EURUSD

Cumulative Equity

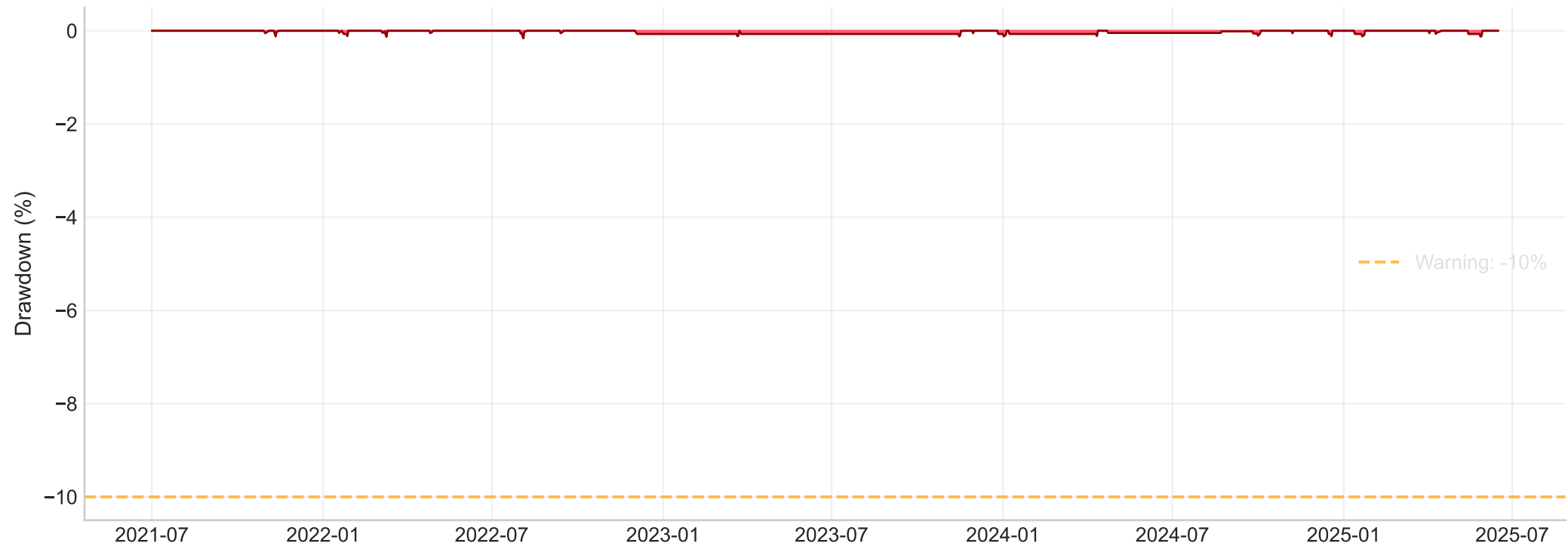| Sharpe Ratio	5.342 □	Sortino Ratio	18.929
Total Return	+13.63%	CAGR	+2.63%
Max Drawdown	-0.16%	Win Rate	93.0%
ML OOS AUC	0.4841	Sharpe p-value	0.0000

Rolling 6-Month Sharpe Ratio
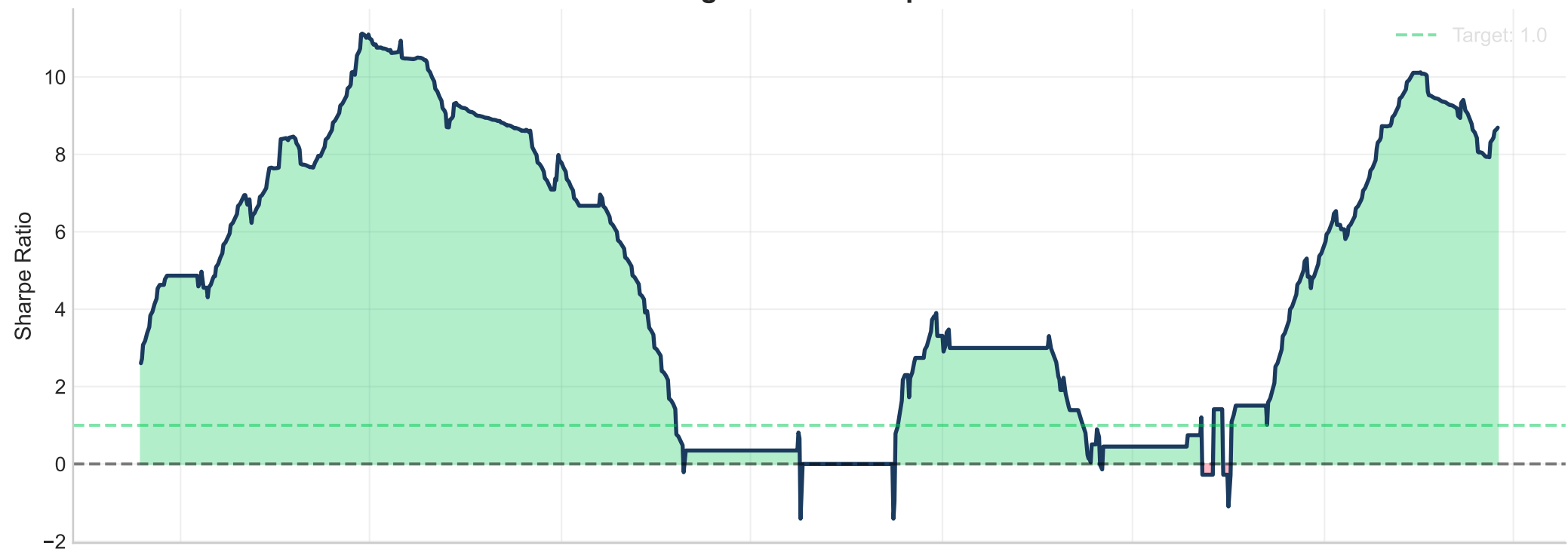
Rolling 6-Month Sortino Ratio
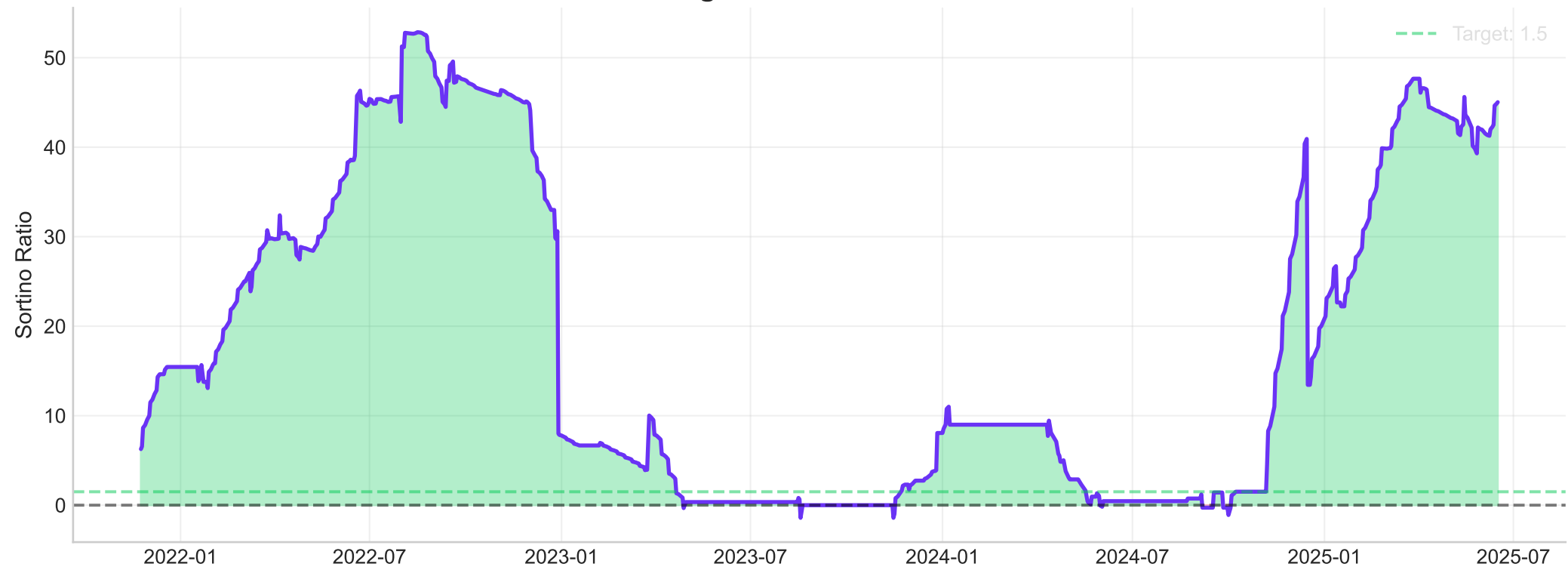
Drawdown Over Time

Warning: -10%

Drawdown Distribution

5th Percentile: -0.1%

Strategy Allocation

- Strangle — 15.1%
- IronCondor — 26.4%
- Cash — 58.5%

P&L by Strategy (%)

