

CHARLES M. KAHN

Professor Emeritus of Finance and Economics

EDUCATION:

Ph.D., Economics, Harvard University, 1981
B.A. (M.A.), Honours, Economics, University of Cambridge, 1977
B.A., summa cum laude, Applied Mathematics, Harvard University, 1975

POSITIONS AT COLLEGES AND UNIVERSITIES:

University of Illinois, Urbana-Champaign
Fred S. Bailey Memorial Chair of Finance, 1997-2015
Department Chair, Finance Department, 2009-2012
IBE Professor, 1994-1998
Co-director, Office of Banking Research, 1992-2014
Professor of Economics, 1990-2015
Associate Professor of Economics, 1988-1990

University of Chicago
Visiting Professor of Economics, 1993-1994, 1996
Research Associate, National Opinion Research Center, 1988-1992
Associate Professor of Economics, 1986-1989
Assistant Professor of Economics, 1981-1985

Visiting Tan-Chin Tuan Professor of Economics, National University of Singapore, 2007
Overseas Fellow, Churchill College, Cambridge University, 1999-2000
Visiting Fellow, Australian National University, Canberra, Australia, 1994
National Fellow, Hoover Institution, Stanford University, 1985-1986

PROFESSIONAL EMPLOYMENT/CONSULTING EXPERIENCE:

Visiting Scholar, Bank of Canada, Ottawa, 2016 to present
Visiting Scholar, Federal Reserve Bank of Atlanta, 1994-2009, 2019-2023
Consultant, Banco de la República, Colombia, 2022-23
Research Fellow, St. Louis Federal Reserve Bank, 2016-2021
Consultant, International Bank for Reconstruction and Development 2010, 2020-2022
Consultant, Federal Reserve Bank of Chicago, 2009-2020
Consultant, International Monetary Fund, 2009-2010, 2017-2020
Weatherall Distinguished Fellow, Queen's University, Canada, 2016
Visiting Scholar, Boston Federal Reserve Bank, 2015
Consultant, Bank of Ghana, 2014-2015

Advisory Board Member, Masters Program in Banking, Nova School of Business and Economics, Lisbon, 2012-2015

Consultant, Bank of Japan, 2013

Visiting Scholar, Federal Reserve Bank of New York, 2001-2009, 2012

Consultant, Bank of Canada, Ottawa, Canada, 2009

Houblon Norman Fellow, Bank of England, 2007-2008

Consultant, State Farm Insurance Companies, 2006

Consultant, Bank of England, 2004-2006

Research on development of payments arrangements, Mastercard International, 2004-2005

Visiting Scholar, Federal Reserve Bank of Cleveland, 1997-2005

Consultant on Target 2 payments system, European Central Bank, 2004

Titan Systems and Federal Communications Systems, consultant on project examining effectiveness of changes to auctions of electromagnetic spectrum licenses, 2001-2004

Ernst and Young, Consultant on project examining potential discrimination in auctions for the Federal Communications Commission, 1999-2000

Visiting Scholar, Federal Reserve Bank of Philadelphia, 1999

Lecturer in Graduate Banking Course, Kansallis Foundation, Helsinki, Finland, 1993

PUBLICATIONS:

Chapters in Books

Kahn C., Long C., Singh M., "Privacy Provision, Latency and the Role of Collateral", Edited by Manmohan Singh, *Collateral Markets and Financial Plumbing*, Risk Publications, 2020.

Kahn, C., Quinn, S., Roberds, W., "Central Banks and Payment Systems: The Evolving Trade-off between Cost and Risk." Edited by Michael D. Bordo, Øyvind Eitrheim, Marc Flandreau and Jan F. Qvigstad, *Central Banks at a Crossroads: What Can We Learn from History?*, Cambridge, England: Cambridge University Press, 2016, pp. 563-609.

Kahn, C., "Evolution of money and payment systems: private versus public institutions and the role of collateral." Edited by Pietro Catte, Andrea Gerali, Franco Passacantando, *Money and Monetary Institutions after the Crisis: Proceedings of the Conference in Memory of Curzio Giannini*, Banca d'Italia, 2015, pp. 163-188.

