Arka Prava Bandyopadhyay

Adjunct Professor | Columbia University | New York University | Yeshiva University

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arkabandyopadhyay.com | Google Scholar | U.S. Permanent Resident

JFQA · JEDC · JREFE · QJF
Four refereed journal publications

10 Courses · 5 Universities
Evaluations 4.7+ out of 5

Brattle Group Ph.D. Award
Western Finance Association, 2022

Head of AI & Quantitative Research
Clarion Partners (Franklin Templeton)

Research Fields

Primary Household Finance · Financial Intermediation · Real Estate and Mortgage Markets

Secondary Machine Learning and AI in Finance · Causal Inference and Applied Econometrics · FinTech

Education

Ph.D., Finance (Household Finance and AI) | Zicklin School of Business, Baruch College, CUNY 2021
Beta Gamma Sigma; Dean's Merit List.

M.S., Mathematical Finance | Courant Institute of Mathematical Sciences, New York University 2013
Graduate coursework toward the Ph.D. in Applied Mathematics.

M.S., Computer Science | Louisiana State University 2011
Thesis on partial order and quantum information, published as a book.

B.Math. (Honors), Mathematics | Indian Statistical Institute 2008
Topper in the best Math school in India.

Job Market Paper

Buy to Hold or Buy to Sell? Servicer Business Models, Guarantees, and Mortgage Relief

Solo-authored | This version: October 18, 2026 | PDF | SSRN

A government-insured mortgage can be modified only after its servicer buys it out of its bond at face value. Within servicer and month, nonbank servicers, which fund ownership with short-term credit and resell, buy back loans whose bond clears a two-point resale premium at more than twice the rate of loans a quarter point lower; deposit-funded banks do not. The pattern replicates out of sample in 2014–2018. Without the buyback, these loans would have stayed seriously delinquent for seven to eleven of the next eighteen months.

Refereed Publications

1. **Adverse Selection in Mortgage Markets: Evidence from Ginnie Mae Early Buyouts** SSRN
   with Dongshin Kim and Patrick S. Smith | *Journal of Financial and Quantitative Analysis*, 2026, 61(3), 1148–1177
   Brattle Group Ph.D. Award, Western Finance Association, 2022
2. **Reinforcement Learning for Household Finance: Designing Policy via Responsiveness** SSRN
   with Lilia Maliar | *Journal of Economic Dynamics and Control*, 2026, 182, 105229
3. **Delegated Relief: What Servicers Say, and What Statutory Eligibility Is Worth in Mortgage Forbearance** SSRN
   Solo-authored | *Journal of Real Estate Finance and Economics*, forthcoming, DOI: 10.1007/s11146-026-10086-3

4. **Communications Between Borrowers and Servicers: Evidence from the COVID-19 Mortgage Forbearance Program** SSRN
   Solo-authored | *Quarterly Journal of Finance*, 2022, 12(1), 2240004

Papers Under Review

1. **The Resolution of Direction: Calibrating Residual-Independence Tests in Finance** SSRN
2. **When Do Beta-Sorted Portfolios Measure Non-Traded Risks? Reliability, Spanning, and Risk-Premium Inference** (with Kuntara Pukthuanthong and Dat Mai) SSRN
3. **The Lender's Insurance Requirement: Climate Risk, Home Purchases, and Coverage after Payoff** SSRN
4. **Debt Service Coverage, Maturity Default, and the Surveillance of Commercial Mortgages** SSRN
5. **Default by Firms That Can Pay: Evidence from Commercial Mortgages**
6. **Migrant Income in Housing Markets: County Coverage and Household Resources** SSRN
7. **Spending Origins, Storefront Vacancy, and Retail Property Prices** SSRN
8. **Endogenous Implied Volatility and the Real Effects of Volatility Shocks**

Selected Working Papers

1. **Non-Ergodic Markets: Why Return Predictability Is Visible Across Stocks but Not Within Them**
2. **How Much Instrument Invalidity Can a Causal Claim Survive?** (with Zhaonan Qu) SSRN
3. **AI Narrative and Stock Mispricing** (with Kuntara Pukthuanthong and Dat Mai) SSRN
4. **Shared Models, Selective Trading, and Order Flow** (with Victoria Ruojie Li) SSRN
5. **Diversity Narrative and Equity in Firm Leadership** (with Kuntara Pukthuanthong and Dat Mai) SSRN

