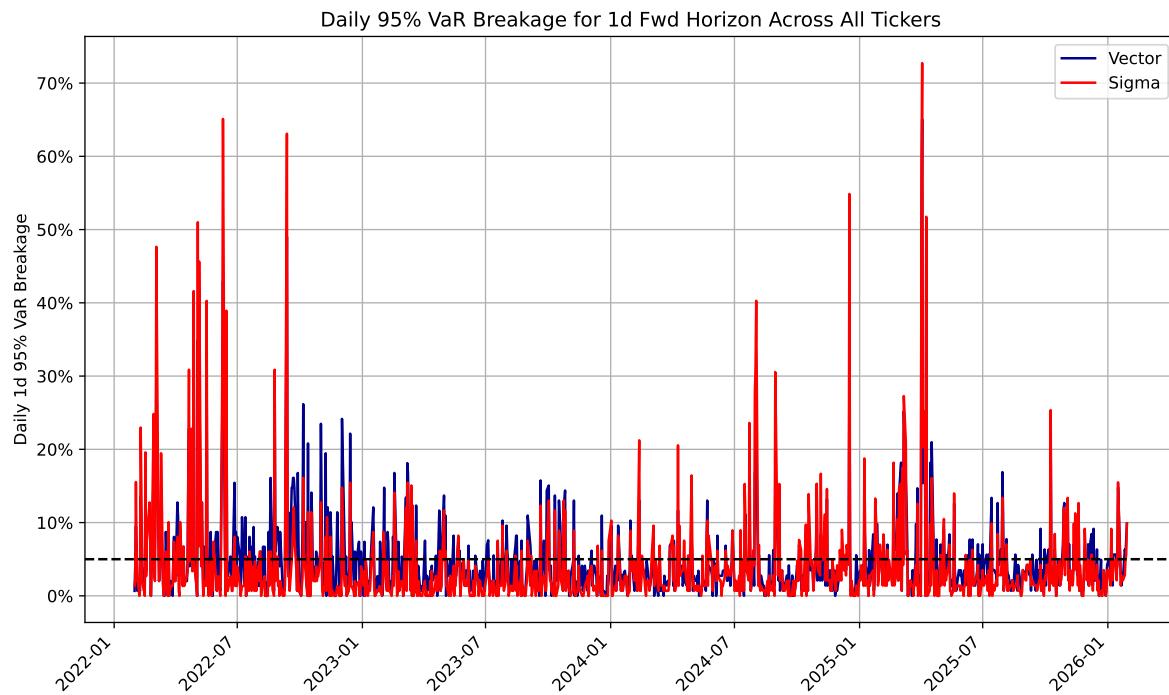
	1d	10d
intercept	-0.00%	0.07%
intercept_p_value	90.91%	78.37%
slope	93.86%	104.16%
slope_p_value	0.00%	0.00%

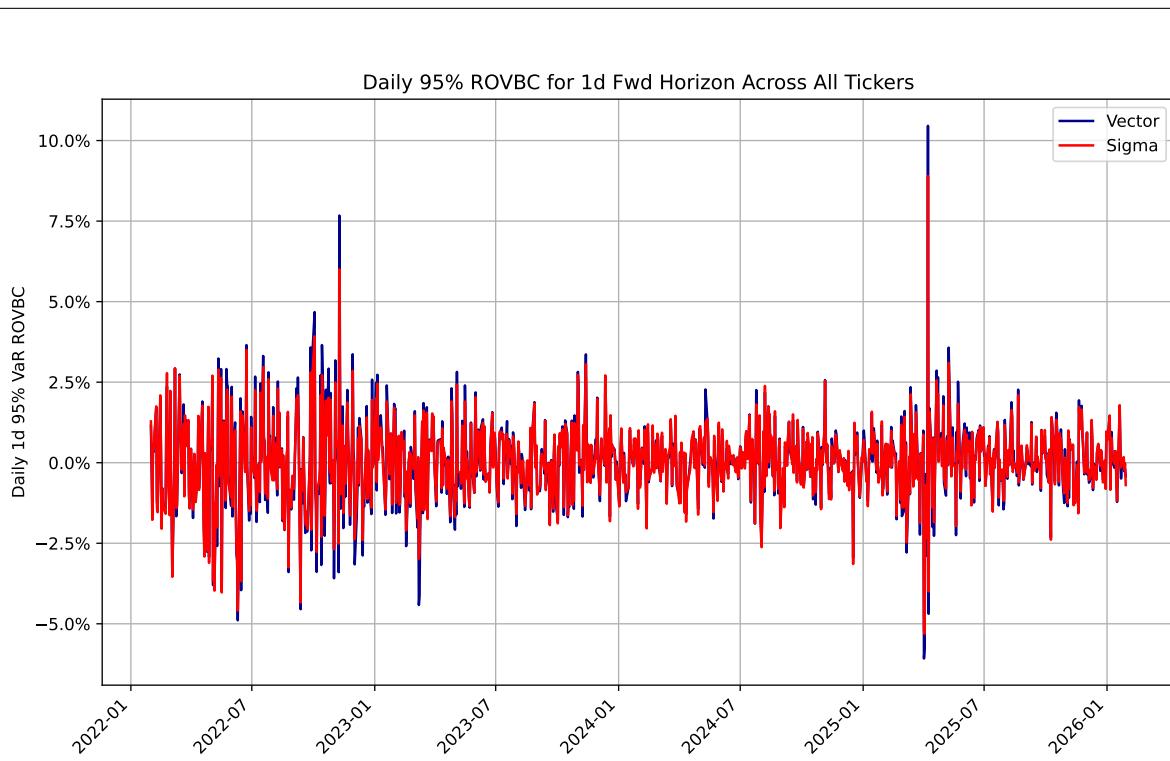


Daily Performance

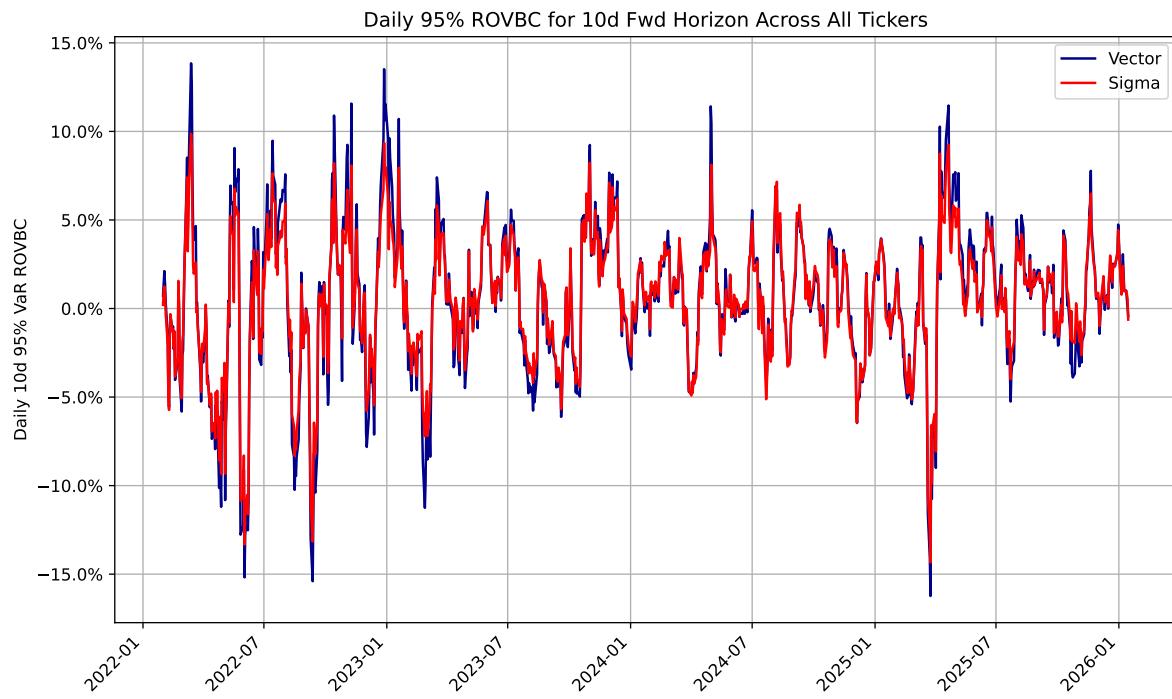
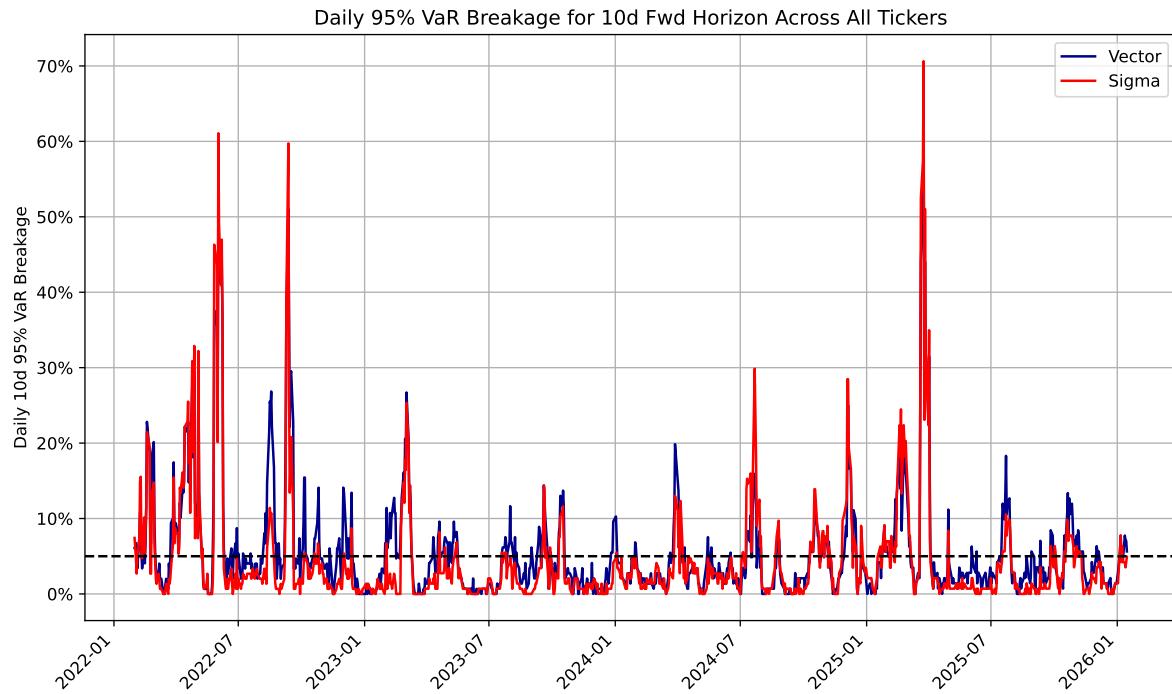
Here we look at the daily breakage and ROVBC statistics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROVBC outliers.

1d Horizon

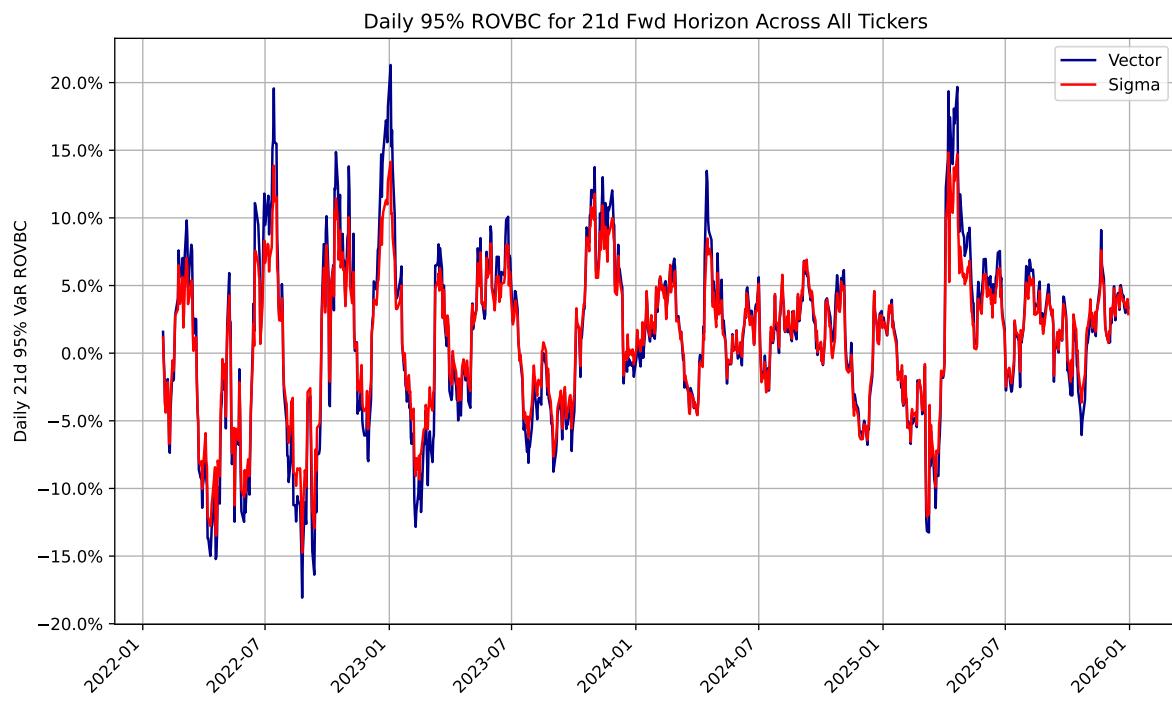
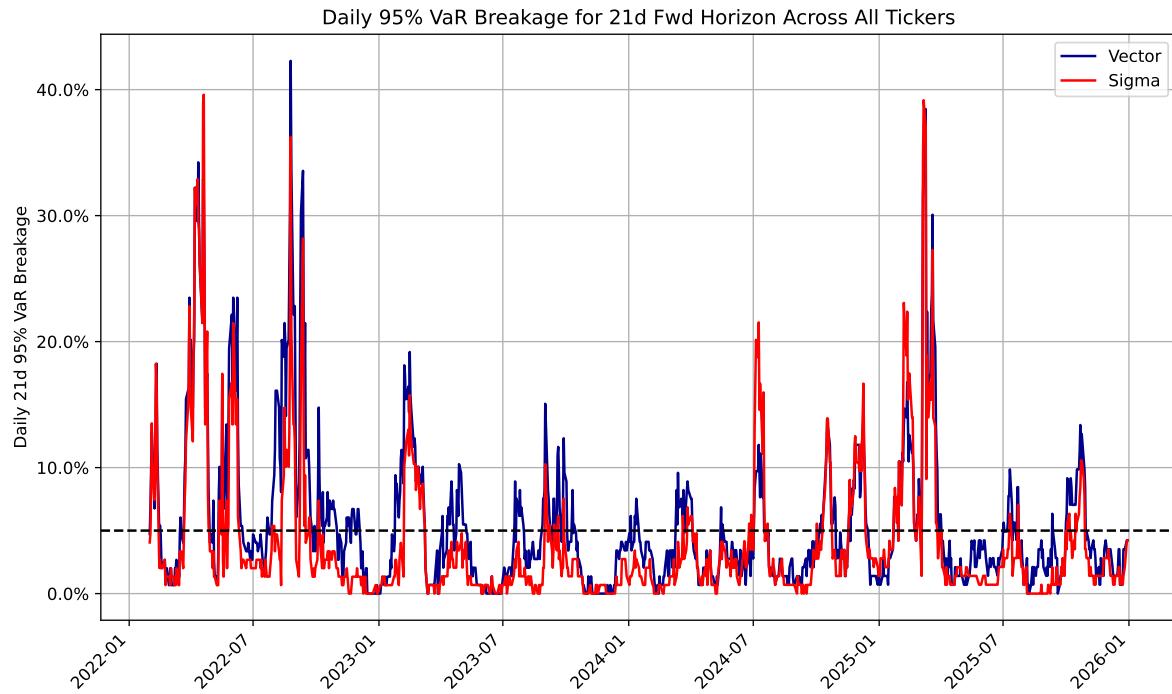




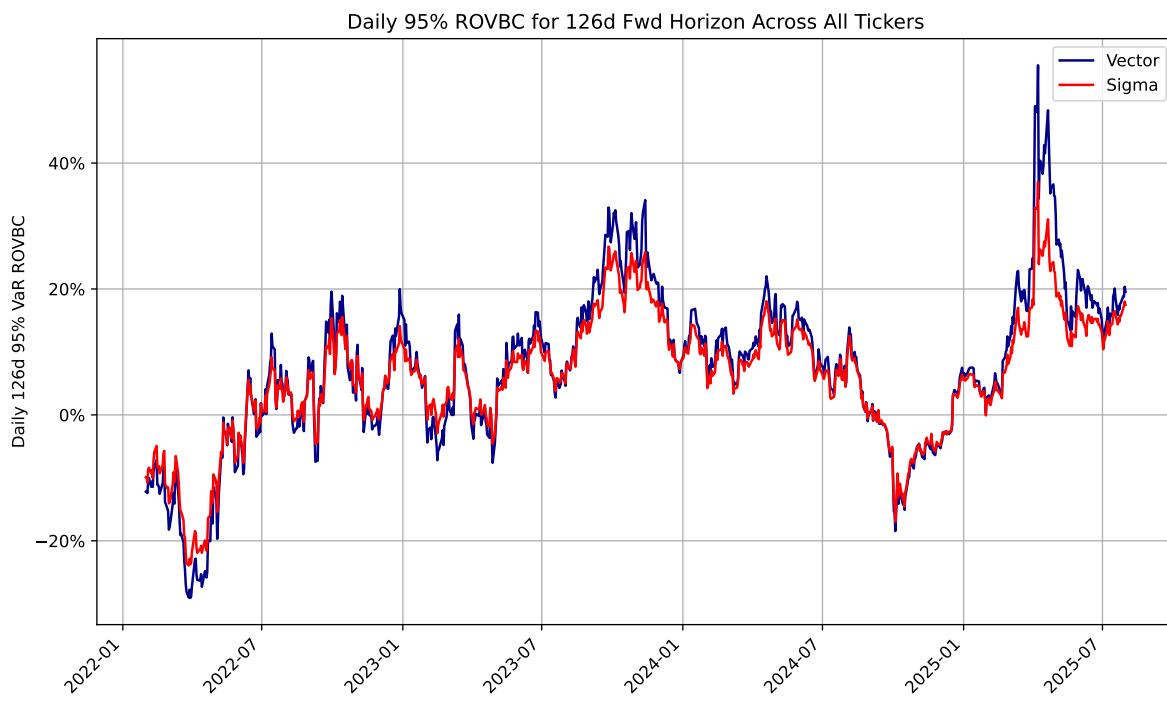
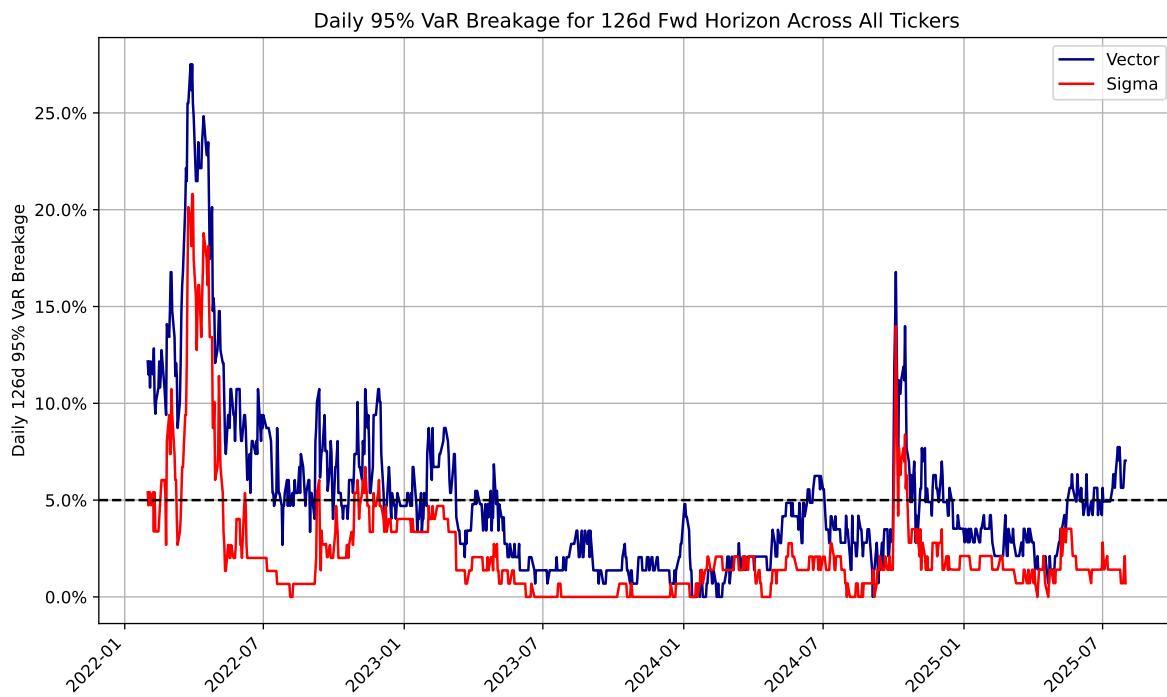
10d Horizon



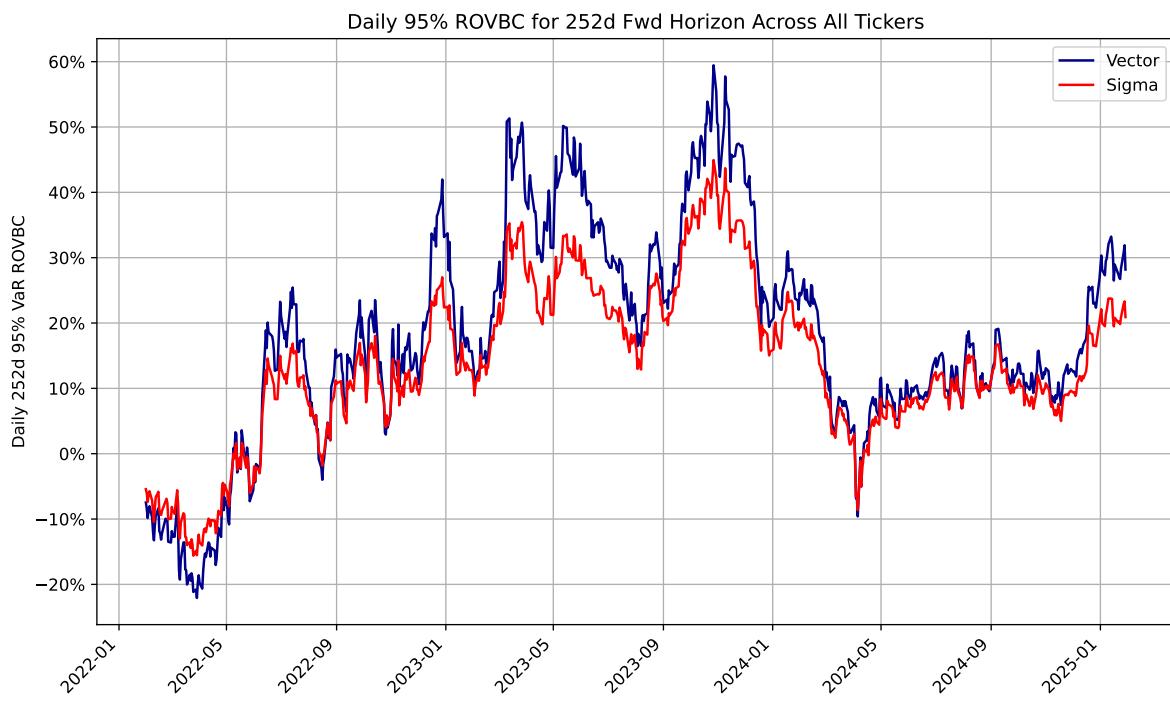
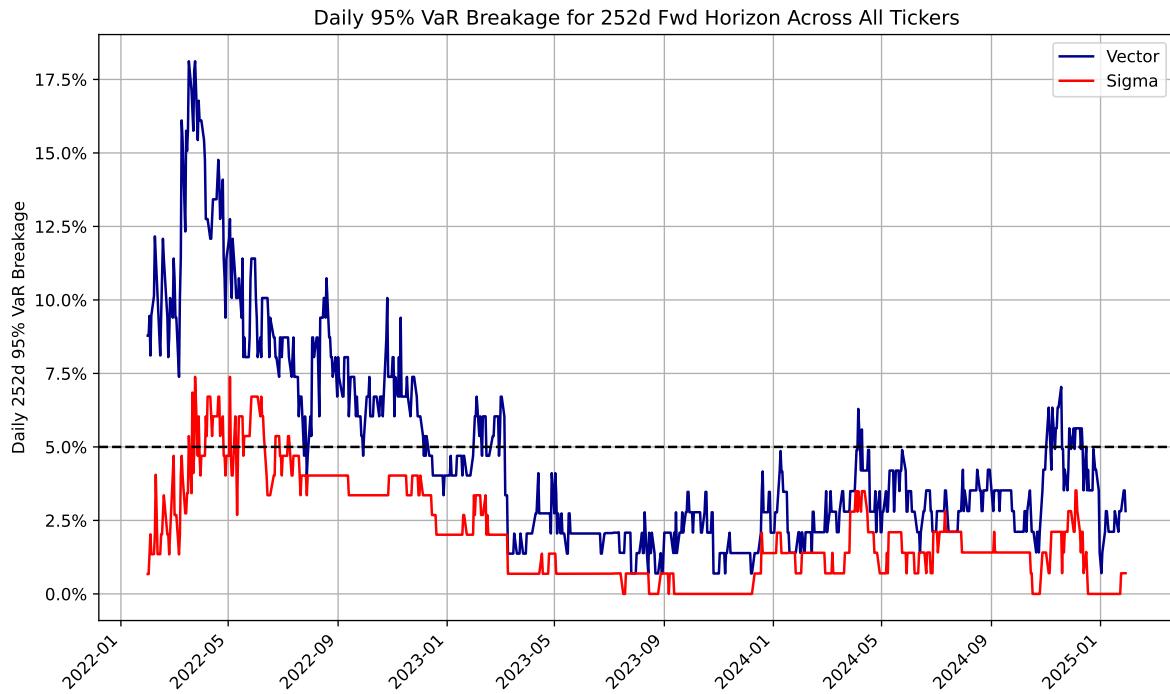
21d Horizon



63d Horizon



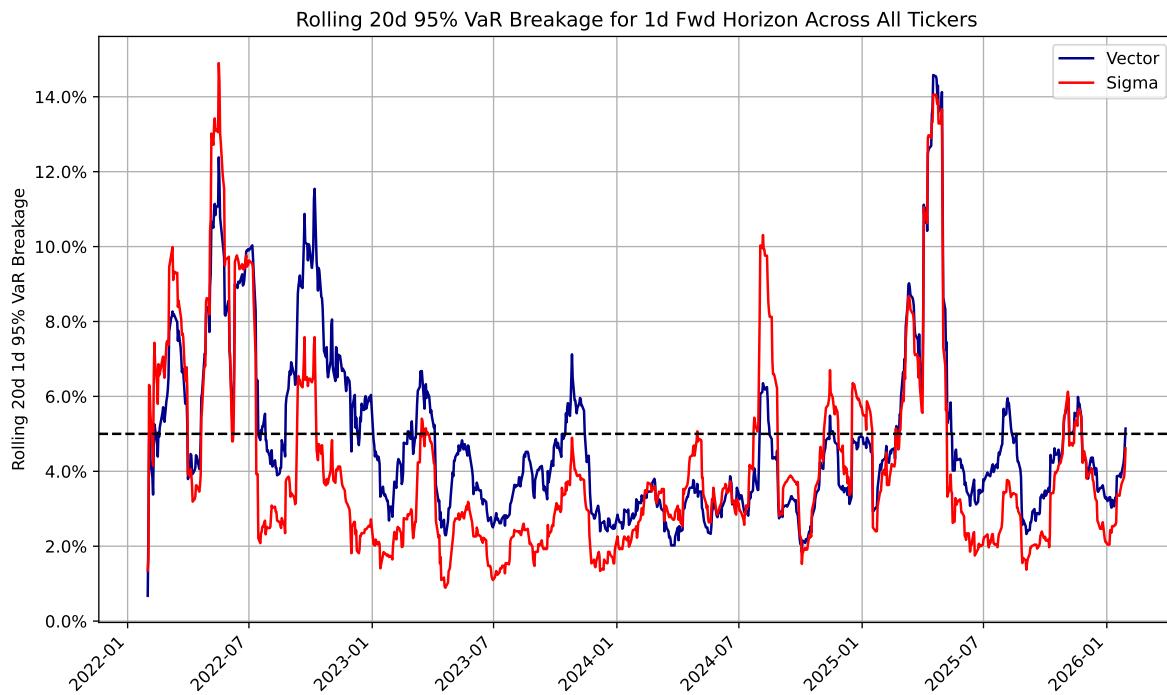
252d Horizon

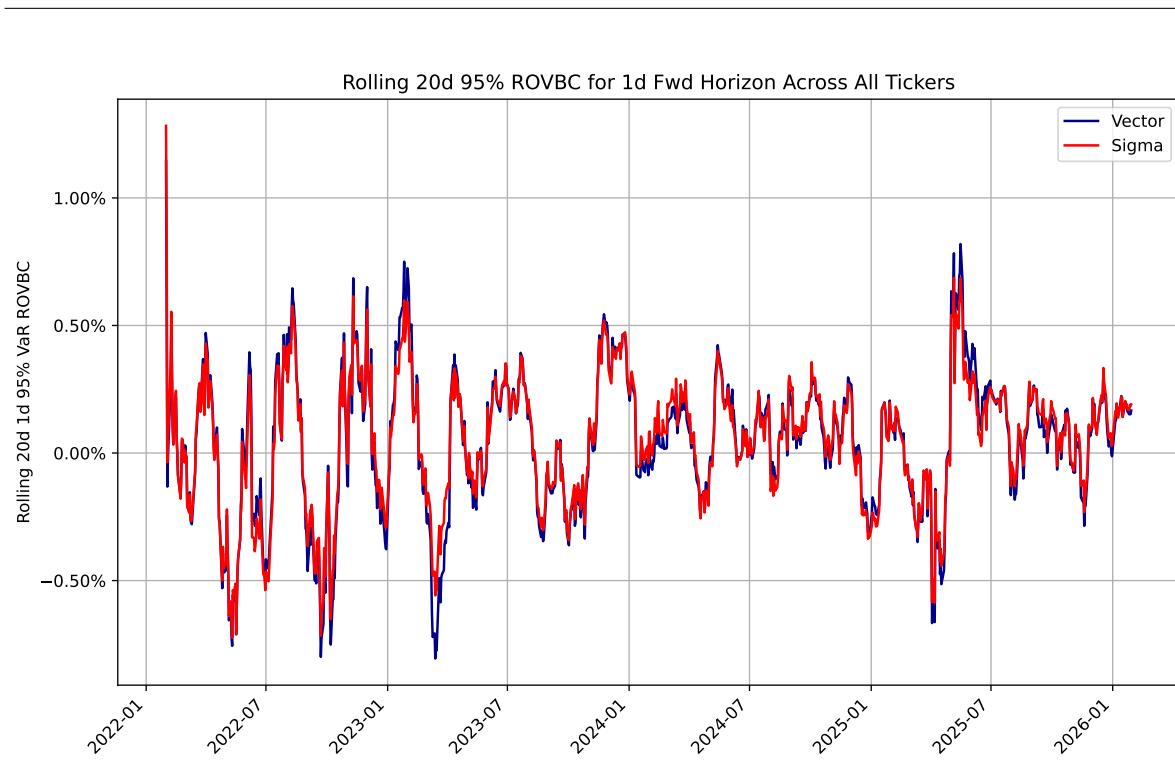


Rolling 20d Performance

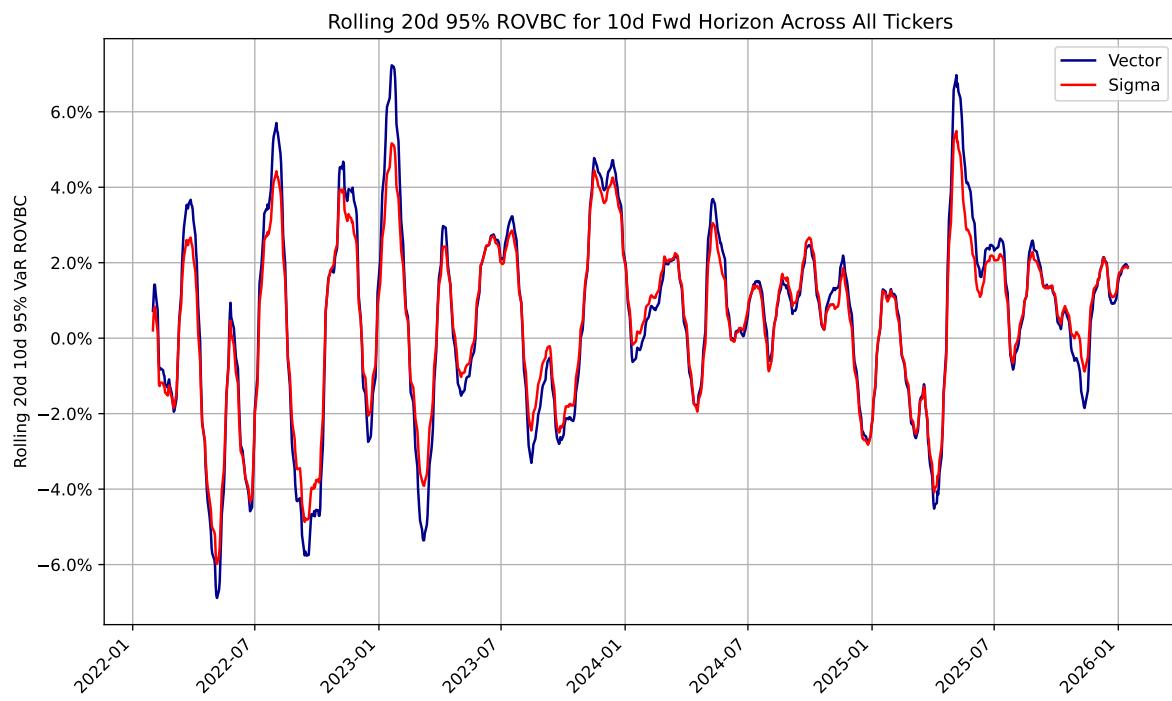
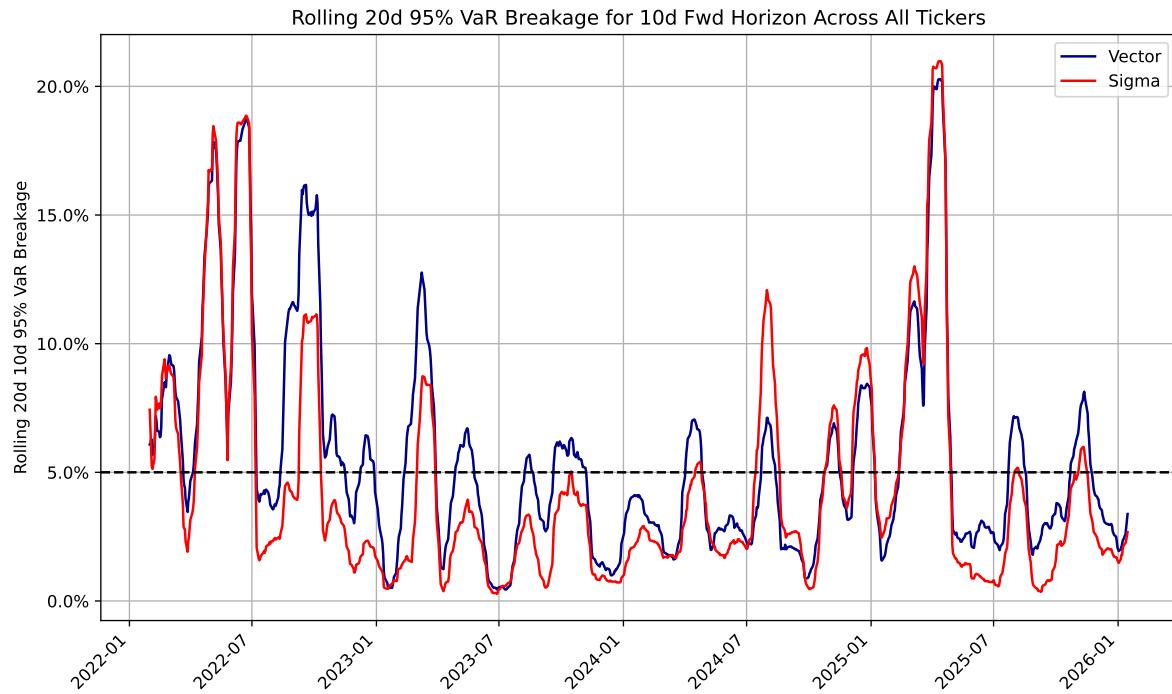
Here we look at 20 day rolling moving averages of the breakage and ROVBC statistics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

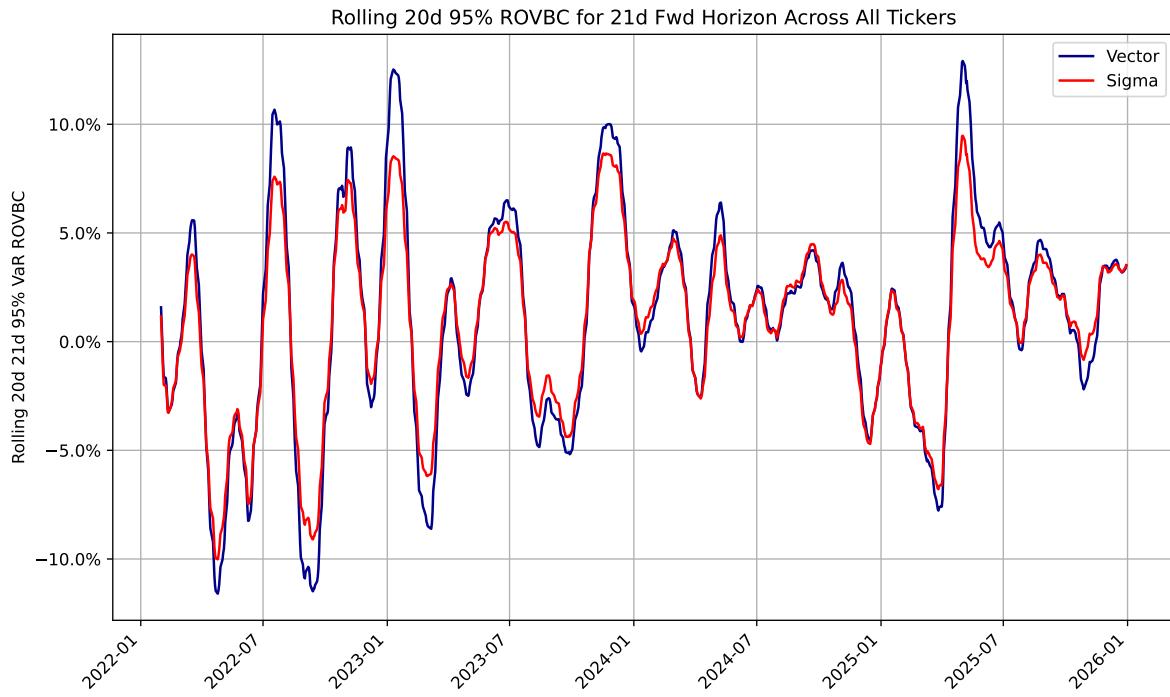
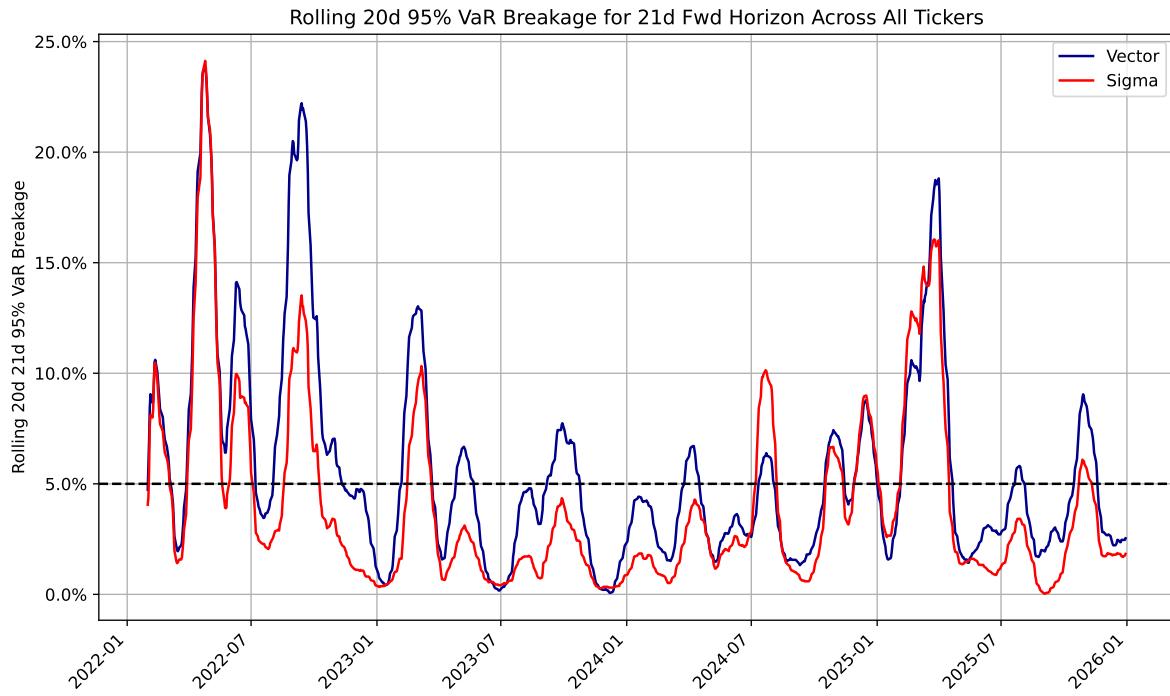




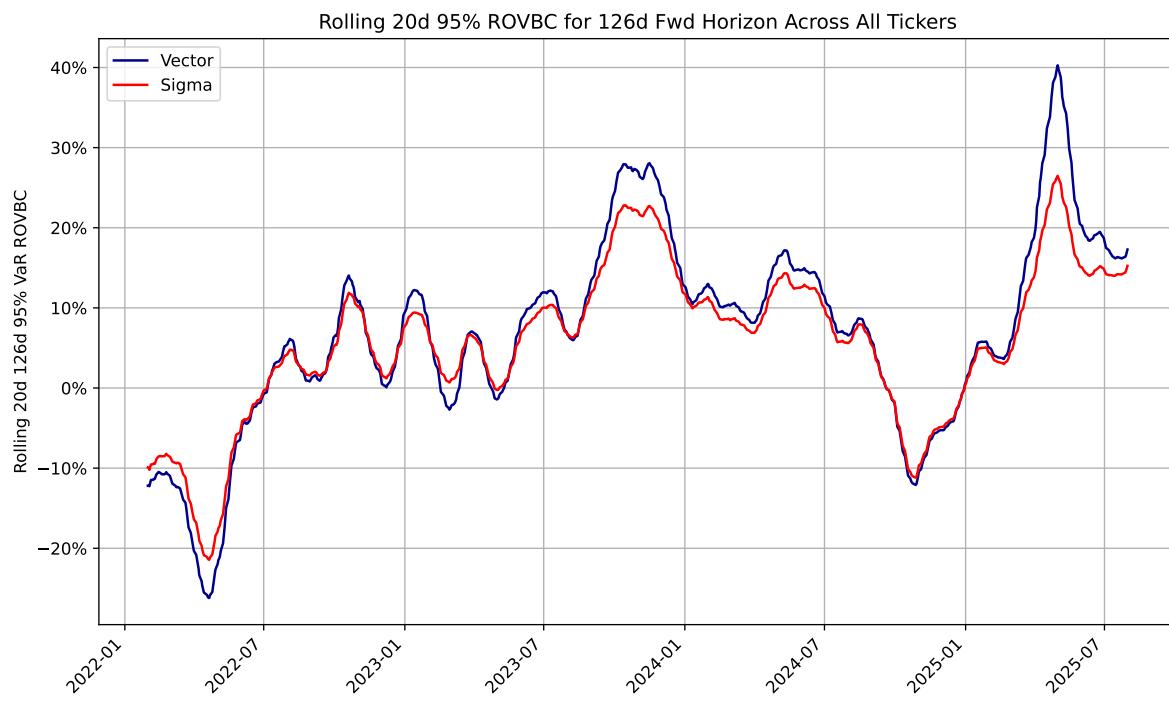
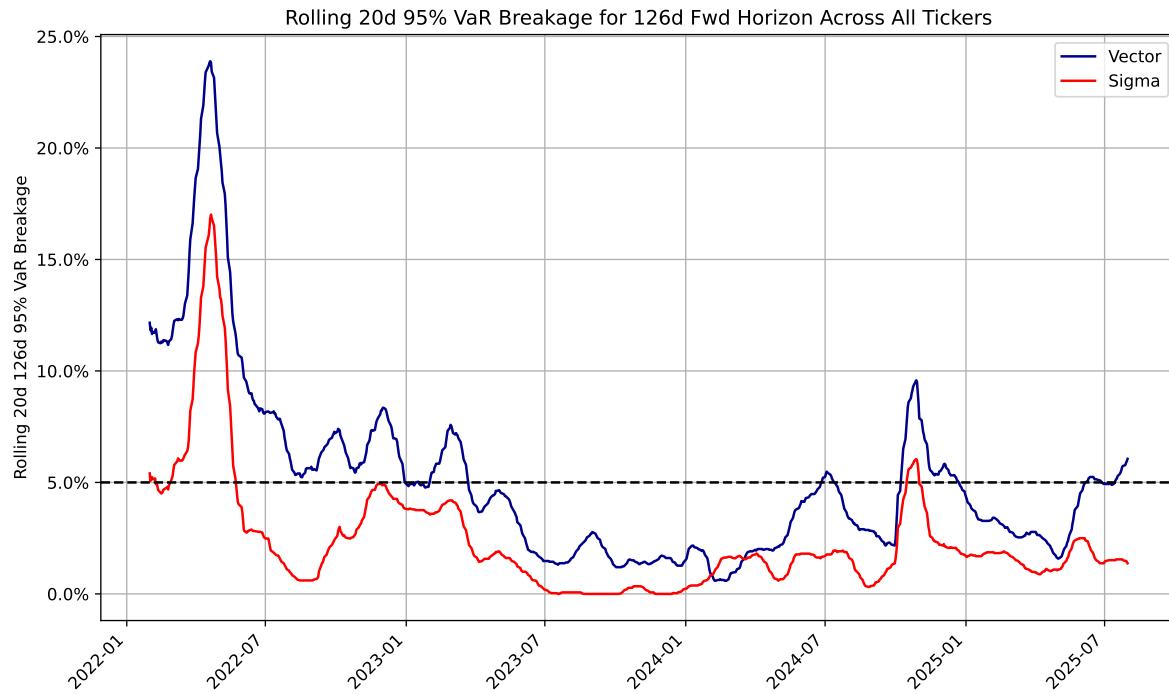
10d Horizon



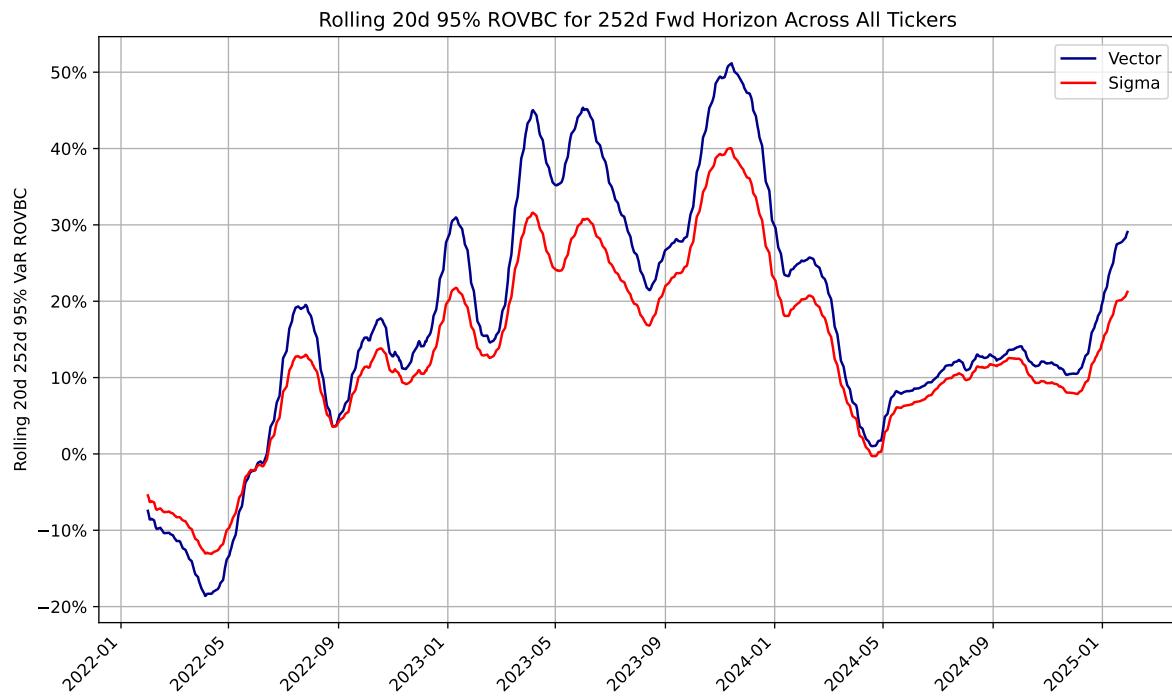
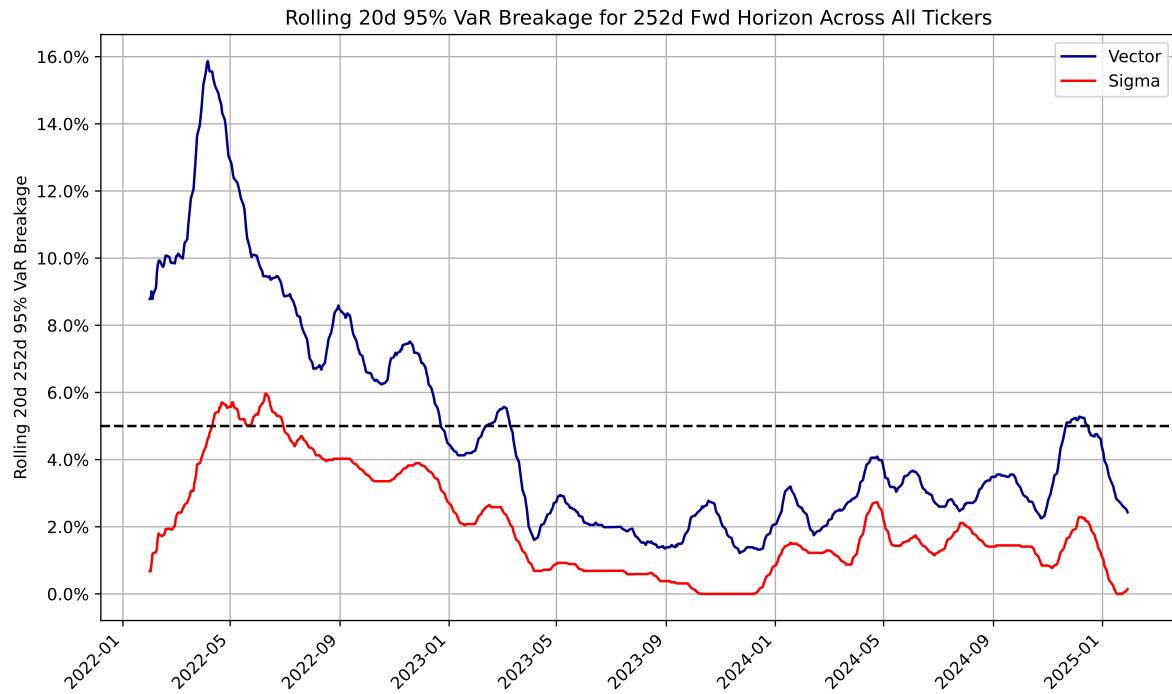
21d Horizon



