

## VITA

### ROBERT H. BATTALIO

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**EDUCATION:** BS (Economics), Texas A&M 1988  
Ph.D. (Finance), Indiana University 1995

**ACADEMIC APPOINTMENTS:** University of Notre Dame, 2007 to present  
Professor of Finance

University of Notre Dame, 2000 to 2007  
Associate Professor of Finance

Georgia State University, 1999 to 2000  
Assistant Professor of Finance

Federal Reserve Bank of Atlanta, 1999 to 2000  
Visiting Scholar

Nasdaq Economic Research, January 1998 to December 1998  
Visiting Academic Fellow

University of Notre Dame, 1995-1998  
Assistant Professor of Finance

Indiana University, 1990-1995  
Associate Instructor & Research Assistant

#### PUBLISHED PAPERS:

R. Battalio, 1997, "Third Market Broker-Dealers: Cost Competitors or Cream Skimmers?" *Journal of Finance* 52, 341-352.

R. Battalio, B. Hatch, and R. Jennings, 1997, "Is SOES Trading Associated with Increased Volatility?" *Journal of Financial and Quantitative Analysis* 32, 225-238.

R. Battalio, J. Greene, and R. H. Jennings, 1997, "How do Competing Specialists and Preferencing Dealers Affect Market Quality?" *Review of Financial Studies* 10, 969-93.

**PUBLISHED PAPERS (CONTINUED):**

- R. Battalio, J. Greene, and R. H. Jennings, 1998, "Order Flow, Trade Quality, and Liquidity Provision: Merrill Lynch's Decision to Cease Making Markets on the Regional Stock Exchanges." *Journal of Financial Intermediation*, 7, 338-358.
- R. Battalio, R. Jennings, and J. Selway, 2001, "The Relationship Among Market-Making Revenue, Payment for Order Flow, and Trading Costs for Market Orders," *Journal of Financial Services Research*, 19, 39-56.
- R. Battalio and C. Holden, 2001, "A Simple Model of Payment for Order Flow, Internalization, and Total Trading Cost," *Journal of Financial Markets*, 4, 33-71.
- R. Battalio, R. Jennings and J. Selway, 2001, "The Potential for Clientele Pricing when Making Markets in Financial Securities," *Journal of Financial Markets*, 4, 85-112.
- B. Hatch, R. Battalio and R. Jennings, 2001 "Post-reform Market-order Execution Quality: Multi-dimensional Comparisons Across Market Centers," *Financial Review*, 38, 123-152.
- J. Bacidore, R. Battalio and R. Jennings, 2002, "Depth Improvement and Adjusted Price Improvement on the NYSE," *Journal of Financial Markets*, 5, 169-195.
- R. Battalio, J. Greene, B. Hatch, R. Jennings, 2002, "Does the Limit Order Routing Decision Matter?," *Review of Financial Studies*, 15, 159-194.
- C. Fullenkamp, R. Tenorio, and R. H. Battalio, 2003, "Assessing Individual Risk-Attitudes Using Field Data from Lottery Games," *Review of Economics and Statistics*, 85, 218-225.
- R. Battalio, B. Hatch, R. Jennings, 2003, "All Else Equal?: A Multidimensional Analysis of Retail, Market Order Execution Quality," *Journal of Financial Markets*, 6, 143-162.
- J. Bacidore, R. Battalio and R. Jennings, 2003, "Order Submission Strategies, Liquidity Supply, and Trading in Pennies on the New York Stock Exchange," *Journal of Financial Markets*, 6, 337-362.
- R. Battalio, B. Hatch and R. Jennings, 2004, "Toward a National Market System for U.S. Exchange-Listed Equity Options," *Journal of Finance*, 59, 933-962.
- R. Battalio and R. Mendenhall, 2005, "Earnings Expectations, Investor Trade Size, and Anomalous Returns Around Earnings Announcements," *Journal of Financial Economics*, 77, 289-319.
- J. Bacidore, R. Battalio, N. Galpin, and R. Jennings, 2005, "Sources of Liquidity for NYSE-Listed Non-U.S. Stocks," *Journal of Banking and Finance* 29, 3075-3098.
- R. Battalio and P. Schultz, 2006, "Options and the Bubble," *Journal of Finance* 61, 2071-2102 (lead article).
- R. Battalio, A. Ellul, and R. Jennings, 2007, "Reputation Effects in Trading on the New York Stock Exchange," *Journal of Finance* 62, 1243-1271.