IronCondor

Strangle

Cash

Cumulative P&L (%)
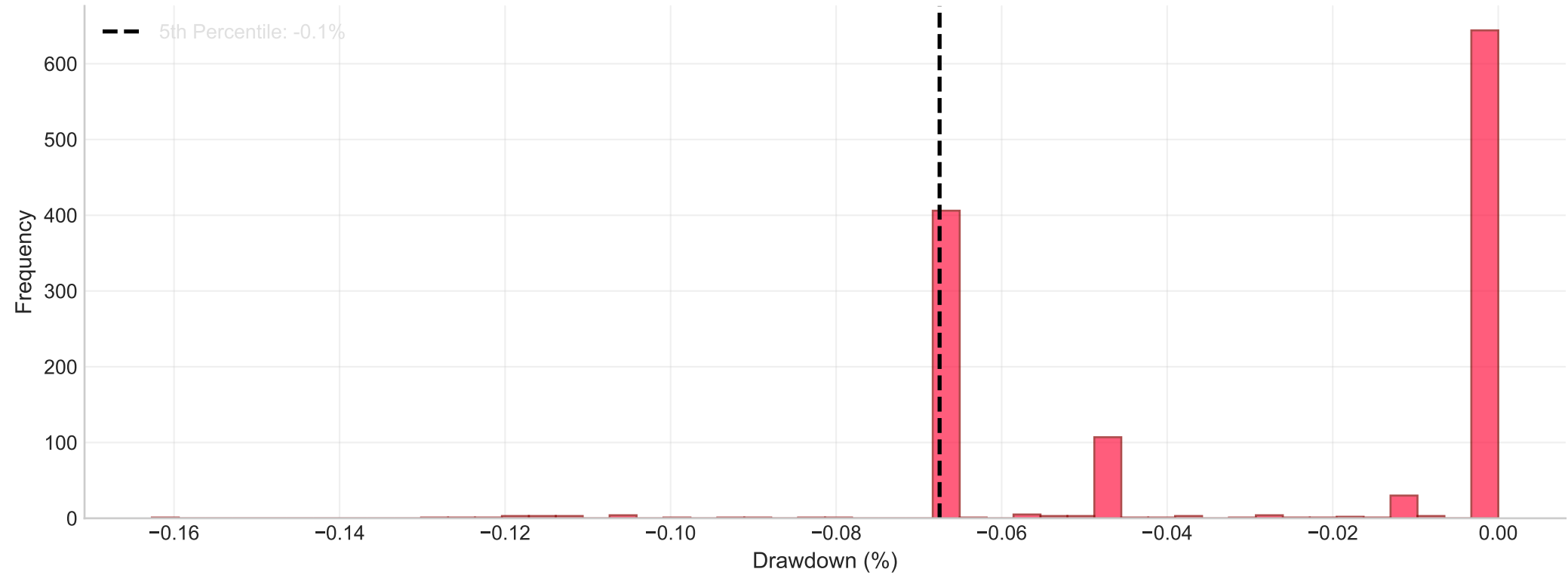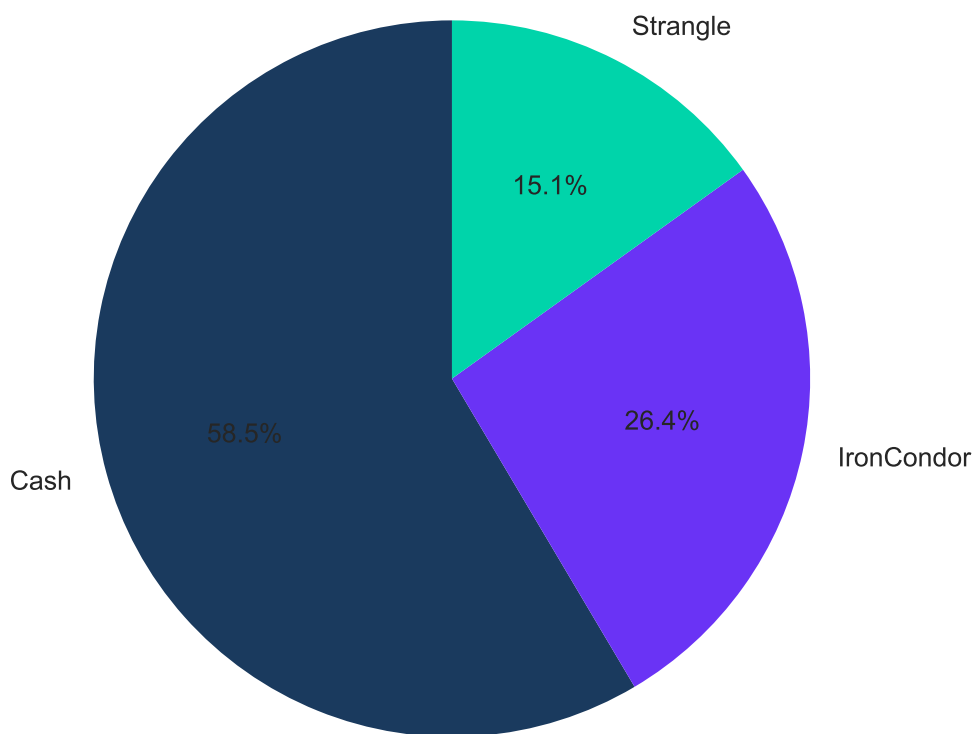
Market Regime (HMM - No Leakage in v4)
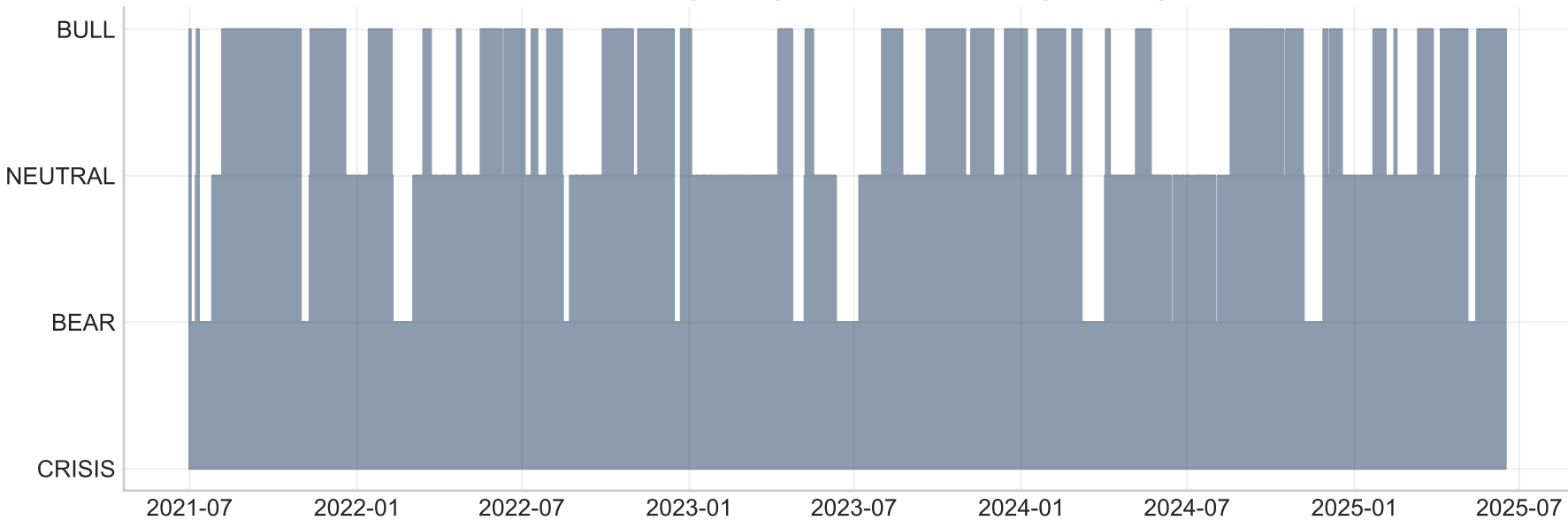
Regime Distribution

Sharpe by Regime

Daily P&L Distribution

Legend:
- Mean: 0.010%
- VaR 95%: 0.000%
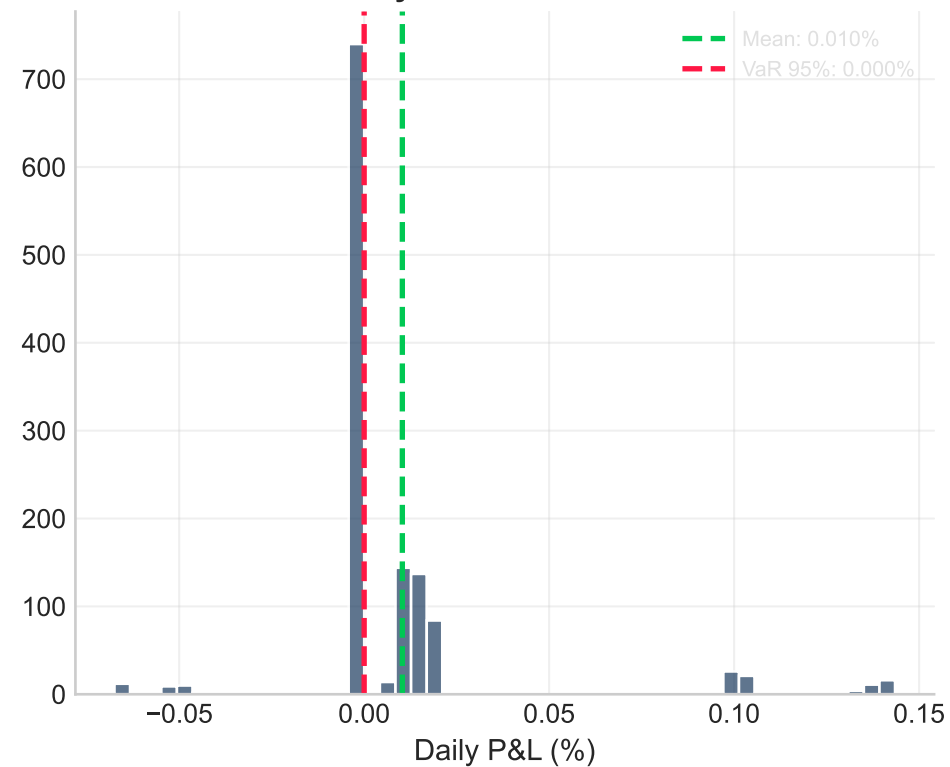
Q-Q Plot vs Normal
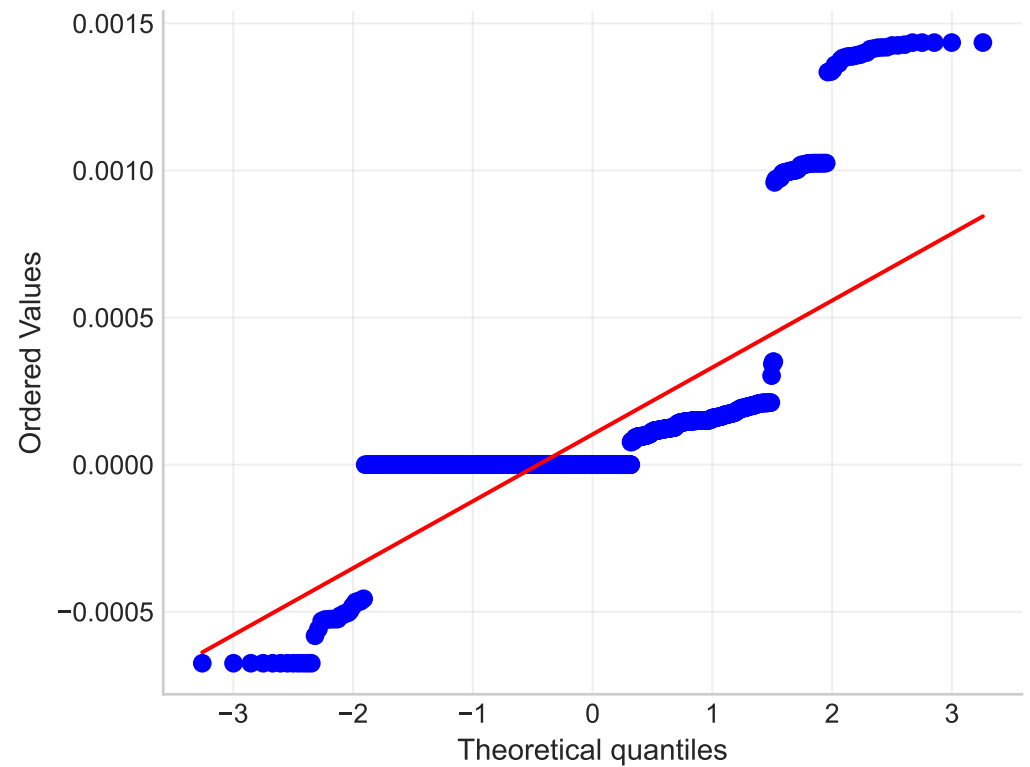
Rolling Volatility (ART)