63d Horizon



252d Horizon



Top 30 Tickers By 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 2026-01-29

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	16.85%	VST	6.08%
1.0	CHTR	15.65%	SIVBQ	5.76%
1.0	LQD	14.66%	ACGL	5.68%
1.0	FRCB	13.67%	PHM	5.68%
1.0	MSTR	11.86%	AAPL	5.68%
1.0	ZTS	11.47%	IRM	5.58%
1.0	B	11.27%	NVS	5.48%
1.0	AMZN	11.17%	TRGP	5.48%
1.0	AAP	10.77%	GLD	5.48%
1.0	META	10.17%	NVDA	5.38%
1.0	GME	10.17%	AZN	5.38%
1.0	UAA	10.07%	MSFT	5.28%
1.0	SBUX	9.97%	NEM	5.28%
1.0	ISRG	9.67%	VZ	5.28%
1.0	GNRC	9.27%	PEP	5.28%
1.0	SLV	8.98%	MUB	5.19%
1.0	PRGO	8.47%	GOOGL	5.18%
1.0	BUD	8.37%	LEN	5.18%
1.0	CDNS	8.28%	AMD	5.18%
1.0	BALL	8.18%	TXN	5.18%
1.0	AMC	8.18%	SLV	5.09%
1.0	VFC	8.18%	MOS	5.08%
1.0	HD	8.18%	ABBV	5.08%



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 2026-01-29

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	SBNY	40.44%	MUB	11.58%
10.0	SIVBQ	22.43%	SIVBQ	10.66%
10.0	AAP	20.12%	SBNY	9.93%
10.0	CHTR	19.72%	FRCB	8.46%
10.0	TSLA	17.3%	AAP	8.15%
10.0	AMC	16.8%	FRA	7.75%
10.0	ZTS	16.4%	BAC	7.44%
10.0	B	14.59%	LW	7.14%
10.0	FRCB	13.97%	UNH	7.04%
10.0	LQD	12.88%	CTLT	6.94%
10.0	GME	12.78%	CVS	6.84%
10.0	MSTR	12.27%	CHTR	6.84%
10.0	BUD	12.27%	WFC	6.74%
10.0	PRGO	11.97%	NWL	6.74%
10.0	KALU	11.87%	CLF	6.44%
10.0	META	11.77%	BMY	6.44%
10.0	GNRC	11.37%	AZN	6.34%
10.0	CVS	11.27%	BALL	6.34%
10.0	TLT	10.76%	CMG	6.24%
10.0	NEM	10.56%	FIS	6.14%
10.0	SLV	10.37%	BHC	6.14%
10.0	AMZN	10.36%	MS	6.14%
10.0	JAZZ	10.36%	X	6.09%
10.0	VFC	10.06%	GNRC	6.04%
10.0	CTLT	9.93%	ADBE	5.94%



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 2026-01-29

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	SBNY	56.67%	SIVBQ	12.96%
21.0	CHTR	24.82%	MUB	12.42%
21.0	SIVBQ	23.33%	FRCB	11.48%
21.0	AAP	20.55%	LW	10.27%
21.0	ZTS	18.01%	AAP	9.16%
21.0	TSLA	17.09%	SBNY	8.89%
21.0	AMC	16.38%	CHTR	8.75%
21.0	PRGO	15.67%	GSK	7.83%
21.0	B	15.26%	CTLT	7.73%
21.0	BUD	14.75%	CMG	7.32%
21.0	CVS	14.45%	CVS	7.12%
21.0	FRCB	14.44%	EMB	7.03%
21.0	LQD	14.24%	FIS	6.92%
21.0	GSK	13.73%	BMY	6.61%
21.0	KALU	13.22%	ABBV	6.61%
21.0	GNRC	13.22%	FRA	6.51%
21.0	CTLT	12.57%	UNH	6.41%
21.0	TLT	12.41%	IRM	6.41%
21.0	MSTR	12.21%	AZN	6.31%
21.0	VCSH	12.21%	LQD	6.0%
21.0	NEM	11.8%	PRGO	6.0%
21.0	META	11.7%	VCSH	6.0%
21.0	VFC	11.5%	NWL	5.9%
21.0	BXP	11.29%	CNC	5.8%
21.0	JAZZ	9.97%	PCG	5.7%



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 2026-01-29

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	33.16%	FRCB	24.81%
63.0	AAP	32.09%	CHTR	13.18%
63.0	FRCB	29.26%	MUB	11.06%
63.0	AMC	20.62%	CTLT	10.7%
63.0	VFC	18.7%	GSK	10.31%
63.0	GNRC	16.79%	NEM	9.88%
63.0	BIIB	15.3%	CNC	8.93%
63.0	BHC	15.09%	UNH	8.61%
63.0	B	14.88%	BMY	7.86%
63.0	TSLA	14.77%	LW	7.86%
63.0	CTLT	14.66%	VFC	7.33%
63.0	BUD	14.56%	CVS	7.12%
63.0	KALU	14.56%	LQD	7.12%
63.0	MSTR	14.35%	ZION	7.01%
63.0	PRGO	14.24%	BXP	6.91%
63.0	TLT	13.6%	KEY	6.91%
63.0	NEM	13.28%	AAP	6.91%
63.0	GSK	13.18%	IEP	6.91%
63.0	META	13.07%	BHC	6.91%
63.0	LQD	12.75%	NFLX	6.8%
63.0	AMZN	12.22%	HCA	6.48%
63.0	CNC	12.01%	NWL	6.27%
63.0	NWL	11.48%	BALL	6.27%
63.0	BXP	11.48%	TLT	6.16%
63.0	BMY	11.37%	VCSH	6.16%
63.0	FIS	11.37%	CMA	5.95%
63.0	CVS	11.05%	CYH	5.84%
63.0	ZTS	11.05%	LEN	5.84%



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 2026-01-29

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	39.98%	GSK	14.69%
126.0	AAP	32.69%	IEP	14.46%
126.0	VFC	31.55%	AAP	14.01%
126.0	AMC	27.33%	UNH	11.62%
126.0	GSK	17.54%	CNC	10.82%
126.0	BMY	17.2%	CTLT	10.5%
126.0	BIIB	17.08%	CHTR	10.14%
126.0	CNC	16.97%	VZ	9.23%
126.0	GNRC	16.74%	CSTM	8.31%
126.0	TSLA	15.15%	INTC	8.2%
126.0	TLT	14.92%	MRK	8.09%
126.0	IEP	14.58%	MUB	7.98%
126.0	ZION	13.08%	BHC	7.74%
126.0	CVS	12.87%	BALL	7.63%
126.0	CTLT	12.76%	LEN	7.4%
126.0	BXP	12.76%	PRGO	6.61%
126.0	UNH	12.3%	NEM	6.26%
126.0	BHC	12.19%	EMB	6.04%
126.0	NEM	11.73%	LW	6.04%
126.0	OXY	11.28%	VCSH	5.81%
126.0	BUD	10.36%	KEY	5.69%
126.0	PRGO	10.25%	BIIB	5.47%
126.0	CMCSA	10.14%	LQD	5.01%
126.0	MRK	10.14%	ELAN	4.86%
126.0	B	10.14%	BXP	4.78%
126.0	VCSH	10.02%	LUMN	4.78%
126.0	ZTS	9.91%	IRM	4.44%



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 2026-01-29

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	56.78%	IEP	32.31%
252.0	CHTR	39.76%	AAP	18.35%
252.0	AMC	39.1%	UNH	17.55%
252.0	BIIB	36.17%	MRK	14.1%
252.0	IEP	30.59%	BMY	13.3%
252.0	VFC	25.8%	GSK	12.9%
252.0	CMA	20.35%	LUMN	12.1%
252.0	ZION	20.19%	LW	11.57%
252.0	OXY	17.69%	CNC	10.24%
252.0	NWL	16.09%	BXP	8.24%
252.0	UNH	15.16%	VZ	6.91%
252.0	FIS	15.03%	CTLT	5.27%
252.0	GSK	13.96%	VNO	5.05%
252.0	CTLT	13.79%	INTC	4.26%
252.0	CVS	13.7%	CMCSA	3.19%
252.0	MRK	13.03%	CSTM	2.93%
252.0	BXP	12.9%	CMG	2.39%
252.0	BMY	11.7%	CLF	2.39%
252.0	PRGO	11.04%	CPRT	2.26%
252.0	TLT	10.77%	LNC	2.13%
252.0	UAA	10.24%	ELAN	2.03%
252.0	VNO	10.24%	CVS	1.86%
252.0	ELAN	9.2%	EMB	1.6%
252.0	BHC	9.04%	PEP	1.6%
252.0	CNC	8.91%	WDC	1.33%
252.0	CLF	8.64%	BALL	1.06%
252.0	KHC	7.31%	NWL	0.93%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	MSFT	31.58%	AA	15.79%
1.0	ISRG	26.32%	AZN	15.79%
1.0	MSTR	26.32%	NAVI	15.79%
1.0	CDNS	26.32%	MSFT	15.79%
1.0	TMUS	21.05%	LVS	15.79%
1.0	INTU	21.05%	SLV	15.79%
1.0	KHC	21.05%	INTU	15.79%
1.0	TDG	21.05%	HCA	15.79%
1.0	NAVI	21.05%	WDC	15.79%
1.0	AMGN	15.79%	GE	15.79%
1.0	PRGO	15.79%	VST	10.53%
1.0	HD	15.79%	FSUGY	10.53%
1.0	FIS	15.79%	CVS	10.53%
1.0	AMZN	15.79%	LNC	10.53%
1.0	CHTR	15.79%	RIO	10.53%
1.0	ON	15.79%	JPM	10.53%
1.0	ORCL	15.79%	JAZZ	10.53%
1.0	CMCSA	15.79%	CMA	10.53%
1.0	SNY	15.79%	CLF	10.53%
1.0	VICI	15.79%	FIS	10.53%
1.0	GILD	10.53%	INTC	10.53%
1.0	CZR	10.53%	ABBV	10.53%
1.0	CVS	10.53%	KHC	10.53%
1.0	ABBV	10.53%	SNY	10.53%
1.0	LNC	10.53%	GBTC	10.53%
1.0	QCOM	10.53%	BIIB	10.53%
1.0	CNC	10.53%	GILD	10.53%
1.0	JAZZ	10.53%	BYY	10.53%
1.0	MSI	10.53%	NEM	10.53%
1.0	XOM	10.53%	BAC	10.53%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	INTU	100.0%	INTU	90.0%
10.0	TMUS	70.0%	FIS	80.0%
10.0	BHC	70.0%	BHC	70.0%
10.0	QCOM	60.0%	JPM	50.0%
10.0	GE	60.0%	QCOM	50.0%
10.0	CHTR	60.0%	ADBE	50.0%
10.0	UNH	40.0%	WFC	40.0%
10.0	CZR	40.0%	NAVI	30.0%
10.0	FIS	40.0%	BAC	30.0%
10.0	NAVI	40.0%	ISRG	30.0%
10.0	ISRG	40.0%	LVS	20.0%
10.0	LNC	30.0%	UNH	20.0%
10.0	WFC	30.0%	LNC	20.0%
10.0	AMC	30.0%	GE	20.0%
10.0	CVS	30.0%	TMUS	10.0%
10.0	MSFT	30.0%	GBTC	10.0%
10.0	META	20.0%	MSFT	10.0%
10.0	CCL	10.0%	CZR	10.0%
10.0	MSTR	10.0%	SLV	10.0%
10.0	PRGO	10.0%	CCL	10.0%
10.0	LQD	0.0%	CVS	10.0%
10.0	NVDA	0.0%	TRGP	0.0%
10.0	ORLY	0.0%	VZ	0.0%
10.0	ORCL	0.0%	VNO	0.0%
10.0	ON	0.0%	NWL	0.0%
10.0	NWL	0.0%	NVS	0.0%
10.0	LLY	0.0%	NVDA	0.0%
10.0	OXY	0.0%	NFLX	0.0%
10.0	NVS	0.0%	NEM	0.0%
10.0	NFLX	0.0%	VST	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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	PRGO	23.33%	WDC	13.33%
1.0	MSTR	23.33%	SLV	13.33%
1.0	AMZN	21.67%	MSFT	11.67%
1.0	ISRG	18.33%	AA	10.0%
1.0	LLY	18.33%	MU	10.0%
1.0	GWW	18.33%	IRM	10.0%
1.0	KHC	16.67%	HCA	10.0%
1.0	CMCSA	16.67%	GNRC	10.0%
1.0	SBUX	15.0%	NFLX	10.0%
1.0	TMUS	15.0%	MOS	8.33%
1.0	AMGN	15.0%	PWR	8.33%
1.0	MSFT	15.0%	INTC	8.33%
1.0	AMD	13.33%	GE	8.33%
1.0	TXN	13.33%	GBTC	8.33%
1.0	NAVI	11.67%	ELAN	8.33%
1.0	VICI	11.67%	NEM	8.33%
1.0	TDG	11.67%	B	8.33%
1.0	CDNS	11.67%	JPM	6.67%
1.0	INTU	10.0%	NAVI	6.67%
1.0	IRM	10.0%	NVS	6.67%
1.0	HD	10.0%	RIO	6.67%
1.0	TSLA	8.33%	INTU	6.67%
1.0	NFLX	8.33%	QQQ	6.67%
1.0	ORCL	8.33%	QCOM	6.67%
1.0	QCOM	8.33%	POST	6.67%
1.0	AMC	8.33%	LUMN	6.67%
1.0	GLD	6.67%	AZN	6.67%
1.0	GNRC	6.67%	FSUGY	6.67%
1.0	COST	6.67%	FIS	5.0%
1.0	INTC	6.67%	JAZZ	5.0%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	MSTR	31.37%	INTU	23.53%
10.0	AMC	29.41%	LW	19.61%
10.0	INTU	25.49%	AZO	19.61%
10.0	PRGO	23.53%	LEN	15.69%
10.0	AMZN	21.57%	IRM	15.69%
10.0	TMUS	21.57%	FIS	15.69%
10.0	AMD	19.61%	ADBE	15.69%
10.0	LW	19.61%	GBTC	13.73%
10.0	GNRC	17.65%	LUMN	13.73%
10.0	QCOM	15.69%	ORLY	13.73%
10.0	AAP	15.69%	BHC	13.73%
10.0	IRM	15.69%	GNRC	11.76%
10.0	TDG	13.73%	POST	11.76%
10.0	LLY	13.73%	HD	9.8%
10.0	GE	13.73%	JPM	9.8%
10.0	BHC	13.73%	QCOM	9.8%
10.0	CMCSA	11.76%	NFLX	9.8%
10.0	CHTR	11.76%	FRA	9.8%
10.0	POST	11.76%	AAP	7.84%
10.0	AZO	11.76%	WFC	7.84%
10.0	NFLX	9.8%	MSTR	5.88%
10.0	GWW	9.8%	LVS	5.88%
10.0	CZR	7.84%	ISRG	5.88%
10.0	ISRG	7.84%	BAC	5.88%
10.0	FIS	7.84%	AMZN	5.88%
10.0	META	7.84%	WDC	5.88%
10.0	NAVI	7.84%	NAVI	5.88%
10.0	UNH	7.84%	CCL	3.92%
10.0	AMGN	7.84%	PRGO	3.92%
10.0	CVS	5.88%	LNC	3.92%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	LW	52.5%	LW	50.0%
21.0	INTU	30.0%	AZO	40.0%
21.0	MSTR	27.5%	INTU	30.0%
21.0	LEN	25.0%	NFLX	22.5%
21.0	AMC	25.0%	IRM	17.5%
21.0	AMZN	20.0%	LEN	15.0%
21.0	IRM	20.0%	ORLY	15.0%
21.0	AAP	20.0%	ADBE	12.5%
21.0	AZO	17.5%	FIS	10.0%
21.0	AMD	17.5%	NAVI	7.5%
21.0	NFLX	17.5%	FRA	7.5%
21.0	TMUS	15.0%	MSFT	5.0%
21.0	PRGO	12.5%	PRGO	5.0%
21.0	NAVI	7.5%	LUMN	5.0%
21.0	CHTR	7.5%	LVS	5.0%
21.0	FIS	7.5%	ZTS	2.5%
21.0	UNH	7.5%	AAP	2.5%
21.0	VICI	7.5%	MOS	0.0%
21.0	ADBE	5.0%	MRK	0.0%
21.0	LVS	5.0%	OXY	0.0%
21.0	BBY	5.0%	LLY	0.0%
21.0	KHC	5.0%	ORCL	0.0%
21.0	GE	2.5%	ON	0.0%
21.0	ISRG	2.5%	NWL	0.0%
21.0	TDG	2.5%	LNC	0.0%
21.0	CVS	2.5%	NVS	0.0%
21.0	ZTS	2.5%	LQD	0.0%
21.0	CCL	2.5%	NVDA	0.0%
21.0	NWL	0.0%	META	0.0%
21.0	QQQ	0.0%	NEM	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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	AMZN	18.88%	HLT	8.43%
1.0	LLY	18.47%	HCA	8.03%
1.0	ZTS	17.67%	ORCL	7.23%
1.0	TSLA	17.27%	AA	6.83%
1.0	SBUX	16.87%	POST	6.83%
1.0	TXN	14.86%	GSK	6.83%
1.0	TDG	14.46%	NVS	6.83%
1.0	META	14.46%	NEM	6.83%
1.0	ISRG	14.06%	GILD	6.43%
1.0	GWW	13.25%	GLD	6.43%
1.0	AMGN	12.85%	B	6.43%
1.0	CDNS	12.85%	AAPL	6.43%
1.0	CMCSA	12.45%	KHC	6.43%
1.0	PRGO	12.05%	BMY	6.43%
1.0	MSTR	12.05%	IRM	6.02%
1.0	NAVI	11.65%	TMUS	6.02%
1.0	MSFT	10.84%	COST	6.02%
1.0	AMC	10.04%	XOM	6.02%
1.0	B	9.64%	WDC	6.02%
1.0	UNH	9.24%	QQQ	6.02%
1.0	AAP	9.24%	HSBC	6.02%
1.0	CLF	9.24%	SLV	5.65%
1.0	KHC	9.24%	GNRC	5.62%
1.0	MU	8.84%	JAZZ	5.62%
1.0	INTC	8.84%	AAP	5.62%
1.0	VZ	8.84%	MOS	5.62%
1.0	PEP	8.43%	MSFT	5.62%
1.0	QCOM	8.43%	NFLX	5.62%
1.0	BHC	7.63%	TXN	5.62%
1.0	CHTR	7.23%	SPY	5.62%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	AMC	25.83%	UNH	12.08%
10.0	ZTS	22.08%	FIS	10.42%
10.0	UNH	21.67%	GNRC	9.58%
10.0	META	21.25%	CMG	9.58%
10.0	AAP	20.0%	BAC	9.58%
10.0	TXN	18.33%	LLY	9.17%
10.0	TSLA	17.5%	VFC	9.17%
10.0	GNRC	17.08%	TXN	9.17%
10.0	CMCSA	17.08%	WFC	8.75%
10.0	AMZN	15.42%	MOS	8.75%
10.0	PRGO	15.42%	PRGO	8.75%
10.0	TDG	15.0%	BBY	8.33%
10.0	MSTR	15.0%	MSI	8.33%
10.0	CHTR	15.0%	IRM	8.33%
10.0	LLY	14.58%	FITB	8.33%
10.0	CZR	13.33%	CCL	7.92%
10.0	NAVI	12.5%	LVS	7.92%
10.0	SBUX	12.08%	JPM	7.92%
10.0	JAZZ	10.83%	HLT	7.92%
10.0	AMGN	10.83%	META	7.92%
10.0	GWW	10.83%	ZTS	7.92%
10.0	KALU	10.0%	CZR	7.92%
10.0	CDNS	10.0%	AAPL	7.92%
10.0	WDC	10.0%	TFC	7.92%
10.0	VFC	9.58%	GS	7.5%
10.0	QCOM	9.17%	INTU	7.08%
10.0	KEY	9.17%	NWL	7.08%
10.0	WFC	8.75%	WDC	7.08%
10.0	CMA	8.75%	SBUX	7.08%
10.0	BHC	8.75%	JAZZ	7.08%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	ZTS	34.93%	CMG	17.9%
21.0	UNH	28.82%	UNH	16.59%
21.0	META	23.58%	VFC	13.97%
21.0	CHTR	23.14%	MSI	12.66%
21.0	AMC	21.83%	IRM	11.79%
21.0	PRGO	19.65%	CPRT	11.35%
21.0	CMCSA	19.21%	PRGO	10.92%
21.0	TXN	18.78%	CHTR	10.48%
21.0	TDG	17.03%	META	10.48%
21.0	GNRC	17.03%	HLT	10.48%
21.0	VFC	17.03%	AZO	10.04%
21.0	TSLA	14.85%	BMY	9.61%
21.0	SBUX	13.97%	BBY	9.17%
21.0	MSTR	13.54%	CNC	9.17%
21.0	WDC	12.66%	ZTS	8.73%
21.0	CZR	12.23%	LW	8.73%
21.0	BBY	11.79%	PCG	8.73%
21.0	IRM	11.35%	SBUX	8.73%
21.0	CNC	11.35%	CZR	8.3%
21.0	NAVI	11.35%	FIS	8.3%
21.0	KALU	10.92%	JAZZ	8.3%
21.0	AAP	10.48%	ISRG	8.3%
21.0	BHC	10.48%	SPY	7.86%
21.0	BMY	10.04%	OXY	7.86%
21.0	LLY	10.04%	COST	7.42%
21.0	AMGN	10.04%	T	7.42%
21.0	BUD	9.61%	INTU	7.42%
21.0	LW	9.17%	HD	7.42%
21.0	MSI	9.17%	BIIB	6.99%
21.0	NWL	9.17%	MOS	6.99%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	PRGO	48.13%	UNH	34.22%
63.0	UNH	40.11%	CNC	33.69%
63.0	CHTR	35.29%	CHTR	27.81%
63.0	MSTR	35.29%	PRGO	21.39%
63.0	CNC	33.69%	CPRT	17.11%
63.0	AMC	29.95%	MSI	14.97%
63.0	MSI	29.41%	VFC	11.76%
63.0	CMCSA	26.74%	MOS	10.16%
63.0	ZTS	26.74%	BMY	8.56%
63.0	BUD	25.13%	JAZZ	7.49%
63.0	TDG	24.6%	AZO	6.95%
63.0	NFLX	21.39%	CMG	6.42%
63.0	META	20.32%	SBUX	5.88%
63.0	BMY	20.32%	BUD	5.88%
63.0	NWL	14.97%	NFLX	5.35%
63.0	GNRC	12.83%	TRGP	4.81%
63.0	SBUX	12.83%	FRA	4.81%
63.0	VFC	12.3%	T	4.28%
63.0	AAP	11.23%	WDC	3.74%
63.0	LW	10.7%	VICI	3.74%
63.0	BHC	10.16%	PEP	3.74%
63.0	IRM	9.09%	ZTS	2.67%
63.0	ADBE	9.09%	CCL	2.14%
63.0	CMA	7.49%	AAPL	2.14%
63.0	PCG	6.42%	PCG	2.14%
63.0	CPRT	6.42%	ORCL	2.14%
63.0	JAZZ	6.42%	NWL	2.14%
63.0	AAPL	5.35%	MUB	2.14%
63.0	SNY	4.81%	TDG	1.07%
63.0	ORCL	4.28%	FIS	1.07%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	CNC	79.03%	CNC	58.06%
126.0	CHTR	70.97%	PRGO	46.77%
126.0	PRGO	52.42%	CHTR	40.32%
126.0	CMCSA	49.19%	UNH	29.03%
126.0	AMC	44.35%	CPRT	18.55%
126.0	UNH	41.94%	CMG	9.68%
126.0	ZTS	34.68%	VFC	5.65%
126.0	MSTR	33.87%	MOS	3.23%
126.0	BMY	27.42%	FIS	1.61%
126.0	TDG	22.58%	INTU	0.81%
126.0	AAP	16.94%	NEM	0.0%
126.0	VFC	12.1%	NFLX	0.0%
126.0	NFLX	11.29%	NVDA	0.0%
126.0	ADBE	10.48%	NVS	0.0%
126.0	ORCL	7.26%	AA	0.0%
126.0	BUD	6.45%	NWL	0.0%
126.0	INTU	3.23%	ON	0.0%
126.0	SBUX	3.23%	MUB	0.0%
126.0	NWL	3.23%	ORCL	0.0%
126.0	FIS	2.42%	ORLY	0.0%
126.0	TXN	0.81%	OXY	0.0%
126.0	BHC	0.81%	NAVI	0.0%
126.0	MSFT	0.81%	MSTR	0.0%
126.0	VST	0.81%	MU	0.0%
126.0	NEM	0.0%	LVS	0.0%
126.0	NVS	0.0%	KHC	0.0%
126.0	ON	0.0%	LEN	0.0%
126.0	NVDA	0.0%	LLY	0.0%
126.0	ORLY	0.0%	LNC	0.0%
126.0	LNC	0.0%	LQD	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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	0.46%	MSTR	0.31%
1.0	GME	0.4%	NVDA	0.26%
1.0	MU	0.23%	VST	0.25%
1.0	META	0.23%	MU	0.21%
1.0	NFLX	0.22%	AVGO	0.21%
1.0	WDC	0.2%	WDC	0.21%
1.0	AVGO	0.17%	PWR	0.18%
1.0	NVDA	0.16%	TEVA	0.18%
1.0	AAPL	0.16%	GME	0.17%
1.0	PWR	0.16%	X	0.17%
1.0	LLY	0.15%	GBTC	0.17%
1.0	CLF	0.15%	LLY	0.16%
1.0	GOOGL	0.15%	GE	0.16%
1.0	CDNS	0.15%	CAH	0.15%
1.0	GWW	0.14%	SLV	0.15%
1.0	B	0.13%	TRGP	0.14%
1.0	ORCL	0.13%	THC	0.14%
1.0	AMD	0.13%	AMD	0.13%
1.0	XOM	0.13%	META	0.13%
1.0	INTU	0.12%	AMAT	0.12%
1.0	AA	0.12%	ETRN	0.12%
1.0	X	0.12%	B	0.11%
1.0	AMZN	0.11%	GOOGL	0.11%
1.0	TEVA	0.11%	GS	0.11%
1.0	CAH	0.1%	PHM	0.11%
1.0	HCA	0.1%	NFLX	0.11%
1.0	VST	0.1%	TSLA	0.11%
1.0	HD	0.1%	CCL	0.1%
1.0	GE	0.1%	HSBC	0.1%
1.0	THC	0.09%	ORCL	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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	5.55%	MSTR	3.23%
10.0	GME	5.46%	NVDA	2.56%
10.0	MU	2.86%	VST	2.46%
10.0	WDC	2.57%	WDC	2.12%
10.0	META	2.34%	MU	2.11%
10.0	TEVA	2.21%	AVGO	2.09%
10.0	AVGO	1.99%	TEVA	1.8%
10.0	NVDA	1.97%	PWR	1.74%
10.0	NFLX	1.96%	LLY	1.7%
10.0	VST	1.91%	SLV	1.69%
10.0	SLV	1.81%	GBTC	1.61%
10.0	ORCL	1.64%	GE	1.59%
10.0	LLY	1.61%	X	1.58%
10.0	PWR	1.53%	CAH	1.54%
10.0	GOOGL	1.49%	GME	1.44%
10.0	GE	1.41%	ETRN	1.41%
10.0	CAH	1.38%	TRGP	1.36%
10.0	GWW	1.38%	META	1.34%
10.0	AMZN	1.27%	THC	1.28%
10.0	GBTC	1.24%	AMD	1.27%
10.0	AAPL	1.23%	B	1.21%
10.0	ETRN	1.23%	AMAT	1.2%
10.0	AMD	1.21%	TSLA	1.16%
10.0	X	1.21%	NFLX	1.15%
10.0	CDNS	1.21%	GS	1.12%
10.0	GS	1.19%	PHM	1.12%
10.0	KALU	1.12%	ORCL	1.09%
10.0	THC	1.09%	GLD	1.06%
10.0	CTLT	1.08%	GOOGL	1.05%
10.0	HCA	1.07%	CDNS	0.97%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	14.8%	MSTR	7.41%
21.0	GME	8.29%	NVDA	5.57%
21.0	META	6.66%	VST	5.37%
21.0	WDC	6.08%	AVGO	4.44%
21.0	MU	5.82%	WDC	4.31%
21.0	TEVA	5.4%	MU	4.18%
21.0	NFLX	4.82%	TEVA	3.88%
21.0	AVGO	4.56%	PWR	3.62%
21.0	NVDA	4.36%	LLY	3.59%
21.0	VST	4.04%	GBTC	3.58%
21.0	GBTC	3.84%	GE	3.54%
21.0	ORCL	3.76%	ETRN	3.5%
21.0	LLY	3.6%	SLV	3.33%
21.0	SLV	3.55%	CAH	3.26%
21.0	ETRN	3.51%	X	3.17%
21.0	PWR	3.43%	META	2.99%
21.0	GE	3.39%	THC	2.74%
21.0	GOOGL	3.33%	TRGP	2.74%
21.0	TSLA	3.24%	TSLA	2.72%
21.0	CAH	3.01%	AMD	2.67%
21.0	GS	2.78%	NFLX	2.64%
21.0	GWW	2.77%	ORCL	2.53%
21.0	AMZN	2.74%	AMAT	2.45%
21.0	CTLT	2.65%	GS	2.43%
21.0	THC	2.56%	PHM	2.41%
21.0	GILD	2.55%	B	2.4%
21.0	KALU	2.54%	CCL	2.26%
21.0	AA	2.52%	GOOGL	2.25%
21.0	AMD	2.43%	GME	2.15%
21.0	NEM	2.37%	GLD	2.08%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	35.61%	MSTR	22.62%
63.0	WDC	25.6%	NVDA	18.86%
63.0	META	22.49%	VST	17.98%
63.0	NFLX	18.26%	AVGO	14.37%
63.0	VST	16.32%	WDC	13.9%
63.0	NVDA	15.9%	GBTC	12.42%
63.0	AVGO	15.49%	MU	12.29%
63.0	MU	14.47%	GE	11.29%
63.0	ORCL	13.92%	META	10.51%
63.0	TEVA	12.54%	LLY	10.48%
63.0	GE	12.27%	TEVA	10.38%
63.0	ETRN	11.21%	PWR	10.32%
63.0	CTLT	11.11%	ETRN	10.28%
63.0	GBTC	11.06%	NFLX	10.0%
63.0	SLV	10.24%	CAH	9.76%
63.0	AMD	10.19%	THC	8.81%
63.0	CAH	9.71%	ORCL	8.64%
63.0	LLY	9.56%	AMD	8.5%
63.0	GOOGL	9.54%	PHM	8.2%
63.0	ISRG	9.38%	SLV	8.13%
63.0	TSLA	9.22%	TRGP	7.45%
63.0	THC	8.84%	GS	7.24%
63.0	PWR	8.79%	GOOGL	7.2%
63.0	AMAT	8.72%	TSLA	7.09%
63.0	GS	8.47%	CCL	7.08%
63.0	NEM	8.06%	AMAT	6.75%
63.0	B	7.97%	B	6.14%
63.0	GILD	7.86%	JPM	6.13%
63.0	KALU	7.75%	HSBC	6.11%
63.0	GWW	7.11%	ISRG	6.06%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	111.98%	MSTR	58.86%
126.0	META	61.49%	NVDA	47.69%
126.0	WDC	58.18%	VST	40.91%
126.0	NFLX	49.82%	GBTC	34.95%
126.0	NVDA	48.55%	AVGO	32.12%
126.0	AVGO	42.57%	WDC	28.66%
126.0	VST	41.18%	GE	27.17%
126.0	GBTC	34.37%	META	26.45%
126.0	MU	34.17%	NFLX	26.35%
126.0	ORCL	32.39%	MU	25.42%
126.0	GE	28.64%	THC	21.49%
126.0	AMD	25.52%	PWR	20.83%
126.0	TEVA	24.93%	ORCL	20.8%
126.0	SLV	23.37%	LLY	19.37%
126.0	LLY	23.11%	TEVA	19.15%
126.0	B	21.56%	PHM	18.94%
126.0	CAH	20.84%	CAH	18.8%
126.0	THC	20.8%	AMD	18.77%
126.0	GOOGL	20.33%	ETRN	18.49%
126.0	PWR	19.75%	TRGP	16.18%
126.0	TSLA	18.86%	CCL	15.8%
126.0	NEM	18.18%	SLV	15.69%
126.0	GILD	18.14%	GS	15.4%
126.0	ISRG	17.89%	GOOGL	14.78%
126.0	GS	17.21%	JPM	14.08%
126.0	ETRN	16.95%	AMAT	13.6%
126.0	AMAT	16.56%	TSLA	13.46%
126.0	EXPE	16.05%	DHI	13.43%
126.0	AMZN	15.56%	TDG	13.31%
126.0	DHI	15.27%	CDNS	12.9%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	MSTR	363.08%	MSTR	193.96%
252.0	META	156.94%	NVDA	126.07%
252.0	VST	139.05%	VST	116.38%
252.0	NFLX	126.55%	GBTC	105.49%
252.0	NVDA	125.56%	AVGO	76.34%
252.0	GBTC	111.82%	META	70.41%
252.0	AVGO	107.52%	NFLX	65.06%
252.0	GE	69.05%	GE	62.27%
252.0	ORCL	66.14%	THC	47.79%
252.0	LLY	61.65%	PHM	45.0%
252.0	WDC	60.53%	LLY	44.85%
252.0	AMZN	56.47%	PWR	42.12%
252.0	THC	56.22%	MU	41.86%
252.0	ISRG	54.23%	TRGP	41.49%
252.0	TEVA	53.58%	ORCL	40.4%
252.0	AMD	48.8%	CCL	38.31%
252.0	CAH	46.85%	CAH	37.35%
252.0	TDG	45.95%	WDC	36.89%
252.0	GOOGL	45.59%	TEVA	35.92%
252.0	SLV	45.03%	ETRN	35.78%
252.0	MU	44.68%	TDG	33.75%
252.0	INTU	44.35%	ISRG	32.33%
252.0	TSLA	43.56%	JPM	32.15%
252.0	EXPE	41.7%	AMD	31.08%
252.0	TRGP	40.66%	GS	31.0%
252.0	GILD	40.57%	SLV	28.53%
252.0	B	40.36%	HSBC	28.06%
252.0	ETRN	38.77%	GOOGL	27.88%
252.0	MSI	38.07%	AMAT	27.33%
252.0	PWR	38.01%	IRM	27.2%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	TXN	2.54%	WDC	1.72%
1.0	AAP	1.55%	MU	1.53%
1.0	MU	1.39%	AAP	1.17%
1.0	BUD	1.33%	INTC	1.11%
1.0	AMAT	1.26%	SLV	1.08%
1.0	UAA	1.21%	TXN	1.08%
1.0	CLF	1.14%	AMAT	1.01%
1.0	LUMN	1.07%	GNRC	0.96%
1.0	GNRC	1.06%	UAA	0.86%
1.0	ON	0.96%	GILD	0.84%
1.0	SBUX	0.91%	FCX	0.83%
1.0	TDG	0.9%	LUMN	0.81%
1.0	GME	0.9%	HON	0.81%
1.0	AMZN	0.84%	GME	0.81%
1.0	HON	0.8%	XOM	0.77%
1.0	GLD	0.76%	NWL	0.72%
1.0	AZO	0.76%	CSTM	0.7%
1.0	XOM	0.75%	GLD	0.63%
1.0	WDC	0.73%	BUD	0.63%
1.0	FCX	0.73%	NEM	0.62%
1.0	AMD	0.68%	AZO	0.62%
1.0	COST	0.67%	RIO	0.61%
1.0	MSI	0.66%	BHP	0.59%
1.0	HD	0.65%	META	0.56%
1.0	NWL	0.65%	IRM	0.55%
1.0	LW	0.62%	VZ	0.53%
1.0	VFC	0.58%	MOS	0.53%
1.0	GILD	0.54%	TEVA	0.52%
1.0	CNC	0.52%	COST	0.51%
1.0	PEP	0.5%	SBUX	0.49%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	28.98%	SLV	23.4%
10.0	AMD	21.39%	WDC	20.67%
10.0	CLF	20.94%	MU	19.86%
10.0	WDC	19.48%	AMD	14.89%
10.0	GNRC	19.39%	GNRC	12.02%
10.0	AAP	17.08%	NEM	11.81%
10.0	UAA	14.33%	AAP	11.41%
10.0	TXN	14.15%	INTC	10.73%
10.0	GILD	12.56%	AMAT	10.59%
10.0	BUD	11.83%	GLD	10.55%
10.0	GME	10.52%	GILD	10.52%
10.0	AZO	10.45%	AZO	9.22%
10.0	GLD	10.25%	PWR	8.84%
10.0	LW	10.0%	XOM	8.76%
10.0	MSI	9.87%	GME	8.64%
10.0	SLV	9.35%	CLF	8.54%
10.0	HON	9.07%	UAA	8.54%
10.0	SBUX	9.01%	CSTM	8.47%
10.0	XOM	8.86%	LUMN	8.34%
10.0	HD	8.77%	FCX	7.97%
10.0	FCX	8.27%	TRGP	7.76%
10.0	TDG	8.02%	RIO	7.35%
10.0	INTC	8.01%	HON	7.34%
10.0	NWL	7.87%	TXN	7.28%
10.0	COST	7.75%	MOS	7.21%
10.0	NEM	7.44%	SBUX	6.94%
10.0	PWR	7.07%	BUD	6.49%
10.0	AMGN	6.58%	ORLY	6.47%
10.0	META	6.01%	LW	6.37%
10.0	AMAT	5.89%	BHP	6.36%



P90D: 1d

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

Period examined: All model dates from 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	TXN	1.21%	SLV	1.06%
1.0	CLF	1.03%	MU	1.05%
1.0	MU	0.96%	TEVA	0.89%
1.0	UAA	0.88%	WDC	0.89%
1.0	LLY	0.83%	AA	0.77%
1.0	VFC	0.7%	FCX	0.67%
1.0	MRK	0.69%	VFC	0.59%
1.0	NWL	0.66%	B	0.59%
1.0	CNC	0.63%	NEM	0.58%
1.0	ON	0.59%	CSTM	0.57%
1.0	FCX	0.58%	GT	0.55%
1.0	TEVA	0.51%	AMAT	0.55%
1.0	AMAT	0.48%	UAA	0.54%
1.0	KALU	0.48%	TXN	0.51%
1.0	AA	0.45%	MRK	0.5%
1.0	SBUX	0.45%	NWL	0.48%
1.0	BALL	0.44%	KALU	0.48%
1.0	BUD	0.42%	RIO	0.44%
1.0	WDC	0.41%	TRGP	0.44%
1.0	CMG	0.4%	CNC	0.42%
1.0	GLD	0.4%	EXPE	0.39%
1.0	GT	0.39%	INTC	0.39%
1.0	CYH	0.39%	HSBC	0.38%
1.0	EXPE	0.39%	XOM	0.37%
1.0	B	0.38%	CMG	0.37%
1.0	AMGN	0.36%	BHP	0.35%
1.0	CSTM	0.36%	KEY	0.35%
1.0	NEM	0.35%	JAZZ	0.34%
1.0	CMCSA	0.34%	MNST	0.33%
1.0	BMY	0.34%	GLD	0.33%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	TXN	11.66%	SLV	15.14%
10.0	CLF	11.48%	MU	11.29%
10.0	MU	11.34%	AA	10.43%
10.0	KALU	9.86%	WDC	9.11%
10.0	AA	9.74%	FCX	8.59%
10.0	FCX	9.03%	B	7.8%
10.0	VFC	7.91%	CSTM	7.54%
10.0	WDC	7.7%	NEM	7.35%
10.0	NWL	7.47%	AMAT	7.31%
10.0	UAA	7.38%	KALU	6.37%
10.0	ON	6.89%	UAA	6.26%
10.0	B	6.5%	CLF	6.23%
10.0	GNRC	6.43%	TEVA	6.22%
10.0	SLV	6.14%	VFC	6.16%
10.0	LLY	5.74%	INTC	5.83%
10.0	NEM	5.53%	NWL	5.68%
10.0	JAZZ	5.44%	ON	5.12%
10.0	CSTM	5.21%	RIO	5.11%
10.0	MRK	5.16%	CMG	5.05%
10.0	TEVA	5.16%	JAZZ	4.74%
10.0	CNC	4.86%	BA	4.64%
10.0	INTC	4.73%	TXN	4.57%
10.0	GWW	4.61%	MRK	4.48%
10.0	KEY	4.28%	GT	4.47%
10.0	GLD	4.17%	CNC	4.44%
10.0	CMG	3.9%	GLD	4.17%
10.0	AMAT	3.82%	BHP	4.05%
10.0	CZR	3.81%	KEY	3.85%
10.0	CMCSA	3.73%	CMA	3.64%
10.0	BHP	3.58%	HSBC	3.5%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	AA	34.06%	SLV	34.54%
21.0	KALU	25.7%	AA	29.03%
21.0	FCX	24.42%	MU	27.47%
21.0	TXN	24.04%	FCX	20.91%
21.0	MU	24.04%	WDC	20.19%
21.0	CLF	21.63%	CSTM	18.01%
21.0	ON	20.54%	KALU	16.77%
21.0	NWL	18.02%	B	16.14%
21.0	UAA	17.59%	NEM	16.05%
21.0	WDC	17.36%	UAA	15.8%
21.0	SLV	17.31%	AMAT	15.42%
21.0	CSTM	16.85%	TEVA	15.32%
21.0	VFC	15.45%	VFC	13.33%
21.0	NEM	14.11%	ON	12.86%
21.0	B	14.07%	BA	12.55%
21.0	CNC	13.0%	CMG	12.21%
21.0	TEVA	12.04%	INTC	11.75%
21.0	INTC	11.78%	NWL	11.72%
21.0	MRK	10.94%	RIO	11.52%
21.0	CMG	10.37%	CNC	11.02%
21.0	EMY	10.18%	CLF	10.9%
21.0	LNC	10.17%	KEY	9.97%
21.0	GWW	9.77%	TXN	9.83%
21.0	BHP	9.68%	BHP	9.79%
21.0	AMAT	9.46%	GS	9.06%
21.0	CCL	9.44%	GT	8.92%
21.0	RIO	9.14%	CMA	8.87%
21.0	CZR	9.06%	HSBC	8.76%
21.0	FITB	8.92%	FITB	8.39%
21.0	GNRC	8.7%	MRK	8.29%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MU	0.85%	MU	0.69%
1.0	WDC	0.57%	WDC	0.64%
1.0	AAP	0.53%	X	0.51%
1.0	CLF	0.5%	INTC	0.44%
1.0	B	0.49%	B	0.44%
1.0	INTC	0.37%	SLV	0.44%
1.0	PWR	0.34%	NEM	0.42%
1.0	CSTM	0.33%	CSTM	0.39%
1.0	NEM	0.33%	AMD	0.36%
1.0	LLY	0.32%	LUMN	0.35%
1.0	LUMN	0.31%	ELAN	0.34%
1.0	X	0.31%	TEVA	0.31%
1.0	ELAN	0.3%	AMAT	0.28%
1.0	AMD	0.29%	KALU	0.27%
1.0	TEVA	0.26%	AA	0.26%
1.0	NVDA	0.25%	CLF	0.26%
1.0	FCX	0.25%	FCX	0.26%
1.0	EXPE	0.25%	NVDA	0.24%
1.0	GOOGL	0.25%	CAH	0.23%
1.0	AA	0.24%	HSBC	0.23%
1.0	ON	0.23%	GOOGL	0.23%
1.0	BA	0.22%	GLD	0.23%
1.0	TXN	0.21%	MNST	0.22%
1.0	CDNS	0.21%	EXPE	0.22%
1.0	SLV	0.2%	AVGO	0.22%
1.0	KALU	0.2%	PWR	0.21%
1.0	QCOM	0.2%	GE	0.18%
1.0	QQQ	0.2%	RIO	0.18%
1.0	CVS	0.19%	GS	0.18%
1.0	HCA	0.17%	GSK	0.17%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	10.29%	MU	7.03%
10.0	WDC	9.13%	WDC	6.65%
10.0	INTC	5.35%	SLV	5.13%
10.0	NEM	4.8%	B	4.72%
10.0	X	4.57%	X	4.58%
10.0	B	4.43%	NEM	4.44%
10.0	ELAN	4.09%	INTC	4.42%
10.0	KALU	3.6%	CSTM	4.19%
10.0	TEVA	3.36%	AMD	4.01%
10.0	SLV	3.28%	LUMN	3.69%
10.0	AA	3.22%	ELAN	3.61%
10.0	AMD	3.22%	TEVA	3.1%
10.0	PWR	3.17%	AMAT	2.89%
10.0	CSTM	3.16%	KALU	2.86%
10.0	FCX	2.85%	AA	2.69%
10.0	CLF	2.6%	GOOGL	2.52%
10.0	LLY	2.52%	FCX	2.45%
10.0	EXPE	2.49%	GLD	2.37%
10.0	GOOGL	2.44%	CAH	2.31%
10.0	JAZZ	2.38%	MNST	2.31%
10.0	BUD	2.38%	PWR	2.13%
10.0	NVDA	2.35%	HSBC	2.11%
10.0	TXN	2.22%	CLF	2.05%
10.0	ON	2.18%	AVGO	1.94%
10.0	CVS	2.13%	NVDA	1.86%
10.0	QQQ	2.1%	EXPE	1.86%
10.0	ORCL	2.02%	GE	1.8%
10.0	AMAT	1.93%	GS	1.77%
10.0	AAP	1.92%	HCA	1.74%
10.0	AMZN	1.88%	WYNN	1.71%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	WDC	23.45%	MU	14.95%
21.0	MU	22.38%	WDC	14.86%
21.0	NEM	11.62%	SLV	10.66%
21.0	B	10.21%	B	10.17%
21.0	INTC	9.89%	NEM	9.34%
21.0	KALU	9.72%	X	9.23%
21.0	ELAN	9.52%	AMD	8.67%
21.0	X	9.45%	CSTM	8.4%
21.0	AA	8.8%	ELAN	8.13%
21.0	PWR	8.25%	INTC	7.82%
21.0	CSTM	8.09%	LUMN	7.51%
21.0	SLV	7.82%	TEVA	6.96%
21.0	TEVA	7.16%	AA	6.45%
21.0	GOOGL	6.9%	AMAT	6.36%
21.0	TSLA	6.71%	KALU	6.28%
21.0	AMD	6.56%	GOOGL	5.92%
21.0	FCX	5.7%	CAH	5.04%
21.0	LLY	5.44%	AVGO	4.89%
21.0	AMAT	5.41%	FCX	4.87%
21.0	ON	5.3%	PWR	4.85%
21.0	AVGO	5.22%	GLD	4.67%
21.0	CVS	4.78%	MNST	4.35%
21.0	NVDA	4.73%	GE	4.3%
21.0	GE	4.72%	EXPE	4.08%
21.0	THC	4.7%	NVDA	4.07%
21.0	GS	4.69%	THC	4.06%
21.0	EXPE	4.51%	GS	4.03%
21.0	LUMN	4.25%	LVS	3.94%
21.0	JAZZ	4.24%	HSBC	3.94%
21.0	ORCL	4.05%	HCA	3.89%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	WDC	117.97%	WDC	64.45%
63.0	MU	68.78%	MU	51.6%
63.0	ELAN	42.73%	AMD	33.29%
63.0	TSLA	41.88%	B	33.22%
63.0	NEM	41.66%	LUMN	32.85%
63.0	KALU	39.76%	ELAN	31.75%
63.0	B	37.44%	SLV	29.12%
63.0	AMD	33.9%	NEM	28.34%
63.0	INTC	31.7%	INTC	26.48%
63.0	ORCL	29.49%	X	26.36%
63.0	AMAT	29.2%	GOOGL	24.54%
63.0	CSTM	29.17%	AVGO	24.52%
63.0	SLV	28.36%	TEVA	24.44%
63.0	AA	28.3%	CSTM	23.63%
63.0	GOOGL	26.52%	AMAT	21.54%
63.0	AVGO	26.38%	KALU	21.23%
63.0	LUMN	26.29%	AA	19.34%
63.0	PWR	24.98%	PWR	19.21%
63.0	NVDA	24.36%	NVDA	18.98%
63.0	X	24.18%	LVS	18.47%
63.0	TEVA	22.91%	TSLA	17.91%
63.0	GS	22.12%	CAH	17.31%
63.0	GE	21.76%	EXPE	17.13%
63.0	THC	21.48%	ORCL	17.1%
63.0	EXPE	20.45%	THC	16.56%
63.0	ON	20.33%	GE	16.23%
63.0	JAZZ	18.74%	GS	16.13%
63.0	AAP	17.43%	CLF	15.6%
63.0	WYNN	15.69%	WYNN	15.36%
63.0	CLF	15.31%	CMA	14.13%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	WDC	359.69%	WDC	177.51%
126.0	MU	185.67%	MU	125.49%
126.0	ELAN	142.6%	B	84.67%
126.0	B	136.1%	AMD	82.24%
126.0	NEM	112.54%	ELAN	78.18%
126.0	INTC	107.25%	LUMN	74.24%
126.0	SLV	87.03%	NEM	71.29%
126.0	AMD	86.02%	INTC	63.46%
126.0	TSLA	82.29%	SLV	62.95%
126.0	AVGO	79.76%	GOOGL	60.12%
126.0	LUMN	77.69%	AVGO	57.41%
126.0	GOOGL	69.03%	TEVA	46.29%
126.0	AA	68.44%	CSTM	46.19%
126.0	ORCL	68.37%	ORCL	45.19%
126.0	PWR	63.69%	CLF	45.15%
126.0	NVDA	63.37%	NVDA	42.5%
126.0	GNRC	60.33%	TSLA	41.04%
126.0	EXPE	54.41%	EXPE	41.0%
126.0	KALU	53.49%	LVS	40.6%
126.0	THC	53.43%	AA	40.45%
126.0	CSTM	51.0%	AMAT	39.38%
126.0	GS	50.37%	WYNN	37.39%
126.0	AMAT	49.2%	PWR	36.01%
126.0	GE	46.01%	GE	35.7%
126.0	JAZZ	45.67%	GS	35.1%
126.0	CLF	45.58%	THC	34.64%
126.0	CMA	44.1%	CMA	32.96%
126.0	TEVA	42.88%	KALU	30.89%
126.0	CVS	39.86%	FSUGY	29.84%
126.0	DHI	39.75%	MS	29.62%