Kahn, C., Roberds, W., "Clearing House Interbank Payments System (CHIPS)." Edited by Ritzer, George, *Wiley-Blackwell Encyclopedia of Globalization*, England: John Wiley and Sons, 2012.

Espinosa-Vega, M., Sole, J., Kahn, C., Matta, R., "Some Implications of Systemic Risk and the Design of Regulatory Architecture." Edited by Stijn Claessens, Douglas D Evanoff, George G. Kaufman and Laura Kodres, *Macrorudential Regulatory Policies: The New Road to Financial Stability*, : World Scientific Publishing Co., 2011.

Kahn, C., Santos, J., "Institutional Allocation of Bank Regulation: A Review." Edited by Mayes, D.G., and G.E. Wood, *The Structure of Financial Regulation*, New York: Routledge, 2007, pp. 185-204.

Kahn, C., Santos, J., "Allocating Lending of Last Resort and Supervision in the Euro Area." Edited by George M. von Furstenberg, Volbert Alexander, and Jacques Melitz, *Monetary Unions and Hard Pegs: Effects on Trade, Financial Development and Stability*, Oxford: Oxford University Press, 2004.

Kahn, C., "Modeling of Choices with Uncertain Preferences." Edited by George Tolley, Donald Kenkel and Robert Fabian, *Health Values for Policy: An Economic Approach*, Chicago: The University of Chicago Press, 1994.

Kahn, C., "A Linear Programming Solution to the Slave Diet." Edited by Robert Fogel and Stanley Engerman, *Without Consent or Contract: Technical Papers on Slavery*, New York: W. W. Norton and Company, 1992, pp. 522-535.

Kahn, C., "An Agency Theory Approach to Slave Incentives." Edited by Robert Fogel and Stanley Engerman, *Without Consent or Contract: Technical Papers on Slavery*, New York: W. W. Norton and Company, 1992, pp. 551-565.

Kahn, C., Asilis, C., "Semi-Stability in Game Theory: A Survey of Ugliness." Edited by B. Dutta et al., *Papers in Game Theory and Economic Applications: Proceedings of an International Conference Held at the Indian Statistical Institute*, Berlin-Heidelberg: Springer-Verlag, 1992.

Edited Collections

Kahn, C., Editor, "Effective Oversight of Payment and Settlement Systems: Maintaining financial plumbing" Henry Stewart Talks Series, 2010.

Articles in Refereed Journals

Chiu, J., Kahn, C., Koepl, T. "Grasping De(centralized) Fi(nance) through the Lens of Economic Theory" *Canadian Journal of Economics*, Volume 55, Issue 4, November / Novembre 2022, Pages 1702-1728

Kahn, C., "Discussion of 'Payments on Digital Platforms: Resiliency, Interoperability and Welfare'" *Journal of Economic Dynamics and Control*, Vol 142, November 2022, 104174.

Kahn, C., Wagner, W. "Liquidity provision during a pandemic" *Journal of Banking and Finance*, Vol 133, December 2021, 106152.

Jorge, J., Kahn, C., "Illiquidity as a Signal," *Journal of Financial Stability*, Vol 50, October 2020, 100773.

Kahn, C., Wagner, W., "Sources of Liquidity and Liquidity Shortages," *Journal of Financial Intermediation*, Vol 46, 2021, 100869.

Kahn, C., Rivadeneyra, F., Wong, T-N., "Should the Central Bank Issue E-Money?" *Journal of Financial Market Infrastructures*, vol 8, No. 4, 2020.

Park, H., Kahn, C., "Collateral, Rehypothecation, and Efficiency," *Journal of Financial Intermediation*, Vol. 39, July 2019, pp 34-46.

Kahn, C., "The Threat of Privacy," *Journal of Financial Market Infrastructures*, Vol. 6, No. 2/3, March, 2018, pp. 21-30 (Invited).

