

Yang Cao

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EDUCATION

Carroll School of Management, Boston College

PhD in Accounting

Boston, MA

Expected June 2025

Robert H. Smith School of Business, University of Maryland

College Park, MD

MS in Information Systems

December 2018

Zhongnan University of Economics and Law

Wuhan, China

MA in Accounting

June 2016

Jiangxi University of Finance and Economic

Nanchang, China

BS in Accounting

June 2013

RESEARCH INTERESTS

Financial reporting, voluntary disclosures, capital markets

WORKING PAPERS

The Spillover Effect of Waiver Disclosures on Corporate Risk-Taking (Job market paper)

- Abstract: I examine the impact of covenant waiver disclosures by peer firms on the risk-taking behaviors of focal firms who share lenders. I posit that waiver disclosures by peer firms diminish the perceived uncertainty and expected costs associated with covenant violations, thereby diminishing the precautionary stance of management and encouraging increased risk-taking. Employing a natural language processing machine learning model to identify covenant violations and waiver disclosures in SEC filings, I conduct a determinant analysis which reveals that borrower characteristics (ROA, leverage, and PP&E) and loan features (lender's share) correlate with the likelihood of receiving a waiver, albeit with limited explanatory power overall. For my identification strategy, I employ different-in-differences and an instrumental variable to isolate variations in waiver disclosures that are exogenous to and independent of focal firms' risk-taking. I predict and find that, following the peer waiver disclosures, focal firms amplify their risk-taking, as indicated by higher stock return volatility. Examining the underlying mechanisms, focal firms increase risk-taking by increasing leverage and product-development efforts. Cross-sectional analysis reveals that the effects are more pronounced in cases where a waiver is unconditional and focal firms lack relationship lending. Overall, these findings illuminate a spillover effect where waiver disclosures by peer firms significantly influence managers' capital structure and investment decisions.

Is Information Production for the U.S. Stock Market Becoming More Concentrated? (with Miao Liu and Rachel Xi Zhang)

Currently under review at the Journal of Accounting and Economics

- Presented at: Boston College, Chicago Booth, Music City Accounting Research Conference, MIT Asia conference, 2023 FARS Conference, and AAA conference.
- Featured in: [Institutional Money](#)

Hedging Climate Change Risk: A Real-time Market Response Approach (with Miao Liu and Rachel Xi Zhang)

- Presented at: Boston Empirical Accounting Conference, Bristol Financial Markets Conference, 2024 China International Conference in Finance (CICF), 2024 European Financial Management Association (EFMA) annual conference, Northeastern Finance conference.

Corporate ESG Misconduct and Household Participation in the Stock Market (with Ki-Soon Choi, Lian Fen Lee, and Alvis Lo)

The Credibility of Non-Disclosure: Evidence from Real-time Market Response to Non-Answers in Conference Calls (with Jared Flake and Miao Liu)

- Presented at: 2024 FARS Conference, 2024 AAA Annual Meeting

Does More Information Production Lead to Less Post-Earnings-Announcement Drift? (with Miao Liu, Jinzhi Lu, and Haresh Sapra)

- Presented at: Thirteenth Accounting Research Workshop, AES Asia-Pacific Webinar

Question Herding in Earnings Calls (solo-authored)

- Presented at: Boston College

WORK IN PROGRESS

“Earnings VS Returns in Return Prediction: A Machine Learning Approach” (with Miao Liu)

- Modeling and preliminary results; additional analyses in progress

“Using machine learning to break down the black box of soft information processing” (with Miao Liu)

- Data collection in progress

TEACHING EXPERIENCE

| | |
|---|---------------------------------|
| ACCT3351 Financial Statement Analysis | Fall 2023, Fall 2022, Fall 2021 |
| <ul style="list-style-type: none">• Teaching Assistant to Professor Amy Hutton• Evaluation: 4.23/5.0 | |
| ACCT8824 Financial Statement Analysis | Spring 2024, Spring 2023 |
| <ul style="list-style-type: none">• Teaching Assistant to Professor Susan Shu | |
| ACCT1021 Financial Accounting | Spring 2022 |
| <ul style="list-style-type: none">• Teaching Assistant to Professor Miao Liu | |

CONFERENCES & PRESENTATIONS

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|---|------|
| AAA Annual Meeting (Presenter) | 2024 |
| 2024 Spark Meeting (Discussant) | 2024 |
| Bentley Research Conference | 2024 |
| Rutgers Accounting Doctoral Symposium | 2024 |
| 2023 Boston Accounting Student Symposium (Key organizer) | 2023 |
| Music City Accounting Research Conference | 2023 |
| MIT Asia Conference | 2023 |
| 2023 Spark Meeting (Presenter) | 2023 |
| 2023 Boston Empirical Accounting Conference (Presenter) | 2023 |
| 2023 FARS | 2023 |
| 2022 Boston Empirical Accounting Conference | 2022 |
| 2nd Frontiers of Business Research in China International Symposium (Presenter) | 2012 |
| 20 th Annual Symposium in Finance | 2012 |
| 6 th International Symposium | 2011 |

PROFESSIONAL EXPERIENCE & CERTIFICATIONS

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|---|-----------|
| Financial Analyst, SANY Group, China | 2019-2020 |
| Consultant, MP Management Consulting, China | 2013-2014 |
| Chinese CPA Certification | 2017 |

OTHER

Technical skills: Web scraping, data mining, financial analysis using R, Python, SAS and Stata.

Languages: Mandarin (native), English (fluent)

REFERENCES

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| Amy Hutton | Alvis Lo | Miao Liu |
| Professor, Boston College | Associate Professor, Boston College | Assistant Professor, Boston College |
| amy.hutton@bc.edu | alvis.lo@bc.edu | miao.liu@bc.edu |

ABSTRACT

Is Information Production for the U.S. Stock Market Becoming More Concentrated?