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 2026-01-29

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	AMC	-0.22%	AMC	-0.19%
1.0	IEP	-0.16%	IEP	-0.15%
1.0	CHTR	-0.16%	NWL	-0.11%
1.0	FIS	-0.14%	AAP	-0.1%
1.0	PRGO	-0.1%	CHTR	-0.08%
1.0	CYH	-0.1%	CZR	-0.07%
1.0	LUMN	-0.08%	PRGO	-0.07%
1.0	T	-0.07%	BHC	-0.06%
1.0	BXP	-0.06%	UAA	-0.06%
1.0	TLT	-0.06%	VFC	-0.05%
1.0	ELAN	-0.06%	FIS	-0.05%
1.0	BHC	-0.05%	TLT	-0.04%
1.0	AAP	-0.05%	CMCSA	-0.04%
1.0	NAVI	-0.05%	BALL	-0.03%
1.0	CNC	-0.05%	ADBE	-0.03%
1.0	GSK	-0.04%	BXP	-0.03%
1.0	TSLA	-0.04%	NAVI	-0.03%
1.0	EMB	-0.04%	ZTS	-0.03%
1.0	VZ	-0.04%	KHC	-0.03%
1.0	USB	-0.03%	UNH	-0.03%
1.0	CTLT	-0.03%	GT	-0.02%
1.0	CMCSA	-0.03%	CNC	-0.02%
1.0	GT	-0.03%	CVS	-0.02%
1.0	VFC	-0.03%	CTLT	-0.01%
1.0	PEP	-0.03%	BBY	-0.01%
1.0	CZR	-0.02%	LQD	-0.01%
1.0	LQD	-0.02%	FRA	-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 2026-01-29

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	-4.33%	FRCB	-2.19%
10.0	FRCB	-3.12%	AMC	-1.94%
10.0	CHTR	-1.71%	IEP	-1.45%
10.0	IEP	-1.63%	NWL	-1.09%
10.0	PRGO	-1.6%	AAP	-0.97%
10.0	AAP	-1.48%	CHTR	-0.83%
10.0	FIS	-0.88%	CZR	-0.83%
10.0	NWL	-0.86%	PRGO	-0.68%
10.0	VFC	-0.74%	UAA	-0.67%
10.0	TLT	-0.69%	VFC	-0.64%
10.0	BXP	-0.69%	FIS	-0.46%
10.0	GSK	-0.61%	TLT	-0.42%
10.0	VZ	-0.57%	CMCSA	-0.42%
10.0	ZTS	-0.54%	BHC	-0.38%
10.0	GT	-0.54%	BXP	-0.36%
10.0	BHC	-0.44%	ZTS	-0.35%
10.0	CNC	-0.44%	BALL	-0.34%
10.0	LUMN	-0.42%	KHC	-0.33%
10.0	BIIB	-0.36%	CNC	-0.31%
10.0	CYH	-0.36%	GT	-0.29%
10.0	BALL	-0.28%	ADBE	-0.28%
10.0	LQD	-0.25%	NAVI	-0.26%
10.0	BMY	-0.25%	VZ	-0.2%
10.0	CMCSA	-0.24%	BBY	-0.19%
10.0	ZION	-0.2%	LNC	-0.18%
10.0	ADBE	-0.19%	UNH	-0.17%
10.0	KHC	-0.18%	CYH	-0.17%
10.0	LNC	-0.17%	MOS	-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 2026-01-29

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	-8.92%	AMC	-4.48%
21.0	AAP	-3.71%	IEP	-3.16%
21.0	CHTR	-3.21%	NWL	-2.5%
21.0	NWL	-3.06%	AAP	-2.12%
21.0	IEP	-2.83%	CZR	-1.74%
21.0	PRGO	-2.76%	CHTR	-1.65%
21.0	VFC	-1.89%	PRGO	-1.43%
21.0	FIS	-1.43%	VFC	-1.36%
21.0	TLT	-1.34%	UAA	-1.35%
21.0	ZTS	-1.27%	BHC	-0.89%
21.0	BHC	-1.12%	TLT	-0.88%
21.0	GSK	-1.11%	CMCSA	-0.86%
21.0	BXP	-1.1%	BXP	-0.78%
21.0	CMCSA	-1.03%	KHC	-0.77%
21.0	CNC	-0.85%	BALL	-0.73%
21.0	CYH	-0.79%	ZTS	-0.71%
21.0	LW	-0.76%	FIS	-0.71%
21.0	VZ	-0.66%	CNC	-0.59%
21.0	GT	-0.62%	GT	-0.55%
21.0	KHC	-0.55%	NAVI	-0.48%
21.0	BIIB	-0.55%	VZ	-0.44%
21.0	BMY	-0.52%	MOS	-0.42%
21.0	CZR	-0.49%	LNC	-0.38%
21.0	LNC	-0.46%	ADBE	-0.35%
21.0	BALL	-0.41%	BBY	-0.35%
21.0	LQD	-0.41%	UNH	-0.29%
21.0	LUMN	-0.36%	LW	-0.25%



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 2026-01-29

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	-33.1%	AMC	-15.26%
63.0	AAP	-12.21%	IEP	-10.52%
63.0	NWL	-10.95%	NWL	-8.92%
63.0	IEP	-10.5%	AAP	-6.3%
63.0	CHTR	-8.58%	CZR	-6.18%
63.0	PRGO	-8.49%	UAA	-5.18%
63.0	VFC	-8.21%	PRGO	-5.14%
63.0	CZR	-4.64%	CHTR	-4.79%
63.0	MOS	-4.45%	VFC	-4.64%
63.0	CMCSA	-4.19%	MOS	-4.04%
63.0	CNC	-4.1%	BHC	-3.0%
63.0	FIS	-3.75%	CNC	-2.92%
63.0	TLT	-3.74%	CMCSA	-2.74%
63.0	BHC	-3.7%	KHC	-2.74%
63.0	ZTS	-3.66%	BALL	-2.68%
63.0	KHC	-3.01%	TLT	-2.38%
63.0	BALL	-2.63%	BXP	-2.35%
63.0	UNH	-2.57%	ZTS	-2.31%
63.0	UAA	-2.5%	FIS	-1.9%
63.0	LNC	-1.8%	GT	-1.74%
63.0	BMY	-1.54%	NAVI	-1.62%
63.0	GSK	-1.43%	UNH	-1.56%
63.0	NAVI	-1.41%	CLF	-1.42%
63.0	GT	-1.4%	BMY	-1.39%
63.0	VZ	-1.33%	VZ	-1.32%
63.0	VNO	-1.27%	LNC	-1.13%
63.0	BIIB	-1.25%	BBY	-0.9%



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 2026-01-29

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	-54.44%	AMC	-27.76%
126.0	IEP	-23.87%	IEP	-20.36%
126.0	AAP	-21.54%	NWL	-17.53%
126.0	NWL	-21.29%	AAP	-11.89%
126.0	VFC	-20.69%	CZR	-10.33%
126.0	CHTR	-14.42%	VFC	-10.0%
126.0	PRGO	-13.85%	UAA	-9.31%
126.0	CNC	-12.98%	CNC	-9.06%
126.0	CZR	-10.73%	PRGO	-8.83%
126.0	BHC	-9.13%	CHTR	-7.47%
126.0	MOS	-9.0%	MOS	-7.23%
126.0	UAA	-8.69%	CTLT	-5.69%
126.0	CMCSA	-7.32%	KHC	-5.48%
126.0	TLT	-6.56%	GT	-4.57%
126.0	BMY	-6.07%	BMY	-4.49%
126.0	KHC	-5.87%	BALL	-4.47%
126.0	UNH	-4.72%	TLT	-4.31%
126.0	BALL	-4.35%	BHC	-4.31%
126.0	FIS	-4.25%	CMCSA	-4.27%
126.0	OXY	-4.18%	BXP	-3.98%
126.0	ZTS	-3.77%	UNH	-3.91%
126.0	BIIB	-2.96%	FIS	-3.52%
126.0	LNC	-2.88%	ZTS	-3.21%
126.0	GT	-2.88%	NAVI	-2.88%
126.0	BXP	-2.79%	CLF	-2.76%
126.0	NAVI	-2.69%	OXY	-2.61%
126.0	CLF	-2.64%	CVS	-2.23%



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 2026-01-29

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	-93.82%	AMC	-54.56%
252.0	AAP	-60.43%	IEP	-42.56%
252.0	IEP	-52.63%	NWL	-30.74%
252.0	NWL	-44.35%	AAP	-30.6%
252.0	VFC	-41.93%	VFC	-22.95%
252.0	UAA	-29.42%	CZR	-17.96%
252.0	CZR	-25.9%	CNC	-16.97%
252.0	BIIB	-25.64%	UAA	-16.31%
252.0	PRGO	-23.94%	PRGO	-15.44%
252.0	MOS	-22.88%	MOS	-15.38%
252.0	CHTR	-22.01%	CLF	-13.93%
252.0	CLF	-19.66%	KHC	-10.74%
252.0	OXY	-19.66%	BIIB	-10.67%
252.0	CNC	-19.55%	BMY	-10.42%
252.0	AA	-18.77%	OXY	-9.26%
252.0	BHC	-16.69%	CHTR	-9.11%
252.0	KHC	-13.83%	BHC	-8.91%
252.0	TLT	-12.9%	UNH	-8.52%
252.0	BMY	-11.59%	AA	-8.36%
252.0	UNH	-9.25%	CVS	-7.82%
252.0	CYH	-7.97%	TLT	-7.82%
252.0	JAZZ	-7.39%	GT	-7.3%
252.0	BXP	-7.17%	CYH	-6.69%
252.0	GT	-7.01%	CTLT	-6.24%
252.0	CVS	-6.84%	NAVI	-5.7%
252.0	BALL	-6.27%	PEP	-5.46%
252.0	BHP	-5.97%	BALL	-5.22%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	INTU	-1.65%	NAVI	-1.27%
1.0	NAVI	-1.64%	INTU	-1.18%
1.0	ORCL	-1.58%	BHC	-1.14%
1.0	BHC	-1.46%	LVS	-1.05%
1.0	ISRG	-0.97%	FIS	-0.89%
1.0	FIS	-0.96%	ORCL	-0.87%
1.0	INTC	-0.92%	UNH	-0.7%
1.0	CHTR	-0.87%	WYNN	-0.68%
1.0	QCOM	-0.78%	QCOM	-0.67%
1.0	CZR	-0.75%	AMC	-0.67%
1.0	MSFT	-0.74%	ADBE	-0.65%
1.0	VST	-0.7%	CZR	-0.62%
1.0	LVS	-0.63%	ISRG	-0.56%
1.0	UNH	-0.56%	MSFT	-0.46%
1.0	MSTR	-0.46%	NFLX	-0.44%
1.0	ADBE	-0.45%	LNC	-0.39%
1.0	LNC	-0.42%	GBTC	-0.33%
1.0	NFLX	-0.39%	EXPE	-0.32%
1.0	JAZZ	-0.32%	CVS	-0.31%
1.0	WYNN	-0.32%	JPM	-0.31%
1.0	TSLA	-0.25%	BBY	-0.29%
1.0	BBY	-0.24%	PCG	-0.27%
1.0	TMUS	-0.21%	THC	-0.26%
1.0	GBTC	-0.2%	BAC	-0.25%
1.0	AVGO	-0.2%	WFC	-0.25%
1.0	WFC	-0.19%	JAZZ	-0.25%
1.0	EXPE	-0.16%	VNO	-0.24%
1.0	VNO	-0.16%	BXP	-0.24%
1.0	AAPL	-0.16%	AVGO	-0.23%
1.0	GE	-0.14%	AAPL	-0.22%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	BHC	-18.76%	BHC	-18.08%
10.0	CHTR	-14.84%	INTU	-13.79%
10.0	QCOM	-14.67%	QCOM	-10.53%
10.0	NAVI	-14.45%	FIS	-10.43%
10.0	INTU	-13.64%	NAVI	-9.76%
10.0	CZR	-11.23%	ORCL	-9.66%
10.0	AMC	-10.74%	ADBE	-8.76%
10.0	GE	-9.99%	ISRG	-8.42%
10.0	ISRG	-8.59%	EXPE	-7.49%
10.0	ORCL	-8.56%	CHTR	-7.44%
10.0	FIS	-8.44%	CCL	-7.34%
10.0	TMUS	-7.07%	CZR	-7.32%
10.0	UNH	-6.93%	WFC	-6.1%
10.0	CCL	-6.44%	JPM	-6.08%
10.0	LNC	-6.0%	LNC	-6.03%
10.0	ADBE	-5.92%	GE	-5.8%
10.0	WFC	-5.85%	THC	-5.43%
10.0	EXPE	-5.63%	NFLX	-5.26%
10.0	NFLX	-4.93%	BAC	-5.15%
10.0	VNO	-4.86%	UNH	-5.13%
10.0	MSTR	-4.72%	LVS	-4.98%
10.0	SNY	-4.64%	VNO	-4.84%
10.0	WYNN	-4.13%	WYNN	-4.83%
10.0	BBY	-4.04%	TMUS	-4.75%
10.0	MSFT	-3.97%	BBY	-4.22%
10.0	PCG	-3.69%	GBTC	-4.22%
10.0	CYH	-3.39%	PCG	-4.15%
10.0	LVS	-3.35%	AVGO	-3.88%
10.0	PRGO	-3.11%	BIIIB	-3.82%
10.0	CVS	-3.09%	AMC	-3.66%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	-1.84%	AMC	-0.96%
1.0	AMC	-1.33%	MSTR	-0.86%
1.0	ORCL	-0.78%	ORCL	-0.7%
1.0	ZTS	-0.76%	PRGO	-0.53%
1.0	PRGO	-0.69%	INTU	-0.48%
1.0	INTU	-0.5%	NFLX	-0.44%
1.0	VST	-0.49%	LW	-0.44%
1.0	BBY	-0.4%	LUMN	-0.39%
1.0	NFLX	-0.4%	GBTC	-0.37%
1.0	TSLA	-0.39%	BBY	-0.36%
1.0	BHC	-0.38%	NAVI	-0.31%
1.0	MSFT	-0.37%	MSFT	-0.29%
1.0	CHTR	-0.36%	QCOM	-0.27%
1.0	INTC	-0.32%	VST	-0.27%
1.0	NAVI	-0.31%	VNO	-0.26%
1.0	ISRG	-0.3%	CYH	-0.26%
1.0	AMZN	-0.3%	WYNN	-0.24%
1.0	QCOM	-0.29%	BHC	-0.24%
1.0	FIS	-0.24%	LVS	-0.23%
1.0	LW	-0.21%	ADBE	-0.22%
1.0	IRM	-0.21%	ZTS	-0.21%
1.0	CDNS	-0.18%	UNH	-0.2%
1.0	LEN	-0.18%	CDNS	-0.19%
1.0	ADBE	-0.16%	FIS	-0.19%
1.0	AMD	-0.16%	IRM	-0.17%
1.0	IEP	-0.15%	BXP	-0.14%
1.0	VNO	-0.15%	LEN	-0.13%
1.0	UNH	-0.14%	ISRG	-0.12%
1.0	LVS	-0.13%	VICI	-0.11%
1.0	POST	-0.13%	NVDA	-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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AMC	-20.06%	AMC	-8.48%
10.0	MSTR	-17.22%	MSTR	-6.57%
10.0	NFLX	-4.96%	ORCL	-5.4%
10.0	INTU	-4.24%	NFLX	-5.08%
10.0	ORCL	-4.21%	LW	-4.88%
10.0	CHTR	-3.83%	INTU	-3.7%
10.0	LW	-3.47%	BBY	-3.21%
10.0	BBY	-3.42%	GBTC	-2.43%
10.0	QCOM	-3.26%	VST	-2.38%
10.0	TMUS	-2.72%	CHTR	-2.18%
10.0	SNY	-2.19%	QCOM	-2.15%
10.0	VST	-2.0%	TMUS	-2.02%
10.0	MSFT	-1.82%	MSFT	-1.99%
10.0	BXP	-1.81%	ADBE	-1.97%
10.0	VNO	-1.74%	VNO	-1.95%
10.0	PRGO	-1.59%	IEP	-1.88%
10.0	VICI	-1.52%	WYNN	-1.84%
10.0	IRM	-1.46%	LVS	-1.77%
10.0	ISRG	-1.41%	FIS	-1.72%
10.0	POST	-1.37%	CYH	-1.69%
10.0	WYNN	-1.36%	SNY	-1.58%
10.0	FIS	-1.36%	BXP	-1.55%
10.0	KHC	-1.33%	PCG	-1.44%
10.0	ADBE	-1.28%	LUMN	-1.34%
10.0	NAVI	-1.26%	AAPL	-1.27%
10.0	LVS	-1.18%	POST	-1.25%
10.0	AAPL	-1.09%	VICI	-1.24%
10.0	AMD	-1.06%	ISRG	-1.16%
10.0	IEP	-0.83%	LEN	-0.99%
10.0	GBTC	-0.83%	BHC	-0.95%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	AMC	-38.76%	AMC	-19.08%
21.0	MSTR	-26.71%	LW	-13.84%
21.0	LW	-14.59%	MSTR	-11.11%
21.0	NFLX	-10.79%	NFLX	-10.91%
21.0	AAP	-8.94%	ORCL	-8.52%
21.0	BBY	-8.54%	BBY	-6.76%
21.0	ORCL	-7.13%	AAP	-5.5%
21.0	TMUS	-6.02%	INTU	-5.2%
21.0	INTU	-5.2%	VST	-4.42%
21.0	LEN	-5.0%	TMUS	-4.27%
21.0	KHC	-4.92%	LVS	-3.96%
21.0	BXP	-4.65%	LEN	-3.94%
21.0	SNY	-4.48%	WYNN	-3.58%
21.0	CHTR	-4.18%	AZO	-3.53%
21.0	VNO	-3.87%	VNO	-3.52%
21.0	VST	-3.85%	BXP	-3.36%
21.0	LVS	-3.21%	MSFT	-3.18%
21.0	WYNN	-2.96%	SNY	-3.08%
21.0	VICI	-2.94%	AVGO	-2.96%
21.0	T	-2.8%	POST	-2.81%
21.0	IRM	-2.69%	T	-2.78%
21.0	POST	-2.58%	IEP	-2.77%
21.0	AVGO	-2.32%	AAPL	-2.75%
21.0	AZO	-2.01%	KHC	-2.7%
21.0	MSFT	-1.95%	VICI	-2.49%
21.0	AAPL	-1.71%	CYH	-2.49%
21.0	ISRG	-1.62%	GBTC	-2.34%
21.0	QCOM	-1.49%	LUMN	-2.12%
21.0	PCG	-1.46%	CHTR	-1.85%
21.0	CYH	-1.44%	PCG	-1.81%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	-0.55%	AMC	-0.26%
1.0	AMC	-0.44%	NWL	-0.23%
1.0	TSLA	-0.33%	MSTR	-0.23%
1.0	CZR	-0.3%	UNH	-0.2%
1.0	ZTS	-0.29%	PRGO	-0.19%
1.0	UAA	-0.28%	CHTR	-0.17%
1.0	NAVI	-0.24%	CZR	-0.16%
1.0	CNC	-0.22%	ADBE	-0.14%
1.0	CHTR	-0.21%	FIS	-0.14%
1.0	CMG	-0.19%	CMG	-0.13%
1.0	ISRG	-0.18%	CPRT	-0.13%
1.0	FIS	-0.16%	ZTS	-0.11%
1.0	BBY	-0.15%	NAVI	-0.1%
1.0	UNH	-0.14%	VNO	-0.08%
1.0	PRGO	-0.11%	CNC	-0.08%
1.0	CPRT	-0.09%	IEP	-0.07%
1.0	VST	-0.08%	KHC	-0.07%
1.0	TMUS	-0.08%	LW	-0.07%
1.0	TDG	-0.07%	UAA	-0.06%
1.0	NWL	-0.07%	BBY	-0.06%
1.0	KHC	-0.07%	TMUS	-0.06%
1.0	VFC	-0.07%	MSI	-0.05%
1.0	ADBE	-0.06%	INTU	-0.05%
1.0	VNO	-0.06%	GBTC	-0.05%
1.0	POST	-0.05%	NFLX	-0.04%
1.0	IEP	-0.05%	SBUX	-0.04%
1.0	ACGL	-0.05%	FRA	-0.04%
1.0	PEP	-0.02%	SNY	-0.04%
1.0	BMY	-0.02%	LEN	-0.03%
1.0	VICI	-0.02%	ISRG	-0.03%



P365D: 10d

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

Period examined: All model dates from 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AMC	-6.86%	AMC	-2.59%
10.0	MSTR	-6.4%	MSTR	-2.25%
10.0	PRGO	-3.85%	CHTR	-2.07%
10.0	CHTR	-3.28%	PRGO	-1.7%
10.0	ZTS	-2.89%	NWL	-1.7%
10.0	CZR	-2.05%	CZR	-1.54%
10.0	CMG	-1.66%	ADBE	-1.51%
10.0	ADBE	-1.52%	UNH	-1.49%
10.0	TMUS	-1.19%	CPRT	-1.35%
10.0	NWL	-1.09%	ZTS	-1.18%
10.0	CNC	-1.06%	CMG	-1.17%
10.0	KHC	-0.99%	TMUS	-1.13%
10.0	CPRT	-0.92%	FIS	-0.99%
10.0	NAVI	-0.86%	VNO	-0.94%
10.0	IEP	-0.82%	KHC	-0.85%
10.0	FIS	-0.78%	BBY	-0.84%
10.0	BBY	-0.76%	IEP	-0.73%
10.0	NFLX	-0.67%	LW	-0.7%
10.0	SBUX	-0.57%	CMCSA	-0.63%
10.0	POST	-0.57%	MSI	-0.58%
10.0	VNO	-0.52%	NFLX	-0.52%
10.0	CMCSA	-0.46%	SBUX	-0.51%
10.0	VZ	-0.4%	NAVI	-0.5%
10.0	UNH	-0.37%	SNY	-0.49%
10.0	T	-0.34%	CNC	-0.41%
10.0	UAA	-0.28%	UAA	-0.39%
10.0	BMY	-0.28%	FRA	-0.36%
10.0	VICI	-0.26%	POST	-0.34%
10.0	BXP	-0.22%	ISRG	-0.25%
10.0	INTU	-0.21%	COST	-0.25%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	AMC	-12.56%	AMC	-5.83%
21.0	MSTR	-11.0%	CHTR	-4.28%
21.0	CHTR	-7.6%	MSTR	-4.06%
21.0	PRGO	-7.03%	PRGO	-3.92%
21.0	ZTS	-6.39%	NWL	-3.42%
21.0	NWL	-4.16%	CPRT	-2.94%
21.0	CZR	-4.08%	CZR	-2.85%
21.0	CMG	-3.58%	ADBE	-2.84%
21.0	ADBE	-3.18%	TMUS	-2.57%
21.0	CMCSA	-2.82%	UNH	-2.39%
21.0	TMUS	-2.74%	ZTS	-2.37%
21.0	KHC	-2.44%	CMG	-2.25%
21.0	CPRT	-2.23%	KHC	-2.06%
21.0	BBY	-2.01%	IEP	-1.94%
21.0	CNC	-1.65%	BBY	-1.85%
21.0	NAVI	-1.57%	CMCSA	-1.69%
21.0	IEP	-1.46%	VNO	-1.68%
21.0	LW	-1.38%	LW	-1.59%
21.0	FIS	-1.13%	SBUX	-1.55%
21.0	POST	-1.07%	FIS	-1.25%
21.0	UNH	-0.99%	SNY	-1.08%
21.0	VICI	-0.79%	POST	-1.05%
21.0	VNO	-0.78%	MSI	-0.99%
21.0	T	-0.78%	COST	-0.84%
21.0	NFLX	-0.76%	UAA	-0.83%
21.0	MSI	-0.65%	VICI	-0.77%
21.0	VZ	-0.52%	NFLX	-0.77%
21.0	BMY	-0.5%	NAVI	-0.76%
21.0	TDG	-0.37%	FRA	-0.75%
21.0	FRA	-0.33%	OXY	-0.69%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	-33.37%	PRGO	-16.64%
63.0	PRGO	-31.86%	CHTR	-15.12%
63.0	AMC	-29.35%	NWL	-13.33%
63.0	CHTR	-22.98%	AMC	-11.49%
63.0	NWL	-21.11%	CMG	-10.93%
63.0	ZTS	-18.71%	CPRT	-10.84%
63.0	CMCSA	-15.17%	MSTR	-10.4%
63.0	UNH	-14.38%	UNH	-9.29%
63.0	CZR	-10.49%	ZTS	-8.09%
63.0	ADBE	-9.94%	TMUS	-7.75%
63.0	CMG	-9.35%	CZR	-7.71%
63.0	CPRT	-9.27%	CMCSA	-7.01%
63.0	CNC	-8.79%	UAA	-6.81%
63.0	KHC	-7.3%	KHC	-6.6%
63.0	TMUS	-6.71%	ADBE	-6.32%
63.0	UAA	-6.28%	CNC	-5.53%
63.0	GME	-6.15%	IEP	-4.84%
63.0	IEP	-5.2%	POST	-3.79%
63.0	TDG	-4.55%	FIS	-3.7%
63.0	SNY	-4.32%	GME	-3.65%
63.0	FIS	-4.0%	SNY	-3.49%
63.0	MSI	-3.61%	MSI	-3.19%
63.0	BMY	-3.18%	SBUX	-3.16%
63.0	POST	-3.06%	VICI	-2.91%
63.0	VICI	-3.04%	VNO	-2.64%
63.0	NFLX	-2.88%	COST	-2.48%
63.0	T	-2.37%	T	-2.27%
63.0	VZ	-2.29%	VZ	-2.06%
63.0	NAVI	-2.09%	OXY	-1.92%
63.0	VNO	-2.07%	FRA	-1.81%



P365D: 126d

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

Period examined: All model dates from 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	CHTR	-63.06%	CHTR	-36.75%
126.0	MSTR	-60.38%	PRGO	-30.65%
126.0	AMC	-58.23%	CMG	-25.57%
126.0	PRGO	-52.87%	CNC	-25.12%
126.0	CNC	-43.3%	UAA	-24.13%
126.0	CMCSA	-36.38%	MSTR	-22.48%
126.0	NWL	-30.16%	NWL	-22.24%
126.0	UAA	-25.42%	AMC	-20.38%
126.0	ZTS	-24.83%	CPRT	-20.35%
126.0	CZR	-24.55%	GT	-17.88%
126.0	CMG	-23.22%	CZR	-17.74%
126.0	ADBE	-17.57%	ZTS	-14.96%
126.0	UNH	-15.96%	CMCSA	-14.5%
126.0	TDG	-14.52%	ADBE	-13.94%
126.0	IEP	-14.28%	FIS	-13.39%
126.0	FIS	-14.2%	UNH	-13.0%
126.0	CPRT	-13.84%	TMUS	-11.38%
126.0	GME	-13.8%	KHC	-11.01%
126.0	KHC	-12.53%	GME	-9.24%
126.0	GT	-11.51%	IEP	-9.1%
126.0	TMUS	-10.51%	SBUX	-7.49%
126.0	SBUX	-10.27%	POST	-6.64%
126.0	BMY	-8.52%	SNY	-6.37%
126.0	SNY	-8.0%	COST	-5.75%
126.0	NAVI	-6.97%	NAVI	-5.26%
126.0	POST	-4.98%	TDG	-5.13%
126.0	GWW	-4.71%	BMY	-4.68%
126.0	HON	-4.61%	VICI	-4.42%
126.0	MSI	-4.42%	HON	-4.25%
126.0	COST	-4.26%	GWW	-3.83%



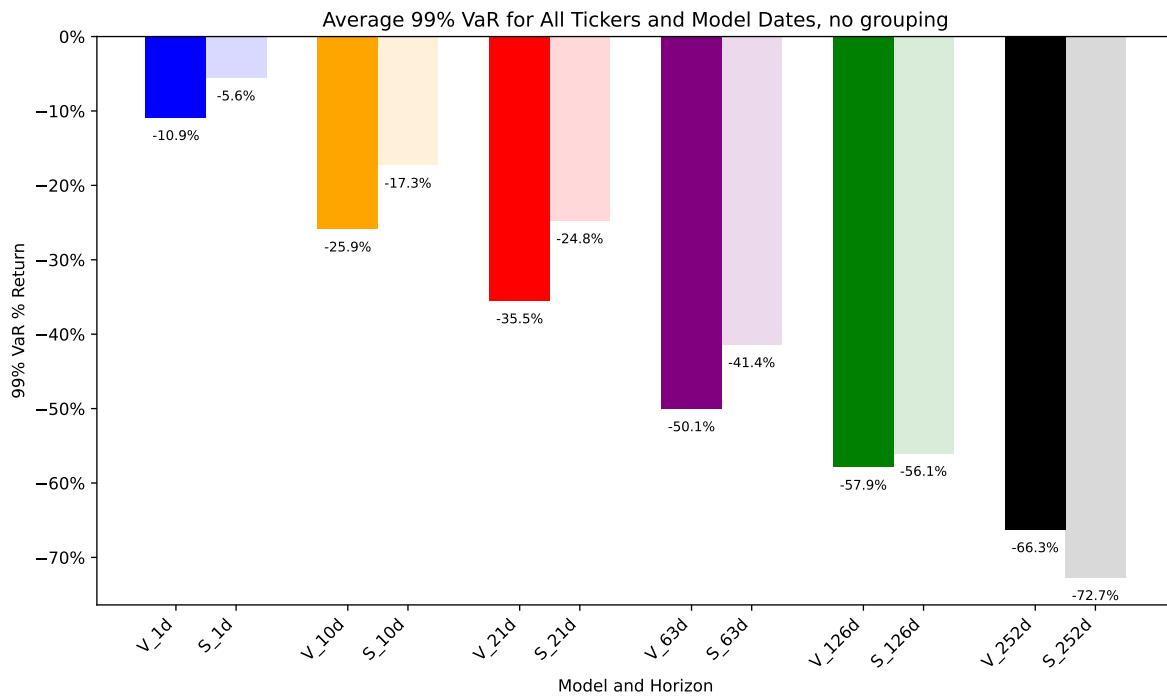
99% Value at Risk (VaR)

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.

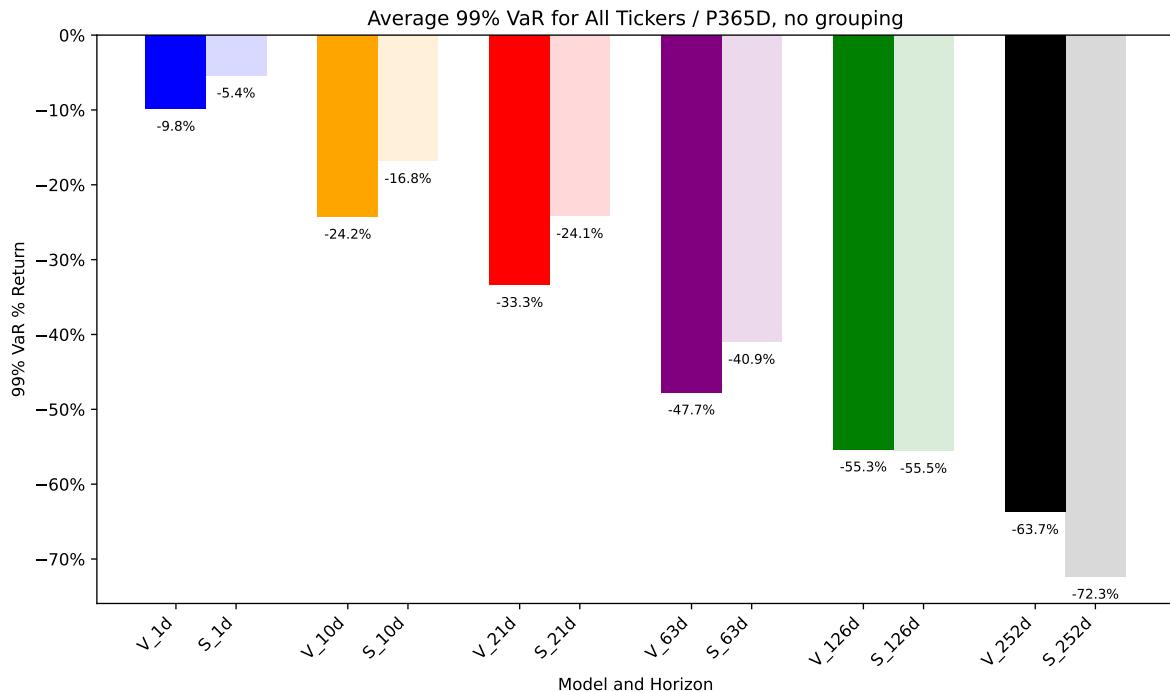
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-01-29



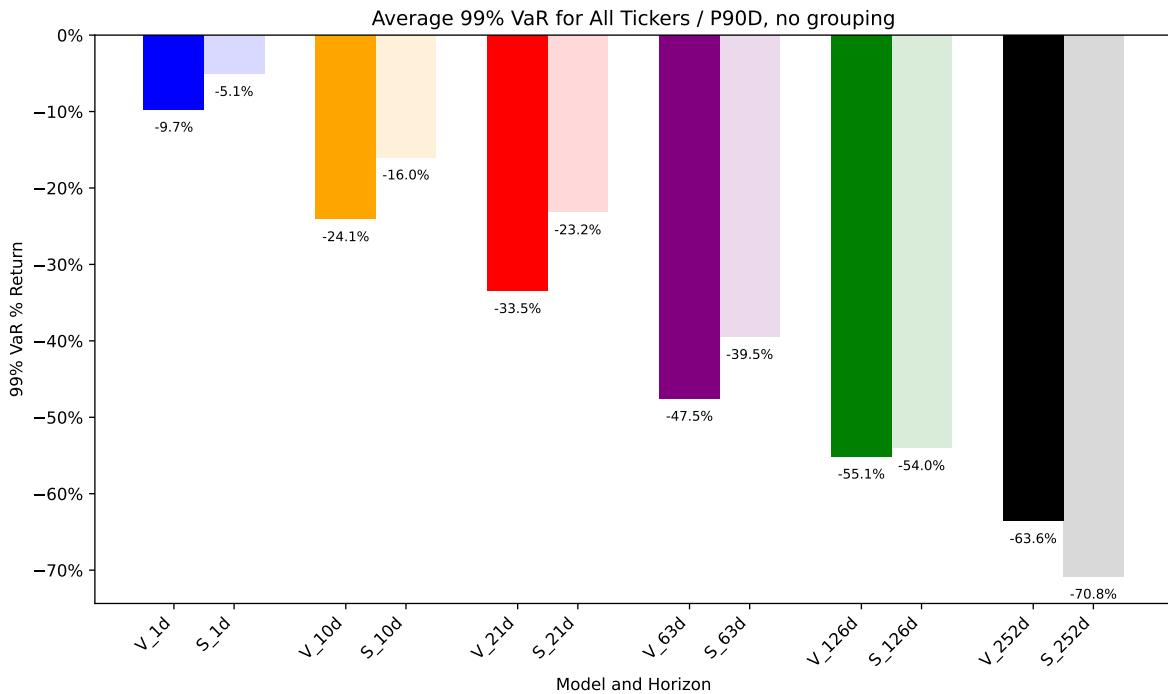
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-01-29 through 2025-02-03



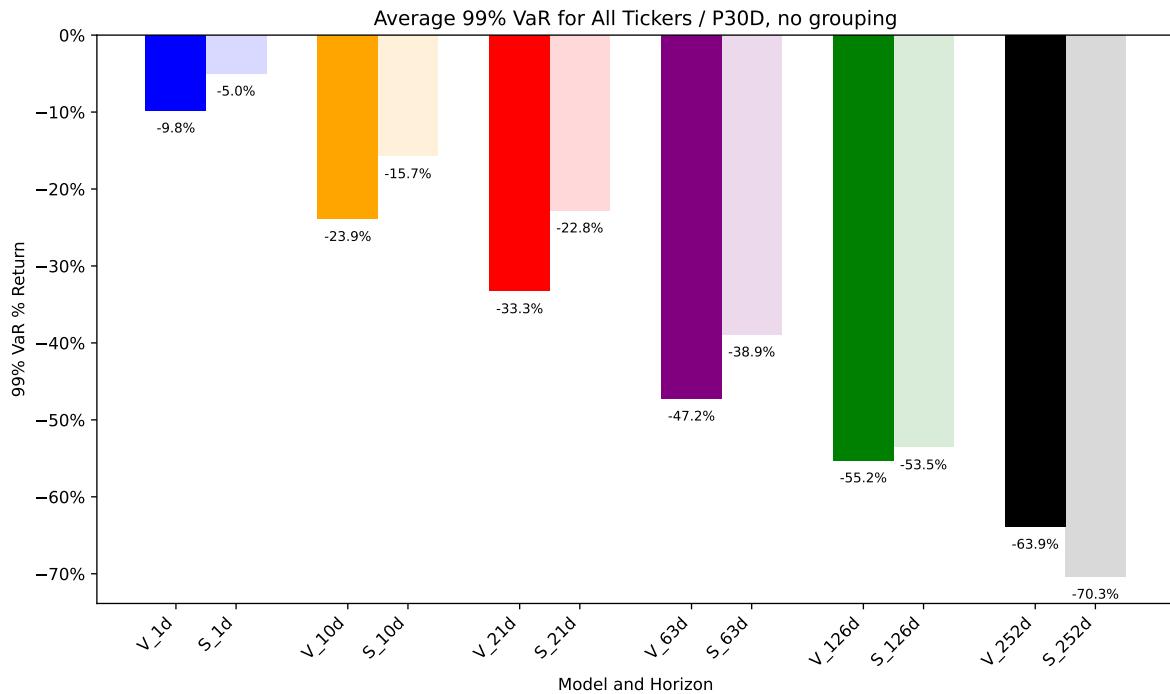
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-01-29 through 2025-11-03



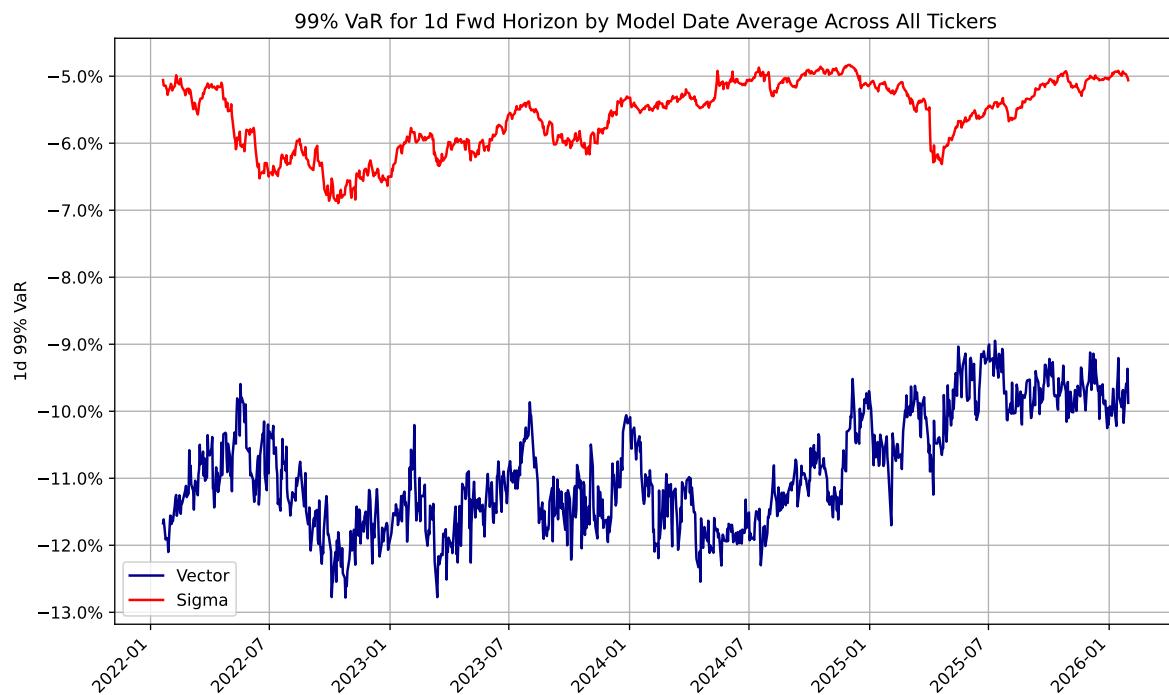
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-01-29 through 2026-01-02

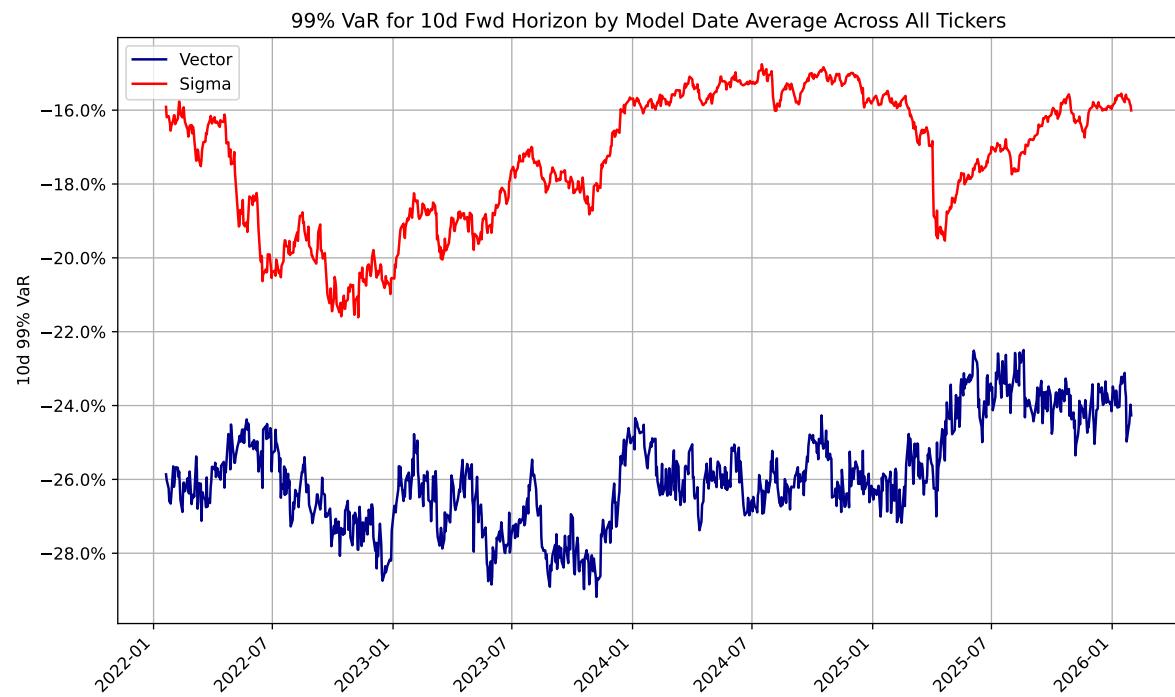


Daily Levels

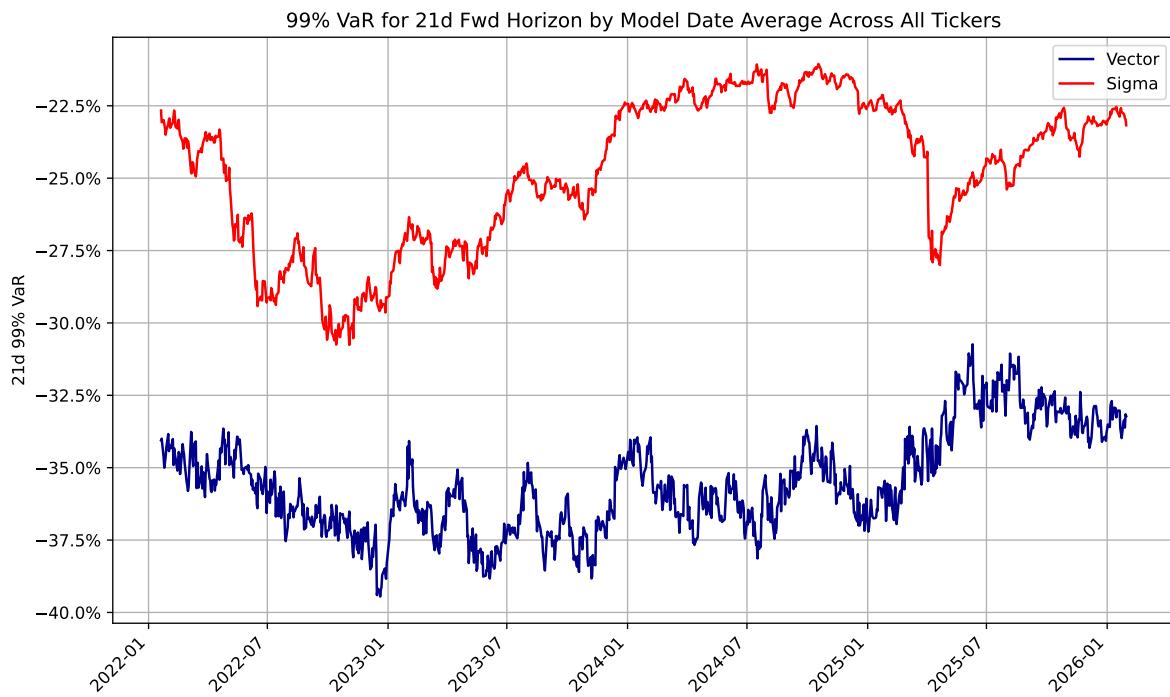
1d Horizon



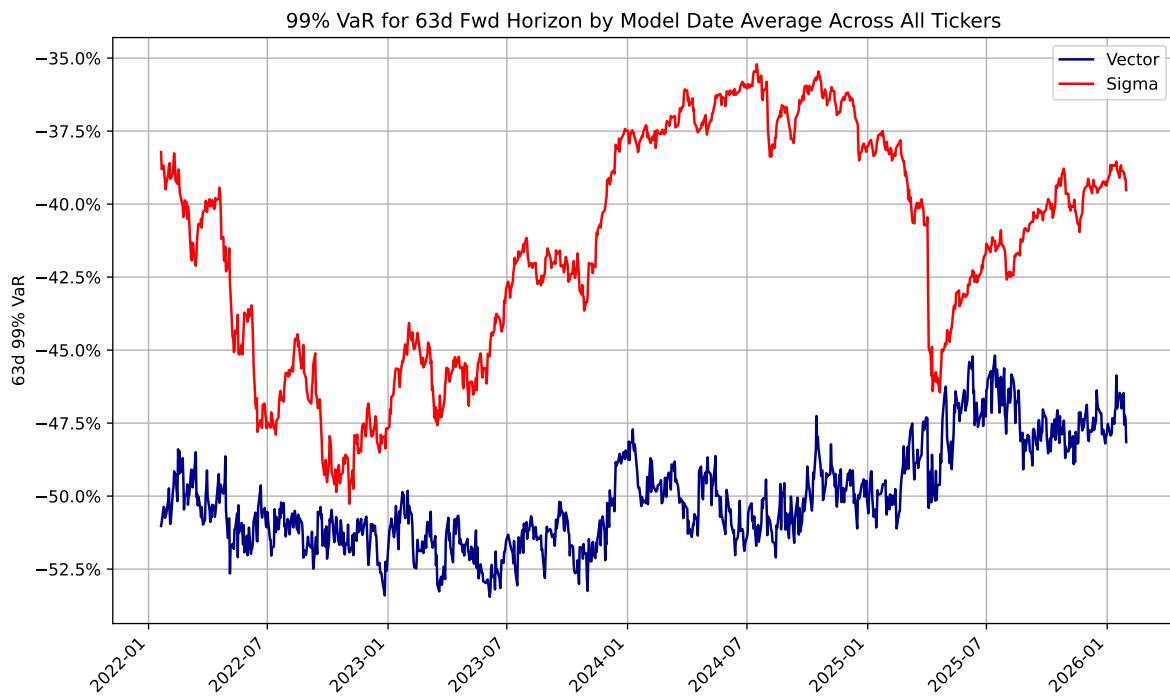
10d Horizon



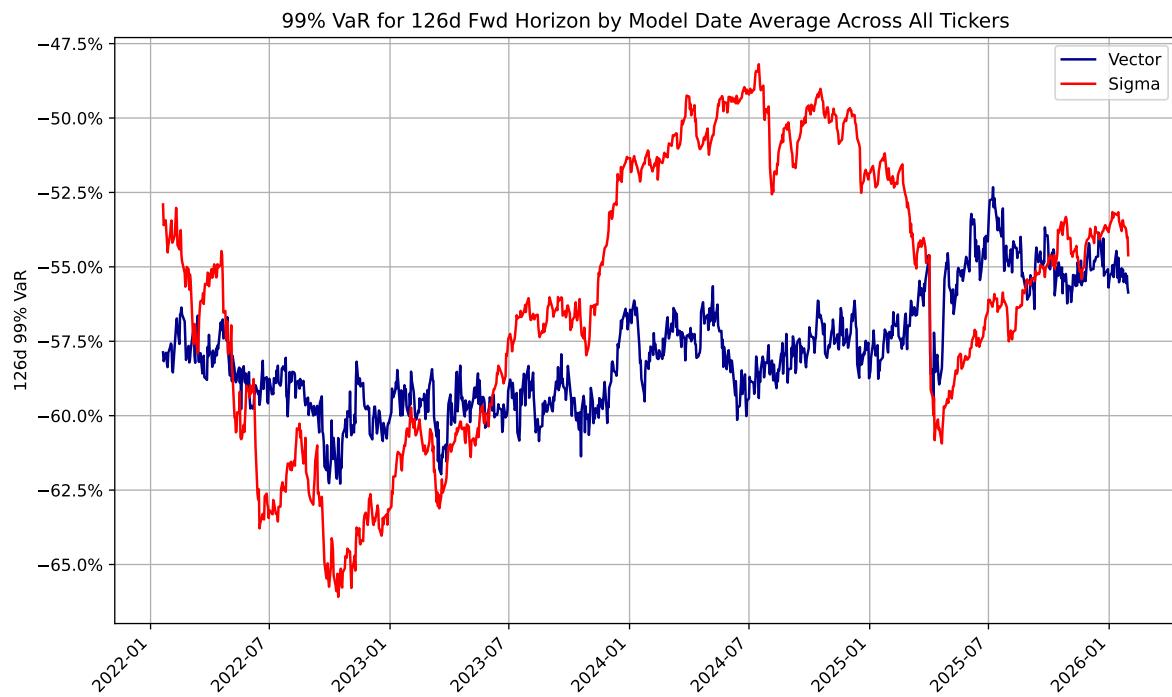
21d Horizon



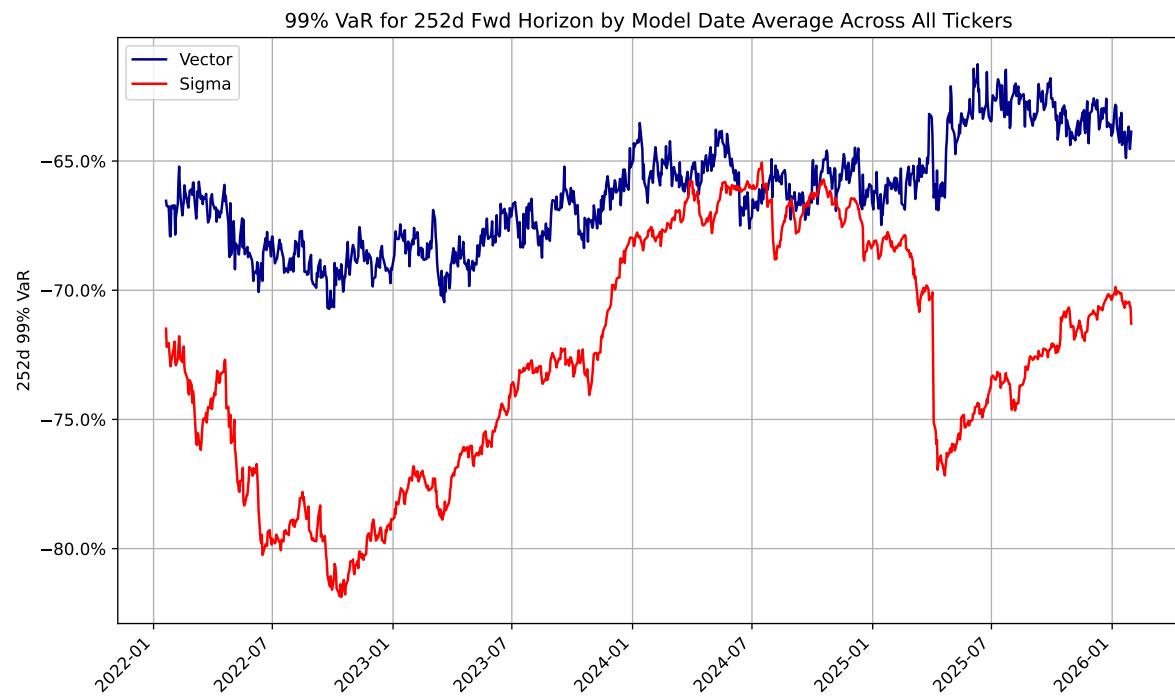
63d Horizon



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 facilitate 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 evaluated 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.