Target: 12%

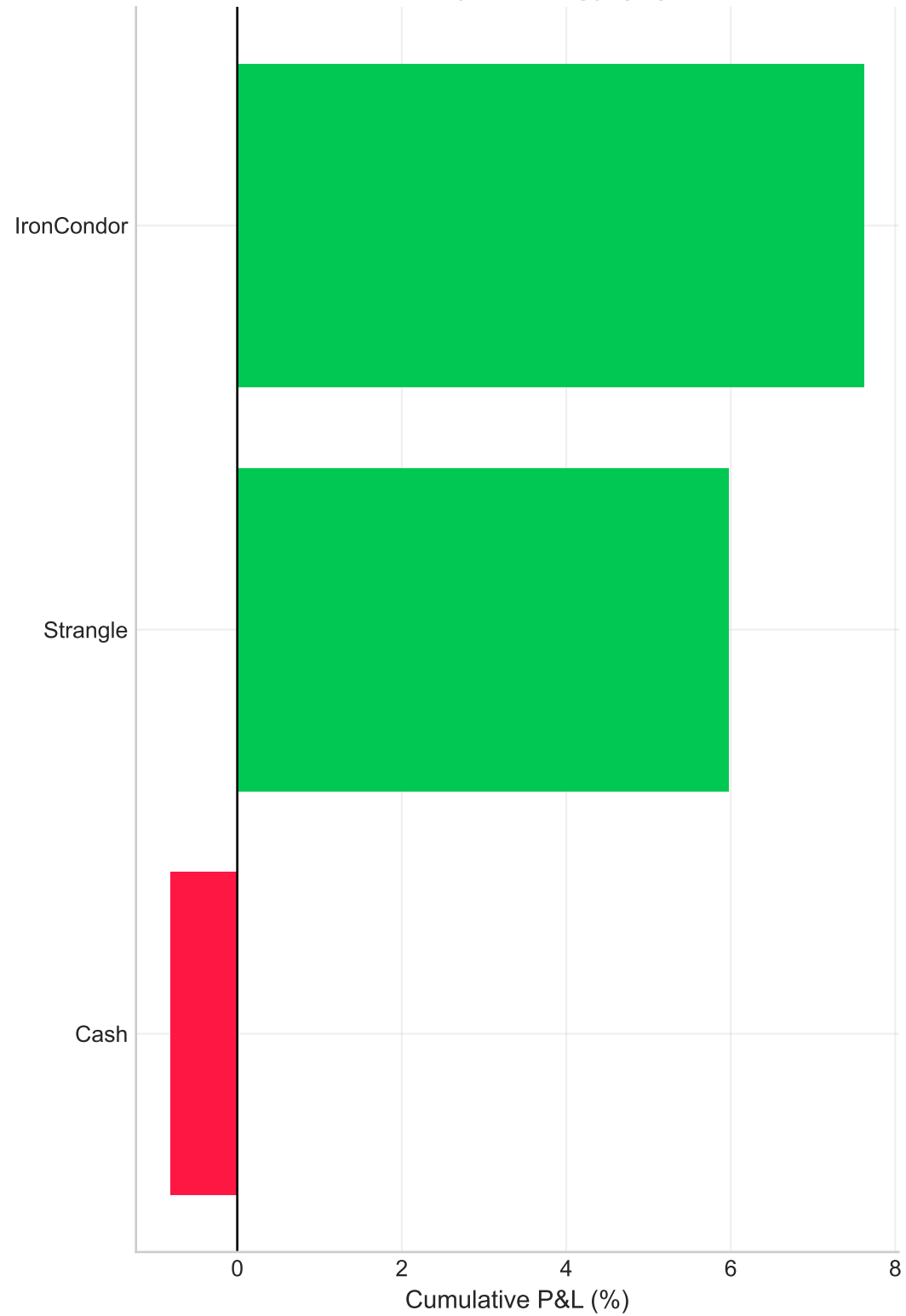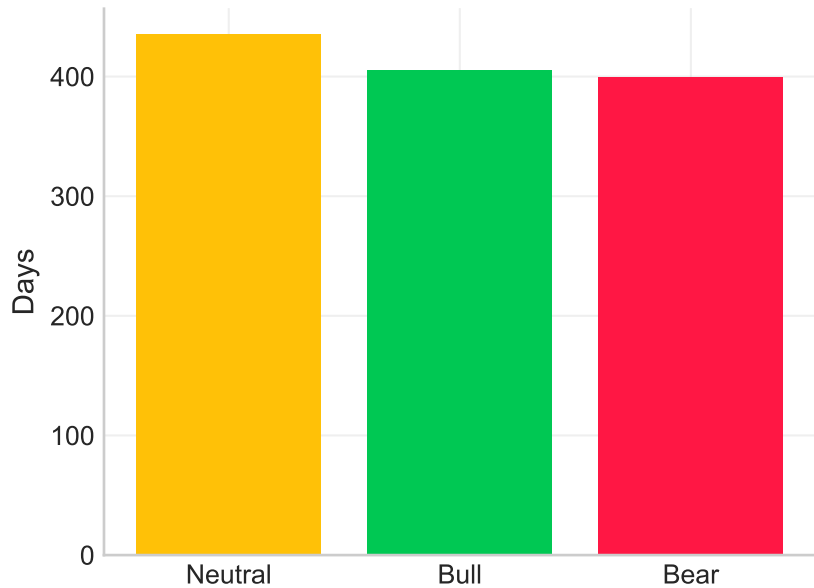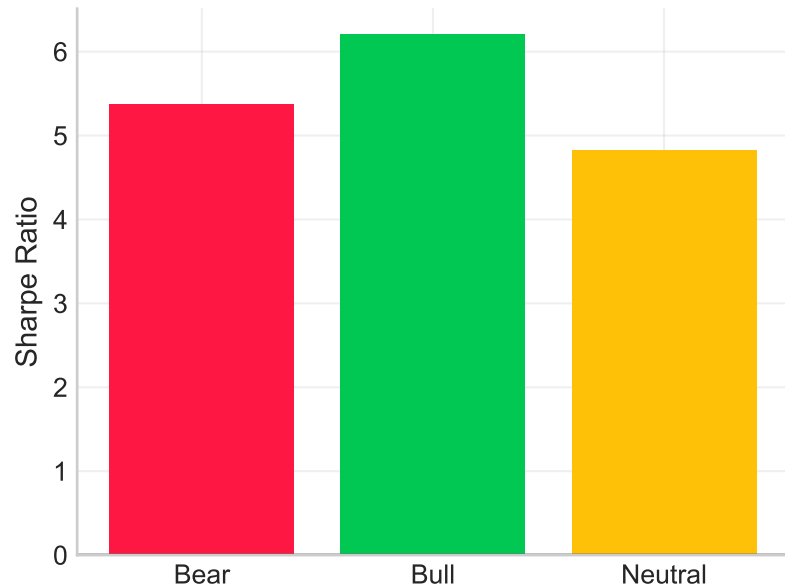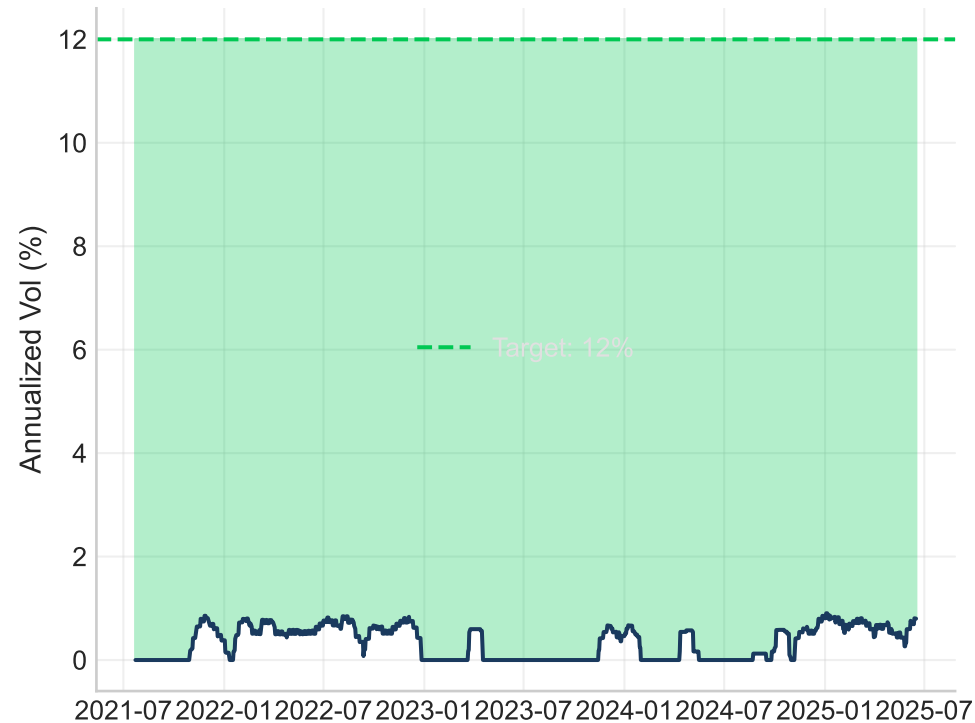| Metric	Value
VaR 95%	0.000%
ES 95%	-0.003%
Skewness	2.561
Kurtosis	8.621
Omega Ratio	7.492
Profit Factor	7.492

