



## **David C. Wheelock—Group Vice President and Deputy Director of Research**

**Joined the Bank Staff**      March, 1993

**Education**      Ph.D. Economics, University of Illinois, 1987  
M.S. Economics, University of Illinois, 1984  
B.S. Economics, Iowa State University, 1982

**Areas of Interest**      U.S. Monetary History and Policy, Performance and Regulation of  
Commercial Banks

### **Previous Experience**

1987-1993      Assistant Professor, Department of Economics, University of Texas  
at Austin

1991-1993      Visiting Scholar, Federal Reserve Bank of St. Louis

### **Journal Publications**

"Did the Founding of the Federal Reserve Affect the Vulnerability of the Interbank System to Contagion Risk?" with Mark A. Carlson, *Journal of Money, Credit, and Banking*, December 2018, Vol. 50, No. 8, pp. 1711-1750.

"The Evolution of Scale Economies in U.S. Banking," with Paul W. Wilson, *Journal of Applied Econometrics*, January/February 2018, Vol. 33, pp. 16-28.

"Near-Money Premiums, Monetary Policy, and the Integration of Money Markets: Lessons from Deregulation," with Mark A. Carlson, *Journal of Financial Intermediation*, January 2018, Vol. 33, pp. 16-32.

"Banker Preferences, Interbank Connections, and the Enduring Structure of the Federal Reserve System," with Matthew Jaremski, *Explorations in Economic History*, October 2017, Vol. 65, pp. 21-43.

"Interbank Markets and Banking Crises: New Evidence on the Establishment and Impact of the Federal Reserve," with Mark A. Carlson, *American Economic Review: Papers and Proceedings*, May 2016, Vol. 106, No. 5, pp. 533-537.

"Does the Structure of Banking Markets Affect Economic Growth? Evidence from U.S. State Banking Markets," with Kris James Mitchener, *Explorations in Economic History*, April 2013, Vol. 50, No. 2, pp. 161-78.

"The Evolution of Cost-Productivity and Efficiency Among U.S. Credit Unions," with Paul W. Wilson, *Journal of Banking & Finance*, January 2013, Vol. 37, No. 1, pp. 75-88.

"Do Large Banks Have Lower Costs? New Estimates of Returns to Scale for U.S. Banks," with Paul W. Wilson, *Journal of Money, Credit, and Banking*, February 2012, Vol. 44, No. 1, pp. 171-99.

"Are Credit Unions Too Small?" with Paul W. Wilson, *Review of Economics and Statistics*, November 2011, Vol. 93, No. 4, pp. 1343-1359.

"Robust Non-parametric Quantile Estimation of Efficiency and Productivity Change in U.S. Commercial Banking, 1985-2004," with Paul W. Wilson, *Journal of Business & Economic Statistics*, July 2009, Vol. 27, No. 3, pp. 354-68.

"Non-parametric, Unconditional Quantile Estimation for Efficiency Analysis with An Application to Federal Reserve Check Processing Operations," with Paul W. Wilson, *Journal of Econometrics*, July 2008, Vol. 145, No. 1-2, pp. 209-225.

"Regional Disparities in the Spatial Correlation of State Income Growth, 1977-2002," with Thomas A. Garrett and Gary A. Wagner, *Annals of Regional Science*, September 2007, Vol. 41, No. 3, pp. 601-618.

"Why Did Income Growth Vary Across States During the Great Depression?" with Thomas A. Garrett, *Journal of Economic History*, June 2006, Vol. 66, No. 2, pp. 456-66.

"The Contribution of On-Site Examination Ratings to an Empirical Model of Bank Failures," with Paul W. Wilson, *Review of Accounting and Finance*, November 2005, Vol. 4, No. 4, pp. 110-34.

"A Spatial Analysis of State Banking Regulation," with Thomas A. Garrett and Gary A. Wagner, *Papers in Regional Science*, November 2005, Vol. 84, No. 4, pp. 575-95.

"New Evidence on the Fed's Productivity in Providing Payments Services," with R. Alton Gilbert and Paul W. Wilson, *Journal of Banking & Finance*, September 2004, Vol. 28, No. 9, pp. 2175-90.

