

VecViz Expected Up Body & Expected Down Body (EUB & EDB) Performance Report

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31 March 2026

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Introduction

The area of a security's forward return distribution between the 95th and 100th percentile upward and downward are often referred to as the distribution's "tails". In this report we are going to discuss metrics for the expected value upward and downward for the area inside the tails, i.e., the distribution body.

We refer to these metrics as Expected Up Body and Expected Down Body, or EUB and EDB, respectively. More specifically, EUB is the horizon end date forecast probability-weighted average price between the model date price and the 95th probability percentile price upward. EDB is defined similarly, but pertains to the area between the Model Date price and the 95th probability percentile price downward. We believe that EUB and EDB can be useful to investors as estimates of base case / moderate upside and downside.

The aim of this report is to inform a broad spectrum of readers of the behavior and accuracy of VecViz's EUB and EDB 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.

Please see the "Important Considerations" section of this report for important disclosures related to the methods used in this report and other topics as well.

Evaluation of EUB and EDB Estimates

We compare Expected Body metrics derived from VecViz's Vector Model ('V') to VecViz's implementation to comparable statistics for Sigma (S), the standard deviation of the "normal" or "Gaussian" distribution.

Mean absolute average error (MAE)

Mean absolute average error (MAE) is the metric we use when evaluating accuracy. For example, when evaluating EUB, we take the average absolute value of the difference between the actual forward horizon price and the model date EUB price for the given model, for ticker model dates that are in the given model's "evaluation set".

Each model's EUB evaluation set includes all the ticker model dates for which the forward horizon price is between the model date price and that model's estimate of the 95th percentile upward price (95U). Likewise for each model's EDB evaluation set, substituting 95D for 95U. Given that there are differences between the 95th percentile as calculated by the Vector Model and Sigma, the evaluation sets for EUB and EDB estimates can be quite different. The differences in ticker level evaluation set constituents can often be apparent when reviewing the Top/Bottom 30 ticker lists for the Vector Model and Sigma included in this report.



As discussed further below, we evaluate MAE relative to Sigma both on an outright and adjusted basis, to address, at least in part, some of the aforementioned differences in the evaluation sets. We also evaluate MAE on the basis of its variability by date (when averaged across tickers) and by ticker (when averaged across dates), as a consistent, moderate level of error is preferable to potential large spikes in error.

Return on Expected Up Body and Return on Expected Down Body (ROEDB and ROEUB)

To determine the influence of Vector Model EUB and EDB on risk tolerant/ return seeking and risk avoidant strategies relative to Sigma EUB and EDB we calculate ROEUB and ROEDB (Return on EUB and Return on EDB, respectively). Specifically, Sigma ROEUB and Sigma ROEDB are ascribed the underlying ticker return, and Vector Model ROEUB (ROEDB) is ascribed a multiple of the underlying return based on the ratio of Vector Model EUB (Sigma EDB) to Sigma EUB (Vector Model EDB), subject to a cap and floor of 3.00x and 0.333x.

So, for example, if Sigma said EUB for ticker ABC was 2.00% and the Vector Model said EUB for ABC was 4.00%, the Vector Model ROEUB would be double Sigma's. Likewise, if the Vector Model said EUB for ABC was 1.00%, the Vector Model ROEUB would be half of Sigma's.

For the Vector Model ROEUB to be higher than Sigma's it signifies that either (1) Vector Model EUB exceeded Sigma's EUB (to the upside) and the ticker traded higher, or (2) Sigma EUB exceeded the Vector Model's EUB (to the upside) and the ticker traded lower.

However, if Sigma said EDB for XYZ was -2.00% and the Vector Model said EDB for XYZ was -4.00% the Vector Model's ROEDB for XYZ would be half Sigma's. Likewise, if Vector Model EDB for XYZ was -1.00% its ROEDB would be double Sigma's.

For the Vector Model ROEDB to be higher than Sigma's it signifies that either (1) Vector Model EDB exceeded Sigma's EDB (to the downside) and the ticker traded lower, or (2) Sigma EDB exceeded the Vector Model's EDB (to the downside) and the ticker traded higher.

Cost of borrowing or crediting for uninvested funds is incorporated into neither ROEUB or ROEDB.

Addressing The Influence of 95th percentile differences on MAE and ROEB

All else equal, the model with greater distance from the model date price to 95U (95D) will have higher EUB (EDB) distance and also a higher EUB (EDB) MAE. If prices drift upward over time, it will also have a higher ROEUB (lower ROEDB). Thus, MAE for EUB and EDB and ROEUB and ROEDB must be considered in the context of the distance to 95U and 95D, respectively, in order to discern what additional information value they offer.



Thus, when evaluating MAE, in addition to outright comparison of Vector Model MAE to Sigma we also have a 95th percentile distance adjusted comparison. Specifically, for this adjusted comparison we multiply Sigma's MAE by the ratio of the distance to the 95th percentile for the Vector Model relative to Sigma's distance to its 95th percentile. If Sigma's 95th percentile is more distant than the Vector Model's it's adjusted MAE will be smaller than its unadjusted MAE, and vice versa.

Likewise, when evaluating ROEUB and ROEDB, in addition to outright comparison to Sigma ROEDB and ROEUB (which in both cases are simply the underlying ticker returns), we also have an adjusted comparison. Specifically, we multiply Sigma's ROEUB (ROEDB) by the ratio of aggregate average Vector Model EUB (Sigma EDB) to aggregate average Sigma EUB (Vector Model EDB). This multiplication eliminates much of the influence of systematic EUB (EDB) differentials, be them the result of systematic 95U (95D) differentials or otherwise, on the relationship between Vector Model and Sigma ROEUB (ROEDB). The bias that remains reflects the aforementioned capping and flooring when calculating Vector Model ROEUB (ROEDB), and idiosyncratic variability arising from the aforementioned differential in ticker-model date constituents in each model's Expected Body evaluation sets.

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

Finally, we also include 95U and 95D levels and breakage rates for the Vector Model and Sigma in the Appendix to this report, for your reference as you consider the MAE and ROEUB / ROEDB adjustments.

Determining the drivers of ROEUB (ROEDB) alpha

A ROEUB (ROEDB) Alpha greater than 0.00 across TMD's indicates that Vector Model EUB (EDB) moved favorably from a market timing and / or ticker selection perspective. We present that statistic alongside an average ROEUB (ROEDB)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, and vice versa.

ROEUB (ROEDB) Beta

ROEUB (ROEDB)Beta represents the expected sensitivity of Vector Model ROEUB (ROEDB) to Sigma ROEUB (ROEDB), i.e., the underlying ticker return. It is the slope of the aforementioned ordinary least squares regression of Vector Model ROEUB (ROEDB) on Sigma



ROEUB (ROEDB). Like outright ROEUB (ROEDB), it must be considered in the context of 95U (95D), and like alpha it can be bifurcated to reveal additional insight.

We encourage readers to consider the Vector Model ROLOBC beta to Sigma ROLOBC in the context of how well each model's 95% VaR and OaR breakage rates compare to targeted levels. For example, if the Sigma model 95% OaR breakage is well above target and the Vector Model's 95% OaR breakage is close to target, then Vector Model 95% OaR levels are likely higher than Sigma's and if that is the case then more likely than not Vector Model EUB levels are higher than Sigma's as well. The beta of Vector Model ROEUB to Sigma ROEUB should be expected to be > 1.00 in such a situation.

A ROEUB (ROEDB) Beta greater than 1.00 across TMD's indicates that Vector Model EUB (EDB) was higher (more deeply negative) than Sigma's for more volatile dates and / or tickers. We also present an average Beta alpha calculated at the single ticker level across dates. If this second beta is >1.00 it indicates that Vector Model ROEUB (ROEDB) was higher (more deeply negative) than Sigma ROEUB (ROEDB) on more volatile days. If this second beta is less than the overall beta then it indicates that Vector Model ROEUB (ROEDB) tended to be less elevated (less deeply negative) with respect to more volatile tickers than with respect to more volatile dates.

Vector Model Input and Calculation Details

The Vector Model uses systematic price channel identification and scoring in conjunction with machine learning to provide investors with volatility forecasts that reflect the asymmetric, jumpy, clustering, and price dependent behavior of realized and option implied volatility in the financial markets.

The sole input to Vector Model and the Sigma Model out of sample OaR analytics are daily closing prices obtained from QuoteMedia.

The Vector Model was trained upon $\sim 60,000$ ticker model dates (TMD's) representing ~ 550 tickers (including equities, currencies, and commodities) and ~ 120 model dates spanning from March 9, 2002 to February 3, 2021. The Out of Sample period starts on 1/31/2022, nearly a full one year from the last model date included in the training data. All Expected Body 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 EUB and EDB 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. See the Appendix for the derivation of 0.657 as the Sigma multiplier that is used to calculate Sigma EUB and Sigma EDB.

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-vecvzis-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 Expected Body metrics outperforms Sigma Expected Body metrics, you should not necessarily conclude that Vector Model Expected Body metrics are the best for your purposes. See the discussion of some of the other types of volatility models in this blog for more detail, as Expected Body metrics could likely be calculated from them as well: <https://vecviz.com/an-llms-comparison-of-vecviz-to-established-vol-models/>
- 4) All MAE and ROEUB and ROEDB performance statistics are as of the end of the horizon only. All interim price movement is ignored.
- 5) Clearly, all horizons > 1d overlap when considered on a daily basis. 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 ROLOBC returns are calculated similarly.



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- 6) We are not considering transaction costs. The turnover and therefore transaction costs experienced by Vector Model ROEUB or ROEDB based investors resulting in the change in the ratio between Vector Model and Sigma ROEUB or ROEDB is completely ignored.
 - 7) We are not incorporating any financing charges or margin-related costs for implied “levered” ROEUB or ROEDB positions.

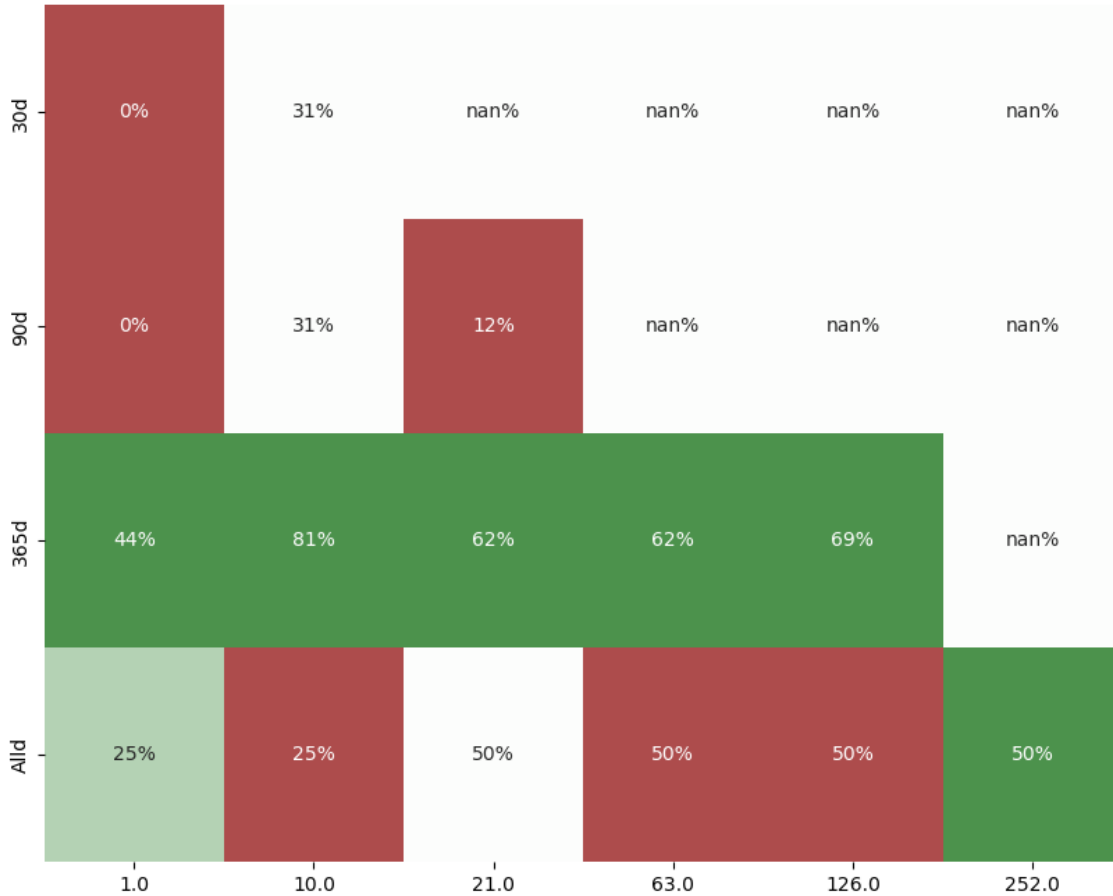
Thus, in summary, all metrics presented in this report are presented and are to be considered on a comparative basis. Are Vector Model breakage rates closer to target than Sigma’s? Does Vector Model ROEUB or ROEDB outperform Sigma ROEUB or ROEDB? Is the relative performance driven by alpha or beta? By timing or ticker selection? What tickers contribute or detract the most from the relative performance? These are the questions this report is structured to answer.



Expected Body Objectives “Report Card”

Period examined: AllD = 2022-01-31 through 2026-03-30 while 365D /90D/ 30D include the 365/90/30 days ended 2026-03-30, respectively.

% of Expected Body Objectives Met By Lookback Window vs. Trading Day Horizon, as of 2026-03-31



EB Criteria	Average Score(%)
1. Smaller EUB MAE (mean absolute error)	6.25
2. Smaller EUB MAE after 95%tile adjustment	18.75
3. Less adjusted EUB MAE Variability across dates	31.25
4. Less adjusted EUB MAE Variability across tickers	37.5
5. Smaller EDB MAE	43.75
6. Smaller EDB MAE after 95%tile adjustment	43.75
7. Less adjusted EDB MAE Variability across dates	25
8. Less adjusted EDB MAE Variability across tickers	50
9. Greater ROEUB	43.75



EB Criteria	Average Score(%)
10. Greater ROEUB after adjusting for EUB magnitude	50
11. ROEUB alpha across tickers and dates > 0	62.5
12. ROEUB alpha across dates > 0	18.75
13. Greater ROEDB	68.75
14. Greater ROEDB after adjusting for EDB magnitude	68.75
15. ROEDB alpha across tickers and dates > 0	0
16. ROEDB alpha across dates > 0	75
Overall Average	40.23

EB and ROEB Criteria by Fwd Hzn	1D	10D	21D	63D	126D	252D
1. Smaller EUB MAE (mean absolute error)	0	25	0	0	0	0
2. Smaller EUB MAE after 95%tile adjustment	0	75	0	0	0	0
3. Less adjusted EUB MAE Variability across dates	25	50	33.33	0	50	0
4. Less adjusted EUB MAE Variability across tickers	25	50	33.33	50	50	0
5. Smaller EDB MAE	0	25	33.33	100	100	100
6. Smaller EDB MAE after 95%tile adjustment	25	25	33.33	100	100	0
7. Less adjusted EDB MAE Variability across dates	0	25	33.33	0	50	100
8. Less adjusted EDB MAE Variability across tickers	50	75	33.33	50	50	0
9. Greater ROEUB	0	25	33.33	100	100	100
10. Greater ROEUB after adjusting for EUB magnitude	0	25	66.67	100	100	100
11. ROEUB alpha across tickers and dates > 0	0	75	66.67	100	100	100
12. ROEUB alpha across dates > 0	0	25	66.67	0	0	0
13. Greater ROEDB	50	50	66.67	100	100	100
14. Greater ROEDB after adjusting for EDB magnitude	50	50	66.67	100	100	100
15. ROEDB alpha across tickers and dates > 0	0	0	0	0	0	0
16. ROEDB alpha across dates > 0	50	75	100	100	50	100
TotalScore	17.19	42.19	41.67	56.25	59.38	50



EB and ROEB Criteria by Lookback Window	30D	90D	365D	AllD
1. Smaller EUB MAE (mean absolute error)	50	0	0	0
2. Smaller EUB MAE after 95%tile adjustment	50	33.33	20	0
3. Less adjusted EUB MAE Variability across dates	0	66.67	60	0
4. Less adjusted EUB MAE Variability across tickers	0	33.33	100	0
5. Smaller EDB MAE	0	0	80	50
6. Smaller EDB MAE after 95%tile adjustment	0	0	100	33.33
7. Less adjusted EDB MAE Variability across dates	0	0	40	33.33
8. Less adjusted EDB MAE Variability across tickers	50	33.33	100	16.67
9. Greater ROEUB	50	0	40	66.67
10. Greater ROEUB after adjusting for EUB magnitude	0	0	80	66.67
11. ROEUB alpha across tickers and dates > 0	50	0	80	83.33
12. ROEUB alpha across dates > 0	0	0	40	16.67
13. Greater ROEDB	0	0	100	100
14. Greater ROEDB after adjusting for EDB magnitude	0	0	100	100
15. ROEDB alpha across tickers and dates > 0	0	0	0	0
16. ROEDB alpha across dates > 0	0	66.67	80	100
TotalScore	15.62	14.58	63.75	41.67

See the prior page for associated definitions of the criteria.



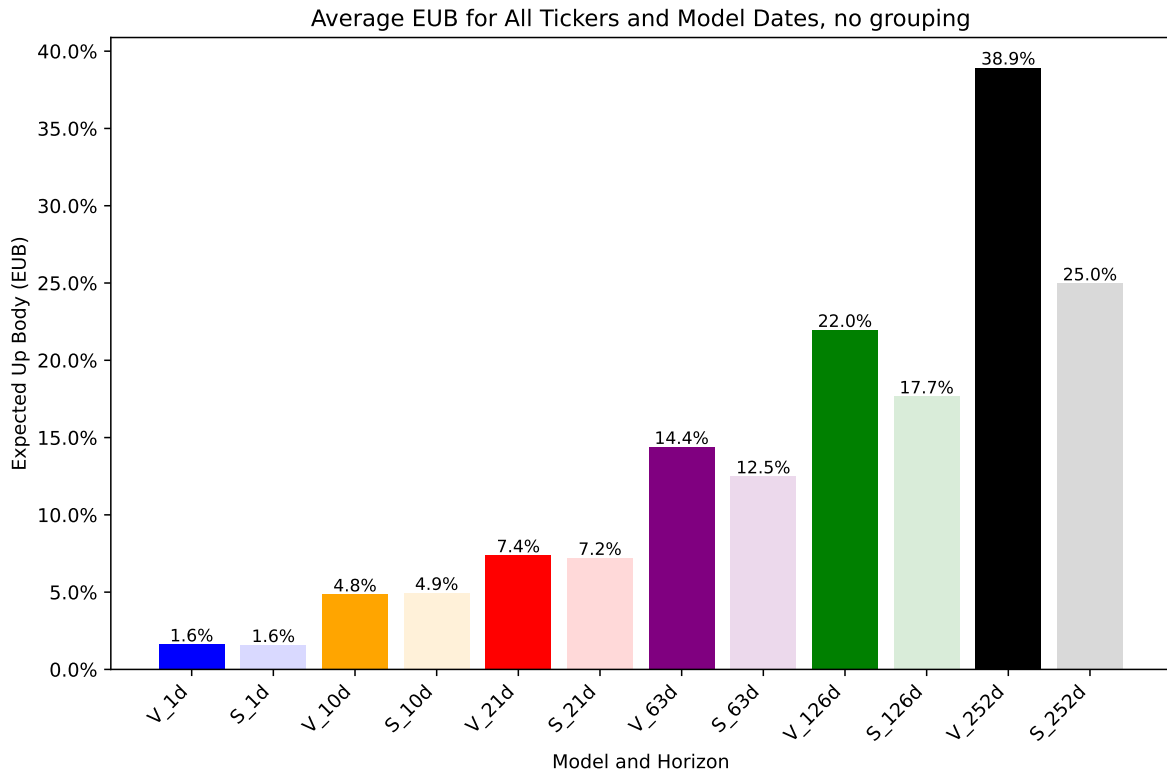
Expected Up Body (EUB)

Historic Average Levels

Here we compare Vector Model (“V”, dark shading) and Sigma (“S”, light shading) EUB levels by horizon, on average across all ticker-model dates for the lookback window indicated.

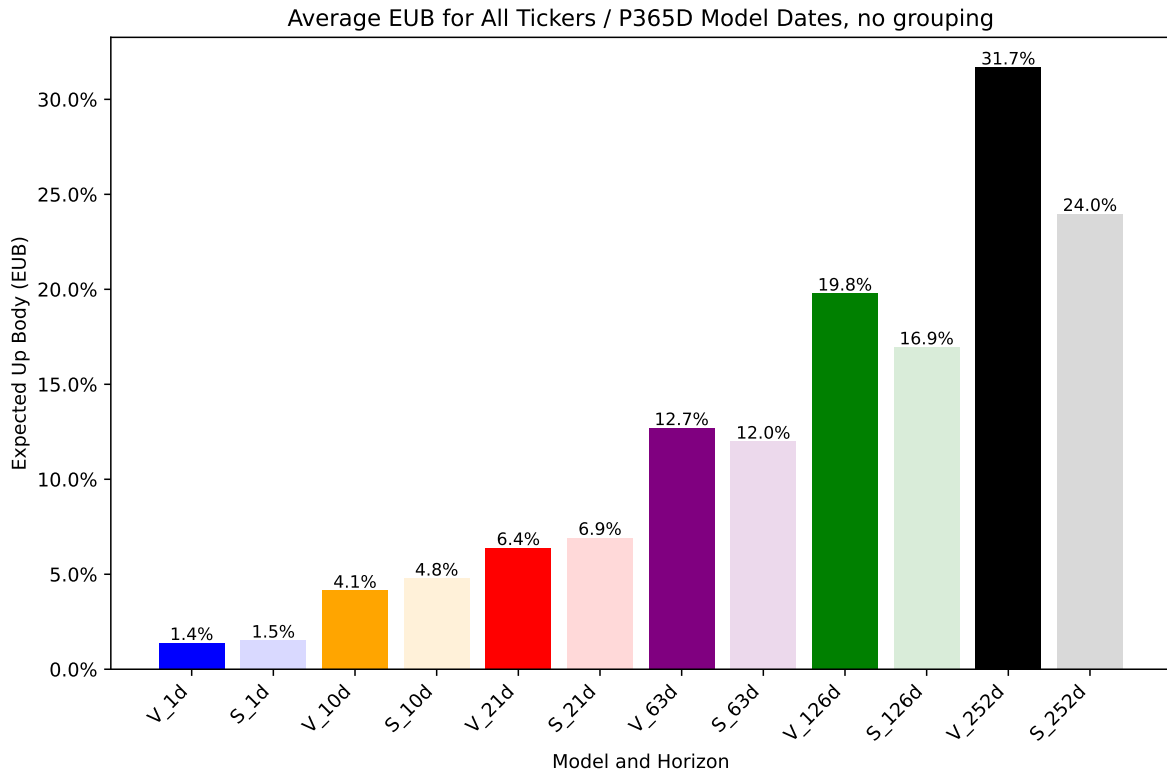
All Out of Sample Model Dates

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



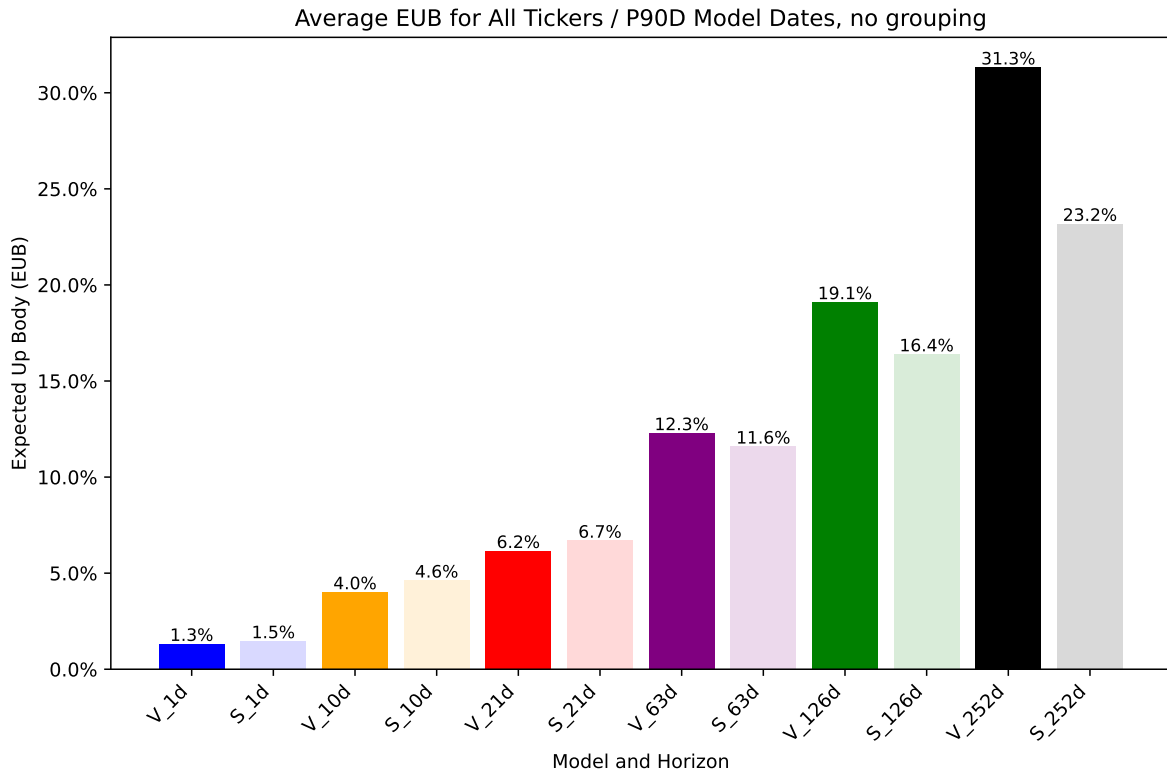
Prior 365 Calendar Days (P365D)

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



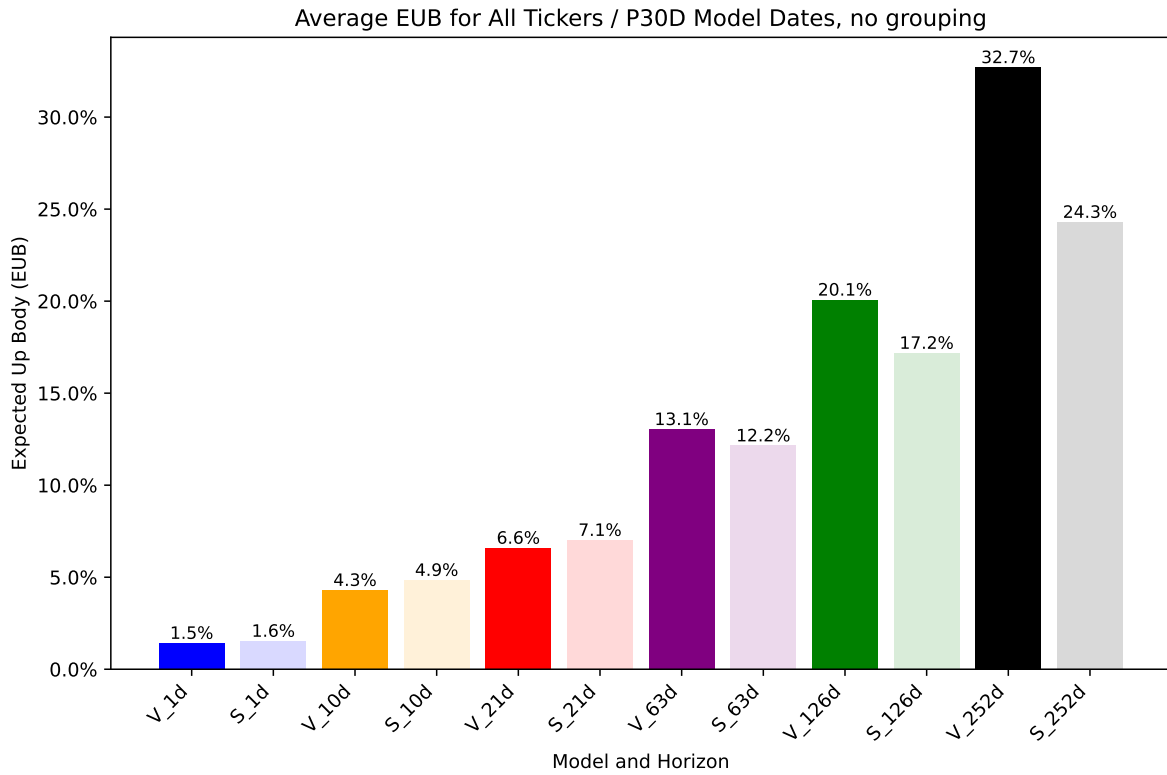
Prior 90 Calendar Days (P90D)

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



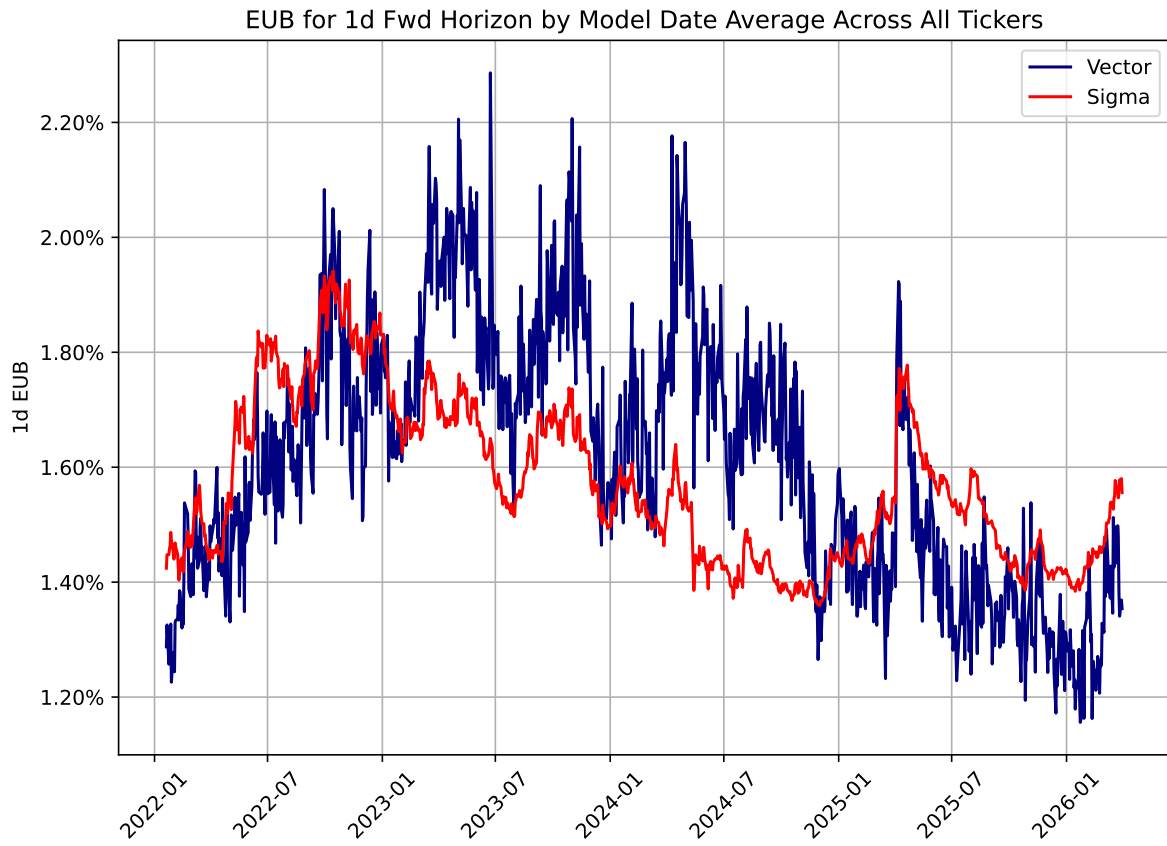
Prior 30 Calendar Days (P30D)

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

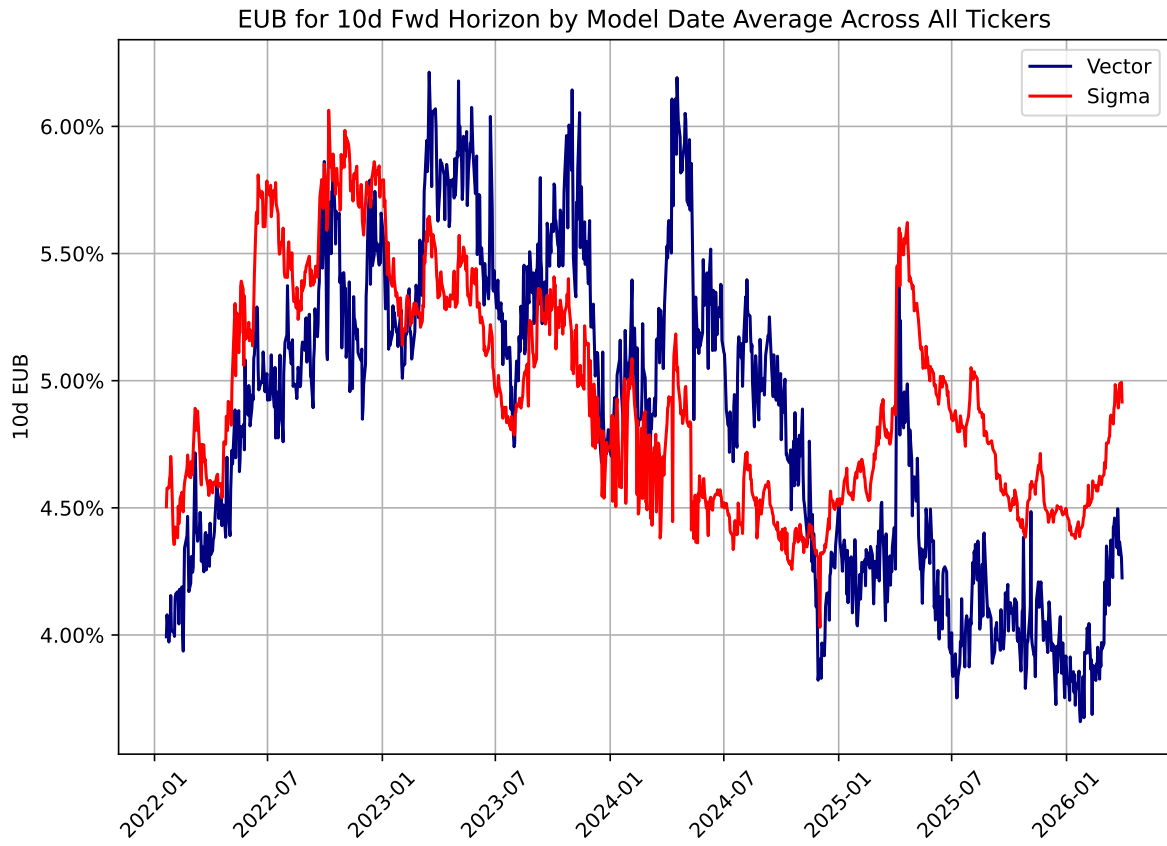


EUB by Model Date Detail

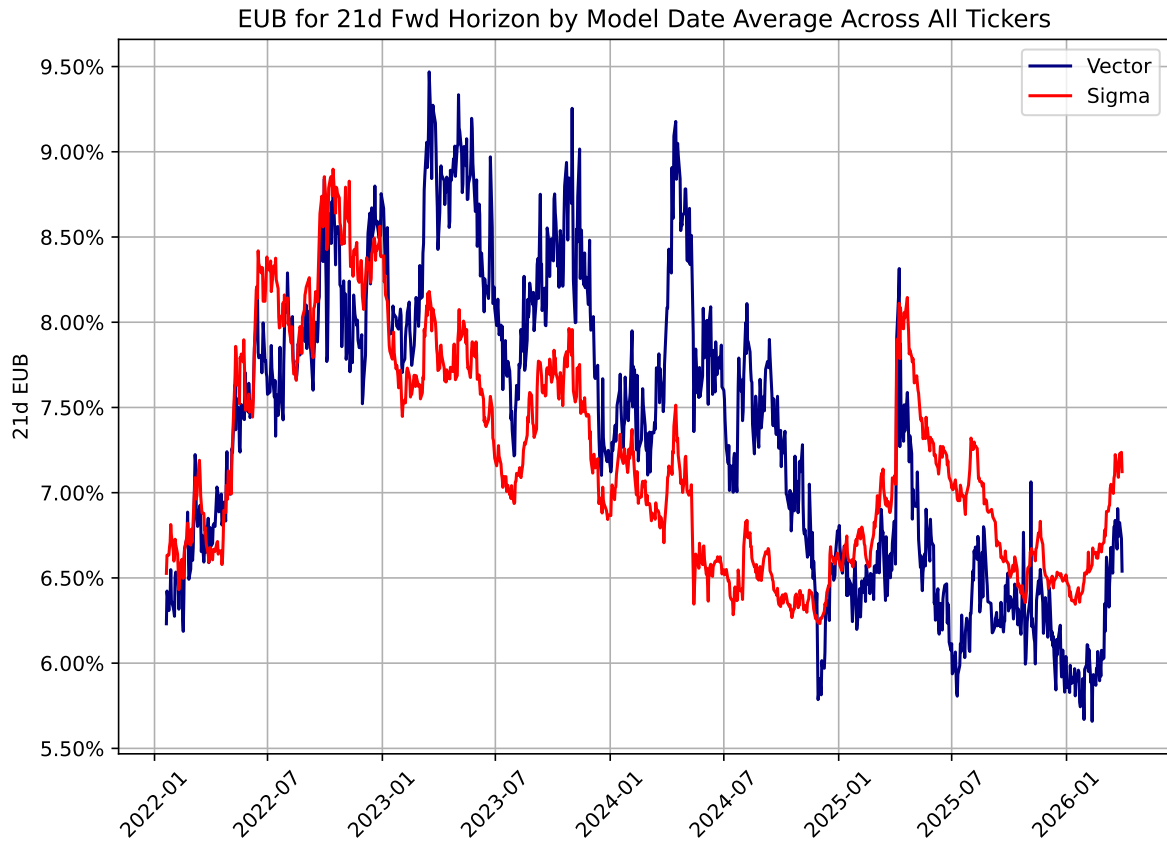
1d Horizon



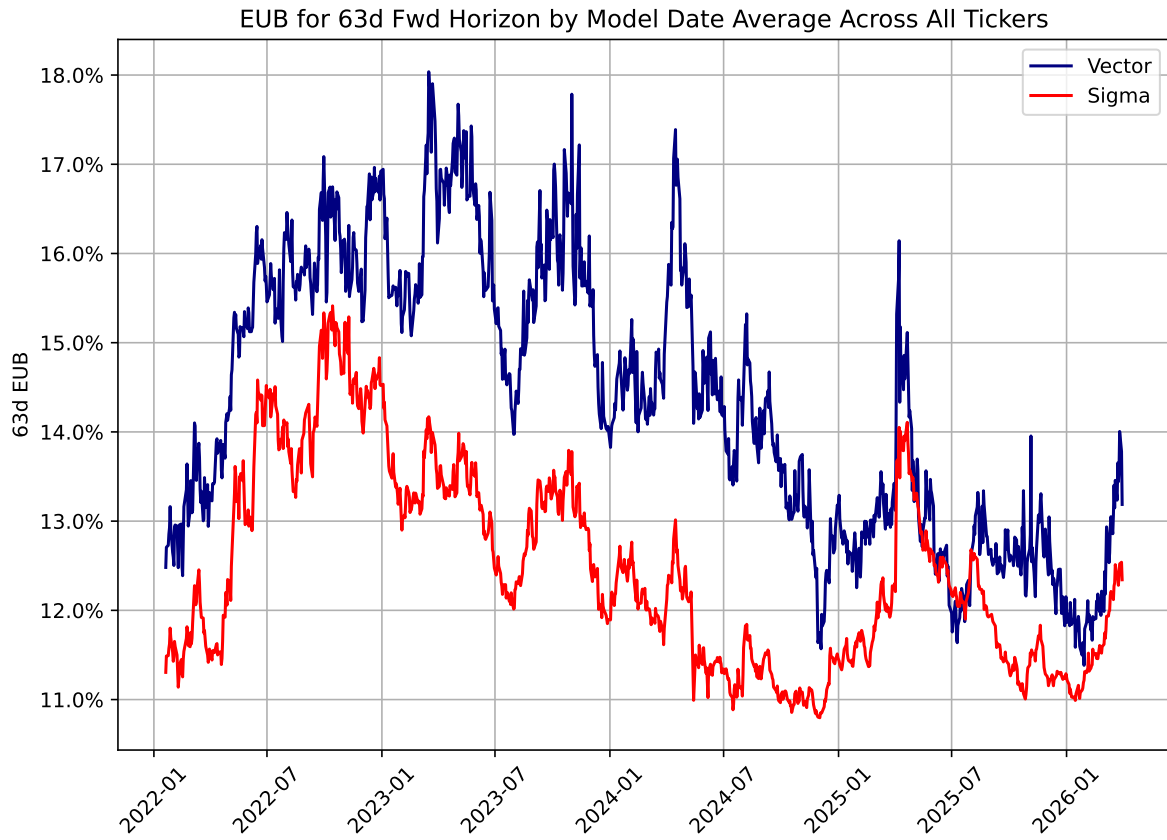
10d Horizon



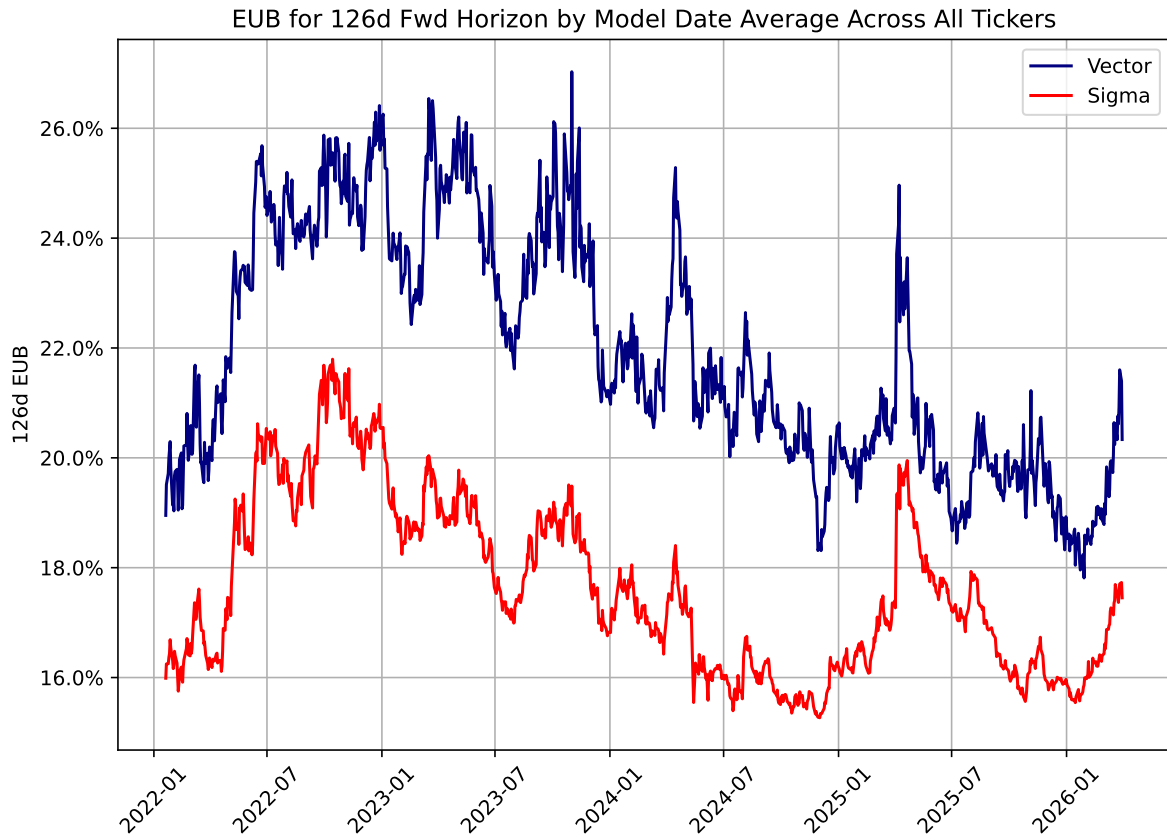
21d Horizon



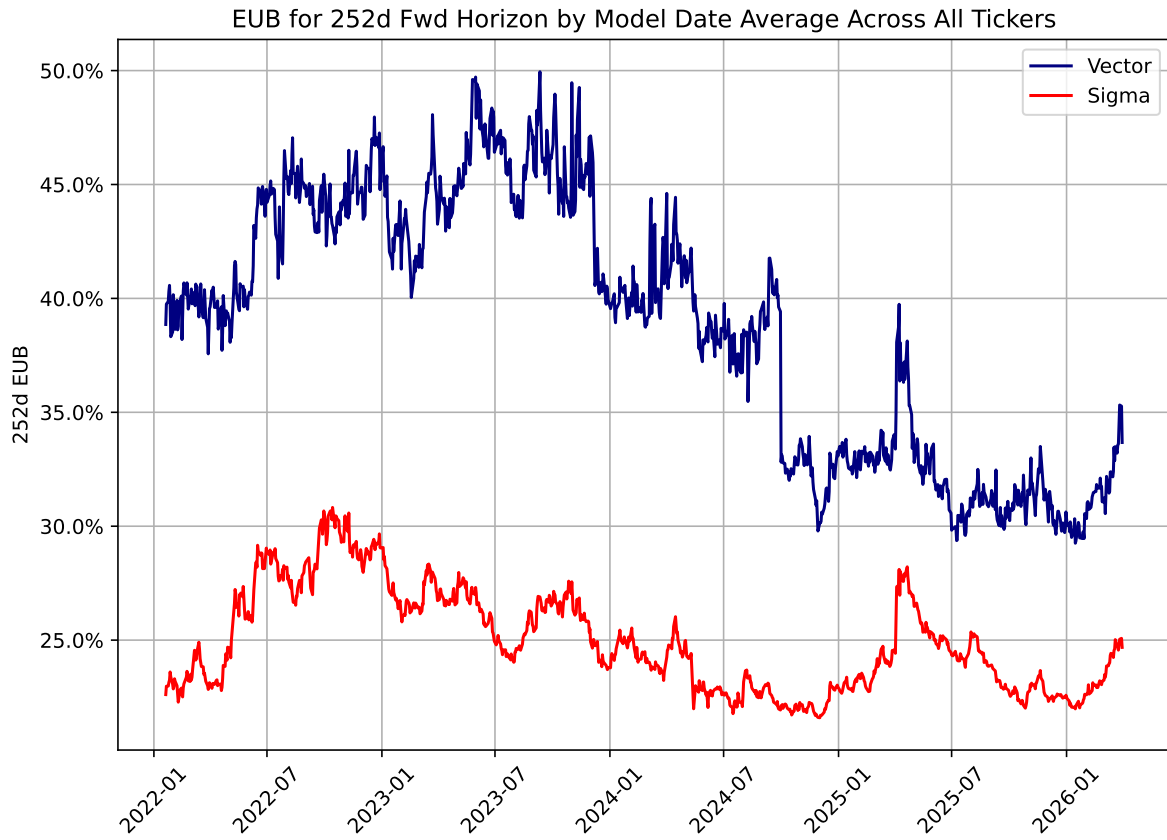
63d Horizon



126d Horizon



252d Horizon



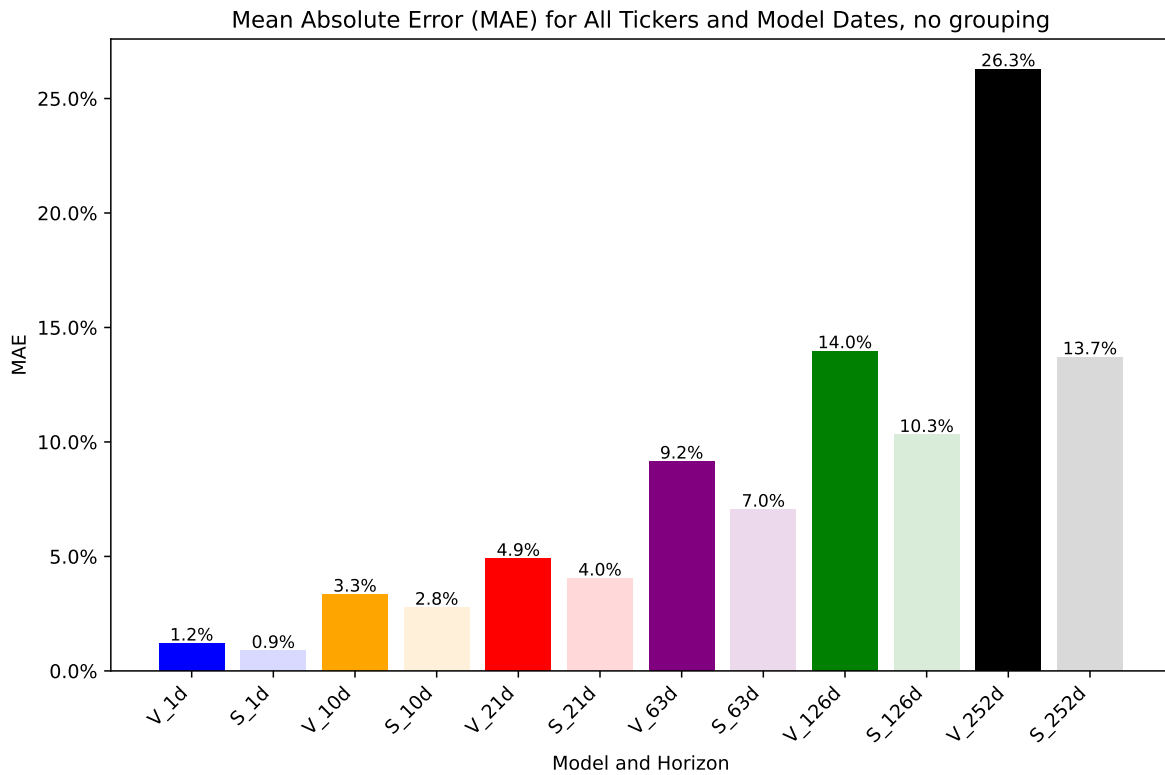
Performance Summary - MAE of EUB vs. Actual Fwd Returns

We use Mean Absolute Error (MAE) to assess how accurate Vector Model EB metrics are relative to those based upon Sigma.

Performance includes only those ticker - model dates whose forward performance is directionally “up” but inside of the 95th %tile forecasted for given model. Thus, these statistics are not perfectly comparable across models, or even horizons. Consider them alongside each model’s breakage rates for the 95U percentile (i.e., OaR breakage rates).

