

Business News and Business Cycles

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1 Research questions

How to measure economic status and explore relationship between business news/cycles by news text analyzing?

2 Why are the research questions interesting?

- Measuring economic status and developing models to link measurements with future outcomes is the core task.
 - Models help consumers, investors, and policy makers for info acquisition and resource allocation.
- Current state of economic system is hard to measure and requires tons of resources for multiple aspects.
- It's quite tricky for researchers to determine the nature and evolution of economic states from these data.
- Providing a new method for measuring economic status through text analysis of business news matters.

3 What is the paper's contribution?

(1) Literature on Empirical Economics Research Using Text as Data

Previous: Text analysis application is limited, mainly used for macroeconomic forecasting/analyzing activities.

This: A complete macroeconomic text analysis framework: Selection of optimal topic models; Text enhanced VAR models; Topic selection algorithms, and methods for extracting economic cycle narratives from news.

(2) Literature on Using Text Data to Forecast Stock Market Returns

Previous: News sentiment and implied volatility predict stock returns, especially during economic downturns.

This: Showed how to extract market timing signals from news texts and proposed an online topic model prediction method to avoid forward-looking bias.

4 What hypotheses are tested in the paper?

H1: News texts can serve as an effective tool for measuring economic status and predicting economic activity.

H2: There is a significant correlation between news attention and economic fluctuations.

a) Do these hypotheses follow from and answer the research questions?

- The hypothesis of the article is based on a combination of theoretical framework and empirical research.

Do these hypotheses follow from theory or are they otherwise adequately developed?

- H1 is based on the theory of information transmission: news media act as intermediaries to transform economic events into written descriptions that reflect the importance of economic events to market participants.
- (Hansen et al. 2017) have begun to explore application of textual models in empirical economic research, providing preliminary empirical support for the hypotheses proposed in this paper.

5 Sample: comment on the appropriateness of sample selection procedures.

The Wall Street Journal, as an influential financial media, may not fully represent the tendencies of all medias.

6 Dependent and independent variables: comment on the appropriateness.

The correlation between variables has been confirmed in previous studies, which increases their appropriateness.

7 Regression model specification: comment on the appropriateness.

By online LDA and group Lasso regression, standardization and prediction process of model are transparent.

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

When containing a large amount of text data and topic models, over-fitting may occur, where the model is too complex to capture noise in the data rather than signals, resulting in poor generalization ability.

9 Describe at least one publishable and feasible extension of this research.

In today's increasingly important global economic policy coordination, understanding the dissemination of economic information in different cultural backgrounds is of great significance for policy-making.

- By comparing major news sources from different countries, researchers can analyze how cultural differences shape reporting and interpretation of economic events, and how these differences affect the interconnectedness of global economic activities.