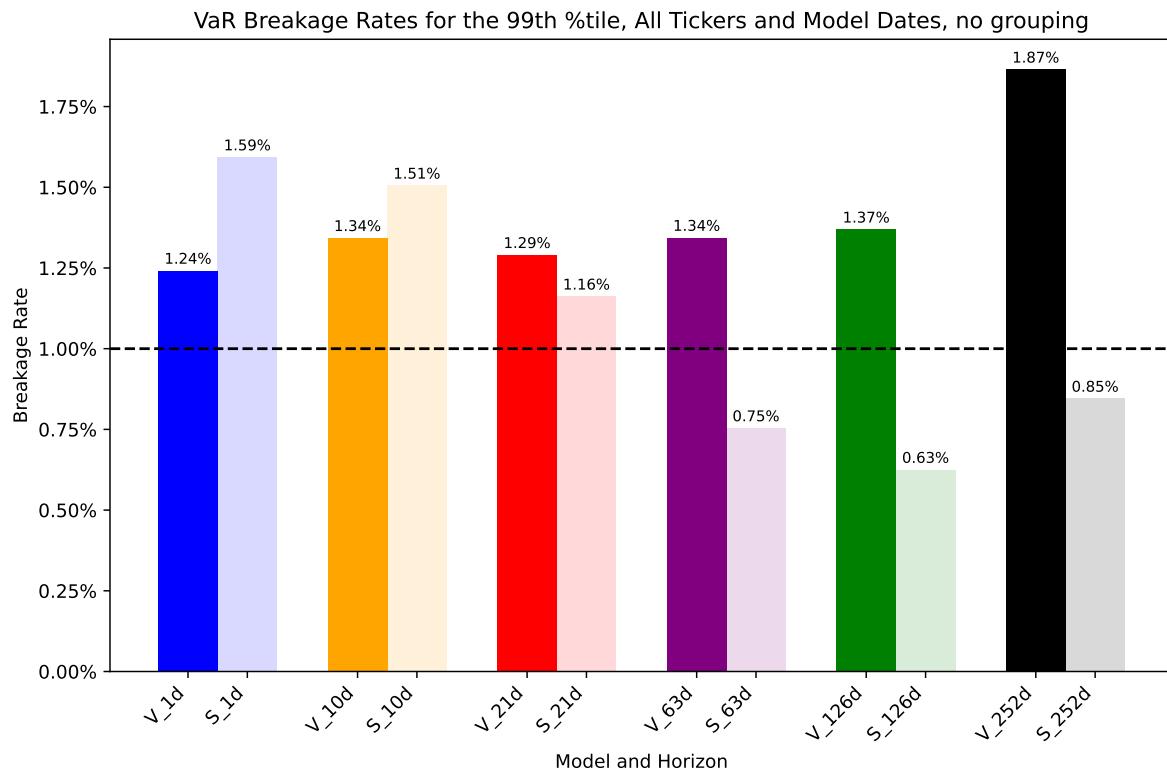
Alpha allows us to isolate ROVBC performance differences between the Vector Model and Sigma apart from any systematic difference between the ROVBC multiplier for the Vector Model and 1.00x. Alpha across TMD's could be driven by VaR differentials between tickers and / or between dates. Thus we also present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

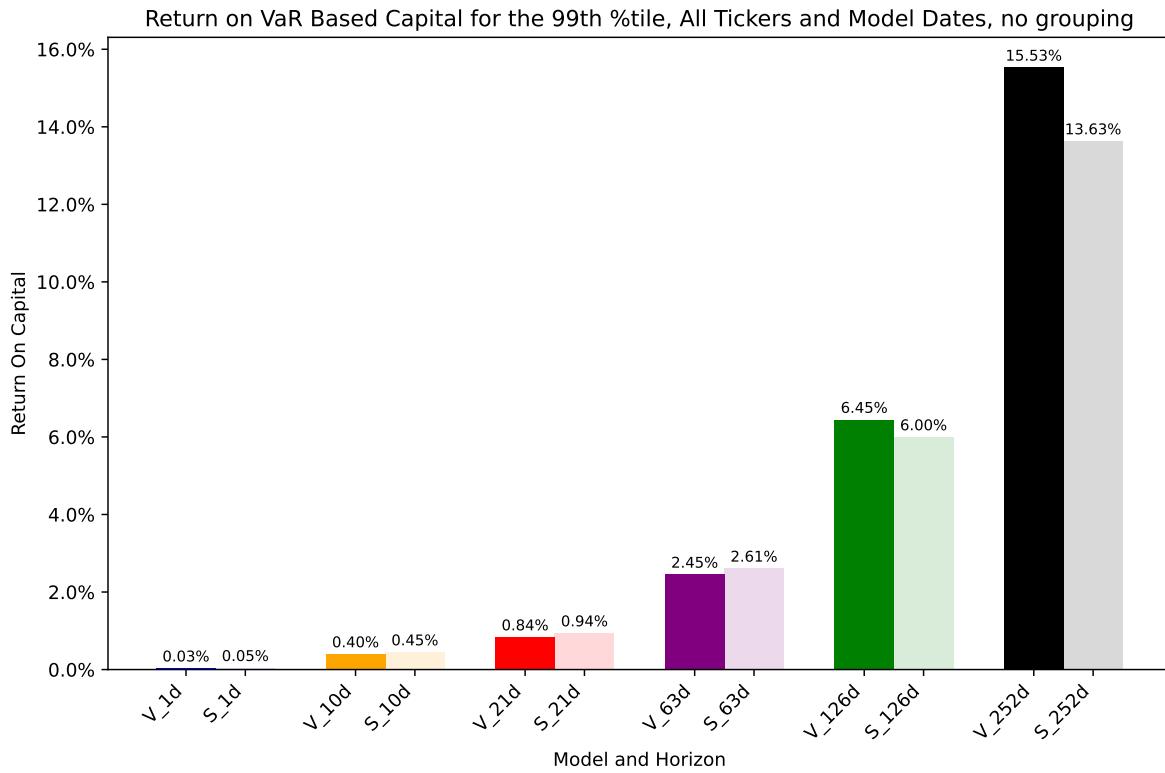
Results for each horizon reflect the average for all model estimates for that horizon from all model dates for which forward performance is known. Note that periods for all horizons $> 1d$ overlap.



All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-01-29





Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns across TMD's:

	1d	10d	21d	63d	126d	252d
intercept	-0.01%	-0.07%	-0.16%	-0.40%	-0.79%	-0.84%
intercept_p_value	12.20%	0.00%	0.00%	0.00%	0.00%	0.00%
slope	89.11%	103.42%	106.31%	109.17%	120.66%	120.11%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

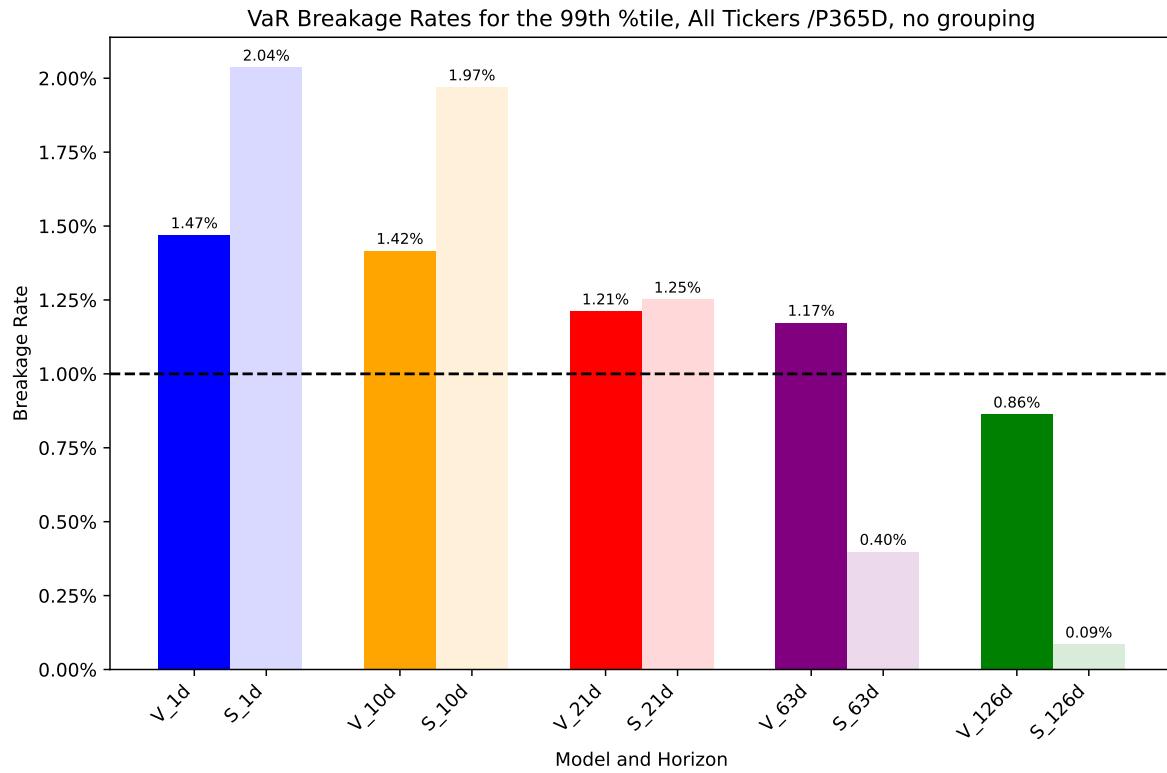
Average Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns, by ticker across Model Dates:

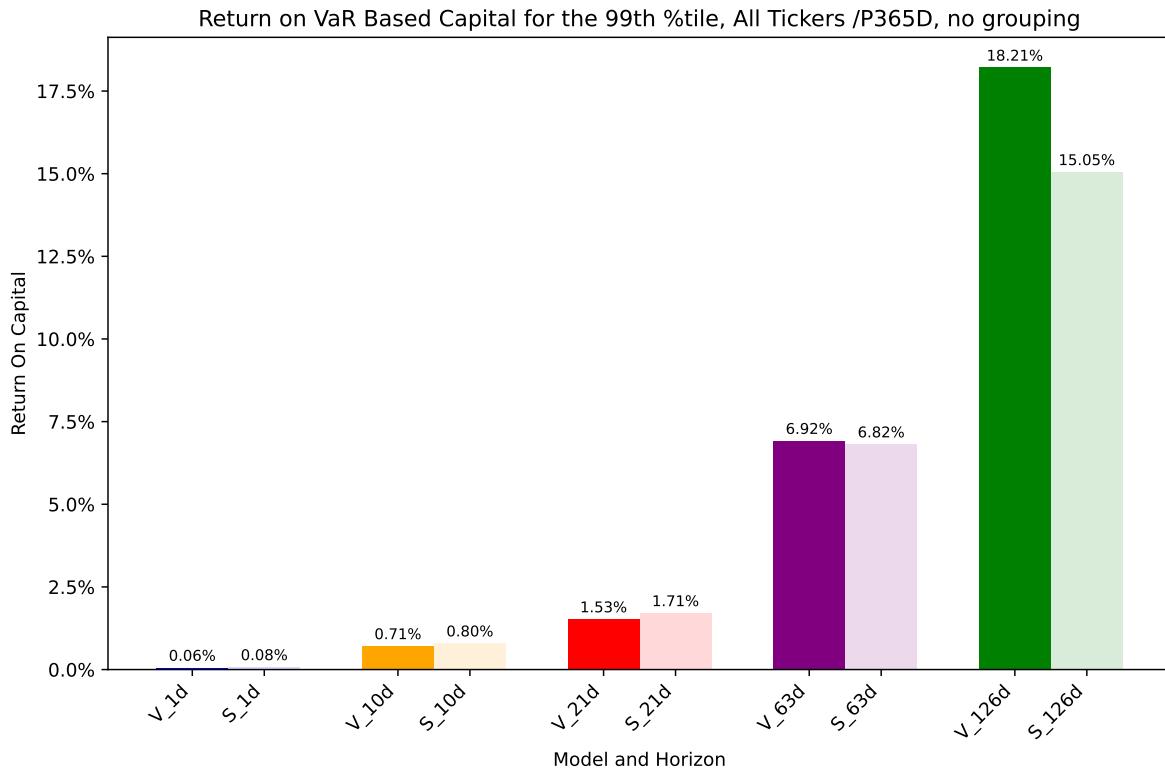
	1d	10d	21d	63d	126d	252d
intercept	-0.04%	-0.20%	-0.55%	-2.12%	-4.04%	-5.11%
intercept_p_value	0.00%	0.13%	0.01%	0.00%	0.00%	0.13%
slope	162.44%	147.01%	164.19%	179.27%	177.75%	162.38%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2026-01-29 through 2025-02-03





Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns across P365D:

	1d	10d	21d	63d	126d
intercept	-0.00%	0.01%	-0.03%	-0.31%	-1.69%
intercept_p_value	65.76%	76.79%	25.22%	0.00%	0.00%
slope	80.14%	88.76%	91.18%	106.04%	132.23%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

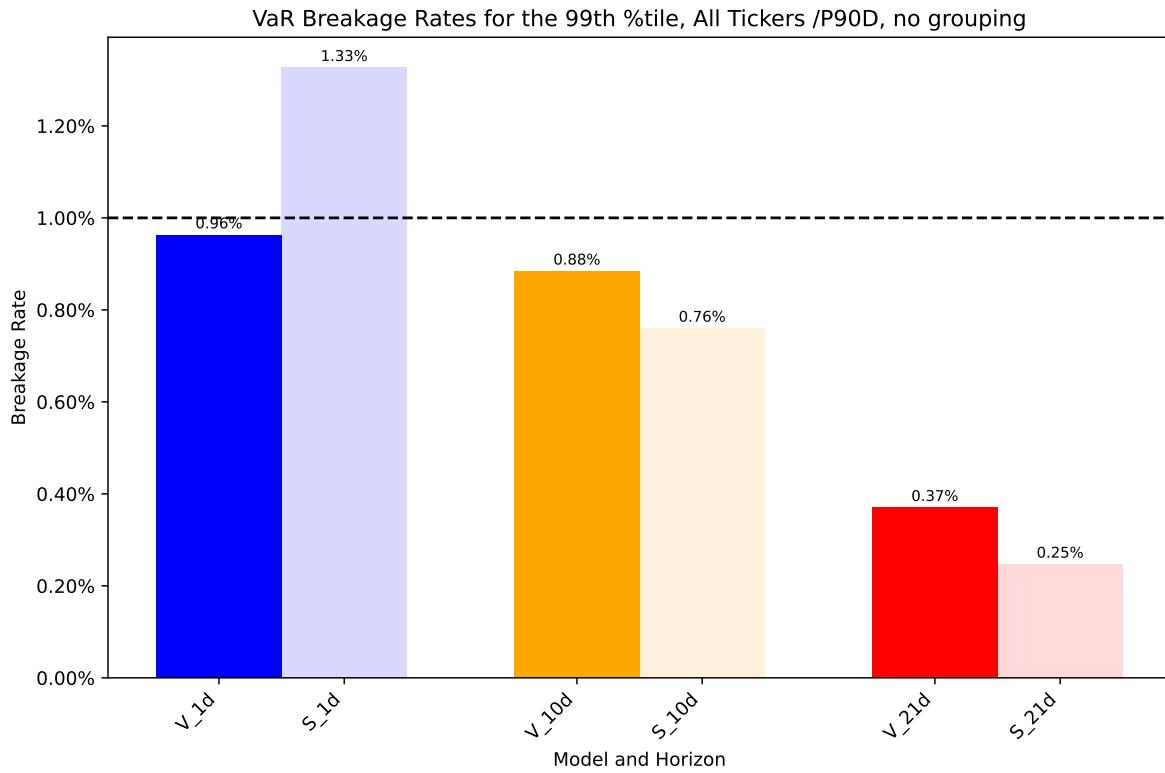
Average Alpha (intercept) and Beta (slope) of Vector Model R0VBC regressed upon corresponding actual returns, by ticker across P365D:

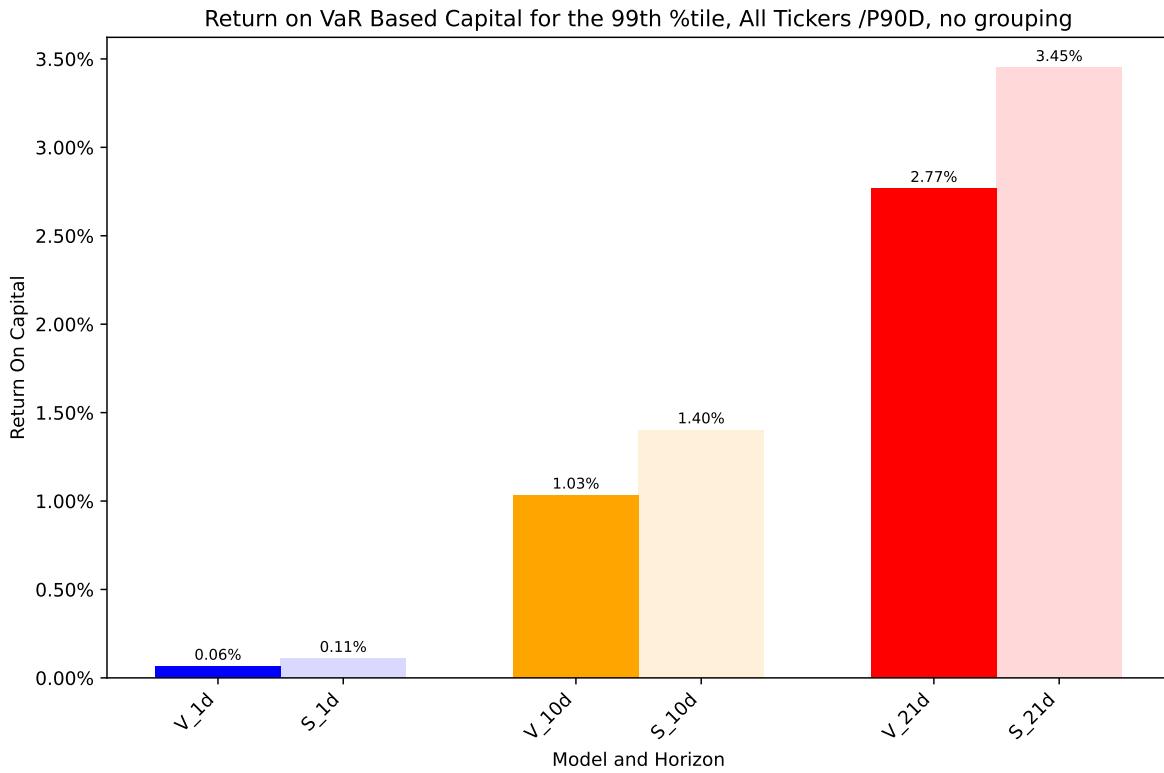
	1d	10d	21d	63d	126d
intercept	-0.00%	-0.01%	-0.07%	-1.31%	-3.31%
intercept_p_value	93.10%	94.14%	67.36%	1.62%	0.83%
slope	94.36%	112.60%	121.26%	136.26%	156.41%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-01-29 through 2025-11-03





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

	1d	10d	21d
intercept	-0.02%	-0.20%	-0.07%
intercept_p_value	16.83%	0.00%	17.66%
slope	75.18%	87.67%	82.31%
slope_p_value	0.00%	0.00%	0.00%

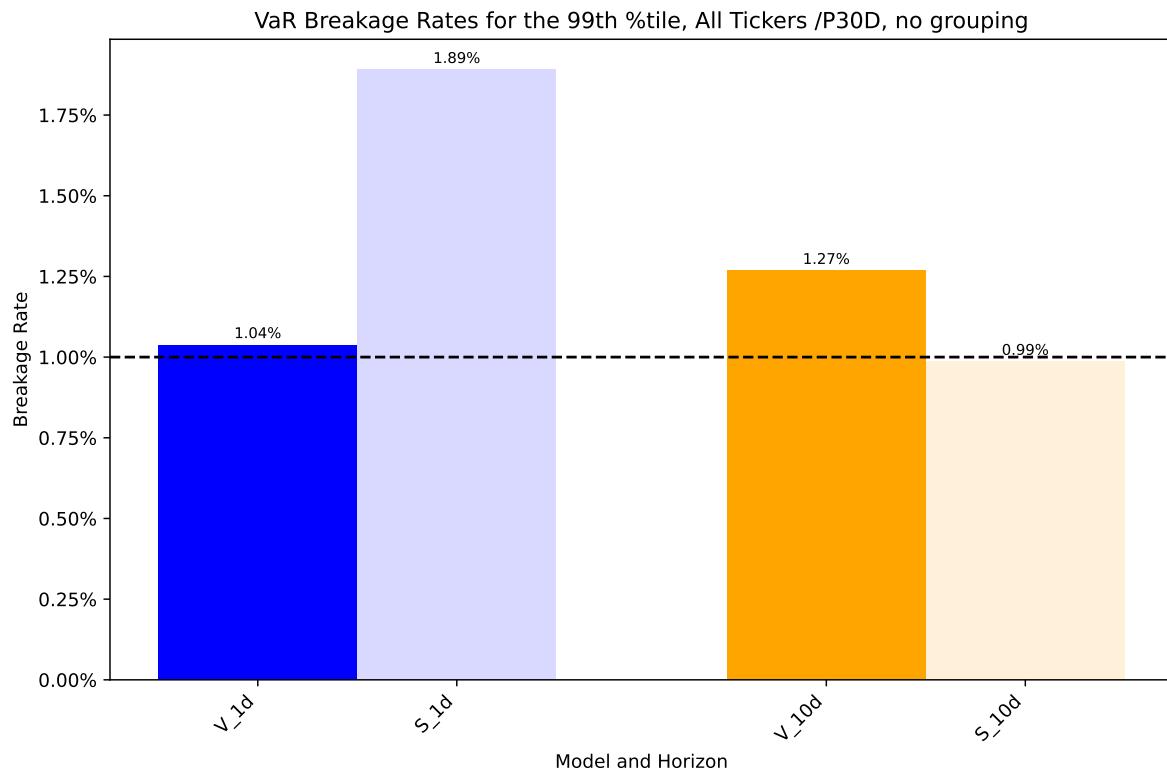
Average Alpha (intercept) and Beta (slope) of Vector Model ROVBC regressed upon corresponding actual returns, by ticker across P90D:

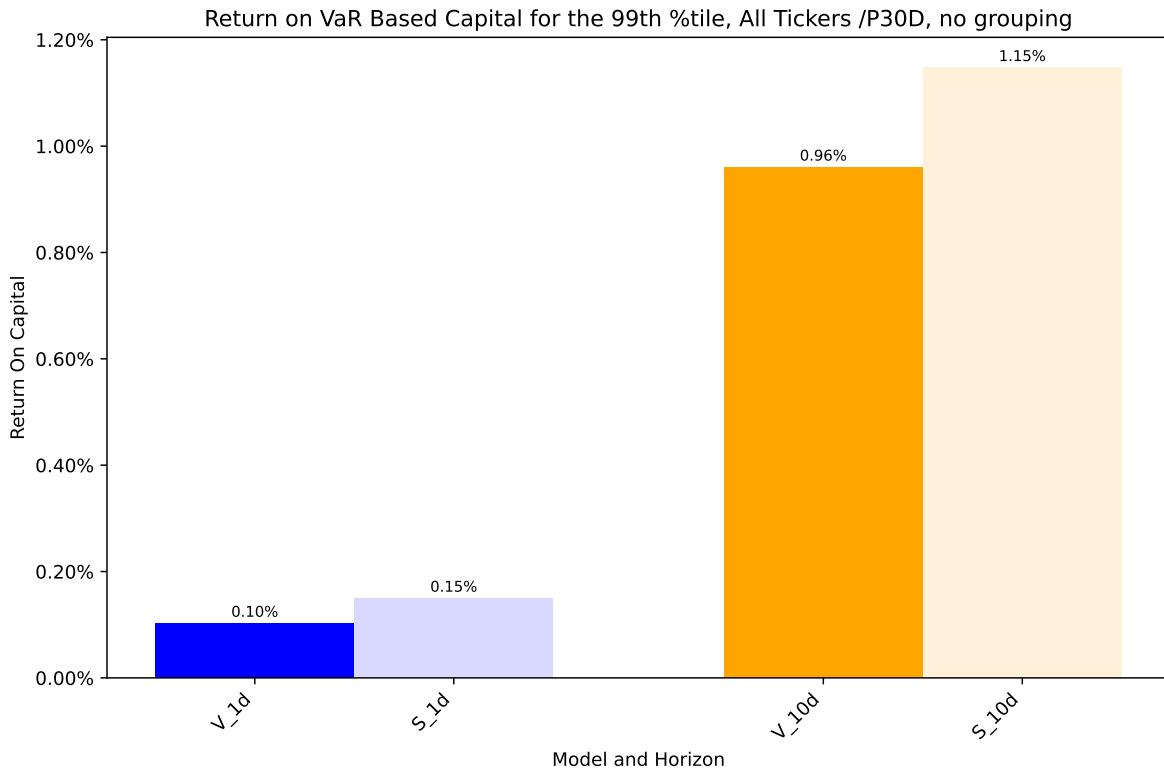
	1d	10d	21d
intercept	-0.02%	-0.08%	-0.09%
intercept_p_value	43.50%	66.82%	78.86%
slope	94.45%	101.68%	103.97%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-01-29 through 2026-01-02





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

	1d	10d
intercept	-0.01%	-0.03%
intercept_p_value	56.07%	71.73%
slope	78.27%	86.65%
slope_p_value	0.00%	0.00%

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

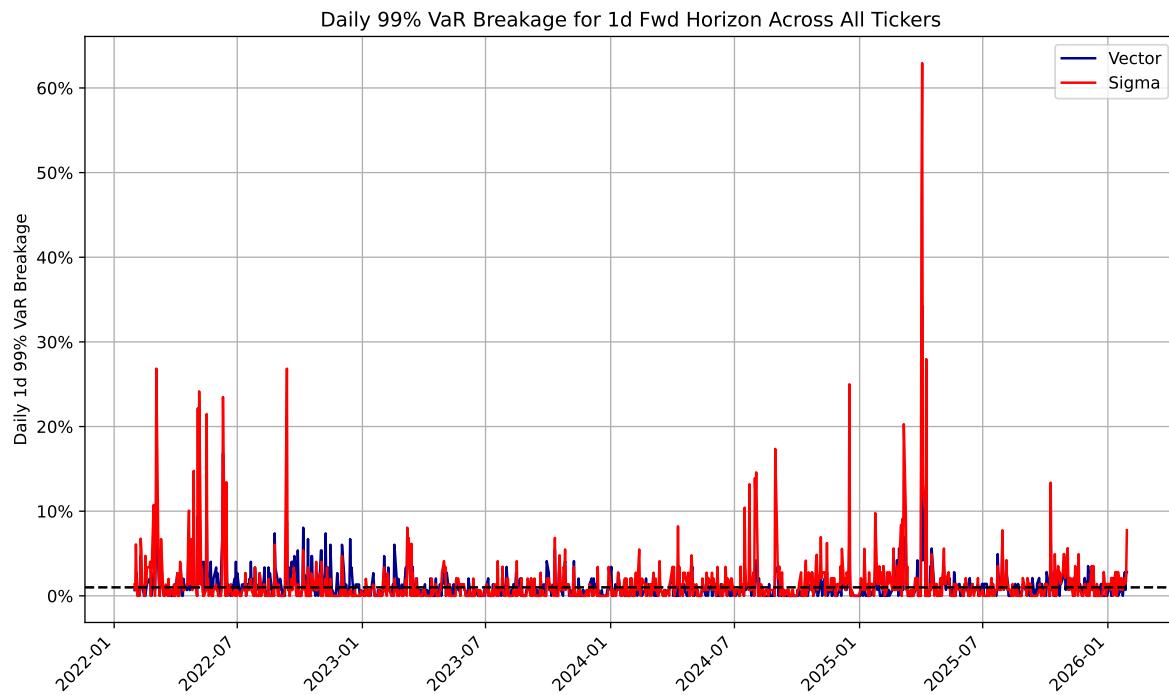
	1d	10d
intercept	-0.00%	0.07%
intercept_p_value	90.91%	78.37%
slope	93.86%	104.16%
slope_p_value	0.00%	0.00%

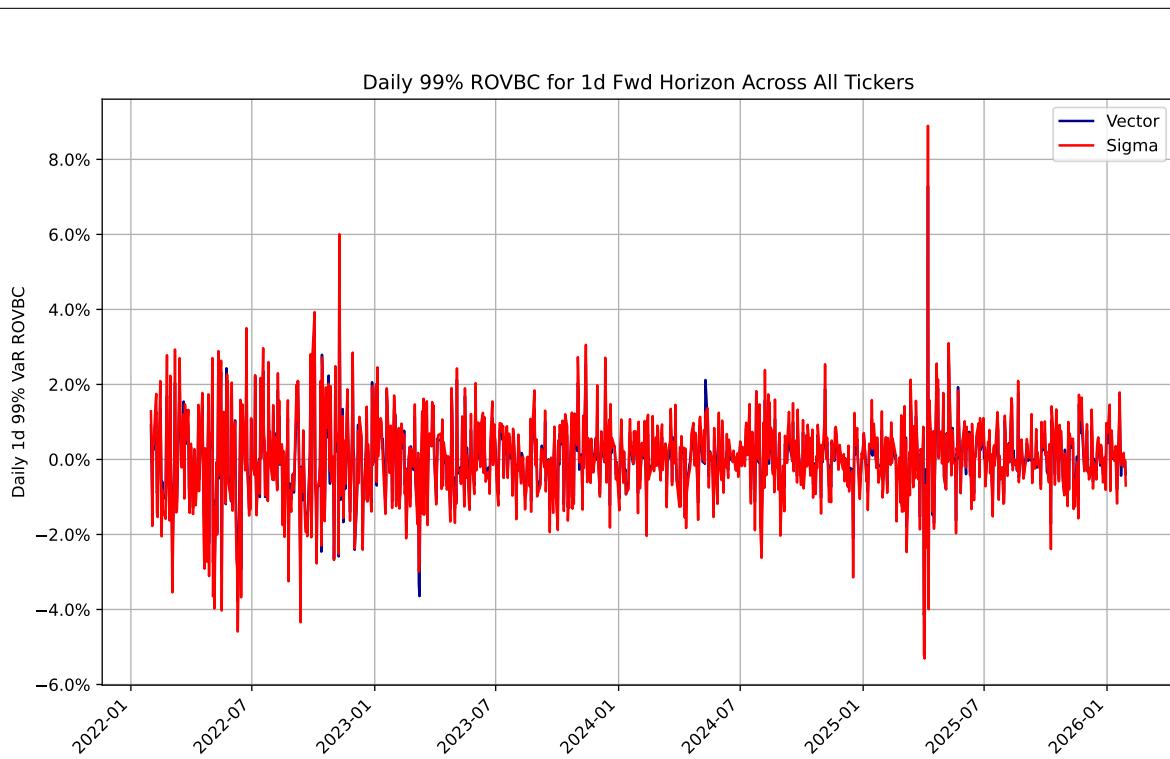


Daily Performance

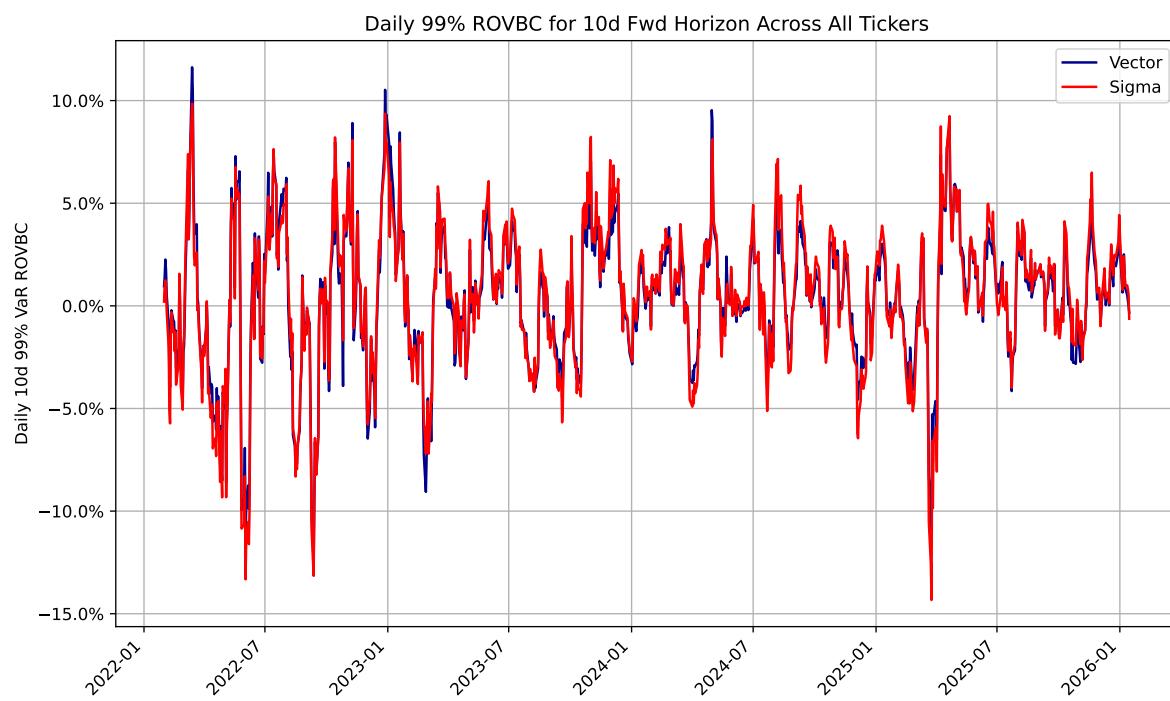
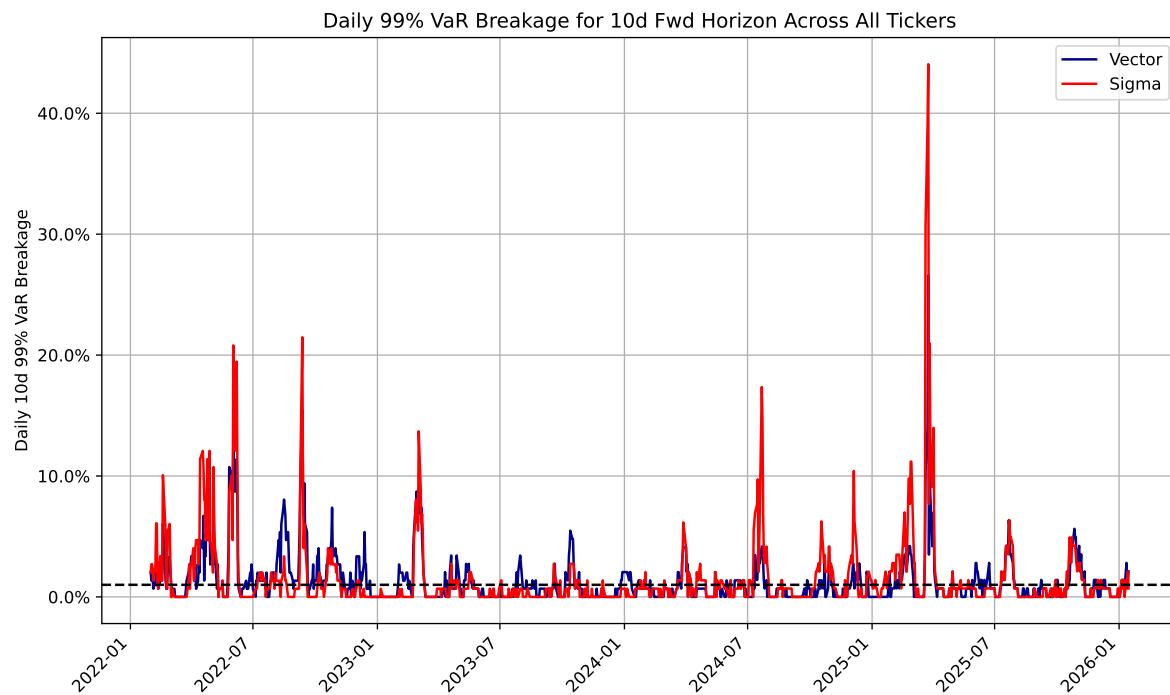
Here we look at the daily breakage and ROVBC statistics summarized in the preceding section. The daily basis of the presentation allows for observation of the magnitude, frequency and proximity of breakage and ROVBC outliers.

1d Horizon

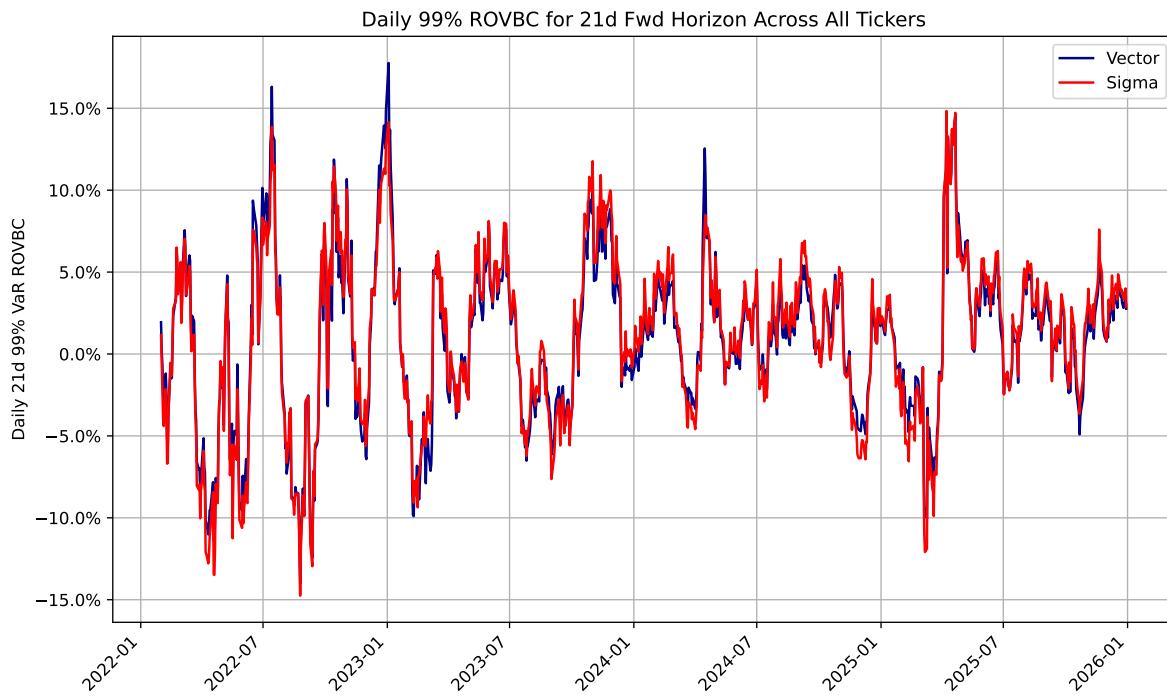
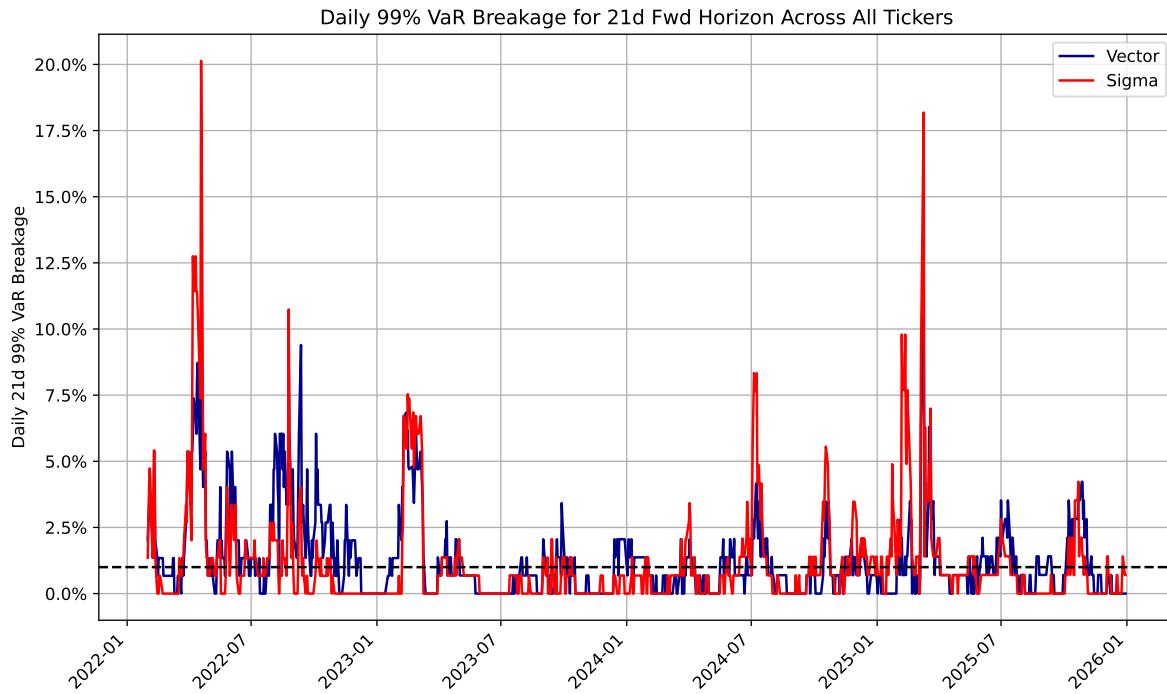




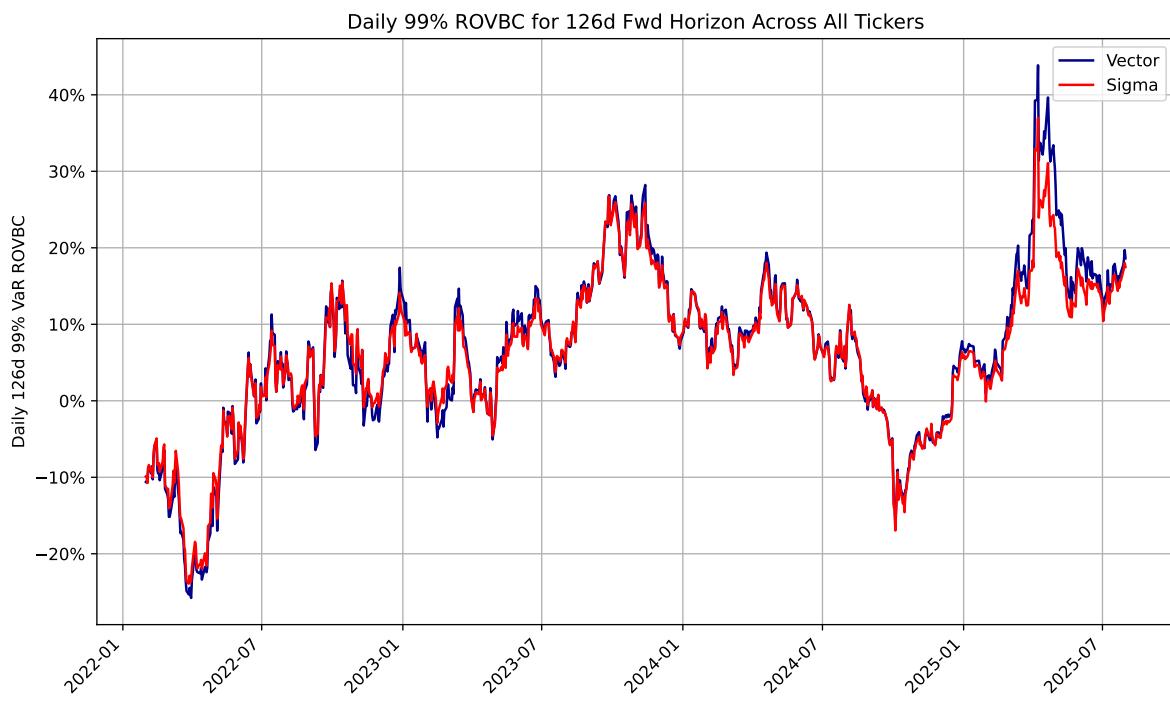
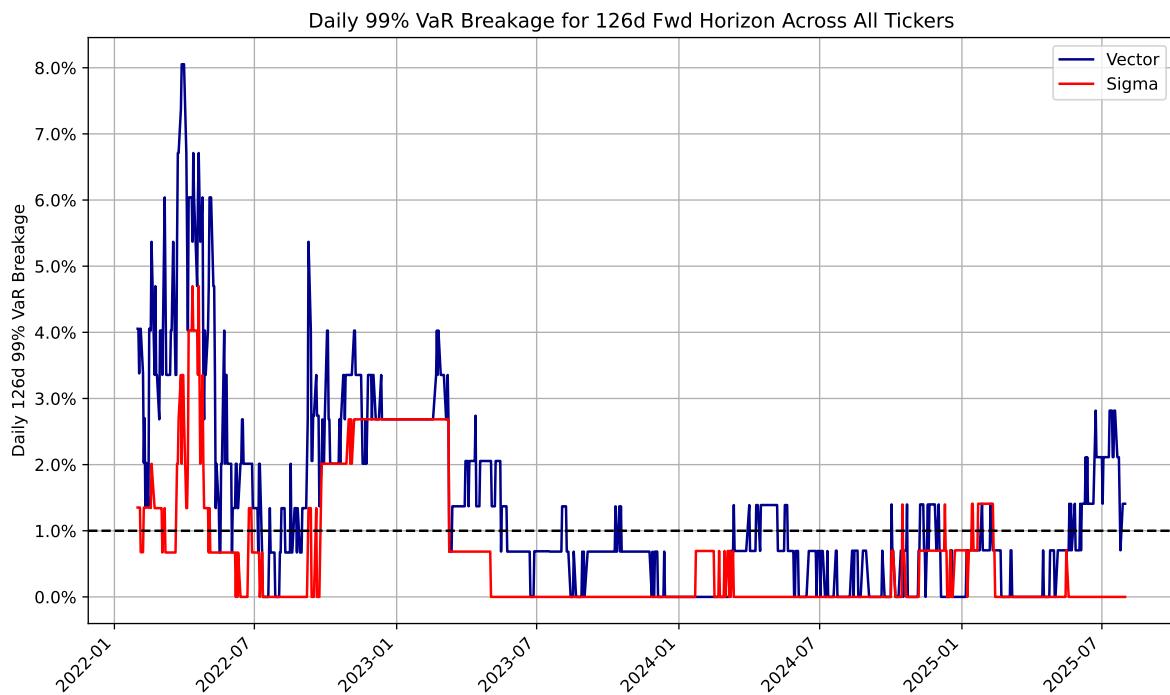
10d Horizon