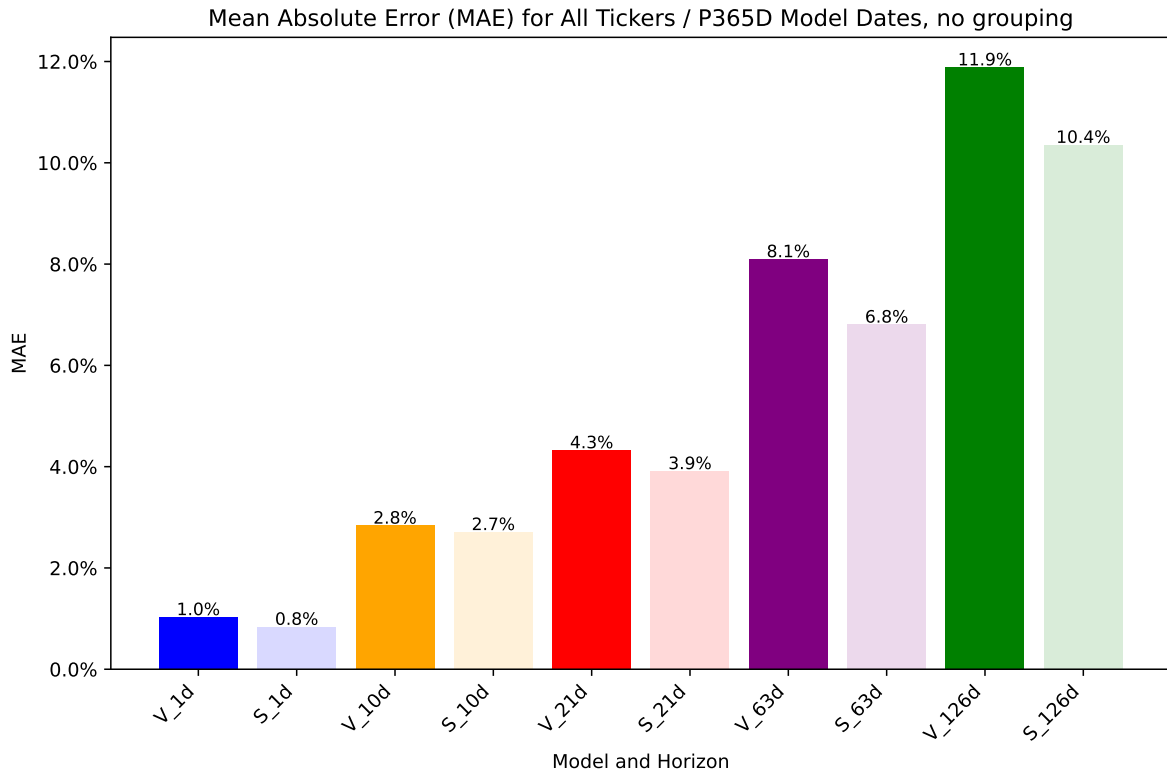
All Out of Sample Model Dates

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



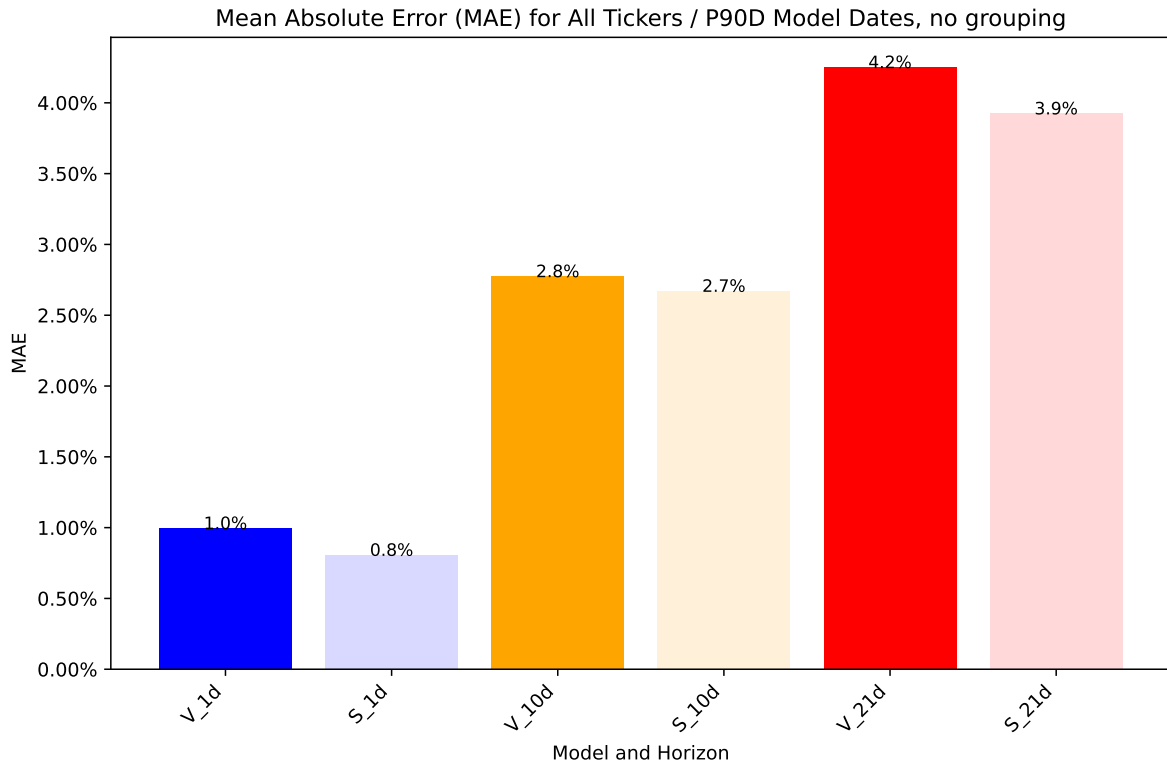
Prior 365 Calendar Days (P365D)

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



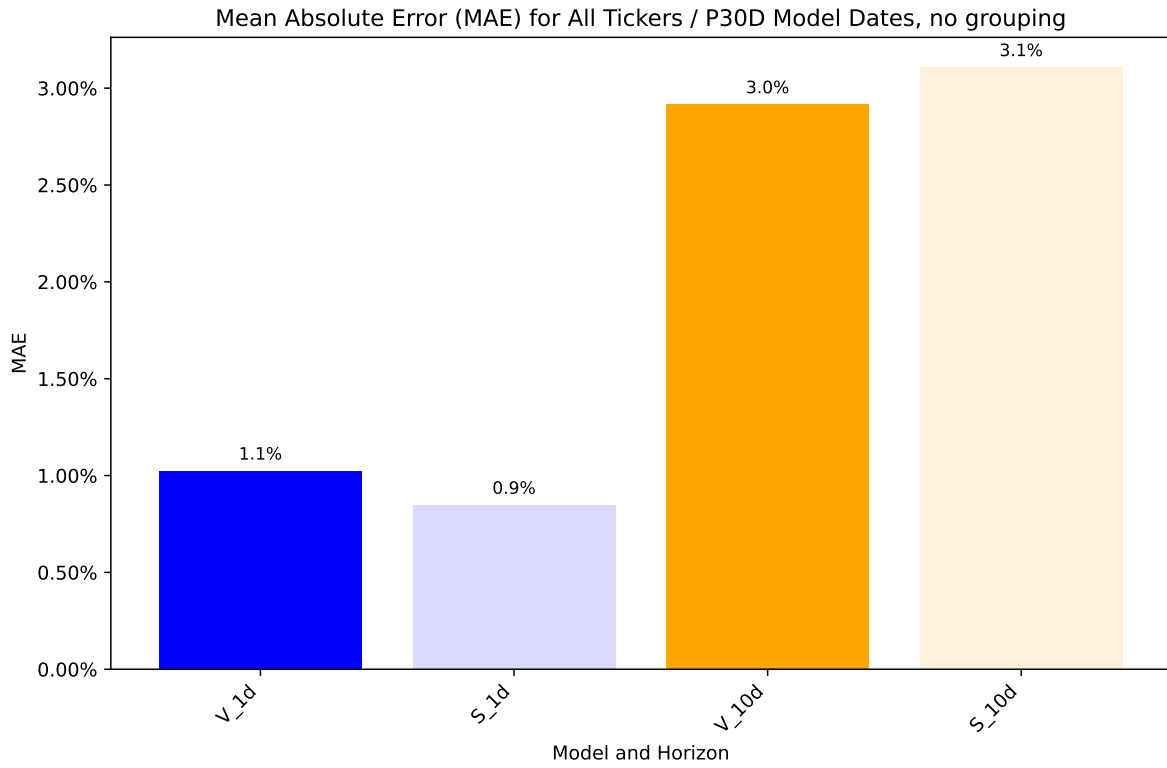
Prior 90 Calendar Days (P90D)

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



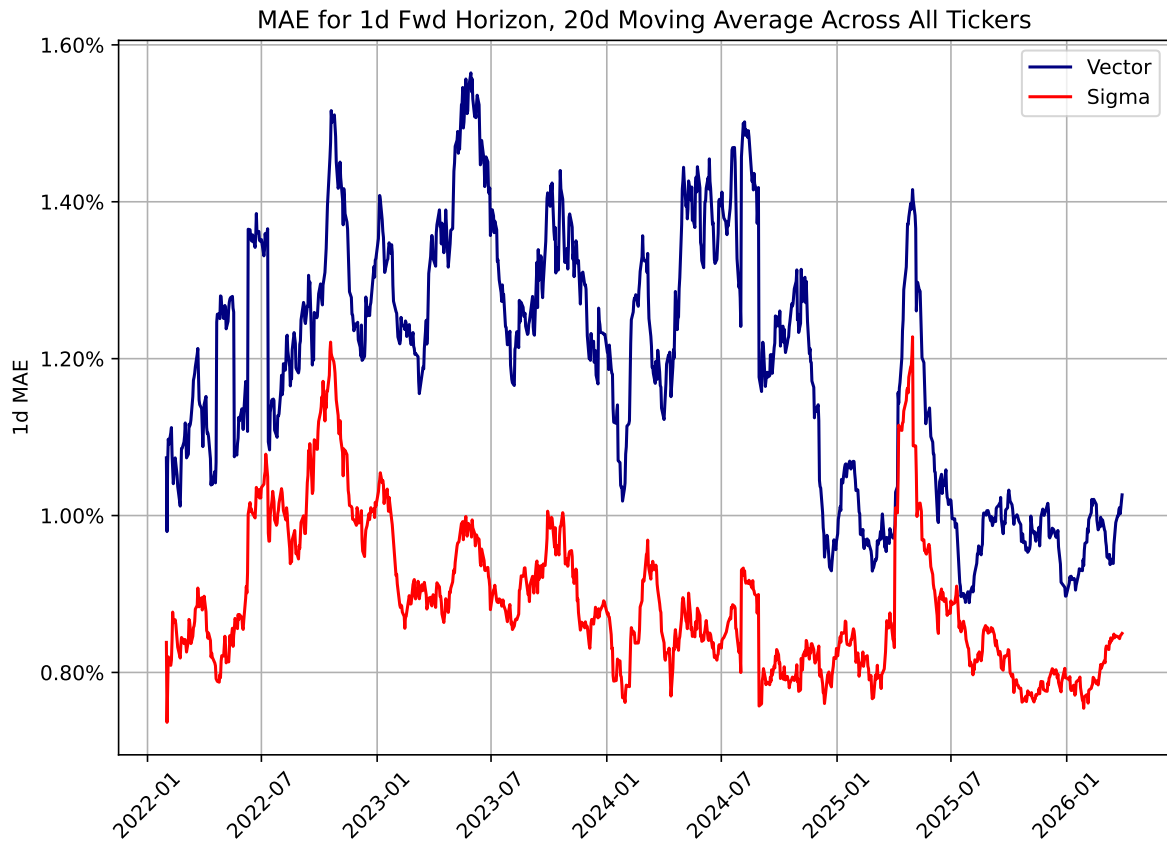
Prior 30 Calendar Days (P30D)

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

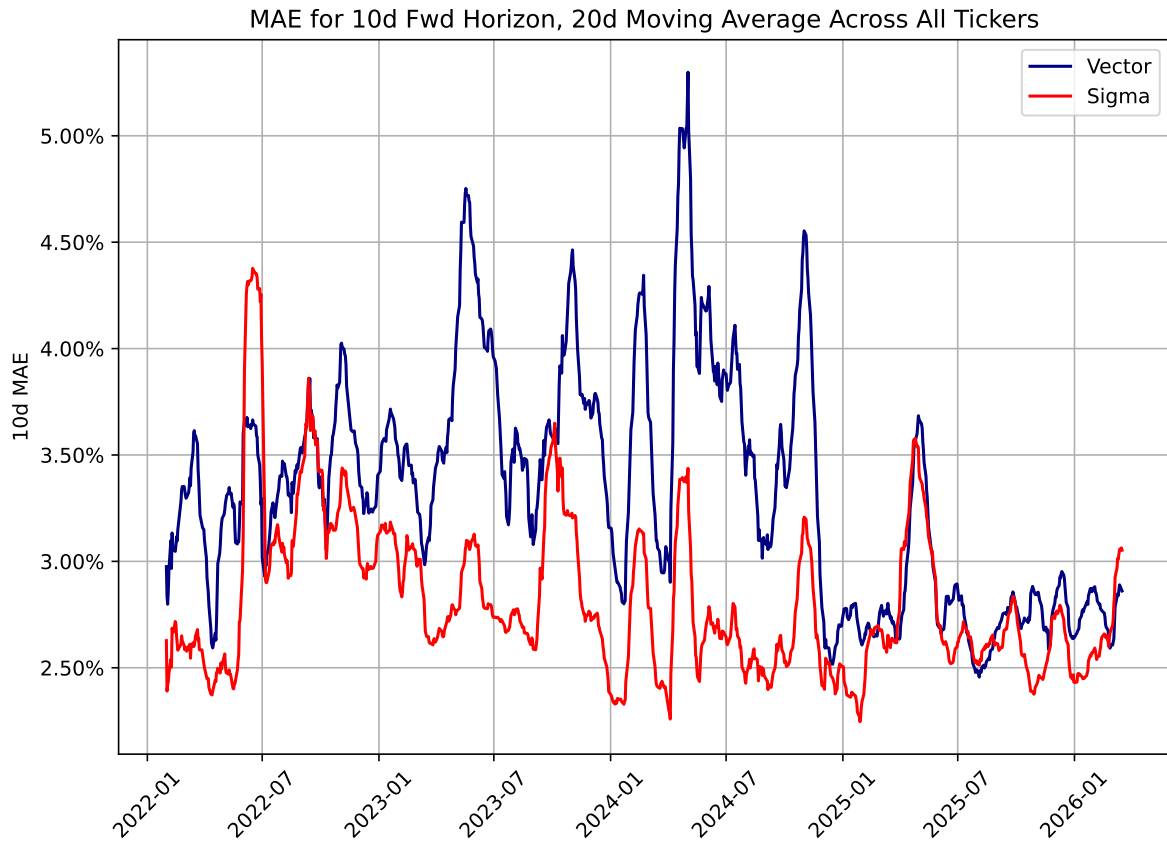


MAE by Model Date Detail

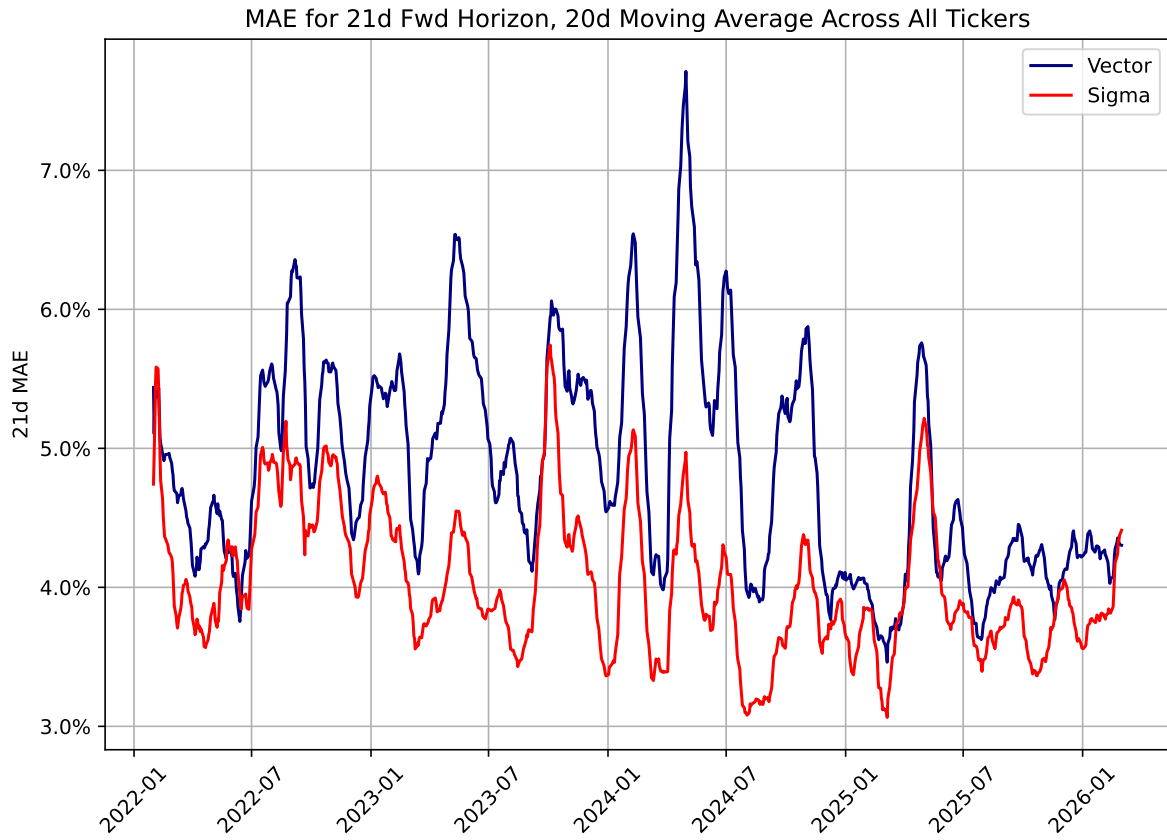
1d Horizon



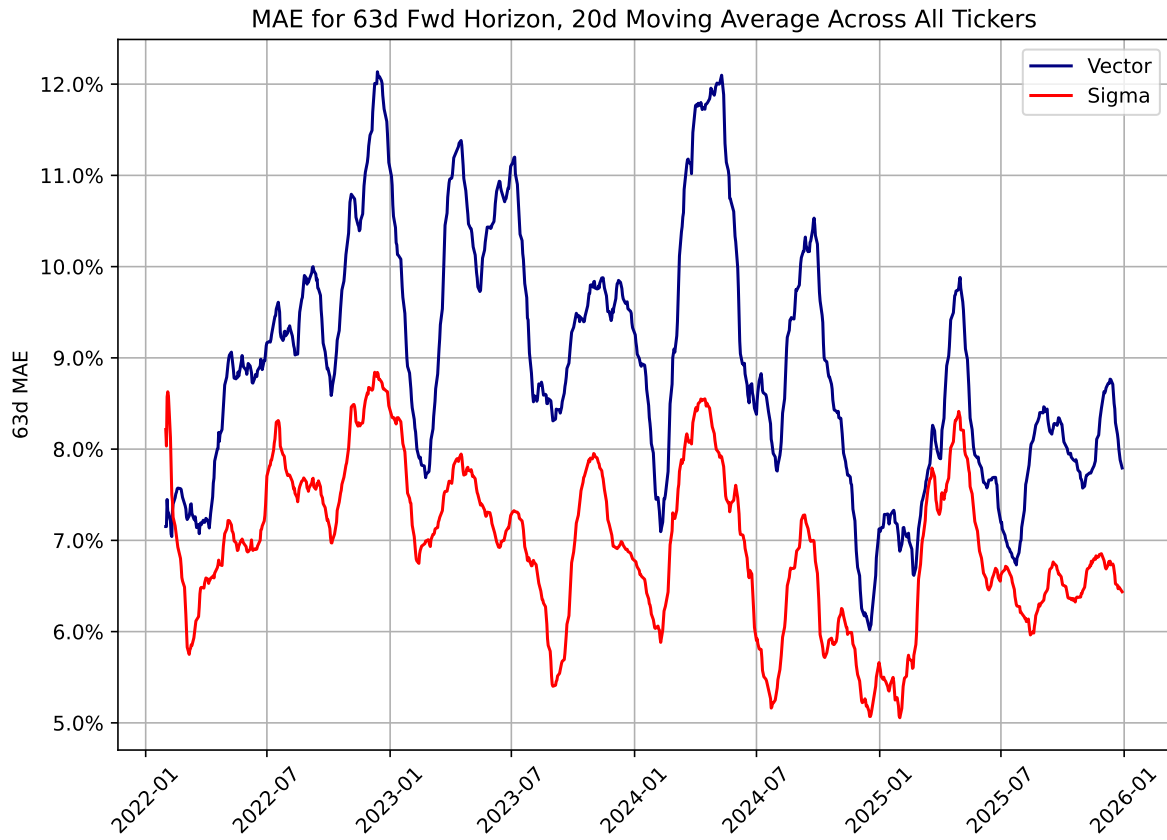
10d Horizon



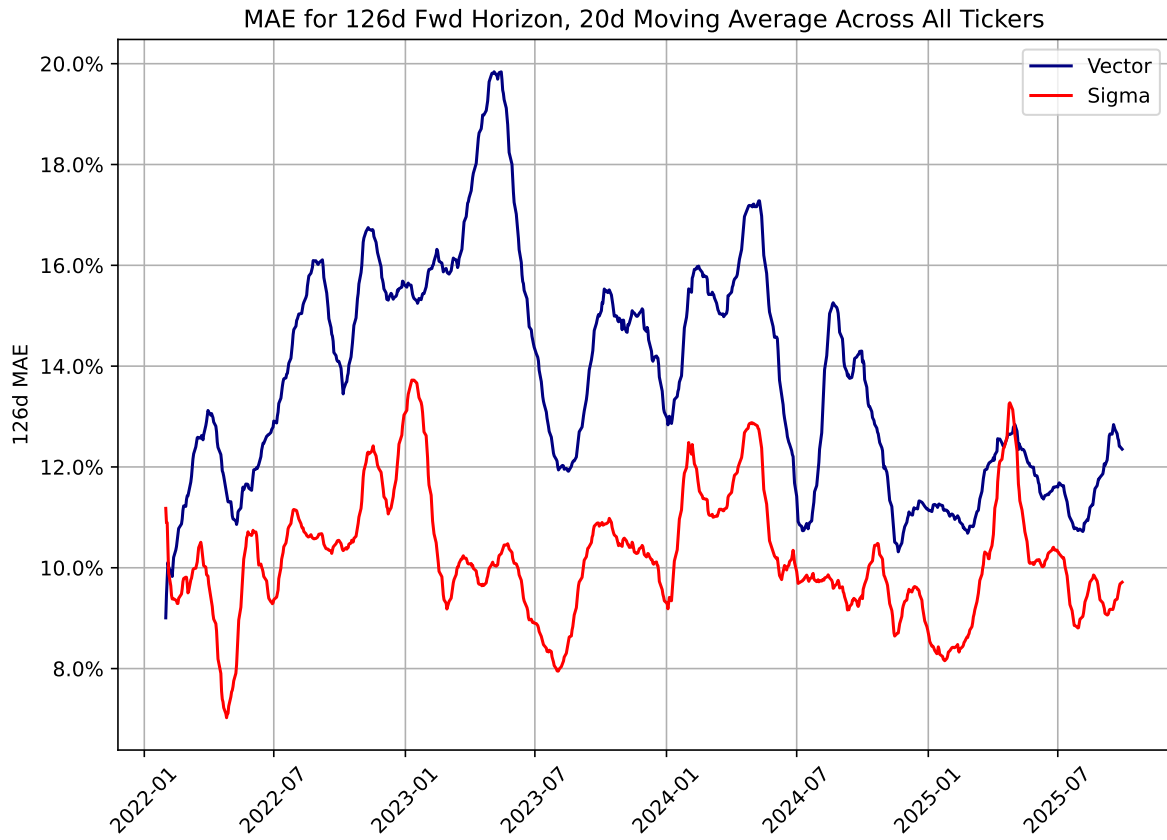
21d Horizon



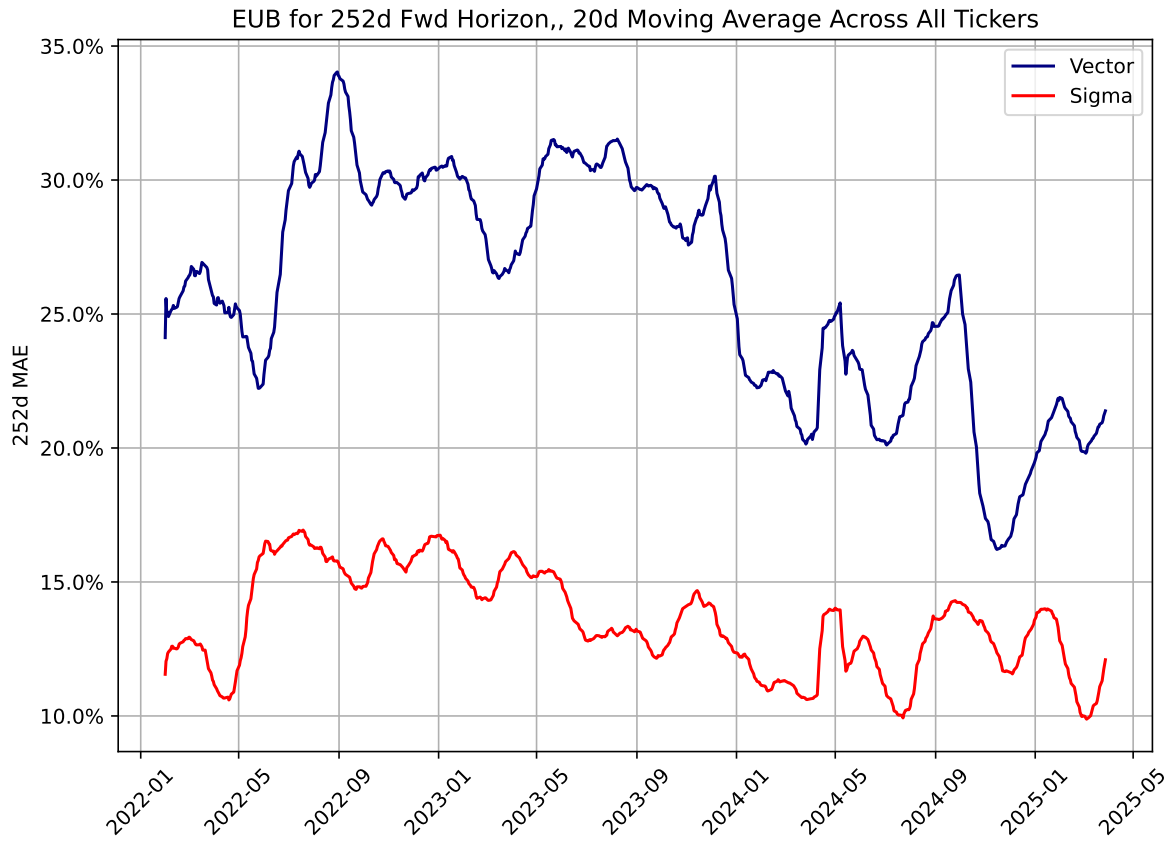
63d Horizon



126d Horizon



252d Horizon



Top 30 Tickers By EUB MAE

All TMD: 1d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
1.0	AMC	10.89%	AMC	9.74%
1.0	LUMN	7.06%	GME	3.22%
1.0	IEP	6.65%	CYH	2.69%
1.0	TSLA	4.04%	LUMN	2.36%
1.0	ELAN	3.98%	MSTR	2.17%
1.0	CYH	3.88%	GBTC	1.94%
1.0	BHC	2.98%	BHC	1.76%
1.0	NWL	2.85%	IEP	1.53%
1.0	CCL	2.52%	CTLT	1.49%
1.0	GBTC	2.49%	UAA	1.49%
1.0	VNO	2.27%	NWL	1.46%
1.0	CZR	2.22%	TSLA	1.45%
1.0	GNRC	2.13%	VFC	1.43%
1.0	GT	2.04%	CLF	1.39%
1.0	MSTR	1.99%	AA	1.37%
1.0	T	1.89%	SIVBQ	1.36%
1.0	BXP	1.88%	GT	1.35%
1.0	UAA	1.88%	CZR	1.32%
1.0	NVDA	1.85%	CCL	1.32%
1.0	LNC	1.73%	AAP	1.29%
1.0	AVGO	1.7%	GNRC	1.23%
1.0	MOS	1.67%	SBNY	1.22%
1.0	X	1.57%	AMD	1.2%
1.0	AMD	1.55%	ON	1.17%
1.0	ON	1.47%	MU	1.13%
1.0	AMAT	1.45%	LNC	1.12%
1.0	MSFT	1.45%	NVDA	1.11%
1.0	ETRN	1.43%	ELAN	1.09%
1.0	AA	1.42%	X	1.09%
1.0	INTC	1.42%	WDC	1.07%



All TMD: 10d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
10.0	AMC	41.97%	AMC	31.01%
10.0	LUMN	19.08%	GME	9.98%
10.0	IEP	14.5%	LUMN	8.15%
10.0	TSLA	9.96%	CYH	7.42%
10.0	ELAN	9.52%	MSTR	7.09%
10.0	BHC	8.42%	BHC	6.01%
10.0	CYH	8.13%	GBTC	5.57%
10.0	NWL	8.04%	UAA	4.81%
10.0	GBTC	7.55%	SIVBQ	4.75%
10.0	CZR	6.51%	IEP	4.67%
10.0	GT	6.34%	NWL	4.61%
10.0	GNRC	6.13%	AA	4.39%
10.0	CCL	6.11%	TSLA	4.38%
10.0	NVDA	5.89%	GT	4.37%
10.0	MSTR	5.58%	CZR	4.34%
10.0	LNC	5.28%	CLF	4.26%
10.0	AMD	5.15%	VFC	4.24%
10.0	UAA	5.01%	CCL	4.15%
10.0	X	4.81%	GNRC	4.12%
10.0	VNO	4.75%	SBNY	4.11%
10.0	MOS	4.58%	AMD	4.06%
10.0	BXP	4.58%	CTLT	3.94%
10.0	MSFT	4.45%	AAP	3.87%
10.0	INTC	4.39%	INTC	3.83%
10.0	AMAT	4.25%	LNC	3.82%
10.0	CLF	4.15%	ON	3.77%
10.0	MU	4.08%	MU	3.7%
10.0	T	4.0%	NVDA	3.56%
10.0	AVGO	3.99%	X	3.56%
10.0	ON	3.94%	ELAN	3.54%



All TMD: 21d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
21.0	AMC	61.9%	AMC	48.03%
21.0	LUMN	22.72%	GME	14.57%
21.0	IEP	20.05%	CYH	11.26%
21.0	ELAN	14.98%	LUMN	10.92%
21.0	TSLA	13.99%	MSTR	9.96%
21.0	BHC	11.74%	GBTC	7.72%
21.0	CCL	10.94%	BHC	7.68%
21.0	NWL	10.79%	UAA	7.56%
21.0	CYH	10.64%	TSLA	7.3%
21.0	CZR	10.38%	IEP	7.17%
21.0	MSTR	10.0%	SIVBQ	7.04%
21.0	GT	9.97%	CCL	7.01%
21.0	GBTC	9.59%	NWL	6.99%
21.0	GNRC	8.76%	VFC	6.76%
21.0	NVDA	8.61%	CZR	6.4%
21.0	AMD	7.99%	AMD	6.39%
21.0	MOS	7.66%	GT	6.18%
21.0	UAA	7.59%	CLF	6.08%
21.0	LNC	7.34%	GNRC	5.98%
21.0	VNO	7.25%	AA	5.84%
21.0	AMAT	7.13%	AAP	5.8%
21.0	BXP	6.9%	ON	5.74%
21.0	X	6.83%	CTLT	5.63%
21.0	MSFT	6.75%	NVDA	5.45%
21.0	ON	6.53%	SBNY	5.33%
21.0	CLF	6.46%	ELAN	5.27%
21.0	INTC	6.35%	MU	5.23%
21.0	SIVBQ	6.2%	X	5.22%
21.0	MU	5.85%	VNO	5.09%
21.0	AA	5.81%	LNC	5.03%



All TMD: 63d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
63.0	AMC	140.61%	AMC	108.52%
63.0	LUMN	51.15%	GME	29.75%
63.0	IEP	39.44%	LUMN	24.62%
63.0	BHC	29.96%	CYH	22.65%
63.0	CZR	29.82%	BHC	16.51%
63.0	TSLA	28.86%	MSTR	15.61%
63.0	ELAN	26.49%	IEP	14.92%
63.0	NWL	23.13%	GBTC	14.3%
63.0	SIVBQ	22.95%	SBNY	14.24%
63.0	CCL	22.82%	UAA	12.82%
63.0	GBTC	22.44%	CCL	12.5%
63.0	GT	21.42%	CTLT	12.36%
63.0	CYH	20.84%	X	11.87%
63.0	MSTR	20.74%	TSLA	11.8%
63.0	VNO	16.45%	CLF	11.77%
63.0	AMD	15.81%	NWL	11.42%
63.0	NVDA	15.55%	GT	11.11%
63.0	UAA	15.51%	AMD	11.05%
63.0	MOS	15.11%	VFC	10.92%
63.0	LNC	14.96%	CZR	10.9%
63.0	X	13.0%	SIVBQ	10.74%
63.0	MSFT	12.85%	AA	10.26%
63.0	INTC	12.06%	NVDA	10.2%
63.0	MU	11.93%	ELAN	10.17%
63.0	VFC	11.81%	GNRC	9.98%
63.0	CLF	11.67%	MOS	9.8%
63.0	AMAT	11.62%	AAP	9.72%
63.0	GNRC	11.48%	META	9.26%
63.0	GME	11.46%	VNO	9.06%
63.0	ON	11.32%	CMA	8.92%



All TMD: 126d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
126.0	AMC	287.53%	AMC	207.33%
126.0	CZR	66.38%	LUMN	49.21%
126.0	LUMN	59.91%	GME	45.56%
126.0	ELAN	48.86%	CYH	36.95%
126.0	BHC	45.22%	MSTR	25.76%
126.0	NWL	43.08%	BHC	24.84%
126.0	TSLA	41.01%	NWL	24.14%
126.0	GT	39.25%	CZR	21.51%
126.0	IEP	38.46%	VFC	19.93%
126.0	CCL	35.91%	CLF	18.57%
126.0	MSTR	32.68%	UAA	18.34%
126.0	CYH	31.49%	IEP	18.24%
126.0	GBTC	29.55%	GBTC	17.8%
126.0	VNO	28.08%	CCL	17.58%
126.0	NVDA	25.48%	AAP	17.26%
126.0	LNC	25.3%	AA	17.15%
126.0	UAA	23.03%	CTLT	16.25%
126.0	GME	22.79%	AMD	16.16%
126.0	INTC	21.77%	ETRN	15.56%
126.0	BXP	21.01%	TSLA	15.51%
126.0	VFC	20.65%	GT	15.4%
126.0	MOS	20.46%	BIIB	15.11%
126.0	NFLX	20.42%	ELAN	14.85%
126.0	AMAT	19.99%	INTC	14.83%
126.0	CLF	19.62%	MOS	14.24%
126.0	X	19.46%	WRK	14.14%
126.0	ADBE	19.0%	KALU	13.96%
126.0	MU	18.93%	EXPE	13.82%
126.0	AMD	18.82%	LNC	13.79%
126.0	ETRN	18.77%	VNO	13.64%



All TMD: 252d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
252.0	AMC	848.37%	AMC	549.03%
252.0	LUMN	103.98%	CYH	75.71%
252.0	CZR	103.74%	BHC	52.16%
252.0	BHC	91.22%	GME	50.89%
252.0	CYH	78.64%	GBTC	43.01%
252.0	ELAN	78.1%	MSTR	42.72%
252.0	GBTC	77.11%	CZR	35.93%
252.0	CDNS	65.92%	LUMN	32.36%
252.0	INTU	64.49%	GT	29.52%
252.0	NWL	61.52%	UAA	28.35%
252.0	GT	60.19%	CLF	28.15%
252.0	NVDA	60.08%	AA	27.04%
252.0	AMZN	59.97%	NFLX	26.35%
252.0	CCL	59.82%	TSLA	25.44%
252.0	TSLA	51.33%	VFC	25.43%
252.0	COST	48.37%	GNRC	23.01%
252.0	MSFT	48.03%	NWL	22.99%
252.0	CMG	45.47%	INTC	22.95%
252.0	AMD	45.14%	AMD	21.66%
252.0	UAA	45.04%	OXY	20.66%
252.0	VNO	44.48%	ELAN	20.62%
252.0	ON	44.22%	META	20.52%
252.0	MOS	43.73%	PRGO	20.52%
252.0	GME	41.96%	X	20.5%
252.0	DHI	41.64%	CTLT	20.02%
252.0	BBY	40.9%	WRK	19.59%
252.0	MU	39.99%	LEN	19.11%
252.0	AZO	37.17%	AVGO	18.95%
252.0	LNC	36.72%	VNO	18.88%
252.0	AVGO	36.49%	DHI	18.27%



Bottom 30 Tickers By EUB MAE

All TMD: 1d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
1.0	VCSH	0.14%	VCSH	0.07%
1.0	MUB	0.15%	MUB	0.09%
1.0	LQD	0.27%	HYG	0.17%
1.0	HYG	0.32%	LQD	0.2%
1.0	FRA	0.38%	EMB	0.22%
1.0	GLD	0.46%	FRA	0.29%
1.0	NVS	0.48%	GLD	0.35%
1.0	PEP	0.51%	TLT	0.37%
1.0	HON	0.53%	SPY	0.39%
1.0	TMUS	0.54%	NVS	0.41%
1.0	MSI	0.54%	PEP	0.42%
1.0	MRK	0.54%	HON	0.47%
1.0	POST	0.55%	POST	0.48%
1.0	HD	0.55%	TMUS	0.49%
1.0	SNY	0.55%	VZ	0.49%
1.0	TLT	0.55%	VICI	0.49%
1.0	GILD	0.56%	ABBV	0.49%
1.0	BUD	0.57%	MRK	0.5%
1.0	MNST	0.58%	MSI	0.5%
1.0	ABBV	0.6%	HSBC	0.5%
1.0	AMGN	0.61%	KHC	0.5%
1.0	ORLY	0.61%	COST	0.51%
1.0	GWG	0.61%	CSCO	0.51%
1.0	XOM	0.62%	MNST	0.51%
1.0	HCA	0.62%	ORLY	0.52%
1.0	VICI	0.63%	GWG	0.52%
1.0	SBUX	0.63%	AZN	0.52%
1.0	AZN	0.63%	AZO	0.52%
1.0	BALL	0.65%	AMGN	0.52%
1.0	COST	0.66%	QQQ	0.53%



All TMD: 10d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
10.0	VCSH	0.4%	VCSH	0.22%
10.0	MUB	0.53%	MUB	0.32%
10.0	LQD	0.73%	HYG	0.57%
10.0	HYG	0.95%	LQD	0.68%
10.0	FRA	0.97%	EMB	0.72%
10.0	GLD	1.31%	FRA	0.91%
10.0	PEP	1.43%	SPY	1.17%
10.0	POST	1.46%	GLD	1.2%
10.0	NVS	1.47%	TLT	1.29%
10.0	TLT	1.47%	PEP	1.32%
10.0	GILD	1.5%	POST	1.48%
10.0	HD	1.56%	NVS	1.49%
10.0	SNY	1.59%	VZ	1.54%
10.0	MSI	1.63%	ORLY	1.55%
10.0	HON	1.64%	QQQ	1.56%
10.0	SPY	1.67%	HON	1.57%
10.0	VICI	1.69%	VICI	1.58%
10.0	XOM	1.7%	CSCO	1.59%
10.0	ABBV	1.7%	ACGL	1.62%
10.0	BUD	1.73%	ABBV	1.63%
10.0	ORLY	1.74%	MSI	1.64%
10.0	VZ	1.74%	MRK	1.66%
10.0	TMUS	1.75%	COST	1.66%
10.0	GWV	1.76%	TMUS	1.67%
10.0	HCA	1.77%	CAH	1.68%
10.0	AMGN	1.78%	T	1.69%
10.0	BALL	1.78%	GILD	1.69%
10.0	ZTS	1.81%	AMGN	1.73%
10.0	SBUX	1.87%	HD	1.73%
10.0	EMB	1.87%	BMV	1.74%



All TMD: 21d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
21.0	VCSH	0.59%	VCSH	0.32%
21.0	MUB	0.75%	MUB	0.41%
21.0	LQD	1.03%	HYG	0.8%
21.0	FRA	1.35%	LQD	0.9%
21.0	HYG	1.63%	EMB	0.96%
21.0	PEP	2.03%	FRA	1.33%
21.0	NVS	2.11%	SPY	1.6%
21.0	GLD	2.2%	GLD	1.63%
21.0	GILD	2.27%	TLT	1.72%
21.0	TLT	2.29%	PEP	1.79%
21.0	BUD	2.33%	NVS	2.14%
21.0	POST	2.36%	QQQ	2.21%
21.0	SNY	2.38%	HSBC	2.21%
21.0	HD	2.42%	HON	2.23%
21.0	MSI	2.45%	CAH	2.33%
21.0	VZ	2.49%	VZ	2.33%
21.0	HON	2.54%	POST	2.33%
21.0	HSBC	2.56%	ACGL	2.37%
21.0	VICI	2.58%	MSI	2.38%
21.0	SPY	2.62%	TMUS	2.39%
21.0	ACGL	2.65%	CSCO	2.41%
21.0	XOM	2.68%	GILD	2.42%
21.0	NAVI	2.7%	VICI	2.42%
21.0	ORLY	2.71%	T	2.47%
21.0	TMUS	2.72%	ORLY	2.48%
21.0	MNST	2.73%	KHC	2.49%
21.0	BAC	2.73%	ABBV	2.53%
21.0	GWV	2.75%	MRK	2.56%
21.0	ABBV	2.77%	COST	2.56%
21.0	FRCB	2.77%	XOM	2.57%



All TMD: 63d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
63.0	VCSH	0.99%	VCSH	0.58%
63.0	MUB	1.18%	MUB	0.85%
63.0	LQD	1.75%	HYG	1.48%
63.0	FRA	2.46%	LQD	1.67%
63.0	GLD	3.41%	EMB	1.94%
63.0	PEP	3.45%	FRA	2.11%
63.0	HYG	3.75%	SPY	2.72%
63.0	BUD	3.85%	GLD	2.8%
63.0	NVS	4.04%	PEP	3.06%
63.0	VZ	4.08%	TLT	3.19%
63.0	ZTS	4.26%	COST	3.43%
63.0	TLT	4.27%	NVS	3.55%
63.0	GILD	4.31%	HON	3.76%
63.0	POST	4.31%	VICI	3.76%
63.0	HD	4.34%	VZ	4.01%
63.0	MSI	4.4%	QQQ	4.1%
63.0	SNY	4.44%	AZO	4.12%
63.0	TMUS	4.47%	MRK	4.16%
63.0	ORLY	4.52%	POST	4.2%
63.0	HON	4.62%	TMUS	4.34%
63.0	JAZZ	4.72%	HD	4.34%
63.0	CMCSA	4.73%	ORLY	4.34%
63.0	VICI	4.82%	HSBC	4.39%
63.0	AMGN	4.84%	MSI	4.44%
63.0	CHTR	4.89%	ACGL	4.47%
63.0	XOM	4.95%	AMGN	4.52%
63.0	HCA	5.01%	CAH	4.52%
63.0	HLT	5.01%	JPM	4.52%
63.0	EMB	5.01%	GILD	4.53%
63.0	BAC	5.06%	CSCO	4.62%



All TMD: 126d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
126.0	VCSH	0.99%	VCSH	0.7%
126.0	MUB	1.38%	MUB	1.24%
126.0	LQD	1.72%	HYG	1.74%
126.0	FRA	3.52%	LQD	1.87%
126.0	PEP	4.4%	EMB	2.27%
126.0	ABBV	5.27%	FRA	3.16%
126.0	TMUS	5.31%	PEP	3.71%
126.0	ZTS	5.33%	SPY	4.29%
126.0	NVS	5.66%	GLD	4.46%
126.0	NAVI	5.79%	TLT	4.69%
126.0	GLD	5.85%	HON	4.75%
126.0	SPY	5.86%	MNST	4.92%
126.0	HLT	6.02%	ABBV	5.05%
126.0	AMGN	6.11%	KHC	5.37%
126.0	EMB	6.17%	AMGN	5.38%
126.0	VZ	6.25%	QQQ	5.41%
126.0	ORLY	6.28%	VICI	5.5%
126.0	VICI	6.43%	TMUS	5.5%
126.0	MNST	6.45%	AZO	5.53%
126.0	BALL	6.51%	ORLY	5.55%
126.0	POST	6.62%	NVS	5.56%
126.0	SNY	6.86%	VZ	5.63%
126.0	BUD	6.86%	BUD	5.79%
126.0	XOM	6.95%	CSCO	5.85%
126.0	HYG	7.08%	XOM	5.92%
126.0	IRM	7.09%	ZTS	6.02%
126.0	JPM	7.13%	JPM	6.06%
126.0	MSI	7.18%	HD	6.16%
126.0	BMY	7.19%	PCG	6.2%
126.0	HON	7.21%	CVS	6.21%



All TMD: 252d

Results reflect ticker level average EUB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EUB” metric - positive performance within the expected 95%tile.

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

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
252.0	VCSH	1.62%	VCSH	0.88%
252.0	MUB	2.99%	MUB	1.6%
252.0	LQD	4.37%	HYG	2.98%
252.0	FRA	5.79%	EMB	3.95%
252.0	NVS	6.08%	LQD	4.07%
252.0	PEP	6.97%	FRA	4.31%
252.0	BUD	7.0%	GLD	5.2%
252.0	VICI	7.98%	PEP	5.23%
252.0	ZTS	8.22%	NVS	5.7%
252.0	POST	8.46%	BMY	5.83%
252.0	MRK	8.72%	VICI	6.12%
252.0	CMCSA	8.92%	HON	6.77%
252.0	GLD	9.19%	AMGN	7.14%
252.0	IRM	9.77%	SPY	7.28%
252.0	BALL	9.77%	ABBV	7.3%
252.0	AMGN	9.86%	AZN	7.73%
252.0	VZ	9.87%	TLT	7.74%
252.0	EMB	10.03%	MSI	7.76%
252.0	SLV	10.35%	VZ	7.89%
252.0	MSI	10.63%	HD	8.12%
252.0	HYG	10.75%	TMUS	8.21%
252.0	XOM	11.07%	MRK	8.27%
252.0	NAVI	11.14%	AZO	8.37%
252.0	SNY	11.14%	AAPL	8.44%
252.0	LW	11.53%	HSBC	8.51%
252.0	HLT	11.63%	IRM	8.59%
252.0	GILD	11.72%	POST	8.6%
252.0	CNC	11.82%	BIIB	8.71%
252.0	KHC	12.28%	GSK	8.83%
252.0	CHTR	12.58%	UNH	8.91%



Performance Summary - Returns on EUB based exposures (ROEUB)

Here we compare ROEUB, or price return performance of ticker-model date (TMD) exposures based upon EUB, for Vector Model EUB to the Sigma Model's EUB ("S", presented with light shading).

Vector Model EUB is denoted by a "V" and presented with dark shading in the bar charts comparison of EUB that follow, whereas Sigma EUB is denoted by "S" and presented with light shading.

Sigma based ticker exposure performance reflects equal TMD weighting and the price returns of the underlying TMD for the given horizon.

Vector Model based TMD exposures reflect each TMD's underlying horizon price return multiplied by the ratio of Vector Model EUB to Sigma model based EUB for the given horizon. This ratio is capped of 3.0x and floored of 0.333x.

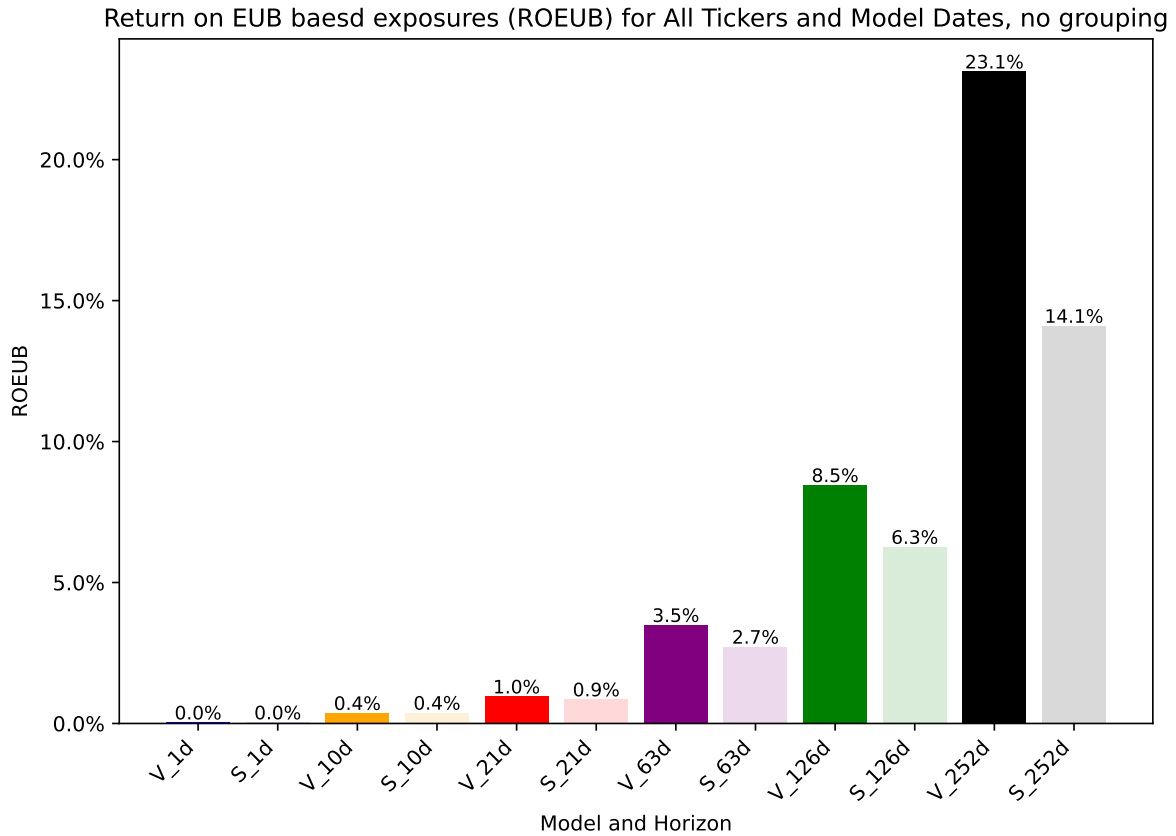
Following each bar chart comparison of ROEUB is a table detailing the alpha (intercept) and slope (beta) of Vector Model EUB based exposure performance to Sigma EUB exposure based performance. The beta arguably provides some indication of the leverage of the Vector Model based exposures and the alpha is an indication of Vector Model EUB's ability to generate performance independent of the ticker's returns. See the Introduction for further discussion of alpha and beta.

