SIGNAL RESEARCH NOTE

Dynamic Pair Residual Rank

Short-horizon pair-relative ranking with dynamic residual scaling.

Dynamic Pair Relative Value | Secondary research | 5d preferred horizon

Executive Summary

This note summarizes historical rank evidence for Dynamic Pair Residual Rank. Metrics are reported as research diagnostics under the source-run assumptions and should be read as evidence about ranking behavior, not as a live recommendation.

Preferred horizon	5d
Top-bottom spread	0.38%
Rank IC	0.037
Long-leg return	n/a
Average turnover	63.76%

1. The preferred diagnostic horizon is 5d, where the recorded rank spread is 0.38%.
2. Rank IC is positive in the reported research run at 0.037.
3. The signal is best read as a research-library ranking component, not as a standalone product.

Data and Research Setup

UNIVERSE

Broad liquid equity universe used to form the source run's relative-value pair panel.

INPUTS

Daily closing prices and lag-safe pair-state observations available at each research date.

CADENCE

Short-horizon pair-relative ranking review at a 5d forward horizon.

COMPARISON BASIS

Comparisons use the same universe and source assumptions inside each run. The note excludes instrument-level lists and live recommendations.

The source files were used for historical research extraction only. This note does not include instrument-level lists or position-level recommendations.

Signal Methodology

Without disclosing the exact functional, the construction proceeds along three conceptual steps.

1. **Signal measurement.** Measures short-horizon relative-value conditions from lag-safe residual and pair-state information.

2. **Cross-sectional ranking.** Ranks pair observations through expanding out-of-fold estimates with dynamic exposure scaling.

3. **Horizon evaluation.** Evaluates whether the ranking remains coherent across chronological splits and conservative cost assumptions.

The description is intentionally conceptual. Formula details, exact construction rules and implementation parameters are not disclosed.

Results and Horizon Context

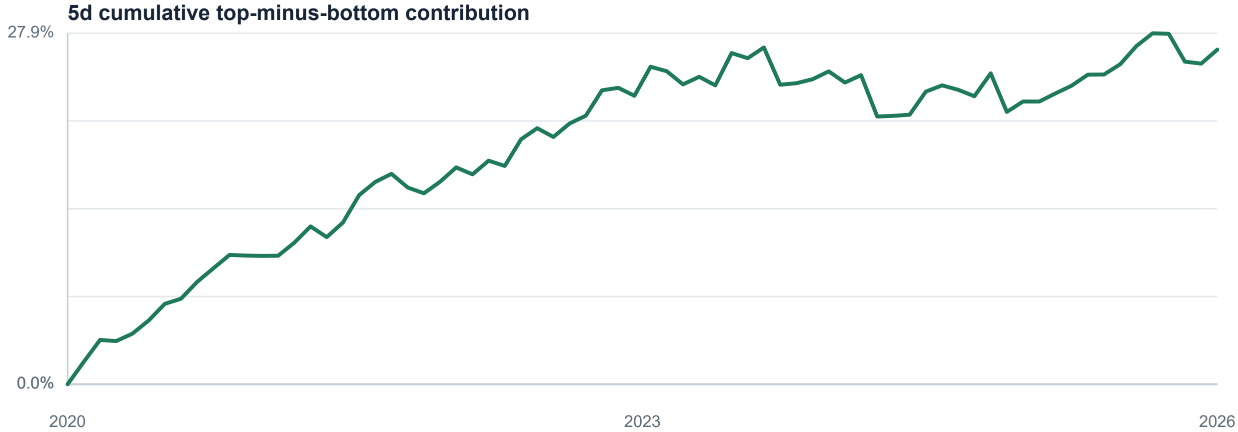

Figure 1. Cumulative 5d top-minus-bottom rank-spread contribution. Long-horizon forward observations can overlap, so the series should be read as a ranking diagnostic, not as a standalone portfolio NAV.

