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Personal information

Date of birth: 21 November 1992
Citizenship: Swedish

Undergraduate studies

BSc in Mathematics, Stockholm University, 2019
BSc in Economics, University College London, First Class Honours, 2016
Visiting undergraduate student, Georgetown University, 2014–2015

Master studies

MSc in Economics, Stockholm School of Economics, 2018
Thesis: *Mass challenge or vital necessity? An evaluation of Swedish post-war immigration in a general equilibrium framework*

Doctoral studies

Stockholm School of Economics, 2018 to present
PhD Candidate in Economics
Expected completion: 2023
Supervisor: Lars Ljungqvist

References:

Professor Lars Ljungqvist	Professor Paul Segerstrom	Professor David Domeij
Department of Economics	Department of Economics	Department of Economics
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Research fields

Primary fields: Macroeconomics
Secondary fields: Demographic economics, Economic growth

Teaching experience

Autumn 2020   *Advanced Mathematics for Economic Analysis* (MSc level)
         Teaching assistant for Professor Mark Voorneveld

Spring 2020	*Dynamic Macroeconomic Analysis* (MSc level) Teaching assistant for Professor Kelly Ragan	
Spring 2020	*Makroteori och ekonomisk-politisk analys* (BSc level, in Swedish) Teaching assistant for Professor David Domeij	
Autumn 2017	*International Economics* (BSc level) Teaching assistant for Professor Paul Segerstrom	

Other experience

2022	Sveriges Riksbank (central bank of Sweden), Research Division, *PhD intern*
2017–2018	Finansinspektionen (Swedish Financial Supervisory Authority), *Student associate*
2017	US Embassy Sweden, US Foreign Commercial Service, *Summer intern*
2015	BNP Paribas, Global Markets, *Summer analyst*
2015	US House of Representatives, Office of Congressman Ed Perlmutter, *Legislative intern*

Conference and seminar presentations (including scheduled)

2022	ENTER Jamboree at Universidad Autónoma de Barcelona, Sveriges Riksbank, Stockholm School of Economics Brown Bag (twice), Universidad Autónoma de Barcelona Macro Group, Swedish Conference in Economics, European Winter Meeting of the Econometric Society
2021	Stockholm-Uppsala Doctoral Student Workshop in Economics

Skills

Languages: Swedish (native), English (fluent), Norwegian (conversational)
Computer: MATLAB, Stata, LaTeX

Research papers in progress

Endogenous technological change along the demographic transition
Job market paper

I study the effect of demographic change on economic growth under endogenous, R&D-driven technological change. Qualitatively, population ageing generates two opposing forces: increased R&D and capital investments on the one hand, and a decreasing share of workers in the population on the other. I evaluate these channels quantitatively along the demographic transition using a calibrated overlapping generations model with idiosyncratic income risk, mortality risk, intensive and extensive labour supply margins and endogenous technological change. Considering the United States between 1950 and 2100, I find that the demographic transition: (i) increased per-capita output by 0.35 percent per year between 1950 and 2000; (ii) accounts for a 0.65 percentage point decline in growth rates between 1995 and 2025 when the positive growth impact reverts back to trend; and (iii) has no net impact on twenty-first century growth. The main positive driver is endogenous technological change, whose growth contribution more than doubles that of capital deepening between 1950 and 2100. Removing this mechanism eliminates all positive growth effects.

A nonhomothetic price index and inflation heterogeneity
with Philipp Hochmuth and Christoffer Weissert

We derive a microfounded, nonhomothetic generalization of all known superlative price indices, including the Fisher, the Törnqvist, and the Sato-Vartia indices. The index varies continuously along the expenditure distribution, aggregates consistently across heterogeneous households and largely avoids the need for estimation. In an empirical application to the United States using CEX-CPI data for the period 1995–2020, we find: (i) poor and rich households experience on average the same inflation rate; but (ii) inflation for the poorest decile is more than 2.5 times as volatile as that of the

richest decile; and (iii) this higher volatility primarily stems from a larger exposure to price changes in food, gas and utilities. Points (i) and (ii) stand in contrast to findings based on the methods used in most previous measurements of inflation inequality, since these methods do not completely purge the underlying cost-of-living indices from income effects.

A distributional PCE price index from aggregate data
with Philipp Hochmuth and Christoffer Weissert

We propose a method for constructing nonhomothetic cost-of-living indices when detailed consumption microdata is unavailable. Aggregate prices and expenditure shares together with a single cross-sectional distribution of consumption are sufficient to create a nonhomothetic distribution of cost-of-living indices with our approach. The index is derived from nonhomothetic CES preferences, nests conventional price indices as special cases, and only requires the estimation of one parameter: the elasticity of substitution between necessities and luxuries. The underlying preferences aggregate consistently, which allows us to identify this parameter from aggregate data. We implement the approach using US Personal Consumption Expenditure (PCE) data and construct a nonhomothetic PCE price index covering 72 product groups. This index exhibits annual inflation rates of the poorest ten percent that exceed those of the richest ten percent by 0.8 to 1.1 percentage points throughout most of 2022 to date, thus suggesting that poorer households are hit substantially harder by the current inflation surge.