

Frantisek Masek

PERSONAL DATA

Address Via del Castro Laurenziano 9, 00161, Rome, Italy
Telephone (+39) 3274129141 / (+420) 777742010
E-mail frantisek.masek@uniroma1.it/frantisekmasek93@gmail.com

EDUCATION

Ph.D. Candidate in Economics 2020-continuing
Sapienza University of Rome, Department of Economics and Law

Supervisor: Marco Di Pietro

Research interest: Monetary Policy Rules, Effective/Zero Lower Bound, Heterogeneous Agent New Keynesian Models; Causal Inference in Spatial Econometrics

Research Visiting Stay Fall 2022-Spring 2023
University of Chicago, Center for Spatial Data Science

Master's Degree in Economic Analysis 2017-2019
Prague University of Economics and Business, Faculty of Economics

Bachelor's Degree in Economics and Economic Policy 2013-2017
Prague University of Economics and Business, Faculty of Economics

GRANTS AND FELLOWSHIPS

Fellowship for Foreign Nationals Educated Abroad 2020-2023
Sapienza University of Rome

Research Initiation Projects 2021
Sapienza University of Rome

WORK IN PROGRESS

Average Inflation Targeting in a Behavioral Heterogeneous Agent New Keynesian Model

with Jan Zemlicka

Winner of the Karel Engliš Prize for the best paper on the Czech economic policy awarded by the Czech Economic Society within the Young Economist of 2022 Award.

We analyze the optimal window length in the average inflation targeting rule within a Behavioral THANK model of Pfäuti and Seyrich (2022) that merges features of heterogeneity from Bilbiie (2021) and behavioral aspects from Gabaix (2020). The central bank faces an occasionally binding effective lower bound (ELB). We show that the optimal averaging period is infinitely long in the case of a conventional degree of myopia. However, for a higher cognitive discounting finite yet long-lasting window length dominates. We solve the model locally and globally to disentangle the effects of uncertainty about hitting the ELB in the future which may lead to a downward inflation bias in the case of the global solution. The welfare loss difference given the solution technique is considerably decreasing in the degree of history dependence.

Measurement of the Economics Knowledge of the Czech High School Students (R&R)

with Pavel Potuzák and Renan Serenini

The article investigates the economic knowledge of Czech high school students using a database of 18,589 participants from the 2019-2020 Czech Economics Olympiad. Czech high school students show solid comprehension of basic economics concepts, and principles of international economics, but understand substantially less about microeconomic and macroeconomic theory. We demonstrate that some prevalent features of the economic knowledge of students found in other countries are also present in the Czech Republic, including a gender gap. Our analysis confirms problematic aspects of the Czech education system which have been identified in prior studies, including large differences in education quality across types of schools and regions. This study can serve as a basis for ongoing experiments based on data from the Economics Olympiad.

Regional spillover effects of the Russian invasion of Ukraine in 2014

with Renan Serenini

We estimate the causal effect of the Russian invasion of Ukrainian regions Donetsk and Luhansk in 2014 on household disposable income. We are particularly interested in estimating both direct and indirect treatment effects. Hence, besides estimating economic consequences on the two regions, we also investigate the effects on neighboring regions. Based on possible violation of the SUTVA assumption when applying traditional quasi-experimental methods and including different Ukrainian regions amongst control units, we deploy tools that handle potential spillover effects of the treatment. Specifically, we use a spatial extension of difference-in-differences from Delgado and Florax (2015). On top of that, we also apply an adjusted version of the synthetic control method (SCM) - the inclusive SCM - from Stefano and Mellace (2020). We find a strong direct treatment effect, yet we cannot document any presence of spillovers through the indirect treatment effects.

TEACHING

Computational Methods in Macroeconomics (Ph.D.)

expected 2023

Setting up and teaching the whole course, Sapienza University of Rome

- Perturbation techniques and dealing with occasionally binding constraints in a local approximation.
- Intro to projection methods - spectral methods (Chebyshev polynomials) and finite element approach.
- Intro to reinforcement learning and dynamic programming - value function iteration, improvements, and policy function iteration.
- Incomplete markets models - Bewley-Hugget-Aiyagari and Krusell-Smith models.

Macroeconomics (Ph.D.)

2022

Teaching assistantship for Marco Di Pietro, Sapienza University of Rome

- New Keynesian models.
- Perturbation methods.

Monetary Macroanalysis (Graduate)

2021

Teaching assistantship for Van Quang Tran, Prague University of Economics and Business

- Perturbation methods.

Applied Macroeconomics and Policy (Graduate)

2021

Teaching assistantship for Massimiliano Tancioni, Sapienza University of Rome

- Estimation methods for DSGE models.

Monetary Economics (Graduate)

2021

Teaching assistantship for Marco Di Pietro, Sapienza University of Rome

- New Keynesian models.

Principles of economics

2016-2017

Private high school START

WORKSHOPS AND CONFERENCES

Midwest Macroeconomics Meeting Fall 2022 <i>SMU, Dallas</i>	2022
PhD Workshop on Expectations in Macroeconomics <i>Barcelona School of Economics</i>	2022
Ventotene Workshop in Macroeconomics <i>Sapienza University of Rome</i>	2022
SASCA Ph.D. Conference <i>Ca' Foscari University of Venice and University of Sassari</i>	2022
Sapienza Economics Ph.D. Summer Meeting <i>Sapienza University of Rome</i>	2022
Tools for Macroeconomists, University of Oxford <i>Tutors: Wouter den Haan, Petr Sedlacek, and Pontus Rendahl</i> Two Courses: The Essentials and Advanced Tools	2021

NON-ACADEMIC EXPERIENCE

Junior Economist in Dealing Department <i>FIO Bank</i>	2020
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AWARDS

The Karel Englis Prize for the best paper on the Czech economic policy awarded by the Czech Economic Society within the Young Economist of 2022 Award.

- **Name of the article:** Average Inflation Targeting in a Behavioral Heterogeneous Agent New Keynesian Model

Award from the Examination Board for an excellent diploma thesis and second place in the Dean's Award for the best master's thesis

- **Name of the master's thesis:** Monetary Policy Regimes: A DSGE Model Approach

Second place in the Dean's Award for the best undergraduate thesis

- **Name of the bachelor's thesis:** The Fed's Monetary Policy During the Time of Alan Greenspan as Chair of the Board of Governors

SKILLS AND ADDITIONAL INFORMATION

Languages: Czech-native proficiency, English-full professional proficiency, Italian-beginner
Software: Matlab, R, Stata, Eviews, and basics of Python; software platform Dynare embedded in Matlab; LaTeX; terminals Bloomberg or Thomson Reuters Eikon

REFERENCES

Marco Di Pietro, Ph.D.
Sapienza University of Rome

`marco.dipietro@uniroma1.it`

Massimiliano Tancioni, Ph.D.
Sapienza University of Rome

`m.tancioni@uniroma1.it`

Pavel Potuzak Ph.D.
Prague University of Economics and Business

`pavel.potuzak@vse.cz`

Van Quang Tran, Ph.D. et Ph.D.
Prague University of Economics and Business

`tran@vse.cz`