

# Branka Matyska

## Contact

3001 Leuven  
Belgium

Phone: +32 472 040687  
Email: markovicbbranka@gmail.com  
Homepage : www.brankamatyska.net

## Work Experience

Postdoctoral Researcher, Paris School of Economics, July 2021- June 2022

Researcher, Paris School of Economics, March 2021 - May 2021

Researcher, Faculty of Economics and Business, KU Leuven, September 2016 - October 2017

Junior Researcher, Charles University - CERGE-EI, September 2015 - August 2016

## Education

Ph.D. in Economics, Charles University - CERGE-EI, 2021

M.Sc. in Applied Mathematics, University of Novi Sad, Faculty of Sciences, 2014

M.A. in Economics, Charles University - CERGE-EI, 2013.

B.Sc. in Mathematics, University of Novi Sad, Faculty of Sciences, with *Honours*, 2010

## Publications and Working Papers

"Salience, Systemic Risk and Spectral Risk Measures as Capital Requirements." *Journal of Economic Dynamics and Control*, 2021

*Abstract:* This paper evaluates the effectiveness of macroprudential capital requirements in the form of market risk measures in alleviating systemic risk, fire sales, and welfare losses in crisis resolution. We develop a general equilibrium, heterogeneous agent model with financial institutions subject to risk-based capital requirement constraint and compare the benchmark Value at Risk to three spectral risk measures. The key idea of alternative regulation is probability weighting by which regulators overweight outcomes that are salient to them relative to their objective probabilities. We show that prudential instruments based on solely overweighting of tail market losses are preferable for policy-makers aimed to reduce the likelihood of systemic crises. Focusing both on downside and upside risks increases households' welfare but results in the financial sector's risk-seeking preferences and exacerbates the systemic risk. The results suggest that overweighting worst-case and best-case outcomes can prevent fire sales, while overweighting intermediate losses leads to welfare improvements of the financial system after uncertainty shock.

"The Employment Effects of Corporate Tax Shocks: New Evidence and Some Theory"(with Vivien Lewis and Andrea Colciago)

*Abstract:* A substantial amount of job creation and destruction is associated with firm entry and exit. This paper asks whether corporate tax changes affect employment through firm turnover. We first identify the effect of a corporate income tax cut on net business and job creation in US data, using a narrative approach. We find a significant positive, though delayed, impact on job creation through firm entry and an immediate reduction in job losses through lower firm exit rates. Wages of new hires rise significantly, while aggregate wages exhibit a persistent rise in the wake of the policy change. Second, we show that the popular general equilibrium business cycle model with entry, exit and heterogeneous firms is inconsistent with several patterns observed in the data.

"How do Big Banks Evaluate Risk? Evidence from Capital Purchase Program"

*Abstract :* This paper empirically tests theories of the psychology of tail events, in particular prospect theory. We first present a model where banks are subject to the subjective expected loss constraint. Then, we estimate the probability weighting function from the asset pricing equation of the largest banks that were recapitalized under the Capital Purchase Program. When facing such rare events, banks demonstrate the coexistence of over- and underweighting of tail losses. Banks tend to overweight small probability losses during the financial distress and underweight the same when not exposed to insolvency risk. Before and during government interventions, big banks overweight losses of low probabilities and underweight losses of high probabilities, consistent with an inverse S-shaped probability weighting function of prospect theory. In contrast, after the recapitalization, we find banks' proneness to underweight tail events. The results suggest that this behavioral bias is linked to funding liquidity, prior gains and losses, market risk, investor sentiment, default probabilities, and policy uncertainty.

"Macroeconomics with Financial Sector Risk Constraints"

"Risk Management Policies of Central Clearing Counterparties", research funded by the grant FIRR of Agence Nationale de la Recherche, ANR-18-CE26-0015-0

## Research and Teaching Fields

macroprudential policy, financial regulation, risk management, financial markets, fiscal policy, monetary policy, derivative markets regulation

## Teaching

Monetary Economics, Teaching Fellow, KU Leuven, Fall 2017

Financial Markets, Teaching Fellow, CERGE-EI, Fall 2014

## Visiting Appointments

KU Leuven, Faculty of Business and Economics, Fall 2017

Princeton University, Department of Economics, Fall 2015

## References

Vivien Lewis  
Deutsche Bundesbank  
vivien.lewis@bundesbank.de

Andrea Colciago  
De Nederlandsche Bank & University of  
Milan - Bicocca  
A.Colciago@dnb.nl  
andrea.colciago@unimib.it

## Awards, Grants and Fellowships

Trainee Fellowship for Young Researchers, National Bank of Belgium, Fall 2016

Charles University Mobility Grant, Fall 2015

Citigroup Endowment Fellowship, Fall 2012 and Summer 2013

## Conference Presentations

5th Belgian Macroeconomics Workshop, University of Namur, Belgium, fall 2017

Final MACFINROBODS Conference, Goethe University in Frankfurt, Germany, summer 2017

## Additional Courses

*Partial Differential Equations in Finance*, Bendheim Center for Finance, Princeton University, United States, Fall 2015

*Asset Pricing*, Bendheim Center for Finance, Princeton University, United States, Fall 2015

*Financial Risk Management*, Operational Research & Financial Engineering, Princeton University, United States, Fall 2015

*Monetary Policy: Theory and Practice*, Kiel Institute, Kiel, Germany, September 2014

## Programming Skills

Matlab, R, Mathematica, Stata, Python