

Loretta J. Mester
President and Chief Executive Officer
Federal Reserve Bank of Cleveland

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Loretta.Mester@clev.frb.org

Education

Ph.D. in economics, 1985, Princeton University
Thesis title: “Three Essays on Industrial Organization: An Empirical and Theoretical Analysis of the Structure and Behavior of Savings and Loans”
M.A. in economics, 1983, Princeton University
B.A. in mathematics and economics, 1980, Barnard College of Columbia University (summa cum laude)

Current Employment and Professional Positions

Federal Reserve System:

President and Chief Executive Officer, Federal Reserve Bank of Cleveland, 6/2014-present
Member, Federal Open Market Committee, 6/2014-present

Academia:

Adjunct Professor of Finance, Wharton School, University of Pennsylvania, 7/2001-present
(On leave at Wharton, 9/1992-12/1992)
Taught an undergraduate/MBA course in Bank Management
Fellow, Wharton Financial Institutions Center, Wharton School, University of Pennsylvania, 1/1997-present
Founding Director and Member, Financial Intermediation Research Society, 12/2002-present
Member, Advisory Committee of the Financial Engineering and Banking Society, 4/2010-present
Member, Advisory Board of the Financial Intermediation Network of European Studies (FINEST), 2012-present
Member, Financial Management Association International (FMA); served as Practitioner Director 2012-2014

Other:

Director, Greater Cleveland Partnership, 2015-present
Trustee, Cleveland Clinic, 2015-present
Trustee, Musical Arts Association (The Cleveland Orchestra), 2016-present

Professional Activities and Memberships

Editorships:

Managing Editor, *International Journal of Central Banking*, three-year term, 6/2016-present
Co-Editor, *Journal of Financial Services Research*, 6/2013-present
Associate Editor, *Journal of Financial Intermediation*, 5/1995-present
Associate Editor, *Journal of Economics and Business*, 8/1998-present
Associate Editor, *Research in Banking and Finance*, 5/2000-present
Associate Editor, *Journal of Financial Stability*, 10/2003-present
Editorial Board Member, *International Journal of Banking, Accounting, and Finance*, 2/2008-present
Member, Association of the *International Journal of Central Banking*, 10/2008-present
Management Committee Member, *International Journal of Central Banking*, 2011-present

Editor, *Journal of Banking and Finance*, 7/2001-12/2007
Editor, *Journal of Productivity Analysis*, 11/1995-11/2001
Co-Editor, *International Journal of Central Banking*, three-year term, 1/2013-6/2016
Associate Editor, *Journal of Banking and Finance*, 1/1993-7/2001
Associate Editor, *Journal of Money, Credit, and Banking*, 10/1995-8/2011
Associate Editor, *Journal of Financial Services Research*, 1/1996-6/2013

Co-Editor (with A. Saunders) of special issue of *Journal of Financial Services Research* on the Banking and Finance Workshop, Center of Operations Research of the Universidad Miguel Hernández, 19 (2001)

Co-Editor (with M. Berlin) of special issue of *Journal of Banking and Finance* on Retail Credit Risk Measurement and Management, 28 (2004)

Editor of special issue of *Journal of Economics and Business* on Research Issues in Community Development (2007)

External Review and Other Committees:

Member, Finance Department Advisory Council, Fox School of Business and Management, Temple University, Philadelphia, Pennsylvania, 2007-2014
Member, Economics Advisory Council, LeBow College of Business, Drexel University, Philadelphia, Pennsylvania, 2011-2014
Evaluator of project applications within the Financial Market Research Program of VINNOVA (Swedish Governmental Agency for Innovation Systems), 9/2013-12/2014
Co-Author of the Federal Reserve System's Basel II implementation working group study on the competitive implications of Basel II on U.S. credit card lending, December 2005
Co-Chair of the Federal Reserve System Joint Committee on Business and Financial Analysis, 2003-2004
Member of Three-Person External Review Committee, Research Activities, Bank of Finland, 7/2004-2/2005. Completed report (with P. Lane and J. Välimäki), "Bank of Finland Research Evaluation Report 2004"
Member of Two-Person External Review Committee, Research Activities, National Bank of Hungary, 10/2007-3/2008. Completed report (with L. Halpern), "Magyar Nemzeti Bank Research Evaluation Report 2008"

Dissertation and Examination Committees:

Luke Tilley, Temple University, 11/2011
 Victoria Geyfman, Temple University, 5/2005
 Rayna Brown, University of Melbourne, outside examiner, 12/2003
 Anand Srinivasan, New York University, 6/1999
 Outside Honors Examiner in Economics, Swarthmore College, 5/1999
 Sandeep Dahiya, New York University, 4/1999
 Douglas Robertson, University of Maryland, 4/1997

Professional Activities and Memberships, continued**Professional Memberships:**

American Economic Association
 American Economic Association Committee on the Status of Women in the Economics Profession
 American Finance Association
 Econometric Society
 Economic Club of New York
 Financial Intermediation Research Society (founding member)
 Financial Management Association
 Philadelphia Council for Business Economics (a chapter of the National Association for Business Economics)
 Phi Beta Kappa

Previous Positions**Federal Reserve System:**

Executive Vice President and Director of Research, Federal Reserve Bank of Philadelphia, 4/2010-5/2014
 Oversaw the Research Department (since 10/2000), Real-Time Data Research Center, Financial Statistics Department, and the Payment Cards Center; chief economic advisor to Bank's president
Senior Vice President and Director of Research, Research Department, Federal Reserve Bank of Philadelphia, 10/2000-4/2010
Visiting Reserve Bank Officer, Division of Monetary Affairs, Board of Governors of the Federal Reserve System, 8/2009-11/2009
Associate Economist for the Federal Open Market Committee, 2002, 2005, 2008
Advisor to Federal Reserve System's Financial Services Policy Committee working group on revisions to the Priced-Services Adjustment Factor, 2003-2005, 2007
Vice President and Economist, Research Department, Federal Reserve Bank of Philadelphia: Head of Banking and Financial Markets Section (including the Bank Structure Unit) and Macroeconomic Policy Advisor, 1/1996-10/2000
Assistant Vice President and Economist, Research Department, Federal Reserve Bank of Philadelphia, 2/1994-1/1996
Research Officer and Economist, Research Department, Federal Reserve Bank of Philadelphia, 7/1991-2/1994
Senior Economist and Research Advisor, Research Department, Federal Reserve Bank of Philadelphia, 9/1989-7/1991
Senior Economist, Research Department, Federal Reserve Bank of Philadelphia, 9/1987-9/1989
Economist, Research Department, Federal Reserve Bank of Philadelphia, 9/1985-9/1987

Academia:

Adjunct Professor of Finance, Stern School, New York University, 9/1995-6/1996, 9/1997-6/1998
 Taught the Ph.D. Seminar in Financial Institutions
Adjunct Associate Professor of Finance, Wharton School, University of Pennsylvania, 7/1998-6/2000
Adjunct Assistant Professor of Finance, Wharton School, University of Pennsylvania, 7/1992-6/1998
Lecturer, Department of Finance, Wharton School, University of Pennsylvania, 9/1988-6/1992
Lecturer, IBM Financial Services Institute, Aresty Institute of Executive Education, Wharton School, University of Pennsylvania, 10/1990
Special Membership on the Graduate Faculty, University of Maryland, 4/1996-4/1998

Publications in Refereed Journals

1. "The Nexus of Macroprudential Supervision, Monetary Policy, and Financial Stability," *Journal of Financial Stability*, forthcoming.
2. "Large Capital Infusions, Investor Reactions, and the Return and Risk Performance of Financial Institutions in Normal Time and During the Recent Crisis," with Elyas Elyasiani and Michael S. Pagano, *Journal of Financial Stability*, 11 (April 2014), pp. 62-81.
3. "Who Said Large Banks Don't Experience Scale Economies? Evidence from a Risk-Return-Driven Cost Function," with Joseph P. Hughes, *Journal of Financial Intermediation*, 22 (October 2013), pp. 559-585.
4. "Core Measures of Inflation as Predictors of Total Inflation," with Theodore M. Crone, N. Neil K. Khettry, and Jason A. Novak, *Journal of Money, Credit, and Banking*, 45 (March-April, 2013), pp. 505-519.
5. "Central Bank Institutional Structure and Effective Central Banking: Cross-Country Empirical Evidence," with Iftekhar Hasan, *Comparative Economic Studies*, 50 (December 2008), pp. 620-645.
6. "Competitive Effects of Basel II on U.S. Bank Credit Card Lending," with William Lang and Todd Vermilyea, *Journal of Financial Intermediation*, 17 (October 2008), pp. 478-508.
7. "Introduction to the Special Issue of the *Journal of Economics and Business* on Financing Community Reinvestment and Development," *Journal of Economics and Business*, 60 (January-February 2008), pp. 1-12.
8. "Transactions Accounts and Loan Monitoring," with Leonard Nakamura and Micheline Renault, *Review of Financial Studies*, 20 (May 2007), pp. 529-556.
9. "Switching Costs and Adverse Selection in the Market for Credit Cards: New Evidence," with Paul S. Calem and Michael B. Gordy, *Journal of Banking and Finance*, 30 (2006), pp. 1653-1685.
10. "Credit Card Rates and Consumer Search," with Mitchell Berlin, *Review of Financial Economics*, 13 (2004), pp. 179-198.
11. "Retail Credit Risk Management and Measurement: An Introduction to the Special Issue, with Mitchell Berlin, *Journal of Banking and Finance*, 28 (2004), pp. 721-725.
12. "Explaining the Dramatic Changes in Performance of U.S. Banks: Technological Change, Deregulation, and Dynamic Changes in Competition," with Allen Berger, *Journal of Financial Intermediation*, 12 (2003), pp. 57-95.
13. "Do Bankers Sacrifice Value to Build Empires? Managerial Incentives, Industry Consolidation, and Financial Performance," with Joseph P. Hughes, William W. Lang, Choon Geol Moon, and Michael Pagano, *Journal of Banking and Finance*, 27 (2003), pp. 417-447.
14. "Lender Liability and Large Investors," with Mitchell Berlin, *Journal of Financial Intermediation*, 10 (2001), pp. 108-137.
15. "Are Scale Economies in Banking Elusive or Illusive? Evidence Obtained by Incorporating Capital Structure and Risk-Taking into Models of Bank Production," with Joseph P. Hughes and Choon-Geol Moon, *Journal of Banking and Finance*, 25 (December 2001), pp. 2169-2208.

