



FEDERAL RESERVE BANK OF PHILADELPHIA

Third Annual Fintech Conference

November 14–15, 2019



Cambridge
Centre
for Alternative
Finance



BROOKINGS



Third Annual Fintech Conference

The Federal Reserve Bank of Philadelphia has continued to contribute to relevant fintech research and policy discussions. Our team of economists and data scientists have explored emerging issues around fintech, such as the impact on credit access to the “invisible prime,” or thin-file consumers; monetary policy effectiveness; financial stability; and funding availability to small businesses. In addition to conducting research on fintech and related issues, our annual fintech conference engenders a robust exchange and discussion from leading scholars, regulators, and market participants on fintech’s potential and its impact on financial landscapes and financial stability.

As in previous years, we are partnering with outside experts from well-known organizations, including the Wharton School of the University of Pennsylvania, the Bank Policy Institute, the Brookings Institution, the University of Cambridge, and many others.

We hope that the rich discussion from the conference provides guidance in developing the best policy solutions for greater efficiencies and benefits to all parties. Our in-depth understanding of the interplay among the various activities, rules, policies, and guidance can help enhance policy effectiveness without potential unintended consequences.

Organizing Committee

Conference Organizing Committee

Julapa Jagtiani

Federal Reserve Bank of Philadelphia

Christopher F. Feeney

Bank Policy Institute

Itay Goldstein

The Wharton School of the University of Pennsylvania

Richard Herring

The Wharton Financial Institutions Center

Aaron Klein

Center on Regulation and Markets, Brookings Institution

P. Raghavendra Rau

University of Cambridge

Thursday, November 14

8:30 a.m. Registration

9:00 a.m. **Opening Remarks**

Patrick T. Harker (President and CEO, FRB Philadelphia)

9:10 a.m. **Opening Keynote**

Charles L. Evans (President and CEO, FRB Chicago)

Introduction:

Patrick T. Harker (President and CEO, FRB Philadelphia)

9:50 a.m. **Session 1: The Increasing Roles of Tech Firms in Financial Services**

Moderator: **Julapa Jagtiani** (Senior Economic Advisor and Economist, FRB Philadelphia)

Speakers: **Lewis Goodwin** (President and CEO, Square Financial Services)

Stuart Breslow (Managing Director and Head of Financial Services Industries Vertical, Google Cloud)

Hal S. Scott (Emeritus Nomura Professor of International Financial Systems, Harvard Law School, Harvard University)

Martin Chorzempa (Research Fellow, Peterson Institute for International Economics)

11:20 a.m. Break

11:35 a.m. **Session 2: Choosing the Best Fintech Partners for Your Businesses**

Moderator:

Christopher F. Feeney (President, BITS, Bank Policy Institute)

Agenda

Speakers:

Paul Gu (Cofounder and Head of Product, Upstart)

Kathryn Van Nuys (Fintech Lead, Global Startup Business Development, Amazon Web Services)

Campbell Gibson (Head of Public Policy, Avant)

Scott Astrada (Director of Government and Community Relations, Affirm)

Mike Kinane (Head of U.S. Bankcards, TD Bank)

Brian Martin (Head of Business Development, Blend)

1:00 p.m. Lunch

2:30 p.m. **Session 3: Recent Fintech Research on Bitcoin and Other Cryptoassets**

Moderator:

Kose John (Charles William Gerstenberg Professor of Banking and Finance, NYU Stern School of Business)

Introduction:

“New Directions in Research on Blockchain and Cryptocurrencies”

Presenter:

Itay Goldstein (Joel S. Ehrenkranz Family Professor, Finance Department, The Wharton School of the University of Pennsylvania)

Paper 1:

“Miner Collusion and the Bitcoin Protocol”

by Christine A. Parlour (University of California, Berkeley) and Alfred Lehar (University of Calgary)

Presenter:

Christine A. Parlour (Sylvan C. Coleman Chair, Finance and Accounting, Haas School of Business, University of California, Berkeley)

Discussant:

Asani Sarkar (Assistant Vice President, Research and Statistics Group, FRB New York)

Paper 2:

“A Model of the Optimal Selection of Crypto Assets”
by Andrei Kirilenko (University of Cambridge) and Silvia Bartolucci (Imperial College Business School)

Presenter:

Andrei Kirilenko (Judge Business School, University of Cambridge)

Discussant:

Andreas Park (Associate Professor of Finance, University of Toronto)

Paper 3:

“Bitcoin’s Fatal Flaw: The Limited Adoption Problem”
by Franz Hinzen and Kose John (New York University), and Fahad Saleh (McGill University)

Presenter:

Fahad Saleh (Assistant Professor of Finance, McGill University)

Discussant:

Katya Malinova (Associate Professor, MacKenzie Investments Chair, DeGroote School of Business, McMaster University)

4:10 p.m. Break

4:25 p.m. **Session 4: Designing Effective Regulatory Sandboxes for Fintech Innovations**

Moderator:

Greg Feldberg (Director of Research, Yale Program on Financial Stability, Yale School of Management, Yale University)

Speakers: **Jonah Crane** (Principal, West 4th Street Advisors, and Regulator in Residence, FinTech Innovation Lab)

Schan Duff (Senior Fellow, The Aspen Institute)

Dan Quan (Managing Partner, Banks Street Advisory, and Senior Advisor, McKinsey & Co.)

Brian R. Knight (Director, Innovation and Governance, Senior Research Fellow, Mercatus Center, George Mason University)

Nathaniel Hoopes (Executive Director, Marketplace Lending Association)

5:50 p.m. **Conference Reception**

Agenda

Friday, November 15

8:00 a.m. Breakfast

9:00 a.m. **Session 5: Private Digital Currencies or Central Bank Digital Currencies?**

Featured Guest: **Timothy Lane** (Deputy Governor, Bank of Canada)

Moderator:

Robert M. Hunt (Associate Director, Consumer Finance Institute, and Senior Vice President, FRB Philadelphia)

Panelists:

Rodney Garratt (Maxwell C. and Mary Pellish Chair in Economics, University of California, Santa Barbara)

Andreas Park (Associate Professor of Finance, University of Toronto)

Kevin Werbach (Professor of Legal Studies and Business Ethics, The Wharton School)