Kahn, C., Linares-Zegarra, J., Stavins, J., "Are there Social Spillovers in Consumers' Security Assessments

- of Payment Instruments?," Journal of Financial Services Research, Vol. 52, No. 1, October, 2017, pp. 5-34.
- France, V, Kahn, C., "Law as a constraint on bailouts: Emergency support for central counterparties", Journal of Financial Intermediation, Vol. 28, 2016, pp. 22-31.
- Kahn, C., "Comment on "Bailouts, moral hazard, and banks' home bias for sovereign debt" by Gaetano Gaballo and Ariel Zetlin-Jones", Carnegie-Rochester-NYU conference, Journal of Monetary Economics, Vol. 81, issue C, 2016, pp. 86-88.
- Kahn, C., Park, H., "Collateral chains and Incentives", Journal of Financial Market Infrastructures, Vol. 5, No. 1, 2016, pp. 1-16.
- Antinolfi, G., Carapella, F., Kahn, C., Martin, A., Mills, D., Nosal, E., "Repos, Fire Sales and Bankruptcy Policy", Review of Economic Dynamics, Vol. 18, No. 1, January, 2015, pp. 21-31.
- Kahn, C., Linares-Zegarra, J., "Identity Theft and Consumer Payment Choice: Does Security Really Matter?", Journal of Financial Services Research, 2015.
- Kahn, C., "Private Payment Systems, Collateral, and Interest Rates", Annals of Finance, Vol. 9, No. 1, 2013, pp. 83-114.
- Kahn, C., "Comment on "Precautionary Demand and Liquidity in Payment Systems" by Gara M. Afonso and Hyun Song Shin", Journal of Money, Credit, and Banking, Vol. 43, Supplement s2, October, 2011, pp. 621-623.
- Kahn, C., Roberds, W., "Payments Settlement: Tiering in Private and Public Systems", Journal of Money, Credit, and Banking, Vol. 41, No. 5, August, 2009, pp. 855-884.
- Kahn, C., Roberds, W., "Why Pay? An Introduction to Payments Economics", Journal of Financial Intermediation, Vol. 18, January, 2009, pp. 1-23 (Invited).
- Kahn, C., Roberds, W., "Credit and Identity Theft", Journal of Monetary Economics, Vol. 55, March, 2008, pp. 251-264.
- Kahn, C., Roberds, W., "Transferability, Finality and Debt Settlement", Journal of Monetary Economics, Vol. 54, No. 4, May, 2007, pp. 955-978.
- Kahn, C., Santos, J., "Who Should Act As Lender of Last Resort? An Incomplete Contracts Model: A Comment", Journal of Money, Credit, and Banking, Vol. 38, No. 4, June, 2006, pp. 1111-1118.
- Engelbrecht-Wiggans, R, Kahn, C., "Low Revenue Equilibria in Simultaneous Ascending Price Auctions", Management Science, Vol. 51, No. 3, March, 2005, pp. 356-371.
- Kahn, C., McAndrews, J., Roberds, W., "Money Is Privacy", International Economic Review, Vol. 46, No. 2, May, 2005, pp. 377-399. Special issue: Models of Monetary Economics II: The Next Generation
- Kahn, C., Pennacchi, G, Sopranzetti, B., "Bank Consolidation and the Dynamics of Consumer Loan Interest Rates", Journal of Business, Vol. 78, No. 1, Part 2, January, 2005, pp. 99-133.
- Kahn, C., Santos, J., "Allocating Bank Regulatory Power: Lender of Last Resort, Deposit Insurance and Supervision", European Economic Review, Vol. 49, No. 8, 2005, pp. 2107-2136.
- Kahn, C., "Comment on 'Competition and Financial Stability' by Allen and Gale", Journal of Money, Credit, and Banking, Vol. 36, No. 3; part 2, June, 2004.
- Kahn, C., Winton, A., "Moral Hazard and Optimal Subsidiary Structure for Financial Institutions", Journal of

Finance, Vol. 59, No. 6, December, 2004, pp. 2531-2575.

