

# Extracting firms' short-term inflation expectations from survey comments using text analysis\*

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## Abstract

This paper proposes a monthly quantitative indicator of firms' inflation expectations, developed from the textual data of a nation-wide survey for firms in Japan. The text-based expectations are computed by extracting firms' views from survey comments, using a machine learning method. Empirical analyses show that the indicator tends to precede consumer price inflation by several months and that it is highly correlated with existing quarterly indicators of inflation expectations, implying that the text-based expectations could be a timely indicator of firms' inflation expectations. The analyses also indicates that the text-based expectations comove with both demand and cost variables while it also includes unique information for forecasting inflation rates.

JEL classification: C53, C55, E31, E37.

Key words: Inflation Expectations, Machine Learning, Text Analysis.

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