"Monetary Policy and Asset Prices: A Look Back at Past U.S. Stock Market Booms," with Michael D. Bordo, *NBER Working Paper Series*, August 2004, Vol. 10704.

"Consolidation in US Banking: Which Banks Engage in Mergers?" with Paul W. Wilson, *Review of Financial Economics*, January 2004, Vol. 13, No. 1-2, pp. 7-39.

"Aggregate Price Shocks and Financial Stability: The United Kingdom 1796-1999," with Michael D. Bordo and Michael J. Dueker, *Explorations in Economic History*, April 2003, Vol. 40, No. 2, pp. 143-69.

"Aggregate Price Shocks and Financial Instability: A Historical Analysis," with Michael D. Bordo and Michael J. Dueker, *Economic Inquiry*, October 2002, Vol. 40, No. 4, pp. 521-38.

"New Evidence on Returns to Scale and Product Mix Among U.S. Commercial Banks," with Paul W. Wilson, *Journal of Monetary Economics*, June 2001, Vol. 47, No. 3, pp. 653-74.

"Why Do Banks Disappear: The Determinants of U.S. Bank Failures and Acquisitions," with Paul W. Wilson, *Review of Economics and Statistics*, February 2000, Vol. 82, No. 1, pp. 127-38.

"Technical Progress, Inefficiency and Productivity Change in U.S. Banking, 1984-1993," with Paul W. Wilson, *Journal of Money, Credit, and Banking*, May 1999, Vol. 31, No. 2, pp. 212-34.

"Explaining Bank Failures: Deposit Insurance, Regulation, and Efficiency," with Paul W. Wilson, *Review of Economics and Statistics*, November 1995, Vol. 77, No. 4, pp. 689-700.

"Which Banks Choose Deposit Insurance? Evidence of Adverse Selection and Moral Hazard in a Voluntary Insurance System," with Subal C. Kumbhaker, *Journal of Money, Credit, and Banking*, February 1995, Vol. 27, No. 1, pp. 186-201.

"Why Do Banks Fail? Evidence from the 1920s," with Lee J. Alston and Wayne A. Grove, *Explorations in Economic History*, October 1994, Vol. 31, No. 4, pp. 409-31.

"The Slack Banker Dances': Deposit Insurance and Risk-Taking in the Banking Collapse of the 1920s," with Subal C. Kumbhaker, *Explorations in Economic History*, July 1994, Vol. 31, No. 3, pp. 357-75.

"Government Policy and Banking Market Structure in the 1920s," *Journal of Economic History*, December 1993, Vol. 53, No. 4, pp. 857-79.

"Regulation and Bank Failures: New Evidence from the Agricultural Collapse of the 1920s," *Journal of Economic History*, December 1992, Vol. 52, No. 4, pp. 806-25.

"Deposit Insurance and Bank Failures: New Evidence from the 1920s," *Economic Inquiry*, July 1992, Vol. 30, No. 3, pp. 530-43.

"Member Bank Borrowing and the Fed's Contractionary Monetary Policy During the Great Depression," *Journal of Money, Credit, and Banking*, November 1990, Vol. 22, No. 4, pp. 409-26.

"The Strategy, Effectiveness, and Consistency of Federal Reserve Monetary Policy, 1924-1933," *Explorations in Economic History*, October 1989, Vol. 26, No. 4, pp. 453-76.

"The Strategy and Consistency of Federal Reserve Monetary Policy, 1919-1933," *Journal of Economic History*, June 1989, Vol. 49, No. 2, pp. 459-61.

### **Working Papers**

"Banking on the Boom, Tripped by the Bust: Banks and the World War I Agricultural Price Shock," with Matthew Jaremski, Federal Reserve Bank of St. Louis Working Paper 2017-036E, June 2019.

"Off-Balance Sheet Activities, Inefficiency and Market Power of U.S. Banks," with Paul W. Wilson, Federal Reserve Bank of St. Louis Working Paper 2019-012A, April 2019.

