## JENNIE BAI

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### **EMPLOYMENT**

Georgetown University, McDonough School of Business

2022-present
2022
2019 - 2022
2013 - 2019

Federal Reserve Bank of New York

Economist 2008 - 2013

### EDITORIAL POSITION AND AFFILIATION

Associate editor, Journal of Financial Economics	2021 - present
Associate editor, <i>Management Science</i>	2021 - present
Associate editor, Journal of Financial Intermediation	2022 - present

National Bureau of Economic Research

Research Associate	2019 - present
Faculty Research Fellow	2019

Asian Bureau of Finance and Economics

Research Fellow 2022 - present

## PROFESSIONAL EXPERIENCE

Advisory Council Member in the Board of Governors of the Federal Reserve System	2017 - 2020
Academic Consultant to the Board of Governors of the Federal Reserve System	2015 - 2016
Academic Consultant to the European Central Bank	2016 - 2017

### **EDUCATION**

Ph.D., University of Chicago, the Booth School of Business M.B.A., University of Chicago, the Booth School of Business B.S., Fudan University, Shanghai, China

### RESEARCH INTEREST

Credit markets (asset pricing of debt and its connection with corporate finance), Financial Intermediaries, Banking, ESG, Art Market

### RESEARCH PAPERS

- 1. Is There a Risk-Return Tradeoff in the Corporate Bond Market? Time-Series and Cross-Sectional Evidence (with Turan Bali and Quan Wen), Journal of Financial Economics, 2021
- 2. Safe Asset Shortages: Evidence from the European Government Bond Lending Market (with Reena Aggarwal, and Luc Laeven), *Journal of Financial and Quantitative Analysis*, forthcoming.
- 3. Is the Credit Spread Puzzle a Myth? (with Robert Goldstein, and Fan Yang), Journal of Financial Economics, 2020, 137, 297–319.
- 4. Common Risk Factors in the Cross-Section of Corporate Bond Returns (with Turan Bali and Quan Wen), *Journal of Financial Economics*, 2019, 131, 619–642.
- 5. The Leverage Effect and the Basket-Index Put Spread (with Robert Goldstein, and Fan Yang), Journal of Financial Economics, 2019, 131, 186–205.
- 6. Measuring Liquidity Mismatch in the Banking Sector, (with Arvind Krishnamurthy, and Charles-Henri Weymuller), *Journal of Finance*, 2018, 73(1), 51–93.
- Have Financial Markets Become More Informative? (with Thomas Philippon and Alexi Savov), Journal of Financial Economics, 2016, 122(3), 625–654.
   Media: -Bloomberg, New York Times
- 8. Anchoring Corporate Credit Spreads to Firm Fundamentals (with Liuren Wu) Journal of Financial and Quantitative Analysis, 2016, 51(5), 1521–1543.
- 9. On Bounding Credit Event Risk Premia (with Pierre Collin-Dufresne, Robert Goldstein, and Jean Helwege), *Review of Financial Studies*, 2015, 28(9), 2608–2642.
- 10. **The CDS-Bond Basis** (with Pierre Collin-Dufresne), *Financial Management*, 2019, 48(2), 417–439.
- 11. Property Rights Gaps and CDS Spreads: When Is There a Strong Transfer Risk from the Sovereigns to the Corporates? (with Shang-Jin Wei), Quarterly Journal of Finance, 2017, 7(4), 1750013.
- 12. **State Space Models and MIDAS Regressions** (with Eric Ghysels, and Jonathan Wright), *Econometric Reviews*, 2013, 32(7), 779–813.

#### WORKING PAPERS

## 13. Carbon Emissions Trading and Environmental Protection: International Evidence, (with Hong Ru)

We study how the implementation of emissions trading systems (ETS) impacts emissions reductions and the usage of renewable energy using a panel sample of the largest 100 countries worldwide. Exploiting the cross-country variations in ETS implementations, we show that ETS adoption materially reduced greenhouse gas (carbon dioxide) emissions by 12.1% (18.1%). Moreover, ETSs reduced the overall emissions by cutting fossil fuel usage, such as coal, by 23.70% while boosting the usage of renewable energy by 61.59%, on average. In contrast, the introduction of carbon taxes has a less effective impact on emissions reduction and fails to boost the usage of renewable energy.

