

## RESEARCH TEAM PROFILES

### FACULTY

Faculty of Business and Economics

### RESEARCH AREA

Sentiment Analysis of Financial News, Social Media and Surveys

### RESEARCH TEAM

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Martin Širůček, PhD., Mendel University in Brno, Czech Republic

Jaroslav Bukovina, Mendel University in Brno, Czech Republic

Prof. Jarko Fidrmuc, Zeppelin University in Friedrichshafen, Germany

Prof. Laurent Weill, University of Strasbourg, France

Prof. Pavel Brazdil, University of Porto, Portugal

### EXPERT/TECHNICAL PROFILE OF THE TEAM (SPECIFIC PART OF RESEARCH)

The research group focuses on two areas, (1) impact of sentiment on financial markets and (2) perception of macroeconomic indicators. We employ time series and panel data analysis of the text mined data, macroeconomic shocks, institutional environment indicators, regional and firm controls.

The text mining procedures combine heterogeneous resources of textual data representing newspaper financial articles and attitudes of large number of individuals from social networks. Our contribution is in sentiment expressed by the commenting, liking and talking about the specific news. The panel and cross-sectional models reflect possible endogeneity problems and non-linearities (included threshold and asymmetric effects). In the field of time-series analysis we employ causality models of stationary and non-stationary datasets. Moreover we adopt time-frequency approach (wavelets) to identify short-term, medium and long-run fluctuations and co-movements in time series.

The theoretical part of the research develops economic agent behavior by focusing on its psychological aspects. We focus on irrationalities influenced by prevailing specific psychological states and information which are irrelevant to economic circumstances.



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## EXPERIENCE

- MARŠÁLEK, R., POMĚNKOVÁ, J., KAPOUNEK, S. A Wavelet-Based Approach to Filter Out Symmetric Macroeconomic Shocks. *Computational Economics*, 2014, 44 (4), 477–488
- DAŘENA, F., ŽIŽKA, J. Approaches to Samples Selection for Machine Learning Based Classification of Textual Data. *Computing and Informatics*. 2013, 32 (5), 949–967
- KAPOUNEK, S., LACINA, L. Inflation Perceptions and Anticipations in the Old Eurozone Member States. *Prague Economic Papers: Quarterly Journal of Economic Theory and Policy*. 2011, 2, 120–139
- Inflationary Indexes disposable at the website: <http://www.penize.cz/inflace>



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