"Interbank Connections, Contagion and Bank Distress in the Great Depression," with Charles W. Calomiris and Matthew Jaremski, Federal Reserve Bank of St. Louis Working Paper 2019-001B, January 2019.

"The Founding of the Federal Reserve, the Great Depression and the Evolution of the U.S. Interbank Network," with Matthew Jaremski, Federal Reserve Bank of St. Louis Working Paper 2019-002A, January 2019.

"Did Doubling Reserve Requirements Cause the Recession of 1937-1938? A Microeconomic Approach," with Charles W. Calomiris and Joseph R. Mason, Federal Reserve Bank of St. Louis Working Paper 2011-002A, January 2011.

### **Articles in Federal Reserve Bank of St. Louis Publications**

"Furnishing an "Elastic Currency": The Founding of the Fed and the Liquidity of the U.S. Banking System," Federal Reserve Bank of St. Louis *Review*, First Quarter 2018, Vol. 100, No. 1, pp. 17-44.

"Economics and Politics in Selecting Federal Reserve Cities: Why Missouri Has Two Reserve Banks," Federal Reserve Bank of St. Louis *Review*, Fourth Quarter 2015, Vol. 97, No. 4, pp. 269-88.

"Making Sense of Dissents: A History of FOMC Dissents," Federal Reserve Bank of St. Louis *Review*, Third Quarter 2014, Vol. 96, No. 3, pp. 213-227.

"Darryl Francis and the Making of Monetary Policy, 1966-1975," Federal Reserve Bank of St. Louis *Review*, November/December 2013, Vol. 95, No. 6, pp. 469-486.

"Big Banks in Small Places: Are Community Banks Being Driven Out of Rural Markets?" Federal Reserve Bank of St. Louis *Review*, May/June 2013, Vol. 95, No. 3, pp. 199-218.

"Federal Reserve Lending to Troubled Banks During the Financial Crisis, 2007-2010," Federal Reserve Bank of St. Louis *Review*, May/June 2012, Vol. 94, No. 3, pp. 221-242.

"Banking Industry Consolidation and Market Structure: Impact of the Financial Crisis and Recession," Federal Reserve Bank of St. Louis *Review*, November/December 2011, Vol. 93, No. 6, pp. 419-438.

"Have Acquisitions of Failed Banks Increased the Concentration of U.S. Banking Markets?" Federal Reserve Bank of St. Louis *Review*, May/June 2011, Vol. 93, No. 3, pp. 155-168.

"The Geographic Distribution and Characteristics of U.S. Bank Failures, 2007-2010: Do Bank Failures Still Reflect Local Economic Conditions?" Federal Reserve Bank of St. Louis *Review*, September/October 2010, Vol. 92, No. 5, pp. 395-415.

"Lessons Learned? Comparing the Federal Reserve's Responses to the Crises of 1929-1933 and 2007-2009," Federal Reserve Bank of St. Louis *Review*, March/April 2010, Vol. 92, No. 2, pp. 89-108.

"Can the Term Spread Predict Output Growth and Recessions? A Survey of the Literature," Federal Reserve Bank of St. Louis *Review*, September/October 2009, Part 1, Vol. 91, No. 5, pp. 419-440.

"Systemic Risk and the Financial Crisis: A Primer," Federal Reserve Bank of St. Louis *Review*, September/October 2009, Part 1, Vol. 91, No. 5, pp. 403-418.

"Changing the Rules: State Mortgage Foreclosure Moratoria During the Great Depression," Federal Reserve Bank of St. Louis *Review*, November/December 2008, Vol. 90, No. 6, pp. 569-584.

"The Federal Response to Home Mortgage Distress: Lessons from the Great Depression," Federal Reserve Bank of St. Louis *Review*, May/June 2008, Vol. 90, No. 3, Part 1, pp. 133-148.

"Measuring Commercial Bank Profitability: Proceed with Caution," Federal Reserve Bank of St. Louis *Review*, November/December 2007, Vol. 89, No. 6, pp. 515-532.

"Stock Market Booms and Monetary Policy in the Twentieth Century," Federal Reserve Bank of St. Louis *Review*, March/April 2007, Vol. 89, No. 2, pp. 91-122.