Over the past two decades, the US stock market has undergone significant changes in its structure, with small firms disappearing and large firms gaining market share. This study investigates whether the dominance of large firms in the market creates positive spillover for or shifts resources away from small firms' information production. Using a shift-share IV approach complemented with a difference-indifferences design, our identification strategy isolates two independent variations in large firms' market share that are plausibly exogenous to small firms' fundamentals. We find that as large firms gain market share, information production resources, including the attention of financial analysts and institutional investors, are shifted away from small firms, even if the size and business fundamentals of small firms remain unchanged. The loss of information production reduces stock price informativeness. The evidence points to an increasing market concentration that not only favors large firms but also leads to a skewed distribution of information production resources, thereby worsening the information environment for small firms.

Hedging Climate Change Risk: A Real-time Market Response Approach

We present a novel methodology for constructing portfolios designed to hedge economic and financial risks arising from climate change. We utilize ChatGPT-4 to pinpoint climate-related discussions during earnings conference calls and connect these time-stamped transcripts with high-frequency stock price data at the conversation level. This approach allows us to assess a company's dynamic exposure to climate change risks by analyzing real-time stock price responses to discussions about climate issues. Our proposed portfolio, constructed by taking long (short) positions in stocks with positive (negative) market responses to climate conversations, appreciates in value during periods with negative aggregate climate news shocks. Compared to portfolios constructed using existing alternative methods, our real-time market response-based portfolios demonstrate superior out-of-sample hedge performance. A key advantage of our approach is its ability to capture time-series and cross-sectional variations in stocks' rapidly-evolving exposures to climate risk, relying on the timing of when climate-related issues become salient topics that warrant conference call discussions and real-time market responses to such conversations. Additionally, we showcase the versatility of our approach in hedging other types of dynamic risks: namely political risk and pandemic risk.

Corporate ESG Misconduct and Household Participation in the Stock Market

Corporate ESG misconduct, such as pollution and workplace violations, generates public outcry and raises concerns that corporation's profit at the expense of society and the environment. We contend that ESG misconduct hurts

households' perception of corporations at large and their willingness to participate in the stock market. We find that households in states with a higher frequency of local ESG misconduct cases are less likely to invest in the stock market. The results are mainly present in subsamples where the misconduct can attract more public criticism (e.g., when the misconduct firms are financially strong) or when the households are prosocial. The local environment (e.g., counter-examples set by local non-misconduct firms with good ESG performance) also influences the effect of ESG misconduct on households. Our findings highlight that ESG failures by individual firms aggravate households' reluctance to participate in the stock market, suggesting an unexplored externality of negative ESG performance.

The Credibility of Non-Disclosure: Evidence from Real-time Market Response to Non-Answers in Conference Calls

Abstract: Managers sometimes give non-disclosure to investors despite their best intentions, either due to a lack of information or substantial proprietary costs. However, it is difficult for investors to distinguish these managers from those hiding negative news. This paper investigates whether managers can establish a transparent disclosure reputation to credibly communicate the absence of information, using non-answers during earnings calls as a setting. By matching granular, time-stamped earnings call conversations with high-frequency trading data, we create a novel dataset that examines immediate real-time market reactions to non-answers given by managers. Additionally, we leverage large language models (LLMs) to build a database of strategies that managers adopt to establish a transparent disclosure reputation, including providing detailed elaboration when issuing negative earnings guidance and proactively interacting with bearish analysts. We find that these disclosure strategies bolster managers' credibility when communicating the absence of information. Our study highlights the importance of disclosure strategies that managers can adopt to ensure credible communication within the dynamic context of real-time scenarios.

Does More Information Production Lead to Less Post-Earnings-Announcement Drift?

Not always. We document an inverse U-shaped relation between post-earnings announcement drift (PEAD) and information environments: Firms with moderate information environments, such as small to medium-sized firms with 2-4 analyst following, have higher PEAD than firms with either richer or poorer information environments. To understand the non-monotonic relation between PEAD and information production, we build a 2-period model and characterize PEAD that closely maps into its empirical counterpart. We show that when investors have limited information processing capacity, PEAD increases with capacity when capacity is low and decreases with capacity when it is high. Our model highlights the distinction and subtle connection between how much and how fast information is incorporated into prices. When investors allocate less attention to earnings news due to binding processing capacity, competing information sources, or low liquidity, stock prices contain less earnings information in equilibrium, but prices converge to equilibrium faster precisely because less information is processed. We formally test our model using two quasi-natural experiments and find evidence consistent with our model predictions: PEAD increases for small firms after adopting EDGAR and decreases for small firms after losing analysts, a result reversed or non-existent for larger firms.

Question Herding in Earnings Calls

This paper investigates whether analysts follow each other by asking similar questions during earnings conference calls (question herding) and how question herding affects firms' information environment. I employ a topic modeling methodology to compare the thematic content of a large sample of analyst questions in earnings calls. The empirical results reveal strong evidence of question herding. The correlation between the fraction of a topic discussed in the first half of the Q&A portion and the fraction in the second half averages 30%. Using an instrumental variables approach that captures the randomness in All-Star analysts' participation, I differentiate

between herding that is driven by imitation vs herding driven by common information. Next, I examine the impact of question herding on firms' information environment. Specifically, I find that question herding is associated with greater post-earnings announcement drift. Additionally, I find that question herding is associated with less accurate analysts' forecasts and a smaller price reaction to their recommendation change. Together these findings suggest that earnings conference calls with greater level of question herding produce less information.