

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

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29 May 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/) (<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.

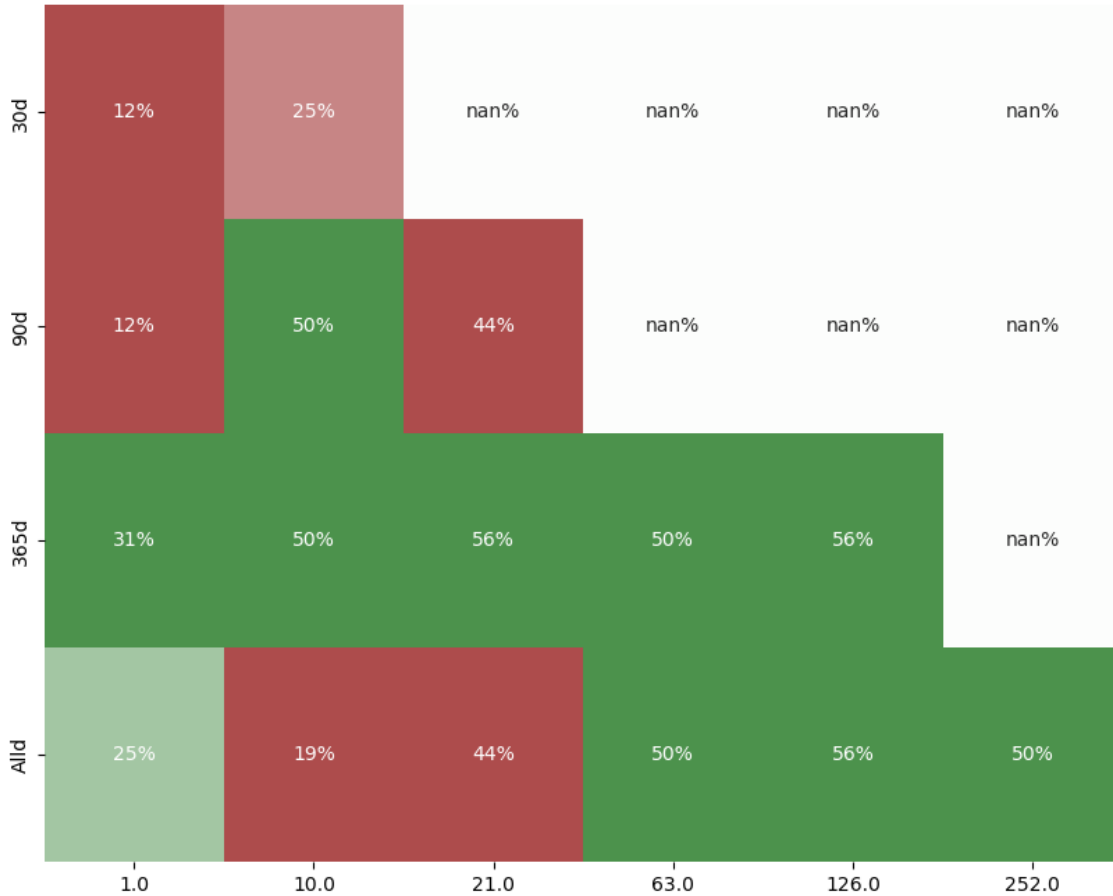
Thus, in summary, all metrics presented in this report are presented and are to be considered on a comparative basis. Are Vector Model breakage rates closer to target than Sigma’s? Does Vector Model ROEUB or ROEDB outperform Sigma ROEUB or ROEDB? Is the relative performance driven by alpha or beta? By 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 2026-05-28 while 365D /90D/ 30D include the 365/90/30 days ended 2026-05-28, respectively.

% of Expected Body Objectives Met By Lookback Window vs. Trading Day Horizon, as of 2026-05-29



EB Criteria	Average Score(%)
1. Smaller EUB MAE (mean absolute error)	0
2. Smaller EUB MAE after 95%tile adjustment	0
3. Less adjusted EUB MAE Variability across dates	6.25
4. Less adjusted EUB MAE Variability across tickers	18.75
5. Smaller EDB MAE	62.5
6. Smaller EDB MAE after 95%tile adjustment	56.25
7. Less adjusted EDB MAE Variability across dates	31.25
8. Less adjusted EDB MAE Variability across tickers	50
9. Greater ROEUB	37.5



EB Criteria	Average Score(%)
10. Greater ROEUB after adjusting for EUB magnitude	43.75
11. ROEUB alpha across tickers and dates > 0	50
12. ROEUB alpha across dates > 0	0
13. Greater ROEDB	100
14. Greater ROEDB after adjusting for EDB magnitude	87.5
15. ROEDB alpha across tickers and dates > 0	6.25
16. ROEDB alpha across dates > 0	81.25
Overall Average	39.45

EB and ROEB Criteria by Fwd Hzn	1D	10D	21D	63D	126D	252D
1. Smaller EUB MAE (mean absolute error)	0	0	0	0	0	0
2. Smaller EUB MAE after 95%tile adjustment	0	0	0	0	0	0
3. Less adjusted EUB MAE Variability across dates	25	0	0	0	0	0
4. Less adjusted EUB MAE Variability across tickers	25	25	33.33	0	0	0
5. Smaller EDB MAE	0	75	66.67	100	100	100
6. Smaller EDB MAE after 95%tile adjustment	0	75	66.67	100	100	0
7. Less adjusted EDB MAE Variability across dates	0	50	33.33	0	50	100
8. Less adjusted EDB MAE Variability across tickers	50	50	66.67	50	50	0
9. Greater ROEUB	0	0	33.33	100	100	100
10. Greater ROEUB after adjusting for EUB magnitude	0	0	66.67	100	100	100
11. ROEUB alpha across tickers and dates > 0	0	0	100	100	100	100
12. ROEUB alpha across dates > 0	0	0	0	0	0	0
13. Greater ROEDB	100	100	100	100	100	100
14. Greater ROEDB after adjusting for EDB magnitude	75	100	100	50	100	100
15. ROEDB alpha across tickers and dates > 0	0	25	0	0	0	0
16. ROEDB alpha across dates > 0	50	75	100	100	100	100
TotalScore	20.31	35.94	47.92	50	56.25	50



EB and ROEB Criteria by Lookback Window	30D	90D	365D	AllD
1. Smaller EUB MAE (mean absolute error)	0	0	0	0
2. Smaller EUB MAE after 95%tile adjustment	0	0	0	0
3. Less adjusted EUB MAE Variability across dates	50	0	0	0
4. Less adjusted EUB MAE Variability across tickers	0	0	60	0
5. Smaller EDB MAE	50	66.67	80	50
6. Smaller EDB MAE after 95%tile adjustment	50	66.67	80	33.33
7. Less adjusted EDB MAE Variability across dates	0	33.33	20	50
8. Less adjusted EDB MAE Variability across tickers	0	66.67	100	16.67
9. Greater ROEUB	0	0	40	66.67
10. Greater ROEUB after adjusting for EUB magnitude	0	0	60	66.67
11. ROEUB alpha across tickers and dates > 0	0	33.33	60	66.67
12. ROEUB alpha across dates > 0	0	0	0	0
13. Greater ROEDB	100	100	100	100
14. Greater ROEDB after adjusting for EDB magnitude	50	100	80	100
15. ROEDB alpha across tickers and dates > 0	0	33.33	0	0
16. ROEDB alpha across dates > 0	0	66.67	100	100
TotalScore	18.75	35.42	48.75	40.62

See the prior page for associated definitions of the criteria.



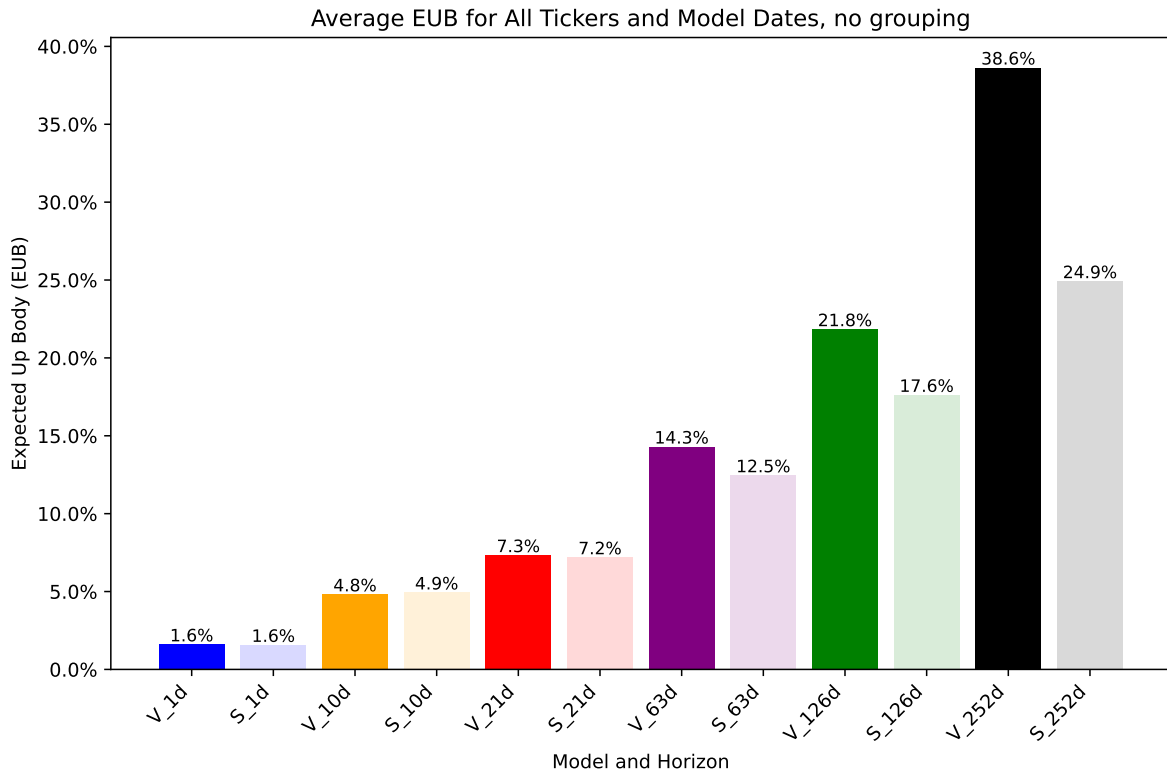
Expected Up Body (EUB)

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.

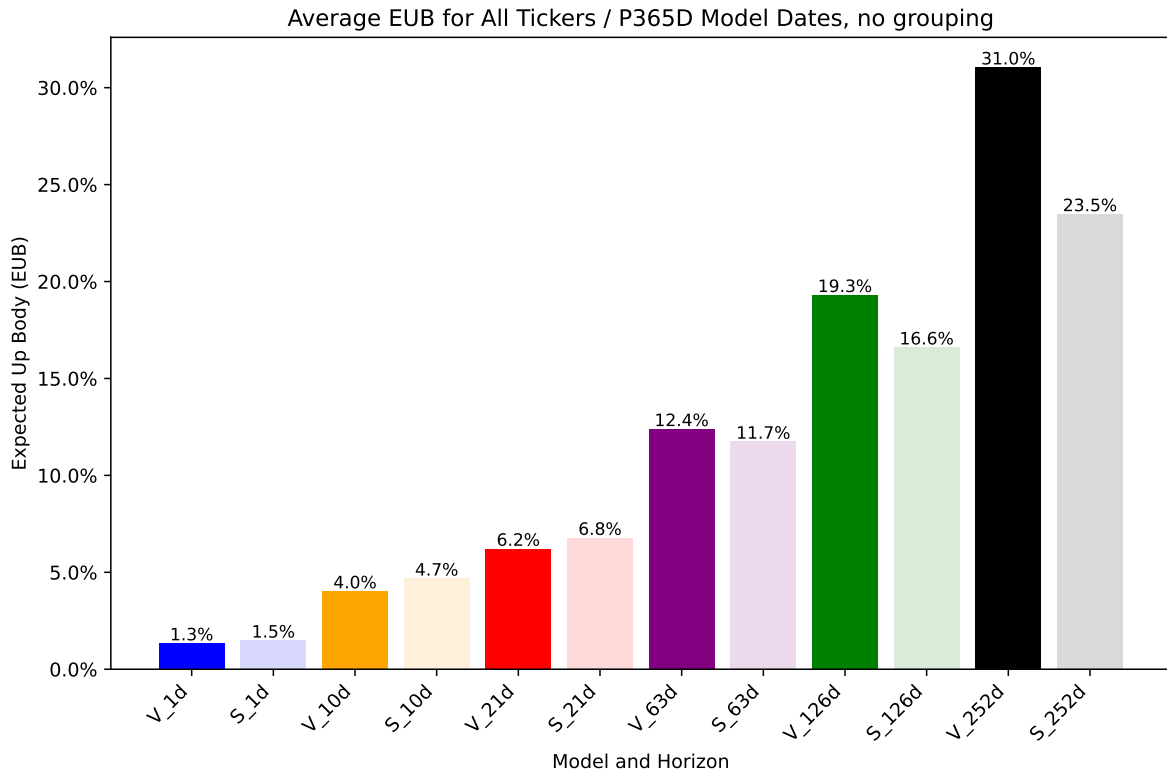
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



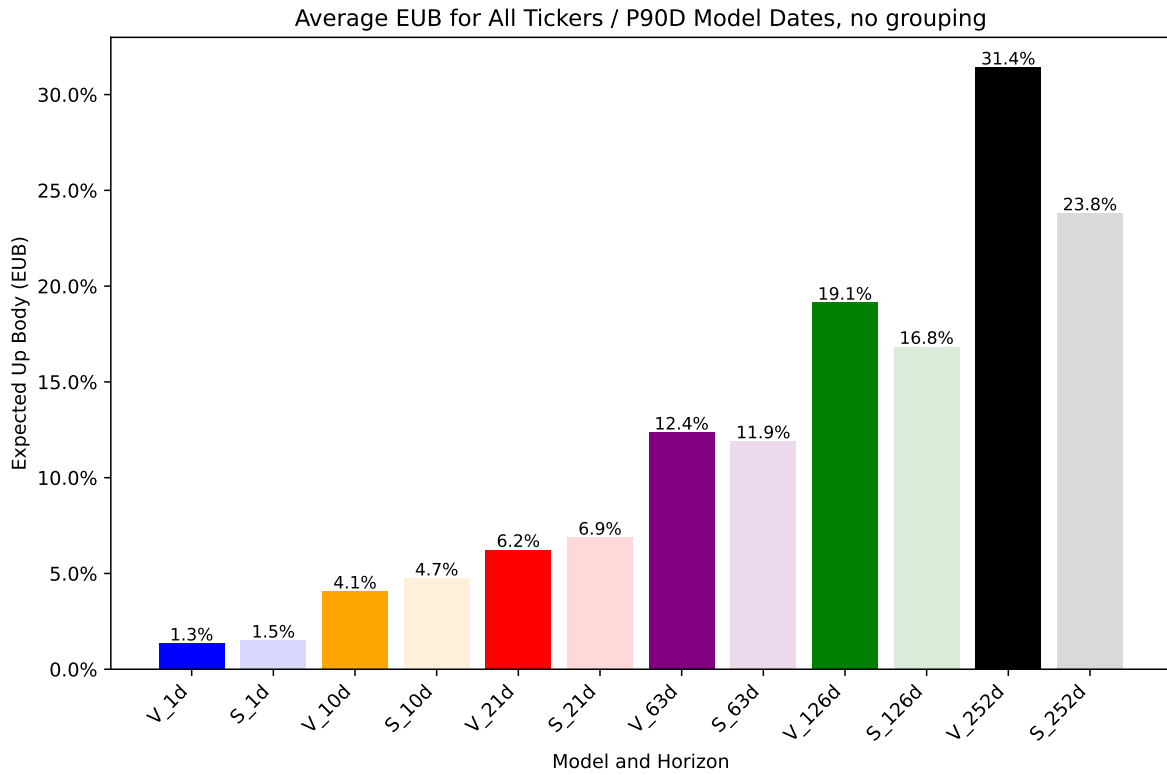
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



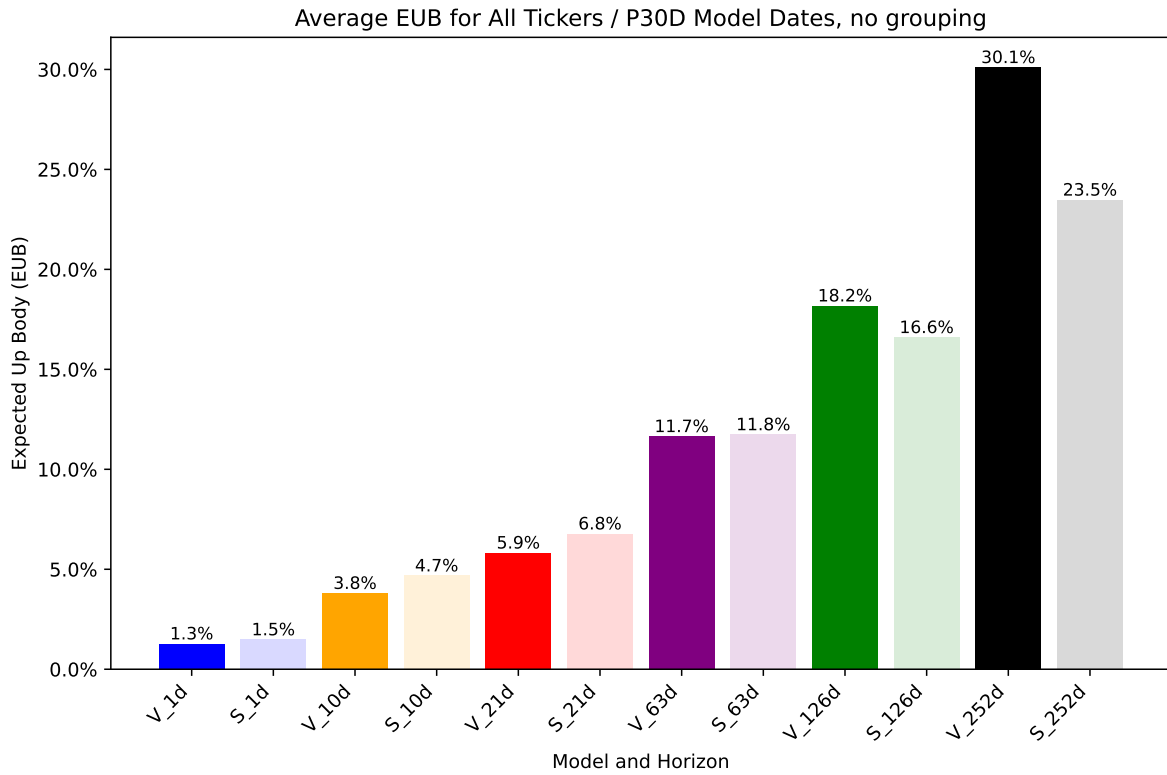
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



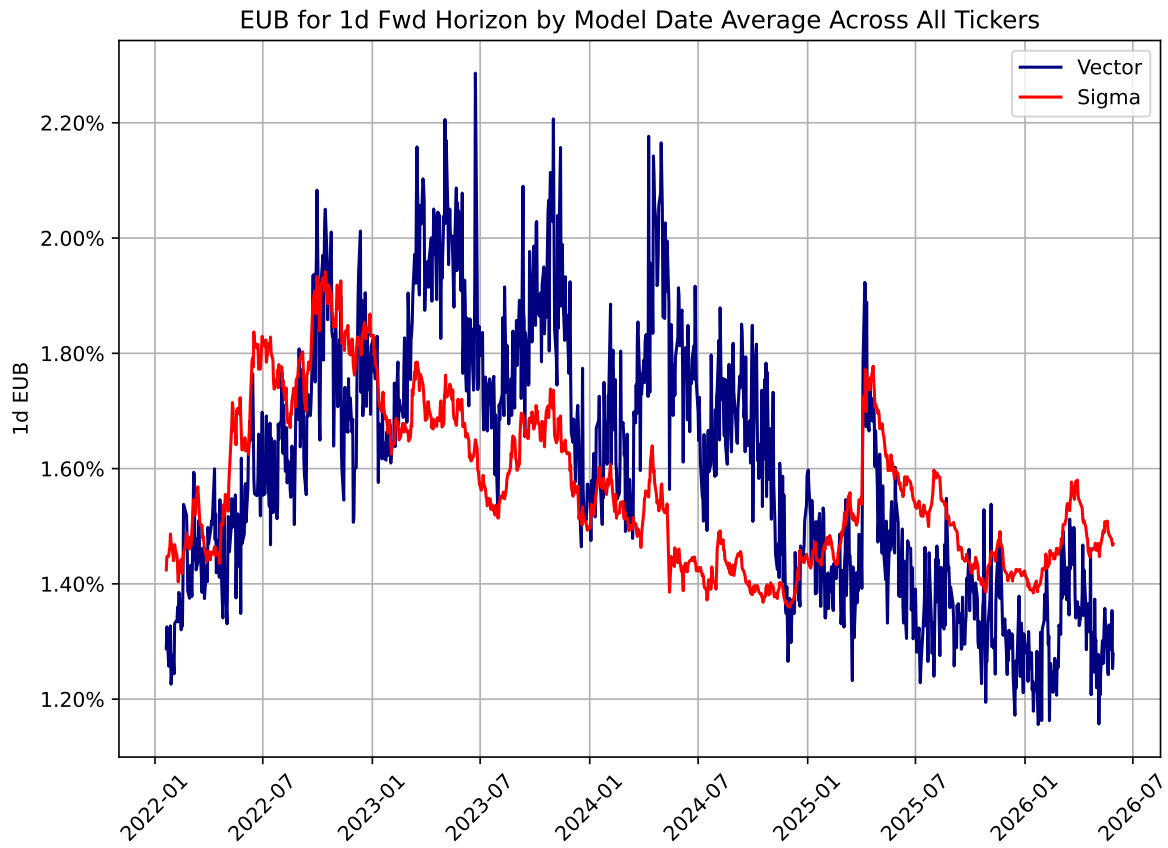
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28

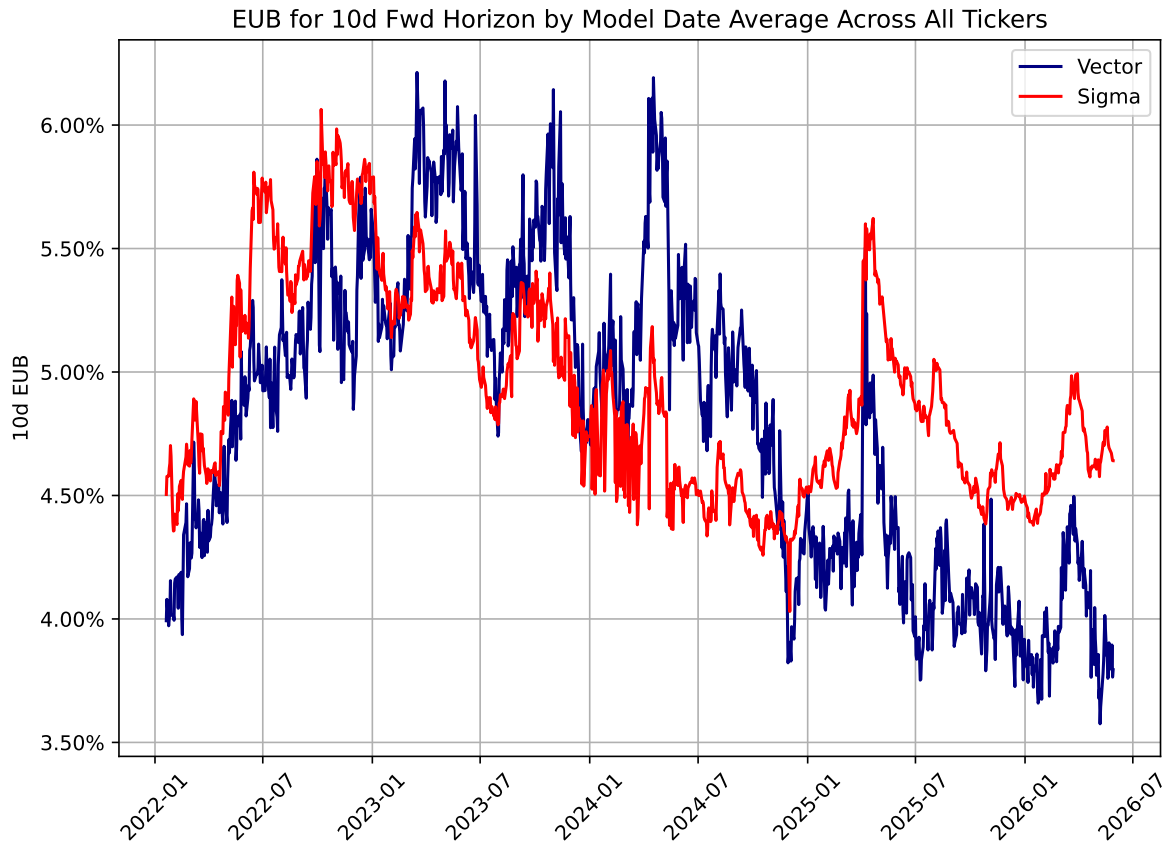


EUB by Model Date Detail

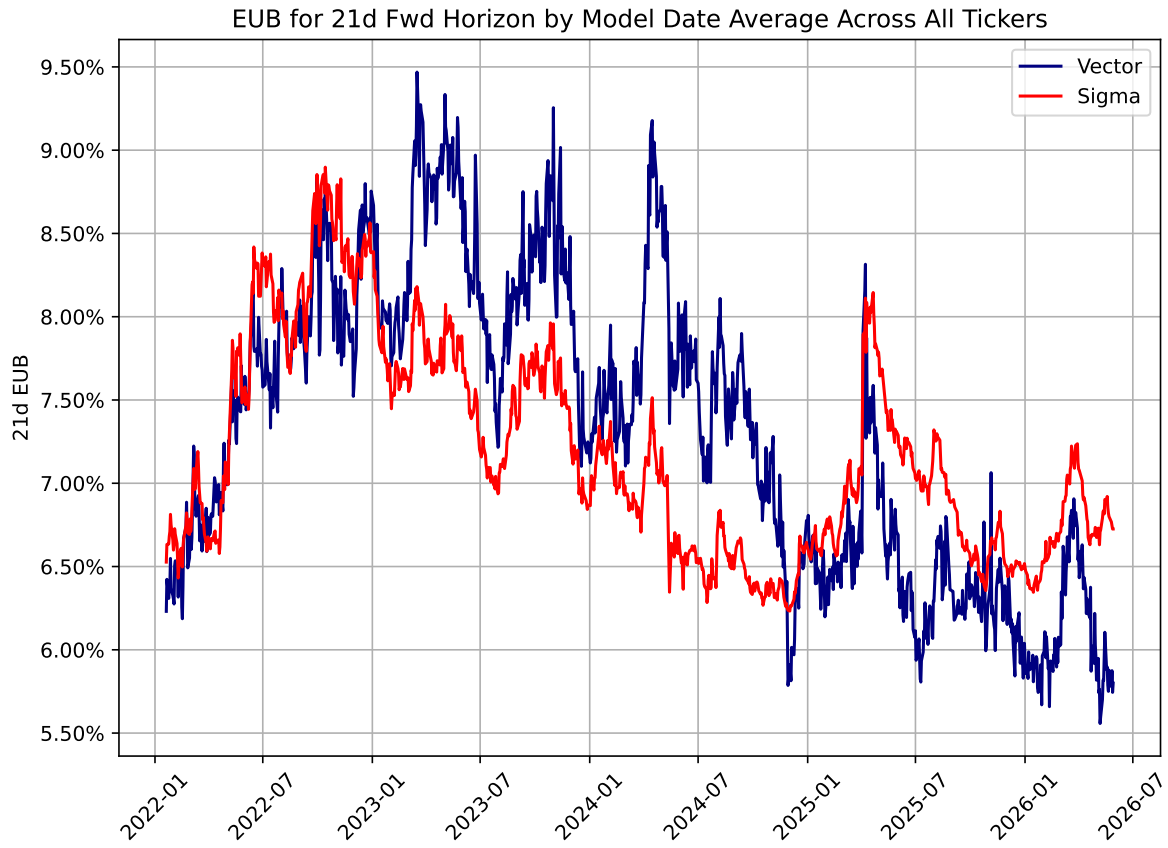
1d Horizon



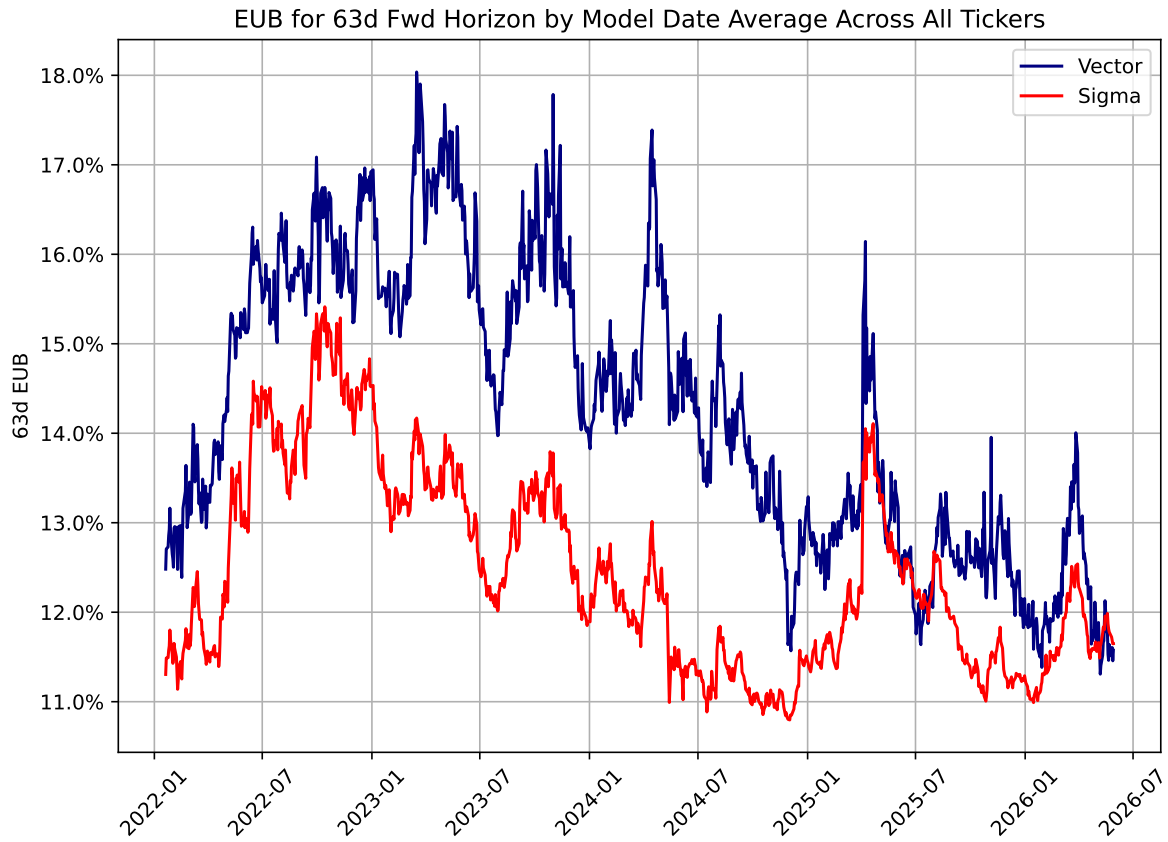
10d Horizon



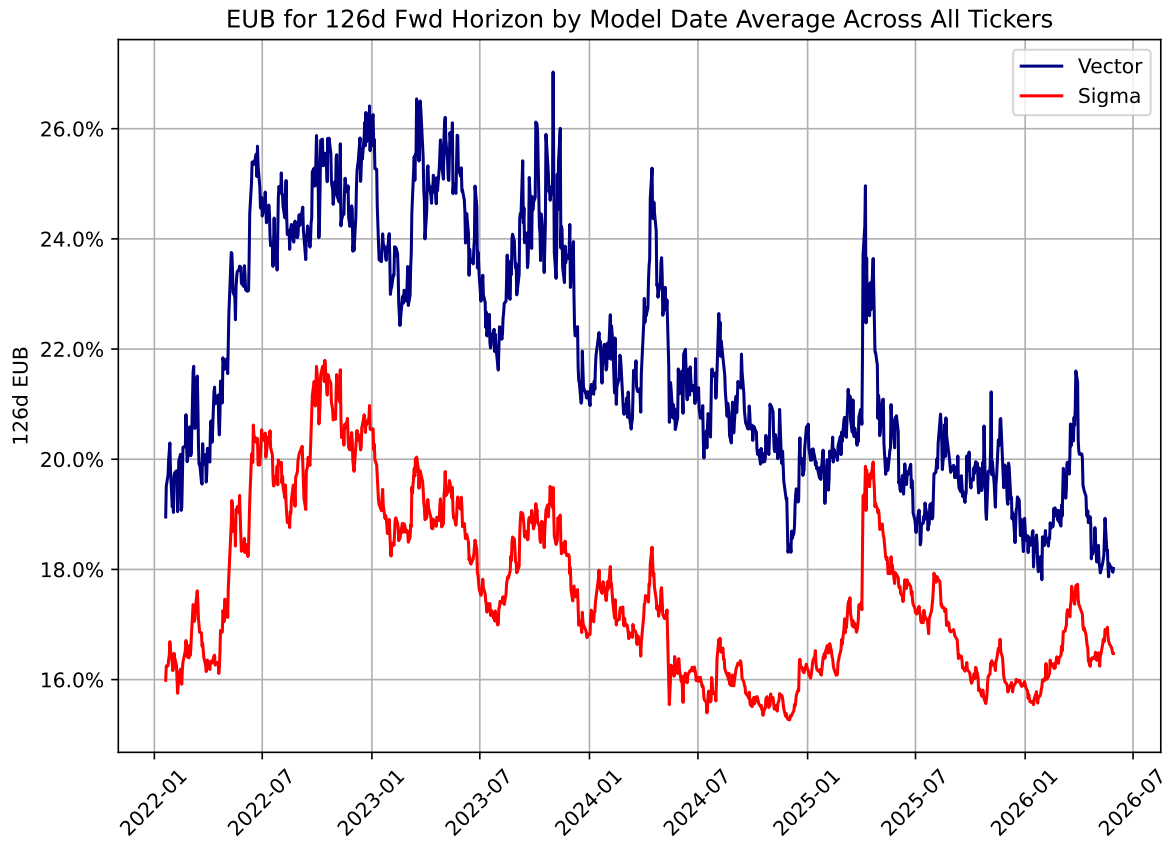
21d Horizon



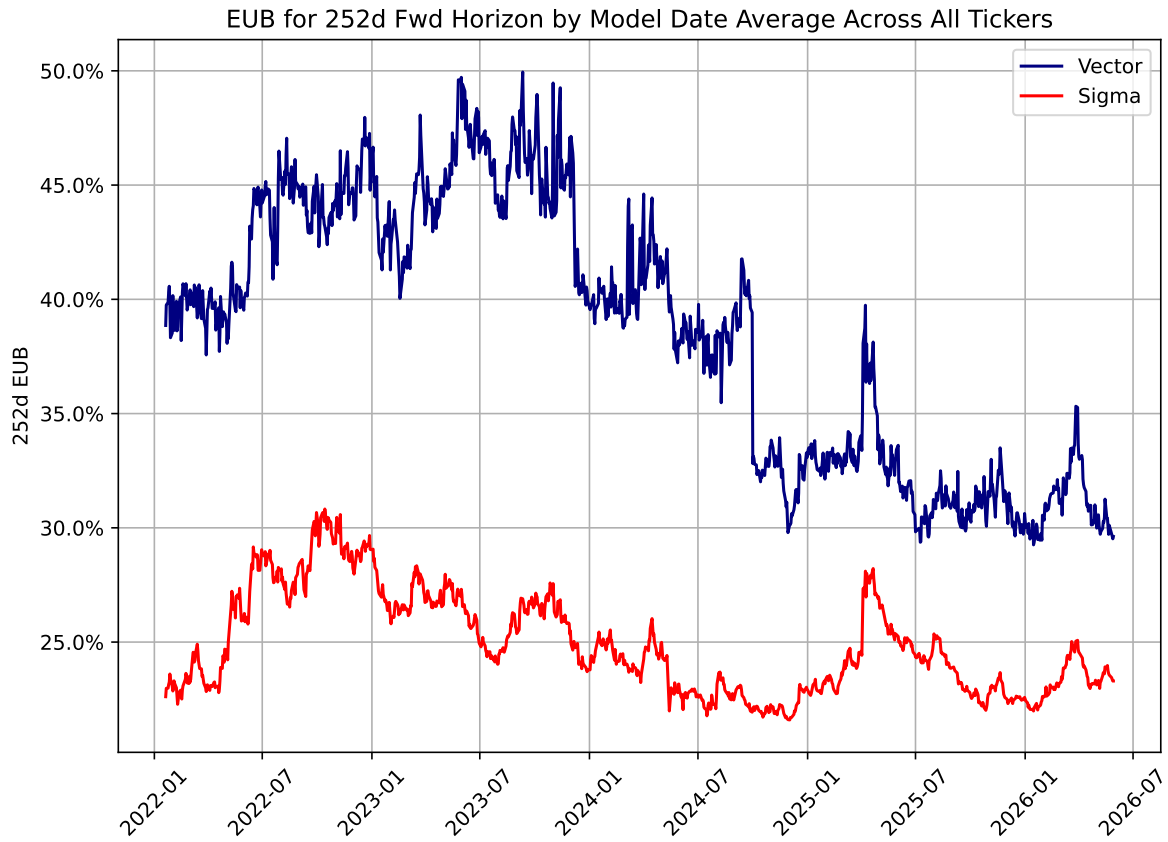
63d Horizon



126d Horizon



252d Horizon



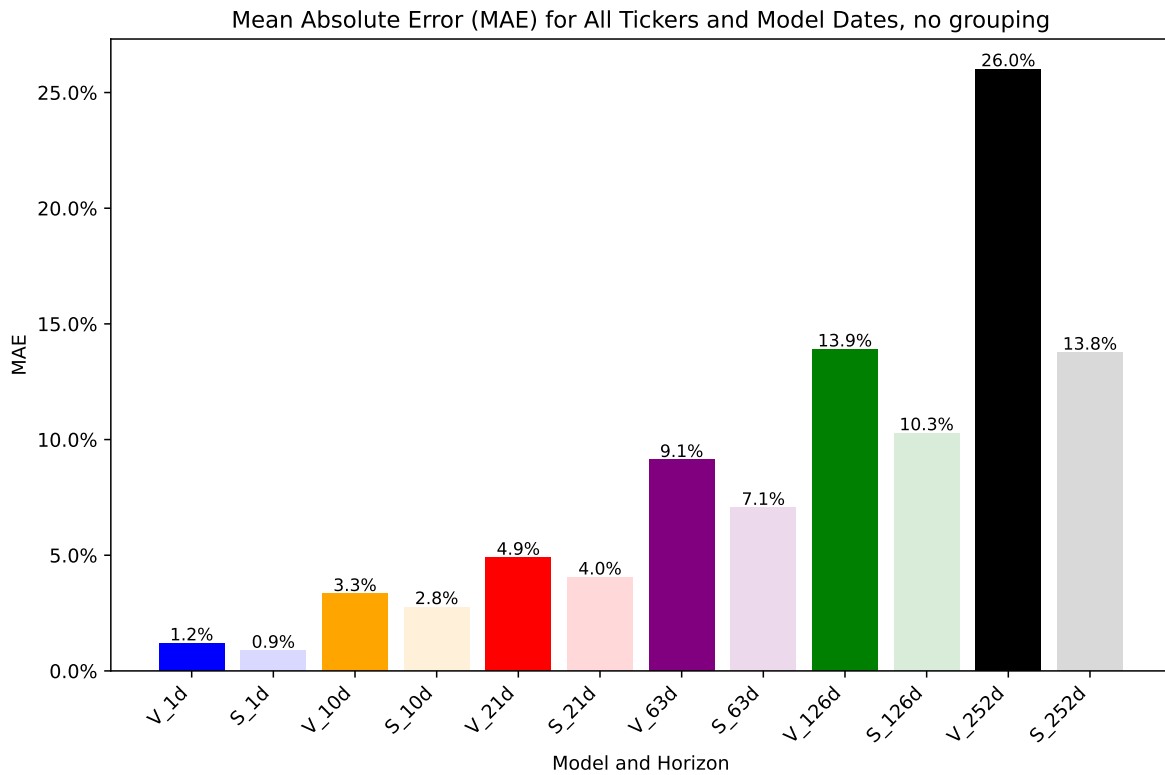
Performance Summary - MAE of EUB vs. Actual Fwd Returns

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).

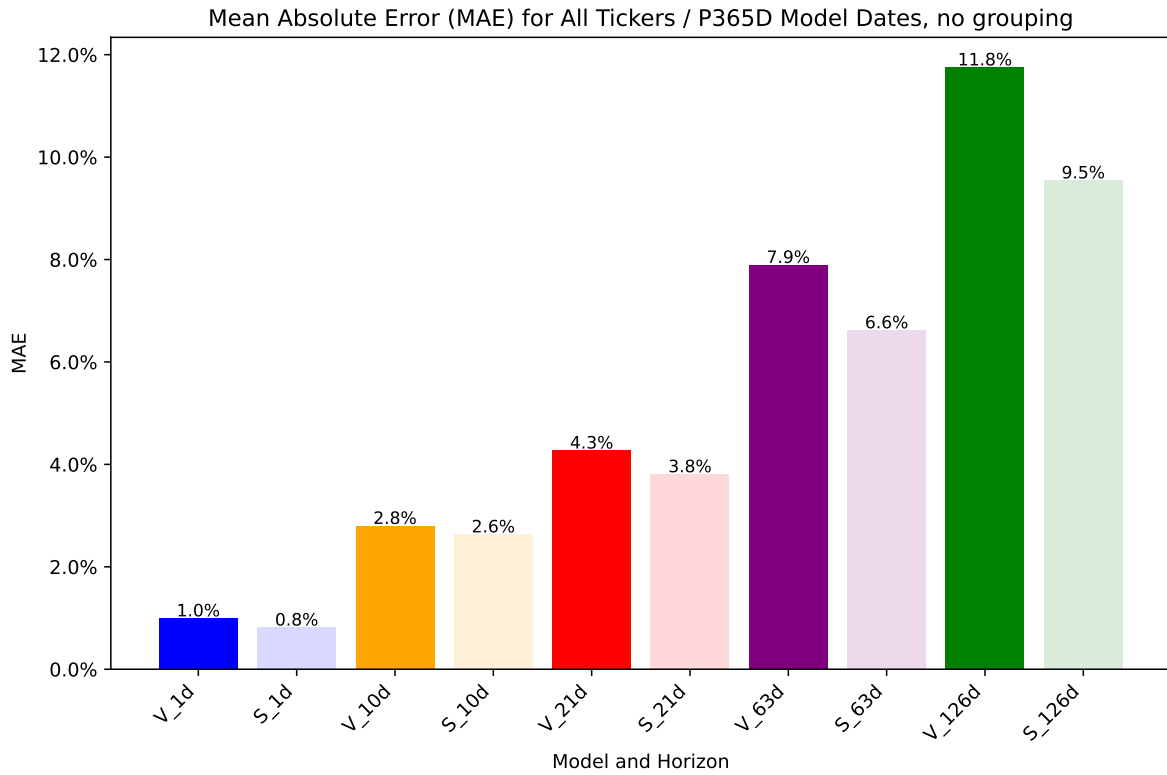
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



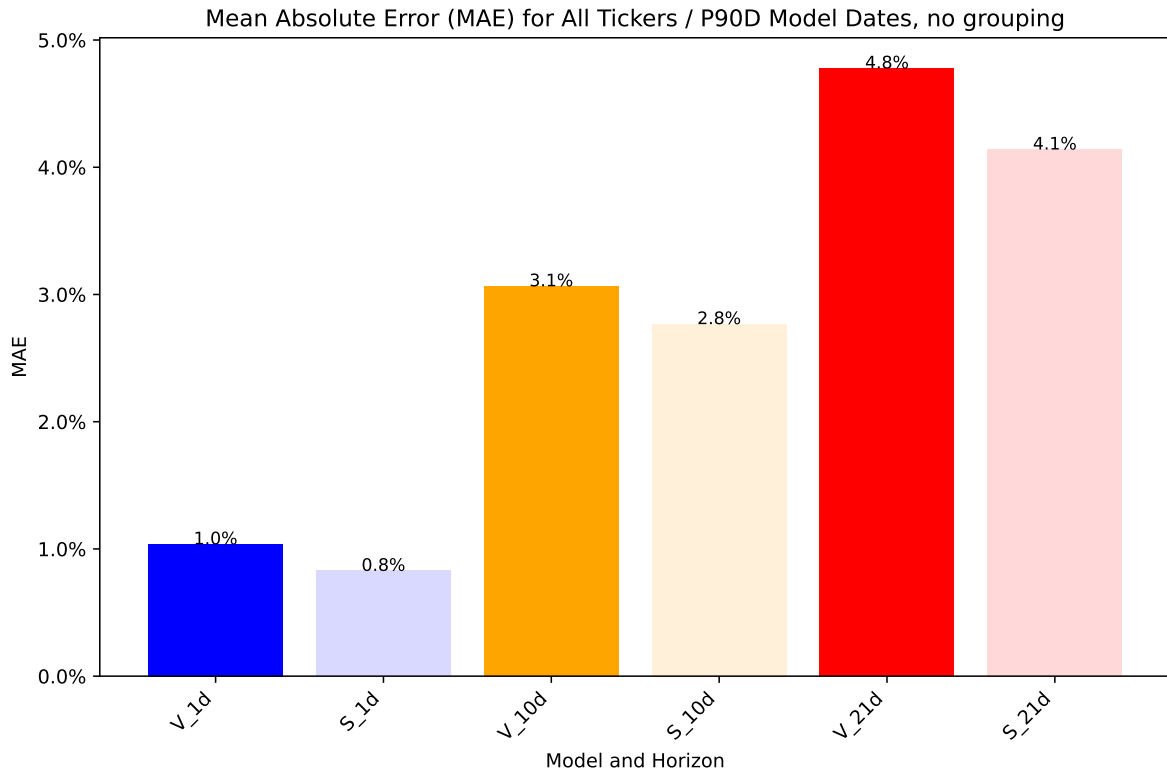
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



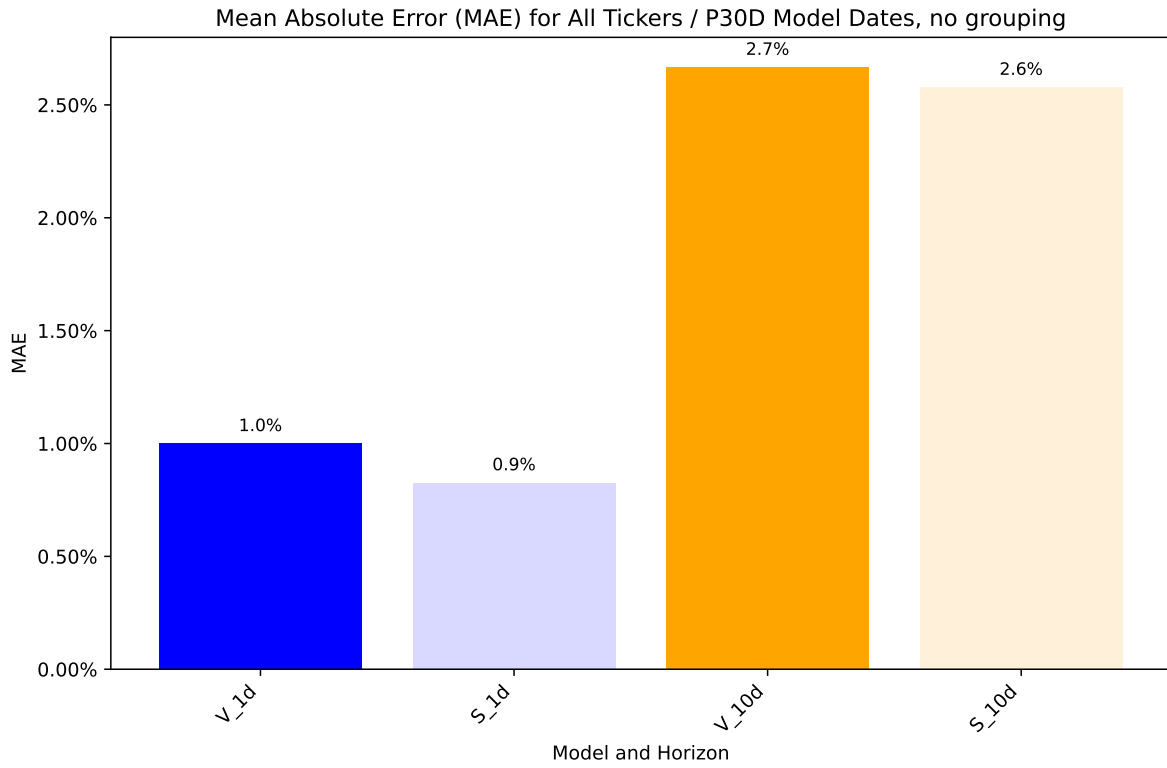
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