Note that time horizons are denominated in trading days, where 10d is ~ 2 weeks in calendar terms, 21d is ~ 1 month, 63d is ~ 1 quarter, 126d is ~ half year, 252d is ~1 year. Model estimates for all horizons are made on each Model Date, so p-Values for horizons beyond 1d are not valid.



All Out of Sample Model Dates

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



Alpha (intercept) and Beta (slope) of Vector Model ROEUB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d	21d	63d	126d	252d
intercept	-0.00%	0.01%	0.09%	0.32%	0.82%	3.15%
intercept_p_value	48.80%	45.02%	0.00%	0.00%	0.00%	0.00%
slope	98.57%	95.54%	100.93%	116.59%	121.99%	141.63%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

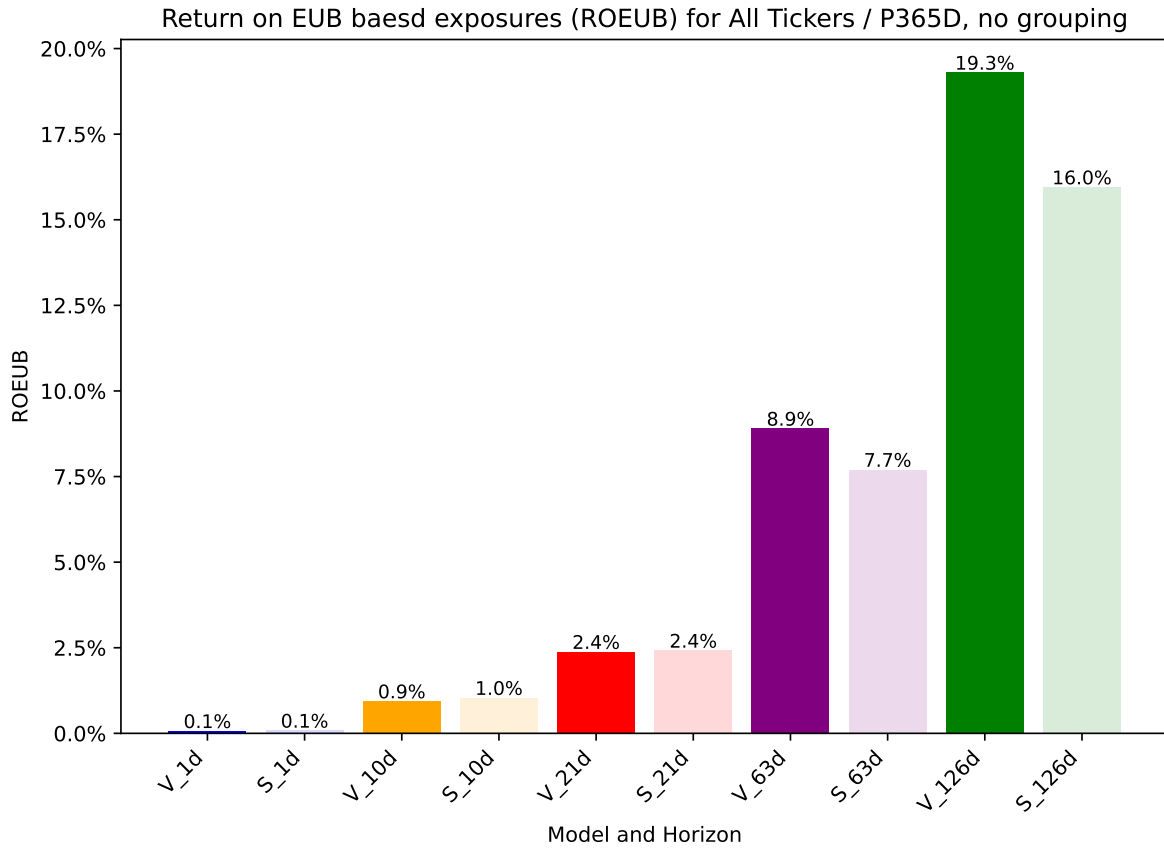
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.00%	-0.01%	0.01%	-0.16%	-0.83%	-3.02%
intercept_p_value	49.48%	20.19%	14.11%	10.00%	8.55%	10.26%
slope	99.89%	98.76%	105.21%	119.25%	127.87%	151.23%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.36%



Prior 365 Calendar Days (P365D)

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



Alpha (intercept) and Beta (slope) of Vector Model ROEUB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d	21d	63d	126d
intercept	-0.01%	0.03%	0.11%	0.50%	1.09%
intercept_p_value	39.13%	14.98%	0.02%	0.00%	0.00%
slope	93.72%	87.95%	94.17%	109.06%	114.18%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

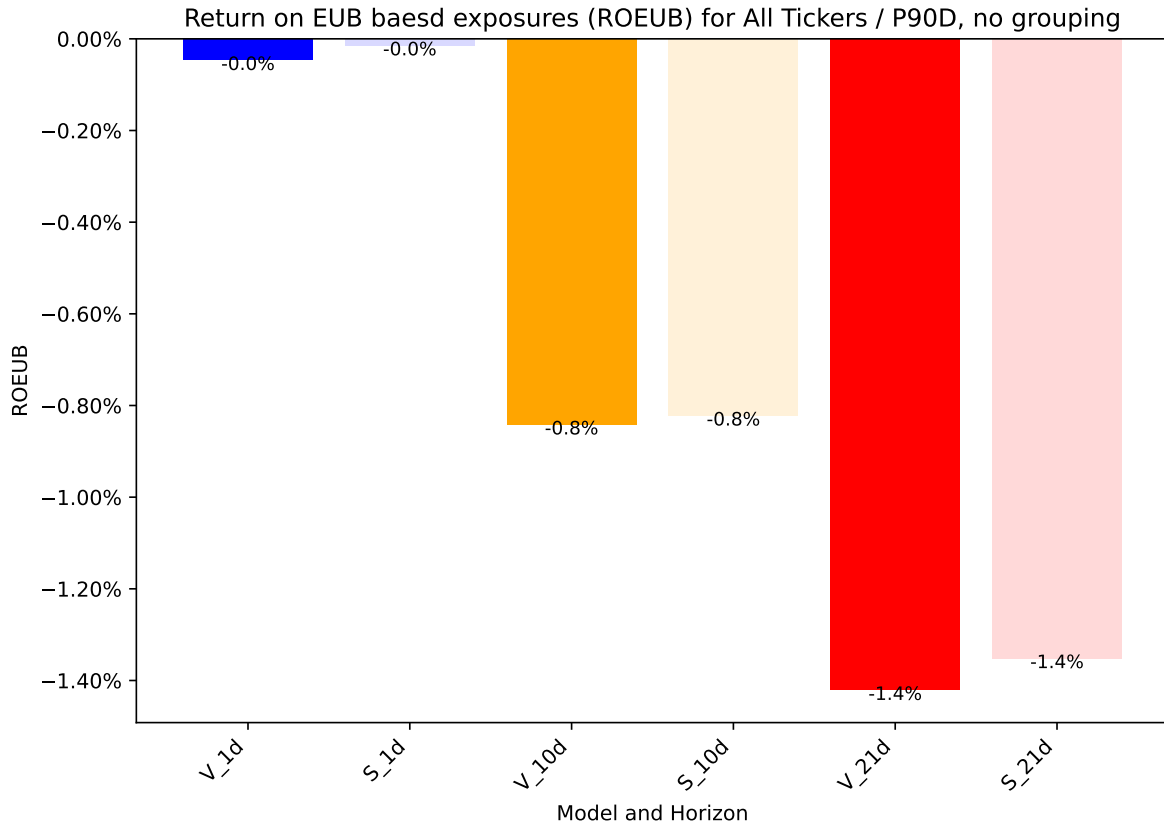
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d
intercept	-0.00%	0.01%	0.02%	-0.18%	-1.85%
intercept_p_value	48.86%	23.18%	18.70%	20.31%	16.32%
slope	95.91%	93.69%	100.11%	115.95%	130.14%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

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



Alpha (intercept) and Beta (slope) of Vector Model ROEUB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d	21d
intercept	-0.03%	-0.16%	-0.26%
intercept_p_value	2.20%	0.00%	0.00%
slope	85.58%	82.82%	85.92%
slope_p_value	0.00%	0.00%	0.00%

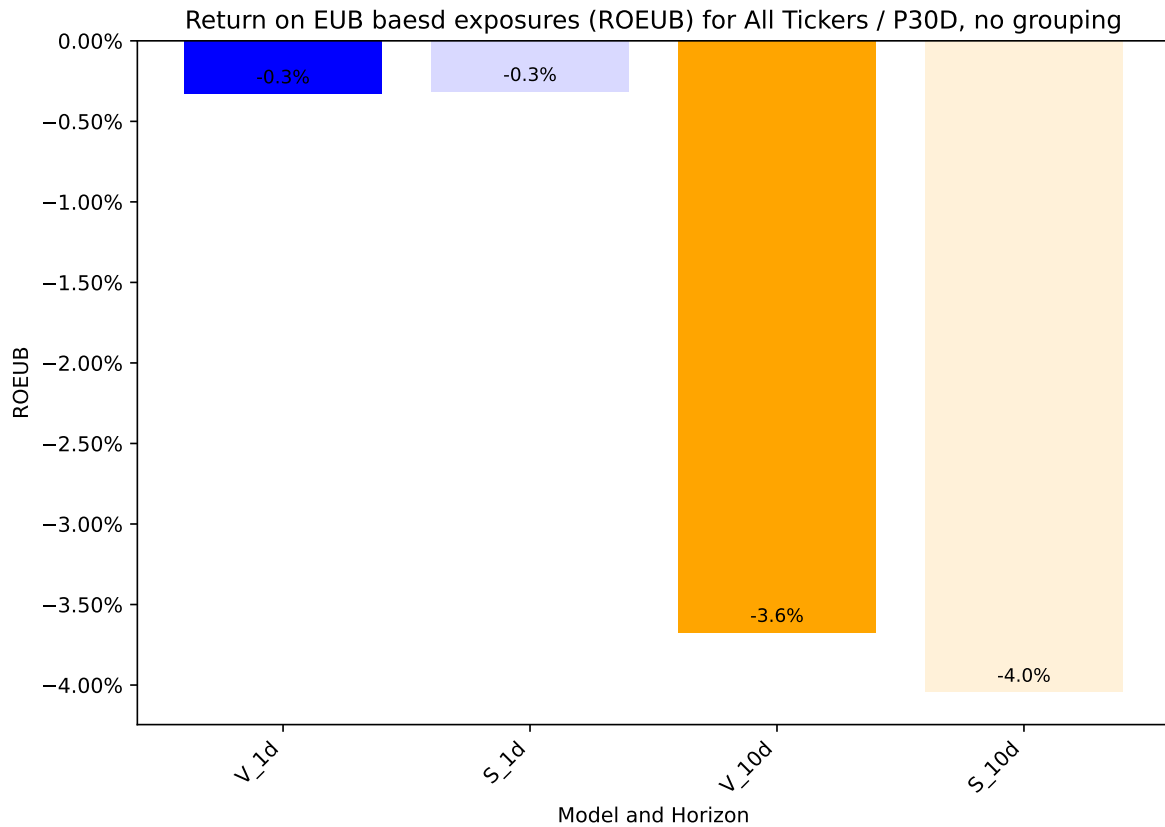
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d
intercept	-0.02%	-0.02%	-0.08%
intercept_p_value	47.27%	31.24%	25.75%
slope	93.45%	92.56%	99.15%
slope_p_value	0.00%	0.00%	0.12%



Prior 30 Calendar Days (P30D)

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



Alpha (intercept) and Beta (slope) of Vector Model ROEUB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d
intercept	-0.03%	0.01%
intercept_p_value	19.91%	90.73%
slope	94.11%	91.12%
slope_p_value	0.00%	0.00%

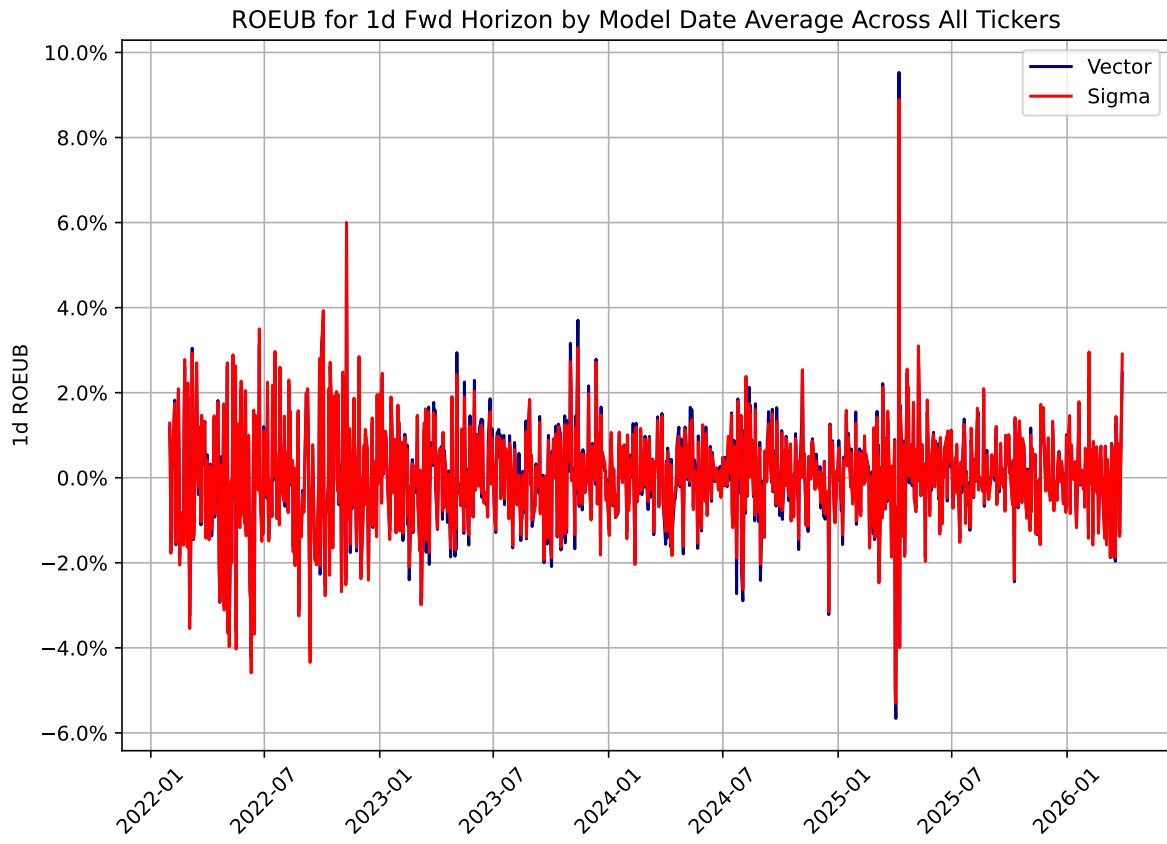
Same as above, but averaged by Ticker across Model Dates:

	1d	10d
intercept	-0.02%	-0.03%
intercept_p_value	49.48%	46.96%
slope	98.08%	94.65%
slope_p_value	0.00%	0.49%

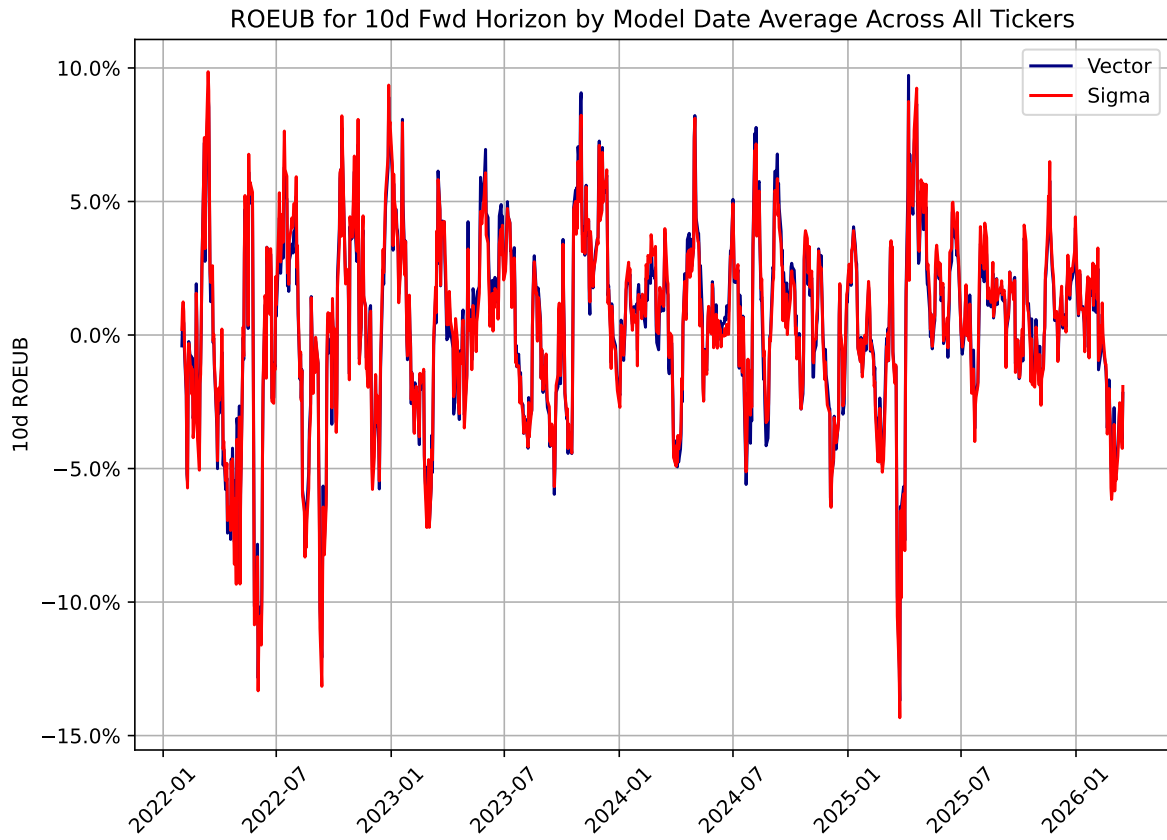


ROEUB by Model Date Detail

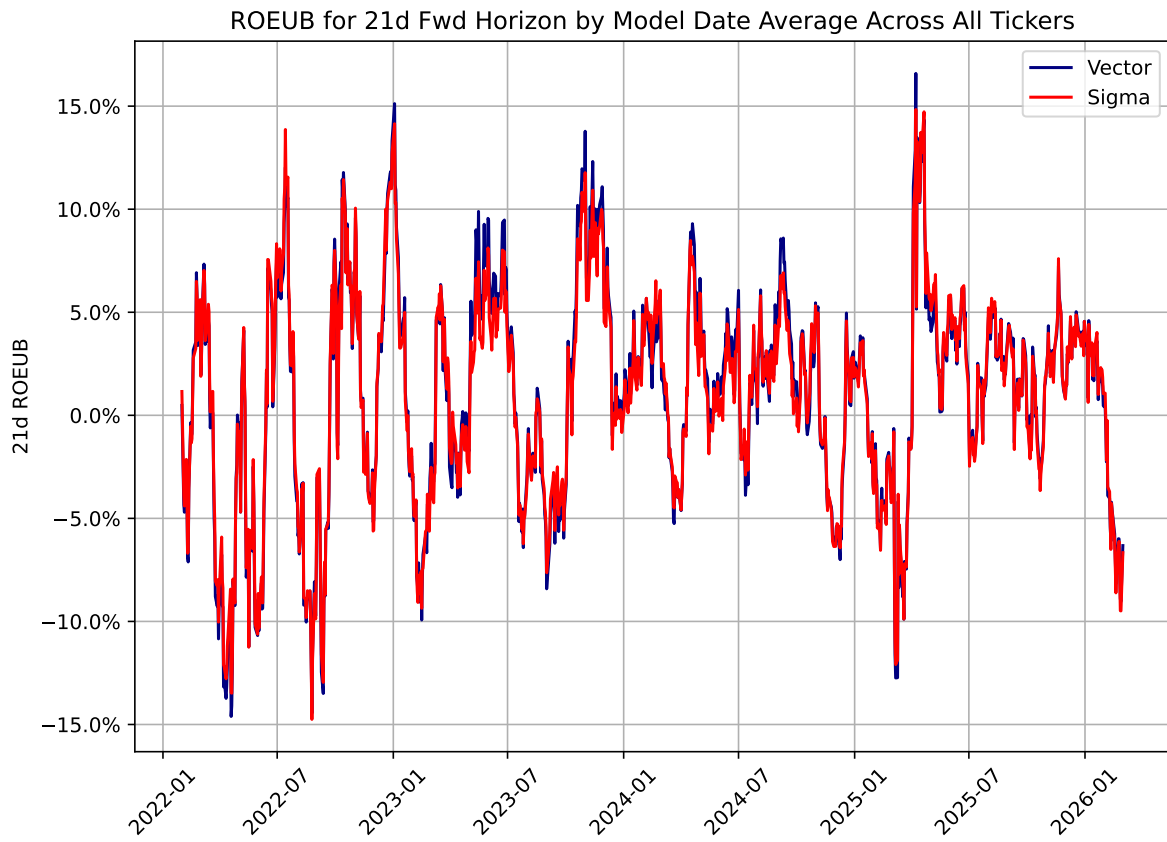
1d Horizon



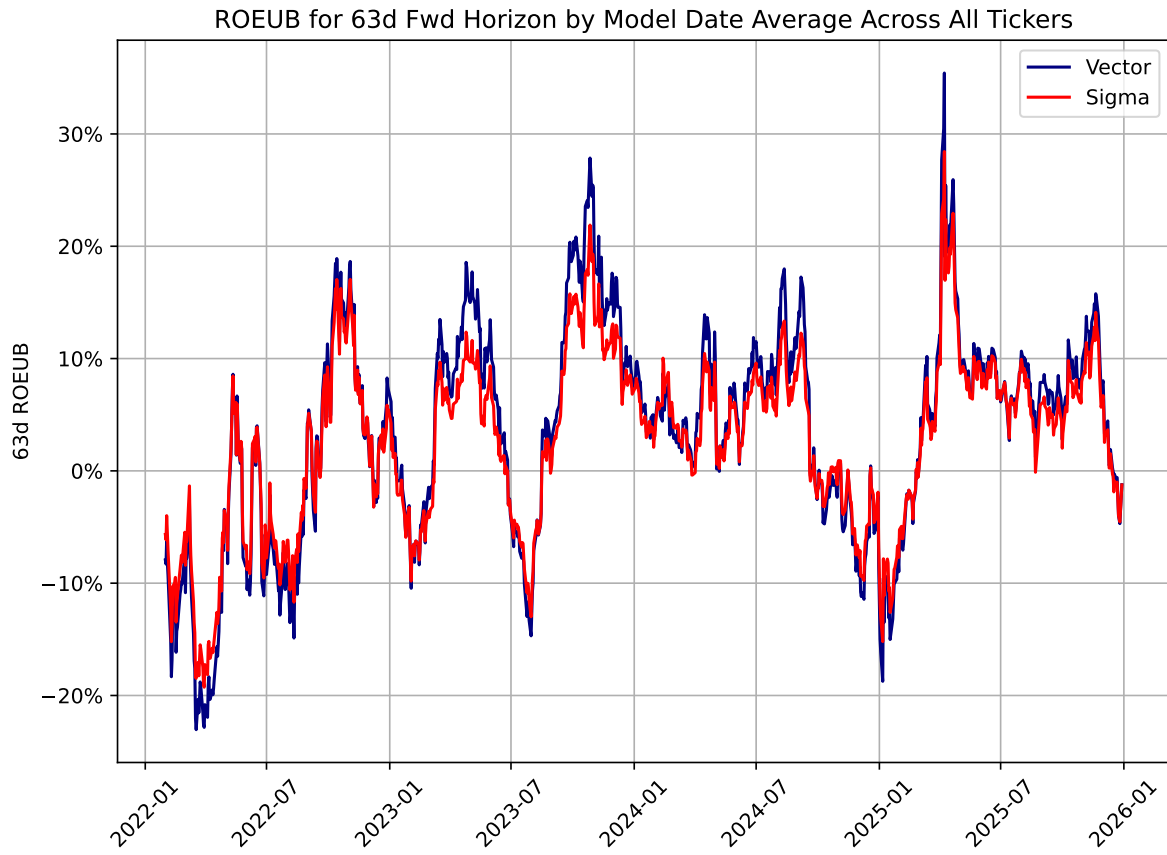
10d Horizon



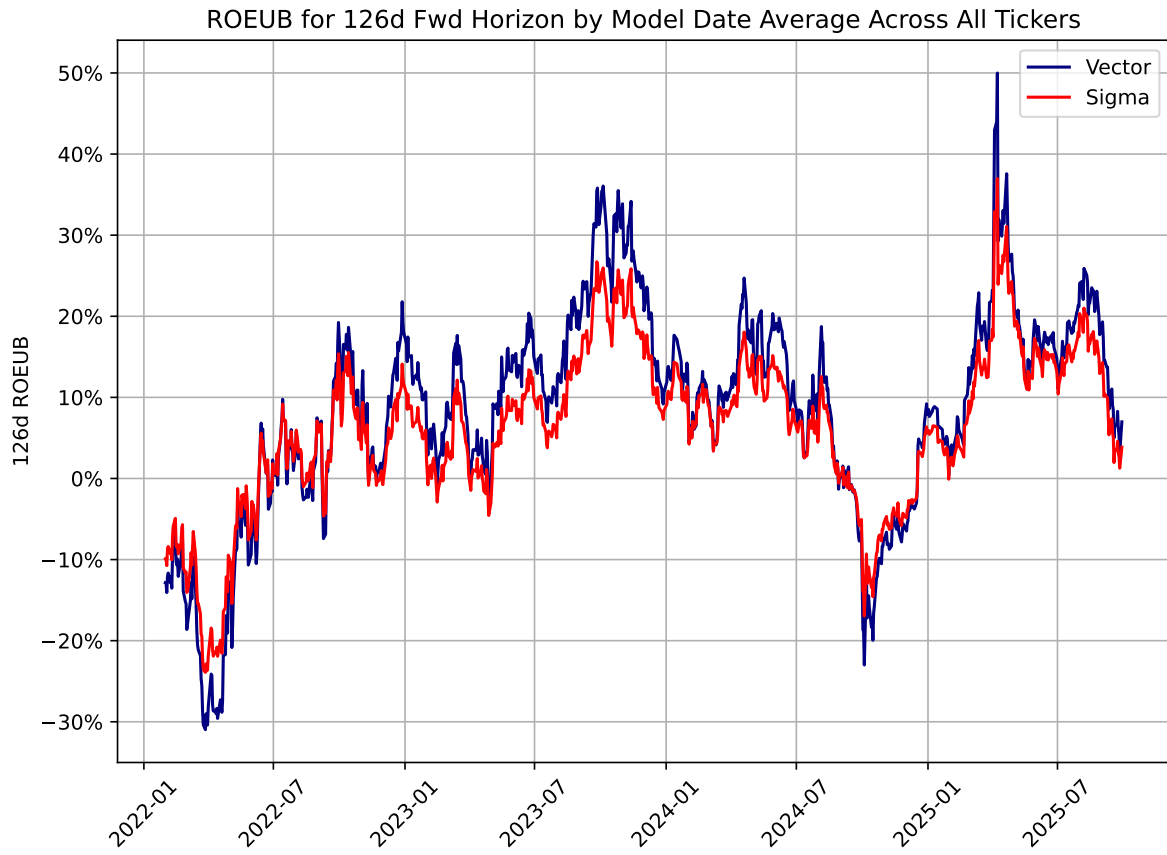
21d Horizon



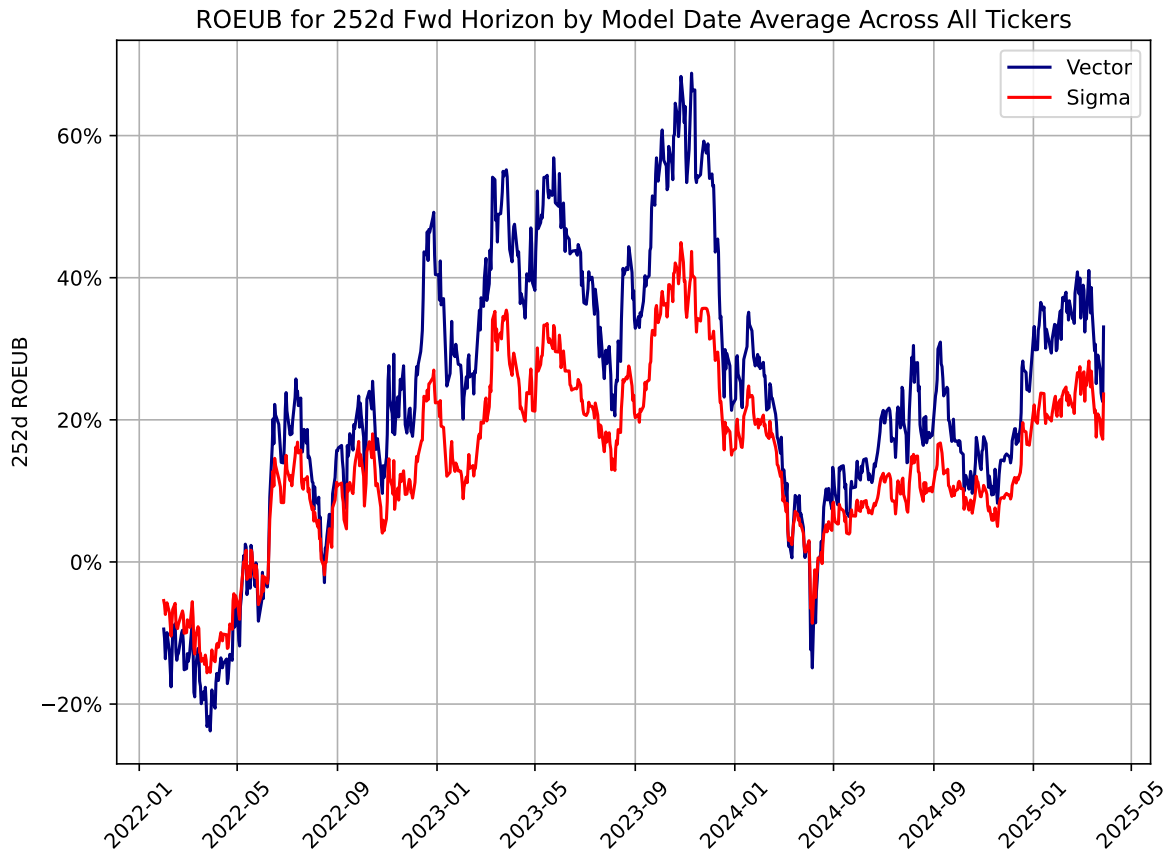
63d Horizon



126d Horizon



252d Horizon



Top 30 Tickers By ROEUB

All TMD: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	TSLA	0.3%	MSTR	0.29%
1.0	AVGO	0.29%	NVDA	0.24%
1.0	CCL	0.25%	VST	0.24%
1.0	NVDA	0.25%	WDC	0.21%
1.0	VST	0.23%	AVGO	0.2%
1.0	X	0.22%	MU	0.19%
1.0	GE	0.21%	PWR	0.19%
1.0	LLY	0.2%	X	0.17%
1.0	AMD	0.2%	GME	0.16%
1.0	PWR	0.17%	TRGP	0.16%
1.0	GBTC	0.17%	TEVA	0.16%
1.0	AMAT	0.16%	GE	0.15%
1.0	B	0.16%	LLY	0.15%
1.0	MU	0.16%	CAH	0.15%
1.0	CAH	0.15%	SLV	0.14%
1.0	TRGP	0.15%	GBTC	0.14%
1.0	LVS	0.13%	THC	0.13%
1.0	THC	0.13%	AMAT	0.13%
1.0	PHM	0.12%	ETRN	0.12%
1.0	WDC	0.11%	NFLX	0.12%
1.0	TDG	0.11%	AMD	0.11%
1.0	SLV	0.11%	PHM	0.1%
1.0	MSFT	0.1%	META	0.1%
1.0	DHI	0.1%	GS	0.1%
1.0	FCX	0.1%	B	0.1%
1.0	COST	0.09%	GLD	0.1%
1.0	ETRN	0.09%	IRM	0.09%
1.0	JAZZ	0.09%	HSBC	0.09%
1.0	CDNS	0.09%	GOOGL	0.09%
1.0	ON	0.09%	XOM	0.09%



All TMD: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	NVDA	3.58%	MSTR	2.97%
10.0	TSLA	3.1%	NVDA	2.39%
10.0	AVGO	2.79%	VST	2.34%
10.0	VST	2.39%	WDC	2.21%
10.0	CCL	2.12%	MU	2.02%
10.0	LLY	2.03%	AVGO	1.95%
10.0	AMAT	1.78%	PWR	1.85%
10.0	MU	1.77%	TEVA	1.64%
10.0	PWR	1.67%	X	1.58%
10.0	GE	1.65%	TRGP	1.54%
10.0	GBTC	1.64%	LLY	1.5%
10.0	X	1.5%	GE	1.49%
10.0	CAH	1.46%	CAH	1.47%
10.0	AMD	1.42%	ETRN	1.41%
10.0	MSTR	1.36%	GME	1.39%
10.0	ETRN	1.32%	SLV	1.34%
10.0	SLV	1.22%	GBTC	1.33%
10.0	GS	1.13%	THC	1.3%
10.0	TRGP	1.13%	AMAT	1.24%
10.0	WDC	1.1%	NFLX	1.22%
10.0	THC	1.08%	META	1.17%
10.0	MSFT	1.07%	AMD	1.06%
10.0	GME	1.05%	PHM	1.01%
10.0	HLT	1.02%	TSLA	0.98%
10.0	TEVA	1.01%	IRM	0.97%
10.0	B	1.01%	GS	0.95%
10.0	LVS	1.0%	GLD	0.93%
10.0	CDNS	0.97%	B	0.93%
10.0	PHM	0.93%	GOOGL	0.89%
10.0	JPM	0.92%	ORCL	0.89%



All TMD: 21d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	NVDA	8.67%	MSTR	6.83%
21.0	TSLA	7.41%	NVDA	5.26%
21.0	VST	5.5%	VST	5.1%
21.0	AMAT	5.21%	WDC	4.68%
21.0	AVGO	5.2%	MU	4.25%
21.0	CCL	5.14%	AVGO	4.16%
21.0	MU	4.47%	PWR	3.95%
21.0	GBTC	4.24%	TEVA	3.61%
21.0	PWR	4.14%	ETRN	3.5%
21.0	LLY	4.07%	GE	3.36%
21.0	ETRN	3.92%	LLY	3.23%
21.0	CAH	3.82%	TRGP	3.2%
21.0	GE	3.77%	CAH	3.19%
21.0	MSTR	3.76%	X	3.17%
21.0	AMD	3.37%	GBTC	2.99%
21.0	X	3.17%	SLV	2.93%
21.0	PHM	2.87%	THC	2.88%
21.0	AZO	2.74%	META	2.75%
21.0	SLV	2.72%	NFLX	2.74%
21.0	TRGP	2.68%	AMAT	2.63%
21.0	WDC	2.57%	TSLA	2.37%
21.0	DHI	2.55%	AMD	2.32%
21.0	GS	2.45%	PHM	2.26%
21.0	THC	2.38%	GME	2.22%
21.0	HLT	2.37%	IRM	2.13%
21.0	CDNS	2.35%	GS	2.08%
21.0	TEVA	2.3%	GLD	2.05%
21.0	MSFT	2.26%	ORCL	2.05%
21.0	GLD	2.12%	B	2.02%
21.0	JPM	2.08%	GOOGL	1.97%



All TMD: 63d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	NVDA	30.18%	MSTR	20.46%
63.0	AMAT	20.2%	NVDA	17.99%
63.0	MSTR	19.19%	VST	16.93%
63.0	VST	19.16%	WDC	16.24%
63.0	MU	17.98%	MU	14.63%
63.0	CCL	16.81%	AVGO	13.35%
63.0	TSLA	15.38%	GE	11.03%
63.0	GBTC	14.79%	TEVA	10.9%
63.0	GE	14.26%	GBTC	10.84%
63.0	CAH	13.89%	PWR	10.84%
63.0	AVGO	13.56%	ETRN	10.28%
63.0	LLY	13.32%	META	10.06%
63.0	PWR	13.04%	LLY	9.96%
63.0	AMD	12.57%	CAH	9.68%
63.0	DHI	12.32%	SLV	9.6%
63.0	PHM	11.46%	NFLX	9.0%
63.0	WDC	11.38%	THC	8.76%
63.0	SLV	10.12%	TRGP	8.52%
63.0	ETRN	9.47%	AMAT	8.21%
63.0	THC	9.43%	PHM	8.12%
63.0	TRGP	9.0%	AMD	7.78%
63.0	GOOGL	8.84%	GS	7.14%
63.0	GS	8.55%	ORCL	7.08%
63.0	TEVA	8.39%	CCL	7.03%
63.0	AZO	8.36%	GOOGL	6.99%
63.0	B	8.23%	HSBC	6.59%
63.0	QQQ	8.18%	B	6.53%
63.0	GLD	8.09%	TSLA	6.4%
63.0	MSFT	7.68%	GLD	6.38%
63.0	X	7.66%	GILD	6.08%



All TMD: 126d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	NVDA	72.58%	MSTR	53.49%
126.0	MU	48.94%	NVDA	45.68%
126.0	VST	46.32%	VST	38.21%
126.0	GBTC	44.46%	WDC	37.27%
126.0	AMAT	40.9%	MU	33.67%
126.0	MSTR	39.23%	GBTC	31.62%
126.0	GE	35.56%	AVGO	30.79%
126.0	AMD	34.47%	GE	26.54%
126.0	CCL	32.48%	META	24.54%
126.0	TSLA	31.8%	NFLX	23.96%
126.0	NFLX	31.57%	TEVA	21.83%
126.0	AVGO	30.53%	PWR	21.76%
126.0	PHM	28.64%	THC	21.42%
126.0	WDC	27.54%	LLY	20.18%
126.0	CAH	27.12%	CAH	19.96%
126.0	THC	27.06%	SLV	19.42%
126.0	DHI	26.76%	AMD	19.01%
126.0	PWR	26.46%	ETRN	18.49%
126.0	ORCL	25.48%	PHM	18.07%
126.0	LLY	24.3%	ORCL	18.02%
126.0	QQQ	23.0%	AMAT	17.47%
126.0	AMZN	20.88%	TRGP	17.25%
126.0	GOOGL	20.62%	GOOGL	15.91%
126.0	B	20.54%	GS	15.4%
126.0	SLV	20.13%	B	15.01%
126.0	GS	20.0%	CCL	14.83%
126.0	JPM	19.95%	JPM	13.44%
126.0	AZO	19.49%	TSLA	13.42%
126.0	MSFT	19.12%	GLD	13.39%
126.0	COST	18.43%	HSBC	13.39%



All TMD: 252d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
252.0	NVDA	244.98%	MSTR	181.08%
252.0	MSTR	198.75%	NVDA	122.08%
252.0	GBTC	157.45%	VST	111.17%
252.0	NFLX	118.34%	GBTC	98.8%
252.0	VST	117.33%	AVGO	75.46%
252.0	AVGO	107.83%	META	66.62%
252.0	GE	101.31%	GE	61.91%
252.0	MU	98.84%	NFLX	61.23%
252.0	PWR	87.85%	WDC	57.95%
252.0	CCL	87.31%	MU	56.5%
252.0	AMAT	77.23%	THC	48.74%
252.0	LLY	75.33%	PWR	45.17%
252.0	AMZN	75.08%	PHM	43.8%
252.0	CDNS	73.42%	LLY	43.34%
252.0	AMD	73.09%	TRGP	40.25%
252.0	PHM	73.04%	CAH	39.06%
252.0	THC	67.7%	TEVA	39.02%
252.0	QQQ	66.23%	ORCL	37.98%
252.0	META	65.83%	CCL	37.54%
252.0	WDC	65.08%	ETRN	35.78%
252.0	DHI	64.87%	SLV	34.55%
252.0	COST	63.23%	AMD	34.19%
252.0	ORLY	62.81%	AMAT	31.83%
252.0	ORCL	59.09%	TDG	31.69%
252.0	JPM	57.63%	GS	31.69%
252.0	GOOGL	57.43%	JPM	31.36%
252.0	MSFT	56.48%	GOOGL	30.3%
252.0	ISRG	56.33%	ISRG	30.1%
252.0	AZO	51.53%	HSBC	29.27%
252.0	CAH	50.98%	GLD	28.61%



P365D: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	LUMN	0.69%	WDC	0.85%
1.0	AMAT	0.62%	MU	0.62%
1.0	AMD	0.58%	X	0.59%
1.0	WDC	0.44%	CSTM	0.41%
1.0	MU	0.43%	SLV	0.39%
1.0	AVGO	0.42%	AMAT	0.39%
1.0	ELAN	0.42%	ELAN	0.38%
1.0	CLF	0.38%	AA	0.38%
1.0	LVS	0.36%	LUMN	0.37%
1.0	CSTM	0.35%	NEM	0.37%
1.0	SLV	0.35%	INTC	0.36%
1.0	B	0.34%	AMD	0.35%
1.0	CAH	0.32%	B	0.33%
1.0	VST	0.3%	PWR	0.33%
1.0	PWR	0.29%	KALU	0.32%
1.0	TEVA	0.28%	TEVA	0.31%
1.0	KALU	0.27%	AVGO	0.29%
1.0	NVDA	0.26%	GOOGL	0.26%
1.0	AA	0.26%	ON	0.24%
1.0	BHP	0.25%	GNRC	0.23%
1.0	GOOGL	0.25%	AAP	0.23%
1.0	INTC	0.25%	FCX	0.23%
1.0	BIIB	0.24%	CMA	0.23%
1.0	X	0.24%	NVDA	0.22%
1.0	RIO	0.23%	JAZZ	0.2%
1.0	FCX	0.23%	GS	0.19%
1.0	CCL	0.22%	RIO	0.19%
1.0	FSUGY	0.21%	CAH	0.19%
1.0	GNRC	0.21%	TSLA	0.19%
1.0	TSLA	0.2%	BHP	0.18%



P365D: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	X	7.0%	WDC	9.6%
10.0	AMAT	6.14%	MU	7.79%
10.0	MU	5.94%	X	6.56%
10.0	LUMN	5.75%	CSTM	4.62%
10.0	CSTM	5.35%	ELAN	4.5%
10.0	WDC	5.03%	AMAT	4.26%
10.0	AMD	4.76%	AMD	4.0%
10.0	SLV	3.98%	SLV	3.94%
10.0	LVS	3.87%	INTC	3.9%
10.0	NVDA	3.55%	LUMN	3.85%
10.0	ELAN	3.51%	AA	3.84%
10.0	AVGO	3.46%	KALU	3.51%
10.0	B	3.07%	PWR	3.43%
10.0	TEVA	2.97%	TEVA	3.42%
10.0	BHP	2.92%	NEM	3.38%
10.0	AA	2.85%	B	3.3%
10.0	INTC	2.63%	GNRC	2.99%
10.0	CYH	2.62%	CMA	2.94%
10.0	VST	2.58%	AVGO	2.93%
10.0	AAP	2.58%	GOOGL	2.86%
10.0	GNRC	2.54%	AAP	2.57%
10.0	PWR	2.54%	ON	2.56%
10.0	NEM	2.38%	FCX	2.53%
10.0	FSUGY	2.31%	JAZZ	2.45%
10.0	BIIB	2.31%	NVDA	2.29%
10.0	RIO	2.27%	THC	2.25%
10.0	CAH	2.27%	GS	2.2%
10.0	MRK	2.16%	LVS	2.2%
10.0	CLF	2.12%	EXPE	2.16%
10.0	KALU	2.12%	CAH	2.1%



P365D: 21d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	AMAT	18.07%	WDC	21.02%
21.0	MU	15.69%	MU	18.03%
21.0	X	13.82%	X	14.28%
21.0	LUMN	13.05%	CSTM	10.46%
21.0	CSTM	12.97%	ELAN	10.03%
21.0	WDC	12.38%	SLV	9.37%
21.0	AMD	12.28%	AMAT	9.19%
21.0	NVDA	9.61%	AA	9.14%
21.0	SLV	9.25%	AMD	8.96%
21.0	LVS	8.29%	INTC	8.66%
21.0	ELAN	8.0%	LUMN	8.18%
21.0	B	7.84%	B	8.06%
21.0	GNRC	7.27%	KALU	7.84%
21.0	AA	7.23%	TEVA	7.78%
21.0	CAH	6.96%	NEM	7.54%
21.0	BHP	6.64%	PWR	7.39%
21.0	TEVA	6.37%	GNRC	6.83%
21.0	INTC	6.16%	GOOGL	6.51%
21.0	NEM	6.06%	CMA	6.43%
21.0	BIIB	5.96%	AVGO	6.32%
21.0	PWR	5.74%	AAP	5.88%
21.0	AAP	5.36%	THC	5.76%
21.0	MRK	5.3%	FCX	5.7%
21.0	RIO	5.24%	ON	5.37%
21.0	VST	5.14%	NVDA	5.36%
21.0	AVGO	4.98%	JAZZ	5.25%
21.0	GOOGL	4.88%	LVS	4.92%
21.0	FSUGY	4.87%	GE	4.9%
21.0	KALU	4.84%	CAH	4.8%
21.0	PHM	4.77%	GS	4.67%



P365D: 63d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	AMAT	76.61%	WDC	77.46%
63.0	MU	66.4%	MU	63.93%
63.0	WDC	59.48%	SLV	37.28%
63.0	LUMN	50.47%	B	34.84%
63.0	B	42.18%	AA	33.15%
63.0	CSTM	40.43%	INTC	32.42%
63.0	SLV	39.92%	LUMN	31.83%
63.0	AMD	39.6%	CSTM	30.08%
63.0	CAH	31.28%	NEM	29.92%
63.0	BIIB	29.24%	ELAN	29.73%
63.0	AA	28.89%	AMAT	29.62%
63.0	NVDA	27.66%	AMD	28.68%
63.0	TEVA	27.31%	TEVA	28.15%
63.0	BHP	26.98%	KALU	25.58%
63.0	ELAN	26.6%	GOOGL	25.4%
63.0	GOOGL	26.18%	CMA	20.02%
63.0	NEM	25.96%	GNRC	19.28%
63.0	INTC	25.85%	FCX	18.75%
63.0	RIO	25.14%	CLF	18.56%
63.0	GNRC	24.89%	AVGO	17.77%
63.0	LVS	24.12%	JAZZ	17.75%
63.0	CLF	22.61%	PWR	17.69%
63.0	MRK	20.94%	VFC	16.34%
63.0	PHM	20.57%	EXPE	16.22%
63.0	FSUGY	20.02%	GS	16.21%
63.0	GS	18.32%	RIO	16.03%
63.0	XOM	17.32%	LVS	15.74%
63.0	LLY	16.92%	NVDA	15.52%
63.0	KALU	16.69%	ON	15.22%
63.0	JAZZ	16.33%	HSBC	14.43%



P365D: 126d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	MU	213.11%	WDC	222.14%
126.0	WDC	187.3%	MU	179.83%
126.0	AMAT	162.06%	B	90.05%
126.0	LUMN	153.79%	LUMN	88.11%
126.0	B	121.14%	INTC	88.02%
126.0	AMD	101.45%	SLV	87.29%
126.0	SLV	93.73%	AA	73.7%
126.0	BIIB	79.91%	AMD	72.05%
126.0	GOOGL	77.4%	ELAN	69.82%
126.0	AA	74.62%	AMAT	69.01%
126.0	CSTM	73.38%	NEM	68.36%
126.0	INTC	72.58%	TEVA	67.93%
126.0	CAH	66.06%	GOOGL	63.35%
126.0	TEVA	65.0%	CSTM	58.1%
126.0	ELAN	61.89%	KALU	49.6%
126.0	RIO	61.68%	JAZZ	43.47%
126.0	NEM	55.17%	CMA	43.41%
126.0	NVDA	53.85%	CLF	41.29%
126.0	BHP	52.77%	AVGO	38.56%
126.0	AZN	47.85%	EXPE	38.15%
126.0	CLF	46.89%	VFC	36.99%
126.0	LVS	46.86%	TSLA	35.7%
126.0	MRK	46.38%	PWR	35.67%
126.0	LLY	46.09%	RIO	34.47%
126.0	FSUGY	43.5%	BIIB	33.51%
126.0	JAZZ	42.97%	GLD	33.37%
126.0	KALU	41.44%	LVS	32.98%
126.0	GLD	39.85%	CAH	32.89%
126.0	GS	37.17%	GS	31.02%
126.0	PWR	35.99%	GSK	30.36%



P90D: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	OXY	0.96%	WDC	0.76%
1.0	AMAT	0.83%	OXY	0.74%
1.0	SLV	0.48%	GNRC	0.6%
1.0	XOM	0.42%	AAP	0.56%
1.0	HON	0.41%	XOM	0.56%
1.0	COST	0.41%	TRGP	0.5%
1.0	CAH	0.38%	AMAT	0.46%
1.0	TRGP	0.37%	CSTM	0.42%
1.0	CSTM	0.36%	PWR	0.4%
1.0	VST	0.36%	VZ	0.38%
1.0	BHP	0.35%	IRM	0.37%
1.0	VZ	0.31%	AA	0.34%
1.0	GNRC	0.31%	INTC	0.31%
1.0	AA	0.29%	BHP	0.3%
1.0	T	0.29%	T	0.29%
1.0	MU	0.29%	CZR	0.29%
1.0	IRM	0.29%	UAA	0.27%
1.0	AAP	0.28%	SLV	0.27%
1.0	BMY	0.25%	COST	0.26%
1.0	PEP	0.25%	FCX	0.26%
1.0	NEM	0.24%	RIO	0.25%
1.0	RIO	0.23%	HON	0.25%
1.0	PWR	0.22%	GILD	0.25%
1.0	INTC	0.22%	MSI	0.23%
1.0	MOS	0.21%	BMY	0.22%
1.0	GWV	0.19%	MRK	0.21%
1.0	GILD	0.16%	MU	0.21%
1.0	FCX	0.16%	GME	0.21%
1.0	AZN	0.16%	ON	0.2%
1.0	BALL	0.16%	GSK	0.19%



