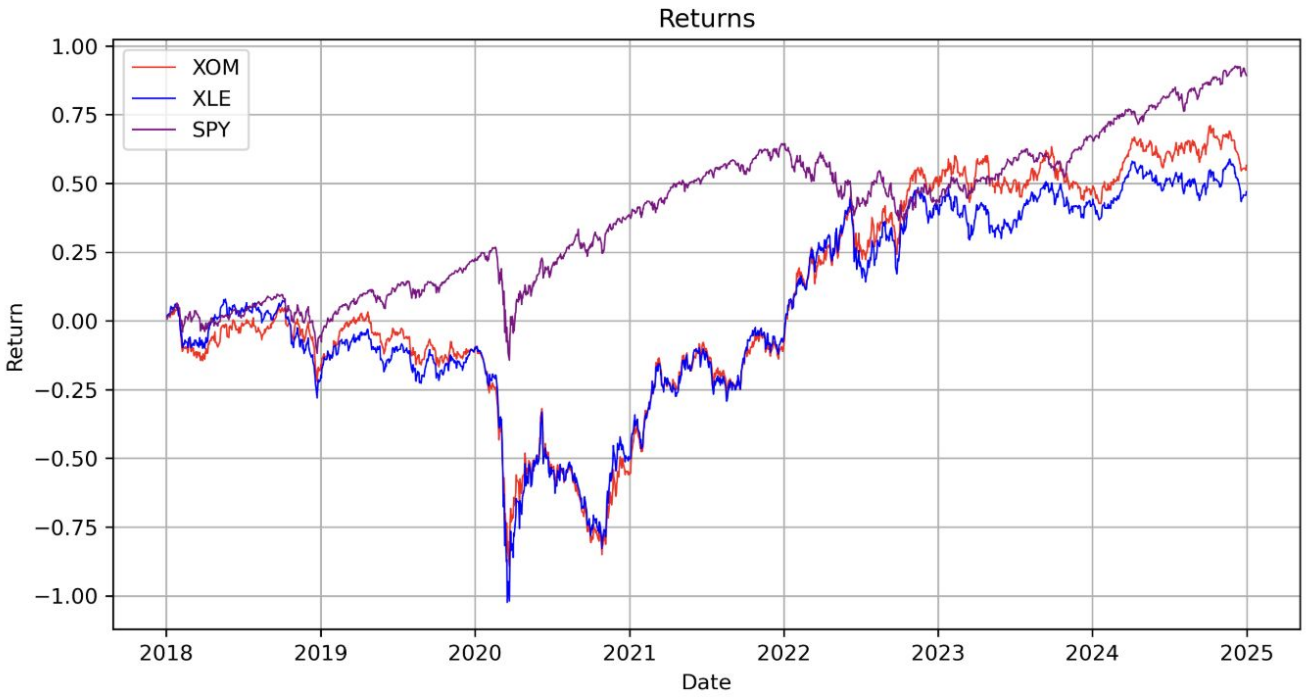
ETF Based Pairs Trading Strategy with XOM and XLM

Cointegration Strategy

Pragathi Arunkumar

Strategy Overview



When XOM outperforms relative to XLE, we go short

When XOM underperforms relative to XLE, we go long

SPY is used to hedge the strategy

Regression

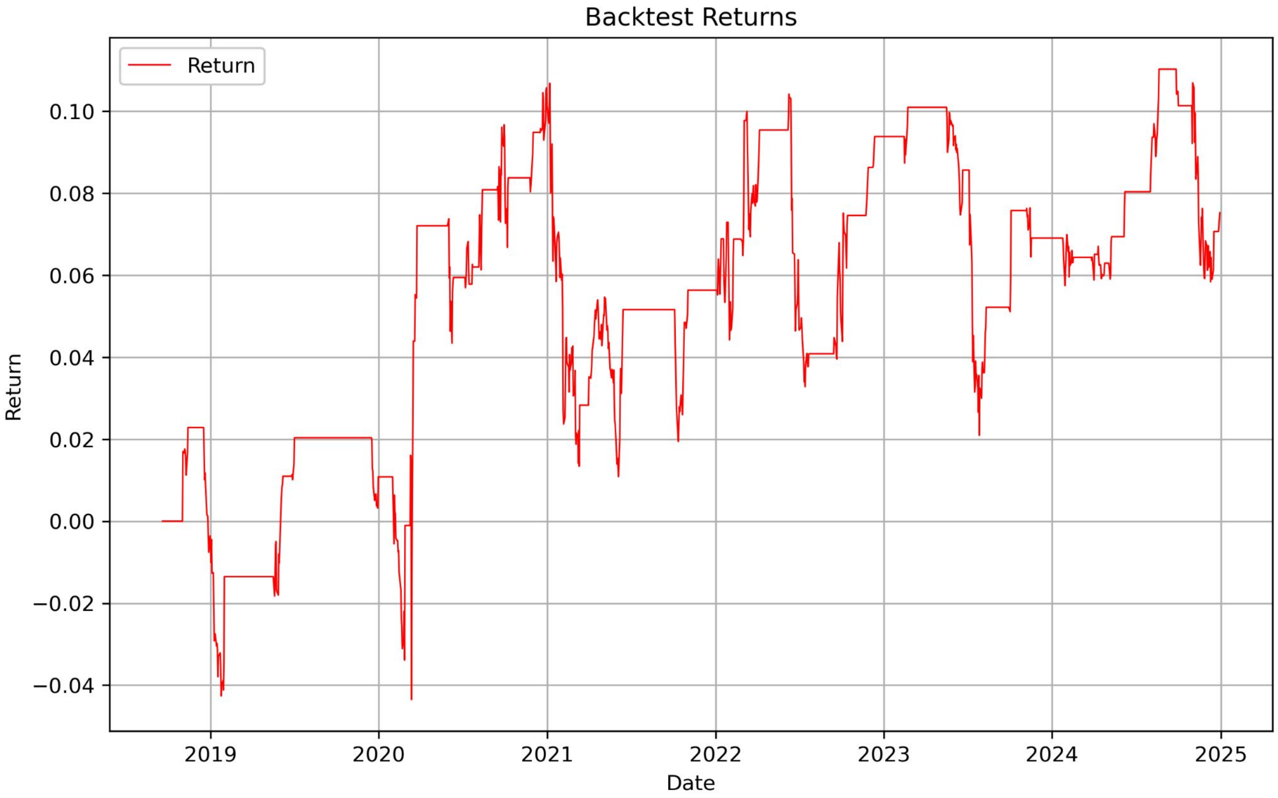
XOM = 0.9068XLE – 0.0875SPY

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	0.0001	0.000	0.719	0.472	-0.000	0.000
XLE	0.9068	0.011	86.055	0.000	0.886	0.928
SPY	-0.0875	0.018	-4.927	0.000	-0.122	-0.053

OLS Regression Results

Dep. Variable:	XOM	**R-squared:**	0.864
Model:	OLS	**Adj. R-squared:**	0.864
Method:	Least Squares	**F-statistic:**	5598.
Date:	Tue, 23 Sep 2025	**Prob (F-statistic):**	0.00
Time:	23:44:45	**Log-Likelihood:**	6187.9
No. Observations:	1760	**AIC:**	-1.237e+04
Df Residuals:	1757	**BIC:**	-1.235e+04
Df Model:	2		
Covariance Type:	nonrobust		

Results



Cumulative Returns: 7.52%

Sharpe Ratio: 0.17

Max Drawdown: 0.136