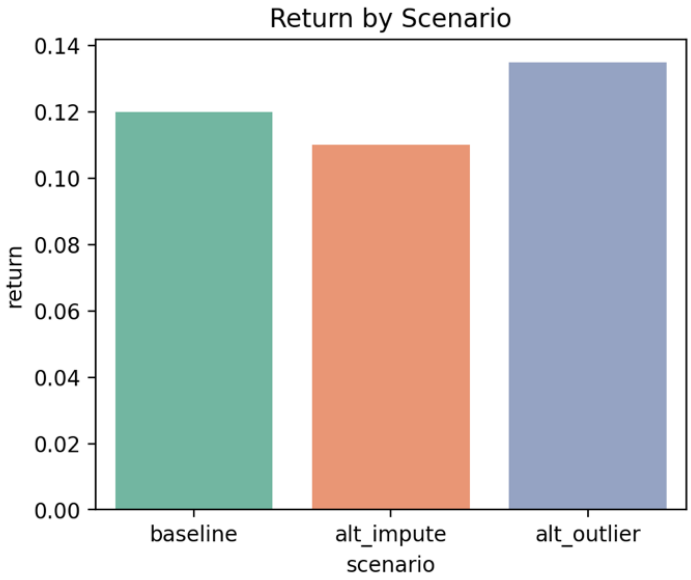
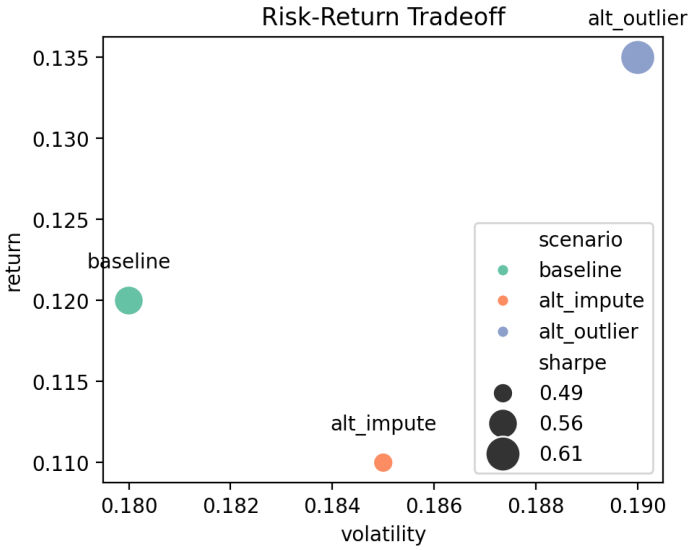
Scenario Analysis Dashboard

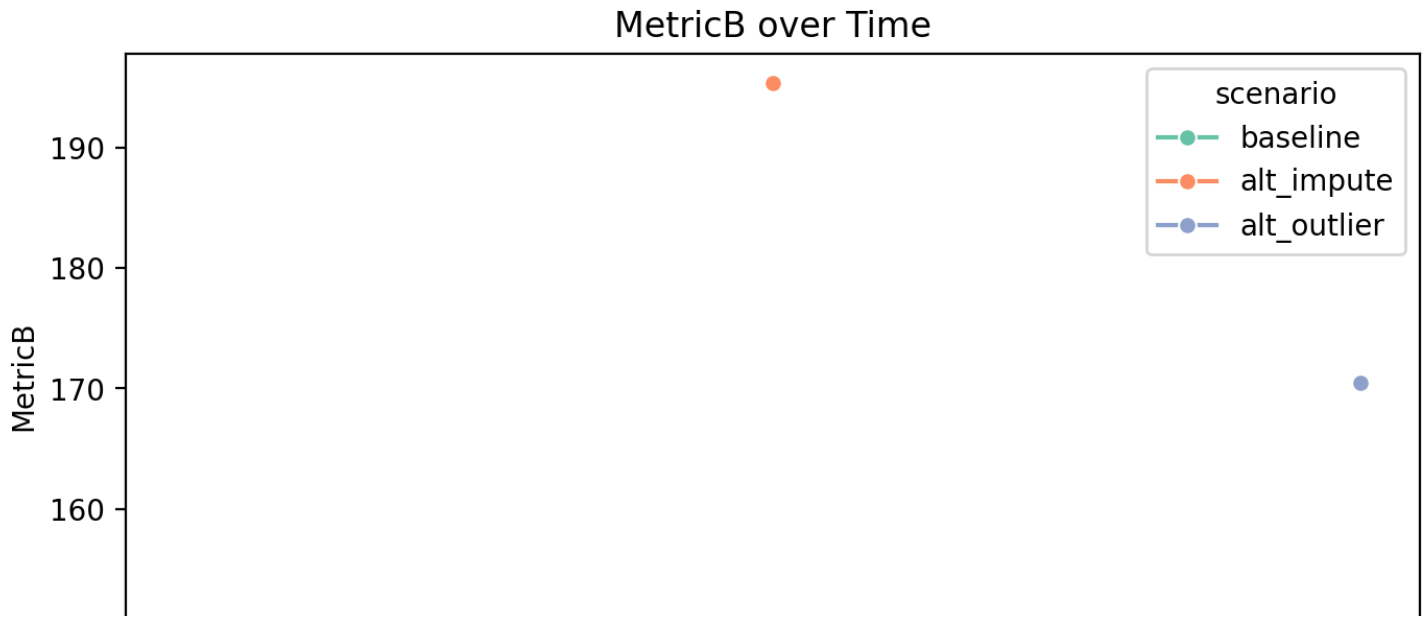
Executive Summary

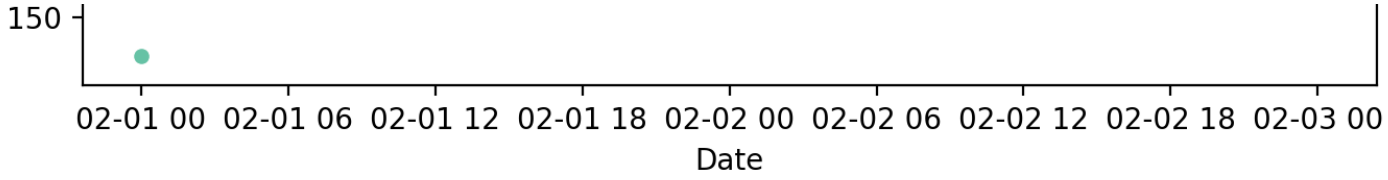
- Baseline delivers a balanced profile (Sharpe ~0.56).
- Alt-impute lowers risk-adjusted return (Sharpe ~0.49).
- Alt-outlier shows strongest Sharpe (0.61) but with higher volatility.

Visualizations









Assumptions & Risks

- **Baseline** assumes median imputation of missing data.
- **Alt-impute** assumes mean imputation, which can distort if outliers exist.
- **Alt-outlier** removes >3σ outliers, improving Sharpe but risking data loss.

Risks: Overfitting scenario choice to historical noise, limited sample size, and assumption-driven bias.

Sensitivity Analysis

Choose scenario to stress-test

alt_impute

Comparing **Baseline** vs **alt_impute**:

- Return: 0.120 → 0.110
- Volatility: 0.180 → 0.185
- Sharpe: 0.560 → 0.490

Decision Implications

- If you prefer **stability**, baseline is safest.
- If you want **higher Sharpe**, outlier-adjusted scenario looks best.
- Mean imputation underperforms and may be less reliable.

➡️ **Recommendation**: Consider using outlier-adjusted data but validate robustness with larger samples.