

James J McAndrews

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Education

Ph.D. in economics, The University of Iowa 1988
Thesis title: "Strategy of Role Choice"
B.A. in economics, The University of Iowa 1979

Recent Employment and Professional Positions

Federal Reserve Bank of New York:

Executive Vice President and Director of Research Jan. 2010—Jun. 2016
Lead the Research and Statistics Functions.
Member, Management Committee
Member, Policy Services Subcommittee, Leadership Subcommittee

Federal Reserve System:

Member, System Research Advisory Committee Oct. 2000—Jun. 2016

Academia:

Wharton Financial Institutions Center, Wharton School, University of Pennsylvania
Fellow 2001—present

Professional Activities and Memberships

Committee Memberships:

Committee on the Global Financial System
Markets Committee Study Group on Central Bank Operating Frameworks and Collateral Markets
Member 2013—present
Economic Consultative Committee Working Group on the Liquidity Coverage Ratio
Member 2011—2012
Financial Stability Board Work Group: Analytical Group on Vulnerabilities (AGV)
Member 2009—2011
Working Groups sponsored by the Committee on Payment and Settlement Systems on New Developments in Large Value Payment Systems
Member 2003—2005
Retail Payment Systems
Member 1997—2002

External Review:

Bank of Canada Research Review Committee 2006—2007
Joint with Laurence Meyer, Martin Eichenbaum, and Andrew Levin

Referee Work 2000-2012:

American Economic Review, Journal of Political Economics, Journal of Financial Economics, Journal of Banking and Finance, Journal of Law and Economics, Journal of Money Credit and Banking, Canadian Journal of Economics, European Economic Review, International Journal of Industrial Organization, Journal of Economic Behavior and Organization, Journal of Economics and Management Strategy, Journal of Industrial Economics, Journal of Banking and Finance, Management Science, National Science Foundation, Review of Economics and Statistics, Bank of England.

Professional Memberships:

American Economic Association, The Economic Club of New York, Foreign Policy Association

Previous Positions**Federal Reserve System:**

Associate Economist for the Federal Open Market Committee 2012

Federal Reserve Bank of New York:

Associate Director of Research Oct. 2008—Jan. 2010
Senior Vice President Jul. 2007—Jan. 2010
Head of Money and Payment Section Jan. 2005—Oct. 2008
Vice President and Economist Jul. 2001—Jun. 2007
Assistant Vice President and Economist Jul. 2000—Jun. 2001
Research Officer and Economist Jul. 1998—Jun. 2000
Senior Economist Sep. 1997—Jun. 1998

Federal Reserve Bank of Philadelphia:

Senior Economist and Research Advisor Dec. 1995—Aug. 1997
Senior Economist Sep. 1992—Nov. 1995
Economist Sep. 1988—Aug. 1992

Academia:

Wisconsin School of Business, University of Wisconsin
Visiting Instructor, MBA class May 2015, May 2016
 The University of Pennsylvania, Department of Economics,
Visiting Instructor, Microeconomics and Macroeconomics Sep. 1991—May 2008
 University of Iowa and Cornell College
Instructor Sep. 1985—May 1998

Visiting Positions:

Visiting Scholar, Bank of Japan Spring 2005
Visiting Scholar, Federal Reserve Bank of Kansas City Fall 2004, 2005
Visiting Scholar, Swiss National Bank Jun. 2004
Consultant, Bank of England Jul. 2001—Aug. 2001
Visiting Scholar, Swedish Riksbank Jun. 1999
Visiting Scholar, Reserve Bank of Australia Dec. 1999—Jan. 2000
Consultant, The World Bank, South Africa Jul. 1997

Editorships:

Journal of Financial Services Research, Issue of Conference Proceedings, Volume 22
Associate Editor 2002
Journal of Banking and Finance, Special Issue, Volume 45
Co-Editor May 2014

Dissertation Committee:

Bernard McSherry, Pace University 2012

Publications

1. “A Note on Bank Lending in Times of Large Bank Reserves” with Antoine Martin and David Skeie. *International Journal of Central Banking*, Forthcoming, 2016
2. “Effects of the Term Auction Facility on the London Inter-Bank Offered Rate,” with Asani Sarkar and Zhenyu Wang, forthcoming *Journal of Banking and Finance*, 2016, also available as Federal Reserve Bank of New York *Staff Report* number 335, July 2008, revised September 2015.
3. “The Payment System Benefits of High Reserve Balances” with Alexander Kroeger. *Journal of Payments Strategy and Systems*, March 2016. Expanded version available as Federal Reserve Bank of New York *Staff Report* no. 779, June 2016.
4. "The risk of fire sales in the tri-party repo market" with Brian Begalle, Antoine Martin, and Susan McLaughlin, *Contemporary Economic Policy*, Vol. 34, No. 3, 513–530, July 2016.
5. “Liquidity shocks, governance, systemic risk and financial stability,” with Luci Ellis, Andy Haldane, Fariborz Moshirian. *Journal of Banking & Finance*, Volume 45, pages 171–174, August 2014.
6. “Stability of Funding Models: An Analytical Framework” with Thomas Eisenbach, Todd Keister, and Tanju Yorulmazer, Federal Reserve Bank of New York *Economic Policy Review*, Volume 20, Issue 1, pp. 29–49, February 2014.
7. “Evolution in Bank Complexity” with Nicola Cetorelli and James Traina. Federal Reserve Bank of New York *Economic Policy Review*, Volume 20, Issue 2, 2014.
8. “Matching Collateral Supply and Financing Demands in Dealer Banks” with Adam Kirk, Parinitha Sastry, and Phillip Weed. Federal Reserve Bank of New York *Economic Policy Review*, Volume 20, Issue 2, December 2014.
9. “What Makes Large Bank Failures So Messy and What to Do about It” with Donald P. Morgan, João Santos, and Tanju Yorulmazer. Federal Reserve Bank of New York *Economic Policy Review*, Volume 20, Issue 2, December 2014.
10. “Main Street and Wall Street: The Macroeconomic Consequences of New York Bank Suspensions, 1866 to 1914” with John A. James and David F. Weiman. *Cliometrica*, Volume 7, Issue 2, 99-130, 2013.
11. “Settlement Liquidity and Monetary Policy Implementation-Lessons from the Financial Crisis,” with Morten L. Bech and Antoine Martin. Federal Reserve Bank of New York *Economic Policy Review*,

Volume 18, Issue 1, 1-25, March 2012.

