





Risk-Return by Scenario:

alt impute (Alternative Imputation): The risk-return points are concentrated in the central region, indicating that this method achieves a relatively good balance between risk and return, tending toward stability.

alt outlier (Alternative Outlier Treatment): The points are skewed toward the right (higher risk) and the top (higher return), suggesting that this method may be more aggressive, with greater potential returns but also higher risk.

baseline: Serves as a benchmark for comparison to measure the improvement of other methods.

Return by Scenario:

average return of different scenarios

MetricA Over Time by Category:

Category Y: The value of MetricA has shown a clear and continuous downward trend since January 2025.

Category Z: The data exhibits high volatility with significant high-frequency fluctuations. Overall, MetricA shows no clear upward or downward trend.

Category X: After a clear and continuous decline starting in January 2025, the value of MetricA has shown some signs of recovery.

```
scenario avg_return avg_volatility avg_sharpe max_MetricA \
0 alt_impute
                0.117114
                                0.180225
                                           0.554651
                                                     109.926668
1 alt_outlier
                                0.177446
                                           0.558798 109.704647
                0.126353
     baseline
                0.119164
                                0.180135
                                           0.550664 116.679442
  min_MetricB
                                         assumptions
                                                                   values
0 61.524850 outlier_rule, normalization, imputation mean, median, 3sigma
   76.351811 imputation, outlier_rule, normalization 3sigma, mean, median
    77.273539 normalization, imputation, outlier_rule median, 3sigma, mean
```