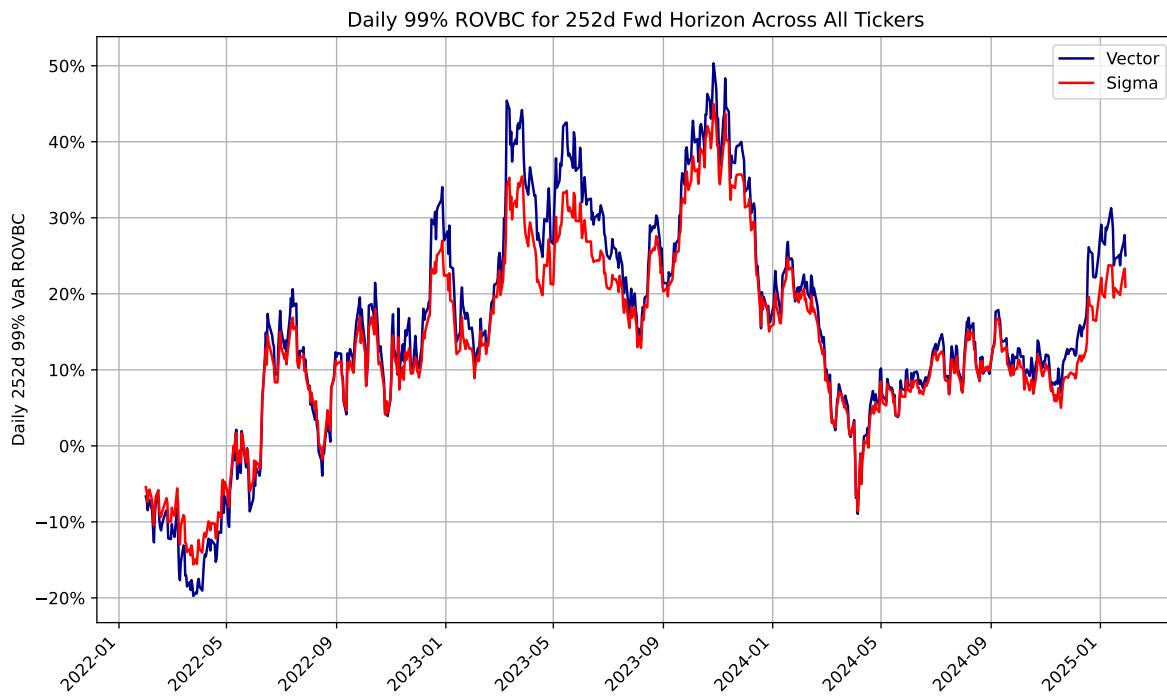
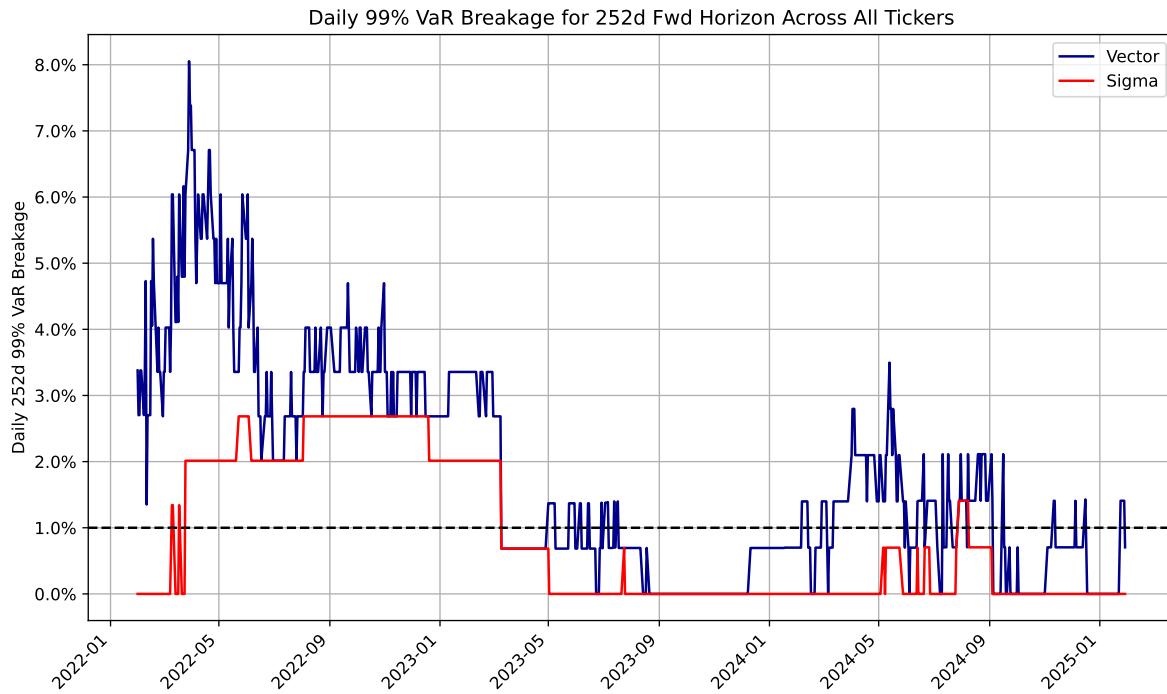
21d Horizon



63d Horizon



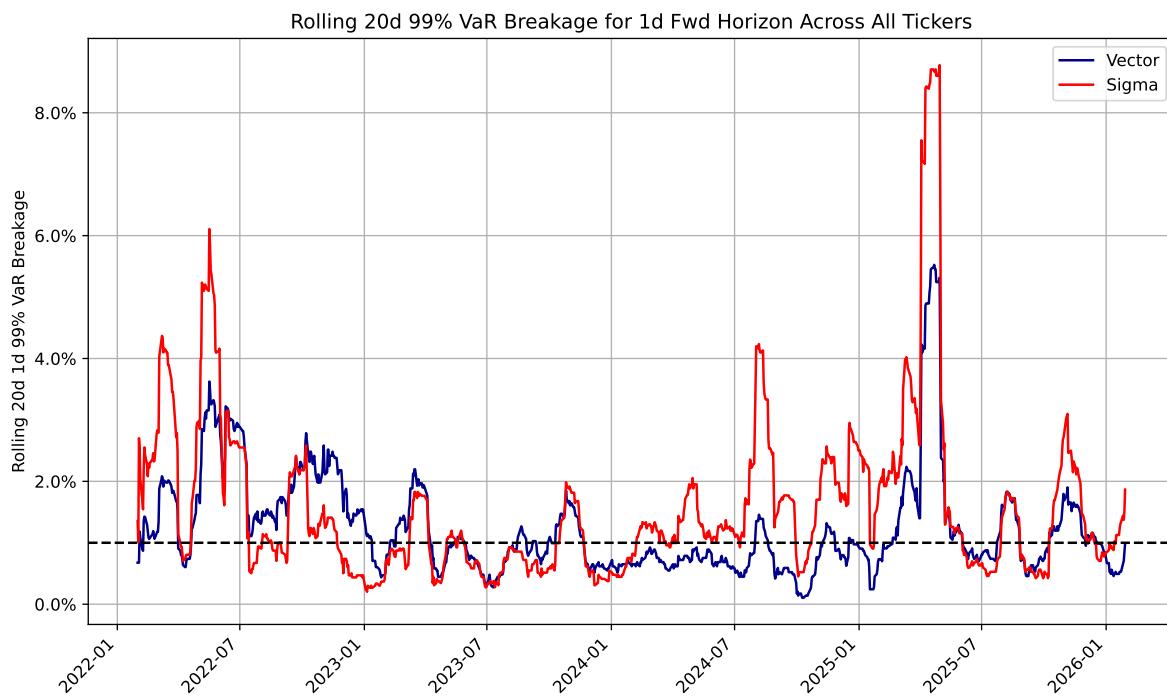
252d Horizon

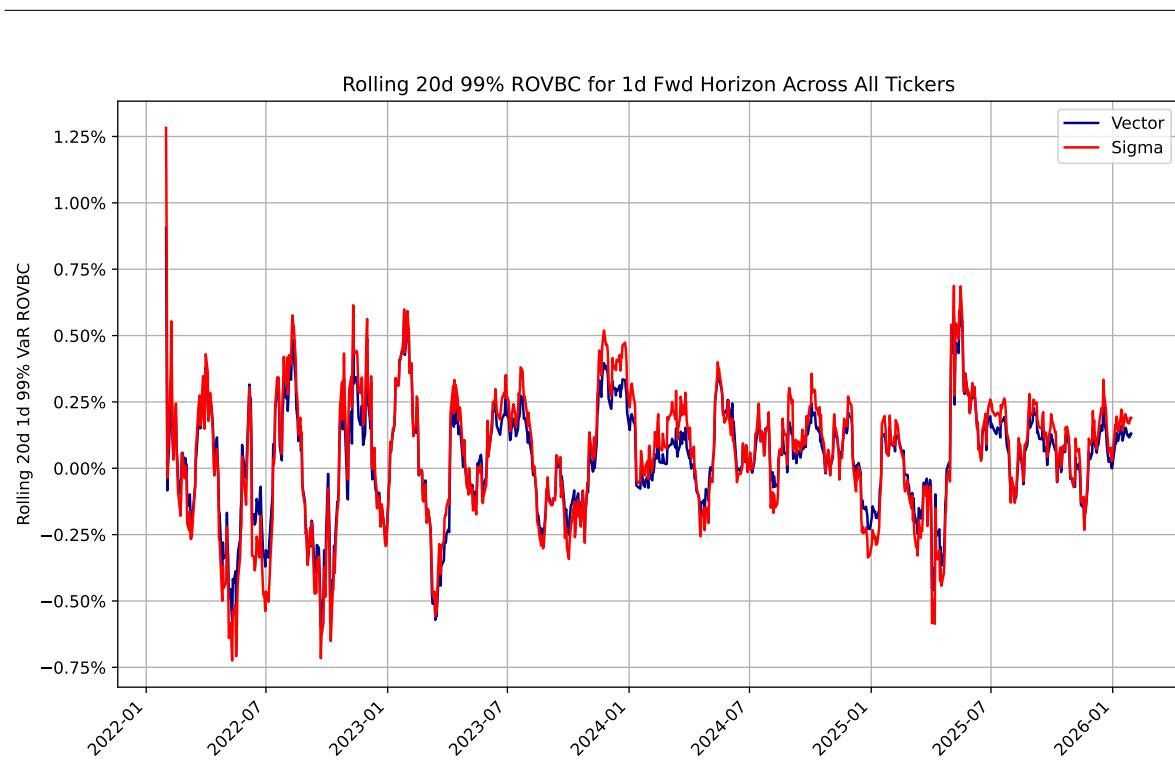


Rolling 20d Performance

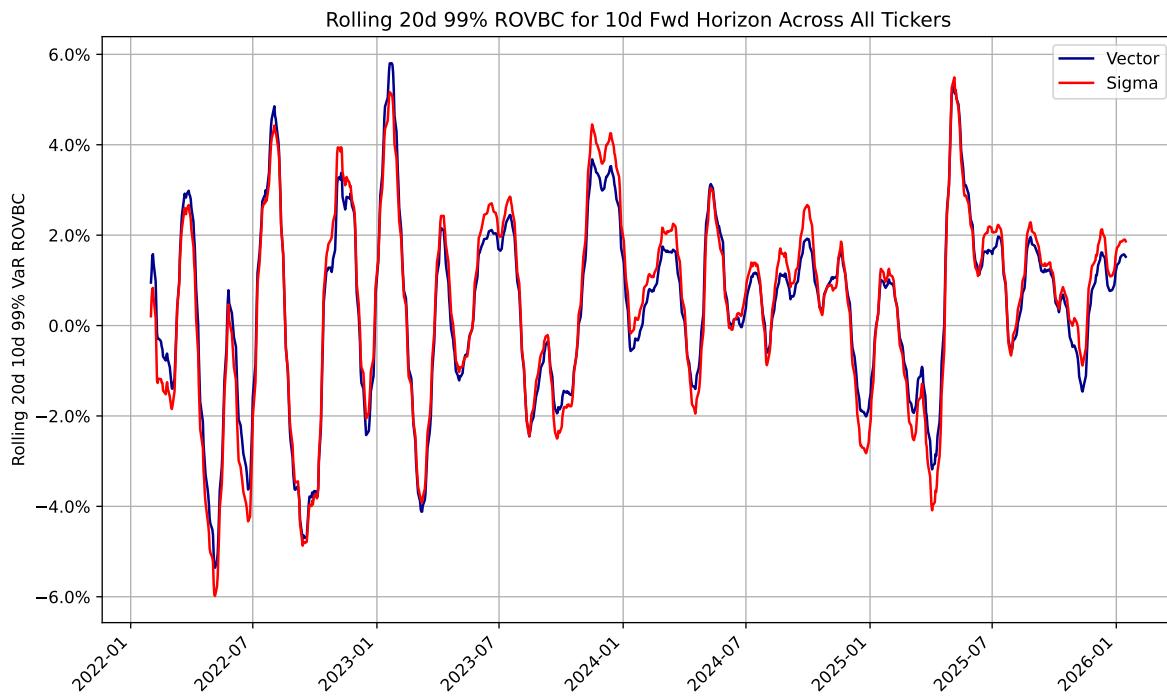
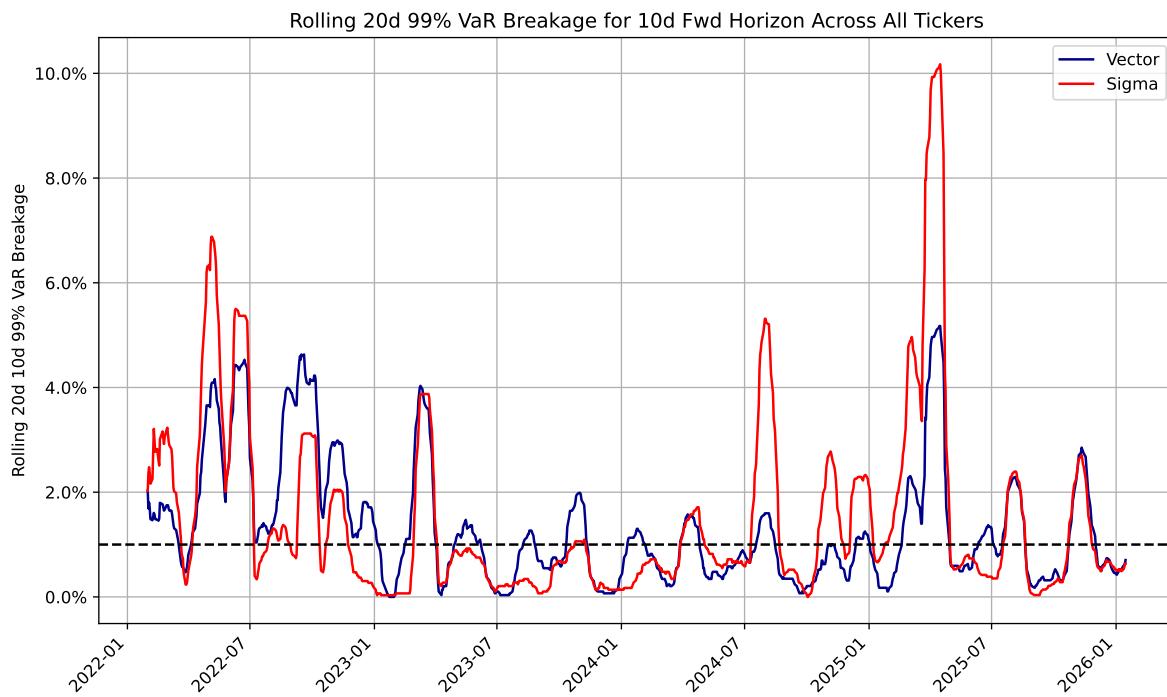
Here we look at 20 day rolling moving averages of the breakage and ROVBC statistics summarized in the preceding section. These 20day moving averages are averages of daily averages across all tickers.

1d Horizon

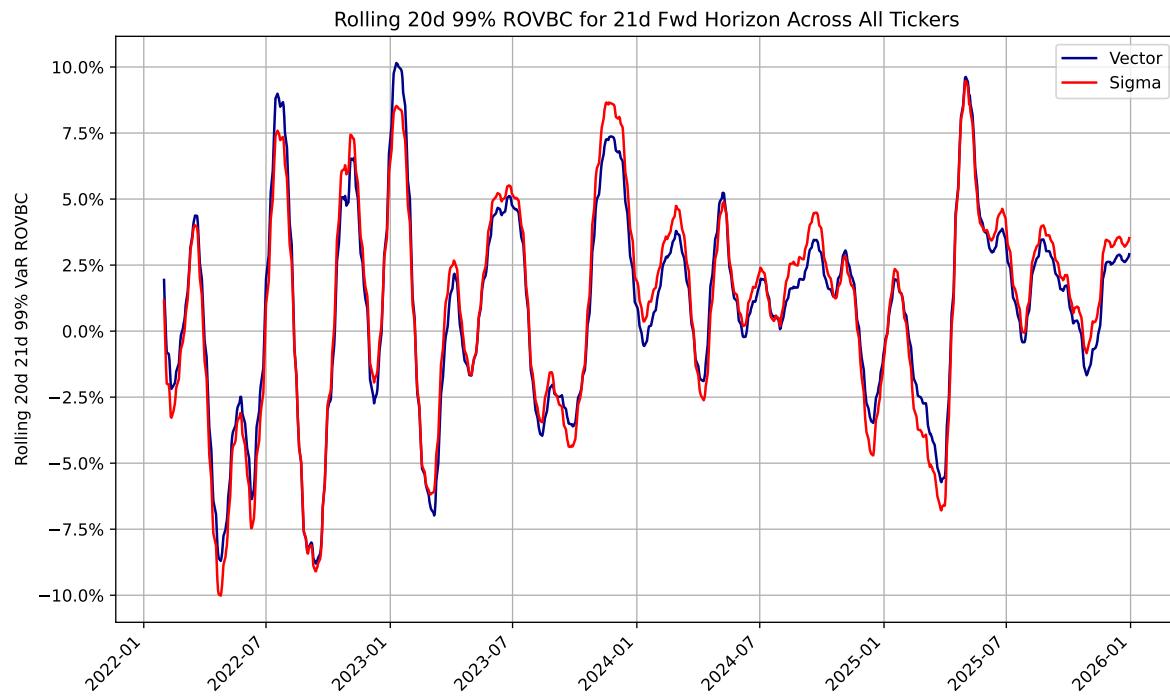
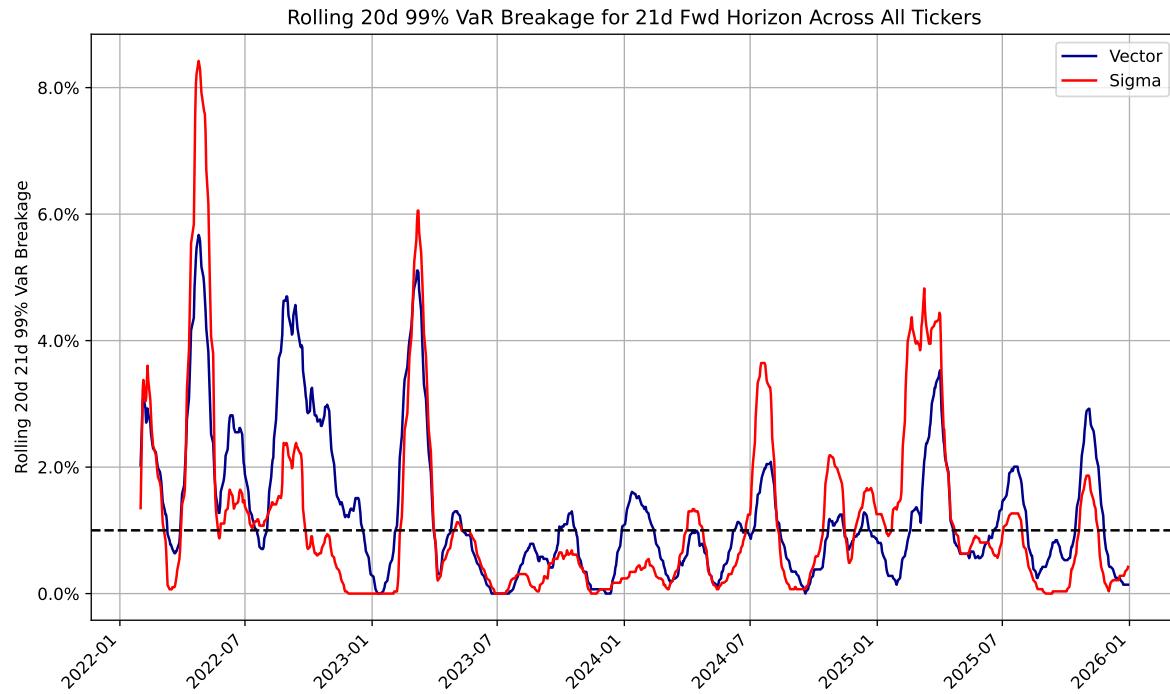




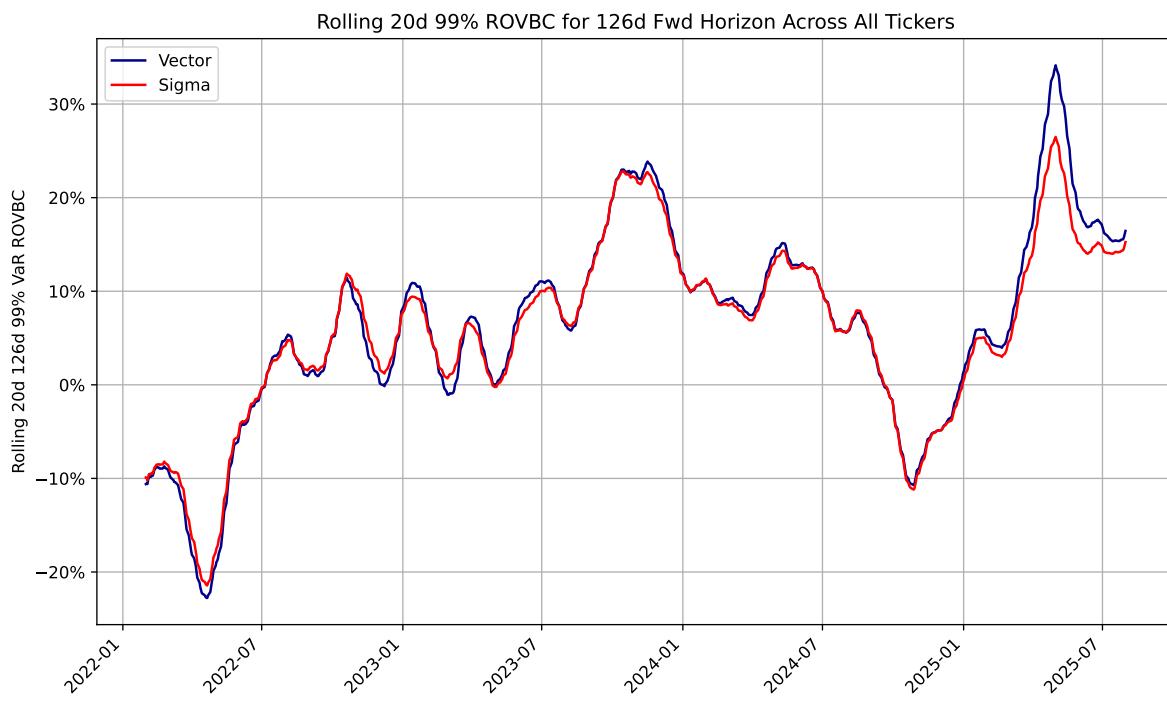
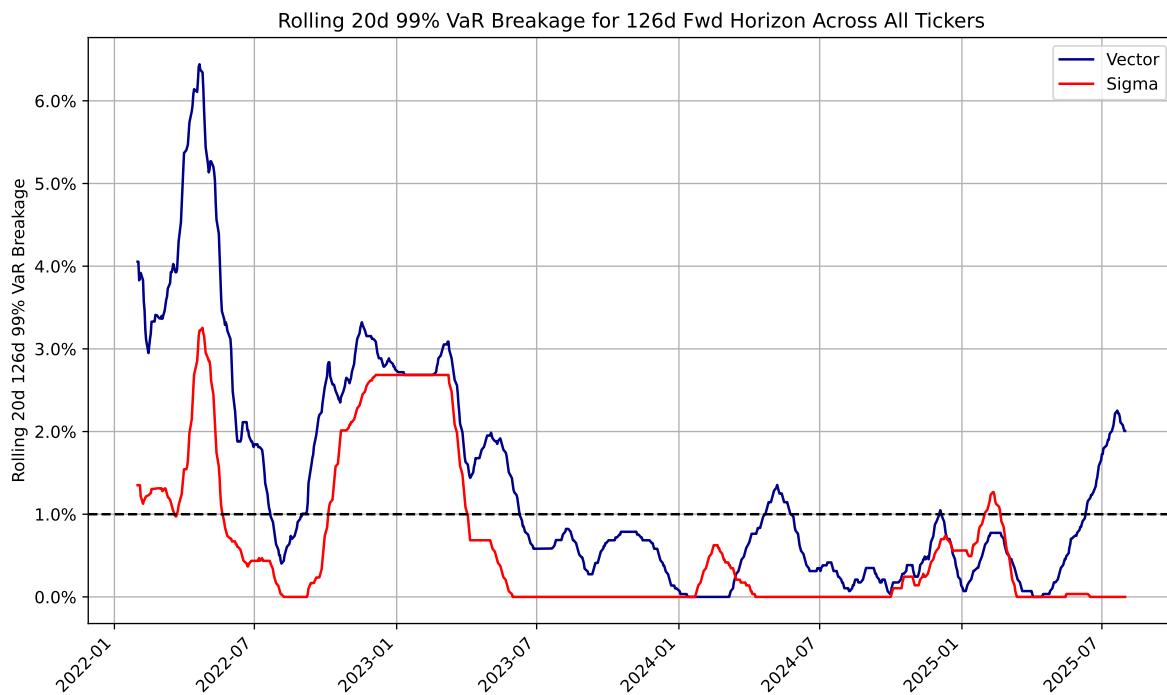
10d Horizon



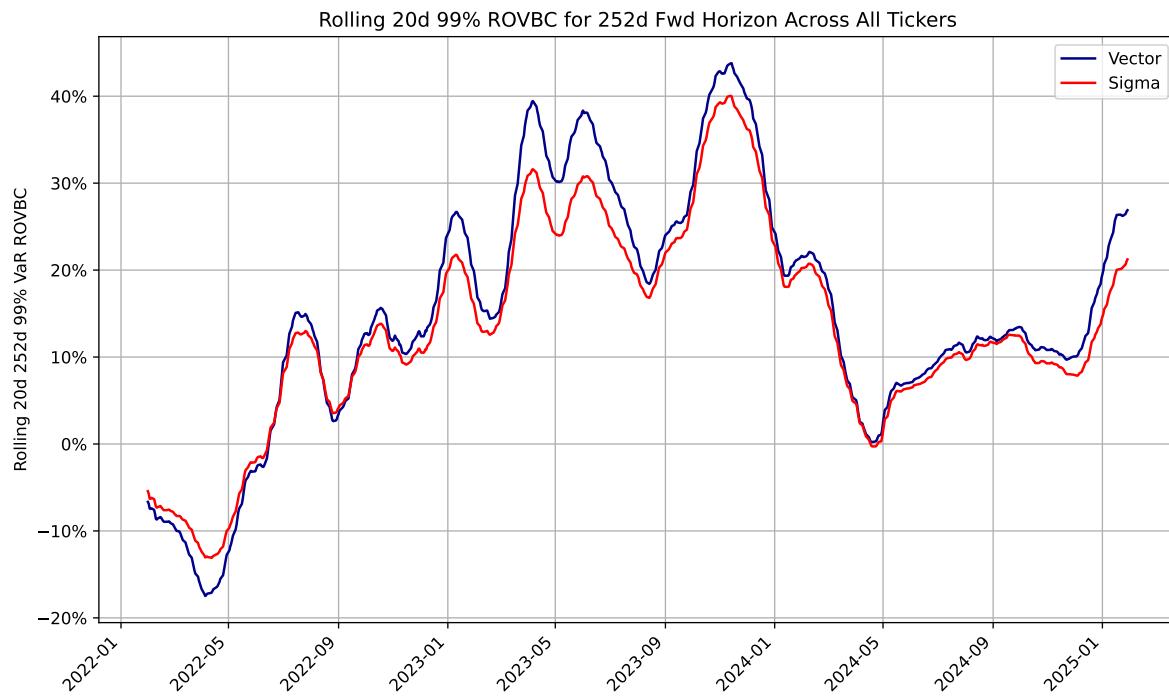
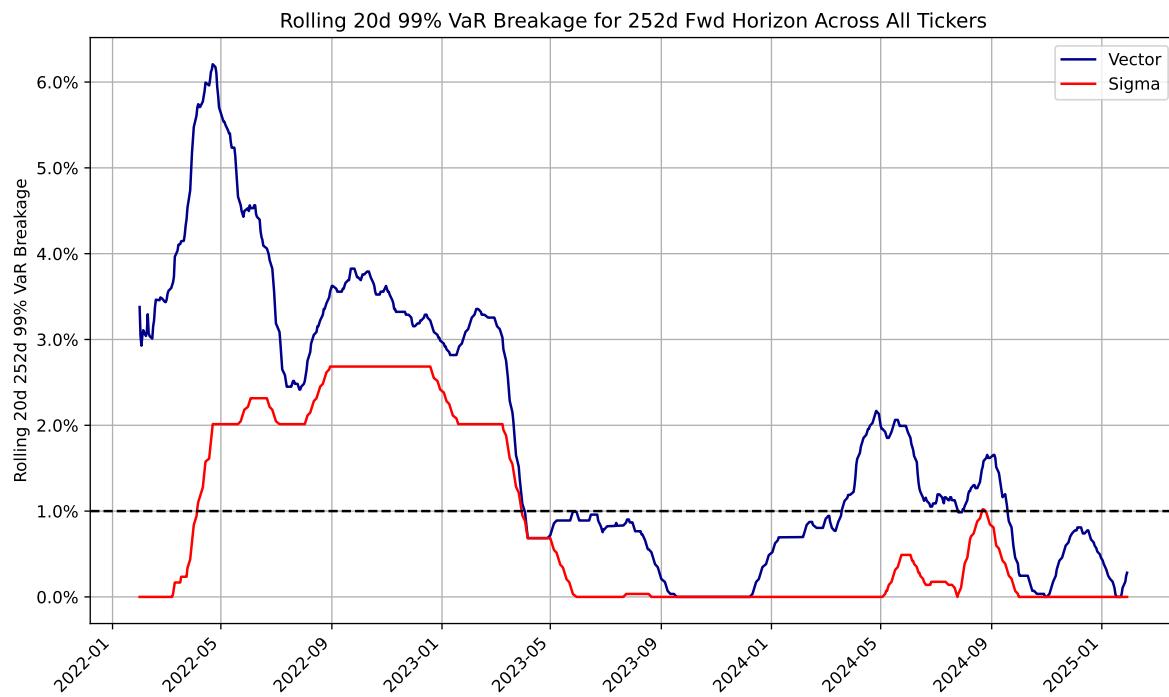
21d Horizon



63d Horizon



252d Horizon



Top 30 Tickers By 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 2026-01-29

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	7.58%	TRGP	2.49%
1.0	ZTS	6.08%	IRM	2.49%
1.0	LQD	5.88%	QCOM	2.49%
1.0	FRCB	5.76%	INTU	2.39%
1.0	B	5.18%	PWR	2.39%
1.0	GME	4.19%	UNH	2.29%
1.0	MSTR	3.69%	NVS	2.29%
1.0	AMC	3.49%	SPY	2.29%
1.0	AAP	3.39%	PEP	2.29%
1.0	JAZZ	3.29%	VCSH	2.29%
1.0	CHTR	3.29%	HSBC	2.19%
1.0	CDNS	3.19%	WFC	2.19%
1.0	GNRC	3.19%	VST	2.19%
1.0	ISRG	3.09%	QQQ	2.19%
1.0	BUD	2.89%	KHC	2.19%
1.0	FRA	2.69%	ABBV	2.19%
1.0	CMCSA	2.59%	FRCB	2.16%
1.0	VZ	2.59%	THC	2.09%
1.0	SLV	2.4%	TMUS	2.09%
1.0	EXPE	2.29%	GOOGL	2.09%
1.0	QCOM	2.29%	CMG	2.09%
1.0	KALU	2.19%	VZ	2.09%
1.0	LLY	2.09%	ACGL	2.09%
1.0	PRGO	2.09%	NVDA	1.99%
1.0	TDG	1.89%	JPM	1.99%
1.0	BXP	1.89%	PCG	1.99%
1.0	META	1.89%	TXN	1.99%
1.0	KHC	1.89%	ZTS	1.99%



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 2026-01-29

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	SBNY	17.65%	SIVBQ	5.51%
10.0	SIVBQ	12.87%	MUB	4.33%
10.0	AMC	9.15%	CTLT	4.08%
10.0	CHTR	8.65%	LW	4.02%
10.0	TSLA	8.35%	CHTR	3.72%
10.0	AAP	7.55%	PCG	3.32%
10.0	ZTS	6.04%	FIS	3.32%
10.0	B	5.63%	AAP	3.32%
10.0	LQD	5.53%	SBNY	3.31%
10.0	MSTR	5.03%	FRCB	3.31%
10.0	KALU	4.33%	CMG	3.02%
10.0	CVS	4.12%	PRGO	3.02%
10.0	GNRC	3.72%	UNH	3.02%
10.0	CTLT	3.67%	BHC	2.82%
10.0	LW	3.32%	BAC	2.82%
10.0	BHC	3.32%	WDC	2.72%
10.0	FRCB	3.31%	ABBV	2.72%
10.0	ISRG	3.22%	GSK	2.62%
10.0	VCSH	3.12%	CVS	2.52%
10.0	UNH	3.12%	IEP	2.52%
10.0	GSK	3.02%	FRA	2.52%
10.0	SNY	3.02%	KALU	2.41%
10.0	GME	3.02%	IRM	2.41%
10.0	PRGO	2.92%	TRGP	2.41%
10.0	EXPE	2.72%	BALL	2.31%
10.0	NEM	2.62%	EMB	2.22%
10.0	META	2.52%	AZN	2.21%
10.0	BUD	2.52%	COST	2.21%
10.0	EMB	2.32%	WFC	2.21%
10.0	OXY	2.21%	WRK	2.17%



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 2026-01-29

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	12.72%	SBNY	5.56%
21.0	AMC	9.56%	LW	4.98%
21.0	VCSH	7.32%	GSK	4.48%
21.0	TSLA	7.22%	MUB	4.28%
21.0	FRCB	6.67%	CHTR	4.27%
21.0	ZTS	6.0%	CTLT	3.59%
21.0	AAP	4.98%	WDC	2.95%
21.0	GNRC	4.68%	PCG	2.85%
21.0	LQD	4.48%	CNC	2.85%
21.0	B	4.37%	CMG	2.85%
21.0	UNH	4.37%	AAP	2.75%
21.0	BUD	4.27%	SNY	2.75%
21.0	BIIB	3.76%	IEP	2.64%
21.0	BHC	3.76%	NEM	2.64%
21.0	GSK	3.66%	PRGO	2.64%
21.0	MSTR	3.66%	UNH	2.64%
21.0	CTLT	3.59%	INTC	2.44%
21.0	KALU	3.56%	BHC	2.34%
21.0	NEM	3.36%	COST	2.34%
21.0	CMA	3.15%	VFC	2.34%
21.0	PRGO	3.05%	EMB	2.24%
21.0	CNC	3.05%	FRA	2.24%
21.0	META	2.95%	AMZN	2.24%
21.0	KEY	2.85%	NFLX	2.14%
21.0	CVS	2.64%	ZION	2.06%
21.0	ZION	2.58%	AZN	2.03%
21.0	EMB	2.44%	CMA	2.03%
21.0	FIS	2.34%	VCSH	2.03%



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 2026-01-29

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
63.0	SBNY	48.89%	SIVBQ	20.37%
63.0	SIVBQ	25.19%	FRCB	20.0%
63.0	FRCB	20.74%	SBNY	20.0%
63.0	CHTR	20.62%	IEP	6.7%
63.0	AMC	10.95%	GSK	6.59%
63.0	MSTR	8.93%	BHC	6.48%
63.0	AAP	8.61%	CNC	5.63%
63.0	VCSH	7.76%	UNH	4.89%
63.0	ZION	6.04%	CTLT	4.25%
63.0	LQD	5.95%	MUB	4.15%
63.0	CNC	5.74%	PCG	3.29%
63.0	BUD	5.53%	EMB	2.87%
63.0	GNRC	5.42%	KEY	2.76%
63.0	UNH	4.89%	NEM	2.76%
63.0	GSK	4.68%	USB	2.55%
63.0	B	4.57%	BUD	2.34%
63.0	BHC	3.93%	VZ	2.34%
63.0	META	3.83%	CMA	2.34%
63.0	PRGO	3.83%	VCSH	2.34%
63.0	CMA	3.72%	ZION	2.27%
63.0	EMY	3.51%	X	2.17%
63.0	TLT	3.29%	HCA	1.91%
63.0	KEY	3.19%	VFC	1.91%
63.0	NFLX	2.98%	TFC	1.59%
63.0	ON	2.87%	AZN	1.59%
63.0	CTLT	2.64%	LQD	1.49%
63.0	EMB	2.45%	SNY	1.49%
63.0	BIB	2.34%	CLF	1.38%
63.0	NEM	2.34%	WDC	1.38%
63.0	BXP	2.34%	AA	1.38%



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 2026-01-29

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	CHTR	23.92%	IEP	14.12%
126.0	AAP	21.53%	GSK	10.71%
126.0	AMC	18.56%	UNH	4.9%
126.0	GSK	8.43%	BHC	3.08%
126.0	BXP	6.72%	BALL	2.73%
126.0	VCSH	6.61%	LW	2.39%
126.0	VFC	6.38%	CNC	2.16%
126.0	CTLT	6.14%	EMB	2.05%
126.0	UNH	5.35%	NEM	2.05%
126.0	MSTR	4.78%	PCG	1.59%
126.0	GNRC	4.56%	VZ	1.37%
126.0	BHC	3.99%	VCSH	1.14%
126.0	TLT	3.99%	MUB	0.68%
126.0	CMA	3.87%	IRM	0.68%
126.0	OXY	3.3%	CHTR	0.57%
126.0	ZION	2.89%	CTLT	0.48%
126.0	B	2.51%	INTC	0.34%
126.0	VNO	2.05%	CPRT	0.11%
126.0	NEM	1.82%	LEN	0.11%
126.0	LQD	1.82%	HYG	0.11%
126.0	ON	1.59%	ON	0.0%
126.0	SNY	1.59%	ORCL	0.0%
126.0	META	1.48%	NVDA	0.0%
126.0	BIIB	1.37%	NWL	0.0%
126.0	EMB	1.14%	ORLY	0.0%
126.0	FIS	0.91%	OXY	0.0%
126.0	CNC	0.91%	NVS	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 2026-01-29

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	29.26%	IEP	26.06%
252.0	AAP	28.32%	CNC	3.59%
252.0	CHTR	16.36%	MRK	2.53%
252.0	BIIIB	14.49%	UNH	1.2%
252.0	BXP	11.17%	LW	0.13%
252.0	VFC	10.37%	NWL	0.0%
252.0	OXY	7.05%	NEM	0.0%
252.0	CMA	6.91%	NFLX	0.0%
252.0	MRK	6.78%	NVDA	0.0%
252.0	UNH	5.59%	NVS	0.0%
252.0	VNO	5.45%	AA	0.0%
252.0	ZION	5.01%	ON	0.0%
252.0	CTLT	3.85%	MUB	0.0%
252.0	CNC	3.46%	ORCL	0.0%
252.0	BHC	2.93%	ORLY	0.0%
252.0	KEY	2.53%	OXY	0.0%
252.0	GNRC	2.39%	PCG	0.0%
252.0	EMY	1.99%	PEP	0.0%
252.0	VCSH	1.99%	NAVI	0.0%
252.0	UAA	1.73%	MSTR	0.0%
252.0	EMB	1.2%	MU	0.0%
252.0	FIS	1.2%	LUMN	0.0%
252.0	GSK	0.93%	KEY	0.0%
252.0	ELAN	0.81%	KHC	0.0%
252.0	TLT	0.8%	LEN	0.0%
252.0	FITB	0.53%	LLY	0.0%
252.0	ON	0.27%	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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	TMUS	15.79%	AA	15.79%
1.0	TDG	10.53%	INTU	15.79%
1.0	CHTR	10.53%	LVS	10.53%
1.0	KHC	10.53%	ABBV	10.53%
1.0	INTU	10.53%	RIO	10.53%
1.0	CMCSA	10.53%	WDC	10.53%
1.0	NEM	5.26%	FSUGY	10.53%
1.0	NAVI	5.26%	GLD	5.26%
1.0	CDNS	5.26%	CMCSA	5.26%
1.0	GLD	5.26%	CNC	5.26%
1.0	MSFT	5.26%	CVS	5.26%
1.0	SLV	5.26%	FCX	5.26%
1.0	UNH	5.26%	FIS	5.26%
1.0	CVS	5.26%	FITB	5.26%
1.0	QCOM	5.26%	GE	5.26%
1.0	INTC	5.26%	PWR	5.26%
1.0	AMC	5.26%	NVS	5.26%
1.0	WDC	5.26%	HLT	5.26%
1.0	ON	5.26%	CLF	5.26%
1.0	FIS	5.26%	INTC	5.26%
1.0	GE	5.26%	NEM	5.26%
1.0	NVDA	0.0%	NAVI	5.26%
1.0	NVS	0.0%	JAZZ	5.26%
1.0	NWL	0.0%	JPM	5.26%
1.0	NFLX	0.0%	KHC	5.26%
1.0	ORCL	0.0%	MSFT	5.26%
1.0	MSTR	0.0%	MS	5.26%
1.0	MUB	0.0%	CMA	5.26%
1.0	MU	0.0%	SLV	5.26%
1.0	OXY	0.0%	TMUS	5.26%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	QCOM	50.0%	INTU	50.0%
10.0	BHC	30.0%	BHC	40.0%
10.0	UNH	30.0%	NAVI	30.0%
10.0	CHTR	30.0%	FIS	10.0%
10.0	NAVI	20.0%	LNC	10.0%
10.0	CZR	10.0%	AA	0.0%
10.0	CVS	10.0%	MU	0.0%
10.0	LQD	0.0%	MUB	0.0%
10.0	LUMN	0.0%	NEM	0.0%
10.0	KEY	0.0%	NFLX	0.0%
10.0	PEP	0.0%	NVDA	0.0%
10.0	PCG	0.0%	NWL	0.0%
10.0	KHC	0.0%	NVS	0.0%
10.0	OXY	0.0%	ON	0.0%
10.0	ORLY	0.0%	ORCL	0.0%
10.0	ORCL	0.0%	ORLY	0.0%
10.0	ON	0.0%	OXY	0.0%
10.0	NWL	0.0%	PCG	0.0%
10.0	LEN	0.0%	MSTR	0.0%
10.0	NVS	0.0%	MSI	0.0%
10.0	NVDA	0.0%	PHM	0.0%
10.0	NFLX	0.0%	MSFT	0.0%
10.0	NEM	0.0%	MS	0.0%
10.0	LLY	0.0%	MRK	0.0%
10.0	MUB	0.0%	MOS	0.0%
10.0	MU	0.0%	MNST	0.0%
10.0	MSTR	0.0%	META	0.0%
10.0	PHM	0.0%	LW	0.0%
10.0	MSI	0.0%	LVS	0.0%
10.0	MSFT	0.0%	LUMN	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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	GWW	10.0%	WDC	8.33%
1.0	LLY	10.0%	INTU	6.67%
1.0	CMCSA	10.0%	PWR	6.67%
1.0	AMC	8.33%	AA	5.0%
1.0	KHC	6.67%	SLV	5.0%
1.0	TMUS	6.67%	INTC	5.0%
1.0	GNRC	5.0%	JPM	5.0%
1.0	AMD	5.0%	LUMN	5.0%
1.0	PRGO	5.0%	NEM	5.0%
1.0	MSTR	5.0%	RIO	5.0%
1.0	TDG	3.33%	B	5.0%
1.0	CVS	3.33%	MU	5.0%
1.0	CHTR	3.33%	LVS	3.33%
1.0	CDNS	3.33%	NAVI	3.33%
1.0	POST	3.33%	GLD	3.33%
1.0	SBUX	3.33%	GNRC	3.33%
1.0	IRM	3.33%	HCA	3.33%
1.0	AMGN	3.33%	ABBV	3.33%
1.0	INTU	3.33%	IRM	3.33%
1.0	INTC	3.33%	CSCO	3.33%
1.0	NEM	1.67%	ADBE	3.33%
1.0	SLV	1.67%	CLF	3.33%
1.0	LEN	1.67%	CCL	3.33%
1.0	AAP	1.67%	FSUGY	3.33%
1.0	QCOM	1.67%	AMD	3.33%
1.0	MSFT	1.67%	POST	3.33%
1.0	FIS	1.67%	VST	1.67%
1.0	MU	1.67%	GE	1.67%
1.0	PCG	1.67%	GILD	1.67%
1.0	GE	1.67%	UNH	1.67%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	LW	19.61%	LW	19.61%
10.0	MSTR	11.76%	AZO	15.69%
10.0	IRM	9.8%	IRM	13.73%
10.0	QCOM	9.8%	INTU	13.73%
10.0	PRGO	9.8%	LUMN	11.76%
10.0	AMZN	7.84%	BHC	7.84%
10.0	LLY	7.84%	HD	5.88%
10.0	AMGN	5.88%	NAVI	5.88%
10.0	UNH	5.88%	PRGO	3.92%
10.0	CHTR	5.88%	ZTS	1.96%
10.0	BHC	5.88%	LNC	1.96%
10.0	GWW	5.88%	NFLX	1.96%
10.0	NAVI	3.92%	FIS	1.96%
10.0	AMC	3.92%	POST	1.96%
10.0	CZR	1.96%	USB	0.0%
10.0	INTC	1.96%	UNH	0.0%
10.0	TDG	1.96%	VICI	0.0%
10.0	LUMN	1.96%	NVS	0.0%
10.0	ZTS	1.96%	NVDA	0.0%
10.0	CVS	1.96%	VNO	0.0%
10.0	TXN	0.0%	NEM	0.0%
10.0	TSLA	0.0%	VST	0.0%
10.0	NWL	0.0%	MUB	0.0%
10.0	NVS	0.0%	MU	0.0%
10.0	NVDA	0.0%	MSTR	0.0%
10.0	NFLX	0.0%	MSI	0.0%
10.0	NEM	0.0%	MSFT	0.0%
10.0	VNO	0.0%	MS	0.0%
10.0	MUB	0.0%	MRK	0.0%
10.0	MU	0.0%	MOS	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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	LW	17.5%	INTU	12.5%
21.0	IRM	12.5%	LW	10.0%
21.0	NFLX	10.0%	PRGO	5.0%
21.0	PRGO	5.0%	AZO	5.0%
21.0	MSTR	5.0%	NAVI	2.5%
21.0	ZTS	2.5%	AA	0.0%
21.0	WDC	0.0%	NVDA	0.0%
21.0	OXY	0.0%	MU	0.0%
21.0	ORCL	0.0%	MUB	0.0%
21.0	ON	0.0%	NEM	0.0%
21.0	NWL	0.0%	NFLX	0.0%
21.0	NVS	0.0%	NVS	0.0%
21.0	NVDA	0.0%	MSI	0.0%
21.0	WYNN	0.0%	NWL	0.0%
21.0	NEM	0.0%	ON	0.0%
21.0	NAVI	0.0%	ORCL	0.0%
21.0	MUB	0.0%	ORLY	0.0%
21.0	MU	0.0%	OXY	0.0%
21.0	XOM	0.0%	PCG	0.0%
21.0	MSI	0.0%	MSTR	0.0%
21.0	MSFT	0.0%	MS	0.0%
21.0	MS	0.0%	MSFT	0.0%
21.0	MRK	0.0%	PHM	0.0%
21.0	MOS	0.0%	MRK	0.0%
21.0	MNST	0.0%	MOS	0.0%
21.0	META	0.0%	MNST	0.0%
21.0	ZION	0.0%	META	0.0%
21.0	LVS	0.0%	LVS	0.0%
21.0	LUMN	0.0%	LUMN	0.0%
21.0	LQD	0.0%	LQD	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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
1.0	ZTS	11.65%	NEM	4.42%
1.0	LLY	8.43%	MSI	4.02%
1.0	TSLA	7.23%	CCL	4.02%
1.0	AMC	6.83%	HLT	3.61%
1.0	CMCSA	5.62%	TMUS	3.61%
1.0	UNH	5.62%	THC	3.61%
1.0	TXN	5.22%	KHC	3.61%
1.0	VZ	5.22%	B	3.61%
1.0	TDG	4.82%	SLV	3.23%
1.0	SBUX	4.82%	GLD	3.21%
1.0	AMGN	4.82%	GSK	3.21%
1.0	GNRC	4.82%	CLF	3.21%
1.0	GWW	4.82%	INTU	3.21%
1.0	QCOM	4.42%	JAZZ	3.21%
1.0	CDNS	4.42%	JPM	3.21%
1.0	MSTR	4.02%	ZTS	3.21%
1.0	NAVI	3.61%	TXN	3.21%
1.0	B	3.21%	ABBV	3.21%
1.0	AAP	3.21%	OXY	3.21%
1.0	MU	3.21%	VCSH	3.21%
1.0	LQD	3.21%	UNH	2.81%
1.0	META	2.81%	WFC	2.81%
1.0	KHC	2.81%	GS	2.81%
1.0	HCA	2.81%	HCA	2.81%
1.0	GOOGL	2.41%	WDC	2.81%
1.0	EXPE	2.41%	HSBC	2.81%
1.0	CVS	2.41%	NVS	2.81%
1.0	ISRG	2.41%	MU	2.81%
1.0	AMZN	2.41%	IRM	2.81%
1.0	CHTR	2.01%	QQQ	2.81%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
10.0	ZTS	15.83%	CMG	8.33%
10.0	AMC	14.58%	UNH	8.33%
10.0	UNH	12.92%	MSI	6.25%
10.0	CHTR	7.5%	VFC	6.25%
10.0	CZR	7.08%	PRGO	5.83%
10.0	TSLA	7.08%	BBY	5.42%
10.0	MSTR	6.25%	BHC	5.0%
10.0	LLY	5.83%	WDC	5.0%
10.0	TXN	5.83%	BAC	5.0%
10.0	PRGO	5.42%	TRGP	4.58%
10.0	TDG	5.0%	FIS	4.58%
10.0	BUD	4.58%	JAZZ	4.58%
10.0	KALU	4.58%	JPM	4.17%
10.0	CNC	4.58%	ZTS	4.17%
10.0	MSI	4.17%	IRM	4.17%
10.0	LW	4.17%	CCL	4.17%
10.0	BHC	4.17%	CPRT	4.17%
10.0	NAVI	3.75%	CHTR	4.17%
10.0	QCOM	3.75%	CNC	4.17%
10.0	GNRC	3.75%	LW	4.17%
10.0	AAP	3.33%	MS	4.17%
10.0	CMCSA	3.33%	OXY	4.17%
10.0	CMA	3.33%	SBUX	4.17%
10.0	CLF	3.33%	TXN	4.17%
10.0	EXPE	3.33%	COST	3.75%
10.0	ON	3.33%	LNC	3.75%
10.0	MU	2.92%	HSBC	3.75%
10.0	BMY	2.92%	HLT	3.75%
10.0	OXY	2.5%	GS	3.75%
10.0	FITB	2.5%	SPY	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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
21.0	UNH	18.78%	CNC	9.17%
21.0	ZTS	17.03%	PRGO	9.17%
21.0	CHTR	10.92%	UNH	8.73%
21.0	AMC	9.61%	VFC	8.3%
21.0	CNC	9.17%	CHTR	8.3%
21.0	PRGO	9.17%	MSI	7.86%
21.0	MSI	8.73%	CPRT	7.86%
21.0	CMCSA	7.86%	HLT	6.99%
21.0	MSTR	6.99%	CMG	6.55%
21.0	BMY	6.99%	WDC	6.11%
21.0	GNRC	6.11%	JAZZ	6.11%
21.0	CMA	5.24%	LVS	4.8%
21.0	IRM	5.24%	OXY	4.8%
21.0	CZR	4.8%	BMY	4.37%
21.0	BUD	4.8%	JPM	3.93%
21.0	BHC	4.8%	IRM	3.93%
21.0	KALU	3.49%	ISRG	3.49%
21.0	WDC	3.06%	ABBV	3.49%
21.0	LW	3.06%	CCL	3.49%
21.0	AMGN	3.06%	MRK	3.49%
21.0	TDG	1.75%	COST	3.06%
21.0	NFLX	1.75%	PCG	3.06%
21.0	CLF	1.75%	HD	2.62%
21.0	TSLA	1.31%	SPY	2.18%
21.0	ELAN	1.31%	GS	2.18%
21.0	QCOM	1.31%	HSBC	2.18%
21.0	VFC	1.31%	INTU	2.18%
21.0	PCG	1.31%	BAC	2.18%
21.0	META	1.31%	SBUX	1.75%
21.0	JAZZ	1.31%	FRA	1.75%



