

ZHU WANG

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EMPLOYMENT:

Senior Economist, Federal Reserve Bank of Kansas City, January 2007 – present.

Economist, Federal Reserve Bank of Kansas City, July 2004 – December 2006.

EDUCATION:

- Ph.D. Economics, University of Chicago, Chicago, IL, 2004.
Dissertation: *Learning, Diffusion and Industry Life Cycle*
(Advisors: Boyan Jovanovic, Robert Lucas, Gary Becker, Chad Syverson)
- M.A. Economics, Rutgers University, New Brunswick, NJ, 1999.
- B.A. Economics, Beijing University, Beijing, China, 1996.

RESEARCH FIELDS:

Industrial Organization and Dynamics, Innovation and Entrepreneurship,
Banking, Credit and Payments System.

RESEARCH PAPERS:

- “Why Do Payment Card Networks Charge Proportional Fees?”
(with Oz Shy, Boston Fed). *American Economic Review*, forthcoming.
- “Market Structure and Payment Card Pricing: What Drives the Interchange?”
International Journal of Industrial Organization, 2010, 28: 86-98.
- “Income Distribution, Market Size and the Evolution of Industry.”
Review of Economic Dynamics, 2008, 11 (3), 542-565.
- “Technological Innovation and Market Turbulence: The Dot-com Experience.”
Review of Economic Dynamics, 2007, 10 (1), 78-105.
- “Spin-offs: Theory and Evidence from the Early U.S. Automobile Industry.”
(with Luis Cabral, NYU). Under journal review.

“Product Innovation and Network Survival in the U.S. ATM and Debit Card Industry.”
(with Fumiko Hayashi, KC Fed). Under journal review.

“The Economics of Two-Sided Payment Card Markets: Pricing, Adoption and Usage.”
(with James McAndrews, NY Fed). Under journal review.

“Internet Banking: An Exploration in Technology Diffusion and Impact.”
(with Richard Sullivan, KC Fed). Under journal review.

“Network Effects and Geographic Concentration of Industry.”
(with Luis Cabral and Yi Xu, NYU). Under revision.

“Entrepreneurship and Industry Life Cycle: An Empirical Investigation.”
(with Bin Li, IMF). Under revision.

“Should Debit Cards Charge *Ad Valorem* Fees?” Under revision.

“Industry Concentration and Credit Card Pricing Puzzles.”
(with Jean-Charles Rochet, U of Toulouse). Under revision.

OTHER PUBLICATIONS:

“Regulating Debit Cards: The Case of *Ad Valorem* Fees,” *Economic Review*, Federal Reserve Bank of Kansas City, First Quarter, 2010.

“Nonbanks and Risk in Retail Payments: EU and US,” (with ECB and KC Fed staff), *Managing Information Risk and the Economics of Security*, edited by Eric M. Johnson, Springer Publishing, 2008.

“Scale without Mass: Business Process Replication and Industry Dynamics - Discussion,” *Proceedings*, Federal Reserve Bank of San Francisco, November 2007.

“Nonbanks in the Payments System: Innovation, Competition, and Risk – A Conference Summary,” (with Rick Sullivan), *Economic Review*, Federal Reserve Bank of Kansas City, Third Quarter 2007.

“Online Banking Comes of Age,” *Ten*, Federal Reserve Bank of Kansas City, Winter 2006.

INVITED PRESENTATIONS:

Conferences:

International Industrial Organization Conference, Boston, MA, 2009.

Society for Economic Dynamics Annual Meeting (accepted), Istanbul, Turkey, 2009.

Urban Economics Association Annual Meeting, San Francisco, CA, 2009.

Federal Reserve System Regional Analysis Research Conference, St. Louis, MO, 2009.

International Society for New Institutional Economics Conference, Berkeley, CA, 2009.

Fed Atlanta and New York, Economics of Payments Conference, Atlanta, GA, 2008.

NBER Entrepreneurship Working Group Meeting, Cambridge, MA, 2008.