9:40 a.m. **Special Remarks on Private Digital Currencies and Libra**

Presenter: **Gary Gensler** (Professor of the Practice of Global Economics and Management, Massachusetts Institute of Technology)

10:00 a.m. **Session 6: Future Fintech Regulations: A Conversation with John Ryan**

Featured Guest: **John Ryan** (CEO, Conference of State Bank Supervisors)

Moderator: **William G. Spaniel** (Senior Vice President and Lending Officer, FRB Philadelphia)

Panelists: **Aaron Klein** (Fellow, Economic Studies, Brookings Institution)

Richard Herring (Jacob Safra Professor of Banking, The Wharton School)

Richard H. Neiman (Head of Public Policy, LendingClub)

10:40 a.m. Break

11:00 a.m. **Session 7: New Challenges in Fintech Lending — A Conversation with Max Levchin**

Featured Guest: **Max Levchin** (Founder and CEO, Affirm, and Co-founder, PayPal)

Introduction:

James D. Narron (First Vice President and COO, FRB Philadelphia)

Moderator:

Michael D. Calhoun (President, Center for Responsible Lending)

11:50 a.m. **Session 8: Fintech Roles in Small Business Lending and Regulations**

Moderator:

Patricia Hasson (President and CEO, Clarifi, and Member of the Board of Directors, FRB Philadelphia)

Speakers:

Ryan Rosett (Co-CEO and Founder, Credibly)

Ryan Metcalf (Head of U.S. Regulatory Affairs, Funding Circle)

Gwendy Brown (Vice President, Research and Policy, Opportunity Fund)

David Snitkof (Head of Analytics and Data Strategy, Kabbage, Inc.)

James Wu (Founder and CEO, Monja)

12:40 p.m. **Session 9: Looking Ahead: The Future of Fintech**

Moderator:

Behnaz Kibria (Senior Policy Counsel, Google)

Speakers:

F. Christopher Calabia (Senior Advisor, Supervisory & Regulatory Policy, and Senior Program Officer, Bill & Melinda Gates Foundation)

Agenda

Eric S. Belsky (Director of the Division of Consumer and Community Affairs, Board of Governors of the Federal Reserve System)

Alla Goldman Seiffert (Director of Cloud Policy and Counsel, Internet Association)

Armen Meyer (Vice President, Public Policy, LendingClub)

Don Gayhardt (President and CEO, CURO Financial Technologies Corp.)

1:30 p.m.

Closing Remarks

William G. Spaniel (Senior Vice President and Lending Officer, FRB Philadelphia)

Lunch (we will also have boxed lunches for takeaway)

2:30 p.m.

Adjourn



Scott Astrada

Director of Government and Community Relations Affirm

Scott Astrada is the director of government and community relations at Affirm. Previously, he worked extensively in consumer financial protection and banking policy. Before joining Affirm, he was at the Center for Responsible Lending and at the U.S. Senate Democratic Policy and Communications Center, under former Senator Harry Reid; he was also a Congressional Hispanic Caucus Institute Fellow. He completed his fellowship on the U.S. Senate Banking Committee and then at Unidos (formerly, the National Council of La Raza). He also teaches at Georgetown University Law Center and is a Digital Society Fellow at Stanford University.

Astrada has testified before both the U.S. House and Senate Committees on financial technology policy, small-dollar lending regulation, consumer financial protection law and policy, and retirement security. He has also provided commentary for national media outlets, including the *Financial Times*, the *Wall Street Journal*, and *American Banker*. He also published academic and peer-reviewed articles on race, law and society, and political economy in the *Harvard Latinx Law Review*, *The University of Pennsylvania Journal of Law and Social Change*, and others. Astrada has a L.L.M. from the Georgetown University Law Center, a J.D. and an M.B.A. from Marquette University, and a B.A. from the University of Wisconsin–Madison.



Eric S. Belsky

Director of the Division of Consumer and Community Affairs Board of Governors of the Federal Reserve System

Eric S. Belsky has been the director of the Division of Consumer and Community Affairs at the Board of Governors of the Federal Reserve System since 2014. He oversees the Federal Reserve's work in consumer- and community reinvestment-focused supervision, research, outreach, and policy analysis, with the aim of promoting a fair and transparent consumer financial services marketplace and effective community development.

A specialist in housing finance, economics, and policy, Belsky brings more than 20 years of experience to the division. Before joining the Federal Reserve Board, he was managing director of the Joint Center for Housing Studies of Harvard University. He was also director of Housing Finance Research at Fannie Mae and senior economist at the National Association of Home Builders, and

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taught at both Harvard University and the University of Massachusetts at Amherst. In addition, Belsky was research director for the bipartisan Millennial Housing Commission, established by the U.S. Congress.

Belsky has coedited five books and has authored numerous articles and book chapters; he has served on the editorial boards of the *Journal of Housing Research* and *Housing Policy Debate*. Belsky has a Ph.D., M.A., and B.A. from Clark University.



Stuart Breslow

**Managing Director and Head of Financial Services
Industries Vertical
Google Cloud**

Stuart Breslow has been a managing director and the head of the Financial Services Industries Vertical at Google Cloud since July 2018. Before that, he was a partner in the Risk Practice at McKinsey & Company, where he served primarily financial services clients worldwide. Breslow spent most of his professional career at Morgan Stanley. Before his retirement in February 2017, he had been a member of Morgan Stanley's Management Committee and was its chief compliance officer with global responsibility for the firm's global compliance efforts.

Breslow joined Morgan Stanley, with responsibility for litigation and regulatory matters, and later was director of compliance. He became a managing director and global head of compliance for Credit Suisse First Boston before returning to Morgan Stanley in 2005. Previously, he was in private practice as a litigator in New York and Boston. Breslow has a J.D. from Columbia University School of Law and an A.B. from Princeton University (Woodrow Wilson School).



Gwendy Brown

**Vice President, Research and Policy
Opportunity Fund**

Gwendy Brown is vice president of research and policy at Opportunity Fund, the nation's largest nonprofit microlender. In this role, Brown works to advance research and public policies that support financially healthy small businesses and communities. Previously, she worked to build a range of savings products to help low-income students and families save and build assets. Brown was first drawn to development work when she was a

Fulbright Scholar with the Andean Development Corporation in Caracas, Venezuela. She has an M.P.A. in nonprofit management from New York University and a B.A. in economics and public policy from Pomona College.