Conference Presentations

2022 AFA–AREUEA Joint Session (ASSA); Western Finance Association; Financial Management Association; FHFA; Ginnie Mae; AEA Poster Session; Econometric Society; CEPR–RFS Household Finance Conference
2020 ASSA (AREUEA); Financial Management Association

Honors, Awards and Grants

Brattle Group Ph.D. Award, Western Finance Association (one of eleven Ph.D.s selected worldwide) 2022
AREUEA Dissertation Award 2020
American Finance Association Doctoral Student Grant 2020
PSC–CUNY Research Grant (with Lilia Maliar)

Teaching Experience

Ten courses across five universities, from undergraduate through MBA and specialized master's programs. Teaching evaluations at Yeshiva University: **4.8 or above out of 5**.

Finance and Quantitative Methods

Financial Economics	Columbia SPS (Fall 2025, Spring 2026)	
Financial Risk and Analytics	NYU Tandon (Spring 2024–2027); Yeshiva	*BS, MSF*
Options and Futures	CU Boulder (2021–22); Yeshiva (Spring 2026)	
Principles of Finance	CU Boulder (2022); Miami (2023); Yeshiva (2025)	*BS*
Decision Modeling	CU Boulder (2022); Yeshiva (2026)	*MBA, MSF*
Quantitative Modeling	Yeshiva (Spring, Fall 2026)	*MSF*

Real Estate

Real Estate Finance	CU Boulder (2021, 2022); Yeshiva (2025, 2026)	*BS, MBA, MSRE*
Real Estate Risk	CU Boulder (2022); Miami (2022); NYU (2024, 2025)	*MBA*
Data Analytics for Real Estate	NYU Schack (Fall 2026)	*MSRE*
Statistics in Finance and Real Estate	Columbia SPS (2026); NYU Schack (2026)	

Academic Appointments

Adjunct Professor | Columbia University, School of Professional Studies 2025 – Present

Adjunct Professor | Yeshiva University, Sy Syms School of Business 2025 – Present

Adjunct Professor | New York University, Tandon & Schack 2023 – Present

Professor of Professional Practice | University of Miami, Herbert School of Business 2022 – 2023

Scholar-in-Residence | University of Colorado Boulder, Leeds School of Business 2021 – 2022

Industry Experience

Head of AI and Quantitative Research | Clarion Partners (Franklin Templeton) 2024 – 2026
Led AI and quantitative research at one of the largest U.S. real estate investment managers; built and put into production agentic AI, LLM/RAG and knowledge-graph systems for investment research.

Principal Data Scientist | Rocktop Partners 2019 – 2021
Mortgage credit and Ginnie Mae early-buyout modeling.

Investment Quantitative Research, Cross-Asset | Nuveen / TIAA 2018 – 2019

UBS (2017–18) | **Santander** (2014–17) | **Deloitte & Touche** (2013–14) 2013 – 2018
Credit-loss forecasting (CECL), stress testing, structured credit and derivatives.

References

Prof. Lilia Maliar
Professor of Economics
Ph.D. Program in Economics
The Graduate Center, City University of New York
lmaliar@gc.cuny.edu

Prof. Liuren Wu
Wollman Distinguished Professor of Finance
Zicklin School of Business, Baruch College
City University of New York
liuren.wu@baruch.cuny.edu

Prof. Archishman Chakraborty
Harris Chair and Professor of Finance
Chair, Finance Department
Sy Syms School of Business, Yeshiva University
archishman@yu.edu

Prof. Amine Ouazad
Associate Professor of Economics
Department of Applied Economics
HEC Montréal
amine.ouazad@hec.ca

Skills

Programming	Python, R, SAS, Stata, MATLAB, VBA
AI / ML	PyTorch, LangChain, LangGraph; LLMs, RAG, agentic AI, knowledge graphs
Methods	Deep learning, financial NLP, reinforcement learning, causal inference, panel econometrics