Kahn, C., Roberds, W., McAndrews, J., "Settlement Risk under Gross and Net Settlement", Journal of Money, Credit, and Banking, Vol. 35, No. 4, August, 2003, pp. 591-608.

Engelbrecht-Wiggans, R, Kahn, C., "Multiunit Auctions in Which Almost Every Bid Wins", Southern Economic Journal, Vol. 68, No. 3, January, 2002, pp. 617-31.

Colwell, P, Kahn, C., "Economic Functions of Referrals and Referral Fees", Journal of Real Estate Finance and Economics, Vol. 23, No. 3, November, 2001, pp. 267-296.

Kahn, C., Roberds, W., "Real Time Gross Settlement and the Costs of Immediacy", Journal of Monetary Economics, Vol. 47, No. 2, April, 2001, pp. 299-319.

Kahn, C., Silva, E., Ziliak, J., "Performance-Based Wages in Tax Collection: The Brazilian Tax Collection Reform and Its Effects", Economic Journal, Vol. 111, No. 468, January, 2001, pp. 188-205.

Engelbrecht-Wiggans, R, Kahn, C., "Calibration of a Model of the Afternoon Effect in Cattle Auctions", Quarterly Review of Economics and Finance, Vol. 39, No. 1, Spring, 1999, pp. 113-128.

Kahn, C., Pennacchi, G, Sopranzetti, B., "Bank Deposit Rate Clustering: Theory and Empirical Evidence", Journal of Finance, Vol. 54, No. 6, December, 1999, pp. 2185-2214.

Kahn, C., Roberds, W., "Demandable Debt as a Means of Payment: Bank Notes vs. Checks", Journal of Money, Credit, and Banking, Vol. 31, No. 3; part 2, August, 1999, pp. 500-525.

Kahn, C., Tsoulouhas, T., "Strategic Transmission of Information and Short-Term Commitment", Economic Theory, Vol. 14, No. 1, July, 1999, pp. 131-153.

Engelbrecht-Wiggans, R, Kahn, C., "Multi-Unit Auctions with Uniform Prices", Economic Theory, Vol. 12, No. 2, September, 1998, pp. 227-258.

Engelbrecht-Wiggans, R, Kahn, C., "Uniform-Price Auctions with Variable Awards", Games and Economics Behavior, Vol. 23, No. 1, April, 1998, pp. 25-42.

Kahn, C., "Multi-Unit Pay-Your-Bid Auctions with Variable Awards", Games and Economics Behavior, Vol. 23, 1998, pp. 25-42.

Kahn, C., Mookherjee, D., "Competition and Incentives with Nonexclusive Contracts", Rand Journal of Economics, Vol. 29, No. 3, Fall, 1998, pp. 443-465.

Kahn, C., Roberds, W., "Payment System Settlement and Bank Incentives", Review of Financial Studies, Vol. 11, No. 4, Winter, 1998, pp. 845-870.

Kahn, C., Winton, A., "Ownership Structure, Speculation and Shareholder Information", Journal of Finance, Vol. 53, No. 1, February, 1998, pp. 99-130.

Calomiris, C., Kahn, C., "The Efficiency of Self Regulated Payments Systems: Learning from the Suffolk System", Journal of Money, Credit, and Banking, Vol. 28, No. 4, November, 1996, pp. 766-797.

Kahn, C., Mookherjee, D., "Coalition Proof Equilibrium in an Adverse Selection Insurance Economy", Journal of Economic Theory, Vol. 66, No. 1, June, 1995, pp. 113-138.

Kahn, C., Mookherjee, D., "Market Failure with Moral Hazard and Side Trading", Journal of Public Economics, Vol. 58, No. 2, October, 1995, pp. 159-184.

