



The Public Defense
of the Doctoral Thesis in Economics
by

Olivér Miklós Rácz

on

Essays in Applied Macroeconomics

will be held on
Thursday, September 15, 2022 at 1:00 p.m.
online via Zoom (registration: szimlerk@ceu.edu)

Central European University
Doctoral School of Economics

Thesis committee:

Andrea Weber (Chair)

Judit Krekó (External member)

Zsófia Bárány (Internal member)

Supervisor:

Adam Szeidl

Examiners:

Paul Pichler, Associate Professor at the University of Vienna (External examiner)

Zsófia Bárány, Associate Professor at the Central European University (Internal examiner)

The doctoral thesis is available for inspection
at the CEU Department of Economics and Business.

Abstract

This thesis applies micro-econometric methods to macroeconomic questions. The first two chapters use country-level data to estimate the effect of distancing policy interventions on the effective reproduction number of COVID-19 and a set of economic outcomes. The third chapter identifies the average time it takes for an industry-level shock for getting transmitted to customer industries in the US economy.

Chapter One

Distancing policies became the primary preventive intervention during the COVID-19 pandemic. This chapter estimates the effect of such interventions on the effective reproduction number (R_t) of this virus on a daily panel of 109 countries. Distancing interventions affect COVID infections indirectly through the regulation of social behaviors, which are also a function of voluntary decisions. The main contribution of this chapter is the separation of policy-compliant and voluntary distancing effects. I identify the policy-compliant component of distancing behavior as rapid changes in social activity immediately after an intervention. This allows me to isolate the voluntary component as residual changes in activity. I use the isolated voluntary component as a control in the main estimation of distancing policy effects on R_t . I distinguish between (i) place restrictions: restricting destinations and (ii) mobility restrictions: regulations on inland movements. I find strong and permanent effects for both types of restrictions. Place restrictions that target specific destinations are found to be less effective than general mobility restrictions. The effect of voluntary distancing is also significantly negative but weaker than that of policy restrictions. These results suggest that governments can use distancing restrictions effectively in pushing the effective reproduction number below the containment threshold: $R_t = 1$.

Chapter Two

Distancing policy interventions (DPIs) were aimed at containing the COVID-19 pandemic, but they also had severe effects on economic activity. This chapter estimates the effects of DPIs on selected indicators of monthly economic activity, such as industrial and manufacturing production, construction output, retail trade, inflation, and unemployment. The main contribution of this chapter is the isolation of the causal effects of distancing interventions from the effects of voluntary distancing. I use mobility data as a measure of distancing to identify DPI effects as immediate changes in distancing shortly after the first intervention. I then use residual changes in distancing as a control in the estimation of the economic effects of DPIs. I find significant output losses due to DPIs, but no evidence for inflationary or unemployment effects. Results also show that although voluntary distancing caused significant output losses, their effect was an order of magnitude smaller than that of DPIs.

Chapter Three

While there is growing evidence for the network origins of aggregate volatility, this chapter investigates the potential for the network origins of aggregate dynamics. This chapter builds on the predictions of the production network model of Long and Plosser (1983). In this model, the average propagation time – the time a shock needs to get transmitted between producers – is undefined in calendar units. This chapter identifies the average propagation time of the US economy using annual data series of 66 industries. I find that it was between 4 and 8 months in past decades. That means the effect of a TFP shock propagates through the production network beyond the time horizon of a year, generating auto-correlated economic aggregates even without the help of auto-correlated shocks. This finding provides evidence for the network origins of aggregate dynamics at annual frequencies.

CURRICULUM VITAE

CONTACT INFORMATION

Name: Olivér Miklós Rácz
Date of birth: 10/08/1984
E-mail: racz_oliver@phd.ceu.edu
Telephone: +36 30 695 0285
Website: <https://sites.google.com/view/olivermiklosracz/home>

DOCTORAL STUDIES

2014 – 2022 Central European University, Department of Economics
Research interests: Applied Microeconomics, Macroeconomics
Thesis Advisor: Adam Szeidl

PRIOR EDUCATION

2019, Spring Visiting PhD student, Faculty of Economics, University of Cambridge
2010-2013 Central European University
Visiting Student at the Department of Economics.
2003-2009 Corvinus University of Budapest
Master Degree in Economics

GRANTS AND FELLOWSHIPS

2020, 2022 GTF Teaching Fellows Grant, CERGE
2019 Doctoral Research Support Grant, Central European University

RESEARCH IN PROGRESS

The Effect of Distancing Policies on the Reproduction Number of Covid-19
Economic Costs of Distancing
Network Origins of Aggregate Persistence
Dynamics of firm level input-output networks
With co-authors András Borsos and Lajos Szabó

PUBLICATIONS AND WORKING PAPERS

2011 Income Taxation, Transfers and Labour Supply at the Extensive Margin.
With coauthors Péter Benczúr, Gábor Kátay and Áron Kiss. In *Working Papers 487*,
Banque de France.
2012 Using confidence indicators for the assessment of the cyclical position of the economy,
MNB Bulletin (discontinued), 7(2), June , 41-46.

REFEREEING

Journal of Public Economics
Hitelintézeteti Szemle

PROFESSIONAL EXPERIENCE

2022- Corvinus University of Budapest
Assistant Professor

2019-2022 Central Bank of Hungary
Research and Education Expert

2009-2014, 2017-2019 Central Bank of Hungary
Senior Economist

2013-2014 Wage Dynamics Network, European Central Bank
Hungarian Survey Design

LANGUAGES

Hungarian (native), English (fluent), Italian (basic)

COMPUTER SKILLS

MS Office, Matlab, Stata – advanced, R – basic

VOLUNTEERING

2016-2022 Tarisznya Táborok Foundation
Organizer, Chairman of the Board of Trustees

2003-2009 Studium Generale at Corvinus
Volunteer

September, 2022