Narrative Asset Pricing: Interpretable Systematic Risk Factors from News Text

1. What are the research questions?

1) How can news narratives be used to construct interpretable systematic risk factors?

2) Do narratives help identify the ICAPM state variables that drive expected returns?

2. Why are the research questions interesting?

First, ICAPM theory predicts that expected returns depend on exposures to state variables, but these variables are unobservable and difficult to measure empirically. Second, traditional proxies either lack timeliness or lack interpretability. Third, news narratives contain timely and human-interpreted economic information, which contains contemporaneous shocks and forward-looking expectations.

3. What is the paper's contribution?

It integrates LDA topic modeling, Sparse IPCA, and group lasso to construct a narrative-based factor pricing model, and it can predict systematic return variation. It can also be used to forecast a wide range of variables, such as market returns, consumption, employment, credit spreads, and other macroeconomic indicators.

4. What hypotheses are tested in the paper?

1) Narrative attention shocks extracted from news text contain systematic risk information relevant for asset pricing

2) Narrative-based factors explain the cross-section of returns better than standard characteristic-based factor models.

3) Narrative factors have predictive content for future investment opportunities and macroeconomic variables.

5. Comment on the appropriateness of the sample selection procedures

This paper uses texts from Wall Street Journal business-related articles from 1984–2017

6. Comment on the appropriateness of variable definition and measurement

1) Narrative attention: LDA topic proportions, 2) Narrative shocks: deviations from a 5-day moving average, and 3) Systematic risk factors: extracted using Sparse IPCA

7. Appropriateness of regression model specification

Sparse IPCA, which extends Fama–MacBeth logic to high-dimensional textual instruments

8. What difficulties arise in drawing inferences from empirical work?

Using WSJ alone may omit other sources of investor information, so more articles could be used.

9. Describe at least one feasible extension of this research?

More text types could also be applied to.