F. Christopher Calabia

**Senior Advisor for Supervisory & Regulatory Policy, and
Senior Program Officer
Bill & Melinda Gates Foundation**

F. Christopher Calabia is senior advisor for Supervisory & Regulatory Policy and a senior program officer at the Bill & Melinda Gates Foundation. He leads the foundation's global efforts to promote a regulatory framework that enables digital financial inclusion. He also oversees grants into policy and technological innovations that may help central banks and supervisors promote financial inclusion, stability, integrity, and consumer protection in emerging and developing market economies.

Calabia joined the foundation after a career as a banking supervisor at the Federal Reserve Bank of New York, where he had worked for 25 years. Most recently, he was senior vice president and head of the Regional, Community, and Foreign Institutions Supervision and Consumer Compliance function, a 72-person division that regulates over 200 U.S. and foreign banking organizations. He previously was the senior supervisor for one of the largest U.S. systemically important financial institutions; he then was deputy head of the function that supervises global systemically important firms.

Calabia also co-led the International Monetary Fund's 2016 evaluation of the UK's approach to banking supervision. Previously, he was seconded to the Secretariat of the Basel Committee on Banking Supervision in Switzerland, where he assisted in revising the global capital framework for banks. He is a Certified Anti-Money Laundering Specialist, has an M.A.L.D. from the Fletcher School of Law & Diplomacy, and a B.A. from the University of Virginia (Phi Beta Kappa). He also studied European Union law and integration at the Universität des Saarlandes as a DAAD Fellow.



Michael D. Calhoun

**President
Center for Responsible Lending**

Michael Calhoun is the president of the Center for Responsible Lending, which is the policy affiliate of Self-Help, the nation's largest community development

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lender, providing over \$6.4 billion in financing for first-time homeowner loans and small business loans. The Center for Responsible Lending is a nonpartisan, nonprofit research and policy institute focusing on consumer lending issues.

Calhoun has been an active participant in consumer financial legislation and regulation, with more than 30 years of experience in consumer lending. He has authored numerous papers on the subject and has often testified before Congress and state legislatures. Before joining the center, he led several lending divisions at Self-Help, including the secondary mortgage market program. He is also a former member and chair of the Federal Reserve Consumer Advisory Committee. Calhoun has a J.D. from the University of North Carolina and a B.A. in economics from Duke University.



Martin Chorzempa

Research Fellow
Peterson Institute for International Economics

Martin Chorzempa, research fellow, joined the Peterson Institute for International Economics in 2017. He gained expertise in financial innovation while in Germany as a Fulbright Scholar and researcher at the Association of German Banks. He conducted research on financial liberalization in Beijing, first as a Luce Scholar at Peking University's China Center for Economic Research, and then at the China Finance 40 Forum, China's leading independent think tank.

Chorzempa has been quoted in the media, including in the *Wall Street Journal*, the *New York Times*, the *Washington Post*, and the *Financial Times*. His forthcoming book on Chinese Internet finance will be published by the University of Pennsylvania Press. He has a master's degree in public administration in international development from the Harvard Kennedy School of Government.



Jonah Crane

Principal
West 4th Street Advisors, and
Regulator in Residence at the FinTech Innovation Lab

Jonah Crane is principal at West 4th Street Advisors, providing strategic guidance to financial technology companies and helping them stay ahead of regulatory change as they scale. He is also regulator in residence at the FinTech Innovation Lab in New York, a mentor at Queen City Fintech, and a senior advisor at RegTech Lab in Washington, D.C.

Previously, Crane was deputy assistant secretary at the U.S. Treasury Department and a policy advisor to Senator Charles Schumer. He also was a corporate attorney focusing on mergers and acquisitions at Milbank, Tweed, Hadley & McCloy LLP in New York. Crane has a J.D. from New York University School of Law.



Schan Duff

**Senior Fellow
The Aspen Institute**

Schan Duff is a senior fellow in the Aspen Institute's Financial Security Program, a research affiliate of the Cambridge Center for Alternative Finance, and a consultant to the Consultative Group to Assist the Poor. Across all of these programs, his work focuses on the nexus of regulatory modernization, innovation, and financial inclusion.

In addition to his research, Duff is vice president of strategy at Kiva, a San Francisco-based nonprofit technology company. At Kiva, he works with governments, regulators, and international development organizations on the implementation of Kiva Protocol, a blockchain-based digital identity and credit reporting platform designed to advance financial inclusion in developing markets.

A lawyer by training, Duff has practiced law with two international law firms and has been the head of legal for Juvo, a mobile analytics company recognized by the World Economic Forum as a Technology Pioneer in 2018. Duff has a Ph.D. from the University of Pennsylvania, a J.D. (with honors) from the University of Chicago Law School, and a B.A. from Williams College.



Charles L. Evans

**President and CEO
Federal Reserve Bank of Chicago**

Charles L. Evans has been president and CEO of the Federal Reserve Bank of Chicago since September 2007. In that capacity, he is on the Federal Open Market Committee, the Federal Reserve System's monetary policymaking body. Previously, Evans was director of research and senior vice president, supervising the Bank's research on monetary policy, banking, financial markets, and regional economic conditions. His personal research has focused on measuring the effects of monetary policy on U.S. economic activity, inflation, and financial market prices; he has also been published in many peer-reviewed journals.

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Evans is active in the civic community. He is a trustee at Rush University Medical Center, a director of the Chicago Council on Global Affairs, a governing board member of Econ Illinois, a member of the Economic Club of Chicago Board of Directors, and a member of the Civic Committee of the Commercial Club of Chicago and Civic Consulting Alliance Board. He has taught at the University of Chicago, the University of Michigan, and the University of South Carolina. Evans has a Ph.D. in economics from Carnegie Mellon University and a bachelor's degree in economics from the University of Virginia.



Christopher F. Feeney

**President of BITS
Bank Policy Institute**

Christopher F. Feeney is the president of BITS, the technology policy division of the Bank Policy Institute, where he collaborates with the nation's largest financial institutions, the administrators, regulators, and policymakers to promote effective cybersecurity and operating practices, and to develop and shape the industry's use of emerging technologies.

BITS is a thought leader for the industry on innovation, policy, cybersecurity technology and practices, fraud reduction, and risk management, representing CEOs, CIOs, CISOs, and operating executives from the nation's leading financial institutions.