Monthly Returns Heatmap (%)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021							0.0	0.0	0.0	-0.1	0.7	0.4
2022	0.2	0.7	0.5	0.6	0.7	0.8	0.8	0.4	0.4	0.6	0.7	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3
2024	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	-0.0	0.2	0.6	0.7
2025	0.6	0.9	0.6	0.4	0.2	0.4						
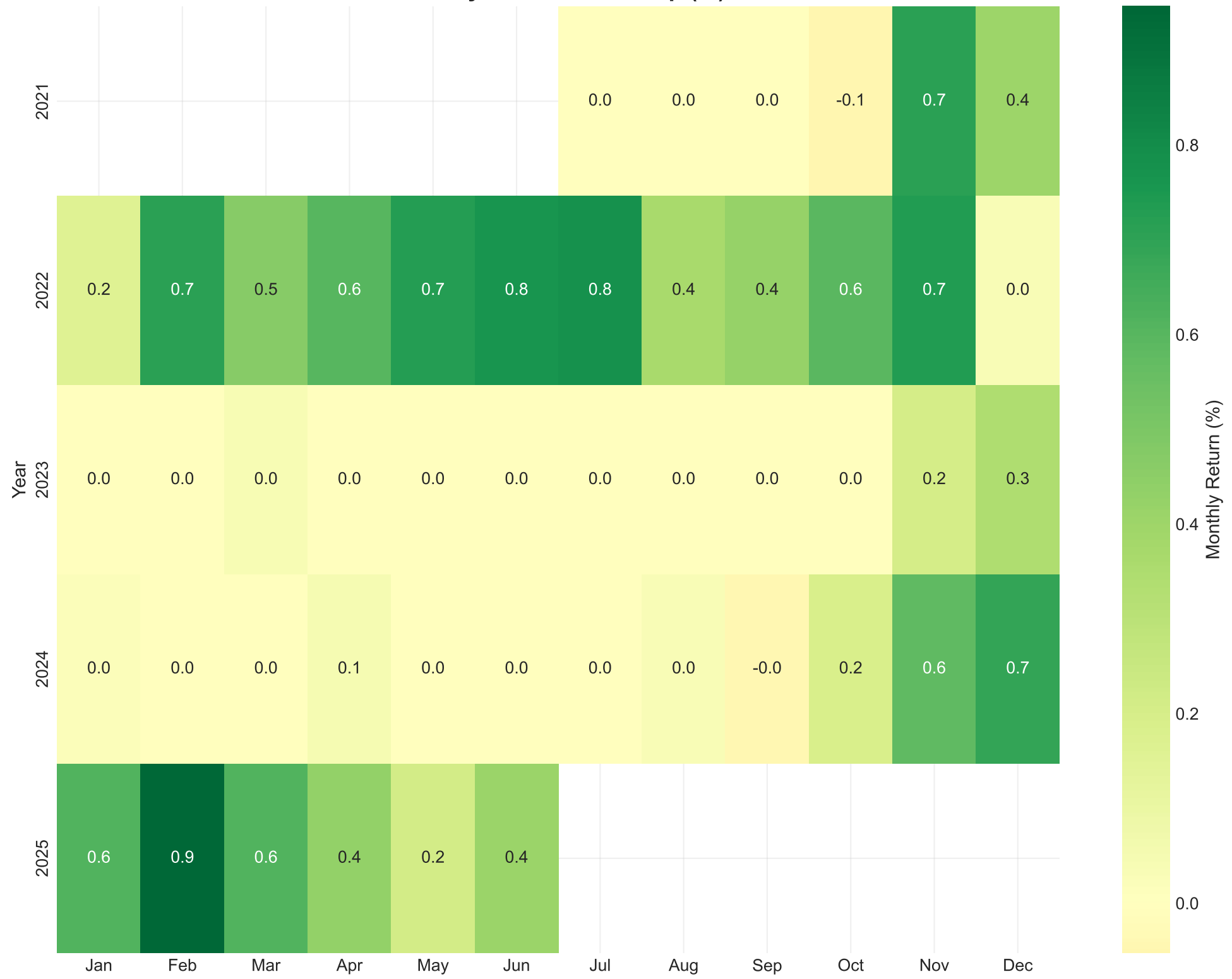
Top 10 Winners & Losers

Rank	Strategy	P&L (%)
1	Strangle	+1.1667%
2	IronCondor	+0.9472%
3	Strangle	+0.8212%
4	IronCondor	+0.7576%
5	IronCondor	+0.6426%
6	IronCondor	+0.5585%
7	IronCondor	+0.5478%
8	IronCondor	+0.3372%
9	IronCondor	+0.3121%
10	IronCondor	+0.2869%
B1	IronCondor	+0.0151%
B2	IronCondor	+0.0100%
B3	Strangle	-0.0109%
B4	IronCondor	-0.0439%
B5	Strangle	-0.0456%
B6	Strangle	-0.0464%
B7	Strangle	-0.0465%
B8	Strangle	-0.0506%
B9	Strangle	-0.0512%
B10	IronCondor	-0.0582%

