

# Strategy Blueprint



Template



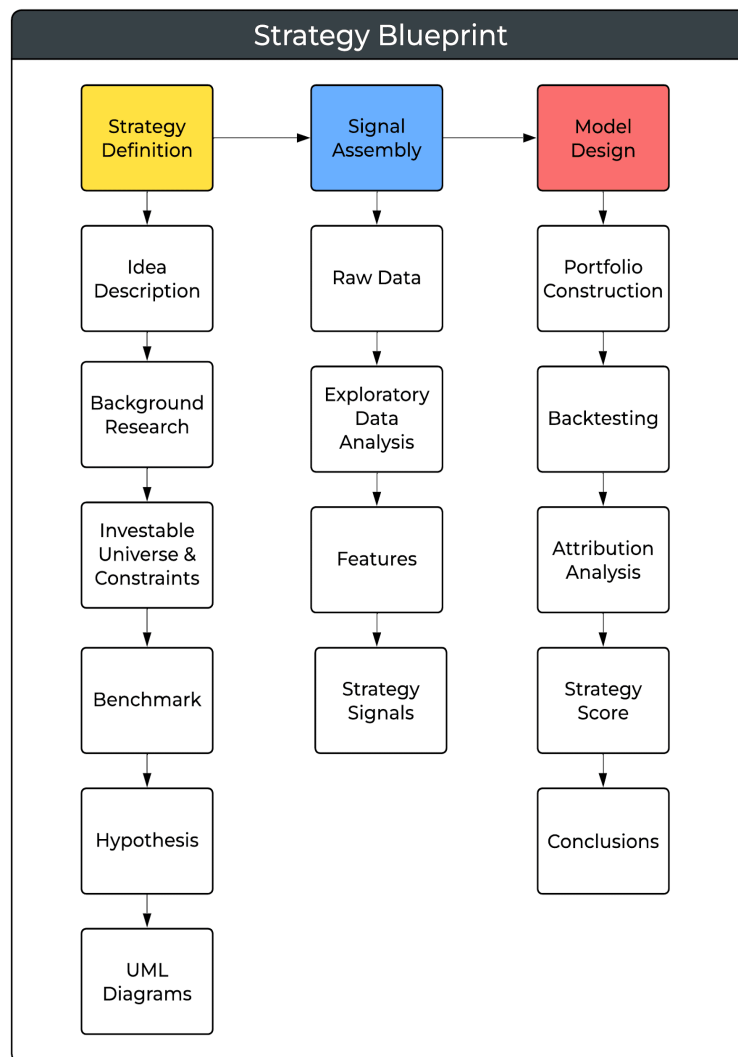
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The Process Flow:

**Strategy Definition:** Moving beyond "intuition" to a formal hypothesis.

**Signal Assembly:** Transforming raw data into predictive signals.

**Model Design:** Implementing portfolio construction selection, timing, and sizing.



Strategy Blueprint



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# Strategy Definition

## Idea Description

Explain the idea of the strategy and why you think it can be successful.

Be as specific as possible about the asset class you want to explore and the underlying money making idea.

## Background Research

Check if similar ideas have been tested and validated.

## Paper Title

**Date:** dd-mm-yyyy

**Link:** <https://www.kaxanuk.mx/>

- Bullets that discuss the strategies ideas.

## Investable Universe and Constraints

- US Country ETFs, Global Stocks,
- The tickers must have more than three months of trading history
- Market capitalization thresholds
- Liquidity requirements like minimum daily volume traded
- Asset class restrictions
- Geographic limitations
- Long only
- Long / short
- Cash only
- Leverage
- Margin
- Sector
- Factor exposure limits
- Benchmark tracking error



# Benchmark

- Indices
- ACWI ETF
- Equal Weight Country ETFs
- SPDR S&P 500 ETF Trust
  - FMP Ticker - SPY
  - ISIN - US78462F1030
  - Ipo - 1/29/1993
  - Link - <https://www.ssga.com/us/en/intermediary/etfs/spdr-sp-500-etf-trust-spy>

# Hypothesis

## Market Inefficiency

- Price momentum exists due to investor underreaction to news
- Earnings announcement drift persists due to slow information diffusion

## Risk Premium

- Companies with higher volatility should offer higher returns
- Illiquid stocks command a premium for holding risk

## Fundamental

- Companies that are undervalued or overvalued

## Behavioral

- Investors systematically overreact to negative news
- Retail investors chase past performance creating predictable patterns

