

Keer Yang

CONTACT INFORMATION Carlson School of Management Phone: +1-612-242-6657
321 19th Ave S, E-mail: yang5427@umn.edu
Minneapolis, MN 55455 Webpage <https://keeryang.github.io/>

EDUCATION **University of Minnesota, Minneapolis, U.S.** 2016 - Present
Ph.D. Candidate in Finance (expected May 2022)

Toulouse School of Economics, Toulouse, France 2014 - 2016
M.Res. in Economic Theory and Econometrics

Zhejiang University, Hangzhou, China 2010 - 2014
B.S. Mathematics and Applied Mathematics

RESEARCH INTERESTS FinTech, Machine Learning, Financial Intermediaries, Empirical Corporate Finance

WORKING PAPERS **Trust as an Entry Barrier: Evidence from FinTech Adoption (Job Market Paper)**
• *2021 Financial Management Association Best Paper Award in FinTech Semifinalist*
This paper studies the role of trust in incumbent lenders (banks) as an entry barrier to emerging FinTech lenders in credit markets. The empirical setting exploits the outbreak of the Wells Fargo scandal as a negative shock to borrowers' trust in banks. Using a difference-in-differences framework, I find that increased exposure to the Wells Fargo scandal leads to an increase in the probability of borrowers using FinTech as mortgage originators. Utilizing political affiliation to proxy for the magnitude of trust erosion in banks in a triple-differences specification, I find that, conditional on the same exposure to the scandal, a county experiencing a greater erosion of trust has a larger increase in FinTech share relative to a county experiencing less of an erosion of trust. Estimating treatment effect heterogeneity using generic machine learning inference suggests that borrowers with the greatest decrease in trust in banks and the greatest increase in FinTech adoption have similar characteristics.

FinTech and Racial Barriers in Small Business Lending with Celine Yue Fei

Using a linked database of Paycheck Protection Program (PPP) loans and Yelp-listed restaurants, we document that businesses owned by minority racial groups are more likely to use fintech lenders than traditional lenders. We develop a simple two-sided matching model to show that this phenomenon can be generated by differences in performance among borrowers, racial disparities in lending relationships, and race-dependent values of borrower-lender matches. We do not find consistent evidence that operational performance is an explanation. We find supporting evidence that minority-owned restaurants are less likely to have lending relationships and that restaurants without lending relationships are more likely to use fintech lenders. We also find a more negative minority-non-minority gap in operational performance for fintech lenders, suggesting minority-owned businesses have higher matching values with fintech lenders. We do not find a similar pattern for first-time bank participants, community development financial institutions, credit unions, or other non-federally insured lenders. Overall, our results suggest that there are racial barriers in traditional loan distribution channels and this can be at least partially addressed by fintech lenders.

Predicting Firm Profits: From Fama-MacBeth to Gradient Boosting with Murray Frank

This paper studies the predictability of firm profits using Fama-MacBeth regressions and gradient boosting. Gradient boosting can use more relevant factors and it predicts better. Profits are more predictable at firms that are large, investment grade, low R&D, low market-to-book, low cash flow volatility. Effects on financing decisions, and cross-section of stock returns are studied. During recessions profits are less predictable, particularly for particularly non-investment grade firms. Both algorithms produce estimates like those interpreted in the literature as evidence of excessive human optimism during booms and excessive pessimism during recessions.

Does Finance Flow to High Productivity Firms? with Murray Frank

This paper studies the impact of productivity on the flow of financial resources to and from firms. To do this we use machine learning methods (Lasso, XGBoost) to derive a new measure of firm productivity using standard corporate accounts. Output is sales revenue and we find that the key inputs are i) cost of goods sold, ii) selling general and administrative expenses, iii) total assets. Empirically finance typically flows away from high productivity firms. This happens because firm invest in operations and reward investors when productivity is high. To fund these actions they make use of internal cash holdings which provides a novel motivation for corporate cash holdings.