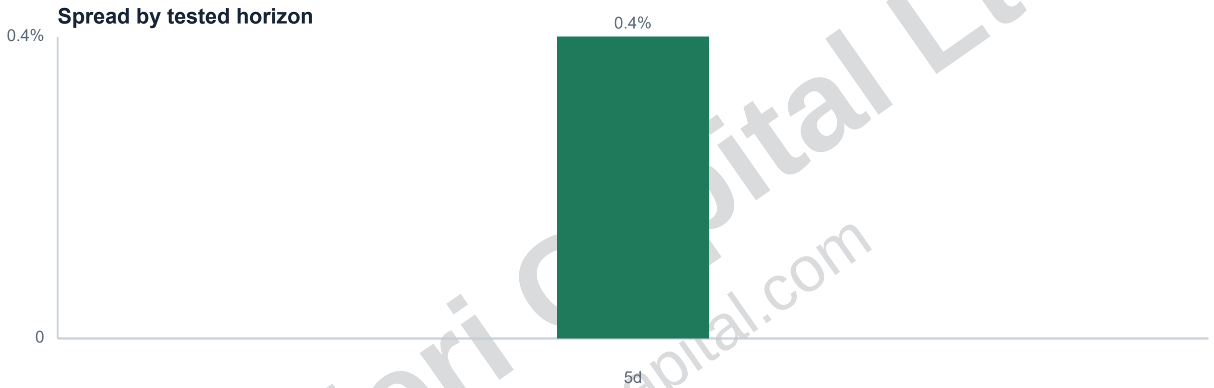

Figure 2. Spread profile across the tested horizons available in the source validation summary.

Horizon	Rank spread	Rank IC	Long-leg return	Turnover
5d	0.38%	0.037	n/a	63.76%

Stability and Robustness

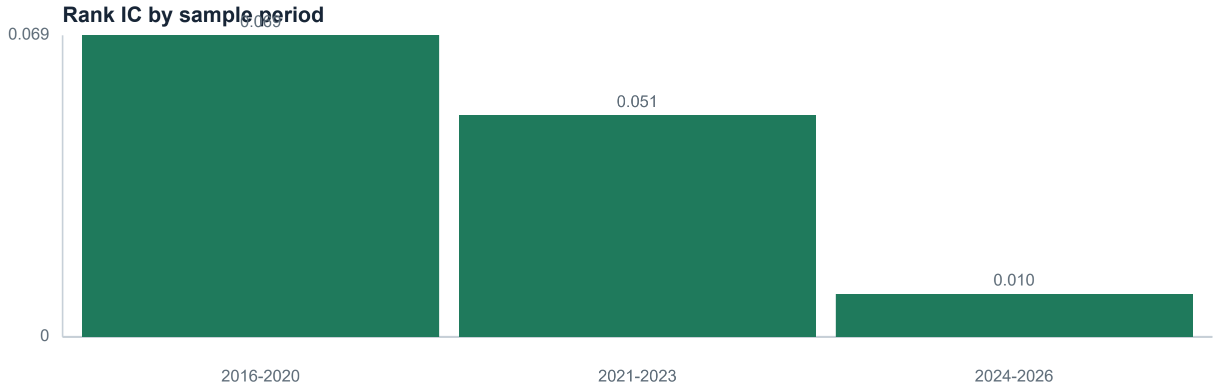

Figure 3. Rank-IC evidence across chronological sample periods from the source OOS audit.

Chronological sample splits provide the appropriate stability view for this diagnostic.

Positive-year fraction	n/a
Universe size	3,000
Validation dates	71

Research Interpretation

ROLE IN RESEARCH LIBRARY

Secondary pair-relative ranking challenger inside the research library.

WHAT IT CAPTURES

Short-horizon residual dislocations under dynamic pair-state scaling.

KNOWN LIMITATIONS

The source run covers 71 validation dates and includes one failing later split, so the evidence remains secondary.

The evidence supports retaining the signal in the research library where it can be compared with related components under the same assumptions.