Big Data Meets the Turbulent Oil Market

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December 22, 2020

Forecasting oil market outcomes remains a challenge even with novel text-based analysis.

RWP 20-20, December 2020; updated November 2022

This paper introduces novel news-based measures for tracking global energy markets. These measures compress thousands of news articles into a parsimonious set of real-time indicators and are successful in-sample forecasters of oil spot, futures, and energy company stock returns, and of changes in oil volatility, production, and inventories, complementing and extending traditional (non-text) predictors. In out-of-sample tests, text-based measures predict oil futures returns and changes in oil spot prices better than traditional predictors, although the latter are more useful for forecasting changes in oil volatility.

JEL Classification: C52, G10, G14, G17, Q47

Appendix

Article Citation

- Calomiris, Charles W., Nida Çakr Melek, and Harry Mamaysky. 2020. “Big Data Meets the Turbulent Oil Market.” Federal Reserve Bank of Kansas City, Research Working Paper no. 20-20, December. Available at https://doi.org/10.18651/RWP2020-20

Note: A previous version of this RWP from September 2021 was titled "Predicting the Oil Market"

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