Feeney has over 30 years of experience in executive management, technology, business/sales management, and operating roles at software companies, banks, broker dealers, and investment management firms. His background includes founding a strategic advisory firm; consulting on behalf of boards, CEOs, and leadership teams; and as managing director and CIO at LPL Financial. During his career, he has led transformations and has established firms for success. He has been president and CEO and served in other executive roles at Thomson Financial, Bank of America, Telerate, Multex, and Broadridge Financial. He is a board and operating management member of fTLD Registry Services; a board member of Sheltered Harbor; a board advisor at Quovo, Inc.; and an executive committee member of the Financial Services Sector Coordinating Council and cochair of its Policy Committee. Feeney was recently a board director at Scottrade, Inc. and Scottrade Bank before its sale to TD Ameritrade and TD Bank, where he was chair of the Risk Committee. Feeney is a National Association of Corporate Directors Governance Fellow.



Greg Feldberg

Research Scholar and Director of Research,
Yale School of Management, and Director of Research for
the Yale Program on Financial Stability
Yale University

Greg Feldberg is a research scholar at the Yale School of Management and director of research for the Yale Program on Financial Stability. Before joining Yale, Feldberg spent six years at the Office of Financial Research, where he led the office's annual Financial Stability Report and other publications. In 2010, he was the director of research at the Financial Crisis Inquiry Commission, which was established by Congress to investigate the causes of the global financial crisis.

Feldberg spent 10 years at the Board of Governors of the Federal Reserve System as a researcher and financial analyst. He has also worked in the financial industry, heading technology research teams at two investment banks. His research focuses on financial stability, macroprudential policy, and financial crisis management. Feldberg has a master of public policy (M.P.P.) from Harvard University and a B.A. from Brown University.



Rodney Garratt

Maxwell C. and Mary Pellish Chair in Economics
University of California, Santa Barbara

Rodney Garratt is the Maxwell C. and Mary Pellish Chair in Economics at the University of California, Santa Barbara. He was a technical advisor to the Bank for International Settlements, a research advisor to the Bank of England and the Bank of Canada, and is a former vice president of the Federal Reserve Bank of New York. At the FRB New York, he cochaired the Virtual Currency Working Group for the Federal Reserve System. After that, he consulted for Payments Canada and R3 on Project Jasper, a proof of concept for a distributed ledger technology-based wholesale interbank payment system.

Garratt's research areas include payments economics, monetary theory, financial network analysis, and auctions. He has been published in top economics journals, including *Econometrica*, the *American Economic Review*, and the *Journal of Political Economy*. He is also an associate editor of the *Journal of Financial Market Infrastructures*, the *Journal of Network Theory in Finance*, and *Digital Finance*. Garratt has a Ph.D. from Cornell University and a B.A. from the University of Waterloo.

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Don Gayhardt

**President and CEO
CURO Financial Technologies Corp.**

Don Gayhardt has been president and CEO of CURO Financial Technologies Corp., a consumer finance company operating in the United States and Canada, since 2012. CURO has been publicly traded since 2017 and is a market-leading provider of a range of consumer credit products using a proprietary omnichannel platform.

Before joining CURO, he was president of DFC Global for 18 years, where he helped expand operations to the UK, Canada, and Western Europe. Prior to that, Gayhardt worked in private equity, investment banking, and public accounting. He is on the board of Beneficial Bancorp. and is active in a number of educational and civic nonprofit organizations. Gayhardt has a B.B.A. in accounting from the University of Notre Dame.



Gary Gensler

**Professor of the Practice of Global Economics and Management
MIT Sloan School of Management
Massachusetts Institute of Technology**

Gary Gensler is professor of the Practice of Global Economics and Management at the MIT Sloan School of Management, codirector of MIT's Fintech@CSAIL, and senior advisor to the MIT Media Lab Digital Currency Initiative. He conducts research and teaches multiple graduate-level courses on blockchain technology, digital currencies, financial technology, and public policy.

Previously, Gensler was chairman of the U.S. Commodity Futures Trading Commission, Undersecretary of the Treasury, chairman of the Maryland Financial Consumer Protection Commission, and a partner at Goldman Sachs. Gensler was the winner of the MIT Sloan Outstanding Teacher Award, based on student nominations, for the 2018–2019 academic year.



Campbell Gibson

Head of Public Policy
Avant

Campbell Gibson has been the head of public policy for Avant since January 2017. In this role, he brings experience in regulatory and legislative policy development and an understanding of financial markets and institutions. Gibson also is a board member of the Marketplace Lending Association. Before Avant, he was an advisor to financial institutions and investors on policy, investment, and communications strategy.

Prior to returning to the private sector, Gibson spent four years at the U.S. Department of the Treasury as counselor to the Deputy Secretary. In this role, he helped manage the Obama administration's implementation of the Dodd–Frank Wall Street Reform and Consumer Protection Act and other postcrisis reforms. Before the Treasury, he was senior economic advisor to Senator Kirsten Gillibrand. Earlier in his career, he spent a decade in the alternative investment field as a portfolio manager.



Itay Goldstein

Joel S. Ehrenkranz Family Professor, Finance Department
The Wharton School of the University of Pennsylvania

Itay Goldstein is the Joel S. Ehrenkranz Family Professor in the Finance Department at the Wharton School of the University of Pennsylvania and the coordinator of the Ph.D. program in finance. He also holds a secondary appointment as a professor of economics at the University of Pennsylvania and has been on the faculty of the Wharton School since 2004. He is an expert in the areas of corporate finance, financial institutions, and financial markets, focusing on financial fragility and crises and on the feedback effects between firms and financial markets.

Goldstein's research has been published in top academic journals, including the *American Economic Review*, *The Journal of Finance*, the *Journal of Financial Economics*, and the *Review of Financial Studies*. His research has also been featured in the *Economist*, the *Wall Street Journal*, the *Financial Times*, *Bloomberg*, *Forbes*, *National Public Radio*, and others. He is the executive editor of *The Review of Financial Studies*, where he was an editor for five years. He also was an editor of the Finance Department in *Management Science* and the *Journal of Financial Intermediation*.