Publications in Refereed Journals, continued

16. "Introduction: Special Issue on the Banking and Finance Workshop," with Anthony Saunders, *Journal of Financial Services Research*, 19 (2001), pp. 93-97.
17. "Recovering Risky Technologies Using the Almost Ideal Demand System: An Application to U.S. Banks," with Joseph P. Hughes, William Lang, and Choon-Geol Moon, *Journal of Financial Services Research*, 18 (October 2000), pp. 5-27.
18. "Deposits and Relationship Lending," with Mitchell Berlin, *Review of Financial Studies*, 12 (Fall 1999), pp. 579-607.
19. "The Dollars and Sense of Bank Consolidation" with Joseph P. Hughes, William Lang, and Choon-Geol Moon, *Journal of Banking and Finance*, 23 (February 1999), pp. 291-324.
20. "On the Profitability and Cost of Relationship Lending" with Mitchell Berlin, *Journal of Banking and Finance*, 22 (August 1998), pp. 873-897.
21. "Intermediation and Vertical Integration," with Mitchell Berlin, *Journal of Money, Credit, and Banking*, 30 (August 1998), pp. 500-519.
22. "Bank Capitalization and Cost: Evidence of Scale Economies in Risk Management and Signaling," with Joseph P. Hughes, *The Review of Economics and Statistics*, 80 (May 1998), pp. 314-325.
23. "Inside the Black Box: What Explains Differences in the Efficiencies of Financial Institutions?" with Allen N. Berger, *Journal of Banking and Finance*, 21 (July 1997), pp. 895-947.
reprinted in *Performance of Finance Institutions*, Patrick T. Harker and Stavros A. Zenios, eds., Cambridge University Press: Cambridge, UK, 2000; *The Regulation and Supervision of Banks*, Maximilian J.B. Hall, ed., Edward Elgar: Cheltenham, UK, 2001.
24. "Measuring Efficiency at U.S. Banks: Accounting for Heterogeneity Is Important," *European Journal of Operational Research*, 98 (April 1997), pp. 230-242.
25. "Efficient Banking Under Interstate Branching" with Joseph P. Hughes, William Lang, and Choon-Geol Moon, *Journal of Money, Credit, and Banking*, 28 (November 1996), pp. 1043-1071.
reprinted in *The Regulation and Supervision of Banks*, Maximilian J.B. Hall, ed., Edward Elgar: Cheltenham, UK, 2001.
26. "A Study of Bank Efficiency Taking Into Account Risk-Preferences," *Journal of Banking and Finance*, 20 (July 1996), pp. 1025-1045.
27. "Consumer Behavior and the Stickiness of Credit Card Interest Rates" with Paul Calem, *American Economic Review*, 85 (December 1995), pp. 1327-1336.
28. "When Does the Prime Rate Change?" with Anthony Saunders, *Journal of Banking and Finance*, 19 (August 1995), pp. 743-764.
29. "Comments on Borrower and Neighborhood Racial and Income Characteristics and Financial Institution Mortgage Application Screening," *Journal of Real Estate Finance and Economics*, 9 (November 1994), pp. 241-243.
30. "A Positive Analysis of Bank Closure," with George J. Mailath, *Journal of Financial Intermediation*, 3 (June 1994), pp. 272-299.

Publications in Refereed Journals, continued

31. "Why Are Credit Card Rates Sticky?" *Economic Theory*, 4 (May 1994), pp. 505-530.
32. "Further Evidence Concerning Expense Preference and the Fed," *Journal of Money, Credit, and Banking*, 26 (February 1994), pp. 125-145.
33. "A Quality and Risk-Adjusted Cost Function for Banks: Evidence on the 'Too-Big-To-Fail' Doctrine," with Joseph P. Hughes, *Journal of Productivity Analysis*, 4 (September 1993), pp. 293-315.
reprinted in *The Regulation and Supervision of Banks*, Maximilian J.B. Hall, ed., Edward Elgar: Cheltenham, UK, 2001.
34. "Comments on 'Determinants of Bank Efficiency,'" *Journal of Banking and Finance*, 17 (April 1993), pp. 407-409.
35. "Efficiency in the Savings and Loan Industry," *Journal of Banking and Finance*, 17 (April 1993), pp. 267-286.
36. "Perpetual Signaling with Imperfectly Correlated Costs," *The RAND Journal of Economics*, 23 (Winter 1992) pp. 548-563.
37. "Debt Covenants and Renegotiation," with Mitchell Berlin, *Journal of Financial Intermediation*, 2 (June 1992) pp. 95-133. [Winner of the *JFI* Most Significant Paper Prize]
38. "Traditional and Nontraditional Banking: An Information-Theoretic Approach," *Journal of Banking and Finance*, 16 (1992), pp. 545-566.
39. "Agency Costs Among Savings and Loans," *Journal of Financial Intermediation*, 1 (June 1991), pp. 257-278.
40. "Viability in Multiproduct Industries," *Economic Letters*, 31 (December 1989), pp. 273-276.
41. "Testing for Expense Preference Behavior: Mutual Versus Stock Savings and Loans," *The RAND Journal of Economics*, 20 (Winter 1989), pp. 483-498.
42. "Multiple Market Contact Between Savings and Loans," *Journal of Money, Credit, and Banking*, 19 (November 1987), pp. 538-549.
43. "A Multiproduct Cost Study of Savings and Loans," *Journal of Finance*, 42 (June 1987), pp. 423-445.

Other Publications

1. "Measuring Agency Costs and the Value of Investment Opportunities of U.S. Bank Holding Companies with Stochastic Frontier Estimation," with Joseph P. Hughes, Rutgers University, and Choon-Geol Moon, Hanyang University, the *Research Handbook on Competition in Banking and Finance*, Edward Elgar, UK, eds. Jacob A. Bikker and Laura Spierdijk, forthcoming.
2. "The Future of Large, Internationally Active Banks: Does Scale Define the Winners?" with Joseph P. Hughes, Rutgers University, *The Future of Large Internationally Active Banks*, Chapter 6, conference volume, Federal Reserve Bank of Chicago, forthcoming.