- R. Battalio, B. Hatch, and T. Loughran, 2011, "Who Benefited from the Disclosure Mandates of the 1964 Securities Acts Amendments, *Journal of Corporate Finance* 17, 1047-1063.
- R. Battalio and P. Schultz, 2011, "Regulatory Uncertainty and Market Liquidity: The 2008 Short Sale Ban's Impact on Equity Option Markets, *Journal of Finance* 66, 2013-2053.
- R. Battalio and R. Mendenhall, 2011, "Post-Earnings Announcement Drift: Timing and Liquidity Costs, *Financial Review* 46, 513-539 (Outstanding publication award).
- R. Battalio, A. Lerman, J. Livnat, and R. Mendenhall, 2012, "Who, if Anyone, Reacts to Accrual Information?," *Journal of Accounting and Economics* 53, 205-224.
- R. Battalio, A. Shkilko, and R. Van Ness, 2016, "To Pay or be Paid? The Impact of Taker Fees and Order Flow Inducements on Trading Costs in U.S. Options Markets," *Journal of Financial and Quantitative Analysis*, 51, 1637-1662.
- R. Battalio, S. Corwin, and R. Jennings, 2016, "Can Brokers Have it All? On the Relationship between Make Take Fees and Limit Order Execution Quality," *Journal of Finance* 71, 2193-2238.
- R. Battalio, S. Corwin, and R. Jennings, 2016, "Unrecognized Odd Lot Liquidity Supply: A Hidden Trading Cost for High Priced Stocks, *Journal of Trading*.

#### **WORKING PAPERS:**

- R. Battalio, S. Figlewski, and R. Neal, "Exercise Boundary Violations in American-Style Options: The Rule, not the Exception," revise and resubmit requested by the *Journal of Financial Markets*.
- R. Battalio, T. Griffith, and R. Van Ness, "Do (Should) Brokers Route Standing Limit Orders Seeking to Trade U.S. Equity Options to Wholesalers?," revise and resubmit requested by the *Journal of Financial and Quantitative Analysis*.
- R. Battalio, R. Jennings, and B. McDonald, "Deviations from Parity on the NYSE."
- R. Battalio, B. Hatch, and M. Saglam, "The Cost of Routing Orders to High Frequency Traders"

#### **WORK IN PROGRESS:**

- R. Battalio, T. Griffith, R. Jennings, R. Van Ness, "On the Value of Natural Liquidity."

#### **PAPER PRESENTATIONS (INCLUDING THOSE BY CO-AUTHORS):**

- "Third Market Broker-Dealers: Cost Competitors or Cream Skimmers - An Empirical Analysis," presented at the BI, the Securities and Exchange Commission, Indiana University, the University of Florida, Michigan State University, the Southern Big 10 Symposium, and the 1995 *Journal of Financial Intermediation's* Trading System Design Symposium.

"CBOT Membership Prices and the Value of Specialization: Theory and Evidence 1982-86.", chosen for presentation at the 1995 American Finance Association Meeting.

**PAPER PRESENTATIONS (CONTINUED):**

"How do Competing Specialists and Preferencing Dealers Affect Market Quality? An Empirical Analysis," presented at the Indiana University Symposium on the Organization of Financial Trade and Exchange Mechanism (1995), the University of Memphis Competition for Order Flow Conference, the Boston Stock Exchange, the Chicago Stock Exchange, Notre Dame University, University of Oklahoma, DePaul University, the 1996 European Finance Association Meeting, the 1997 American Finance Association Meeting, and at the 1996 Ohio State Microstructure Conference.