# 14. Is Human-Interaction-based Information Substitutable? Evidence from Lockdown, (with Massimo Massa)

We study information substitutability in the financial market through a quasi-natural experiment: the pandemic-triggered lockdown that has hampered people's physical interactions and hence the ability to collect, process, and transmit human-interaction-based information. Exploiting the cross-sectional and time-series variation of lockdown and its implications for proximate investment, we investigate how the difficulty of using human-interaction-based information in lockdown has prompted a switch to non-interaction-based information. We show that lockdown reduces fund investment in proximate stocks and generates a portfolio rebalancing toward distant stocks. Such rebalancing negatively impacts fund performance by reducing fund raw (excess) returns an additional 0.51% (0.19%) per month during lockdown, suggesting that human-interaction-based and non-interaction-based information is not easily substitutable. Last, we show that the edge of human-interaction-based information originates preeminently from physical contacts, primarily in cafs, restaurants, bars, and fitness centers, and that the virtual world based on Zoom/Skype/Teams cannot substitute for personal meetings in generating sufficient information.

# 15. Security Lending and Corporate Financing: Evidence from Bond Issuance, (with Massimo Massa, and Hong Zhang)

The securities lending market allows institutional investors, such as insurance companies, to lend out asset holdings in exchange for cash collateral, an important but understudied source of funding. Since securities lenders are also primary investors in corporate bonds, we hypothesize that their lending preference for certain types of bonds can influence corporate financing policies. Indeed, we observe that a higher lender preference for long-term bonds stimulates firms to issue more such bonds and helps boost bond prices. The analysis exploiting a quasi-experiment supports a causal interpretation. Our results shed new light on the potential impact of securities lending.

## 16. Cross-Asset Information Synergy in Mutual Fund Families (with Jun Kyung Auh)

This paper highlights the importance of synthesizing cross-asset information in mutual fund families. We show that the investment decisions of equity and bond funds on commonly held firms significantly comove if and only if both funds are affiliated with the same fund family. Moreover, we find that when a fund familys bond funds produce information, its equity funds generate better performance on the cross-held firms stocks than stand-alone equity funds that hold the same stocks but do not have affiliated bond funds. These findings suggest that cross-holdings within a mutual fund family reduce frictions regarding asset market segmentation and facilitate spillovers of non-redundant information across equity and bond investors.

## 17. The Great Wall Debt: Real Estate, Political Risk, and Chinese Local Government Financing Cost (with Andrew Ang and Hao Zhou)

Chengtou bond is the soli asset with market prices that can capture the funding cost of Chinese local government debt. In contrast to the U.S. municipal bonds, Chengtou bonds are issued by private corporations but implicitly guaranteed by the local hence central governments, which are reflected by novel risk characteristics—real estate GDP and political risk. One standard deviation increase in local real estate GDP (political risk) corresponds to 10 (9) basis points decrease (increase) in bond yields, respectively. However, conditional on political risk, real estate GDP actually increases bond yields, suggesting that only local governments with low political risk can enjoy the low funding costs driven by high real estate growth.

# 18. Can Equity Market Efficiency Help Improve the Quality of Credit Ratings? Evidence from a Controlled Experiment (with Sterling Huang, Massimo Massa, and Hong Zhang)

- Arthur Warga Award for the Best Paper in Fixed Income, SFS Cavalcade Asia Pacific

We study whether and how the efficiency in the equity market affects the credit market. We exploit a unique experiment (Regulation SHO) which, by exogenously reducing transaction costs for short-sellers, improves efficiency in the equity market through increasing the informativeness of the firm. We show that higher efficiency significantly improves the buy-side investor-paid ratings but have little impact on sell-side issuer-paid ratings, because the change of ratings comes not from a lower probability of distress per se, but from a reduction in the uncertainty about the riskiness of the firm and from an enhancement of governance quality. The effect is stronger for firms rated below investment grades, for firms with low analyst coverage, and for firms with low institutional ownership.