Other Publications, continued

3. “Job Quality During the Expansion,” with Guhan Venkatu, **Federal Reserve Bank of Cleveland**, March 2015, <https://www.clevelandfed.org/Our%20Research/President/Job%20Quality%20During%20the%20Expansion>.
4. “Changes in the Use of Electronic Means of Payment: 1995-2013,” with William L. Bednar, **Federal Reserve Bank of Cleveland**, February 4, 2015, <https://www.clevelandfed.org/Our%20Research/President/Changes%20in%20the%20Use%20of%20Electronic%20Means%20of%20Payment%201995-2013>.
5. “Measuring the Performance of Banks: Theory, Practice, Evidence, and Some Policy Implications,” with Joseph P. Hughes, Federal Reserve Bank of Philadelphia Working Paper No. 13-31, August 2013, invited chapter for ***Oxford Handbook of Banking, Second edition***, Oxford University Press: Oxford, UK, eds. Allen Berger, Philip Molyneux, and John Wilson, 2015, pp. 247-270.
6. “A Primer on Market Discipline and Governance of Financial Institutions for Those in a State of Shocked Disbelief,” with Joseph P. Hughes, invited chapter for ***Efficiency and Productivity Growth in the Financial Services Industry***, John Wiley and Sons, UK, ed. Fotios Pasiouras, 2013, pp. 19-47.
7. “Has Job Quality Been “Job One” in the Economic Recovery?” with Elif Sen, ***Research Rap – Special Report***, Federal Reserve Bank of Philadelphia, August 14, 2013, pp. 1-18.
8. “Changes in the Use of Electronic Means of Payment: 1995-2010, An Update Using the Recently Released 2010 Survey of Consumer Finances,” ***Business Review***, Federal Reserve Bank of Philadelphia, Third Quarter 2012, pp. 25-36.
9. “Institutional Structure and Effectiveness of Central Banks during the Financial Crisis: an Empirical Analysis,” with Yiwei Fang and Iftekhar Hasan, in ***Handbook on Central Banking and Financial Regulation and Supervision After the Financial Crisis***, Edward Elgar, UK, eds. Sylvester Eijffinger and Donato Masciandaro, 2011, pp. 180-207.
10. “Scale Economies in Banking and Financial Regulatory Reform,” ***The Region***, 24 (September 2010), Federal Reserve Bank of Minneapolis, pp. 10-13.
11. “Comment on A New Metric for Banking Integration in Europe,” in ***Europe and the Euro***, NBER Research Book, University of Chicago Press: Chicago, eds. Alberto Alesina and Francesco Giavazzi, 2010, pp. 246-253.
12. “Efficiency in Banking: Theory and Evidence,” with Joseph P. Hughes, invited chapter for ***Oxford Handbook of Banking***, Oxford University Press: Oxford, UK, eds. Allen Berger, Philip Molyneux, and John Wilson, 2010, pp. 463-485.
13. “Changes in the Use of Electronic Means of Payment: 1995-2007,” ***Business Review***, Federal Reserve Bank of Philadelphia, Third Quarter 2009, pp. 29-37.
reprinted as Table 1146 in the *Statistical Abstract of the United States*, U.S. Census Bureau, 2010 and 2011;
reprinted in *Electronic Banking Law and Commerce Report*, 2010.
14. “Optimal Industrial Structure in Banking,” invited chapter for ***Handbook of Financial Intermediation***, North Holland: Amsterdam, eds. Arnoud Boot and Anjan Thakor, 2008, Chapter 5, pp. 133-162.
15. “Innovation and Regulation in Financial Markets: A Summary of the 2007 Philadelphia Fed Policy Forum,” ***Business Review***, Federal Reserve Bank of Philadelphia, Third Quarter 2008, pp. 35-41.

Other Publications, continued

16. "Financing Community Development: Learning from the Past, Looking to the Future: Summary of the 2007 Federal Reserve System Community Affairs Research Conference," *Business Review*, Federal Reserve Bank of Philadelphia, First Quarter 2008, pp. 34-50.
17. "Magyar Nemzeti Bank Research Evaluation Report 2008," with László Halpern, National Bank of Hungary, March 2008.
18. "Economic Growth and Development: Perspectives for Policymakers, A Summary of the 2006 Philadelphia Fed Policy Forum," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2007, pp. 31-39.
19. "Some Thoughts on the Evolution of the Banking System and the Process of Financial Intermediation," *Economic Review*, Federal Reserve Bank of Atlanta, First and Second Quarters 2007, pp. 67-75.
20. "Fiscal Imbalance: Problems, Solutions, and Implications, A Summary of the 2005 Philadelphia Fed Policy Forum," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2006, pp. 31-39.
21. "Working as a Research Economist at the Federal Reserve Bank of Philadelphia," invited article for the Symposium on Research Careers Outside of Academia, *Newsletter of the Committee on the Status of Women in the Economics Profession (CSWEP)*, Spring/Summer 2006, pp. 8-9.
22. "Changes in the Use of Electronic Means of Payment: 1995-2004," *Business Review*, Federal Reserve Bank of Philadelphia, Second Quarter 2006, pp. 26-30.
reprinted as Table 1167 in the *Statistical Abstract of the United States*, U.S. Census Bureau, 2007 and 2008; and as Table 1155 in *Statistical Abstract of the United States*, U.S. Census Bureau, 2009
23. "Core Inflation as a Predictor of Total Inflation," with N. Neil K. Khettry, *Research Rap – Special Report*, Federal Reserve Bank of Philadelphia, April 26, 2006, pp. 1-20.
24. "Challenges and Opportunities in a Global Economy: Perspectives on Outsourcing, Exchange Rates, and Free Trade: A Summary of the 2004 Philadelphia Fed Policy Forum," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2005, p. 36-48.
25. "Bank of Finland Research Evaluation Report 2004," with Philip R. Lane and Juuso Välimäki, *Bank of Finland*, December 2004.
26. "Was Job Quality 'Job One' in the Tri-State Region's Economic Recovery?" with William Olney, *Regional Highlights*, Federal Reserve Bank of Philadelphia, Special Issue, December 2004, pp. 1-25.
27. "Managing the Recovery in Uncertain Times: A Summary of the 2003 Philadelphia Fed Policy Forum," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2004, pp. 44-56.
28. "Changes in the Use of Electronic Means of Payment: 1995-2001," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2003, pp. 18-20.
reprinted as Table No. 1186. Percent of U.S. Households That Use Selected Payment Instruments: 1995 and 2001 in the *Statistical Abstract of the United States*, U.S. Census Bureau, 2003, p. 750.
29. "Crises, Contagion, and Coordination: A Summary of the 2002 Philadelphia Fed Policy Forum," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2003, pp. 8-15.
30. "The Philadelphia Fed Policy Forum: Three Questions for Monetary Policymakers," *Business Review*,

Other Publications, continued

- Federal Reserve Bank of Philadelphia, Third Quarter 2002, pp. 6-13.
31. "Is the Personal Bankruptcy System Bankrupt?" *Business Review*, Federal Reserve Bank of Philadelphia, First Quarter 2002, pp. 31-44.
 32. "A Summary of the Conference on Consumer Transactions and Credit," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2001, pp. 5-9.
 33. "Changes in the Use of Electronic Means of Payment," *Business Review*, Federal Reserve Bank of Philadelphia, Third Quarter 2001, pp. 10-12.
reprinted as Table No. 1161. Percent of U.S. Households That Use Selected Payment Instruments: 1995 and 1998 in the *Statistical Abstract of the United States*, U.S. Census Bureau, 2002, p. 727
 34. "Are Scale Economies in Banking Elusive or Illusive? Evidence Obtained by Incorporating Capital Structure and Risk-Taking into Models of Bank Production," with Joseph P. Hughes and Choon-Geol Moon, synopsis of working paper, *The Changing Financial Industry Structure and Regulation: Bridging States, Countries, and Industries; Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago), May 2000, pp. 233-264.
 35. "The Changing Nature of the Payments System: Should New Players Mean New Rules?" *Business Review*, Federal Reserve Bank of Philadelphia, March/April 2000, pp. 3-26.
 36. "Credit Scoring and Securitization of Small Business Loans: Discussion Comments," *Business Access to Capital and Credit: A Federal Reserve System Research Conference*, March 1999, pp. 650-662.
 37. "Banking Industry Consolidation: What's a Small Business to Do?" *Business Review*, Federal Reserve Bank of Philadelphia, January/February 1999, pp. 3-16.
 38. Abstract of "Inside the Black Box: What Explains Differences in the Efficiencies of Financial Institutions," *Contemporary Finance Digest*, 2 (Summer 1998), pp. 70-71.
 39. "What's the Point of Credit Scoring?" *Business Review*, Federal Reserve Bank of Philadelphia, September/October 1997, pp. 3-16.
reprinted on the *Public Affairs Information Service*; in *1999 Readings to Accompany The Economics of Money, Banking, and Financial Markets, Fifth Edition* (textbook by Frederic S. Mishkin), Addison Wesley Longman, Inc., 1999.
 40. "Repealing Glass-Steagall: The Past Points the Way to the Future," *Business Review*, Federal Reserve Bank of Philadelphia, July/August 1996, pp. 3-18.
 41. "Safety in Numbers? Geographic Diversification and Bank Insolvency Risk," with Joseph P. Hughes, William Lang, and Choon-Geol Moon, *Proceedings of a Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago: Chicago, May 1996, pp. 202-218.
 42. "Comments on Part Five: Competitive Interpenetration: Banking, Commerce and Nonbank Activities," in *Universal Banking: Financial System Design Reconsidered*, A. Saunders and I. Walter, eds., Irwin: Chicago, 1996, pp. 541-549.
 43. "Recovering Banking Technologies When Managers Are Not Risk-Neutral," with Joseph P. Hughes, William Lang, and Choon-Geol Moon, *Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago), May 1995, pp. 49-68.