Biographies

Previously, Goldstein was an academic advisor at the Federal Reserve Banks of New York, Philadelphia, and Richmond, the Bank of Canada, and the Committee for Capital Markets Regulation. He was also cofounder and first president of the Finance Theory Group. He is a director of the American Finance Association and the Western Finance Association and has been a director of the Financial Intermediation Research Society. He has also taught various undergraduate, M.B.A., Ph.D., and executive education courses in finance and economics. Before joining Wharton, Goldstein was on the faculty of Duke University's Fuqua School of Business. He also worked in the Research Department of the Bank of Israel. Goldstein has a Ph.D. in economics from Tel Aviv University.



Lewis Goodwin

President and CEO
Square Financial Services and
Banking Lead
Square Capital

Lewis Goodwin is the president and CEO of Square Financial Services, an industrial loan charter in application with the FDIC and the State of Utah. He is also the banking lead for Square Capital, focusing on lending to small businesses and microbusinesses nationwide. The average loan is between \$6,000 and \$7,000 with over \$5 billion facilitated over the past four years.

Previously, Goodwin was the president and CEO of Green Dot Bank and has held other senior banking roles at Toyota, Daimler Chrysler, and West One Bank (US Bank). He is also a licensed CPA in Utah.



Paul Gu

Cofounder and Head of Product
Upstart

Paul Gu is a cofounder and head of product at Upstart. He built Upstart's original predictive models and now leads the company's product and data science efforts.

Gu dropped out of the economics and computer science program at Yale University after being selected for Peter Thiel's 20 under 20 fellowship. He built his first profitable trading algorithms while in college and briefly worked in risk analysis at the D.E. Shaw Group. Upstart is the first U.S. lending platform to fully leverage machine learning to price credit and automate the borrowing process. This technology identifies high-quality borrowers misunderstood by the FICO system. With \$4 billion in loans originated, Upstart has demonstrated its credit performance and scores in

the industry's top consumer ratings. In addition to its direct-to-consumer lending platform, Upstart provides technology to banks and other partners via Powered by Upstart.



Patrick T. Harker

**President and CEO
Federal Reserve Bank of Philadelphia**

Patrick T. Harker took office on July 1, 2015, as the 11th president and CEO of the Federal Reserve Bank of Philadelphia. In this role, Harker participates on the Federal Open Market Committee, which formulates the nation's monetary policy.

Before taking office at the Philadelphia Fed, Harker was the 26th president of the University of Delaware. He was also a professor of business administration at the university's Alfred Lerner College of Business and Economics and a professor of civil and environmental engineering at the College of Engineering. Before joining the University of Delaware in 2007, Harker was dean and Reliance Professor of Management and Private Enterprise at the Wharton School of the University of Pennsylvania. Prior to being appointed dean in 2000, Harker was the Wharton School's interim dean and deputy dean as well as the chair of its Operations and Information Management Department. In 1991, he was the youngest faculty member in Wharton's history to be awarded an endowed professorship as UPS Transportation Professor of the Private Sector. He has published/edited nine books and more than 100 professional articles. From 1996 to 1999, he was editor-in-chief of the journal *Operations Research*.

In 2012, Harker was named a fellow of the Institute for Operations Research and the Management Sciences (INFORMS) and a charter fellow of the National Academy of Inventors. He was also named a White House fellow by President George H. W. Bush in 1991 and was a special assistant to FBI Director William S. Sessions from 1991 to 1992. Harker is a board member of both the Chamber of Commerce for Greater Philadelphia and its Select Greater Philadelphia Council. He is also a board member at the Science Center in Philadelphia. Previously, he was on the boards of Catholic Relief Services, Pepco Holdings, Inc., and Huntsman Corporation and was a founding member of the board of advisors for Decision Lens, Inc. He was also a nonbanking Class B director of the Philadelphia Fed from 2012 to 2015. Harker has a Ph.D. in civil and urban engineering, an M.A. in economics, and an M.S.E. and B.S.E. in civil engineering, all from the University of Pennsylvania.

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Patricia Hasson

**President and CEO
Clarifi**

Patricia Hasson is president and CEO of Clarifi, the nonprofit agency that helps people clarify their financial futures. In her 21-year tenure, Hasson has become a recognized thought leader in the area of financial capability and financial inclusion. She has used that knowledge to sharpen the focus of the organization to create pathways to lifelong financial wellness for clients and communities. Under Hasson's guidance, Clarifi has earned a national reputation operating at a regional level with 15 offices in three states in and around Philadelphia.

With Hasson's regional focus and expertise, the Federal Reserve Bank of Philadelphia appointed Hasson a Class B member of its board of directors in 2016. She is also on the Oversight Board for the Philadelphia Mayor's Office of Community Empowerment and Opportunity and is a member of the Forum for Executive Women. She has also been on the board of directors for the Greater Philadelphia Chamber of Commerce. Hasson has also served three-year terms both on the inaugural Consumer Advisory Board of the Consumer Financial Protection Bureau and on the Federal Reserve Board Consumer Advisory Council. She also has lent her voice to a number of regional and national bank community development advisory boards.

Hasson provides expert commentary on financial and consumer trends to journalists and media organizations nationwide and provides her wealth of experience to community organizations, as well as mentoring a new generation of consumer advocates. Before joining Clarifi, Hasson spent more than 12 years as a banking executive with a diverse consumer and commercial lending background, including expertise in credit cards, education finance, and auto finance. Hasson has an M.B.A. from Villanova University and a B.S. in finance from the University of Dayton.



Richard Herring

**Jacob Safra Professor of Banking
The Wharton School of the University of Pennsylvania**

Richard Herring is the Jacob Safra Professor of Banking, director of the Wharton Financial Institutions Center, and a professor of finance at the Wharton School of the

University of Pennsylvania, where he has been a member of the faculty since 1972. Previously, he was vice dean and director of the Wharton Undergraduate Division and director of the Lauder Institute. Outside

the university, he was cochair of the U.S. Shadow Financial Regulatory Committee and executive director of the Financial Economists Roundtable.

Herring is a member of the FDIC Systemic Resolution Advisory Committee and the Systemic Risk Council and author of more than 150 articles, monographs, and books on various topics, including financial regulation, international banking, and international finance. His research has been funded by grants from the National Science Foundation, the Ford Foundation, the Brookings Institution, the Sloan Foundation, the Council on Foreign Relations, and the Royal Swedish Commission on Productivity. Herring has a Ph.D. and a master's degree from Princeton University and a bachelor's degree from Oberlin College.



