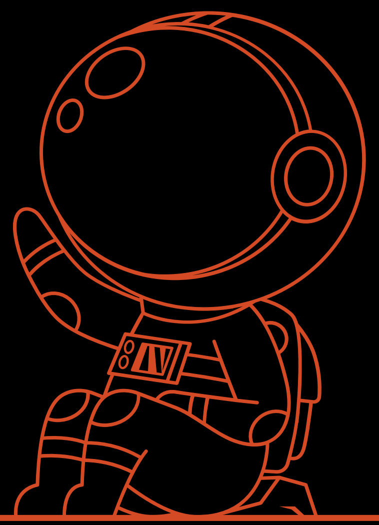
THE ASTRO ALGO

Rejecting the Efficient-Market Hypothesis.

MEET THE TEAM

Aung Si

OVERVIEW



1.

Risk Aversion

A risk averse strategy, reflected in investment nature and model scoring.

2.

The Astro Algorithm

Model and sector selection over time.

3.

Backtesting

Benchmarking strategy performance.

BUSINESS UNDERSTANDING

1. **MALADAPTATION**

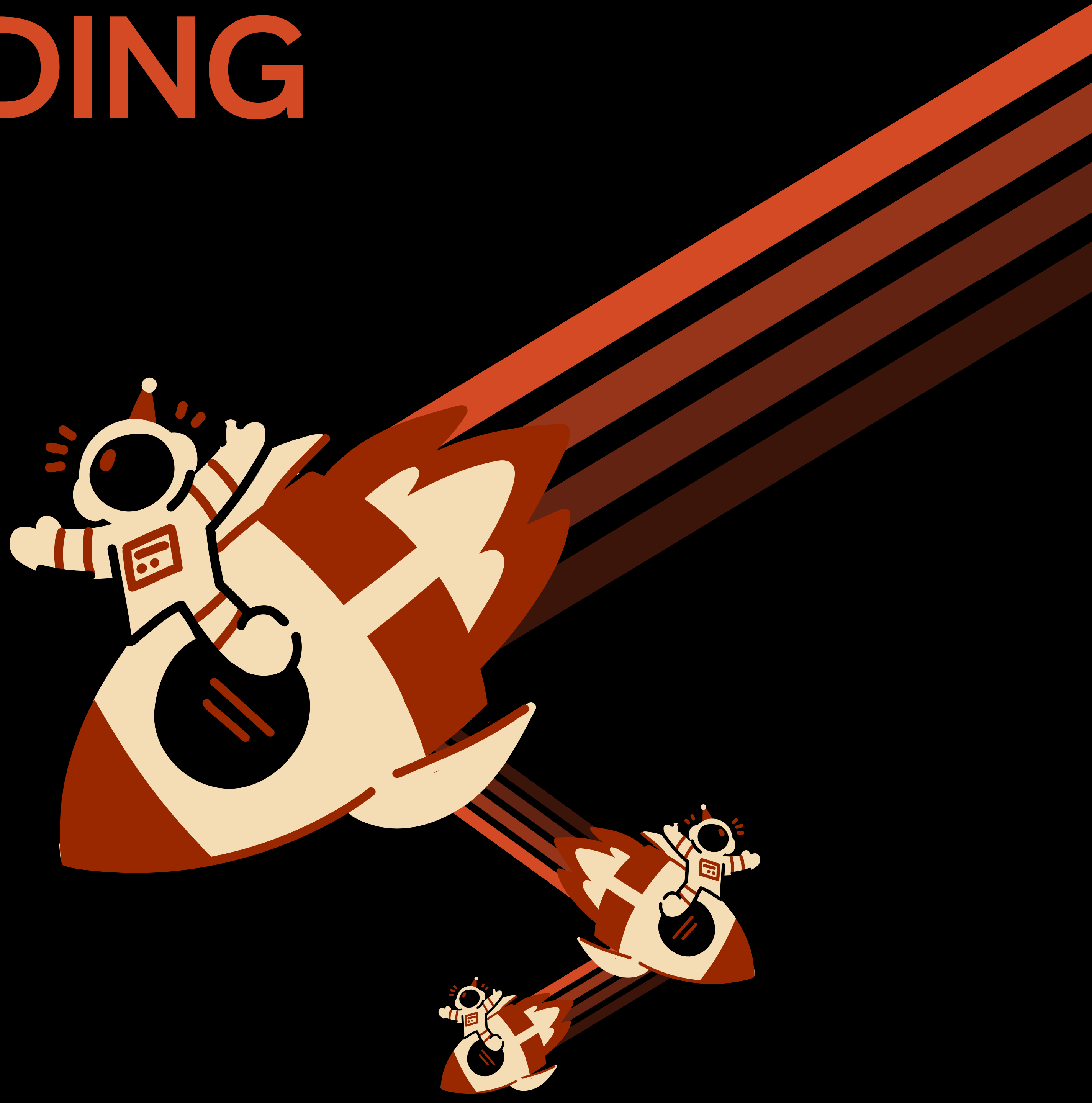
   Existing models are slow to keep up with trends.

