Cover Letter

Date: September 15, 2024 **To:** Editor-in-Chief, Journal of Financial Economics **From:** Prof. Dr. Joerg Osterrieder

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Dear Editor,

We are pleased to submit our manuscript titled **"NarrativeBreak: Integrating Structural Break Detection with Multi-Source NLP Signals for Dynamic Portfolio Optimization"** for consideration for publication in the Journal of Financial Economics.

Summary of Contribution

This paper introduces NarrativeBreak, a novel framework that bridges the gap between natural language processing and portfolio optimization. Our key contributions include:

1. **Early Detection of Regime Changes:** We demonstrate that narrative sentiment shifts precede price-based structural breaks by approximately 5.7 trading days, providing economically valuable lead time for portfolio adjustment.

2. **Hierarchical Sentiment Aggregation:** We introduce "narrative beta"—a measure of asset sensitivity to market-wide narrative shifts, analogous to market beta in the CAPM.

3. **Confidence-Calibrated Views:** We provide principled uncertainty quantification for Black-Litterman integration, automatically down-weighting views when NLP methods disagree.

4. **Comprehensive NLP Benchmark:** We present the first systematic comparison of lexicon, transformer, and LLM methods for portfolio performance—not just classification accuracy.

5. **Full Reproducibility:** Our experimental framework uses synthetic data calibrated to real market statistics, enabling complete verification without commercial data access.

Fit with Journal Scope

The manuscript addresses fundamental questions about the role of textual information in financial markets, aligning with JFE's interest in asset pricing, behavioral finance, and market microstructure. Our findings have both theoretical implications (the lead-lag relationship between narratives and prices) and practical relevance (implementable portfolio strategies).

Funding Acknowledgment

Declarations

- The manuscript has not been published elsewhere and is not under consideration by another journal.
- All authors have approved the manuscript and agree with its submission.
- The paper includes a reproducibility framework with synthetic data; all code will be made available upon publication.

- No conflicts of interest to declare.

Suggested Reviewers

Based on expertise in NLP for finance and portfolio optimization:

1. Prof. Paul Tetlock (Columbia Business School) - Pioneering work on textual analysis in finance
2. Prof. Bryan Kelly (Yale School of Management) - Machine learning and asset pricing
3. Prof. Tarun Ramadorai (Imperial College London) - Textual analysis and household finance

We thank you for considering our submission and look forward to your response.

Sincerely,

Prof. Dr. Joerg Osterrieder Bern University of Applied Sciences University of Twente Email: joerg.osterrieder@bfh.ch

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Note: This is a simulated cover letter for demonstration purposes.