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 2026-01-29 through 2025-02-03

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	MSTR	24.6%	VFC	2.67%
63.0	UNH	24.6%	PRGO	0.53%
63.0	PRGO	18.72%	CPRT	0.53%
63.0	TDG	9.63%	NVS	0.0%
63.0	CMCSA	8.02%	MUB	0.0%
63.0	BUD	7.49%	NAVI	0.0%
63.0	NFLX	6.42%	NEM	0.0%
63.0	META	4.81%	NFLX	0.0%
63.0	MSI	2.67%	NVDA	0.0%
63.0	AMC	2.67%	NWL	0.0%
63.0	NWL	1.6%	MSTR	0.0%
63.0	EMY	1.07%	ON	0.0%
63.0	GNRC	0.53%	ORCL	0.0%
63.0	CYH	0.53%	ORLY	0.0%
63.0	PEP	0.0%	OXY	0.0%
63.0	PHM	0.0%	PCG	0.0%
63.0	NVS	0.0%	PEP	0.0%
63.0	OXY	0.0%	MU	0.0%
63.0	PCG	0.0%	AA	0.0%
63.0	ORCL	0.0%	PHM	0.0%
63.0	NVDA	0.0%	LUMN	0.0%
63.0	ON	0.0%	KEY	0.0%
63.0	ORLY	0.0%	KHC	0.0%
63.0	AA	0.0%	LEN	0.0%
63.0	NEM	0.0%	LLY	0.0%
63.0	NAVI	0.0%	LNC	0.0%
63.0	MUB	0.0%	LQD	0.0%
63.0	MU	0.0%	LVS	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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	VaRBreak_V	Ticker_S	VaRBreak_S
126.0	CHTR	50.0%	UNH	6.45%
126.0	MSTR	29.84%	CNC	4.84%
126.0	AMC	14.52%	CPRT	0.81%
126.0	AAP	11.29%	AA	0.0%
126.0	UNH	11.29%	NVDA	0.0%
126.0	ZTS	4.03%	MU	0.0%
126.0	CNC	1.61%	MUB	0.0%
126.0	MUB	0.0%	NAVI	0.0%
126.0	NAVI	0.0%	NEM	0.0%
126.0	NEM	0.0%	NFLX	0.0%
126.0	NFLX	0.0%	NWL	0.0%
126.0	NVDA	0.0%	NVS	0.0%
126.0	NWL	0.0%	MSI	0.0%
126.0	NVS	0.0%	ON	0.0%
126.0	ON	0.0%	ORCL	0.0%
126.0	ORCL	0.0%	ORLY	0.0%
126.0	ORLY	0.0%	OXY	0.0%
126.0	OXY	0.0%	PCG	0.0%
126.0	PCG	0.0%	MSTR	0.0%
126.0	MU	0.0%	MSFT	0.0%
126.0	MSFT	0.0%	PHM	0.0%
126.0	MSI	0.0%	LQD	0.0%
126.0	LUMN	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	LVS	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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	GME	0.45%	MSTR	0.31%
1.0	MSTR	0.33%	NVDA	0.26%
1.0	MU	0.21%	VST	0.25%
1.0	AVGO	0.15%	MU	0.21%
1.0	NVDA	0.14%	AVGO	0.21%
1.0	LLY	0.14%	WDC	0.21%
1.0	META	0.14%	PWR	0.18%
1.0	AAPL	0.13%	TEVA	0.18%
1.0	ORCL	0.12%	GME	0.17%
1.0	WDC	0.12%	X	0.17%
1.0	GOOGL	0.12%	GBTC	0.17%
1.0	NFLX	0.12%	LLY	0.16%
1.0	GWW	0.12%	GE	0.16%
1.0	ON	0.12%	CAH	0.15%
1.0	VST	0.12%	SLV	0.15%
1.0	PWR	0.11%	TRGP	0.14%
1.0	INTU	0.11%	THC	0.14%
1.0	X	0.1%	AMD	0.13%
1.0	TEVA	0.1%	META	0.13%
1.0	QCOM	0.1%	AMAT	0.12%
1.0	GNRC	0.1%	ETRN	0.12%
1.0	UAA	0.09%	B	0.11%
1.0	AMD	0.09%	GOOGL	0.11%
1.0	XOM	0.09%	GS	0.11%
1.0	AMZN	0.09%	PHM	0.11%
1.0	GE	0.08%	NFLX	0.11%
1.0	THC	0.08%	TSLA	0.11%
1.0	CAH	0.08%	CCL	0.1%
1.0	AA	0.07%	HSBC	0.1%
1.0	CDNS	0.07%	ORCL	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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	5.44%	MSTR	3.23%
10.0	GME	4.3%	NVDA	2.56%
10.0	MU	2.6%	VST	2.46%
10.0	WDC	2.5%	WDC	2.12%
10.0	NVDA	1.91%	MU	2.11%
10.0	TEVA	1.65%	AVGO	2.09%
10.0	VST	1.63%	TEVA	1.8%
10.0	META	1.62%	PWR	1.74%
10.0	SLV	1.42%	LLY	1.7%
10.0	LLY	1.42%	SLV	1.69%
10.0	AVGO	1.38%	GBTC	1.61%
10.0	NFLX	1.34%	GE	1.59%
10.0	PWR	1.27%	X	1.58%
10.0	ETRN	1.26%	CAH	1.54%
10.0	GE	1.19%	GME	1.44%
10.0	GBTC	1.12%	ETRN	1.41%
10.0	AAPL	1.1%	TRGP	1.36%
10.0	CAH	1.09%	META	1.34%
10.0	ORCL	1.06%	THC	1.28%
10.0	CTLT	1.06%	AMD	1.27%
10.0	GOOGL	1.05%	B	1.21%
10.0	KALU	1.01%	AMAT	1.2%
10.0	FCX	0.99%	TSLA	1.16%
10.0	AMD	0.97%	NFLX	1.15%
10.0	XOM	0.97%	GS	1.12%
10.0	GNRC	0.94%	PHM	1.12%
10.0	X	0.9%	ORCL	1.09%
10.0	THC	0.89%	GLD	1.06%
10.0	GS	0.89%	GOOGL	1.05%
10.0	AA	0.87%	CDNS	0.97%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	13.15%	MSTR	7.41%
21.0	GME	7.41%	NVDA	5.57%
21.0	WDC	5.01%	VST	5.37%
21.0	META	4.5%	AVGO	4.44%
21.0	MU	4.27%	WDC	4.31%
21.0	NVDA	3.98%	MU	4.18%
21.0	VST	3.95%	TEVA	3.88%
21.0	TEVA	3.85%	PWR	3.62%
21.0	NFLX	3.81%	LLY	3.59%
21.0	AVGO	3.32%	GBTC	3.58%
21.0	GBTC	3.16%	GE	3.54%
21.0	CTLT	2.71%	ETRN	3.5%
21.0	GE	2.64%	SLV	3.33%
21.0	AA	2.63%	CAH	3.26%
21.0	SLV	2.61%	X	3.17%
21.0	PWR	2.6%	META	2.99%
21.0	LLY	2.56%	THC	2.74%
21.0	ETRN	2.53%	TRGP	2.74%
21.0	CAH	2.39%	TSLA	2.72%
21.0	KALU	2.37%	AMD	2.67%
21.0	TSLA	2.33%	NFLX	2.64%
21.0	ORCL	2.25%	ORCL	2.53%
21.0	XOM	2.18%	AMAT	2.45%
21.0	AMD	2.18%	GS	2.43%
21.0	THC	2.17%	PHM	2.41%
21.0	AMAT	2.16%	B	2.4%
21.0	NEM	2.06%	CCL	2.26%
21.0	B	1.99%	GOOGL	2.25%
21.0	GOOGL	1.97%	GME	2.15%
21.0	X	1.96%	GLD	2.08%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	23.78%	MSTR	22.62%
63.0	META	19.23%	NVDA	18.86%
63.0	WDC	18.91%	VST	17.98%
63.0	NVDA	17.43%	AVGO	14.37%
63.0	VST	15.71%	WDC	13.9%
63.0	AVGO	15.39%	GBTC	12.42%
63.0	MU	11.27%	MU	12.29%
63.0	NFLX	11.04%	GE	11.29%
63.0	TEVA	10.71%	META	10.51%
63.0	GBTC	10.47%	LLY	10.48%
63.0	CTLT	10.43%	TEVA	10.38%
63.0	ETRN	10.07%	PWR	10.32%
63.0	LLY	9.9%	ETRN	10.28%
63.0	ORCL	9.59%	NFLX	10.0%
63.0	CAH	8.81%	CAH	9.76%
63.0	GE	8.75%	THC	8.81%
63.0	PWR	8.4%	ORCL	8.64%
63.0	SLV	8.19%	AMD	8.5%
63.0	TSLA	7.91%	PHM	8.2%
63.0	KALU	7.88%	SLV	8.13%
63.0	ISRG	7.42%	TRGP	7.45%
63.0	THC	7.34%	GS	7.24%
63.0	AMD	7.14%	GOOGL	7.2%
63.0	GOOGL	7.01%	TSLA	7.09%
63.0	AMZN	6.96%	CCL	7.08%
63.0	GILD	6.95%	AMAT	6.75%
63.0	NEM	6.93%	B	6.14%
63.0	GS	6.57%	JPM	6.13%
63.0	AMAT	6.51%	HSBC	6.11%
63.0	CCL	6.27%	ISRG	6.06%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	MSTR	73.56%	MSTR	58.86%
126.0	META	53.77%	NVDA	47.69%
126.0	NVDA	49.88%	VST	40.91%
126.0	WDC	48.66%	GBTC	34.95%
126.0	AVGO	44.38%	AVGO	32.12%
126.0	VST	39.05%	WDC	28.66%
126.0	GBTC	35.03%	GE	27.17%
126.0	NFLX	33.1%	META	26.45%
126.0	MU	31.31%	NFLX	26.35%
126.0	LLY	24.9%	MU	25.42%
126.0	ORCL	24.1%	THC	21.49%
126.0	TEVA	24.1%	PWR	20.83%
126.0	GE	22.42%	ORCL	20.8%
126.0	AMD	21.91%	LLY	19.37%
126.0	PWR	21.14%	TEVA	19.15%
126.0	SLV	20.88%	PHM	18.94%
126.0	THC	20.67%	CAH	18.8%
126.0	CAH	19.35%	AMD	18.77%
126.0	GOOGL	19.32%	ETRN	18.49%
126.0	TSLA	18.29%	TRGP	16.18%
126.0	ETRN	18.14%	CCL	15.8%
126.0	AMZN	17.99%	SLV	15.69%
126.0	GILD	17.8%	GS	15.4%
126.0	ISRG	16.96%	GOOGL	14.78%
126.0	NEM	16.15%	JPM	14.08%
126.0	B	15.68%	AMAT	13.6%
126.0	AMAT	14.76%	TSLA	13.46%
126.0	GS	14.11%	DHI	13.43%
126.0	EXPE	14.09%	TDG	13.31%
126.0	PHM	13.9%	CDNS	12.9%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
252.0	MSTR	227.28%	MSTR	193.96%
252.0	VST	141.6%	NVDA	126.07%
252.0	NVDA	123.43%	VST	116.38%
252.0	META	116.0%	GBTC	105.49%
252.0	GBTC	105.81%	AVGO	76.34%
252.0	AVGO	103.17%	META	70.41%
252.0	NFLX	89.77%	NFLX	65.06%
252.0	GE	66.32%	GE	62.27%
252.0	ORCL	57.25%	THC	47.79%
252.0	AMZN	56.26%	PHM	45.0%
252.0	THC	55.69%	LLY	44.85%
252.0	ISRG	53.95%	PWR	42.12%
252.0	WDC	48.88%	MU	41.86%
252.0	MU	47.2%	TRGP	41.49%
252.0	TDG	45.66%	ORCL	40.4%
252.0	GOOGL	45.51%	CCL	38.31%
252.0	CAH	45.04%	CAH	37.35%
252.0	TEVA	44.84%	WDC	36.89%
252.0	INTU	42.15%	TEVA	35.92%
252.0	SLV	41.14%	ETRN	35.78%
252.0	LLY	40.11%	TDG	33.75%
252.0	PHM	40.09%	ISRG	32.33%
252.0	B	38.14%	JPM	32.15%
252.0	CCL	37.57%	AMD	31.08%
252.0	TRGP	37.18%	GS	31.0%
252.0	PWR	37.02%	SLV	28.53%
252.0	GILD	36.99%	HSBC	28.06%
252.0	COST	36.43%	GOOGL	27.88%
252.0	AMD	35.96%	AMAT	27.33%
252.0	ETRN	35.77%	IRM	27.2%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	TXN	1.65%	WDC	1.72%
1.0	ON	1.57%	MU	1.53%
1.0	MU	1.44%	AAP	1.17%
1.0	GNRC	1.1%	INTC	1.11%
1.0	BUD	1.02%	SLV	1.08%
1.0	AAP	0.94%	TXN	1.08%
1.0	UAA	0.93%	AMAT	1.01%
1.0	WDC	0.75%	GNRC	0.96%
1.0	FCX	0.75%	UAA	0.86%
1.0	GME	0.72%	GILD	0.84%
1.0	TDG	0.64%	FCX	0.83%
1.0	LUMN	0.6%	LUMN	0.81%
1.0	AMD	0.6%	HON	0.81%
1.0	LW	0.56%	GME	0.81%
1.0	AZO	0.52%	XOM	0.77%
1.0	HON	0.52%	NWL	0.72%
1.0	NWL	0.49%	CSTM	0.7%
1.0	AMAT	0.46%	GLD	0.63%
1.0	MSI	0.43%	BUD	0.63%
1.0	META	0.43%	NEM	0.62%
1.0	VFC	0.42%	AZO	0.62%
1.0	CLF	0.42%	RIO	0.61%
1.0	GWW	0.42%	BHP	0.59%
1.0	XOM	0.39%	META	0.56%
1.0	KHC	0.38%	IRM	0.55%
1.0	CMCSA	0.37%	VZ	0.53%
1.0	GILD	0.36%	MOS	0.53%
1.0	COST	0.36%	TEVA	0.52%
1.0	OXY	0.32%	COST	0.51%
1.0	CNC	0.3%	SBUX	0.49%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	33.57%	SLV	23.4%
10.0	AMD	18.12%	WDC	20.67%
10.0	GNRC	14.29%	MU	19.86%
10.0	WDC	12.91%	AMD	14.89%
10.0	UAA	12.19%	GNRC	12.02%
10.0	GME	11.13%	NEM	11.81%
10.0	CLF	10.95%	AAP	11.41%
10.0	BUD	10.2%	INTC	10.73%
10.0	AZ0	9.48%	AMAT	10.59%
10.0	GLD	9.44%	GLD	10.55%
10.0	MSI	9.44%	GILD	10.52%
10.0	GILD	9.32%	AZ0	9.22%
10.0	SLV	9.23%	PWR	8.84%
10.0	TXN	8.98%	XOM	8.76%
10.0	NWL	8.2%	GME	8.64%
10.0	LW	7.78%	CLF	8.54%
10.0	AAP	7.59%	UAA	8.54%
10.0	PWR	7.26%	CSTM	8.47%
10.0	FCX	6.89%	LUMN	8.34%
10.0	HD	6.81%	FCX	7.97%
10.0	HON	6.19%	TRGP	7.76%
10.0	XOM	6.13%	RIO	7.35%
10.0	LUMN	5.62%	HON	7.34%
10.0	MOS	5.24%	TXN	7.28%
10.0	NEM	5.15%	MOS	7.21%
10.0	GWW	5.08%	SBUX	6.94%
10.0	INTC	5.04%	BUD	6.49%
10.0	COST	4.84%	ORLY	6.47%
10.0	SBUX	4.84%	LW	6.37%
10.0	RIO	4.77%	BHP	6.36%



P90D: 1d

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

Period examined: All model dates from 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	TXN	0.92%	SLV	1.06%
1.0	MU	0.87%	MU	1.05%
1.0	LLY	0.82%	TEVA	0.89%
1.0	ON	0.71%	WDC	0.89%
1.0	MRK	0.6%	AA	0.77%
1.0	FCX	0.52%	FCX	0.67%
1.0	KALU	0.48%	VFC	0.59%
1.0	CNC	0.48%	B	0.59%
1.0	VFC	0.48%	NEM	0.58%
1.0	UAA	0.46%	CSTM	0.57%
1.0	CLF	0.45%	GT	0.55%
1.0	AA	0.43%	AMAT	0.55%
1.0	WDC	0.4%	UAA	0.54%
1.0	CMCSA	0.38%	TXN	0.51%
1.0	NWL	0.36%	MRK	0.5%
1.0	TEVA	0.36%	NWL	0.48%
1.0	BUD	0.36%	KALU	0.48%
1.0	NEM	0.31%	RIO	0.44%
1.0	BIIB	0.31%	TRGP	0.44%
1.0	OXY	0.28%	CNC	0.42%
1.0	SBUX	0.28%	EXPE	0.39%
1.0	SLV	0.26%	INTC	0.39%
1.0	B	0.25%	HSBC	0.38%
1.0	CMG	0.24%	XOM	0.37%
1.0	GNRC	0.23%	CMG	0.37%
1.0	GLD	0.23%	BHP	0.35%
1.0	AMAT	0.23%	KEY	0.35%
1.0	GT	0.22%	JAZZ	0.34%
1.0	CMA	0.22%	MNST	0.33%
1.0	CYH	0.22%	GLD	0.33%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	12.73%	SLV	15.14%
10.0	KALU	8.12%	MU	11.29%
10.0	AA	7.54%	AA	10.43%
10.0	FCX	7.51%	WDC	9.11%
10.0	TXN	6.8%	FCX	8.59%
10.0	CLF	6.75%	B	7.8%
10.0	SLV	6.61%	CSTM	7.54%
10.0	WDC	6.52%	NEM	7.35%
10.0	NWL	6.21%	AMAT	7.31%
10.0	UAA	5.84%	KALU	6.37%
10.0	JAZZ	5.61%	UAA	6.26%
10.0	B	5.21%	CLF	6.23%
10.0	VFC	5.06%	TEVA	6.22%
10.0	ON	5.03%	VFC	6.16%
10.0	GNRC	4.74%	INTC	5.83%
10.0	NEM	4.64%	NWL	5.68%
10.0	LLY	4.56%	ON	5.12%
10.0	TEVA	3.9%	RIO	5.11%
10.0	INTC	3.7%	CMG	5.05%
10.0	CZR	3.66%	JAZZ	4.74%
10.0	RIO	3.53%	BA	4.64%
10.0	GWW	3.53%	TXN	4.57%
10.0	CSTM	3.49%	MRK	4.48%
10.0	GLD	3.42%	GT	4.47%
10.0	CMA	3.35%	CNC	4.44%
10.0	CNC	3.34%	GLD	4.17%
10.0	AMAT	3.33%	BHP	4.05%
10.0	BUD	3.03%	KEY	3.85%
10.0	BHP	3.02%	CMA	3.64%
10.0	BIIB	2.74%	HSBC	3.5%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	AA	29.09%	SLV	34.54%
21.0	MU	24.67%	AA	29.03%
21.0	WDC	18.77%	MU	27.47%
21.0	KALU	17.84%	FCX	20.91%
21.0	FCX	16.69%	WDC	20.19%
21.0	ON	15.12%	CSTM	18.01%
21.0	SLV	15.11%	KALU	16.77%
21.0	NWL	14.55%	B	16.14%
21.0	UAA	13.8%	NEM	16.05%
21.0	CLF	12.66%	UAA	15.8%
21.0	NEM	12.13%	AMAT	15.42%
21.0	TXN	12.1%	TEVA	15.32%
21.0	VFC	11.46%	VFC	13.33%
21.0	AMAT	10.51%	ON	12.86%
21.0	B	10.15%	BA	12.55%
21.0	INTC	9.61%	CMG	12.21%
21.0	TEVA	9.58%	INTC	11.75%
21.0	CSTM	9.42%	NWL	11.72%
21.0	BHP	8.88%	RIO	11.52%
21.0	CZR	8.55%	CNC	11.02%
21.0	LNC	8.27%	CLF	10.9%
21.0	CMA	7.68%	KEY	9.97%
21.0	RIO	7.4%	TXN	9.83%
21.0	BMY	7.32%	BHP	9.79%
21.0	GLD	7.1%	GS	9.06%
21.0	BUD	6.79%	GT	8.92%
21.0	HON	6.78%	CMA	8.87%
21.0	CNC	6.7%	HSBC	8.76%
21.0	FITB	6.7%	FITB	8.39%
21.0	GWW	6.6%	MRK	8.29%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MU	0.76%	MU	0.69%
1.0	WDC	0.45%	WDC	0.64%
1.0	B	0.34%	X	0.51%
1.0	ON	0.32%	INTC	0.44%
1.0	LLY	0.3%	B	0.44%
1.0	NEM	0.3%	SLV	0.44%
1.0	CSTM	0.29%	NEM	0.42%
1.0	ELAN	0.27%	CSTM	0.39%
1.0	PWR	0.25%	AMD	0.36%
1.0	X	0.25%	LUMN	0.35%
1.0	TEVA	0.23%	ELAN	0.34%
1.0	GOOGL	0.22%	TEVA	0.31%
1.0	AA	0.22%	AMAT	0.28%
1.0	AMD	0.21%	KALU	0.27%
1.0	NVDA	0.21%	AA	0.26%
1.0	FCX	0.21%	CLF	0.26%
1.0	BUD	0.2%	FCX	0.26%
1.0	KALU	0.19%	NVDA	0.24%
1.0	SLV	0.17%	CAH	0.23%
1.0	CLF	0.17%	HSBC	0.23%
1.0	CVS	0.17%	GOOGL	0.23%
1.0	INTC	0.16%	GLD	0.23%
1.0	AMAT	0.16%	MNST	0.22%
1.0	GS	0.15%	EXPE	0.22%
1.0	EXPE	0.15%	AVGO	0.22%
1.0	GWW	0.15%	PWR	0.21%
1.0	LUMN	0.15%	GE	0.18%
1.0	QCOM	0.15%	RIO	0.18%
1.0	QQQ	0.14%	GS	0.18%
1.0	GSK	0.14%	GSK	0.17%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MU	9.24%	MU	7.03%
10.0	WDC	8.2%	WDC	6.65%
10.0	X	4.27%	SLV	5.13%
10.0	NEM	3.81%	B	4.72%
10.0	B	3.58%	X	4.58%
10.0	INTC	3.2%	NEM	4.44%
10.0	KALU	3.18%	INTC	4.42%
10.0	FCX	3.08%	CSTM	4.19%
10.0	ELAN	3.03%	AMD	4.01%
10.0	SLV	2.93%	LUMN	3.69%
10.0	CSTM	2.87%	ELAN	3.61%
10.0	AMD	2.85%	TEVA	3.1%
10.0	PWR	2.81%	AMAT	2.89%
10.0	NVDA	2.55%	KALU	2.86%
10.0	TEVA	2.55%	AA	2.69%
10.0	AA	2.33%	GOOGL	2.52%
10.0	CVS	2.29%	FCX	2.45%
10.0	BUD	2.21%	GLD	2.37%
10.0	GOOGL	2.16%	CAH	2.31%
10.0	GE	1.99%	MNST	2.31%
10.0	JAZZ	1.94%	PWR	2.13%
10.0	EXPE	1.85%	HSBC	2.11%
10.0	TSLA	1.85%	CLF	2.05%
10.0	AMAT	1.83%	AVGO	1.94%
10.0	AVGO	1.74%	NVDA	1.86%
10.0	LUMN	1.67%	EXPE	1.86%
10.0	LLY	1.65%	GE	1.8%
10.0	WYNN	1.59%	GS	1.77%
10.0	ON	1.59%	HCA	1.74%
10.0	THC	1.52%	WYNN	1.71%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	WDC	18.27%	MU	14.95%
21.0	MU	17.32%	WDC	14.86%
21.0	X	9.42%	SLV	10.66%
21.0	NEM	9.23%	B	10.17%
21.0	B	7.98%	NEM	9.34%
21.0	AA	7.67%	X	9.23%
21.0	KALU	7.57%	AMD	8.67%
21.0	CSTM	7.15%	CSTM	8.4%
21.0	INTC	6.82%	ELAN	8.13%
21.0	PWR	5.94%	INTC	7.82%
21.0	SLV	5.91%	LUMN	7.51%
21.0	AMAT	5.88%	TEVA	6.96%
21.0	TEVA	5.61%	AA	6.45%
21.0	AAP	5.15%	AMAT	6.36%
21.0	CVS	5.09%	KALU	6.28%
21.0	FCX	5.03%	GOOGL	5.92%
21.0	NVDA	4.9%	CAH	5.04%
21.0	ON	4.86%	AVGO	4.89%
21.0	AMD	4.85%	FCX	4.87%
21.0	ELAN	4.74%	PWR	4.85%
21.0	AVGO	4.36%	GLD	4.67%
21.0	BUD	4.29%	MNST	4.35%
21.0	TSLA	4.28%	GE	4.3%
21.0	GE	4.28%	EXPE	4.08%
21.0	THC	4.26%	NVDA	4.07%
21.0	JAZZ	3.78%	THC	4.06%
21.0	LUMN	3.78%	GS	4.03%
21.0	GS	3.65%	LVS	3.94%
21.0	EXPE	3.45%	HSBC	3.94%
21.0	GOOGL	3.38%	HCA	3.89%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	WDC	88.26%	WDC	64.45%
63.0	MU	50.4%	MU	51.6%
63.0	ELAN	35.76%	AMD	33.29%
63.0	KALU	34.2%	B	33.22%
63.0	NEM	33.15%	LUMN	32.85%
63.0	INTC	31.31%	ELAN	31.75%
63.0	LUMN	31.22%	SLV	29.12%
63.0	AVGO	30.63%	NEM	28.34%
63.0	NVDA	27.65%	INTC	26.48%
63.0	AA	27.61%	X	26.36%
63.0	B	26.24%	GOOGL	24.54%
63.0	TSLA	25.15%	AVGO	24.52%
63.0	SLV	23.98%	TEVA	24.44%
63.0	PWR	22.62%	CSTM	23.63%
63.0	CSTM	22.44%	AMAT	21.54%
63.0	AMD	22.39%	KALU	21.23%
63.0	TEVA	22.26%	AA	19.34%
63.0	AMAT	20.93%	PWR	19.21%
63.0	AAP	19.54%	NVDA	18.98%
63.0	THC	18.4%	LVS	18.47%
63.0	GS	18.11%	TSLA	17.91%
63.0	ORCL	17.9%	CAH	17.31%
63.0	GE	17.24%	EXPE	17.13%
63.0	EXPE	17.04%	ORCL	17.1%
63.0	VST	17.01%	THC	16.56%
63.0	X	16.94%	GE	16.23%
63.0	JAZZ	16.82%	GS	16.13%
63.0	ON	16.72%	CLF	15.6%
63.0	GOOGL	16.47%	WYNN	15.36%
63.0	CVS	15.95%	CMA	14.13%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	WDC	301.68%	WDC	177.51%
126.0	MU	167.89%	MU	125.49%
126.0	ELAN	107.66%	B	84.67%
126.0	NEM	100.88%	AMD	82.24%
126.0	AVGO	99.03%	ELAN	78.18%
126.0	INTC	98.55%	LUMN	74.24%
126.0	B	87.52%	NEM	71.29%
126.0	SLV	81.95%	INTC	63.46%
126.0	AMD	80.83%	SLV	62.95%
126.0	NVDA	76.35%	GOOGL	60.12%
126.0	LUMN	74.24%	AVGO	57.41%
126.0	PWR	62.55%	TEVA	46.29%
126.0	GNRC	62.04%	CSTM	46.19%
126.0	AA	57.83%	ORCL	45.19%
126.0	KALU	55.95%	CLF	45.15%
126.0	GOOGL	53.09%	NVDA	42.5%
126.0	TSLA	51.78%	TSLA	41.04%
126.0	TEVA	50.53%	EXPE	41.0%
126.0	THC	50.27%	LVS	40.6%
126.0	EXPE	48.35%	AA	40.45%
126.0	ORCL	46.03%	AMAT	39.38%
126.0	CLF	45.14%	WYNN	37.39%
126.0	CSTM	43.84%	PWR	36.01%
126.0	GS	42.55%	GE	35.7%
126.0	CVS	40.03%	GS	35.1%
126.0	AMAT	38.58%	THC	34.64%
126.0	CMA	38.51%	CMA	32.96%
126.0	JAZZ	38.15%	KALU	30.89%
126.0	GE	34.79%	FSUGY	29.84%
126.0	VST	34.15%	MS	29.62%



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 2026-01-29

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	AMC	-0.16%	AMC	-0.19%
1.0	AAP	-0.13%	IEP	-0.15%
1.0	IEP	-0.1%	NWL	-0.11%
1.0	CHTR	-0.1%	AAP	-0.1%
1.0	FIS	-0.1%	CHTR	-0.08%
1.0	BHC	-0.09%	CZR	-0.07%
1.0	CNC	-0.09%	PRGO	-0.07%
1.0	PRGO	-0.08%	BHC	-0.06%
1.0	LUMN	-0.08%	UAA	-0.06%
1.0	BXP	-0.06%	VFC	-0.05%
1.0	TLT	-0.05%	FIS	-0.05%
1.0	VFC	-0.05%	TLT	-0.04%
1.0	NAVI	-0.03%	CMCSA	-0.04%
1.0	LQD	-0.03%	BALL	-0.03%
1.0	GSK	-0.03%	ADBE	-0.03%
1.0	VZ	-0.03%	BXP	-0.03%
1.0	T	-0.03%	NAVI	-0.03%
1.0	CMCSA	-0.02%	ZTS	-0.03%
1.0	ELAN	-0.02%	KHC	-0.03%
1.0	BBY	-0.02%	UNH	-0.03%
1.0	EMY	-0.02%	GT	-0.02%
1.0	ZTS	-0.02%	CNC	-0.02%
1.0	GT	-0.02%	CVS	-0.02%
1.0	INTC	-0.01%	CTLT	-0.01%
1.0	BIIB	-0.01%	BBY	-0.01%
1.0	ADBE	-0.01%	LQD	-0.01%
1.0	VCSH	-0.01%	FRA	-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 2026-01-29

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	-3.15%	FRCB	-2.19%
10.0	FRCB	-2.21%	AMC	-1.94%
10.0	AAP	-1.33%	IEP	-1.45%
10.0	CHTR	-1.02%	NWL	-1.09%
10.0	IEP	-0.99%	AAP	-0.97%
10.0	PRGO	-0.88%	CHTR	-0.83%
10.0	NWL	-0.74%	CZR	-0.83%
10.0	BHC	-0.69%	PRGO	-0.68%
10.0	CNC	-0.65%	UAA	-0.67%
10.0	VFC	-0.57%	VFC	-0.64%
10.0	FIS	-0.5%	FIS	-0.46%
10.0	ZTS	-0.47%	TLT	-0.42%
10.0	CMCSA	-0.46%	CMCSA	-0.42%
10.0	BXP	-0.43%	BHC	-0.38%
10.0	TLT	-0.43%	BXP	-0.36%
10.0	GSK	-0.4%	ZTS	-0.35%
10.0	TFC	-0.39%	BALL	-0.34%
10.0	CZR	-0.36%	KHC	-0.33%
10.0	ADBE	-0.34%	CNC	-0.31%
10.0	LQD	-0.31%	GT	-0.29%
10.0	GT	-0.29%	ADBE	-0.28%
10.0	VZ	-0.26%	NAVI	-0.26%
10.0	BMY	-0.23%	VZ	-0.2%
10.0	KHC	-0.19%	BBY	-0.19%
10.0	MOS	-0.17%	LNC	-0.18%
10.0	LW	-0.17%	UNH	-0.17%
10.0	CYH	-0.16%	CYH	-0.17%
10.0	ZION	-0.15%	MOS	-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 2026-01-29

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	-8.88%	FRCB	-6.02%
21.0	FRCB	-6.98%	AMC	-4.48%
21.0	PRGO	-2.25%	IEP	-3.16%
21.0	IEP	-1.94%	NWL	-2.5%
21.0	NWL	-1.94%	AAP	-2.12%
21.0	CHTR	-1.88%	CZR	-1.74%
21.0	BHC	-1.64%	CHTR	-1.65%
21.0	AAP	-1.58%	PRGO	-1.43%
21.0	CNC	-1.4%	VFC	-1.36%
21.0	VFC	-1.29%	UAA	-1.35%
21.0	CMCSA	-1.06%	BHC	-0.89%
21.0	CZR	-1.0%	TLT	-0.88%
21.0	TLT	-0.94%	CMCSA	-0.86%
21.0	FIS	-0.81%	BXP	-0.78%
21.0	ZION	-0.7%	KHC	-0.77%
21.0	ZTS	-0.67%	BALL	-0.73%
21.0	BALL	-0.65%	ZTS	-0.71%
21.0	ELAN	-0.64%	FIS	-0.71%
21.0	GT	-0.6%	CNC	-0.59%
21.0	BXP	-0.58%	GT	-0.55%
21.0	ADBE	-0.53%	NAVI	-0.48%
21.0	LW	-0.52%	VZ	-0.44%
21.0	LQD	-0.52%	MOS	-0.42%
21.0	KHC	-0.47%	LNC	-0.38%
21.0	VZ	-0.42%	ADBE	-0.35%
21.0	GSK	-0.4%	BBY	-0.35%
21.0	TFC	-0.36%	UNH	-0.29%
21.0	BIIB	-0.35%	LW	-0.25%



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 2026-01-29

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	SBNY	-80.29%	SBNY	-37.59%
63.0	SIVBQ	-67.12%	SIVBQ	-33.73%
63.0	FRCB	-40.48%	FRCB	-24.04%
63.0	AMC	-26.97%	AMC	-15.26%
63.0	NWL	-8.5%	IEP	-10.52%
63.0	IEP	-8.03%	NWL	-8.92%
63.0	CHTR	-7.66%	AAP	-6.3%
63.0	PRGO	-5.62%	CZR	-6.18%
63.0	AAP	-5.57%	UAA	-5.18%
63.0	VFC	-4.74%	PRGO	-5.14%
63.0	CZR	-4.63%	CHTR	-4.79%
63.0	MOS	-3.97%	VFC	-4.64%
63.0	CMCSA	-3.44%	MOS	-4.04%
63.0	UAA	-3.29%	BHC	-3.0%
63.0	BHC	-2.95%	CNC	-2.92%
63.0	TLT	-2.64%	CMCSA	-2.74%
63.0	CNC	-2.58%	KHC	-2.74%
63.0	KHC	-2.5%	BALL	-2.68%
63.0	BALL	-2.32%	TLT	-2.38%
63.0	FIS	-1.49%	BXP	-2.35%
63.0	UNH	-1.46%	ZTS	-2.31%
63.0	BMY	-1.41%	FIS	-1.9%
63.0	ADBE	-1.23%	GT	-1.74%
63.0	BIIB	-1.14%	NAVI	-1.62%
63.0	CLF	-1.06%	UNH	-1.56%
63.0	NAVI	-0.86%	CLF	-1.42%
63.0	ZTS	-0.83%	BMY	-1.39%
63.0	LNC	-0.83%	VZ	-1.32%
63.0	BXP	-0.77%	LNC	-1.13%
63.0	GT	-0.75%	BBY	-0.9%



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 2026-01-29

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	-42.68%	AMC	-27.76%
126.0	AAP	-20.27%	IEP	-20.36%
126.0	NWL	-18.97%	NWL	-17.53%
126.0	CHTR	-17.13%	AAP	-11.89%
126.0	IEP	-15.43%	CZR	-10.33%
126.0	VFC	-12.7%	VFC	-10.0%
126.0	CZR	-11.5%	UAA	-9.31%
126.0	UAA	-9.01%	CNC	-9.06%
126.0	MOS	-8.94%	PRGO	-8.83%
126.0	PRGO	-8.46%	CHTR	-7.47%
126.0	CNC	-8.11%	MOS	-7.23%
126.0	CMCSA	-5.83%	CTLT	-5.69%
126.0	FIS	-5.48%	KHC	-5.48%
126.0	TLT	-5.45%	GT	-4.57%
126.0	BHC	-5.4%	BMY	-4.49%
126.0	KHC	-4.9%	BALL	-4.47%
126.0	BALL	-4.37%	TLT	-4.31%
126.0	ZTS	-4.23%	BHC	-4.31%
126.0	BMY	-4.17%	CMCSA	-4.27%
126.0	UNH	-4.07%	BXP	-3.98%
126.0	GT	-3.76%	UNH	-3.91%
126.0	OXY	-3.56%	FIS	-3.52%
126.0	CLF	-2.96%	ZTS	-3.21%
126.0	AA	-2.61%	NAVI	-2.88%
126.0	CTLT	-2.25%	CLF	-2.76%
126.0	NAVI	-1.55%	OXY	-2.61%
126.0	BXP	-1.52%	CVS	-2.23%



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 2026-01-29

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	-70.04%	AMC	-54.56%
252.0	AAP	-56.44%	IEP	-42.56%
252.0	NWL	-34.53%	NWL	-30.74%
252.0	VFC	-33.64%	AAP	-30.6%
252.0	IEP	-32.66%	VFC	-22.95%
252.0	CHTR	-22.79%	CZR	-17.96%
252.0	BIIB	-22.36%	CNC	-16.97%
252.0	CZR	-22.32%	UAA	-16.31%
252.0	PRGO	-20.16%	PRGO	-15.44%
252.0	UAA	-19.92%	MOS	-15.38%
252.0	OXY	-18.44%	CLF	-13.93%
252.0	CNC	-18.37%	KHC	-10.74%
252.0	CLF	-17.03%	BIIB	-10.67%
252.0	AA	-16.86%	BMY	-10.42%
252.0	MOS	-16.11%	OXY	-9.26%
252.0	BMY	-12.4%	CHTR	-9.11%
252.0	KHC	-11.38%	BHC	-8.91%
252.0	BHC	-10.89%	UNH	-8.52%
252.0	UNH	-10.67%	AA	-8.36%
252.0	TLT	-10.13%	CVS	-7.82%
252.0	JAZZ	-8.23%	TLT	-7.82%
252.0	GT	-7.57%	GT	-7.3%
252.0	FIS	-7.47%	CYH	-6.69%
252.0	CTLT	-6.82%	CTLT	-6.24%
252.0	CYH	-6.79%	NAVI	-5.7%
252.0	BHP	-6.36%	PEP	-5.46%
252.0	ZTS	-6.22%	BALL	-5.22%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	INTU	-1.23%	NAVI	-1.27%
1.0	NAVI	-1.2%	INTU	-1.18%
1.0	INTC	-1.15%	BHC	-1.14%
1.0	CHTR	-0.99%	LVS	-1.05%
1.0	ORCL	-0.84%	FIS	-0.89%
1.0	FIS	-0.74%	ORCL	-0.87%
1.0	CZR	-0.73%	UNH	-0.7%
1.0	BHC	-0.7%	WYNN	-0.68%
1.0	QCOM	-0.69%	QCOM	-0.67%
1.0	ISRG	-0.55%	AMC	-0.67%
1.0	MSFT	-0.43%	ADBE	-0.65%
1.0	LVS	-0.37%	CZR	-0.62%
1.0	UNH	-0.32%	ISRG	-0.56%
1.0	LNC	-0.28%	MSFT	-0.46%
1.0	ADBE	-0.27%	NFLX	-0.44%
1.0	MSTR	-0.25%	LNC	-0.39%
1.0	NFLX	-0.25%	GBTC	-0.33%
1.0	JAZZ	-0.25%	EXPE	-0.32%
1.0	WYNN	-0.23%	CVS	-0.31%
1.0	CDNS	-0.19%	JPM	-0.31%
1.0	GE	-0.18%	BBY	-0.29%
1.0	VST	-0.17%	PCG	-0.27%
1.0	EXPE	-0.17%	THC	-0.26%
1.0	AAPL	-0.15%	BAC	-0.25%
1.0	VNO	-0.14%	WFC	-0.25%
1.0	PCG	-0.14%	JAZZ	-0.25%
1.0	GBTC	-0.13%	VNO	-0.24%
1.0	BXP	-0.12%	BXP	-0.24%
1.0	WFC	-0.12%	AVGO	-0.23%
1.0	CVS	-0.12%	AAPL	-0.22%



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 2026-01-29 through 2026-01-02

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	BHC	-17.16%	BHC	-18.08%
10.0	CHTR	-14.7%	INTU	-13.79%
10.0	QCOM	-14.68%	QCOM	-10.53%
10.0	CZR	-11.73%	FIS	-10.43%
10.0	INTU	-9.7%	NAVI	-9.76%
10.0	FIS	-8.38%	ORCL	-9.66%
10.0	UNH	-7.84%	ADBE	-8.76%
10.0	NAVI	-7.67%	ISRG	-8.42%
10.0	ADBE	-7.28%	EXPE	-7.49%
10.0	ISRG	-7.26%	CHTR	-7.44%
10.0	ORCL	-7.09%	CCL	-7.34%
10.0	AMC	-6.79%	CZR	-7.32%
10.0	NFLX	-6.13%	WFC	-6.1%
10.0	WFC	-5.23%	JPM	-6.08%
10.0	GE	-5.12%	LNC	-6.03%
10.0	TMUS	-4.7%	GE	-5.8%
10.0	CCL	-4.61%	THC	-5.43%
10.0	MSTR	-4.4%	NFLX	-5.26%
10.0	EXPE	-4.07%	BAC	-5.15%
10.0	SNY	-3.65%	UNH	-5.13%
10.0	VNO	-3.59%	LVS	-4.98%
10.0	LNC	-3.5%	VNO	-4.84%
10.0	AVGO	-3.5%	WYNN	-4.83%
10.0	CVS	-3.44%	TMUS	-4.75%
10.0	BXP	-3.11%	BBY	-4.22%
10.0	CYH	-2.88%	GBTC	-4.22%
10.0	LVS	-2.62%	PCG	-4.15%
10.0	KHC	-2.45%	AVGO	-3.88%
10.0	THC	-2.37%	BIIIB	-3.82%
10.0	WYNN	-2.37%	AMC	-3.66%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	-1.57%	AMC	-0.96%
1.0	AMC	-1.34%	MSTR	-0.86%
1.0	ZTS	-0.71%	ORCL	-0.7%
1.0	PRGO	-0.53%	PRGO	-0.53%
1.0	ORCL	-0.51%	INTU	-0.48%
1.0	INTC	-0.45%	NFLX	-0.44%
1.0	INTU	-0.43%	LW	-0.44%
1.0	CHTR	-0.34%	LUMN	-0.39%
1.0	NFLX	-0.32%	GBTC	-0.37%
1.0	BBY	-0.32%	BBY	-0.36%
1.0	VST	-0.26%	NAVI	-0.31%
1.0	NAVI	-0.24%	MSFT	-0.29%
1.0	IRM	-0.21%	QCOM	-0.27%
1.0	CDNS	-0.2%	VST	-0.27%
1.0	QCOM	-0.2%	VNO	-0.26%
1.0	MSFT	-0.19%	CYH	-0.26%
1.0	FIS	-0.19%	WYNN	-0.24%
1.0	AMZN	-0.16%	BHC	-0.24%
1.0	LEN	-0.16%	LVS	-0.23%
1.0	AMD	-0.15%	ADBE	-0.22%
1.0	LW	-0.13%	ZTS	-0.21%
1.0	ISRG	-0.13%	UNH	-0.2%
1.0	BHC	-0.12%	CDNS	-0.19%
1.0	VNO	-0.12%	FIS	-0.19%
1.0	BXP	-0.11%	IRM	-0.17%
1.0	ADBE	-0.11%	BXP	-0.14%
1.0	GBTC	-0.1%	LEN	-0.13%
1.0	WYNN	-0.1%	ISRG	-0.12%
1.0	FRA	-0.09%	VICI	-0.11%
1.0	POST	-0.07%	NVDA	-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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	AMC	-13.37%	AMC	-8.48%
10.0	MSTR	-12.62%	MSTR	-6.57%
10.0	NFLX	-4.47%	ORCL	-5.4%
10.0	ORCL	-4.38%	NFLX	-5.08%
10.0	LW	-3.98%	LW	-4.88%
10.0	CHTR	-3.95%	INTU	-3.7%
10.0	BHC	-2.49%	BBY	-3.21%
10.0	INTU	-2.34%	GBTC	-2.43%
10.0	QCOM	-2.12%	VST	-2.38%
10.0	IRM	-2.03%	CHTR	-2.18%
10.0	BXP	-1.9%	QCOM	-2.15%
10.0	SNY	-1.88%	TMUS	-2.02%
10.0	TMUS	-1.85%	MSFT	-1.99%
10.0	BBY	-1.65%	ADBE	-1.97%
10.0	VNO	-1.63%	VNO	-1.95%
10.0	LEN	-1.62%	IEP	-1.88%
10.0	ADBE	-1.46%	WYNN	-1.84%
10.0	FIS	-1.4%	LVS	-1.77%
10.0	KHC	-1.3%	FIS	-1.72%
10.0	WYNN	-1.17%	CYH	-1.69%
10.0	POST	-1.08%	SNY	-1.58%
10.0	PRGO	-1.08%	BXP	-1.55%
10.0	AMZN	-1.0%	PCG	-1.44%
10.0	LVS	-0.97%	LUMN	-1.34%
10.0	ISRG	-0.95%	AAPL	-1.27%
10.0	VST	-0.95%	POST	-1.25%
10.0	VICI	-0.93%	VICI	-1.24%
10.0	MSFT	-0.79%	ISRG	-1.16%
10.0	IEP	-0.73%	LEN	-0.99%
10.0	ZTS	-0.6%	BHC	-0.95%



