

EDUCATION

Southwestern University of Finance and Economics	<i>09/2016-06/2020</i>
Bachelor of Financial Engineering	<i>GPA: 87/100</i>
University of California, Berkeley	<i>08/2018-05/2019</i>
Economics (exchange student)	<i>GPA: 92/100</i>
University of Jyväskylä	<i>12/2019-04/2020</i>
Information Technology (exchange student)	
National University of Singapore	<i>Expected 08/2020-06/2025</i>
Ph.D. candidate of Economics	
Supervisor: Sumit Agarwal	
Committee: Hsin-Tien Tsai, Ben Chareonwang	

SELECTED WORKING PAPERS

Credit Networks and Data Sharing: An Evaluation of Cooperative Lending

Department of Finance and Department of Economics, National University of Singapore

Coauthor: Sumit Agarwal, Hsin-Tien Tsai

This paper analyzes the effect of credit data sharing among competitive banks of different sizes in the context of open banking. Using data from three predecessors of Bank of America, we find that information sharing enhances the predictive capabilities of all participating banks in the network. Additionally, the aggregate lending profit of the market increase as the network size grows. The bank that contributes the most to improved prediction is the one that shares loans with varying collateral amounts with the other two banks. Despite this overall improvement, competition creates disparities in the benefits gained by individual banks -- smaller banks greatly benefit from the network, while the largest bank experiences some loss of borrowers and profits. Thus, banks may not cooperate in sharing without effective bargaining. We discuss the Nash equilibrium condition that three banks are willing to cooperate in the sharing network -- smaller banks pay the largest bank participation fees whose total value is equal to its loss.

Keywords: Data Sharing, Cooperative Lending, Open Banking, Non-traditional Data Sources, White-Box Machine Learning, Privacy Protection

Examining the Effects of Digital Private Information Exposure on Fintech Lender and Borrower Behaviors: A Regulatory Shock Analysis

\$10K grant funded by The Asian Institute of Digital Finance, NUS

PI: Sumit Agarwal, Co-PI: Peiyi Jin

Our paper aims to investigate the impact of digital private information exposure on Fintech lender and borrower behaviors by analyzing a customer private data regulation shock in Apr 2018. We explore important questions about the significance of digital private information in Fintech lending: (1) the effect on financial inclusion: How does the shock of private information affect CASHe's lending decisions? Will borrowers with poor credit profiles or limited data be disadvantaged after the shock? (2) The divergent effects of the precise (new contact policy post Google shock) and the comprehensive private information paradigm on borrower repayment behavior and the bad debt recovery rate in Fintech lending. We analyze one of the biggest Fintech firms in India, CASHe, a mobile-based lending platform that offers instant personal loans without collaterals.

CONFERENCE PRESENTATIONS

2023 Asian Meeting of the Econometric Society, Tsinghua University, China	06/2023
29 th International Conference on Computing in Economics and Finance (CEF), UCA, France	07/2023

TA EXPERIENCES

Teaching Assistant, Money and Banking I (Instructor: KONG Yu Chien, NUS)	2023
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HONORS & RELEVANT EXPERIENCE

Honors

China Scholarship Council	08/2018-05/2019
Studying Abroad Scholarship for Undergraduates	
The Mathematical Contest in Modeling (MCM) 2019	01/2018
<i>Advisor:</i> Robert M. Anderson	
Honorable Mention	
Semester Academic Scholarship (4 semesters)	2017-2019

Internship

Lawrence Berkeley National Laboratory	09/2019
Develop a web app to analyze genomes (disease implication, personality matching).	
Sichuan Academy of Social Sciences	05/2019-08/2019
Research on rural economy based on districts around Chengdu.	
Bank of Communications, Investment Bank Department	07/2018-08/2018
Handle Business on Asset Securitization product. Holding seminars and sorting documents.	