## Structural

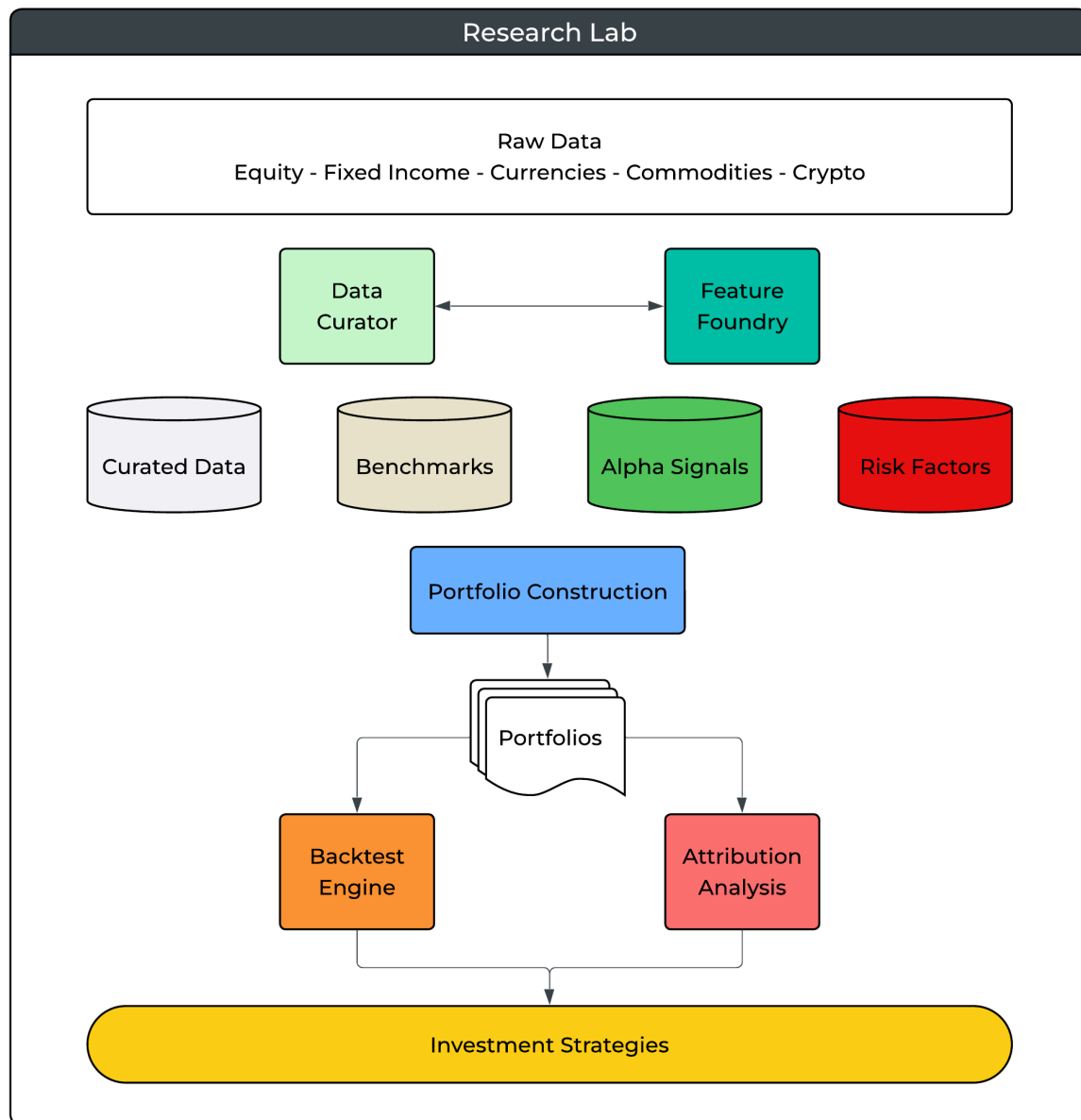
- Quarter-end rebalancing creates temporary price pressure
- Options expiration affects underlying stock volatility



## Null Hypothesis

- Beat the benchmark

## Unified Modeling Language Diagrams



Research Lab



# Signal Assembly

## Raw Data

The variables that we want to analyze:

- Market Data Open, High, Low, Close
- Fundamental Income, Balance Sheet, Cash Flows
- Analyst Estimates
- Earnings Transcripts
- Economic
- News