Other Publications, continued

44. "There's More than One Way to Sell a Security: The Treasury's Auction Experiment," *Business Review*, Federal Reserve Bank of Philadelphia, July/August 1995, pp. 3-17.
45. "Evidence on the Objectives of Bank Managers," with Joseph P. Hughes, *Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago), May 1994, pp. 496-500.
46. "The Real Reasons That Benefits of Teaser Rates May Be Short-Lived," with Paul Calem, Letters to the Editor, *American Banker*, April 25, 1994.
47. "How Efficient Are Third District Banks?" *Business Review*, Federal Reserve Bank of Philadelphia, January/February 1994, pp. 3-18.
48. "Economies of Scale and Scope" in *Financial Institutions Management: A Modern Perspective*, by Anthony Saunders, Richard D. Irwin: Chicago, IL, 1994, p. 230; second edition, 1997, p. 265; third edition, 2000, p. 299.
49. "Banking and Commerce: A Dangerous Liaison?" *Business Review*, Federal Reserve Bank of Philadelphia, May/June 1992, pp. 17-29.
reprinted in: *The Financial Institutions and Markets Reader*, Kolb Publishing Co.: Miami, FL, 1993; *Readings on Financial Institutions and Markets*, ed. P. Rose, Richard D. Irwin: Homewood, IL, 1993 & 1994; *Financial Institutions and Markets*, ed. J. Madura, West Publishing Company, 1995.
50. "Curing Our Ailing Deposit-Insurance System," *Business Review*, Federal Reserve Bank of Philadelphia, September/October 1990, pp. 13-24.
reprinted in: *Bank Management and Regulation, A Book of Readings*, eds. A. Saunders, G. Udell, and L. White, Bristlecone Books, Mayfield Publishing Co.: Mountain View, CA, 1992; *The Commercial Bank Management Reader*, ed. R. Kolb, Kolb Publishing Co.: Miami, FL, 1992; *Readings on Financial Institutions and Markets*, ed. P. Rose, Richard D. Irwin: Homewood, IL, 1993.
51. "The Costs of Traditional and Nontraditional Banking," *Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago), May 1990, pp. 170-174.
52. "Owners versus Managers: Who Controls the Bank?" *Business Review*, Federal Reserve Bank of Philadelphia, May/June 1989, pp. 13-23.
reprinted in: *Financial Institutions and Markets: A Reader*, ed. R. Kolb, Kolb Publishing Co.: Miami, FL, 1991; *The Commercial Bank Management Reader*, ed. R. Kolb, Kolb Publishing Co.: Miami, FL, 1992; *The Financial Institutions and Markets Reader*, ed. R. Kolb, Kolb Publishing Co.: Miami, FL, 1993; *Advances in Business Financial Management: A Collection of Readings*, 2nd ed., ed. P. Cooley, The Dryden Press: Fort Worth, TX, 1996.
53. "Going, Going, Gone: Setting Prices with Auctions," *Business Review*, Federal Reserve Bank of Philadelphia, March/April 1988, pp. 3-13.
reprinted in: L. Gillette and D. Jansen, *Study Guide and Readings to Accompany Bayes' Managerial Economics*, Econotex Publishing Co.: College Station, TX, June 1989.

excerpted in: R. Kolb and R. Rodriguez, *Financial Management*, D.C. Heath and Co.: Lexington, MA, 1991; W. Boyes and M. Melvin, *Microeconomics*, Houghton Mifflin Co: Boston, October 1990; J. Mikesell, *Fiscal Administration, Analysis, and Applications for the Public Sector*, 3rd edition, Brooks/Cole Publishing Co.: Pacific Grove, CA, Summer 1990.

Other Publications, continued

54. "Production of Financial Services: Scale and Scope Economies," *Business Review*, Federal Reserve Bank of Philadelphia, January/February 1987, pp. 15-25.
reprinted in: *Bank Management and Regulation, A Book of Readings*, eds. A. Saunders, G. Udell, and L. White, Bristlecone Books, Mayfield Publishing Co.: Mountain View, CA, 1992.
55. "The Effects of Multi-Market Contact on Savings and Loan Behavior," (abstract) *Proceedings of a Conference on Bank Structure and Competition* (Chicago: Federal Reserve Bank of Chicago), May 1986, pp. 171-173.

Working Papers and Manuscripts

1. "Is Bigger Necessarily Better in Community Banking?" with Joseph P. Hughes and Julapa Jagtiani, Federal Reserve Bank of Cleveland Working Paper No. 16-15, June 2016.
2. "Banks: Is Big Beautiful or Do Good Things Come in Small Packages?" prepared for the Columbia University Conference on Financial Risk and Regulation: Unfinished Business, New York, NY, March 27, 2012.
3. "Regulatory Reform and the Role of the Fed," prepared for the Princeton Colloquium on Public and International Affairs: The "New Normal?" American Policy Making After the Great Recession, Princeton University, April 16-17, 2010.
4. "Central Bank Policies and Asset Prices," prepared for SUERF (The European Money and Finance Forum)/Bank of Finland Conference: Housing Markets – A Shelter from the Storm or Cause of the Storm, Helsinki, Finland, June 4, 2009.
5. "Applying Efficiency Measurement Techniques to Central Banks," Federal Reserve Bank of Philadelphia Working Paper No. 03-13, July 2003.
6. "Optimal Financial Contracts For Large Investors: The Role of Lender Liability," with Mitchell Berlin, Federal Reserve Bank of Philadelphia Working Paper No. 00-1, February 2000.
7. "Efficiency and Productivity Change in the U.S. Commercial Banking Industry: A Comparison of the 1980s and 1990s," with Allen N. Berger, Federal Reserve Bank of Philadelphia Working Paper No. 97-5/R, May 1997, November 1997.
8. "Recovering Technologies that Account for Generalized Managerial Preferences: An Application to Non-Risk-Neutral Banks," with Joseph P. Hughes, William Lang, and Choon-Geol Moon, Federal Reserve Bank of Philadelphia Working Paper No. 95-8/R, August 1994, revised August 1996.
9. "Bank Managers' Objectives," with Joseph P. Hughes, Federal Reserve Bank of Philadelphia Working Paper No. 94-8/R, original draft December 1992, revised August 1994; Wharton Financial Institutions Center Working Paper No. 94-15.
10. "Risk-Taking at U.S. Thrifts: Modeling Risk-Indicative, Endogenous Interest Rates," with Joseph P. Hughes, Choon-Geol Moon, and William Lang, manuscript, November 1993, revised October 1994.
11. "Financial Intermediation as Vertical Integration," with Mitchell Berlin, Federal Reserve Bank of Philadelphia Working Paper No. 93-3, January 1993.
12. "Who Changes the Prime Rate?" with Anthony Saunders, Federal Reserve Bank of Philadelphia Working Paper No. 90-26, November 1990.

Recent Speeches

1. “The U.S. Economic Outlook and Monetary Policy,” Australian Business Economists, Sydney, Australia, July 13, 2016.
2. “Monetary Policy and Financial Stability in the U.S.,” The Sydney Banking and Financial Stability Conference, University of Sydney Business School, Sydney, Australia, July 12, 2016.
3. “The U.S. Economic Outlook and Monetary Policy,” The European Economics and Financial Centre’s Distinguished Speakers Seminar, London, U.K., July 1, 2016.
4. “Five Points About Monetary Policy and Financial Stability,” Sveriges Riksbank Conference on Rethinking the Central Bank’s Mandate, Stockholm, Sweden, June 4, 2016.
5. “Recent Inflation Developments and Challenges for Research and Monetary Policymaking,” The 47th Konstanz Seminar on Monetary Theory and Monetary Policy, Insel Reichenau, Germany, May 12, 2016.
6. “The Outlook for the National and Regional Economy and Monetary Policy: Low-Frequency Policymaking in a High-Frequency World,” The Cleveland Association for Business Economics, CFA Society Cleveland, and the Risk Management Association, Northern Ohio Chapter, Cleveland, OH, April 6, 2016.
7. “The Outlook for the Economy and Monetary Policy: Low-Frequency Policymaking in a High-Frequency World,” New York Association for Business Economics, New York, NY, April 1, 2016.
8. “The Economy and Monetary Policy,” The Global Interdependence Center Central Banking Series, Sarasota, FL, February 19, 2016.
9. “A Monetary Policymaker’s Lexicon,” Market News International, New York, NY, February 4, 2016.
10. “The U.S. Economy and Monetary Policy,” remarks for the panel discussion, “The United States and the Global Economic Outlook,” National Association for Business Economics/American Economic Association Meetings, San Francisco, CA, January 3, 2016.
11. “U.S. Payment System Improvement and the Federal Reserve,” The Clearing House Annual Conference, New York, NY, November 18, 2015.
12. “Perspectives on the Economy and Monetary Policy,” The City Club of Cleveland, Cleveland, OH, November 13, 2015.
13. “Long-Run Economic Growth,” New York University Stern Center for Global Economy and Business, New York, NY, October 15, 2015.
14. “Comments on ‘Microprudential Versus Macroprudential Supervision: Functions That Make Sense Only as Part of an Overall Regime for Financial Stability,’ by Paul Tucker,” 59th Economic Conference – Macroprudential Monetary Policy, Federal Reserve Bank of Boston, Boston, MA, October 2, 2015.
15. “The Economic Outlook and Monetary Policy: Timing Isn’t Everything,” The Columbus Metropolitan Club, Columbus, OH, July 15, 2015.
16. “Community Development and Human Capital,” 2015 Policy Summit on Housing, Human Capital, and Inequality, sponsored by the Federal Reserve Banks of Cleveland, Philadelphia, and Richmond, Pittsburgh, PA, June 19, 2015