P90D: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	OXY	9.64%	OXY	7.83%
10.0	TRGP	5.14%	WDC	7.64%
10.0	VZ	4.71%	GNRC	6.41%
10.0	GNRC	4.59%	TRGP	6.29%
10.0	XOM	4.44%	XOM	5.67%
10.0	T	4.31%	PWR	5.23%
10.0	AMAT	4.09%	VZ	4.84%
10.0	IRM	3.61%	AAP	4.36%
10.0	PWR	3.37%	AMAT	3.84%
10.0	BHP	2.97%	MU	3.73%
10.0	WDC	2.75%	T	3.68%
10.0	SLV	2.68%	MSI	3.22%
10.0	CSTM	2.54%	IRM	3.12%
10.0	HON	2.51%	CSTM	2.86%
10.0	AAP	2.24%	GILD	2.77%
10.0	MU	2.21%	CZR	2.77%
10.0	PEP	2.12%	CMA	2.48%
10.0	COST	1.96%	PCG	2.29%
10.0	RIO	1.84%	JAZZ	2.07%
10.0	MSI	1.67%	HON	1.88%
10.0	CMA	1.66%	BHP	1.85%
10.0	GILD	1.54%	GME	1.83%
10.0	INTC	1.44%	BALL	1.79%
10.0	CSCO	1.24%	UAA	1.78%
10.0	AMGN	1.21%	PEP	1.7%
10.0	CMCSA	1.19%	GSK	1.62%
10.0	MRK	1.18%	CHTR	1.56%
10.0	JAZZ	1.15%	TMUS	1.5%
10.0	TMUS	1.14%	MRK	1.49%
10.0	CZR	1.11%	COST	1.46%



P90D: 21d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	OXY	19.28%	OXY	17.37%
21.0	TRGP	14.77%	GNRC	15.57%
21.0	GNRC	12.93%	TRGP	14.55%
21.0	T	11.43%	VZ	13.27%
21.0	VZ	11.08%	WDC	12.42%
21.0	XOM	9.74%	PWR	12.03%
21.0	IRM	9.57%	XOM	10.92%
21.0	CSTM	9.43%	CZR	10.0%
21.0	BHP	8.32%	AAP	9.47%
21.0	PWR	8.23%	T	9.14%
21.0	PEP	7.16%	MSI	8.82%
21.0	CZR	6.96%	PCG	8.59%
21.0	MSI	6.67%	IRM	8.27%
21.0	WDC	5.73%	CSTM	6.98%
21.0	HON	5.59%	THC	6.53%
21.0	AMAT	5.48%	CHTR	6.35%
21.0	AAP	5.16%	AMAT	6.35%
21.0	CMCSA	4.61%	GILD	6.19%
21.0	PCG	4.57%	TMUS	6.15%
21.0	COST	4.4%	BALL	5.75%
21.0	GSK	4.36%	UAA	5.5%
21.0	TMUS	4.31%	NFLX	5.47%
21.0	MRK	4.18%	GSK	5.31%
21.0	HCA	4.03%	JAZZ	5.29%
21.0	CHTR	3.95%	MU	4.84%
21.0	GILD	3.83%	PEP	4.77%
21.0	AMGN	3.63%	BHP	4.75%
21.0	RIO	3.52%	HON	4.61%
21.0	THC	3.48%	BMY	4.26%
21.0	CAH	3.2%	AMGN	4.25%



P30D: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	OXY	0.81%	OXY	0.89%
1.0	AA	0.4%	XOM	0.46%
1.0	XOM	0.35%	EXPE	0.44%
1.0	AMD	0.24%	CZR	0.39%
1.0	EXPE	0.17%	AA	0.24%
1.0	MOS	0.17%	BBY	0.23%
1.0	TRGP	0.15%	TRGP	0.23%
1.0	LNC	0.12%	INTU	0.19%
1.0	COST	0.11%	AMD	0.18%
1.0	WYNN	0.09%	T	0.17%
1.0	PWR	0.08%	LNC	0.16%
1.0	T	0.08%	LUMN	0.15%
1.0	LQD	0.06%	WDC	0.14%
1.0	CZR	0.05%	SNY	0.06%
1.0	BMY	0.03%	VZ	0.03%
1.0	BBY	0.03%	AMZN	0.02%
1.0	SNY	0.03%	HLT	0.0%
1.0	AMZN	0.02%	AAP	-0.01%
1.0	INTU	0.01%	ORCL	-0.02%
1.0	AZN	0.01%	JAZZ	-0.02%
1.0	NFLX	0.0%	COST	-0.03%
1.0	BAC	0.0%	ZION	-0.03%
1.0	VZ	-0.0%	VCSH	-0.03%
1.0	MS	-0.01%	NFLX	-0.04%
1.0	VCSH	-0.02%	MRK	-0.04%
1.0	JAZZ	-0.02%	HYG	-0.04%
1.0	NVDA	-0.03%	JPM	-0.05%
1.0	TLT	-0.03%	MS	-0.05%
1.0	GWV	-0.04%	INTC	-0.05%
1.0	JPM	-0.04%	FRA	-0.06%



P30D: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	OXY	14.41%	OXY	11.13%
10.0	XOM	4.89%	WDC	8.78%
10.0	MU	3.65%	XOM	6.82%
10.0	WDC	2.97%	AMD	2.29%
10.0	AMD	2.73%	TRGP	2.02%
10.0	LNC	1.56%	LNC	1.97%
10.0	T	1.55%	ELAN	1.72%
10.0	ELAN	1.49%	SNY	1.71%
10.0	AMAT	1.36%	T	1.54%
10.0	TRGP	1.02%	EXPE	1.32%
10.0	EXPE	0.65%	AMAT	1.13%
10.0	SNY	0.55%	CSCO	0.67%
10.0	MS	0.49%	CZR	0.39%
10.0	LUMN	0.49%	MS	0.33%
10.0	CSCO	0.45%	LUMN	-0.07%
10.0	JAZZ	0.01%	JAZZ	-0.13%
10.0	PWR	-0.08%	MRK	-0.25%
10.0	MRK	-0.15%	PWR	-0.25%
10.0	ZION	-0.28%	ON	-0.29%
10.0	KEY	-0.34%	ZION	-0.49%
10.0	ON	-0.4%	VCSH	-0.53%
10.0	HLT	-0.43%	JPM	-0.54%
10.0	JPM	-0.44%	HLT	-0.58%
10.0	GS	-0.53%	HYG	-0.75%
10.0	VZ	-0.55%	GS	-0.79%
10.0	BXP	-0.89%	BIIB	-0.82%
10.0	GBTC	-0.91%	VZ	-0.93%
10.0	WYNN	-0.92%	MUB	-1.12%
10.0	VCSH	-0.92%	GBTC	-1.12%
10.0	BBY	-0.99%	WYNN	-1.19%



Bottom 30 Tickers By ROEUB

All TMD: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	SIVBQ	-0.53%	SIVBQ	-0.78%
1.0	IEP	-0.31%	SBNY	-0.45%
1.0	LUMN	-0.27%	FRCB	-0.23%
1.0	SBNY	-0.24%	AMC	-0.22%
1.0	CZR	-0.22%	IEP	-0.15%
1.0	NWL	-0.19%	NWL	-0.12%
1.0	UAA	-0.13%	PRGO	-0.09%
1.0	FRCB	-0.1%	AAP	-0.08%
1.0	UNH	-0.08%	CHTR	-0.07%
1.0	CHTR	-0.07%	FIS	-0.07%
1.0	GNRC	-0.07%	VFC	-0.06%
1.0	BXP	-0.07%	BHC	-0.06%
1.0	FIS	-0.07%	GT	-0.05%
1.0	NAVI	-0.06%	UAA	-0.05%
1.0	PRGO	-0.06%	BXP	-0.05%
1.0	ADBE	-0.05%	ADBE	-0.05%
1.0	CMCSA	-0.05%	CNC	-0.05%
1.0	TLT	-0.05%	NAVI	-0.05%
1.0	AAP	-0.05%	CZR	-0.04%
1.0	CNC	-0.04%	TLT	-0.04%
1.0	LNC	-0.04%	CMCSA	-0.04%
1.0	ZTS	-0.04%	ZTS	-0.03%
1.0	BA	-0.03%	KHC	-0.03%
1.0	CTLT	-0.03%	UNH	-0.03%
1.0	BIIB	-0.03%	BALL	-0.03%
1.0	CYH	-0.03%	LNC	-0.02%
1.0	VFC	-0.03%	CVS	-0.02%
1.0	BALL	-0.03%	FRA	-0.02%
1.0	BHC	-0.02%	CTLT	-0.01%
1.0	INTU	-0.02%	LQD	-0.01%



All TMD: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	SIVBQ	-3.66%	SBNY	-4.05%
10.0	IEP	-2.63%	SIVBQ	-3.9%
10.0	CZR	-2.32%	AMC	-2.25%
10.0	SBNY	-1.64%	FRCB	-2.19%
10.0	NWL	-1.39%	IEP	-1.43%
10.0	LUMN	-1.32%	NWL	-1.22%
10.0	AMC	-1.3%	PRGO	-0.99%
10.0	FRCB	-1.18%	AAP	-0.83%
10.0	UAA	-0.89%	VFC	-0.75%
10.0	PRGO	-0.76%	CHTR	-0.65%
10.0	BXP	-0.7%	UAA	-0.63%
10.0	GNRC	-0.66%	GT	-0.62%
10.0	VFC	-0.65%	FIS	-0.62%
10.0	FIS	-0.57%	CZR	-0.59%
10.0	UNH	-0.56%	NAVI	-0.56%
10.0	NAVI	-0.54%	BXP	-0.55%
10.0	CNC	-0.52%	CNC	-0.54%
10.0	KHC	-0.49%	BHC	-0.53%
10.0	BALL	-0.46%	ADBE	-0.45%
10.0	ADBE	-0.45%	TLT	-0.42%
10.0	CHTR	-0.42%	CMCSA	-0.4%
10.0	AAP	-0.41%	ZTS	-0.39%
10.0	TLT	-0.38%	KHC	-0.37%
10.0	LNC	-0.37%	LNC	-0.32%
10.0	CMCSA	-0.35%	UNH	-0.32%
10.0	ZTS	-0.34%	BALL	-0.27%
10.0	GT	-0.33%	CYH	-0.23%
10.0	BIIB	-0.27%	BBY	-0.22%
10.0	CTLT	-0.23%	MOS	-0.21%
10.0	FRA	-0.18%	FRA	-0.2%



All TMD: 21d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	SIVBQ	-8.0%	SBNY	-11.16%
21.0	IEP	-6.19%	SIVBQ	-9.37%
21.0	CZR	-4.98%	FRCB	-6.02%
21.0	SBNY	-4.88%	AMC	-5.0%
21.0	FRCB	-3.24%	IEP	-3.06%
21.0	NWL	-2.47%	NWL	-2.5%
21.0	AMC	-2.17%	PRGO	-2.02%
21.0	LUMN	-1.67%	AAP	-1.64%
21.0	VFC	-1.65%	VFC	-1.55%
21.0	UAA	-1.53%	BHC	-1.34%
21.0	PRGO	-1.45%	CHTR	-1.33%
21.0	BXP	-1.29%	CZR	-1.29%
21.0	GNRC	-1.17%	BXP	-1.18%
21.0	KHC	-1.04%	NAVI	-1.17%
21.0	FIS	-0.97%	FIS	-1.11%
21.0	CNC	-0.97%	UAA	-1.05%
21.0	UNH	-0.96%	GT	-1.04%
21.0	NAVI	-0.94%	CNC	-0.97%
21.0	AAP	-0.94%	TLT	-0.85%
21.0	ADBE	-0.93%	KHC	-0.8%
21.0	CHTR	-0.9%	ZTS	-0.79%
21.0	TLT	-0.89%	LNC	-0.77%
21.0	BALL	-0.76%	CMCSA	-0.73%
21.0	CLF	-0.68%	ADBE	-0.71%
21.0	LNC	-0.61%	UNH	-0.6%
21.0	BHC	-0.57%	BALL	-0.47%
21.0	ZTS	-0.54%	BBY	-0.45%
21.0	CVS	-0.44%	MOS	-0.4%
21.0	CMCSA	-0.42%	FRA	-0.38%
21.0	FRA	-0.37%	CVS	-0.29%



All TMD: 63d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	SIVBQ	-30.27%	SBNY	-37.59%
63.0	IEP	-20.43%	SIVBQ	-33.73%
63.0	SBNY	-19.01%	FRCB	-24.04%
63.0	FRCB	-15.74%	AMC	-16.58%
63.0	NWL	-11.39%	IEP	-10.16%
63.0	CZR	-8.95%	NWL	-7.73%
63.0	AMC	-8.12%	CZR	-5.59%
63.0	VFC	-7.39%	AAP	-5.57%
63.0	GNRC	-6.02%	PRGO	-5.5%
63.0	UAA	-4.78%	CHTR	-4.22%
63.0	AAP	-4.65%	VFC	-3.9%
63.0	PRGO	-4.55%	BHC	-3.57%
63.0	KHC	-3.68%	MOS	-3.39%
63.0	CHTR	-3.67%	BXP	-3.04%
63.0	BXP	-3.31%	UAA	-2.84%
63.0	ADBE	-3.09%	FIS	-2.82%
63.0	BALL	-2.75%	KHC	-2.81%
63.0	BHC	-2.69%	NAVI	-2.73%
63.0	CLF	-2.61%	CNC	-2.66%
63.0	TLT	-2.57%	TLT	-2.32%
63.0	UNH	-2.22%	ZTS	-2.22%
63.0	VZ	-2.22%	CMCSA	-2.2%
63.0	NAVI	-2.11%	UNH	-2.09%
63.0	CTLT	-1.99%	CLF	-1.91%
63.0	CYH	-1.96%	GT	-1.69%
63.0	FIS	-1.9%	ADBE	-1.69%
63.0	CNC	-1.75%	LNC	-1.65%
63.0	CVS	-1.66%	BBY	-1.46%
63.0	ZTS	-1.59%	BALL	-1.36%
63.0	CMCSA	-1.59%	CVS	-0.98%



All TMD: 126d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	SIVBQ	-64.31%	SIVBQ	-65.15%
126.0	IEP	-41.77%	SBNY	-64.8%
126.0	FRCB	-39.92%	FRCB	-51.17%
126.0	SBNY	-33.47%	AMC	-29.18%
126.0	NWL	-33.35%	IEP	-19.83%
126.0	AMC	-15.92%	NWL	-17.82%
126.0	VFC	-15.72%	AAP	-11.84%
126.0	GNRC	-14.18%	PRGO	-10.54%
126.0	CZR	-13.21%	CZR	-10.18%
126.0	AAP	-11.94%	VFC	-7.99%
126.0	PRGO	-9.9%	CHTR	-7.8%
126.0	UAA	-9.51%	MOS	-7.66%
126.0	KHC	-7.45%	UAA	-7.51%
126.0	GT	-7.18%	CNC	-7.17%
126.0	FIS	-7.16%	KHC	-5.8%
126.0	CHTR	-7.02%	CTLT	-5.69%
126.0	CNC	-6.77%	BHC	-4.98%
126.0	MOS	-6.3%	GT	-4.67%
126.0	CTLT	-6.16%	BXP	-4.63%
126.0	BALL	-5.86%	FIS	-4.61%
126.0	ADBE	-5.19%	CMCSA	-4.39%
126.0	CMCSA	-5.02%	NAVI	-4.21%
126.0	VZ	-4.84%	TLT	-4.12%
126.0	TLT	-4.82%	UNH	-4.06%
126.0	BHC	-4.76%	ZTS	-3.87%
126.0	BXP	-4.76%	BALL	-3.28%
126.0	CVS	-4.3%	BMY	-3.0%
126.0	UNH	-4.14%	CLF	-2.76%
126.0	CLF	-3.8%	CVS	-1.8%
126.0	NAVI	-3.1%	OXY	-1.71%



All TMD: 252d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
252.0	SIVBQ	-165.64%	SBNY	-95.75%
252.0	FRCB	-122.39%	SIVBQ	-95.29%
252.0	IEP	-84.62%	FRCB	-91.61%
252.0	SBNY	-81.71%	AMC	-55.01%
252.0	NWL	-66.89%	IEP	-41.37%
252.0	AMC	-36.8%	NWL	-31.23%
252.0	VFC	-31.02%	AAP	-27.49%
252.0	AAP	-30.13%	VFC	-22.41%
252.0	CZR	-29.91%	CZR	-18.23%
252.0	CLF	-23.96%	CNC	-17.85%
252.0	CVS	-22.05%	PRGO	-17.41%
252.0	UAA	-21.46%	UAA	-15.69%
252.0	PRGO	-20.39%	MOS	-14.3%
252.0	GNRC	-20.26%	CLF	-13.18%
252.0	CNC	-20.0%	KHC	-11.31%
252.0	MOS	-19.35%	CHTR	-10.57%
252.0	GT	-18.32%	UNH	-10.36%
252.0	KHC	-17.1%	BMY	-9.77%
252.0	UNH	-15.8%	BHC	-9.47%
252.0	BHC	-12.56%	BIIB	-8.41%
252.0	FIS	-11.89%	OXY	-8.15%
252.0	BMY	-10.76%	GT	-7.54%
252.0	CHTR	-10.7%	TLT	-7.52%
252.0	CYH	-10.54%	NAVI	-7.23%
252.0	LUMN	-10.39%	CVS	-6.37%
252.0	TLT	-9.82%	CTLT	-6.24%
252.0	BALL	-8.88%	CYH	-6.08%
252.0	ADBE	-8.62%	BXP	-5.16%
252.0	OXY	-7.87%	CMCSA	-4.92%
252.0	AA	-7.81%	PEP	-4.76%



P365D: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	MSTR	-0.47%	AMC	-0.36%
1.0	CNC	-0.26%	PRGO	-0.33%
1.0	AMC	-0.26%	MSTR	-0.25%
1.0	UNH	-0.25%	UNH	-0.21%
1.0	UAA	-0.23%	CPRT	-0.2%
1.0	FIS	-0.22%	CHTR	-0.18%
1.0	ADBE	-0.21%	FIS	-0.17%
1.0	CPRT	-0.21%	ADBE	-0.16%
1.0	CMG	-0.21%	CMG	-0.16%
1.0	VNO	-0.2%	NWL	-0.16%
1.0	PRGO	-0.2%	CNC	-0.15%
1.0	CMCSA	-0.17%	NAVI	-0.14%
1.0	GBTC	-0.14%	VNO	-0.12%
1.0	NAVI	-0.13%	INTU	-0.11%
1.0	TMUS	-0.12%	ZTS	-0.11%
1.0	CHTR	-0.12%	KHC	-0.11%
1.0	CZR	-0.12%	CMCSA	-0.08%
1.0	LNC	-0.12%	TMUS	-0.08%
1.0	ZTS	-0.11%	LEN	-0.08%
1.0	IEP	-0.09%	BXP	-0.08%
1.0	LEN	-0.09%	GT	-0.07%
1.0	NWL	-0.08%	VICI	-0.06%
1.0	PCG	-0.06%	FRA	-0.06%
1.0	INTU	-0.06%	TDG	-0.06%
1.0	GT	-0.06%	GBTC	-0.06%
1.0	BXP	-0.06%	POST	-0.06%
1.0	WFC	-0.05%	IEP	-0.05%
1.0	POST	-0.05%	LW	-0.05%
1.0	QQQ	-0.05%	QCOM	-0.04%
1.0	FRA	-0.04%	AZO	-0.04%



P365D: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	MSTR	-3.34%	AMC	-3.65%
10.0	PRGO	-2.65%	PRGO	-3.39%
10.0	AMC	-2.6%	MSTR	-2.45%
10.0	CPRT	-2.49%	UNH	-2.34%
10.0	UNH	-2.44%	CPRT	-2.1%
10.0	CNC	-2.2%	CNC	-1.68%
10.0	GT	-2.02%	FIS	-1.44%
10.0	KHC	-1.58%	CHTR	-1.42%
10.0	CMG	-1.57%	ADBE	-1.41%
10.0	ADBE	-1.5%	CMG	-1.38%
10.0	NAVI	-1.3%	NAVI	-1.18%
10.0	CHTR	-1.11%	KHC	-1.17%
10.0	FIS	-1.09%	GT	-1.13%
10.0	VNO	-0.9%	VNO	-0.99%
10.0	TMUS	-0.73%	ZTS	-0.99%
10.0	VICI	-0.71%	NWL	-0.81%
10.0	GBTC	-0.58%	INTU	-0.8%
10.0	FRA	-0.55%	LW	-0.77%
10.0	ZTS	-0.53%	TMUS	-0.72%
10.0	CMCSA	-0.42%	POST	-0.67%
10.0	ORLY	-0.39%	CMCSA	-0.64%
10.0	SNY	-0.37%	BXP	-0.52%
10.0	IEP	-0.37%	VICI	-0.47%
10.0	LEN	-0.33%	FRA	-0.46%
10.0	POST	-0.31%	LEN	-0.44%
10.0	ISRG	-0.19%	SNY	-0.43%
10.0	TLT	-0.19%	GBTC	-0.43%
10.0	TDG	-0.17%	TDG	-0.36%
10.0	BXP	-0.17%	IEP	-0.28%
10.0	HD	-0.11%	AZO	-0.24%



P365D: 21d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	MSTR	-8.68%	AMC	-7.38%
21.0	CPRT	-6.09%	PRGO	-6.92%
21.0	PRGO	-5.3%	MSTR	-5.85%
21.0	UNH	-4.32%	CPRT	-4.45%
21.0	AMC	-4.12%	UNH	-3.85%
21.0	CNC	-3.55%	FIS	-3.27%
21.0	ADBE	-3.12%	CHTR	-2.99%
21.0	KHC	-2.7%	ADBE	-2.62%
21.0	CMG	-2.68%	CMG	-2.61%
21.0	GT	-2.4%	CNC	-2.58%
21.0	FIS	-2.39%	NAVI	-2.44%
21.0	CHTR	-2.34%	GT	-2.25%
21.0	VNO	-2.27%	KHC	-2.23%
21.0	NAVI	-1.86%	VNO	-2.12%
21.0	GBTC	-1.61%	ZTS	-2.01%
21.0	TMUS	-1.42%	INTU	-1.62%
21.0	VICI	-1.39%	TMUS	-1.37%
21.0	IEP	-1.22%	LW	-1.31%
21.0	FRA	-1.07%	GBTC	-1.26%
21.0	ZTS	-0.96%	BXP	-1.26%
21.0	SNY	-0.92%	SNY	-1.2%
21.0	INTU	-0.84%	POST	-1.17%
21.0	LW	-0.61%	CMCSA	-1.01%
21.0	LEN	-0.61%	FRA	-0.96%
21.0	POST	-0.56%	VICI	-0.95%
21.0	CMCSA	-0.53%	NWL	-0.89%
21.0	BXP	-0.52%	IEP	-0.66%
21.0	ISRG	-0.49%	TDG	-0.59%
21.0	ORLY	-0.36%	LEN	-0.59%
21.0	GME	-0.34%	QCOM	-0.24%



P365D: 63d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	MSTR	-42.09%	MSTR	-23.13%
63.0	CPRT	-21.02%	AMC	-21.33%
63.0	PRGO	-16.24%	PRGO	-19.71%
63.0	ADBE	-11.52%	CHTR	-15.52%
63.0	CMG	-10.59%	CPRT	-12.11%
63.0	CHTR	-9.96%	FIS	-10.97%
63.0	INTU	-9.12%	ADBE	-9.86%
63.0	FIS	-8.9%	CMG	-9.03%
63.0	VNO	-7.92%	INTU	-8.88%
63.0	NFLX	-7.89%	ZTS	-7.61%
63.0	AMC	-7.74%	NAVI	-7.11%
63.0	UNH	-7.61%	VNO	-6.76%
63.0	GBTC	-6.88%	GBTC	-6.54%
63.0	KHC	-6.57%	NFLX	-6.54%
63.0	TMUS	-5.77%	KHC	-5.21%
63.0	CZR	-5.48%	TMUS	-5.2%
63.0	GT	-5.18%	GT	-4.95%
63.0	VICI	-5.13%	NWL	-4.69%
63.0	NAVI	-4.45%	UNH	-4.5%
63.0	ZTS	-4.38%	LW	-4.3%
63.0	CMCSA	-4.19%	CMCSA	-4.21%
63.0	CNC	-4.16%	CNC	-4.13%
63.0	POST	-3.08%	GME	-3.81%
63.0	LW	-2.95%	CZR	-3.6%
63.0	FRA	-2.59%	VICI	-3.26%
63.0	SNY	-2.45%	POST	-3.08%
63.0	GME	-2.39%	MOS	-3.0%
63.0	IEP	-1.74%	FRA	-2.9%
63.0	ISRG	-1.66%	SNY	-2.82%
63.0	BXP	-1.65%	IEP	-2.71%



P365D: 126d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	MSTR	-100.31%	MSTR	-47.53%
126.0	CPRT	-37.65%	PRGO	-41.4%
126.0	GT	-37.55%	AMC	-37.1%
126.0	PRGO	-35.27%	CHTR	-32.89%
126.0	CMG	-33.08%	NWL	-24.26%
126.0	NWL	-31.82%	CMG	-22.93%
126.0	FIS	-29.68%	CPRT	-22.81%
126.0	MOS	-28.1%	FIS	-20.54%
126.0	CHTR	-20.21%	GT	-17.78%
126.0	NFLX	-19.98%	ZTS	-17.73%
126.0	CZR	-17.54%	INTU	-17.26%
126.0	INTU	-17.46%	ADBE	-16.86%
126.0	ADBE	-17.44%	MOS	-16.41%
126.0	CMCSA	-15.5%	GBTC	-15.18%
126.0	VICI	-15.48%	NFLX	-15.01%
126.0	KHC	-15.42%	NAVI	-14.81%
126.0	TMUS	-15.41%	CZR	-14.31%
126.0	VNO	-14.96%	TMUS	-14.11%
126.0	GBTC	-13.45%	CMCSA	-14.08%
126.0	AMC	-13.17%	VNO	-12.41%
126.0	ZTS	-10.69%	KHC	-11.76%
126.0	IEP	-10.05%	VICI	-9.86%
126.0	NAVI	-9.58%	GME	-8.29%
126.0	T	-9.03%	FRA	-8.04%
126.0	COST	-8.36%	IEP	-7.97%
126.0	UNH	-7.92%	TDG	-7.38%
126.0	GME	-6.98%	T	-7.11%
126.0	TDG	-6.89%	POST	-6.27%
126.0	POST	-6.39%	UAA	-5.23%
126.0	MSI	-6.06%	MSI	-4.08%



P90D: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	ADBE	-1.02%	AMC	-0.77%
1.0	BHC	-0.86%	NAVI	-0.7%
1.0	LUMN	-0.83%	CLF	-0.69%
1.0	VNO	-0.76%	INTU	-0.57%
1.0	NAVI	-0.66%	FIS	-0.54%
1.0	GBTC	-0.59%	ADBE	-0.5%
1.0	GT	-0.54%	QCOM	-0.47%
1.0	MSFT	-0.53%	GT	-0.44%
1.0	AMC	-0.5%	BHC	-0.44%
1.0	LVS	-0.46%	BXP	-0.42%
1.0	PRGO	-0.45%	ORCL	-0.42%
1.0	LNC	-0.44%	GBTC	-0.4%
1.0	CMG	-0.43%	VNO	-0.4%
1.0	CLF	-0.4%	MSFT	-0.39%
1.0	ORCL	-0.39%	PRGO	-0.38%
1.0	JPM	-0.37%	LNC	-0.36%
1.0	BA	-0.35%	CNC	-0.34%
1.0	MSTR	-0.35%	ISRG	-0.32%
1.0	TDG	-0.34%	UNH	-0.31%
1.0	BXP	-0.3%	WYNN	-0.28%
1.0	NWL	-0.28%	LVS	-0.28%
1.0	UAA	-0.28%	WFC	-0.28%
1.0	FIS	-0.28%	LEN	-0.27%
1.0	CCL	-0.27%	EXPE	-0.26%
1.0	WFC	-0.27%	TDG	-0.25%
1.0	LEN	-0.26%	TSLA	-0.25%
1.0	QQQ	-0.26%	CMG	-0.24%
1.0	CPRT	-0.26%	CCL	-0.24%
1.0	TSLA	-0.26%	LLY	-0.23%
1.0	QCOM	-0.25%	BAC	-0.22%



P90D: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	GT	-10.28%	AMC	-8.48%
10.0	NAVI	-8.27%	NAVI	-8.13%
10.0	AMC	-7.83%	CLF	-7.91%
10.0	ADBE	-6.69%	PRGO	-7.07%
10.0	PRGO	-6.02%	BHC	-6.84%
10.0	BHC	-5.81%	GT	-6.23%
10.0	GBTC	-5.5%	INTU	-5.63%
10.0	VNO	-5.47%	FIS	-5.6%
10.0	CMG	-4.76%	QCOM	-5.44%
10.0	CPRT	-4.67%	ADBE	-5.39%
10.0	BA	-4.44%	CNC	-5.38%
10.0	TDG	-4.2%	VNO	-5.19%
10.0	MSFT	-4.03%	GBTC	-5.11%
10.0	FIS	-3.91%	ORCL	-5.07%
10.0	LNC	-3.9%	BXP	-4.59%
10.0	LUMN	-3.85%	MSFT	-4.36%
10.0	LLY	-3.85%	LNC	-4.2%
10.0	B	-3.63%	UNH	-4.06%
10.0	ORCL	-3.51%	LEN	-3.85%
10.0	QCOM	-3.38%	CCL	-3.77%
10.0	CNC	-3.26%	B	-3.71%
10.0	PHM	-3.23%	EXPE	-3.68%
10.0	CLF	-3.19%	ISRG	-3.67%
10.0	AVGO	-3.12%	CMG	-3.63%
10.0	LVS	-3.07%	MSTR	-3.44%
10.0	MSTR	-3.03%	WFC	-3.41%
10.0	EXPE	-2.94%	TDG	-3.29%
10.0	UNH	-2.85%	CPRT	-3.24%
10.0	ISRG	-2.82%	BA	-3.22%
10.0	BXP	-2.78%	LLY	-3.17%



P90D: 21d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	GT	-19.54%	CLF	-19.54%
21.0	NAVI	-16.05%	AMC	-17.53%
21.0	GBTC	-14.37%	NAVI	-17.52%
21.0	ADBE	-14.16%	PRGO	-16.57%
21.0	CPRT	-13.56%	GT	-13.45%
21.0	AMC	-13.09%	BHC	-12.07%
21.0	VNO	-11.94%	GBTC	-11.24%
21.0	PRGO	-11.78%	VNO	-11.15%
21.0	LUMN	-10.95%	BXP	-10.8%
21.0	BHC	-10.46%	LUMN	-10.63%
21.0	LNC	-9.68%	FIS	-10.49%
21.0	CMG	-9.6%	QCOM	-10.34%
21.0	B	-9.16%	LNC	-10.25%
21.0	BA	-8.73%	CNC	-10.22%
21.0	MSFT	-8.56%	INTU	-9.85%
21.0	EXPE	-8.56%	ORCL	-9.34%
21.0	FIS	-7.92%	ADBE	-9.23%
21.0	AMD	-7.49%	MSFT	-8.44%
21.0	CLF	-7.28%	UNH	-7.92%
21.0	ORCL	-7.13%	CMG	-7.91%
21.0	LEN	-7.03%	EXPE	-7.88%
21.0	QCOM	-6.86%	LEN	-7.81%
21.0	CNC	-6.86%	WFC	-7.48%
21.0	BXP	-6.86%	B	-7.46%
21.0	UNH	-6.78%	CCL	-7.45%
21.0	WFC	-6.54%	TDG	-7.42%
21.0	LLY	-6.51%	CPRT	-7.36%
21.0	MS	-6.48%	SLV	-7.15%
21.0	GS	-6.34%	MSTR	-6.98%
21.0	LVS	-6.2%	BA	-6.97%



P30D: 1d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	MU	-1.53%	CNC	-1.37%
1.0	NWL	-1.33%	CLF	-1.37%
1.0	PHM	-1.15%	NWL	-1.17%
1.0	B	-1.09%	LEN	-1.12%
1.0	CNC	-1.08%	THC	-1.02%
1.0	TDG	-1.06%	GT	-1.0%
1.0	WDC	-1.05%	B	-0.96%
1.0	PRGO	-1.01%	UAA	-0.93%
1.0	CMG	-1.0%	GE	-0.91%
1.0	BHC	-0.95%	MU	-0.83%
1.0	LEN	-0.94%	SLV	-0.77%
1.0	UAA	-0.93%	NEM	-0.77%
1.0	GT	-0.87%	GNRC	-0.74%
1.0	CAH	-0.84%	AMC	-0.73%
1.0	CPRT	-0.83%	CPRT	-0.67%
1.0	BHP	-0.81%	BA	-0.65%
1.0	ZTS	-0.79%	CYH	-0.65%
1.0	DHI	-0.77%	FCX	-0.65%
1.0	CCL	-0.76%	AZO	-0.64%
1.0	CLF	-0.75%	CMG	-0.62%
1.0	ELAN	-0.75%	CVS	-0.6%
1.0	NEM	-0.72%	TDG	-0.6%
1.0	LW	-0.72%	PHM	-0.59%
1.0	BA	-0.71%	META	-0.59%
1.0	CHTR	-0.68%	GLD	-0.59%
1.0	MSFT	-0.66%	BUD	-0.59%
1.0	PCG	-0.64%	BHP	-0.59%
1.0	MSI	-0.63%	PRGO	-0.57%
1.0	FCX	-0.59%	HD	-0.56%
1.0	SPY	-0.57%	HCA	-0.56%



P30D: 10d

Results reflect ticker level average ROEUB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	GT	-20.87%	NWL	-15.57%
10.0	TDG	-13.34%	CNC	-14.01%
10.0	PHM	-12.83%	CLF	-13.98%
10.0	BA	-12.7%	THC	-13.92%
10.0	B	-12.36%	SLV	-13.58%
10.0	CPRT	-11.2%	B	-13.28%
10.0	NEM	-10.88%	GT	-12.05%
10.0	MOS	-10.17%	NEM	-11.5%
10.0	NWL	-9.98%	AMC	-10.74%
10.0	LLY	-9.89%	CYH	-10.5%
10.0	PRGO	-9.79%	GLD	-9.82%
10.0	CMG	-9.29%	UAA	-9.64%
10.0	KHC	-9.28%	GE	-9.43%
10.0	AZO	-9.19%	META	-9.1%
10.0	CAH	-8.91%	ADBE	-9.06%
10.0	META	-8.78%	BA	-8.92%
10.0	HCA	-8.56%	FCX	-8.79%
10.0	CNC	-8.41%	CPRT	-8.75%
10.0	VICI	-8.21%	LEN	-8.45%
10.0	SLV	-8.15%	HCA	-8.1%
10.0	MSFT	-8.1%	KALU	-7.79%
10.0	ADBE	-7.89%	LLY	-7.72%
10.0	AVGO	-7.59%	AZO	-7.69%
10.0	BHP	-7.43%	TDG	-7.63%
10.0	QQQ	-7.34%	ABBV	-7.48%
10.0	PCG	-6.6%	CVS	-7.05%
10.0	FCX	-6.39%	KHC	-6.89%
10.0	SPY	-6.37%	HD	-6.75%
10.0	DHI	-6.33%	PHM	-6.66%
10.0	CLF	-6.3%	PRGO	-6.65%



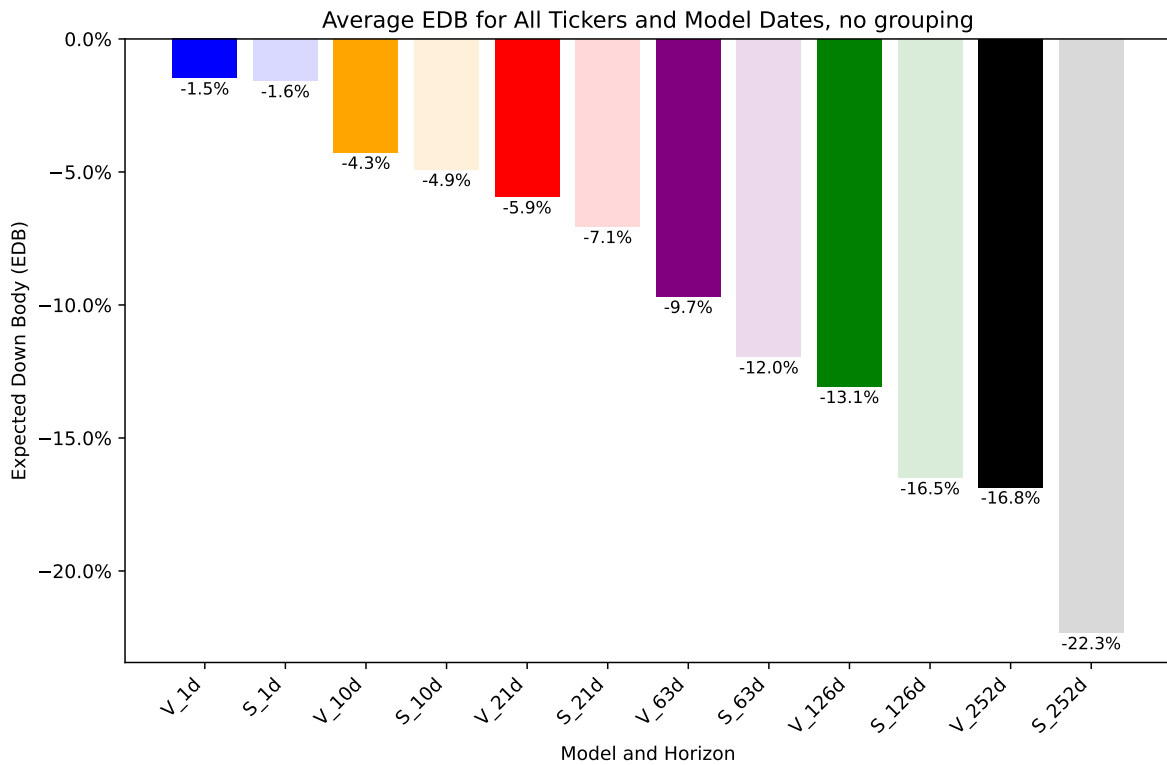
Expected Down Body (EDB)

Historic Average Levels

Here we compare Vector Model (“V”, dark shading) and Sigma (“S”, light shading) EDB levels by horizon, on average across all ticker-model dates for the lookback window indicated.

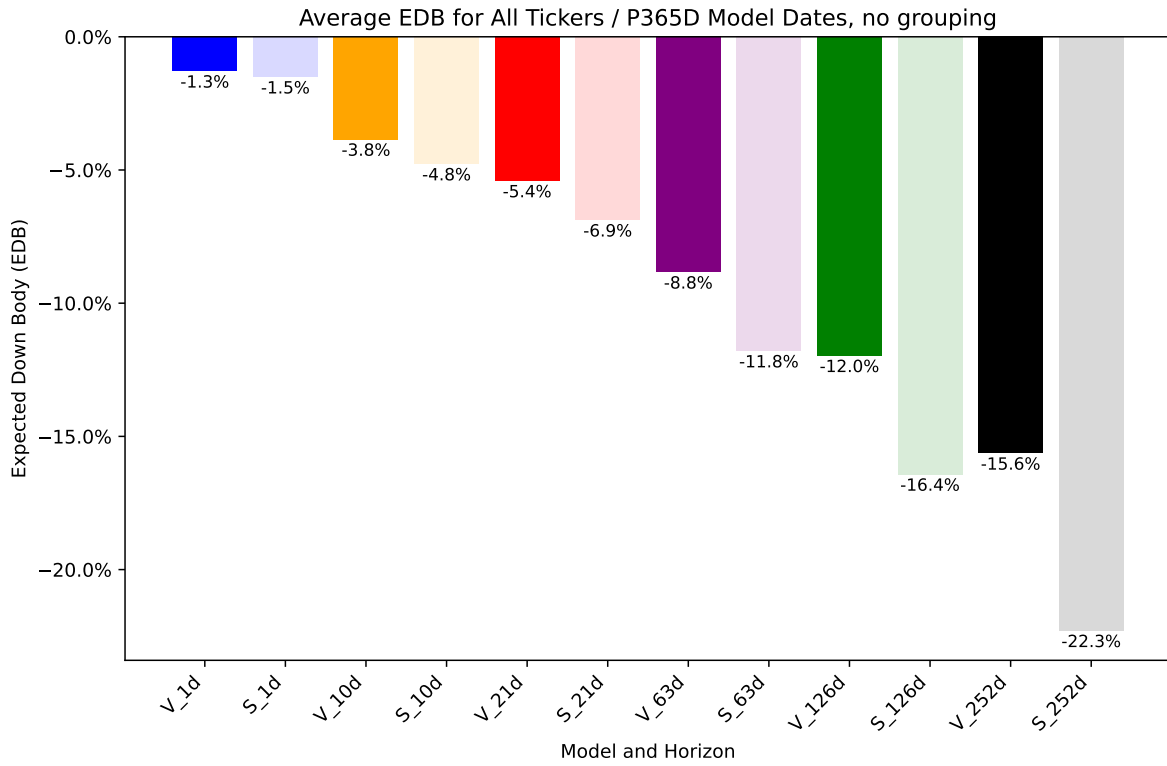
All Out of Sample Model Dates

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



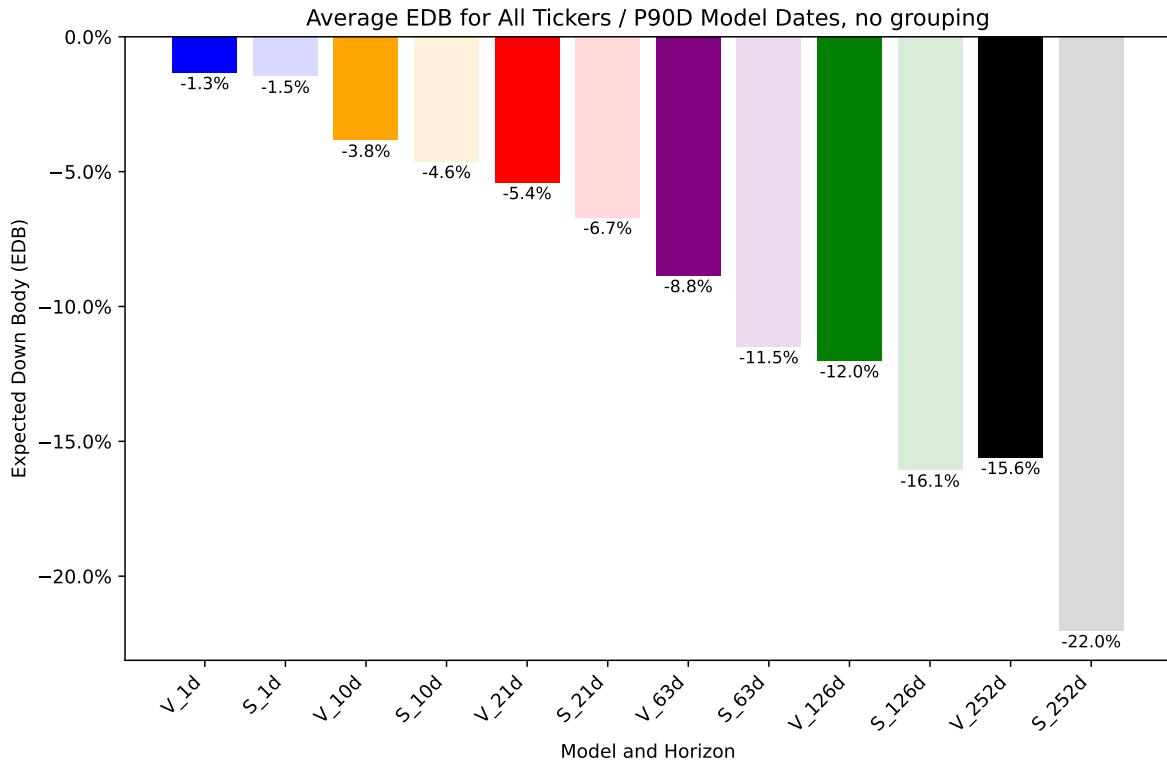
Prior 365 Calendar Days (P365D)

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



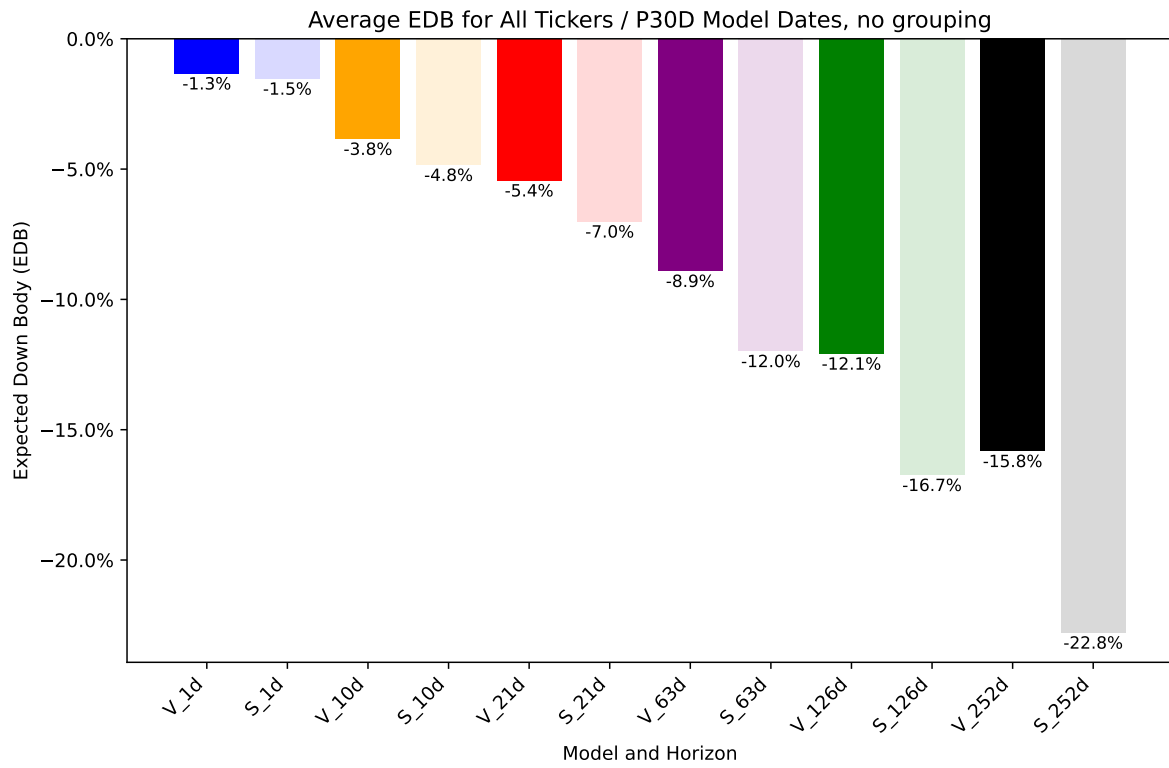
Prior 90 Calendar Days (P90D)

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



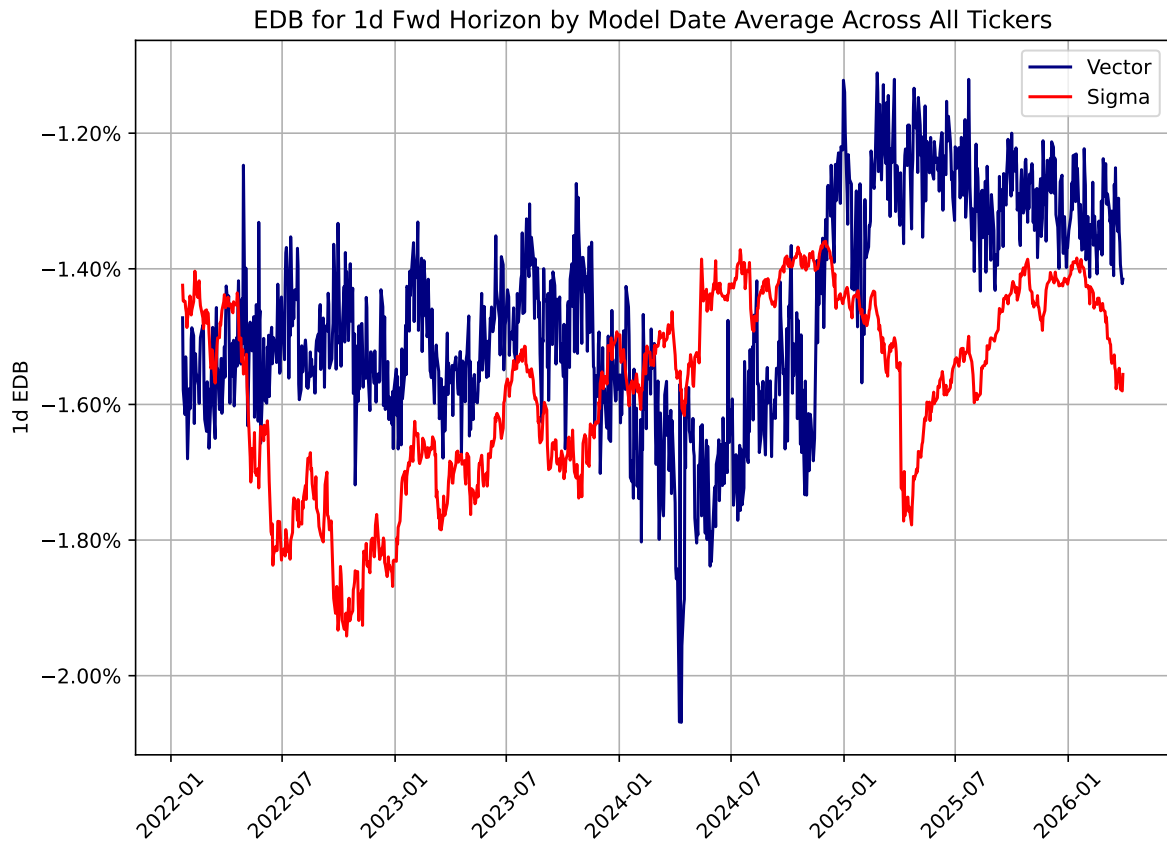
Prior 30 Calendar Days (P30D)