# 19. What Bond Lending Reveals? The Role of Informed Demand in Predicting Credit Spread Changes

Corporate bond lending market is  $2\sim3$  times larger than corporate bond trading market, which makes it contain unique information on top of bond trading market. Using the lending information on both prices and quantities, we construct a proxy of informed demand and study its role in predicting the credit spread changes. We find that informed demand exhibits highly significant predictive power on future credit spread changes, even controlling for credit risk, liquidity risk, and other long-established risk factors in Collin-Dufresne et al. (2001) and Zhang, Zhou, and Zhu (2009). We also nd that lending-based informed demand only have predictive power in corporate bonds, but not in its derivative contract CDS. Therefore, the informed demand help explain the CDS-Bond basis, especially in normal times when limits-to-arbitrage constraints unbind.

# 20. Do Distributional Characteristics of Corporate Bonds Predict Their Future Returns? (with Turan Bali and Quan Wen) – Permanent working paper

# 21. The Microstructure of Chinese Government Bond Market, (with Michael Fleming, and Casidhe Horan) – Permanent working paper

While China now has one of the largest government bond markets in the world, the market has received relatively little attention and analysis. We describe the history and structure of the market and assess its functioning. We find that trading in individual bonds was historically sparse, but has increased markedly in recent years. We find that certain announcements, such as the producer price index and manufacturing index (PMI) have significant effects on yields, even when such yields are measured at a daily level. Despite the increased activity in the market, we are able to reject the null hypothesis of market efficiency under two different tests for four of the most actively traded bonds.

# 22. Going Global: Markups and Product Quality in the Chinese Art Market, (with Benjamin Mandel and Jia Guo)

Media: -Asia Week Guide article

We analyze two reasons for export prices to be different across markets, namely quality differentiation and variable markups, and attempt to parse their relative importance and some of their underlying drivers. To overcome the substantial measurement issues in this task, we consider a particular industry as a special case: Chinese fine art. The simplicity of the supply-side of art vis-à-vis marginal cost and the wealth of data on its quality characteristics makes it possible to separately identify the markup and quality components of international relative prices for Chinese artworks. Through this lens, we trace the process of internationalization of Chinese art since the year 2000 and uncover a rich set of facts. We find strong support for quality sorting into international markets at both the level of artist and artwork, as well as substantial markup differences across destinations. Using a structural model of endogenous quality choice by Feenstra and Romalis (2012), we argue that much of the international quality premium is driven by specific distribution costs (whether physical or informational) rather than destination-specific preferences for quality.

### SEMINAR AND CONFERENCE PRESENTATIONS

## 2023 (including scheduled):

MIT Sloan

Hong Kong University

Hong Kong University of Science and Technology

Case Western Reserve University

Northeastern University

#### 2022 (including scheduled):

AFA (Boston)

Geneva Institute for Wealth Management annual conference

WAPFIN@STERN Senior Panel

4th Future Information in Finance Conference (Stockholm)

Plato Partnership MI3 conference

**INQUIRE** 

Cornell University

University of Kansas

Georgia State University

University of Texas at Dallas

City University of Hong Kong

Federal Reserve Bank of San Francisco

**Durham University** 

Georgetown Washington University (econ)

AIG (invited talk)

### 2021:

NBER Asset Pricing Spring conference

ABFER 8th Annual Conference

FIRS

EFA (Milan)

World Investment Forum (invited talk)

University of Oregon

University of Utah

Nanyang Technological University

NOVA School of Business and Economics

University of Technology Sydney

## 2020:

AFA (San Diego)

Goldman Sachs Alternative Risk Premia Roundtable Forum (invited talk)

Future of Financial Information Conference (Stockholm)

Washington University in St. Louis

John Hopkins University (Carey business school)

University of Virginia

### 2019:

AFA (Atlanta)

WFA (Huntington Beach)

SFS Cavalcade (Pittsburg)