2. **LACKLUSTER RISK MANAGEMENT**

   Often overlooked and negatively impactful.

3. **THE EFFICIENT-MARKET HYPOTHESIS**

   Inefficiencies exist within the market.



DATA UNDERSTANDING

YAHOO!
FINANCE

503 Stocks → Sector Avg. Returns

TARGETS

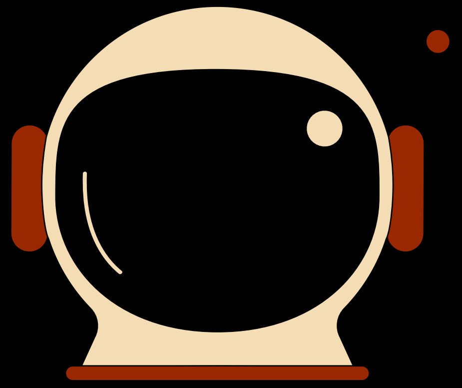
4230 entries, 17 years of data.

4 Indices
(Bonds, Stocks, Commodities, Volatility) → Lagged Features

MODEL INPUTS

STRATEGY:
LONG ONLY

- Buy and Hold
- Simple yet effective
- Eliminate short-selling risk
- Dividend benefits
- Lower transaction costs



A RISK-AVERSE MODEL

OVER-UNDER ERROR

Twice the optimism, double the fall.

MODELS USED

- Elastic Net
- Gradient Boosting
- Support Vector Regression
- Random Forest
- XGBoost
- ARIMAX

THE ASTRO ALGORITHM

1. Train models on past half-year of data.
2. Cross-Validate models and select the best-scoring model.
3. Choose the sector with the highest forecast.
4. Optimize portfolio allocations across sector stocks.
5. Hold stocks for the next half-year.