"What Happens to Banks When House Prices Fall? U.S. Regional Housing Busts of the 1980s and 1990s," Federal Reserve Bank of St. Louis *Review*, September/October 2006, Vol. 88, No. 5, pp. 413-430.

"Monetary Policy and Asset Prices: A Look Back at Past U.S. Stock Market Booms," Federal Reserve Bank of St. Louis *Review*, November/December 2004, Vol. 86, No. 6, pp. 19-44.

"Trends in the Efficiency of Federal Reserve Check Processing Operations," Federal Reserve Bank of St. Louis *Review*, September/October 2004, Vol. 86, No. 5, pp. 7-20.

"Commentary on "The Real Effects of U.S. Banking Deregulation"," Federal Reserve Bank of St. Louis *Review*, July/August 2003, Vol. 85, No. 4, pp. 129-134.

"Darryl Francis and the Making of Monetary Policy, 1966-1975," Federal Reserve Bank of St. Louis *Review*, March/April 2003, Vol. 85, No. 2, pp. 1-12.

"Conducting Monetary Policy Without Government Debt: The Fed's Early Years," Federal Reserve Bank of St. Louis *Review*, May/June 2002, Vol. 84, No. 3, pp. 1-14.

"The Rise and Fall of a Policy Rule: Monetarism at the St. Louis Fed, 1968-1986," Federal Reserve Bank of St. Louis *Review*, January/February 2001, Vol. 83, No. 1, pp. 1-24.

"A History of the Asymmetric Policy Directive," Federal Reserve Bank of St. Louis *Review*, September/October 2000, Vol. 82, No. 5, pp. 1-16.

"The FOMC in 1998: Can it Get any Better Than This," Federal Reserve Bank of St. Louis *Review*, July/August 1999, Vol. 81, No. 4, pp. 11-22.

"Price Stability and Financial Stability: The Historical Record," Federal Reserve Bank of St. Louis *Review*, September/October 1998, Vol. 80, No. 5, pp. 41-62.

"Why Does Bank Performance Vary Across States?" Federal Reserve Bank of St. Louis *Review*, March/April 1997, Vol. 79, No. 2, pp. 27-40.

"Monetary Policy and Financial Market Expectations: What Did They Know and When Did They Know It?" Federal Reserve Bank of St. Louis *Review*, July/August 1996, Vol. 78, No. 4, pp. 19-32.

"Evaluating the Efficiency of Commercial Banks: Does Our View of What Banks Do Matter?" Federal Reserve Bank of St. Louis *Review*, July/August 1995, Vol. 77, No. 4, pp. 39-52.

"Editor's Introduction: Channels of Policy Proceedings of the Nineteenth Annual Economic Policy Conference," Federal Reserve Bank of St. Louis *Review*, May/June 1995, Vol. 77, No. 3, pp. vii-xii.

"Regulation, Market Structure and the Bank Failures of the Great Depression," Federal Reserve Bank of St. Louis *Review*, March/April 1995, Vol. 77, No. 2, pp. 27-38.

"Can Deposit Insurance Increase the Risk of Bank Failure? Some Historical Evidence," Federal Reserve Bank of St. Louis *Review*, May/June 1994, Vol. 76, No. 3, pp. 57-71.

"Is the Banking Industry in Decline? Recent Trends and Future Prospects from a Historical Perspective," Federal Reserve Bank of St. Louis *Review*, September/October 1993, Vol. 75, No. 5, pp. 3-22.

"What Have We Learned about Deposit Insurance from the Historical Record?" Federal Reserve Bank of St. Louis *Review*, January/February 1993, Vol. 75, No. 1, pp. 10-14.

"Seasonal Accommodation and the Financial Crises of the Great Depression: Did the Fed 'Furnish an Elastic Currency?'," Federal Reserve Bank of St. Louis *Review*, November/December 1992, Vol. 74, No. 6, pp. 3-18.

"Monetary Policy in the Great Depression: What the Fed Did, and Why," Federal Reserve Bank of St. Louis *Review*, March/April 1992, Vol. 74, No. 2, pp. 3-28.