The Q-Group annual conference (Charleston),

Rodney L. White Center Conference on Financial Decisions and Asset Markets at harton, UPenn

Consob-Bocconi Baffi-Carefin meeting (Milan)

American University

University of Houston

Cambridge Judge Business School

University of Liverpool Management School

Utrecht University

## 2018:

London School of Economics and Political Science

The Federal Reserve Board of Governors

University of Maryland

the Corporate Finance Day in Antwerp

2017: AFA, Office of Financial Research, Rutgers University, the Federal Reserve Bank of Atlanta and IMF joint conference on China, Asian Bureau of Finance and Economics Research annual conference, FRIC'17 Conference on Financial Frictions, EFA (Manheim), MIT Golub Center for Finance and Policy 4th Annual Conference

2016: AFA, AEA, Texas Finance Festival, SFS Finance Calvacade, WFA, IMF, ECB, EFA (Oslo), University of Texas as Dallas, University of Lausanne and École Polytechnique Fédérale de Lausanne, NBER summer institute Asset Pricing conference, Yale SOM Workshop on Financial Fragility, SIFR conference on Credit Markets after the Crisis (Stockholm), Southern Methodist University, University of Texas at Austin, Federal Reserve Board, Rice University, the 8th European Banking Center network conference, the Financial Stability Conference by OFR and Federal Reserve Bank of Cleveland

2015: AEA, Stanford University GSB, the IMF/World Bank joint seminar, NYU, Office of the Comptroller of the Currency, Tsinghua PBCSF Global Finance Forum, Moody's credit risk conference, George Mason University, Brandeis/Boston Fed Municipal Bond Conference, NBER Chinese Economy conference, Federal Reserve Board, Money Market Workshop in ECB, Hong Kong Monetary Authority, City University of Hong Kong

2014: AFA, SFS Finance Calvacade, University of Connecticut Annual Risk Management Conference (invited talk), Western Finance Association, Federal Reserve Board, European Finance Association, BIS Research Network meeting on Banking and Asset Management (invited talk), Annual Bank Research Conference of FDIC, New York University, George Washington University, PBC School of TsingHua University

2013: AFA, EFA (Cambridge), the Day-Ahead Conference of the Federal Reserve System, University of Toronto, Rotman School of Management, Bank of France, Bank of England, Federal Reserve Bank of San Francisco, FDIC-Cornell joint conference on Derivatives Securities and Risk Management, the Department of the Treasury's Office of Financial Research, the Sixth Biennial McGill Global Asset Management Conference in Montreal, Columbia University\*, Financial Stability Analysis by the Federal Reserve Bank of Cleveland and Office of Financial Research, the China International Conference in Finance, European Bank Association's 5th Annual Financial Stability Conference, Copenhagen Business School

Before 2013: The Sixth MTS Conference on Financial Markets by London Stock Exchange and London School of Economics, Columbia-Tsinghua Conference in International Economics at Beijing, China, Rutgers University, European Central Bank\*, MIDAS workshop at Goethe University Frankfurt, European Economic Association Annual Meetings in Barcelona, the China International Conference in Finance, Federal Reserve Bank of New York, University of Alberta, University of Washington, McGill University, Iowa University, Pennsylvania State University, University of Illinois at Chicago, NBER Time Series Conference (Iowa City), University of Chicago Graduate School of Business, NBER Time Series Conference (Montreal), Southern Methodist University, International Banking, Economics and Finance Association Annual Conference, Rutgers University, Federal Reserve Bank of New York, European Finance Association Annual Conference at Stockholm, City University of New York, Northern Finance Association Annual Conference at Vancouver, the CREDIT Conference on Sovereign Risk and its Consequences for Financial Markets, Institutions and Regulation, Artelligence conference, NBER Asset Pricing Workshop, Society for Economic Dynamics Annual Conference at Cyprus, Fixed Income Conference: Navigating Cathartic Change in Fixed Income, University of South Carolina, University of Florida, Federal Reserve Bank of New York, Cheung Kong Graduate School of Business, New York University