Recent Speeches, continued

17. "Post-Crisis Financial System Regulation and Its Research Foundation," Financial Intermediation Research Society Conference, Reykjavik, Iceland, May 25, 2015.
18. "Consumer Credit: Suggested Directions for Policy-Relevant Research," remarks at the Conference on Regulating Consumer Credit, a joint conference of the Federal Reserve Bank of Philadelphia and the *Journal of Economics and Business*, Philadelphia, PA, May 1, 2015.
19. "The Economic Outlook and Monetary Policy," The Forecasters Club of New York, New York, NY, April 16, 2015.
20. "Recent Developments in U.S. Monetary Policy: From Extraordinary Back to Ordinary," GIC Central Banking Series: New Policies for the Post-Crisis Era, Banque de France, Paris, France, March 23, 2015.
21. "The Outlook for the Economy and Monetary Policy Communications," National Association for Business Economics, 2015 Economic Policy Conference, Washington, DC, March 9, 2015.
22. "Comments on 'The Equilibrium Real Funds Rate: Past, Present, and Future,' by James D. Hamilton, Ethan S. Harris, Jan Hatzius, and Kenneth D. West," 2015 U.S. Monetary Policy Forum, sponsored by the Initiative on Global Markets at the University of Chicago Booth School of Business, New York, NY, February 27, 2015.
23. "The Outlook for the Economy and Bank Regulation," Ohio Bankers League 2015 Economic Summit, Columbus, OH, February 4, 2015.
24. "The Nexus of Macroprudential Supervision, Monetary Policy, and Financial Stability," keynote remarks presented at the 2014 Financial Stability Conference: Measurement Challenges in Macroprudential Policy Implementation: Essential Data Elements for Preserving Financial Stability, organized by the Federal Reserve Bank of Cleveland and the Office of Financial Research, Washington, DC, December 5, 2014.
25. "Forward Guidance and Communications in U.S. Monetary Policy," Imperial Business Insights Series, Imperial College, London, U.K., November 20, 2014.
26. "Forward Guidance in Extraordinary Times, in Normal Times, and Betwixt the Two," Money Marketeers of New York University, Inc., New York, NY, November 6, 2014.
27. "The Economic Outlook, Monetary Policy, and Getting Back to Normal," The Cleveland Association for Business Economics, CFA Society Cleveland, and The Risk Management Association, Cleveland, OH, September 24, 2014.
28. "The Economic Outlook, Monetary Policy, and Communications: Progress on Multiple Journeys," The Economic Club of Pittsburgh, CFA Society Pittsburgh, and the Pittsburgh Society of Investment Professionals, Pittsburgh, PA, September 4, 2014.
29. "Inflation and Monetary Policy: Six Research Questions," keynote remarks presented at the Federal Reserve Bank of Cleveland Conference on Inflation, Monetary Policy, and the Public, Cleveland, Ohio, May 30, 2014.
30. "The Economic Outlook," Financial Management Association Speaker Series, Finance Week at Temple University, Philadelphia, Pennsylvania, April 7, 2014.
31. "Remarks on Leadership," Leading Women at FRB Philadelphia – a Diversity Council Women's History Month Panel Discussion, Philadelphia, Pennsylvania, March 27, 2014.

Recent Speeches, continued

32. “The Economic Outlook,” presentation to the 9th Annual Temple University Fox School of Business MBA Networking and Speaker Event, Philadelphia, Pennsylvania, February 20, 2014.
33. “Institutional Size and Systemic Risk,” Federal Reserve Bank of New York – Global Association of Risk Professionals (GARP) Global Risk Forum, New York, NY, November 19, 2013.
34. “The Economic Outlook,” LEADERSHIP Philadelphia Core Class, Philadelphia, Pennsylvania, November 15, 2013.
35. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Williamsport, Pennsylvania Field Meeting, October 9, 2013.
36. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Altoona, Pennsylvania Field Meeting, October 8, 2013.
37. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Harrisburg Field Meeting, October 7, 2013.
38. “Federal Reserve Policy During and After the Crisis and the Nexus Between Monetary Policy and Financial Stability Policy,” keynote address, Pueilicher Center for Banking, University of Wisconsin, Madison, Wisconsin, May 8, 2013.
39. “The Economic Outlook,” Financial Management Association Speaker Series, Temple University, Philadelphia, Pennsylvania, April 1, 2013.
40. “Federal Reserve Policy During and After the Crisis,” presentation at the Julis-Rabinowitz Center for Public Policy and Finance Conference on Understanding the Economic Slump: Balance Sheets and Policy, Princeton University, March 1, 2013.
41. “The Economic Outlook,” presentation to the 8th Annual Temple University Fox School of Business MBA Networking and Speaker Event, February 21, 2013.
42. “What’s Ahead for the Economy?” keynote speech presented at the 2012 New Jersey Banking Commissioner’s Banking Symposium, November 28, 2012.
43. “The Economic and Financial Market Outlook,” presentation at the Federal Reserve Bank of Philadelphia’s Supervision, Regulation, and Credit Department All-Staff Conference, October 10, 2012.
44. “Report on Economic and Financial Developments,” presentation at the Newfield National Bank Business Seminar, Williamstown, NJ, June 1, 2012.
45. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Williamsport, Pennsylvania Field Meeting, April 4, 2012.
46. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Altoona, Pennsylvania Field Meeting, April 3, 2012.
47. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Harrisburg Field Meeting, April 2, 2012.

Recent Speeches, continued

48. “Banks: Is Big Beautiful or Do Good Things Come in Small Packages?” prepared for the Columbia University Conference on Financial Risk and Regulation: Unfinished Business, New York, NY, March 27, 2012.
49. “The Economic Outlook,” presentation to the 7th Annual Temple University Fox School of Business MBA Networking and Speaker Event, February 23, 2012.
50. “The National Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia’s Supervision, Regulation, and Credit Department All-Staff Conference, November 17, 2011.
51. “Prospects for the New Jersey Economy,” presentation at the New Jersey Department of Treasury Conference on New Jersey’s Economy, November 14, 2011.
52. “Consumer Credit Research,” presentation at the Federal Reserve Bank of Philadelphia Research Department-Payment Cards Center Conference on Recent Developments in Consumer Credit and Payments, September 24, 2011.
53. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Delaware Field Meeting, May 23, 2011.
54. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Gladwyne Field Meeting, May 19, 2011.
55. “The Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia New Jersey Field Meeting, May 18, 2011.
56. “The Economic Outlook,” presentation to the 6th Annual Temple University Fox School of Business MBA Networking and Speaker Event, February 17, 2011.
57. “Asset Prices and Monetary Policy,” Keynote speech at the Finance Symposium: Macro vs. Micro: How Do Global and Governmental Factors Affect Finance,” Villanova University, Villanova, PA, November 10, 2010.
58. “The National Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Bankers’ Forum, July 27, 2010.
59. “The Economic Outlook,” presentation to the Temple University Fox School of Business Leadership and Professional Development Seminar, February 18, 2010.
60. “The Economic Outlook,” presentation to the Temple University Fox School of Business Leadership and Professional Development Seminar, February 19, 2009.
61. “The National Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia’s Supervision, Regulation, and Credit Department All-Staff Conference, September 4, 2008.
62. “The Monetary Policy Process,” at Philadelphia University Business Strategy and Policy class, May 7, 2008.
63. “The Economic Outlook,” presentation at Fulton Financial Corporation 34th Annual Seminar, Wilmington, Delaware, March 26, 2008.
64. “The National Economic Outlook,” Temple University Fox School of Business Roundtable Series, January 17, 2008.