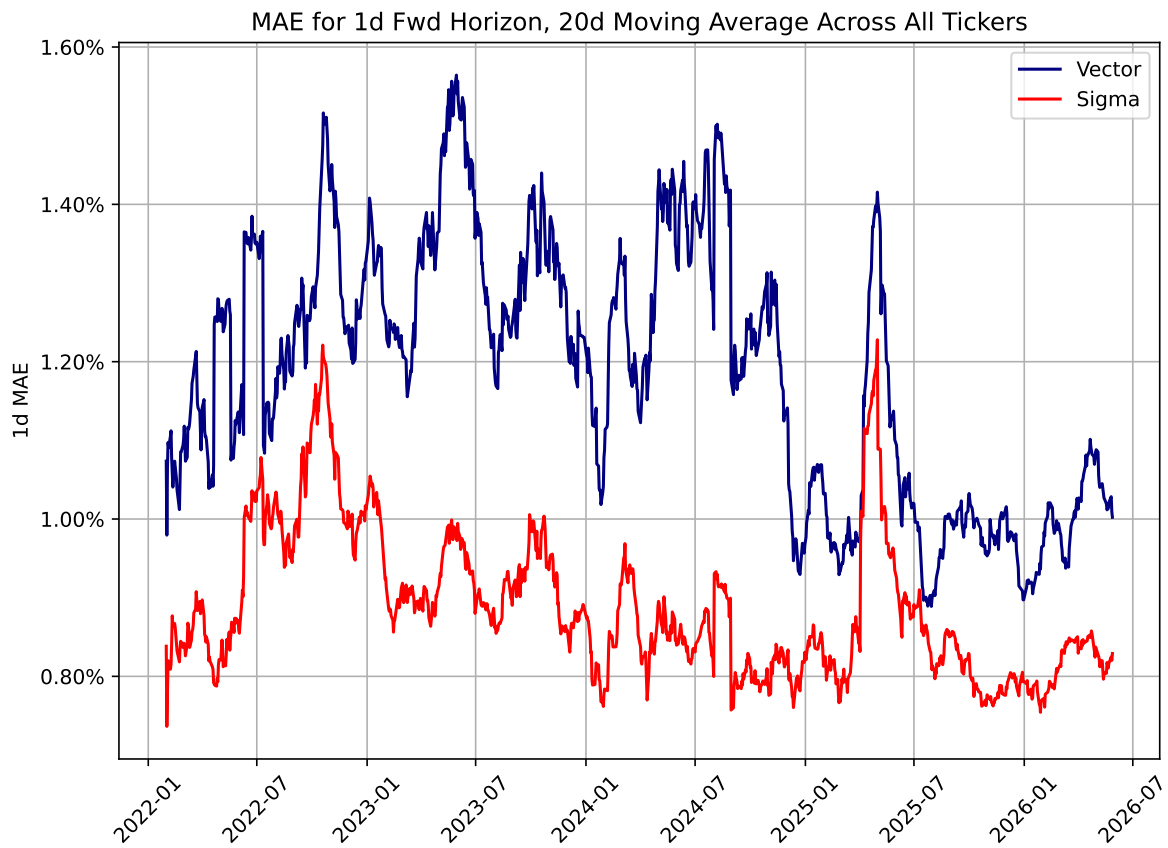
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28

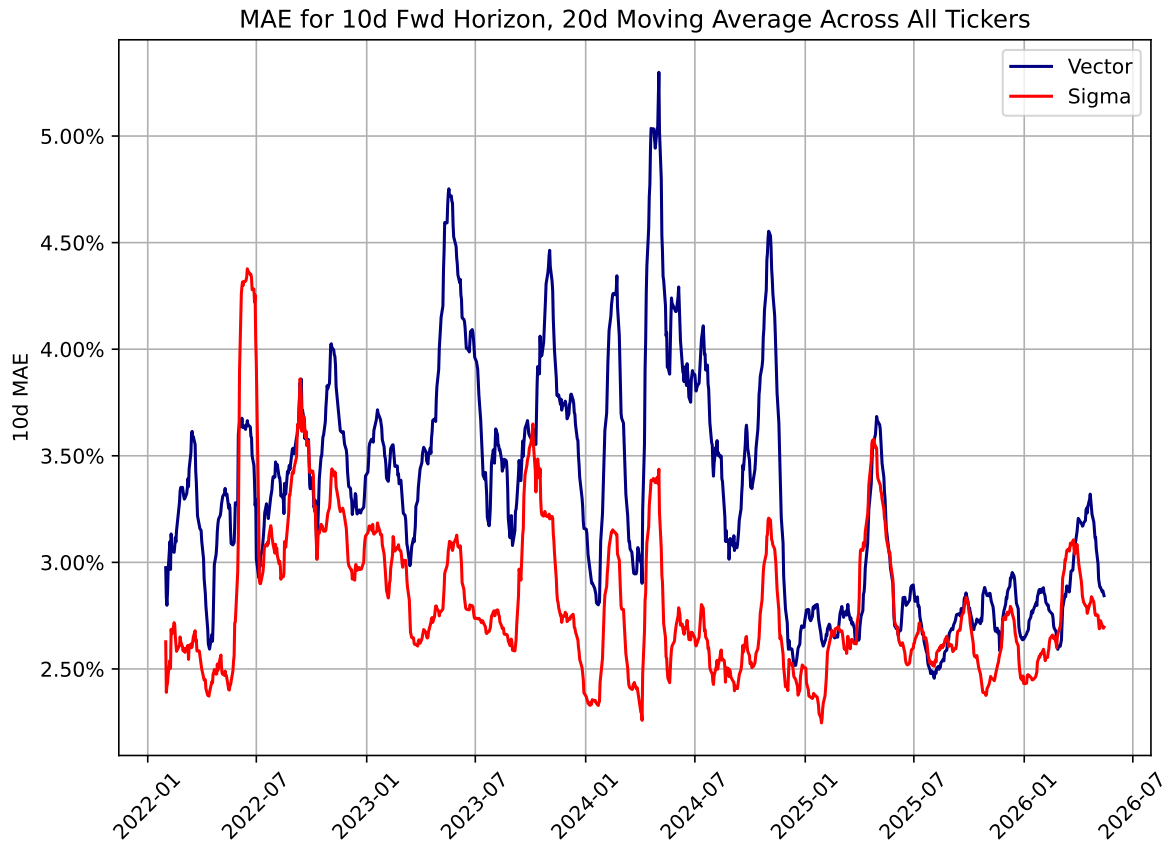


MAE by Model Date Detail

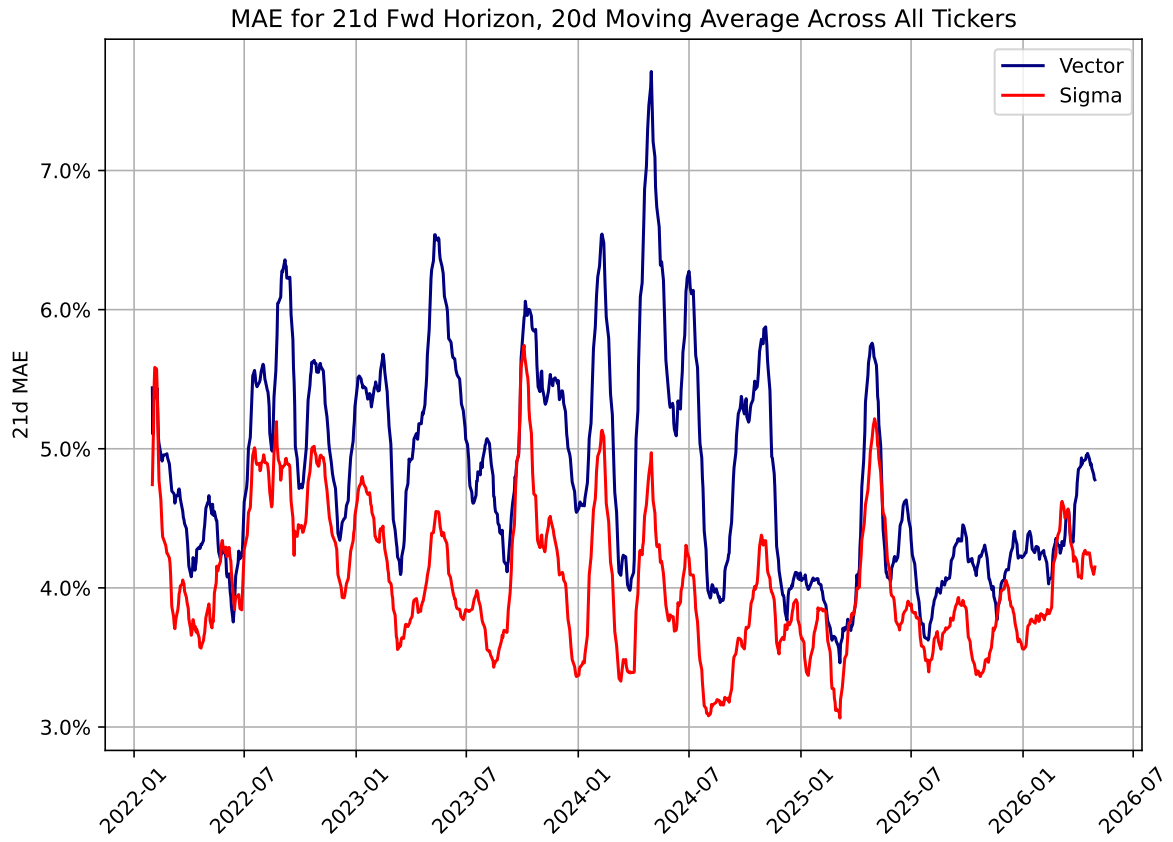
1d Horizon



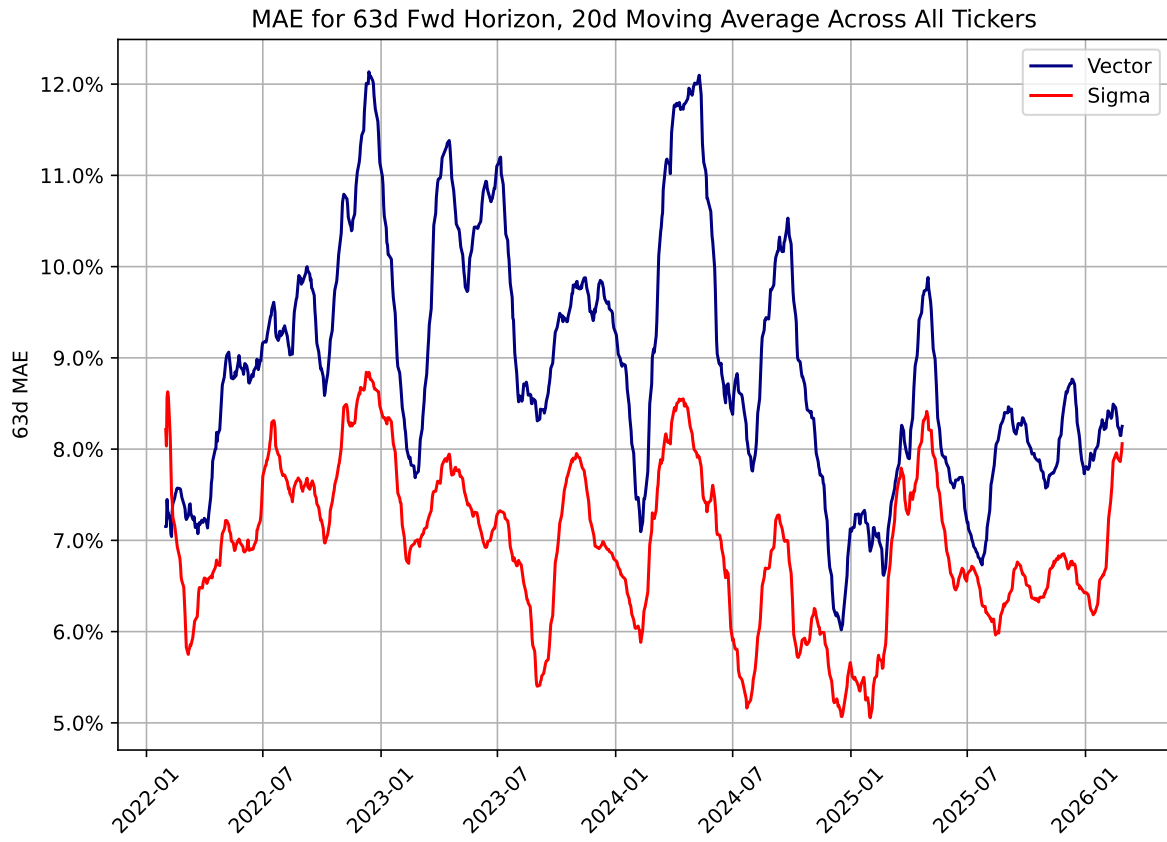
10d Horizon



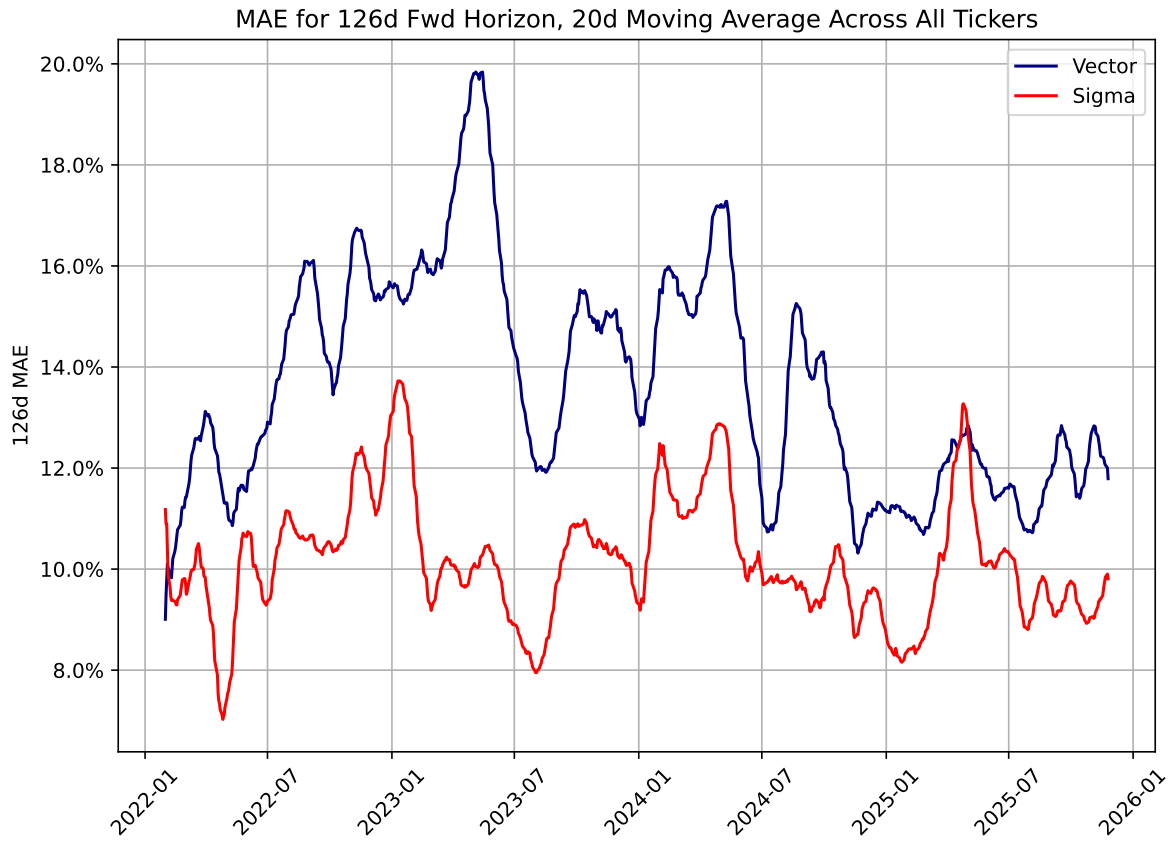
21d Horizon



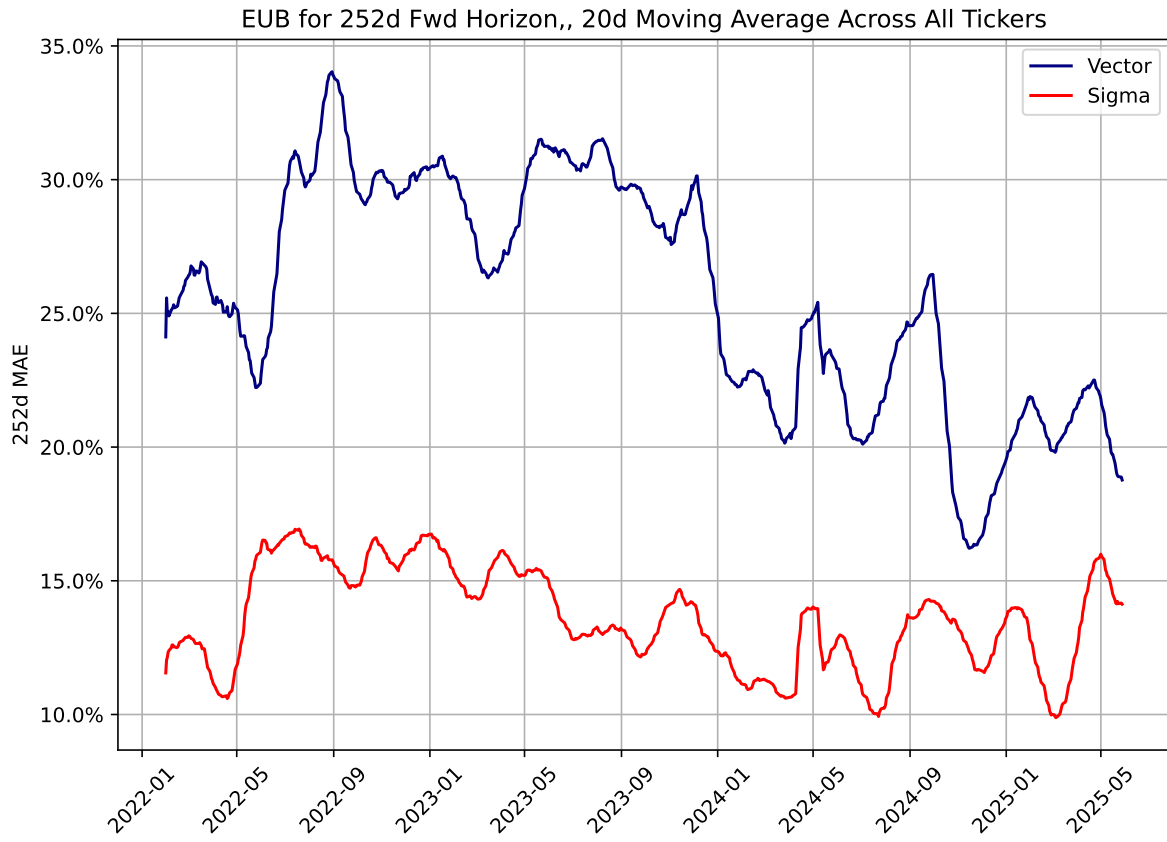
63d Horizon



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
1.0	AMC	10.58%	AMC	9.46%
1.0	LUMN	6.88%	GME	3.15%
1.0	IEP	6.43%	CYH	2.65%
1.0	TSLA	3.91%	LUMN	2.34%
1.0	ELAN	3.89%	MSTR	2.14%
1.0	CYH	3.81%	GBTC	1.91%
1.0	BHC	2.94%	BHC	1.73%
1.0	NWL	2.79%	IEP	1.51%
1.0	CCL	2.48%	CTLT	1.49%
1.0	GBTC	2.43%	UAA	1.47%
1.0	VNO	2.22%	NWL	1.46%
1.0	CZR	2.19%	TSLA	1.43%
1.0	GNRC	2.08%	VFC	1.43%
1.0	GT	2.03%	CLF	1.39%
1.0	MSTR	2.0%	SIVBQ	1.36%
1.0	UAA	1.87%	GT	1.36%
1.0	T	1.86%	AA	1.35%
1.0	BXP	1.83%	CCL	1.32%
1.0	NVDA	1.83%	CZR	1.3%
1.0	AVGO	1.71%	AAP	1.28%
1.0	LNC	1.7%	SBNY	1.22%
1.0	MOS	1.69%	GNRC	1.21%
1.0	X	1.57%	AMD	1.21%
1.0	AMD	1.55%	ON	1.17%
1.0	ON	1.47%	MU	1.15%
1.0	AMAT	1.45%	LNC	1.1%
1.0	MSFT	1.43%	NVDA	1.1%
1.0	ETRN	1.43%	X	1.09%
1.0	INTC	1.43%	ELAN	1.09%
1.0	MU	1.41%	WDC	1.08%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
10.0	AMC	40.85%	AMC	29.92%
10.0	LUMN	18.32%	GME	9.75%
10.0	IEP	13.93%	LUMN	7.97%
10.0	TSLA	9.75%	CYH	7.34%
10.0	ELAN	9.36%	MSTR	7.02%
10.0	BHC	8.2%	BHC	5.89%
10.0	CYH	8.01%	GBTC	5.44%
10.0	NWL	7.94%	UAA	4.8%
10.0	GBTC	7.29%	SIVBQ	4.75%
10.0	CZR	6.48%	NWL	4.66%
10.0	GT	6.33%	IEP	4.58%
10.0	CCL	6.07%	AA	4.38%
10.0	GNRC	5.93%	TSLA	4.37%
10.0	NVDA	5.83%	GT	4.34%
10.0	MSTR	5.55%	CLF	4.33%
10.0	AMD	5.31%	CZR	4.33%
10.0	LNC	5.1%	VFC	4.23%
10.0	UAA	4.98%	CCL	4.15%
10.0	X	4.81%	SBNY	4.11%
10.0	VNO	4.66%	GNRC	4.06%
10.0	MOS	4.61%	AMD	4.04%
10.0	MSFT	4.45%	CTLT	3.94%
10.0	BXP	4.43%	INTC	3.83%
10.0	INTC	4.38%	AAP	3.81%
10.0	MU	4.28%	ON	3.74%
10.0	AMAT	4.25%	LNC	3.74%
10.0	CLF	4.18%	MU	3.73%
10.0	AVGO	4.14%	NVDA	3.57%
10.0	T	3.96%	X	3.56%
10.0	ON	3.96%	ELAN	3.52%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
21.0	AMC	60.38%	AMC	46.01%
21.0	LUMN	21.57%	GME	14.25%
21.0	IEP	18.93%	CYH	11.25%
21.0	ELAN	14.74%	LUMN	10.84%
21.0	TSLA	13.61%	MSTR	10.13%
21.0	BHC	11.49%	GBTC	7.51%
21.0	NWL	10.71%	BHC	7.5%
21.0	CCL	10.65%	UAA	7.46%
21.0	CYH	10.54%	TSLA	7.24%
21.0	CZR	10.35%	SIVBQ	7.04%
21.0	MSTR	10.28%	IEP	6.99%
21.0	GT	10.04%	NWL	6.93%
21.0	GBTC	9.26%	CCL	6.87%
21.0	GNRC	8.53%	VFC	6.7%
21.0	NVDA	8.38%	CZR	6.4%
21.0	AMD	8.15%	AMD	6.36%
21.0	MOS	7.72%	GT	6.13%
21.0	UAA	7.42%	CLF	6.07%
21.0	VNO	7.13%	GNRC	5.92%
21.0	LNC	7.07%	AA	5.82%
21.0	AMAT	7.03%	ON	5.76%
21.0	X	6.83%	AAP	5.7%
21.0	BXP	6.66%	CTLT	5.63%
21.0	ON	6.64%	NVDA	5.46%
21.0	CLF	6.59%	SBNY	5.33%
21.0	MSFT	6.56%	MU	5.26%
21.0	INTC	6.33%	ELAN	5.23%
21.0	MU	6.23%	X	5.22%
21.0	SIVBQ	6.2%	VNO	5.06%
21.0	AVGO	5.95%	WDC	5.02%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
63.0	AMC	124.59%	AMC	99.27%
63.0	LUMN	48.48%	GME	28.98%
63.0	IEP	37.15%	LUMN	23.57%
63.0	BHC	29.94%	CYH	22.65%
63.0	TSLA	28.54%	BHC	16.51%
63.0	CZR	27.78%	MSTR	15.44%
63.0	ELAN	26.22%	IEP	14.79%
63.0	NWL	23.05%	SBNY	14.24%
63.0	SIVBQ	22.95%	GBTC	13.85%
63.0	CCL	22.8%	UAA	12.77%
63.0	GBTC	21.78%	CCL	12.49%
63.0	GT	21.42%	CTLT	12.36%
63.0	CYH	20.84%	X	11.87%
63.0	MSTR	20.3%	CLF	11.87%
63.0	VNO	16.14%	TSLA	11.84%
63.0	AMD	15.62%	NWL	11.8%
63.0	MOS	15.19%	GT	11.11%
63.0	NVDA	15.11%	AMD	10.96%
63.0	LNC	14.92%	VFC	10.89%
63.0	UAA	14.75%	CZR	10.79%
63.0	X	13.0%	SIVBQ	10.74%
63.0	MSFT	12.68%	ELAN	10.12%
63.0	MU	12.15%	GNRC	10.05%
63.0	INTC	12.07%	NVDA	9.82%
63.0	AMAT	11.78%	AA	9.79%
63.0	GNRC	11.74%	MOS	9.75%
63.0	VFC	11.66%	AAP	9.67%
63.0	CLF	11.61%	META	9.18%
63.0	GME	11.52%	VNO	8.97%
63.0	ON	11.27%	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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
126.0	AMC	287.53%	AMC	207.33%
126.0	CZR	59.7%	LUMN	45.68%
126.0	LUMN	56.2%	GME	45.25%
126.0	ELAN	45.52%	CYH	36.89%
126.0	BHC	45.22%	MSTR	25.76%
126.0	NWL	42.2%	NWL	25.74%
126.0	TSLA	40.8%	BHC	24.84%
126.0	GT	40.1%	CZR	19.88%
126.0	IEP	38.72%	VFC	18.92%
126.0	CCL	35.56%	CLF	18.75%
126.0	MSTR	32.68%	IEP	18.45%
126.0	CYH	31.36%	GBTC	17.8%
126.0	GBTC	29.55%	AAP	17.57%
126.0	VNO	28.08%	UAA	17.5%
126.0	LNC	25.3%	CCL	17.5%
126.0	NVDA	24.61%	AA	17.15%
126.0	GME	23.81%	CTLT	16.25%
126.0	INTC	21.82%	AMD	15.86%
126.0	UAA	21.8%	GT	15.81%
126.0	BXP	21.01%	TSLA	15.67%
126.0	MOS	20.53%	ETRN	15.56%
126.0	NFLX	20.42%	INTC	14.88%
126.0	AMAT	20.02%	MOS	14.26%
126.0	X	19.46%	BIIB	14.25%
126.0	CLF	19.41%	WRK	14.14%
126.0	VFC	19.1%	ELAN	14.13%
126.0	ADBE	19.0%	KALU	13.96%
126.0	MU	18.93%	LNC	13.79%
126.0	ETRN	18.77%	VNO	13.64%
126.0	AMD	18.66%	VST	13.47%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
252.0	AMC	848.37%	AMC	549.03%
252.0	LUMN	96.12%	CYH	73.99%
252.0	CZR	92.05%	GME	51.27%
252.0	BHC	87.25%	BHC	50.25%
252.0	ELAN	78.48%	GBTC	43.01%
252.0	GBTC	77.11%	MSTR	42.72%
252.0	CYH	76.67%	CZR	35.38%
252.0	INTU	64.49%	LUMN	34.84%
252.0	CDNS	63.12%	UAA	30.02%
252.0	NWL	61.52%	GT	29.52%
252.0	GT	60.19%	CLF	28.12%
252.0	AMZN	57.38%	AA	27.04%
252.0	CCL	57.2%	NFLX	25.93%
252.0	NVDA	56.04%	VFC	24.29%
252.0	TSLA	48.55%	TSLA	24.28%
252.0	COST	47.82%	GNRC	23.08%
252.0	MSFT	47.34%	NWL	22.99%
252.0	AMD	46.42%	INTC	22.95%
252.0	ON	46.2%	AMD	21.66%
252.0	UAA	45.79%	ELAN	21.0%
252.0	CMG	45.47%	AVGO	20.84%
252.0	VNO	44.48%	PRGO	20.52%
252.0	MOS	44.12%	X	20.5%
252.0	GME	42.28%	OXY	20.23%
252.0	DHI	41.28%	CTLT	20.02%
252.0	BBY	40.69%	META	19.92%
252.0	MU	39.99%	WRK	19.59%
252.0	AZO	37.09%	LEN	19.11%
252.0	LNC	36.91%	VNO	18.88%
252.0	AVGO	36.49%	CCL	17.95%



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 2026-05-28

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	0.16%
1.0	HYG	0.31%	LQD	0.2%
1.0	FRA	0.37%	EMB	0.22%
1.0	GLD	0.46%	FRA	0.29%
1.0	NVS	0.48%	GLD	0.36%
1.0	PEP	0.51%	TLT	0.36%
1.0	HON	0.54%	SPY	0.38%
1.0	TMUS	0.54%	NVS	0.42%
1.0	MRK	0.54%	PEP	0.43%
1.0	MSI	0.54%	HON	0.48%
1.0	SNY	0.55%	VICI	0.49%
1.0	GILD	0.56%	POST	0.49%
1.0	TLT	0.56%	VZ	0.49%
1.0	HD	0.56%	TMUS	0.5%
1.0	POST	0.56%	MRK	0.5%
1.0	BUD	0.58%	ABBV	0.5%
1.0	MNST	0.58%	MSI	0.5%
1.0	ABBV	0.6%	HSBC	0.51%
1.0	GWG	0.61%	COST	0.51%
1.0	AMGN	0.61%	KHC	0.51%
1.0	ORLY	0.62%	MNST	0.52%
1.0	XOM	0.62%	ORLY	0.52%
1.0	HCA	0.62%	GWG	0.52%
1.0	VICI	0.63%	AZN	0.52%
1.0	SBUX	0.63%	CSCO	0.52%
1.0	AZN	0.64%	AZO	0.53%
1.0	BALL	0.65%	QQQ	0.53%
1.0	BAC	0.66%	AMGN	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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
10.0	VCSH	0.39%	VCSH	0.21%
10.0	MUB	0.52%	MUB	0.32%
10.0	LQD	0.71%	HYG	0.56%
10.0	HYG	0.93%	LQD	0.66%
10.0	FRA	0.99%	EMB	0.71%
10.0	GLD	1.31%	FRA	0.92%
10.0	PEP	1.42%	SPY	1.17%
10.0	POST	1.45%	GLD	1.23%
10.0	NVS	1.46%	TLT	1.28%
10.0	TLT	1.49%	PEP	1.33%
10.0	GILD	1.49%	POST	1.47%
10.0	HD	1.57%	NVS	1.48%
10.0	SNY	1.6%	VZ	1.52%
10.0	MSI	1.63%	ORLY	1.55%
10.0	HON	1.65%	VICI	1.56%
10.0	SPY	1.66%	QQQ	1.56%
10.0	VICI	1.67%	HON	1.58%
10.0	ABBV	1.69%	CSCO	1.61%
10.0	XOM	1.7%	ACGL	1.62%
10.0	VZ	1.72%	ABBV	1.63%
10.0	BUD	1.74%	MSI	1.64%
10.0	TMUS	1.74%	COST	1.65%
10.0	ORLY	1.75%	MRK	1.67%
10.0	HCA	1.77%	TMUS	1.67%
10.0	AMGN	1.78%	GILD	1.69%
10.0	GWV	1.79%	CAH	1.69%
10.0	BALL	1.8%	T	1.69%
10.0	EMB	1.85%	BMV	1.73%
10.0	MNST	1.86%	HD	1.74%
10.0	SBUX	1.88%	AMGN	1.76%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
21.0	VCSH	0.59%	VCSH	0.31%
21.0	MUB	0.75%	MUB	0.41%
21.0	LQD	1.01%	HYG	0.79%
21.0	FRA	1.4%	LQD	0.88%
21.0	HYG	1.6%	EMB	0.96%
21.0	PEP	1.99%	FRA	1.32%
21.0	NVS	2.09%	SPY	1.63%
21.0	GLD	2.2%	GLD	1.65%
21.0	GILD	2.27%	TLT	1.72%
21.0	TLT	2.31%	PEP	1.79%
21.0	BUD	2.33%	NVS	2.12%
21.0	POST	2.35%	HSBC	2.22%
21.0	SNY	2.4%	QQQ	2.23%
21.0	HD	2.43%	HON	2.26%
21.0	MSI	2.45%	VZ	2.3%
21.0	VZ	2.46%	POST	2.33%
21.0	VICI	2.54%	ACGL	2.34%
21.0	HON	2.55%	CAH	2.36%
21.0	HSBC	2.56%	VICI	2.38%
21.0	SPY	2.59%	MSI	2.38%
21.0	ACGL	2.67%	GILD	2.41%
21.0	XOM	2.68%	TMUS	2.41%
21.0	ORLY	2.69%	CSCO	2.44%
21.0	TMUS	2.71%	ORLY	2.46%
21.0	MNST	2.72%	T	2.47%
21.0	BAC	2.74%	KHC	2.52%
21.0	FRCB	2.77%	COST	2.53%
21.0	ABBV	2.78%	MRK	2.54%
21.0	EMB	2.82%	ABBV	2.55%
21.0	GWV	2.83%	MNST	2.56%



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 2026-05-28

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	3.38%	EMB	1.94%
63.0	PEP	3.39%	FRA	2.11%
63.0	HYG	3.75%	SPY	2.71%
63.0	BUD	3.83%	GLD	2.76%
63.0	NVS	4.03%	PEP	3.03%
63.0	VZ	4.11%	TLT	3.19%
63.0	ZTS	4.26%	COST	3.44%
63.0	TLT	4.27%	NVS	3.54%
63.0	HD	4.34%	VICI	3.8%
63.0	GILD	4.36%	HON	3.81%
63.0	POST	4.39%	QQQ	4.08%
63.0	MSI	4.44%	VZ	4.09%
63.0	TMUS	4.45%	AZO	4.13%
63.0	SNY	4.47%	MRK	4.17%
63.0	ORLY	4.59%	POST	4.2%
63.0	HON	4.61%	HD	4.34%
63.0	AMGN	4.78%	HSBC	4.34%
63.0	CMCSA	4.8%	ORLY	4.35%
63.0	VICI	4.91%	TMUS	4.36%
63.0	HLT	4.92%	ACGL	4.43%
63.0	XOM	4.94%	MSI	4.46%
63.0	JAZZ	5.01%	AMGN	4.48%
63.0	EMB	5.02%	CAH	4.51%
63.0	BAC	5.08%	JPM	4.54%
63.0	SPY	5.09%	GILD	4.56%
63.0	SBNY	5.11%	BUD	4.57%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
126.0	VCSH	0.99%	VCSH	0.7%
126.0	MUB	1.4%	MUB	1.25%
126.0	LQD	1.72%	HYG	1.75%
126.0	FRA	3.52%	LQD	1.87%
126.0	PEP	4.6%	EMB	2.28%
126.0	ABBV	5.27%	FRA	3.16%
126.0	TMUS	5.31%	PEP	3.83%
126.0	ZTS	5.33%	SPY	4.23%
126.0	NVS	5.76%	GLD	4.54%
126.0	NAVI	5.79%	TLT	4.69%
126.0	SPY	5.84%	HON	4.72%
126.0	GLD	5.84%	MNST	4.93%
126.0	AMGN	6.04%	ABBV	5.05%
126.0	HLT	6.25%	KHC	5.37%
126.0	EMB	6.27%	AMGN	5.38%
126.0	ORLY	6.31%	QQQ	5.39%
126.0	MNST	6.35%	VICI	5.5%
126.0	VICI	6.43%	TMUS	5.5%
126.0	VZ	6.52%	AZO	5.53%
126.0	BALL	6.54%	ORLY	5.56%
126.0	POST	6.63%	NVS	5.68%
126.0	SNY	6.87%	VZ	5.71%
126.0	BUD	6.98%	CSCO	5.92%
126.0	HON	7.01%	XOM	5.92%
126.0	HYG	7.09%	ZTS	6.02%
126.0	BMY	7.13%	JPM	6.11%
126.0	XOM	7.19%	HD	6.16%
126.0	MSI	7.28%	BUD	6.23%
126.0	JPM	7.43%	COST	6.26%
126.0	CHTR	7.6%	PCG	6.31%



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 2026-05-28

Horizon	Ticker_V	EUB-MAE_V	Ticker_S	EUB-MAE_S
252.0	VCSH	1.64%	VCSH	0.9%
252.0	MUB	2.79%	MUB	1.53%
252.0	LQD	4.23%	HYG	2.92%
252.0	FRA	5.79%	EMB	3.82%
252.0	NVS	6.25%	LQD	4.0%
252.0	BUD	7.0%	FRA	4.31%
252.0	PEP	7.67%	PEP	4.95%
252.0	VICI	7.98%	GLD	5.2%
252.0	ZTS	8.22%	BMY	5.6%
252.0	POST	8.46%	NVS	5.91%
252.0	CMCSA	8.92%	VICI	6.12%
252.0	MRK	9.37%	HON	6.86%
252.0	VZ	9.39%	AMGN	6.91%
252.0	GLD	9.41%	ABBV	7.21%
252.0	AMGN	9.43%	SPY	7.62%
252.0	EMB	9.52%	VZ	7.73%
252.0	BALL	10.19%	MSI	7.82%
252.0	IRM	10.35%	TLT	7.86%
252.0	SLV	10.35%	HD	8.14%
252.0	HYG	10.7%	AZN	8.2%
252.0	MSI	11.03%	TMUS	8.21%
252.0	NAVI	11.14%	AZO	8.39%
252.0	SNY	11.14%	HSBC	8.51%
252.0	LW	11.53%	POST	8.6%
252.0	XOM	11.76%	BUD	8.77%
252.0	HLT	11.87%	AAPL	8.85%
252.0	GILD	11.98%	IRM	8.85%
252.0	CNC	11.99%	UNH	8.9%
252.0	KHC	12.28%	SBUX	9.05%
252.0	CHTR	12.58%	MRK	9.06%



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.

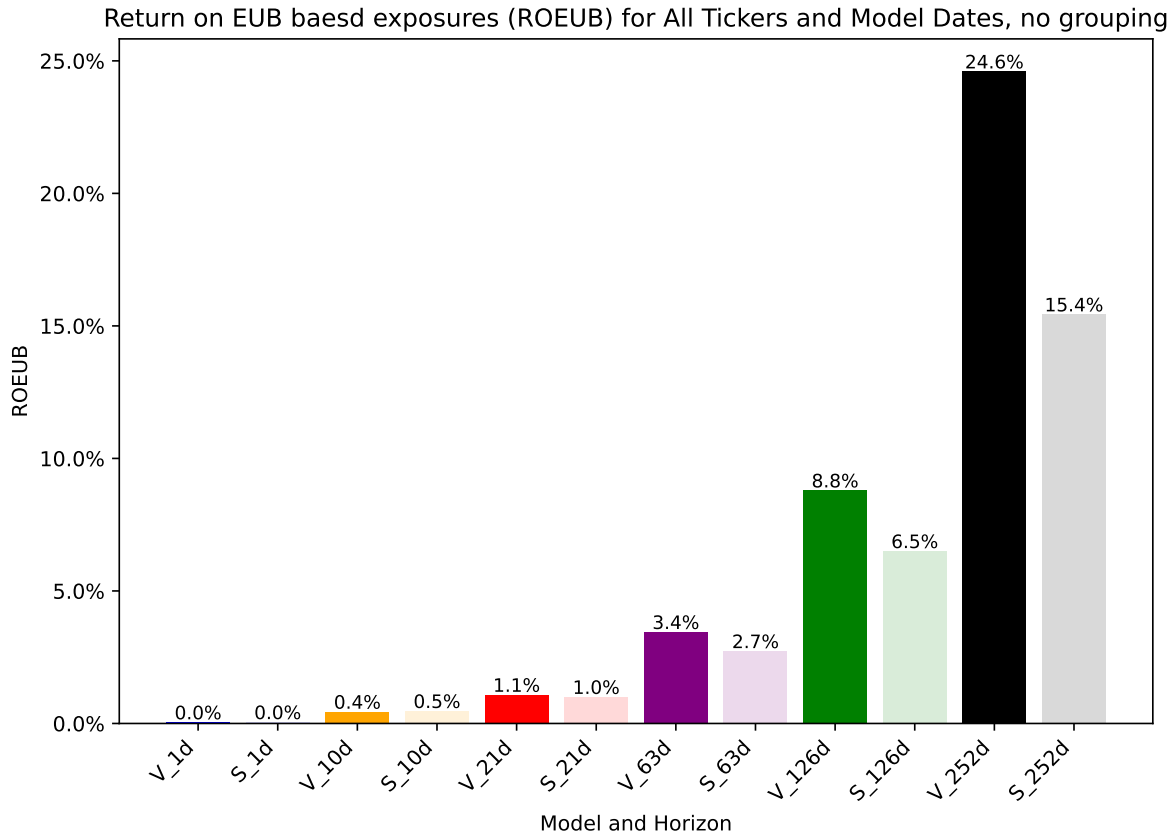
Following each bar chart comparison of ROEUB is a table detailing the alpha (intercept) and slope (beta) of Vector Model EUB based exposure performance to Sigma EUB exposure based performance. The beta arguably provides some indication of the leverage of the Vector Model based exposures and the alpha 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 2026-05-28



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	-0.01%	-0.00%	0.08%	0.29%	0.83%	3.84%
intercept_p_value	16.00%	77.56%	0.00%	0.00%	0.00%	0.00%
slope	98.09%	94.78%	100.14%	115.86%	122.47%	134.50%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

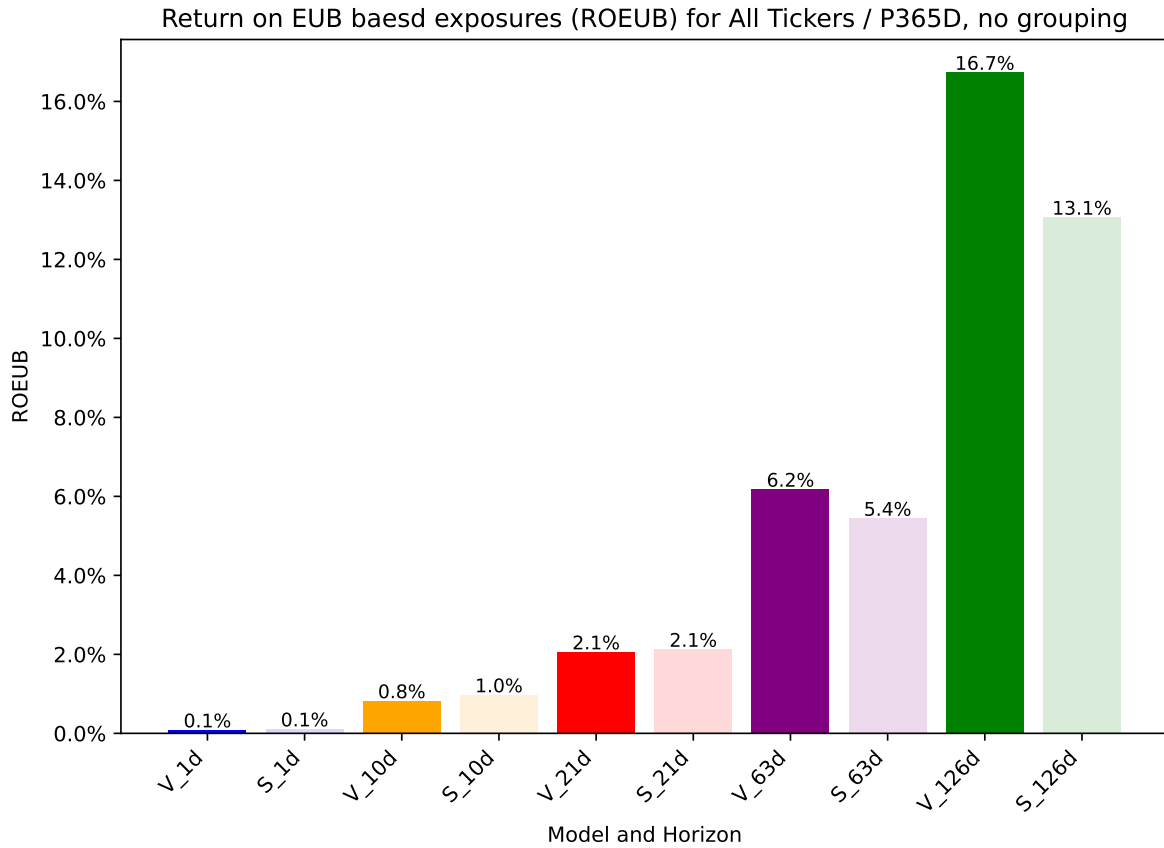
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	-0.00%	-0.02%	-0.02%	-0.18%	-0.82%	-2.68%
intercept_p_value	51.33%	20.35%	14.11%	11.19%	7.03%	10.33%
slope	99.69%	98.57%	105.02%	118.81%	128.14%	148.77%
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 2025-05-30 through 2026-05-28



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

	1d	10d	21d	63d	126d
intercept	-0.02%	-0.00%	0.09%	0.30%	0.88%
intercept_p_value	2.81%	78.62%	0.22%	0.00%	0.00%
slope	91.03%	85.08%	92.82%	107.96%	121.33%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

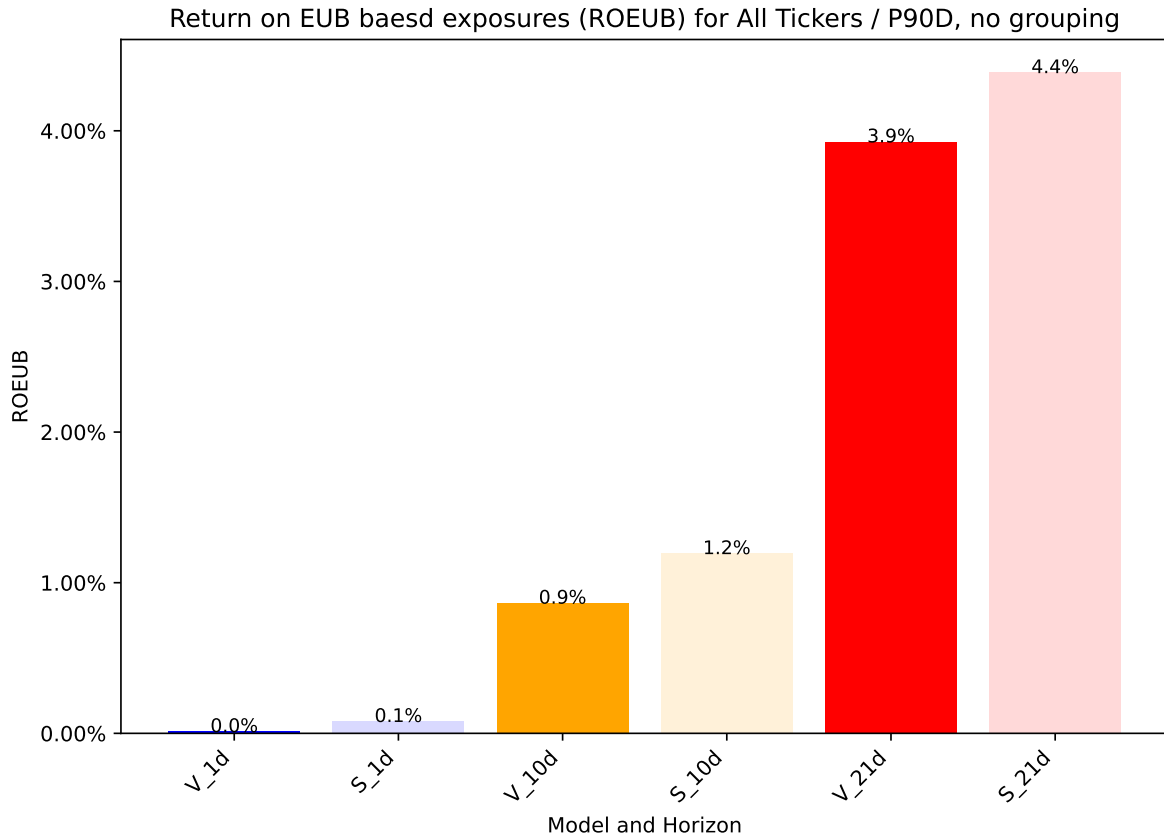
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d
intercept	-0.00%	-0.01%	-0.01%	-0.36%	-1.40%
intercept_p_value	46.81%	20.29%	12.81%	16.12%	13.96%
slope	95.07%	93.70%	101.67%	114.53%	126.74%
slope_p_value	0.00%	0.01%	0.00%	0.00%	0.00%