## **Other Publications**

"Interbank contagion during the Depression and its implications for regulation today," with Charles W. Calomiris and Matthew Jaremski, in *VOX EU*, CEPR, 2019

"'The Myth of Independence: How Congress Governs the Federal Reserve' by S. Binder and M. Spindel. (Book Review)," *The American Economist*, October 2018, Vol. 63, No. 2, pp. 270-72.

"Navigating Constraints: The Evolution of Federal Reserve Monetary Policy, 1935–1959," with Mark A. Carlson, in Michael D. Bordo and Mark A. Wynne, ed., *The Federal Reserve's Role in the Global Economy: A Historical Perspective*, Cambridge University Press, 2016, Chapter 3, pp. 50-83

"The Lender of Last Resort: Lessons from the Fed's First 100 Years," with Mark A. Carlson, in Owen F. Humpage, ed., *Current Federal Reserve Policy Under the Lens of Economic History*, Cambridge University Press, 2015, Chapter 4, pp. 49-101

"The Great Inflation: Did the Shadow Know Better?" with William Poole and Robert H. Rasche, in Michael D. Bordo and Athanasios Orphanides, ed., *The Great Inflation: The Rebirth of Modern Central Banking*, University of Chicago Press, 2013, pp. 61-107

"The Promise and Performance of the Federal Reserve as Lender of Last Resort 1914-1933," with Michael D. Bordo, in Michael D. Bordo and William Roberds, ed., *The Origins, History, and Future of the Federal Reserve: A Return to Jekyll Island*, Cambridge University Press, 2013, Chapter 2, pp. 59-98

"Book Review of "A History of Macroeconomic Policy in the United States" by John H. Wood," *EH.net*, June 30, 2009.

"When Do Stock Market Booms Occur? The Macroeconomic and Policy Environments of Twentieth Century Booms," with Michael D. Bordo, in Jeremy Atack and Larry Neal, ed., *The Origins and Development of Financial Markets and Institutions from the Seventeenth Century to the Present*, Cambridge University Press, 2009, Chapter 14, pp. 416-49

"Book review of "The Economics of the Great Depression" by Randall Parker.," *EH.net*, November 5, 2007.

"Book Review of "A History of the Federal Reserve, Volume 1: 1913-1951" by Allan H. Meltzer," *Economic History Review*, August 2005, Vol. 3, No. 58, pp. 629-30.

"Review of 'The Changing Face of Central Banking: Evolutionary Trends Since World War II' by Pierre L. Siklos," *Journal of Economic Literature*, September 2004, Vol. 42, No. 3, pp. 849-50.

"Review of 'Understanding Economic Recovery in the 1930s: Endogenous Propagation in the Great Depression' by Frank G. Steindl," *EH.net*, July 2004.

"Review of 'Rethinking the Great Depression' by Gene Smiley," *EH.net*, February 2003.

"Aggregate Price Shocks and Financial Stability: The United Kingdom 1796-1999," with Michael D. Bordo and Michael J. Dueker, *NBER Working Paper Series*, November 2001, Vol. 8583.

"Review of 'Charting Twentieth-Century Monetary Policy: Herbert Hoover and Benjamin Strong, 1917-1927' by Silvano A. Wueschner," *Journal of Economic Literature*, December 2000, Vol. 38, No. 4, pp. 978-79.



"Review of 'A History of Banking in Antebellum America: Financial Markets and Economic Development in an Era of Nation-Building' by Howard Bodenhorn," *Journal of Economic History*, September 2000, Vol. 60, No. 3, pp. 910-12.

"Review of 'The Bank of the United States and the American Economy' by Edward S. Kaplan," *Journal of Economic History*, June 2000, Vol. 60, No. 2, pp. 574-75.

"Aggregate Price Shocks and Financial Instability: An Historical Analysis," with Michael D. Bordo and Michael J. Dueker, *NBER Working Paper Series*, April 2000, Vol. 7652.

