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ECONOMIC POLICY UNCERTAINTY INDEX MEETS ENSEMBLE LEARNING

Abstract:

We utilize two specific ensemble learning methods (ensemble linear regression model (LM) and random forest (RF)), in a data-rich environment of the Newsbank media database to scrutinize the possibilities of enhancing the predictive accuracy of Economic Policy Uncertainty (EPU) index. LM procedure mostly outperforms both RF-based assessments and the original EPU index. We find that our LM estimate behaves more like an uncertainty indicator than the RF-based uncertainty or the original EPU index. It is strongly correlated to other standard uncertainty proxies, it is more countercyclical, and it has more pronounced leading properties. Finally, we considerably widen the scope of search terms included in the calculation of EPU index. We find that the predictive precision of EPU index can be considerably increased using a more diversified set of uncertainty-related terms than the original EPU framework.

Keywords:

Economic Policy Uncertainty Index; textual analysis; ensemble learning; random forest model

JEL Classification: C55, E03, E32