Oct. 2023

1. Train models on past half-year of data.

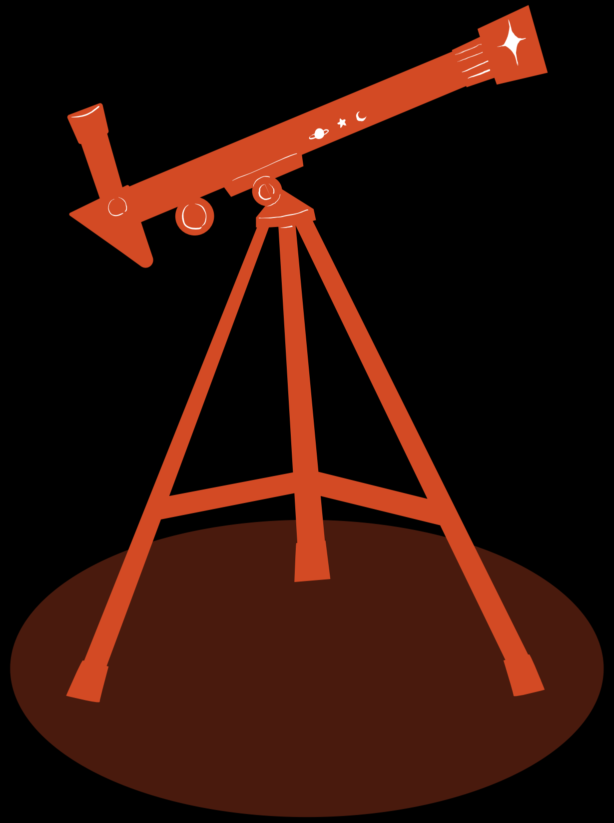
2 Cross-V model an the best- moc

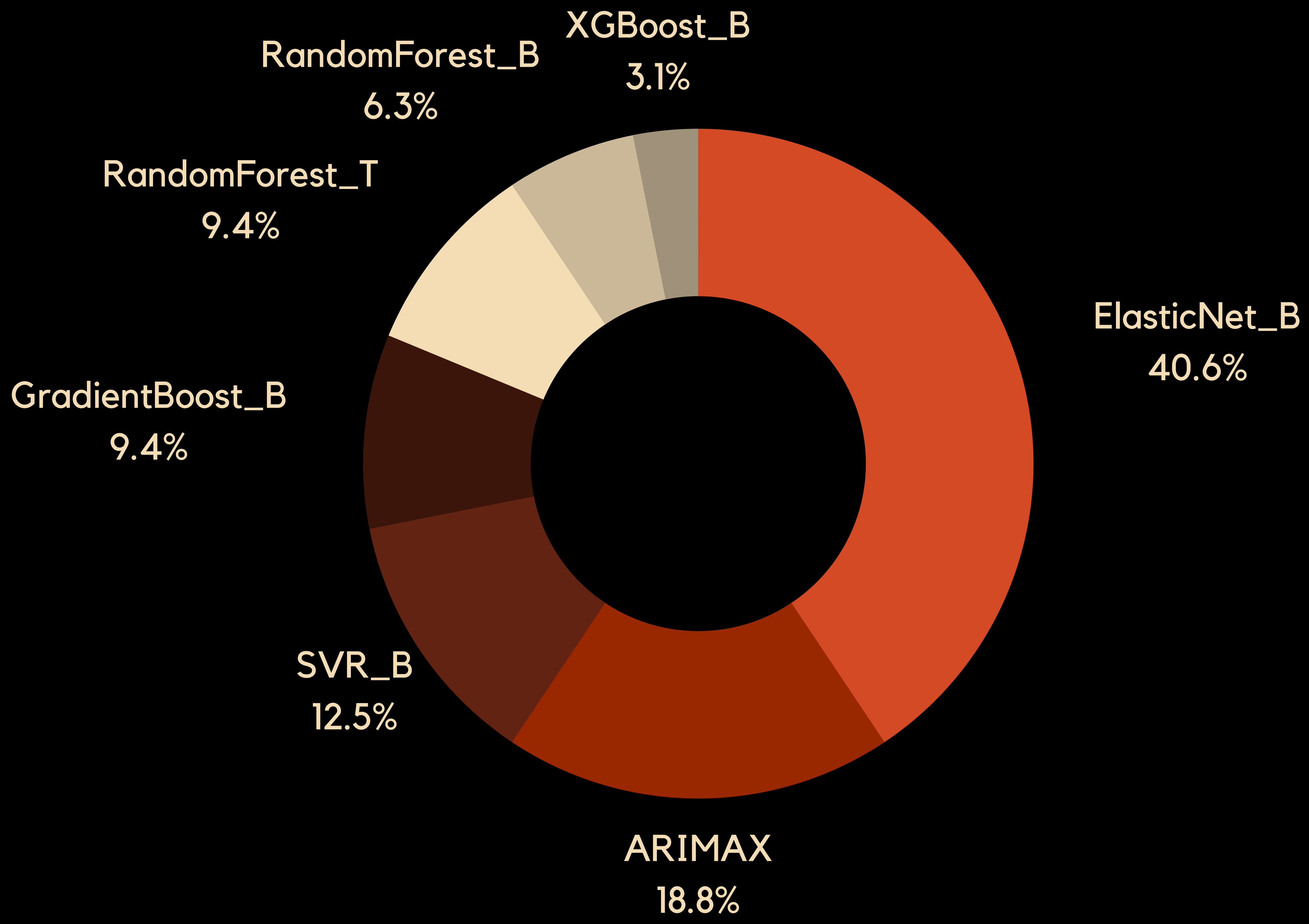
Apr. 2024