v4.9 Fixes & Improvements Dashboard

Improvement	Metric	Status
1. Robust ML (Lasso Logistic)	OOS AUC: 0.4841	☐☐
2. HMM Regime (No Leakage v4)	Fixed: Train-only fitting	☐
3. Parkinson/GK Vol Estimators	Using High-Low data	☐
4. Vol Percentile (renamed)	Accurate nomenclature	☐
5. Auto-Regressive Risk Targeting	Realized: 0.5%	☐☐
6. Weekend Theta WIRED	Avg Adj: 2.1111	☐
7. Strategy Leverage Diff	Per-strategy scaling	☐
8. OOS AUC Reporting	Test AUC, not train	☐

```
EURUSD - FINAL SUMMARY (v4.9)

        Core Metrics:
     - Sharpe Ratio:    5.3423
     - Sortino Ratio:   18.9294
     - Total Return:    +13.63%
     - Max Drawdown:    -0.16%

      Statistical Significance:
     - t-stat:          23.7135
     - p-value:         0.000000
   - 95% CI:          [4.7362, 5.9165]
       - Significant:     Yes

        ML Performance (OOS):
     - Global AUC:      0.4841

    GRADE: EXCELLENT (Significant)
```
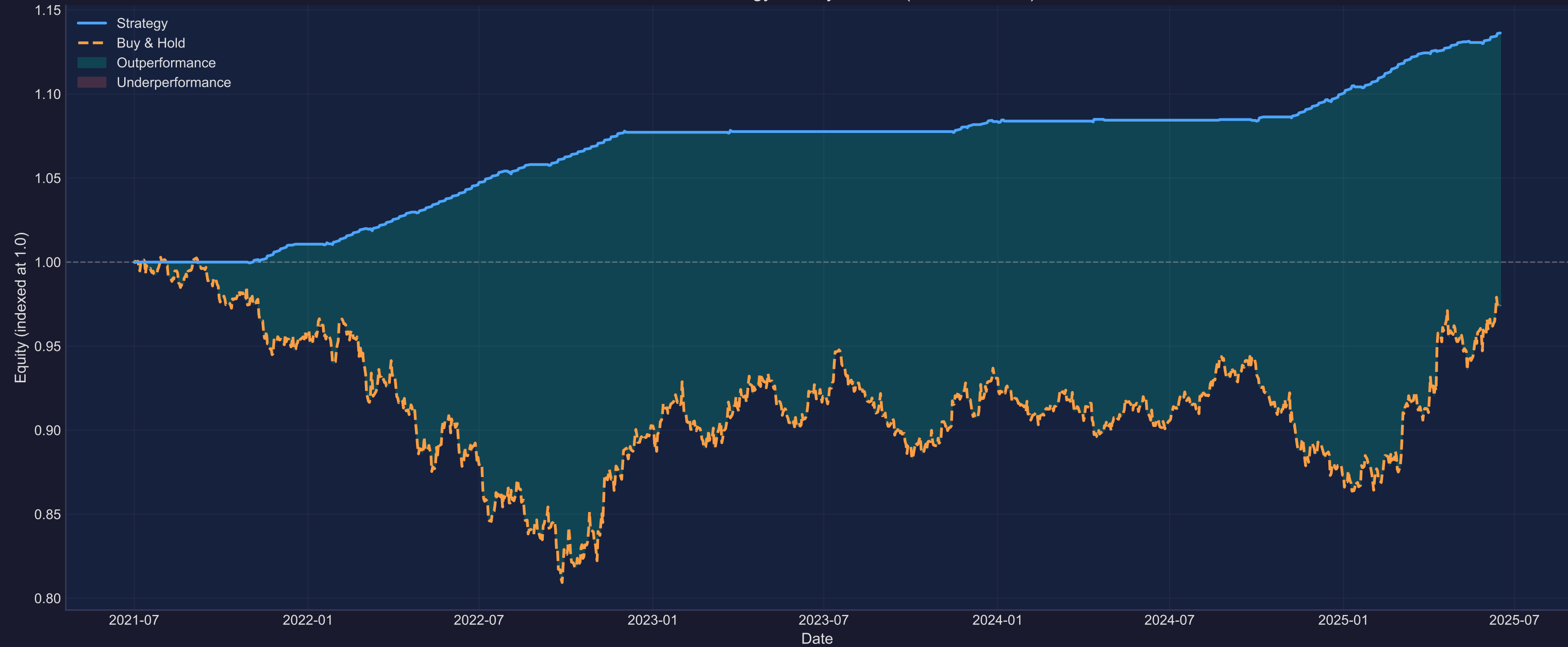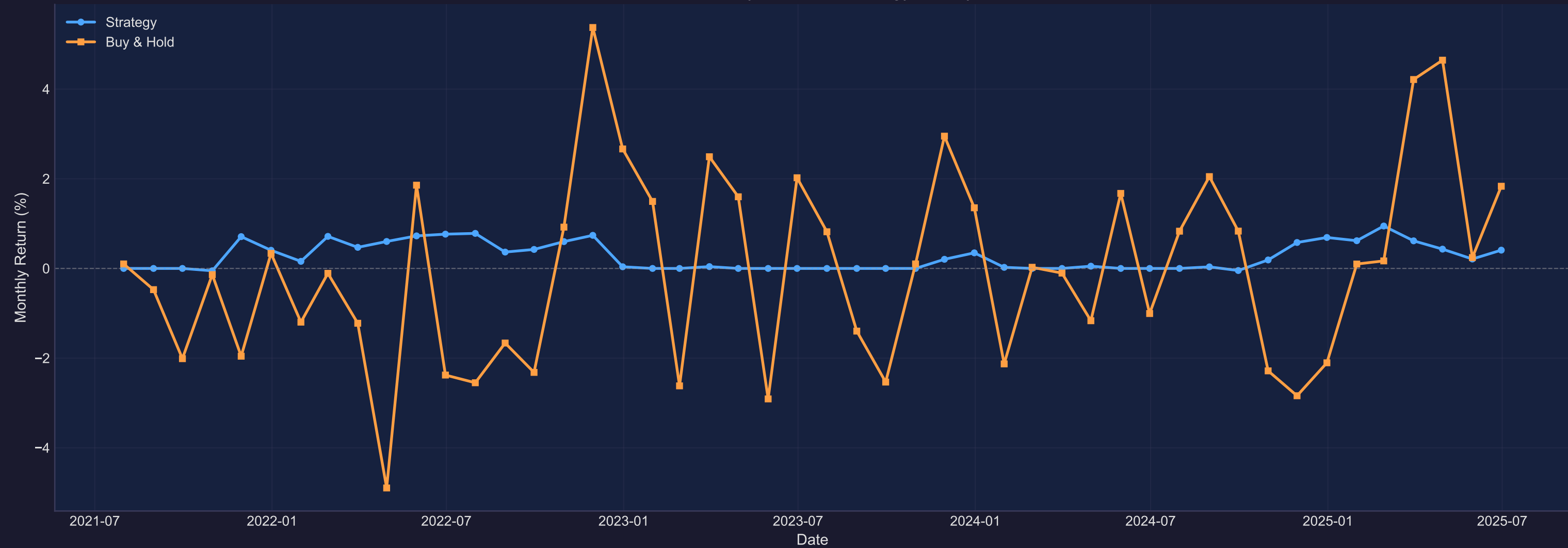
EURUSD – Strategy vs Buy & Hold (Walk-Forward)
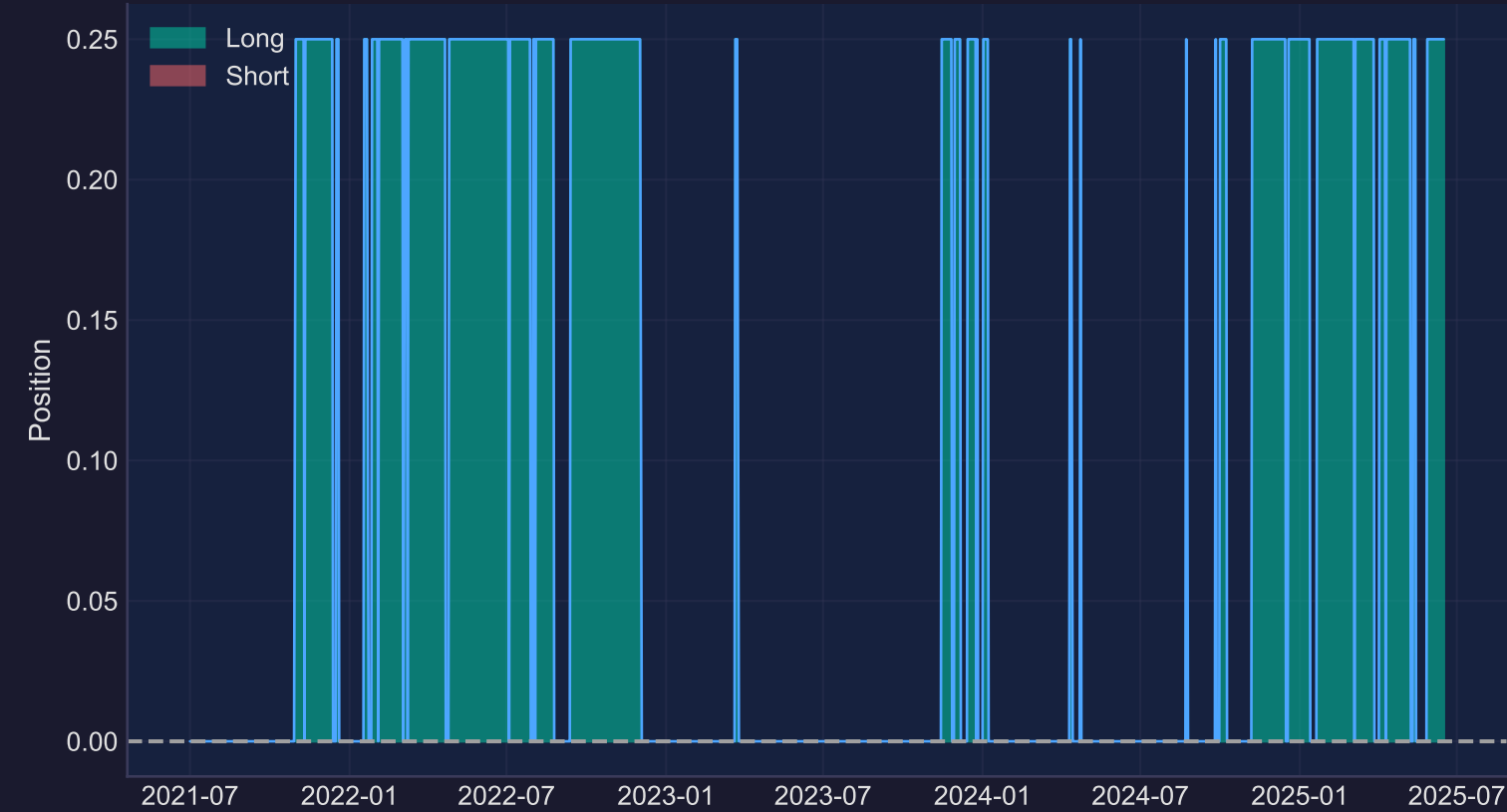
EURUSD – Price with Trade Entries