12. "Payments Systems," with David Humphrey, *The Oxford Handbook of Banking*, January 2012.
13. "Challenges and Lessons of the Federal Reserve's Monetary Policy Operations During the Financial Crisis," with Spence Hilton. Proceedings of the Sixth ECB Central Banking Conference: *Approaches to monetary policy revisited – lessons from the crisis*, June 2011.
14. "Payment Systems," with Ed Nosal and Guillaume Rocheteau. *Annual Review of Financial Economics*, Volume 3, 259-287, 2011.
15. "Precautionary Reserves and the Interbank Market," with Adam Ashcraft and David Skeie, *Journal of Money, Credit, and Banking*, Volume 43, 311-348, October 2011.
16. "A Study of Competing Designs for a Liquidity Saving Mechanism," with Antoine Martin, *Journal of Banking and Finance*, Volume 34, 1818-1826, 2010.
17. "Should there be Intraday Money Markets?" with Antoine Martin, *Contemporary Economic Policy*, Volume 28, Number 1, 110-122, January 2010.
18. "Settlement Delays in the Money Market," with Leo Bartolini and Spence Hilton, *Journal of Banking and Finance*, Elsevier, Volume 34, Issue 5, 934-945, May 2010.
19. "Why Are Banks Holding So Many Excess Reserves?" with Todd Keister, Federal Reserve Bank of New York *Current Issues in Economics and Finance*, Volume 15, Issue 8, 1-10, December 2009.
20. "Rating the Raters: Are Reputation Concerns Powerful Enough to Discipline Rating Agencies," with Jerome Mathis and Jean-Charles Rochet, *Journal of Monetary Economics*, Volume 56, Issue 5, 657-674, 2009.
21. "The Federal Reserve's Primary Dealer Credit Facility," with Tobias Adrian and Chris Burke, Federal Reserve Bank of New York *Current Issues in Economics and Finance* Volume 15, Issue 4, 1-12, August 2009.
22. "CHIPS Supplemental Funding and its Effects on CHIPS, Overdrafts, and Fedwire" with Dennis Kuo and Clara Sheets, Federal Reserve Bank of New York *Policy Paper*, August 2009.
23. "The Federal Reserve's Term Auction Facility," with Olivier Armantier and Sandra Krieger, Federal Reserve Bank of New York *Current Issues in Economics and Finance*, Volume 14, Issue 5, 1-11, July 2008.
24. "Liquidity Savings Mechanisms," with Antoine Martin, *Journal of Monetary Economics*, Volume 55, Issue 3, 554-567, 2008.
25. "An Economic Analysis of Liquidity-Saving Mechanisms," with Antoine Martin, Federal Reserve Bank of New York *Economic Policy Review*, Volume 14, Issue 2, 25-39, September 2008.
26. "Changes in the Timing Distribution of Fedwire Funds Transfers," with Olivier Armantier and Jeffrey Arnold, Federal Reserve Bank of New York *Economic Policy Review*, Volume 14, Issue 2, 83-112, September 2008.

27. "Understanding Risk Management in Emerging Retail Payments," with Michele Braun, William Roberds, and Richard Sullivan, Federal Reserve Bank of New York *Economic Policy Review*, Volume 14, Issue 2, 137-159, September 2008.
28. "Divorcing Money from Monetary Policy," with Todd Keister and Antoine Martin, Federal Reserve Bank of New York *Economic Policy Review*, Volume 14, Issue 2, 41-56, September 2008.
29. "The Microstructure of Money," in Andrew Haldane, Stephen Millard, and Victoria Saporta (eds.) *The Future of Payment Systems*, London, Routledge, 2008.
30. "Funding Levels for the New Accounts in BOJ-Net," with Kei Imakubo, (2006) December, Bank of Japan Working Paper Series No. 06-E21 reprinted in Harry Leinonen, (ed.) *Simulation studies of liquidity needs, risks and efficiency in payment networks*, Bank of Finland, 2007.
31. "Alternative Arrangements for the Distribution of Intraday Liquidity." Federal Reserve Bank of New York *Current Issues in Economics and Finance*, Volume 12, Issue 3, 1-11, April 2006.
32. "Money is Privacy," with Charles Kahn and William Roberds, *International Economic Review*, Vol.46, Issue 2, 377-399, May 2005.
33. "Simulations of Failure in a Payment System," with George Wasilyew, *Liquidity, Risks and Speed in Payment and Settlement Systems—A Simulation Approach*, Harry Leinonen, ed., Bank of Finland, 227-246, 2005.
34. "Economizing on Liquidity with Deferred Settlement Mechanisms," with Kurt Johnson and Kimmo Soramaki, Federal Reserve Bank of New York *Economic Policy Review*, Vol. 10, Issue 2, 51-72, December 2004; reprinted in Harry Leinonen, (ed.) *Liquidity, Risks and Speed in Payment and Settlement Systems—A Simulation Approach*, Bank of Finland, 2005
35. "To Surcharge or Not To Surcharge: An Empirical Analysis of ATM Pricing," with Tim Hannan, Elizabeth Kiser, and Robin Prager, *Review of Economics and Statistics*, Volume 85, Issue 4, 990–1002, November 2003.
36. "ATM Network Pricing: A Review of the Literature," *Review of Network Economics*, Volume 2, Issue 2, 146-158, June 2003.
37. "Settlement Risk under Gross and Net Settlement," with Charles Kahn and William Roberds, *Journal of Money, Credit and Banking*, Volume 35, Issue 4, 591-608, August 2003.
38. "Liquidity Effects of the Events of September 11, 2001," with Simon Potter, Federal Reserve Bank of New York *Economic Policy Review*, Volume 8, Issue 2, 59-79, November 2002.
39. "E-Finance: An Introduction," with Franklin Allen and Philip Strahan, *Journal of Financial Services Research*, Volume 22, Issue 1, 5-27, September 2002.
40. "Deregulation, Correspondent Banking and the Role of the Federal Reserve," with Philip Strahan, *Journal of Financial Intermediation*, Volume 11, Issue 3, 320-343, July 2002.
41. "The Consolidation of European Stock Exchanges," with Chris Stefanadis, Federal Reserve Bank of New York *Current Issues in Economics and Finance*, Volume 8, Issue 6, 1-6, June 2002.