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

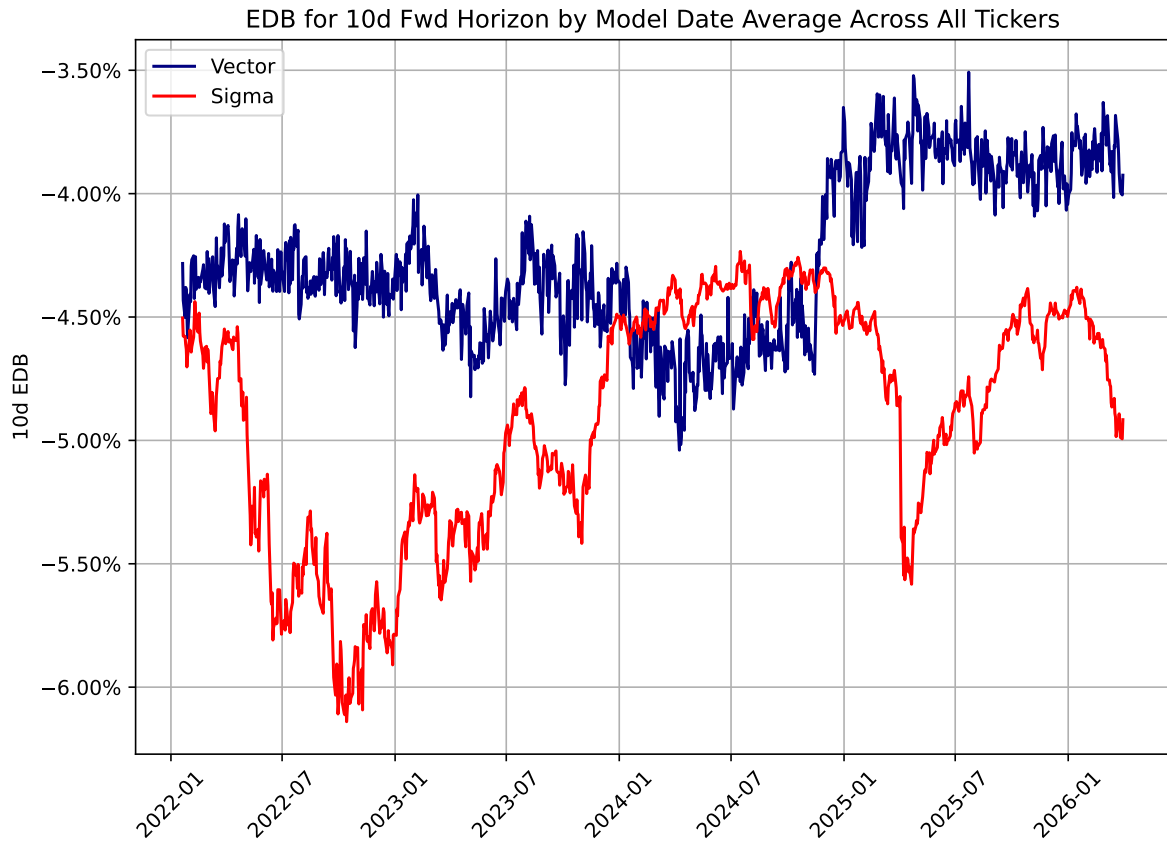


EDB by Model Date Detail

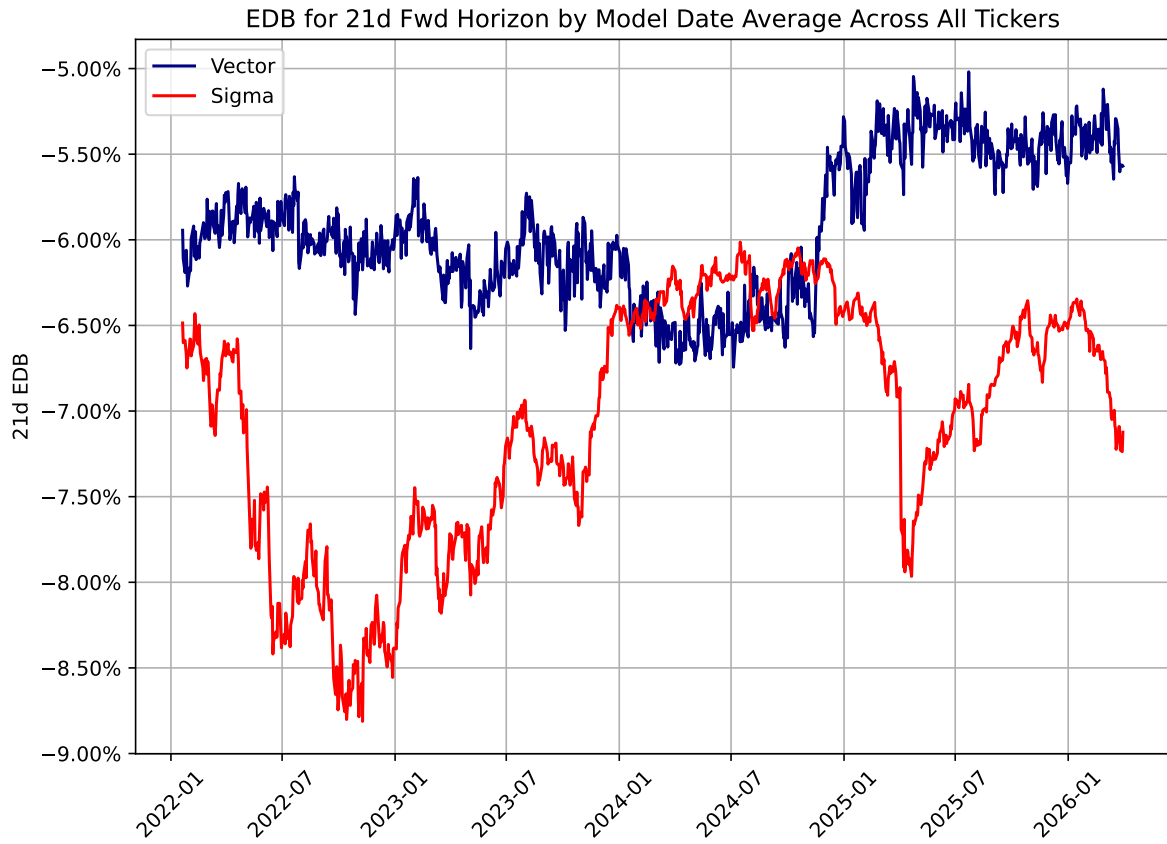
1d Horizon



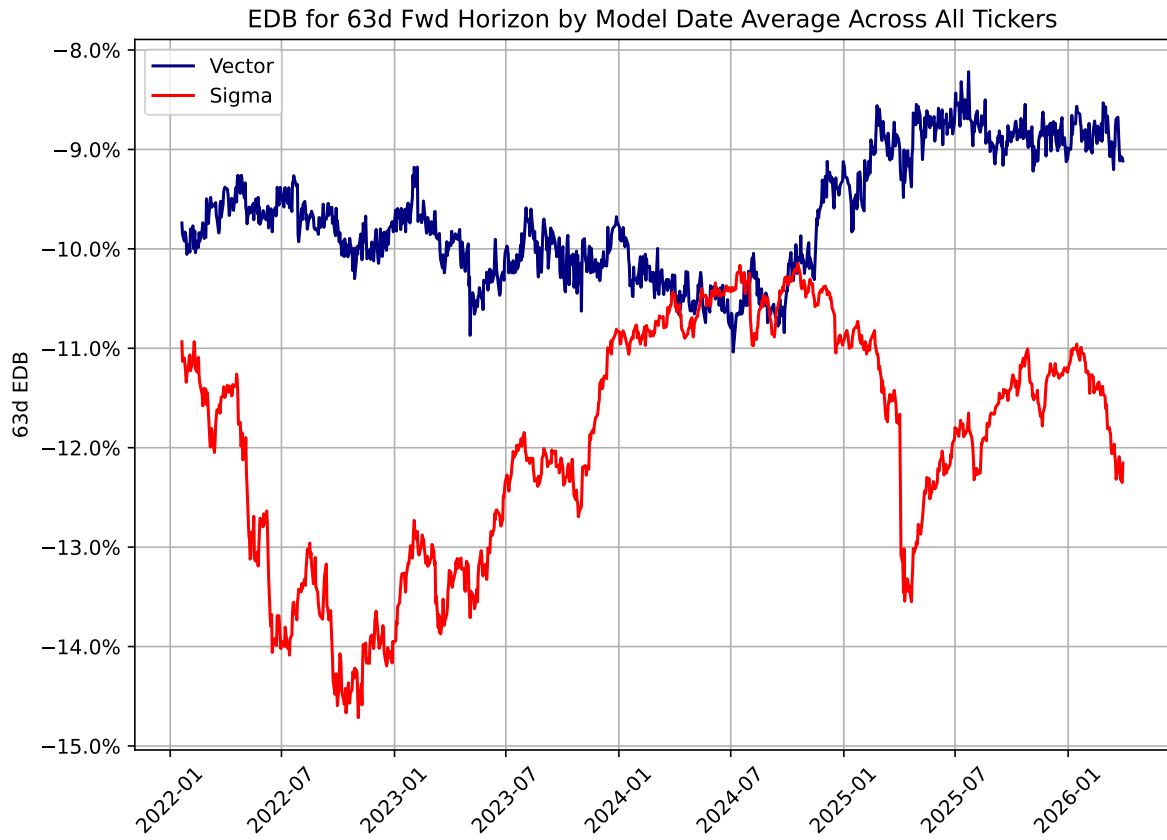
10d Horizon



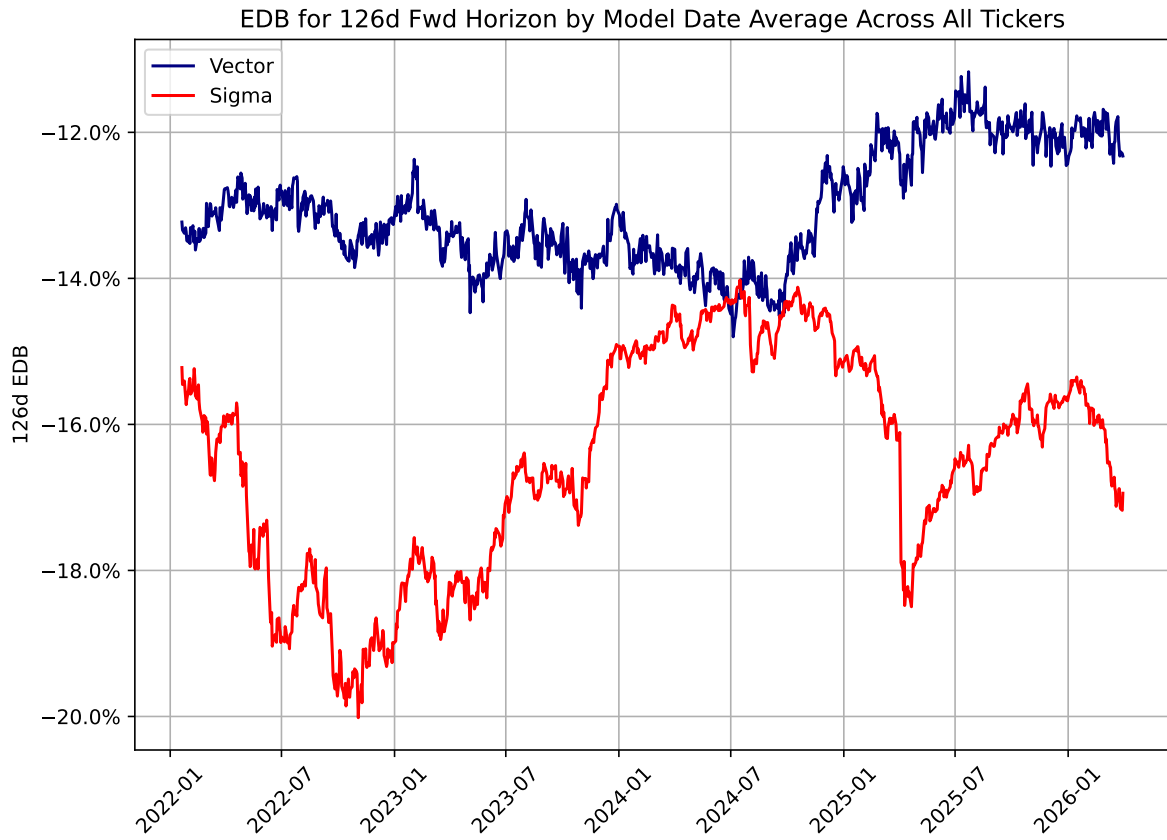
21d Horizon



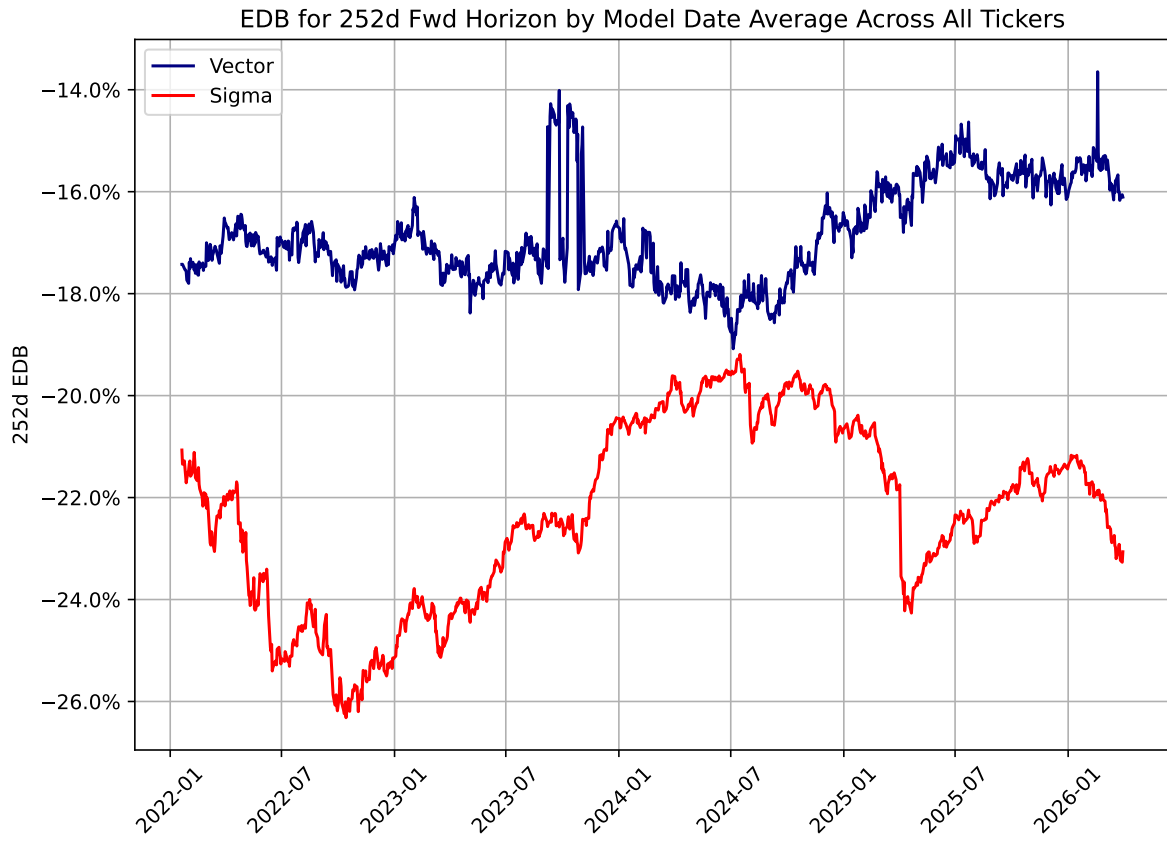
63d Horizon



126d Horizon



252d Horizon



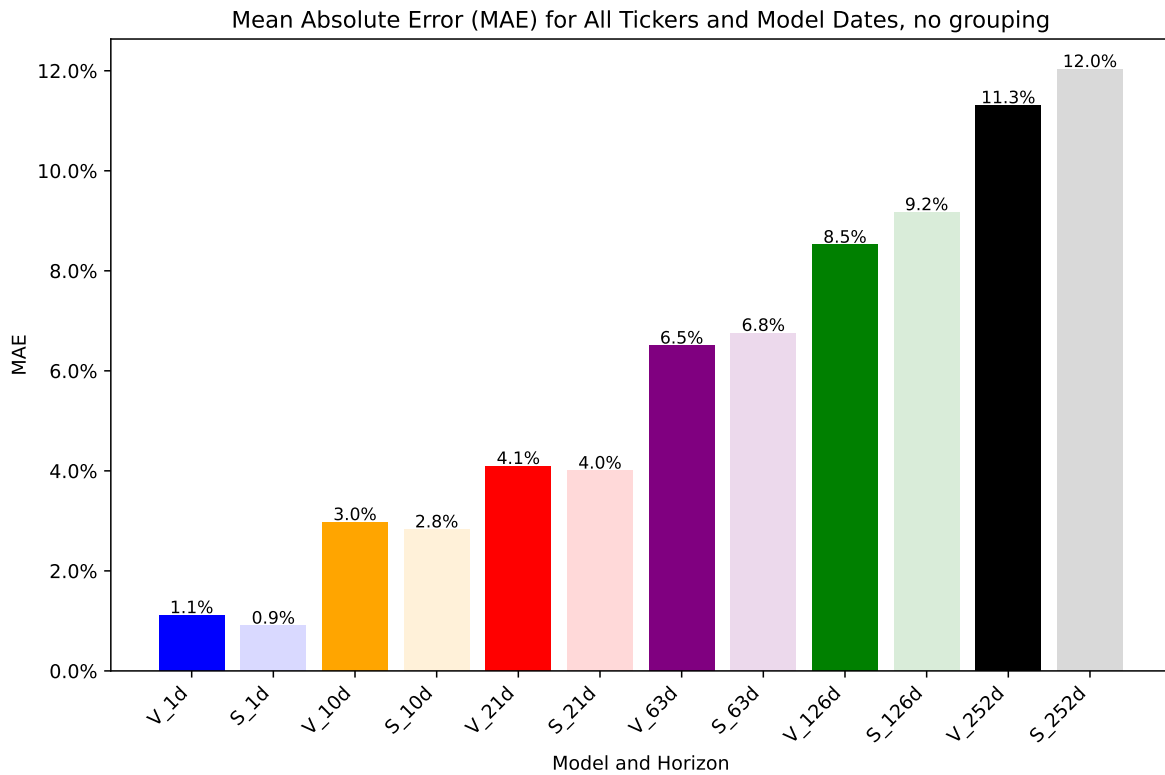
Performance Summary - MAE of EDB vs. Actual Fwd Returns

We use Mean Absolute Error (MAE) to assess how accurate Vector Model EB metrics are relative to those based upon Sigma.

Performance includes only those ticker - model dates whose forward performance is directionally “down” but inside of the 95th %tile forecasted for given model. Thus, these statistics are not perfectly comparable across models, or even horizons. Consider them alongside each model’s breakage rates for the 95D percentile (i.e., VaR breakage rates).

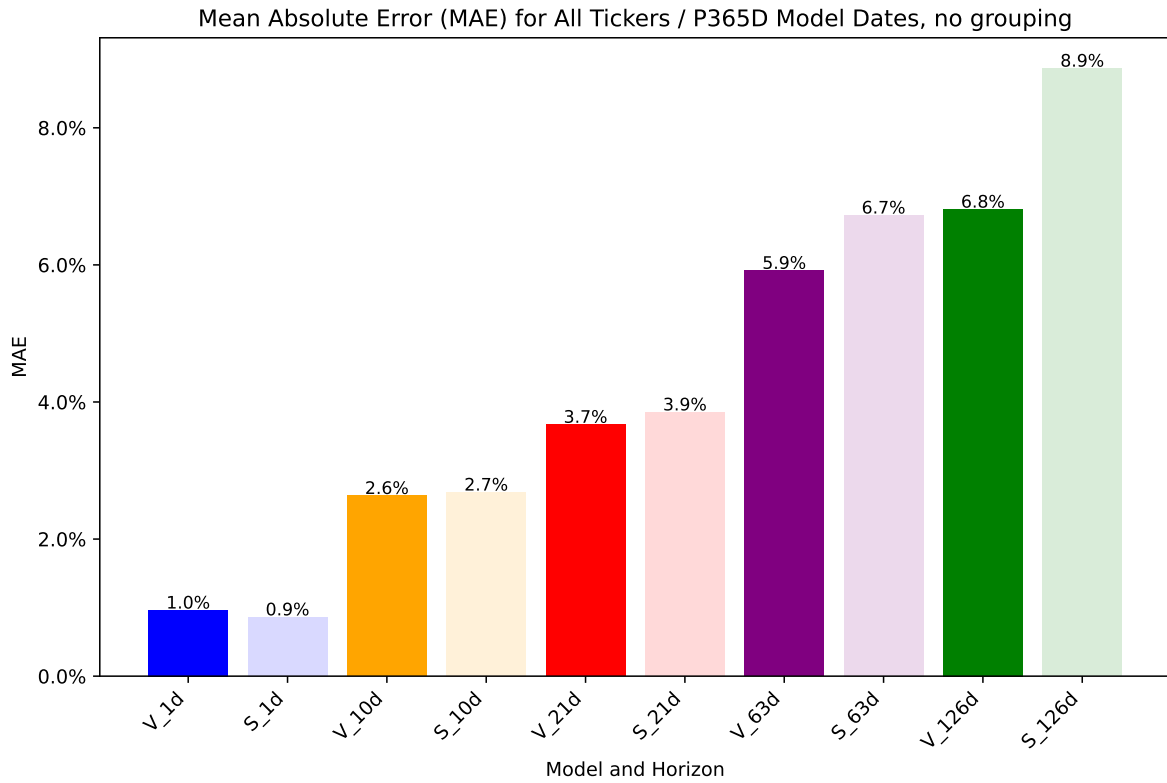
All Out of Sample Model Dates

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



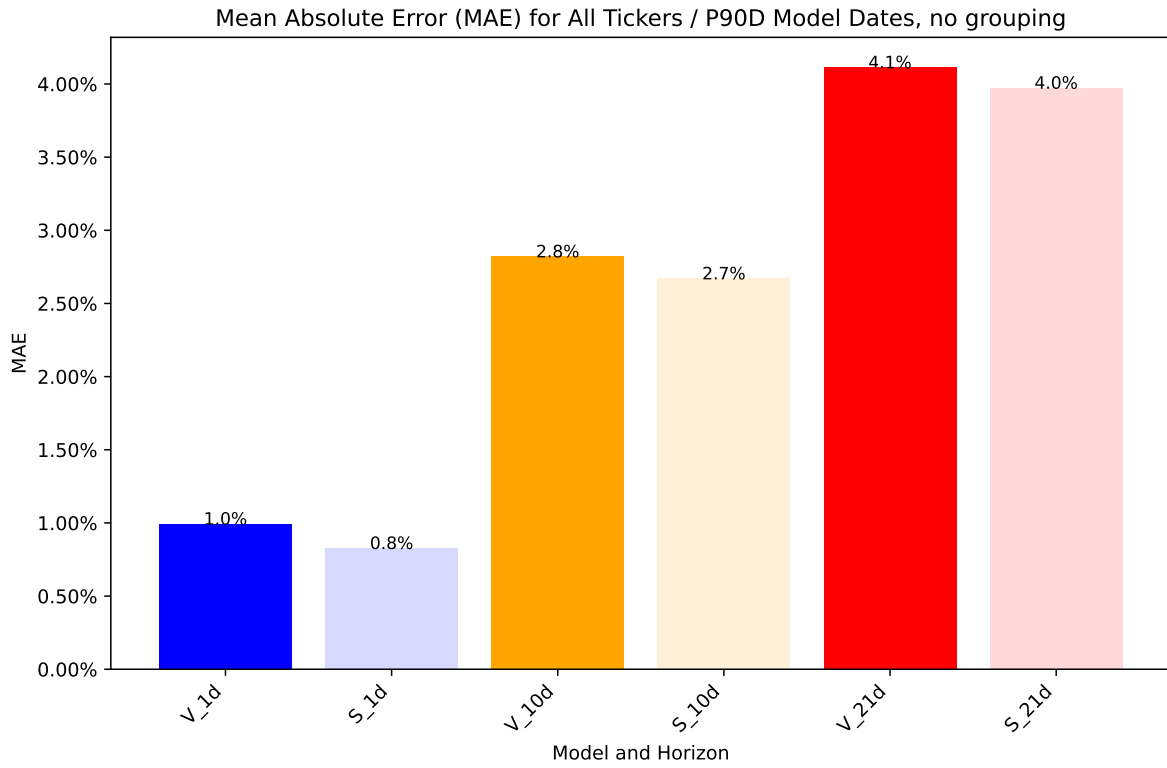
Prior 365 Calendar Days (P365D)

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



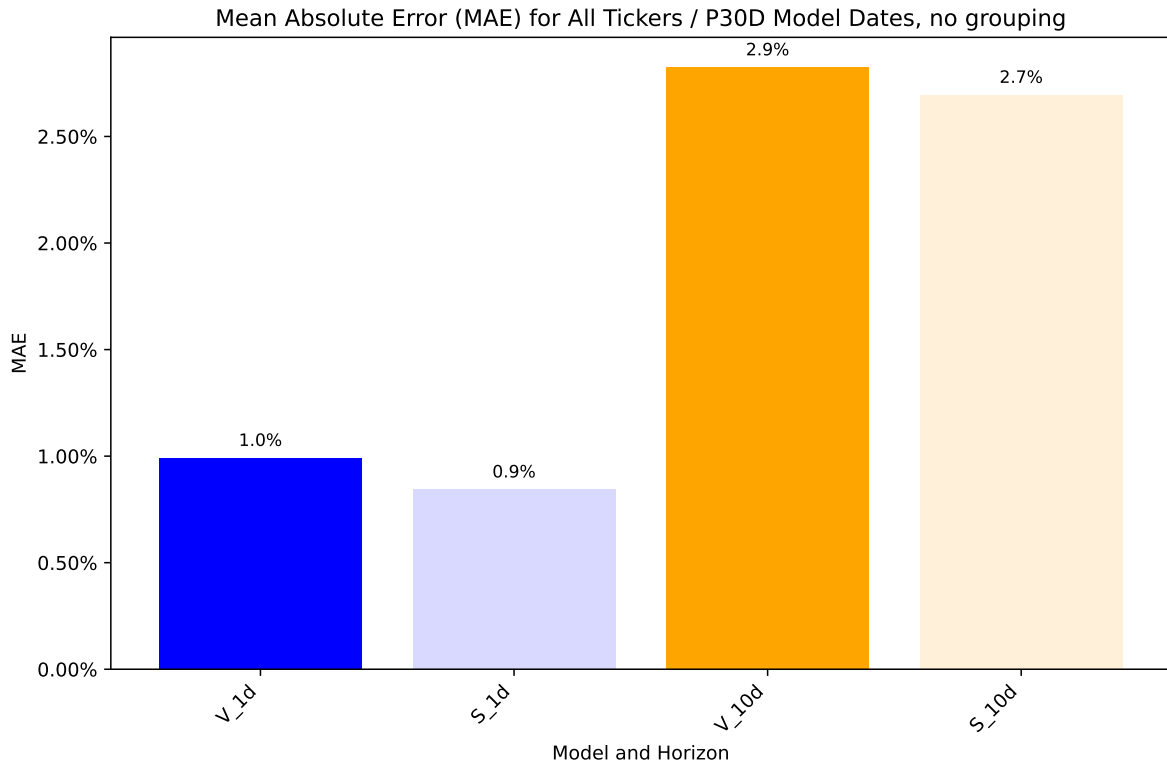
Prior 90 Calendar Days (P90D)

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



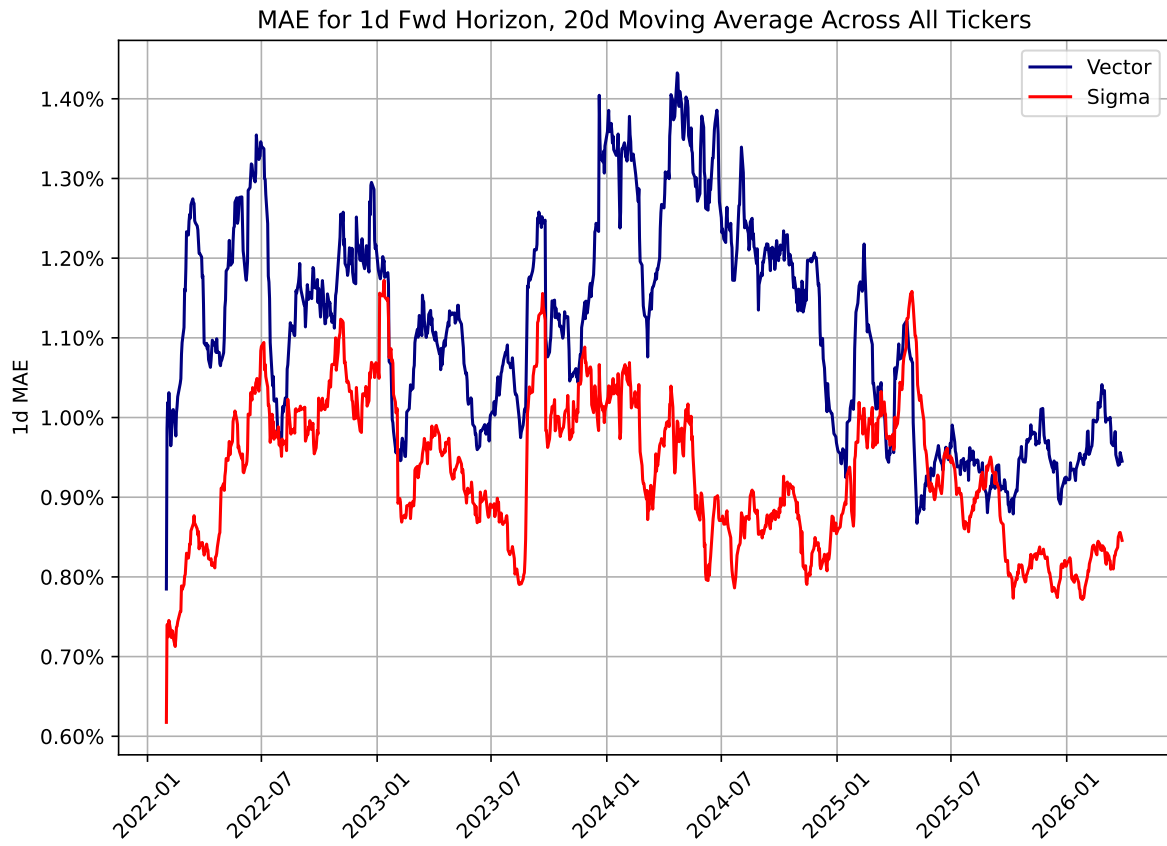
Prior 30 Calendar Days (P30D)

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

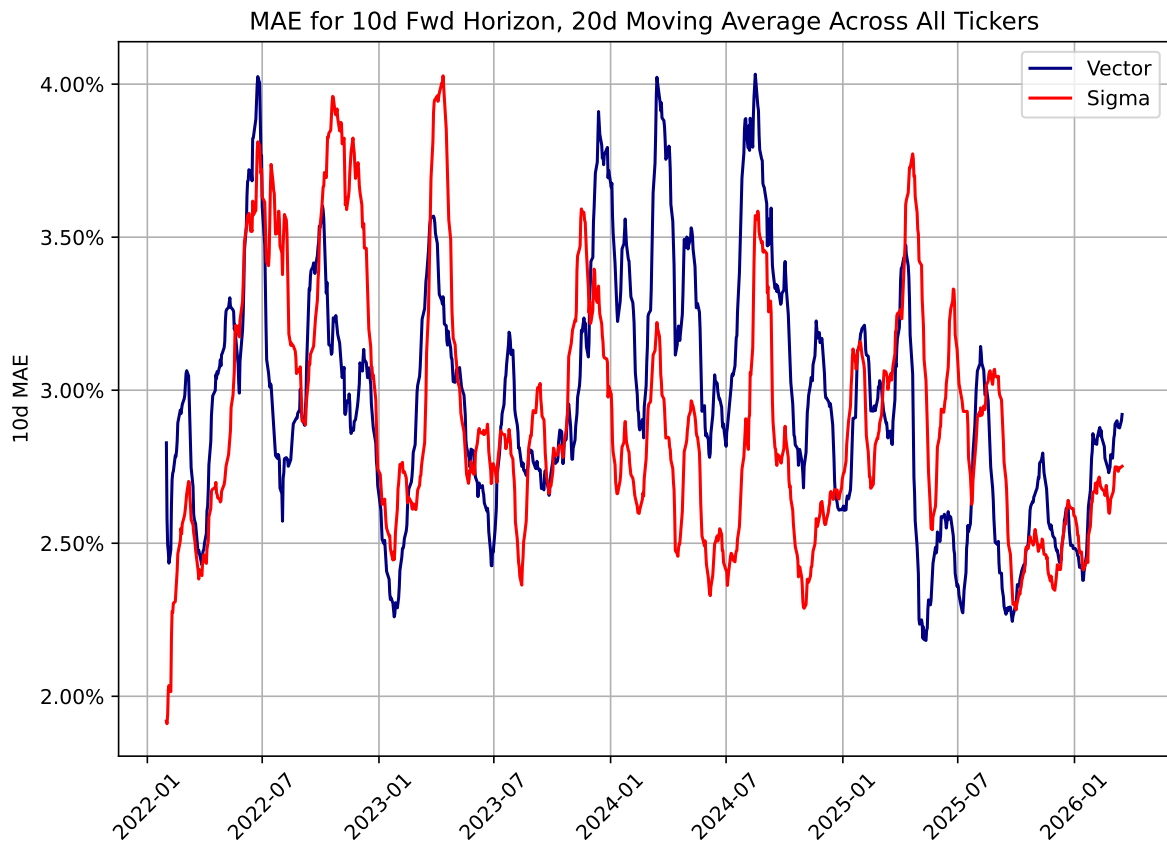


MAE by Model Date Detail

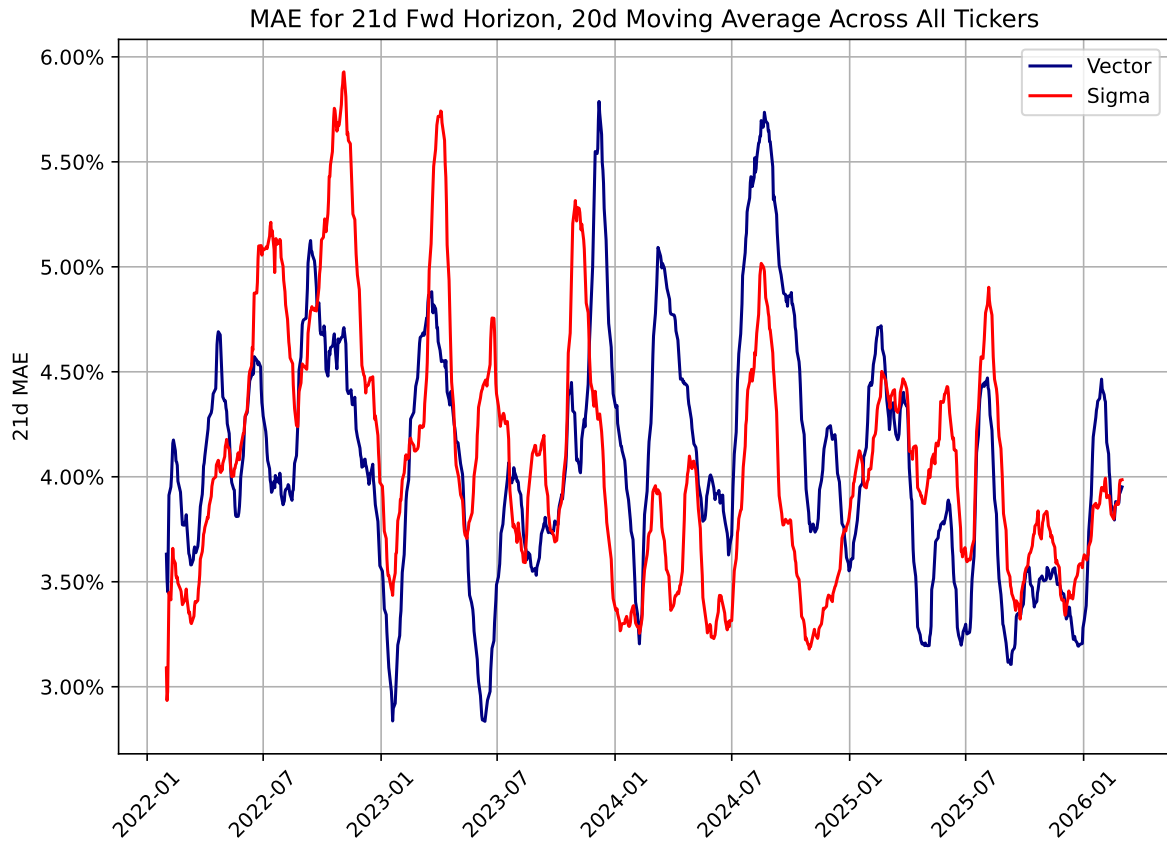
1d Horizon



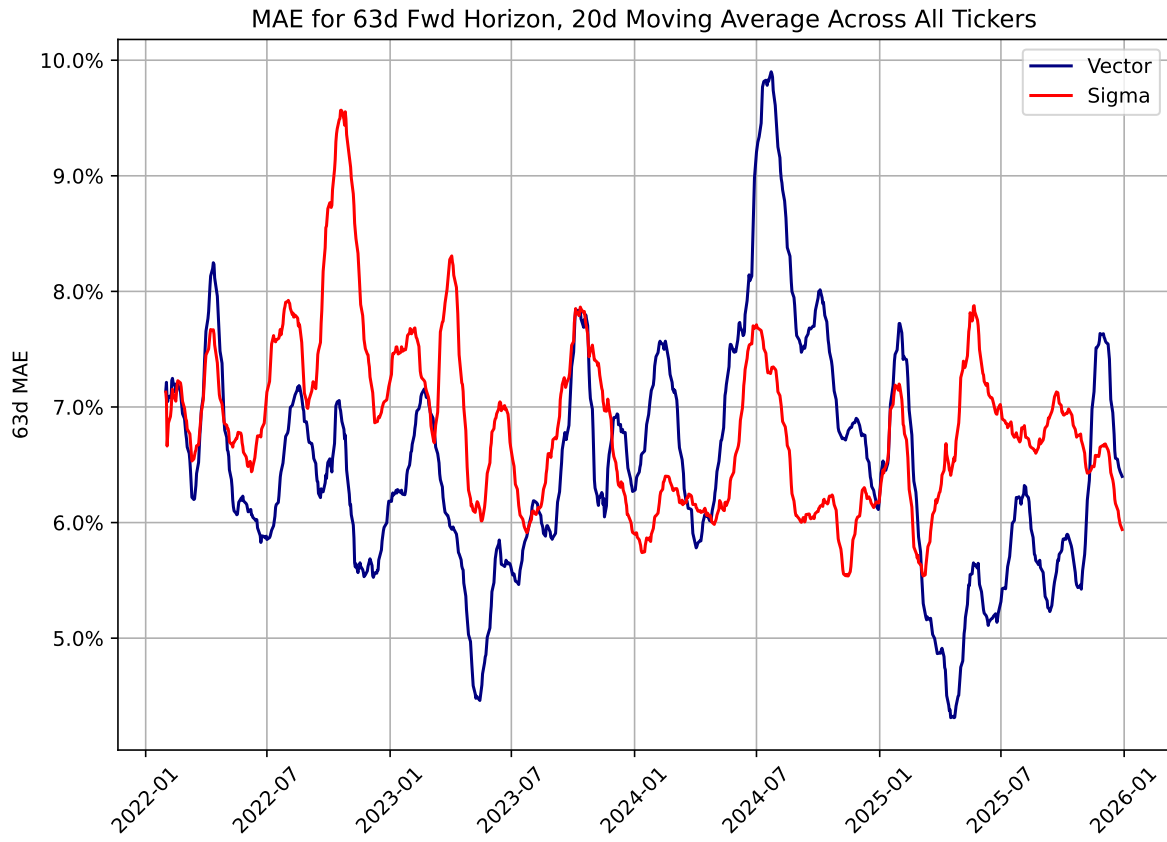
10d Horizon



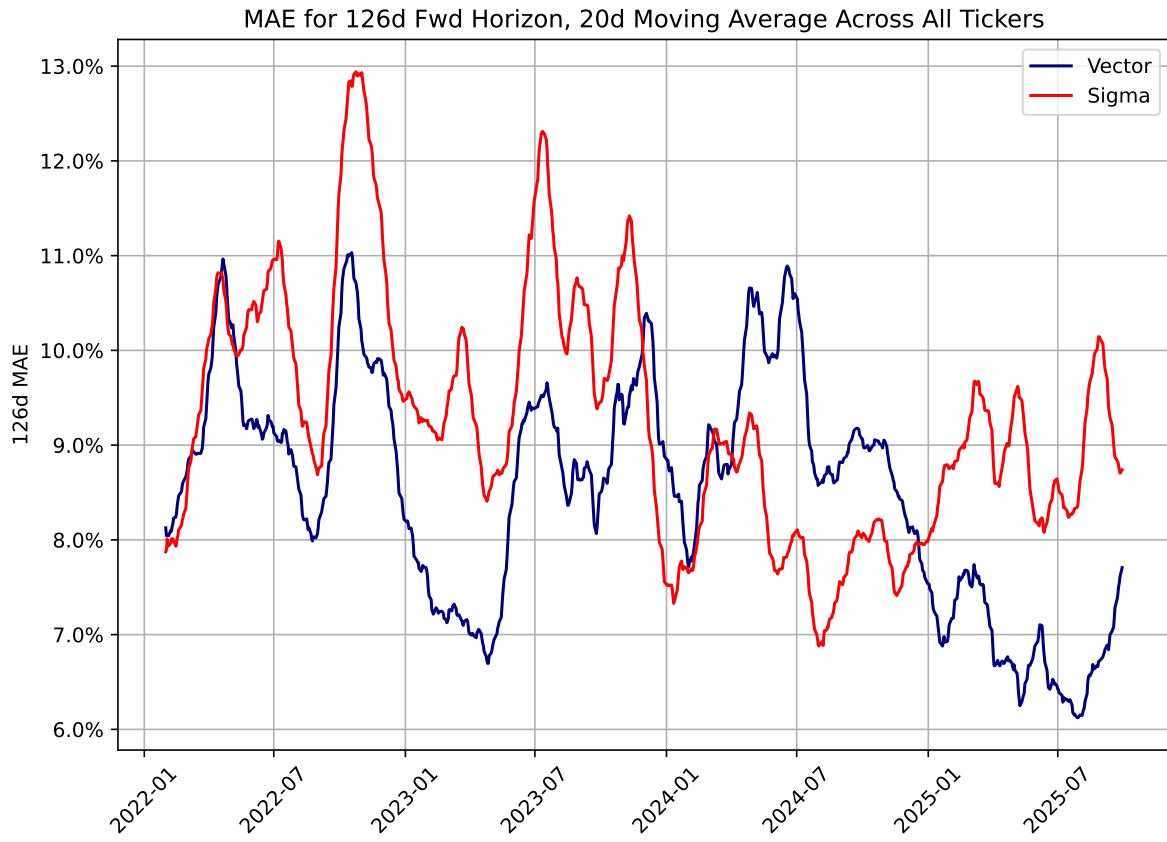
21d Horizon



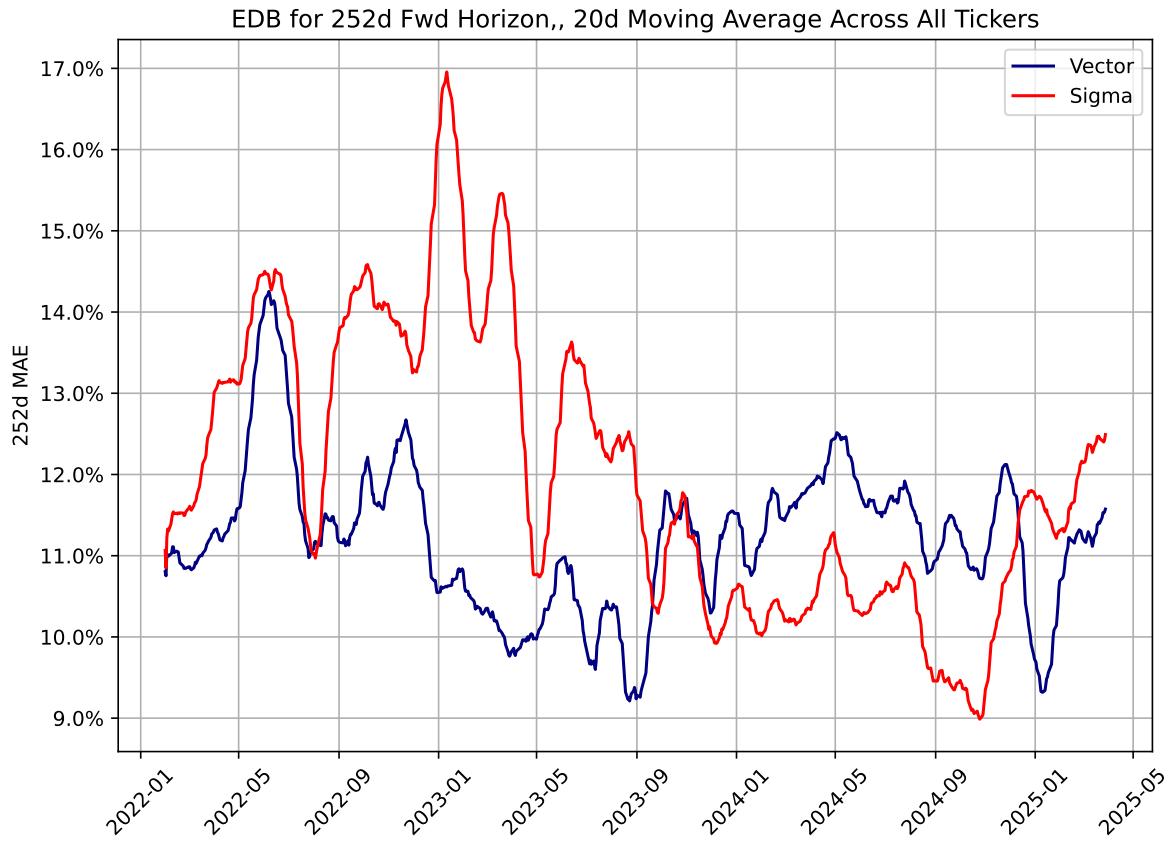
63d Horizon



126d Horizon



252d Horizon



Top 30 Tickers By EDB MAE

All TMD: 1d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
1.0	AMC	9.89%	AMC	9.25%
1.0	CZR	3.27%	GME	2.88%
1.0	CYH	3.21%	CYH	2.66%
1.0	LUMN	3.12%	LUMN	2.28%
1.0	GBTC	2.98%	MSTR	1.95%
1.0	AMAT	2.68%	GBTC	1.77%
1.0	TSLA	2.35%	BHC	1.69%
1.0	NVDA	2.12%	IEP	1.61%
1.0	PHM	2.08%	CTLT	1.4%
1.0	CCL	2.01%	TSLA	1.39%
1.0	ELAN	1.79%	UAA	1.39%
1.0	IEP	1.76%	VFC	1.37%
1.0	GT	1.75%	NWL	1.36%
1.0	VNO	1.74%	SIVBQ	1.34%
1.0	THC	1.74%	CLF	1.3%
1.0	AVGO	1.7%	AA	1.3%
1.0	MSTR	1.69%	CCL	1.27%
1.0	BHC	1.69%	SBNY	1.27%
1.0	GNRC	1.63%	CZR	1.27%
1.0	MSFT	1.62%	GNRC	1.26%
1.0	MS	1.59%	GT	1.21%
1.0	NWL	1.59%	AAP	1.21%
1.0	CLF	1.56%	AMD	1.17%
1.0	MOS	1.52%	ON	1.13%
1.0	X	1.52%	NVDA	1.12%
1.0	VST	1.52%	LNC	1.11%
1.0	AMD	1.5%	INTC	1.1%
1.0	PWR	1.44%	X	1.09%
1.0	UAA	1.39%	MU	1.08%
1.0	ETRN	1.39%	KALU	1.05%



All TMD: 10d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
10.0	AMC	21.36%	AMC	18.88%
10.0	GBTC	9.03%	GME	8.93%
10.0	CYH	8.47%	CYH	8.68%
10.0	LUMN	7.44%	LUMN	7.6%
10.0	GT	5.75%	MSTR	6.34%
10.0	CZR	5.75%	GBTC	6.21%
10.0	IEP	5.45%	BHC	5.24%
10.0	CCL	5.11%	UAA	4.79%
10.0	NVDA	4.94%	IEP	4.77%
10.0	AMAT	4.9%	NWL	4.56%
10.0	NWL	4.7%	CLF	4.42%
10.0	PHM	4.62%	VFC	4.4%
10.0	BHC	4.56%	GT	4.38%
10.0	X	4.54%	CTLT	4.36%
10.0	MSTR	4.45%	GNRC	4.35%
10.0	VNO	4.35%	TSLA	4.32%
10.0	LNC	4.28%	AA	4.28%
10.0	MU	4.2%	CCL	4.14%
10.0	CLF	4.17%	SBNY	4.13%
10.0	TSLA	4.15%	CZR	4.04%
10.0	GME	4.02%	LNC	3.95%
10.0	SIVBQ	4.01%	AAP	3.92%
10.0	ELAN	3.93%	SIVBQ	3.83%
10.0	THC	3.89%	INTC	3.65%
10.0	TEVA	3.84%	NVDA	3.53%
10.0	UAA	3.82%	AMD	3.53%
10.0	AA	3.76%	ON	3.5%
10.0	MOS	3.73%	ELAN	3.43%
10.0	VST	3.68%	EXPE	3.39%
10.0	AVGO	3.67%	X	3.37%