Recent Speeches, continued

65. “The National Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia Bankers’ Forum, December 10, 2007.
66. “The National Economic Outlook,” presentation at the Federal Reserve Bank of Philadelphia’s Supervision, Regulation, and Credit Department’s All-Staff Conference, September 6, 2007.
67. “Monetary Policy and the Discount Window,” presentation at the New Director Orientation Program, Board of Governors of the Federal Reserve System, April 18, 2007.
68. “The Monetary Policy Process: A Day in the Life of the FOMC,” presentation to St. Joseph’s University, Philadelphia, November 2, 2006.
69. “A Day in the Life of the FOMC: The Monetary Policy Process,” at Making Sense of Money and Banking, Federal Reserve Bank of Philadelphia Economics Education Program, July 21, 2006.
70. “The Monetary Policy Process,” Temple University TREK program, Philadelphia, November 3, 2005.
71. “Economic and Financial Developments,” Orrstown Bank Board of Directors Meeting, Philadelphia, June 23, 2005.
72. “The Monetary Policy Process,” Princeton University lecture in Money and Banking, March 31, 2005.
73. “The Economic Outlook – A Fed Perspective,” NESCON / Penn Mutual Life Insurance Company Dinner, Philadelphia, PA, October 21, 2004.
74. “The Economic Outlook,” Newfield National Bank, Scotland Run Golf Club, Turnersville, NJ, June 15, 2004.
75. “The Economic Outlook,” Fulton Financial Corporation Directors’ Seminar, Lancaster, PA, March 30, 2004.
76. “Recent Economic Developments and the Economic Outlook,” Philadelphia Chapter Meeting, RMA, Federal Reserve Bank of Philadelphia, September 24, 2003.
77. “Economic Outlook,” Federal Reserve Bank of Philadelphia’s SRC Bankers’ Forum, Federal Reserve Bank of Philadelphia, May 7, 2003.
78. “Introductory Remarks, The Philadelphia Council for Business Economics and the Philadelphia Fed Spring Regional Conference,” Federal Reserve Bank of Philadelphia, May 7, 2003.
79. “Economic Outlook,” Federal Reserve Bank of Philadelphia’s SRC Bankers’ Forum, Federal Reserve Bank of Philadelphia, December 16, 2002.
80. “Economic Outlook,” Asian Bank, Federal Reserve Bank of Philadelphia, November 26, 2002.
81. “Global Banking Consolidation: Benefit or Bane?” Livingston College of Rutgers University Global Futures Symposium, September 26, 2002.
82. “Economic and Financial Markets Outlook,” Society of Actuaries, Chief and Corporate Actuaries Meeting, Philadelphia, May 21, 2002.
83. “The Monetary Policy Process and the Economic Outlook,” MBNA, Newark, DE, July 9, 2001.

Recent Speeches, continued

84. “Antitrust Analysis in Banking,” to Wharton Beta Alpha Psi, National Honor Fraternity for Financial Information Professionals, Wharton School, Philadelphia, April 11, 2001.

Recent Conferences and Seminars**Conference Organization:**

- Co-Organizer of the *International Journal of Central Banking* Annual Research Conference, “Policies for Macroeconomic and Financial Stability,” Philadelphia, September 26-27, 2014
- Organizer of Federal Reserve System “Day-Ahead” Conference on Financial Markets and Institutions, Philadelphia, January 2, 2014
- Organizer of Conference on Consumer Transactions and Credit, co-sponsored by the Federal Reserve Bank of Philadelphia and the Wharton Financial Institution Center, in association with *Journal of Financial Intermediation*, March 2000
- Organizer of Conference on Retail Credit Risk Management and Measurement, sponsored by the Federal Reserve Bank of Philadelphia, in association with the *Journal of Banking and Finance*, April 2003
- Organizer of the 2001 Philadelphia Fed Policy Forum: Three Questions for Monetary Policymakers, November 2001
- Organizer of the 2002 Philadelphia Fed Policy Forum: Crises, Contagion, and Coordination, November 2002
- Organizer of the 2003 Philadelphia Fed Policy Forum: Managing the Recovery in Uncertain Times, November 2003
- Organizer of the 2004 Philadelphia Fed Policy Forum: Challenges and Opportunities in the Global Economy: Perspectives on Outsourcing, Exchange Rates, and Free Trade, December 2004
- Organizer of the 2005 Philadelphia Fed Policy Forum: Fiscal Imbalance: Problems, Solutions, and Implications, December 2005
- Organizer of the 2006 Philadelphia Fed Policy Forum: Economic Growth and Development: Perspectives for Policymakers, December 2006
- Organizer of the 2007 Philadelphia Fed Policy Forum: Innovation and Regulation in Financial Markets, November 2007
- Organizer of the 2009 Philadelphia Fed Policy Forum: Policy Lessons from the Economic and Financial Crisis, December 2009
- Organizer of the 2011 Philadelphia Fed Policy Forum: Budgets on the Brink: Perspectives on Debt and Monetary Policy, December 2011
- Co-Organizer of the 2013 Philadelphia Fed Policy Forum: The History of Central Banking in the U.S., December 2013
- Co-Organizer of Conference on Relationships, Credit Extension, and the Macroeconomy, co-organized by the German Institute for Economic Research (DIW Berlin), the *Journal of Financial Intermediation* (JFI), and the Federal Reserve Bank of Philadelphia, June 2005
- Co-Organizer of System Community Affairs Research Conference: Financing Community Development: Learning from the Past, Looking to the Future, March 29-30, 2007
- Co-Organizer of Conference on Financial Firm Bankruptcy, with the Richmond Fed, July 25-26, 2011
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Shanghai, China, June 1-3, 2006
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Anchorage, Alaska, June 5-8, 2008

Recent Conferences and Seminars, continued

- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Anchorage, Alaska, May 27-29, 2009
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Florence, Italy, June 7-9, 2010
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Sydney, Australia, June 6-8, 2011
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Minneapolis, MN, June 1-4, 2012
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Dubrovnik, Croatia, May 30-June 2, 2013
- Program Committee, Financial Intermediation Research Society Conference on Banking, Corporate Finance, Asset Pricing, and Intermediation, Quebec City, Canada, June 1-5, 2014
- Program Committee, Financial Management Association Annual Meeting, 1993-1998; 2006; 2010
- Program Committee, Basel Committee, CEPR, and *Journal of Financial Intermediation* conference on “Banks – How Big is Big Enough?” Basel, Switzerland, May 2012
- Program Committee of the *International Journal of Central Banking* Annual Research Conference, “Challenges to Financial Stability in a Low Interest Rate World,” San Francisco, scheduled for November 21-22, 2016
- Award Committee, Financial Institution Track, Financial Management Association Annual Meeting, 1995-1996 and 2000-2001
- Financial Institutions Track Chair, Financial Management Association Annual Meeting, 1994-1995 and 2006-2007 (organized all papers on financial institutions)
- Scientific Committee, International Conference on Global Trends in the Efficiency and Risk Management of Financial Services and the Financial Crisis, Efficiency and Productivity Research Unit, University of Leicester School of Management, United Kingdom, November 2009 and March 2010
- Scientific Committee, 2011 Workshop on Regulations, Capital Markets, and Financial Institutions: The Post Crisis Era, Financial Engineering and Banking Society
- Scientific Committee, 2012 International Center on Corporate Governance and Regulation Conference, “Improving Financial Institutions: The Proper Balance Between Regulation and Governance,” Hanken School of Economics, Helsinki, Finland, April 2012.
- Scientific Committee, 2012 International Conference of the Financial Engineering and Banking Society (FEBS), London, UK, June 2012
- Scientific Committee, 2013 Surrey-Fordham Conference on Banking, Finance, Money and Institutions: The Post Crisis Era, University of Surrey, UK, November 2013
- Scientific Committee, 2014 International Conference of the Financial Engineering and Banking Society (FEBS), University of Surrey, UK, June 2014

Paper Presentations:

1. “Who Said Large Banks Don’t Experience Scale Economies,” Centre for Money, Banking, and Institutions Conference “Banking, Finance, Money and Institutions: The Post Crisis Era,” University of Surrey, UK, November 2-3, 2013.
2. “Banks: Is Big Beautiful or Do Good Things Come in Small Packages?” prepared for the Columbia University Conference on Financial Risk and Regulation: Unfinished Business, New York, NY, March 27, 2012.

Recent Conferences and Seminars, continued

3. Presented (by co-author), "Large Capital Infusions, Investor Reactions, and the Return and Risk Performance of Financial Institutions in Normal Times and During the Recent Crisis," International Finance and Banking Society Conference, Rome, Italy, June 30-July 2, 2011.
4. "Who Said Large Banks Don't Experience Scale Economies," Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Sydney, Australia, June 6-8, 2011.
5. "Large Capital Infusions, Investor Reactions, and the Return and Risk Performance of Financial Institutions in Normal Times and During the Recent Crisis," Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Sydney, Australia, June 6-8, 2011.
6. "Who Said Large Banks Don't Experience Scale Economies," Allied Social Science Association Annual Meetings, Denver, CO, January 7-9, 2011.
7. Presented (by co-author), "Large Capital Infusions, Investor Reactions, and the Return and Risk Performance of Financial Institutions in Normal Times and During the Recent Crisis," Southern Finance Association Annual Meetings, Asheville, North Carolina, November 17-20, 2010.
8. Presented (by co-author), "Large Capital Infusions, Investor Reactions, and the Return and Risk Performance of Financial Institutions in Normal Times and During the Recent Crisis," Tenth Annual Bank Research Conference, sponsored by the FDIC's Center for Financial Research and the *Journal of Financial Services Research*, October 28-29, 2010.
9. Presented (by co-author) "Who Said Large Banks Don't Experience Scale Economies?" 70th International Atlantic Economic Conference, Charleston, South Carolina, October 10-13, 2010.
10. "Economies and Diseconomies of Scale in Banking," Federal Reserve System Committee on Financial Structure and Regulation Conference, Cleveland, OH, September 30, 2010.
11. "Regulatory Reform and the Role of the Fed," the Princeton Colloquium on Public and International Affairs: The "New Normal?" American Policy Making After the Great Recession, Princeton University, April 16-17, 2010.
12. "Central Bank Policies and Asset Prices," Keynote Address I, SUERF (The European Money and Finance Forum)/Bank of Finland Conference: Housing Markets – A Shelter from the Storm or Cause of the Storm," Helsinki, Finland, June 4, 2009.
13. "Core Measures of Inflation as Predictors of Total Inflation," at the European Central Bank-Center for Financial Studies-Bundesbank Joint Lunchtime Seminar, June 3, 2009.
14. "Current Research Trends in Finance and the Financial Crisis," invited presentation for the Distinguished Scholars Panel Session, Southern Finance Association Annual Meeting, Key West, Florida, November 19-22, 2008.
15. "Efficiency of Financial Institutions: Methods and Evidence," keynote address at the inaugural meeting of the European Network on Financial Efficiency and Regulation, Lille, France, February 25, 2008.
16. "What Kind of Research Should Central Banks Do?" invited presentation at the Conference on Designing Central Banks, jointly organized by the Deutsche Bundesbank and Bank of Finland, Eltville, Germany, November 8-9, 2007.