Nathaniel Hoopes

**Executive Director
Marketplace Lending Association**

Nathaniel Hoopes is the executive director of the Marketplace Lending Association (MLA). He has increased the MLA membership from three initial founding members to 36 leading companies in the digital lending and investing ecosystem. Before joining MLA, he was vice president and then executive director at the Financial Services Forum in Washington, D.C., where he worked on public policy issues affecting the nation's largest financial firms. Hoopes has spent a dozen years working at the intersection of financial services and public policy, including five years on Capitol Hill as legislative director for Senator Scott P. Brown, helping lead the bipartisan negotiations of major amendments to the 2010 Dodd–Frank Wall Street Reform and Consumer Protection Act.

Hoopes also helped develop legislation to expand opportunities for small businesses and innovative start-ups through equity crowdfunding as part of the Jumpstart Our Business Startups Act. He was also a policy advisor to Senator Joseph Lieberman. Hoopes' prior experience includes two years as a private equity investment analyst at Trilantic Capital Partners, where he focused on growth investments and middle-market leveraged buyouts in the industrials, insurance, and consumer products sectors. Hoopes has a master's degree in law and diplomacy from the Fletcher School at Tufts University and a B.A. from Princeton University.

Biographies



Robert M. Hunt

**Associate Director of the Consumer Finance Institute,
Senior Vice President,
Federal Reserve Bank of Philadelphia**

Robert M. Hunt is associate director of the Consumer Finance Institute and senior vice president at the Federal Reserve Bank of Philadelphia. Previously, he was the director of the Bank's Payment Cards Center and a senior economist in the Bank's Research Department. He joined the Federal Reserve Bank of Philadelphia in 1998.

Hunt's research focuses on consumer payments, consumer finance, and the economics of innovation. His research includes studies of payment cards, adoption of new payment technologies, antitrust issues in consumer payment networks, identity theft, regulation of credit cards, mortgage default, consumer credit reporting, credit counseling organizations, and the collections industry. He has also published papers on topics in economic geography and intellectual property.

Before joining the Bank, Hunt worked for the U.S. Congressional Budget Office. Prior to attending graduate school, he was an industry risk analyst for Bank One, Indianapolis. Hunt has a Ph.D. in economics from the University of Pennsylvania and a B.A. (summa cum laude) in political science and economics from Butler University.



Julapa Jagtiani

**Senior Economic Advisor and Economist
Federal Reserve Bank of Philadelphia**

Julapa Jagtiani is senior economic advisor and economist at the Federal Reserve Bank of Philadelphia, a Fellow member of the Wharton Financial Institutions Center, and a Central Bank Research Fellow at the Bank for International Settlements. At the Federal Reserve, Jagtiani has conducted research and participated in several supervisory policy and implementation projects, including serving on the Federal Reserve Fintech Task Force and as a member of the Risk Council Fintech subgroup. She has published research articles in many top finance journals. Her recent research has focused on issues related to fintech, the use of alternative data and AI/ML in credit decisions, small business lending, cryptocurrencies, and community bank issues.

Jagtiani was awarded the Rockefeller Foundation Fellowship and has a Ph.D. and M.B.A. from the NYU Stern School of Business.



Kose John

Charles William Gerstenberg Professor of Banking and Finance
NYU Stern School of Business

Kose John is the Charles William Gerstenberg Professor of Banking and Finance at the NYU Stern School of Business. He has also taught at the University of Chicago, Columbia University, and Institut d'Etudes Politiques de Paris (Sciences Po).

John has won several awards, including the Batterymarch Fellowship in 1983 and the Jensen Prize for the best paper published in 2000 in the *Journal of Financial Economics*. He has been on the Nomination Committee for the Nobel Prize in Economics since 2017. He is also the author of two books (on futures markets and dividend policy) and is the editor of 22 books and special issues of finance journals on financial stability, financial distress, and valuation of distressed securities; corporate governance; and investments innovations in finance.

More than 103 of John's research articles have appeared in major finance and economics journals, including the *American Economic Review*, *The Journal of Finance*, the *Journal of Financial Economics*, *The Review of Financial Studies*, and many others. His recent research focuses on banking, the financial crisis, corporate governance, top-management compensation, financial distress, valuation of distressed claims, and comparative bankruptcy and governance systems. He was the program chair and the president of Financial Management Association International. In addition, he was program chair of the Association of Financial Economists and has been a mentor and advisor to 107 doctoral students, who are finance professors and finance practitioners all over the world. John has a Ph.D. from the University of Florida.



Behnaz Kibria

Senior Policy Counsel
Google

Behnaz Kibria is senior policy counsel covering U.S. cloud policy at Google. Previously, she was the deputy chief of staff of the Office of the U.S. Trade Representative (USTR), where she was a principal policy advisor to Ambassador Michael Froman.

Earlier in her career, Kibria was trade counsel to the Committee on Ways and Means in the U.S. House of Representatives and assistant general

Biographies

counsel at USTR. She started her career as an associate at the law firm Hogan & Hartson. Kibria has a J.D. from George Washington University Law School and a B.A. from Wesleyan University.



Mike Kinane

Head of U.S. Bankcards
TD Bank

Mike Kinane is head of U.S. Bankcards for TD Bank. With nearly 30 years of experience in banking, he has accountability for the bank's U.S. credit card business.

He joined TD Bank in 2005 and, over his tenure with the bank, has managed personal lending, home equity, and mortgage product portfolios.

Before joining TD Bank, Kinane was executive vice president for MBNA America Bank, Inc. He also worked in risk, collections, and marketing management positions in the home equity, personal loan, and credit card businesses for Household Finance Corp. He also spent four years at Avondale Bank, f.s.b. in Chicago, managing the home equity, mortgage, and private-label credit card products. He is on the client advisory board for Equifax. He also volunteers his time, providing business advice and career coaching for undergraduate business students at West Chester University. Kinane has a B.A. in advertising from Michigan State University.



Andrei Kirilenko

Judge Business School
University of Cambridge

Andrei Kirilenko joined the University of Cambridge's Judge Business School in July 2019. His scholarly work lies at the intersection of finance, technology, and regulation.

