Jiyuan Huang

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EDUCATION

University of Zurich, Ph.D. in Finance, Department of Banking and Finance	2017 - 2023
Tilburg University, MSc in Econometrics	2016 - 2017
Renmin University of China, B.A. in Mathematics and B.A. in Finance	2012 - 2016

RESEARCH FIELDS

Corporate Finance, Applied Econometrics, Machine Learning

JOB MARKET PAPER

Firm Commonality and Inference in Corporate Finance

In this paper, I explore latent connections among firms and their implications for empirical work. These connections can be motivated by competition, peer effects, supply chains, or common factors. I introduce a spatial framework that captures these relations in a corporate landscape, using product similarity (Hoberg and Philips, 2016) as a proxy for firm commonality. I find that firm commonality has significant explanatory power of corporate outcomes such as capital expenditure and cash holdings, altering the interpretation of commonly used explanatory variables. Further, omitting firm commonality leads to significantly correlated error terms. I show that the widely used firm-clustered standard errors reject up to 95\%, which is dramatically higher than the designed 5\%. Finally, I provide a bootstrap solution of standard errors to address the over-rejection problem caused by firm commonality.

WORKING PAPERS

Difference-in-Differences with Economic Factors and the Case of Housing Returns

Coauthored with Per Östberg

This paper studies how to incorporate observable factors in difference-in-differences and document their empirical relevance. We show that even under random assignment directly adding factors with unit-specific loadings into the difference-in-differences estimation results in biased estimates. This bias, which we term the "bad time control problem" arises when the treatment effect covaries with the factor variation. Applied researchers partially control for the factor structure by using: (i) unit time trends, (ii) pre-treatment covariates interacted with a time trend and (iii) group-time dummies. We show that all these methods suffer from the bad time control problem and/or omitted factor bias. We propose two solutions to the bad time control problem. To evaluate the relevance of the factor structure we study US housing returns. Adding macroeconomic factors shows that factors have additional explanatory power and estimated factor loadings differ systematically across geographic areas. This results in substantially altered treatment effects.

Memory and Analyst Forecasts: A Machine Learning Approach

Coauthored with Zhongtian Chen

This paper applies a machine learning memory model to empirically study analysts' belief formation processes. We employ an effective memory model that successfully reproduces fundamental principles of the human memory system. We use analyst forecasts to train the model and extract analysts' mental contexts and recalls when making forecasts. We find that analysts' recalls display a strong recency effect, but long-term memories are more salient in some periods such as the COVID pandemic, consistent with the evidence that the analysts' mental context and memory significantly alter during the crisis. Then we train a separate model as a machine learning benchmark by replicating realized earnings. Compared with the benchmark, analysts' recalls react

insufficiently to external changes and their mental contexts have distinct focuses. The comparison further indicates that analysts' recall distortion from the benchmark can explain analysts' forecast errors. By blocking the forget channel, we demonstrate that analysts and the benchmark selectively forget different past experiences and the differences can contribute to explaining the recall distortion. These empirical results address the importance of memory mechanisms in modeling financial agents' belief formation processes.

OTHER PUBLICATIONS

Can ChatGPT Reduce Human Financial Analysts' Overoptimistic Biases?
Coauthored with Xiaoyang Li, Haoming Feng, Hailong Yang
Published in Economic and Political Studies, Forthcoming

TEACHING EXPERIENCE

Guest lecturer for Empirical Corporate Finance (*Ph.D. level course*) *Overall evaluation: 5.9/6*	2022
Teaching assistant for Empirical Corporate Finance (*Ph.D. level course*)	2018 - 2022
Teaching assistant for Advanced Corporate Finance (*master level course*)	2022
Master thesis supervision	2018 - 2023

SEMINAR AND CONFERENCE PRESENTATIONS

IAAE 2023, BI Norwegian Business School; AMES 2023 Beijing, Tsinghua University; CFRC 2023, Tsinghua University; AMES 2023 Singapore, Nanyang Technological University; EFA 2023 poster session, VU Amsterdam; EEA-ESEM 2023, Barcelona School of Economics	2023
SFI Research Days, Gerzensee; Brown Bag Seminar, University of Zurich	2022
Brown Bag Seminar, University of Zurich	2021
IFABS 2018, Porto Business School; Brown Bag Seminar, University of Zurich	2018

SCHOLARS AND AWARDS

Ph.D. Scholarship, University of Zurich	2017 - 2022
Bachelor Scholarship, Renmin University of China	2015
Google Code Jam Programming Contest *World Ranking top 2% in 2014; top 4% in 2021, 2019, 2018, 2015, 2013*	2013 - 2021
Microsoft "Beauty of Programming" National Challenge Contests *National Top 60*	2013
National Olympiad in Informatics, China *Silver Medal*	2011

HOBBIES

Programming, Cooking, Travel