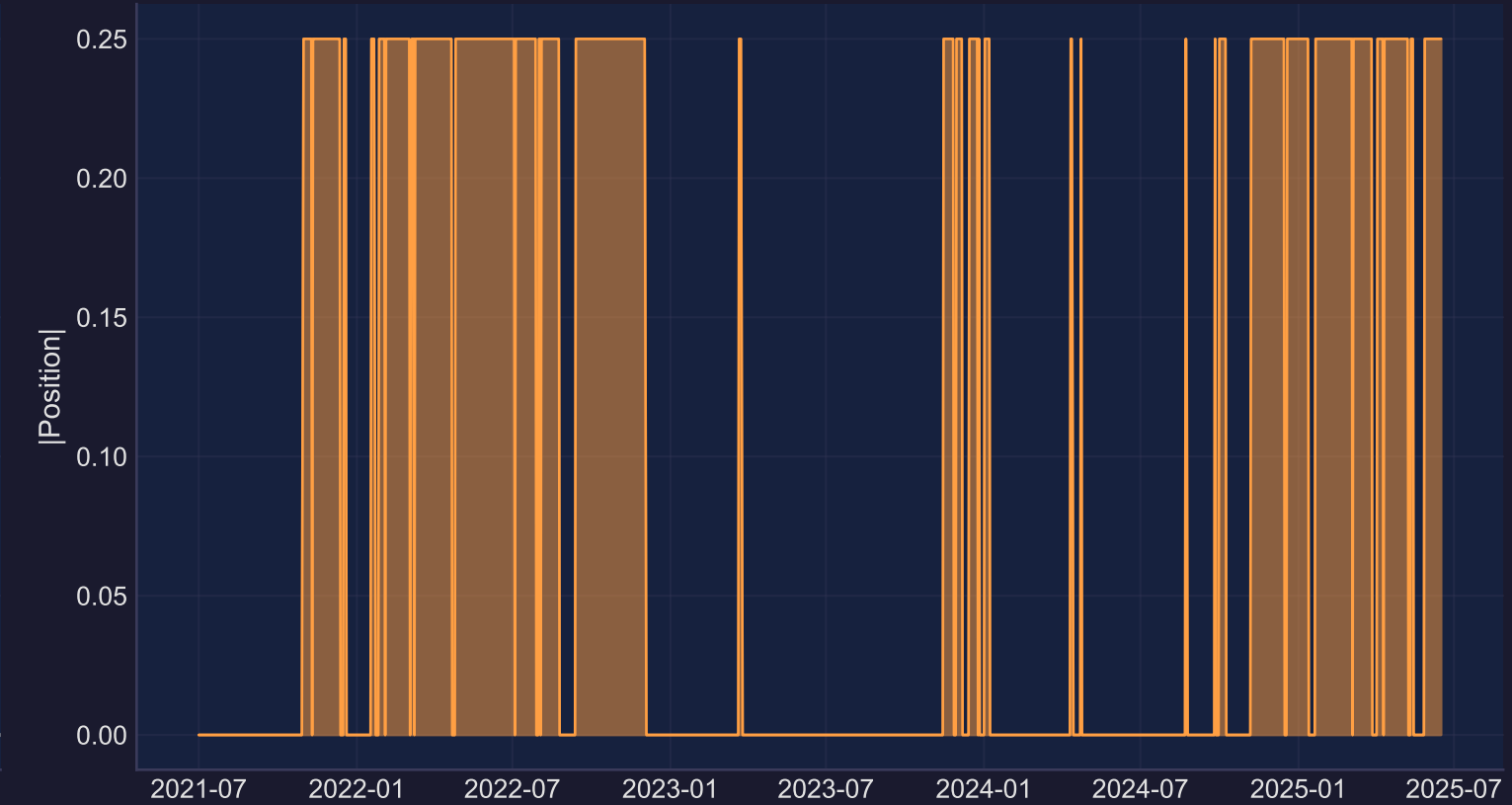EURUSD – Monthly Returns: Strategy vs Buy & Hold
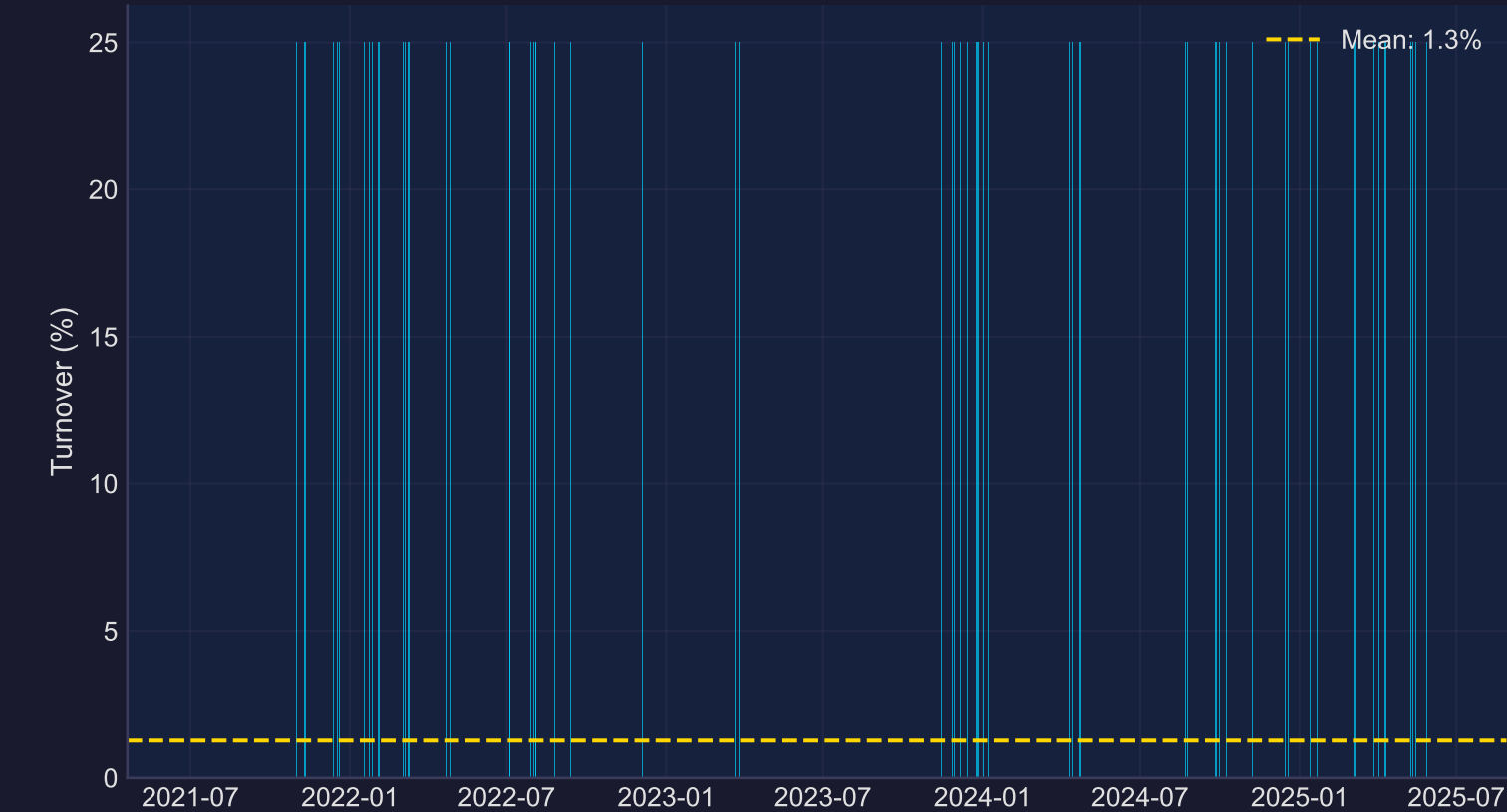
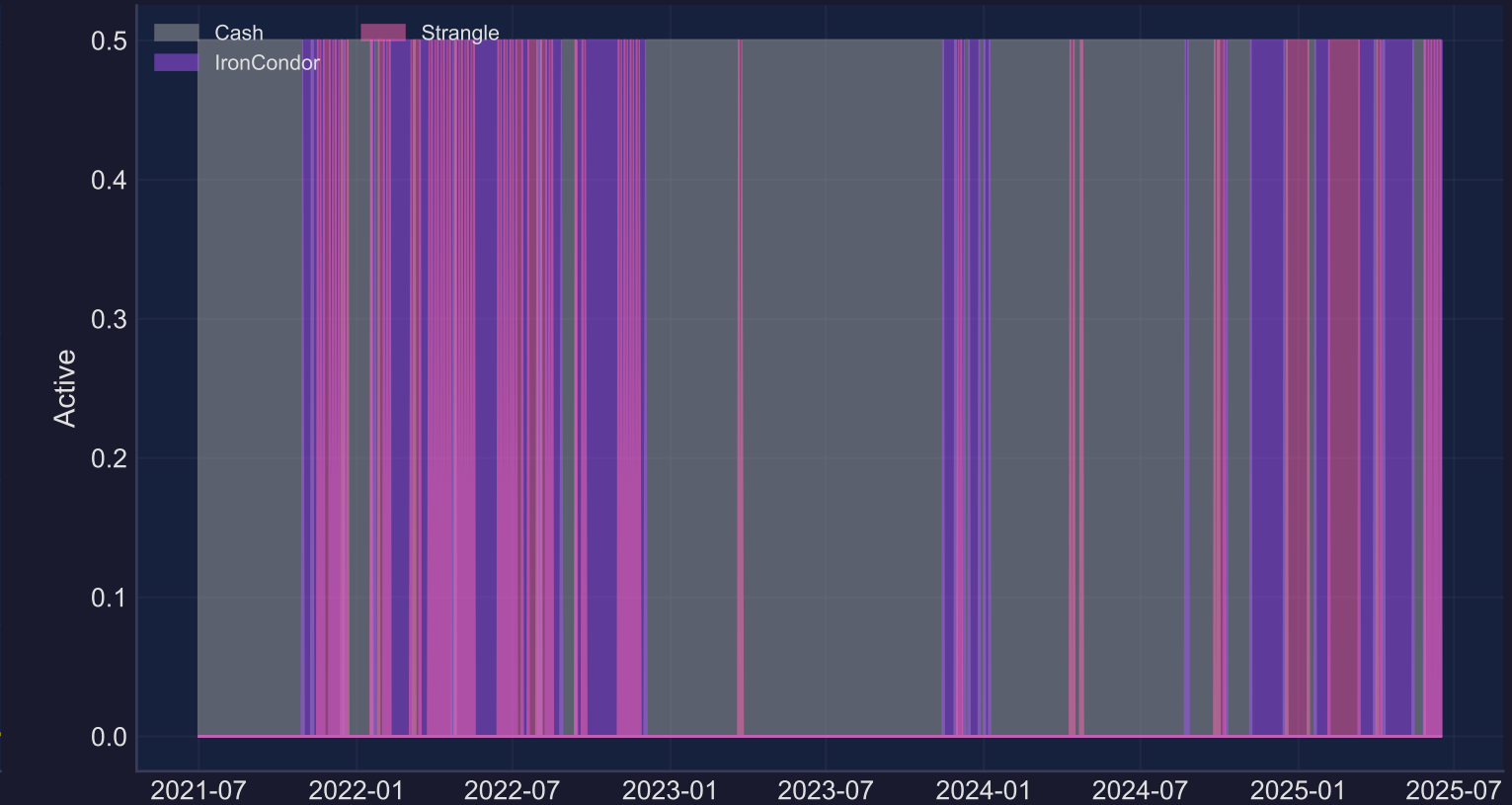**EURUSD – Turnover & Exposure Analysis**

