YUMENG GU

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EDUCATION

University of California, Davis — Davis, CA
Ph.D. in Economics — *September 2017 - Present*
University of California, Berkeley — Berkeley, CA
Graduate Exchange — *September 2019 - December 2019*
Columbia University — New York, NY
M.A. in Economics — *August 2016 - July 2017*
Brown University — Providence, RI
B.Sc. in Applied Mathematics and Economics — *September 2012 - June 2016*
Lady Margaret Hall, University of Oxford — Oxford, UK
Undergraduate Exchange — *September 2014 - July 2015*

RESEARCH INTERESTS

Primary Fields: Macroeconomics, Monetary Economics

RESEARCH EXPERIENCE

International Monetary Fund (IMF) — Washington, D.C.
Ph.D. Research Intern, Fund Internship Program — *July 2020 - September 2020*
Western Hemisphere Department

Graduate School of Management, UC Davis — Davis, CA
Research Assistant (Supervisor: Brad Barber, Professor) — *June 2019 - September 2019*

WORKING PAPERS

"Monetary Policy and the Cyclicality of Markups in the Intangible Economy" (JMP)

Abstract: I study the role of intangible inputs and firm heterogeneity in determining how price-cost markups respond to interest rate changes. Empirically, I find that firm-level markups are conditionally pro-cyclical, i.e., they go up following an interest rate cut, and that firms that use intangible inputs - such as software and marketing - intensively display more pro-cyclical markups. I use a heterogeneous firm New-Keynesian model with sticky prices to show that through the adoption of intangible inputs, firms reproduce pro-cyclical markups following a monetary easing. Meanwhile, the model preserves conditionally pro-cyclical real wages and inflation. In the cross-section, as in the data, larger firms with higher market share adopt intangible inputs aggressively and become larger and more profitable at the expense of smaller firms following a monetary easing. I test key predictions of the model in data and find empirical support for this mechanism. My findings suggest that monetary easing could induce inflation driven by both rising costs and rising profits margins.

"Distribution of Market Power and Monetary Policy" (with Sanjay R. Singh)

Abstract: We incorporate incumbent innovation in a Keynesian growth framework to generate an endogenous distribution of market power across firms. Existing firms increase markups over time through successful innovation. Entrant innovation disrupts the accumulation of market power by incumbents. Using this environment, we highlight a novel misallocation channel for monetary policy. A contractionary monetary policy shock causes an increase in markup dispersion across firms by discouraging entrant innovation relative to incumbent innovation. Using external instruments, we find empirical support for increased inter-sectoral dispersion in markups, lower aggregate TFP, and lower firm entry following contractionary monetary policy shocks in the US economy.

"Firm-level Productivity and Infrastructure Gaps: Evidence from Canada" (with Troy Matheson)

Abstract: This paper empirically investigates the extent to which Canada's road infrastructure gaps have held back productivity. Specifically, we employ a production function estimation approach to estimate firm-level total factor productivity (TFP), and merge TFP estimated with road network GIS data from Statistics Canada to estimate productivity improvement with respect to reductions in minimal travel time from marginal improvements in road network. Our key finding is that road network improvements increase firm-level productivity. A 1% increase in accessibility leads to a 0.3-0.5% increase in firm productivity. We discuss back-of-the-envelope representation of potential GDP gains and policy implications based on the estimates.

PRESENTATIONS

Australian Meeting of the Econometric Society (virtual)	2021
Society of Economic Dynamics Annual Meeting, Minneapolis, MN	2021
China Meeting of the Econometric Society (virtual)	2021
Asian Meeting of the Econometric Society (virtual)	2021
North American Summer Meeting of the Econometric Society (virtual)	2021
Macro/International Brownbag Seminar, UC Davis	2020, 2021, 2022($\times$2)

TEACHING EXPERIENCE

UC Davis Davis, CA
Teaching Assistant *September 2018 - Present*

- *Undergraduate level*: Intermediate Macro Theory, International Macroeconomics, Economics of International Immigration, Economics of Education, Life's Financial Decisions
- *Graduate level*: Advanced Microeconomic Theory II (Ph.D.), Econometric Foundations (Ph.D.), Financial Theory and Policy (MBA), Time Series Topics (Ph.D.)

SERVICE

Graduate Student Mentor (UC Davis, 2020-2021)
Departmental Macro/International Brownbag Seminar Series, Co-organizer (UC Davis, 2020-2022)
Graduate Student Association, Economics Vice President (UC Davis, 2019-2020)

FELLOWSHIPS AND AWARDS

Dean's Summer Graduate Fellowship (UC Davis, 2022)
Graduate Student Travel Award (UC Davis, 2021)
Dean's Distinguished Graduate Fellowship (UC Davis, 2017-2018, 2020-2021)
UC Davis Graduate Fellowship (UC Davis, 2018-2019, 2019-2020)
Best First Year PhD Student Award (UC Davis, Economics Department, 2018)

SKILLS

Computer Skills: Stata, R, MATLAB, QGIS
Language Skills: English(fluent), Chinese(native), Spanish(intermediate), Latin(basic)

REFERENCES

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University of California, Davis
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Last updated: November 2022