Recent Conferences and Seminars, continued

17. "Corporate Governance and Effective Central Banking: Cross-Country Empirical Evidence," Frontiers in Central Banking Conference, jointly organized by the National Bank of Hungary, the University of Münster, Germany, and the Viessmann European Research Centre, Budapest, Hungary, May 10-12, 2007.
18. Presented (by co-author), "Potential Competitive Effects on U.S. Bank Credit Card Lending from the Proposed Bifurcated Application of Basel II," Sixth Annual Bank Research Conference, sponsored by the FDIC's Center for Financial Research and the *Journal of Financial Services Research*, September 13-15, 2006.
19. Presented (by co-author), "Potential Competitive Effects on U.S. Bank Credit Card Lending from the Proposed Bifurcated Application of Basel II," Workshop on Risk Management and Regulation in Banking, sponsored by the Basel Committee on Banking Supervision, the Centre for Economic Policy Research, and the *Journal of Financial Intermediation*, June 29-30, 2006.
20. "Switching Costs and Adverse Selection in the Market for Credit Cards: New Evidence," at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Shanghai, China, June 1-3, 2006.
21. "The Federal Reserve Banks' Cost of Equity Capital," Invited presentation at the Eastern Finance Association Annual Meeting, Philadelphia, April 21, 2006.
22. "Transactions Accounts and Loan Monitoring" at the Yale University School of Management, April 12, 2006.
23. "Potential Competitive Effects on U.S. Bank Credit Card Lending from the Proposed Bifurcated Application of Basel II," briefing to the staff of the Financial Services Committee, House of Representatives, Washington, D.C., December 16, 2005
24. "Potential Competitive Effects on U.S. Bank Credit Card Lending from the Proposed Bifurcated Application of Basel II," briefing to Federal Reserve Board Governor Susan Bies and other Board staff, Washington, D.C., September 27, 2005.
25. "Switching Costs and Adverse Selection in the Market for Credit Cards: New Evidence," at the Economics Department, University of Richmond, October 6, 2005.
26. "Using Stochastic Frontier Techniques to Assess Financial Performance," at the Allied Social Sciences Association Annual Meetings, Philadelphia, PA, January 7-9, 2005.
27. "Banking Consolidation," at the Finance Department, Drexel University, April 20, 2004.
28. "Checking Accounts and Bank Monitoring" at the Research Department, Central Bank of Mexico seminar, June 2003.
29. "Problems in Applying Efficiency Measures to Central Banks," at the Workshop on Central Bank Efficiency, Central Bank of Sweden, May 23-24, 2003.
30. "Checking Accounts and Bank Monitoring" at the Federal Deposit Insurance Corporation seminar, April 3, 2003.
31. "Explaining the Dramatic Changes in Performance of U.S. Banks..." at the Economics Department, Georgetown University seminar, January 10, 2003.

Recent Conferences and Seminars, continued

32. "Explaining the Dramatic Changes in Performance of U.S. Banks..." at the Economics Department, Cornell University seminar, December 11, 2002.
33. "Explaining the Dramatic Changes in Performance of U.S. Banks... at Finance Dept, University of Washington at St. Louis seminar, October 21, 2002.
34. "Do Bankers Sacrifice Value to Build Empires?..." at the Financial Markets Group, London School of Economics seminar, June 5, 2002.
35. "Bank Consolidation: Benefit or Bane," as Keynote address at the Melbourne Business School Current Issues Conference, "The Dollars and Sense of Bank Consolidation," April 12, 2002.
36. "Do Bankers Sacrifice Value to Build Empires?..." at Department of Finance, University of Melbourne seminar, April 10, 2002.
37. "Do Bankers Sacrifice Value to Build Empires?..." at ASSA Meetings, Atlanta, January 4-6, 2002.
38. "Basel II: The Good, The Bank, and The Ugly," invited session at 13th Australasian Banking and Finance Conference, Sydney, December 17-19, 2001.
39. "Do Bankers Sacrifice Value to Build Empires?..." as Keynote address at 13th Australasian Banking and Finance Conference, Sydney, December 17-19, 2001.
40. "The Future of Banking Research: Research on Financial Institution Performance and Efficiency," special invited session of the Eastern Finance Association meetings, Charleston, SC, May 27, 2001.
41. "Are Scale Economies in Banking Elusive or Illusive? Evidence Obtained by Incorporating Capital Structure and Risk-Taking into Models of Bank Production" University of Frankfurt seminar, December 5, 2000.
42. "Are Scale Economies in Banking Elusive or Illusive? Evidence Obtained by Incorporating Capital Structure and Risk-Taking into Models of Bank Production" at the Financial Management Association Meetings, Seattle, October 27, 2000.
43. "Are Scale Economies in Banking Elusive or Illusive? Evidence..." at the Universidad Miguel Hernandez Banking and Finance Workshop, Alicante, Spain, May 19-20, 2000.
44. "Are Scale Economies in Banking Elusive or Illusive? Evidence..." at the Federal Reserve Bank of Chicago's Annual Conference on Bank Structure and Competition, Chicago, May 3-5, 2000.
45. "Are Scale Economies in Banking Elusive or Illusive? Evidence Obtained by Incorporating Capital Structure and Risk-Taking into Models of Bank Production Checking Accounts and Bank Monitoring" at the ASSA Winter Meetings, Boston, MA, January 7-9, 2000.
46. "Checking Accounts and Bank Monitoring" at the ASSA Winter Meetings, Boston, MA, January 7-9, 2000.
47. "The Legal Treatment of Informed Investors" at the American Finance Association Winter Meetings, Boston, MA, January 7-9, 2000.
48. Keynote Address, "What Explains the Dramatic Changes in Cost and Profit Performance of the U.S. Banking Industry?" at the Ninth Symposium of the Erasmus Center for Financial Research: Performance

Recent Conferences and Seminars, continued

Frontiers in the Financial Services Industry, Erasmus University, Rotterdam, The Netherlands, December 1, 1999.

Discussant or Session Chair:

1. Chaired the session “Debt Markets” at the Financial Intermediation Research Society Annual Conference, Lisbon, Portugal, June 1, 2016.
2. Moderated the session “The New Realities of Market Structures and Liquidity: Where Have We Been? Where Are We Going?” at the Federal Reserve Bank of Atlanta 21st Annual Financial Markets Conference—Getting a Grip on Liquidity: Markets, Institutions, and Central Banks, Amelia Island, FL, May 3, 2016.
3. Discussed “Cost-Benefit Analysis of Leaning against the Wind: Are Costs Always Larger Than Benefits, and Even More So with a Less Effective Macroprudential Policy?” by Lars Svensson at the Federal Reserve Bank of San Francisco Macroeconomics and Monetary Policy Conference, San Francisco, CA, March 4, 2016.
4. Moderated the session “Future of Banks: Will Commercial Banks Remain Central to the Financial System?” at the Federal Reserve Bank of Atlanta 20th Annual Financial Markets Conference: Central Banking in the Shadows: Monetary Policy and Financial Stability Postcrisis, Stone Mountain, GA, March 30, 2015.
5. Moderated the session “Too Big to Fail,” at the Conference on Enhancing Prudential Standards in Financial Regulations, sponsored by the Federal Reserve Bank of Philadelphia, the Wharton Financial Institutions Center, and the *Journal of Financial Services Research*, Philadelphia, PA, April 9, 2014.
6. Discussed “Does Bank Competition Influence the Lending Channel in the Euro Area?” by Zuzana Fugáčová, Laura Solanko, and Laurent Weill at the International Banking, Economics, and Financial Association Session on European Banking and Monetary Transmission, Allied Social Science Associations 2014 Manual Meetings, Philadelphia, PA, January 4, 2014.
7. Chaired the session “Institutional Size and Systemic Risk,” Federal Reserve Bank of New York – Global Association of Risk Professionals (GARP) Global Risk Forum, New York, NY, November 19, 2013.
8. Chaired the session “Bank Risk, Troubled Debt Restructurings and Performance,” at the Centre for Money, Banking, and Institutions Conference “Banking, Finance, Money and Institutions: The Post Crisis Era,” University of Surrey, UK, November 1-3, 2013.
9. Discussed “House Prices, Collateral, and Self-Employment,” by Manuel Adelino, Antoinette Schoar, and Felipe Severino at the Federal Reserve Bank of Philadelphia Payment Cards Center/Research Department Conference on New Perspectives on Consumer Behavior in Credit and Payment Markets,” Philadelphia, PA, October 4, 2013.
10. Discussed “The Total Costs of Corporate Borrowing: Don’t Ignore the Fees,” by Tobias Berg and Anthony Saunders, at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Dubrovnik, Croatia, June 1-3, 2013.
11. Chaired the session “Bank Capital,” at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Dubrovnik, Croatia, June 1-3, 2013.
12. Discussed “Too Big to Be Efficient?” by Richard Davies and Belinda Tracey, at the Post-Crisis Banking Conference, Dutch Central Bank, European Banking Center at Tilburg University, and University of Kansas School of Business, Amsterdam, The Netherlands, June 28-29, 2012.