42. "Personal Online Payments," with Kenneth Kuttner, Federal Reserve Bank of New York *Economic Policy Review*, Volume 7, Issue 3, 35-50, December 2001.
43. "New Payment System Design: Causes and Consequences," with John Trundle, *Financial Stability Review*, Bank of England, 127-136, December 2001.
44. "The Economics of Check Float," with William Roberds, Federal Reserve Bank of Atlanta *Economic Review*, Volume 85, Issue 4, 1-11, 2000.
45. "The Emergence Electronic Communications Networks in the U.S. Equity Markets," with Chris Stefanadis, Federal Reserve Bank of New York *Current Issues in Economics and Finance*, Volume 6, Issue 12, 1-6, October 2000.
46. "The Timing and Funding of Fedwire Funds Transfers," with Samira Rajan, Federal Reserve Bank of New York *Economic Policy Review*, Volume 6, Issue 2, 17-32, July 2000.
47. "Opening the 'Black Box' of Network Externalities in Network Adoption," with Robert Kauffman and Yu-Ming Wang, *Information Systems Research*, Volume 11, Issue 1, 61-82, March 2000.
48. "General Equilibrium Analysis of Check Float," with William Roberds, *Journal of Financial Intermediation*, Volume 8, Issue 4, 353-377, December 1999.
49. "Comment on Demandable Debt as a Means of Payment: Checks v. Banknotes," *Journal of Money, Credit and Banking*, Volume 31, Issue 3, 526-528, August 1999.
50. "Arrangements for Access to Payment Credit," *Journal of Money, Credit and Banking*, Volume 31, Issue 3, 671-673, August 1999.
51. "E-Money and Payment System Risk," *Contemporary Economic Policy*, Volume 17, Issue 3, 348-357, July 1999.
52. "ATM Surcharges," Federal Reserve Bank of New York *Current Issues in Economics and Finance*, Volume 4, Issue 4, 1-6, April 1998.
53. "Direct Presentment Regulations in Payments," *Research in Economics*, Volume 52, Issue 3, 311-326, September 1998.
54. "Venture Payment Networks and Public Policy," with David Balto, *Electronic Banking Law and Commerce Report*, Volume 3, Issue 2, 9-16, July 1998.
55. "Network Issues and Payment Systems," Federal Reserve Bank of Philadelphia *Business Review*, 15-25, December 1997.
56. "Making Payments on the Internet," Federal Reserve Bank of Philadelphia *Business Review*, 3-14, January 1997.
57. "Shared Ownership and Pricing in a Network Switch," with Rafael Rob, *International Journal of Industrial Organization*, Volume 14, Issue 6, 727-745, October 1996.
58. "The Automated Clearinghouse System: Moving Toward Electronic Payment," Federal Reserve Bank of Philadelphia *Business Review*, July 1994, reprinted in "Kin-Yu" the Journal of the Federation of

Bankers Association of Japan, 1994-10, and in *The Financial Institutions and Markets Reader*, Third Edition, Blackwell Publ. 1996.

