# Zoltán Rácz

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### **FIELDS**

Macroeconomics, Household Finance, Heterogenous Agent Models, Housing, Income Risk

## ACADEMIC POSITIONS

2023 -Stockholm School of Economics

Swedish House of Finance

Postdoc Fellow

**EDUCATION** 

2017 - 2023 Stockholm School of Economics

Ph.D. in Economics

2021 - 2022 New York University

Visiting Ph.D. student

2015 - 2017 Institute for Advanced Studies, Vienna

M.Sc. in Economics

2012 - 2015 Corvinus University of Budapest

B.Sc. in Economic and Financial Mathematical Analysis

### SCHOLARSHIPS AND AWARDS

2019 Jan Wallander and Tom Hedelius Grant for Studies Abroad

2017 - 2023 Stockholm School of Economics Full Doctoral Grant

2015 - 2017 IHS, Fully Funded Master's Program

2015 Corvinus University, Faculty of Economics

Special scholarship for professional or research activity

### TEACHING EXPERIENCE

### Stockholm School of Economics

Mathematics I (PhD level) Fall 2019, 2020

Teaching Assistant to Professor Jörgen Weibull

Spring 2019 Dynamic Macroeconomics (MSc level)

Teaching Assistant to Professor Kelly Ragan

Fall 2019 Math Camp (PhD level) Instructor

Fall 2018 Mathematics II (PhD level)

Teaching Assistant to Professor Mark Voorneveld

## Corvinus University of Budapest

Teaching Assistant

2013 - 2015 Microeconomics I and II (BSc level)

Linear Algebra I and II (BSc level) Real Analysis I and II (BSc level)

## OTHER INFORMATION

Programming: Julia, R, Matlab, Python, Git

Languages: Hungarian (native), English (fluent), German (basic),

Swedish (basic), French (basic)

Date of Birth: 04/09/1993 Citizenship: Hungary

### WORKING PAPERS

## Housing and Portfolio Choice over the Wealth Distribution

Why do the rich take more financial risk and earn higher returns on their portfolios? In this paper I argue that understanding the interdependence of optimal housing decisions, debt taking and portfolio allocation over the wealth distribution is key to explain this robust empirical pattern. Calibrating a rich life-cycle model to match saving and home ownership profiles over age in Swedish administrative data I find that the model predicts portfolio choice patterns over the wealth distribution providing a good fit to data, especially for home-owners. A key driver is the higher optimal housing share of wealth of wealth-poor households, which mechanically crowds out risky liquid assets from the portfolio. Since this mechanism also makes poorer households more leveraged, the effects are magnified by the wedge between borrowing and lending rates: if the interest rate on debt is higher, indebted households effectively face a lower risk premium, and thus are provided with lower incentives to hold risky assets. I decompose the effect of different channels and also show that the model predicts a higher marginal propensity of stock investments for the rich.

### Portfolio Choice and Life-Changing Decisions

How do long-term saving targets affect optimal saving and portfolio choice decisions? I analyze a continuous time stochastic optimal control and stopping time model in which the agent may up- or downgrade her utility flow, income or liquidity constraint at a chosen time at the cost of a monetary payment. This general framework covers applications such as home purchase, voluntary retirement, bankruptcy or starting a private business. For general preferences an analytical solution is provided and it is shown that under the natural borrowing constraint, the presence of such options increases risk taking and savings, and this effect is stronger closer to the optimal switching point. The deviation from optimal policies of Merton's benchmark model is characterized as a function of the monetary value of switching states and the expected subjective discount factor at the time of phase transition.

Preference heterogeneity and portfolio choices over the wealth distribution with Gualtiero Azzalini and Markus Kondziella

What are the key elements to generate portfolio choices over the wealth distribution in line with the data? In this paper, we argue that capturing preference heterogeneity across individuals is one of them. Using a partial equilibrium Bewley-type model with endogenous portfolio choice and cyclical skewness in labor income shocks, we show that heterogeneity in risk aversion, impatience and portfolio diversification is crucial to match the empirical schedules of unconditional risky share, participation and share of idiosyncratic variance in individual portfolios. At the same time, these elements generate dispersion in wealth through their heterogeneous effects on individuals' investment decisions resulting in a cross-sectional wealth distribution that provides a close fit of the data, particularly at the very top.

### WORK IN PROGRESS

## Human capital inference

with Gualtiero Azzalini

There is a long-standing literature in economics whose goal is to infer properties of individuals' income and human capital and their impact on consumption-saving decisions by using revealed choices, especially on consumption. While this approach is superior to the utilization of income data alone, it nevertheless relies on very strong assumptions on the form of the stochastic process for income, in particular it hard-wires the relationship between shocks to current income and expected future income, that is, human capital. In this paper we develop a new method that enables to perform this task without imposing any restriction on the latter. Specifically, we log-linearize the recursive relationship defining human capital, insert it into a linearized savings policy function and derive moment conditions which, in turn, we use for GMM estimation of the parameters governing moments of the joint and marginal distributions of savings and income. Using high quality Swedish administrative data on wealth – which enables us to overcome the well-known issues deriving from using imputed or survey data – we find that about 60 percent of human capital corresponds to expected income in the following year. This result suggests that individuals are very short-sighted regarding their future income when they make consumption-saving decisions.

### PRE-GRADUATE PUBLICATIONS

Rácz, Zoltán and Attila Tasnádi. 2016. "A Bertrand-Edgeworth oligopoly with a public firm." *Journal of Economics* 119 (November): 253-266.