All TMD: 21d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
21.0	AMC	26.12%	AMC	19.56%
21.0	GBTC	11.03%	GME	11.97%
21.0	CYH	9.65%	LUMN	11.45%
21.0	LUMN	9.37%	CYH	9.96%
21.0	GT	7.38%	GBTC	8.81%
21.0	NVDA	7.28%	MSTR	8.42%
21.0	IEP	7.11%	BHC	7.82%
21.0	NWL	6.9%	NWL	6.98%
21.0	CZR	6.9%	UAA	6.84%
21.0	AMAT	6.72%	CTLT	6.81%
21.0	CCL	6.65%	CLF	6.55%
21.0	BHC	6.56%	IEP	6.47%
21.0	UAA	6.39%	VFC	6.45%
21.0	CLF	6.22%	CCL	6.11%
21.0	MSTR	6.13%	GT	6.06%
21.0	PHM	6.13%	AA	6.03%
21.0	ELAN	6.09%	LNC	5.96%
21.0	GME	6.05%	TSLA	5.78%
21.0	LNC	5.99%	SIVBQ	5.75%
21.0	TEVA	5.83%	GNRC	5.7%
21.0	VNO	5.79%	ELAN	5.63%
21.0	TSLA	5.63%	X	5.59%
21.0	X	5.58%	CZR	5.58%
21.0	VFC	5.35%	NVDA	5.15%
21.0	ON	5.34%	AMD	5.15%
21.0	MOS	5.31%	ON	5.12%
21.0	ETRN	5.26%	INTC	5.1%
21.0	AVGO	5.23%	AAP	5.1%
21.0	THC	5.22%	KALU	4.9%
21.0	MU	5.18%	ETRN	4.89%



All TMD: 63d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
63.0	AMC	33.76%	AMC	20.1%
63.0	CYH	14.66%	GME	18.59%
63.0	LUMN	14.61%	MSTR	16.61%
63.0	IEP	14.26%	CYH	15.06%
63.0	GBTC	12.98%	LUMN	14.62%
63.0	AMAT	10.91%	IEP	13.5%
63.0	NVDA	10.37%	BHC	13.23%
63.0	UAA	10.32%	CTLT	12.64%
63.0	X	10.15%	CCL	12.18%
63.0	PHM	10.14%	UAA	11.65%
63.0	TSLA	9.82%	GBTC	11.29%
63.0	CTLT	9.82%	GNRC	11.16%
63.0	MU	9.81%	TSLA	11.12%
63.0	GME	9.77%	INTC	10.6%
63.0	ELAN	9.64%	GT	10.52%
63.0	CCL	9.62%	NWL	10.29%
63.0	VNO	9.52%	SIVBQ	9.95%
63.0	GT	9.44%	CZR	9.73%
63.0	THC	9.19%	LNC	9.55%
63.0	SIVBQ	9.14%	CLF	9.49%
63.0	NWL	9.05%	AA	9.33%
63.0	MOS	8.88%	ON	9.21%
63.0	INTC	8.82%	LW	9.06%
63.0	BHC	8.8%	VFC	8.82%
63.0	LNC	8.63%	X	8.7%
63.0	CZR	8.56%	MU	8.5%
63.0	CLF	8.34%	SBNY	8.42%
63.0	MSTR	8.27%	NFLX	8.31%
63.0	PWR	8.25%	WDC	8.29%
63.0	WDC	8.23%	THC	8.24%



All TMD: 126d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
126.0	AMC	36.21%	CYH	21.21%
126.0	CYH	25.3%	MSTR	20.8%
126.0	LUMN	23.49%	AMC	20.71%
126.0	IEP	20.88%	LUMN	19.37%
126.0	SIVBQ	18.52%	GNRC	19.15%
126.0	GBTC	16.29%	IEP	18.7%
126.0	ETRN	15.25%	BHC	18.21%
126.0	AMAT	15.02%	GME	17.38%
126.0	CSTM	14.33%	SBNY	15.33%
126.0	ELAN	14.3%	ETRN	15.13%
126.0	NFLX	13.93%	SIVBQ	14.87%
126.0	NVDA	13.49%	CCL	14.46%
126.0	LNC	13.45%	NVDA	14.34%
126.0	NWL	13.11%	EXPE	14.29%
126.0	PWR	12.85%	UAA	14.21%
126.0	INTC	12.49%	CTLT	14.12%
126.0	CLF	12.43%	VFC	14.0%
126.0	MU	12.43%	GT	13.83%
126.0	TSLA	12.34%	AAP	13.73%
126.0	GME	12.1%	GBTC	13.59%
126.0	MSTR	11.89%	CZR	13.55%
126.0	BHC	11.73%	CLF	13.53%
126.0	UAA	11.65%	LNC	13.48%
126.0	AA	11.61%	AA	13.26%
126.0	GT	11.47%	NWL	13.03%
126.0	X	11.35%	INTC	12.99%
126.0	CTLT	11.22%	NFLX	12.81%
126.0	VNO	11.16%	KEY	12.47%
126.0	PHM	11.05%	CSTM	12.01%
126.0	BBY	10.95%	THC	11.65%



All TMD: 252d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
252.0	AMC	46.13%	SBNY	53.5%
252.0	NVDA	36.82%	LUMN	25.31%
252.0	CYH	33.44%	AMC	23.78%
252.0	LUMN	31.51%	SIVBQ	23.37%
252.0	LNC	25.17%	CTLT	22.33%
252.0	AMAT	25.05%	TSLA	21.69%
252.0	SIVBQ	24.89%	BHC	21.64%
252.0	PHM	24.82%	CLF	21.4%
252.0	IEP	21.59%	NVDA	21.3%
252.0	CCL	20.19%	LNC	21.13%
252.0	AVGO	19.63%	EXPE	20.66%
252.0	GT	19.4%	UAA	20.19%
252.0	TRGP	19.3%	AAP	20.1%
252.0	GBTC	19.02%	AVGO	19.62%
252.0	MSTR	18.46%	CYH	19.21%
252.0	EXPE	17.74%	META	18.95%
252.0	ELAN	17.42%	TEVA	18.76%
252.0	PWR	16.74%	VFC	18.7%
252.0	NWL	16.31%	GNRC	18.68%
252.0	ETRN	16.26%	FSUGY	16.83%
252.0	INTC	16.14%	VST	16.76%
252.0	HCA	15.71%	ELAN	16.73%
252.0	TXN	15.5%	NWL	16.69%
252.0	CPRT	15.44%	GT	16.25%
252.0	CMA	15.3%	CMA	16.1%
252.0	KEY	14.86%	GME	16.02%
252.0	CSTM	14.79%	CSTM	15.77%
252.0	CZR	14.68%	ETRN	15.18%
252.0	UNH	14.65%	AMZN	15.12%
252.0	AA	14.62%	INTC	14.97%



Bottom 30 Tickers By EDB MAE

All TMD: 1d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
1.0	VCSH	0.09%	VCSH	0.07%
1.0	MUB	0.11%	MUB	0.1%
1.0	LQD	0.17%	HYG	0.19%
1.0	HYG	0.27%	LQD	0.22%
1.0	EMB	0.3%	EMB	0.24%
1.0	FRA	0.35%	FRA	0.3%
1.0	TLT	0.41%	GLD	0.34%
1.0	PEP	0.48%	TLT	0.36%
1.0	VZ	0.5%	PEP	0.4%
1.0	AMGN	0.5%	SPY	0.42%
1.0	HD	0.52%	NVS	0.43%
1.0	SNY	0.52%	POST	0.45%
1.0	POST	0.53%	ABBV	0.49%
1.0	BUD	0.55%	HON	0.49%
1.0	GSK	0.55%	ORLY	0.49%
1.0	HON	0.55%	COST	0.5%
1.0	NVS	0.55%	VICI	0.5%
1.0	SBUX	0.56%	CSCO	0.5%
1.0	GILD	0.56%	VZ	0.51%
1.0	VICI	0.57%	KHC	0.51%
1.0	ABBV	0.58%	MRK	0.51%
1.0	BMY	0.58%	MNST	0.51%
1.0	XOM	0.58%	AZN	0.51%
1.0	CMCSA	0.59%	MSI	0.52%
1.0	BALL	0.61%	BMY	0.52%
1.0	MSI	0.61%	AMGN	0.52%
1.0	ORLY	0.62%	CAH	0.53%
1.0	ZTS	0.62%	AZO	0.54%
1.0	CVS	0.62%	GILD	0.54%
1.0	T	0.62%	GSK	0.54%



All TMD: 10d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
10.0	VCSH	0.23%	VCSH	0.23%
10.0	MUB	0.4%	MUB	0.32%
10.0	HYG	0.62%	HYG	0.6%
10.0	LQD	0.65%	LQD	0.67%
10.0	EMB	0.88%	EMB	0.74%
10.0	FRA	0.99%	FRA	0.97%
10.0	TLT	1.1%	GLD	1.02%
10.0	VZ	1.46%	TLT	1.19%
10.0	SNY	1.48%	SPY	1.31%
10.0	GILD	1.48%	POST	1.44%
10.0	BUD	1.5%	NVS	1.46%
10.0	NVS	1.5%	ORLY	1.46%
10.0	POST	1.54%	PEP	1.46%
10.0	BMY	1.54%	ABBV	1.52%
10.0	ZTS	1.58%	HON	1.55%
10.0	GLD	1.62%	VICI	1.56%
10.0	PEP	1.63%	VZ	1.58%
10.0	TMUS	1.64%	KHC	1.58%
10.0	GSK	1.66%	COST	1.58%
10.0	XOM	1.68%	MRK	1.59%
10.0	AMGN	1.68%	GILD	1.59%
10.0	MSI	1.73%	TMUS	1.61%
10.0	GWV	1.73%	CAH	1.63%
10.0	JAZZ	1.76%	CSCO	1.64%
10.0	VICI	1.78%	BMY	1.64%
10.0	KHC	1.8%	AZO	1.65%
10.0	ABBV	1.81%	MSI	1.67%
10.0	TDG	1.82%	PCG	1.69%
10.0	HON	1.84%	QQQ	1.69%
10.0	OXY	1.84%	AZN	1.71%



All TMD: 21d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
21.0	VCSH	0.32%	VCSH	0.34%
21.0	MUB	0.66%	MUB	0.47%
21.0	HYG	0.89%	HYG	0.85%
21.0	LQD	0.89%	LQD	1.0%
21.0	EMB	1.46%	EMB	1.21%
21.0	TLT	1.58%	FRA	1.55%
21.0	FRA	1.62%	GLD	1.59%
21.0	BUD	1.93%	TLT	1.85%
21.0	GILD	1.98%	PEP	1.89%
21.0	SNY	1.98%	SPY	1.89%
21.0	NVS	1.99%	NVS	2.01%
21.0	BMY	2.08%	MRK	2.09%
21.0	POST	2.15%	BMY	2.14%
21.0	MSI	2.19%	POST	2.15%
21.0	PEP	2.21%	ACGL	2.16%
21.0	VICI	2.24%	VICI	2.18%
21.0	GSK	2.26%	ORLY	2.18%
21.0	GLD	2.28%	MSI	2.22%
21.0	CVS	2.3%	HON	2.27%
21.0	HON	2.36%	TMUS	2.29%
21.0	CHTR	2.37%	CAH	2.3%
21.0	AMGN	2.37%	MNST	2.33%
21.0	MRK	2.39%	GWG	2.33%
21.0	TMUS	2.4%	AMGN	2.35%
21.0	XOM	2.42%	KHC	2.36%
21.0	ZTS	2.42%	BUD	2.36%
21.0	BIIB	2.42%	QQQ	2.36%
21.0	KHC	2.43%	ABBV	2.37%
21.0	JAZZ	2.44%	GILD	2.41%
21.0	VZ	2.47%	COST	2.41%



All TMD: 63d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
63.0	VCSH	0.48%	VCSH	0.61%
63.0	MUB	0.94%	MUB	0.76%
63.0	LQD	1.11%	LQD	1.67%
63.0	HYG	1.55%	HYG	1.72%
63.0	EMB	2.19%	EMB	2.12%
63.0	TLT	2.23%	GLD	2.42%
63.0	FRA	2.51%	FRA	2.51%
63.0	POST	2.79%	TLT	3.05%
63.0	GLD	2.86%	SPY	3.16%
63.0	GSK	3.04%	POST	3.18%
63.0	ABBV	3.19%	PEP	3.31%
63.0	GILD	3.33%	ABBV	3.36%
63.0	BUD	3.41%	HON	3.39%
63.0	VICI	3.55%	GWV	3.41%
63.0	NVS	3.56%	NVS	3.49%
63.0	PEP	3.61%	VZ	3.53%
63.0	HON	3.62%	VICI	3.55%
63.0	GWV	3.63%	ORLY	3.65%
63.0	BMV	3.64%	GILD	3.83%
63.0	AMGN	3.77%	BUD	3.87%
63.0	COST	3.79%	CAH	3.87%
63.0	SNY	3.83%	COST	3.95%
63.0	TDG	3.83%	AZN	3.95%
63.0	XOM	3.89%	BMV	4.0%
63.0	SBNY	3.89%	MNST	4.02%
63.0	SPY	3.9%	KHC	4.04%
63.0	VZ	3.9%	CPRT	4.06%
63.0	CAH	3.94%	AMGN	4.07%
63.0	KHC	3.95%	MRK	4.13%
63.0	OXY	3.95%	HD	4.15%



All TMD: 126d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
126.0	VCSH	0.69%	VCSH	0.87%
126.0	MUB	1.49%	MUB	1.22%
126.0	HYG	1.95%	LQD	2.43%
126.0	LQD	1.97%	HYG	2.64%
126.0	NVS	2.93%	EMB	3.45%
126.0	TLT	3.13%	CAH	3.99%
126.0	SNY	3.8%	NVS	4.03%
126.0	FRA	3.95%	FRA	4.09%
126.0	BUD	4.01%	KHC	4.4%
126.0	EMB	4.06%	GLD	4.4%
126.0	MSI	4.2%	POST	4.44%
126.0	HON	4.2%	TLT	4.52%
126.0	GSK	4.27%	MSI	4.54%
126.0	HD	4.36%	PEP	4.6%
126.0	POST	4.38%	MNST	4.79%
126.0	GWG	4.41%	TMUS	4.87%
126.0	GLD	4.46%	GILD	4.99%
126.0	GILD	4.56%	HON	5.03%
126.0	TMUS	4.57%	GWG	5.12%
126.0	KHC	4.57%	SPY	5.22%
126.0	AZN	4.78%	JAZZ	5.22%
126.0	ZTS	4.82%	VICI	5.23%
126.0	JAZZ	4.85%	ABBV	5.27%
126.0	COST	4.94%	AMGN	5.36%
126.0	CMCSA	4.95%	FRCB	5.39%
126.0	BHP	4.97%	UNH	5.4%
126.0	PEP	5.09%	CSCO	5.45%
126.0	GS	5.11%	COST	5.57%
126.0	AMZN	5.12%	VZ	5.62%
126.0	B	5.13%	CMCSA	5.65%



All TMD: 252d

Results reflect ticker level average EDB MAE across all model dates for which actual results for the stated horizon are known and for which the actual results fit the contingencies of the “EDB” metric - negative performance within the expected 95%tile .

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

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
252.0	VCSH	1.04%	VCSH	1.12%
252.0	LQD	2.69%	MUB	1.46%
252.0	MUB	2.9%	HYG	3.62%
252.0	HYG	3.48%	SPY	4.18%
252.0	QQQ	3.88%	LQD	4.39%
252.0	GLD	4.02%	FRA	4.52%
252.0	FRA	4.09%	QQQ	4.72%
252.0	GILD	4.47%	TLT	4.94%
252.0	TLT	4.57%	EMB	4.98%
252.0	BHP	5.14%	GLD	5.17%
252.0	SPY	5.14%	PEP	5.31%
252.0	OXY	5.3%	GILD	5.64%
252.0	NVS	5.41%	MNST	5.71%
252.0	SNY	5.49%	CMCSA	6.32%
252.0	AMGN	5.51%	FRCB	6.47%
252.0	BUD	5.67%	JAZZ	6.72%
252.0	META	5.73%	COST	6.73%
252.0	VICI	5.74%	VICI	6.83%
252.0	T	5.77%	AMGN	6.84%
252.0	GSK	6.17%	IRM	6.89%
252.0	HD	6.25%	ACGL	7.01%
252.0	RIO	6.37%	POST	7.2%
252.0	IRM	6.41%	MSI	7.27%
252.0	KHC	6.41%	GSK	7.47%
252.0	SBUX	6.49%	LLY	7.47%
252.0	HON	6.53%	TMUS	7.53%
252.0	PEP	6.55%	DHI	7.56%
252.0	CMCSA	6.58%	ISRG	7.71%
252.0	MSI	6.66%	ABBV	7.81%
252.0	B	6.78%	CVS	7.88%



Performance Summary - Returns on EDB based exposures (ROEDB)

Here we compare ROEDB, or price return performance of ticker-model date (TMD) exposures based upon EDB, for Vector Model EDB to the Sigma Model's EDB ("S", presented with light shading).

Vector Model EDB is denoted by a "V" and presented with dark shading in the bar charts comparison of EDB that follow, whereas Sigma EDB is denoted by "S" and presented with light shading.

Sigma based ticker exposure performance reflects equal TMD weighting and the price returns of the underlying TMD for the given horizon.

Vector Model based TMD exposures reflect each TMD's underlying horizon price return multiplied by the ratio of Sigma model based EDB to Vector Model EDB for the given horizon. This ratio is capped of 3.0x and floored of 0.333x.

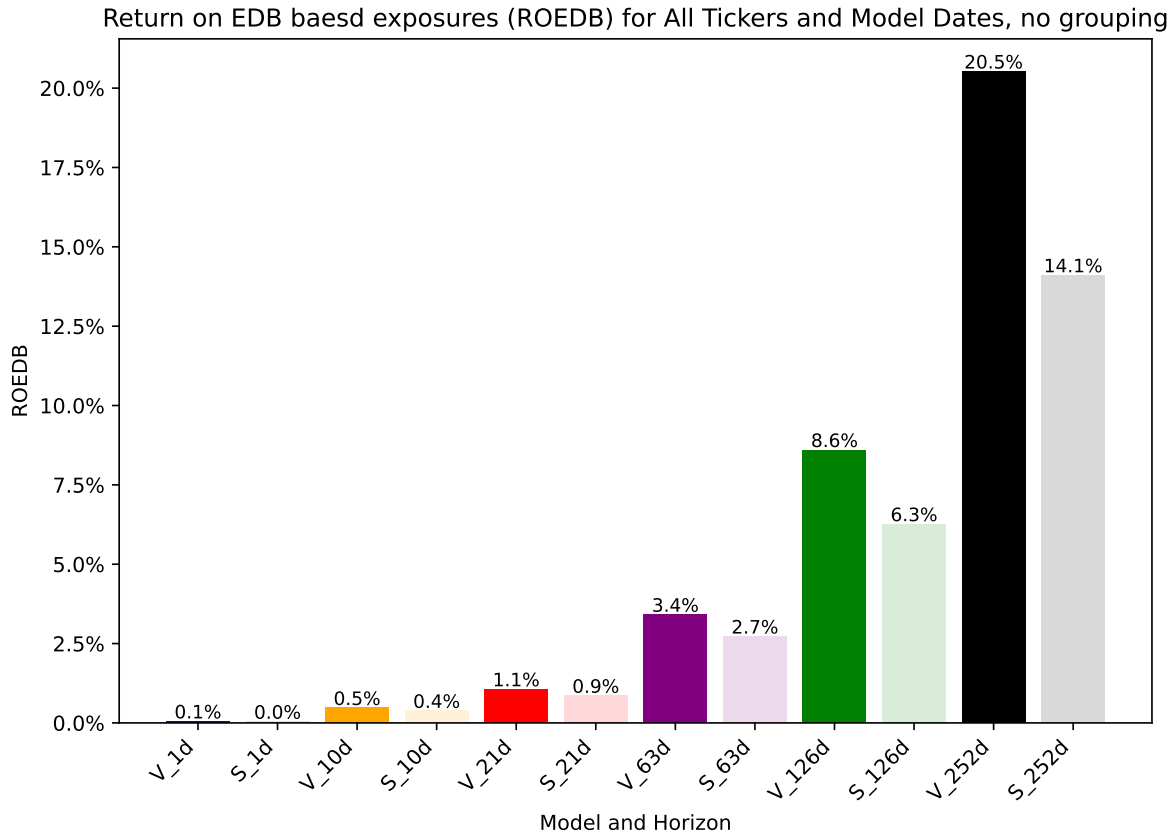
Following each bar chart comparison of ROEDB is a table detailing the alpha (intercept) and slope (beta) of Vector Model EDB based exposure performance to Sigma EDB exposure based performance. The beta arguably provides some indication of the leverage of the Vector Model based exposures and the alpha is an indication of Vector Model EDB's ability to generate performance independent of the ticker's returns.

Note that time horizons are denominated in trading days, where 10d is ~ 2 weeks in calendar terms, 21d is ~ 1 month, 63d is ~ 1 quarter, 126d is ~ half year, 252d is ~1 year. Model estimates for all horizons are made on each Model Date, so p-Values for horizons beyond 1d are not valid.



All Out of Sample Model Dates

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



Alpha (intercept) and Beta (slope) of Vector Model ROEDB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d	21d	63d	126d	252d
intercept	-0.02%	-0.13%	-0.29%	-0.82%	-1.45%	-2.69%
intercept_p_value	0.85%	0.00%	0.00%	0.00%	0.00%	0.00%
slope	163.26%	157.72%	158.14%	155.15%	160.38%	164.59%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

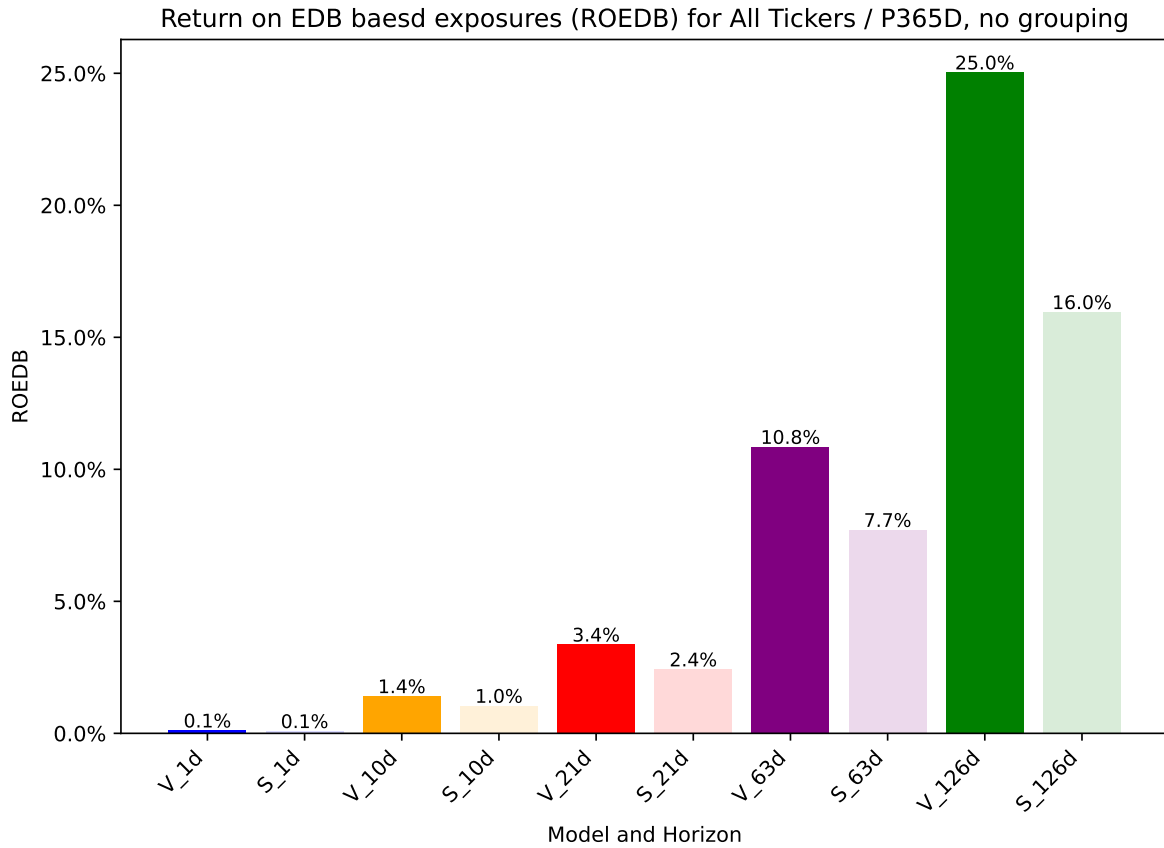
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	0.00%	0.06%	0.15%	0.59%	1.53%	2.72%
intercept_p_value	46.84%	22.13%	13.50%	12.94%	8.99%	10.46%
slope	153.54%	145.28%	146.59%	147.14%	151.08%	161.63%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 365 Calendar Days (P365D)

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



Alpha (intercept) and Beta (slope) of Vector Model ROEDB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d	21d	63d	126d
intercept	-0.03%	-0.18%	-0.37%	-1.10%	-3.13%
intercept_p_value	1.96%	0.00%	0.00%	0.00%	0.00%
slope	161.17%	152.89%	154.10%	155.12%	176.55%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

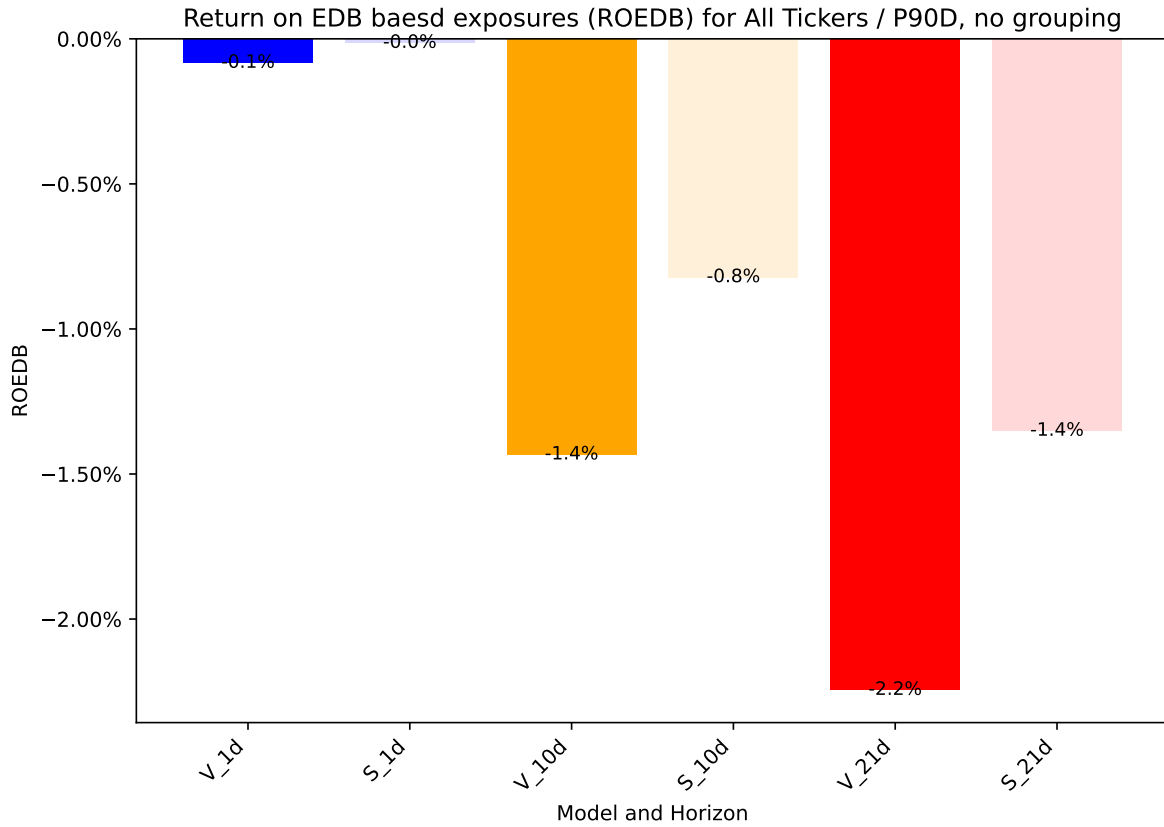
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d
intercept	0.00%	0.12%	0.18%	0.59%	-0.14%
intercept_p_value	49.24%	22.99%	15.51%	18.14%	15.21%
slope	154.31%	146.11%	147.70%	150.78%	160.36%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

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



Alpha (intercept) and Beta (slope) of Vector Model ROEDB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d	21d
intercept	-0.06%	-0.24%	-0.23%
intercept_p_value	1.13%	0.03%	2.76%
slope	148.80%	145.40%	149.34%
slope_p_value	0.00%	0.00%	0.00%

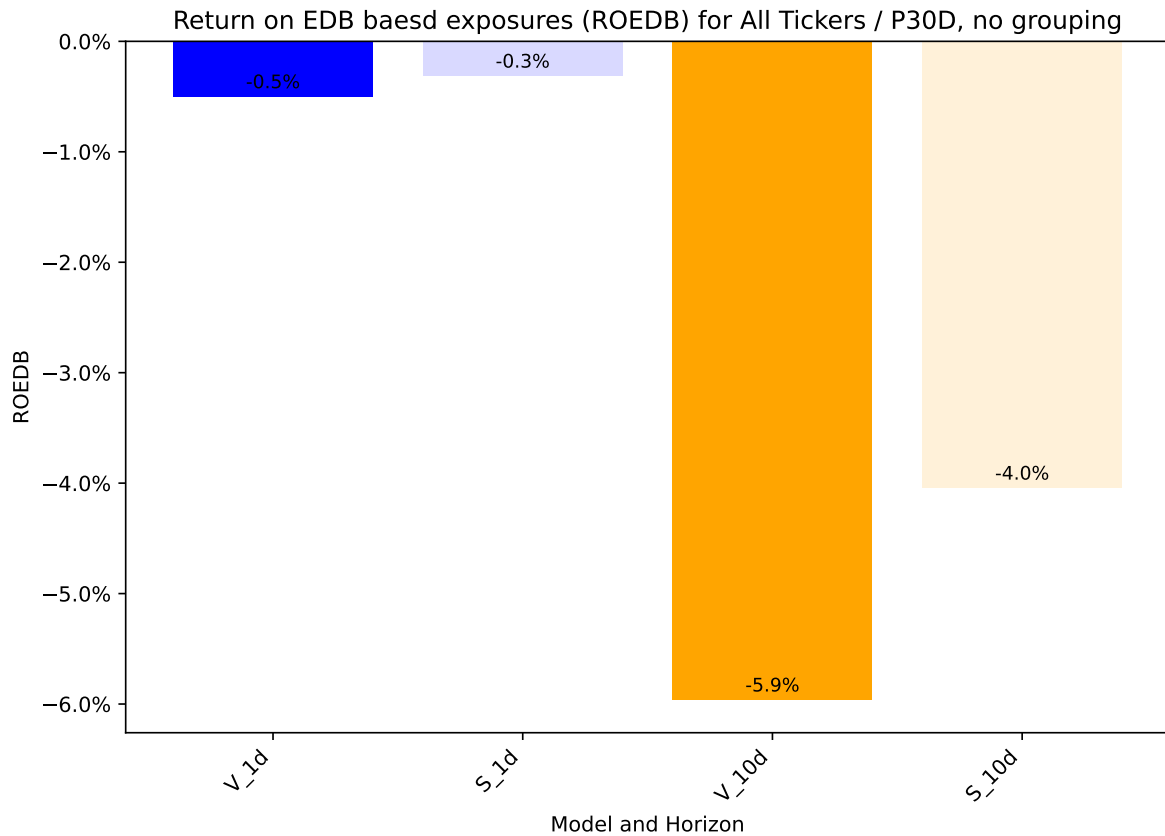
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d
intercept	-0.02%	0.05%	0.15%
intercept_p_value	49.36%	28.76%	23.87%
slope	145.66%	137.85%	136.68%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

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



Alpha (intercept) and Beta (slope) of Vector Model ROEDB regressed upon corresponding horizon actual ticker-model date returns:

	1d	10d
intercept	-0.03%	-0.12%
intercept_p_value	42.24%	45.18%
slope	150.05%	144.52%
slope_p_value	0.00%	0.00%

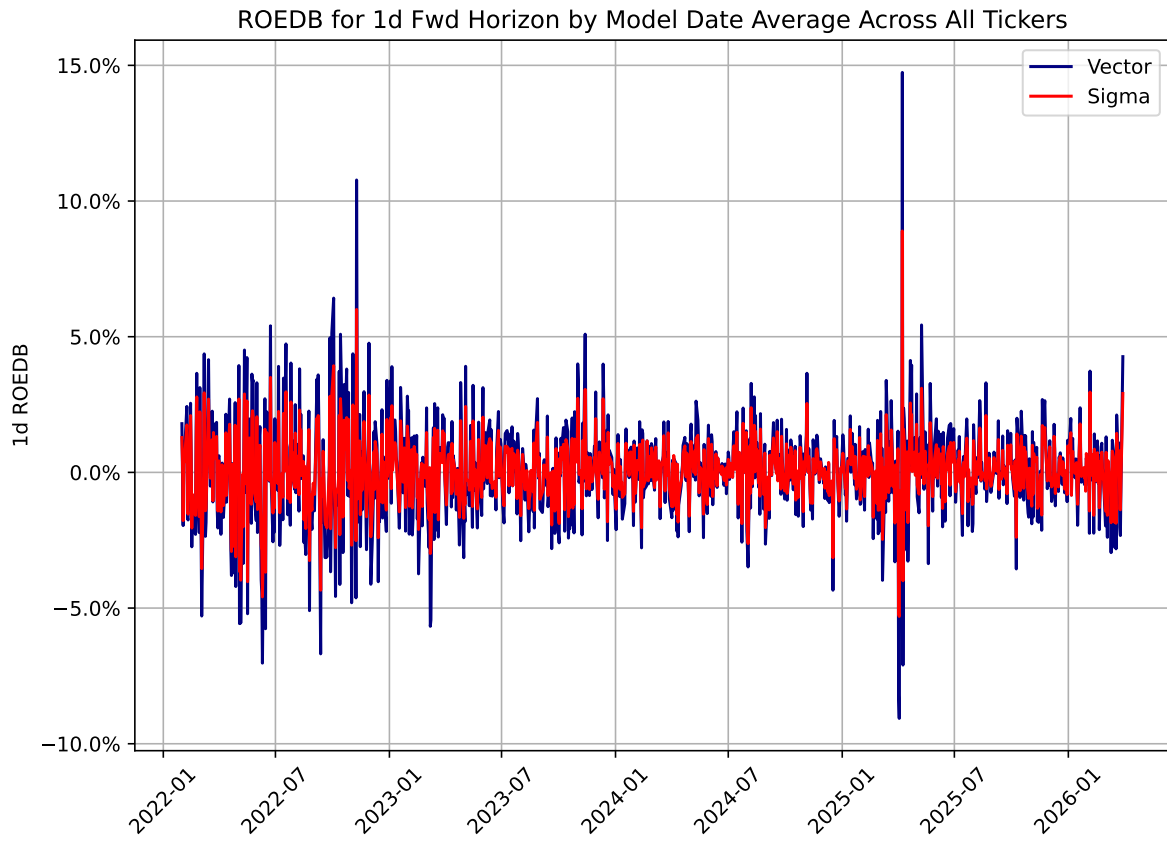
Same as above, but averaged by Ticker across Model Dates:

	1d	10d
intercept	-0.00%	-0.06%
intercept_p_value	41.76%	47.94%
slope	152.91%	144.29%
slope_p_value	0.00%	0.93%

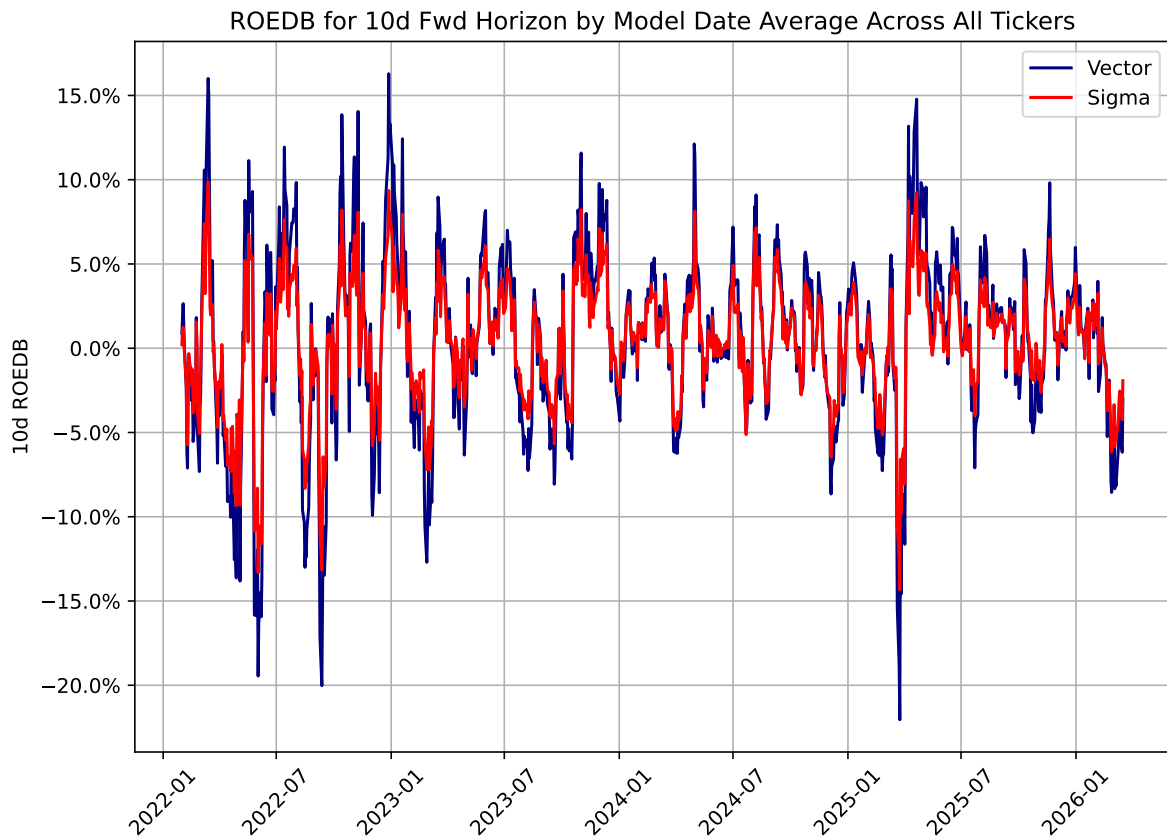


ROEDB by Model Date Detail

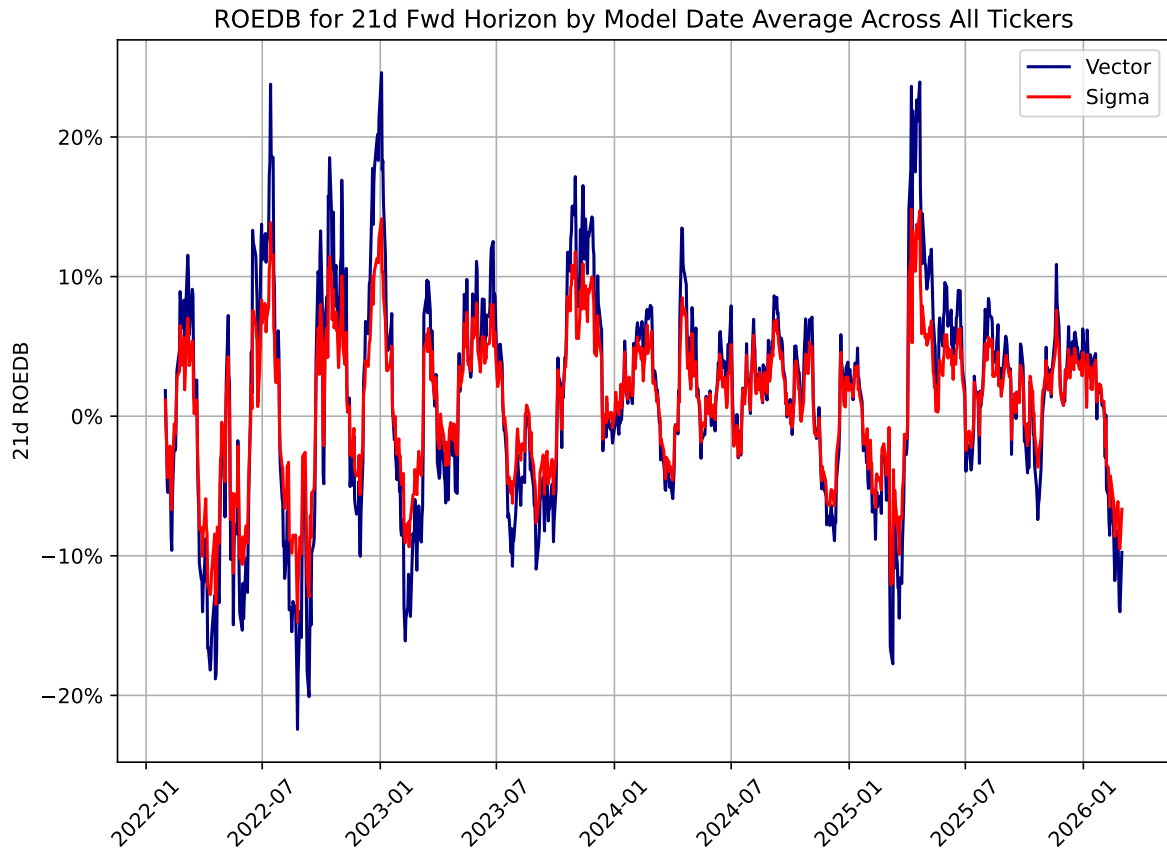
1d Horizon



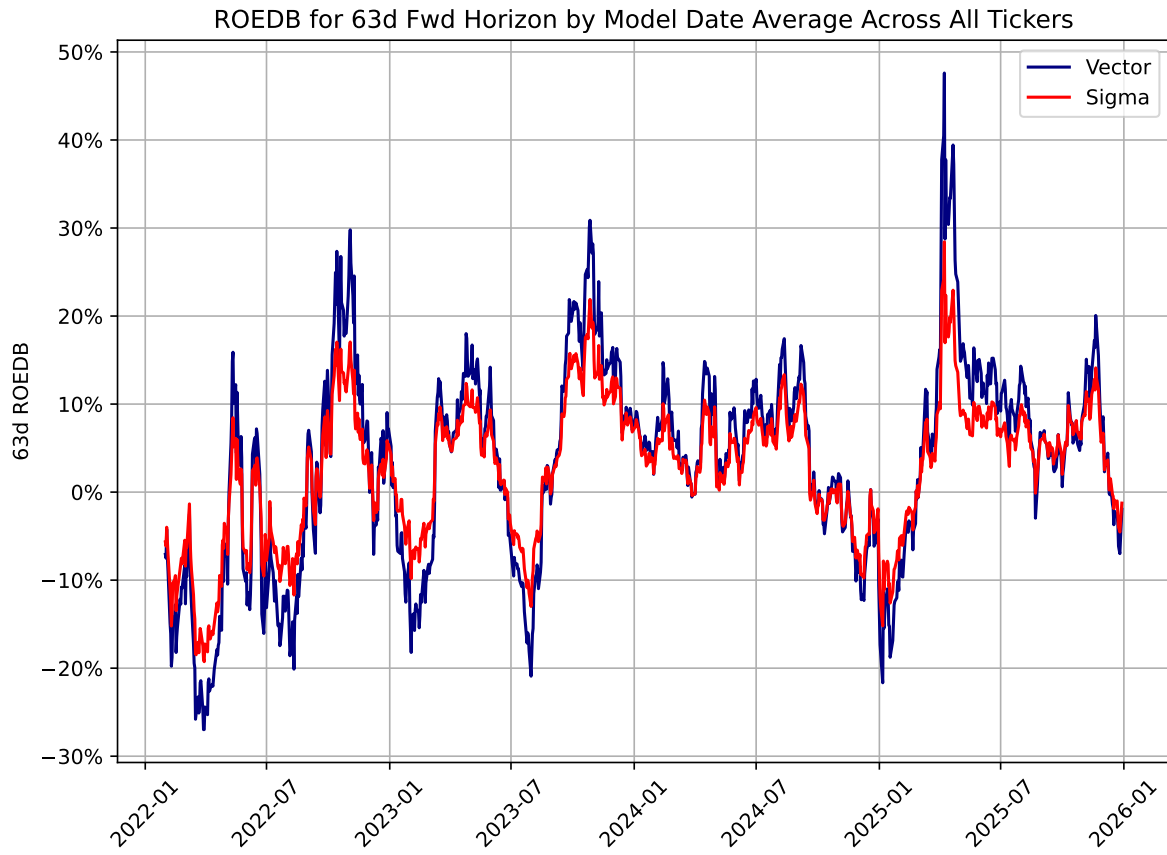
10d Horizon



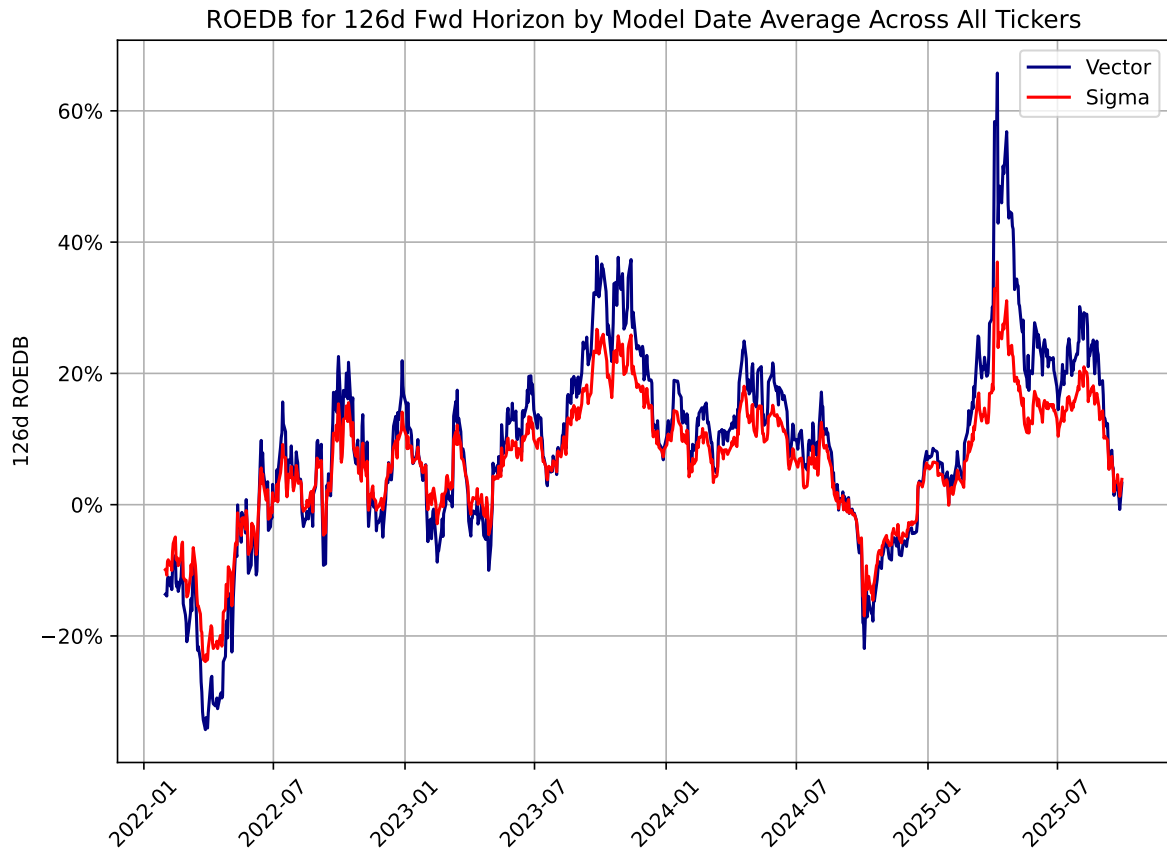
21d Horizon



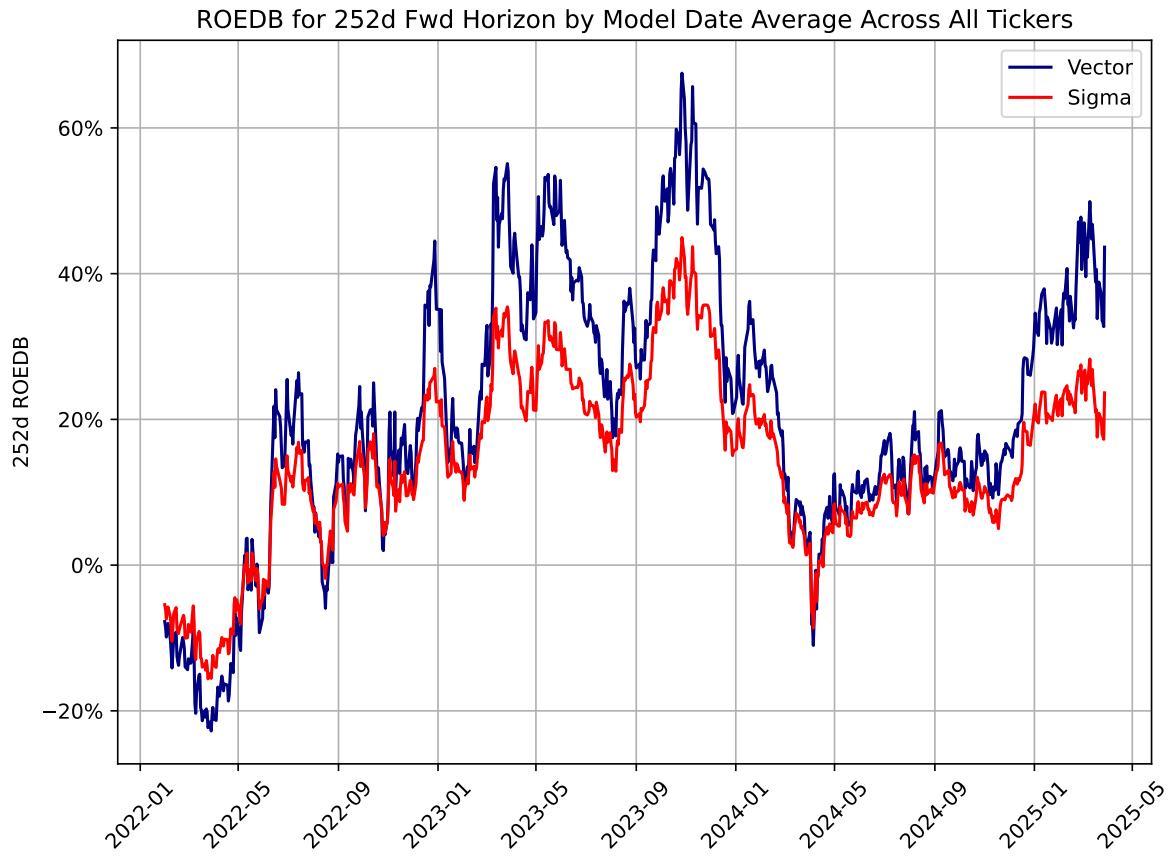
63d Horizon



126d Horizon



252d Horizon



Top 30 Tickers By ROEDB

All TMD: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	MSTR	0.59%	MSTR	0.29%
1.0	GME	0.5%	NVDA	0.24%
1.0	NFLX	0.36%	VST	0.24%
1.0	WDC	0.33%	WDC	0.21%
1.0	MU	0.32%	AVGO	0.2%
1.0	META	0.29%	MU	0.19%
1.0	AVGO	0.29%	PWR	0.19%
1.0	NVDA	0.24%	X	0.17%
1.0	XOM	0.22%	GME	0.16%
1.0	PWR	0.22%	TRGP	0.16%
1.0	LLY	0.22%	TEVA	0.16%
1.0	AMD	0.21%	GE	0.15%
1.0	GOOGL	0.19%	LLY	0.15%
1.0	CDNS	0.18%	CAH	0.15%
1.0	AA	0.17%	SLV	0.14%
1.0	AAPL	0.17%	GBTC	0.14%
1.0	GWG	0.17%	THC	0.13%
1.0	NEM	0.16%	AMAT	0.13%
1.0	ORCL	0.16%	ETRN	0.12%
1.0	ORLY	0.16%	NFLX	0.12%
1.0	CLF	0.16%	AMD	0.11%
1.0	B	0.16%	PHM	0.1%
1.0	X	0.16%	META	0.1%
1.0	FCX	0.15%	GS	0.1%
1.0	TRGP	0.15%	B	0.1%
1.0	SLV	0.15%	GLD	0.1%
1.0	INTC	0.14%	IRM	0.09%
1.0	CAH	0.14%	HSBC	0.09%
1.0	MSI	0.14%	GOOGL	0.09%
1.0	PCG	0.14%	XOM	0.09%