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 2026-01-29 through 2025-11-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	-16.56%	AMC	-19.08%
21.0	AMC	-15.21%	LW	-13.84%
21.0	LW	-14.17%	MSTR	-11.11%
21.0	NFLX	-11.63%	NFLX	-10.91%
21.0	ORCL	-7.34%	ORCL	-8.52%
21.0	BXP	-5.11%	BBY	-6.76%
21.0	TMUS	-4.9%	AAP	-5.5%
21.0	BBY	-4.5%	INTU	-5.2%
21.0	KHC	-4.21%	VST	-4.42%
21.0	SNY	-4.02%	TMUS	-4.27%
21.0	INTU	-3.04%	LVS	-3.96%
21.0	LVS	-2.92%	LEN	-3.94%
21.0	IRM	-2.85%	WYNN	-3.58%
21.0	AAP	-2.74%	AZO	-3.53%
21.0	AVGO	-2.47%	VNO	-3.52%
21.0	CHTR	-2.28%	BXP	-3.36%
21.0	T	-2.25%	MSFT	-3.18%
21.0	LEN	-2.22%	SNY	-3.08%
21.0	VNO	-2.04%	AVGO	-2.96%
21.0	WYNN	-1.95%	POST	-2.81%
21.0	VST	-1.93%	T	-2.78%
21.0	IEP	-1.56%	IEP	-2.77%
21.0	POST	-1.53%	AAPL	-2.75%
21.0	VICI	-1.5%	KHC	-2.7%
21.0	ADBE	-1.49%	VICI	-2.49%
21.0	AZO	-1.46%	CYH	-2.49%
21.0	QCOM	-1.34%	GBTC	-2.34%
21.0	MSFT	-1.3%	LUMN	-2.12%
21.0	LUMN	-1.29%	CHTR	-1.85%
21.0	CYH	-1.2%	PCG	-1.81%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
1.0	MSTR	-0.47%	AMC	-0.26%
1.0	AMC	-0.39%	NWL	-0.23%
1.0	CNC	-0.3%	MSTR	-0.23%
1.0	ZTS	-0.29%	UNH	-0.2%
1.0	CZR	-0.19%	PRGO	-0.19%
1.0	NAVI	-0.18%	CHTR	-0.17%
1.0	CHTR	-0.16%	CZR	-0.16%
1.0	NWL	-0.15%	ADBE	-0.14%
1.0	FIS	-0.14%	FIS	-0.14%
1.0	BBY	-0.13%	CMG	-0.13%
1.0	CMG	-0.11%	CPRT	-0.13%
1.0	INTU	-0.1%	ZTS	-0.11%
1.0	BHC	-0.1%	NAVI	-0.1%
1.0	CPRT	-0.06%	VNO	-0.08%
1.0	PRGO	-0.06%	CNC	-0.08%
1.0	ACGL	-0.05%	IEP	-0.07%
1.0	ADBE	-0.04%	KHC	-0.07%
1.0	TDG	-0.04%	LW	-0.07%
1.0	IEP	-0.04%	UAA	-0.06%
1.0	TMUS	-0.03%	BBY	-0.06%
1.0	MSI	-0.03%	TMUS	-0.06%
1.0	TSLA	-0.03%	MSI	-0.05%
1.0	POST	-0.03%	INTU	-0.05%
1.0	UAA	-0.02%	GBTC	-0.05%
1.0	VICI	-0.02%	NFLX	-0.04%
1.0	NFLX	-0.02%	SBUX	-0.04%
1.0	VNO	-0.02%	FRA	-0.04%
1.0	KHC	-0.02%	SNY	-0.04%
1.0	ISRG	-0.02%	LEN	-0.03%
1.0	BXP	-0.02%	ISRG	-0.03%



P365D: 10d

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

Period examined: All model dates from 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
10.0	MSTR	-5.52%	AMC	-2.59%
10.0	AMC	-5.09%	MSTR	-2.25%
10.0	CHTR	-2.95%	CHTR	-2.07%
10.0	ZTS	-2.78%	PRGO	-1.7%
10.0	PRGO	-1.9%	NWL	-1.7%
10.0	CZR	-1.74%	CZR	-1.54%
10.0	CNC	-1.54%	ADBE	-1.51%
10.0	ADBE	-1.26%	UNH	-1.49%
10.0	CMG	-1.0%	CPRT	-1.35%
10.0	CMCSA	-0.94%	ZTS	-1.18%
10.0	KHC	-0.81%	CMG	-1.17%
10.0	TMUS	-0.76%	TMUS	-1.13%
10.0	FIS	-0.73%	FIS	-0.99%
10.0	CPRT	-0.72%	VNO	-0.94%
10.0	BHC	-0.63%	KHC	-0.85%
10.0	UNH	-0.48%	BBY	-0.84%
10.0	BMY	-0.42%	IEP	-0.73%
10.0	NFLX	-0.41%	LW	-0.7%
10.0	POST	-0.38%	CMCSA	-0.63%
10.0	TDG	-0.27%	MSI	-0.58%
10.0	VNO	-0.24%	NFLX	-0.52%
10.0	VICI	-0.24%	SBUX	-0.51%
10.0	MSI	-0.23%	NAVI	-0.5%
10.0	INTU	-0.22%	SNY	-0.49%
10.0	NWL	-0.21%	CNC	-0.41%
10.0	IEP	-0.18%	UAA	-0.39%
10.0	FRA	-0.17%	FRA	-0.36%
10.0	VZ	-0.16%	POST	-0.34%
10.0	LW	-0.14%	ISRG	-0.25%
10.0	T	-0.12%	COST	-0.25%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
21.0	MSTR	-9.51%	AMC	-5.83%
21.0	AMC	-8.11%	CHTR	-4.28%
21.0	CHTR	-5.93%	MSTR	-4.06%
21.0	PRGO	-5.64%	PRGO	-3.92%
21.0	ZTS	-5.11%	NWL	-3.42%
21.0	CNC	-4.05%	CPRT	-2.94%
21.0	CMCSA	-3.77%	CZR	-2.85%
21.0	CZR	-3.71%	ADBE	-2.84%
21.0	ADBE	-2.26%	TMUS	-2.57%
21.0	KHC	-2.01%	UNH	-2.39%
21.0	TMUS	-1.98%	ZTS	-2.37%
21.0	UNH	-1.89%	CMG	-2.25%
21.0	NFLX	-1.87%	KHC	-2.06%
21.0	CPRT	-1.77%	IEP	-1.94%
21.0	CMG	-1.6%	BBY	-1.85%
21.0	GME	-1.08%	CMCSA	-1.69%
21.0	NWL	-1.02%	VNO	-1.68%
21.0	FIS	-0.78%	LW	-1.59%
21.0	BHC	-0.76%	SBUX	-1.55%
21.0	MSI	-0.75%	FIS	-1.25%
21.0	T	-0.69%	SNY	-1.08%
21.0	POST	-0.65%	POST	-1.05%
21.0	LW	-0.58%	MSI	-0.99%
21.0	BMY	-0.49%	COST	-0.84%
21.0	VNO	-0.39%	UAA	-0.83%
21.0	SBUX	-0.37%	VICI	-0.77%
21.0	VICI	-0.35%	NFLX	-0.77%
21.0	COST	-0.35%	NAVI	-0.76%
21.0	PCG	-0.34%	FRA	-0.75%
21.0	FRA	-0.29%	OXY	-0.69%



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 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
63.0	MSTR	-37.78%	PRGO	-16.64%
63.0	PRGO	-22.79%	CHTR	-15.12%
63.0	CHTR	-19.54%	NWL	-13.33%
63.0	AMC	-18.18%	AMC	-11.49%
63.0	NWL	-14.1%	CMG	-10.93%
63.0	CMCSA	-13.09%	CPRT	-10.84%
63.0	CZR	-9.13%	MSTR	-10.4%
63.0	UNH	-8.5%	UNH	-9.29%
63.0	ZTS	-8.11%	ZTS	-8.09%
63.0	CPRT	-7.95%	TMUS	-7.75%
63.0	KHC	-7.17%	CZR	-7.71%
63.0	CMG	-6.97%	CMCSA	-7.01%
63.0	ADBE	-6.93%	UAA	-6.81%
63.0	TMUS	-6.38%	KHC	-6.6%
63.0	CNC	-6.27%	ADBE	-6.32%
63.0	IEP	-5.79%	CNC	-5.53%
63.0	GME	-5.39%	IEP	-4.84%
63.0	UAA	-4.49%	POST	-3.79%
63.0	SNY	-3.7%	FIS	-3.7%
63.0	NFLX	-2.91%	GME	-3.65%
63.0	TDG	-2.9%	SNY	-3.49%
63.0	MSI	-2.27%	MSI	-3.19%
63.0	SBUX	-2.27%	SBUX	-3.16%
63.0	POST	-2.22%	VICI	-2.91%
63.0	VZ	-2.14%	VNO	-2.64%
63.0	FIS	-2.04%	COST	-2.48%
63.0	VICI	-1.55%	T	-2.27%
63.0	T	-1.43%	VZ	-2.06%
63.0	VNO	-1.43%	OXY	-1.92%
63.0	OXY	-1.42%	FRA	-1.81%



P365D: 126d

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

Period examined: All model dates from 2026-01-29 through 2025-02-03

Horizon	Ticker_V	ROVBC_V	Ticker_S	ROVBC_S
126.0	CHTR	-61.24%	CHTR	-36.75%
126.0	MSTR	-55.31%	PRGO	-30.65%
126.0	AMC	-39.17%	CMG	-25.57%
126.0	PRGO	-27.9%	CNC	-25.12%
126.0	NWL	-26.89%	UAA	-24.13%
126.0	CMCSA	-24.54%	MSTR	-22.48%
126.0	UAA	-24.41%	NWL	-22.24%
126.0	CZR	-23.97%	AMC	-20.38%
126.0	CNC	-23.93%	CPRT	-20.35%
126.0	CMG	-22.59%	GT	-17.88%
126.0	ZTS	-20.73%	CZR	-17.74%
126.0	ADBE	-15.43%	ZTS	-14.96%
126.0	GT	-14.85%	CMCSA	-14.5%
126.0	CPRT	-13.68%	ADBE	-13.94%
126.0	TMUS	-12.11%	FIS	-13.39%
126.0	UNH	-11.45%	UNH	-13.0%
126.0	TDG	-10.65%	TMUS	-11.38%
126.0	KHC	-9.82%	KHC	-11.01%
126.0	GME	-9.76%	GME	-9.24%
126.0	FIS	-9.43%	IEP	-9.1%
126.0	IEP	-9.29%	SBUX	-7.49%
126.0	SBUX	-8.43%	POST	-6.64%
126.0	SNY	-6.75%	SNY	-6.37%
126.0	HON	-5.13%	COST	-5.75%
126.0	NAVI	-4.85%	NAVI	-5.26%
126.0	GWW	-4.59%	TDG	-5.13%
126.0	BUD	-4.01%	BMY	-4.68%
126.0	POST	-3.86%	VICI	-4.42%
126.0	MSI	-3.82%	HON	-4.25%
126.0	COST	-3.5%	GWW	-3.83%



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 2026-01-29

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	12.56%	TSLA	6.08%
1.0	CHTR	11.37%	LQD	4.49%
1.0	LQD	9.77%	ZTS	4.09%
1.0	GME	9.07%	FRCB	3.6%
1.0	MSTR	8.08%	B	3.59%
1.0	UAA	7.48%	GME	3.39%
1.0	AMC	7.48%	AMC	3.19%
1.0	FRCB	7.19%	MSTR	2.49%
1.0	META	7.08%	AAP	1.89%
1.0	ZTS	6.88%	GNRC	1.89%
1.0	SBUX	6.78%	JAZZ	1.69%
1.0	AAP	6.48%	BUD	1.69%
1.0	PRGO	6.38%	ISRG	1.69%
1.0	AMZN	6.28%	CHTR	1.6%
1.0	B	6.28%	CDNS	1.4%
1.0	ISRG	5.08%	KALU	1.4%
1.0	BALL	4.99%	PRGO	1.2%
1.0	KEY	4.99%	EXPE	1.1%
1.0	GNRC	4.79%	FRA	0.9%
1.0	BUD	4.69%	TLT	0.9%
1.0	VFC	4.59%	CMCSA	0.9%
1.0	HD	4.09%	ELAN	0.81%
1.0	JAZZ	3.99%	LLY	0.6%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	SBNY	30.51%	SBNY	14.34%
10.0	AMC	15.79%	AMC	8.95%
10.0	TSLA	13.18%	TSLA	8.15%
10.0	CHTR	12.88%	SIVBQ	7.35%
10.0	GME	12.47%	B	5.33%
10.0	AAP	11.97%	CHTR	4.93%
10.0	SIVBQ	11.76%	ZTS	4.83%
10.0	ZTS	10.56%	LQD	4.73%
10.0	B	10.56%	MSTR	4.33%
10.0	MSTR	9.05%	AAP	4.23%
10.0	BUD	8.35%	GNRC	2.72%
10.0	LQD	8.05%	GME	2.72%
10.0	TLT	7.95%	KALU	1.91%
10.0	PRGO	7.44%	ISRG	1.91%
10.0	META	7.14%	VCSH	1.61%
10.0	KALU	7.04%	CVS	1.61%
10.0	JAZZ	6.64%	BIIB	1.61%
10.0	SLV	5.84%	CZR	1.21%
10.0	AMZN	5.73%	SNY	1.21%
10.0	VFC	5.53%	OXY	1.01%
10.0	FRCB	5.51%	TLT	1.01%
10.0	GNRC	5.33%	CMA	0.91%
10.0	VZ	5.03%	META	0.91%
10.0	NEM	4.73%	ORCL	0.7%
10.0	TDG	4.73%	BUD	0.7%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	SBNY	47.78%	SBNY	15.93%
21.0	CHTR	16.07%	AMC	9.46%
21.0	AMC	14.75%	CHTR	8.44%
21.0	ZTS	13.43%	TSLA	7.12%
21.0	TSLA	13.22%	SIVBQ	7.04%
21.0	AAP	11.39%	ZTS	5.29%
21.0	B	10.78%	VCSH	5.29%
21.0	SIVBQ	10.37%	GNRC	4.48%
21.0	MSTR	10.17%	B	4.07%
21.0	PRGO	9.66%	LQD	3.46%
21.0	TLT	9.46%	BIIB	3.36%
21.0	BUD	9.26%	MSTR	3.36%
21.0	GME	8.95%	META	2.54%
21.0	META	8.34%	BUD	2.34%
21.0	LQD	8.24%	KALU	2.34%
21.0	KALU	8.14%	AAP	2.24%
21.0	GNRC	8.04%	CMCSA	1.83%
21.0	CVS	7.32%	UNH	1.73%
21.0	JAZZ	7.32%	ORCL	1.73%
21.0	TDG	7.22%	GME	1.63%
21.0	BIIB	6.71%	BHC	1.42%
21.0	NEM	6.51%	FIS	1.12%
21.0	VCSH	6.21%	CMA	1.12%
21.0	BXP	6.1%	FRCB	1.11%
21.0	VFC	6.1%	BHP	1.02%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	SBNY	55.19%	SBNY	28.89%
63.0	AAP	25.19%	CHTR	20.51%
63.0	AMC	20.62%	AMC	10.95%
63.0	CHTR	19.98%	MSTR	8.93%
63.0	MSTR	14.35%	AAP	7.76%
63.0	BIIB	13.92%	VCSH	5.42%
63.0	KALU	13.5%	GNRC	5.42%
63.0	META	12.75%	SIVBQ	4.81%
63.0	TSLA	12.65%	LQD	4.46%
63.0	SIVBQ	11.85%	META	3.83%
63.0	GNRC	11.58%	ZION	3.78%
63.0	VFC	11.37%	PRGO	3.72%
63.0	B	11.26%	BMY	3.51%
63.0	ZTS	9.46%	B	3.51%
63.0	BUD	9.25%	BUD	3.19%
63.0	PRGO	9.03%	TLT	3.08%
63.0	BHC	8.18%	ON	2.87%
63.0	FIS	7.86%	BIIB	2.34%
63.0	AMZN	7.65%	BXP	2.34%
63.0	TLT	7.44%	VNO	2.23%
63.0	TDG	7.44%	TDG	2.13%
63.0	LQD	5.63%	NWL	2.13%
63.0	NWL	5.21%	NFLX	1.81%
63.0	JAZZ	4.89%	CMCSA	1.7%
63.0	FITB	4.89%	CVS	1.38%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	SBNY	55.19%	SBNY	26.3%
126.0	CHTR	29.84%	CHTR	23.35%
126.0	AMC	27.33%	AAP	21.53%
126.0	VFC	27.33%	AMC	18.56%
126.0	AAP	18.68%	BXP	6.72%
126.0	GNRC	16.17%	VFC	6.38%
126.0	SIVBQ	15.93%	CTLT	5.65%
126.0	TSLA	15.15%	VCSH	5.47%
126.0	BMY	14.58%	MSTR	4.78%
126.0	TLT	11.96%	GNRC	4.56%
126.0	BIIB	11.62%	TLT	3.99%
126.0	OXY	10.82%	CMA	3.87%
126.0	BUD	10.14%	OXY	3.3%
126.0	CVS	10.02%	ZION	2.89%
126.0	ZTS	9.91%	B	2.51%
126.0	ZION	9.38%	VNO	2.05%
126.0	MSTR	9.34%	LQD	1.82%
126.0	AMZN	9.34%	SNY	1.59%
126.0	BXP	7.97%	ON	1.59%
126.0	CMCSA	7.63%	SIVBQ	1.48%
126.0	FIS	7.4%	META	1.48%
126.0	NWL	7.29%	BIIB	1.37%
126.0	B	6.95%	BHC	0.91%
126.0	CCL	6.49%	FIS	0.91%
126.0	META	6.26%	HYG	0.68%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
252.0	CHTR	39.76%	AMC	29.26%
252.0	AMC	39.1%	AAP	28.32%
252.0	AAP	38.43%	SBNY	25.93%
252.0	BIIB	36.04%	CHTR	16.36%
252.0	VFC	25.8%	BIIB	14.49%
252.0	SBNY	20.37%	BXP	11.17%
252.0	CMA	20.08%	VFC	10.37%
252.0	ZION	19.38%	OXY	7.05%
252.0	OXY	17.02%	CMA	6.91%
252.0	NWL	15.16%	VNO	5.45%
252.0	FIS	15.03%	ZION	5.01%
252.0	CVS	11.84%	UNH	4.39%
252.0	PRGO	10.77%	MRK	4.26%
252.0	UAA	10.24%	CTLT	3.85%
252.0	TLT	10.11%	BHC	2.93%
252.0	CTLT	8.52%	KEY	2.53%
252.0	BHC	8.51%	GNRC	2.39%
252.0	KHC	7.31%	VCSH	1.99%
252.0	ELAN	7.17%	BMY	1.99%
252.0	EXPE	6.65%	UAA	1.73%
252.0	GNRC	6.38%	EMB	1.2%
252.0	CLF	6.25%	FIS	1.2%
252.0	AMZN	5.85%	GSK	0.93%
252.0	ZTS	5.32%	ELAN	0.81%
252.0	VNO	5.19%	TLT	0.8%



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 2026-01-29 through 2026-01-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	ISRG	26.32%	TDG	10.53%
1.0	MSTR	21.05%	TMUS	10.53%
1.0	CDNS	21.05%	CHTR	10.53%
1.0	TDG	21.05%	KHC	5.26%
1.0	TMUS	15.79%	AMC	5.26%
1.0	HD	15.79%	QCOM	5.26%
1.0	PRGO	15.79%	CMCSA	5.26%
1.0	MSFT	15.79%	ON	5.26%
1.0	ORCL	15.79%	NWL	0.0%
1.0	CMCSA	10.53%	NVDA	0.0%
1.0	CYH	10.53%	MSI	0.0%
1.0	TXN	10.53%	NFLX	0.0%
1.0	ON	10.53%	NEM	0.0%
1.0	CHTR	10.53%	NAVI	0.0%
1.0	VICI	10.53%	MUB	0.0%
1.0	AMZN	10.53%	MU	0.0%
1.0	AMGN	10.53%	ORCL	0.0%
1.0	KHC	10.53%	MSTR	0.0%
1.0	FIS	5.26%	ISRG	0.0%
1.0	MSI	5.26%	MRK	0.0%
1.0	CZR	5.26%	MSFT	0.0%
1.0	META	5.26%	OXY	0.0%
1.0	PEP	5.26%	MOS	0.0%
1.0	GWW	5.26%	MNST	0.0%
1.0	LEN	5.26%	META	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 2026-01-29 through 2026-01-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	TMUS	60.0%	QCOM	50.0%
10.0	CHTR	60.0%	CHTR	30.0%
10.0	GE	40.0%	UNH	30.0%
10.0	CZR	30.0%	CVS	10.0%
10.0	AMC	30.0%	CZR	10.0%
10.0	META	20.0%	PCG	0.0%
10.0	MSFT	20.0%	OXY	0.0%
10.0	UNH	20.0%	ORLY	0.0%
10.0	CVS	20.0%	ORCL	0.0%
10.0	INTU	10.0%	MSTR	0.0%
10.0	MSTR	10.0%	ON	0.0%
10.0	PRGO	10.0%	NWL	0.0%
10.0	QCOM	10.0%	NVS	0.0%
10.0	NAVI	10.0%	NVDA	0.0%
10.0	ISRG	10.0%	PEP	0.0%
10.0	LNC	10.0%	NFLX	0.0%
10.0	MOS	0.0%	NEM	0.0%
10.0	MRK	0.0%	MUB	0.0%
10.0	OXY	0.0%	MU	0.0%
10.0	ORLY	0.0%	AA	0.0%
10.0	ORCL	0.0%	PHM	0.0%
10.0	LW	0.0%	LUMN	0.0%
10.0	ON	0.0%	KALU	0.0%
10.0	NWL	0.0%	KEY	0.0%
10.0	NVS	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 2026-01-29 through 2025-11-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	PRGO	21.67%	GWW	10.0%
1.0	MSTR	20.0%	LLY	10.0%
1.0	ISRG	18.33%	CMCSA	8.33%
1.0	AMZN	18.33%	AMC	8.33%
1.0	LLY	18.33%	TMUS	5.0%
1.0	GWW	16.67%	MSTR	5.0%
1.0	SBUX	15.0%	KHC	5.0%
1.0	TXN	13.33%	PRGO	3.33%
1.0	CMCSA	13.33%	CHTR	3.33%
1.0	KHC	13.33%	AMGN	3.33%
1.0	AMGN	11.67%	SBUX	3.33%
1.0	TDG	11.67%	TDG	3.33%
1.0	TMUS	11.67%	PCG	1.67%
1.0	VICI	10.0%	QCOM	1.67%
1.0	AMC	8.33%	CDNS	1.67%
1.0	CDNS	8.33%	ON	1.67%
1.0	AMD	8.33%	CVS	1.67%
1.0	TSLA	6.67%	AMD	1.67%
1.0	HD	5.0%	GNRC	1.67%
1.0	NAVI	5.0%	LQD	0.0%
1.0	ORCL	5.0%	HYG	0.0%
1.0	ON	3.33%	NWL	0.0%
1.0	COST	3.33%	NVDA	0.0%
1.0	KEY	3.33%	MUB	0.0%
1.0	FCX	3.33%	IRM	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 2026-01-29 through 2025-11-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	AMC	29.41%	MSTR	11.76%
10.0	MSTR	25.49%	QCOM	9.8%
10.0	PRGO	19.61%	LLY	7.84%
10.0	TMUS	19.61%	AMZN	7.84%
10.0	AMD	17.65%	AMGN	5.88%
10.0	AMZN	15.69%	CHTR	5.88%
10.0	LLY	13.73%	UNH	5.88%
10.0	TDG	13.73%	GWW	5.88%
10.0	CMCSA	11.76%	PRGO	5.88%
10.0	CHTR	11.76%	AMC	3.92%
10.0	GWW	9.8%	INTC	1.96%
10.0	GE	9.8%	CZR	1.96%
10.0	META	7.84%	TDG	1.96%
10.0	AAP	7.84%	CVS	1.96%
10.0	AMGN	7.84%	PEP	0.0%
10.0	GNRC	5.88%	PCG	0.0%
10.0	JAZZ	5.88%	OXY	0.0%
10.0	CZR	5.88%	ORLY	0.0%
10.0	QCOM	5.88%	NVDA	0.0%
10.0	VICI	3.92%	ORCL	0.0%
10.0	CVS	3.92%	ON	0.0%
10.0	MSFT	3.92%	PHM	0.0%
10.0	CLF	3.92%	NWL	0.0%
10.0	UNH	3.92%	NVS	0.0%
10.0	CDNS	1.96%	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 2026-01-29 through 2025-11-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	MSTR	27.5%	IRM	12.5%
21.0	AMC	25.0%	NFLX	10.0%
21.0	AMZN	20.0%	LW	7.5%
21.0	AAP	17.5%	MSTR	5.0%
21.0	AMD	17.5%	ZTS	2.5%
21.0	TMUS	15.0%	WFC	0.0%
21.0	LEN	10.0%	MRK	0.0%
21.0	CHTR	7.5%	ORLY	0.0%
21.0	UNH	7.5%	ORCL	0.0%
21.0	PRGO	7.5%	ON	0.0%
21.0	VICI	7.5%	NWL	0.0%
21.0	KHC	5.0%	NVS	0.0%
21.0	BBY	5.0%	NVDA	0.0%
21.0	TDG	2.5%	WYNN	0.0%
21.0	CCL	2.5%	NEM	0.0%
21.0	GE	2.5%	MUB	0.0%
21.0	ISRG	2.5%	MU	0.0%
21.0	CVS	2.5%	XOM	0.0%
21.0	IRM	2.5%	MSI	0.0%
21.0	LW	2.5%	MSFT	0.0%
21.0	ON	0.0%	MS	0.0%
21.0	ORCL	0.0%	MOS	0.0%
21.0	NWL	0.0%	WDC	0.0%
21.0	NVS	0.0%	MNST	0.0%
21.0	NAVI	0.0%	META	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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	LLY	14.46%	ZTS	8.43%
1.0	TSLA	14.06%	AMC	6.83%
1.0	SBUX	13.25%	TSLA	5.62%
1.0	AMZN	13.25%	LLY	5.62%
1.0	ZTS	12.85%	CMCSA	4.42%
1.0	TDG	11.65%	VZ	3.61%
1.0	PRGO	10.44%	MSTR	3.61%
1.0	META	10.44%	GWW	3.21%
1.0	AMC	10.04%	AMGN	3.21%
1.0	GWW	10.04%	UNH	2.81%
1.0	CDNS	9.24%	SBUX	2.81%
1.0	TXN	9.24%	TDG	2.81%
1.0	CMCSA	9.24%	GNRC	2.41%
1.0	MSTR	8.43%	TXN	2.01%
1.0	ISRG	8.43%	QCOM	2.01%
1.0	AMGN	7.23%	AAP	2.01%
1.0	NAVI	6.83%	LQD	2.01%
1.0	MSFT	5.22%	CDNS	1.61%
1.0	LQD	4.82%	CHTR	1.2%
1.0	UNH	4.82%	NAVI	1.2%
1.0	CLF	4.42%	BHC	0.8%
1.0	VZ	4.42%	GOOGL	0.8%
1.0	INTC	4.02%	MU	0.4%
1.0	MU	3.61%	CVS	0.4%
1.0	AAP	3.61%	CSTM	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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	AMC	25.83%	AMC	14.58%
10.0	CMCSA	15.42%	ZTS	11.67%
10.0	ZTS	14.17%	TSLA	6.67%
10.0	AAP	14.17%	MSTR	6.25%
10.0	TSLA	14.17%	CZR	5.0%
10.0	MSTR	13.33%	UNH	4.58%
10.0	META	13.33%	CMCSA	3.33%
10.0	AMGN	9.58%	CHTR	3.33%
10.0	TDG	9.58%	CMA	2.92%
10.0	AMZN	9.58%	AAP	2.92%
10.0	UNH	9.58%	LLY	2.92%
10.0	TXN	9.17%	ON	2.5%
10.0	CHTR	8.75%	QCOM	2.5%
10.0	GNRC	7.5%	CLF	2.5%
10.0	CVS	7.08%	AMGN	2.08%
10.0	GWW	7.08%	TXN	1.67%
10.0	PRGO	6.67%	BUD	1.67%
10.0	NAVI	6.67%	ADBE	1.67%
10.0	AMD	6.25%	KALU	1.25%
10.0	KEY	5.83%	MU	1.25%
10.0	CDNS	5.83%	TDG	1.25%
10.0	VZ	5.83%	NAVI	1.25%
10.0	LLY	5.42%	GNRC	1.25%
10.0	CZR	5.42%	SNY	0.83%
10.0	INTC	5.0%	GWW	0.83%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	ZTS	26.2%	ZTS	15.28%
21.0	AMC	21.83%	UNH	10.04%
21.0	CMCSA	19.21%	AMC	9.61%
21.0	META	13.1%	CMCSA	7.86%
21.0	TDG	13.1%	MSTR	6.99%
21.0	TXN	13.1%	GNRC	5.24%
21.0	CHTR	12.66%	CMA	5.24%
21.0	UNH	12.23%	BHC	4.37%
21.0	MSTR	11.35%	CZR	4.37%
21.0	GNRC	10.92%	KALU	3.49%
21.0	TSLA	10.04%	BUD	3.49%
21.0	PRGO	8.73%	AMGN	3.06%
21.0	AAP	8.73%	BMY	2.62%
21.0	AMGN	8.3%	CHTR	2.62%
21.0	CMA	7.86%	NFLX	1.75%
21.0	AMD	7.42%	CLF	1.75%
21.0	CVS	7.42%	QCOM	1.31%
21.0	ON	6.99%	ELAN	1.31%
21.0	ELAN	6.55%	LW	1.31%
21.0	NWL	6.55%	IRM	1.31%
21.0	WDC	6.55%	TDG	0.87%
21.0	NAVI	5.68%	CYH	0.87%
21.0	BUD	5.68%	MSI	0.87%
21.0	SBUX	5.24%	META	0.87%
21.0	BHC	4.8%	TSLA	0.87%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	MSTR	35.29%	CHTR	26.74%
63.0	AMC	29.95%	MSTR	24.6%
63.0	CMCSA	26.74%	PRGO	18.18%
63.0	PRGO	26.74%	TDG	9.63%
63.0	ZTS	24.06%	CMCSA	8.02%
63.0	TDG	23.53%	BUD	7.49%
63.0	META	20.32%	NFLX	6.42%
63.0	BUD	19.25%	META	4.81%
63.0	NFLX	16.04%	MSI	2.67%
63.0	MSI	14.44%	AMC	2.67%
63.0	GNRC	12.83%	NWL	1.6%
63.0	NWL	12.83%	BMY	1.07%
63.0	BMY	11.76%	CYH	0.53%
63.0	AAP	11.23%	GNRC	0.53%
63.0	LW	10.7%	MS	0.0%
63.0	BHC	10.16%	LQD	0.0%
63.0	ADBE	9.09%	LEN	0.0%
63.0	IRM	9.09%	PHM	0.0%
63.0	CMA	7.49%	PEP	0.0%
63.0	CHTR	7.49%	PCG	0.0%
63.0	SBUX	6.95%	OXY	0.0%
63.0	UNH	5.88%	ORLY	0.0%
63.0	PCG	4.28%	ORCL	0.0%
63.0	SNY	3.74%	ON	0.0%
63.0	CLF	3.74%	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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	CMCSA	49.19%	CHTR	50.0%
126.0	AMC	44.35%	MSTR	29.84%
126.0	ZTS	34.68%	AMC	14.52%
126.0	MSTR	33.87%	AAP	11.29%
126.0	CHTR	30.65%	UNH	4.84%
126.0	BMY	27.42%	ZTS	4.03%
126.0	TDG	22.58%	WDC	0.0%
126.0	CNC	20.97%	MSFT	0.0%
126.0	AAP	16.94%	OXY	0.0%
126.0	UNH	12.9%	ORLY	0.0%
126.0	NFLX	11.29%	ORCL	0.0%
126.0	ADBE	10.48%	ON	0.0%
126.0	ORCL	7.26%	NWL	0.0%
126.0	BUD	6.45%	NVS	0.0%
126.0	VFC	6.45%	NVDA	0.0%
126.0	PRGO	5.65%	NFLX	0.0%
126.0	SBUX	3.23%	NEM	0.0%
126.0	NWL	3.23%	NAVI	0.0%
126.0	INTU	2.42%	MUB	0.0%
126.0	BHC	0.81%	MU	0.0%
126.0	VST	0.81%	ZION	0.0%
126.0	MSFT	0.81%	MSI	0.0%
126.0	FIS	0.81%	MS	0.0%
126.0	TXN	0.81%	WFC	0.0%
126.0	LLY	0.0%	MRK	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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	PHM	-4.99%	QQQ	-2.19%
1.0	NVDA	-4.59%	TRGP	-2.19%
1.0	TRGP	-4.39%	THC	-1.99%
1.0	MOS	-4.19%	NVDA	-1.99%
1.0	MS	-4.09%	IRM	-1.99%
1.0	THC	-3.59%	CMG	-1.89%
1.0	HYG	-3.49%	PWR	-1.89%
1.0	IRM	-3.49%	PEP	-1.79%
1.0	VNO	-3.49%	VST	-1.79%
1.0	CAH	-3.49%	GS	-1.69%
1.0	AMAT	-3.39%	MNST	-1.69%
1.0	QQQ	-3.39%	SPY	-1.69%
1.0	PCG	-3.39%	CAH	-1.69%
1.0	VST	-3.19%	PHM	-1.69%
1.0	CCL	-2.99%	HSBC	-1.69%
1.0	FSUGY	-2.99%	LEN	-1.6%
1.0	X	-2.95%	MS	-1.6%
1.0	CPRT	-2.89%	ORLY	-1.6%
1.0	MNST	-2.89%	PCG	-1.6%
1.0	CSCO	-2.89%	HLT	-1.6%
1.0	WRK	-2.79%	AMAT	-1.6%
1.0	DHI	-2.49%	EMB	-1.5%
1.0	GS	-2.49%	HYG	-1.5%
1.0	GLD	-2.49%	JPM	-1.5%
1.0	PWR	-2.39%	AZO	-1.5%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	MS	-5.33%	MUB	-4.03%
10.0	MUB	-4.43%	PCG	-3.02%
10.0	NVDA	-4.33%	BAC	-2.72%
10.0	X	-3.94%	ABBV	-2.62%
10.0	BAC	-3.92%	CMG	-2.62%
10.0	CSCO	-3.82%	TRGP	-2.41%
10.0	TRGP	-3.72%	WDC	-2.21%
10.0	AZN	-3.32%	COST	-2.21%
10.0	QQQ	-3.22%	WRK	-2.17%
10.0	HON	-3.22%	JPM	-1.91%
10.0	WRK	-3.17%	VST	-1.91%
10.0	IRM	-3.12%	IRM	-1.91%
10.0	MOS	-3.12%	MRK	-1.91%
10.0	COST	-3.12%	SBUX	-1.91%
10.0	HLT	-3.12%	X	-1.91%
10.0	AZO	-2.92%	AZN	-1.81%
10.0	CMG	-2.92%	MS	-1.81%
10.0	PCG	-2.92%	HCA	-1.71%
10.0	THC	-2.92%	WFC	-1.71%
10.0	VST	-2.92%	BBY	-1.71%
10.0	JPM	-2.82%	HLT	-1.61%
10.0	PHM	-2.82%	USB	-1.61%
10.0	MU	-2.82%	INTU	-1.51%
10.0	MNST	-2.82%	LUMN	-1.41%
10.0	AMAT	-2.72%	CSTM	-1.41%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	MUB	-8.04%	MUB	-3.97%
21.0	ABBV	-4.48%	LW	-3.15%
21.0	MS	-4.17%	CMG	-2.85%
21.0	QQQ	-4.17%	PCG	-2.54%
21.0	CMG	-4.17%	COST	-2.24%
21.0	COST	-3.87%	AZN	-1.93%
21.0	TRGP	-3.66%	USB	-1.93%
21.0	WRK	-3.57%	CPRT	-1.83%
21.0	TEVA	-3.46%	HLT	-1.73%
21.0	CPRT	-3.26%	WDC	-1.73%
21.0	IRM	-3.15%	TEVA	-1.63%
21.0	FSUGY	-2.95%	INTC	-1.63%
21.0	SPY	-2.85%	ADBE	-1.32%
21.0	ORLY	-2.85%	FRA	-1.32%
21.0	PEP	-2.75%	ABBV	-1.32%
21.0	AZO	-2.64%	LVS	-1.32%
21.0	AZN	-2.64%	FCX	-1.22%
21.0	MNST	-2.64%	TFC	-1.22%
21.0	THC	-2.54%	TRGP	-1.22%
21.0	CSCO	-2.54%	X	-1.21%
21.0	NVDA	-2.34%	INTU	-1.12%
21.0	USB	-2.24%	MU	-1.12%
21.0	HLT	-2.24%	HSBC	-1.12%
21.0	PWR	-2.14%	BAC	-1.02%
21.0	LUMN	-2.03%	JPM	-0.92%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	MUB	-5.53%	IEP	-6.7%
63.0	LEN	-4.57%	MUB	-4.15%
63.0	USB	-4.25%	PCG	-3.29%
63.0	CMG	-3.51%	BHC	-2.55%
63.0	X	-3.44%	USB	-2.55%
63.0	CSCO	-3.19%	X	-2.17%
63.0	TRGP	-2.98%	GSK	-1.91%
63.0	FSUGY	-2.44%	VFC	-1.91%
63.0	AZN	-2.34%	HCA	-1.81%
63.0	SPY	-2.34%	VZ	-1.81%
63.0	DHI	-2.23%	CTLT	-1.61%
63.0	CPRT	-2.13%	AZN	-1.59%
63.0	GE	-2.02%	TFC	-1.49%
63.0	ACGL	-1.91%	AA	-1.38%
63.0	THC	-1.91%	CLF	-1.28%
63.0	IRM	-1.7%	IRM	-0.85%
63.0	QQQ	-1.7%	HYG	-0.74%
63.0	NVDA	-1.59%	SNY	-0.74%
63.0	MS	-1.59%	MU	-0.53%
63.0	PWR	-1.49%	LW	-0.53%
63.0	PHM	-1.49%	EMB	-0.43%
63.0	LUMN	-1.38%	NEM	-0.43%
63.0	AZO	-1.28%	LVS	-0.32%
63.0	SLV	-1.17%	MOS	-0.21%
63.0	TEVA	-1.17%	FSUGY	-0.21%



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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	MUB	-6.73%	IEP	-14.12%
126.0	LEN	-6.38%	BALL	-2.73%
126.0	LW	-4.44%	LW	-2.39%
126.0	IRM	-4.44%	GSK	-2.28%
126.0	PCG	-3.87%	PCG	-1.59%
126.0	VZ	-2.85%	VZ	-1.37%
126.0	LUMN	-2.73%	CNC	-1.25%
126.0	BALL	-2.73%	EMB	-0.91%
126.0	CPRT	-2.62%	MUB	-0.68%
126.0	INTC	-1.82%	IRM	-0.68%
126.0	FSUGY	-1.48%	INTC	-0.34%
126.0	CMG	-1.37%	NEM	-0.23%
126.0	PHM	-1.37%	LEN	-0.11%
126.0	CSTM	-1.25%	CPRT	-0.11%
126.0	BBY	-1.25%	NVS	0.0%
126.0	LVS	-1.25%	NVDA	0.0%
126.0	WRK	-1.03%	NFLX	0.0%
126.0	X	-0.97%	NAVI	0.0%
126.0	NVDA	-0.68%	MU	0.0%
126.0	CSCO	-0.46%	MSI	0.0%
126.0	GOOGL	-0.46%	MSFT	0.0%
126.0	ACGL	-0.34%	MS	0.0%
126.0	EMB	-0.23%	MOS	0.0%
126.0	TRGP	-0.23%	MNST	0.0%
126.0	SPY	-0.23%	INTU	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 2026-01-29

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
252.0	LUMN	-11.84%	IEP	-26.06%
252.0	LW	-11.3%	FRCB	-0.37%
252.0	VZ	-6.12%	CNC	-0.13%
252.0	CMG	-2.39%	LW	-0.13%
252.0	UNH	-2.39%	IRM	0.0%
252.0	CPRT	-2.26%	NWL	0.0%
252.0	CSTM	-1.86%	NVS	0.0%
252.0	IEP	-1.73%	NVDA	0.0%
252.0	BMY	-1.6%	NFLX	0.0%
252.0	CNC	-1.33%	NAVI	0.0%
252.0	PEP	-1.2%	MUB	0.0%
252.0	MRK	-1.06%	MU	0.0%
252.0	INTC	-0.66%	MSTR	0.0%
252.0	PCG	-0.4%	MSI	0.0%
252.0	JAZZ	0.0%	MSFT	0.0%
252.0	SPY	0.0%	MS	0.0%
252.0	INTU	0.0%	MOS	0.0%
252.0	JPM	0.0%	INTU	0.0%
252.0	HSBC	0.0%	MNST	0.0%
252.0	HON	0.0%	ORCL	0.0%
252.0	HLT	0.0%	INTC	0.0%
252.0	HD	0.0%	LVS	0.0%
252.0	HCA	0.0%	LUMN	0.0%
252.0	GWW	0.0%	LQD	0.0%
252.0	GS	0.0%	LNC	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 2026-01-29 through 2026-01-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	HCA	-15.79%	AA	-15.79%
1.0	AA	-10.53%	FSUGY	-10.53%
1.0	BAC	-10.53%	ABBV	-10.53%
1.0	FSUGY	-10.53%	RIO	-10.53%
1.0	BIIB	-10.53%	LVS	-10.53%
1.0	AZN	-10.53%	NVS	-5.26%
1.0	NVS	-10.53%	PWR	-5.26%
1.0	BBY	-10.53%	CNC	-5.26%
1.0	LVS	-10.53%	CMA	-5.26%
1.0	HLT	-10.53%	CLF	-5.26%
1.0	WDC	-10.53%	MS	-5.26%
1.0	JPM	-10.53%	HLT	-5.26%
1.0	SLV	-10.53%	FCX	-5.26%
1.0	CSCO	-5.26%	BIIB	-5.26%
1.0	EXPE	-5.26%	BHP	-5.26%
1.0	ORLY	-5.26%	BHC	-5.26%
1.0	ELAN	-5.26%	FITB	-5.26%
1.0	POST	-5.26%	JAZZ	-5.26%
1.0	CSTM	-5.26%	ADBE	-5.26%
1.0	FITB	-5.26%	XOM	-5.26%
1.0	PWR	-5.26%	B	-5.26%
1.0	GBTC	-5.26%	INTU	-5.26%
1.0	GE	-5.26%	BAC	-5.26%
1.0	MU	-5.26%	AZN	-5.26%
1.0	MS	-5.26%	JPM	-5.26%



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 2026-01-29 through 2026-01-02

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	JPM	-50.0%	INTU	-50.0%
10.0	ADBE	-50.0%	FIS	-10.0%
10.0	FIS	-40.0%	NAVI	-10.0%
10.0	BAC	-30.0%	BHC	-10.0%
10.0	LVS	-20.0%	LNC	-10.0%
10.0	WFC	-10.0%	NVS	0.0%
10.0	GBTC	-10.0%	NVDA	0.0%
10.0	SLV	-10.0%	NFLX	0.0%
10.0	AA	0.0%	ON	0.0%
10.0	MSI	0.0%	NEM	0.0%
10.0	MU	0.0%	ORCL	0.0%
10.0	MUB	0.0%	ORLY	0.0%
10.0	NFLX	0.0%	MUB	0.0%
10.0	NVDA	0.0%	MU	0.0%
10.0	NVS	0.0%	MSTR	0.0%
10.0	NWL	0.0%	MSI	0.0%
10.0	ON	0.0%	NWL	0.0%
10.0	ORCL	0.0%	MSFT	0.0%
10.0	NEM	0.0%	AA	0.0%
10.0	MS	0.0%	MRK	0.0%
10.0	MOS	0.0%	JAZZ	0.0%
10.0	ORLY	0.0%	JPM	0.0%
10.0	MNST	0.0%	KALU	0.0%
10.0	LW	0.0%	KEY	0.0%
10.0	LUMN	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 2026-01-29 through 2025-11-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	SLV	-11.67%	WDC	-6.67%
1.0	WDC	-10.0%	PWR	-6.67%
1.0	HCA	-10.0%	AA	-5.0%
1.0	AA	-8.33%	JPM	-5.0%
1.0	ELAN	-8.33%	RIO	-5.0%
1.0	MOS	-8.33%	LUMN	-5.0%
1.0	PWR	-6.67%	B	-5.0%
1.0	QQQ	-6.67%	MU	-3.33%
1.0	FSUGY	-6.67%	INTU	-3.33%
1.0	NVS	-6.67%	NEM	-3.33%
1.0	LUMN	-6.67%	HCA	-3.33%
1.0	JPM	-6.67%	FSUGY	-3.33%
1.0	AVGO	-5.0%	CSCO	-3.33%
1.0	AZN	-5.0%	CLF	-3.33%
1.0	HSBC	-5.0%	SLV	-3.33%
1.0	B	-5.0%	LVS	-3.33%
1.0	BAC	-5.0%	ABBV	-3.33%
1.0	HLT	-5.0%	ADBE	-3.33%
1.0	GBTC	-5.0%	HD	-1.67%
1.0	RIO	-5.0%	INTC	-1.67%
1.0	NEM	-5.0%	IEP	-1.67%
1.0	CPRT	-5.0%	ELAN	-1.67%
1.0	MU	-5.0%	VST	-1.67%
1.0	CSCO	-5.0%	EXPE	-1.67%
1.0	GOOGL	-3.33%	FCX	-1.67%



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 2026-01-29 through 2025-11-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	ADBE	-15.69%	AZ0	-15.69%
10.0	ORLY	-13.73%	INTU	-13.73%
10.0	GBTC	-13.73%	LUMN	-9.8%
10.0	JPM	-9.8%	HD	-5.88%
10.0	LEN	-9.8%	IRM	-3.92%
10.0	FIS	-7.84%	FIS	-1.96%
10.0	AZ0	-7.84%	BHC	-1.96%
10.0	LUMN	-7.84%	NFLX	-1.96%
10.0	WDC	-5.88%	POST	-1.96%
10.0	HD	-5.88%	NAVI	-1.96%
10.0	BAC	-5.88%	LNC	-1.96%
10.0	LVS	-5.88%	MS	0.0%
10.0	AVGO	-3.92%	MSFT	0.0%
10.0	FRA	-3.92%	MSI	0.0%
10.0	CCL	-1.96%	MU	0.0%
10.0	ELAN	-1.96%	VZ	0.0%
10.0	HCA	-1.96%	MUB	0.0%
10.0	WFC	-1.96%	NEM	0.0%
10.0	SLV	-1.96%	NVDA	0.0%
10.0	NVS	0.0%	NVS	0.0%
10.0	NFLX	0.0%	MRK	0.0%
10.0	NEM	0.0%	MOS	0.0%
10.0	MUB	0.0%	MNST	0.0%
10.0	NWL	0.0%	META	0.0%
10.0	NVDA	0.0%	LW	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 2026-01-29 through 2025-11-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	AZO	-22.5%	INTU	-12.5%
21.0	ORLY	-15.0%	AZO	-5.0%
21.0	ADBE	-7.5%	NAVI	-2.5%
21.0	FRA	-7.5%	MS	0.0%
21.0	MSFT	-5.0%	MSFT	0.0%
21.0	NFLX	-5.0%	MSI	0.0%
21.0	LUMN	-5.0%	WYNN	0.0%
21.0	FIS	-2.5%	MU	0.0%
21.0	MSI	0.0%	MUB	0.0%
21.0	MU	0.0%	NEM	0.0%
21.0	MUB	0.0%	WFC	0.0%
21.0	AA	0.0%	NVDA	0.0%
21.0	NVDA	0.0%	NVS	0.0%
21.0	NVS	0.0%	NWL	0.0%
21.0	NWL	0.0%	ON	0.0%
21.0	ON	0.0%	MRK	0.0%
21.0	ORCL	0.0%	MOS	0.0%
21.0	NEM	0.0%	MNST	0.0%
21.0	NAVI	0.0%	META	0.0%
21.0	MRK	0.0%	XOM	0.0%
21.0	MOS	0.0%	LVS	0.0%
21.0	MNST	0.0%	LUMN	0.0%
21.0	META	0.0%	LQD	0.0%
21.0	LVS	0.0%	LNC	0.0%
21.0	LQD	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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
1.0	HLT	-6.02%	THC	-3.61%
1.0	HSBC	-4.42%	HLT	-3.61%
1.0	VNO	-4.42%	VCSH	-3.21%
1.0	MOS	-4.42%	NEM	-3.21%
1.0	TRGP	-4.42%	AZ0	-2.81%
1.0	PHM	-4.02%	PEP	-2.81%
1.0	CSCO	-4.02%	MRK	-2.81%
1.0	CAH	-4.02%	HSBC	-2.81%
1.0	SPY	-3.61%	QQQ	-2.81%
1.0	MS	-3.61%	GS	-2.81%
1.0	LUMN	-3.61%	JPM	-2.81%
1.0	HYG	-3.61%	CCL	-2.81%
1.0	GLD	-3.61%	COST	-2.81%
1.0	X	-3.23%	JAZZ	-2.41%
1.0	NVDA	-3.21%	RIO	-2.41%
1.0	THC	-3.21%	INTU	-2.41%
1.0	CPRT	-3.21%	CSCO	-2.41%
1.0	GBTC	-3.21%	LVS	-2.41%
1.0	VCSH	-3.21%	MSI	-2.41%
1.0	AA	-3.21%	MNST	-2.41%
1.0	MNST	-2.81%	GSK	-2.41%
1.0	EMB	-2.81%	X	-2.15%
1.0	LVS	-2.81%	SLV	-2.02%
1.0	GS	-2.81%	FIS	-2.01%
1.0	WYNN	-2.81%	GILD	-2.01%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
10.0	TRGP	-6.67%	CMG	-7.08%
10.0	MOS	-6.25%	BBY	-5.42%
10.0	CSCO	-5.83%	FIS	-4.58%
10.0	LVS	-5.83%	TRGP	-4.58%
10.0	GS	-5.83%	BAC	-4.58%
10.0	SPY	-5.83%	CPRT	-4.17%
10.0	FIS	-5.83%	VFC	-4.17%
10.0	BAC	-5.83%	COST	-3.75%
10.0	ORLY	-5.83%	HLT	-3.75%
10.0	JPM	-5.42%	LNC	-3.75%
10.0	QQQ	-5.0%	JPM	-3.75%
10.0	HD	-4.58%	SPY	-3.75%
10.0	GBTC	-4.58%	AZO	-3.75%
10.0	COST	-4.58%	ISRG	-3.75%
10.0	AZO	-4.17%	XOM	-3.75%
10.0	HLT	-4.17%	WDC	-3.75%
10.0	MS	-4.17%	MS	-3.33%
10.0	HSBC	-4.17%	AAPL	-3.33%
10.0	NVDA	-3.75%	SBUX	-3.33%
10.0	BALL	-3.75%	HSBC	-3.33%
10.0	MSI	-3.75%	LUMN	-3.33%
10.0	CPRT	-3.33%	CCL	-3.33%
10.0	CYH	-3.33%	GS	-3.33%
10.0	LUMN	-3.33%	ABBV	-2.92%
10.0	HYG	-3.33%	INTU	-2.92%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
21.0	CMG	-8.73%	CPRT	-7.86%
21.0	ISRG	-7.86%	HLT	-6.99%
21.0	CPRT	-7.86%	VFC	-6.99%
21.0	COST	-7.42%	CMG	-6.55%
21.0	SPY	-6.99%	LVS	-4.8%
21.0	AZO	-6.55%	JAZZ	-4.8%
21.0	HD	-6.55%	OXY	-3.93%
21.0	QQQ	-6.55%	JPM	-3.93%
21.0	FIS	-6.11%	CCL	-3.49%
21.0	ORLY	-5.68%	ISRG	-3.49%
21.0	MS	-5.24%	ABBV	-3.49%
21.0	MOS	-5.24%	MRK	-3.06%
21.0	TFC	-5.24%	COST	-3.06%
21.0	TRGP	-4.8%	WDC	-3.06%
21.0	LVS	-4.8%	HD	-2.62%
21.0	JPM	-4.37%	BAC	-2.18%
21.0	LNC	-4.37%	GS	-2.18%
21.0	GS	-4.37%	SPY	-2.18%
21.0	GBTC	-3.93%	INTU	-2.18%
21.0	CSCO	-3.93%	HSBC	-2.18%
21.0	HSBC	-3.49%	MOS	-1.75%
21.0	MSI	-3.49%	FIS	-1.75%
21.0	HLT	-3.49%	BIIIB	-1.75%
21.0	FRA	-3.49%	FRA	-1.75%
21.0	BA	-3.06%	PCG	-1.75%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
63.0	CPRT	-10.7%	VFC	-2.67%
63.0	MOS	-10.16%	CNC	-1.6%
63.0	AZO	-6.42%	CPRT	-0.53%
63.0	CMG	-5.88%	OXY	0.0%
63.0	FRA	-4.81%	ORLY	0.0%
63.0	TRGP	-4.81%	ORCL	0.0%
63.0	T	-3.74%	ON	0.0%
63.0	VICI	-2.67%	NVS	0.0%
63.0	MUB	-2.14%	MS	0.0%
63.0	CCL	-1.6%	NEM	0.0%
63.0	WDC	-1.6%	PEP	0.0%
63.0	MSFT	-1.07%	NAVI	0.0%
63.0	JAZZ	-1.07%	MUB	0.0%
63.0	BBY	-0.53%	MU	0.0%
63.0	OXY	-0.53%	MSFT	0.0%
63.0	AMZN	-0.53%	PCG	0.0%
63.0	HD	-0.53%	NVDA	0.0%
63.0	ORLY	0.0%	MOS	0.0%
63.0	ON	0.0%	MNST	0.0%
63.0	NVS	0.0%	LW	0.0%
63.0	NVDA	0.0%	LVS	0.0%
63.0	NEM	0.0%	LUMN	0.0%
63.0	MU	0.0%	LQD	0.0%
63.0	INTC	0.0%	LNC	0.0%
63.0	ZION	0.0%	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 2026-01-29 through 2025-02-03