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



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

	1d	10d	21d
intercept	-0.06%	-0.12%	0.02%
intercept_p_value	0.01%	0.68%	85.24%
slope	88.64%	82.67%	89.16%
slope_p_value	0.00%	0.00%	0.00%

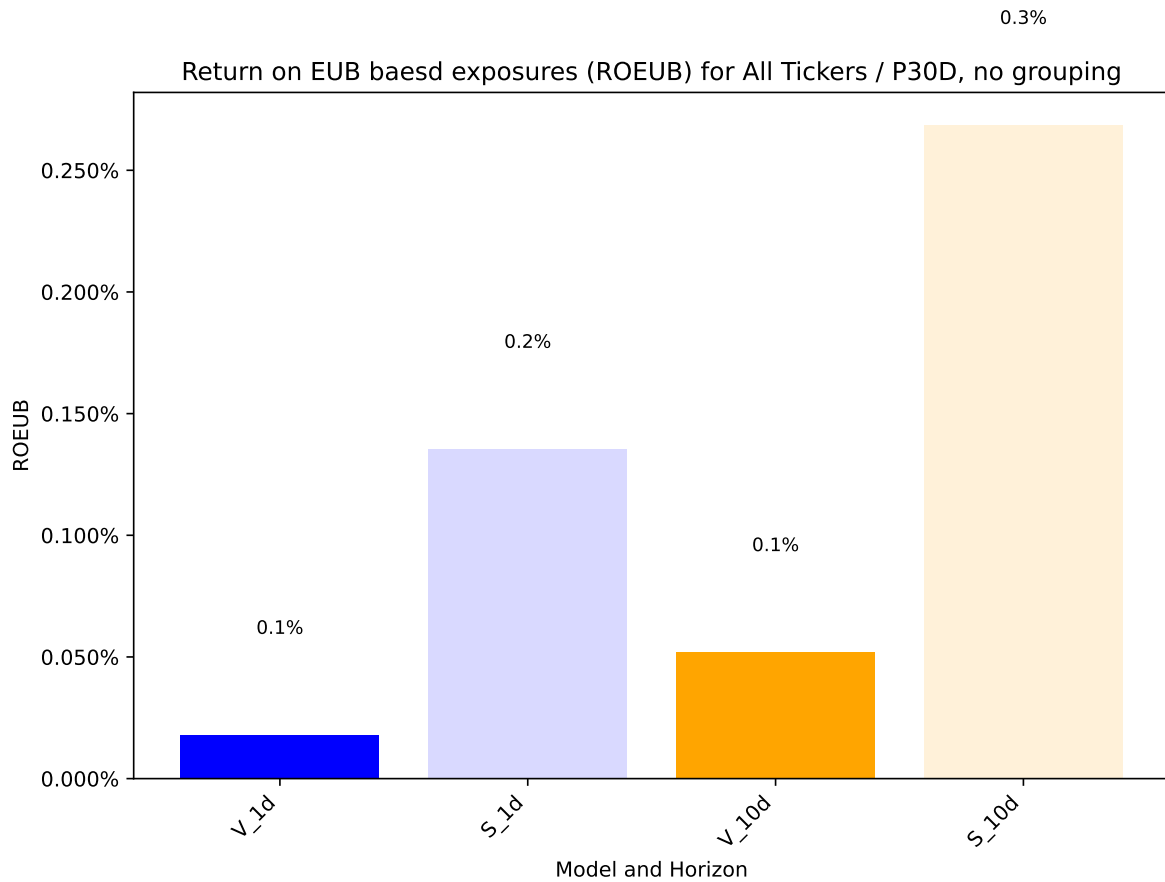
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d
intercept	-0.02%	-0.05%	-0.09%
intercept_p_value	49.36%	27.86%	26.24%
slope	93.78%	93.99%	102.35%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28



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

	1d	10d
intercept	-0.10%	-0.17%
intercept_p_value	0.01%	2.04%
slope	86.59%	83.16%
slope_p_value	0.00%	0.00%

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

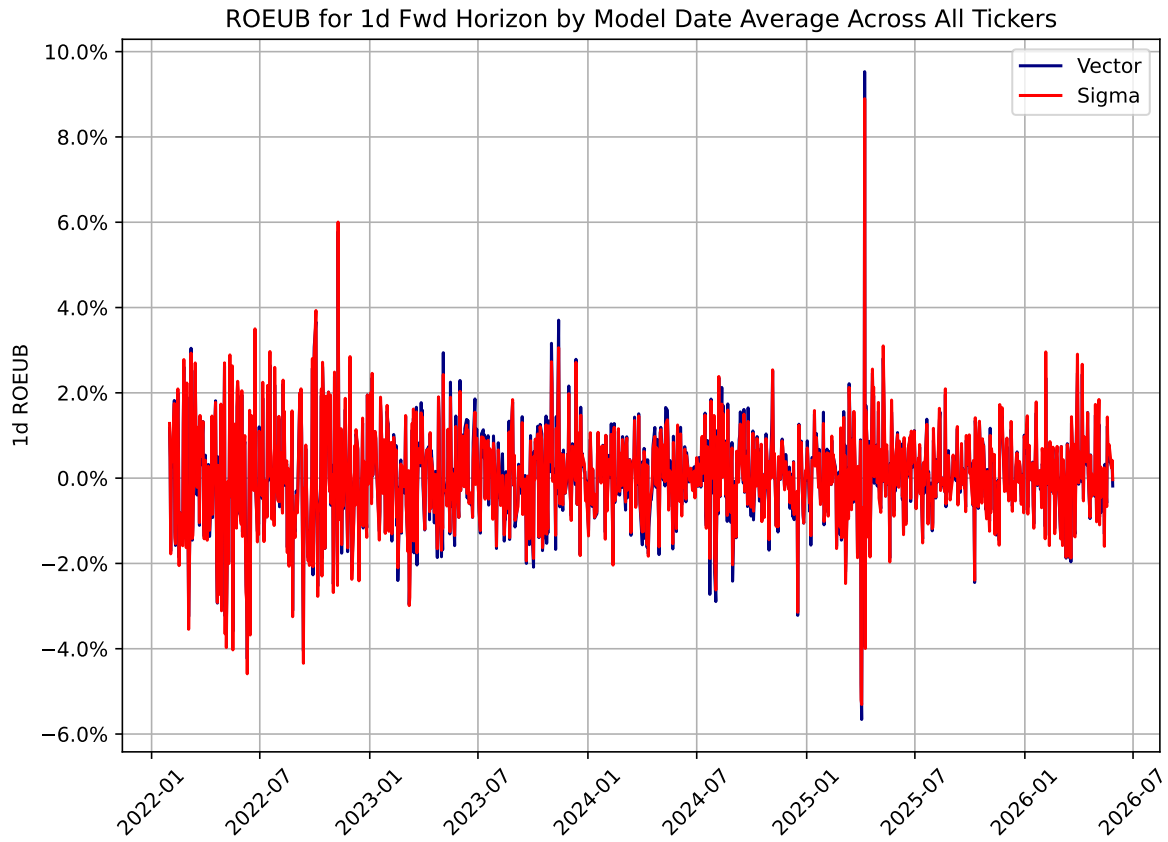
	1d	10d
intercept	-0.02%	-0.08%
intercept_p_value	47.52%	43.80%
slope	89.82%	86.96%



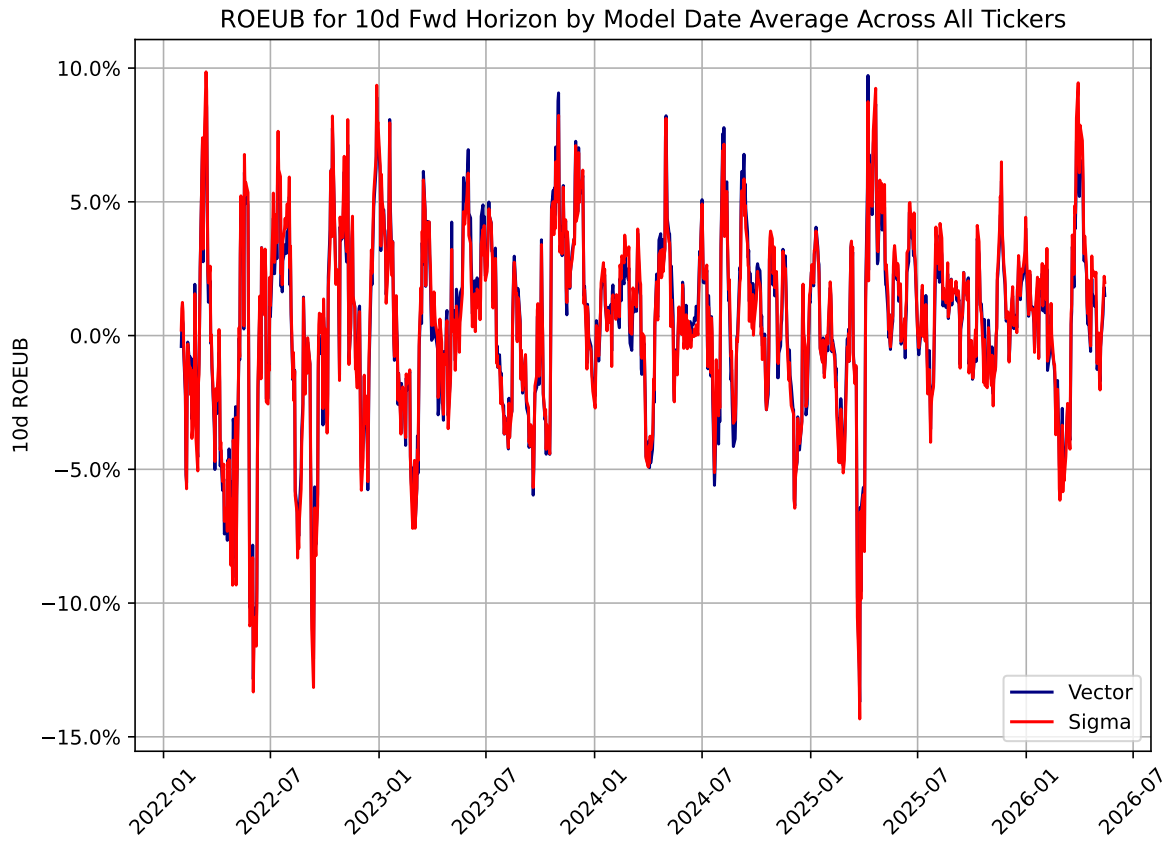
slope_p_value 0.00% 0.06%

ROEUB by Model Date Detail

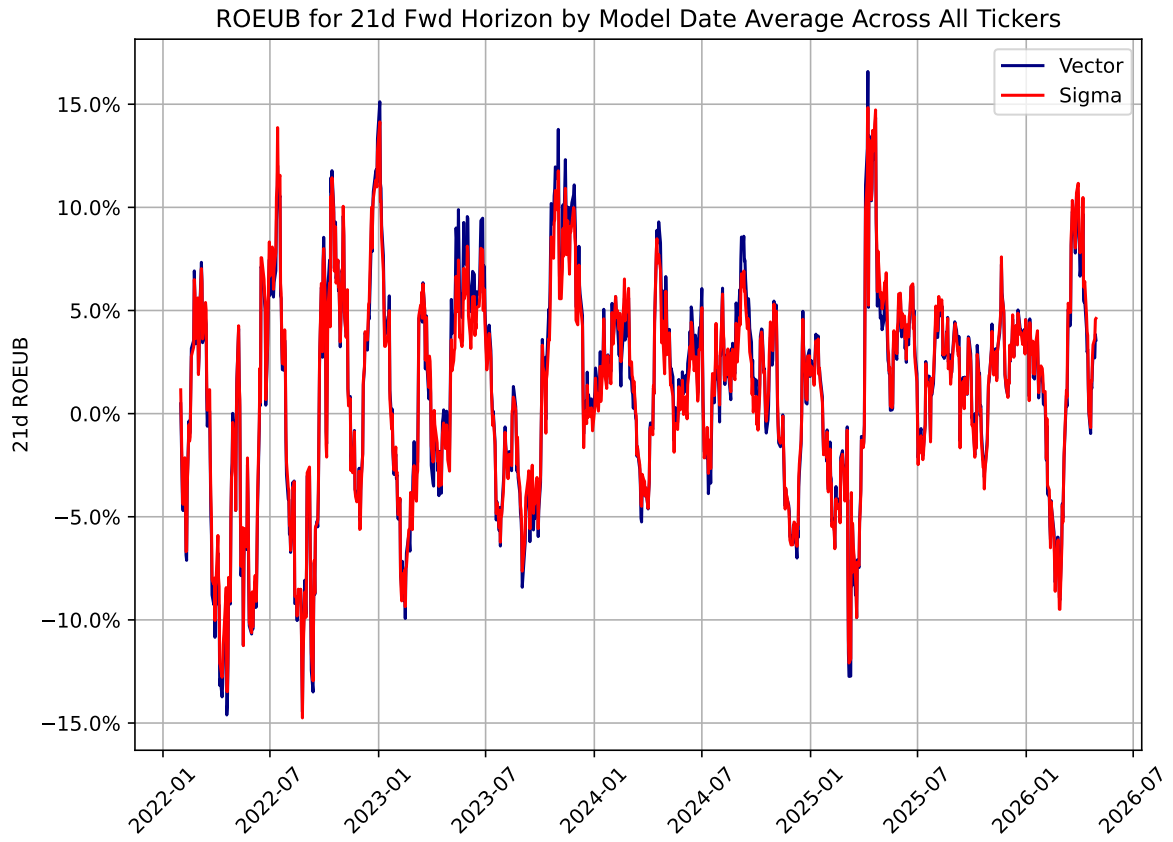
1d Horizon



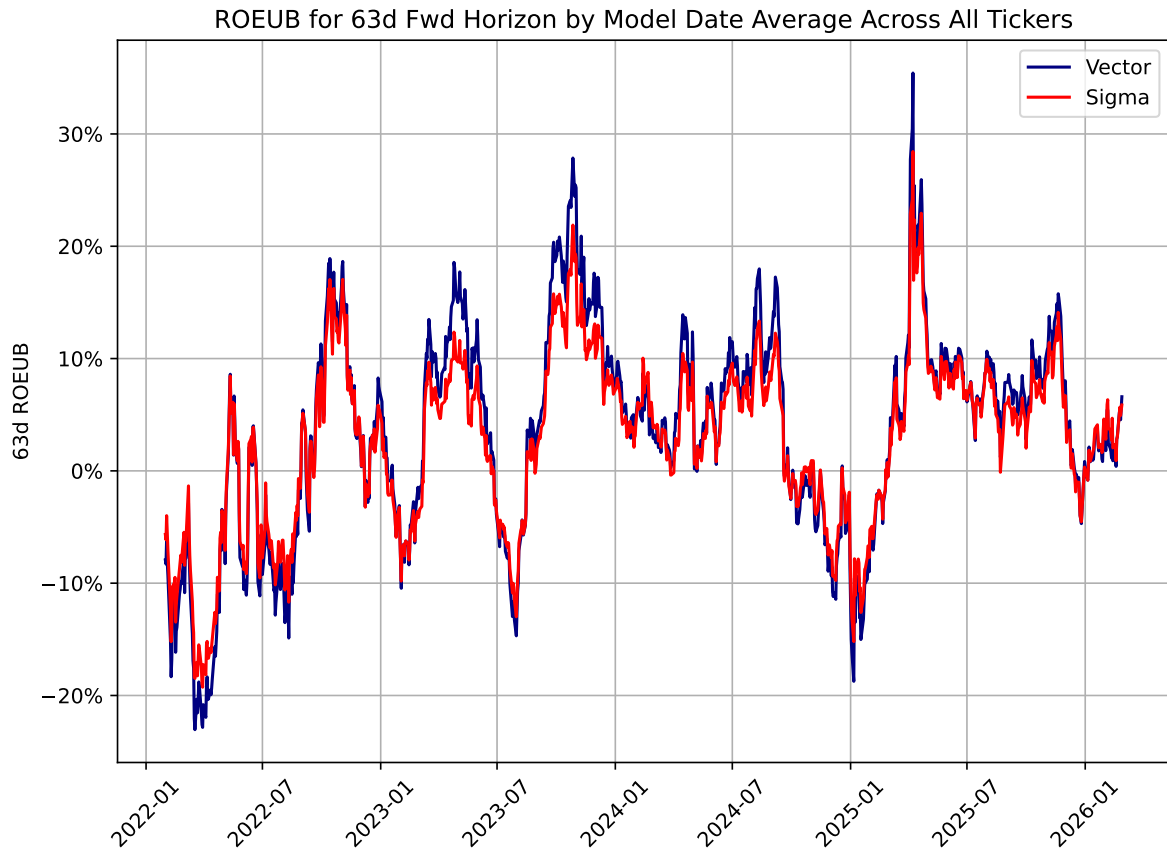
10d Horizon



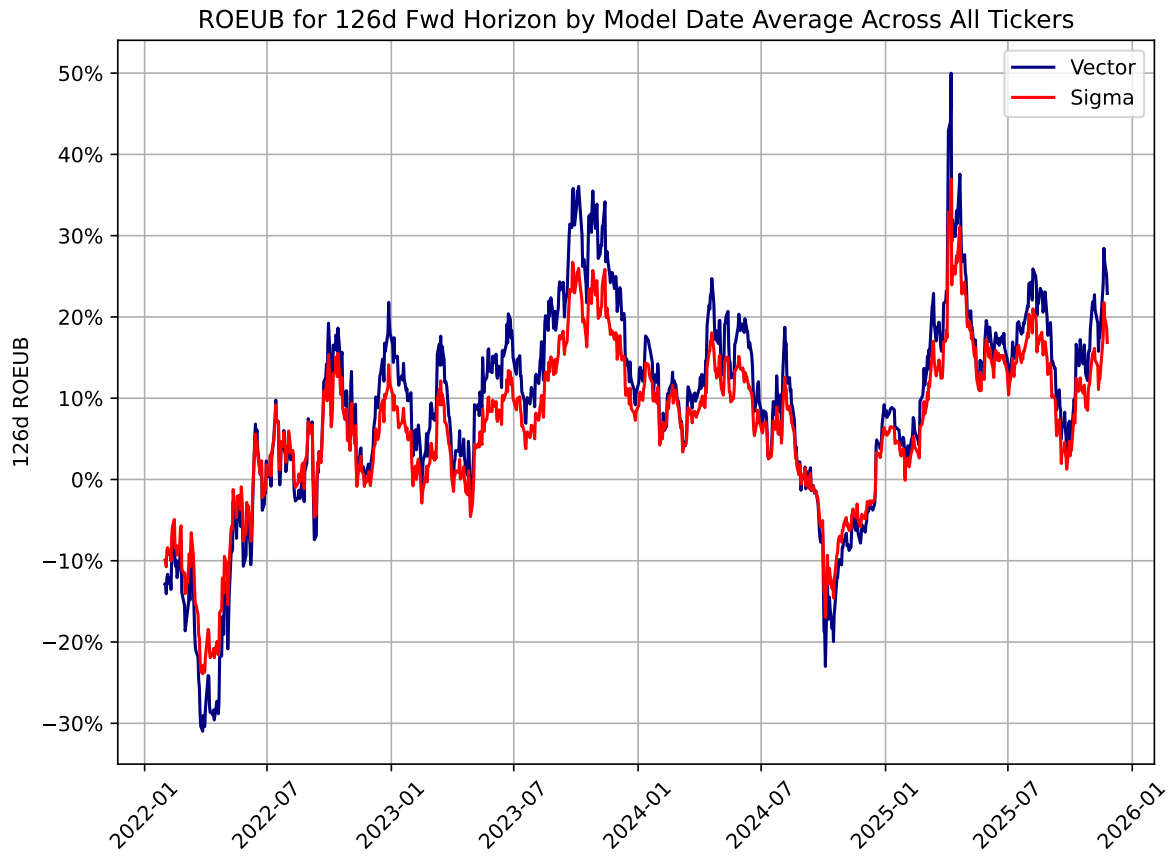
21d Horizon



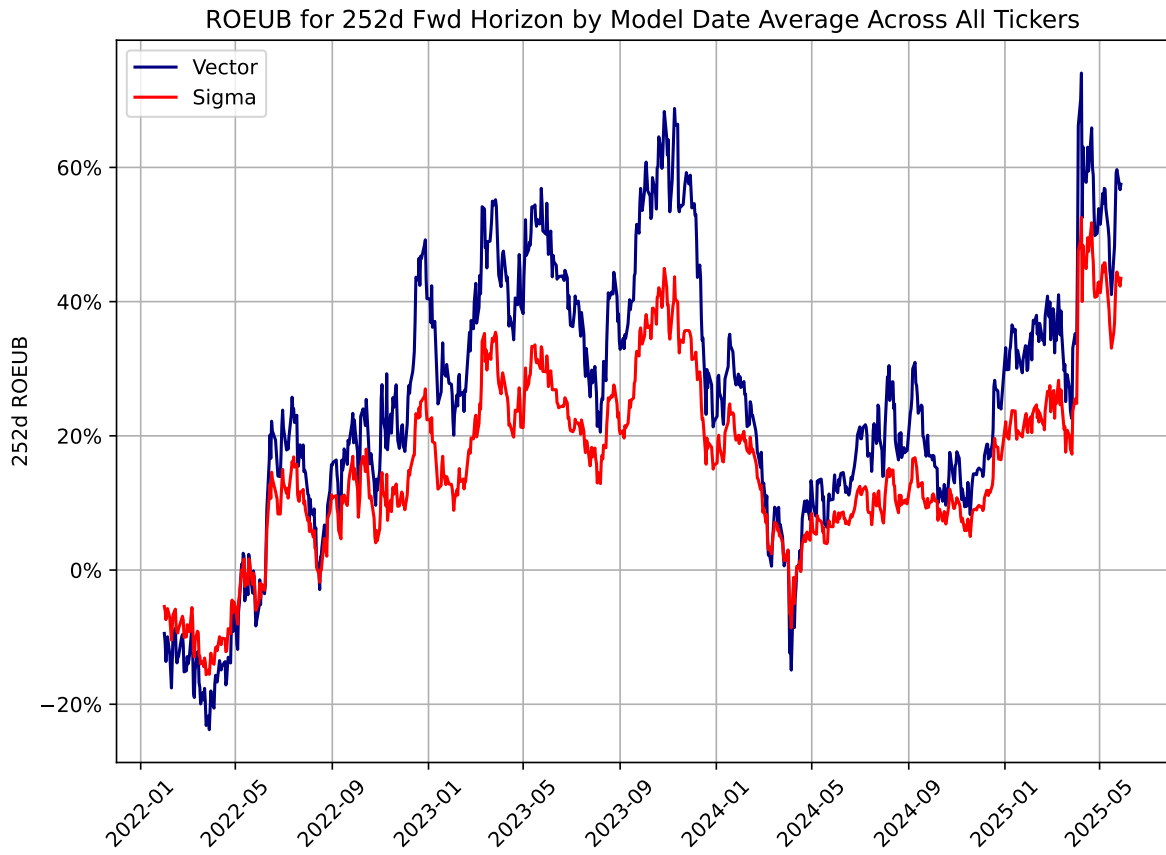
63d Horizon



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	AVGO	0.31%	MSTR	0.3%
1.0	TSLA	0.3%	MU	0.29%
1.0	NVDA	0.27%	WDC	0.27%
1.0	AMD	0.26%	NVDA	0.25%
1.0	CCL	0.25%	VST	0.23%
1.0	VST	0.25%	AVGO	0.23%
1.0	MU	0.23%	PWR	0.2%
1.0	X	0.22%	AMD	0.2%
1.0	LLY	0.22%	TEVA	0.17%
1.0	GE	0.21%	X	0.17%
1.0	PWR	0.2%	LLY	0.16%
1.0	AMAT	0.17%	GE	0.16%
1.0	GBTC	0.17%	TRGP	0.16%
1.0	B	0.15%	GME	0.15%
1.0	WDC	0.14%	AMAT	0.15%
1.0	TRGP	0.14%	GBTC	0.14%
1.0	ON	0.13%	SLV	0.14%
1.0	MSFT	0.13%	INTC	0.14%
1.0	TDG	0.13%	CAH	0.14%
1.0	CAH	0.13%	ORCL	0.13%
1.0	PHM	0.12%	ON	0.12%
1.0	LVS	0.12%	THC	0.12%
1.0	THC	0.11%	ETRN	0.12%
1.0	DHI	0.1%	GOOGL	0.12%
1.0	CDNS	0.1%	GS	0.11%
1.0	FCX	0.1%	IRM	0.11%
1.0	JAZZ	0.1%	CDNS	0.11%
1.0	IRM	0.09%	CSTM	0.11%
1.0	ETRN	0.09%	META	0.11%
1.0	KALU	0.09%	NFLX	0.1%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	NVDA	3.7%	MSTR	3.09%
10.0	AVGO	3.25%	MU	2.73%
10.0	TSLA	3.02%	WDC	2.68%
10.0	MU	2.47%	NVDA	2.53%
10.0	VST	2.33%	VST	2.23%
10.0	AMD	2.23%	AVGO	2.19%
10.0	LLY	2.13%	PWR	2.05%
10.0	CCL	2.09%	AMD	1.88%
10.0	PWR	2.04%	TEVA	1.74%
10.0	AMAT	1.88%	LLY	1.59%
10.0	GBTC	1.68%	X	1.58%
10.0	GE	1.64%	TRGP	1.57%
10.0	X	1.5%	INTC	1.5%
10.0	MSTR	1.46%	GE	1.49%
10.0	WDC	1.36%	ETRN	1.41%
10.0	ETRN	1.32%	AMAT	1.4%
10.0	MSFT	1.29%	GBTC	1.38%
10.0	GS	1.25%	CAH	1.38%
10.0	SLV	1.24%	SLV	1.36%
10.0	CAH	1.24%	GME	1.31%
10.0	TRGP	1.18%	META	1.21%
10.0	QQQ	1.17%	THC	1.18%
10.0	CDNS	1.16%	IRM	1.15%
10.0	HLT	1.08%	GOOGL	1.14%
10.0	TEVA	1.07%	ORCL	1.14%
10.0	B	1.02%	NFLX	1.13%
10.0	CSTM	1.0%	GS	1.09%
10.0	THC	0.99%	TSLA	1.07%
10.0	GME	0.95%	ON	1.07%
10.0	DHI	0.93%	CDNS	1.05%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	NVDA	8.93%	MSTR	7.14%
21.0	TSLA	7.19%	WDC	5.78%
21.0	MU	6.4%	MU	5.64%
21.0	AVGO	6.31%	NVDA	5.45%
21.0	AMAT	5.37%	VST	4.83%
21.0	AMD	5.27%	AVGO	4.61%
21.0	VST	5.21%	PWR	4.43%
21.0	CCL	5.02%	AMD	4.15%
21.0	PWR	4.77%	TEVA	3.8%
21.0	GBTC	4.3%	ETRN	3.5%
21.0	LLY	4.09%	INTC	3.29%
21.0	MSTR	3.97%	TRGP	3.26%
21.0	ETRN	3.92%	LLY	3.25%
21.0	GE	3.63%	GE	3.2%
21.0	WDC	3.35%	X	3.17%
21.0	CAH	3.29%	GBTC	3.1%
21.0	X	3.17%	AMAT	2.95%
21.0	TRGP	2.78%	CAH	2.89%
21.0	CDNS	2.78%	SLV	2.84%
21.0	GS	2.72%	META	2.67%
21.0	QQQ	2.71%	NFLX	2.51%
21.0	SLV	2.66%	THC	2.51%
21.0	PHM	2.65%	GOOGL	2.49%
21.0	DHI	2.58%	ORCL	2.48%
21.0	MSFT	2.57%	IRM	2.47%
21.0	AZO	2.55%	TSLA	2.46%
21.0	TEVA	2.45%	GS	2.31%
21.0	HLT	2.43%	ON	2.21%
21.0	CSTM	2.4%	CDNS	2.17%
21.0	THC	2.14%	GWV	2.14%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	NVDA	29.59%	MSTR	20.13%
63.0	AMAT	20.25%	WDC	18.41%
63.0	MU	19.42%	NVDA	17.68%
63.0	MSTR	18.87%	MU	16.22%
63.0	VST	18.09%	VST	16.04%
63.0	CCL	15.62%	AVGO	13.64%
63.0	AMD	15.26%	PWR	11.95%
63.0	AVGO	14.51%	TEVA	10.46%
63.0	TSLA	14.49%	GE	10.32%
63.0	GBTC	13.97%	ETRN	10.28%
63.0	GE	13.45%	GBTC	10.28%
63.0	PWR	13.44%	AMD	10.02%
63.0	CAH	13.04%	META	9.5%
63.0	WDC	12.76%	LLY	9.24%
63.0	LLY	12.42%	TRGP	9.2%
63.0	DHI	11.49%	CAH	9.06%
63.0	PHM	10.29%	NFLX	9.04%
63.0	TRGP	9.85%	AMAT	8.91%
63.0	ETRN	9.47%	SLV	8.83%
63.0	SLV	9.37%	THC	8.09%
63.0	GOOGL	8.97%	PHM	7.46%
63.0	THC	8.92%	GOOGL	7.19%
63.0	QQQ	8.53%	ORCL	7.04%
63.0	GS	8.27%	GS	6.87%
63.0	TEVA	8.04%	HSBC	6.54%
63.0	AZO	7.75%	INTC	6.33%
63.0	X	7.66%	CCL	6.19%
63.0	GLD	7.66%	IRM	6.17%
63.0	HLT	7.45%	GLD	5.98%
63.0	NFLX	7.41%	X	5.91%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	NVDA	69.92%	MSTR	49.65%
126.0	MU	56.89%	WDC	44.41%
126.0	AMAT	49.38%	NVDA	44.11%
126.0	VST	43.38%	MU	39.78%
126.0	GBTC	41.3%	VST	35.78%
126.0	AMD	36.0%	AVGO	30.09%
126.0	WDC	34.98%	GBTC	29.06%
126.0	MSTR	34.59%	GE	25.34%
126.0	GE	33.98%	TEVA	23.22%
126.0	CCL	30.89%	META	23.21%
126.0	AVGO	30.34%	PWR	23.14%
126.0	TSLA	29.77%	NFLX	22.15%
126.0	NFLX	29.05%	SLV	20.9%
126.0	PWR	27.43%	AMD	20.56%
126.0	CAH	27.28%	THC	20.24%
126.0	PHM	27.26%	AMAT	20.14%
126.0	THC	25.77%	CAH	19.76%
126.0	DHI	25.36%	LLY	19.67%
126.0	LLY	23.68%	TRGP	18.93%
126.0	QQQ	22.9%	ETRN	18.49%
126.0	SLV	22.48%	PHM	17.21%
126.0	TRGP	21.74%	GOOGL	16.69%
126.0	ORCL	21.69%	ORCL	15.94%
126.0	GOOGL	21.53%	GS	15.56%
126.0	B	20.88%	B	15.31%
126.0	GS	20.43%	HSBC	14.1%
126.0	AMZN	20.35%	CCL	14.04%
126.0	JPM	19.11%	GLD	13.45%
126.0	COST	18.62%	JPM	12.87%
126.0	TEVA	18.35%	INTC	12.77%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
252.0	NVDA	241.68%	MSTR	169.5%
252.0	MSTR	185.54%	NVDA	119.97%
252.0	GBTC	148.56%	VST	106.7%
252.0	MU	130.71%	WDC	99.68%
252.0	VST	113.18%	GBTC	92.97%
252.0	NFLX	111.94%	MU	84.18%
252.0	AVGO	105.79%	AVGO	77.04%
252.0	WDC	101.19%	META	63.84%
252.0	GE	99.21%	GE	61.17%
252.0	AMAT	93.25%	NFLX	57.68%
252.0	PWR	90.82%	PWR	49.14%
252.0	AMD	87.85%	THC	48.14%
252.0	CCL	84.75%	AMD	44.91%
252.0	LLY	73.77%	TEVA	42.74%
252.0	AMZN	73.44%	PHM	42.61%
252.0	PHM	71.67%	LLY	42.44%
252.0	CDNS	70.78%	TRGP	40.73%
252.0	THC	67.77%	SLV	39.52%
252.0	QQQ	66.88%	CAH	39.25%
252.0	GOOGL	65.11%	AMAT	38.62%
252.0	DHI	63.96%	CCL	37.5%
252.0	META	62.91%	ORCL	37.21%
252.0	COST	60.52%	ETRN	35.78%
252.0	ORLY	59.75%	GOOGL	35.04%
252.0	ORCL	57.72%	GS	33.59%
252.0	JPM	56.78%	JPM	31.05%
252.0	MSFT	53.9%	HSBC	30.96%
252.0	ISRG	52.55%	B	30.09%
252.0	CAH	51.46%	TDG	29.52%
252.0	AZO	48.55%	GLD	29.31%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	AMD	0.79%	MU	1.02%
1.0	MU	0.78%	WDC	1.02%
1.0	LUMN	0.73%	INTC	0.81%
1.0	AMAT	0.68%	AMD	0.7%
1.0	CLF	0.54%	LUMN	0.54%
1.0	WDC	0.51%	AA	0.48%
1.0	INTC	0.47%	ON	0.48%
1.0	AVGO	0.46%	AMAT	0.46%
1.0	CSTM	0.37%	CSTM	0.46%
1.0	PWR	0.37%	CLF	0.44%
1.0	AA	0.35%	SLV	0.41%
1.0	TEVA	0.35%	KALU	0.41%
1.0	KALU	0.33%	GNRC	0.38%
1.0	ON	0.31%	B	0.36%
1.0	SLV	0.29%	JAZZ	0.34%
1.0	BHP	0.28%	NEM	0.34%
1.0	FSUGY	0.28%	GOOGL	0.33%
1.0	GNRC	0.28%	TEVA	0.33%
1.0	LLY	0.27%	PWR	0.32%
1.0	B	0.26%	AVGO	0.28%
1.0	JAZZ	0.26%	CMA	0.28%
1.0	NVDA	0.26%	CSCO	0.28%
1.0	RIO	0.25%	ELAN	0.27%
1.0	VST	0.24%	FCX	0.26%
1.0	CSCO	0.24%	QCOM	0.26%
1.0	BIIB	0.24%	BHP	0.26%
1.0	LVS	0.23%	RIO	0.25%
1.0	GOOGL	0.23%	TXN	0.24%
1.0	OXY	0.23%	GS	0.23%
1.0	CMA	0.23%	FSUGY	0.21%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	MU	8.49%	WDC	10.08%
10.0	AMD	7.37%	MU	9.61%
10.0	AMAT	6.08%	INTC	8.69%
10.0	LUMN	6.05%	AMD	6.74%
10.0	INTC	5.63%	LUMN	4.92%
10.0	WDC	5.38%	AMAT	4.43%
10.0	AVGO	4.92%	ON	4.22%
10.0	SLV	4.01%	AA	4.19%
10.0	PWR	3.57%	CSTM	4.19%
10.0	CSTM	3.56%	KALU	3.86%
10.0	BHP	3.32%	GNRC	3.79%
10.0	GNRC	3.21%	SLV	3.77%
10.0	AA	3.1%	GOOGL	3.63%
10.0	B	3.03%	JAZZ	3.46%
10.0	ON	2.87%	B	3.36%
10.0	TEVA	2.81%	NEM	3.24%
10.0	CSCO	2.79%	PWR	3.23%
10.0	RIO	2.71%	TEVA	3.16%
10.0	KALU	2.52%	CMA	3.15%
10.0	CLF	2.52%	CLF	2.75%
10.0	GOOGL	2.48%	CSCO	2.71%
10.0	NVDA	2.44%	RIO	2.51%
10.0	NEM	2.41%	AVGO	2.49%
10.0	JAZZ	2.39%	BHP	2.44%
10.0	FSUGY	2.28%	TXN	2.35%
10.0	MRK	2.2%	FCX	2.21%
10.0	CMA	2.04%	TRGP	2.2%
10.0	QQQ	2.01%	ELAN	2.15%
10.0	GS	1.98%	GS	2.11%
10.0	LLY	1.94%	QCOM	2.05%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	MU	22.65%	WDC	22.29%
21.0	AMD	18.11%	MU	20.54%
21.0	AMAT	17.86%	INTC	19.71%
21.0	INTC	14.25%	AMD	14.73%
21.0	WDC	14.05%	LUMN	9.91%
21.0	LUMN	13.28%	AMAT	9.32%
21.0	CSTM	9.23%	CSTM	9.18%
21.0	SLV	8.9%	AA	8.86%
21.0	AVGO	8.75%	ON	8.82%
21.0	GNRC	8.5%	KALU	8.76%
21.0	BHP	8.03%	SLV	8.45%
21.0	PWR	7.34%	GOOGL	8.18%
21.0	B	7.3%	GNRC	8.13%
21.0	AA	6.95%	B	7.39%
21.0	ON	6.9%	TEVA	7.37%
21.0	RIO	6.69%	JAZZ	7.28%
21.0	GOOGL	6.68%	PWR	7.24%
21.0	TEVA	6.29%	CMA	7.0%
21.0	KALU	6.18%	NEM	6.97%
21.0	NEM	5.92%	CLF	5.8%
21.0	NVDA	5.91%	RIO	5.73%
21.0	CSCO	5.81%	BHP	5.45%
21.0	JAZZ	5.34%	AVGO	5.22%
21.0	MRK	5.33%	TXN	4.91%
21.0	FSUGY	5.32%	ELAN	4.86%
21.0	CLF	5.14%	CSCO	4.82%
21.0	BIIB	5.07%	TRGP	4.48%
21.0	TRGP	4.71%	FCX	4.47%
21.0	CMA	4.5%	VFC	4.3%
21.0	GS	4.34%	FSUGY	4.28%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	AMAT	73.19%	WDC	76.96%
63.0	MU	71.59%	MU	66.02%
63.0	WDC	59.54%	INTC	51.51%
63.0	LUMN	46.36%	AA	32.11%
63.0	INTC	41.65%	SLV	31.48%
63.0	AMD	41.07%	AMAT	30.51%
63.0	CSTM	36.63%	LUMN	30.17%
63.0	SLV	35.6%	CSTM	29.3%
63.0	B	34.15%	AMD	28.63%
63.0	BHP	29.55%	B	27.65%
63.0	AA	28.01%	TEVA	26.26%
63.0	RIO	27.53%	KALU	24.43%
63.0	CAH	26.83%	NEM	23.76%
63.0	BIIB	25.91%	GOOGL	23.34%
63.0	TEVA	25.9%	JAZZ	21.85%
63.0	GOOGL	23.46%	CMA	19.64%
63.0	NEM	21.92%	PWR	19.18%
63.0	TRGP	21.31%	RIO	17.88%
63.0	MRK	20.08%	ON	17.24%
63.0	ON	19.25%	ELAN	17.05%
63.0	JAZZ	19.14%	GNRC	16.02%
63.0	XOM	18.78%	BHP	15.42%
63.0	KALU	18.12%	TRGP	15.23%
63.0	GNRC	16.95%	FCX	15.2%
63.0	OXY	16.39%	VFC	14.07%
63.0	LLY	15.63%	MRK	13.3%
63.0	ELAN	14.92%	BIIB	12.88%
63.0	CSCO	14.8%	XOM	12.86%
63.0	CMA	14.45%	GLD	12.66%
63.0	FSUGY	14.42%	HSBC	12.39%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	MU	243.51%	WDC	212.91%
126.0	AMAT	206.35%	MU	184.09%
126.0	WDC	195.55%	INTC	108.78%
126.0	INTC	120.79%	SLV	88.13%
126.0	SLV	104.02%	AA	87.78%
126.0	B	100.92%	AMAT	78.62%
126.0	CSTM	93.83%	TEVA	72.78%
126.0	LUMN	88.62%	CSTM	72.6%
126.0	AA	85.56%	B	70.51%
126.0	RIO	81.92%	KALU	65.72%
126.0	TEVA	76.59%	NEM	56.61%
126.0	BHP	75.72%	LUMN	52.07%
126.0	BIIB	70.16%	GOOGL	51.64%
126.0	AMD	69.94%	JAZZ	48.41%
126.0	TRGP	69.32%	AMD	46.77%
126.0	CAH	65.31%	CMA	45.73%
126.0	GOOGL	60.75%	RIO	44.25%
126.0	ON	60.37%	ON	41.68%
126.0	MRK	55.11%	FCX	40.08%
126.0	NEM	54.43%	VFC	38.14%
126.0	KALU	52.92%	PWR	37.81%
126.0	JAZZ	45.99%	ELAN	36.06%
126.0	XOM	41.55%	BHP	35.11%
126.0	LLY	40.81%	MRK	34.86%
126.0	AZN	39.23%	TRGP	34.85%
126.0	BMJ	36.82%	BIIB	31.3%
126.0	PWR	36.36%	GLD	30.03%
126.0	FSUGY	36.18%	HSBC	29.5%
126.0	FCX	34.54%	CAH	29.43%
126.0	CNC	33.06%	GSK	29.08%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	AMD	1.31%	AMD	1.65%
1.0	MU	0.91%	INTC	1.65%
1.0	INTC	0.76%	MU	1.53%
1.0	ON	0.76%	WDC	1.18%
1.0	LUMN	0.72%	ON	1.04%
1.0	PWR	0.67%	QCOM	1.02%
1.0	NVDA	0.59%	LUMN	0.86%
1.0	QCOM	0.52%	AMC	0.78%
1.0	CSCO	0.48%	ORCL	0.73%
1.0	AVGO	0.45%	CSCO	0.7%
1.0	TXN	0.4%	TXN	0.66%
1.0	ORCL	0.37%	AVGO	0.58%
1.0	AMC	0.37%	CNC	0.54%
1.0	VST	0.37%	KALU	0.53%
1.0	CNC	0.37%	CSTM	0.5%
1.0	AMZN	0.36%	AMZN	0.44%
1.0	KALU	0.34%	UNH	0.43%
1.0	BBY	0.32%	BBY	0.42%
1.0	MSFT	0.3%	PWR	0.39%
1.0	WDC	0.3%	GOOGL	0.37%
1.0	AMAT	0.29%	CDNS	0.37%
1.0	CSTM	0.29%	AA	0.37%
1.0	AAP	0.28%	MS	0.37%
1.0	MS	0.28%	JAZZ	0.37%
1.0	QQQ	0.27%	VNO	0.36%
1.0	SPY	0.26%	AMAT	0.36%
1.0	GNRC	0.23%	GNRC	0.36%
1.0	AA	0.23%	CLF	0.35%
1.0	TEVA	0.21%	QQQ	0.32%
1.0	AAPL	0.2%	MSTR	0.32%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	AMD	18.15%	INTC	21.39%
10.0	MU	16.45%	AMD	18.07%
10.0	INTC	13.22%	MU	15.77%
10.0	ON	10.7%	ON	13.84%
10.0	AVGO	9.78%	WDC	13.31%
10.0	QCOM	9.01%	QCOM	10.81%
10.0	CSCO	8.96%	TXN	9.14%
10.0	PWR	8.8%	CNC	8.72%
10.0	WDC	6.8%	CSCO	8.34%
10.0	LUMN	6.73%	LUMN	8.16%
10.0	CNC	6.2%	AMC	7.87%
10.0	QQQ	5.9%	KALU	7.04%
10.0	TXN	4.52%	UNH	6.11%
10.0	KALU	4.39%	CSTM	5.44%
10.0	NVDA	4.13%	PWR	5.44%
10.0	GNRC	4.12%	AVGO	5.26%
10.0	CSTM	3.94%	GOOGL	5.08%
10.0	GOOGL	3.9%	ORCL	5.08%
10.0	AMAT	3.84%	JAZZ	4.85%
10.0	CDNS	3.83%	AMZN	4.68%
10.0	MS	3.48%	GNRC	4.6%
10.0	MSFT	3.48%	AMAT	4.55%
10.0	SPY	3.44%	MSTR	4.22%
10.0	BHP	3.43%	MS	4.14%
10.0	GS	3.25%	CDNS	4.05%
10.0	AMZN	2.92%	CVS	3.73%
10.0	VNO	2.75%	NVDA	3.68%
10.0	ORCL	2.54%	CLF	3.52%
10.0	CVS	2.52%	VNO	3.47%
10.0	CLF	2.47%	QQQ	3.46%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	MU	52.36%	INTC	62.66%
21.0	AMD	51.51%	AMD	48.88%
21.0	INTC	45.57%	MU	39.05%
21.0	AVGO	33.03%	ON	37.19%
21.0	ON	32.0%	WDC	32.6%
21.0	QCOM	23.16%	QCOM	28.91%
21.0	CSCO	22.74%	CNC	27.86%
21.0	CNC	22.22%	TXN	24.94%
21.0	WDC	22.15%	KALU	22.14%
21.0	PWR	19.83%	AMC	22.07%
21.0	QQQ	19.04%	LUMN	19.62%
21.0	LUMN	18.02%	UNH	17.57%
21.0	KALU	16.35%	CSCO	16.74%
21.0	NVDA	14.91%	CSTM	15.83%
21.0	GOOGL	14.87%	PWR	15.72%
21.0	GNRC	14.22%	AVGO	15.45%
21.0	CDNS	13.1%	GOOGL	14.75%
21.0	SPY	12.52%	GNRC	14.41%
21.0	CSTM	11.7%	MSTR	14.11%
21.0	BHP	11.56%	AMZN	13.54%
21.0	TXN	11.38%	ORCL	12.93%
21.0	MSFT	9.8%	CLF	12.09%
21.0	AMZN	9.61%	CDNS	11.49%
21.0	MS	9.33%	JAZZ	11.34%
21.0	VNO	9.12%	AMAT	10.67%
21.0	ORCL	9.03%	IRM	10.6%
21.0	AMAT	9.01%	CVS	10.45%
21.0	GS	8.97%	MS	10.22%
21.0	PRGO	8.73%	NVDA	9.87%
21.0	MSTR	8.7%	VNO	9.55%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	MU	1.65%	MU	3.39%
1.0	LUMN	1.43%	AMD	2.05%
1.0	BBY	1.41%	QCOM	1.86%
1.0	ORCL	1.18%	ORCL	1.76%
1.0	AMD	1.17%	CLF	1.52%
1.0	ON	1.14%	CSCO	1.43%
1.0	LLY	0.93%	BBY	1.35%
1.0	CSCO	0.92%	LUMN	1.24%
1.0	AAP	0.79%	INTC	1.12%
1.0	CLF	0.67%	WDC	1.07%
1.0	TSLA	0.66%	AA	1.03%
1.0	CCL	0.6%	ON	0.99%
1.0	INTC	0.56%	LLY	0.86%
1.0	CNC	0.55%	JAZZ	0.79%
1.0	VST	0.53%	AMC	0.79%
1.0	MOS	0.5%	MNST	0.72%
1.0	MSFT	0.49%	AMAT	0.7%
1.0	TDG	0.48%	AAPL	0.7%
1.0	AAPL	0.44%	TSLA	0.69%
1.0	LW	0.42%	FCX	0.69%
1.0	QCOM	0.4%	CDNS	0.66%
1.0	CDNS	0.39%	VNO	0.63%
1.0	CVS	0.37%	BHP	0.6%
1.0	FCX	0.36%	FSUGY	0.58%
1.0	WDC	0.36%	GE	0.58%
1.0	HON	0.36%	CNC	0.54%
1.0	HSBC	0.36%	GS	0.54%
1.0	GE	0.35%	HON	0.53%
1.0	HLT	0.35%	MSFT	0.51%
1.0	TXN	0.35%	CSTM	0.51%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	CSCO	23.84%	CSCO	22.22%
10.0	ON	11.36%	MU	19.36%
10.0	MU	10.46%	AMD	14.06%
10.0	LUMN	10.42%	QCOM	11.41%
10.0	LLY	8.82%	LUMN	10.26%
10.0	AMD	8.05%	ON	10.06%
10.0	QCOM	7.74%	BBY	8.93%
10.0	BBY	7.45%	MNST	8.43%
10.0	MNST	5.59%	LLY	7.27%
10.0	AAPL	4.47%	JAZZ	7.21%
10.0	BUD	4.1%	AA	6.86%
10.0	TRGP	3.92%	CLF	6.41%
10.0	GS	3.81%	TXN	6.2%
10.0	CVS	3.76%	CVS	6.18%
10.0	HON	3.75%	AAPL	6.03%
10.0	JAZZ	3.64%	CNC	5.22%
10.0	COST	3.6%	TRGP	4.92%
10.0	FSUGY	3.48%	GS	4.85%
10.0	ORCL	3.43%	CAH	4.83%
10.0	AA	3.38%	WDC	4.83%
10.0	CAH	3.32%	INTC	4.75%
10.0	KHC	3.25%	ORCL	4.73%
10.0	CNC	3.15%	HON	4.37%
10.0	MS	3.12%	GWV	4.35%
10.0	CLF	3.11%	FSUGY	4.2%
10.0	INTC	3.1%	NVDA	4.18%
10.0	TXN	3.04%	BUD	4.05%
10.0	MSFT	3.0%	AMAT	3.92%
10.0	OXY	2.96%	VNO	3.75%
10.0	ABBV	2.95%	MRK	3.75%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	SIVBQ	-0.53%	SIVBQ	-0.78%
1.0	IEP	-0.3%	SBNY	-0.45%
1.0	SBNY	-0.24%	FRCB	-0.23%
1.0	LUMN	-0.22%	AMC	-0.15%
1.0	CZR	-0.21%	IEP	-0.14%
1.0	NWL	-0.2%	NWL	-0.12%
1.0	UAA	-0.14%	CHTR	-0.1%
1.0	CHTR	-0.13%	PRGO	-0.09%
1.0	FRCB	-0.1%	FIS	-0.07%
1.0	ZTS	-0.09%	ZTS	-0.07%
1.0	FIS	-0.08%	AAP	-0.06%
1.0	UNH	-0.07%	VFC	-0.06%
1.0	CMCSA	-0.06%	GT	-0.06%
1.0	BXP	-0.06%	BHC	-0.06%
1.0	GNRC	-0.05%	CMCSA	-0.05%
1.0	TLT	-0.04%	UAA	-0.05%
1.0	ADBE	-0.04%	TLT	-0.04%
1.0	NAVI	-0.04%	NAVI	-0.04%
1.0	LNC	-0.04%	ADBE	-0.04%
1.0	INTU	-0.04%	BXP	-0.04%
1.0	BALL	-0.04%	BALL	-0.03%
1.0	VFC	-0.04%	CZR	-0.03%
1.0	PRGO	-0.03%	KHC	-0.03%
1.0	CTLT	-0.03%	LNC	-0.02%
1.0	BIIB	-0.03%	INTU	-0.02%
1.0	GT	-0.02%	CTLT	-0.01%
1.0	BA	-0.02%	FRA	-0.01%
1.0	AAP	-0.02%	LQD	-0.01%
1.0	CYH	-0.02%	MOS	-0.01%
1.0	BHC	-0.02%	PEP	-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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	SIVBQ	-3.66%	SBNY	-4.05%
10.0	IEP	-2.54%	SIVBQ	-3.9%
10.0	CZR	-2.16%	FRCB	-2.19%
10.0	SBNY	-1.64%	AMC	-1.65%
10.0	NWL	-1.33%	IEP	-1.37%
10.0	FRCB	-1.18%	NWL	-1.11%
10.0	AMC	-1.09%	CHTR	-0.94%
10.0	LUMN	-0.94%	PRGO	-0.82%
10.0	UAA	-0.9%	AAP	-0.71%
10.0	ZTS	-0.83%	FIS	-0.7%
10.0	CHTR	-0.69%	VFC	-0.69%
10.0	VFC	-0.62%	ZTS	-0.68%
10.0	FIS	-0.6%	UAA	-0.67%
10.0	BXP	-0.59%	GT	-0.66%
10.0	PRGO	-0.53%	CZR	-0.51%
10.0	NAVI	-0.47%	CMCSA	-0.51%
10.0	BALL	-0.46%	NAVI	-0.5%
10.0	CMCSA	-0.46%	BHC	-0.44%
10.0	UNH	-0.41%	TLT	-0.42%
10.0	GNRC	-0.41%	ADBE	-0.41%
10.0	TLT	-0.4%	BXP	-0.4%
10.0	ADBE	-0.4%	MOS	-0.31%
10.0	KHC	-0.35%	BALL	-0.3%
10.0	LNC	-0.35%	LNC	-0.29%
10.0	AAP	-0.33%	KHC	-0.28%
10.0	INTU	-0.31%	CYH	-0.26%
10.0	GT	-0.26%	BBY	-0.19%
10.0	CTLT	-0.23%	INTU	-0.18%
10.0	BIIB	-0.23%	FRA	-0.17%
10.0	FRA	-0.13%	LQD	-0.13%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	SIVBQ	-8.0%	SBNY	-11.16%
21.0	IEP	-5.97%	SIVBQ	-9.37%
21.0	SBNY	-4.88%	FRCB	-6.02%
21.0	CZR	-4.69%	AMC	-3.92%
21.0	FRCB	-3.24%	IEP	-2.89%
21.0	NWL	-2.32%	NWL	-2.29%
21.0	AMC	-1.8%	CHTR	-1.89%
21.0	UAA	-1.55%	PRGO	-1.68%
21.0	VFC	-1.52%	AAP	-1.42%
21.0	ZTS	-1.42%	VFC	-1.36%
21.0	CHTR	-1.39%	FIS	-1.29%
21.0	BXP	-1.11%	ZTS	-1.28%
21.0	FIS	-1.07%	BHC	-1.17%
21.0	PRGO	-1.04%	UAA	-1.17%
21.0	ADBE	-0.94%	GT	-1.17%
21.0	TLT	-0.94%	CZR	-1.16%
21.0	KHC	-0.91%	NAVI	-1.05%
21.0	LUMN	-0.9%	CMCSA	-1.0%
21.0	AAP	-0.81%	BXP	-0.89%
21.0	BALL	-0.79%	TLT	-0.87%
21.0	NAVI	-0.76%	ADBE	-0.74%
21.0	CMCSA	-0.73%	KHC	-0.71%
21.0	UNH	-0.67%	MOS	-0.68%
21.0	INTU	-0.62%	LNC	-0.66%
21.0	GNRC	-0.56%	BALL	-0.56%
21.0	LNC	-0.53%	BBY	-0.52%
21.0	BHC	-0.49%	CYH	-0.44%
21.0	GT	-0.46%	FRA	-0.32%
21.0	VZ	-0.41%	LQD	-0.24%
21.0	CLF	-0.36%	LW	-0.2%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	SIVBQ	-30.27%	SBNY	-37.59%
63.0	IEP	-19.62%	SIVBQ	-33.73%
63.0	SBNY	-19.01%	FRCB	-24.04%
63.0	FRCB	-15.74%	AMC	-15.64%
63.0	NWL	-11.18%	IEP	-9.75%
63.0	AMC	-7.52%	NWL	-7.75%
63.0	CZR	-7.33%	PRGO	-6.17%
63.0	VFC	-7.25%	AAP	-4.7%
63.0	PRGO	-4.95%	CHTR	-4.57%
63.0	UAA	-4.86%	CZR	-4.37%
63.0	GNRC	-4.74%	VFC	-4.04%
63.0	AAP	-4.17%	BHC	-3.93%
63.0	CHTR	-3.98%	MOS	-3.81%
63.0	ADBE	-3.94%	FIS	-3.49%
63.0	KHC	-3.76%	NAVI	-3.44%
63.0	BXP	-3.47%	BXP	-3.33%
63.0	BHC	-3.09%	UAA	-2.97%
63.0	CLF	-2.84%	ZTS	-2.88%
63.0	NAVI	-2.75%	KHC	-2.87%
63.0	BALL	-2.67%	GT	-2.78%
63.0	TLT	-2.65%	CLF	-2.56%
63.0	FIS	-2.5%	CMCSA	-2.5%
63.0	ZTS	-2.43%	TLT	-2.33%
63.0	MOS	-2.26%	ADBE	-2.22%
63.0	GT	-2.11%	LNC	-2.07%
63.0	CYH	-2.05%	CNC	-2.02%
63.0	CTLT	-1.99%	BBY	-1.68%
63.0	UNH	-1.89%	UNH	-1.36%
63.0	CMCSA	-1.87%	BALL	-1.29%
63.0	VZ	-1.85%	FRA	-0.9%