"Would Decimal Trading Eliminate Payment for Order Flow and Internalization?," invited for presentation at the 1997 Accounting and Finance Meetings, presented at the 1996 Ohio State Microstructure Conference, the 1997 Indiana University Market Microstructure Symposium and the 1998 Western Finance Association meetings.

"The Quality of Trade Execution on Regional Exchanges," presented at the NYSE's Conference on the Search for the Best Price and at the Chicago Stock Exchange.

"Limit Order Execution on the Philadelphia Stock Exchange," presented at the Philadelphia Stock Exchange's 1996 annual users meeting and at the University of Delaware.

"Is SOES Trading Associated with Increased Volatility?," selected for presentation at the 1997 Western Finance Association meetings and the 1997 Financial Management Association Meetings.

"Order Flow, Trade Quality, and Liquidity Provision: Merrill Lynch's Decision to Cease Making Markets on the Regional Stock Exchanges," presented at the Ohio State University, George Washington University, Georgia State University and selected for presentation at the 1997 Financial Management Association Meetings and the NBER 1997 Market Microstructure program.

"A Comparison of Equity Limit Order Execution Quality Across Trading Venues," presented at USC, Georgia State, Notre Dame, Cincinnati, the 1997 Southern Finance Association meetings, the SEC, and the 1999 American Finance Association Meetings.

"Assessing Individual Risk-Attitudes Using Field Data from Lottery Games," presented at the 1998 Winter Meetings of the Econometric Society.

"Payment for Order Flow, Trading Costs, and Dealer Revenue for Market Orders at Knight Securities, L.P." presented at the 1999 Utah Winter Finance Meetings, the NYSE, Nasdaq Economic Research, and Georgetown University.

"Will Payment for Order Flow Survive Decimalization?," presented at the 1999 NASD/Notre Dame market microstructure conference, the 1999 FMA meetings, and the 2000 Western Finance Association meetings.

“A Multidimensional Analysis of Retail Market Order Execution Quality,” presented at the University of Notre Dame, Georgia State University, the NASD, the Knight Trimark Group, the 1999 NYSE U.S. Equity Markets in Transition conference.

**PAPER PRESENTATIONS (CONTINUED):**

“Depth Improvement and Adjusted Price Improvement on the NYSE,” presented at the NYSE and the 2000 Western Finance Association meetings.

“Does a National Market System Exist for U.S. Exchange-Listed Equity Options?: An Analysis of Multiple Traded Equity Options,” presented at the University of Southern California, Texas A&M University, and at the 2000 Nasdaq/Notre Dame Microstructure Conference, the 2001 Western Finance Association meeting, and the 2002 American Finance Association Meetings.

“Earnings Expectations, Investor Trade Size, and Anomalous Returns Around Earnings Announcements,” presented at the 2004 American Finance Association Meetings, Indiana University, Indiana University – Purdue University Indianapolis, the University of Delaware, and the University of Notre Dame.

“Options and the Bubble,” presented at the 2005 American Finance Association Meetings, the 2005 Western Finance Association Meetings, the 2005 Morgan Stanley Equity Microstructure Conference, the University of Notre Dame, and the University of North Carolina.

“Reputation Effects in Trading on the New York Stock Exchange,” presented at the 2006 American Finance Association Meetings, the Financial Economics and Accounting Conference at the University of Southern California, Indiana University, the London School of Economics, the NYSE, the Oxford Financial Research Summer Symposium, Southern Methodist University, the University of Kansas, the University of Memphis, the University of Notre Dame, Rutgers University, and the University of Utah.

“Does the Market Value Mandated Disclosure?,” presented at the 2009 American Finance Association Meetings, the 2009 Financial Management Association Meetings, Florida State University, and the University of Notre Dame.