Econometric Society, North American Summer Meetings, Pittsburgh, PA, 2008.
Bank of Canada, Workshop on Payment Economics, Ottawa, Canada, 2008.
Federal Reserve System, Applied Microeconomics Conference, Chicago, IL, 2008.
Midwest Economics Association Annual Meeting, Chicago, IL, 2008.
International Industrial Organization Conference, Washington, DC, 2008.
Midwest Macroeconomics Conference, Philadelphia, PA, 2008.
American Economic Association Annual Meeting, Chicago, IL, 2007.
International Industrial Organization Conference, Savannah, GA, 2007.
Fed New York, Money and Payments Workshop, New York City, NY, 2007.
NBER Summer Institute, Productivity Potpourri Meeting, Cambridge, MA, 2006.
Econometric Society, Far Eastern Meeting, Beijing, China, 2006.
Society for Economic Dynamics Annual Meeting, Vancouver, Canada, 2006.
Midwest Finance Association Annual Meeting, Chicago, IL 2006.
IDEI, "Competition Policy in Two-Sided Markets" Conference, Toulouse, France, 2006.
Federal Reserve System, Applied Microeconomics Conference, New York City, NY, 2006.
Missouri Economics Conference, Fed St. Louis and Kansas City, Columbia, MO, 2006.
Econometric Society, North American Summer Meeting, Minneapolis, MN, 2006.
Midwest Macroeconomics Conference, Iowa City, IA, 2005.
Federal Reserve System, Applied Microeconomics Conference, San Francisco, CA, 2005.
Midwest Economic Theory Conference, Nashville, TN, 2005.
NBER Summer Institute, Productivity and Macroeconomics Meeting, Cambridge, MA, 2004.

Seminars:

New York University, University of Rochester, University of Southern California,
University of Chicago, Federal Reserve Bank of Richmond, SUNY Buffalo,
Federal Reserve Board, Emory University, University of Arkansas

Discussions:

International Industrial Organization Conference, Boston, MA, 2009.
Urban Economics Association Annual Meeting, San Francisco, CA, 2009.
Midwest Economics Association Annual Meeting, Chicago, IL, 2008.
International Industrial Organization Conference, Washington, DC, 2008.
Fed San Francisco, Center for Study of Innovation and Productivity, "Recent Trends in
Economic Volatility: Sources and Implications" Conference, San Francisco, CA, 2007.
Federal Reserve System, Applied Microeconomics Conference, Atlanta, GA, 2007.
American Economic Association Annual Meeting, Chicago, IL, 2007.

INVITED VISITS:

Visiting Scholar

New York University, Economics Department, Stern School of Business, Spring 2008.
Federal Reserve Bank of New York, Research Department, June 2006, October 2007.
University of Florida, Department of Mathematics, May 2006.

Attendee

NBER Entrepreneurship Working Group, 2004 – present.

JOURNAL REFEREE:

American Economic Review, Journal of Political Economy, Journal of Economic Theory, Rand Journal of Economics, Management Science, Journal of Money, Credit and Banking, Review of Economic Dynamics, Review of Industrial Organization, Review of Network Economics, Industrial and Corporate Change

TEACHING EXPERIENCE:

Lecturer, Department of Economics, University of Chicago, Spring 2003.
Teaching Assistant, Graduate School of Business, University of Chicago, 2002 – 2003.
Lecturer, Department of Economics, Rutgers University, Summer 1999.
Teaching Assistant, Department of Economics, Rutgers University, 1996 – 1999.

OTHER EXPERIENCE:

Seminar Series Coordinator, Research Department, Fed Kansas City, 2007 – present.
Organizing Committee, International Payments Conference, Fed Kansas City 2005 – 2009.
Organizing Committee, Workshop on Payment Economics, Fed Kansas City, 2008.
Recruiting Committee, Research Department, Fed Kansas City, 2008.
Program Committee, Midwest Finance Association Annual Meeting, 2006.

PROFESSIONAL AFFILIATIONS:

American Economic Association, Econometric Society

FELLOWSHIPS, HONORS AND AWARDS:

Federal Reserve Bank of Kansas City, Employee Excellence Award, 2005 – 2009.
National Bureau of Economic Research, Ph.D. Travel Grant, 2004.
University of Chicago, John M. Olin Foundation Dissertation Fellowship, 2003 – 2004.
University of Chicago, University Unendowed Fellowship, 1999 – 2003.
Rutgers University, Best 2nd Year Research Paper Award, Department of Economics, 1999.
Beijing University, Young Scientist Prize for Economics Essay, 1995.
Beijing University, Guang Hua (Brilliant China) Fellowship, 1992 – 1996.

REFERENCES:

Boyan Jovanovic	Professor, Department of Economics, New York University Phone: (212) 998-8953, Email: Boyan.Jovanovic@nyu.edu
Robert E. Lucas, Jr.	Professor, Department of Economics, University of Chicago Phone: (773) 702-8179, Email: relucas@uchicago.edu
Luis Cabral	Professor, Stern School of Business, New York University Phone: (212) 998-0858, Email: lcabral@stern.nyu.edu