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 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	SIVBQ	-64.31%	SIVBQ	-65.15%
126.0	IEP	-40.31%	SBNY	-64.8%
126.0	FRCB	-39.92%	FRCB	-51.17%
126.0	SBNY	-33.47%	AMC	-29.73%
126.0	NWL	-31.85%	IEP	-19.18%
126.0	AMC	-15.88%	NWL	-17.16%
126.0	VFC	-14.47%	PRGO	-11.66%
126.0	GNRC	-11.36%	AAP	-11.09%
126.0	AAP	-11.32%	CZR	-8.57%
126.0	CZR	-10.99%	CHTR	-8.47%
126.0	PRGO	-10.7%	MOS	-8.05%
126.0	FIS	-8.07%	VFC	-6.61%
126.0	UAA	-7.97%	UAA	-6.02%
126.0	GT	-7.88%	KHC	-5.92%
126.0	KHC	-7.6%	FIS	-5.74%
126.0	CHTR	-7.5%	CTLT	-5.69%
126.0	MOS	-7.09%	CNC	-5.4%
126.0	ADBE	-6.58%	NAVI	-5.31%
126.0	CTLT	-6.16%	BHC	-5.31%
126.0	BHC	-5.18%	BXP	-5.28%
126.0	BXP	-5.13%	GT	-4.9%
126.0	CMCSA	-5.04%	ZTS	-4.78%
126.0	TLT	-4.91%	CMCSA	-4.47%
126.0	CNC	-4.67%	TLT	-4.15%
126.0	CLF	-4.56%	UNH	-3.74%
126.0	BALL	-4.28%	CLF	-3.3%
126.0	VZ	-4.13%	ADBE	-2.49%
126.0	NAVI	-4.0%	BALL	-2.15%
126.0	CVS	-3.91%	LNC	-2.08%
126.0	UNH	-3.89%	BBY	-2.07%



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 2026-05-28

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	SBNY	-81.71%	FRCB	-91.61%
252.0	IEP	-81.59%	AMC	-54.62%
252.0	NWL	-65.77%	IEP	-39.78%
252.0	AMC	-35.79%	NWL	-30.85%
252.0	CZR	-28.37%	AAP	-23.09%
252.0	VFC	-27.81%	PRGO	-19.33%
252.0	AAP	-26.34%	VFC	-18.88%
252.0	GT	-22.51%	CNC	-17.95%
252.0	PRGO	-22.09%	CZR	-17.22%
252.0	MOS	-20.95%	UAA	-14.87%
252.0	CLF	-20.54%	MOS	-14.53%
252.0	UAA	-20.28%	CHTR	-12.52%
252.0	CNC	-20.23%	KHC	-11.72%
252.0	CVS	-19.81%	CLF	-10.69%
252.0	KHC	-17.48%	UNH	-10.37%
252.0	UNH	-15.98%	GT	-8.95%
252.0	FIS	-14.83%	BMY	-8.45%
252.0	CHTR	-11.52%	BHC	-8.38%
252.0	GNRC	-11.11%	NAVI	-8.38%
252.0	BHC	-11.08%	TLT	-7.25%
252.0	ADBE	-10.62%	CTLT	-6.24%
252.0	CYH	-9.93%	CYH	-5.81%
252.0	TLT	-9.46%	CMCSA	-5.76%
252.0	BMY	-9.31%	OXY	-5.72%
252.0	LW	-7.5%	ZTS	-5.59%
252.0	NAVI	-6.89%	BXP	-5.44%
252.0	BALL	-6.86%	BIIB	-5.37%
252.0	CTLT	-6.32%	LW	-5.25%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	CHTR	-0.42%	CHTR	-0.35%
1.0	MSTR	-0.36%	PRGO	-0.31%
1.0	ZTS	-0.36%	INTU	-0.29%
1.0	UAA	-0.3%	ZTS	-0.28%
1.0	FIS	-0.26%	MSTR	-0.24%
1.0	GBTC	-0.22%	FIS	-0.23%
1.0	INTU	-0.21%	AMC	-0.22%
1.0	ADBE	-0.21%	GT	-0.21%
1.0	CMG	-0.21%	CPRT	-0.17%
1.0	GT	-0.2%	ADBE	-0.17%
1.0	CPRT	-0.18%	NAVI	-0.15%
1.0	MOS	-0.17%	CMG	-0.15%
1.0	CMCSA	-0.17%	MOS	-0.13%
1.0	AMC	-0.16%	CMCSA	-0.12%
1.0	NWL	-0.16%	NFLX	-0.11%
1.0	IEP	-0.15%	NWL	-0.11%
1.0	PRGO	-0.14%	GBTC	-0.11%
1.0	CZR	-0.13%	GME	-0.1%
1.0	PCG	-0.13%	TMUS	-0.09%
1.0	NFLX	-0.09%	ISRG	-0.09%
1.0	VICI	-0.08%	AZO	-0.08%
1.0	GME	-0.08%	CYH	-0.07%
1.0	TMUS	-0.08%	POST	-0.06%
1.0	VNO	-0.08%	LW	-0.06%
1.0	AZO	-0.07%	FRA	-0.05%
1.0	ISRG	-0.07%	HD	-0.05%
1.0	NAVI	-0.07%	TDG	-0.05%
1.0	FRA	-0.06%	VICI	-0.04%
1.0	CNC	-0.05%	LEN	-0.04%
1.0	POST	-0.04%	T	-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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	ZTS	-3.06%	CHTR	-3.45%
10.0	MSTR	-2.93%	PRGO	-2.95%
10.0	GT	-2.79%	INTU	-2.88%
10.0	CHTR	-2.71%	ZTS	-2.74%
10.0	MOS	-2.54%	MSTR	-2.72%
10.0	AMC	-2.15%	FIS	-2.44%
10.0	CPRT	-2.12%	AMC	-2.3%
10.0	PRGO	-1.87%	GT	-2.26%
10.0	FIS	-1.79%	ADBE	-1.94%
10.0	ADBE	-1.76%	NAVI	-1.75%
10.0	INTU	-1.75%	MOS	-1.64%
10.0	CMG	-1.63%	CPRT	-1.63%
10.0	NAVI	-1.63%	CMG	-1.46%
10.0	GBTC	-1.2%	CMCSA	-1.23%
10.0	NFLX	-1.05%	GBTC	-1.11%
10.0	VNO	-0.94%	NFLX	-1.1%
10.0	CMCSA	-0.91%	NWL	-0.88%
10.0	VICI	-0.8%	TMUS	-0.84%
10.0	UAA	-0.8%	GME	-0.81%
10.0	IEP	-0.68%	ISRG	-0.74%
10.0	ISRG	-0.66%	VNO	-0.71%
10.0	TMUS	-0.64%	LEN	-0.64%
10.0	GME	-0.62%	LW	-0.6%
10.0	FRA	-0.55%	FRA	-0.59%
10.0	LEN	-0.53%	HD	-0.59%
10.0	META	-0.51%	TDG	-0.59%
10.0	AZO	-0.44%	BXP	-0.58%
10.0	KHC	-0.42%	AZO	-0.44%
10.0	PCG	-0.42%	VICI	-0.43%
10.0	SNY	-0.41%	POST	-0.43%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	MSTR	-7.71%	CHTR	-7.07%
21.0	ZTS	-5.55%	PRGO	-6.15%
21.0	CPRT	-5.47%	INTU	-5.7%
21.0	CHTR	-5.39%	MSTR	-5.32%
21.0	MOS	-4.75%	ZTS	-5.11%
21.0	GT	-4.67%	FIS	-5.1%
21.0	ADBE	-4.37%	AMC	-4.85%
21.0	INTU	-4.32%	ADBE	-3.96%
21.0	PRGO	-3.98%	GT	-3.96%
21.0	FIS	-3.86%	NAVI	-3.68%
21.0	CMG	-3.62%	MOS	-3.56%
21.0	AMC	-3.3%	CMG	-3.43%
21.0	GBTC	-2.7%	CPRT	-3.38%
21.0	NAVI	-2.58%	NFLX	-2.65%
21.0	NFLX	-2.31%	CMCSA	-2.54%
21.0	CMCSA	-2.13%	GBTC	-2.2%
21.0	VNO	-2.07%	VNO	-1.63%
21.0	ISRG	-1.61%	TMUS	-1.57%
21.0	VICI	-1.56%	LEN	-1.49%
21.0	VST	-1.47%	TDG	-1.47%
21.0	LEN	-1.43%	LW	-1.34%
21.0	IEP	-1.26%	ISRG	-1.3%
21.0	FRA	-1.14%	FRA	-1.29%
21.0	META	-1.06%	NWL	-1.24%
21.0	TMUS	-1.04%	BXP	-1.24%
21.0	UAA	-0.91%	VST	-1.13%
21.0	KHC	-0.89%	HD	-1.07%
21.0	SNY	-0.78%	BBY	-1.01%
21.0	TDG	-0.71%	VICI	-1.01%
21.0	LW	-0.67%	MSFT	-0.99%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
63.0	MSTR	-41.23%	PRGO	-24.36%
63.0	CPRT	-23.28%	MSTR	-23.42%
63.0	PRGO	-19.4%	AMC	-21.44%
63.0	INTU	-17.87%	INTU	-17.8%
63.0	ADBE	-16.2%	CHTR	-15.37%
63.0	GT	-15.79%	FIS	-15.19%
63.0	MOS	-14.78%	NAVI	-14.0%
63.0	ORCL	-14.01%	GBTC	-12.19%
63.0	GBTC	-13.34%	ADBE	-12.17%
63.0	CMG	-13.14%	ZTS	-11.23%
63.0	FIS	-12.9%	CMG	-10.88%
63.0	CHTR	-10.99%	CPRT	-10.87%
63.0	NAVI	-10.89%	GT	-10.41%
63.0	VNO	-10.34%	MOS	-10.0%
63.0	NFLX	-9.36%	VNO	-8.86%
63.0	LEN	-9.28%	NWL	-8.17%
63.0	ZTS	-9.08%	NFLX	-7.67%
63.0	MSFT	-7.93%	LEN	-6.58%
63.0	VST	-7.35%	MSFT	-6.46%
63.0	KHC	-7.16%	TDG	-6.25%
63.0	VICI	-7.01%	BXP	-6.1%
63.0	AMC	-6.77%	LW	-5.97%
63.0	CMCSA	-5.64%	CMCSA	-5.94%
63.0	TMUS	-5.51%	VST	-5.75%
63.0	FRA	-5.26%	FRA	-5.57%
63.0	ISRG	-4.81%	KHC	-5.44%
63.0	NWL	-4.69%	ORCL	-5.4%
63.0	LW	-4.66%	TMUS	-5.33%
63.0	TDG	-4.42%	VICI	-4.54%
63.0	BHC	-4.16%	META	-4.43%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
126.0	MSTR	-114.42%	MSTR	-52.05%
126.0	CPRT	-41.82%	AMC	-48.38%
126.0	ORCL	-40.04%	PRGO	-44.08%
126.0	PRGO	-37.49%	INTU	-32.89%
126.0	INTU	-36.3%	GBTC	-28.99%
126.0	MOS	-34.34%	CHTR	-28.63%
126.0	NFLX	-32.8%	ORCL	-26.65%
126.0	FIS	-32.63%	FIS	-26.21%
126.0	LEN	-29.36%	NAVI	-24.41%
126.0	GBTC	-28.67%	NFLX	-23.59%
126.0	ADBE	-26.47%	ADBE	-22.45%
126.0	GT	-25.12%	ZTS	-21.54%
126.0	VNO	-24.21%	MOS	-21.11%
126.0	CMG	-22.83%	CPRT	-21.04%
126.0	NWL	-20.93%	VNO	-20.42%
126.0	CHTR	-19.76%	LW	-19.28%
126.0	MSFT	-19.16%	NWL	-18.98%
126.0	VICI	-17.84%	CMG	-16.31%
126.0	NAVI	-17.57%	VST	-16.14%
126.0	LW	-17.55%	MSFT	-15.05%
126.0	AMC	-17.2%	LEN	-14.01%
126.0	VST	-15.85%	TMUS	-13.74%
126.0	KHC	-14.66%	BXP	-13.48%
126.0	TMUS	-14.37%	FRA	-11.86%
126.0	AZO	-14.26%	GT	-11.56%
126.0	ZTS	-14.19%	VICI	-11.18%
126.0	BBY	-11.59%	KHC	-10.6%
126.0	CMCSA	-11.19%	CMCSA	-10.54%
126.0	BXP	-9.65%	BBY	-10.05%
126.0	IEP	-9.48%	META	-10.04%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	CHTR	-1.29%	ZTS	-0.75%
1.0	ZTS	-1.24%	CHTR	-0.67%
1.0	NWL	-0.7%	HCA	-0.53%
1.0	CAH	-0.69%	GT	-0.45%
1.0	UAA	-0.56%	THC	-0.45%
1.0	GT	-0.47%	AZO	-0.43%
1.0	B	-0.43%	NWL	-0.37%
1.0	SLV	-0.4%	CMCSA	-0.32%
1.0	CMG	-0.38%	LEN	-0.31%
1.0	HCA	-0.38%	CYH	-0.31%
1.0	PCG	-0.37%	BALL	-0.3%
1.0	MSI	-0.36%	INTU	-0.29%
1.0	AZO	-0.36%	MSI	-0.28%
1.0	ACGL	-0.35%	UAA	-0.27%
1.0	FIS	-0.35%	GLD	-0.24%
1.0	THC	-0.33%	CPRT	-0.24%
1.0	PHM	-0.32%	PCG	-0.24%
1.0	LEN	-0.31%	CAH	-0.24%
1.0	CMCSA	-0.29%	HD	-0.24%
1.0	INTU	-0.29%	PEP	-0.23%
1.0	CPRT	-0.28%	ISRG	-0.23%
1.0	VFC	-0.28%	POST	-0.23%
1.0	ELAN	-0.28%	B	-0.23%
1.0	BALL	-0.23%	SLV	-0.23%
1.0	BHC	-0.23%	FIS	-0.22%
1.0	NEM	-0.22%	GSK	-0.22%
1.0	IEP	-0.2%	TMUS	-0.21%
1.0	ORLY	-0.2%	AMGN	-0.21%
1.0	POST	-0.2%	CMG	-0.21%
1.0	LVS	-0.18%	NEM	-0.2%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	ZTS	-11.74%	CHTR	-7.15%
10.0	CHTR	-6.59%	ZTS	-6.92%
10.0	MOS	-5.55%	HCA	-5.36%
10.0	CAH	-5.39%	INTU	-4.5%
10.0	HCA	-4.66%	THC	-4.5%
10.0	INTU	-4.5%	GT	-3.97%
10.0	CMCSA	-3.85%	CMCSA	-3.86%
10.0	GT	-3.53%	MOS	-3.57%
10.0	PCG	-3.33%	UAA	-3.33%
10.0	MSI	-2.8%	CYH	-3.11%
10.0	AZO	-2.72%	FIS	-2.94%
10.0	META	-2.47%	MSI	-2.71%
10.0	PHM	-2.45%	LEN	-2.56%
10.0	CPRT	-2.25%	TMUS	-2.49%
10.0	LEN	-2.15%	HD	-2.45%
10.0	THC	-2.12%	AZO	-2.32%
10.0	UAA	-2.1%	NWL	-2.27%
10.0	T	-2.07%	GLD	-2.25%
10.0	NWL	-2.04%	ISRG	-2.25%
10.0	HD	-2.04%	T	-2.17%
10.0	GME	-1.86%	PCG	-2.16%
10.0	B	-1.75%	BALL	-2.13%
10.0	CMG	-1.75%	AMGN	-2.11%
10.0	LVS	-1.66%	GILD	-1.86%
10.0	FIS	-1.61%	CPRT	-1.79%
10.0	ELAN	-1.57%	CAH	-1.74%
10.0	AMGN	-1.38%	NFLX	-1.63%
10.0	BALL	-1.37%	GME	-1.62%
10.0	GLD	-1.33%	PEP	-1.6%
10.0	TLT	-1.31%	PHM	-1.58%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
21.0	ZTS	-23.27%	CHTR	-15.66%
21.0	CHTR	-13.45%	ZTS	-13.45%
21.0	MOS	-10.55%	HCA	-10.03%
21.0	CAH	-10.05%	INTU	-8.55%
21.0	HCA	-9.81%	CMCSA	-7.6%
21.0	INTU	-8.9%	MOS	-7.56%
21.0	CMCSA	-8.5%	THC	-7.13%
21.0	PCG	-6.55%	FIS	-5.85%
21.0	GT	-5.57%	MSI	-5.63%
21.0	MSI	-5.41%	T	-5.56%
21.0	T	-4.99%	TMUS	-5.29%
21.0	HD	-4.22%	CYH	-4.92%
21.0	LEN	-4.01%	CAH	-4.81%
21.0	ELAN	-3.93%	LEN	-4.64%
21.0	THC	-3.81%	PCG	-4.64%
21.0	FIS	-3.57%	GT	-4.64%
21.0	CPRT	-3.33%	UAA	-4.53%
21.0	PHM	-3.25%	ISRG	-4.38%
21.0	GILD	-2.78%	HD	-4.21%
21.0	AMGN	-2.73%	AMGN	-4.15%
21.0	LVS	-2.67%	ELAN	-3.8%
21.0	CYH	-2.59%	GILD	-3.5%
21.0	AZO	-2.58%	NFLX	-3.22%
21.0	META	-2.57%	BALL	-3.0%
21.0	ISRG	-2.55%	GSK	-2.85%
21.0	AZN	-2.41%	VZ	-2.84%
21.0	TMUS	-2.3%	GLD	-2.68%
21.0	TLT	-2.27%	HON	-2.66%
21.0	VST	-2.26%	LVS	-2.26%
21.0	UAA	-2.17%	VST	-2.24%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
1.0	ZTS	-2.84%	ZTS	-1.79%
1.0	NWL	-1.32%	AZO	-1.13%
1.0	GT	-1.09%	NWL	-0.82%
1.0	CHTR	-0.94%	GME	-0.76%
1.0	ORLY	-0.84%	GT	-0.7%
1.0	AZO	-0.82%	HCA	-0.68%
1.0	POST	-0.74%	ORLY	-0.66%
1.0	UAA	-0.7%	POST	-0.65%
1.0	INTU	-0.64%	CHTR	-0.64%
1.0	BALL	-0.63%	INTU	-0.63%
1.0	FIS	-0.62%	BALL	-0.53%
1.0	VFC	-0.6%	IEP	-0.51%
1.0	ACGL	-0.59%	PEP	-0.46%
1.0	IEP	-0.58%	VFC	-0.44%
1.0	HCA	-0.57%	EXPE	-0.44%
1.0	CMG	-0.55%	NFLX	-0.41%
1.0	MSI	-0.51%	CMCSA	-0.41%
1.0	BHC	-0.44%	MSI	-0.38%
1.0	SLV	-0.44%	LVS	-0.37%
1.0	PHM	-0.42%	FIS	-0.36%
1.0	COST	-0.34%	ISRG	-0.35%
1.0	DHI	-0.32%	NAVI	-0.35%
1.0	GME	-0.32%	LNC	-0.33%
1.0	NAVI	-0.31%	TFC	-0.32%
1.0	BMY	-0.3%	CMG	-0.31%
1.0	CMCSA	-0.29%	SNY	-0.31%
1.0	VICI	-0.29%	BHC	-0.3%
1.0	GOOGL	-0.29%	OXY	-0.3%
1.0	JPM	-0.27%	PRGO	-0.3%
1.0	WFC	-0.27%	SBUX	-0.3%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEUB_V	Ticker_S	ROEUB_S
10.0	ZTS	-22.27%	NWL	-15.5%
10.0	INTU	-13.49%	ZTS	-13.87%
10.0	NWL	-11.33%	INTU	-11.01%
10.0	CHTR	-7.44%	GT	-9.82%
10.0	GME	-7.14%	MSTR	-9.72%
10.0	AZO	-6.11%	GME	-7.94%
10.0	GT	-4.94%	VFC	-7.74%
10.0	PRGO	-4.82%	UAA	-7.62%
10.0	IEP	-4.72%	AZO	-7.19%
10.0	VFC	-4.69%	CHTR	-7.0%
10.0	BA	-4.67%	HCA	-6.75%
10.0	POST	-4.61%	EXPE	-6.64%
10.0	HCA	-4.59%	IEP	-6.12%
10.0	UAA	-4.45%	POST	-5.37%
10.0	NAVI	-4.37%	FIS	-4.6%
10.0	MSTR	-4.31%	GBTC	-4.46%
10.0	LVS	-4.11%	NEM	-4.41%
10.0	NEM	-4.07%	LVS	-4.35%
10.0	ELAN	-3.96%	BALL	-4.33%
10.0	PHM	-3.95%	WYNN	-4.26%
10.0	ORLY	-3.85%	PRGO	-4.19%
10.0	TFC	-3.48%	ELAN	-4.02%
10.0	BALL	-3.39%	PWR	-3.79%
10.0	EXPE	-3.38%	BA	-3.72%
10.0	WFC	-2.89%	PEP	-3.63%
10.0	GBTC	-2.76%	CMCSA	-3.6%
10.0	THC	-2.67%	ORLY	-3.51%
10.0	JPM	-2.64%	SLV	-3.41%
10.0	WYNN	-2.6%	TEVA	-3.36%
10.0	CMCSA	-2.31%	NAVI	-3.22%



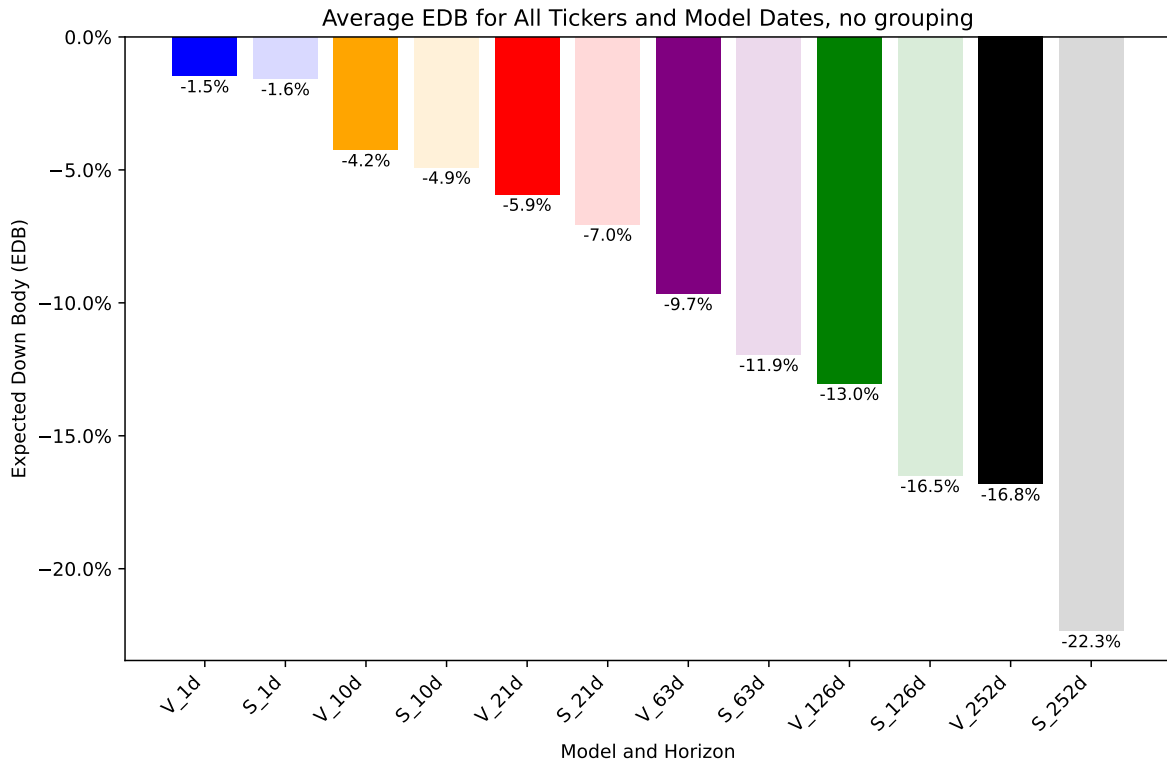
Expected Down Body (EDB)

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.

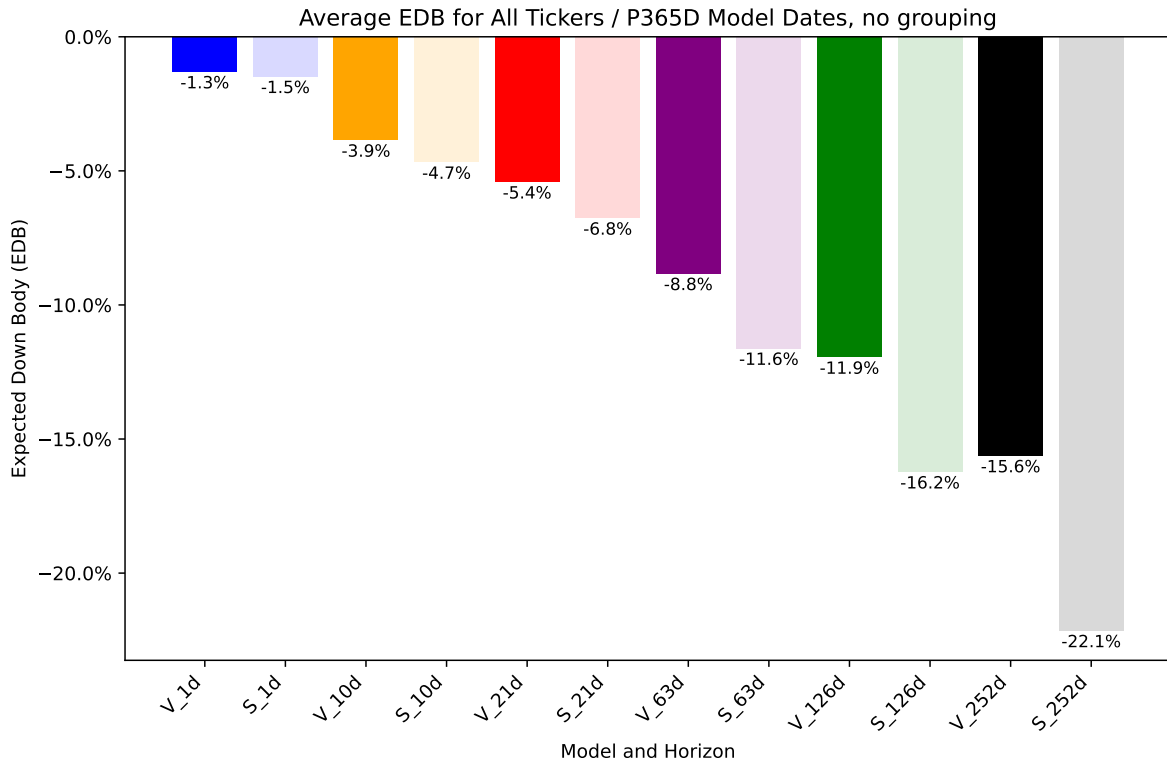
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



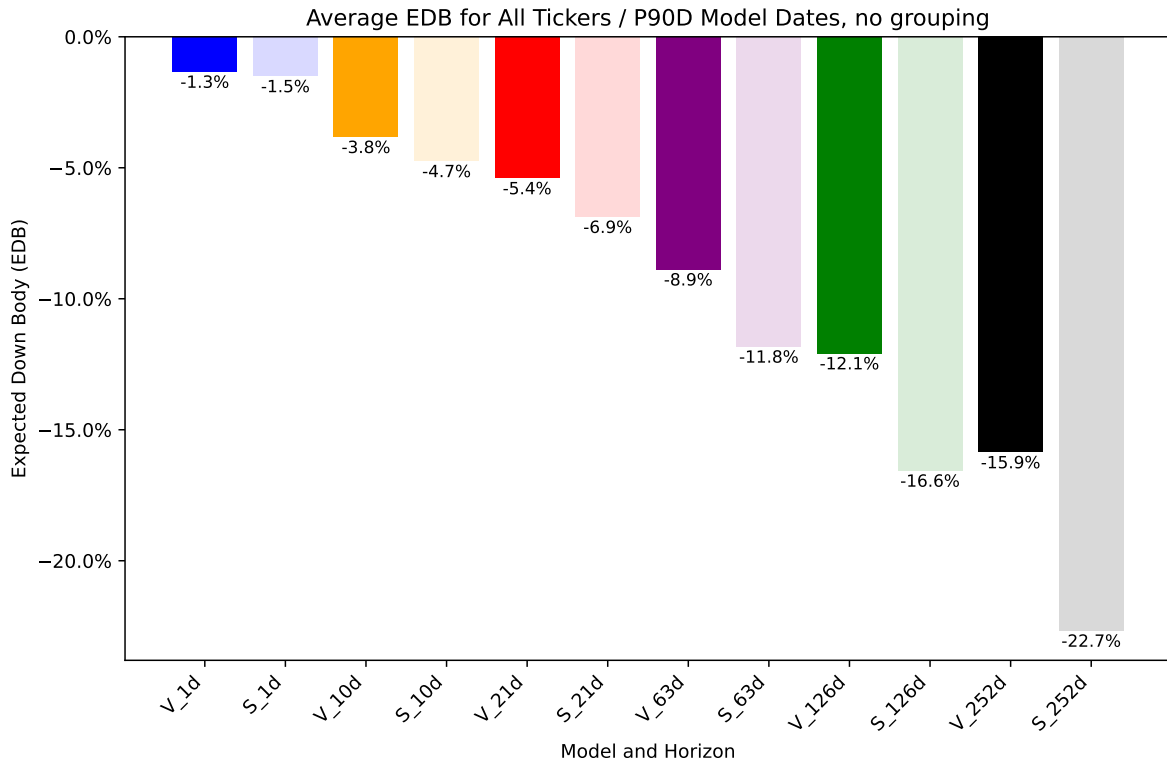
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



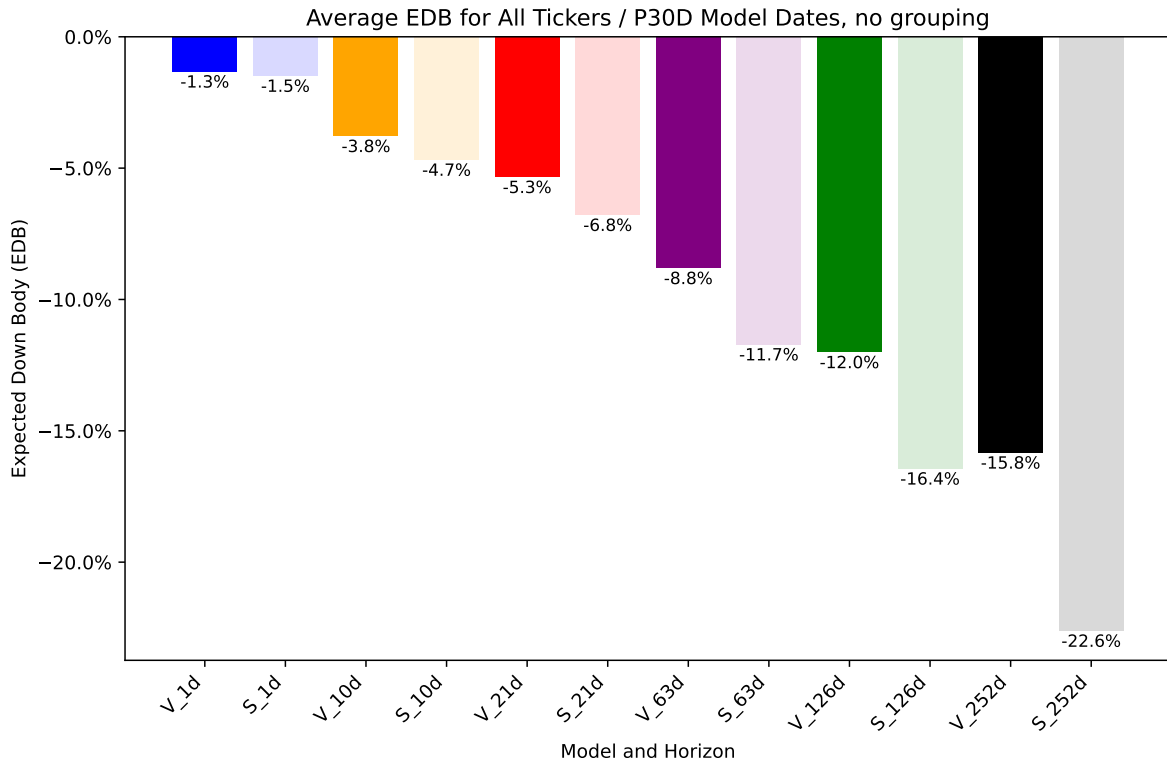
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



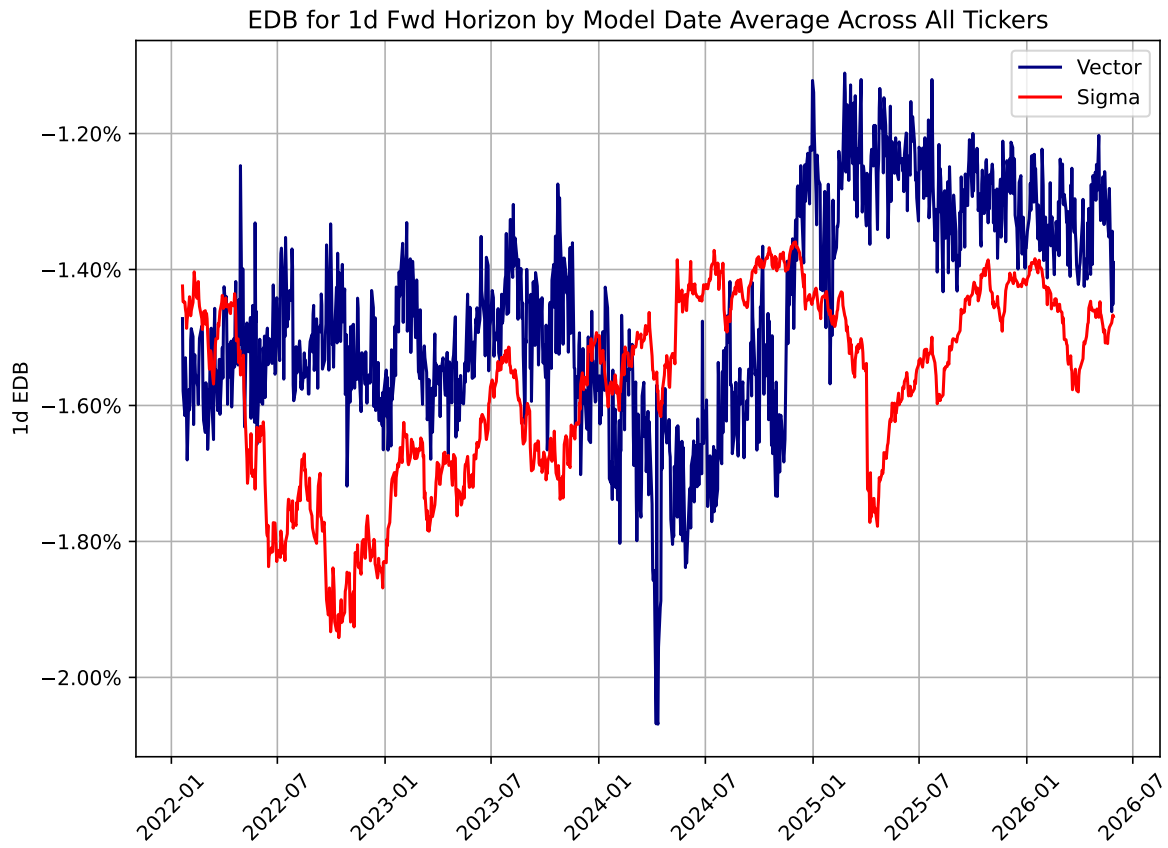
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28