"National Monetary Policy by Regional Design: The Evolving Role of the Federal Reserve Banks in Federal Reserve System Policy," in Jurgen von Hagen and Christopher J. Waller, ed., *Regional Aspects of Monetary Policy in Europe*, Kluwer Academic Publishers, 2000, Chapter 9, pp. 241-74

"Review of 'Monetary Policy and the Great Inflation in the United States: The Federal Reserve and the Failure of Macroeconomic Policy, 1965-79' by Thomas Mayer," *Journal of Economic History*, December 1999, Vol. 59, No. 4, pp. 1130-31.

"Review of 'The International Origins of the Federal Reserve System' by J. Lawrence Broz," *EH.net*, June 1999.

"Review of 'Competition and Monopoly in the Federal Reserve System, 1914-1951: A Microeconomics Approach to Monetary History' by Mark Toma," *Journal of Economic History*, December 1998, Vol. 58, No. 4, pp. 1168-70.

"Monetary Policy in the Great Depression and Beyond: The Sources of the Fed's Inflation Bias," in *The Economics of the Great Depression*, The Upjohn Institute, 1998

"Was the Great Depression a Watershed for American Monetary Policy?" with Charles W. Calomiris, in Michael D. Bordo, Claudia Goldin, and Eugene N. White, ed., *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, University of Chicago Press, 1998, Chapter 1, pp. 23-66

"The Fed's Failure to Act as Lender of Last Resort During the Great Depression 1929-1933," *Federal Reserve Bank of Chicago, Bank Structure and Competition*, 1989, pp. 154-176.

"Review of 'The Banking Panics of the Great Depression' By Elmus Wicker," *Journal of Economic History*, December 1997, Vol. 57, No. 4, pp. 977-78.

"Review of 'Dollars Through The Doors: A Pre-1930 History of Bank Marketing in America' by Richard N. Germain," *Journal of Economic History*, June 1997, Vol. 57, No. 2, pp. 573-74.

"Review of 'Monetary Interpretations of the Great Depression' by Frank G. Steindl," *Journal of Economic Literature*, March 1997, Vol. 35, No. 1, pp. 124-25.

"Lessons from the United States and European Community for the Integration of High and Low Income Economics.," with Cletus C. Coughlin, *International Business in the New Millennium*, 1997, Vol. 3, pp. 777-96.

"Review of 'Panic in Paradise: Florida's Banking Crash of 1926' by Raymond B. Vickers," *Journal of Economic History*, June 1995, Vol. 55, No. 2, pp. 444-45.

"Nationwide Branching: The Implications," *Bank Management, Bank Administration Institute*, September/October 1994, pp. 54-58.

"Review of 'The Federal Reserve System: A History of the First 75 Years' by Carl H. Moore," *Journal of Economic History*, March 1992, Vol. 52, No. 1, pp. 255-56.

"Glass-Steagall Act," in John Eatwell, Murray Milgate, and Peter Newman, ed., *The New Palgrave Dictionary of Money and Finance*, Palgrave Macmillan UK, 1992, pp. 243-44

"Regulation Q," in John Eatwell, Murray Milgate, and Peter Newman, ed., *The New Palgrave Dictionary of Money and Finance*, Palgrave Macmillan UK, 1992, pp. 326-27

"Banking Act of 1935," in John Eatwell, Murray Milgate, and Peter Newman, ed., *The New Palgrave Dictionary of Money and Finance*, Palgrave Macmillan UK, 1992, pp. 135

"Book Review of 'The Separation of Commercial and Investment Banking: The Glass-Steagall Act Revisited and Reconsidered' by George J. Benston," *Journal of Economic History*, September 1991, Vol. 51, No. 3, pp. 734-35.

*The Strategy and Consistency of Federal Reserve Monetary Policy, 1924-1933*  
Cambridge University Press, 1991

"Book Review of 'Money, History, and International Finance: Essays in Honor of Anna J. Schwartz' edited by Michael D. Bordo," *Journal of Economic Literature*, September 1990, Vol. 28, No. 3, pp. 1218-19.

"Book Review of 'The American Monetary System: A Concise Survey of its Evolution since 1896' by Robert A. Degen," *Journal of Economic History*, September 1988, Vol. 48, No. 3, pp. 790-91.