WORK IN
PROGRESS

The Ex Ante Effect of Bankruptcy Law with Richard Thakor and Jacelly Cespedes

We study how bankruptcy law affects the investment and financing decisions of small businesses, and what effect it has on real outcomes. To do so, we utilize unique microdata from the agricultural sector, providing us with detailed financial, investment, and productivity data for individual private farms. Using this data, we identify an effect based on qualification thresholds stipulated by a special bankruptcy code uniquely available to farmers, which permits some farmers to receive much more debtor-friendly treatment.

CONFERENCE AND
SEMINAR
PRESENTATIONS
(*BY CO-AUTHOR)

- Trust as an Entry Barrier: Evidence from FinTech Adoption
 - 2022 AFA Ph.D. Student Poster Session (scheduled)
 - 2021 FMA Annual Meeting
 - 2021 2nd PhD Student Symposium at UT Austin
 - 2021 6th Cambridge Centre for Alternative Finance Annual Conference
 - 2021 4th Dauphine Finance PhD Workshop
 - 2021 China Fintech Research Conference
 - 2021 Behavioural Finance Working Group Conference
 - 2020 CEPR European Conference on Household Finance
- Can FinTech Benefit Minority-owned Small Businesses? Evidence from the Paycheck Protection Program
 - 2021 NBER Entrepreneurship Working Group Meeting (*)
- Does Finance Flow to High Productivity Firms?
 - 2019 University of Iowa

- 2019 China International Conference in Finance(*)
- 2018 London Business School Summer Finance Symposium(*)
- 2018 Minnesota Corporate Finance Conference(*)
- 2018 CSOM Summer Applied Economics Workshop(*)
- 2018 Workshop on Artificial Intelligence and Machine Learning in Financial Services at Rensselaer(*)

PROGRAMMING LANGUAGES **Programming:** SQL, R, Python, LaTeX
Software: SAS, Stata, Matlab, TensorFlow

PROFESSIONAL SERVICE **Referee**

- Journal of Corporate Finance, Financial Management

Invited Discussions

- 2021 China International Conference in Finance: *Big Data Analyses with No Digital Footprints Available – Evidence from Cyber-Telecom Fraud* by Liu, Liu, Ruan, Yang, and Zhang
- 2021 Behavioural Finance Working Group conference: *Psychological and Social Motivations in Microfinance Contracts: Theory and Evidence* by Dhimi, Arshad, and al-Nowaihi
- 2020 Financial Management Association: *FinTech and the Supply of Credit to Small Business* by Mark Johnson

TEACHING EXPERIENCE **Instructor**

- Finance Fundamentals, University of Minnesota, 2018-2019

Teaching Assistant

- Machine Learning in Finance
- Portfolio Analysis and Management, Interest Rates and Hedging, Options & Derivatives, Corporate Financial Decisions and Analysis, M&A, Financial Modeling, Financial Econometrics and Computational Methods, International Finance

AWARDS AND HONORS **Carlson School of Management, University of Minnesota**

CSOM dissertation fellowship	2020 - 2021
PhD student conference-travel fellowship	2020-2021
PhD Fellowship	2016 - 2021

French Ministry of Foreign Affairs

France Excellence Scholarship	2014 - 2016
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Zhejiang University

Outstanding Graduates	2014
Academic Excellence	2011-2013

ADDITIONAL EXPERIENCE **Carlson School of Management, University of Minnesota**

Research Assistant	2016-Present
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Jyah Asset Management

Assistant Analyst	June 2015-August 2015
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IBM-Biocomputing Lab
Research Assistant

June 2012-October 2012

REFERENCES

Murray Z. Frank (main-advisor)
Professor of Finance
University of Minnesota
Email: murra280@umn.edu
Phone: +1-612-625-5678

Tracy Yue Wang (co-advisor)
Professor of Finance
University of Minnesota
Email: wangx684@umn.edu
Phone: +1-612-624-5869

Richard T. Thakor
Assistant Professor of Finance
University of Minnesota
Email: rthakor@umn.edu
Phone: +1-612-626-7817

Andrew Winton
Professor of Finance
University of Minnesota
Email: winto003@umn.edu
Phone: +1-612-624-0589

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