Before joining Judge, he was the director of the Centre for Global Finance and Technology at the Imperial College Business School.

Previously, he was a professor of the Practice of Finance at MIT Sloan and codirector of the MIT Center for Finance and Policy. Kirilenko was also chief economist of the U.S. Commodity Futures Trading Commission, where he used modern analytical tools and methods to design and enforce an effective regulatory regime of financial markets. He also spent 12 years at the International Monetary Fund, working on financial crises around the world. Kirilenko has a Ph.D. in economics with a specialization in finance from the Wharton School of the University of Pennsylvania.



Aaron Klein

**Fellow in Economic Studies
Brookings Institution**

Aaron Klein is a fellow in economic studies at the Brookings Institution, where he also is policy director of the Center on Regulation and Markets. He focuses on financial regulation and technology, payments, macroeconomics, infrastructure finance, and policy. He regularly publishes, speaks, and comments on these issues.

Previously, Klein directed the Bipartisan Policy Center's Financial Regulatory Reform Initiative and helped the center launch its Executive Council on Infrastructure. Prior to that, he had a career in government and was deputy assistant secretary for economic policy at the U.S. Treasury Department. At the Treasury, he worked on financial regulatory reform and housing finance reform, and directed its transportation, infrastructure policy, and Native American policies; he also received the department's Distinguished Service Award.

Klein was also chief economist of the Senate Banking, Housing, and Urban Affairs Committee for Chairmen Chris Dodd and Paul Sarbanes. While working in the Senate, Klein played a key role in major legislation, including the Economic Emergency Stabilization Act of 2008 (better known as TARP), the Housing and Economic Recovery Act of 2008, the SAFETEA Act of 2005 that rewrote America's surface transportation policy, the Check Truncation Act of 2003, the Terrorism Risk Insurance Act of 2002, and the Sarbanes-Oxley Act of 2002. Klein is a graduate of Dartmouth College (high honors) and Princeton University's Woodrow Wilson School of Public Affairs.



Brian R. Knight

**Director of Innovation and Governance
Senior Research Fellow
Mercatus Center
George Mason University**

Brian R. Knight is the director of innovation and governance and a senior research fellow at the Mercatus Center at George Mason University. Knight's research focuses on numerous aspects of financial regulation, including the creation of proinnovation regulatory environments, the role of federalism in fintech regulation, the use of digital assets for financial transactions, the role of regulation for credit markets and consumer protection, and the provision of capital to businesses.

Biographies

Before joining Mercatus, Knight worked for the Milken Institute, where he headed the fintech and capital access programs. He has experience working for a broker-dealer, with a focus on the emerging online private-placement market. He was also the cofounder of CrowdCheck, a company providing due diligence and disclosure services to companies and intermediaries engaged in online private offerings. Knight has a J.D. from the University of Virginia and a bachelor's degree from the College of William and Mary.



Timothy Lane

**Deputy Governor
Bank of Canada**

Timothy Lane became deputy governor of the Bank of Canada in 2009. In this role, he shares responsibility for decisions on monetary policy and financial stability.

He also oversees the bank's funds management and currency functions, including the bank's ongoing research and analysis of developments in financial technology, cryptoassets, and digital currencies.

Lane was on the staff of the International Monetary Fund (IMF) for 20 years. During that period, he contributed to IMF's analysis of numerous countries and conducted research on a wide range of topics, including monetary policy, financial crises, IMF reform, and economic transition. In 2008, he joined the Bank of Canada as an advisor to the governor, a position he held until his current appointment. Lane has a Ph.D. in economics from Western University and a B.A. (with honors) from Carleton University.



Max Levchin

**Founder and CEO
Affirm**

Max Levchin is the founder and CEO of Affirm, a financial services technology company; cofounder and chairman of Glow, a data-driven fertility company; and cofounder

and general partner at SciFi VC, a private venture capital firm. All three companies were created and launched from his San Francisco-based innovation lab, HVF (Hard, Valuable, Fun). He was one of the original cofounders of PayPal, where he was the chief technology officer until its acquisition by eBay in 2002. In 2002, he was named to the Technology Review TR100 as one of the top 100 innovators in the world, as well as Innovator of the Year. In 2004, he founded Slide, a personal media-sharing service for social networking sites such as MySpace and Facebook, which he sold to Google in August 2010. Also in 2004, he helped start Yelp, where he was the first investor in and chairman of the board from 2004 until 2015. He has served on several boards such as Yahoo!, Yelp, and Evernote. He is a

serial entrepreneur, computer scientist, philanthropist, and active investor in more than 100 start-ups.



Katya Malinova

Associate Professor
Mackenzie Investments Chair in Evidence-Based
Investment Management
DeGroote School of Business
McMaster University

Katya Malinova is an associate professor, Mackenzie Investments Chair in Evidence-Based Investment Management at the DeGroote School of Business at McMaster University. Before joining DeGroote in July 2018, Malinova was an associate professor at the University of Toronto and spent a year at Copenhagen Business School.

Malinova's research focuses on financial market structure, including the impacts of maker-taker pricing, dark trading, high-frequency trading, and new technologies, such as blockchain. She has received major research grants from the Social Sciences and Humanities Research Council of Canada, she has collaborated with Investment Industry Regulatory Organization of Canada on research studies, and she is currently designing a regulatory pilot study for the Canadian Securities Administrators. Her work has been published in *The Journal of Finance*, the *Journal of Financial Economics*, and the *Journal of Financial and Quantitative Analysis*; her research findings have also been referenced in the *New York Times* and the *Financial Times*. She is an editor of the *Journal of Financial Technology* and an associate editor of the *Journal of Financial Markets*. She teaches courses in investments, corporate finance, and financial market structure, and was a codirector of the University of Toronto's Master of Financial Economics Program. Malinova has a Ph.D. in economics from the University of Michigan and a B.Sc. in physics from St. Petersburg State University (Russia).



Brian Martin

Head of Business Development
Blend

Brian Martin is head of business development at Blend, a Silicon Valley-technology company changing the consumer banking industry with its digital platform.

He leads a team of professionals focused on establishing innovative partnerships in the lending and technology ecosystems to create value for all parties by driving operational efficiencies.