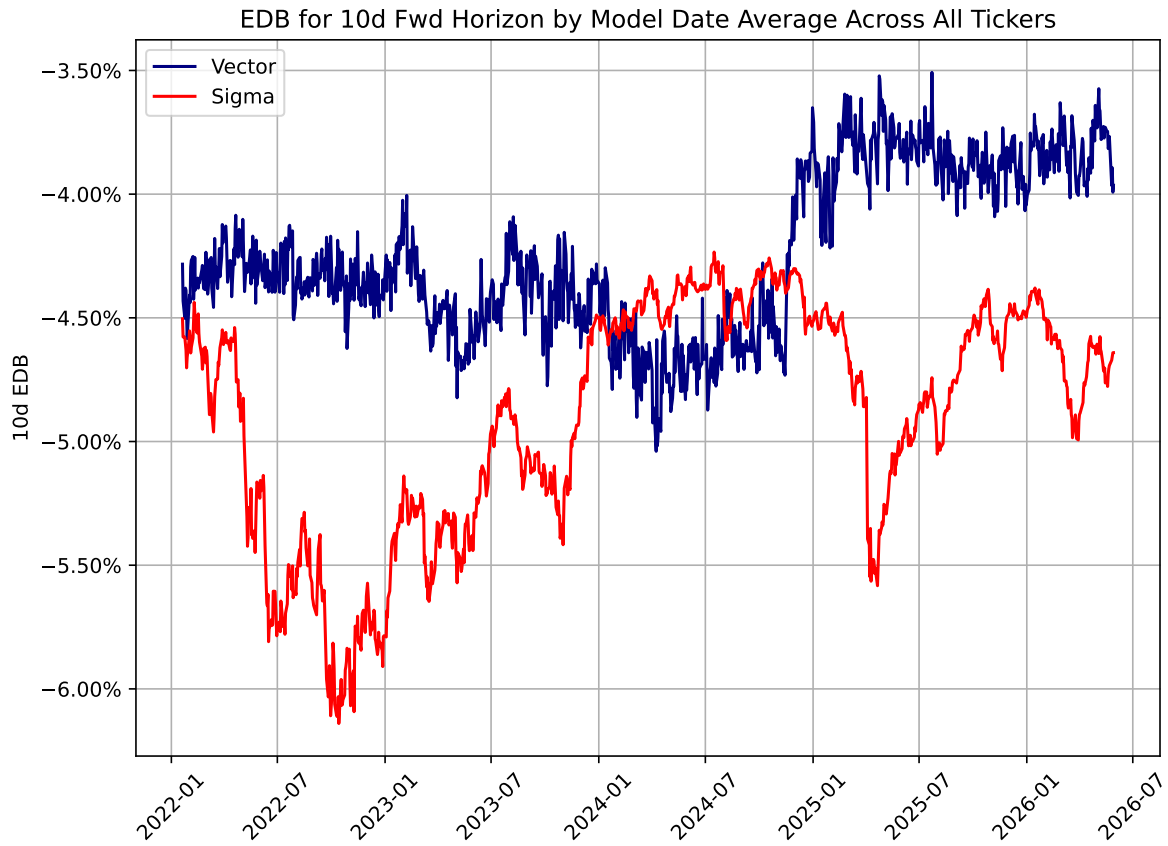


EDB by Model Date Detail

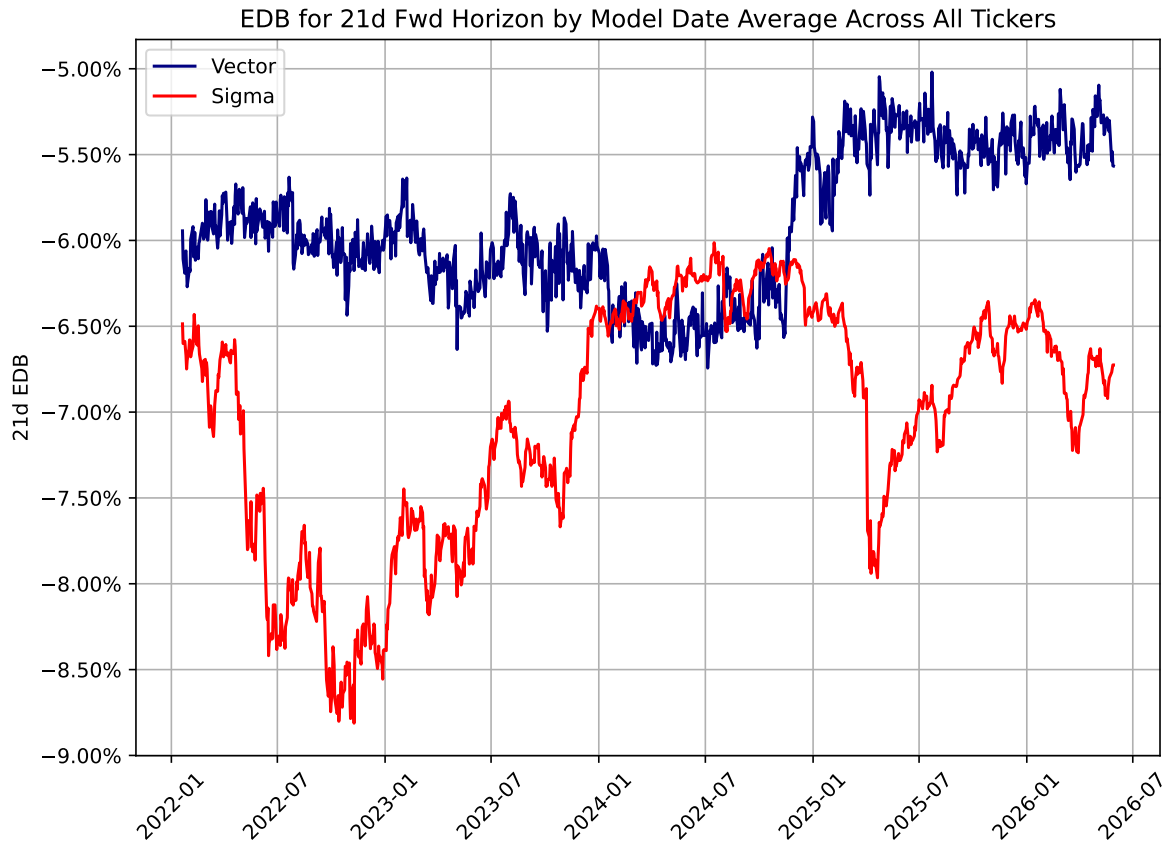
1d Horizon



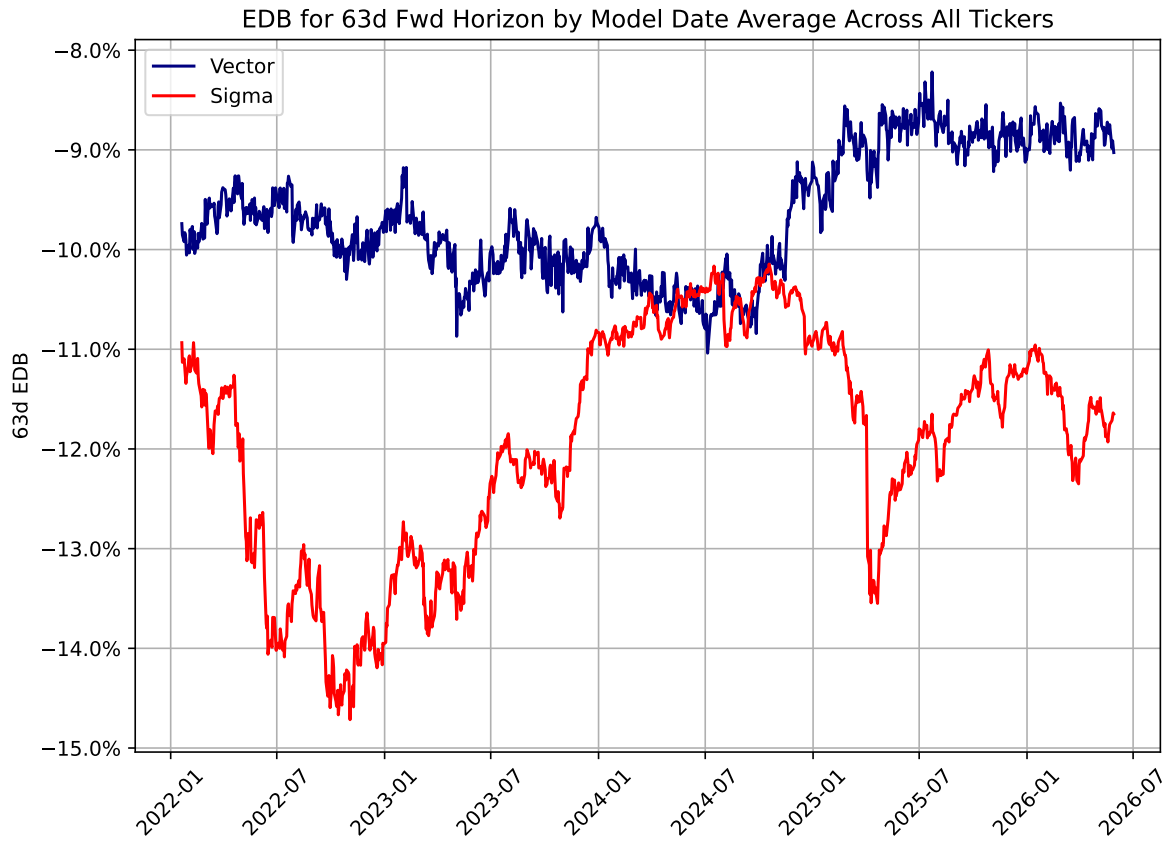
10d Horizon



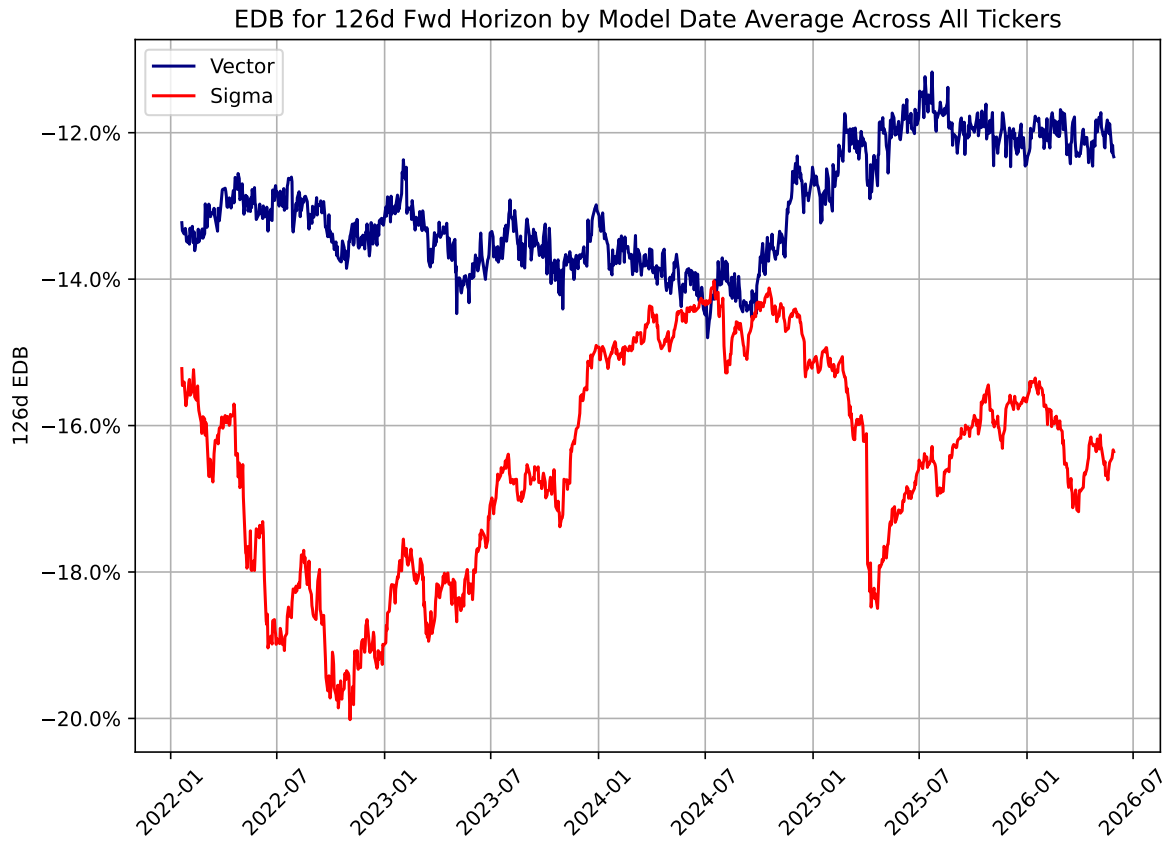
21d Horizon



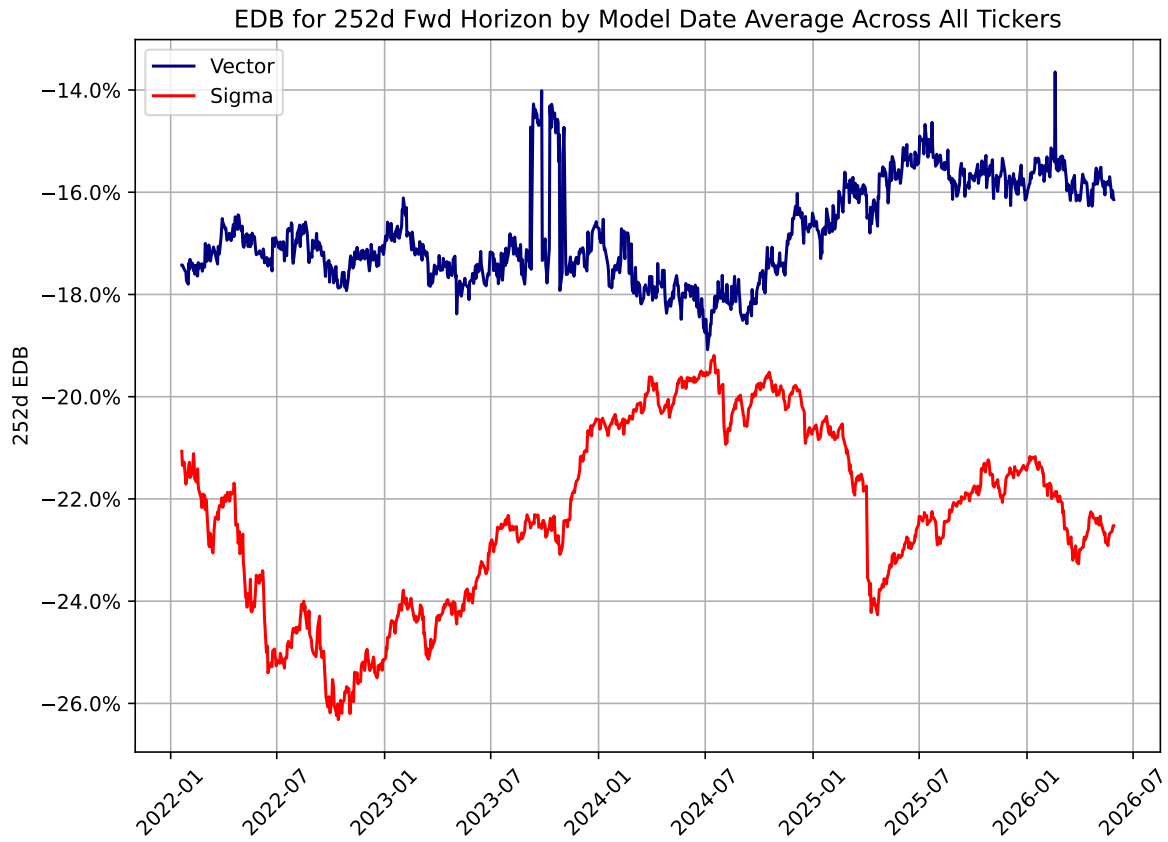
63d Horizon



126d Horizon



252d Horizon



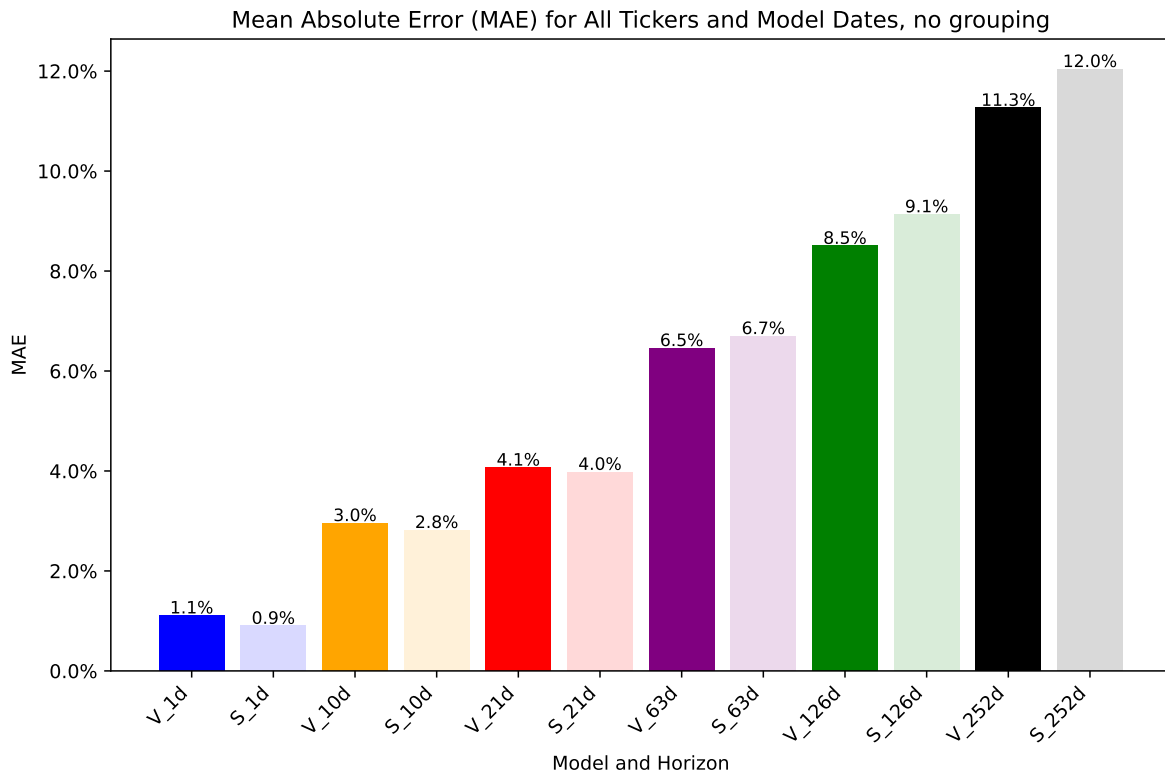
Performance Summary - MAE of EDB vs. Actual Fwd Returns

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).

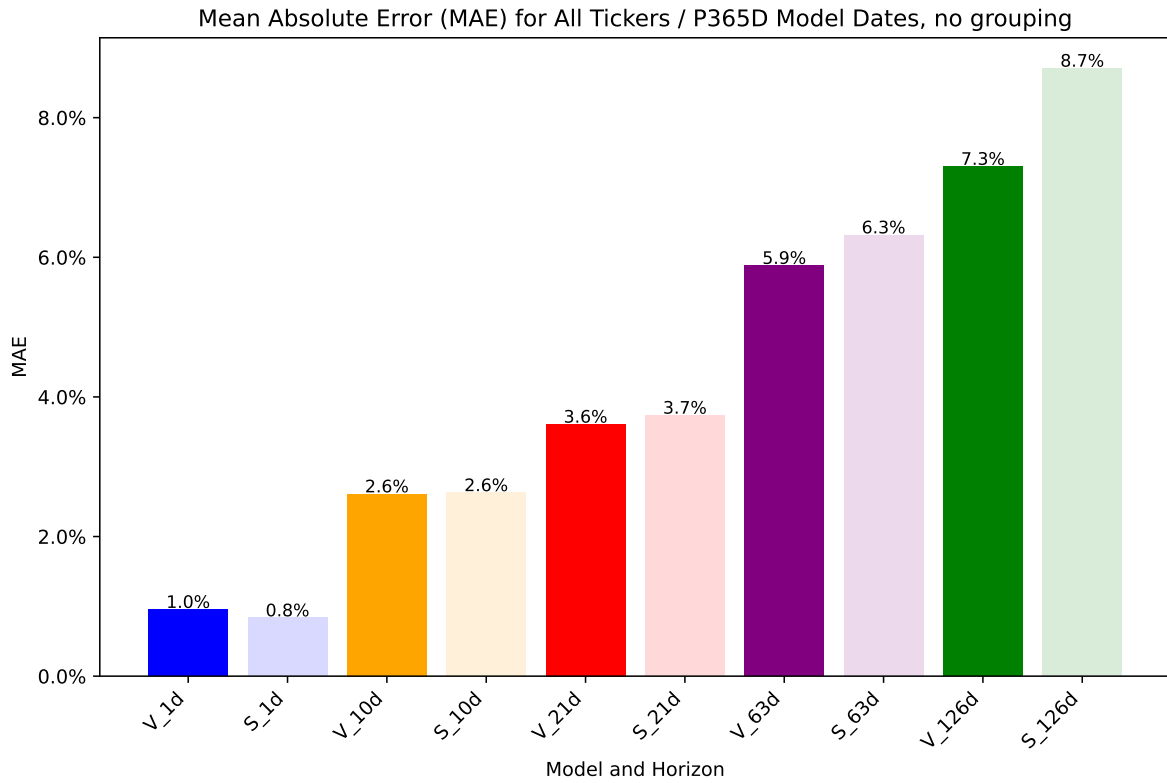
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



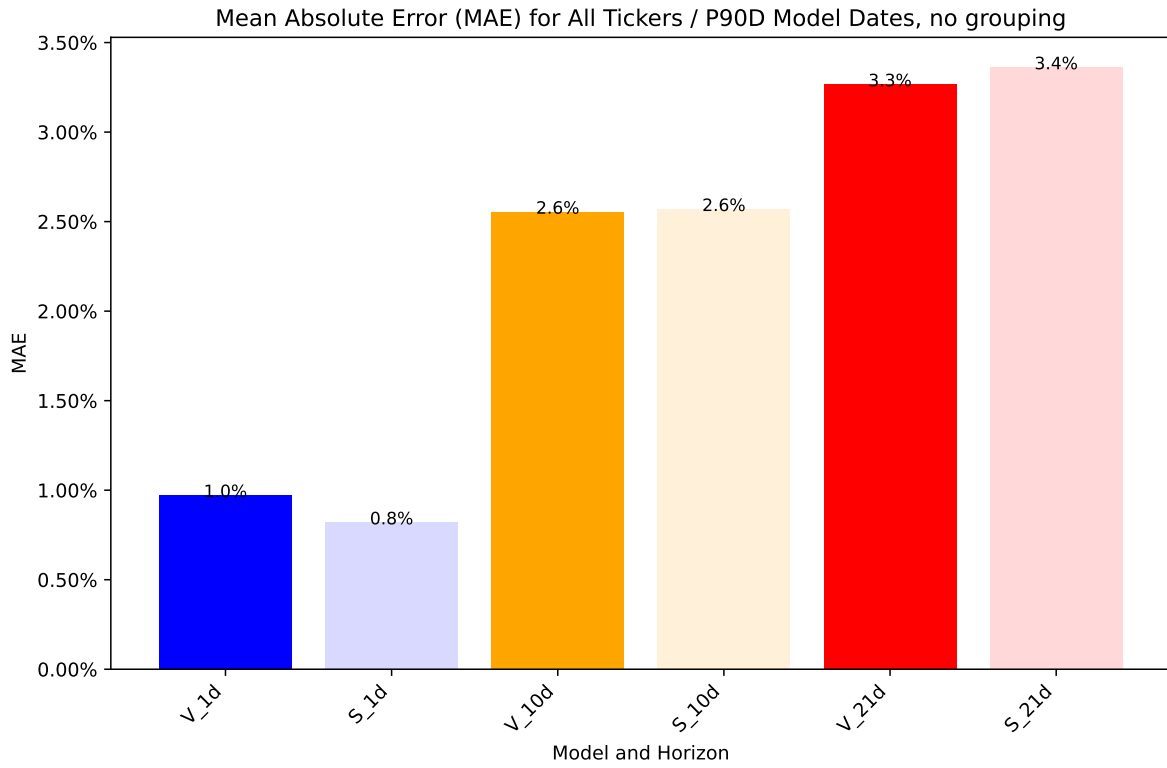
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



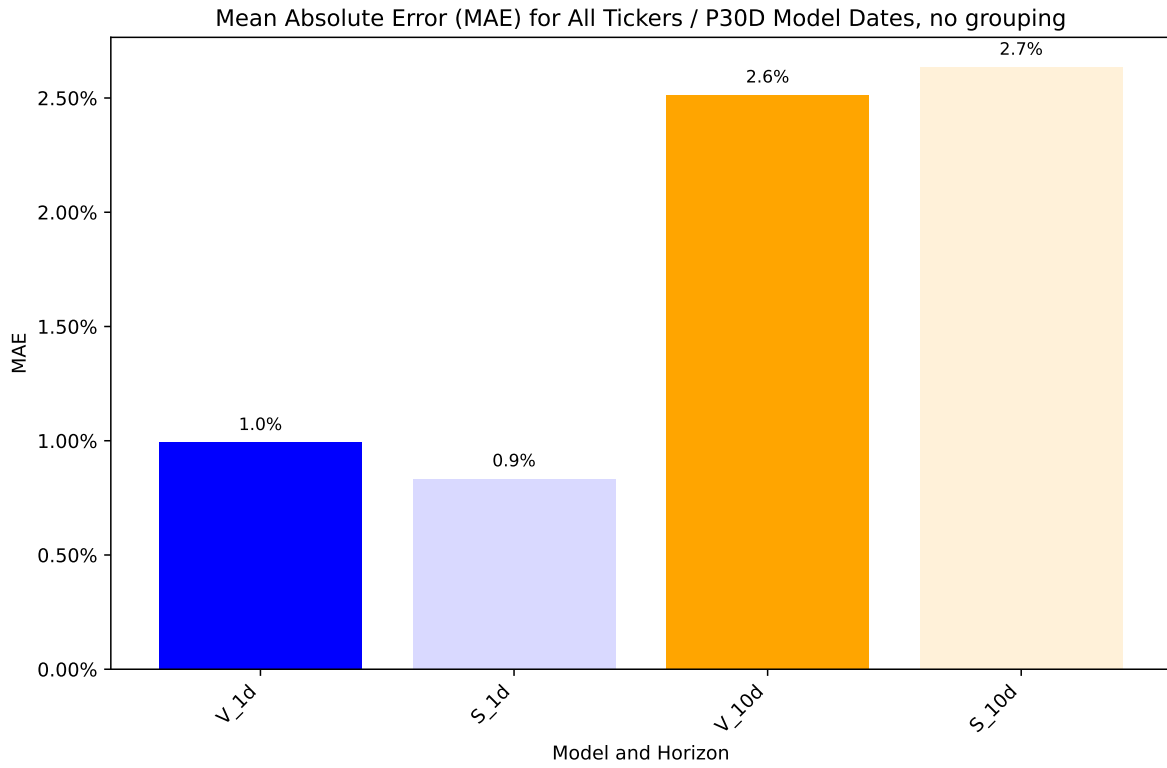
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



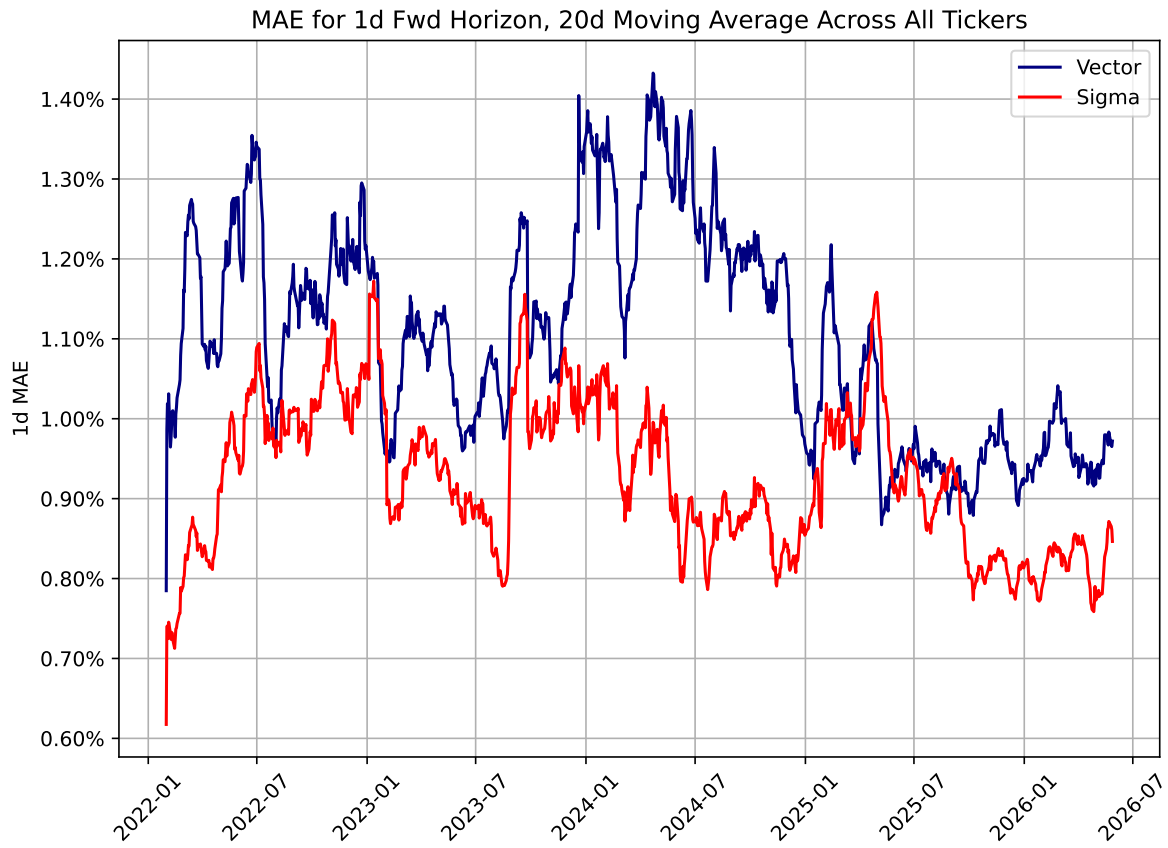
Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28

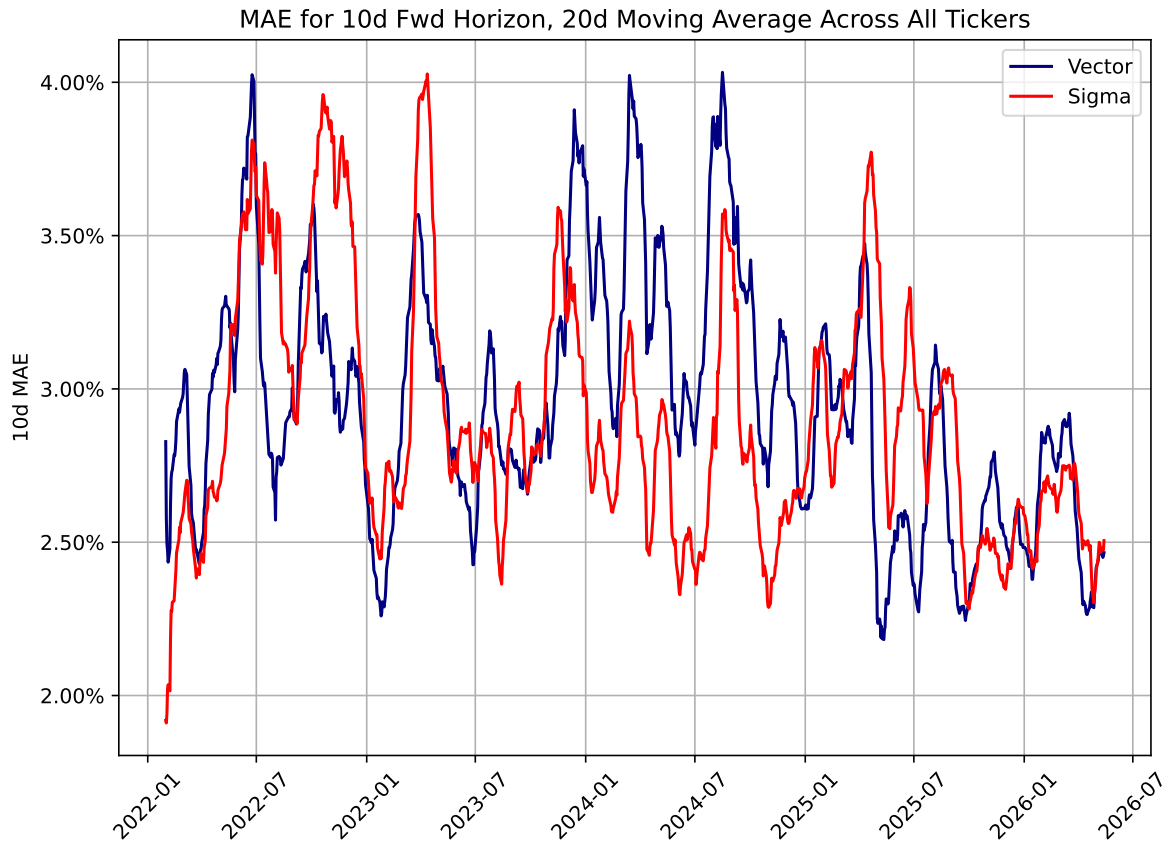


MAE by Model Date Detail

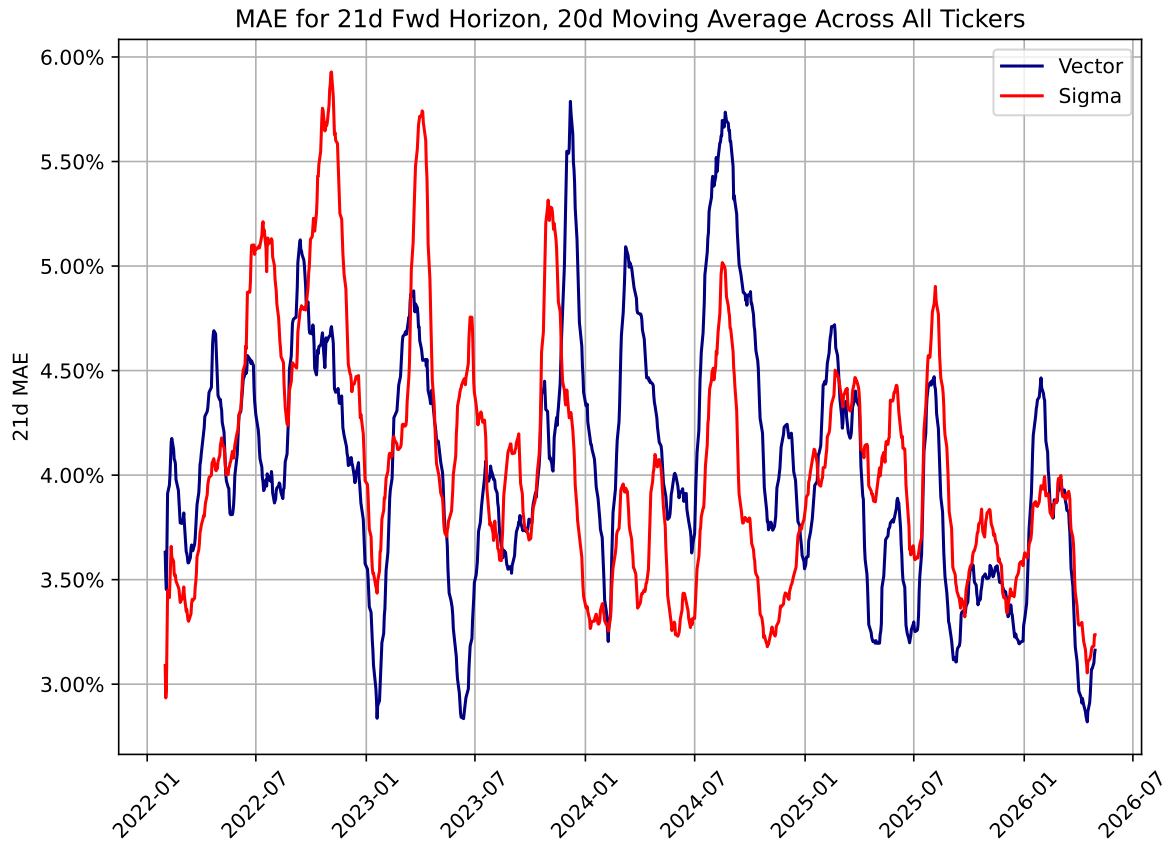
1d Horizon



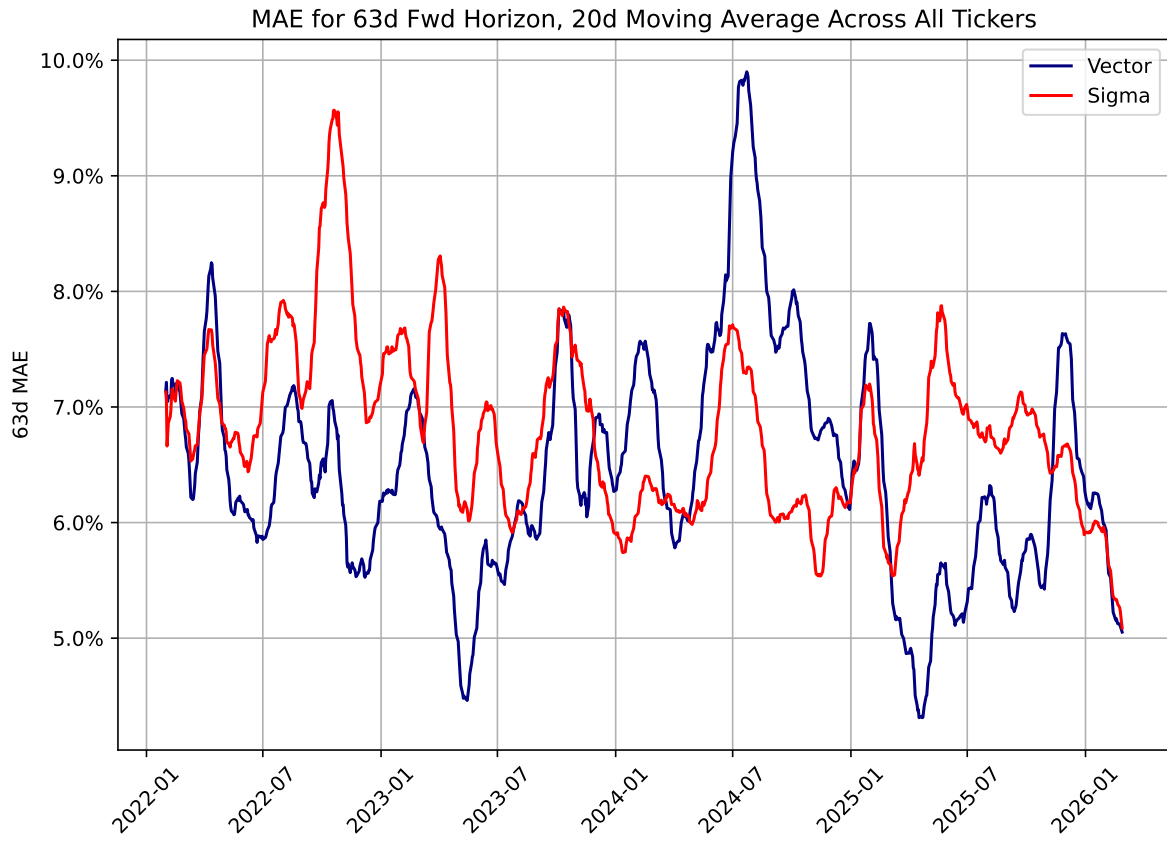
10d Horizon



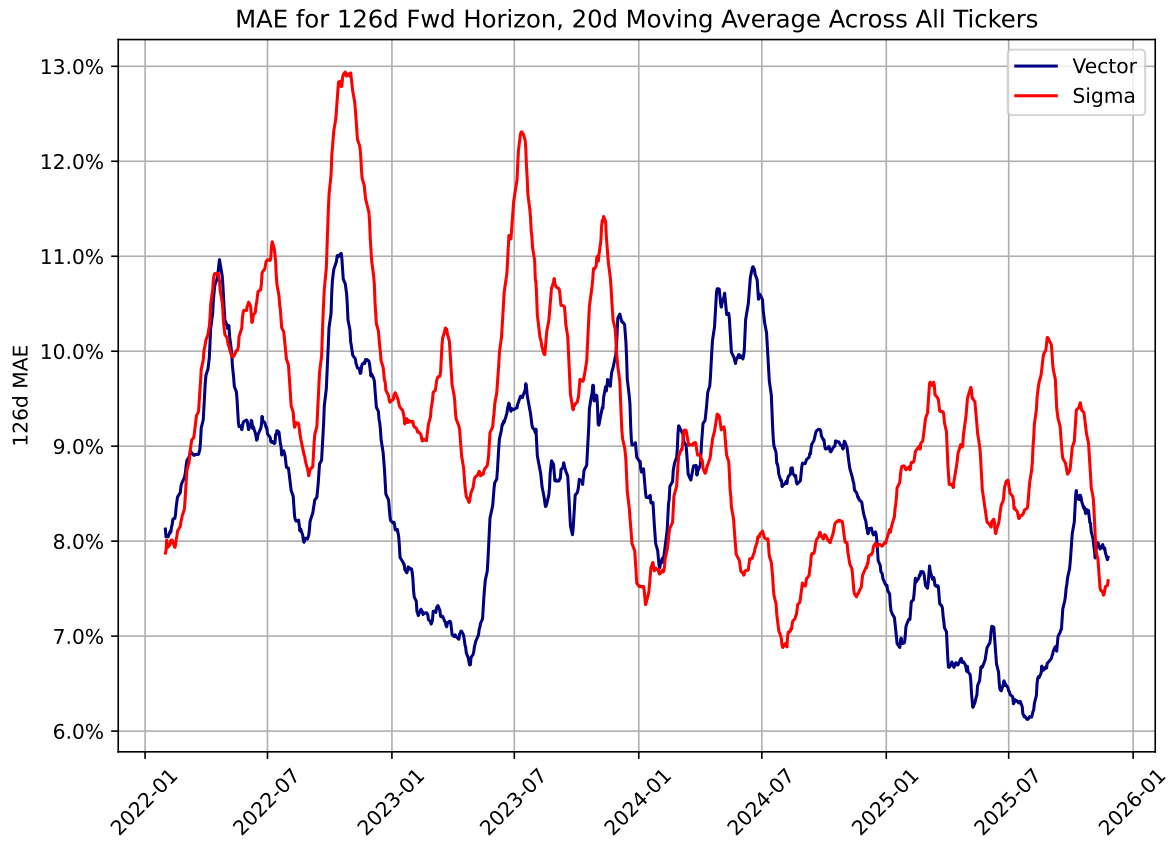
21d Horizon



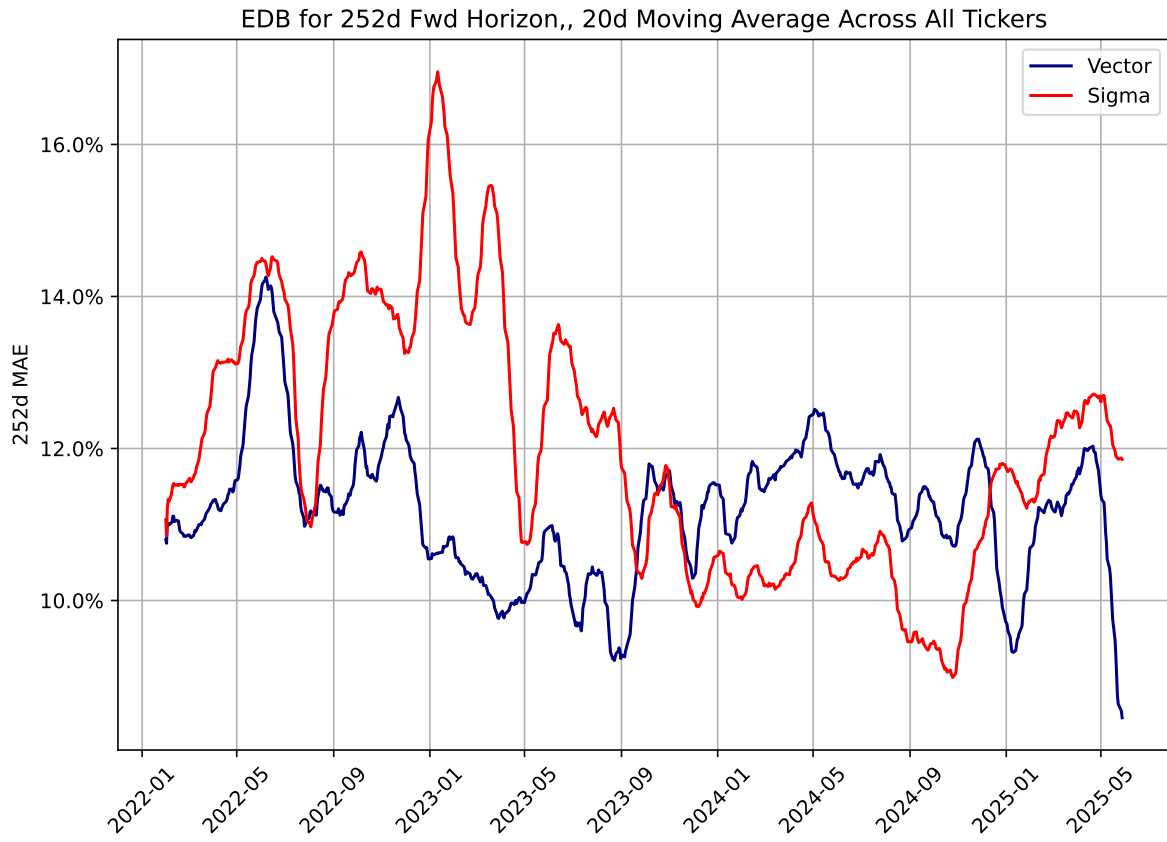
63d Horizon



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
1.0	AMC	9.66%	AMC	9.05%
1.0	CZR	3.19%	GME	2.84%
1.0	CYH	3.17%	CYH	2.63%
1.0	LUMN	3.08%	LUMN	2.26%
1.0	GBTC	2.9%	MSTR	1.94%
1.0	AMAT	2.64%	GBTC	1.73%
1.0	TSLA	2.3%	BHC	1.68%
1.0	NVDA	2.1%	IEP	1.6%
1.0	PHM	2.04%	CTLT	1.4%
1.0	CCL	1.99%	UAA	1.39%
1.0	ELAN	1.8%	TSLA	1.38%
1.0	GT	1.75%	VFC	1.37%
1.0	IEP	1.74%	NWL	1.37%
1.0	THC	1.74%	SIVBQ	1.34%
1.0	VNO	1.73%	CLF	1.31%
1.0	AVGO	1.68%	AA	1.29%
1.0	MSTR	1.67%	CZR	1.27%
1.0	BHC	1.66%	SBNY	1.27%
1.0	GNRC	1.63%	GNRC	1.26%
1.0	MS	1.62%	CCL	1.26%
1.0	NWL	1.59%	GT	1.23%
1.0	VST	1.57%	AAP	1.21%
1.0	MSFT	1.57%	AMD	1.17%
1.0	CLF	1.56%	ON	1.13%
1.0	MOS	1.52%	INTC	1.11%
1.0	X	1.52%	NVDA	1.1%
1.0	AMD	1.51%	LNC	1.1%
1.0	PWR	1.45%	X	1.09%
1.0	UAA	1.4%	MU	1.09%
1.0	ETRN	1.39%	KALU	1.04%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
10.0	AMC	20.89%	AMC	18.58%
10.0	GBTC	8.84%	GME	8.78%
10.0	CYH	8.29%	CYH	8.52%
10.0	LUMN	7.39%	LUMN	7.57%
10.0	GT	5.82%	MSTR	6.27%
10.0	CZR	5.66%	GBTC	6.11%
10.0	IEP	5.34%	BHC	5.2%
10.0	CCL	5.0%	UAA	4.81%
10.0	NVDA	4.89%	IEP	4.71%
10.0	AMAT	4.83%	NWL	4.67%
10.0	NWL	4.68%	GT	4.45%
10.0	X	4.54%	CLF	4.44%
10.0	PHM	4.53%	VFC	4.37%
10.0	BHC	4.47%	CTLT	4.36%
10.0	MSTR	4.46%	GNRC	4.31%
10.0	VNO	4.33%	TSLA	4.3%
10.0	LNC	4.25%	AA	4.23%
10.0	MU	4.21%	SBNY	4.13%
10.0	CLF	4.16%	CCL	4.08%
10.0	TSLA	4.1%	CZR	4.06%
10.0	GME	4.04%	AAP	3.93%
10.0	SIVBQ	4.01%	LNC	3.91%
10.0	UAA	3.88%	SIVBQ	3.83%
10.0	ELAN	3.87%	INTC	3.64%
10.0	THC	3.81%	AMD	3.53%
10.0	TEVA	3.79%	NVDA	3.52%
10.0	VST	3.74%	ON	3.5%
10.0	AA	3.7%	EXPE	3.42%
10.0	ETRN	3.66%	ELAN	3.38%
10.0	MOS	3.66%	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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
21.0	AMC	25.76%	AMC	19.44%
21.0	GBTC	10.87%	GME	11.73%
21.0	LUMN	9.37%	LUMN	11.45%
21.0	CYH	9.34%	CYH	9.73%
21.0	GT	7.35%	GBTC	8.77%
21.0	NVDA	7.24%	MSTR	8.5%
21.0	IEP	7.03%	BHC	7.77%
21.0	NWL	6.95%	NWL	6.9%
21.0	CZR	6.84%	UAA	6.82%
21.0	AMAT	6.71%	CTLT	6.81%
21.0	CCL	6.56%	CLF	6.6%
21.0	BHC	6.48%	VFC	6.4%
21.0	UAA	6.43%	IEP	6.38%
21.0	CLF	6.21%	GT	6.06%
21.0	MSTR	6.02%	CCL	6.04%
21.0	GME	6.01%	AA	5.96%
21.0	PHM	5.97%	LNC	5.89%
21.0	ELAN	5.97%	SIVBQ	5.75%
21.0	LNC	5.89%	TSLA	5.75%
21.0	TEVA	5.79%	GNRC	5.68%
21.0	VNO	5.77%	CZR	5.59%
21.0	TSLA	5.6%	X	5.59%
21.0	X	5.58%	ELAN	5.47%
21.0	ON	5.33%	NVDA	5.16%
21.0	VFC	5.32%	AMD	5.15%
21.0	ETRN	5.26%	ON	5.13%
21.0	VST	5.24%	INTC	5.1%
21.0	MOS	5.22%	AAP	5.09%
21.0	AVGO	5.22%	KALU	4.91%
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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
63.0	AMC	33.37%	AMC	20.13%
63.0	LUMN	14.51%	GME	18.56%
63.0	IEP	14.28%	MSTR	16.52%
63.0	CYH	14.07%	CYH	14.86%
63.0	GBTC	12.76%	LUMN	14.61%
63.0	AMAT	10.91%	IEP	13.49%
63.0	UAA	10.45%	BHC	13.01%
63.0	NVDA	10.32%	CTLT	12.64%
63.0	X	10.15%	UAA	11.66%
63.0	CTLT	9.82%	CCL	11.63%
63.0	MU	9.81%	GNRC	11.16%
63.0	PHM	9.79%	GBTC	11.01%
63.0	GT	9.78%	TSLA	10.85%
63.0	GME	9.7%	NWL	10.69%
63.0	TSLA	9.51%	INTC	10.6%
63.0	THC	9.48%	GT	10.59%
63.0	ELAN	9.44%	SIVBQ	9.95%
63.0	VNO	9.4%	CZR	9.73%
63.0	CCL	9.31%	CLF	9.59%
63.0	NWL	9.19%	AA	9.33%
63.0	SIVBQ	9.14%	ON	9.21%
63.0	INTC	8.82%	LNC	9.18%
63.0	MOS	8.75%	LW	9.11%
63.0	BHC	8.71%	VFC	8.73%
63.0	CZR	8.56%	X	8.7%
63.0	CLF	8.55%	MU	8.5%
63.0	LNC	8.42%	SBNY	8.42%
63.0	PWR	8.25%	WDC	8.29%
63.0	WDC	8.23%	NFLX	8.27%
63.0	MSFT	8.15%	THC	8.26%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
126.0	AMC	35.25%	CYH	21.0%
126.0	CYH	24.44%	MSTR	20.27%
126.0	LUMN	23.2%	AMC	20.02%
126.0	IEP	21.07%	GNRC	19.15%
126.0	SIVBQ	18.52%	LUMN	19.12%
126.0	ETRN	15.25%	IEP	18.74%
126.0	AMAT	15.02%	BHC	17.79%
126.0	GBTC	14.99%	GME	17.57%
126.0	CSTM	14.33%	SBNY	15.33%
126.0	ELAN	14.29%	ETRN	15.13%
126.0	NVDA	13.76%	SIVBQ	14.87%
126.0	NWL	12.97%	NVDA	14.41%
126.0	PWR	12.85%	UAA	14.21%
126.0	CLF	12.63%	CTLT	14.12%
126.0	NFLX	12.5%	CCL	14.03%
126.0	INTC	12.49%	VFC	14.02%
126.0	LNC	12.44%	EXPE	13.95%
126.0	MU	12.43%	GT	13.88%
126.0	GME	12.11%	AAP	13.85%
126.0	MSTR	11.91%	CZR	13.59%
126.0	TSLA	11.81%	CLF	13.45%
126.0	UAA	11.65%	GBTC	13.27%
126.0	GT	11.63%	NWL	13.26%
126.0	AA	11.61%	AA	13.26%
126.0	PHM	11.52%	INTC	12.99%
126.0	THC	11.4%	LNC	12.66%
126.0	X	11.35%	KEY	12.47%
126.0	BHC	11.29%	CSTM	12.01%
126.0	CTLT	11.22%	THC	11.47%
126.0	VNO	11.1%	ON	11.43%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
252.0	AMC	45.82%	SBNY	53.5%
252.0	NVDA	36.82%	LUMN	25.31%
252.0	CYH	32.94%	SIVBQ	23.37%
252.0	LUMN	31.51%	AMC	23.01%
252.0	AMAT	25.05%	CTLT	22.33%
252.0	LNC	24.95%	TSLA	21.69%
252.0	SIVBQ	24.89%	BHC	21.69%
252.0	PHM	24.82%	CLF	21.43%
252.0	IEP	21.7%	NVDA	21.3%
252.0	CCL	20.19%	LNC	21.14%
252.0	AVGO	19.63%	EXPE	20.66%
252.0	TRGP	19.3%	UAA	20.27%
252.0	MSTR	19.17%	AAP	20.1%
252.0	GBTC	18.78%	AVGO	19.62%
252.0	GT	18.56%	META	19.11%
252.0	EXPE	17.74%	CYH	19.11%
252.0	ELAN	17.42%	VST	18.94%
252.0	PWR	16.74%	TEVA	18.76%
252.0	CPRT	16.65%	VFC	18.7%
252.0	ETRN	16.26%	GNRC	18.68%
252.0	NWL	16.23%	FSUGY	16.83%
252.0	INTC	16.14%	GME	16.75%
252.0	HCA	15.71%	ELAN	16.73%
252.0	TXN	15.5%	NWL	16.69%
252.0	CMA	15.3%	CMA	16.1%
252.0	KEY	14.86%	GT	15.78%
252.0	CSTM	14.79%	CSTM	15.77%
252.0	CZR	14.74%	ETRN	15.18%
252.0	AA	14.62%	AMZN	15.12%
252.0	UNH	14.26%	CZR	14.98%