- Calomiris, C., Kahn, C., Longhofer, S., "Housing-Finance Intervention and Private Incentives: Helping Minorities and the Poor", Journal of Money, Credit, and Banking, Vol. 26, No. 3, August, 1994, pp. 634-674.
- Kahn, C., Yavas, A., "The Economic Role of Foreclosures", Journal of Real Estate Finance and Economics, Vol. 8, No. 1, January, 1994, pp. 35-51.
- Kahn, C., "The Existence and Characterization of Optimal Contracts on a Continuous State Space", Journal of Economic Theory, Vol. 59, February, 1993, pp. 122-144.
- Kahn, C., Krasa, S., "Non Existence and Inefficiency of Equilibria with American Options and Convertible Bonds", Economic Theory, Vol. 3, No. 1, 1993.
- Kahn, C., Longhofer, S., "An Equilibrium Model of Quits Under Optimal Contracting", European Economic Review, Vol. 37, No. 6, August, 1993, pp. 1203-1222.
- Kahn, C., Reagan, P., "Introducing Work Rules into Models of Wage-Employment Contracts", Quarterly Review of Economics and Finance, Vol. 33, No. 3, Fall, 1993, pp. 217-231.
- Kahn, C., Silva, E., "Exclusion and Moral Hazard: The Case of Identical Demand", Journal of Public Economics, Vol. 52, No. 2, September, 1993, pp. 217-235.
- Kahn, C., "The Good, the Bad and the Ugly: Coalition-Proof Equilibrium in Infinite Games", Games and Economics Behavior, 1992, pp. 101-121.
- Calomiris, C., Kahn, C., "The Role of Demandable Debt in Structuring Optimal Banking Arrangements", The American Economic Review, Vol. 81, June, 1991, pp. 497-513.
- Engelbrecht-Wiggans, R., Kahn, C., "Protecting the Winner: Second-Price Versus Oral Auctions", Economics Letters, Vol. 35, 1991, pp. 243-248.
- Kahn, C., Huberman, G., "Default, Foreclosure and Strategic Renegotiation", Law and Contemporary Problems, Vol. 52, Winter, 1989, pp. 49-61.
- Huberman, G., Kahn, C., "Limited Contract Enforcement and Strategic Renegotiation", The American Economic Review, Vol. 78, No. 3, June, 1988, pp. 471-484.
- Huberman, G., Kahn, C., "Strategic Renegotiation", Economics Letters, Vol. 28, December, 1988, pp. 117-121.
- Kahn, C., "The Use of Complicated Models as Explanations: A Re-examination of Williamson's Late 19th Century America", Research in Economic History, Vol. 11, 1988, pp. 185-216.
- Kahn, C., Huberman, G., "Two-Sided Uncertainty and Up-or-Out Contracts", Journal of Labor Economics, Vol. 6, October, 1988, pp. 423-443.
- Kahn, C., Malueg, D., Solow, J., "Erratum: The Durable Goods Monopolist and Consistency with Increasing Costs", Econometrica, Vol. 56, March, 1988, pp. 754.
- Kahn, C., Mookherjee, D., "A Competitive Efficiency Wage Model with Keynesian Features", Quarterly Journal of Economics, Vol. 103, November, 1988, pp. 609-645.
- Kahn, C., "The Durable Goods Monopolist and Consistency with Increasing Costs", Econometrica, Vol. 54, No. 2, March, 1986, pp. 275-294. (also, Erratum, with J. L. Solow and D.A. Malueg, Vol 56 1988, p. 754)
- Kahn, C., "Optimal Severance Pay with Incomplete Information", Journal of Political Economy, Vol. 93, No. 3, June, 1985, pp. 435-451.

Kahn, C., Scheinkman, J., "Optimal Employment Contracts with Bankruptcy Constraints", Journal of Economic Theory, Vol. 35, No. 2, April, 1985, pp. 343-365.

Green, J., Kahn, C., "Wage-Employment Contracts", Quarterly Journal of Economics, Vol. 98, Supplement, 1983, pp. 173-187.

Blanchard, O., Kahn, C., "The Solution of Linear Difference Models Under Rational Expectations", Econometrica, Vol. 48, July, 1980, pp. 1305-1311.

Articles in Non-Refereed Journals

Kahn, C. "Should the United States Issue a Central Bank Digital Currency? Lessons from Abroad" Federal Reserve Bank of Atlanta's Policy Hub No. 2022-8 June, 2022.