59. "Banks, Payments, and Coordination," with William Roberds, *Journal of Financial Intermediation*, Volume 4, Issue 4, 305-327, 1995.
60. "Antitrust Issues in Payment Systems: Bottlenecks, Access, and Essential Facilities," Federal Reserve Bank of Philadelphia *Business Review*, 3-12, November 1995.
61. "Can Regionalization of Local Public Services Increase a Region's Wealth?" with Richard Voith, *Journal of Regional Science*, Volume 33, Issue 3, 279-301, August 1993.
62. "Where Has All the Paper Gone? Book-Entry Delivery-Against-Payment Systems," Federal Reserve Bank of Philadelphia *Business Review*, 19-30, November 1992, reprinted in the EFTA newsletter, 1993.
63. "Entry Detering Debt," with Leonard Nakamura, *Journal of Money, Credit and Banking*, Volume 24, Issue 1, 98-110, February 1992.
64. "Network Business Value Externalities," in Rajiv Banker, M. Mahmood, and R. Kauffman, eds., *Perspectives on the Strategic and Economic Value of Information Technology Investment*, Idea Group Publishers, 1992.
65. "The Evolution of Automatic Teller Machine Networks," Federal Reserve Bank of Philadelphia *Business Review*, 3-16, May 1991.
66. "How Will Third District Banks Fare in the 1990s?" Federal Reserve Bank of Philadelphia *Business Review*, 13-25, January 1990.

Speeches

1. "Modern Recipes for Financial Crises," Remarks at the University of Iowa, December 4, 2015.
2. "Economic Research and Stress Testing," Remarks at the Fourth Annual Stress Test Modeling Symposium, Federal Reserve Bank of Boston, Boston, Massachusetts, June 24, 2015.
3. "Opening Remarks at the Mortgage Contract Design: Implications for Households, Monetary Policy, and Financial Stability Conference," Remarks at Mortgage Contract Design: Implications for Households, Monetary Policy and Financial Stability Conference, Federal Reserve Bank of New York, May 21, 2015.
4. "Negative Nominal Central Bank Policy Rates: Where Is the Lower Bound?" Remarks at the University of Wisconsin, May 8, 2015.
5. "Credit Growth and Economic Activity after the Great Recession," Remarks at the Economic Press Briefing on Student Loans, Federal Reserve Bank of New York, April 16, 2015.
6. "Student Debt and Higher Education Financing: A Public Finance Perspective," Remarks at the National Association of College and University Business Officers, at the Waldorf Astoria, New York City, February 5, 2015.
7. "A Review of the Experience of Fielding the Survey of Consumer Expectations," Remarks at the Barclays

Global Inflation Conference, New York City, June 24, 2014.

8. “Rising Household Borrowing”, Remarks before the CFA Society of Stamford, Stamford, Connecticut, March 06, 2014.
9. “Remarks at the Fifth Data Management Strategies and Technologies Workshop”, Federal Reserve Bank of New York, February 04, 2014.
10. “The Economy and the Household Debt and Credit Report”, Remarks at the Household Debt and Credit Press Briefing, New York City, February 28, 2013.
11. “Summary of the Report on the Competitiveness of Puerto Rico’s Economy”, Remarks before the Puerto Rico Chamber of Commerce Annual Convention, Fajardo, Puerto Rico, June 29, 2012.