### CONFERENCE DISCUSSIONS

- [2022] Jian Feng, Xiaolin Huo, Xin Liu, Yifei Mao, and Hong Xiang, "Economic Links from Bonds and Cross-Stock Return Predictability," The 3rd International FinTech Research Forum at Renmin University of China.
- [2022] Marco Sammon, "Passive Ownership and Price Informativeness," Plato Partnership MI3 Conference.
- [2022] Sergey Chernenko and Viet-Dung Doan, "Forced Sales and Dealer Choice in OTC Markets," American Finance Association Annual Conference.
- [2021] Allen N. Berger, Christa H.S. Bouwman, Lars Norden, Raluca A. Roman, Gregory F. Udell, and Teng Wang, "Is a Friend in Need a Friend Indeed? How Relationship Borrowers Fare during the COVID-19 Crisis", the workshop of "How is the Covid-19 experience changing finance?".
- [2021] Keqi Chen, Yi Huang, Kathy Yuan, and Hao Zhou, "How Does Local Government Financing Affect Bond Market in China: Evidence from Municipal Corporate Bond", China International Conference in Finance.
- [2021] Bryan Kelly, Diogo Palhares and Seth Pruitt, "Modeling Corporate Bond Returns", the Society for Financial Econometrics seminar.
- [2020] Nathan Foley-Fisher, Borghan Narajabad, and Stphane Verani, "Securities Lending as Wholesale Funding: Evidence from the US Life Insurance Industry", Financial Management Association Annual Conference.
- [2020] Mikkel Hauerberg, David Lando, and Alexander Tetzlaff, "Forgiven but not forgotten: Emerging market credit spreads following debt relief", European Finance Association Annual Conference.
- [2019] Hui Chen, Zhuo Chen, Zhiguo He, Jinyu Liu, Rengming Xie, "Pledgeability and Asset Prices: Evidence from the Chinese Corporate Bond Markets," SFS Cavalcade North America.
- [2018] Mark Flood, Dror Kenett, Robin Lumsdaine, Jonathan Simon, "The Complexity of Bank Holding Companies: A Topological Approach," and Peter Conti-Brown, "Central banking and institutional change in the United States," The 4th Annual Central Banking and Financial Reform Conference.
- [2018] Sandeep Dahiya, Issam Hallak, and Thomas Matthy, "Targeted by an Activist Hedge Fund Do the Lenders Care?" The 15th Corporate Finace Day.
- [2018] Azi Ben-Rephael, Bruce Carlin, Zhi Da, Ryan Israelsen, "Demand for Information and Asset Pricing," Western Finance Association Annual Conference.
- [2017] Doron Avramov, Tarun Chordia, Gergana Jostova, and Alexander Philipov, "Bonds, Stocks, and Sources of Mispricing," Asian Bureau of Finance and Economic Research Annual Conference.
- [2017] Viral Acharya, Diane Pierret, and Sascha Steffen, "Lender of Last Resort versus Buyer of Last Resort: Evidence from the European Sovereign Debt Crisis," American Finance Association Annual Conference
- [2016] Nils Friewald, Florian Nagler, and Christian Wagner, "Debt Refinancing and Equity Returns," European Finance Association Annual Conference
- [2016] Stefano Corradin, Maria Rodriguez-Moreno, "Violating the Law of One Price: The Role of Nonconventional Monetary Policy," Financial Intermediation Research Society Conference
- [2014] Karan Bhanot, Carl Larsson, "Uncovering 'The Cost Of Regulatory Uncertainty'," European Finance Association Annual Conference
- [2014] Jaewon Choi, and Or Shachar, "Did Liquidity Providers Become Liquidity Seekers?: Evidence from the CDS-Bond Basis during the 2008 Financial Crisis," Financial Intermediation Research Society Annual Conference
- [2014] Fernando Duarte, and Thomas M Eisenbach, "Fire-Sale Spillovers and Systemic Risk," Financial Intermediation Research Society Annual Conference