Kahn, C. and Singh, M. "If Stablecoins are Money, They Should Be Backed by Reserves" Risk.Net Comment, February 10, 2021.

Kahn, C, Quinn, S., Roberds, W. "Standing Repo Facilities, Then and Now" Atlanta Federal Reserve Policy Hub, Number 2020-1, January 2020.

Kahn, C., "What Do Robocalls and Money Laundering Have in Common?" St. Louis Federal Reserve "On the Economy" Blog, January, 2020.

Kahn, C., "Are Banks Special? A Fintech Perspective," Just Money Blog, justmoney.org, Roundtable on Banking: Intermediation or Money Creation, January, 2020

Kahn, C., "Payments Systems and Privacy" Federal Reserve Bank of St. Louis *Review*, Fourth Quarter 2018.

Kahn, C., "El reto de regular las entidades de pago no bancarias: la respuesta de la Directiva PSD2" ("The Regulatory Challenge of Non-Bank Payment Institutions, and the Response of PSD2."), Papeles de Economía Espanola, 2016, pp. 21-49 (Invited).

Kahn, C., Carbo-Valverde, S., "Payment Systems in the US and Europe: Efficiency, Soundness and Challenges", Financial Stability Journal (Bank of Spain), May, 2016, pp. 11-33 (Invited).

Kahn, C., Roberds, W., "The Economics of Payment Finality", Federal Reserve Bank of Atlanta Economic Review, Vol. 87, 2002, pp. 30-39.

Kahn, C., Roberds, W., "The Design of Wholesale Payments Networks: The Importance of Incentives", Federal Reserve Bank of Atlanta Economic Review, Summer, 1999, pp. 30-39.

Kahn, C., "One-Stop Shopping for Settlement Services: RESPA, Referral Fees, and Consumer Reaction", Illinois Real Estate Letter, Summer, 1998.

Kahn, C., "The Economic Role of Foreclosure Rules", Illinois Real Estate Letter, Summer, 1991, pp. 8-11.

Calomiris, C., Kahn, C., "Cooperative Arrangements for the Regulation of Banking by Banks", Ill. Business Review, Fall, 1990.

Proceedings

Kahn, C., Roberds, W., "The CLS Bank: A Solution to the Risks of International Payments Settlement?", Carnegie-Rochester Conference Series on Public Policy, June, 2001, Vol. 54, pp. 191-226.

Kahn, C., "One-Stop Shopping for Settlement Services: RESPA, Referral Fees, and Consumer Reaction", Illinois Real Estate Letter, Summer, 1998.

Calomiris, C., Kahn, C., "Demandable Debt as the Optimal Banking Contract", Garn Institute of Finance Symposium on Federal Insurance, August, 1988, pp. 35-43.

Editorial Boards

Associate Editor, Journal of Financial Market Infrastructures, 2016-present

Associate Editor, Journal of Financial Intermediation, 2013-present

Editorial Board Member, Annals of Finance, 2011-2016

Editorial Board Member, Economics Bulletin, 2000-2011

Editorial Board Member, Economic Theory, 1997-2001

Other Relevant Review Service

Selection Committee, Swiss Conference on Banking and Financial Intermediation, Switzerland, 2010 to present

Reviewer, Bank of England External Challenge, United Kingdom, 2017

Commentator, Proposals for United Kingdom Banking Reform, HM Treasury, 2008

Project Evaluator, Modeling Financial Stability, Bank of England, 2007-2008

INVITED LECTURES (SELECTION)

"The Demand for Programmable Currency" presented at Tokenomics 2022, 4th International Conference on Blockchain Economics, Security and Protocols Sorbonne University, Paris, December 2022 (best paper award), at the Purdue Fintech Conference, West Lafayette, May 2023, and at the SNB-CIF Conference on Cryptoassets and Financial Innovation, Zurich, May 2023

"Best Before? Expiring Central Bank Digital Currency and Loss Recovery" presented at Joint Bank of Canada and Payments Canada Symposium on Shaping the Future of Payments, September 16, 2021.