Hzn	Ticker	95VaRBreak_VmS	Ticker	99VaRBreak_VmS
126.0	CPRT	-18.55%	CNC	-3.23%
126.0	CMG	-9.68%	CPRT	-0.81%
126.0	MOS	-3.23%	PCG	0.0%
126.0	NVS	0.0%	OXY	0.0%
126.0	NVDA	0.0%	ORLY	0.0%
126.0	NEM	0.0%	ORCL	0.0%
126.0	NAVI	0.0%	ON	0.0%
126.0	MUB	0.0%	NWL	0.0%
126.0	MU	0.0%	MSI	0.0%
126.0	MSI	0.0%	NVDA	0.0%
126.0	MS	0.0%	NFLX	0.0%
126.0	MRK	0.0%	NEM	0.0%
126.0	MNST	0.0%	NAVI	0.0%
126.0	META	0.0%	MUB	0.0%
126.0	LW	0.0%	MU	0.0%
126.0	LVS	0.0%	PEP	0.0%
126.0	LUMN	0.0%	NVS	0.0%
126.0	LQD	0.0%	AA	0.0%
126.0	LNC	0.0%	MRK	0.0%
126.0	LLY	0.0%	JPM	0.0%
126.0	LEN	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%
126.0	JPM	0.0%	LLY	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 2026-01-29

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	GME	0.23%	GME	0.27%
1.0	MSTR	0.15%	NWL	0.17%
1.0	NWL	0.14%	UAA	0.15%
1.0	NFLX	0.12%	INTU	0.09%
1.0	INTU	0.11%	GNRC	0.09%
1.0	AAPL	0.11%	BALL	0.09%
1.0	CLF	0.1%	QCOM	0.08%
1.0	META	0.1%	CZR	0.08%
1.0	HD	0.08%	AAPL	0.08%
1.0	AA	0.06%	CTLT	0.06%
1.0	CDNS	0.06%	ON	0.06%
1.0	QCOM	0.06%	UNH	0.06%
1.0	GWW	0.05%	IEP	0.05%
1.0	CZR	0.05%	SBUX	0.04%
1.0	XOM	0.05%	HD	0.04%
1.0	AAP	0.05%	SNY	0.04%
1.0	UNH	0.05%	LW	0.04%
1.0	BHP	0.05%	CMA	0.03%
1.0	SNY	0.04%	AMC	0.03%
1.0	BALL	0.04%	FRA	0.03%
1.0	GNRC	0.04%	GWW	0.03%
1.0	AMZN	0.04%	KHC	0.03%
1.0	BA	0.04%	ADBE	0.03%
1.0	GOOGL	0.04%	LNC	0.02%
1.0	ADBE	0.04%	ORCL	0.02%



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 2026-01-29

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	GME	4.02%	GME	2.85%
10.0	MSTR	2.31%	MSTR	2.2%
10.0	CTLT	1.13%	CTLT	1.11%
10.0	META	1.0%	GNRC	0.9%
10.0	CZR	0.94%	UAA	0.62%
10.0	UAA	0.86%	INTU	0.6%
10.0	NFLX	0.81%	AAPL	0.58%
10.0	MU	0.76%	CMA	0.57%
10.0	OXY	0.72%	MU	0.49%
10.0	AAPL	0.71%	CZR	0.47%
10.0	AMZN	0.59%	IEP	0.46%
10.0	HD	0.58%	CVS	0.42%
10.0	INTU	0.56%	WDC	0.38%
10.0	ORCL	0.56%	AA	0.35%
10.0	INTC	0.54%	NWL	0.35%
10.0	GNRC	0.54%	QCOM	0.33%
10.0	SNY	0.47%	XOM	0.32%
10.0	AA	0.47%	KALU	0.32%
10.0	GWW	0.46%	LNC	0.3%
10.0	WDC	0.45%	OXY	0.3%
10.0	GOOGL	0.44%	META	0.28%
10.0	BA	0.43%	NAVI	0.28%
10.0	KALU	0.43%	WRK	0.26%
10.0	TEVA	0.41%	ABBV	0.22%
10.0	XOM	0.41%	BBY	0.22%



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 2026-01-29

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	MSTR	7.39%	MSTR	5.74%
21.0	GME	6.15%	GME	5.27%
21.0	META	3.67%	CTLT	2.74%
21.0	CTLT	2.68%	AA	1.7%
21.0	NFLX	2.18%	META	1.52%
21.0	UAA	1.86%	GNRC	1.32%
21.0	WDC	1.78%	UAA	1.26%
21.0	MU	1.65%	IEP	1.21%
21.0	AA	1.59%	NFLX	1.17%
21.0	TEVA	1.52%	CVS	1.08%
21.0	INTC	1.39%	KALU	1.01%
21.0	AMZN	1.31%	CMA	0.97%
21.0	CZR	1.24%	INTU	0.97%
21.0	ORCL	1.23%	XOM	0.91%
21.0	KALU	1.18%	CZR	0.74%
21.0	OXY	1.09%	WDC	0.7%
21.0	GOOGL	1.08%	INTC	0.58%
21.0	INTU	1.07%	CLF	0.58%
21.0	HD	1.05%	NWL	0.56%
21.0	GNRC	1.0%	SBUX	0.54%
21.0	AAPL	0.97%	AAP	0.54%
21.0	AMGN	0.87%	CYH	0.53%
21.0	SBUX	0.85%	NAVI	0.51%
21.0	XOM	0.83%	AAPL	0.46%
21.0	GWW	0.82%	LNC	0.45%



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 2026-01-29

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	MSTR	12.99%	CTLT	10.61%
63.0	META	11.98%	META	8.72%
63.0	WDC	11.7%	WDC	5.0%
63.0	CTLT	11.29%	KALU	4.65%
63.0	NFLX	8.27%	GME	3.88%
63.0	ORCL	5.28%	CMA	3.45%
63.0	KALU	4.52%	CVS	3.36%
63.0	CMA	4.48%	INTC	3.03%
63.0	GME	4.23%	NEM	2.61%
63.0	NEM	3.75%	GNRC	2.59%
63.0	GNRC	3.7%	AMZN	2.58%
63.0	ISRG	3.32%	IEP	2.49%
63.0	AA	2.71%	WRK	2.02%
63.0	UAA	2.67%	AA	1.92%
63.0	CVS	2.63%	UAA	1.89%
63.0	AAPL	2.53%	BXP	1.58%
63.0	WRK	2.52%	CZR	1.56%
63.0	XOM	2.44%	ZTS	1.47%
63.0	INTU	2.44%	GILD	1.41%
63.0	HD	2.36%	CYH	1.41%
63.0	GOOGL	2.34%	XOM	1.39%
63.0	GILD	2.32%	ISRG	1.36%
63.0	SBUX	2.29%	HD	1.31%
63.0	BA	2.24%	USB	1.28%
63.0	MU	2.17%	LW	1.22%



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 2026-01-29

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	MSTR	53.12%	META	27.32%
126.0	META	35.04%	WDC	20.0%
126.0	WDC	29.52%	MSTR	14.7%
126.0	NFLX	23.47%	AVGO	12.26%
126.0	ORCL	11.59%	AMZN	7.72%
126.0	AVGO	10.45%	INTC	7.4%
126.0	B	9.04%	NEM	6.78%
126.0	NEM	8.81%	NFLX	6.75%
126.0	MU	8.75%	KALU	6.55%
126.0	GNRC	8.18%	GILD	6.3%
126.0	SLV	7.67%	MU	5.89%
126.0	INTC	7.54%	LLY	5.53%
126.0	BA	7.34%	WRK	5.32%
126.0	INTU	7.25%	BA	5.29%
126.0	AMD	6.75%	SLV	5.18%
126.0	GILD	6.64%	CVS	5.05%
126.0	CTLT	6.59%	TEVA	4.95%
126.0	GME	6.29%	IEP	4.93%
126.0	TEVA	5.79%	TSLA	4.83%
126.0	ELAN	5.73%	GOOGL	4.54%
126.0	GOOGL	5.55%	INTU	4.43%
126.0	TSLA	5.4%	GNRC	4.3%
126.0	AAPL	5.33%	ISRG	4.25%
126.0	AMZN	5.28%	GME	3.86%
126.0	LEN	5.25%	CTLT	3.44%



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 2026-01-29

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
252.0	MSTR	169.12%	META	45.6%
252.0	META	86.53%	MSTR	33.31%
252.0	NFLX	61.49%	AMZN	29.75%
252.0	AVGO	31.19%	AVGO	26.83%
252.0	AMZN	29.97%	VST	25.22%
252.0	INTU	26.52%	NFLX	24.71%
252.0	ORCL	25.74%	INTU	24.32%
252.0	WDC	23.64%	ISRG	21.62%
252.0	VST	22.67%	B	19.3%
252.0	TSLA	22.25%	GOOGL	17.64%
252.0	ISRG	21.89%	ORCL	16.85%
252.0	B	21.51%	GILD	15.42%
252.0	GILD	19.0%	NEM	14.95%
252.0	NEM	18.88%	SLV	12.62%
252.0	CTLT	18.05%	WDC	11.99%
252.0	EXPE	17.83%	TDG	11.92%
252.0	AMD	17.72%	LEN	10.42%
252.0	GOOGL	17.71%	COST	10.32%
252.0	TEVA	17.66%	IEP	9.91%
252.0	GNRC	17.43%	TMUS	9.77%
252.0	LEN	16.82%	MSI	9.52%
252.0	LLY	16.81%	EXPE	9.28%
252.0	SLV	16.5%	TEVA	8.92%
252.0	BA	15.31%	WRK	8.43%
252.0	MSI	14.49%	THC	7.91%



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 2026-01-29 through 2026-01-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	TXN	1.47%	ON	1.24%
1.0	CLF	1.0%	AMC	0.69%
1.0	BUD	0.71%	LVS	0.67%
1.0	AMC	0.68%	TXN	0.58%
1.0	ON	0.63%	KHC	0.5%
1.0	TDG	0.63%	BHC	0.45%
1.0	AMZN	0.54%	WYNN	0.44%
1.0	LVS	0.41%	BUD	0.39%
1.0	SBUX	0.41%	UNH	0.38%
1.0	AAP	0.38%	ADBE	0.38%
1.0	MSI	0.37%	TDG	0.37%
1.0	WYNN	0.36%	CMCSA	0.31%
1.0	UAA	0.35%	CLF	0.28%
1.0	AMD	0.33%	AMD	0.24%
1.0	PRGO	0.31%	BAC	0.22%
1.0	KHC	0.3%	JPM	0.21%
1.0	CNC	0.28%	GBTC	0.2%
1.0	CVS	0.27%	CVS	0.2%
1.0	LUMN	0.26%	NFLX	0.19%
1.0	AMAT	0.25%	BBY	0.19%
1.0	CMG	0.25%	LLY	0.17%
1.0	CMCSA	0.24%	EXPE	0.15%
1.0	HD	0.22%	THC	0.15%
1.0	JPM	0.21%	FIS	0.14%
1.0	ADBE	0.21%	GNRC	0.14%



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 2026-01-29 through 2026-01-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	CLF	12.4%	MU	13.7%
10.0	MU	9.11%	MSI	5.37%
10.0	GNRC	7.37%	INTU	4.09%
10.0	TXN	6.87%	JPM	3.84%
10.0	AMD	6.5%	BUD	3.71%
10.0	MSI	5.8%	UAA	3.65%
10.0	UAA	5.8%	EXPE	3.41%
10.0	AAP	5.67%	AMD	3.23%
10.0	BUD	5.33%	THC	3.06%
10.0	TDG	4.95%	BAC	2.87%
10.0	HD	4.16%	CMCSA	2.87%
10.0	CMCSA	3.72%	CCL	2.72%
10.0	LW	3.63%	PCG	2.71%
10.0	JPM	3.47%	ORCL	2.57%
10.0	META	2.93%	LNC	2.53%
10.0	ADBE	2.84%	GBTC	2.53%
10.0	THC	2.47%	GME	2.48%
10.0	AMGN	2.32%	WYNN	2.46%
10.0	BAC	2.19%	CLF	2.41%
10.0	SBUX	2.07%	BIIIB	2.37%
10.0	GILD	2.04%	LVS	2.36%
10.0	NWL	2.02%	NWL	2.35%
10.0	FIS	1.98%	GNRC	2.28%
10.0	GME	1.88%	HD	2.2%
10.0	EXPE	1.85%	NAVI	2.09%



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 2026-01-29 through 2025-11-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	CLF	0.72%	LLY	0.56%
1.0	TXN	0.7%	CYH	0.47%
1.0	CYH	0.65%	TXN	0.41%
1.0	LLY	0.57%	ON	0.38%
1.0	LUMN	0.55%	LUMN	0.36%
1.0	GBTC	0.43%	LW	0.31%
1.0	UAA	0.34%	GBTC	0.26%
1.0	ON	0.27%	CMCSA	0.2%
1.0	AAP	0.23%	ORCL	0.19%
1.0	LW	0.23%	LVS	0.17%
1.0	SBUX	0.22%	KHC	0.16%
1.0	CNC	0.21%	UNH	0.16%
1.0	MRK	0.19%	WYNN	0.15%
1.0	NWL	0.17%	GNRC	0.15%
1.0	TDG	0.17%	CLF	0.14%
1.0	CMCSA	0.16%	VNO	0.14%
1.0	MSI	0.16%	NFLX	0.13%
1.0	BUD	0.15%	BHC	0.11%
1.0	CVS	0.14%	ADBE	0.11%
1.0	HD	0.14%	NVDA	0.11%
1.0	WYNN	0.14%	MRK	0.1%
1.0	GNRC	0.12%	MSFT	0.09%
1.0	BALL	0.12%	OXY	0.09%
1.0	KHC	0.11%	SNY	0.09%
1.0	VNO	0.11%	MSI	0.09%



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 2026-01-29 through 2025-11-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	TXN	7.1%	GNRC	2.63%
10.0	CLF	5.26%	LLY	2.61%
10.0	GNRC	4.32%	TXN	2.24%
10.0	LLY	3.8%	GBTC	2.22%
10.0	KALU	3.48%	KALU	1.74%
10.0	CMCSA	2.62%	LNC	1.6%
10.0	CYH	2.48%	BBY	1.56%
10.0	GWW	2.32%	CYH	1.52%
10.0	META	2.25%	HD	1.51%
10.0	HD	2.15%	MSI	1.5%
10.0	NWL	1.79%	MU	1.44%
10.0	ON	1.77%	VST	1.43%
10.0	VFC	1.74%	INTU	1.36%
10.0	OXY	1.67%	GWW	1.24%
10.0	GBTC	1.6%	MSFT	1.2%
10.0	MSI	1.57%	GME	1.16%
10.0	LW	1.42%	IEP	1.15%
10.0	BUD	1.26%	ORCL	1.02%
10.0	ORCL	1.19%	PCG	1.02%
10.0	UAA	1.12%	BUD	1.01%
10.0	GME	1.11%	OXY	0.98%
10.0	IEP	1.05%	CMCSA	0.95%
10.0	CZR	1.02%	LUMN	0.94%
10.0	LUMN	1.02%	LW	0.9%
10.0	LNC	1.01%	CZR	0.87%



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 2026-01-29 through 2025-11-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	TXN	14.21%	LNC	5.58%
21.0	CLF	10.74%	AMC	3.87%
21.0	KALU	8.93%	GNRC	3.47%
21.0	ON	7.68%	NWL	2.83%
21.0	LNC	7.48%	AAP	2.76%
21.0	NWL	6.3%	PRGO	2.69%
21.0	GNRC	5.63%	BUD	2.54%
21.0	PRGO	5.39%	VST	2.49%
21.0	AA	5.03%	HD	2.29%
21.0	LLY	4.58%	TXN	2.27%
21.0	GWW	4.21%	ON	2.26%
21.0	HD	4.11%	BBY	2.25%
21.0	META	4.03%	INTU	2.17%
21.0	SBUX	3.82%	AZO	2.07%
21.0	OXY	3.54%	OXY	2.02%
21.0	FCX	3.51%	MSFT	1.88%
21.0	MRK	2.64%	HON	1.8%
21.0	CMCSA	2.63%	CLF	1.76%
21.0	BUD	2.47%	GBTC	1.74%
21.0	HON	2.34%	LEN	1.72%
21.0	VFC	2.12%	AAPL	1.64%
21.0	CNC	1.98%	WYNN	1.63%
21.0	CZR	1.95%	VNO	1.47%
21.0	COST	1.91%	CZR	1.43%
21.0	BMY	1.9%	META	1.28%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	AAP	0.42%	UNH	0.2%
1.0	CLF	0.24%	ON	0.18%
1.0	QCOM	0.22%	LLY	0.17%
1.0	LLY	0.19%	QCOM	0.16%
1.0	CDNS	0.18%	PRGO	0.13%
1.0	NWL	0.16%	GWW	0.13%
1.0	MU	0.16%	LW	0.11%
1.0	LW	0.15%	AMZN	0.1%
1.0	PWR	0.14%	CMCSA	0.1%
1.0	QQQ	0.11%	ADBE	0.1%
1.0	SNY	0.11%	SNY	0.09%
1.0	TXN	0.1%	PCG	0.08%
1.0	HON	0.1%	ORCL	0.08%
1.0	ON	0.1%	CDNS	0.08%
1.0	MRK	0.09%	NWL	0.08%
1.0	BHC	0.09%	MRK	0.08%
1.0	GWW	0.09%	CPRT	0.07%
1.0	CMCSA	0.09%	SBUX	0.07%
1.0	GBTC	0.09%	VNO	0.06%
1.0	PCG	0.09%	MU	0.06%
1.0	OXY	0.08%	QQQ	0.06%
1.0	ADBE	0.08%	KHC	0.05%
1.0	PRGO	0.08%	IRM	0.05%
1.0	BALL	0.08%	PWR	0.05%
1.0	AMGN	0.07%	MSFT	0.04%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	MU	3.26%	MU	2.21%
10.0	WDC	2.48%	WDC	1.54%
10.0	LW	1.71%	NWL	1.49%
10.0	AMZN	1.64%	ISRG	1.2%
10.0	TXN	1.45%	AMZN	1.04%
10.0	ISRG	1.38%	UNH	1.01%
10.0	QQQ	1.33%	QCOM	0.89%
10.0	LLY	1.3%	CVS	0.88%
10.0	ORCL	1.3%	BBY	0.81%
10.0	GME	1.19%	BUD	0.72%
10.0	UNH	1.12%	VNO	0.7%
10.0	PWR	1.03%	UAA	0.7%
10.0	AAP	1.01%	NVDA	0.69%
10.0	CDNS	1.0%	PWR	0.68%
10.0	OXY	0.94%	META	0.67%
10.0	INTC	0.93%	CPRT	0.63%
10.0	GWW	0.89%	FCX	0.62%
10.0	BUD	0.89%	SNY	0.59%
10.0	JAZZ	0.81%	NAVI	0.59%
10.0	ON	0.81%	LW	0.56%
10.0	KALU	0.74%	IEP	0.55%
10.0	CVS	0.72%	HD	0.55%
10.0	AMGN	0.72%	OXY	0.52%
10.0	MSFT	0.64%	GME	0.51%
10.0	EXPE	0.63%	SBUX	0.49%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	WDC	8.59%	WDC	3.41%
21.0	MU	7.43%	AAP	3.23%
21.0	ISRG	3.53%	ISRG	3.22%
21.0	KALU	3.44%	CVS	2.42%
21.0	PWR	3.4%	NWL	2.4%
21.0	LLY	3.1%	MU	2.36%
21.0	TSLA	3.01%	ON	2.15%
21.0	AMZN	2.86%	AMZN	1.9%
21.0	TXN	2.8%	BUD	1.88%
21.0	ON	2.59%	BBY	1.73%
21.0	AA	2.35%	IEP	1.68%
21.0	NEM	2.28%	TXN	1.52%
21.0	META	2.24%	META	1.45%
21.0	CVS	2.11%	VNO	1.29%
21.0	INTC	2.07%	KALU	1.29%
21.0	QQQ	2.03%	AMGN	1.24%
21.0	LNC	1.82%	VFC	1.22%
21.0	MSFT	1.81%	LNC	1.22%
21.0	ORCL	1.76%	AA	1.22%
21.0	AMGN	1.68%	SBUX	1.18%
21.0	QCOM	1.52%	CPRT	1.17%
21.0	JAZZ	1.44%	PWR	1.09%
21.0	SBUX	1.41%	LW	1.01%
21.0	UNH	1.4%	JAZZ	0.98%
21.0	ELAN	1.39%	HD	0.88%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	WDC	53.52%	WDC	23.81%
63.0	TSLA	23.97%	KALU	12.97%
63.0	KALU	18.54%	CVS	8.7%
63.0	MU	17.18%	NVDA	8.67%
63.0	NEM	13.32%	AA	8.27%
63.0	ORCL	12.39%	TSLA	7.24%
63.0	ISRG	11.6%	ON	6.49%
63.0	ELAN	10.98%	AAP	6.33%
63.0	ON	10.1%	AVGO	6.11%
63.0	AA	8.96%	ISRG	5.73%
63.0	AMAT	7.65%	JAZZ	5.67%
63.0	JAZZ	7.59%	BUD	4.85%
63.0	CVS	7.52%	INTC	4.83%
63.0	AMGN	6.5%	NEM	4.82%
63.0	GS	5.99%	VFC	4.61%
63.0	VFC	5.79%	VST	4.09%
63.0	PWR	5.77%	ELAN	4.02%
63.0	CSTM	5.54%	AMGN	3.97%
63.0	GE	5.52%	CMG	3.95%
63.0	NVDA	5.38%	LW	3.44%
63.0	INTC	5.22%	PWR	3.41%
63.0	THC	4.91%	AAPL	3.07%
63.0	DHI	4.75%	BHC	3.04%
63.0	AAP	4.22%	GNRC	2.97%
63.0	B	4.21%	CPRT	2.89%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	WDC	182.18%	WDC	124.17%
126.0	ELAN	64.43%	MU	42.4%
126.0	MU	60.18%	AVGO	41.62%
126.0	B	51.43%	INTC	35.09%
126.0	INTC	43.78%	NVDA	33.84%
126.0	TSLA	41.25%	GNRC	32.68%
126.0	NEM	41.25%	NEM	29.59%
126.0	GNRC	30.97%	ELAN	29.48%
126.0	AA	28.0%	PWR	26.54%
126.0	PWR	27.68%	KALU	25.06%
126.0	SLV	24.08%	CVS	21.49%
126.0	ORCL	23.17%	SLV	19.0%
126.0	KALU	22.6%	AA	17.38%
126.0	AVGO	22.35%	THC	15.62%
126.0	CVS	21.32%	JAZZ	11.71%
126.0	NVDA	20.86%	AAPL	11.61%
126.0	VFC	20.59%	TSLA	10.74%
126.0	JAZZ	19.23%	META	8.76%
126.0	THC	18.79%	VFC	7.68%
126.0	DHI	16.54%	GS	7.45%
126.0	GS	15.27%	EXPE	7.35%
126.0	EXPE	13.41%	VST	7.18%
126.0	AZN	12.48%	CPRT	6.66%
126.0	ON	12.02%	AZN	6.42%
126.0	CMA	11.14%	LLY	6.23%



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 2026-01-29

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	-0.13%
1.0	VST	-0.15%	NVDA	-0.12%
1.0	TSLA	-0.15%	GBTC	-0.11%
1.0	CYH	-0.1%	LUMN	-0.09%
1.0	LUMN	-0.1%	B	-0.09%
1.0	NVDA	-0.1%	SLV	-0.08%
1.0	ETRN	-0.09%	WDC	-0.08%
1.0	ELAN	-0.09%	GE	-0.08%
1.0	CSTM	-0.09%	TEVA	-0.08%
1.0	CHTR	-0.08%	CAH	-0.08%
1.0	T	-0.08%	TSLA	-0.08%
1.0	FIS	-0.08%	TRGP	-0.07%
1.0	CCL	-0.08%	CCL	-0.07%
1.0	GBTC	-0.07%	X	-0.07%
1.0	TEVA	-0.07%	ETRN	-0.07%
1.0	GE	-0.07%	AVGO	-0.07%
1.0	TRGP	-0.06%	PWR	-0.06%
1.0	SLV	-0.06%	AMAT	-0.06%
1.0	GILD	-0.06%	CNC	-0.06%
1.0	AMAT	-0.06%	INTC	-0.06%
1.0	X	-0.05%	ELAN	-0.06%
1.0	PHM	-0.05%	ACGL	-0.06%
1.0	CAH	-0.05%	FRCB	-0.06%



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 2026-01-29

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	-2.39%	AMC	-1.21%
10.0	FRCB	-0.93%	VST	-0.84%
10.0	PRGO	-0.92%	AVGO	-0.71%
10.0	CHTR	-0.88%	X	-0.68%
10.0	LUMN	-0.79%	NVDA	-0.65%
10.0	GSK	-0.62%	TRGP	-0.59%
10.0	CCL	-0.61%	PHM	-0.52%
10.0	NVDA	-0.59%	B	-0.5%
10.0	VST	-0.55%	GBTC	-0.49%
10.0	TDG	-0.55%	TDG	-0.49%
10.0	TRGP	-0.51%	PWR	-0.48%
10.0	AAP	-0.51%	GLD	-0.47%
10.0	PHM	-0.45%	LUMN	-0.46%
10.0	FIS	-0.42%	CAH	-0.45%
10.0	B	-0.41%	CCL	-0.45%
10.0	TSLA	-0.4%	CMG	-0.43%
10.0	X	-0.37%	MNST	-0.42%
10.0	GBTC	-0.37%	GSK	-0.41%
10.0	VZ	-0.37%	GE	-0.4%
10.0	GLD	-0.33%	ACGL	-0.39%
10.0	MNST	-0.33%	THC	-0.39%
10.0	CMG	-0.33%	HSBC	-0.38%
10.0	AMAT	-0.33%	ORLY	-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 2026-01-29

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	AMC	-4.44%	AMC	-4.4%
21.0	FRCB	-4.08%	NVDA	-1.59%
21.0	AAP	-1.59%	ELAN	-1.48%
21.0	CHTR	-1.56%	VST	-1.41%
21.0	PRGO	-1.33%	X	-1.22%
21.0	VST	-1.33%	PHM	-1.14%
21.0	GSK	-1.22%	AVGO	-1.12%
21.0	NVDA	-1.21%	TRGP	-1.08%
21.0	TDG	-1.19%	HSBC	-1.07%
21.0	LUMN	-1.17%	LLY	-1.03%
21.0	CCL	-1.16%	PWR	-1.02%
21.0	X	-1.07%	COST	-0.99%
21.0	GLD	-0.77%	ETRN	-0.97%
21.0	ELAN	-0.76%	FRCB	-0.96%
21.0	CMG	-0.74%	GLD	-0.94%
21.0	PHM	-0.72%	CDNS	-0.92%
21.0	FIS	-0.72%	GE	-0.89%
21.0	IRM	-0.71%	TDG	-0.88%
21.0	HSBC	-0.66%	CAH	-0.87%
21.0	TRGP	-0.66%	ORLY	-0.86%
21.0	ACGL	-0.64%	MNST	-0.84%
21.0	NWL	-0.56%	PRGO	-0.82%
21.0	MNST	-0.56%	CNC	-0.8%



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 2026-01-29

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	-17.84%	AMC	-11.71%
63.0	AAP	-5.91%	PHM	-3.42%
63.0	CHTR	-3.79%	CHTR	-2.87%
63.0	VFC	-3.58%	TRGP	-2.87%
63.0	PRGO	-3.35%	GE	-2.54%
63.0	NVDA	-2.96%	CDNS	-2.39%
63.0	VNO	-2.63%	GLD	-2.35%
63.0	NWL	-2.03%	MNST	-2.27%
63.0	PHM	-1.98%	VST	-2.27%
63.0	ON	-1.94%	CPRT	-2.05%
63.0	MNST	-1.94%	GBTC	-1.95%
63.0	FIS	-1.85%	HSBC	-1.92%
63.0	GSK	-1.82%	PWR	-1.92%
63.0	GLD	-1.81%	ORLY	-1.82%
63.0	VST	-1.65%	JPM	-1.81%
63.0	CPRT	-1.62%	COST	-1.77%
63.0	PWR	-1.52%	TDG	-1.7%
63.0	CMCSA	-1.44%	CSCO	-1.69%
63.0	HSBC	-1.4%	DHI	-1.68%
63.0	MS	-1.4%	GWW	-1.62%
63.0	TRGP	-1.39%	PCG	-1.56%
63.0	TLT	-1.37%	MS	-1.5%



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 2026-01-29

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	-26.68%	AMC	-14.92%
126.0	VFC	-10.69%	CHTR	-9.66%
126.0	AAP	-9.64%	AAP	-8.37%
126.0	CHTR	-6.94%	PHM	-5.04%
126.0	PHM	-5.21%	GE	-4.75%
126.0	PRGO	-5.02%	TRGP	-4.22%
126.0	BHC	-4.82%	CDNS	-4.04%
126.0	CNC	-3.92%	JPM	-3.88%
126.0	CCL	-3.86%	MS	-3.69%
126.0	NWL	-3.77%	CPRT	-3.66%
126.0	IEP	-3.51%	ACGL	-3.45%
126.0	CMCSA	-3.05%	CSCO	-2.97%
126.0	CPRT	-2.92%	GLD	-2.75%
126.0	TRGP	-2.91%	HSBC	-2.7%
126.0	GLD	-2.88%	VFC	-2.7%
126.0	JPM	-2.85%	MNST	-2.36%
126.0	CSCO	-2.75%	PCG	-2.18%
126.0	MS	-2.59%	CCL	-2.17%
126.0	TLT	-2.24%	DHI	-2.01%
126.0	MNST	-2.11%	FIS	-1.97%
126.0	HLT	-2.1%	MSFT	-1.92%
126.0	GSK	-1.91%	VST	-1.86%



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 2026-01-29

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	-39.26%	AAP	-25.84%
252.0	AAP	-29.84%	AMC	-15.48%
252.0	VFC	-18.97%	CHTR	-13.67%
252.0	BIIB	-14.96%	BIIB	-11.69%
252.0	NWL	-13.6%	VFC	-10.69%
252.0	UAA	-13.11%	OXY	-9.18%
252.0	CHTR	-12.89%	AA	-8.5%
252.0	PHM	-10.59%	JPM	-8.42%
252.0	AA	-10.41%	MS	-7.45%
252.0	OXY	-10.4%	FIS	-6.39%
252.0	IEP	-10.06%	PWR	-5.1%
252.0	JPM	-8.61%	CPRT	-5.03%
252.0	PRGO	-8.5%	CSCO	-4.99%
252.0	CZR	-7.94%	PHM	-4.91%
252.0	BHC	-7.78%	JAZZ	-4.74%
252.0	MOS	-7.5%	LLY	-4.73%
252.0	MS	-7.36%	PRGO	-4.72%
252.0	CCL	-6.23%	ACGL	-4.41%
252.0	CLF	-5.73%	CZR	-4.36%
252.0	TLT	-5.08%	TRGP	-4.3%
252.0	CSCO	-4.56%	ZION	-3.8%
252.0	PWR	-4.11%	NWL	-3.79%



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 2026-01-29 through 2026-01-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	INTC	-2.03%	INTC	-2.26%
1.0	WDC	-0.99%	SLV	-1.02%
1.0	SLV	-0.97%	WDC	-0.97%
1.0	CHTR	-0.84%	CHTR	-0.96%
1.0	ORCL	-0.71%	AMAT	-0.56%
1.0	VST	-0.58%	GILD	-0.48%
1.0	INTU	-0.48%	CSTM	-0.47%
1.0	CSTM	-0.46%	XOM	-0.38%
1.0	ISRG	-0.42%	NEM	-0.37%
1.0	NEM	-0.37%	RIO	-0.35%
1.0	NAVI	-0.37%	GLD	-0.35%
1.0	LEN	-0.36%	HSBC	-0.32%
1.0	META	-0.35%	HD	-0.32%
1.0	RIO	-0.34%	BHP	-0.31%
1.0	IEP	-0.34%	ORLY	-0.31%
1.0	HSBC	-0.33%	TEVA	-0.31%
1.0	BHC	-0.32%	HON	-0.29%
1.0	MSTR	-0.31%	VZ	-0.28%
1.0	GILD	-0.3%	MOS	-0.27%
1.0	BHP	-0.28%	PEP	-0.27%
1.0	MSFT	-0.28%	TRGP	-0.27%
1.0	MOS	-0.28%	IRM	-0.25%
1.0	TRGP	-0.25%	ELAN	-0.25%
1.0	ORLY	-0.23%	LEN	-0.24%
1.0	NVS	-0.22%	NVS	-0.24%



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 2026-01-29 through 2026-01-02

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	SLV	-14.04%	SLV	-14.17%
10.0	CHTR	-7.4%	WDC	-7.76%
10.0	AMC	-7.09%	CHTR	-7.26%
10.0	AMAT	-4.7%	NEM	-6.66%
10.0	NAVI	-4.69%	AMAT	-6.59%
10.0	NEM	-4.37%	INTC	-5.7%
10.0	TRGP	-4.34%	CSTM	-5.65%
10.0	ORLY	-4.21%	TRGP	-4.73%
10.0	GE	-4.19%	CZR	-4.41%
10.0	QCOM	-4.13%	QCOM	-4.15%
10.0	CZR	-3.91%	ORLY	-3.99%
10.0	CSTM	-3.66%	AAP	-3.82%
10.0	LUMN	-2.85%	MNST	-3.36%
10.0	INTC	-2.73%	AMC	-3.13%
10.0	RIO	-2.71%	BHP	-2.94%
10.0	MNST	-2.63%	LUMN	-2.72%
10.0	MOS	-2.39%	UNH	-2.71%
10.0	BHP	-2.38%	PEP	-2.71%
10.0	TMUS	-2.32%	XOM	-2.63%
10.0	BA	-2.2%	RIO	-2.58%
10.0	HSBC	-2.19%	ELAN	-2.36%
10.0	PRGO	-1.84%	HSBC	-2.29%
10.0	SNY	-1.82%	BA	-2.27%
10.0	UNH	-1.79%	IRM	-2.12%
10.0	PWR	-1.77%	SBUX	-2.1%



P90D: 1d

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

Period examined: All model dates from 2026-01-29 through 2025-11-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	MSTR	-0.98%	INTC	-0.84%
1.0	SLV	-0.78%	SLV	-0.8%
1.0	INTC	-0.7%	MSTR	-0.7%
1.0	ZTS	-0.54%	TEVA	-0.53%
1.0	WDC	-0.48%	ZTS	-0.5%
1.0	TEVA	-0.38%	WDC	-0.48%
1.0	AMC	-0.37%	AMC	-0.38%
1.0	AA	-0.32%	CSTM	-0.36%
1.0	TSLA	-0.28%	AA	-0.34%
1.0	CHTR	-0.26%	B	-0.34%
1.0	TRGP	-0.26%	GT	-0.33%
1.0	HSBC	-0.25%	AMAT	-0.32%
1.0	NEM	-0.23%	TRGP	-0.29%
1.0	VST	-0.22%	NEM	-0.27%
1.0	B	-0.21%	CHTR	-0.24%
1.0	RIO	-0.21%	RIO	-0.23%
1.0	AMZN	-0.21%	HSBC	-0.23%
1.0	CSTM	-0.21%	MNST	-0.21%
1.0	GS	-0.2%	GS	-0.2%
1.0	ISRG	-0.19%	JAZZ	-0.19%
1.0	MNST	-0.18%	MU	-0.19%
1.0	PRGO	-0.16%	XOM	-0.18%
1.0	GT	-0.16%	EXPE	-0.18%
1.0	BHC	-0.15%	NVS	-0.18%
1.0	GOOGL	-0.14%	GILD	-0.18%



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 2026-01-29 through 2025-11-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	AMC	-11.58%	SLV	-8.53%
10.0	MSTR	-10.65%	MSTR	-6.05%
10.0	SLV	-9.0%	AMC	-4.89%
10.0	AMAT	-3.5%	CSTM	-4.05%
10.0	CSTM	-2.32%	AMAT	-3.98%
10.0	GS	-2.14%	AA	-2.89%
10.0	BA	-1.92%	NEM	-2.72%
10.0	NEM	-1.82%	CMG	-2.68%
10.0	MNST	-1.71%	WDC	-2.59%
10.0	CHTR	-1.65%	B	-2.58%
10.0	GT	-1.62%	MRK	-2.48%
10.0	TRGP	-1.6%	BA	-2.45%
10.0	GOOGL	-1.57%	TEVA	-2.32%
10.0	AMD	-1.55%	GS	-2.21%
10.0	RIO	-1.55%	GT	-2.18%
10.0	WDC	-1.41%	INTC	-2.12%
10.0	HSBC	-1.34%	MNST	-1.88%
10.0	B	-1.3%	CHTR	-1.77%
10.0	FSUGY	-1.28%	TRGP	-1.75%
10.0	MS	-1.27%	GOOGL	-1.74%
10.0	CMG	-1.15%	KEY	-1.68%
10.0	QCOM	-1.11%	FSUGY	-1.63%
10.0	USB	-1.11%	RIO	-1.58%
10.0	INTC	-1.1%	BHC	-1.55%
10.0	TEVA	-1.06%	HSBC	-1.51%



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 2026-01-29 through 2025-11-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	AMC	-19.69%	SLV	-19.44%
21.0	SLV	-17.23%	CSTM	-8.59%
21.0	MSTR	-15.6%	CMG	-7.39%
21.0	AMAT	-5.95%	BA	-6.12%
21.0	BA	-4.64%	B	-5.98%
21.0	GS	-4.62%	TEVA	-5.74%
21.0	GT	-4.13%	MSTR	-5.45%
21.0	AAP	-3.43%	GS	-4.95%
21.0	MU	-3.43%	AMAT	-4.91%
21.0	FSUGY	-3.3%	KEY	-4.72%
21.0	TEVA	-3.28%	CNC	-4.32%
21.0	HSBC	-3.06%	FCX	-4.23%
21.0	WDC	-2.83%	RIO	-4.12%
21.0	MS	-2.67%	FSUGY	-4.02%
21.0	GOOGL	-2.62%	NEM	-3.92%
21.0	MNST	-2.54%	MRK	-3.77%
21.0	IRM	-2.4%	GT	-3.7%
21.0	RIO	-2.38%	HSBC	-3.66%
21.0	CHTR	-2.33%	MNST	-3.41%
21.0	TRGP	-2.27%	TFC	-3.4%
21.0	KHC	-2.22%	GOOGL	-3.32%
21.0	B	-2.07%	EXPE	-3.17%
21.0	USB	-1.99%	MS	-2.85%
21.0	NEM	-1.94%	MU	-2.79%
21.0	CMG	-1.83%	ELAN	-2.61%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
1.0	TSLA	-0.45%	INTC	-0.28%
1.0	MSTR	-0.32%	SLV	-0.27%
1.0	SLV	-0.24%	X	-0.26%
1.0	UAA	-0.22%	MSTR	-0.24%
1.0	X	-0.2%	CNC	-0.22%
1.0	AMC	-0.18%	LUMN	-0.2%
1.0	ZTS	-0.18%	WDC	-0.19%
1.0	ISRG	-0.15%	ZTS	-0.17%
1.0	NAVI	-0.15%	AMD	-0.16%
1.0	HSBC	-0.14%	TSLA	-0.15%
1.0	AVGO	-0.14%	HSBC	-0.14%
1.0	CNC	-0.14%	AMC	-0.14%
1.0	CZR	-0.14%	NEM	-0.13%
1.0	VST	-0.12%	MNST	-0.12%
1.0	TDG	-0.11%	AMAT	-0.12%
1.0	AMAT	-0.11%	CAH	-0.11%
1.0	CAH	-0.1%	GLD	-0.11%
1.0	NEM	-0.09%	HCA	-0.11%
1.0	MNST	-0.09%	B	-0.1%
1.0	BBY	-0.09%	CSTM	-0.1%
1.0	INTC	-0.08%	RIO	-0.1%
1.0	AMD	-0.08%	AVGO	-0.09%
1.0	WDC	-0.07%	CLF	-0.09%
1.0	VFC	-0.07%	NAVI	-0.09%
1.0	CCL	-0.07%	XOM	-0.08%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
10.0	AMC	-4.27%	MSTR	-3.27%
10.0	MSTR	-4.15%	AMC	-2.5%
10.0	PRGO	-2.14%	SLV	-2.2%
10.0	LUMN	-1.98%	LUMN	-2.02%
10.0	SLV	-1.85%	ZTS	-1.61%
10.0	ZTS	-1.71%	MNST	-1.41%
10.0	CHTR	-1.21%	CSTM	-1.32%
10.0	MNST	-1.05%	BHC	-1.24%
10.0	CSTM	-1.03%	INTC	-1.22%
10.0	AMAT	-0.96%	AMD	-1.16%
10.0	GLD	-0.85%	B	-1.14%
10.0	AMD	-0.79%	CNC	-1.13%
10.0	HSBC	-0.79%	AMAT	-1.07%
10.0	RIO	-0.71%	GLD	-1.04%
10.0	GT	-0.68%	CLF	-0.96%
10.0	CNC	-0.66%	CHTR	-0.88%
10.0	TDG	-0.57%	CAH	-0.85%
10.0	CAH	-0.57%	LVS	-0.84%
10.0	CZR	-0.51%	HSBC	-0.82%
10.0	CMG	-0.49%	RIO	-0.81%
10.0	CMA	-0.42%	TDG	-0.7%
10.0	VZ	-0.41%	NEM	-0.63%
10.0	NAVI	-0.35%	GT	-0.63%
10.0	ACGL	-0.29%	CMA	-0.6%
10.0	B	-0.29%	ELAN	-0.57%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
21.0	MSTR	-6.94%	MSTR	-5.45%
21.0	AMC	-6.73%	SLV	-4.76%
21.0	ZTS	-4.02%	AMD	-3.82%
21.0	CHTR	-3.32%	LUMN	-3.73%
21.0	LUMN	-3.26%	CNC	-3.65%
21.0	PRGO	-3.11%	ELAN	-3.39%
21.0	SLV	-2.84%	ZTS	-2.73%
21.0	AMD	-2.12%	MNST	-2.71%
21.0	MNST	-1.88%	GOOGL	-2.54%
21.0	GLD	-1.78%	AMC	-2.27%
21.0	HSBC	-1.51%	B	-2.2%
21.0	CMG	-1.33%	GLD	-2.17%
21.0	CNC	-1.25%	BHC	-2.15%
21.0	CZR	-1.23%	HSBC	-2.14%
21.0	CMCSA	-1.13%	CMCSA	-2.08%
21.0	BHC	-1.12%	CAH	-1.93%
21.0	CAH	-1.11%	LVS	-1.75%
21.0	TDG	-1.09%	PRGO	-1.71%
21.0	CMA	-1.07%	CHTR	-1.65%
21.0	AMAT	-0.95%	HCA	-1.59%
21.0	NAVI	-0.82%	RIO	-1.4%
21.0	NWL	-0.74%	TEVA	-1.34%
21.0	RIO	-0.73%	CMA	-1.26%
21.0	LVS	-0.69%	CSTM	-1.25%
21.0	VST	-0.67%	CLF	-1.2%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
63.0	MSTR	-22.98%	MSTR	-27.38%
63.0	AMC	-17.86%	AMD	-10.9%
63.0	PRGO	-15.22%	LVS	-9.56%
63.0	ZTS	-10.62%	X	-9.41%
63.0	CMCSA	-8.16%	GOOGL	-8.07%
63.0	CHTR	-7.86%	B	-6.98%
63.0	NWL	-7.78%	AMC	-6.69%
63.0	LUMN	-6.56%	MNST	-6.35%
63.0	MNST	-6.52%	PRGO	-6.15%
63.0	LVS	-6.15%	CMCSA	-6.08%
63.0	GLD	-6.12%	GLD	-5.75%
63.0	TDG	-5.15%	SLV	-5.14%
63.0	UNH	-5.09%	NFLX	-4.7%
63.0	NFLX	-4.67%	HSBC	-4.53%
63.0	ADBE	-3.63%	CHTR	-4.42%
63.0	CSCO	-3.5%	HCA	-4.35%
63.0	HSBC	-3.39%	RIO	-4.33%
63.0	CNC	-3.27%	CSCO	-3.87%
63.0	RIO	-2.9%	FITB	-3.65%
63.0	CZR	-2.78%	TDG	-3.5%
63.0	CDNS	-2.7%	BAC	-3.1%
63.0	CAH	-2.54%	BIIB	-2.8%
63.0	GME	-2.5%	CAH	-2.66%
63.0	X	-2.18%	WYNN	-2.42%
63.0	MOS	-1.94%	QQQ	-2.31%



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 2026-01-29 through 2025-02-03

Hzn	Ticker	95ROVBC_VmS	Ticker	99ROVBC_VmS
126.0	MSTR	-37.9%	MSTR	-32.83%
126.0	AMC	-37.85%	CHTR	-24.48%
126.0	CHTR	-26.3%	AMC	-18.78%
126.0	PRGO	-22.22%	LVS	-14.94%
126.0	CMCSA	-21.88%	RIO	-10.57%
126.0	CNC	-18.18%	CMCSA	-10.04%
126.0	LVS	-13.94%	FSUGY	-8.73%
126.0	RIO	-10.89%	AAP	-7.77%
126.0	ZTS	-9.88%	WYNN	-7.64%
126.0	GLD	-9.41%	MNST	-7.55%
126.0	TDG	-9.39%	GLD	-7.15%
126.0	MNST	-8.81%	GOOGL	-7.04%
126.0	NWL	-7.92%	BAC	-6.38%
126.0	FSUGY	-7.11%	CZR	-6.23%
126.0	CZR	-6.81%	CSCO	-6.2%
126.0	HSBC	-6.2%	ZTS	-5.78%
126.0	IEP	-5.18%	HSBC	-5.59%
126.0	CSCO	-5.1%	TDG	-5.52%
126.0	GME	-4.56%	FITB	-5.24%
126.0	HCA	-4.23%	NWL	-4.66%
126.0	BMY	-3.84%	ORLY	-3.7%
126.0	ADBE	-3.63%	MSI	-2.9%
126.0	MSI	-3.5%	EMB	-2.82%
126.0	TEVA	-3.41%	QQQ	-2.72%
126.0	FITB	-2.97%	CAH	-2.71%



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 probability of the Kupiec statistic occurring is obtained from the chi-squared distribution. The lower the statistic, the higher the p-Value, and the more likely that Sigma's VaR breakage 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 statistic, 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 2026-01-29. 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	249.79	0	10	0
Sigma	95	10	6.88	0.01	0.13	0.72
Sigma	95	21	51.28	0	0.13	0.72
Sigma	95	63	24.75	0	nan	0
Sigma	95	126	30.7	0	nan	0
Sigma	95	252	14.5	0	nan	0
Sigma	99	1	440.13	0	29.46	0
Sigma	99	10	38.82	0	0.36	0.55
Sigma	99	21	0.05	0.82	1.68	0.19
Sigma	99	63	0.85	0.36	1.64	0.2
Sigma	99	126	0.65	0.42	nan	0
Sigma	99	252	0.51	0.48	nan	0