“Post-Earnings Announcement Drift: Timing and Liquidity Costs,” presented at the University of Utah, the University of Mississippi and the University of Notre Dame.

“Who, if Anyone, Reacts to Accrual Information?,” presented at NYU, Babson, the University of Mississippi and at Hofstra University.

"Regulatory Uncertainty and Market Liquidity: The 2008 Short Sale Ban's Impact on Equity Option Markets," presented at the at the University of Notre Dame, the University of Pittsburgh, the Ohio State University, the Federal Reserve Bank of Atlanta's conference, "Short Selling: Costs and Benefits," the 2010 Western Finance Association meetings, the 2010 FMA/UC Davis Conference on Financial Markets Research, and the 2010 RMA/UNC Academic Forum on Securities Lending.

**PAPER PRESENTATIONS (CONTINUED):**

“To Pay or be Paid? The Impact of Taker Fees and Order Flow Inducements on Trading Costs in U.S. Options Markets,” presented at De Paul University, Florida International University, the University of Miami, the University of Notre Dame, Wilfrid Laurier University, the 2012 Western Finance Association meetings, 2011 Mid-Atlantic Research Conference in Finance, and 2012 Eastern Finance Association meetings.

“Can Brokers Have it All? On the Relationship between Make Take Fees and Limit Order Execution Quality,” presented at the University of Notre Dame, Indiana University, the University of Arizona, Cornell, Vanderbilt, Direct Edge, Nasdaq, Goldman Sachs, the U.S. Securities and Exchange Commission, the 2014 Florida State University SunTrust Beach Conference, the 2014 Mid-Atlantic Research Conference in Finance, and the April 2014 NOIP Conference, and the June 17<sup>th</sup>, 2014 Senate Subcommittee on Investigation’s hearings on “Conflicts of Interest, Investor Loss of Confidence, and High Speed Trading in U.S. Stock Markets.”

“Exercise Boundary Violations in American-Style Options: The Rule, not the Exception,” presented at Vanderbilt’s FMRC’s conference “New Frontiers in Finance: Options and Volatility.”

“Do (Should) Brokers Route Standing Limit Orders Seeking to Trade U.S. Equity Options to Wholesalers?,” presented at Indiana University, the University of Notre Dame, UTEP, and the University of Memphis, the 12<sup>th</sup> annual Mid-Atlantic Research Conference in Finance at Villanova, the 2017 Washington University Theory Conference, the 2017 Northern Finance Association Annual Conference, the 2017 Financial Management Association Annual Conference, and the 3<sup>rd</sup> Annual Market Structure Conference (by the Financial Industry Regulatory Authority and Columbia University)

**OTHER INFORMATION:**

1. Former member of the NASD Economic Advisory Board (1997 – 2000).
2. Former member of the Transaction Auditing Group (TAG) Industry Advisory Board, a group consisting of 25 industry representatives whose purpose is to promote discussion on the subject of measurement of execution quality.
3. Visiting scholar at BI in Oslo, Norway during fall semester of 1997. Delivered two lectures to graduate students and one seminar to the general faculty.
4. The first visiting economist at the NASD’s department of Economic Research (January-December 1998).
5. Discussant at the 1995, 1996, and 2002 Financial Management Association Meetings, 1996, 1999, and 2003 Western Finance Meetings, and 1998, 2000, 2002 winter NBER Market Microstructure Meetings, and the RFS-IU Conference on the Causes and Consequences of Recent Financial Market Bubbles.