"Should the US issue a Central Bank Digital Currency? Lessons from abroad" in session "Which CBDC, If Any, Is Right for the United States?" Atlanta Federal Reserve Financial Markets Conference, Amelia Island, May 9, 2022.

"Central Bank Digital Currencies: From design to implementation" CEMLA (Center for Latin American Monetary Studies), IV Fintech Forum Meeting, March 23, 2021.

“Consumer Payments in the US: Current Reality, Future Alternatives,” lecture for FGV Direito Rio Webinar “Mercado de pagamentos: um caminho para o future” (Fundação Getúlio Vargas Rio de Janeiro Law School webinar “Innovations and trends for the payments market”), December 11, 2020.

“Eggs in One Basket: Security and Convenience of Digital Currencies,” presented in conference “Future Money: From Design to Economics” ETH Risk Center Workshop, Zurich, September 4, 2020.

“A Modest Proposal for Central Banks: Remaining Relevant in the Digital Age,” presentation to the conference “Central Bank Digital Currencies: New Opportunities for Payments,” National Bank of Ukraine, Kyiv, February 2020.

“Eggs in One Basket: Security and Convenience of Digital Currencies,” presentations at Macquarie University, Sydney, Deakin University, Melbourne, University of Auckland, Reserve Bank of Australia and Reserve Bank of New Zealand, February-March 2019, University of Illinois at Chicago, November 2019, Federal Deposit Insurance Corporation, Washington DC, May 2020, Presenter, “Payments Systems and Policy,” Consumer Payments and Finance Academy, George Mason University, April, 2018 and April, 2019

“Accounts, Tokens and e-Money,” First New York Fed Conference on Fintech, New York, March 2019

“Should the Central Bank Issue E-Money?” Banque de France Conference, “Digital Finance, Market Disruption, and Financial Stability,” Paris, November, 2018

“Payments Systems, Strategy and Fintech,” IMF presentation for the Central Bank of the Kyrgyz Republic, Bishkek, November 2018

“Collateral, Rehypothecation, and Efficiency,” presentation, Bank of England, February, 2018, WFA-CFAR Conference Olin School, October 2017, Cambridge Corporate Finance Theory Symposium, September 2017, New York Federal Reserve Conference, June 2016, Atlanta Federal Reserve Financial Markets Conference, May 2016.

Keynote Address, “The Threat of Privacy,” Financial Market Infrastructure Conference II, De Nederlandsche Bank, Amsterdam, June, 2017

Keynote Address, “The Regulatory Challenge of Non-Bank Payment Institutions, and the Response of PSD2,” Fincas Conference on Digital Transformation of Payment Media, Madrid, May, 2016

Payments and Policy, Payments Research Conference - Charles Kahn Festschrift, Canadian Payments Association, June, Banff, Canada, 2016

Recent Discussant and Panelist Service

Discussant, conference on Networks in Modern Financial and Payments Systems, Bank of Canada, Ottawa, June 2023,

Panelist and Discussant, Bank of Korea International Conference, Seoul, June 2023

Discussant, Economics of Payments Conference, Bank of Canada, October 2022

Discussant, Financial Management Association Conference, October, 2022

Discussant, conference on “Financial innovation: A threat to financial stability” Atlanta Federal Reserve October, 2022

Discussant, FinTech Conference, New York Federal Reserve, September 2022

Discussant, Bank of Portugal Conference, July 2022

Discussant, CB & DC virtual seminar series, November 2021

Discussant, European Finance Association meetings, August 2021

Discussant, Paris Webinar on Financial Technology and Crypto, June 2021

Discussant, Conference on Financial System of the Future, Atlanta Federal Reserve, October 2019

Discussant, Financial Intermediation Research Society annual conference, Savannah, GA, May 2019

Discussant, Workshop in Monetary and Financial History, Board of Governors Federal Reserve, May 2019

Visitor, Payments Policy Department, Reserve Bank of Australia, March 2019

Panelist, "Privacy in Financial Transactions," Centre for Banking and Financial Stability Workshop, Deakin University, February 2019

Revised, July 2023