Net Position Exposure Over Time

Gross Exposure Over Time

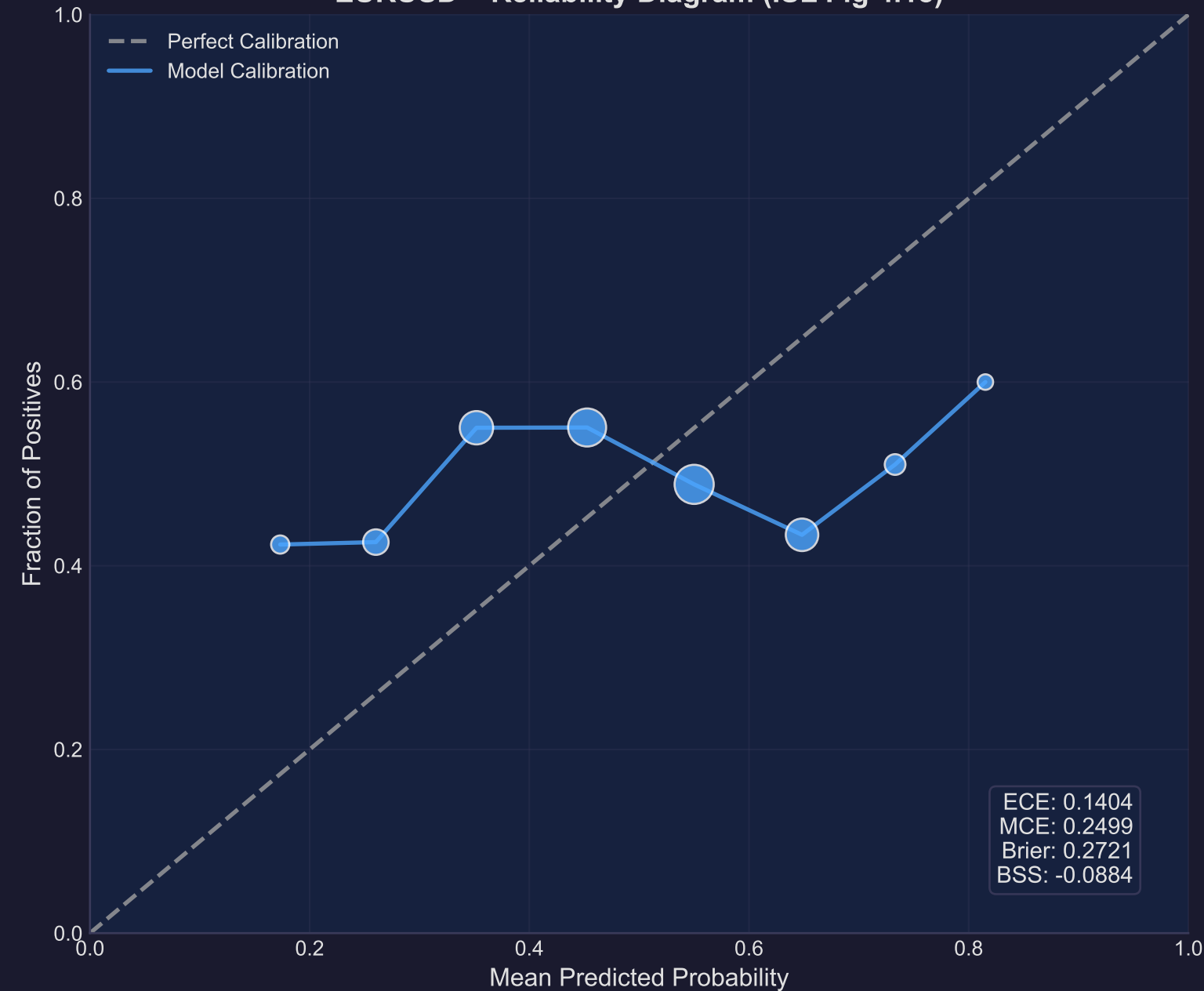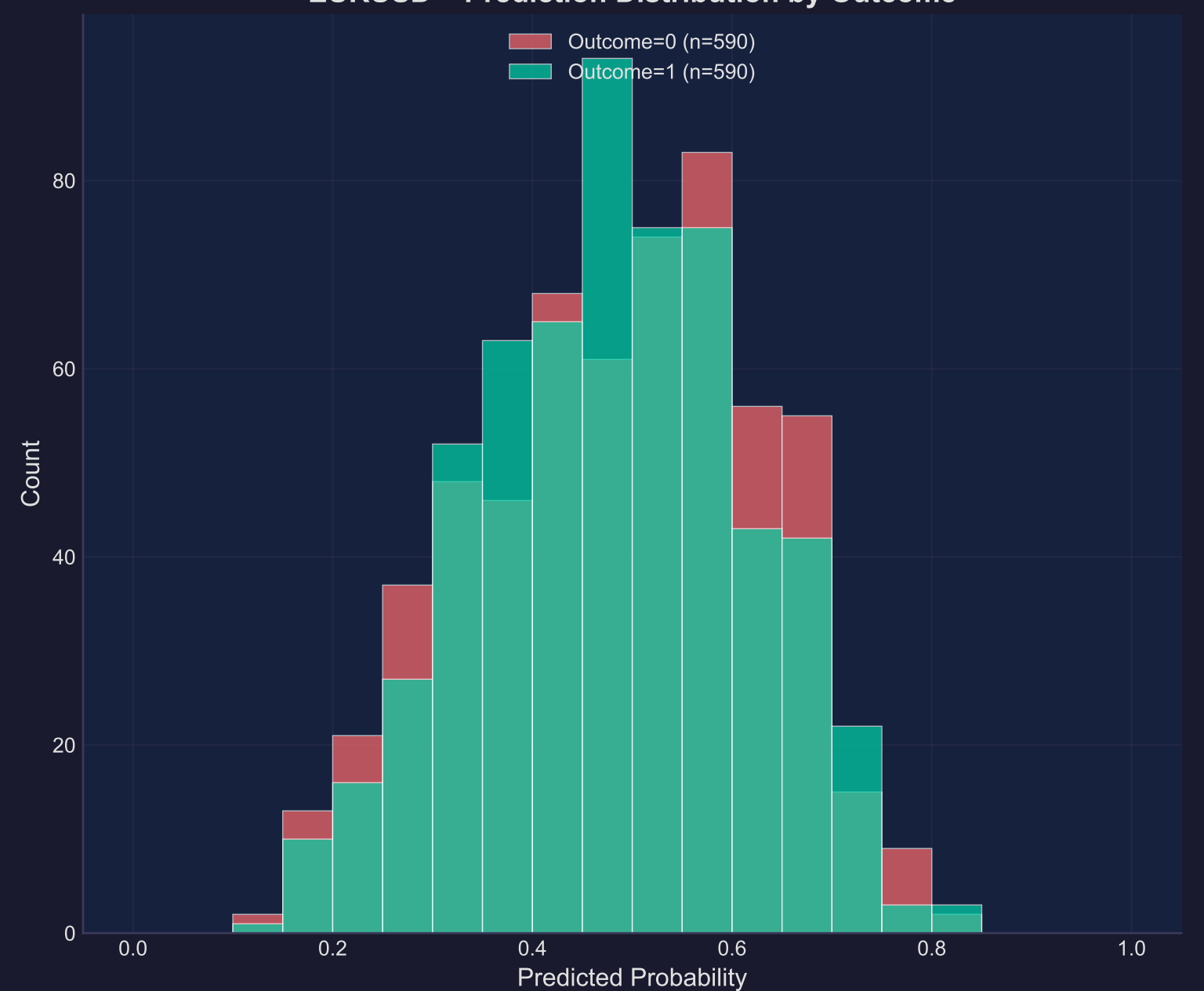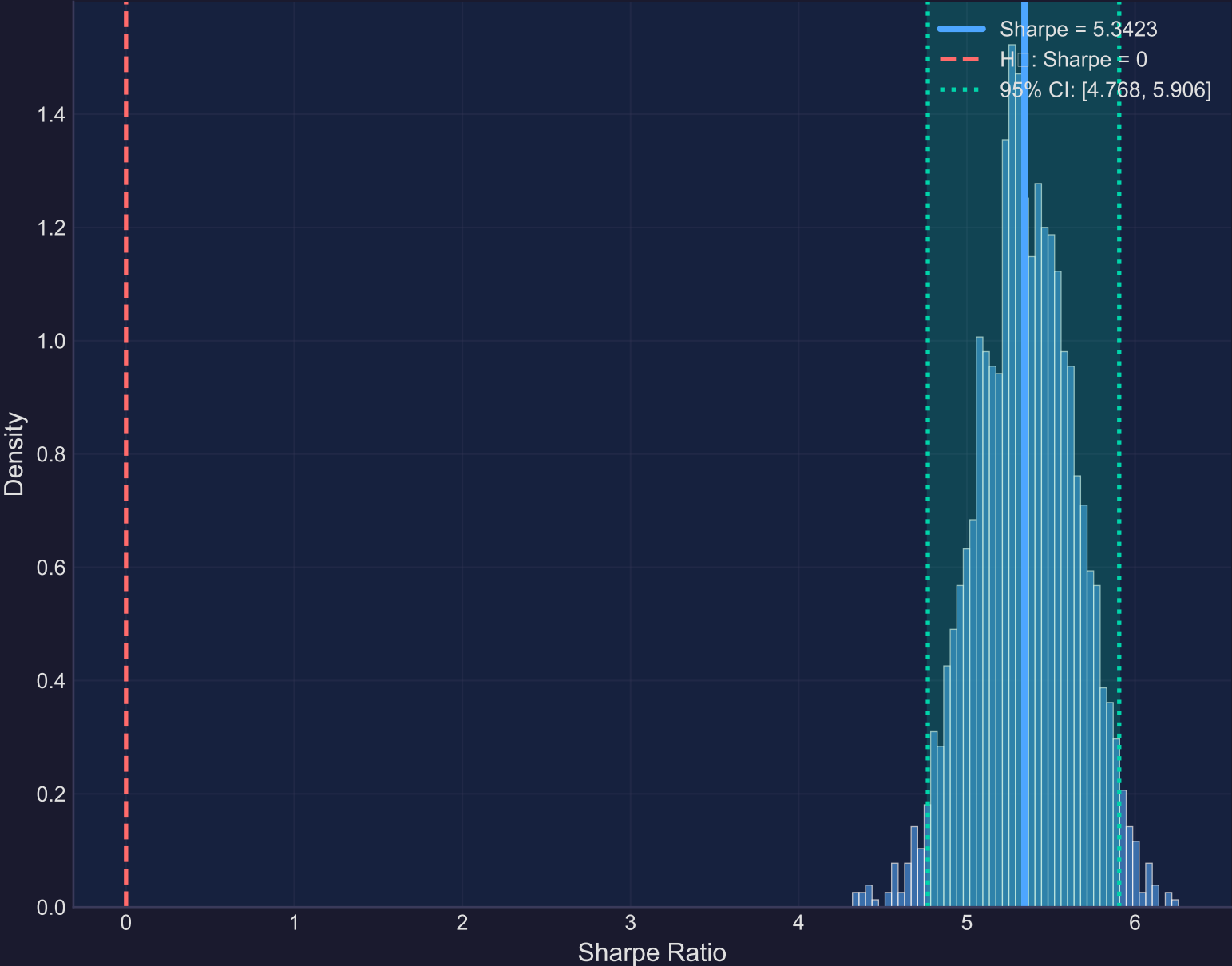Daily Turnover

Strategy Allocation Over Time

EURUSD – Reliability Diagram (ISL Fig 4.18)

ECE: 0.1404
MCE: 0.2499
Brier: 0.2721
BSS: -0.0884

- - - Perfect Calibration
—— Model Calibration

EURUSD – Prediction Distribution by Outcome

Outcome=0 (n=590)
Outcome=1 (n=590)

EURUSD – Bootstrap Distribution of Sharpe Ratio

- Sharpe = 5.3423
- H₀: Sharpe = 0
- 95% CI: [4.768, 5.906]