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 2026-05-28

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	0.21%
1.0	EMB	0.29%	EMB	0.24%
1.0	FRA	0.36%	FRA	0.3%
1.0	TLT	0.4%	GLD	0.36%
1.0	PEP	0.47%	TLT	0.36%
1.0	VZ	0.49%	PEP	0.4%
1.0	AMGN	0.5%	SPY	0.42%
1.0	SNY	0.52%	NVS	0.42%
1.0	HD	0.52%	POST	0.45%
1.0	POST	0.54%	ABBV	0.49%
1.0	GSK	0.55%	ORLY	0.49%
1.0	SBUX	0.55%	HON	0.49%
1.0	HON	0.56%	VICI	0.5%
1.0	BUD	0.56%	COST	0.5%
1.0	VICI	0.57%	CSCO	0.5%
1.0	ABBV	0.58%	VZ	0.5%
1.0	BMY	0.58%	MNST	0.51%
1.0	GILD	0.58%	AZN	0.51%
1.0	NVS	0.58%	KHC	0.51%
1.0	XOM	0.58%	MRK	0.51%
1.0	CMCSA	0.6%	MSI	0.51%
1.0	BALL	0.6%	BMY	0.52%
1.0	MSI	0.61%	AMGN	0.52%
1.0	JAZZ	0.61%	CAH	0.54%
1.0	ZTS	0.62%	AZO	0.54%
1.0	CVS	0.62%	TMUS	0.54%
1.0	GLD	0.62%	GILD	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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
10.0	VCSH	0.23%	VCSH	0.23%
10.0	MUB	0.39%	MUB	0.31%
10.0	HYG	0.62%	HYG	0.59%
10.0	LQD	0.63%	LQD	0.66%
10.0	EMB	0.86%	EMB	0.73%
10.0	FRA	1.03%	FRA	0.98%
10.0	TLT	1.1%	GLD	1.05%
10.0	VZ	1.47%	TLT	1.17%
10.0	SNY	1.48%	SPY	1.31%
10.0	BUD	1.49%	ORLY	1.45%
10.0	GILD	1.5%	POST	1.46%
10.0	NVS	1.52%	PEP	1.46%
10.0	BMJ	1.54%	NVS	1.47%
10.0	POST	1.55%	ABBV	1.54%
10.0	ZTS	1.6%	VICI	1.54%
10.0	TMUS	1.61%	HON	1.56%
10.0	GLD	1.62%	COST	1.57%
10.0	PEP	1.62%	KHC	1.59%
10.0	GSK	1.65%	VZ	1.59%
10.0	AMGN	1.66%	MRK	1.61%
10.0	MSI	1.69%	GILD	1.62%
10.0	GWV	1.72%	TMUS	1.63%
10.0	XOM	1.73%	AZO	1.64%
10.0	VICI	1.75%	CSCO	1.64%
10.0	JAZZ	1.75%	BMJ	1.64%
10.0	ABBV	1.8%	MSI	1.66%
10.0	KHC	1.8%	CAH	1.66%
10.0	TDG	1.81%	PCG	1.68%
10.0	HON	1.85%	QQQ	1.69%
10.0	MRK	1.88%	MNST	1.73%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
21.0	VCSH	0.31%	VCSH	0.33%
21.0	MUB	0.65%	MUB	0.47%
21.0	LQD	0.87%	HYG	0.83%
21.0	HYG	0.88%	LQD	0.98%
21.0	EMB	1.43%	EMB	1.19%
21.0	TLT	1.56%	FRA	1.55%
21.0	FRA	1.65%	GLD	1.67%
21.0	BUD	1.93%	TLT	1.8%
21.0	GILD	1.97%	PEP	1.86%
21.0	SNY	1.98%	SPY	1.88%
21.0	BMY	2.03%	NVS	2.0%
21.0	NVS	2.05%	MRK	2.11%
21.0	MSI	2.16%	ACGL	2.14%
21.0	PEP	2.18%	ORLY	2.16%
21.0	POST	2.18%	BMY	2.16%
21.0	VICI	2.22%	POST	2.17%
21.0	GLD	2.23%	VICI	2.19%
21.0	GSK	2.28%	MSI	2.24%
21.0	CVS	2.3%	HON	2.26%
21.0	AMGN	2.32%	GILD	2.32%
21.0	TMUS	2.38%	MNST	2.32%
21.0	HON	2.39%	AMGN	2.33%
21.0	ZTS	2.39%	GWG	2.33%
21.0	CHTR	2.4%	CAH	2.34%
21.0	MRK	2.4%	TMUS	2.34%
21.0	XOM	2.4%	QQQ	2.35%
21.0	KHC	2.42%	BUD	2.36%
21.0	BIIB	2.43%	KHC	2.36%
21.0	JAZZ	2.44%	ABBV	2.4%
21.0	VZ	2.46%	COST	2.4%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
63.0	VCSH	0.47%	VCSH	0.59%
63.0	MUB	0.93%	MUB	0.75%
63.0	LQD	1.09%	LQD	1.61%
63.0	HYG	1.52%	HYG	1.63%
63.0	EMB	2.13%	EMB	2.02%
63.0	TLT	2.23%	FRA	2.48%
63.0	FRA	2.45%	GLD	2.5%
63.0	POST	2.82%	TLT	3.0%
63.0	GLD	2.89%	SPY	3.14%
63.0	ABBV	3.06%	POST	3.15%
63.0	GSK	3.2%	ABBV	3.25%
63.0	GILD	3.39%	PEP	3.33%
63.0	BUD	3.41%	HON	3.35%
63.0	VICI	3.48%	NVS	3.42%
63.0	NVS	3.52%	GWV	3.43%
63.0	BMV	3.58%	VICI	3.53%
63.0	HON	3.59%	VZ	3.55%
63.0	GWV	3.62%	ORLY	3.64%
63.0	PEP	3.69%	GILD	3.79%
63.0	AMGN	3.72%	BUD	3.87%
63.0	COST	3.78%	MNST	3.9%
63.0	SNY	3.79%	AZN	3.93%
63.0	KHC	3.83%	CAH	3.93%
63.0	VZ	3.84%	COST	3.94%
63.0	SBNY	3.89%	BMV	3.97%
63.0	TDG	3.9%	AMGN	4.04%
63.0	TMUS	3.92%	KHC	4.07%
63.0	XOM	3.95%	MRK	4.1%
63.0	OXY	3.95%	HD	4.23%
63.0	HD	4.01%	CPRT	4.25%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
126.0	VCSH	0.69%	VCSH	0.79%
126.0	MUB	1.51%	MUB	1.23%
126.0	LQD	1.85%	LQD	2.3%
126.0	HYG	1.92%	HYG	2.54%
126.0	NVS	2.93%	EMB	3.35%
126.0	TLT	2.96%	NVS	4.03%
126.0	SNY	3.84%	FRA	4.18%
126.0	FRA	3.87%	CAH	4.3%
126.0	EMB	3.98%	TLT	4.33%
126.0	BUD	4.01%	GLD	4.4%
126.0	MSI	4.09%	KHC	4.42%
126.0	HON	4.22%	POST	4.44%
126.0	GSK	4.27%	PEP	4.62%
126.0	POST	4.31%	TMUS	4.63%
126.0	TMUS	4.31%	MSI	4.71%
126.0	HD	4.37%	MNST	4.79%
126.0	GWG	4.41%	ORLY	4.94%
126.0	GLD	4.46%	GILD	4.99%
126.0	GILD	4.56%	ABBV	4.99%
126.0	KHC	4.57%	VICI	5.09%
126.0	AZN	4.79%	HON	5.1%
126.0	CMCSA	4.82%	GWG	5.12%
126.0	JAZZ	4.85%	JAZZ	5.22%
126.0	COST	4.94%	SPY	5.25%
126.0	BHP	4.97%	FRCB	5.39%
126.0	VICI	4.99%	CSCO	5.45%
126.0	AMZN	5.05%	AMGN	5.52%
126.0	ZTS	5.07%	COST	5.57%
126.0	PEP	5.1%	VZ	5.62%
126.0	GS	5.11%	BUD	5.66%



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 2026-05-28

Horizon	Ticker_V	EDB-MAE_V	Ticker_S	EDB-MAE_S
252.0	VCSH	1.05%	VCSH	1.13%
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	FRA	3.78%	FRA	4.28%
252.0	QQQ	3.88%	LQD	4.39%
252.0	GLD	4.02%	QQQ	4.72%
252.0	TLT	4.45%	EMB	4.98%
252.0	GILD	4.47%	TLT	5.05%
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	VICI	5.41%	MNST	5.71%
252.0	NVS	5.41%	CMCSA	6.28%
252.0	SNY	5.46%	FRCB	6.47%
252.0	AMGN	5.51%	VICI	6.5%
252.0	BUD	5.67%	POST	6.67%
252.0	AZO	5.67%	JAZZ	6.72%
252.0	HD	6.04%	AMGN	6.84%
252.0	META	6.06%	IRM	6.89%
252.0	T	6.16%	COST	6.95%
252.0	GSK	6.17%	ACGL	7.37%
252.0	MSI	6.25%	TMUS	7.4%
252.0	RIO	6.37%	GSK	7.47%
252.0	IRM	6.41%	DHI	7.56%
252.0	SBUX	6.47%	LLY	7.67%
252.0	KHC	6.49%	ABBV	7.81%
252.0	PEP	6.55%	KHC	7.82%
252.0	HON	6.62%	AZO	7.86%
252.0	POST	6.69%	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.

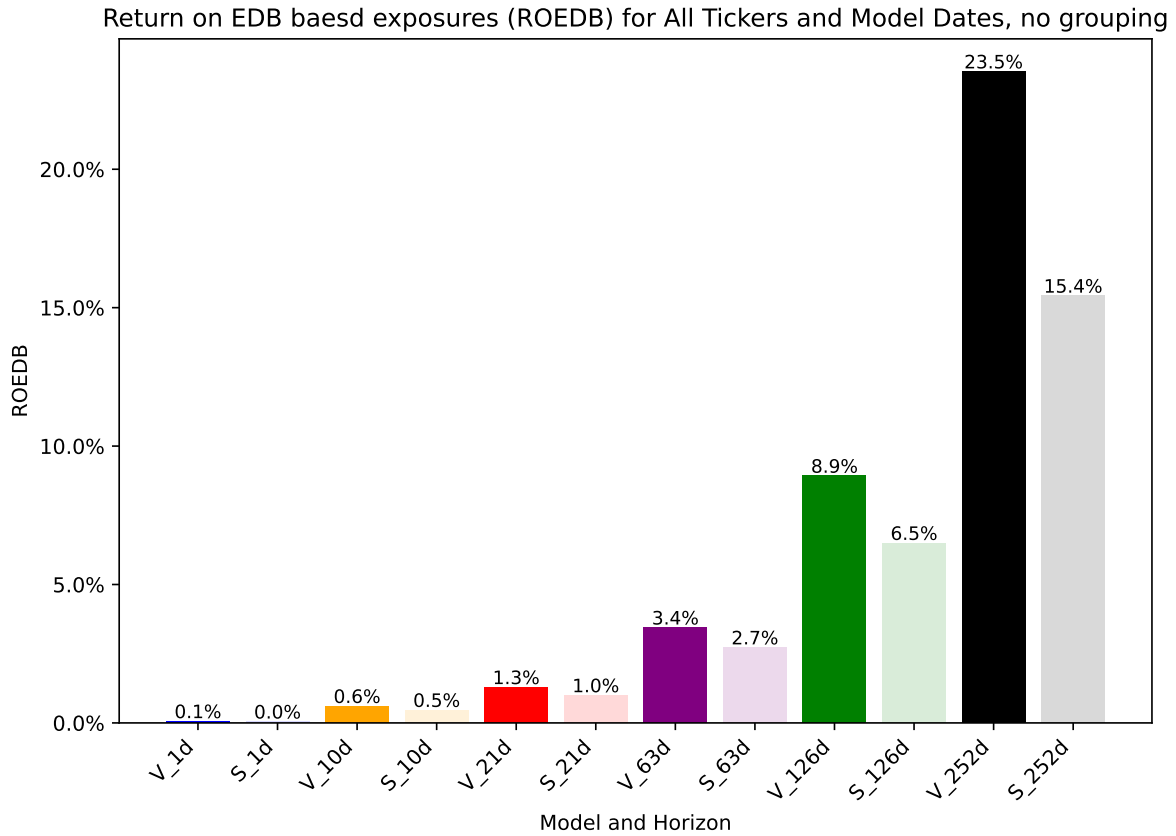
Following each bar chart comparison of ROEDB is a table detailing the alpha (intercept) and slope (beta) of Vector Model EDB based exposure performance to Sigma EDB exposure based performance. The beta arguably provides some indication of the leverage of the Vector Model based exposures and the alpha 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 2026-05-28



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%	-0.78%	-1.46%	-4.36%
intercept_p_value	0.43%	0.00%	0.00%	0.00%	0.00%	0.00%
slope	163.00%	157.65%	158.38%	155.05%	159.79%	180.77%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

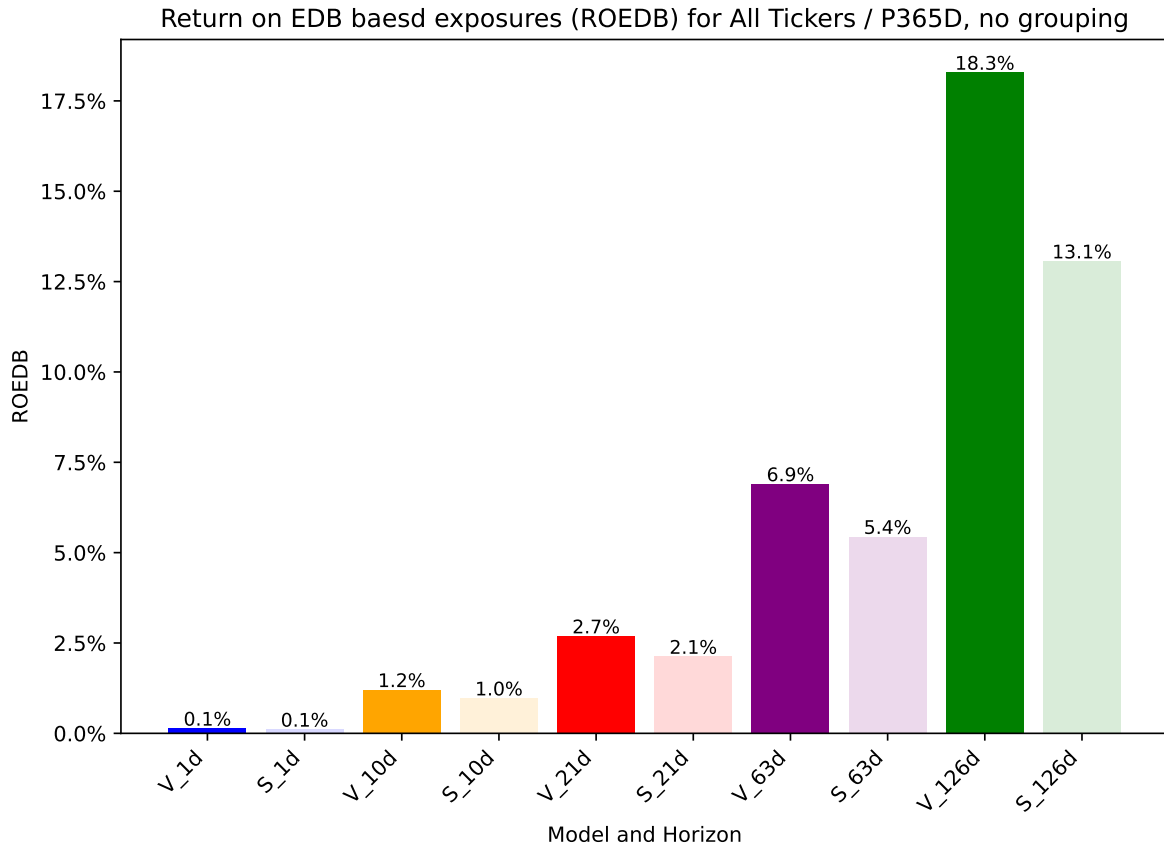
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d	252d
intercept	0.00%	0.07%	0.15%	0.57%	1.47%	2.39%
intercept_p_value	46.77%	21.94%	15.39%	13.58%	9.79%	10.67%
slope	153.52%	145.46%	146.84%	147.27%	151.66%	164.17%
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 2025-05-30 through 2026-05-28



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%	-0.25%	-0.53%	-1.17%	-2.49%
intercept_p_value	0.46%	0.00%	0.00%	0.00%	0.00%
slope	155.40%	149.35%	151.70%	148.31%	159.04%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.00%

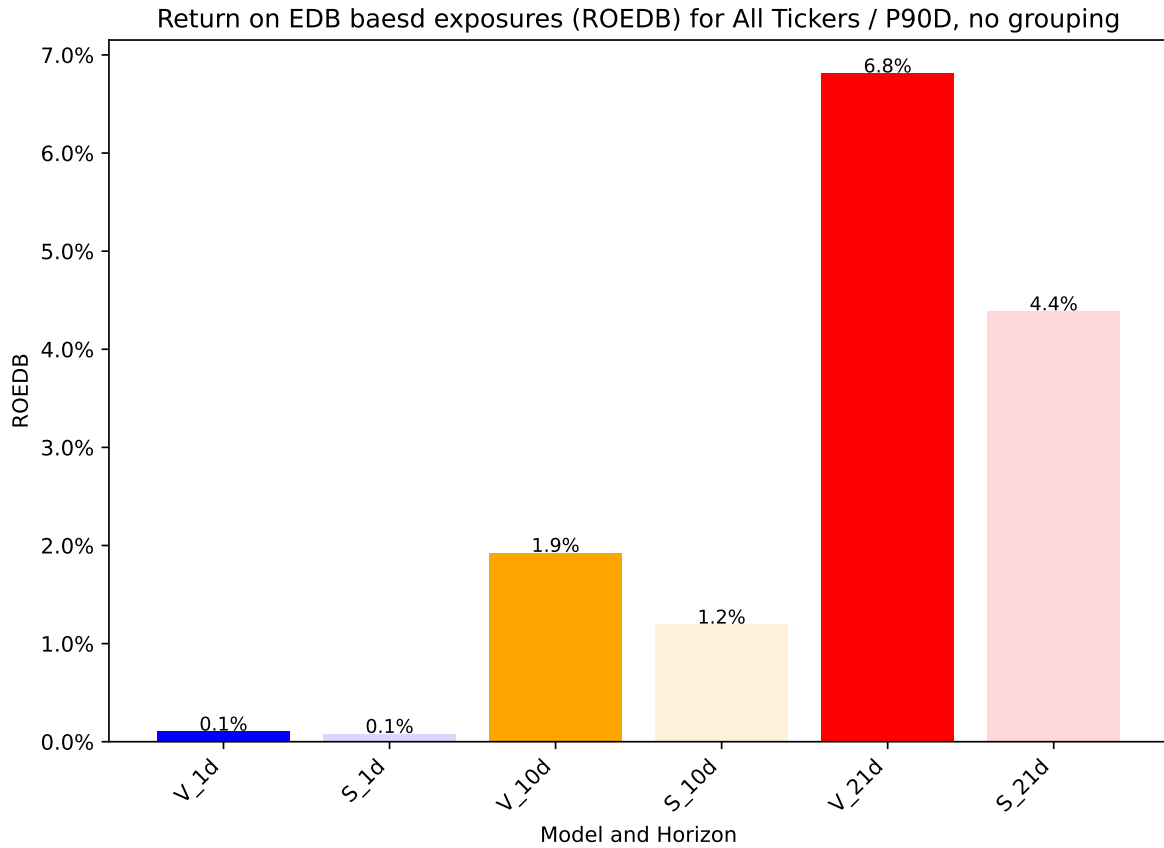
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d	63d	126d
intercept	0.00%	0.07%	0.20%	0.63%	0.13%
intercept_p_value	46.87%	21.09%	15.70%	13.71%	17.58%
slope	148.77%	140.92%	141.60%	146.39%	155.23%
slope_p_value	0.00%	0.00%	0.00%	0.00%	0.03%



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



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

	1d	10d	21d
intercept	-0.02%	0.08%	-0.28%
intercept_p_value	39.23%	27.69%	5.12%
slope	154.62%	154.46%	161.55%
slope_p_value	0.00%	0.00%	0.00%

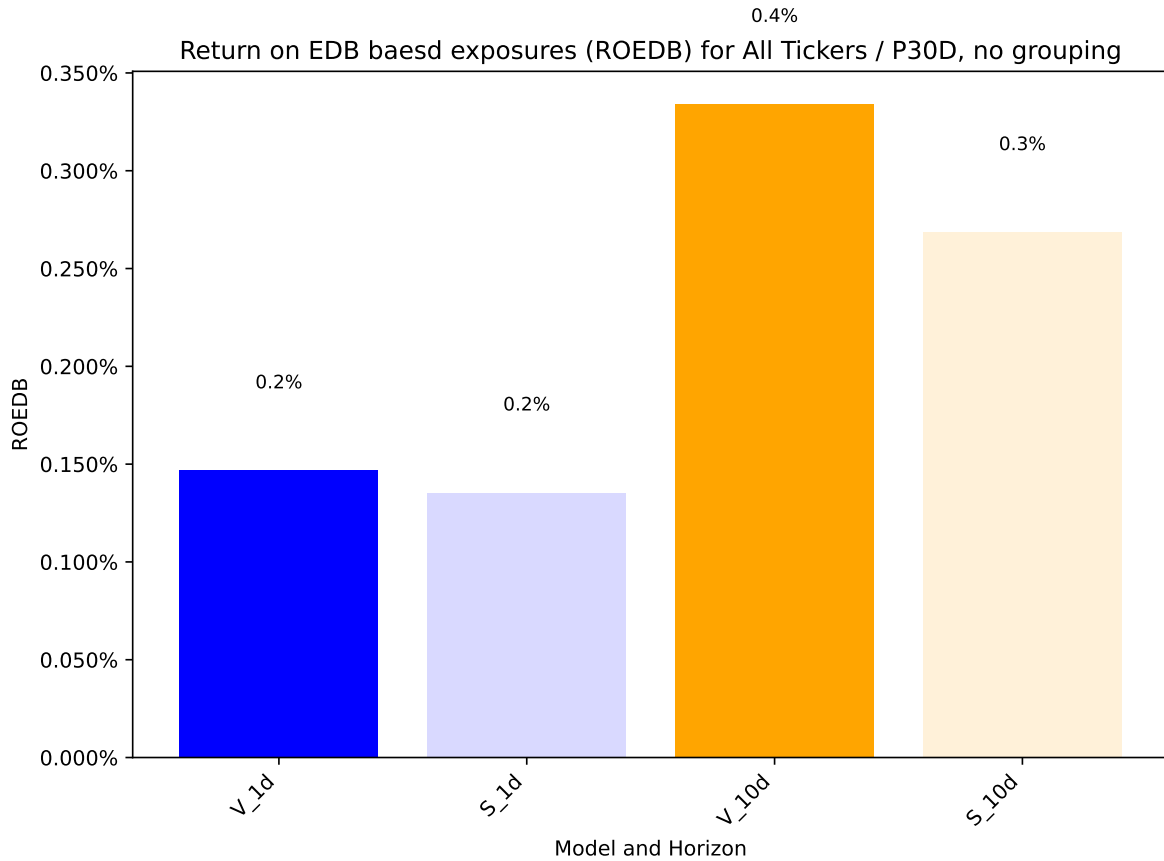
Same as above, but averaged by Ticker across Model Dates:

	1d	10d	21d
intercept	-0.01%	0.11%	0.13%
intercept_p_value	45.03%	29.19%	29.68%
slope	151.05%	145.54%	145.40%
slope_p_value	0.00%	0.00%	0.00%



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28



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

	1d	10d
intercept	-0.06%	-0.07%
intercept_p_value	13.84%	60.93%
slope	155.28%	149.92%
slope_p_value	0.00%	0.00%

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

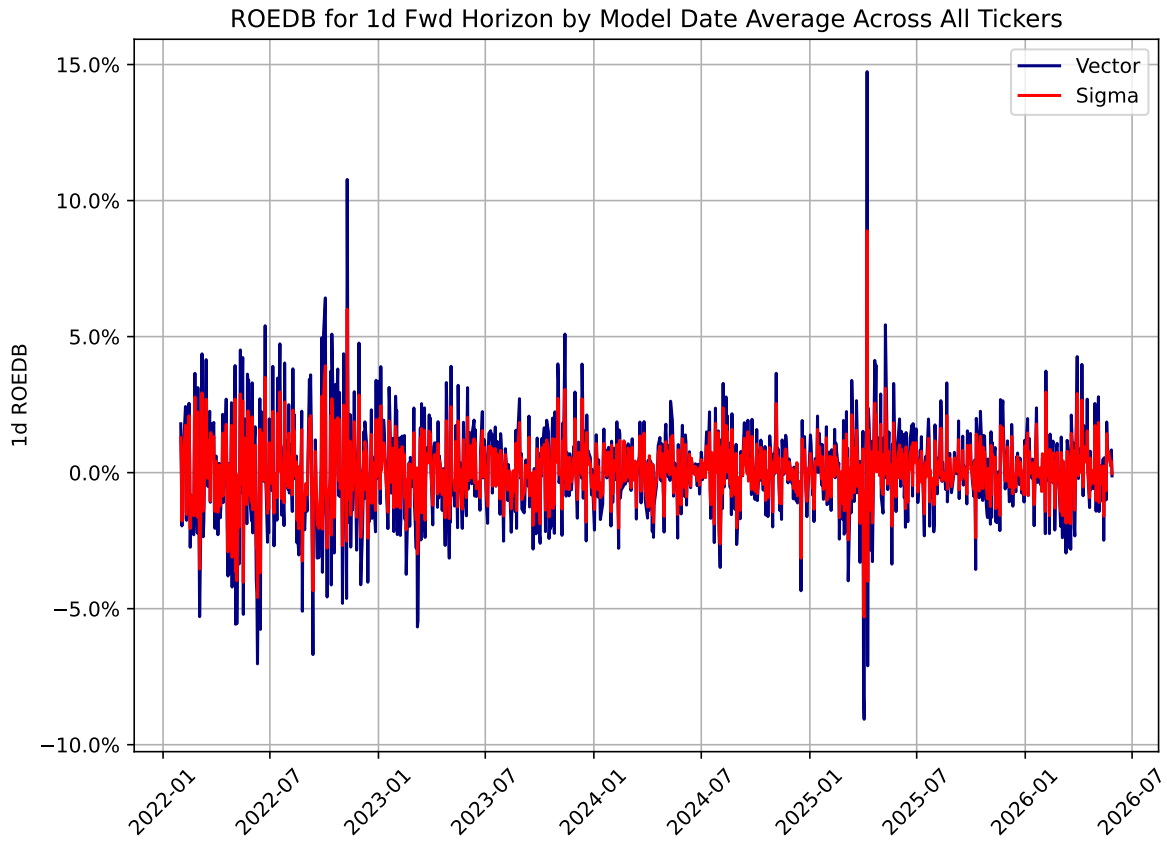
	1d	10d
intercept	-0.02%	-0.01%
intercept_p_value	47.32%	43.64%
slope	155.87%	150.78%



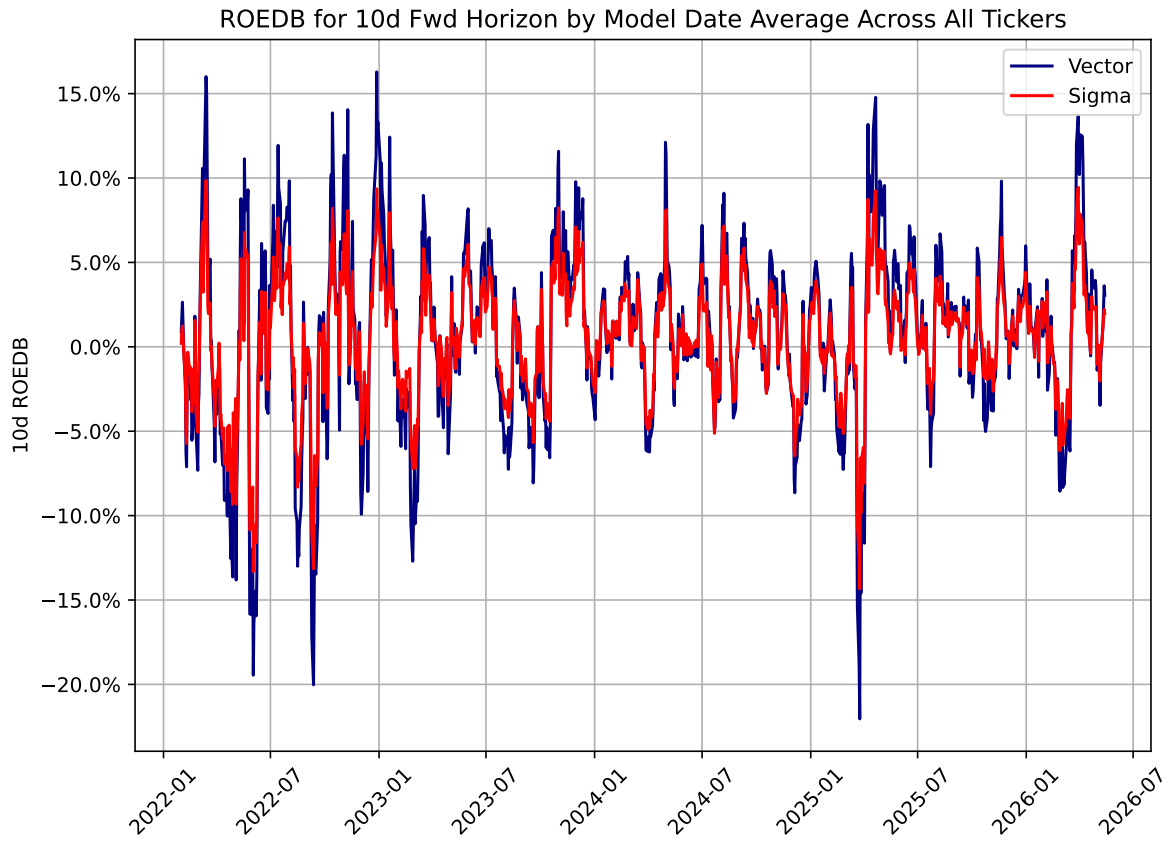
slope_p_value 0.00% 0.02%

ROEDB by Model Date Detail

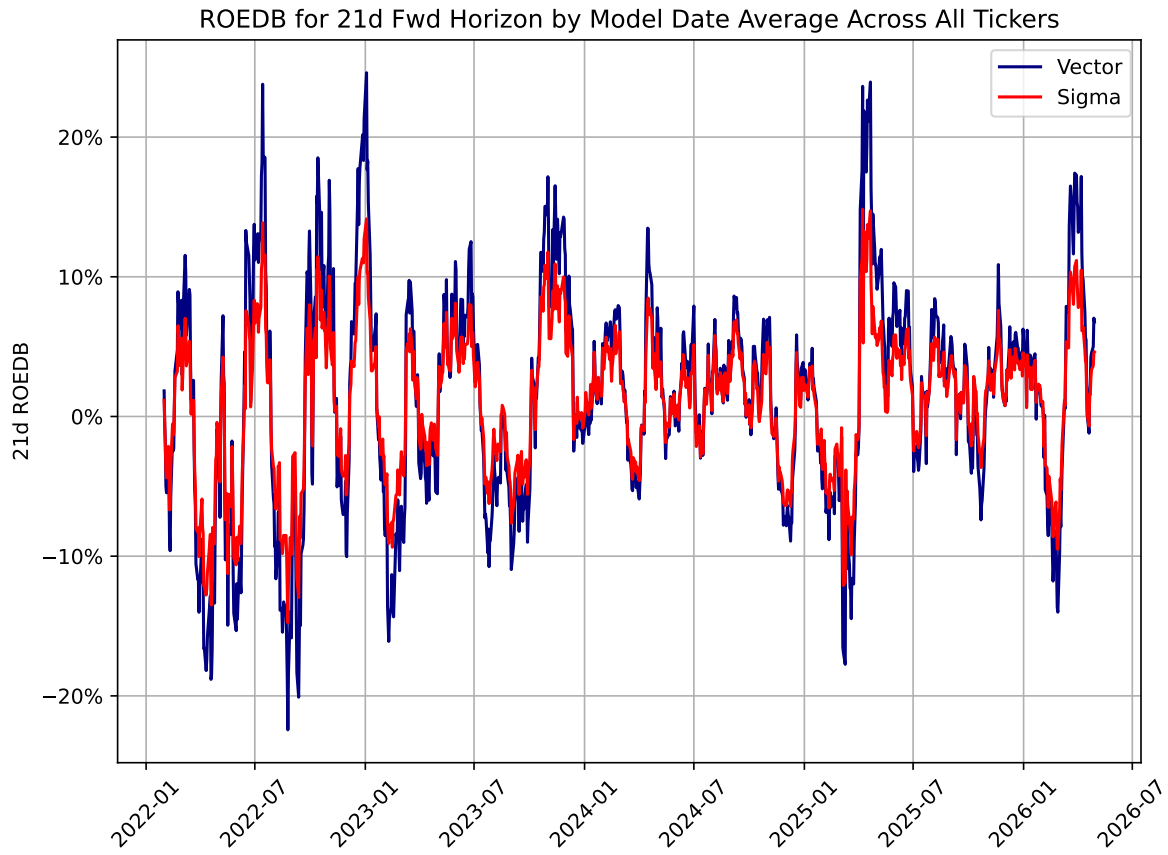
1d Horizon



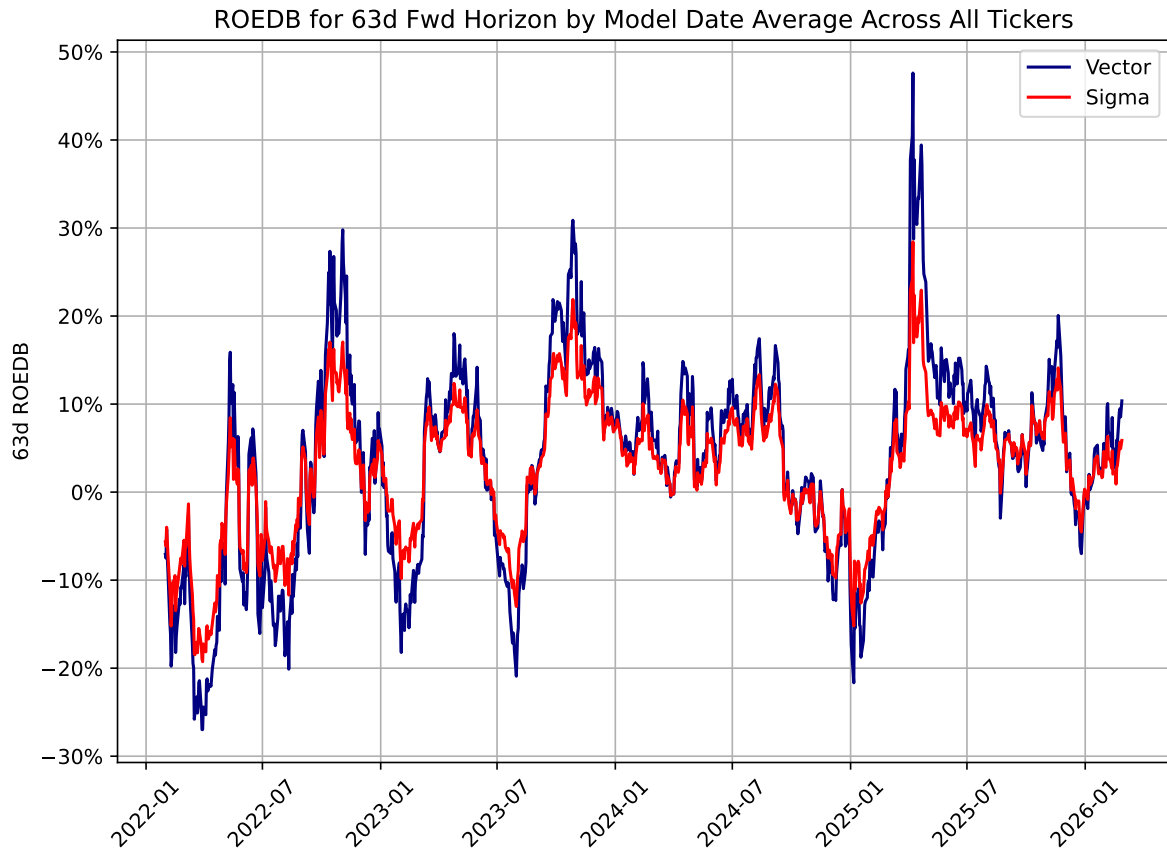
10d Horizon



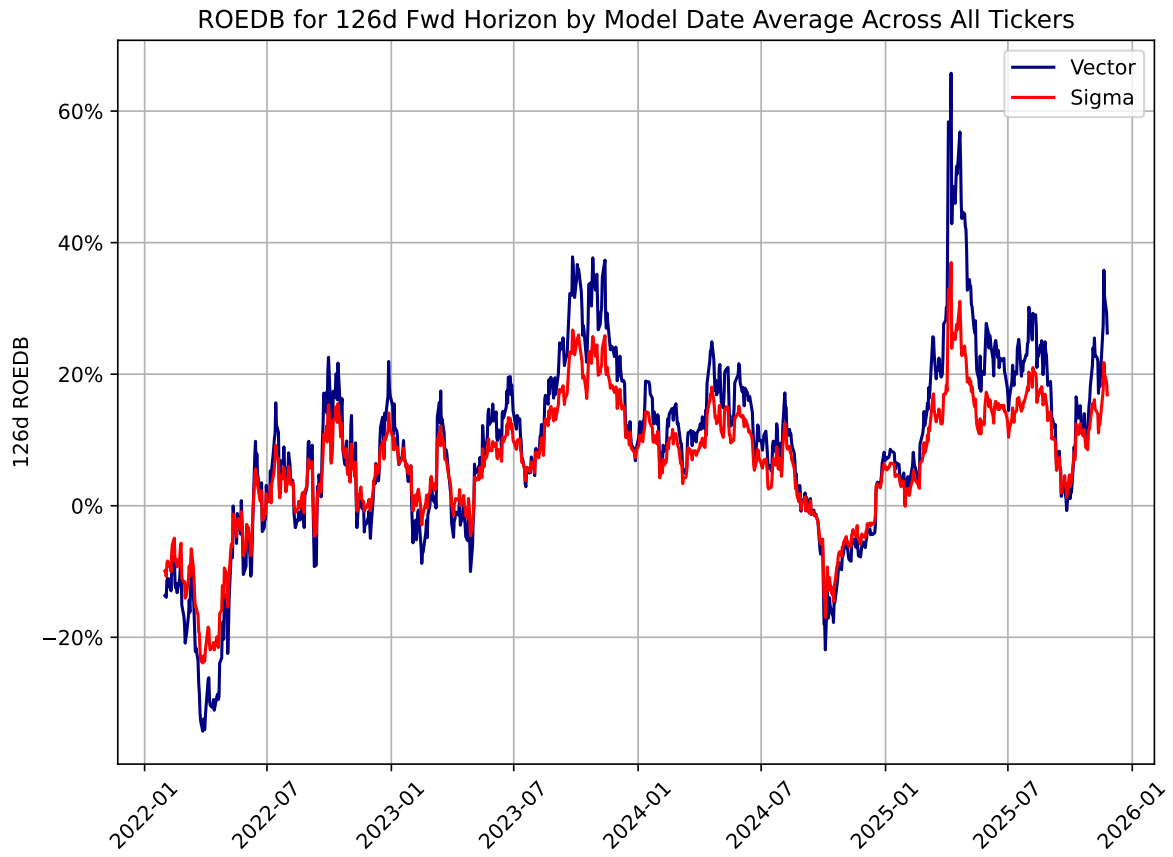
21d Horizon



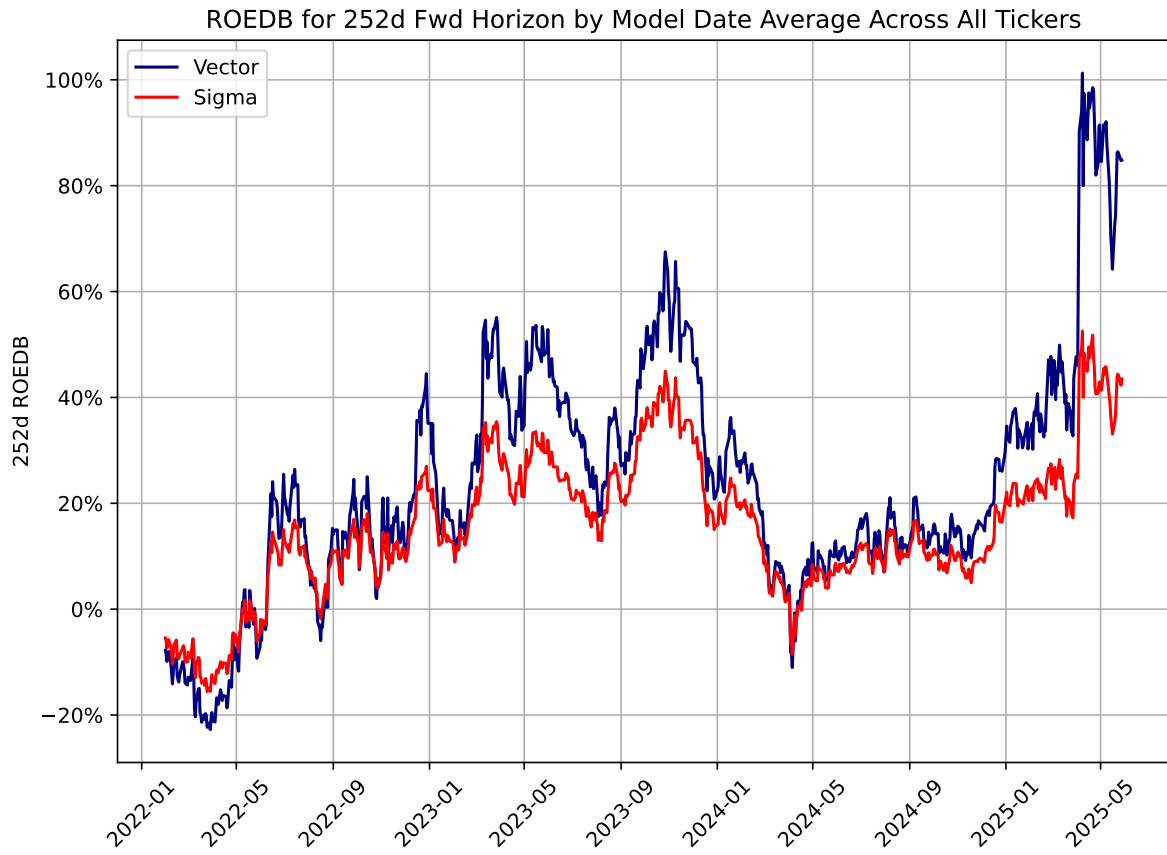
63d Horizon



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 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	MSTR	0.6%	MSTR	0.3%
1.0	GME	0.48%	MU	0.29%
1.0	MU	0.43%	WDC	0.27%
1.0	WDC	0.43%	NVDA	0.25%
1.0	AMD	0.37%	VST	0.23%
1.0	NFLX	0.33%	AVGO	0.23%
1.0	AVGO	0.33%	PWR	0.2%
1.0	META	0.32%	AMD	0.2%
1.0	INTC	0.3%	TEVA	0.17%
1.0	NVDA	0.27%	X	0.17%
1.0	CDNS	0.26%	LLY	0.16%
1.0	LLY	0.26%	GE	0.16%
1.0	ORCL	0.26%	TRGP	0.16%
1.0	PWR	0.24%	GME	0.15%
1.0	GOOGL	0.22%	AMAT	0.15%
1.0	XOM	0.22%	GBTC	0.14%
1.0	CLF	0.21%	SLV	0.14%
1.0	GWW	0.19%	INTC	0.14%
1.0	AAPL	0.19%	CAH	0.14%
1.0	AA	0.18%	ORCL	0.13%
1.0	AMZN	0.18%	ON	0.12%
1.0	FCX	0.17%	THC	0.12%
1.0	KALU	0.17%	ETRN	0.12%
1.0	ON	0.16%	GOOGL	0.12%
1.0	IRM	0.16%	GS	0.11%
1.0	NEM	0.16%	IRM	0.11%
1.0	X	0.16%	CDNS	0.11%
1.0	TRGP	0.15%	CSTM	0.11%
1.0	B	0.15%	META	0.11%
1.0	SLV	0.14%	NFLX	0.1%