All TMD: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	MSTR	6.9%	MSTR	2.97%
10.0	GME	4.75%	NVDA	2.39%
10.0	WDC	3.5%	VST	2.34%
10.0	MU	3.41%	WDC	2.21%
10.0	NFLX	2.94%	MU	2.02%
10.0	META	2.81%	AVGO	1.95%
10.0	TEVA	2.55%	PWR	1.85%
10.0	AVGO	2.19%	TEVA	1.64%
10.0	VST	2.17%	X	1.58%
10.0	NVDA	2.1%	TRGP	1.54%
10.0	PWR	1.99%	LLY	1.5%
10.0	ORCL	1.82%	GE	1.49%
10.0	SLV	1.75%	CAH	1.47%
10.0	INTC	1.67%	ETRN	1.41%
10.0	GOOGL	1.66%	GME	1.39%
10.0	XOM	1.64%	SLV	1.34%
10.0	LLY	1.61%	GBTC	1.33%
10.0	GWV	1.58%	THC	1.3%
10.0	CAH	1.57%	AMAT	1.24%
10.0	GILD	1.51%	NFLX	1.22%
10.0	AAPL	1.5%	META	1.17%
10.0	X	1.49%	AMD	1.06%
10.0	GE	1.47%	PHM	1.01%
10.0	HCA	1.45%	TSLA	0.98%
10.0	MSI	1.44%	IRM	0.97%
10.0	AMD	1.43%	GS	0.95%
10.0	ETRN	1.4%	GLD	0.93%
10.0	OXY	1.38%	B	0.93%
10.0	CDNS	1.37%	GOOGL	0.89%
10.0	THC	1.33%	ORCL	0.89%



All TMD: 21d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	MSTR	14.94%	MSTR	6.83%
21.0	GME	7.69%	NVDA	5.26%
21.0	WDC	7.68%	VST	5.1%
21.0	MU	6.83%	WDC	4.68%
21.0	META	6.7%	MU	4.25%
21.0	TEVA	6.13%	AVGO	4.16%
21.0	NFLX	5.93%	PWR	3.95%
21.0	AVGO	4.74%	TEVA	3.61%
21.0	NVDA	4.46%	ETRN	3.5%
21.0	PWR	4.35%	GE	3.36%
21.0	VST	4.35%	LLY	3.23%
21.0	ETRN	4.25%	TRGP	3.2%
21.0	ORCL	4.07%	CAH	3.19%
21.0	SLV	3.82%	X	3.17%
21.0	GOOGL	3.63%	GBTC	2.99%
21.0	GILD	3.58%	SLV	2.93%
21.0	GE	3.58%	THC	2.88%
21.0	LLY	3.53%	META	2.75%
21.0	XOM	3.47%	NFLX	2.74%
21.0	CAH	3.43%	AMAT	2.63%
21.0	GWV	3.25%	TSLA	2.37%
21.0	INTC	3.13%	AMD	2.32%
21.0	MSI	3.1%	PHM	2.26%
21.0	THC	3.08%	GME	2.22%
21.0	AA	3.07%	IRM	2.13%
21.0	HCA	3.01%	GS	2.08%
21.0	X	2.92%	GLD	2.05%
21.0	AMD	2.81%	ORCL	2.05%
21.0	AMGN	2.78%	B	2.02%
21.0	GS	2.75%	GOOGL	1.97%



All TMD: 63d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	MSTR	35.65%	MSTR	20.46%
63.0	WDC	31.85%	NVDA	17.99%
63.0	META	25.15%	VST	16.93%
63.0	MU	20.42%	WDC	16.24%
63.0	NFLX	18.81%	MU	14.63%
63.0	NVDA	16.7%	AVGO	13.35%
63.0	AVGO	15.8%	GE	11.03%
63.0	VST	15.51%	TEVA	10.9%
63.0	TEVA	15.08%	GBTC	10.84%
63.0	ORCL	13.96%	PWR	10.84%
63.0	GE	13.36%	ETRN	10.28%
63.0	SLV	12.19%	META	10.06%
63.0	PWR	11.86%	LLY	9.96%
63.0	AMAT	11.25%	CAH	9.68%
63.0	GILD	11.11%	SLV	9.6%
63.0	CAH	10.99%	NFLX	9.0%
63.0	AMD	10.84%	THC	8.76%
63.0	LLY	10.83%	TRGP	8.52%
63.0	GOOGL	10.65%	AMAT	8.21%
63.0	GWV	10.65%	PHM	8.12%
63.0	ETRN	10.51%	AMD	7.78%
63.0	CTLT	10.48%	GS	7.14%
63.0	B	10.14%	ORCL	7.08%
63.0	NEM	9.67%	CCL	7.03%
63.0	THC	9.6%	GOOGL	6.99%
63.0	GS	9.58%	HSBC	6.59%
63.0	ISRG	8.89%	B	6.53%
63.0	KALU	8.62%	TSLA	6.4%
63.0	GNRC	8.33%	GLD	6.38%
63.0	TSLA	8.32%	GILD	6.08%



All TMD: 126d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	MSTR	111.77%	MSTR	53.49%
126.0	WDC	85.87%	NVDA	45.68%
126.0	META	63.58%	VST	38.21%
126.0	MU	54.45%	WDC	37.27%
126.0	NFLX	50.16%	MU	33.67%
126.0	NVDA	46.8%	GBTC	31.62%
126.0	AVGO	42.28%	AVGO	30.79%
126.0	VST	39.41%	GE	26.54%
126.0	ORCL	33.83%	META	24.54%
126.0	GE	32.88%	NFLX	23.96%
126.0	TEVA	32.75%	TEVA	21.83%
126.0	SLV	30.91%	PWR	21.76%
126.0	AMD	29.11%	THC	21.42%
126.0	B	28.2%	LLY	20.18%
126.0	GOOGL	27.27%	CAH	19.96%
126.0	AMAT	26.95%	SLV	19.42%
126.0	CAH	25.14%	AMD	19.01%
126.0	LLY	25.14%	ETRN	18.49%
126.0	GBTC	24.69%	PHM	18.07%
126.0	GILD	24.48%	ORCL	18.02%
126.0	THC	23.54%	AMAT	17.47%
126.0	NEM	23.54%	TRGP	17.25%
126.0	PWR	22.48%	GOOGL	15.91%
126.0	ISRG	21.8%	GS	15.4%
126.0	INTC	20.64%	B	15.01%
126.0	GS	20.43%	CCL	14.83%
126.0	EXPE	19.75%	JPM	13.44%
126.0	ETRN	19.22%	TSLA	13.42%
126.0	HCA	19.22%	GLD	13.39%
126.0	GWV	18.6%	HSBC	13.39%



All TMD: 252d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
252.0	MSTR	370.01%	MSTR	181.08%
252.0	META	167.34%	NVDA	122.08%
252.0	VST	150.99%	VST	111.17%
252.0	NFLX	132.19%	GBTC	98.8%
252.0	WDC	116.86%	AVGO	75.46%
252.0	NVDA	109.71%	META	66.62%
252.0	AVGO	108.56%	GE	61.91%
252.0	GBTC	81.21%	NFLX	61.23%
252.0	GE	80.92%	WDC	57.95%
252.0	MU	72.38%	MU	56.5%
252.0	ORCL	67.18%	THC	48.74%
252.0	SLV	66.64%	PWR	45.17%
252.0	TEVA	65.86%	PHM	43.8%
252.0	THC	60.33%	LLY	43.34%
252.0	CAH	56.63%	TRGP	40.25%
252.0	ISRG	56.08%	CAH	39.06%
252.0	AMD	55.3%	TEVA	39.02%
252.0	GOOGL	55.27%	ORCL	37.98%
252.0	B	55.19%	CCL	37.54%
252.0	AMZN	54.46%	ETRN	35.78%
252.0	LLY	52.16%	SLV	34.55%
252.0	TDG	50.47%	AMD	34.19%
252.0	GILD	50.12%	AMAT	31.83%
252.0	NEM	49.58%	TDG	31.69%
252.0	EXPE	48.55%	GS	31.69%
252.0	MSI	45.12%	JPM	31.36%
252.0	INTU	43.62%	GOOGL	30.3%
252.0	TSLA	42.84%	ISRG	30.1%
252.0	AMAT	42.44%	HSBC	29.27%
252.0	TRGP	41.86%	GLD	28.61%



P365D: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	WDC	1.25%	WDC	0.85%
1.0	MU	1.12%	MU	0.62%
1.0	AAP	1.01%	X	0.59%
1.0	CLF	0.62%	CSTM	0.41%
1.0	INTC	0.61%	SLV	0.39%
1.0	X	0.58%	AMAT	0.39%
1.0	PWR	0.55%	ELAN	0.38%
1.0	AA	0.5%	AA	0.38%
1.0	NEM	0.48%	LUMN	0.37%
1.0	KALU	0.48%	NEM	0.37%
1.0	FCX	0.48%	INTC	0.36%
1.0	AMD	0.47%	AMD	0.35%
1.0	LLY	0.43%	B	0.33%
1.0	AVGO	0.43%	PWR	0.33%
1.0	NVDA	0.42%	KALU	0.32%
1.0	GOOGL	0.41%	TEVA	0.31%
1.0	CMA	0.4%	AVGO	0.29%
1.0	MRK	0.39%	GOOGL	0.26%
1.0	LUMN	0.38%	ON	0.24%
1.0	ELAN	0.37%	GNRC	0.23%
1.0	B	0.35%	AAP	0.23%
1.0	JAZZ	0.35%	FCX	0.23%
1.0	CSTM	0.34%	CMA	0.23%
1.0	EXPE	0.34%	NVDA	0.22%
1.0	LVS	0.33%	JAZZ	0.2%
1.0	CDNS	0.32%	GS	0.19%
1.0	VFC	0.32%	RIO	0.19%
1.0	GNRC	0.3%	CAH	0.19%
1.0	GSK	0.3%	TSLA	0.19%
1.0	ON	0.28%	BHP	0.18%



P365D: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	WDC	15.65%	WDC	9.6%
10.0	MU	14.77%	MU	7.79%
10.0	AAP	7.96%	X	6.56%
10.0	X	7.67%	CSTM	4.62%
10.0	CSTM	6.25%	ELAN	4.5%
10.0	ELAN	5.98%	AMAT	4.26%
10.0	PWR	5.95%	AMD	4.0%
10.0	INTC	5.86%	SLV	3.94%
10.0	KALU	5.71%	INTC	3.9%
10.0	AA	5.63%	LUMN	3.85%
10.0	TSLA	5.41%	AA	3.84%
10.0	GOOGL	5.01%	KALU	3.51%
10.0	ON	4.95%	PWR	3.43%
10.0	B	4.49%	TEVA	3.42%
10.0	NEM	4.26%	NEM	3.38%
10.0	TEVA	4.23%	B	3.3%
10.0	GNRC	4.22%	GNRC	2.99%
10.0	AMD	4.14%	CMA	2.94%
10.0	EXPE	4.04%	AVGO	2.93%
10.0	CMA	3.85%	GOOGL	2.86%
10.0	FCX	3.84%	AAP	2.57%
10.0	AMAT	3.8%	ON	2.56%
10.0	JAZZ	3.55%	FCX	2.53%
10.0	AVGO	3.24%	JAZZ	2.45%
10.0	MRK	3.01%	NVDA	2.29%
10.0	TXN	2.89%	THC	2.25%
10.0	KEY	2.89%	GS	2.2%
10.0	NVDA	2.81%	LVS	2.2%
10.0	VFC	2.79%	EXPE	2.16%
10.0	OXY	2.78%	CAH	2.1%



P365D: 21d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	WDC	35.22%	WDC	21.02%
21.0	MU	31.62%	MU	18.03%
21.0	X	16.88%	X	14.28%
21.0	AAP	15.79%	CSTM	10.46%
21.0	ELAN	15.26%	ELAN	10.03%
21.0	CSTM	14.19%	SLV	9.37%
21.0	INTC	14.16%	AMAT	9.19%
21.0	AA	13.76%	AA	9.14%
21.0	KALU	13.58%	AMD	8.96%
21.0	TSLA	12.72%	INTC	8.66%
21.0	PWR	12.48%	LUMN	8.18%
21.0	GOOGL	12.0%	B	8.06%
21.0	GNRC	11.47%	KALU	7.84%
21.0	B	10.92%	TEVA	7.78%
21.0	ON	10.87%	NEM	7.54%
21.0	NEM	9.88%	PWR	7.39%
21.0	TEVA	9.61%	GNRC	6.83%
21.0	AMAT	9.51%	GOOGL	6.51%
21.0	TXN	9.13%	CMA	6.43%
21.0	AMD	8.74%	AVGO	6.32%
21.0	FCX	8.32%	AAP	5.88%
21.0	CMA	8.31%	THC	5.76%
21.0	JAZZ	8.27%	FCX	5.7%
21.0	EXPE	7.62%	ON	5.37%
21.0	SLV	6.93%	NVDA	5.36%
21.0	AVGO	6.65%	JAZZ	5.25%
21.0	KEY	6.42%	LVS	4.92%
21.0	MRK	6.38%	GE	4.9%
21.0	GE	6.21%	CAH	4.8%
21.0	VFC	6.17%	GS	4.67%



P365D: 63d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	WDC	140.33%	WDC	77.46%
63.0	MU	97.94%	MU	63.93%
63.0	INTC	53.84%	SLV	37.28%
63.0	KALU	51.07%	B	34.84%
63.0	AA	46.91%	AA	33.15%
63.0	NEM	46.74%	INTC	32.42%
63.0	B	45.38%	LUMN	31.83%
63.0	CSTM	44.36%	CSTM	30.08%
63.0	AMAT	40.98%	NEM	29.92%
63.0	ELAN	40.48%	ELAN	29.73%
63.0	GNRC	39.39%	AMAT	29.62%
63.0	AMD	39.17%	AMD	28.68%
63.0	GOOGL	37.98%	TEVA	28.15%
63.0	TSLA	37.93%	KALU	25.58%
63.0	AAP	34.82%	GOOGL	25.4%
63.0	ON	34.58%	CMA	20.02%
63.0	SLV	33.71%	GNRC	19.28%
63.0	JAZZ	31.42%	FCX	18.75%
63.0	CMA	30.03%	CLF	18.56%
63.0	VFC	28.75%	AVGO	17.77%
63.0	PWR	26.82%	JAZZ	17.75%
63.0	TEVA	26.48%	PWR	17.69%
63.0	EXPE	26.07%	VFC	16.34%
63.0	LUMN	25.76%	EXPE	16.22%
63.0	FCX	25.15%	GS	16.21%
63.0	ORCL	23.97%	RIO	16.03%
63.0	GS	22.37%	LVS	15.74%
63.0	CLF	22.14%	NVDA	15.52%
63.0	MRK	21.2%	ON	15.22%
63.0	TXN	20.76%	HSBC	14.43%



P365D: 126d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	WDC	487.24%	WDC	222.14%
126.0	MU	325.57%	MU	179.83%
126.0	INTC	185.24%	B	90.05%
126.0	B	150.73%	LUMN	88.11%
126.0	AA	134.35%	INTC	88.02%
126.0	NEM	121.0%	SLV	87.29%
126.0	AMAT	120.9%	AA	73.7%
126.0	SLV	117.69%	AMD	72.05%
126.0	ELAN	115.95%	ELAN	69.82%
126.0	KALU	105.49%	AMAT	69.01%
126.0	GOOGL	99.11%	NEM	68.36%
126.0	AMD	95.81%	TEVA	67.93%
126.0	TSLA	93.37%	GOOGL	63.35%
126.0	JAZZ	91.78%	CSTM	58.1%
126.0	CSTM	86.28%	KALU	49.6%
126.0	CMA	79.44%	JAZZ	43.47%
126.0	VFC	78.75%	CMA	43.41%
126.0	LUMN	75.3%	CLF	41.29%
126.0	TEVA	70.92%	AVGO	38.56%
126.0	PWR	65.12%	EXPE	38.15%
126.0	LLY	64.92%	VFC	36.99%
126.0	EXPE	64.09%	TSLA	35.7%
126.0	BIIB	57.55%	PWR	35.67%
126.0	CLF	50.76%	RIO	34.47%
126.0	GS	50.39%	BIIB	33.51%
126.0	AVGO	49.63%	GLD	33.37%
126.0	GNRC	46.28%	LVS	32.98%
126.0	MRK	46.16%	CAH	32.89%
126.0	ON	45.73%	GS	31.02%
126.0	CVS	45.25%	GSK	30.36%



P90D: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	AAP	1.43%	WDC	0.76%
1.0	WDC	1.3%	OXY	0.74%
1.0	OXY	0.95%	GNRC	0.6%
1.0	XOM	0.77%	AAP	0.56%
1.0	PCG	0.7%	XOM	0.56%
1.0	T	0.66%	TRGP	0.5%
1.0	TRGP	0.66%	AMAT	0.46%
1.0	FCX	0.65%	CSTM	0.42%
1.0	BALL	0.6%	PWR	0.4%
1.0	HON	0.6%	VZ	0.38%
1.0	IRM	0.57%	IRM	0.37%
1.0	VZ	0.55%	AA	0.34%
1.0	MRK	0.53%	INTC	0.31%
1.0	COST	0.5%	BHP	0.3%
1.0	BMY	0.5%	T	0.29%
1.0	BUD	0.47%	CZR	0.29%
1.0	TXN	0.47%	UAA	0.27%
1.0	AA	0.4%	SLV	0.27%
1.0	MSI	0.37%	COST	0.26%
1.0	UAA	0.36%	FCX	0.26%
1.0	GWG	0.35%	RIO	0.25%
1.0	CZR	0.33%	HON	0.25%
1.0	PEP	0.3%	GILD	0.25%
1.0	AMGN	0.26%	MSI	0.23%
1.0	ON	0.25%	BMY	0.22%
1.0	GILD	0.24%	MRK	0.21%
1.0	BHP	0.24%	MU	0.21%
1.0	GSK	0.24%	GME	0.21%
1.0	GNRC	0.22%	ON	0.2%
1.0	NFLX	0.22%	GSK	0.19%



P90D: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	MU	11.14%	OXY	7.83%
10.0	WDC	10.02%	WDC	7.64%
10.0	OXY	9.88%	GNRC	6.41%
10.0	AAP	9.86%	TRGP	6.29%
10.0	MSI	7.36%	XOM	5.67%
10.0	NFLX	7.33%	PWR	5.23%
10.0	VZ	6.3%	VZ	4.84%
10.0	XOM	6.09%	AAP	4.36%
10.0	TRGP	5.85%	AMAT	3.84%
10.0	T	4.98%	MU	3.73%
10.0	PWR	4.94%	T	3.68%
10.0	GILD	4.6%	MSI	3.22%
10.0	TMUS	4.44%	IRM	3.12%
10.0	GNRC	4.17%	CSTM	2.86%
10.0	BUD	4.17%	GILD	2.77%
10.0	CZR	3.83%	CZR	2.77%
10.0	IRM	3.7%	CMA	2.48%
10.0	PCG	3.66%	PCG	2.29%
10.0	AMGN	3.62%	JAZZ	2.07%
10.0	MRK	3.22%	HON	1.88%
10.0	GME	3.17%	BHP	1.85%
10.0	BALL	2.86%	GME	1.83%
10.0	GSK	2.82%	BALL	1.79%
10.0	COST	2.81%	UAA	1.78%
10.0	UAA	2.67%	PEP	1.7%
10.0	ON	2.65%	GSK	1.62%
10.0	CHTR	2.56%	CHTR	1.56%
10.0	CMA	2.52%	TMUS	1.5%
10.0	AMAT	2.43%	MRK	1.49%
10.0	CSTM	2.38%	COST	1.46%



P90D: 21d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	NFLX	20.99%	OXY	17.37%
21.0	MSI	20.17%	GNRC	15.57%
21.0	OXY	18.64%	TRGP	14.55%
21.0	GNRC	18.53%	VZ	13.27%
21.0	AAP	17.61%	WDC	12.42%
21.0	CZR	17.55%	PWR	12.03%
21.0	TMUS	17.43%	XOM	10.92%
21.0	VZ	15.43%	CZR	10.0%
21.0	BUD	14.55%	AAP	9.47%
21.0	WDC	14.49%	T	9.14%
21.0	PCG	12.89%	MSI	8.82%
21.0	CHTR	12.82%	PCG	8.59%
21.0	TRGP	12.34%	IRM	8.27%
21.0	MU	11.52%	CSTM	6.98%
21.0	XOM	11.49%	THC	6.53%
21.0	T	11.07%	CHTR	6.35%
21.0	GSK	10.41%	AMAT	6.35%
21.0	PWR	10.3%	GILD	6.19%
21.0	UAA	9.93%	TMUS	6.15%
21.0	GILD	9.85%	BALL	5.75%
21.0	AMGN	9.62%	UAA	5.5%
21.0	IRM	9.43%	NFLX	5.47%
21.0	CMCSA	7.59%	GSK	5.31%
21.0	BMY	7.11%	JAZZ	5.29%
21.0	MRK	6.95%	MU	4.84%
21.0	JAZZ	6.7%	PEP	4.77%
21.0	GME	6.01%	BHP	4.75%
21.0	HON	5.53%	HON	4.61%
21.0	CSTM	5.49%	BMY	4.26%
21.0	TXN	5.48%	AMGN	4.25%



P30D: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	EXPE	0.77%	OXY	0.89%
1.0	OXY	0.71%	XOM	0.46%
1.0	WDC	0.59%	EXPE	0.44%
1.0	XOM	0.58%	CZR	0.39%
1.0	CZR	0.55%	AA	0.24%
1.0	AMZN	0.48%	BBY	0.23%
1.0	AA	0.48%	TRGP	0.23%
1.0	AMD	0.42%	INTU	0.19%
1.0	LNC	0.41%	AMD	0.18%
1.0	TRGP	0.41%	T	0.17%
1.0	T	0.37%	LNC	0.16%
1.0	INTU	0.36%	LUMN	0.15%
1.0	NVDA	0.33%	WDC	0.14%
1.0	SNY	0.22%	SNY	0.06%
1.0	HLT	0.21%	VZ	0.03%
1.0	BMJ	0.19%	AMZN	0.02%
1.0	VZ	0.17%	HLT	0.0%
1.0	COST	0.11%	AAP	-0.01%
1.0	BAC	0.08%	ORCL	-0.02%
1.0	WFC	0.06%	JAZZ	-0.02%
1.0	MOS	0.04%	COST	-0.03%
1.0	ZION	0.03%	ZION	-0.03%
1.0	JPM	0.03%	VCSH	-0.03%
1.0	BBY	0.03%	NFLX	-0.04%
1.0	QQQ	0.02%	MRK	-0.04%
1.0	AZN	0.02%	HYG	-0.04%
1.0	VCSH	0.0%	JPM	-0.05%
1.0	LQD	0.0%	MS	-0.05%
1.0	MS	-0.01%	INTC	-0.05%
1.0	CSCO	-0.02%	FRA	-0.06%



P30D: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	OXY	14.77%	OXY	11.13%
10.0	WDC	14.36%	WDC	8.78%
10.0	XOM	5.83%	XOM	6.82%
10.0	LNC	5.07%	AMD	2.29%
10.0	T	4.03%	TRGP	2.02%
10.0	AMD	3.86%	LNC	1.97%
10.0	SNY	3.02%	ELAN	1.72%
10.0	EXPE	2.99%	SNY	1.71%
10.0	TRGP	2.5%	T	1.54%
10.0	MU	2.09%	EXPE	1.32%
10.0	AMAT	2.03%	AMAT	1.13%
10.0	ELAN	1.21%	CSCO	0.67%
10.0	CSCO	0.67%	CZR	0.39%
10.0	MRK	0.5%	MS	0.33%
10.0	CZR	0.34%	LUMN	-0.07%
10.0	MS	0.29%	JAZZ	-0.13%
10.0	ZION	-0.08%	MRK	-0.25%
10.0	WFC	-0.09%	PWR	-0.25%
10.0	JPM	-0.28%	ON	-0.29%
10.0	HLT	-0.31%	ZION	-0.49%
10.0	VCSH	-0.35%	VCSH	-0.53%
10.0	LUMN	-0.37%	JPM	-0.54%
10.0	PWR	-0.38%	HLT	-0.58%
10.0	HYG	-0.54%	HYG	-0.75%
10.0	GS	-0.63%	GS	-0.79%
10.0	JAZZ	-0.67%	BIIB	-0.82%
10.0	GBTC	-0.75%	VZ	-0.93%
10.0	ON	-0.88%	MUB	-1.12%
10.0	VZ	-0.98%	GBTC	-1.12%
10.0	MUB	-1.06%	WYNN	-1.19%



Bottom 30 Tickers By ROEDB

All TMD: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	SIVBQ	-2.09%	SIVBQ	-0.78%
1.0	SBNY	-1.16%	SBNY	-0.45%
1.0	FRCB	-0.4%	FRCB	-0.23%
1.0	IEP	-0.31%	AMC	-0.22%
1.0	AMC	-0.26%	IEP	-0.15%
1.0	LUMN	-0.22%	NWL	-0.12%
1.0	CHTR	-0.22%	PRGO	-0.09%
1.0	NWL	-0.22%	AAP	-0.08%
1.0	PRGO	-0.17%	CHTR	-0.07%
1.0	FIS	-0.17%	FIS	-0.07%
1.0	CNC	-0.14%	VFC	-0.06%
1.0	CYH	-0.13%	BHC	-0.06%
1.0	UAA	-0.13%	GT	-0.05%
1.0	NAVI	-0.11%	UAA	-0.05%
1.0	USB	-0.1%	BXP	-0.05%
1.0	TLT	-0.09%	ADBE	-0.05%
1.0	GT	-0.09%	CNC	-0.05%
1.0	ADBE	-0.08%	NAVI	-0.05%
1.0	BXP	-0.08%	CZR	-0.04%
1.0	VNO	-0.07%	TLT	-0.04%
1.0	CMCSA	-0.07%	CMCSA	-0.04%
1.0	BHC	-0.06%	ZTS	-0.03%
1.0	BBY	-0.06%	KHC	-0.03%
1.0	VFC	-0.06%	UNH	-0.03%
1.0	T	-0.05%	BALL	-0.03%
1.0	WRK	-0.05%	LNC	-0.02%
1.0	ZION	-0.05%	CVS	-0.02%
1.0	AAP	-0.05%	FRA	-0.02%
1.0	LNC	-0.04%	CTLT	-0.01%
1.0	EMB	-0.04%	LQD	-0.01%



All TMD: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	SBNY	-11.81%	SBNY	-4.05%
10.0	SIVBQ	-8.56%	SIVBQ	-3.9%
10.0	AMC	-5.63%	AMC	-2.25%
10.0	FRCB	-4.1%	FRCB	-2.19%
10.0	PRGO	-2.97%	IEP	-1.43%
10.0	CHTR	-2.04%	NWL	-1.22%
10.0	IEP	-2.0%	PRGO	-0.99%
10.0	NWL	-1.9%	AAP	-0.83%
10.0	FIS	-1.43%	VFC	-0.75%
10.0	GT	-1.19%	CHTR	-0.65%
10.0	BXP	-1.07%	UAA	-0.63%
10.0	AAP	-1.02%	GT	-0.62%
10.0	LUMN	-1.02%	FIS	-0.62%
10.0	BHC	-1.0%	CZR	-0.59%
10.0	VFC	-0.97%	NAVI	-0.56%
10.0	CNC	-0.84%	BXP	-0.55%
10.0	UAA	-0.81%	CNC	-0.54%
10.0	TLT	-0.77%	BHC	-0.53%
10.0	NAVI	-0.77%	ADBE	-0.45%
10.0	VNO	-0.73%	TLT	-0.42%
10.0	ADBE	-0.68%	CMCSA	-0.4%
10.0	KHC	-0.63%	ZTS	-0.39%
10.0	LNC	-0.6%	KHC	-0.37%
10.0	CYH	-0.58%	LNC	-0.32%
10.0	CMCSA	-0.51%	UNH	-0.32%
10.0	ZTS	-0.5%	BALL	-0.27%
10.0	ELAN	-0.45%	CYH	-0.23%
10.0	ZION	-0.36%	BBY	-0.22%
10.0	LQD	-0.33%	MOS	-0.21%
10.0	VZ	-0.33%	FRA	-0.2%



All TMD: 21d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	SBNY	-32.56%	SBNY	-11.16%
21.0	SIVBQ	-21.2%	SIVBQ	-9.37%
21.0	FRCB	-13.47%	FRCB	-6.02%
21.0	AMC	-12.58%	AMC	-5.0%
21.0	PRGO	-5.52%	IEP	-3.06%
21.0	NWL	-4.31%	NWL	-2.5%
21.0	CHTR	-4.08%	PRGO	-2.02%
21.0	IEP	-3.53%	AAP	-1.64%
21.0	AAP	-2.79%	VFC	-1.55%
21.0	BHC	-2.63%	BHC	-1.34%
21.0	FIS	-2.45%	CHTR	-1.33%
21.0	VFC	-2.26%	CZR	-1.29%
21.0	BXP	-2.13%	BXP	-1.18%
21.0	TLT	-1.9%	NAVI	-1.17%
21.0	VNO	-1.89%	FIS	-1.11%
21.0	NAVI	-1.66%	UAA	-1.05%
21.0	GT	-1.54%	GT	-1.04%
21.0	LNC	-1.52%	CNC	-0.97%
21.0	LUMN	-1.44%	TLT	-0.85%
21.0	CNC	-1.35%	KHC	-0.8%
21.0	ZTS	-1.09%	ZTS	-0.79%
21.0	CMCSA	-0.96%	LNC	-0.77%
21.0	KHC	-0.94%	CMCSA	-0.73%
21.0	CYH	-0.91%	ADBE	-0.71%
21.0	ELAN	-0.76%	UNH	-0.6%
21.0	ADBE	-0.76%	BALL	-0.47%
21.0	LQD	-0.59%	BBY	-0.45%
21.0	CVS	-0.59%	MOS	-0.4%
21.0	UNH	-0.56%	FRA	-0.38%
21.0	CLF	-0.54%	CVS	-0.29%



All TMD: 63d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	SBNY	-111.62%	SBNY	-37.59%
63.0	SIVBQ	-84.01%	SIVBQ	-33.73%
63.0	FRCB	-59.55%	FRCB	-24.04%
63.0	AMC	-35.8%	AMC	-16.58%
63.0	NWL	-12.85%	IEP	-10.16%
63.0	IEP	-12.43%	NWL	-7.73%
63.0	AAP	-12.4%	CZR	-5.59%
63.0	PRGO	-12.02%	AAP	-5.57%
63.0	CHTR	-10.66%	PRGO	-5.5%
63.0	VFC	-7.25%	CHTR	-4.22%
63.0	FIS	-6.38%	VFC	-3.9%
63.0	BHC	-5.17%	BHC	-3.57%
63.0	TLT	-5.07%	MOS	-3.39%
63.0	UNH	-4.95%	BXP	-3.04%
63.0	CNC	-4.73%	UAA	-2.84%
63.0	CZR	-4.67%	FIS	-2.82%
63.0	VNO	-4.53%	KHC	-2.81%
63.0	MOS	-4.08%	NAVI	-2.73%
63.0	BXP	-3.99%	CNC	-2.66%
63.0	ZTS	-3.91%	TLT	-2.32%
63.0	CMCSA	-3.68%	ZTS	-2.22%
63.0	NAVI	-3.27%	CMCSA	-2.2%
63.0	LNC	-2.84%	UNH	-2.09%
63.0	CYH	-2.72%	CLF	-1.91%
63.0	KHC	-2.68%	GT	-1.69%
63.0	BBY	-2.43%	ADBE	-1.69%
63.0	LW	-2.37%	LNC	-1.65%
63.0	CLF	-1.84%	BBY	-1.46%
63.0	VZ	-1.36%	BALL	-1.36%
63.0	BALL	-1.22%	CVS	-0.98%



All TMD: 126d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	SBNY	-192.56%	SIVBQ	-65.15%
126.0	SIVBQ	-162.07%	SBNY	-64.8%
126.0	FRCB	-138.04%	FRCB	-51.17%
126.0	AMC	-56.28%	AMC	-29.18%
126.0	NWL	-28.11%	IEP	-19.83%
126.0	IEP	-26.62%	NWL	-17.82%
126.0	AAP	-26.12%	AAP	-11.84%
126.0	PRGO	-22.44%	PRGO	-10.54%
126.0	CHTR	-20.63%	CZR	-10.18%
126.0	VFC	-16.49%	VFC	-7.99%
126.0	CZR	-12.43%	CHTR	-7.8%
126.0	CNC	-12.09%	MOS	-7.66%
126.0	BHC	-11.35%	UAA	-7.51%
126.0	MOS	-10.14%	CNC	-7.17%
126.0	UNH	-8.76%	KHC	-5.8%
126.0	CMCSA	-8.65%	CTLT	-5.69%
126.0	FIS	-8.39%	BHC	-4.98%
126.0	TLT	-7.94%	GT	-4.67%
126.0	ZTS	-7.28%	BXP	-4.63%
126.0	UAA	-6.56%	FIS	-4.61%
126.0	KHC	-6.11%	CMCSA	-4.39%
126.0	BXP	-5.67%	NAVI	-4.21%
126.0	CYH	-5.33%	TLT	-4.12%
126.0	NAVI	-5.16%	UNH	-4.06%
126.0	LNC	-5.15%	ZTS	-3.87%
126.0	GT	-4.11%	BALL	-3.28%
126.0	BMV	-3.98%	BMV	-3.0%
126.0	BALL	-2.98%	CLF	-2.76%
126.0	CLF	-2.11%	CVS	-1.8%
126.0	VZ	-1.88%	OXY	-1.71%



All TMD: 252d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
252.0	SBNY	-283.27%	SBNY	-95.75%
252.0	SIVBQ	-231.16%	SIVBQ	-95.29%
252.0	FRCB	-206.23%	FRCB	-91.61%
252.0	AMC	-85.33%	AMC	-55.01%
252.0	AAP	-64.16%	IEP	-41.37%
252.0	VFC	-55.03%	NWL	-31.23%
252.0	NWL	-55.0%	AAP	-27.49%
252.0	IEP	-54.12%	VFC	-22.41%
252.0	PRGO	-35.51%	CZR	-18.23%
252.0	UAA	-32.11%	CNC	-17.85%
252.0	CHTR	-29.97%	PRGO	-17.41%
252.0	CZR	-28.81%	UAA	-15.69%
252.0	CNC	-25.83%	MOS	-14.3%
252.0	MOS	-24.38%	CLF	-13.18%
252.0	BHC	-23.1%	KHC	-11.31%
252.0	CLF	-19.84%	CHTR	-10.57%
252.0	BIIB	-19.02%	UNH	-10.36%
252.0	OXY	-16.02%	BMY	-9.77%
252.0	UNH	-15.8%	BHC	-9.47%
252.0	TLT	-15.74%	BIIB	-8.41%
252.0	KHC	-14.73%	OXY	-8.15%
252.0	BMY	-11.9%	GT	-7.54%
252.0	CYH	-10.76%	TLT	-7.52%
252.0	BXP	-10.07%	NAVI	-7.23%
252.0	NAVI	-9.59%	CVS	-6.37%
252.0	GT	-9.09%	CTLT	-6.24%
252.0	CVS	-8.82%	CYH	-6.08%
252.0	AA	-8.31%	BXP	-5.16%
252.0	LNC	-7.59%	CMCSA	-4.92%
252.0	JAZZ	-7.35%	PEP	-4.76%



P365D: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	MSTR	-0.75%	AMC	-0.36%
1.0	PRGO	-0.62%	PRGO	-0.33%
1.0	CNC	-0.57%	MSTR	-0.25%
1.0	AMC	-0.55%	UNH	-0.21%
1.0	NWL	-0.46%	CPRT	-0.2%
1.0	CHTR	-0.43%	CHTR	-0.18%
1.0	CMG	-0.43%	FIS	-0.17%
1.0	NAVI	-0.42%	ADBE	-0.16%
1.0	UNH	-0.35%	CMG	-0.16%
1.0	FIS	-0.35%	NWL	-0.16%
1.0	ZTS	-0.33%	CNC	-0.15%
1.0	CMCSA	-0.23%	NAVI	-0.14%
1.0	TDG	-0.23%	VNO	-0.12%
1.0	CPRT	-0.21%	INTU	-0.11%
1.0	UAA	-0.2%	ZTS	-0.11%
1.0	INTU	-0.19%	KHC	-0.11%
1.0	ACGL	-0.19%	CMCSA	-0.08%
1.0	VNO	-0.18%	TMUS	-0.08%
1.0	ADBE	-0.17%	LEN	-0.08%
1.0	LEN	-0.17%	BXP	-0.08%
1.0	POST	-0.17%	GT	-0.07%
1.0	GT	-0.16%	VICI	-0.06%
1.0	BXP	-0.15%	FRA	-0.06%
1.0	VST	-0.14%	TDG	-0.06%
1.0	BBY	-0.13%	GBTC	-0.06%
1.0	IEP	-0.12%	POST	-0.06%
1.0	TMUS	-0.11%	IEP	-0.05%
1.0	AZO	-0.09%	LW	-0.05%
1.0	KHC	-0.09%	QCOM	-0.04%
1.0	ISRG	-0.06%	AZO	-0.04%



P365D: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	AMC	-8.95%	AMC	-3.65%
10.0	PRGO	-8.78%	PRGO	-3.39%
10.0	MSTR	-5.46%	MSTR	-2.45%
10.0	UNH	-3.75%	UNH	-2.34%
10.0	CNC	-3.3%	CPRT	-2.1%
10.0	CMG	-3.2%	CNC	-1.68%
10.0	NWL	-2.97%	FIS	-1.44%
10.0	NAVI	-2.81%	CHTR	-1.42%
10.0	CHTR	-2.63%	ADBE	-1.41%
10.0	ZTS	-2.57%	CMG	-1.38%
10.0	KHC	-2.47%	NAVI	-1.18%
10.0	ADBE	-2.42%	KHC	-1.17%
10.0	FIS	-2.3%	GT	-1.13%
10.0	GT	-1.9%	VNO	-0.99%
10.0	INTU	-1.84%	ZTS	-0.99%
10.0	CPRT	-1.79%	NWL	-0.81%
10.0	VNO	-1.71%	INTU	-0.8%
10.0	TDG	-1.42%	LW	-0.77%
10.0	CMCSA	-1.15%	TMUS	-0.72%
10.0	POST	-1.13%	POST	-0.67%
10.0	BXP	-1.08%	CMCSA	-0.64%
10.0	VICI	-0.81%	BXP	-0.52%
10.0	ACGL	-0.66%	VICI	-0.47%
10.0	LEN	-0.57%	FRA	-0.46%
10.0	HD	-0.41%	LEN	-0.44%
10.0	AZO	-0.4%	SNY	-0.43%
10.0	FRA	-0.34%	GBTC	-0.43%
10.0	GBTC	-0.33%	TDG	-0.36%
10.0	TMUS	-0.32%	IEP	-0.28%
10.0	BBY	-0.19%	AZO	-0.24%



P365D: 21d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	AMC	-18.89%	AMC	-7.38%
21.0	PRGO	-17.4%	PRGO	-6.92%
21.0	MSTR	-14.43%	MSTR	-5.85%
21.0	CHTR	-6.36%	CPRT	-4.45%
21.0	UNH	-5.7%	UNH	-3.85%
21.0	CMG	-5.61%	FIS	-3.27%
21.0	NAVI	-5.4%	CHTR	-2.99%
21.0	ZTS	-5.36%	ADBE	-2.62%
21.0	CNC	-5.3%	CMG	-2.61%
21.0	KHC	-4.21%	CNC	-2.58%
21.0	CPRT	-4.07%	NAVI	-2.44%
21.0	FIS	-3.93%	GT	-2.25%
21.0	ADBE	-3.76%	KHC	-2.23%
21.0	VNO	-3.74%	VNO	-2.12%
21.0	NWL	-3.73%	ZTS	-2.01%
21.0	GT	-2.96%	INTU	-1.62%
21.0	TDG	-2.62%	TMUS	-1.37%
21.0	BXP	-2.46%	LW	-1.31%
21.0	INTU	-1.87%	GBTC	-1.26%
21.0	POST	-1.77%	BXP	-1.26%
21.0	CMCSA	-1.54%	SNY	-1.2%
21.0	GBTC	-1.34%	POST	-1.17%
21.0	SNY	-1.18%	CMCSA	-1.01%
21.0	LW	-1.15%	FRA	-0.96%
21.0	VICI	-1.12%	VICI	-0.95%
21.0	ACGL	-0.75%	NWL	-0.89%
21.0	FRA	-0.62%	IEP	-0.66%
21.0	LEN	-0.61%	TDG	-0.59%
21.0	IEP	-0.46%	LEN	-0.59%
21.0	TMUS	-0.29%	QCOM	-0.24%



P365D: 63d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	MSTR	-61.89%	MSTR	-23.13%
63.0	AMC	-57.76%	AMC	-21.33%
63.0	PRGO	-46.54%	PRGO	-19.71%
63.0	CHTR	-32.69%	CHTR	-15.52%
63.0	ZTS	-21.84%	CPRT	-12.11%
63.0	ADBE	-14.61%	FIS	-10.97%
63.0	NFLX	-14.01%	ADBE	-9.86%
63.0	FIS	-13.37%	CMG	-9.03%
63.0	INTU	-13.22%	INTU	-8.88%
63.0	NWL	-12.81%	ZTS	-7.61%
63.0	NAVI	-12.47%	NAVI	-7.11%
63.0	CPRT	-12.4%	VNO	-6.76%
63.0	CMCSA	-11.13%	GBTC	-6.54%
63.0	VNO	-11.03%	NFLX	-6.54%
63.0	CMG	-10.95%	KHC	-5.21%
63.0	KHC	-8.7%	TMUS	-5.2%
63.0	TDG	-7.42%	GT	-4.95%
63.0	CNC	-7.26%	NWL	-4.69%
63.0	UNH	-6.98%	UNH	-4.5%
63.0	GME	-6.35%	LW	-4.3%
63.0	BXP	-5.9%	CMCSA	-4.21%
63.0	GBTC	-5.66%	CNC	-4.13%
63.0	CZR	-5.08%	GME	-3.81%
63.0	VICI	-4.75%	CZR	-3.6%
63.0	TMUS	-4.36%	VICI	-3.26%
63.0	SNY	-4.18%	POST	-3.08%
63.0	POST	-3.7%	MOS	-3.0%
63.0	IEP	-3.4%	FRA	-2.9%
63.0	MOS	-3.35%	SNY	-2.82%
63.0	LW	-3.26%	IEP	-2.71%



P365D: 126d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	MSTR	-128.44%	MSTR	-47.53%
126.0	AMC	-104.66%	PRGO	-41.4%
126.0	PRGO	-94.36%	AMC	-37.1%
126.0	CHTR	-71.21%	CHTR	-32.89%
126.0	ZTS	-49.09%	NWL	-24.26%
126.0	NWL	-45.05%	CMG	-22.93%
126.0	CMCSA	-39.09%	CPRT	-22.81%
126.0	ADBE	-31.68%	FIS	-20.54%
126.0	NFLX	-26.42%	GT	-17.78%
126.0	FIS	-25.45%	ZTS	-17.73%
126.0	CPRT	-25.01%	INTU	-17.26%
126.0	NAVI	-24.06%	ADBE	-16.86%
126.0	INTU	-23.06%	MOS	-16.41%
126.0	CMG	-21.78%	GBTC	-15.18%
126.0	TDG	-20.37%	NFLX	-15.01%
126.0	CZR	-20.05%	NAVI	-14.81%
126.0	VNO	-15.77%	CZR	-14.31%
126.0	GT	-14.61%	TMUS	-14.11%
126.0	GME	-14.51%	CMCSA	-14.08%
126.0	KHC	-14.5%	VNO	-12.41%
126.0	IEP	-13.37%	KHC	-11.76%
126.0	TMUS	-13.21%	VICI	-9.86%
126.0	MOS	-12.12%	GME	-8.29%
126.0	VICI	-11.36%	FRA	-8.04%
126.0	BXP	-9.95%	IEP	-7.97%
126.0	GBTC	-8.88%	TDG	-7.38%
126.0	META	-8.8%	T	-7.11%
126.0	T	-8.07%	POST	-6.27%
126.0	MSI	-7.61%	UAA	-5.23%
126.0	POST	-7.3%	MSI	-4.08%



P90D: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	CLF	-1.69%	AMC	-0.77%
1.0	NAVI	-1.26%	NAVI	-0.7%
1.0	INTU	-1.21%	CLF	-0.69%
1.0	ORCL	-1.09%	INTU	-0.57%
1.0	MSFT	-1.08%	FIS	-0.54%
1.0	BHC	-1.07%	ADBE	-0.5%
1.0	LNC	-1.0%	QCOM	-0.47%
1.0	LUMN	-0.96%	GT	-0.44%
1.0	QCOM	-0.96%	BHC	-0.44%
1.0	AMC	-0.91%	BXP	-0.42%
1.0	FIS	-0.9%	ORCL	-0.42%
1.0	VST	-0.89%	GBTC	-0.4%
1.0	ADBE	-0.8%	VNO	-0.4%
1.0	LEN	-0.77%	MSFT	-0.39%
1.0	GT	-0.75%	PRGO	-0.38%
1.0	CMG	-0.71%	LNC	-0.36%
1.0	BXP	-0.71%	CNC	-0.34%
1.0	NWL	-0.69%	ISRG	-0.32%
1.0	PRGO	-0.68%	UNH	-0.31%
1.0	VNO	-0.65%	WYNN	-0.28%
1.0	META	-0.61%	LVS	-0.28%
1.0	ISRG	-0.6%	WFC	-0.28%
1.0	TDG	-0.57%	LEN	-0.27%
1.0	TSLA	-0.56%	EXPE	-0.26%
1.0	CCL	-0.49%	TDG	-0.25%
1.0	LVS	-0.47%	TSLA	-0.25%
1.0	CMCSA	-0.46%	CMG	-0.24%
1.0	AVGO	-0.45%	CCL	-0.24%
1.0	CNC	-0.43%	LLY	-0.23%
1.0	UNH	-0.42%	BAC	-0.22%



P90D: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	AMC	-20.02%	AMC	-8.48%
10.0	NAVI	-17.28%	NAVI	-8.13%
10.0	PRGO	-17.15%	CLF	-7.91%
10.0	CLF	-16.05%	PRGO	-7.07%
10.0	INTU	-13.33%	BHC	-6.84%
10.0	BHC	-10.88%	GT	-6.23%
10.0	ORCL	-10.72%	INTU	-5.63%
10.0	QCOM	-10.52%	FIS	-5.6%
10.0	FIS	-8.91%	QCOM	-5.44%
10.0	BXP	-8.88%	ADBE	-5.39%
10.0	MSFT	-8.79%	CNC	-5.38%
10.0	NWL	-8.6%	VNO	-5.19%
10.0	ISRG	-7.92%	GBTC	-5.11%
10.0	AMZN	-7.35%	ORCL	-5.07%
10.0	LLY	-7.22%	BXP	-4.59%
10.0	ADBE	-7.21%	MSFT	-4.36%
10.0	UNH	-7.11%	LNC	-4.2%
10.0	CMG	-6.96%	UNH	-4.06%
10.0	GT	-6.8%	LEN	-3.85%
10.0	VNO	-6.78%	CCL	-3.77%
10.0	LNC	-6.58%	B	-3.71%
10.0	CNC	-6.54%	EXPE	-3.68%
10.0	TDG	-6.21%	ISRG	-3.67%
10.0	LUMN	-5.92%	CMG	-3.63%
10.0	GBTC	-5.91%	MSTR	-3.44%
10.0	CCL	-5.59%	WFC	-3.41%
10.0	CYH	-5.25%	TDG	-3.29%
10.0	LEN	-4.7%	CPRT	-3.24%
10.0	TSLA	-4.7%	BA	-3.22%
10.0	CDNS	-4.48%	LLY	-3.17%



P90D: 21d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	AMC	-41.88%	CLF	-19.54%
21.0	CLF	-41.69%	AMC	-17.53%
21.0	PRGO	-40.76%	NAVI	-17.52%
21.0	NAVI	-33.79%	PRGO	-16.57%
21.0	BXP	-20.99%	GT	-13.45%
21.0	QCOM	-19.59%	BHC	-12.07%
21.0	INTU	-19.51%	GBTC	-11.24%
21.0	AMZN	-19.42%	VNO	-11.15%
21.0	BHC	-19.21%	BXP	-10.8%
21.0	ORCL	-17.88%	LUMN	-10.63%
21.0	TDG	-17.59%	FIS	-10.49%
21.0	MSFT	-17.15%	QCOM	-10.34%
21.0	VNO	-17.1%	LNC	-10.25%
21.0	LNC	-16.22%	CNC	-10.22%
21.0	LUMN	-15.53%	INTU	-9.85%
21.0	CMG	-15.03%	ORCL	-9.34%
21.0	GT	-14.5%	ADBE	-9.23%
21.0	FIS	-14.44%	MSFT	-8.44%
21.0	UNH	-14.32%	UNH	-7.92%
21.0	GBTC	-13.56%	CMG	-7.91%
21.0	AMD	-13.3%	EXPE	-7.88%
21.0	CNC	-12.52%	LEN	-7.81%
21.0	ISRG	-12.32%	WFC	-7.48%
21.0	CCL	-11.99%	B	-7.46%
21.0	NWL	-10.81%	CCL	-7.45%
21.0	VFC	-10.15%	TDG	-7.42%
21.0	ADBE	-10.06%	CPRT	-7.36%
21.0	LLY	-9.96%	SLV	-7.15%
21.0	MSTR	-9.04%	MSTR	-6.98%
21.0	LEN	-9.0%	BA	-6.97%



P30D: 1d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	CLF	-2.66%	CNC	-1.37%
1.0	NWL	-2.29%	CLF	-1.37%
1.0	AMAT	-2.29%	NWL	-1.17%
1.0	LEN	-2.26%	LEN	-1.12%
1.0	GE	-2.25%	THC	-1.02%
1.0	GNRC	-1.96%	GT	-1.0%
1.0	CMG	-1.73%	B	-0.96%
1.0	AZO	-1.71%	UAA	-0.93%
1.0	CNC	-1.7%	GE	-0.91%
1.0	ON	-1.59%	MU	-0.83%
1.0	HD	-1.46%	SLV	-0.77%
1.0	CCL	-1.46%	NEM	-0.77%
1.0	CVS	-1.38%	GNRC	-0.74%
1.0	PRGO	-1.38%	AMC	-0.73%
1.0	MU	-1.3%	CPRT	-0.67%
1.0	META	-1.28%	BA	-0.65%
1.0	BHC	-1.26%	CYH	-0.65%
1.0	VFC	-1.24%	FCX	-0.65%
1.0	UNH	-1.2%	AZO	-0.64%
1.0	VST	-1.19%	CMG	-0.62%
1.0	LLY	-1.16%	CVS	-0.6%
1.0	CDNS	-1.12%	TDG	-0.6%
1.0	GLD	-1.06%	PHM	-0.59%
1.0	TDG	-1.05%	META	-0.59%
1.0	SBUX	-1.01%	GLD	-0.59%
1.0	QCOM	-1.0%	BUD	-0.59%
1.0	CMCSA	-1.0%	BHP	-0.59%
1.0	UAA	-0.98%	PRGO	-0.57%
1.0	FCX	-0.92%	HD	-0.56%
1.0	CHTR	-0.91%	HCA	-0.56%



P30D: 10d

Results reflect ticker level average ROEDB across all model dates for which actual results for the stated horizon are known.