Recent Conferences and Seminars, continued

13. Moderated the session “Data Initiatives,” at the Financial Regulatory Reform Policy Conference: The Challenges of Implementing Macroprudential Supervision, Federal Reserve Bank of Atlanta, July 22, 2011.
14. Chaired the session “Relationship Lending,” at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Sydney, Australia, June 6-8, 2011.
15. Moderated the session “Improving Research and Data For Policymaking,” at the Federal Reserve Bank of Philadelphia Payment Cards Center Conference The New Landscape for Consumer Credit and Payments—Celebrating the Payment Cards Center’s 10th Anniversary, December 3, 2010.
16. Discussed “Bank Liquidity Creation, Monetary Policy, and Financial Crises,” by Allen Berger and Christa Bouwman, at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Florence, Italy, June 7-9, 2010.
17. Chaired the session “Risky Lending to Households,” at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Florence, Italy, June 7-9, 2010.
18. Discussed “Interbank Market Liquidity and Central Bank Intervention” by Franklin Allen, Elena Carletti, and Douglas Gale, at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Prague, Czech Republic, May 27-29, 2009.
19. Chaired the session, “Specialization in the Lending Process,” at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Prague, Czech Republic, May 27-29, 2009.
20. Invited participant, Wharton Initiative on Regulatory Reform, Wharton School, University of Pennsylvania, Philadelphia, May 1, 2009.
21. Commentary on credit default swaps regulation and the papers, “Sovereign CDS and Bond Pricing Dynamics in Emerging Markets: Does the Cheapest-to-Deliver Option Matter” by John Ammer and Fang Cai and “Transparency and Liquidity: the International Evidence” by Mark Lang, Karl V. Lins, and Mark Maffett, Conference on Liquidity Risks: Impact on International Financial Markets, George Weiss Center for International Financial Research, The Wharton School, University of Pennsylvania, March 27, 2009.
22. Discussed “A New Metric for Banking Integration in Europe,” by Reint Gropp and Anil K. Kashyap, NBER Conference on Europe and the Euro, Milan, Italy, October 17-18, 2008.
23. Discussed “Payment Systems, Inside Money, and Financial Intermediation,” by Ouarda Merrouche and Erlend Nier, Financial Intermediation Research Society Finance Conference, Anchorage, Alaska, June 5-8, 2008.
24. Discussed “Banking and Securitization,” by Wenying Jiangli, Matt Pritsker, and Peter Raupach, Financial Intermediation Research Society Finance Conference, Anchorage, Alaska, June 5-8, 2008.
25. Chaired the session, “International Banking and Markets,” Financial Intermediation Research Society Finance Conference, Anchorage, Alaska, June 5-8, 2008.
26. Discussed “Checking Account Information and Credit Risk of Bank Customers,” by Lars Norden and Martin Weber, American Finance Association Winter Meetings, New Orleans, LA, January 5, 2008.

Recent Conferences and Seminars, continued

27. Discussed “The Cost of Being Late: The Case of Credit Card Penalty Fees,” by Nadia Massoud, Anthony Saunders, and Barry Scholnick, American Finance Association Winter Meetings, Chicago, IL, January 6, 2007.
28. Discussed “The Design and Governance of Bank Supervision,” by James R. Barth, Gerard Caprio, Jr., and Ross Levine at the Central Bank of Sweden Conference on the Governance of Central Banks, Stockholm, Sweden, August 31-September 1, 2006.
29. Discussed “How Has the Banking System and the Process of Financial Intermediation Changed,” Conference on Safe and Sound Banking: Past, Present, and Future, San Francisco, CA, August 17-18, 2006.
30. Chaired the session, “Insurance,” at the Financial Intermediation Research Society Conference on Banking, Corporate Finance, and Intermediation, Shanghai, China, June 1-3, 2006.
31. Discussed paper by Asli Demirgüç-Kunt, Edward J. Kane, and Luc Laevan, “Determinants of Deposit-Insurance Adoption and Design,” at the Allied Social Sciences Association Annual Meetings, Philadelphia, PA, January 7-9, 2005.
32. Discussed paper by James B. Kau, James S. Linck, and Paul H. Rubin, “Do Managers Listen to the Market?” at the *Journal of Financial Intermediation*/Center for Research in Economics and Strategy Conference on Corporate Governance, Washington University in St. Louis, November 11-13, 2004.
33. Discussed paper by Tracy R. Lewis and David Nickerson, “Competition, Efficiency, and Endogenous Structure in Secondary Mortgage Markets,” at the Financial Intermediation Research Society Conference on Banking, Insurance, and Intermediation, Capri, Italy, May 13-15, 2004.
34. Discussed paper by Elena Carletti, Philipp Hartmann, and Giancarlo Spagnolo, “Bank Mergers, Competition, and Liquidity,” at the Financial Intermediation Research Society Conference on Banking, Insurance, and Intermediation, Capri, Italy, May 13-15, 2004.
35. Chaired the session, “Banks and Economic Activity,” at the Financial Intermediation Research Society Conference on Banking, Insurance, and Intermediation, Capri, Italy, May 13-15, 2004.
36. Chaired session at Conference on Research Using State Economic Indexes, Federal Reserve Bank of Philadelphia, September 4-5, 2003.
37. Discussed paper by Reint Gropp, “Measurement of Contagion in Bank Equity Prices,” at the Workshop on Bank Competition, Risk, Regulation, and Markets, Bank of Finland and the *Journal of International Money and Finance*, Helsinki, May 26-27, 2003.
38. Discussed R. Perli and W. Nayda, “Economic and Regulatory Capital Allocation for Revolving Retail Exposures” at the Conference on Retail Credit Risk Management and Measurement, Federal Reserve Bank of Philadelphia, April 24-25, 2003.
39. Chaired session at Conference on Retail Credit Risk Management and Measurement, Federal Reserve Bank of Philadelphia, April 24-25, 2003.
40. Chaired an AEA session, “Credit Availability, Public Policy, and the At-Risk Household” at the ASSA meetings, January 3-5, 2003.
41. Chaired session on banking, 13th Australasian Finance and Banking Conference, Sydney, December 17-19, 2001.

Recent Conferences and Seminars, continued

42. Discussed K. Daniels and J. Sfiridis, “The Relative Cost Efficiency of Stock versus Mutual Thrifts: Does Organizational Form Matter?” at the Financial Management Association Meetings, Toronto, October 17-20, 2001.
43. Chaired “Determinants of Bank Efficiency,” at the Financial Management Association Meetings, Toronto, October 17-20, 2001.
44. Discussed J. Qian and G. Alessandria, “The Development of Financial Intermediation and Real Effects of Capital Account Liberalization,” at *Journal of Financial Intermediation* Symposium on Banking in Emerging Markets, Ann Arbor, MI, June 14-17, 2001.
45. Discussed M. Kim, D. Kliger, and B. Vale, “Estimating Switching Costs and Oligopolistic Behavior,” at the Miguel Hernandez University Banking and Finance Workshop I, Alicante, Spain, May 19-20, 2000.
46. Discussed B. Scholtens, “Competition, Growth, and Performance in the Banking Industry”, at the Conference sponsored by the Center for Financial Studies at Johann-Wolfgang Goethe Universität and Wharton Financial Institutions Center “Competition Among Banks: Good or Bad?” Frankfurt, Germany, April 7-8, 2000.
47. Discussed I. Hasan, A. Lozano-Vivas, and J. Pastor, “Cross-Border Performance in European Banking,” at the Conference on Competition Among Banks: Good or Bad?, sponsored by the Center for Financial Studies at Johann-Wolfgang Goethe Universität and Wharton Financial Institutions Center, Frankfurt, Germany, April 7-8, 2000.
48. Discussed B. Casu and P. Molyneux, “A Comparative Study of Efficiency in European Banking,” at the Conference sponsored by the Center for Financial Studies at Johann-Wolfgang Goethe Universität and Wharton Financial Institutions Center “Competition Among Banks: Good or Bad?” Frankfurt, Germany, April 7-8, 2000.