**OTHER INFORMATION (CONTINUED):**

6. Reviewer for the 1995 Indiana University Symposium on the Organization of Financial Trade and Exchange Mechanisms, the 1996 European Finance Association Meetings, and the 1998 FMAs.
7. Occasional referee for the *Journal of Finance*, *Review of Financial Studies*, *National Science Foundation*, *Journal of Financial Markets*, *Journal of Financial Intermediation*, *Journal of Financial and Quantitative Analysis*, *Journal of Economics and Business*, *Journal of Economics & Management Strategy*, *Financial Management*, *Organizational Science*, *Journal of Business*, *Financial Management*, *the Financial Review*, *Journal of Financial Research*, *Journal of Law and Economics*, and *Journal of Banking and Finance*, *the Journal of Futures Markets*, *the Financial Review*, *the Journal of Business Ethics*, *Management Science*, and *the Review of Asset Pricing*.
8. Member of the American Finance Association, the Society for Financial Studies, the Econometric Society, the Western Finance Association, and the Financial Management Association.
9. Courses taught at the Undergraduate level include Introductory Financial Management, Advanced Corporate Finance, Investments, and Trading and Markets. Courses taught at the Graduate level include Investments, Trading and Markets, and the required Introductory Financial Management class in the traditional MBA program, Investments in the Executive Education program (Chicago and South Bend), and Introductory Financial Management in the Masters of Finance Program. Conducted best execution seminars for LaBranche and Susquehanna in 2002.
10. Research has been cited in the *New York Times*, the *Wall Street Journal*, the *Boston Globe*, *Inc. Magazine*, *Wall Street Letter*, *Christian Science Monitor*, *CNN fn*, *USA Today*, *Barron's*, the *Philadelphia Inquirer*, and *Securities Week*.
11. Winner of the 1999 FMA Market Microstructure best paper award.
12. Member of Vesna Straser's dissertation committee completed July 2002.
13. Winner of the 2003 BP Amaco Outstanding Teacher of the Year Award and the 2013 The Blessed Basil Anthony Moreau, C.S.C., Outstanding Undergraduate Teaching Award (both awards are chosen by seniors graduating from the Mendoza College of Business).
14. One of seven in the Mendoza College of Business to win the Kaneb Center's undergraduate teaching award in 2004.
15. Winner of a Morgan Stanley Microstructure grant in 2004 (Options and the Bubble).
16. Have consulted for the NYSE, Nasdaq, LaBranche, Fidelity, Knight/Trimark, Archipelago, NYFIX Millenium, Nasdaq, and the Susquehanna International Group. Previously served on the WhiteCap Trading board of directors.
17. Named an associate editor for the *Journal of Financial Markets* in 2006.

**OTHER INFORMATION (CONTINUED):**

18. “Options and the Bubble” is one of eight finalists for the 2006 Smith Breeden Prize, awarded by the *Journal of Finance*.
19. Winner of the 2008 Arnie Ludwig Outstanding Professor Award, which is given by the students in the South Bend Executive MBA program to their favorite professor.
20. Named an associate editor of the *Financial Review* in 2010.
21. Investments track chair for the 2010 FMA Annual Meeting in New York.
22. Editor of the special issue of the *Financial Review* focusing on short selling.
23. Member of the 2011, 2012, 2013, 2014, 2015, 2016, and 2017 FIRS program committee.
24. Winner of a 2013 Q-Group award.
25. Winner of the 2014 Blessed Basil Anthony Moreau, C.S.C. Outstanding Undergraduate Teaching Award.
26. Winner of the 2015 Department of Finance James Dincolo Teaching Award.
27. Testified before the U.S. Senate Subcommittee on Investigations of the Committee on Homeland Security and Government Affairs on July 17, 2014 regarding conflicts of interest in the U.S. equity markets.
28. Testified before the U.S. Securities and Exchange’s Equity Market Structure Advisory Committee regarding make take fees and conflicts of interest in U.S. equity markets in October 2015.
29. Winner of the 2016 MSF Outstanding Professor Award.
30. Winner of the 2017 Rev. Edmund P. Joyce, C.S.C. Award for Excellence in Undergraduate Teaching.
31. Member of the 2017 Western Finance Association program committee.
32. Member of Nasdaq’s Quality of Markets Committee (2016 to present).