3 PORTFOLIOS

1. Maximum Sharpe
2. Risk Parity
3. Minimum Variance

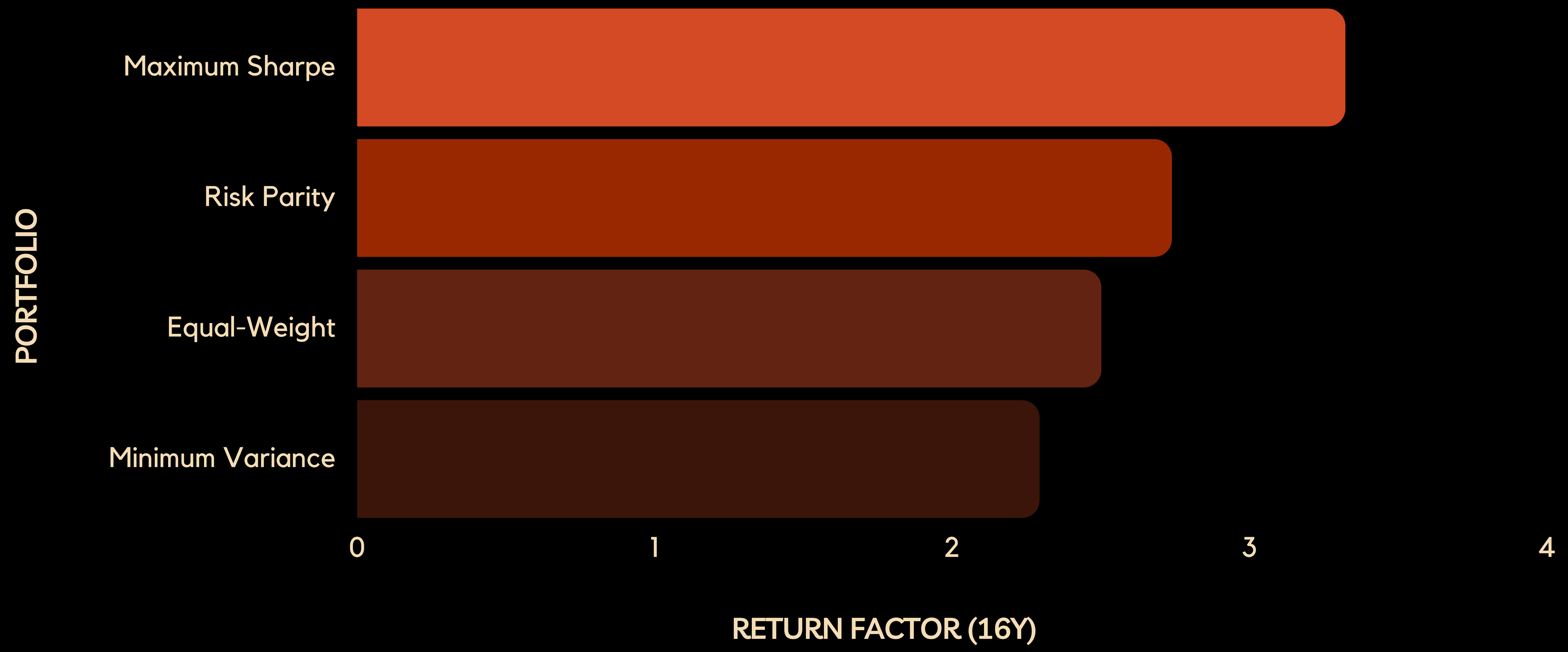
MODEL SELECTION
FREQUENCY





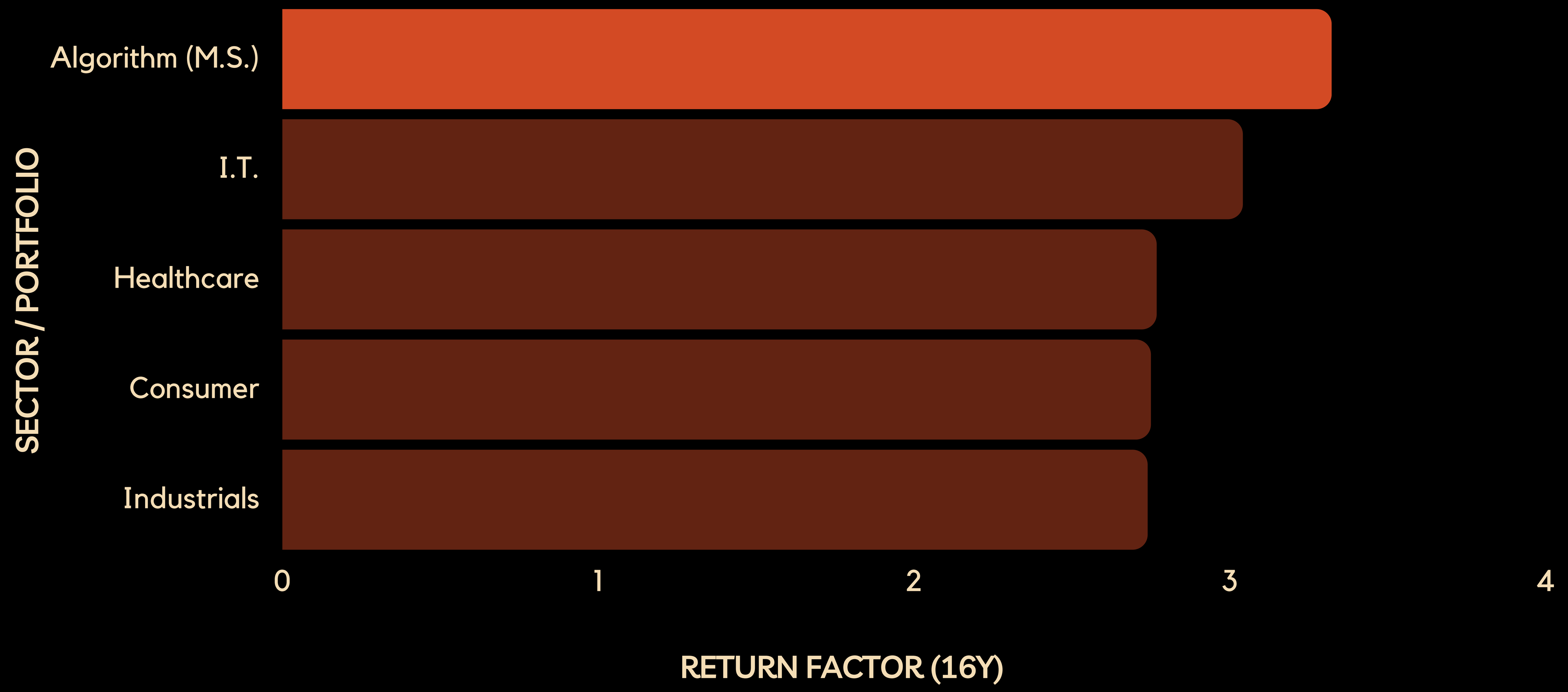
