

EDUCATION

University of Rochester

Ph.D. in Economics

2022 (expected)

Committee: Yan Bai (advisor), George Alessandria, Travis Baseler, Mark Bills

University of Rochester

M.A. in Economics

2018

George Mason University

B.S. in Economics, summa cum laude

2016

RESEARCH INTERESTS

- Macroeconomics, Economic Development, Growth

WORKING PAPERS

- Nutrition Demand, Subsistence Farming, and Agricultural Productivity (JMP)
- Intangible Capital, Tangible Misallocation

TEACHING & EXPERIENCE

INSTRUCTOR:

- **Intermediate Macroeconomics** (undergraduate) Summer 2020
University of Rochester. Evaluations: overall course rating 4.67/5, teaching skills 4.89/5
- **Computational Macroeconomics Mini-Course** (graduate) Fall 2019, 2020
University of Rochester. A 3-week course for 2nd-year economics PhDs

TEACHING ASSISTANT:

- Intermediate Macroeconomics (undergraduate) Fall 2018, Spring 2021
- Macroeconomics II (graduate) Spring 2020
- Economics of Globalization (undergraduate) Fall 2019
- Programming for Analytics (graduate) Summer 2019

- Topics in Microeconomics (undergraduate)

Spring 2019

RESEARCH ASSISTANT:

- for Mark Bils, University of Rochester

2018–2019

RA contribution to: Mark Aguiar, Mark Bils, and Corina Boar, “Who Are the Hand-to-Mouth?” (2021)

CONFERENCES & PRESENTATIONS

- African Meeting of the Econometric Society, Nordic Conference in Development Economics, Young Economist Symposium, Southern Economic Association Annual Meeting (scheduled)

2021

SKILLS

- **Computer Skills:** R, Julia, Stata, Matlab, \LaTeX
- **Languages:** English (fluent), Russian (native), Spanish (basic), Latin (basic)

SCHOLARSHIPS & AWARDS

- Graduate Fellowship and Tuition Scholarship, University of Rochester
- Departmental Honors in Economics, George Mason University
- Dean’s List, George Mason University

2016–2021

2016

2012–2016

REFERENCES

YAN BAI (advisor)
Department of Economics
University of Rochester
yan.bai@rochester.edu

GEORGE ALESSANDRIA
Department of Economics
University of Rochester
george.alessandria@rochester.edu

TRAVIS BASELER
Department of Economics
University of Rochester
travis.baseler@rochester.edu

MARK BILS
Department of Economics
University of Rochester
mark.bils@rochester.edu

NUTRITION DEMAND, SUBSISTENCE FARMING, AND AGRICULTURAL PRODUCTIVITY

Job Market Paper

Subsistence agriculture is prevalent in many of the poorest countries. I propose nutrition demand as a mechanism that drives the production decisions of subsistence farmers and ultimately contributes to low aggregate agricultural productivity. I explore this mechanism in a model of farm-operating households facing explicit caloric needs and costly trade, and test the model's predictions on Malawian household-level data. In the model and in the data, the smallest farmers focus their consumption on obtaining calories and specialize their production in unsold staple crops; medium farmers diversify both their diet and their subsistence production; the largest farmers shift consumption to purchased goods by producing and selling marketable farm products. I quantify the aggregate implications of this farm-level product choice using the model. It suggests that lowering trade frictions enough for the average share of output sold by farmers to reach even 50% would make the country's agricultural sector 42% more productive. Half of this increase is caused by the mechanically reduced erosion of output, and the other half by a better alignment of individual farmers' product choice with their comparative advantage rather than their family's nutritional needs or food preferences.

INTANGIBLE CAPITAL, TANGIBLE MISALLOCATION

The role of intangible capital in production is growing relative to conventional capital. This paper considers the implications of this shift on the misallocation of inputs across public US firms. I show that ignoring intangibles leads to an overestimation of misallocation costs by 54%. The degree of this overestimation gets worse over time, which explains most of the measured deterioration in allocative efficiency in the US in recent years. I find that misallocation is almost twice as severe in sectors that use comparatively more intangibles as in sectors relying more on tangible capital. I calibrate a variable markup model in which the outcome of intangible investments is uncertain and markups increase with firm productivity. I find that it can generate a significant portion of the measured misallocation.