EURUSD – Sharpe Ratio T-Test Results

```
SHARPE RATIO STATISTICAL SIGNIFICANCE TEST
_____

Sample Size (n):              1,239 days

Point Estimate:
  Sharpe Ratio:               5.3423
  Standard Error:             0.2253

T-Test (H₀: Sharpe = 0):
  t-statistic:                23.7135
  p-value:                    0.000000
  Degrees of freedom:         1238

Significance:
  At α = 0.05:                ✓ Yes
  At α = 0.01:                ✓ Yes

Confidence Intervals:
  Analytical 95% CI:          [4.9007, 5.7838]
  Bootstrap 95% CI:           [4.7679, 5.9060]

Bootstrap Statistics:
  Mean:                       5.3474
  Median:                     5.3427
  Std Error:                  0.2963
```
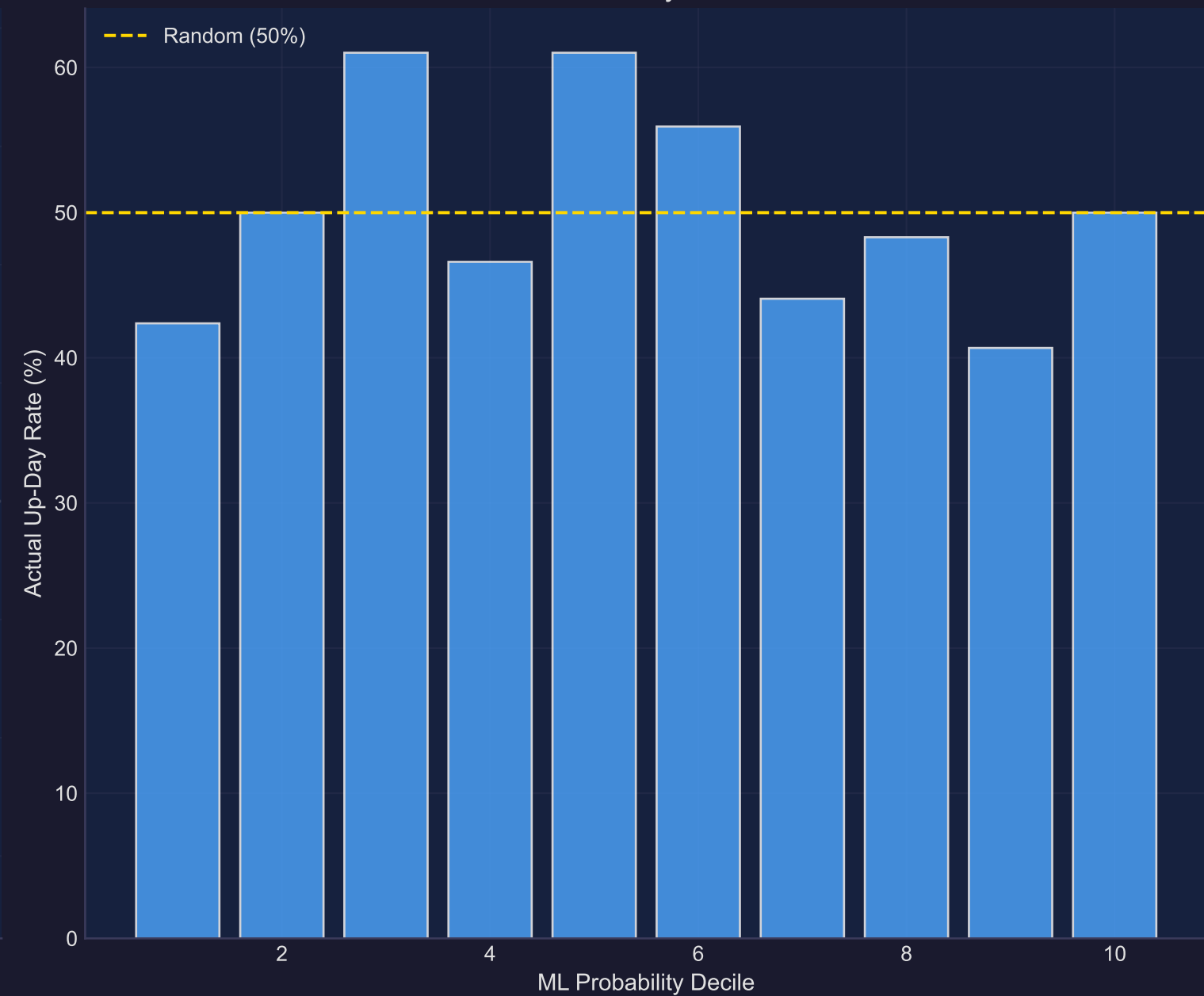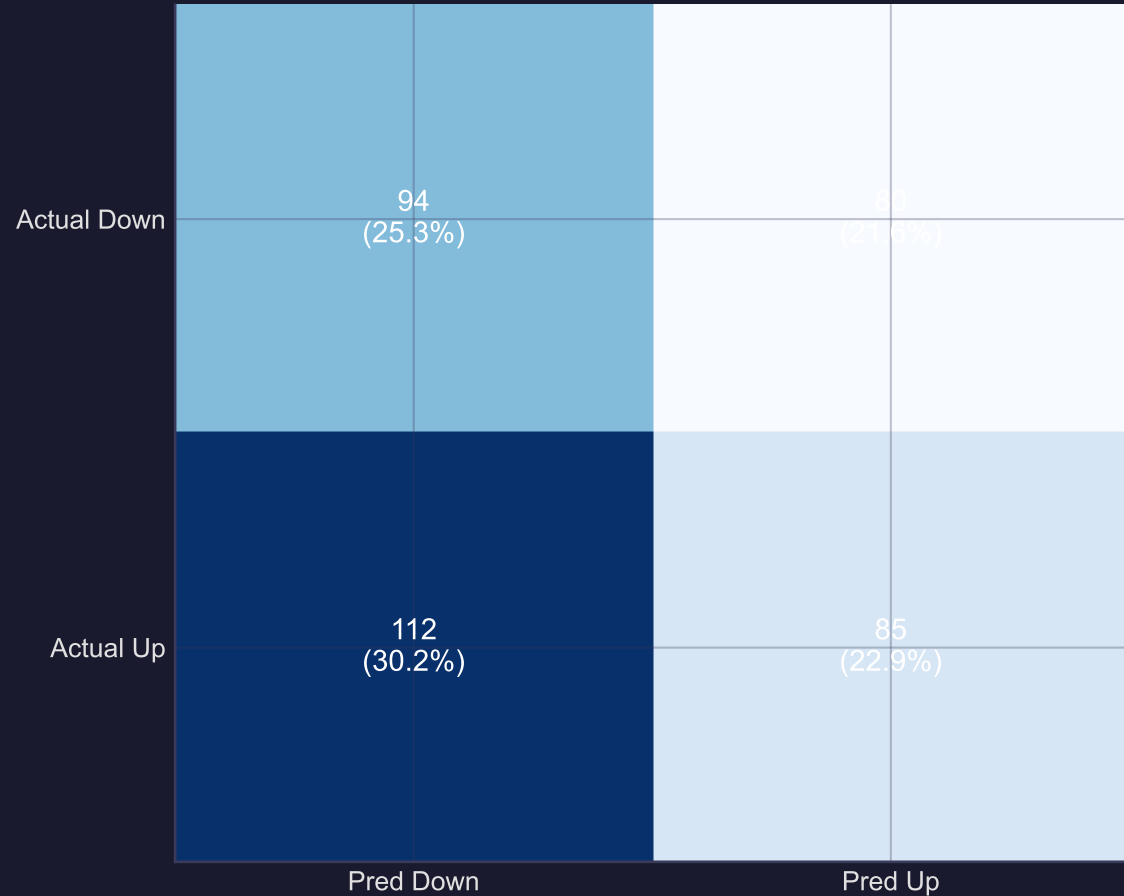
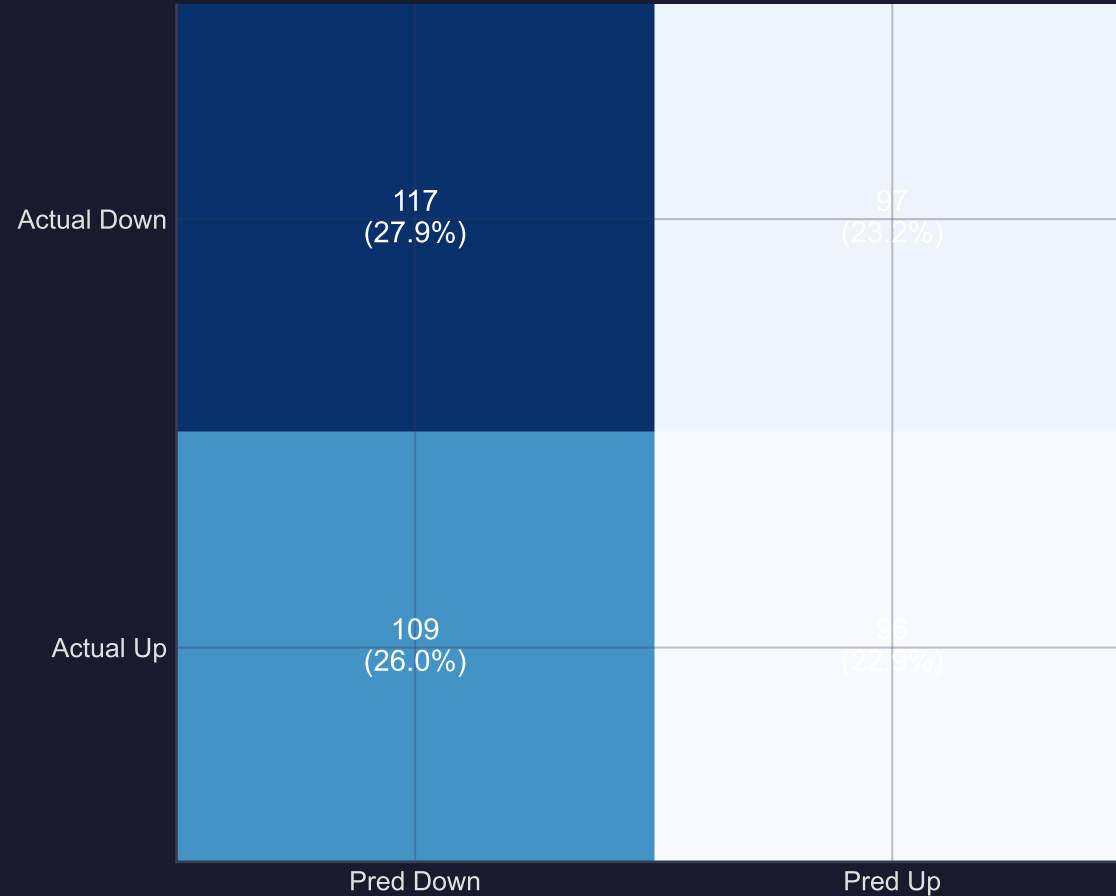EURUSD – ML Lift Curve: Return by Prediction Bucket

EURUSD – Hit Rate by Prediction Bucket

EURUSD – ML Confusion Matrix by Regime

Bull Regime (n=371)
Acc: 48.2% | Prec: 51.5% | Rec: 43.1%

	Pred Down	Pred Up
Actual Down	94 (25.3%)	(21.4%)
Actual Up	112 (30.2%)	85 (22.9%)

Neutral Regime (n=419)
Acc: 50.8% | Prec: 49.7% | Rec: 46.8%

	Pred Down	Pred Up
Actual Down	117 (27.9%)	97 (23.2%)
Actual Up	109 (26.0%)	

Bear Regime (n=390)
Acc: 42.8% | Prec: 41.2% | Rec: 43.6%

	Pred Down	Pred Up
Actual Down	85 (21.8%)	117 (30.0%)
Actual Up	106 (27.2%)	