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 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	MSTR	7.13%	MSTR	3.09%
10.0	GME	4.49%	MU	2.73%
10.0	MU	4.38%	WDC	2.68%
10.0	WDC	4.28%	NVDA	2.53%
10.0	INTC	3.25%	VST	2.23%
10.0	AMD	3.04%	AVGO	2.19%
10.0	META	2.98%	PWR	2.05%
10.0	NFLX	2.73%	AMD	1.88%
10.0	TEVA	2.56%	TEVA	1.74%
10.0	ORCL	2.54%	LLY	1.59%
10.0	AVGO	2.48%	X	1.58%
10.0	NVDA	2.47%	TRGP	1.57%
10.0	PWR	2.17%	INTC	1.5%
10.0	VST	2.08%	GE	1.49%
10.0	LLY	1.99%	ETRN	1.41%
10.0	CDNS	1.96%	AMAT	1.4%
10.0	GOOGL	1.91%	GBTC	1.38%
10.0	SLV	1.79%	CAH	1.38%
10.0	GWV	1.78%	SLV	1.36%
10.0	KALU	1.66%	GME	1.31%
10.0	AAPL	1.63%	META	1.21%
10.0	AMZN	1.61%	THC	1.18%
10.0	XOM	1.55%	IRM	1.15%
10.0	CAH	1.54%	GOOGL	1.14%
10.0	X	1.49%	ORCL	1.14%
10.0	GE	1.48%	NFLX	1.13%
10.0	FCX	1.46%	GS	1.09%
10.0	GILD	1.43%	TSLA	1.07%
10.0	ETRN	1.4%	ON	1.07%
10.0	AMAT	1.39%	CDNS	1.05%



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 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	MSTR	15.85%	MSTR	7.14%
21.0	WDC	9.28%	WDC	5.78%
21.0	MU	8.55%	MU	5.64%
21.0	GME	7.35%	NVDA	5.45%
21.0	INTC	7.15%	VST	4.83%
21.0	META	6.59%	AVGO	4.61%
21.0	AMD	6.46%	PWR	4.43%
21.0	TEVA	6.14%	AMD	4.15%
21.0	ORCL	5.38%	TEVA	3.8%
21.0	NFLX	5.36%	ETRN	3.5%
21.0	AVGO	5.25%	INTC	3.29%
21.0	NVDA	4.79%	TRGP	3.26%
21.0	PWR	4.77%	LLY	3.25%
21.0	ETRN	4.25%	GE	3.2%
21.0	VST	4.12%	X	3.17%
21.0	GOOGL	4.02%	GBTC	3.1%
21.0	LLY	3.83%	AMAT	2.95%
21.0	SLV	3.73%	CAH	2.89%
21.0	CDNS	3.56%	SLV	2.84%
21.0	GWG	3.45%	META	2.67%
21.0	KALU	3.35%	NFLX	2.51%
21.0	GILD	3.35%	THC	2.51%
21.0	GE	3.34%	GOOGL	2.49%
21.0	AMZN	3.33%	ORCL	2.48%
21.0	XOM	3.32%	IRM	2.47%
21.0	CAH	3.19%	TSLA	2.46%
21.0	AA	3.17%	GS	2.31%
21.0	TXN	3.16%	ON	2.21%
21.0	AMAT	3.13%	CDNS	2.17%
21.0	AAPL	2.92%	GWG	2.14%



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 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	MSTR	35.74%	MSTR	20.13%
63.0	WDC	35.31%	WDC	18.41%
63.0	META	23.76%	NVDA	17.68%
63.0	MU	22.2%	MU	16.22%
63.0	NFLX	19.0%	VST	16.04%
63.0	NVDA	16.46%	AVGO	13.64%
63.0	AVGO	16.09%	PWR	11.95%
63.0	VST	14.67%	TEVA	10.46%
63.0	AMD	14.61%	GE	10.32%
63.0	ORCL	14.49%	ETRN	10.28%
63.0	TEVA	14.46%	GBTC	10.28%
63.0	PWR	12.73%	AMD	10.02%
63.0	GE	12.31%	META	9.5%
63.0	AMAT	11.6%	LLY	9.24%
63.0	INTC	11.54%	TRGP	9.2%
63.0	SLV	11.4%	CAH	9.06%
63.0	GILD	10.83%	NFLX	9.04%
63.0	GWV	10.82%	AMAT	8.91%
63.0	GOOGL	10.62%	SLV	8.83%
63.0	ETRN	10.51%	THC	8.09%
63.0	GNRC	10.51%	PHM	7.46%
63.0	CTLT	10.48%	GOOGL	7.19%
63.0	CAH	10.25%	ORCL	7.04%
63.0	LLY	9.89%	GS	6.87%
63.0	KALU	9.74%	HSBC	6.54%
63.0	B	9.27%	INTC	6.33%
63.0	GS	9.21%	CCL	6.19%
63.0	NEM	9.1%	IRM	6.17%
63.0	THC	9.04%	GLD	5.98%
63.0	XOM	8.51%	X	5.91%



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 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	MSTR	102.43%	MSTR	49.65%
126.0	WDC	94.17%	WDC	44.41%
126.0	MU	62.68%	NVDA	44.11%
126.0	META	60.1%	MU	39.78%
126.0	NFLX	46.7%	VST	35.78%
126.0	NVDA	45.17%	AVGO	30.09%
126.0	AVGO	41.11%	GBTC	29.06%
126.0	VST	36.35%	GE	25.34%
126.0	TEVA	33.48%	TEVA	23.22%
126.0	AMD	32.43%	META	23.21%
126.0	GE	31.32%	PWR	23.14%
126.0	SLV	31.26%	NFLX	22.15%
126.0	ORCL	30.58%	SLV	20.9%
126.0	AMAT	29.93%	AMD	20.56%
126.0	B	27.87%	THC	20.24%
126.0	GOOGL	27.37%	AMAT	20.14%
126.0	INTC	27.32%	CAH	19.76%
126.0	LLY	24.99%	LLY	19.67%
126.0	CAH	24.59%	TRGP	18.93%
126.0	GILD	24.33%	ETRN	18.49%
126.0	NEM	23.91%	PHM	17.21%
126.0	PWR	23.55%	GOOGL	16.69%
126.0	GBTC	22.69%	ORCL	15.94%
126.0	CSTM	22.65%	GS	15.56%
126.0	THC	22.37%	B	15.31%
126.0	GWV	20.66%	HSBC	14.1%
126.0	ISRG	20.1%	CCL	14.04%
126.0	GS	20.09%	GLD	13.45%
126.0	KALU	19.97%	JPM	12.87%
126.0	ETRN	19.22%	INTC	12.77%



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 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
252.0	MSTR	347.83%	MSTR	169.5%
252.0	WDC	236.74%	NVDA	119.97%
252.0	META	160.29%	VST	106.7%
252.0	VST	144.64%	WDC	99.68%
252.0	MU	135.14%	GBTC	92.97%
252.0	NFLX	124.92%	MU	84.18%
252.0	AVGO	110.78%	AVGO	77.04%
252.0	NVDA	109.89%	META	63.84%
252.0	GE	81.08%	GE	61.17%
252.0	SLV	78.26%	NFLX	57.68%
252.0	GBTC	76.43%	PWR	49.14%
252.0	TEVA	71.28%	THC	48.14%
252.0	INTC	68.58%	AMD	44.91%
252.0	AMD	66.82%	TEVA	42.74%
252.0	ORCL	66.26%	PHM	42.61%
252.0	B	62.67%	LLY	42.44%
252.0	GOOGL	62.67%	TRGP	40.73%
252.0	THC	60.67%	SLV	39.52%
252.0	NEM	59.6%	CAH	39.25%
252.0	AMAT	57.48%	AMAT	38.62%
252.0	CAH	56.11%	CCL	37.5%
252.0	AMZN	55.33%	ORCL	37.21%
252.0	ISRG	52.58%	ETRN	35.78%
252.0	EXPE	51.75%	GOOGL	35.04%
252.0	LLY	51.69%	GS	33.59%
252.0	PWR	50.52%	JPM	31.05%
252.0	GILD	49.44%	HSBC	30.96%
252.0	ELAN	49.43%	B	30.09%
252.0	CSTM	49.06%	TDG	29.52%
252.0	TDG	46.45%	GLD	29.31%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	MU	1.5%	MU	1.02%
1.0	WDC	1.42%	WDC	1.02%
1.0	INTC	1.37%	INTC	0.81%
1.0	AMD	1.29%	AMD	0.7%
1.0	CLF	0.85%	LUMN	0.54%
1.0	ON	0.82%	AA	0.48%
1.0	AAP	0.73%	ON	0.48%
1.0	LLY	0.64%	AMAT	0.46%
1.0	LUMN	0.63%	CSTM	0.46%
1.0	AA	0.63%	CLF	0.44%
1.0	CMA	0.6%	SLV	0.41%
1.0	QCOM	0.57%	KALU	0.41%
1.0	JAZZ	0.55%	GNRC	0.38%
1.0	FCX	0.54%	B	0.36%
1.0	CDNS	0.52%	JAZZ	0.34%
1.0	KALU	0.51%	NEM	0.34%
1.0	AMAT	0.51%	GOOGL	0.33%
1.0	GOOGL	0.5%	TEVA	0.33%
1.0	CVS	0.46%	PWR	0.32%
1.0	NEM	0.45%	AVGO	0.28%
1.0	TXN	0.44%	CMA	0.28%
1.0	MRK	0.42%	CSCO	0.28%
1.0	NVDA	0.42%	ELAN	0.27%
1.0	UNH	0.37%	FCX	0.26%
1.0	B	0.36%	QCOM	0.26%
1.0	CSTM	0.36%	BHP	0.26%
1.0	ORCL	0.35%	RIO	0.25%
1.0	AAPL	0.35%	TXN	0.24%
1.0	OXY	0.34%	GS	0.23%
1.0	AVGO	0.33%	FSUGY	0.21%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	MU	14.74%	WDC	10.08%
10.0	WDC	14.23%	MU	9.61%
10.0	INTC	13.13%	INTC	8.69%
10.0	AMD	9.86%	AMD	6.74%
10.0	ON	7.04%	LUMN	4.92%
10.0	KALU	5.59%	AMAT	4.43%
10.0	GOOGL	5.42%	ON	4.22%
10.0	AA	5.38%	AA	4.19%
10.0	JAZZ	5.27%	CSTM	4.19%
10.0	QCOM	4.41%	KALU	3.86%
10.0	UNH	4.32%	GNRC	3.79%
10.0	GNRC	4.3%	SLV	3.77%
10.0	LLY	4.29%	GOOGL	3.63%
10.0	AMAT	4.22%	JAZZ	3.46%
10.0	CVS	4.22%	B	3.36%
10.0	TSLA	4.16%	NEM	3.24%
10.0	B	4.13%	PWR	3.23%
10.0	CMA	4.02%	TEVA	3.16%
10.0	TXN	3.92%	CMA	3.15%
10.0	CLF	3.91%	CLF	2.75%
10.0	CSTM	3.88%	CSCO	2.71%
10.0	NEM	3.86%	RIO	2.51%
10.0	PWR	3.7%	AVGO	2.49%
10.0	NVDA	3.61%	BHP	2.44%
10.0	LUMN	3.57%	TXN	2.35%
10.0	CDNS	3.53%	FCX	2.21%
10.0	FCX	3.47%	TRGP	2.2%
10.0	MRK	3.4%	ELAN	2.15%
10.0	AAP	3.25%	GS	2.11%
10.0	ORCL	3.16%	QCOM	2.05%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	INTC	32.11%	WDC	22.29%
21.0	WDC	31.19%	MU	20.54%
21.0	MU	27.8%	INTC	19.71%
21.0	AMD	21.87%	AMD	14.73%
21.0	ON	15.35%	LUMN	9.91%
21.0	KALU	13.37%	AMAT	9.32%
21.0	JAZZ	12.26%	CSTM	9.18%
21.0	GOOGL	12.13%	AA	8.86%
21.0	AA	11.79%	ON	8.82%
21.0	TXN	11.27%	KALU	8.76%
21.0	GNRC	10.53%	SLV	8.45%
21.0	UNH	9.9%	GOOGL	8.18%
21.0	TSLA	9.62%	GNRC	8.13%
21.0	B	9.23%	B	7.39%
21.0	CSTM	9.1%	TEVA	7.37%
21.0	AMAT	8.72%	JAZZ	7.28%
21.0	NEM	8.72%	PWR	7.24%
21.0	CVS	8.58%	CMA	7.0%
21.0	CMA	8.56%	NEM	6.97%
21.0	LUMN	8.34%	CLF	5.8%
21.0	LLY	8.12%	RIO	5.73%
21.0	QCOM	7.92%	BHP	5.45%
21.0	PWR	7.92%	AVGO	5.22%
21.0	VFC	6.75%	TXN	4.91%
21.0	FCX	6.64%	ELAN	4.86%
21.0	MRK	6.49%	CSCO	4.82%
21.0	TEVA	6.33%	TRGP	4.48%
21.0	CLF	6.24%	FCX	4.47%
21.0	AAPL	6.2%	VFC	4.3%
21.0	CDNS	5.85%	FSUGY	4.28%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	WDC	120.79%	WDC	76.96%
63.0	MU	85.76%	MU	66.02%
63.0	INTC	76.57%	INTC	51.51%
63.0	AMD	45.79%	AA	32.11%
63.0	KALU	41.66%	SLV	31.48%
63.0	AA	41.01%	AMAT	30.51%
63.0	ON	38.73%	LUMN	30.17%
63.0	CSTM	37.3%	CSTM	29.3%
63.0	JAZZ	37.26%	AMD	28.63%
63.0	AMAT	35.45%	B	27.65%
63.0	NEM	34.84%	TEVA	26.26%
63.0	B	33.97%	KALU	24.43%
63.0	GOOGL	32.57%	NEM	23.76%
63.0	GNRC	31.03%	GOOGL	23.34%
63.0	TSLA	30.05%	JAZZ	21.85%
63.0	CMA	28.62%	CMA	19.64%
63.0	LUMN	26.62%	PWR	19.18%
63.0	SLV	24.97%	RIO	17.88%
63.0	VFC	24.77%	ON	17.24%
63.0	TXN	23.29%	ELAN	17.05%
63.0	TEVA	22.31%	GNRC	16.02%
63.0	MRK	21.16%	BHP	15.42%
63.0	CVS	20.36%	TRGP	15.23%
63.0	BHP	20.35%	FCX	15.2%
63.0	OXY	20.14%	VFC	14.07%
63.0	LLY	19.77%	MRK	13.3%
63.0	PWR	19.53%	BIIB	12.88%
63.0	FCX	19.37%	XOM	12.86%
63.0	BIIB	19.2%	GLD	12.66%
63.0	RIO	18.08%	HSBC	12.39%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	WDC	356.67%	WDC	212.91%
126.0	MU	278.58%	MU	184.09%
126.0	INTC	170.77%	INTC	108.78%
126.0	AA	136.72%	SLV	88.13%
126.0	KALU	132.46%	AA	87.78%
126.0	AMAT	122.81%	AMAT	78.62%
126.0	CSTM	113.26%	TEVA	72.78%
126.0	B	102.9%	CSTM	72.6%
126.0	ON	102.63%	B	70.51%
126.0	SLV	96.14%	KALU	65.72%
126.0	JAZZ	95.48%	NEM	56.61%
126.0	CMA	88.09%	LUMN	52.07%
126.0	NEM	85.65%	GOOGL	51.64%
126.0	VFC	80.49%	JAZZ	48.41%
126.0	AMD	78.87%	AMD	46.77%
126.0	GOOGL	74.47%	CMA	45.73%
126.0	TEVA	68.24%	RIO	44.25%
126.0	LLY	61.68%	ON	41.68%
126.0	TXN	57.3%	FCX	40.08%
126.0	MRK	57.24%	VFC	38.14%
126.0	BIIB	56.77%	PWR	37.81%
126.0	BHP	53.53%	ELAN	36.06%
126.0	FCX	52.51%	BHP	35.11%
126.0	BMY	52.01%	MRK	34.86%
126.0	RIO	49.65%	TRGP	34.85%
126.0	GNRC	47.3%	BIIB	31.3%
126.0	LUMN	47.25%	GLD	30.03%
126.0	TSLA	47.24%	HSBC	29.5%
126.0	PWR	46.85%	CAH	29.43%
126.0	CNC	46.67%	GSK	29.08%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	AMD	3.15%	AMD	1.65%
1.0	INTC	2.56%	INTC	1.65%
1.0	WDC	2.17%	MU	1.53%
1.0	ORCL	1.69%	WDC	1.18%
1.0	ON	1.67%	ON	1.04%
1.0	MU	1.65%	QCOM	1.02%
1.0	AMC	1.56%	LUMN	0.86%
1.0	QCOM	1.56%	AMC	0.78%
1.0	LUMN	1.48%	ORCL	0.73%
1.0	CNC	1.18%	CSCO	0.7%
1.0	UNH	1.18%	TXN	0.66%
1.0	CDNS	1.15%	AVGO	0.58%
1.0	AAP	1.07%	CNC	0.54%
1.0	AMZN	1.05%	KALU	0.53%
1.0	TXN	0.86%	CSTM	0.5%
1.0	AVGO	0.82%	AMZN	0.44%
1.0	NVDA	0.8%	UNH	0.43%
1.0	BBY	0.78%	BBY	0.42%
1.0	KALU	0.63%	PWR	0.39%
1.0	MSFT	0.56%	GOOGL	0.37%
1.0	JAZZ	0.54%	CDNS	0.37%
1.0	LLY	0.53%	AA	0.37%
1.0	VNO	0.49%	MS	0.37%
1.0	BXP	0.47%	JAZZ	0.37%
1.0	CSCO	0.47%	VNO	0.36%
1.0	AA	0.42%	AMAT	0.36%
1.0	IRM	0.42%	GNRC	0.36%
1.0	GWV	0.41%	CLF	0.35%
1.0	CVS	0.38%	QQQ	0.32%
1.0	GOOGL	0.37%	MSTR	0.32%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	AMD	34.62%	INTC	21.39%
10.0	INTC	32.6%	AMD	18.07%
10.0	MU	22.82%	MU	15.77%
10.0	WDC	21.87%	ON	13.84%
10.0	QCOM	21.86%	WDC	13.31%
10.0	ON	19.29%	QCOM	10.81%
10.0	UNH	17.8%	TXN	9.14%
10.0	CNC	14.68%	CNC	8.72%
10.0	ORCL	13.96%	CSCO	8.34%
10.0	TXN	13.68%	LUMN	8.16%
10.0	AMC	11.58%	AMC	7.87%
10.0	KALU	11.1%	KALU	7.04%
10.0	CDNS	10.8%	UNH	6.11%
10.0	LUMN	10.67%	CSTM	5.44%
10.0	CVS	9.52%	PWR	5.44%
10.0	MSTR	9.19%	AVGO	5.26%
10.0	JAZZ	9.11%	GOOGL	5.08%
10.0	NVDA	7.84%	ORCL	5.08%
10.0	AMAT	7.83%	JAZZ	4.85%
10.0	CSCO	6.93%	AMZN	4.68%
10.0	AMZN	6.84%	GNRC	4.6%
10.0	AVGO	6.47%	AMAT	4.55%
10.0	CLF	6.36%	MSTR	4.22%
10.0	BXP	5.75%	MS	4.14%
10.0	GOOGL	5.73%	CDNS	4.05%
10.0	PWR	5.05%	CVS	3.73%
10.0	GBTC	5.01%	NVDA	3.68%
10.0	TSLA	4.52%	CLF	3.52%
10.0	BUD	4.48%	VNO	3.47%
10.0	LLY	4.32%	QQQ	3.46%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	INTC	104.88%	INTC	62.66%
21.0	AMD	95.51%	AMD	48.88%
21.0	ON	57.74%	MU	39.05%
21.0	UNH	52.06%	ON	37.19%
21.0	QCOM	50.82%	WDC	32.6%
21.0	MU	50.0%	QCOM	28.91%
21.0	WDC	47.97%	CNC	27.86%
21.0	TXN	45.66%	TXN	24.94%
21.0	AMC	44.37%	KALU	22.14%
21.0	CNC	44.09%	AMC	22.07%
21.0	MSTR	37.3%	LUMN	19.62%
21.0	ORCL	37.2%	UNH	17.57%
21.0	KALU	32.78%	CSCO	16.74%
21.0	CVS	27.44%	CSTM	15.83%
21.0	LUMN	26.83%	PWR	15.72%
21.0	CDNS	24.34%	AVGO	15.45%
21.0	CLF	23.64%	GOOGL	14.75%
21.0	JAZZ	22.52%	GNRC	14.41%
21.0	AMZN	20.03%	MSTR	14.11%
21.0	AVGO	17.44%	AMZN	13.54%
21.0	BXP	16.12%	ORCL	12.93%
21.0	PWR	14.84%	CLF	12.09%
21.0	CSCO	14.62%	CDNS	11.49%
21.0	AMAT	14.39%	JAZZ	11.34%
21.0	GBTC	14.02%	AMAT	10.67%
21.0	TSLA	13.7%	IRM	10.6%
21.0	GOOGL	13.44%	CVS	10.45%
21.0	BUD	12.84%	MS	10.22%
21.0	PRGO	12.81%	NVDA	9.87%
21.0	NVDA	12.49%	VNO	9.55%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	ORCL	4.37%	MU	3.39%
1.0	AMD	3.8%	AMD	2.05%
1.0	BBY	3.7%	QCOM	1.86%
1.0	LUMN	3.63%	ORCL	1.76%
1.0	MU	3.39%	CLF	1.52%
1.0	WDC	2.48%	CSCO	1.43%
1.0	AAP	2.44%	BBY	1.35%
1.0	LLY	2.35%	LUMN	1.24%
1.0	QCOM	2.03%	INTC	1.12%
1.0	CDNS	1.99%	WDC	1.07%
1.0	ON	1.74%	AA	1.03%
1.0	AMAT	1.62%	ON	0.99%
1.0	INTC	1.6%	LLY	0.86%
1.0	CLF	1.54%	JAZZ	0.79%
1.0	JAZZ	1.25%	AMC	0.79%
1.0	VNO	1.22%	MNST	0.72%
1.0	CNC	1.16%	AMAT	0.7%
1.0	AVGO	1.1%	AAPL	0.7%
1.0	NVDA	1.06%	TSLA	0.69%
1.0	TSLA	1.04%	FCX	0.69%
1.0	AMC	0.98%	CDNS	0.66%
1.0	CSCO	0.94%	VNO	0.63%
1.0	TDG	0.94%	BHP	0.6%
1.0	CCL	0.91%	FSUGY	0.58%
1.0	GE	0.91%	GE	0.58%
1.0	MRK	0.78%	CNC	0.54%
1.0	AA	0.71%	GS	0.54%
1.0	MSFT	0.71%	HON	0.53%
1.0	AAPL	0.65%	MSFT	0.51%
1.0	BHP	0.64%	CSTM	0.51%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	AMD	22.98%	CSCO	22.22%
10.0	LLY	21.73%	MU	19.36%
10.0	MU	20.72%	AMD	14.06%
10.0	QCOM	19.43%	QCOM	11.41%
10.0	CSCO	18.24%	LUMN	10.26%
10.0	LUMN	18.03%	ON	10.06%
10.0	BBY	15.68%	BBY	8.93%
10.0	CLF	14.8%	MNST	8.43%
10.0	JAZZ	14.62%	LLY	7.27%
10.0	NVDA	13.36%	JAZZ	7.21%
10.0	CVS	13.3%	AA	6.86%
10.0	ORCL	11.75%	CLF	6.41%
10.0	CNC	11.08%	TXN	6.2%
10.0	WDC	10.58%	CVS	6.18%
10.0	ON	10.31%	AAPL	6.03%
10.0	CAH	9.48%	CNC	5.22%
10.0	TSLA	8.75%	TRGP	4.92%
10.0	MRK	8.49%	GS	4.85%
10.0	MNST	8.11%	CAH	4.83%
10.0	VNO	7.76%	WDC	4.83%
10.0	CDNS	7.3%	INTC	4.75%
10.0	UNH	6.94%	ORCL	4.73%
10.0	KHC	6.78%	HON	4.37%
10.0	GWG	6.73%	GWG	4.35%
10.0	AA	6.32%	FSUGY	4.2%
10.0	INTC	5.99%	NVDA	4.18%
10.0	AMAT	5.94%	BUD	4.05%
10.0	GE	5.9%	AMAT	3.92%
10.0	FCX	5.59%	VNO	3.75%
10.0	BUD	5.2%	MRK	3.75%



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 2026-05-28

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	-0.28%	AMC	-0.15%
1.0	CHTR	-0.28%	IEP	-0.14%
1.0	NWL	-0.25%	NWL	-0.12%
1.0	FIS	-0.2%	CHTR	-0.1%
1.0	UAA	-0.17%	PRGO	-0.09%
1.0	AMC	-0.15%	FIS	-0.07%
1.0	PRGO	-0.14%	ZTS	-0.07%
1.0	LUMN	-0.13%	AAP	-0.06%
1.0	CYH	-0.12%	VFC	-0.06%
1.0	GT	-0.11%	GT	-0.06%
1.0	USB	-0.1%	BHC	-0.06%
1.0	CMCSA	-0.1%	CMCSA	-0.05%
1.0	NAVI	-0.1%	UAA	-0.05%
1.0	TLT	-0.09%	TLT	-0.04%
1.0	ADBE	-0.07%	NAVI	-0.04%
1.0	VFC	-0.07%	ADBE	-0.04%
1.0	T	-0.07%	BXP	-0.04%
1.0	ZTS	-0.07%	BALL	-0.03%
1.0	PEP	-0.05%	CZR	-0.03%
1.0	LNC	-0.05%	KHC	-0.03%
1.0	BHC	-0.05%	LNC	-0.02%
1.0	WRK	-0.05%	INTU	-0.02%
1.0	EMB	-0.04%	CTLT	-0.01%
1.0	GSK	-0.04%	FRA	-0.01%
1.0	ZION	-0.04%	LQD	-0.01%
1.0	BXP	-0.04%	MOS	-0.01%
1.0	CNC	-0.03%	PEP	-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 2026-05-28

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	-4.57%	FRCB	-2.19%
10.0	FRCB	-4.1%	AMC	-1.65%
10.0	PRGO	-2.55%	IEP	-1.37%
10.0	CHTR	-2.38%	NWL	-1.11%
10.0	IEP	-1.92%	CHTR	-0.94%
10.0	NWL	-1.8%	PRGO	-0.82%
10.0	FIS	-1.54%	AAP	-0.71%
10.0	GT	-1.18%	FIS	-0.7%
10.0	BHC	-0.93%	VFC	-0.69%
10.0	ZTS	-0.84%	ZTS	-0.68%
10.0	UAA	-0.84%	UAA	-0.67%
10.0	VFC	-0.81%	GT	-0.66%
10.0	AAP	-0.78%	CZR	-0.51%
10.0	CMCSA	-0.78%	CMCSA	-0.51%
10.0	TLT	-0.76%	NAVI	-0.5%
10.0	BXP	-0.68%	BHC	-0.44%
10.0	NAVI	-0.67%	TLT	-0.42%
10.0	CYH	-0.66%	ADBE	-0.41%
10.0	ADBE	-0.63%	BXP	-0.4%
10.0	LNC	-0.6%	MOS	-0.31%
10.0	ELAN	-0.49%	BALL	-0.3%
10.0	LUMN	-0.45%	LNC	-0.29%
10.0	VNO	-0.45%	KHC	-0.28%
10.0	T	-0.42%	CYH	-0.26%
10.0	MOS	-0.39%	BBY	-0.19%
10.0	KHC	-0.38%	INTU	-0.18%
10.0	LQD	-0.32%	FRA	-0.17%
10.0	VZ	-0.32%	LQD	-0.13%



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 2026-05-28

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	-10.31%	AMC	-3.92%
21.0	CHTR	-4.86%	IEP	-2.89%
21.0	PRGO	-4.76%	NWL	-2.29%
21.0	NWL	-4.01%	CHTR	-1.89%
21.0	IEP	-3.36%	PRGO	-1.68%
21.0	FIS	-2.79%	AAP	-1.42%
21.0	BHC	-2.47%	VFC	-1.36%
21.0	AAP	-2.38%	FIS	-1.29%
21.0	TLT	-1.88%	ZTS	-1.28%
21.0	ZTS	-1.78%	BHC	-1.17%
21.0	VFC	-1.78%	UAA	-1.17%
21.0	GT	-1.65%	GT	-1.17%
21.0	CMCSA	-1.61%	CZR	-1.16%
21.0	NAVI	-1.5%	NAVI	-1.05%
21.0	BXP	-1.39%	CMCSA	-1.0%
21.0	VNO	-1.37%	BXP	-0.89%
21.0	LNC	-1.33%	TLT	-0.87%
21.0	CYH	-1.24%	ADBE	-0.74%
21.0	ADBE	-0.84%	KHC	-0.71%
21.0	ELAN	-0.82%	MOS	-0.68%
21.0	KHC	-0.72%	LNC	-0.66%
21.0	MOS	-0.69%	BALL	-0.56%
21.0	BBY	-0.69%	BBY	-0.52%
21.0	T	-0.63%	CYH	-0.44%
21.0	LQD	-0.6%	FRA	-0.32%
21.0	BALL	-0.54%	LQD	-0.24%
21.0	VZ	-0.53%	LW	-0.2%



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 2026-05-28

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	-33.64%	AMC	-15.64%
63.0	PRGO	-13.92%	IEP	-9.75%
63.0	NWL	-13.18%	NWL	-7.75%
63.0	IEP	-11.94%	PRGO	-6.17%
63.0	CHTR	-11.02%	AAP	-4.7%
63.0	AAP	-10.76%	CHTR	-4.57%
63.0	VFC	-7.44%	CZR	-4.37%
63.0	FIS	-7.4%	VFC	-4.04%
63.0	BHC	-5.69%	BHC	-3.93%
63.0	ZTS	-5.03%	MOS	-3.81%
63.0	TLT	-4.98%	FIS	-3.49%
63.0	BXP	-4.72%	NAVI	-3.44%
63.0	VNO	-4.67%	BXP	-3.33%
63.0	NAVI	-4.57%	UAA	-2.97%
63.0	MOS	-4.34%	ZTS	-2.88%
63.0	CMCSA	-4.17%	KHC	-2.87%
63.0	CNC	-3.84%	GT	-2.78%
63.0	CYH	-3.61%	CLF	-2.56%
63.0	LNC	-3.39%	CMCSA	-2.5%
63.0	CLF	-3.33%	TLT	-2.33%
63.0	UNH	-3.07%	ADBE	-2.22%
63.0	KHC	-2.99%	LNC	-2.07%
63.0	BBY	-2.78%	CNC	-2.02%
63.0	CZR	-2.7%	BBY	-1.68%
63.0	LW	-2.65%	UNH	-1.36%
63.0	GT	-2.57%	BALL	-1.29%
63.0	ADBE	-1.49%	FRA	-0.9%



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 2026-05-28

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	-58.38%	AMC	-29.73%
126.0	NWL	-27.36%	IEP	-19.18%
126.0	IEP	-25.72%	NWL	-17.16%
126.0	PRGO	-25.69%	PRGO	-11.66%
126.0	AAP	-24.37%	AAP	-11.09%
126.0	CHTR	-21.37%	CZR	-8.57%
126.0	VFC	-13.85%	CHTR	-8.47%
126.0	BHC	-11.69%	MOS	-8.05%
126.0	MOS	-10.31%	VFC	-6.61%
126.0	FIS	-9.69%	UAA	-6.02%
126.0	CZR	-9.49%	KHC	-5.92%
126.0	CNC	-9.16%	FIS	-5.74%
126.0	ZTS	-9.08%	CTLT	-5.69%
126.0	CMCSA	-8.87%	CNC	-5.4%
126.0	UNH	-7.94%	NAVI	-5.31%
126.0	TLT	-7.86%	BHC	-5.31%
126.0	BXP	-7.75%	BXP	-5.28%
126.0	NAVI	-6.92%	GT	-4.9%
126.0	KHC	-6.85%	ZTS	-4.78%
126.0	CYH	-5.89%	CMCSA	-4.47%
126.0	LNC	-5.82%	TLT	-4.15%
126.0	UAA	-4.53%	UNH	-3.74%
126.0	GT	-4.36%	CLF	-3.3%
126.0	LW	-3.58%	ADBE	-2.49%
126.0	CLF	-3.5%	BALL	-2.15%
126.0	VNO	-3.35%	LNC	-2.08%
126.0	BBY	-2.78%	BBY	-2.07%



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 2026-05-28

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	-87.99%	AMC	-54.62%
252.0	AAP	-54.03%	IEP	-39.78%
252.0	NWL	-53.63%	NWL	-30.85%
252.0	IEP	-52.02%	AAP	-23.09%
252.0	VFC	-48.39%	PRGO	-19.33%
252.0	PRGO	-39.9%	VFC	-18.88%
252.0	CHTR	-34.3%	CNC	-17.95%
252.0	UAA	-30.66%	CZR	-17.22%
252.0	CZR	-27.25%	UAA	-14.87%
252.0	CNC	-26.48%	MOS	-14.53%
252.0	MOS	-23.93%	CHTR	-12.52%
252.0	BHC	-20.75%	KHC	-11.72%
252.0	CLF	-17.07%	CLF	-10.69%
252.0	UNH	-15.65%	UNH	-10.37%
252.0	KHC	-15.19%	GT	-8.95%
252.0	TLT	-15.17%	BMV	-8.45%
252.0	BIIB	-13.59%	BHC	-8.38%
252.0	OXY	-12.35%	NAVI	-8.38%
252.0	NAVI	-11.51%	TLT	-7.25%
252.0	BXP	-10.93%	CTLT	-6.24%
252.0	ZTS	-10.8%	CYH	-5.81%
252.0	CYH	-10.47%	CMCSA	-5.76%
252.0	GT	-10.33%	OXY	-5.72%
252.0	BMV	-10.02%	ZTS	-5.59%
252.0	CMCSA	-9.71%	BXP	-5.44%
252.0	LW	-7.0%	BIIB	-5.37%
252.0	LNC	-6.17%	LW	-5.25%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	CHTR	-0.79%	CHTR	-0.35%
1.0	MSTR	-0.74%	PRGO	-0.31%
1.0	NWL	-0.6%	INTU	-0.29%
1.0	ZTS	-0.59%	ZTS	-0.28%
1.0	PRGO	-0.54%	MSTR	-0.24%
1.0	INTU	-0.54%	FIS	-0.23%
1.0	FIS	-0.52%	AMC	-0.22%
1.0	AMC	-0.47%	GT	-0.21%
1.0	CMG	-0.45%	CPRT	-0.17%
1.0	CMCSA	-0.38%	ADBE	-0.17%
1.0	GME	-0.33%	NAVI	-0.15%
1.0	UAA	-0.31%	CMG	-0.15%
1.0	GT	-0.31%	MOS	-0.13%
1.0	NAVI	-0.28%	CMCSA	-0.12%
1.0	ADBE	-0.27%	NFLX	-0.11%
1.0	AZO	-0.27%	NWL	-0.11%
1.0	TDG	-0.21%	GBTC	-0.11%
1.0	TMUS	-0.19%	GME	-0.1%
1.0	ISRG	-0.18%	TMUS	-0.09%
1.0	VST	-0.17%	ISRG	-0.09%
1.0	POST	-0.16%	AZO	-0.08%
1.0	CPRT	-0.15%	CYH	-0.07%
1.0	ACGL	-0.14%	POST	-0.06%
1.0	LEN	-0.12%	LW	-0.06%
1.0	NFLX	-0.11%	FRA	-0.05%
1.0	FRA	-0.1%	HD	-0.05%
1.0	LNC	-0.1%	TDG	-0.05%
1.0	MOS	-0.09%	VICI	-0.04%
1.0	IEP	-0.08%	LEN	-0.04%
1.0	COST	-0.06%	T	-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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	AMC	-7.88%	CHTR	-3.45%
10.0	PRGO	-7.73%	PRGO	-2.95%
10.0	MSTR	-6.55%	INTU	-2.88%
10.0	INTU	-5.57%	ZTS	-2.74%
10.0	CHTR	-5.43%	MSTR	-2.72%
10.0	ZTS	-5.3%	FIS	-2.44%
10.0	NAVI	-3.91%	AMC	-2.3%
10.0	ADBE	-3.55%	GT	-2.26%
10.0	FIS	-3.47%	ADBE	-1.94%
10.0	NWL	-3.4%	NAVI	-1.75%
10.0	CMG	-3.29%	MOS	-1.64%
10.0	CMCSA	-2.63%	CPRT	-1.63%
10.0	GT	-2.56%	CMG	-1.46%
10.0	TDG	-1.94%	CMCSA	-1.23%
10.0	MOS	-1.59%	GBTC	-1.11%
10.0	CPRT	-1.41%	NFLX	-1.1%
10.0	VNO	-1.27%	NWL	-0.88%
10.0	UAA	-1.24%	TMUS	-0.84%
10.0	HD	-1.23%	GME	-0.81%
10.0	TMUS	-1.0%	ISRG	-0.74%
10.0	GME	-0.99%	VNO	-0.71%
10.0	ISRG	-0.91%	LEN	-0.64%
10.0	AZO	-0.85%	LW	-0.6%
10.0	BBY	-0.84%	FRA	-0.59%
10.0	LEN	-0.82%	HD	-0.59%
10.0	POST	-0.81%	TDG	-0.59%
10.0	ACGL	-0.8%	BXP	-0.58%
10.0	KHC	-0.78%	AZO	-0.44%
10.0	VICI	-0.74%	VICI	-0.43%
10.0	NFLX	-0.59%	POST	-0.43%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	PRGO	-15.68%	CHTR	-7.07%
21.0	AMC	-15.03%	PRGO	-6.15%
21.0	CHTR	-13.01%	INTU	-5.7%
21.0	MSTR	-11.66%	MSTR	-5.32%
21.0	ZTS	-10.52%	ZTS	-5.11%
21.0	INTU	-10.19%	FIS	-5.1%
21.0	NAVI	-7.62%	AMC	-4.85%
21.0	CMG	-6.71%	ADBE	-3.96%
21.0	FIS	-6.52%	GT	-3.96%
21.0	ADBE	-6.07%	NAVI	-3.68%
21.0	CMCSA	-5.36%	MOS	-3.56%
21.0	TDG	-4.43%	CMG	-3.43%
21.0	GT	-4.3%	CPRT	-3.38%
21.0	NWL	-4.15%	NFLX	-2.65%
21.0	MOS	-3.26%	CMCSA	-2.54%
21.0	CPRT	-3.23%	GBTC	-2.2%
21.0	VNO	-3.18%	VNO	-1.63%
21.0	HD	-2.22%	TMUS	-1.57%
21.0	BBY	-2.16%	LEN	-1.49%
21.0	META	-2.14%	TDG	-1.47%
21.0	NFLX	-2.09%	LW	-1.34%
21.0	LEN	-1.94%	ISRG	-1.3%
21.0	KHC	-1.81%	FRA	-1.29%
21.0	TMUS	-1.75%	NWL	-1.24%
21.0	T	-1.37%	BXP	-1.24%
21.0	POST	-1.33%	VST	-1.13%
21.0	LW	-1.3%	HD	-1.07%
21.0	VICI	-1.24%	BBY	-1.01%
21.0	BXP	-1.2%	VICI	-1.01%
21.0	FRA	-0.99%	MSFT	-0.99%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
63.0	PRGO	-59.06%	PRGO	-24.36%
63.0	MSTR	-58.93%	MSTR	-23.42%
63.0	AMC	-58.58%	AMC	-21.44%
63.0	INTU	-29.48%	INTU	-17.8%
63.0	CHTR	-29.35%	CHTR	-15.37%
63.0	ZTS	-27.52%	FIS	-15.19%
63.0	NAVI	-24.01%	NAVI	-14.0%
63.0	FIS	-19.98%	GBTC	-12.19%
63.0	NWL	-19.76%	ADBE	-12.17%
63.0	TDG	-18.02%	ZTS	-11.23%
63.0	CMG	-15.98%	CMG	-10.88%
63.0	ADBE	-15.46%	CPRT	-10.87%
63.0	VNO	-14.81%	GT	-10.41%
63.0	CMCSA	-13.7%	MOS	-10.0%
63.0	NFLX	-13.29%	VNO	-8.86%
63.0	BXP	-12.99%	NWL	-8.17%
63.0	META	-12.65%	NFLX	-7.67%
63.0	CPRT	-12.57%	LEN	-6.58%
63.0	KHC	-10.14%	MSFT	-6.46%
63.0	GT	-10.05%	TDG	-6.25%
63.0	GBTC	-9.09%	BXP	-6.1%
63.0	LEN	-8.7%	LW	-5.97%
63.0	MOS	-8.62%	CMCSA	-5.94%
63.0	VST	-6.76%	VST	-5.75%
63.0	VICI	-6.5%	FRA	-5.57%
63.0	LW	-6.34%	KHC	-5.44%
63.0	BBY	-6.07%	ORCL	-5.4%
63.0	HD	-5.59%	TMUS	-5.33%
63.0	TMUS	-5.53%	VICI	-4.54%
63.0	IEP	-4.96%	META	-4.43%



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 2025-05-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
126.0	MSTR	-150.55%	MSTR	-52.05%
126.0	AMC	-131.76%	AMC	-48.38%
126.0	PRGO	-107.32%	PRGO	-44.08%
126.0	CHTR	-55.11%	INTU	-32.89%
126.0	ZTS	-53.33%	GBTC	-28.99%
126.0	INTU	-49.86%	CHTR	-28.63%
126.0	NFLX	-39.79%	ORCL	-26.65%
126.0	NWL	-39.73%	FIS	-26.21%
126.0	NAVI	-38.58%	NAVI	-24.41%
126.0	BXP	-36.31%	NFLX	-23.59%
126.0	ADBE	-34.35%	ADBE	-22.45%
126.0	FIS	-32.55%	ZTS	-21.54%
126.0	VST	-32.05%	MOS	-21.11%
126.0	VNO	-31.4%	CPRT	-21.04%
126.0	ORCL	-31.07%	VNO	-20.42%
126.0	LW	-29.82%	LW	-19.28%
126.0	META	-28.9%	NWL	-18.98%
126.0	CPRT	-28.85%	CMG	-16.31%
126.0	CMCSA	-27.59%	VST	-16.14%
126.0	LEN	-24.51%	MSFT	-15.05%
126.0	TDG	-21.67%	LEN	-14.01%
126.0	GBTC	-20.52%	TMUS	-13.74%
126.0	BBY	-20.04%	BXP	-13.48%
126.0	AAP	-17.52%	FRA	-11.86%
126.0	KHC	-17.45%	GT	-11.56%
126.0	CMG	-17.01%	VICI	-11.18%
126.0	MOS	-16.77%	KHC	-10.6%
126.0	MSFT	-14.42%	CMCSA	-10.54%
126.0	TMUS	-13.92%	BBY	-10.05%
126.0	VICI	-13.27%	META	-10.04%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	CHTR	-1.48%	ZTS	-0.75%
1.0	NWL	-1.37%	CHTR	-0.67%
1.0	AZO	-1.23%	HCA	-0.53%
1.0	UAA	-1.04%	GT	-0.45%
1.0	ZTS	-0.91%	THC	-0.45%
1.0	CMCSA	-0.91%	AZO	-0.43%
1.0	FIS	-0.78%	NWL	-0.37%
1.0	LEN	-0.74%	CMCSA	-0.32%
1.0	VFC	-0.72%	LEN	-0.31%
1.0	TMUS	-0.71%	CYH	-0.31%
1.0	INTU	-0.69%	BALL	-0.3%
1.0	HCA	-0.69%	INTU	-0.29%
1.0	CMG	-0.66%	MSI	-0.28%
1.0	BALL	-0.62%	UAA	-0.27%
1.0	GT	-0.6%	GLD	-0.24%
1.0	PEP	-0.52%	CPRT	-0.24%
1.0	GLD	-0.52%	PCG	-0.24%
1.0	GE	-0.5%	CAH	-0.24%
1.0	MSI	-0.5%	HD	-0.24%
1.0	POST	-0.45%	PEP	-0.23%
1.0	ISRG	-0.42%	ISRG	-0.23%
1.0	ACGL	-0.39%	POST	-0.23%
1.0	HD	-0.36%	B	-0.23%
1.0	AMGN	-0.36%	SLV	-0.23%
1.0	GSK	-0.34%	FIS	-0.22%
1.0	ORLY	-0.33%	GSK	-0.22%
1.0	WYNN	-0.33%	TMUS	-0.21%
1.0	VST	-0.33%	AMGN	-0.21%
1.0	LVS	-0.33%	CMG	-0.21%
1.0	SNY	-0.32%	NEM	-0.2%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	INTU	-9.72%	CHTR	-7.15%
10.0	CHTR	-9.42%	ZTS	-6.92%
10.0	CMCSA	-8.67%	HCA	-5.36%
10.0	ZTS	-8.36%	INTU	-4.5%
10.0	NWL	-7.52%	THC	-4.5%
10.0	CYH	-7.23%	GT	-3.97%
10.0	HCA	-5.92%	CMCSA	-3.86%
10.0	GLD	-5.85%	MOS	-3.57%
10.0	AZO	-5.58%	UAA	-3.33%
10.0	TMUS	-5.53%	CYH	-3.11%
10.0	HD	-5.28%	FIS	-2.94%
10.0	MSI	-5.17%	MSI	-2.71%
10.0	FIS	-4.89%	LEN	-2.56%
10.0	ISRG	-4.61%	TMUS	-2.49%
10.0	NFLX	-4.39%	HD	-2.45%
10.0	GT	-4.04%	AZO	-2.32%
10.0	UAA	-3.71%	NWL	-2.27%
10.0	LEN	-3.46%	GLD	-2.25%
10.0	MOS	-2.99%	ISRG	-2.25%
10.0	AMGN	-2.99%	T	-2.17%
10.0	GME	-2.79%	PCG	-2.16%
10.0	T	-2.79%	BALL	-2.13%
10.0	THC	-2.71%	AMGN	-2.11%
10.0	CMG	-2.6%	GILD	-1.86%
10.0	BALL	-2.55%	CPRT	-1.79%
10.0	HON	-2.48%	CAH	-1.74%
10.0	ADBE	-2.35%	NFLX	-1.63%
10.0	GE	-2.28%	GME	-1.62%
10.0	PEP	-2.17%	PEP	-1.6%
10.0	BHC	-1.93%	PHM	-1.58%



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 2026-03-02 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
21.0	CHTR	-24.11%	CHTR	-15.66%
21.0	INTU	-20.04%	ZTS	-13.45%
21.0	ZTS	-18.8%	HCA	-10.03%
21.0	CMCSA	-17.72%	INTU	-8.55%
21.0	TMUS	-12.08%	CMCSA	-7.6%
21.0	HCA	-12.03%	MOS	-7.56%
21.0	FIS	-11.36%	THC	-7.13%
21.0	HD	-10.51%	FIS	-5.85%
21.0	CYH	-9.83%	MSI	-5.63%
21.0	MSI	-9.45%	T	-5.56%
21.0	NFLX	-8.75%	TMUS	-5.29%
21.0	T	-8.43%	CYH	-4.92%
21.0	PCG	-7.27%	CAH	-4.81%
21.0	ISRG	-7.23%	LEN	-4.64%
21.0	LEN	-7.15%	PCG	-4.64%
21.0	MOS	-6.99%	GT	-4.64%
21.0	GLD	-6.73%	UAA	-4.53%
21.0	AMGN	-6.33%	ISRG	-4.38%
21.0	HON	-4.89%	HD	-4.21%
21.0	GT	-4.81%	AMGN	-4.15%
21.0	THC	-4.66%	ELAN	-3.8%
21.0	UAA	-4.32%	GILD	-3.5%
21.0	BBY	-4.25%	NFLX	-3.22%
21.0	AZO	-3.76%	BALL	-3.0%
21.0	BALL	-3.54%	GSK	-2.85%
21.0	CMG	-3.35%	VZ	-2.84%
21.0	BMY	-3.29%	GLD	-2.68%
21.0	GE	-3.24%	HON	-2.66%
21.0	LVS	-3.19%	LVS	-2.26%
21.0	ADBE	-3.01%	VST	-2.24%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
1.0	AZO	-3.21%	ZTS	-1.79%
1.0	NWL	-2.92%	AZO	-1.13%
1.0	ZTS	-2.59%	NWL	-0.82%
1.0	UAA	-2.06%	GME	-0.76%
1.0	BALL	-1.95%	GT	-0.7%
1.0	HCA	-1.56%	HCA	-0.68%
1.0	GT	-1.47%	ORLY	-0.66%
1.0	VFC	-1.45%	POST	-0.65%
1.0	MSI	-1.4%	CHTR	-0.64%
1.0	EXPE	-1.26%	INTU	-0.63%
1.0	CHTR	-1.15%	BALL	-0.53%
1.0	FIS	-1.14%	IEP	-0.51%
1.0	GME	-1.13%	PEP	-0.46%
1.0	ORLY	-1.12%	VFC	-0.44%
1.0	PEP	-1.01%	EXPE	-0.44%
1.0	POST	-0.99%	NFLX	-0.41%
1.0	NFLX	-0.93%	CMCSA	-0.41%
1.0	LNC	-0.9%	MSI	-0.38%
1.0	SNY	-0.89%	LVS	-0.37%
1.0	CMG	-0.83%	FIS	-0.36%
1.0	WYNN	-0.82%	ISRG	-0.35%
1.0	TMUS	-0.79%	NAVI	-0.35%
1.0	CMCSA	-0.79%	LNC	-0.33%
1.0	NAVI	-0.77%	TFC	-0.32%
1.0	SBUX	-0.68%	CMG	-0.31%
1.0	DHI	-0.58%	SNY	-0.31%
1.0	COST	-0.57%	BHC	-0.3%
1.0	MSTR	-0.56%	OXY	-0.3%
1.0	INTU	-0.55%	PRGO	-0.3%
1.0	PHM	-0.53%	SBUX	-0.3%



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 2026-04-30 through 2026-05-28

Horizon	Ticker_V	ROEDB_V	Ticker_S	ROEDB_S
10.0	NWL	-39.25%	NWL	-15.5%
10.0	MSTR	-27.02%	ZTS	-13.87%
10.0	AZO	-20.56%	INTU	-11.01%
10.0	EXPE	-15.16%	GT	-9.82%
10.0	ZTS	-14.69%	MSTR	-9.72%
10.0	GME	-13.16%	GME	-7.94%
10.0	VFC	-12.96%	VFC	-7.74%
10.0	INTU	-12.57%	UAA	-7.62%
10.0	UAA	-10.9%	AZO	-7.19%
10.0	IEP	-10.2%	CHTR	-7.0%
10.0	CHTR	-9.73%	HCA	-6.75%
10.0	CMCSA	-9.73%	EXPE	-6.64%
10.0	GT	-9.55%	IEP	-6.12%
10.0	HCA	-9.4%	POST	-5.37%
10.0	MSI	-8.0%	FIS	-4.6%
10.0	PRGO	-7.11%	GBTC	-4.46%
10.0	GLD	-7.01%	NEM	-4.41%
10.0	FIS	-6.97%	LVS	-4.35%
10.0	NAVI	-6.94%	BALL	-4.33%
10.0	GBTC	-6.77%	WYNN	-4.26%
10.0	LNC	-6.72%	PRGO	-4.19%
10.0	PEP	-6.5%	ELAN	-4.02%
10.0	WYNN	-6.16%	PWR	-3.79%
10.0	BALL	-6.08%	BA	-3.72%
10.0	POST	-5.82%	PEP	-3.63%
10.0	NEM	-5.78%	CMCSA	-3.6%
10.0	TFC	-5.31%	ORLY	-3.51%
10.0	LVS	-5.03%	SLV	-3.41%
10.0	TEVA	-4.94%	TEVA	-3.36%
10.0	BHC	-4.89%	NAVI	-3.22%



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.