## Exploratory Data Analysis

### Time Series and Cross Sectional Analysis

- Price trends and patterns
- Volatility clustering
- Seasonality and cyclical patterns
- Return distributions

### Key Financial Metrics

- Returns (daily, monthly, annual)
- Risk measures (standard deviation, VaR, beta)
- Trading volumes
- Price-to-earnings ratios
- Market capitalization

### Common Visualizations

- Candlestick charts
- Moving averages





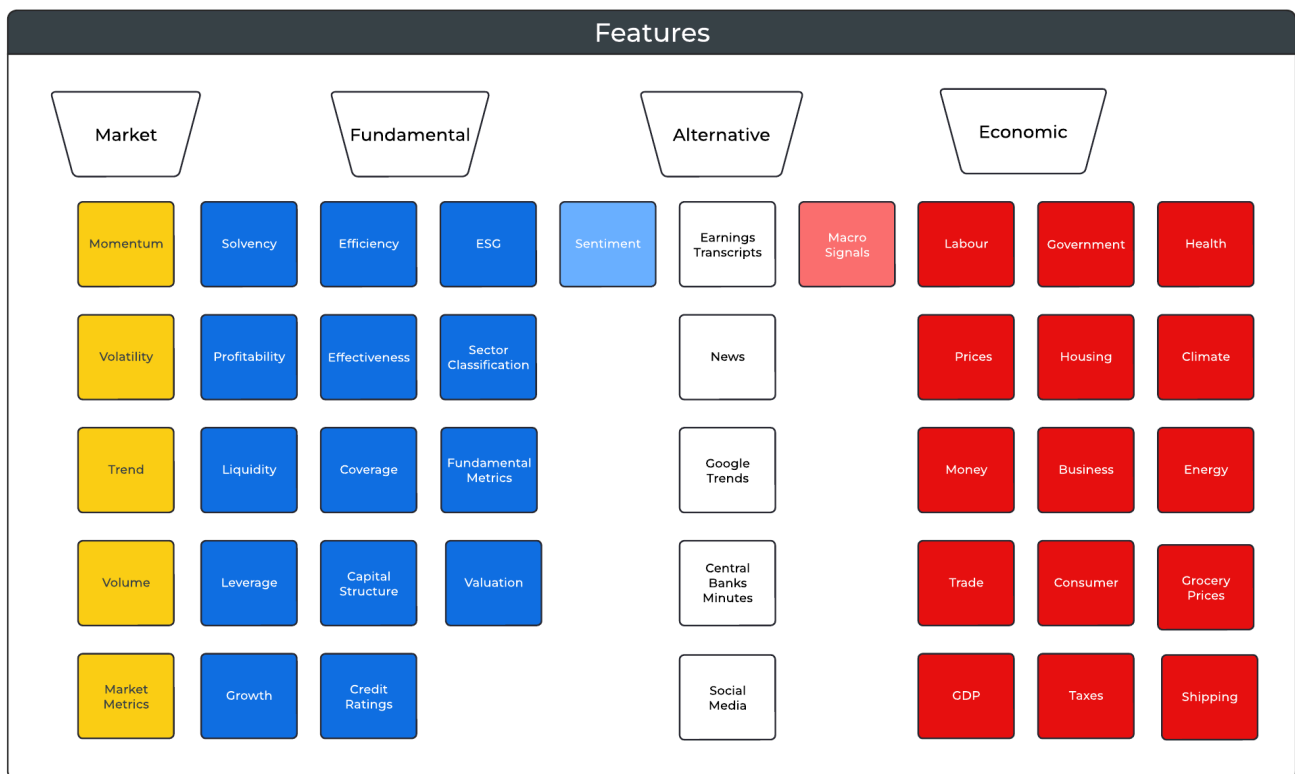
- Correlation heatmaps
- Box plots for return distributions
- Volume analysis

## Features

Describe the features you will use:

- Momentum
- Volatility
- Value
- Quality
- Growth
- Sentiment
- Macro Signals

To avoid overfitting, try to keep these features constant until the end of the research project.