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

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	NWL	-35.91%	NWL	-15.57%
10.0	CLF	-28.88%	CNC	-14.01%
10.0	GLD	-26.02%	CLF	-13.98%
10.0	AMC	-24.32%	THC	-13.92%
10.0	META	-23.1%	SLV	-13.58%
10.0	CYH	-22.85%	B	-13.28%
10.0	LLY	-20.28%	GT	-12.05%
10.0	PRGO	-19.26%	NEM	-11.5%
10.0	KHC	-17.62%	AMC	-10.74%
10.0	AZO	-17.17%	CYH	-10.5%
10.0	GE	-16.47%	GLD	-9.82%
10.0	GNRC	-16.3%	UAA	-9.64%
10.0	CVS	-15.65%	GE	-9.43%
10.0	CNC	-15.08%	META	-9.1%
10.0	GT	-14.57%	ADBE	-9.06%
10.0	B	-14.55%	BA	-8.92%
10.0	NEM	-13.59%	FCX	-8.79%
10.0	UNH	-13.06%	CPRT	-8.75%
10.0	FCX	-12.83%	LEN	-8.45%
10.0	MSFT	-12.81%	HCA	-8.1%
10.0	CMCSA	-12.64%	KALU	-7.79%
10.0	HD	-12.64%	LLY	-7.72%
10.0	CMG	-12.62%	AZO	-7.69%
10.0	BUD	-12.44%	TDG	-7.63%
10.0	ADBE	-12.21%	ABBV	-7.48%
10.0	VICI	-12.16%	CVS	-7.05%
10.0	BHC	-11.67%	KHC	-6.89%
10.0	HON	-10.91%	HD	-6.75%
10.0	LEN	-10.8%	PHM	-6.66%
10.0	SBUX	-10.72%	PRGO	-6.65%



Appendix 1: Calculating “Expected Body” for Sigma

An expected value is a probability weighted average. An integral provides the sum of the values of a function of x between two values of x . The “Expected Body” is the expected value between the model date value and the 95%tile for the forecast horizon. “Sigma” is our term to refer to the probability density function of the standard normal distribution, N . We will assume the model date price is the 0 value of the standard normal distribution and we know the 95% tile occurs at 1.645 standard deviations (sigmas). Therefore, the Expected Body for Sigma is the integral of $x*N$ between $x=0$ and $x=1.645$. Because the Expected Body is conditioned upon forward price residing between 0 and 1.645 sigmas, we then divide that integral by the integral of N between $x=0$ and $x=1.645$. See the Python code below, which yields the result “Probability-weighted average value of sigma: 0.6573812144320618”

```
from scipy.stats import norm
from scipy.integrate import quad

def prod_integrand(x): return x * norm.pdf(x)

pwa_sigma, _ = quad(prod_integrand, 0, 1.645)

def integrand(x): return norm.pdf(x)

p_sigma, _ = quad(integrand, 0, 1.645)

ev=pwa_sigma/p_sigma

print(“Probability-weighted average value of sigma:”, ev)
```

If you don’t do Python you can still easily check the veracity of the 0.657 expected value for Sigma for yourself by doing Riemann sums using excel’s “NORMDIST” function. Here are the steps: 1) Make column A starting at 0 and going to 1.645 by 0.005 increments. This is your “ x ”. 2) In column B refer to A as follows: “=NORMDIST(a,0,1,TRUE)”. This is the cumulative probability of the standard normal distribution up through x . 3) In column C take the differences between each value and its prior value in B. These are the probabilities between each value of x . 4) In column D take the average of each value in A and its prior value. This gives you the value of x at the center of each increment. 5) Multiply column D by column C up through $A=1.645$. This is your probability weighted average value of x . It should equal 0.295832. 6) Sum column C. This is your cumulative probability that x is between 0 and 1.645. It should equal 0.450002 7) Divide your probability weighted average value of x by your cumulative probability that x is between 0 and 1.645. You should get a value of 0.657383.



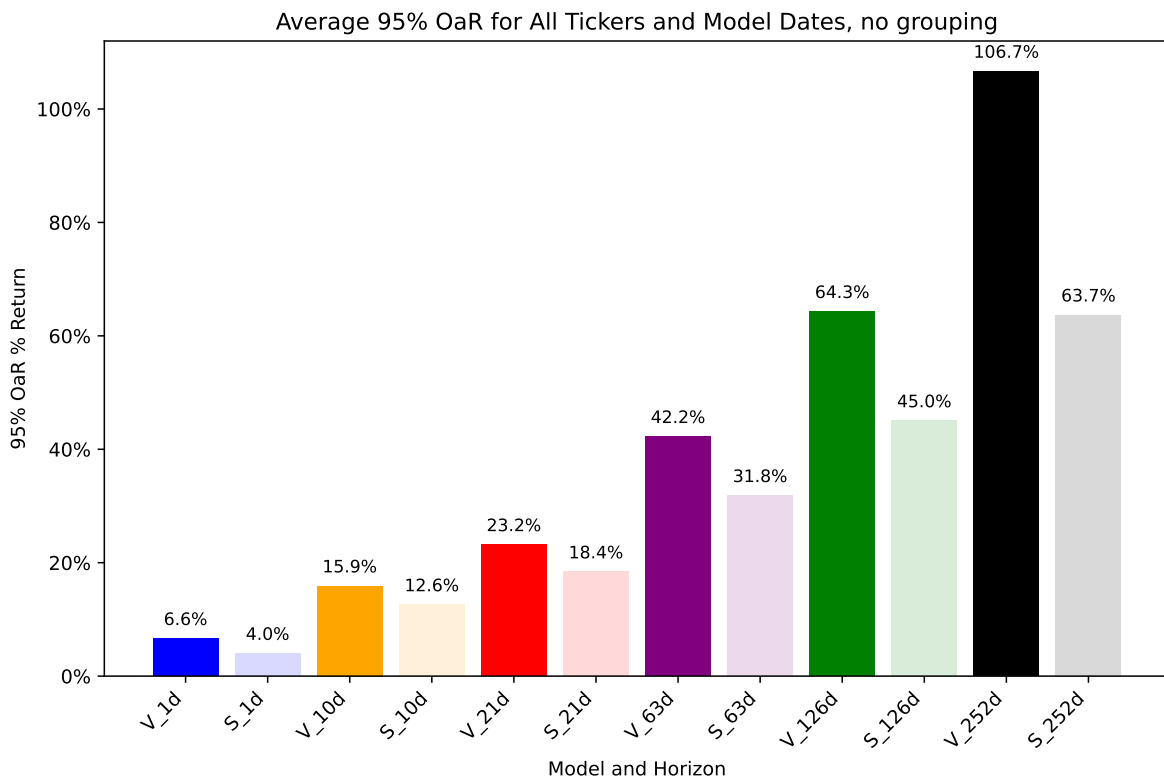
Appendix 2: 95% Opportunity at Risk (OaR)

Historic Average Levels

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

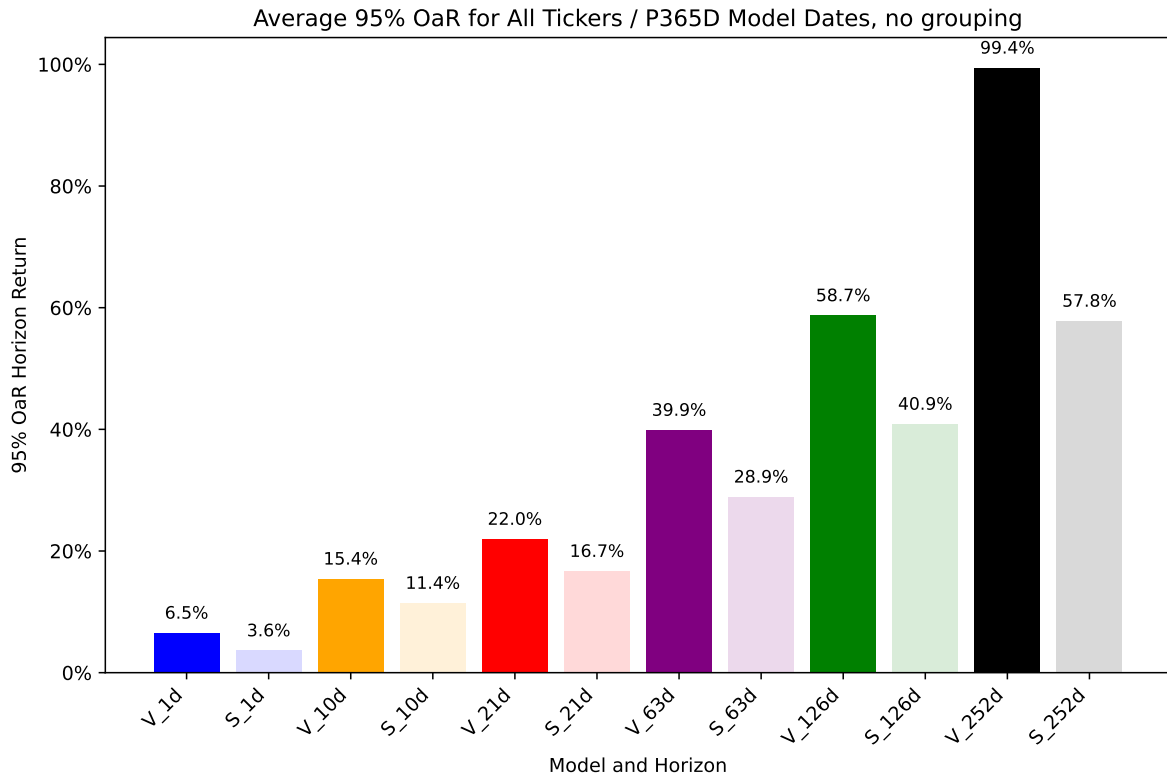
All Out of Sample Model Dates

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



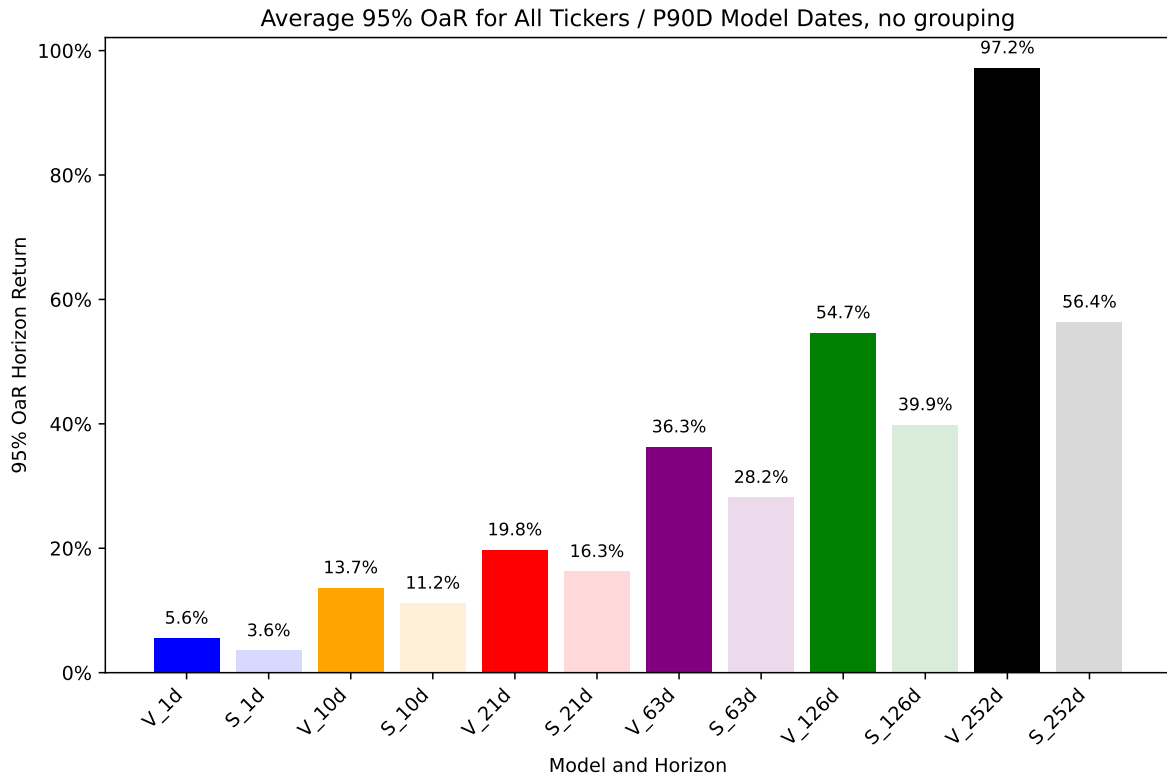
Prior 365 Calendar Days (P365D)

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



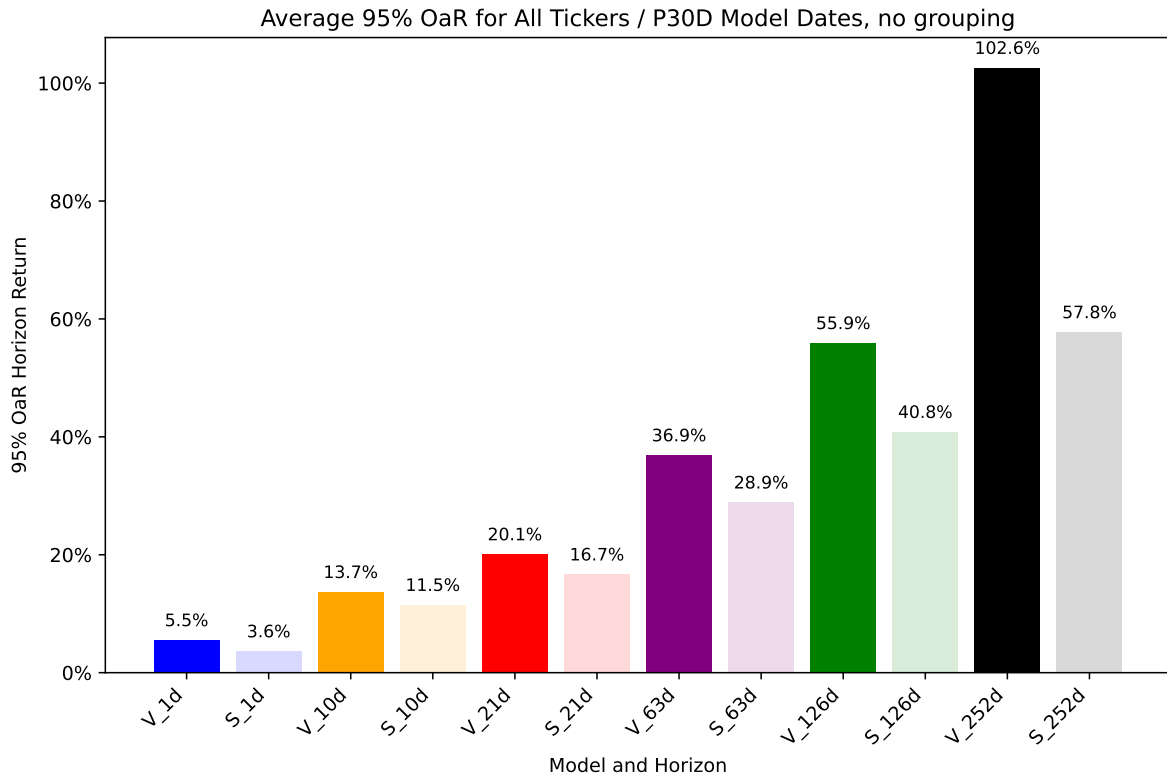
Prior 90 Calendar Days (P90D)

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



Prior 30 Calendar Days (P30D)

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



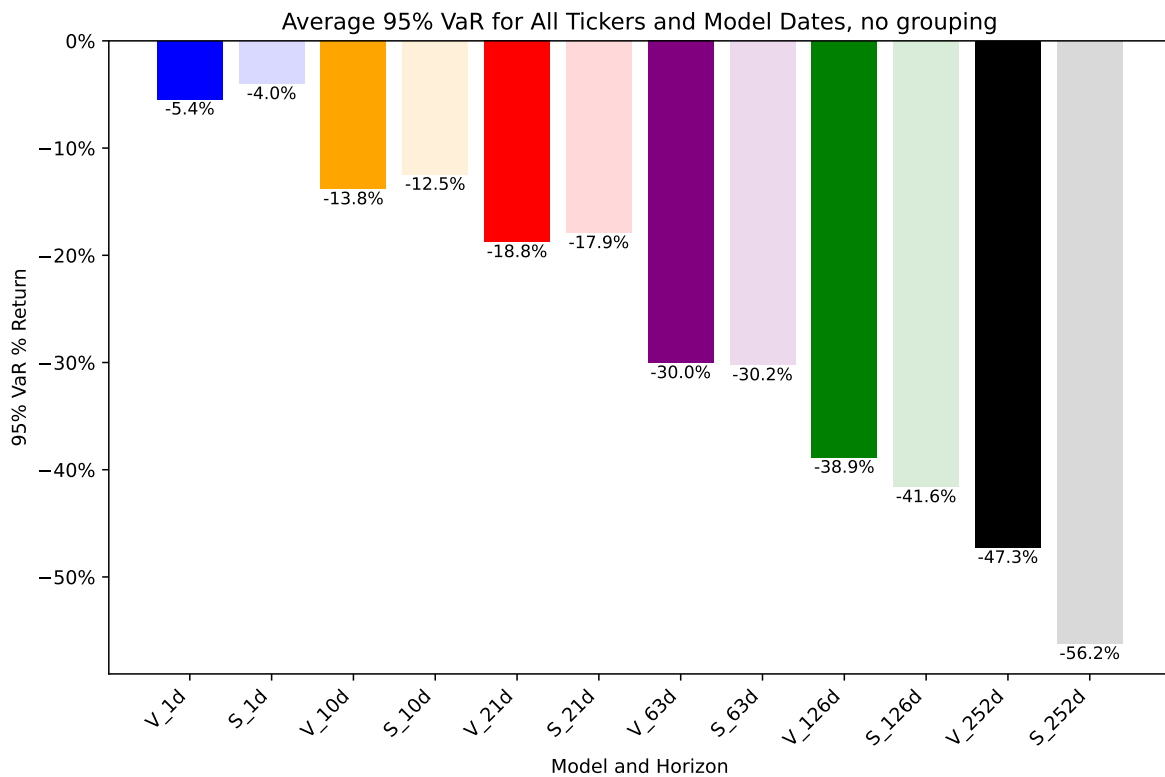
Appendix 3: 95% Value at Risk (VaR)

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.

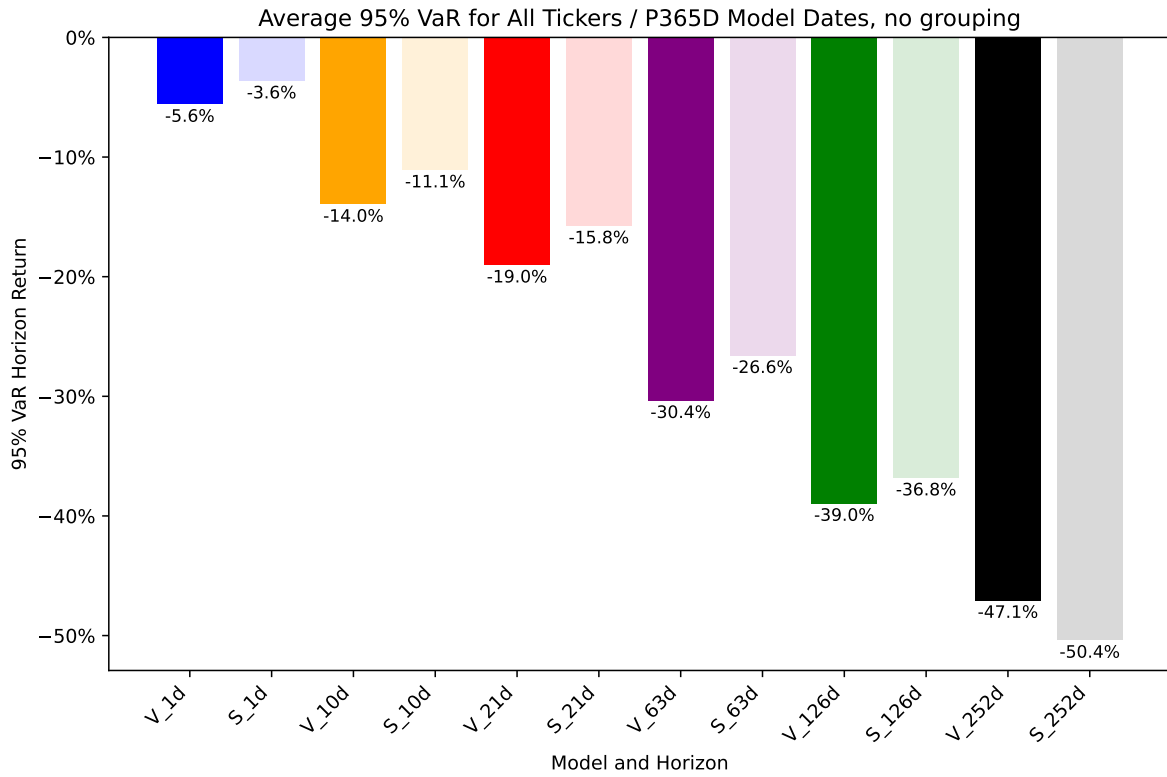
All Out of Sample Model Dates

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



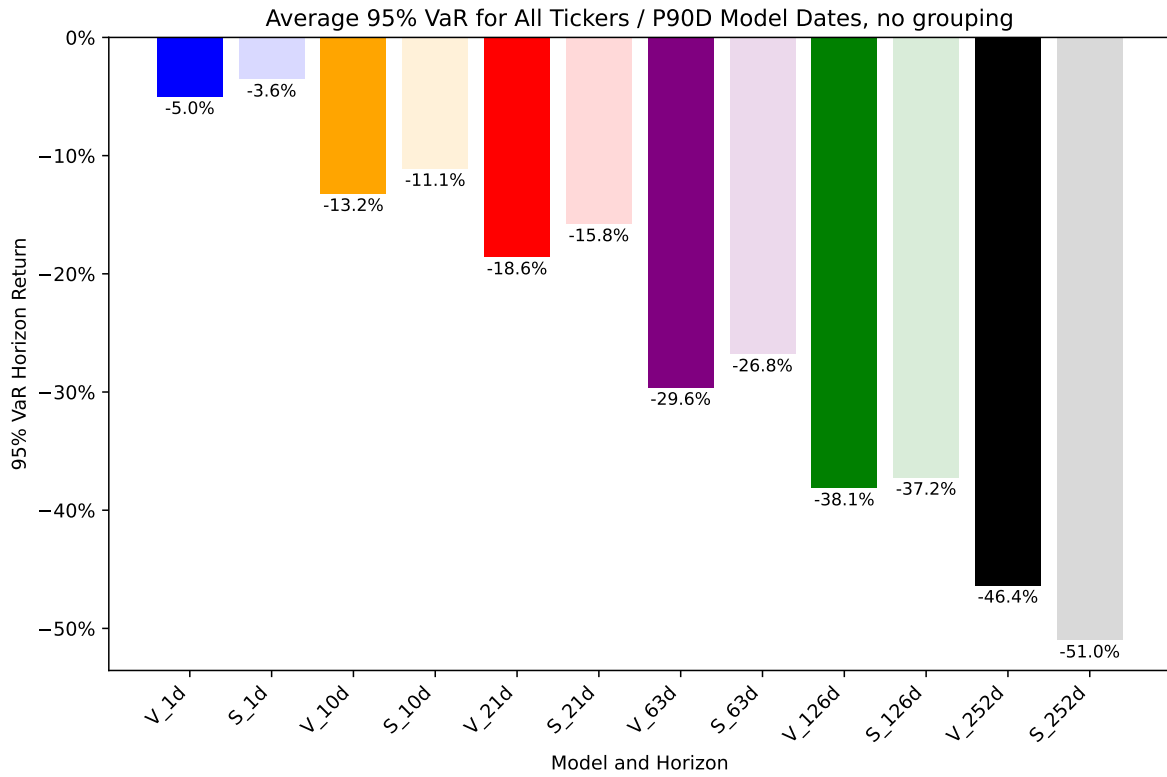
Prior 365 Calendar Days (P365D)

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



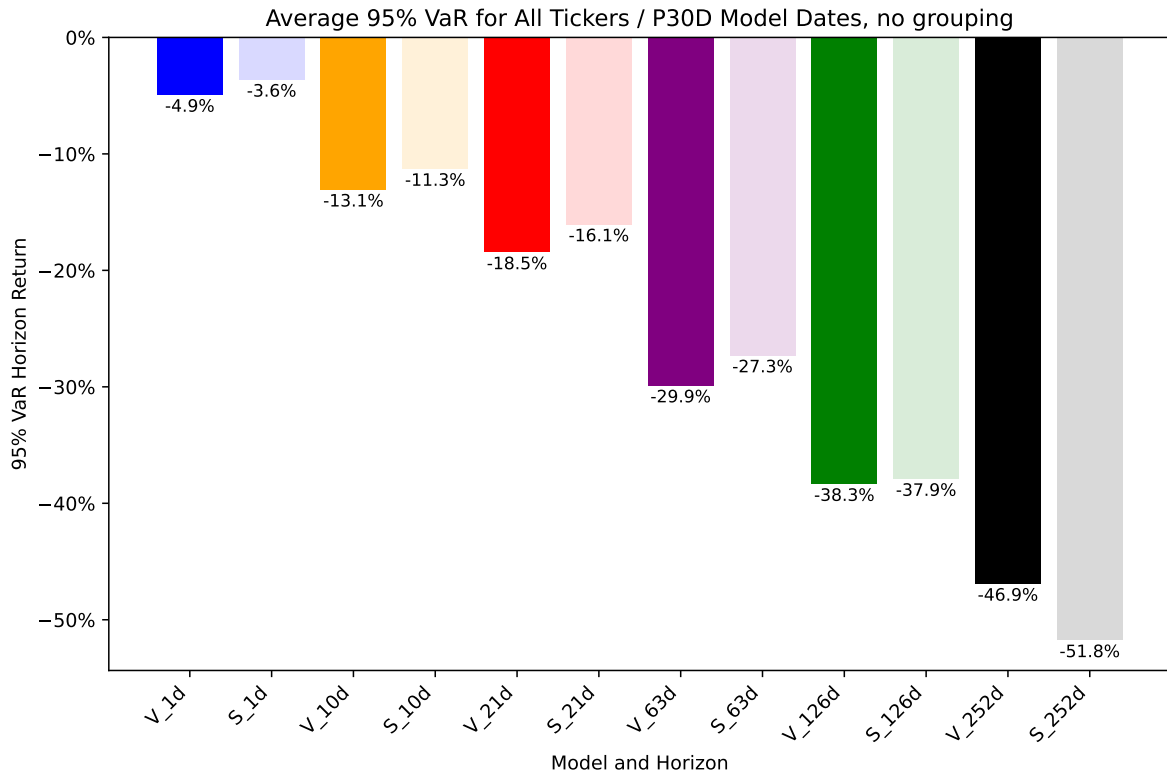
Prior 90 Calendar Days (P90D)

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



Prior 30 Calendar Days (P30D)

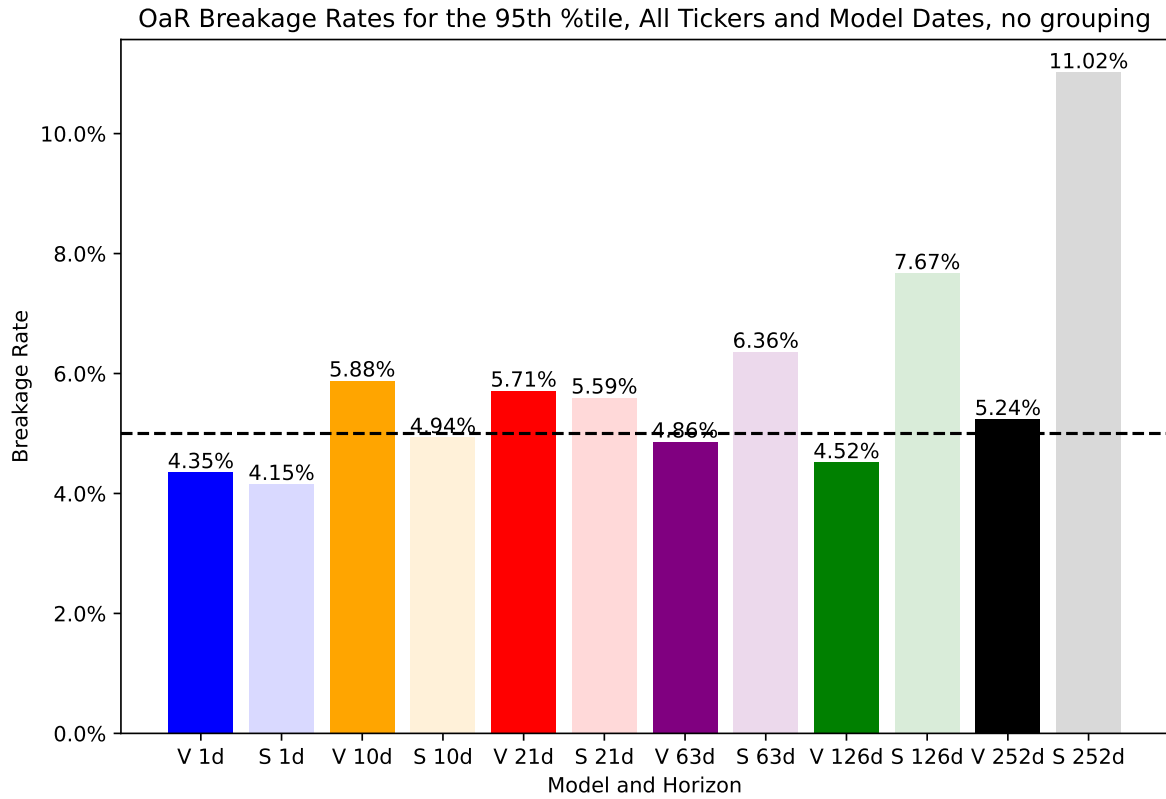
Period examined: All model dates from 2026-03-02 through 2026-03-30



Appendix 4: 95% OaR Breakage Rates

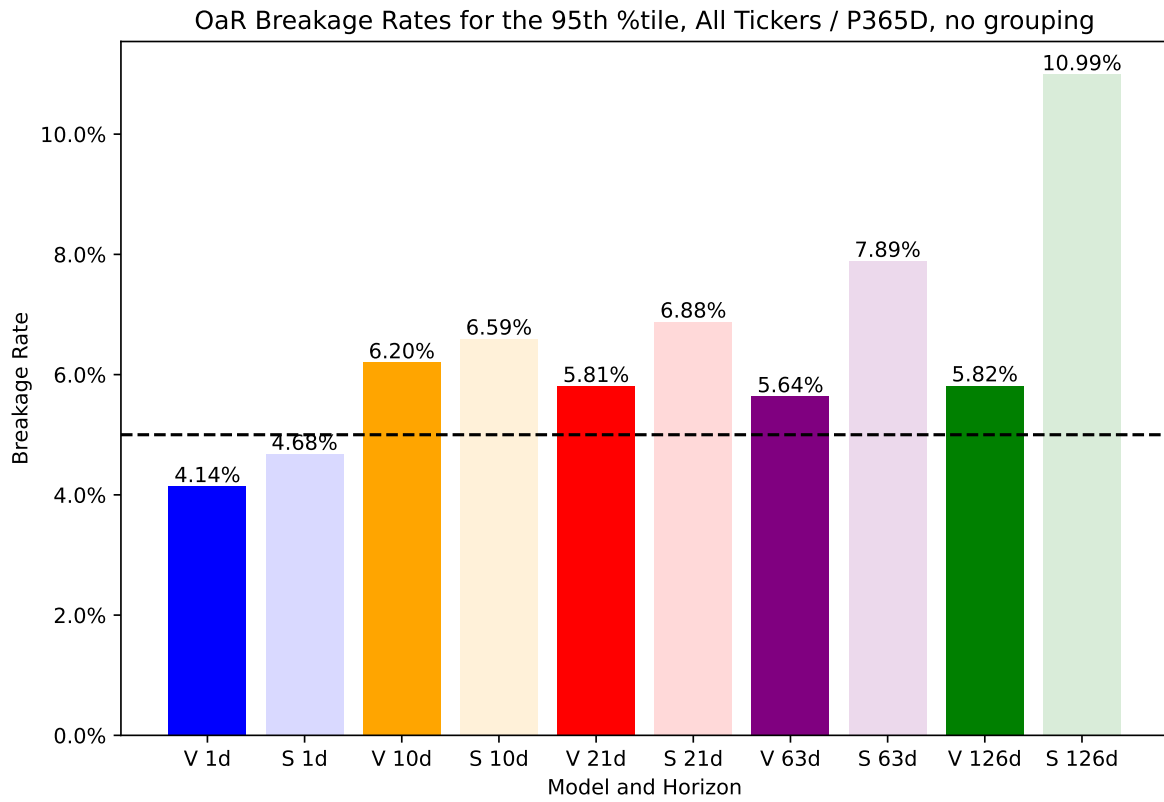
All Out of Sample Model Dates

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



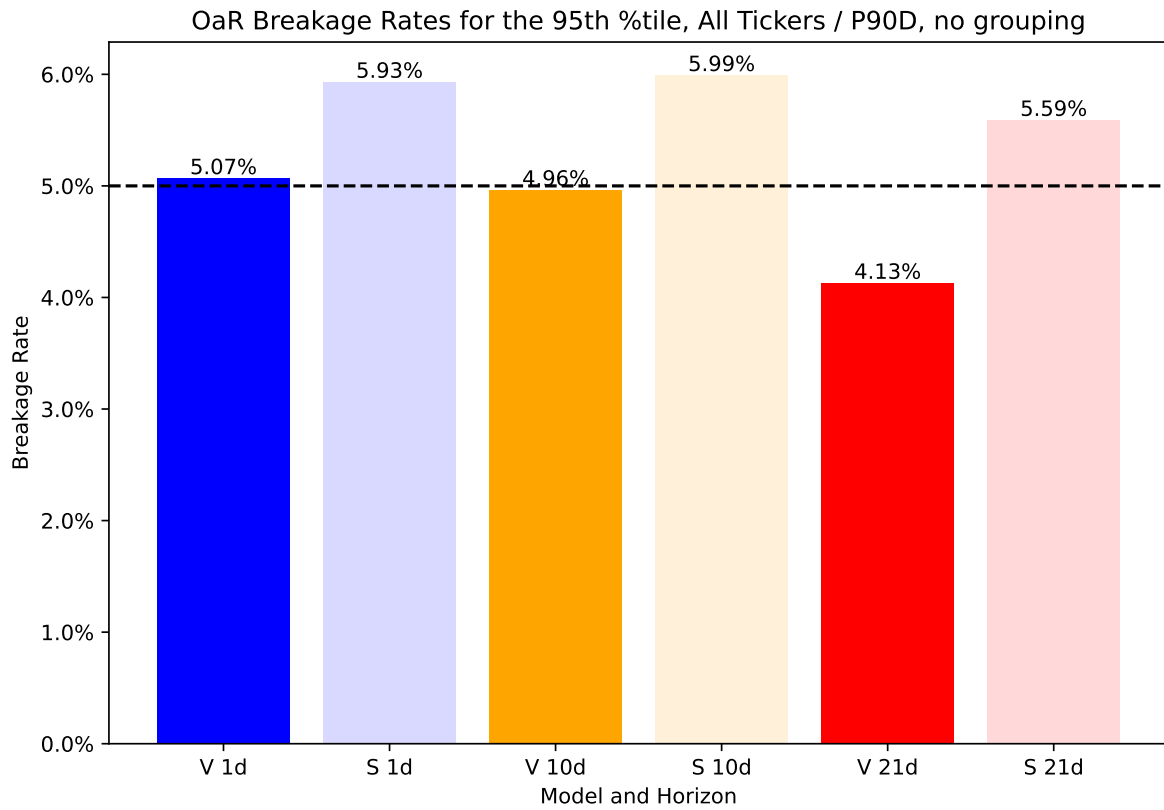
Prior 365 Calendar Days (P365D)

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



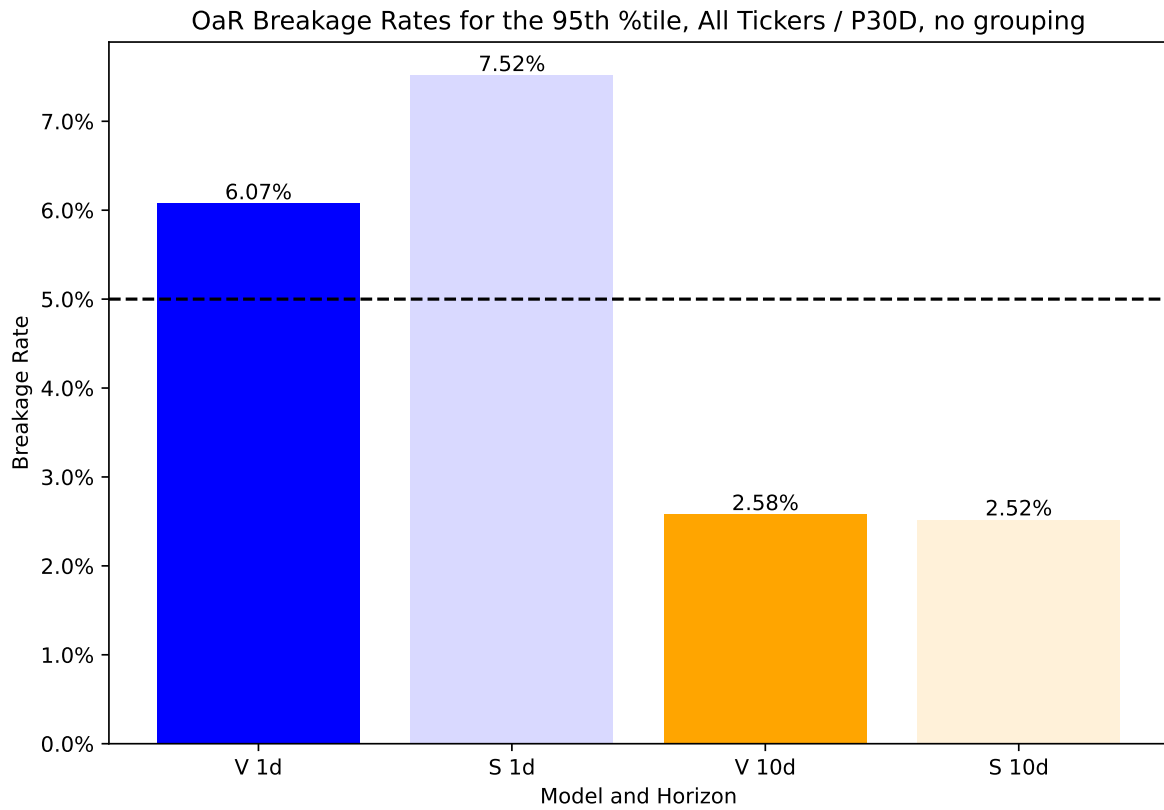
Prior 90 Calendar Days (P90D)

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



Prior 30 Calendar Days (P30D)

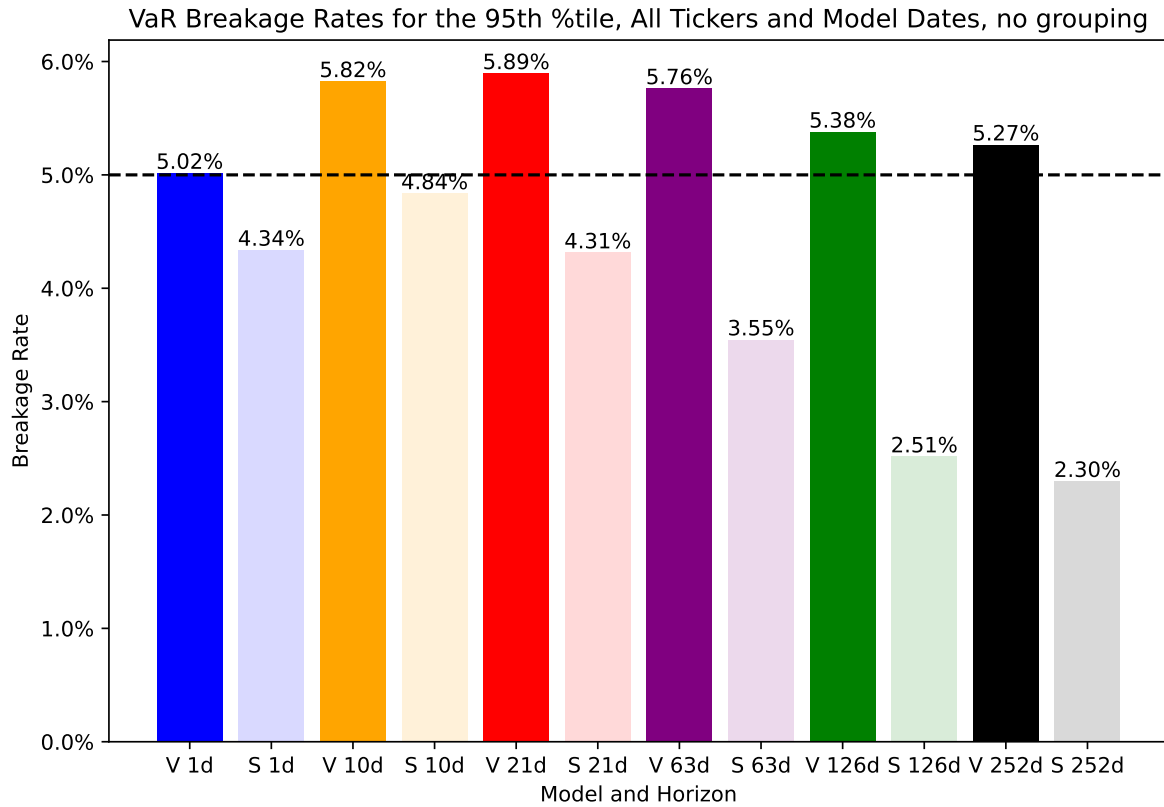
Period examined: All model dates from 2026-03-02 through 2026-03-30



Appendix 5: 95% VaR Breakage Rates

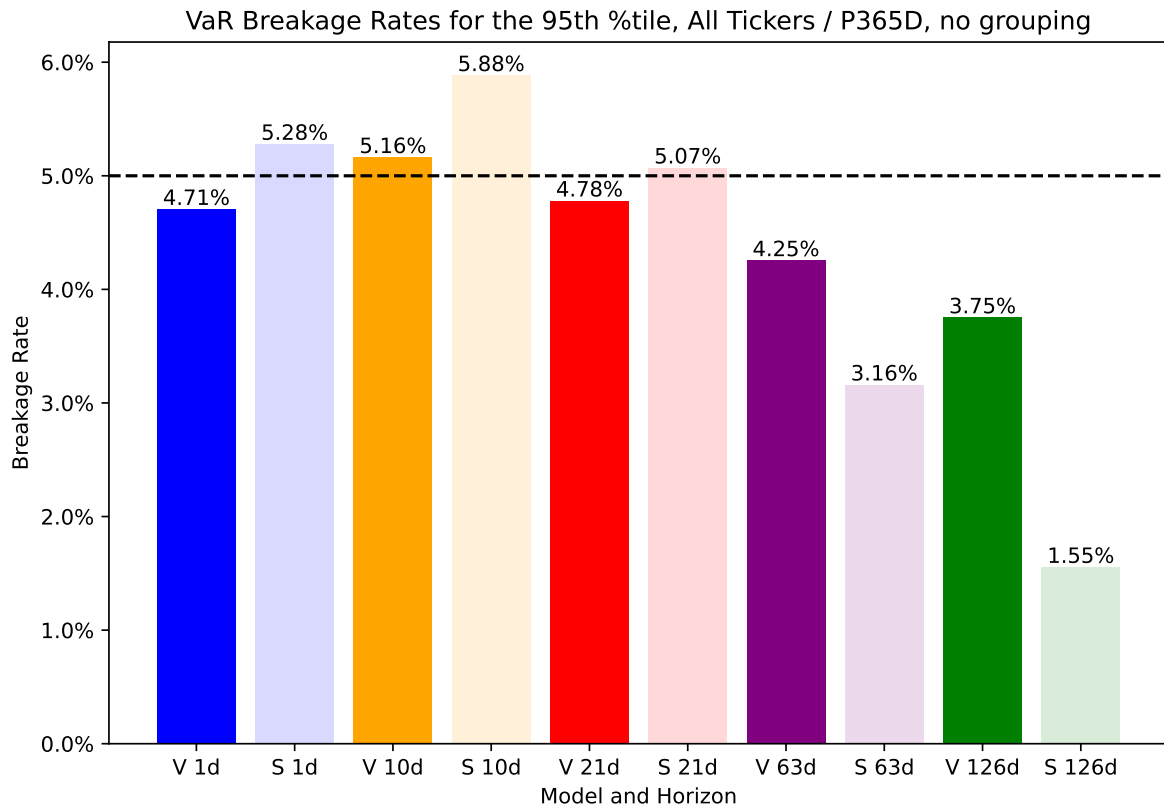
All Out of Sample Model Dates

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



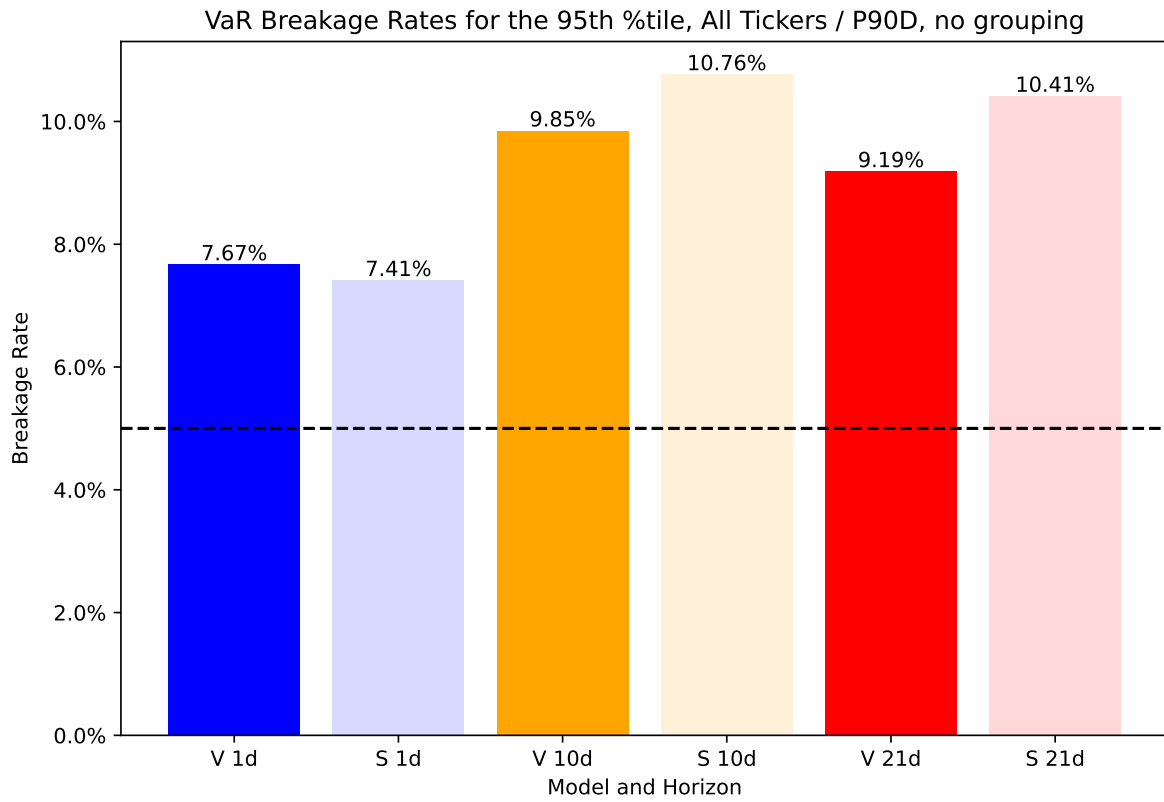
Prior 365 Calendar Days (P365D)

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



Prior 90 Calendar Days (P90D)

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



Prior 30 Calendar Days (P30D)

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

