

# Castor Comploj

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## EDUCATION

### **University of Groningen**

*PhD in Economics*

*2022 – 2026*

### **University of Groningen**

*MPhil Economics*

*2020 – 2022*

### **Maastricht University**

*BSc in Economics, 8.2/10 (eq. 4/4), with honors, cum laude*

*2016 – 2019*

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## RESEARCH INTERESTS

**Economics:** Behavioral Economics, Health & Development Demography

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## WORKING PAPERS

### **Noncontributory Pensions and Mental Health: Evidence from Rural China**

*joint w/ Stefan Pichler and Gerard van den Berg*

*in submission*

This paper investigates the mental health consequences of noncontributory pensions by leveraging regional and temporal variation in implementation dates of the New Rural Pension Scheme (2009–2012). Using data from the China Health and Retirement Longitudinal Study (CHARLS), we implement a difference-in-differences strategy that compares the mental health trajectories of early- and late-eligible individuals. We find a strong first stage result with 60% takeup among the eligible population and a reduction in the Center for Epidemiologic Studies Depression (CESD) score by 0.1 SD among the compliers. The results are robust to alternative specifications that compare the two-way fixed effect estimator with to new estimators robust to heterogeneous treatment effects. These findings underscore that expanding pension coverage can improve elderly health.

### **Longitudinal Trajectories of Chronic Disease Accumulation in Europe and England: A Panel Ordered Logit Model for Multimorbidity**

*joint w/ Luigi Ferrucci, Agar Brugiavini, and Elisa Fabbri*

*in submission*

It is well established that multimorbidity increases with aging and is associated with adverse health outcomes, including physical and cognitive disability, frailty, and mortality. Using longitudinal data from more than 25,000 participants in the Survey of Health, Ageing and Retirement in Europe (SHARE) and the English Longitudinal Study of Ageing (ELSA), we describe within-individual disease trajectories of elderly individuals older than 50 prior to death. We implement a linear mixed model and a generalized ordered logit that allows for flexible coefficients across thresholds. We find that the within-individual probability of developing an additional chronic disease within a 2-year interval increases dynamically with the current disease count. Heterogeneity analyses suggest that individuals who experienced the first disease onset at older ages present more rapid health deterioration, and individuals from disadvantaged socioeconomic backgrounds accumulate chronic conditions faster. We do not find any evidence of chronic disease clusters.

## **Does it Pay to Join the Party? Decomposing Communist Party Wage Premia from Selection into Membership**

*single-authored*

Communist Party members in China have better-paying jobs and are more likely to work in white-collar occupations, but selection into membership based on both observed and unobserved characteristics generate bias in the true party premium through a long and extensive selection process. To disentangle selection effects in the widely reported communist party wage premium, I match individuals on socioeconomic conditions in childhood which strongly predict membership attainment 20 years later in early adulthood. Using data from the 2018 wave of the China Health and Retirement Longitudinal Study (CHARLS), I find that the party premium largely disappears after the matching process, though a small premium persists. The residual wage premium is largest for retirees who previously worked in white-collar occupations, while no premium persists in blue-collar occupations or those still employed at the time of the survey.

### **WORK IN PROGRESS**

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#### **Son Preference and Missing Girls: Fertility Restrictions and Cognitive Health Forty Years Later**

*single-authored*

*JMP*

Declining fertility rates and aging populations pose significant challenges for policymakers, yet the long-term effects of family size on parents' health and cognitive outcomes in old age remain underexplored. Using longitudinal household data from the China Health and Retirement Longitudinal Study (CHARLS), I estimate a causal effect of family size on parents' work participation, health and cognitive outcomes at ages 45-80 using an instrumental variable approach. I leverage two sources of quasi-exogenous variation: the sex of the firstborn child, and geographic and temporal variation in penalties for above-quota births imposed during the one-child-policy, available for the period 1979-2000. Both instruments have strong predictive power on fertility, yet I find no evidence that larger family size adversely affects parental cognitive outcomes.

#### **Fertility Restrictions and Partner Choice: Selection in Marriage Markets in Response to Birth Control in China**

*single-authored*

#### **Health Inequality and Nonlinear Health Dynamics: Duration Dependence and Latent Heterogeneity in Chronic Disease Accumulation**

*single-authored*

Multimorbidity (having more than one chronic health condition at the same time) increases with aging and is associated with adverse health outcomes, including physical and cognitive disability, frailty, and early death. This paper studies how unobserved differences between individuals (i.e., health "types") account for differences in the speed of disease accumulation between individuals who are indistinguishable from observed characteristics. Using rich panel data with health and labor market histories from more than 20,000 individuals followed over a period of 20 years from the Health and Retirement Study (HRS) and the Panel Study of Income Dynamics (PSID), I model the transitions between different disease states, or multimorbidity states, using a finite mixture ordered logit that incorporates unobserved heterogeneity. The model exploits the duration spent in each multimorbidity state to identify the presence of multiple health types among the elderly.