- [2014] Phillip Schnabl, Itamar Drechsler, Thomas Drechsel, David Marques-Ibanez, "Who Borrows from the Lender of Last Resort?" University of Connecticut Annual Risk Management Conference
- [2014] Martin Oehmke, and Adam Zawadowski, "Synthetic or Real? The Equilibrium Effects of Credit Default Swaps on Bond Markets," SFS Finance Calvacade
- [2013] Jens Dick-Nielsen, "Dealer Inventory and the Cost of Immediacy," .
- [2013] Sanjiv Das, Madhu Kalimipalli, and Subhankar Nayak, "Did CDS Trading Improve the Market for Corporate Bonds?" American Economic Association meeting.
- [2012] Nils Friewald, Christian Wagner, and Josef Zechner, "The Cross-Section of Credit Risk Premia and Equity Returns," Western Finance Association meeting.
- [2011] Richard Stanton and Nancy Wallace, "The Bear's Lair: Index Credit Default Swaps and the Subprime Mortgage Crisis," European Finance Association meeting.
- [2011] Iuliana Ismailescu and Blake Phillips, "Savior or Sinner? Credit Default Swaps and the Market for Sovereign Debt," Northern Finance Association meeting.
- [2009] Nikunj Kapadia and Xiaoling Pu, "Limited Arbitrage between Equity and Credit Markets," China International Conference in Finance.

#### PROFESSIONAL SERVICE

## Program committee

2019–2023 WFA annual conference

2015–2022 EFA annual conference

2017–2023 FIRS annual conference

2019–2021 SFS Cavalcade North America annual conference

2017, 2019 SFS Cavalcade Asia-Pacific annual conference

## Track/session chair

2021 WFA session chair: Credit and Fixed Income Investment

2020 FIRS session chair: Networks 2017 EFA session chair: Momentum

2020 FMA Womens Networking Roundtable co-chair

### Member of

American Finance Association American Economic Association Western Finance Association European Finance Association

## Refereeing

Journal of Finance Review of Financial Studies Journal of Financial Economics Journal of Financial and Quantitative Analysis Management Science Review of Finance Journal of Banking and Finance Review of Asset Pricing Studies
Journal of Money, Credit and Banking
Journal of Empirical Finance
Journal of Financial Markets
European Economic Review
European Financial Management
Real Estate Economics
Pacific-Basin Finance Journal
International Review of Finance

## External reviewer

Research Grant Council of Hong Kong Swiss National Science Foundation Deutsche Bundesbank

## University service

Recruiting committee member 2013-2018, 2021 Organizer of the Finance Seminar series 2016, 2019-present Organizer of the Finance Brown Bag series, 2017-2018

Jesuit Identity Advisory Council Member 2018-2020 Environment and Sustainability Management Advisory and Curriculum Committee 2020-present

## HONORS, AWARDS AND GRANTS

Research grant from the Center for Financial Markets and Policies, Georgetown University, 2014-2016 Oscar Mayer Fellowship for Dissertation, University of Chicago, 2007.

University of Chicago Graduate School of Business Doctoral Fellowship for 2002-2006.

Chun-Tsung Scholar, provided by Nobel Prize Laureate Dr. TsungDao Lee, 1999-2001.

All-around best student, the Ministry of Education in Shanghai, 2000.

## MEDIA COVERAGE OF RESEARCH

- "Better bank liquidity measure should help predict a crash," *Herald Business Journal*, November 2018.
- "Markets no more informative than they were 50 years ago," January 2014
- "Even With So Much Data And Technology, Financial Markets Are No Smarter Than They Were 50 Years Ago." *Business Insider*, September 2013
- "Why Have Markets Learned Nothing in the Last 50 Years?" Bloomberg, September 2013.

#### NON-ACADEMIC EXPERIENCE

Docent and librarian at the Metropolitan Museum of Art, New York, 2010 - 2012.

Docent at the Field Museum, Chicago, 2003 - 2008.

Member of the Asian Art Council in the Art Institute of Chicago, 2003 - 2008.

Docent at the Shanghai Museum, Shanghai, China, 1999 - 2002.