

Dale W.R. Rosenthal

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ACADEMIC EXPERIENCE

University of Illinois at Chicago. Chicago, IL July 2008–present
Assistant Professor, Department of Finance.
Teaching: Investments; Market Microstructure and Electronic Trading; Commodity and Related Markets.

EDUCATION

Ph.D. in Statistics, **University of Chicago.** Chicago, IL August 2008
Dissertation: Trade Classification and Nearly-Gamma Random Variables
Committee: Per Mykland (Advisor), Vanja Dukic, David Modest, Stephen Stigler
B.S. in Electrical Engineering, **Cornell University.** Ithaca, NY May 1995

FELLOWSHIPS AND AWARDS

- QuantValley/FdR ‘Quantitative Management Initiative’ research grant (€5,000) May 2012
- Data Explorers, US equities funding data grant April 2012
- Visiting Scholar, Peking University, Department of Financial Mathematics, Beijing (China) June 2010
- Fellowship, Institute on Computational Economics, Argonne, IL Summer 2005
- Inaugural Plotnick Fellowship. Physical Sciences Division, University of Chicago 2004–2008
- Nominee, Physical Sciences Division annual teaching prize, University of Chicago 2007

RESEARCH INTERESTS

I study trading and financial distress through the lenses of market microstructure and financial econometrics.
I also study delays in information propagation.

PUBLICATIONS

- “Modeling Trade Direction.” *Journal of Financial Econometrics*, 10(2), 2012, 390–415.
Develops theory for information delays. Analyzes using a delay model and combining indications from trade signing rules to determine trade aggressor (buyer/seller).

WORKING PAPERS

- “Market Structure, Counterparty Risk, and Systemic Risk.” Submitted.
Studies effect of initial bankruptcy in a network of derivative contracts. Rehedging transforms counterparty risk into systemic risk yielding both pooling and separating equilibria.
- “Approximating Correlated Defaults.” Submitted.
Develops novel Edgeworth expansion for reduced-form default modeling via default-approximating debt portfolios. Allows joint estimation of diversity score (# iid loans) and credit quality (iid loan default intensity).
- “Transaction Taxes in a Price Maker/Taker Model.” (w/Nordia D. M. Thomas) Submitted.
Develops microstructure theory for a limit order book market to examine effects of a transaction tax, intermediation, and the interaction between these.
- “Funding Liquidity, Market Liquidity and TED Spread: A Two-Regime Model.” (w/Ellen Paulus and Kris Boudt) In revision.
Examines using TED spread to distinguish Brunnemeier-Pedersen liquidity cycles (peaceful vs. unstable markets); differences between government and market perceptions of crisis.

WORKING PAPERS (CONT.)

- “Performance Metrics for Algorithmic Traders.” In revision.
Uses microstructure ideas to separate trading skills from noise; relates these to a price impact model to allow estimating model coefficients.
- “Index Arbitrage and Refresh Time Bias in Covariance Estimation.” (w/Jin Zhang)
Shows that index/ETF arbitrage implies two data generating processes in many stock returns. Theory suggests a bias to high-frequency variance and covariance estimates; analysis confirms this
- “Increasing Shareholder Value? A Study of Share Repurchases.” (w/Nitish R. Sinha)
Uses microstructure theory to suggest repurchases may often be foolish; analyzes data to explore how repurchases may be used to strip assets from the firm or to defend against mergers.

CONFERENCE PRESENTATIONS (INVITED PRESENTATIONS IN *italics*)

“Market Structure, Counterparty Risk, and Systemic Risk”

- *Financial Markets and Real Economic Activity, Austrian National Bank, Vienna: September 2012;*
- FMA Europe, İstanbul: June 2012; ◦ Mathematical Finance Days, IFM², Montréal: May 2012; ◦ FMA, Denver: October 2011; ◦ Future of Risk Management, Bank of Finland, Helsinki: September 2011; ◦ Financial Networks, GFRI, Geneva: June 2011; ◦ EFM Alternative Investments, York U., Toronto: April 2011; ◦ Long Term Risks, Institut Louis Bachelier, Paris: March 2011; ◦ MFA, Chicago: March 2011; ◦ Volatility and Systemic Risk, NYU-Stern Volatility Institute: April 2010; ◦ *ISI World Congress, Durban: August 2009.*

“Approximating Correlated Defaults”

- *FERM, Hunan U., Changsha: July 2012;* ◦ Bachelier Finance Society World Congress, Sydney: June 2012; ◦ Mathematical Finance Days, IFM², Montréal: May 2012; ◦ CQA, Las Vegas: April 2012; ◦ Credit Analysis, Oakland U., Rochester, MI: July 2011; ◦ Quantitative Methods in Business Applications, Guanghua, Peking U., Beijing: June 2010; ◦ SoFiE Europe, U. de Genève: June 2009.