### **CONFERENCES AND WORKSHOP PRESENTATIONS**

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**2025:** MIT Polarization Workshop 2025 — Chinese Economists Conference (CES) North America Meeting, University of Michigan (Ann Arbor, US) — Chinese Economists Conference

(CES), Sun-Yatsen University (Guangzhou, China) — Economics of Artificial Intelligence, Rimini Center for Economic Analysis, College de France (Paris, France)

**2024:** International Association of Applied Econometrics (IAAE), Xiamen University (China) — Econometrics Society Asia Meeting (AMES), Zhejiang University (Hangzhou, China) — Chinese Economists Society (CES) China Yearly Conference, Zhejiang University (Hangzhou, China)

**2023:** International Association of Applied Econometrics (IAAE), BI Norwegian Business School (Oslo, Norway) — EuHEA PhD Conference, University of Bologna (Italy)

**2022:** Dgroe Health Econometrics Workshop, Leibniz University Hannover (Germany) — Bolzano Joint Political Economy and Applied Economics Workshop, Free University of Bolzano, (Italy)

## TEACHING EXPERIENCE

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TA Microeconomics & Causal Inference (BSc)   <i>University of Groningen</i>	2023 – 2025
TA Inference in Econometrics (BSc)   <i>University of Groningen</i>	2023 – 2024
Supervision of BSc Econometrics Theses, x28   <i>University of Groningen</i>	2022 – 2025
TA for Quantitative Methods   <i>Maastricht University</i>	2017 – 2019
Private Tutor   <i>Grade Boost</i>	2017 – 2019

## RESEARCH ASSISTANTSHIP AND OTHER EXPERIENCE

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<b>RA for Dr. Denis de Crombrugghe</b> <i>Nazarbaev University</i>	2022 <i>Astana, Kazakhstan</i>
• Collection of data for firm-level business activity across Turkey, Georgia, Azerbaijan, Kazakhstan, Uzbekistan, Kyrgyzstan	
<b>RA for Prof. dr. B. de Bruin</b> <i>University of Groningen Faculty of Economics and Business (FEB)</i>	2021 – 2022 <i>Groningen, NL</i>
• Survey and data analysis for paper 'Ranking Philosophy Journals'	
<b>RA for Dr. S. Pichler</b> <i>University of Groningen Faculty of Economics and Business (FEB)</i>	2021 – 2022 <i>Groningen, NL</i>
• Data assistance to paper "Mandated Sick Pay: Coverage, Utilization and Welfare effects"	
<b>Researcher</b> <i>Earth5r</i>	2020 <i>Mumbai, India (remote)</i>
• Collect cross-country data on fossil fuel extraction and exports	
<b>Marketing Officer Intern</b> <i>Earth5r</i>	2017 <i>Mumbai, India</i>
• Contact stakeholders for sponsorship and employee engagement programs (stakeholders included Tata Steel)	

## EXTRACURRICULAR ACTIVITY

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<b>EBF Study Association</b>   <i>Career events</i>	2020 – 2022
<b>MOOC - Coursera/EdX/Skillshare</b>   <i>R, Python, JavaScript, Data Science</i>	2019 – 2020
<b>SCOPE Maastricht</b>   <i>Academic Committee/PINE, committee member</i>	2017 – 2019
<b>Global Entrepreneurship Week Maastricht</b>   <i>Board member</i>	2017 – 2018
<b>AFS Intercultural Programs</b>   <i>Exchange Program representative</i>	2015 – 2019

## FELLOWSHIPS & AWARDS

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Doctoral Completion Fellowship   <i>University of Groningen</i>	2025
Travel Grant   <i>CES North America Conference</i>	2025
Scholarship   <i>University of Groningen, Research Master</i>	2020
Study Grant   <i>Quantitative Economic Methods Master, Paris 1 Sorbonne — offer rejected</i>	2020
Study Grant   <i>Peking University HSBC, Master Economics — offer rejected</i>	2020
Scholarship   <i>European Forum Alpbach</i>	2019
Honors   <i>Phi Beta Kappa</i>	2018
Scholarship   <i>AFS Intercultural Programs</i>	2015

## MISCELLANEOUS

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**Languages:** Ladino (Native), German (Native), Italian (Native), English (fluent), Dutch (B2), Russian (B1), Mandarin (HSK5 / C1)

**Software:** Git, Github, Python, R, STATA, L<sup>A</sup>T<sub>E</sub>X, Qualtrics

**Nationality:** Italian

updated: January 21, 2026