Posts for *Liberty Street Economics*

1. “Introducing Our New App: Economic Research Tracker,” October 2015.
2. “The Monetary Policy Advice Process at the New York Fed,” with Jonathan McCarthy, Paolo Pesenti, Argia Sbordone, and Andrea Tambalotti, August 2015.
3. “Interest-Bearing Securities When Interest Rates Are Below Zero,” with Ken Garbade, May 2015.
4. “Just Released: N.Y. Fed’s Emanuel Moench to Become Head of Research at the Deutsche Bundesbank,” September 03, 2014.
5. “Turnover in Fedwire Funds Has Dropped Considerably since the Crisis, but It’s Okay,” with Rodney Garratt and Antoine Martin, August 2014.
6. “Parting Reflections on the Series on Large and Complex Banks,” with Donald P. Morgan, April 04, 2014.
7. “Why Large Bank Failures Are So Messy and What to Do about it?” with Donald P. Morgan, João Santos, and Tanju Yorulmazer, April 04, 2014.
8. “Mixing and Matching Collateral in Dealer Banks,” with Adam Kirk, Parinitha Sastry, and Phillip Weed, April 01, 2014.
9. “Evolution in Bank Complexity,” with Nicola Cetorelli and James Traina, March 28, 2014.
10. “Are Higher Haircuts Better? A Paradox,” with Brian Begalle, Adam Copeland, Antoine Martin, and Susan McLaughlin , August 19, 2013.
11. “More than Meets the Eye: Some Fiscal Implications of Monetary Policy,” with Marco Del Negro and Julie Remache, August 15, 2013.
12. “If Interest Rates go Negative...or, Be Careful What You Wish For,” with Ken Garbade, August 29, 2012.
13. “We are the 99 percent, 1765 edition,” with Kara Masciangelo, April 13, 2012.
14. “How the High Level of Reserves Benefits the Payment System,” with M. Bech, February 27, 2012.

15. “Did the Fed’s Term Auction Facility Work?” with Asani Sarkar and Zhenyu Wang, October 11, 2011.
16. “Will the Fed’s Asset Purchases Lead to Higher Inflation?” May 18, 2011.
17. “Welcome to Liberty Street Economics,” with Simon Potter, March 21, 2011.

Working Papers and Manuscripts

1. “Floor Systems and the Friedman Rule: The Fiscal Arithmetic of Open Market Operations,” with Todd Keister, and Antoine Martin, Federal Reserve Bank of New York *Staff Report* no.754, December 2015.
2. “Segregated Balance Accounts,” with Rodney Garratt, Antoine Martin, and Ed Nosal, Federal Reserve Bank of New York *Staff Report* no. 730, May 2015, Revised August 2015.
3. “Federal Reserve Tools for Managing Rates and Reserves,” with Antoine Martin, Ali Palida, and David Skeie, Federal Reserve Bank of New York *Staff Report* no. 642, September 2013.
4. “A Common Bond: Historical Perspectives on the Federal Reserve’s Interdistrict Settlement Account” with Parinitha Sastry.
5. “The Economics of Two-Sided Payment Card Markets: Pricing, Adoption and Usage,” with Zhu Wang, Federal Reserve Bank of Richmond, Working Paper 12-06, October 2012.
6. “Quantifying the benefits of a liquidity-saving mechanism,” with E. Atalay and Antoine Martin. Federal Reserve Bank of New York *Staff Report* no. 447, May 2010.
7. “The Welfare Effects of a Liquidity-Saving Mechanism,” with E. Atalay and Antoine Martin. Federal Reserve Bank of New York *Staff Report* no. 331, 2008, Revised January 2010.
8. “Segmentation in the U.S. Dollar Money Markets during the Financial Crisis,” June 2009.
9. “Who is Calling, Please? On Anonymous Calling and Caller ID,” with Donald Morgan, November 2003

Selection of Public Policy Papers and Memos

1. “Strategy for the Stabilization, Repair, and Recovery of the U.S. Financial System,” with FRBNY staff, December 15, 2008.
2. “The Term Asset Backed Security Loan Facility,” with FRBNY staff, November 2008.
3. “Securing the Credit in the CPFF,” with Joshua Rosenberg, October 2008.
4. “Pricing of 13(3) Facilities,” October 2008.
5. “Pricing in the CPFF,” October 2008.
6. “A Liquidation Facility for Tri-party Repos,” with Morten Bech and Antoine Martin, June 2008.