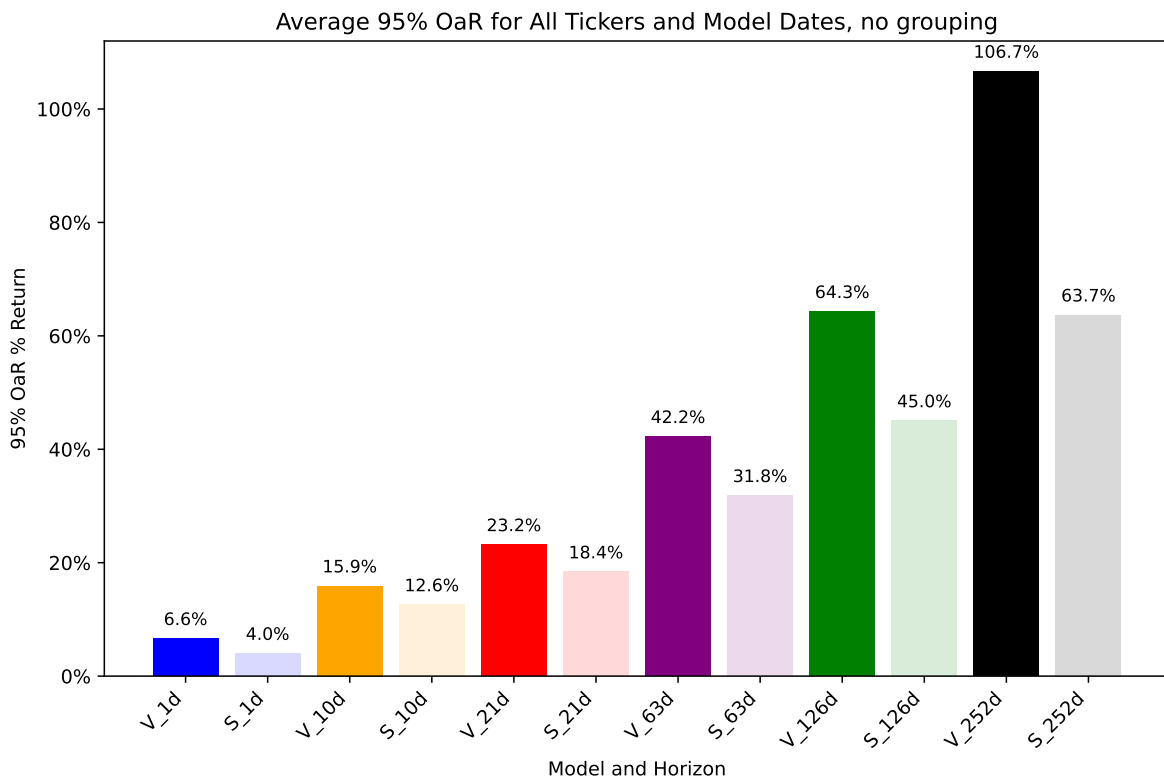
Appendix 2: 95% Opportunity at Risk (OaR)

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.

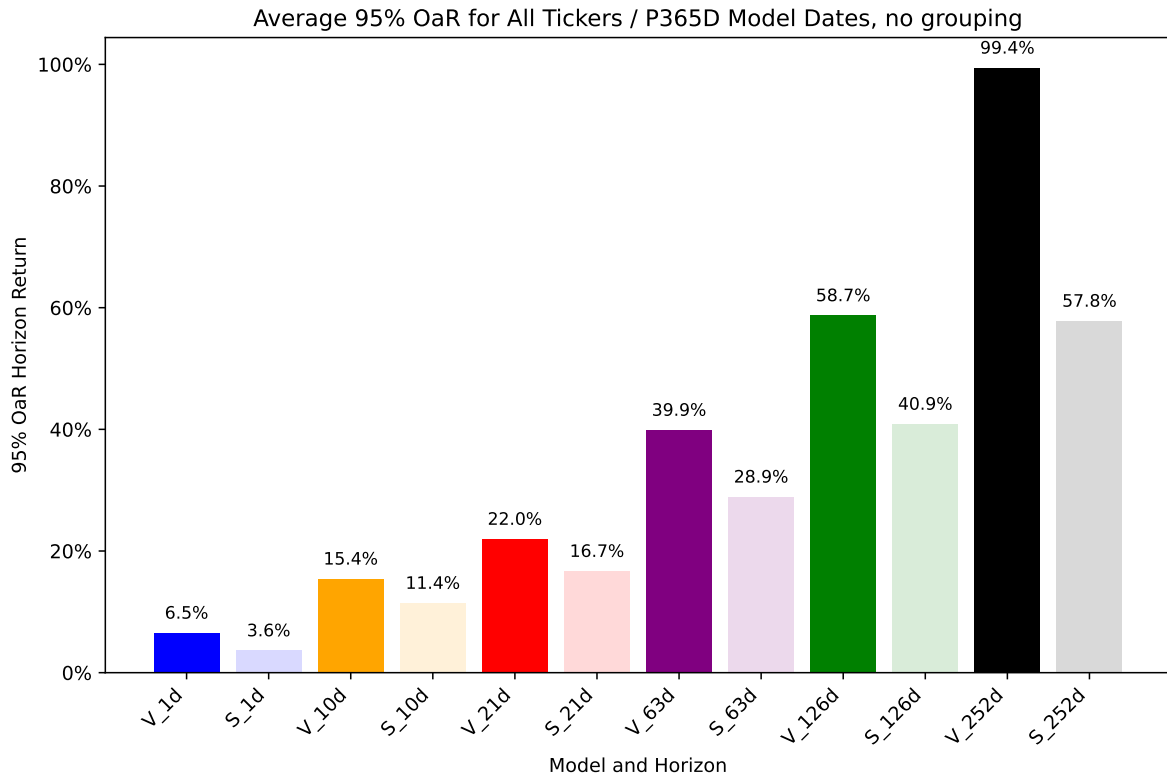
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



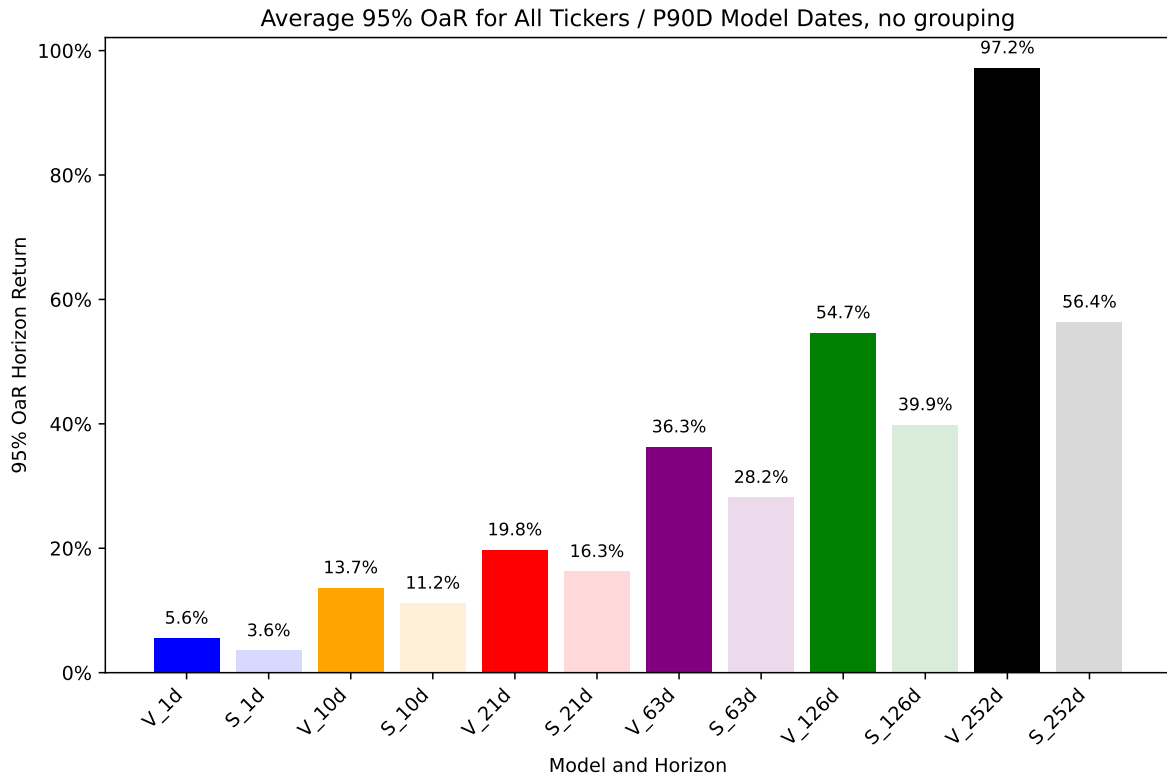
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



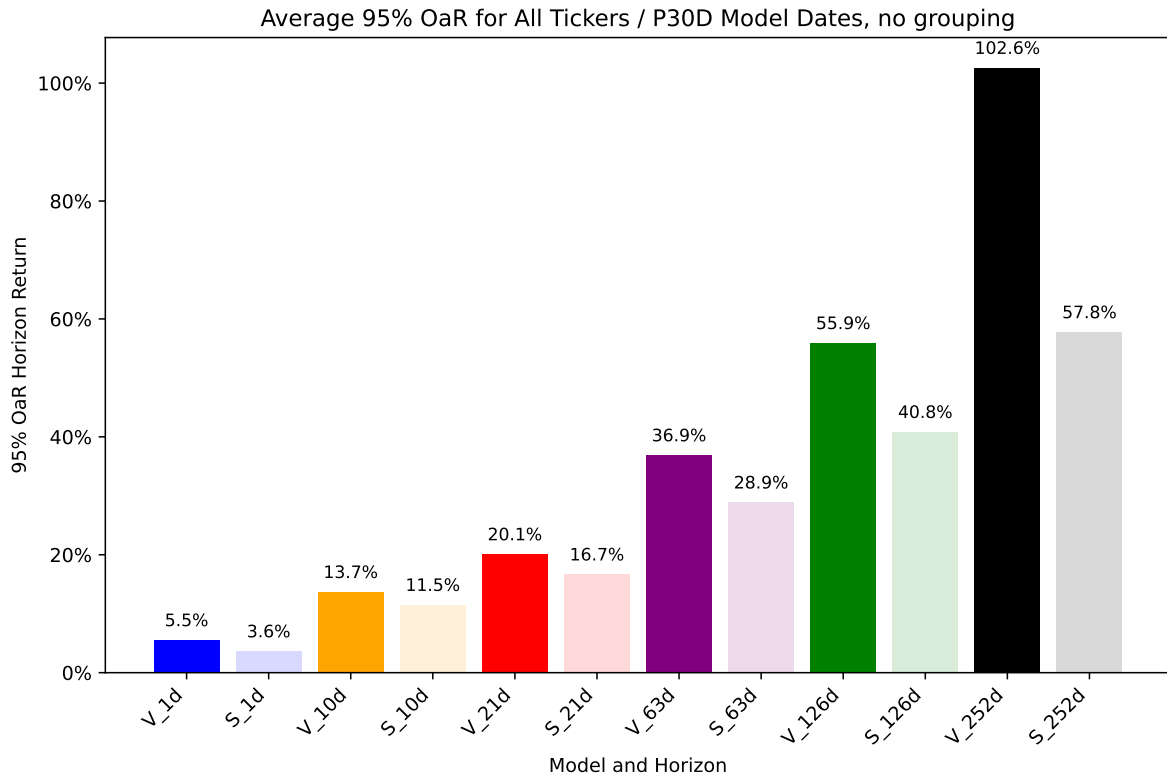
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28



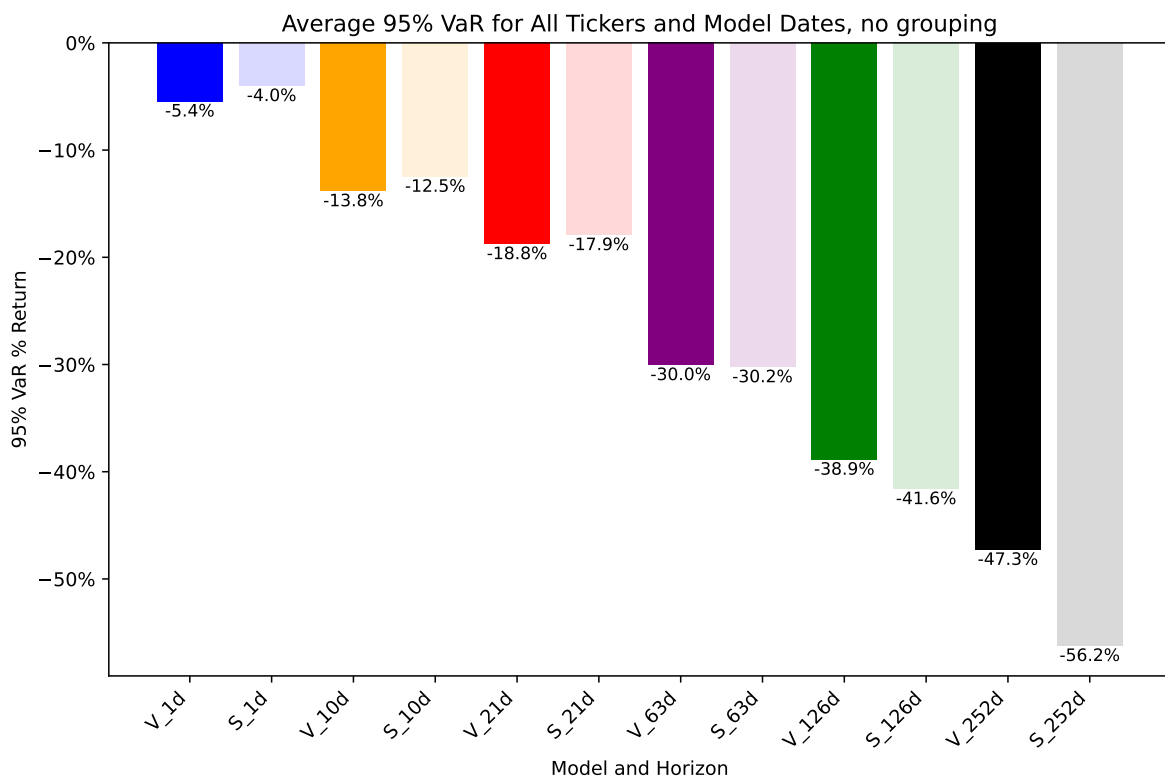
Appendix 3: 95% Value at Risk (VaR)

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.

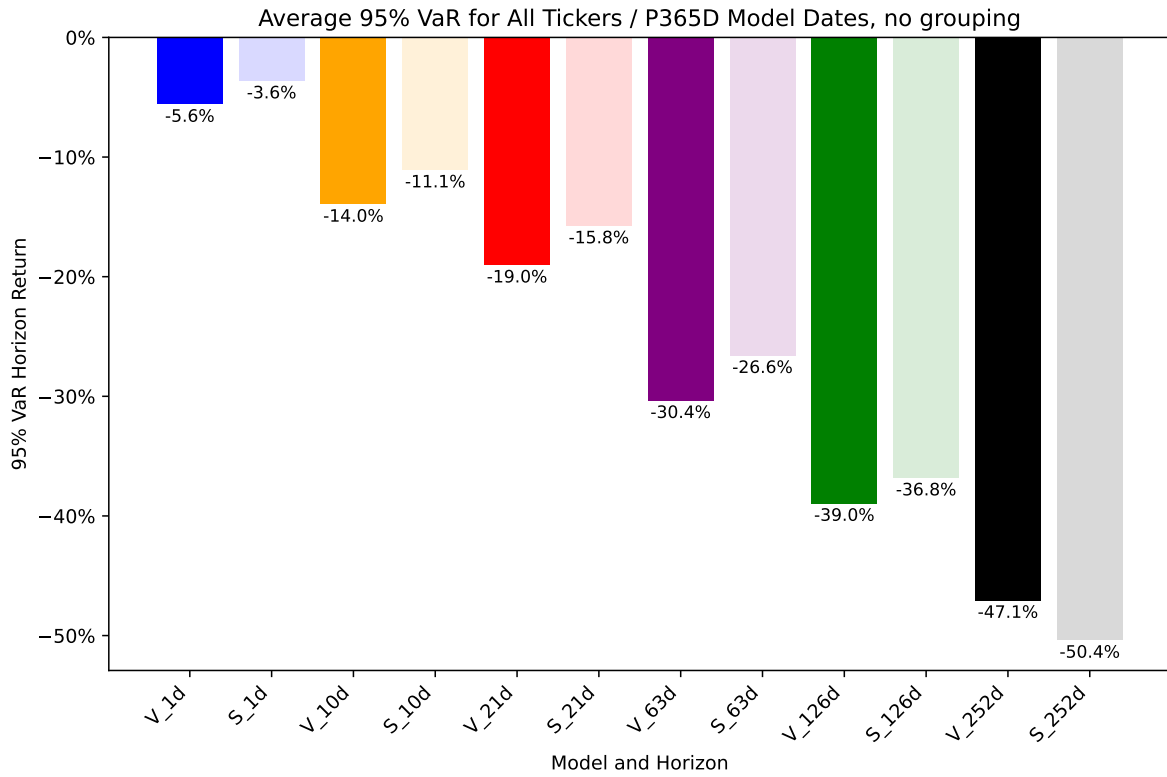
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



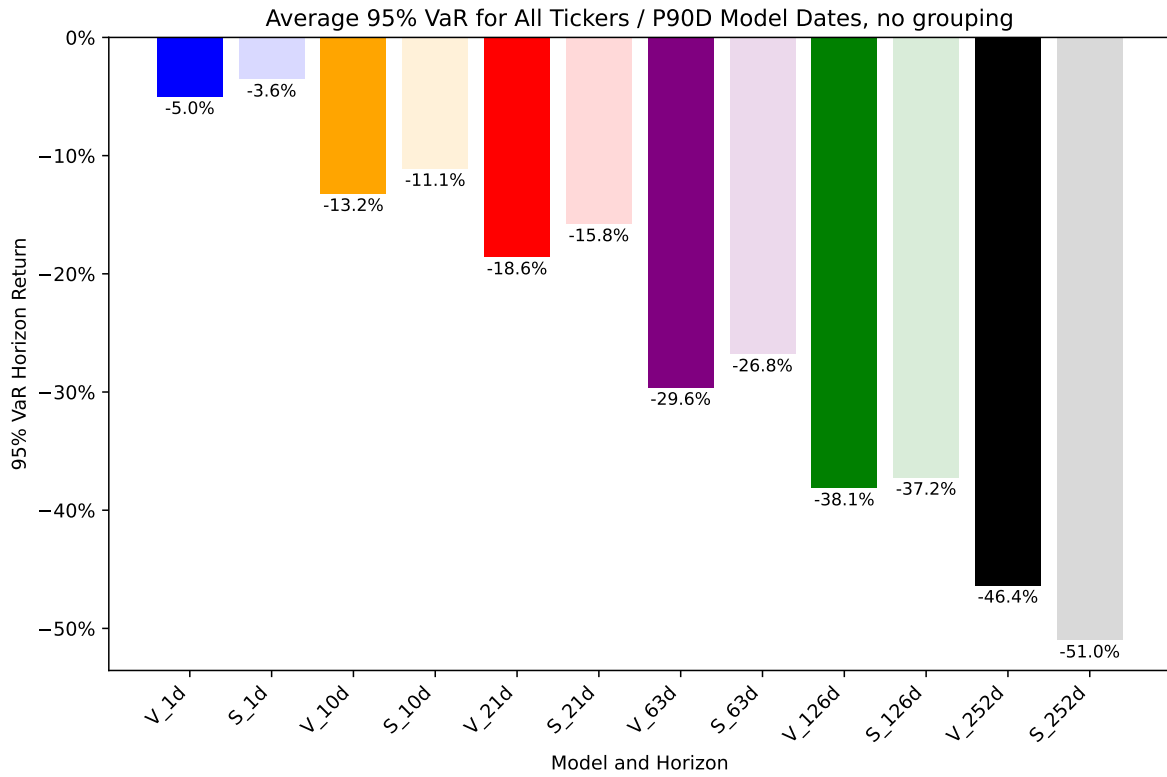
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



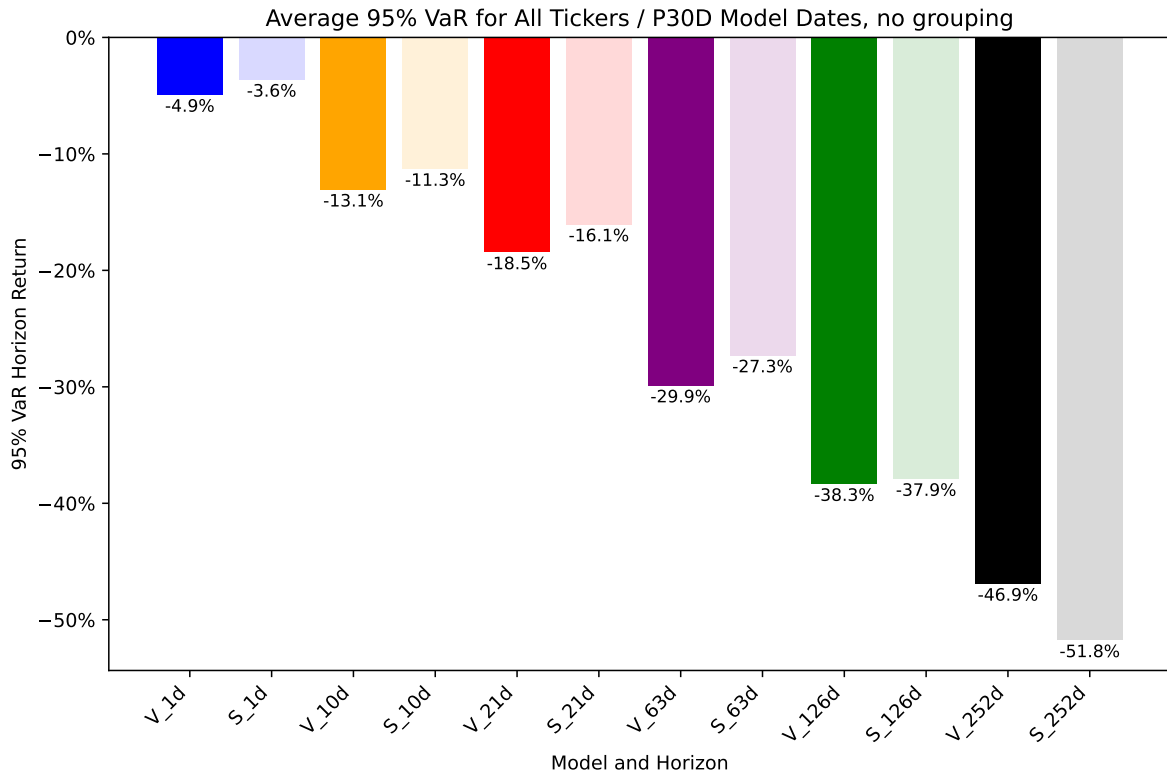
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



Prior 30 Calendar Days (P30D)

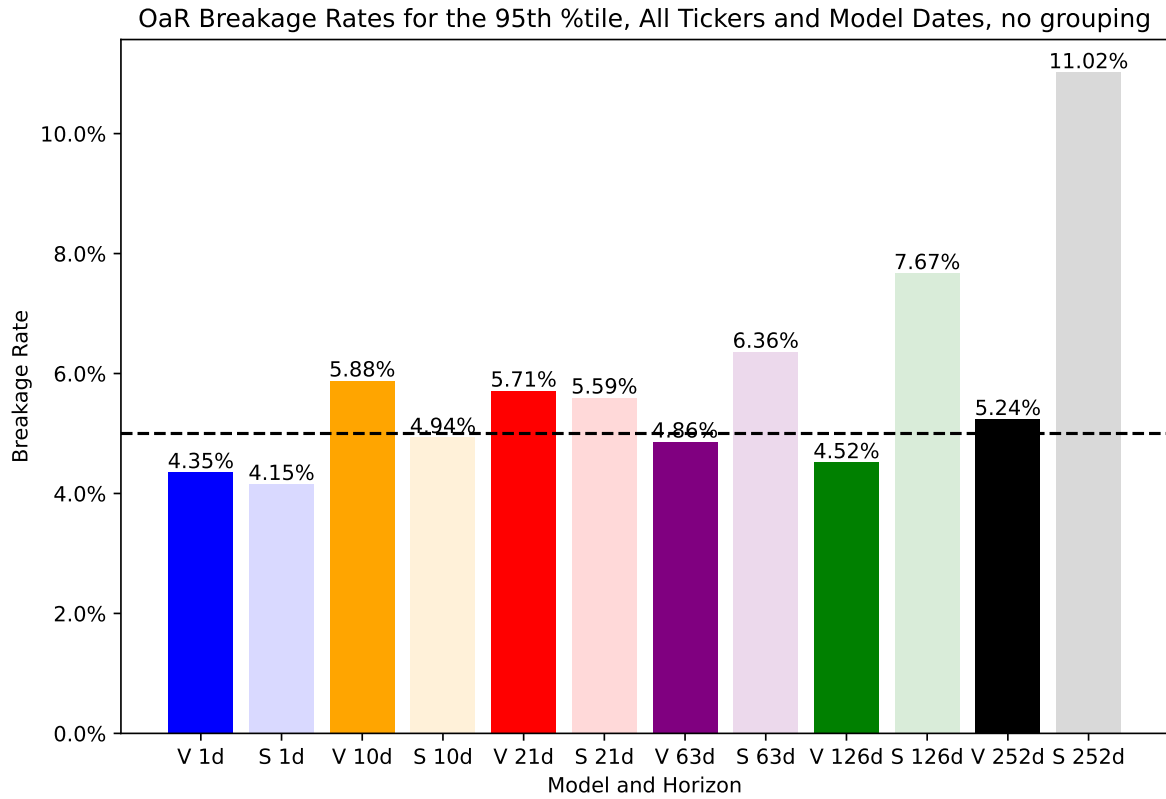
Period examined: All model dates from 2026-04-30 through 2026-05-28



Appendix 4: 95% OaR Breakage Rates

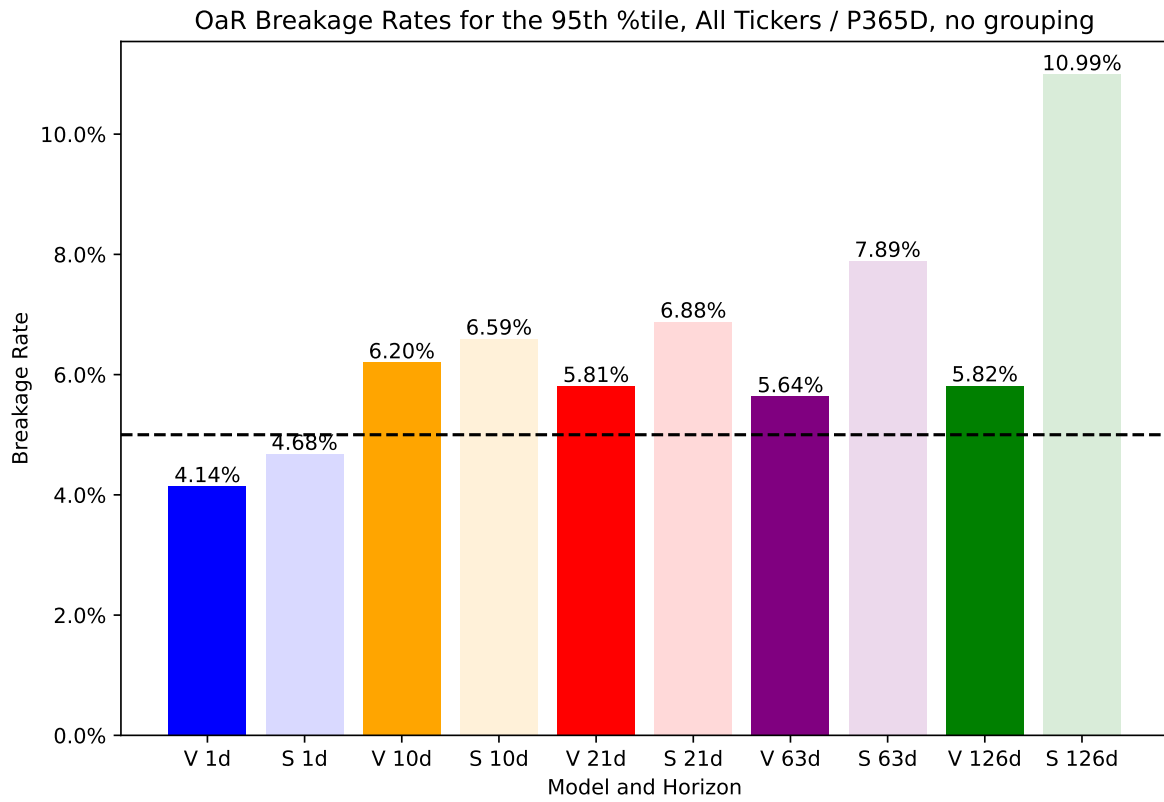
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



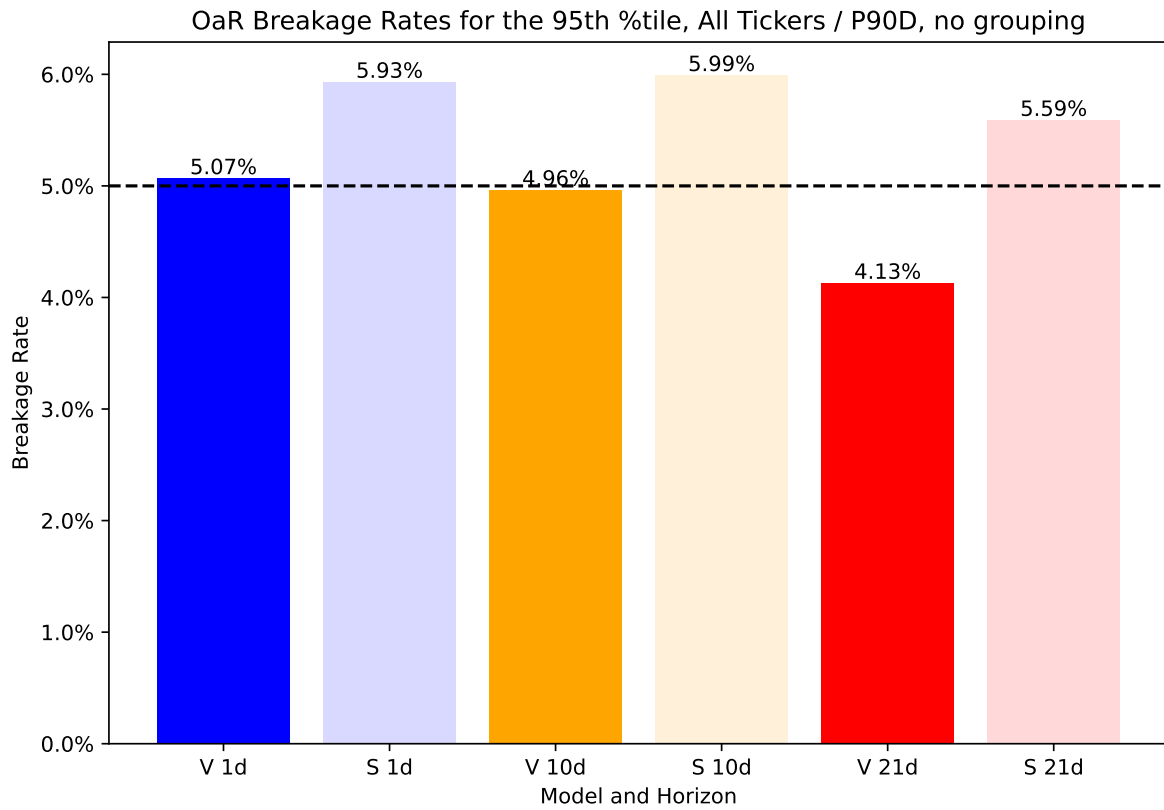
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



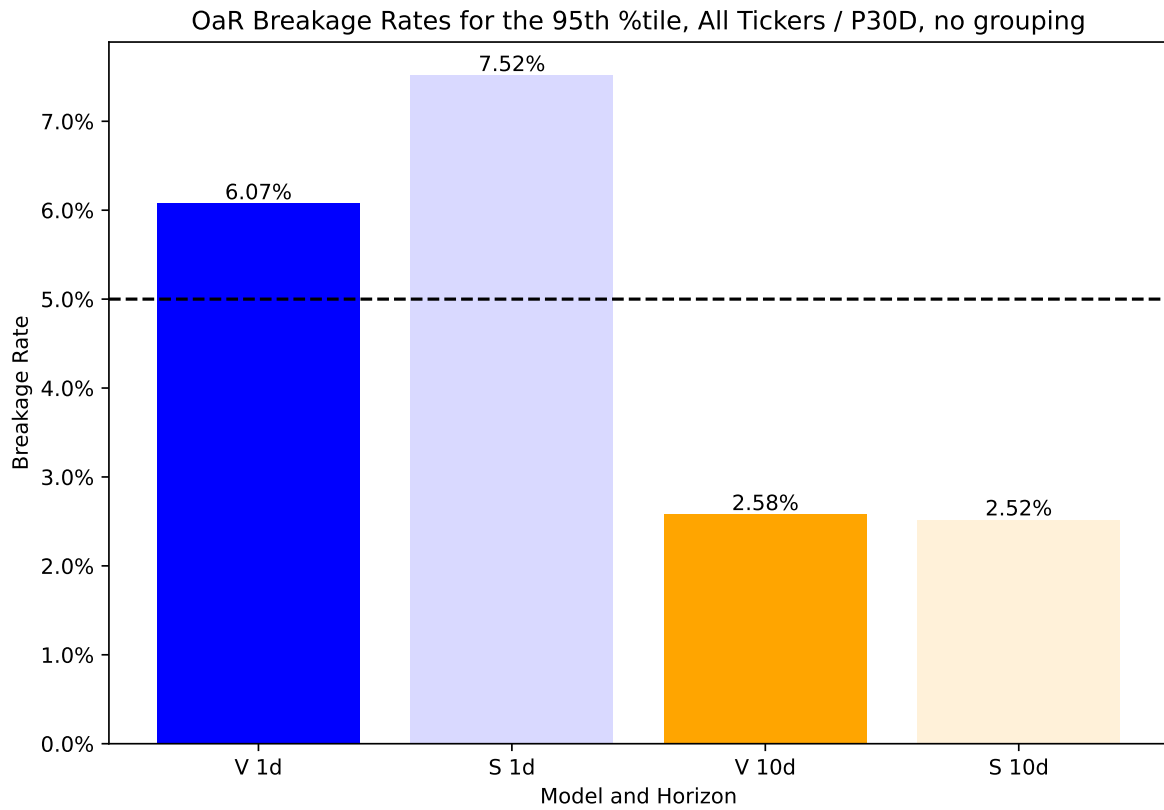
Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



Prior 30 Calendar Days (P30D)

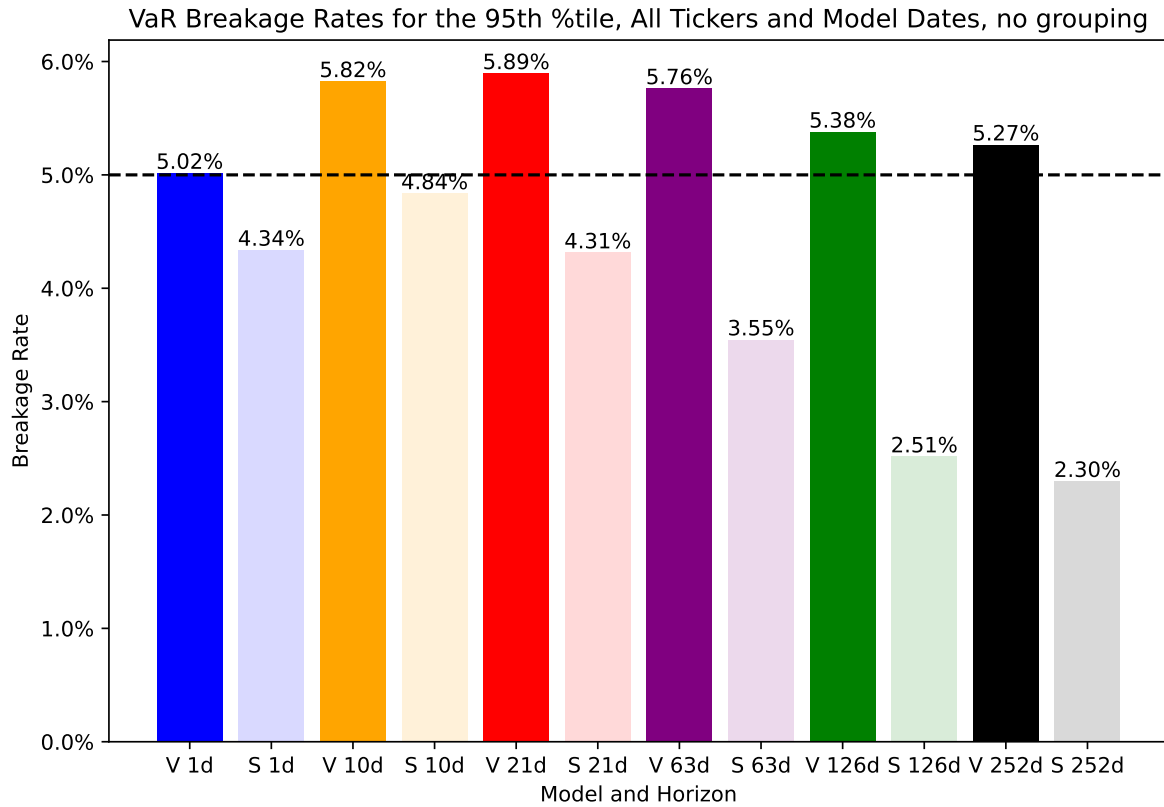
Period examined: All model dates from 2026-04-30 through 2026-05-28



Appendix 5: 95% VaR Breakage Rates

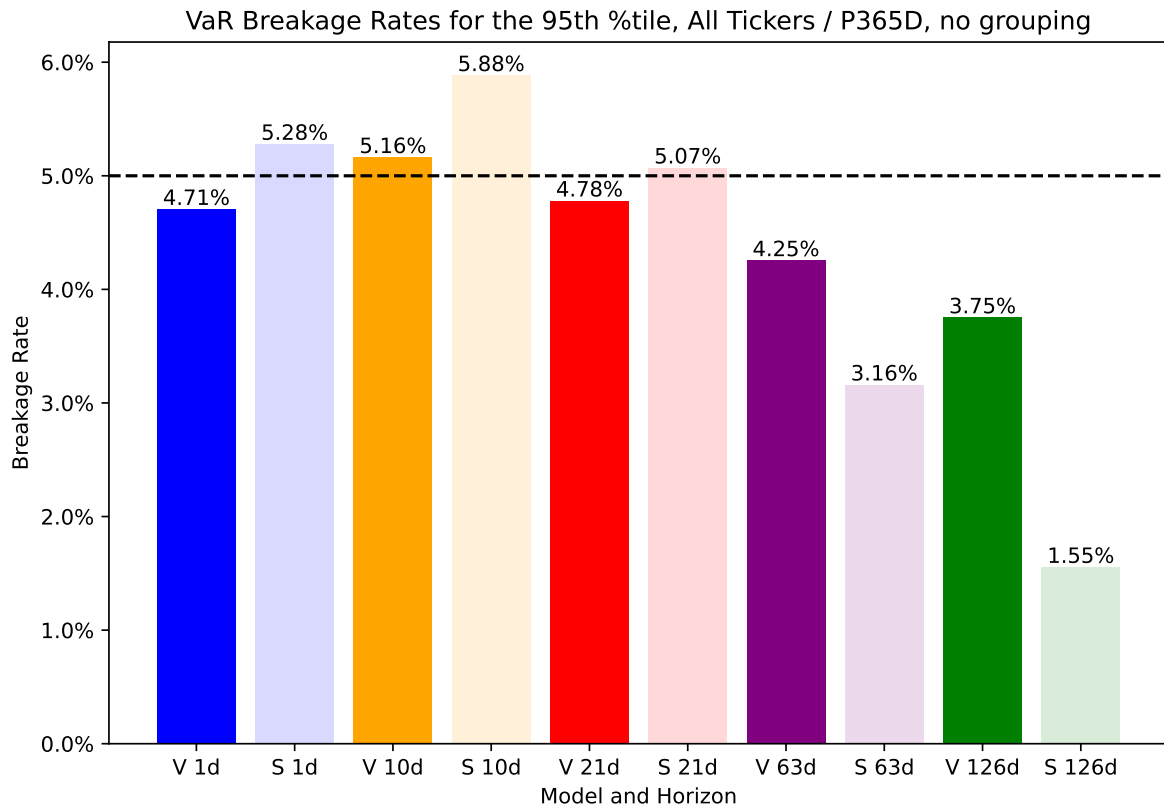
All Out of Sample Model Dates

Period examined: All model dates from 2022-01-31 through 2026-05-28



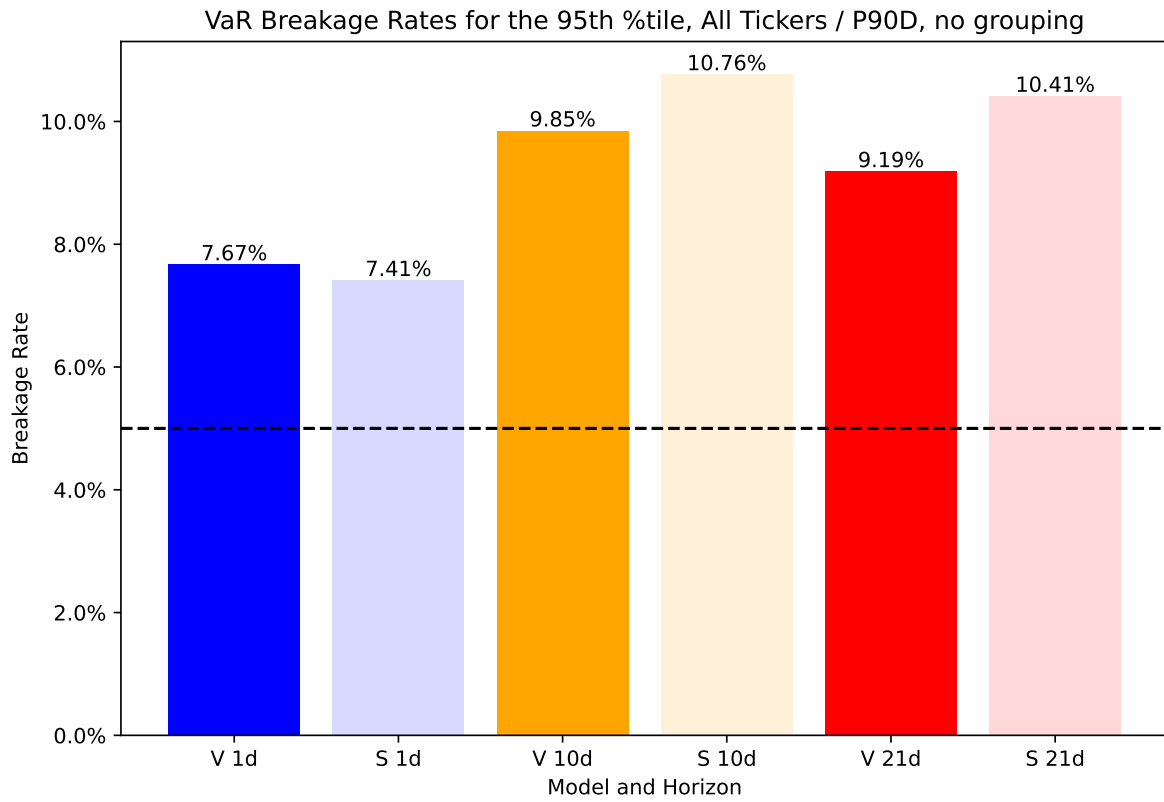
Prior 365 Calendar Days (P365D)

Period examined: All model dates from 2025-05-30 through 2026-05-28



Prior 90 Calendar Days (P90D)

Period examined: All model dates from 2026-03-02 through 2026-05-28



Prior 30 Calendar Days (P30D)

Period examined: All model dates from 2026-04-30 through 2026-05-28

