

EconWorld2019@Seville

Forecasting Tourist Arrivals with Mixed Frequency Data: Google Econometrics

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ABSTRACT

It is reasonable to assume that what people search for online today is predictive of what they have done recently or will do in the near future, which is why Google has become one of the world's most valuable companies. This study analyzes the reliability of Google Trends data in predicting tourist arrivals and overnight stays in Prague during January, 2010 - December, 2016. Firstly, the study analyzes whether Google Trends offers significant forecasting improvements. Secondly, it assesses whether a higher frequency variable (weekly Google trends) is better for accurate forecasting of low frequency variable (monthly tourist arrivals) using Mixed-data sampling (MIDAS). The results of the study indicate an undeniable potential of Google Trends to offer more accurate forecasting, particularly for tourism: the results indicate that two months and one week ahead of arrivals Google Trends information is useful for assessing actual numbers of tourist arrivals. The forecasting of the indicators using weekly MIDAS models outperformed both monthly Google Trends and models without Google Trends.

KEYWORDS Google trends; mixed frequency data; forecasting; tourism

JEL C53, L83, Z32