7. "Recommendation for a Term Securities Lending Facility," with William Dudley, Frank Keane, Lorie Logan, Debby Perelmuter, and others, Memo to FOMC, March 2008
8. "Term Auction Facility" with William Dudley, Sandy Krieger, Memo to FRB Presidents and the FOMC, December 2007.
9. "Economics of the Payments Risk Policy change regarding Government-Sponsored Enterprises," February 2005.
10. "Strategy for the Check Services of the Federal Reserve System," February 2004.
11. "Review of the Central Bank and International Account Services of the Federal Reserve Bank of New York," with Sandy Krieger, December 2003.
12. "Fedwire Strategy Review," January 2003.
13. "A Bundled Pricing Option for Check Collection Services," October 2002.
14. "A Study of Fedwire Funds Transfer Service End Users," May 2002.
15. "Volume-Based Pricing for Fedwire Funds Transfers," 1999.

Recent Conferences and Seminars

Conference Organization:

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| "Charles Kahn Festschrift," Bank of Canada, Banff | Jun. 18-19, 2016 |
| "Conference on Stable Funding," Office of Financial Research | Sep. 2013 |
| "Systemic Risk: Liquidity Risk, Governance and Financial Stability," Federal Reserve Bank of New York | Jul. 2013 |
| "The Role of Money Markets," Federal Reserve Bank of New York | May 2008 |
| "The Economics of Payments," Federal Reserve Bank of New York | Apr. 2006, Apr 2008 |
| "Workshop on Money and Payments," Federal Reserve Bank of New York | Dec. 2006 |
| "Antitrust Activity in Card-Based Payment Systems: Causes and Consequences," Federal Reserve Bank of New York | Sep. 2005 |
| "The Economics of Payments," Federal Reserve Bank of Atlanta | Mar. 2004 |
| "Conference on Financial E-Commerce," Federal Reserve Bank of New York | Feb. 2001 |

Selected Presentations and Workshop Participation:

1. Panel Discussion, and Discussion of paper, *Negative Rates...the Lessons So Far*, The Hutchins Center at the Brookings Institution, June 6, 2016.
2. "Floor Systems and the Friedman Rule: The Fiscal Arithmetic of Open Market Operations," BIS, May 2016.
3. "Monetary Policy during the Crisis: What Worked and What Didn't," *The Federal Reserve and Monetary Policy: Traditional and New Tools*. The George Washington University and Princeton University's Griswold Center for Economic Policy Studies, Federal Reserve Bank of Philadelphia, November 13, 2014.

4. "Central bank operations in the post-crisis environment," Collateral, Liquidity, and Central Bank Operations Program, Bank of Canada, September 12, 2014
5. "Challenges for the functioning of core payment systems in light of the post-crisis reforms," The Future of Payments, Bank of Canada and Queens University, September 06, 2014
6. "The Role of Large Banks," Keynote presentation, "Stability and Efficiency of Financial Systems," Reserve Bank of New Zealand, December 18, 2012.
7. "Inside and outside liquidity provision," Keynote presentation, ECB "Workshop on Excess Liquidity and Money Market Functioning," November 19, 2012.
8. "Historical Perspectives on the Federal Reserve's Interdistrict Settlement Account," Columbia University and The Clearing House Conference: "Private vs. Public Responses to Banking Crises: Clearinghouses Vs. Central Banks," June 14-15, 2012
9. "Settlement Liquidity and Monetary Policy Implementation," Bank of Canada, October 20, 2011.
10. "Challenges and Lessons of the Federal Reserve's Monetary Policy Operations During the Financial Crisis," with Spence Hilton. Presentation at the Sixth ECB Central Banking Conference: *Approaches to monetary policy revisited – lessons from the crisis*, November 2010.
11. "The Money Market Investor Funding Facility," ASSA meetings, January 2010.
12. "Segmentation in the U.S. Dollar Money Markets During the Financial Crisis," presented at the 2009 International Conference: Financial System and Monetary Policy Implementation, Institute for Monetary and Economic Studies, Bank of Japan, May 27 - 28, 2009.
13. Discussant, Bank of Korea International Conference, June 2, 2009.
14. "Economics of the Primary Dealer Credit Facility," ASSA meetings, San Francisco, January, 2009.
15. "Policy Options in October 2008" Economic Advisory Panel and the Financial Advisory Roundtable, FRBNY, December 2008.
16. "The Economics of the Federal Reserve's Liquidity Actions," Economic Advisory Panel, Federal Reserve Bank of New York, April, 2008.
17. "The Eurodollar Market," Federal Reserve Bank of Atlanta, June 2008.
18. "U.S. Dollar Swaps," Banque de France, June 2008.
19. "Effects of the Term Auction Facility on the London Inter-Bank Offered Rate" Federal Reserve Bank of New York, May 2008; Stanford University, July 2008; ASSA meeting, San Francisco, January 2009.
20. "Settlement Delays in the Money Market," Federal Reserve Bank of Chicago, 2007.
21. "Settlement Risk," Bank of Finland, August 2007.