“Performance Metrics for Algorithmic Traders”

- Hedge Funds, NYSE Euronext/CREST/Lyxor, Paris: January 2012; ◦ *FERM, NTU-CRETA, Taipei: June 2010;* ◦ CQA, Las Vegas: April 2010; ◦ *Market Microstructure, Aarhus U.-CREATES: March 2010.*

“Funding Liquidity, Market Liquidity, and TED Spread: A Two-Regime Model”

- (EC)² Econometrics and Public Policy, EUI, Florence: December 2011.

“Index Arbitrage and Refresh Time Bias in Covariance Estimation”

- Mathematical Finance Days, IFM², Montréal: May 2011.

“Increasing Shareholder Value? A Study of Share Repurchases”

- Payout Policy, Bergisches U. Wuppertal: July 2011; ◦ Corporate Governance, U. Birmingham (UK): June 2011.

“Modeling Trade Direction”

- MFA, Chicago: March 2009; ◦ Financial Econometrics and Vast Data, OMI, U. Oxford: September 2008.

CONFERENCE DISCUSSION PRESENTATIONS

- FMA Europe 2012; ◦ Future of Risk Management, Bank of Finland 2011; ◦ Credit Analysis, Oakland U. 2011; ◦ EFM Alternative Investments 2011; ◦ 2×MFA 2011; ◦ MFA 2009.

POLICY PRESENTATIONS

- Testified on risk, holdings of Teachers’ Retirement Services pension fund. Pension Investments Committee, Illinois State Legislature. March 2012
- Briefing on research results: effects of transaction taxes; how market structure affects systemic risk. Board of Directors, Chicago Mercantile Exchange Trust. December 2010

SEMINARS

- “Transaction Taxes in a Price Maker/Taker Market.” Comenius U./National Bank of Slovakia (Sep 2012)
- “Approximating Correlated Defaults.” UIC (Apr 2012), National Bank of Slovakia (Sep 2012)
- “Funding Liquidity, Market Liquidity, and TED Spread.” UIC (Dec 2011)
- “Performance Metrics for Algorithmic Traders.” Spot Trading (Apr 2011)
- “Market Structure, Counterparty Risk, and Systemic Risk.” UIUC (Nov 2010); UIC (Oct 2010); HKUST ISOM (Jun 2010); Northwestern U. Statistics (Feb 2010)
- “Modeling Trade Direction.” Spot Trading (Feb 2011); Peak 6 (Dec 2008); UIC MSCS (Sep 2008); UIC (Feb 2008); IIT (Jan 2008)
- “Trade Signing and Nearly-Gamma Random Variables.” U. Chicago Financial Math (Dec 2007)

PUBLISHING-RELATED SERVICE

Referee for *Journal of Financial Econometrics*, *Management Science*, *Quantitative Finance*, *Journal of Forecasting*, *Algorithmic Finance*, *European Financial Management*.

Reviewer for MIT Press, Chapman & Hall/CRC.

CONFERENCES ORGANIZED

- R/Finance Conference*. Chicago, IL Spring 2009–present
- Attracts 300+ academics, policy makers, and practitioners from around the world.
 - Has received corporate sponsorship every year, resulting in profit and conference endowment.

INDUSTRY EXPERIENCE

- Self-employed**. Chicago, IL June 2004–August 2004
- Modeled, traded, and hedged 6×6 name long-short equity portfolio to minimize market impact.
 - Made 23% return (despite 18% cash reserve); daily P&L volatility of 1.4%; Sharpe ratio of 1.04.

- Morgan Stanley**. New York, NY March 2000–September 2003
Proprietary Researcher/Trader, Equity Trading Lab
- Researched and traded index rebalances, guaranteed benchmark, and facilitation.
 - Modeled market impact; analyzed and modeled execution quality across venues.

- Long-Term Capital Management**. Greenwich, CT June 1995–February 2000
Strategist, Equity Derivatives
- Structured optimal equity baskets for index arb and synthetic hedging of CBs/warrants.
 - Assisted with trading Japanese warrant strategy.

- Goldman Sachs**. New York, NY September 1993–August 1994
Intern Programmer/Analyst, Listed Equities (Block Trading Desk)

STUDENTS

PhD Students Advised: Nordia D. M. Thomas (2011)

PhD Committee Membership: Jin Zhang (2011), David St. John (2010)

Undergraduate Students Supervised: Bonifacio “J.R.” Ruñez (2010), Kunal Patel (2010)