BACKTESTING

PORTFOLIOS



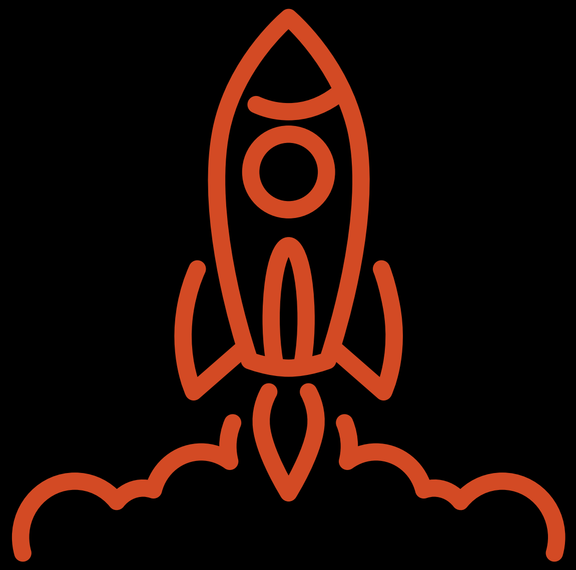
BACKTESTING

AGAINST SECTORS



BACKTESTING

AGAINST SPY

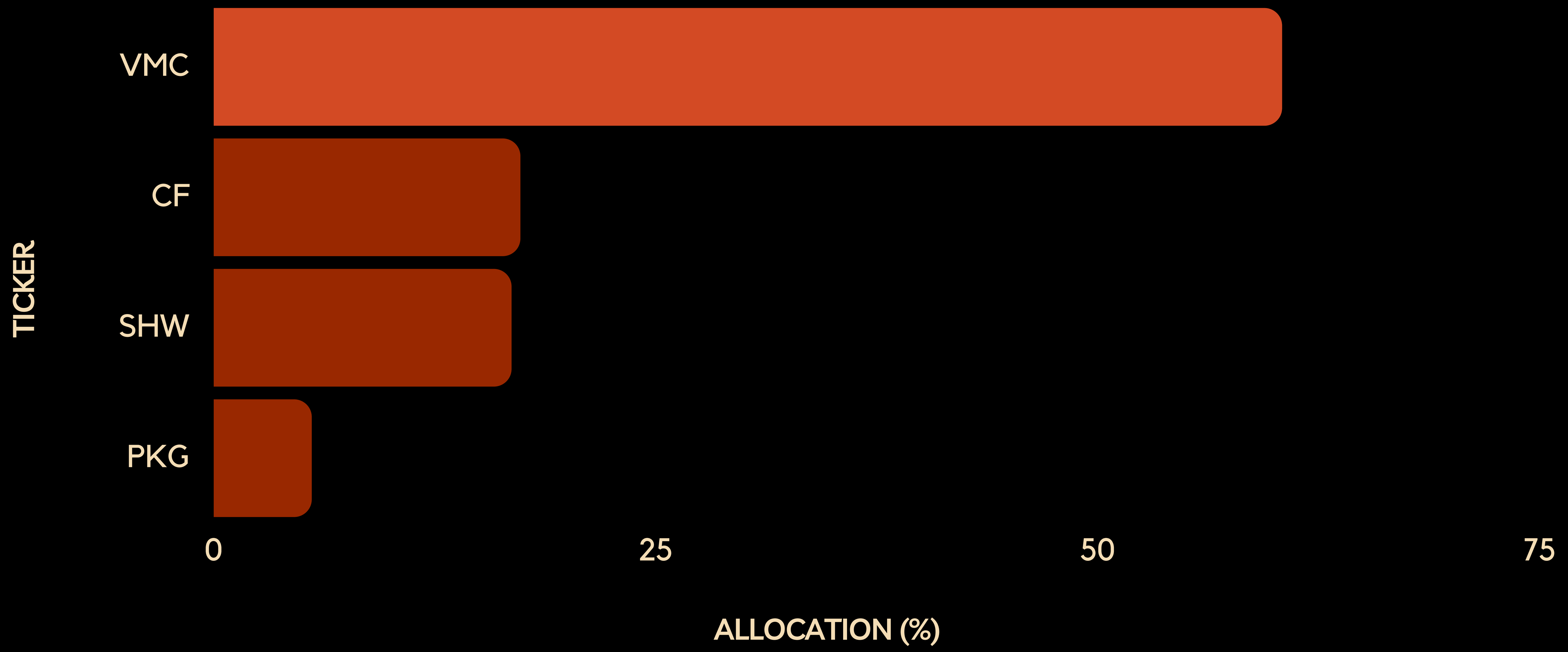


OUTPERFORMANCE