22. “The Economics of Two-Sided Payment Card Markets: Pricing, Adoption, and Usage.” Competition Policy in Two-Sided Markets, IDEI, University of Toulouse, June 2006; University of Melbourne, 2006.
23. “Alternative Arrangements for the Distribution of Intraday Liquidity,” Bank of Japan, April 2005; Freddie Mac, May 2006; Reserve Bank of Australia, November 2005; Bank of England, June 2006.
24. “Money is Privacy,” Federal Reserve Bank of Kansas City, September 2004; University of Minneapolis, May 2004; University of Iowa, June 2004.
25. “Current Trends in Payment Systems: A Microstructure Approach,” The Future of Payments Conference, Bank of England, May 2005.
26. “Who is Calling, Please? On Anonymous Calling and Caller ID,” Economics of Two-Sided Markets Conference, IDEI, University of Toulouse, January 2004; Federal Reserve Bank of Kansas City, November 2003.
27. “Many Uses of Fedwire,” Danmarks Nationalbank, Payments Policy Department, May 21, 2003.
28. “Economizing on Liquidity with Deferred Settlement Mechanisms,” Central Bank of Finland, Workshop on Payment System Simulations, May 19, 2003; Bank of Japan, March 2005.
29. “Liquidity Effects of the Events of September 11, 2001 in U.S. Large-Dollar Payments,” Federal Reserve Bank of New York and Chicago, March 2002; European Central Bank, July 2002.
30. “A Theory of Transactions Privacy,” Society for Economic Dynamics and Control, Stockholm, June 2001; Conference on Consumer Financial Transactions, Federal Reserve Bank of Philadelphia, May 2001.
31. “Deregulation and Correspondent Banking,” Bank of Canada, Federal Reserve Bank of New York, Summer 2000; Bank Structure Conference, Federal Reserve Bank of Chicago, May 2001; Bank of England, July 2001.
32. “To Surcharge or Not To Surcharge: An Empirical Analysis,” Reserve Bank of Australia, January 2000; Federal Reserve Bank of New York, September 2000.
33. “Settlement Risk under Gross and Net Settlement,” Federal Reserve Bank of New York, December 2003; Latin American Meetings of the Econometric Society, June 2000; Federal Reserve Bank of Cleveland, The University of Iowa, Spring 2000.
34. “Payment Intermediation and the Origins of Banking,” London School of Economics, July 2001, The University of Texas, March 2000, Swiss National Bank, Bank of Japan, Swedish Riksbank, Federal Reserve Bank of Philadelphia, Latin American Meetings of the Econometric Society.

Fields of Specialization:

Central Banking

Money, Banking, and Financial Markets

Monetary and Financial Economics and the Economics of Payments