Features Overview



# Strategy Signals

## Binary Filter

- Regime change
- Risk-On, Risk-Off
- Specific filters

## Ranking Approaches

- Linear combinations
- Non-linear transformations
- Machine learning models
- Dynamic weighting schemes
- Regime-dependent weights
- Percentile rankings
- Z-scores
- Quantile assignments
- Cross-sectional ordering
- Multi-factor ranks

## Probabilistic Frameworks

- Return distribution estimates
- Statistical confidence measures
- Bayesian updating methods
- Probability of outperformance
- Risk-adjusted forecasts

## Expected Return Models

- Factor return forecasts
- Risk premium adjustments
- Transaction cost estimates
- Decay rate modeling
- Capacity considerations



# Model Design

## Portfolio Construction

Taking into account the model logic, we can construct historical portfolios under different approaches and constraints:

- Stocks portfolios target 35 holdings
- Revised daily and dynamically rebalanced depending on the eligible universe (rebalancing triggered by regime changes for individual stocks and portfolio-level constraints).
- Weighting by Traded Value: Stocks in a bull regime are weighted proportionally to their traded value, subject to caps.
- Maximum Weights Limits: Maximum 20% in any single name.
- Long-only.

## Backtesting

### Constraints

- Benchmark
- Broker Fees (Cents or Basis)
- Slippage
- Tax Implications
- Fill
- Buying Power
- Settlement
- Short availability
- Margin Interest Rate
- Cash Investment

### Performance Metrics

- Returns and risk-adjusted returns
- Maximum drawdown
- Volatility measures



- Trading frequency and turnover
- Position holding periods

## Implementation Feasibility

- Capacity analysis
- Transaction cost impact
- Operational requirements
- Capital needs
- Market accessibility

## Strategy Robustness

- Out-of-sample performance
- Parameter sensitivity
- Market regime analysis
- Seasonality effects
- Diversification benefits

## Strategy Evolution

- Adaptation to market changes
- Parameter optimization
- Overfitting assessment
- Improvement opportunities
- Lessons learned

## Always Remember

Keep track of your backtesting results to avoid overfitting and data mining. Complete the attribution analysis before making any changes to the combination logic or portfolio construction and risk considerations.



# Attribution Analysis

## Benchmark Comparison

- Absolute return differences
- Tracking error analysis
- Information ratio
- Active share metrics
- Risk-adjusted performance

## Sector and Industry Analysis

- Active sector weights vs benchmark
- Sector contribution to returns
- Sector timing decisions
- Industry rotation effects
- Sector correlation impacts

## Security Selection

- Stock-specific returns
- Position sizing impact
- Entry/exit timing
- Selection skill within sectors
- High conviction positions

## Factor Decomposition

- Style factor exposures
- Risk factor contributions
- Alpha factor effectiveness
- Factor timing
- Factor interaction effects



## Position-Level Controls

- Stop-loss triggers and execution
- Position size limits
- Sector / industry caps
- Concentration limits
- Entry / exit rules

## Portfolio-Level Management

- Overall leverage limits
- Net exposure targets
- Beta neutrality requirements
- Factor exposure constraints
- Correlation controls

## Drawdown Management

- Maximum drawdown limits
- Time under water rules
- Recovery targets
- Capital preservation rules
- De-risking triggers

## Stress Testing

- Historical scenario analysis
- Market regime testing
- Volatility shock scenarios
- Liquidity stress events
- Correlation breakdown tests

## Strategy Score

Use the Strategy Scoring Template to find areas for improvement.



# Conclusions

## Hypothesis Validation.

Understand statistical implications and assess strategy consistency.

## Is This An Implementable Strategy?

Provide specific bullets to understand if the strategy should be implemented for paper trading.

- Factor decay is real - signals weaken over time
- Market impact can kill returns
- Capacity constraints matter
- Technology and infrastructure is critical
- Risk management is as important as alpha

## Next Steps

### Production Implementation

- Build robust production infrastructure
- Set up real-time data pipelines
- Implement automated monitoring systems
- Create failover procedures
- Develop live paper trading environment

### Strategy Enhancement

- Refine risk management framework
- Explore additional alpha factors
- Optimize execution algorithms
- Consider strategy combinations/ensembles
- Research regime adaptation methods



## Performance Monitoring

- Define key performance indicators (KPIs)
- Establish monitoring dashboards
- Create alert systems
- Set up regular review processes
- Track factor exposures

## Business Considerations

- Calculate realistic capacity limits
- Develop scaling plans
- Establish capital raising strategy
- Consider operational requirements
- Plan for team expansion needs

# Findings, Concerns and Decisions

## Topic Title

**2024-07-28**