α = 67%

RECOMMENDATION

MATERIALS



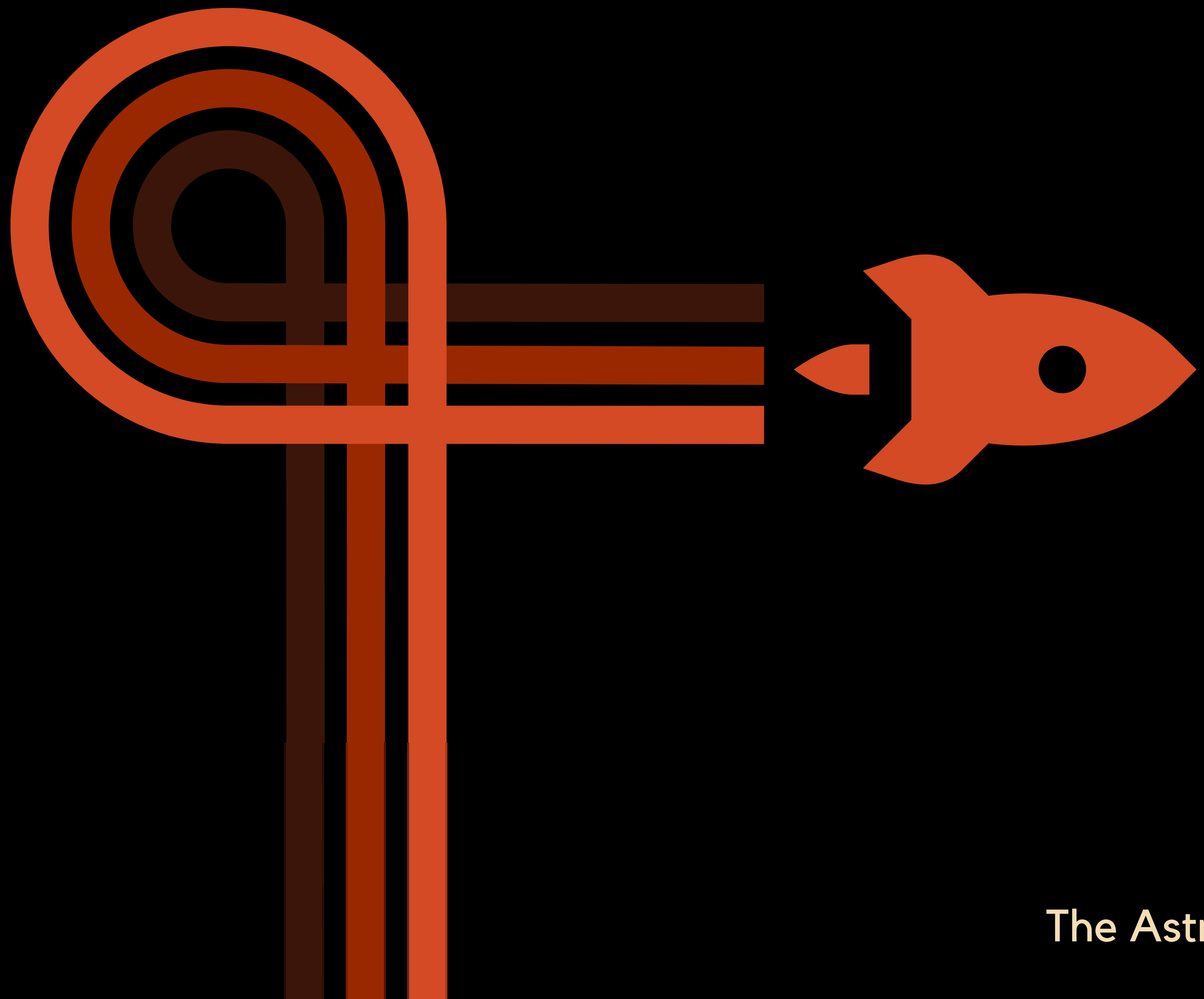
PORTFOLIO STATS

based on the past half year

Sharpe Ratio	Annual Return	Annual Risk
2.21	1.17x	15.65%

NEXT STEPS

- Consider multi-sector portfolios
- Enlarge training window
- Explore neural networks
- Explore more optimization methodologies



Your wealth is safe with us.