Biographies

Prior to Blend, Martin was a market specialist at Bloomberg L.P., focused on equity derivatives and quantitative strategies. He was also a managing partner and founder of Spartus Capital, an equity derivative hedge fund, and a director at Citi, where he held several positions. He was a senior member of Citi's Equity and Derivative Trading Strategy team; head of Small Cap Equity Trading; and head of the U.S. Capital Structure Arbitrage proprietary investment group. For many years, he was a convertible bond arbitrage portfolio manager at two different multibillion-dollar hedge funds: Satellite Asset Management and Tribeca Investments. Martin has a bachelor of commerce degree from Queen's University.



Ryan Metcalf

**Head of U.S. Regulatory Affairs
Funding Circle**

Ryan Metcalf is the head of U.S. Regulatory Affairs at Funding Circle, the global small business loans platform, connecting small businesses that want to borrow

with investors who want to lend in the U.S., the UK, Germany, and the Netherlands. Since launching in 2010, Funding Circle has helped over 80,000 investors lend more than \$10 billion to over 50,000 businesses globally.

Previously, Metcalf was director of government affairs and public policy and chief of staff at Affirm, the leading point of sale consumer financial technology company led by serial entrepreneur Max Levchin. Metcalf started his career at the White House under President Barack Obama as a senior analyst and then was special assistant to the U.S. Trade Representative, Ron Kirk, crafting and promoting the Trans-Pacific Partnership. Metcalf has a B.S. in political science from the University of South Florida.



Armen Meyer

**Vice President for Public Policy
LendingClub**

Armen Meyer is vice president for public policy at LendingClub, the U.S.'s largest marketplace lender. Based in San Francisco, he works with the company's business

units and external stakeholders on regulatory, policy, and strategy matters related to the facilitation of over \$1 billion in personal loans per month.

Before joining LendingClub, Meyer was a managing director in PricewaterhouseCoopers LLP's Financial Services Advisory group. For

over five years, he advised financial services clients on regulatory and technology challenges. Previously, Meyer was chief of staff of New York State's Banking Department (now the Department of Financial Services). Earlier, he was a policy and political advisor to state governors, legislators, and candidates for elected office and clerked for a federal judge. He also advises early stage companies and has served on Fordham College at Lincoln Center's Advisory Board.

Meyer has a J.D. from Harvard Law School and an M.P.A. from the Kennedy School of Government. He graduated valedictorian from Fordham College at Lincoln Center in mathematics.



James D. Narron

**First Vice President and COO
Federal Reserve Bank of Philadelphia**

James D. Narron joined the Federal Reserve Bank of Philadelphia in April 2016 as first vice president and COO. Previously, Narron was a senior vice president and product manager at the Federal Reserve Bank of San Francisco, and senior vice president at the Federal Reserve Bank of New York. Before joining the New York Fed, Narron worked at the Federal Reserve Bank of Kansas City, the Board of Governors in Washington, D.C., and in consulting.

Narron speaks Spanish and has published a number of articles for the New York Fed's Liberty Street Economics blog. He is on the board of Ben Franklin Technology Partners of Southeastern Pennsylvania, and previously served on the board of the Maura Clarke and Ita Ford Center in New York, as well as chair of the board of directors for the Keep A Breast Foundation.

Narron has a master's degree in international business administration from the University of South Carolina and a bachelor's degree in finance and economics from Rockhurst University in Kansas City, MO.



Richard H. Neiman

**Head of Public Policy
LendingClub**

Richard H. Neiman is the head of public policy for LendingClub, the nation's largest online credit marketplace for connecting borrowers and investors. He joined LendingClub in 2014, after serving three years as vice chairman of the Global Financial Services Regulatory Practice at PricewaterhouseCoopers LLP.

Biographies

Neiman was previously superintendent of banks for the State of New York, where he was responsible for supervising all state-chartered and -licensed financial institutions, including banks, nonbank lenders, money transmitters, and the majority of foreign bank branches in the U.S. During his term as superintendent, he was appointed by the U.S. Congress to serve on the five-member Congressional Oversight Panel for TARP. Earlier in his career, Neiman was executive vice president and general counsel of TD Waterhouse (now TD Ameritrade) and general counsel of the Global Equities Division at Citibank. He started his career with the Office of the Comptroller of the Currency in Washington, D.C., where he was staff attorney and then special assistant to the chief counsel.

Neiman has been an advisor to the Bipartisan Policy Center's Financial Regulatory Reform Initiative and cochaired its Regulatory Architecture Task Force. He is also on the advisory council of the Institute for Financial Market Regulation and on the advisory board of Columbia Business School's Chinese Business Initiative. Neiman is also on the advisory board of the Harlem Educational Activities Fund, a mentoring and college preparatory nonprofit, and on the board of Henry Street Settlement, one of New York's oldest social services organizations. Neiman has a J.D. from Emory University School of Law and a bachelor's degree from American University.



Andreas Park

**Associate Professor of Finance
University of Toronto**

Andreas Park is an associate professor of finance at the University of Toronto, appointed to the Rotman School of Management, the Institute for Management and Innovation, and the Department of Management at the University of Toronto Mississauga.

Park is the research director at FinHub, Rotman's Financial Innovation Lab; the cofounder of the LedgerHub, the University of Toronto's blockchain research lab; and a lab economist for blockchain at the Creative Destruction Lab. He also teaches courses on fintech and financial market trading. His current research focuses on the economic impact of technological transformations, such as blockchain technology.



Christine A. Parlour

**Sylvan C. Coleman Chair in Finance and Accounting
Haas School of Business
University of California, Berkeley**

Christine A. Parlour is the Sylvan C. Coleman Chair in Finance and Accounting at the Haas School of Business, University of California, Berkeley. Most of her work is in institutionally complex areas, such as market microstructure and banking. Her current focus is on changes in the payments system and the effect on bank balance sheets. Parlour's work has appeared in major finance and economics journals. In the past, she has been on the Nasdaq Economic Advisory board and is on the Steering Committee for the New Special Study of Securities Markets.



Dan Quan

**Managing Partner
Banks Street Advisory, and
Senior Advisor
McKinsey's Banking Practice (McKinsey & Co.)**

Dan Quan is managing partner of Banks Street Advisory, a senior advisor for McKinsey's Banking Practice, and an adjunct scholar at the Cato Institute. A nationally recognized fintech thought leader, Quan is a bridge between Silicon Valley and the Beltway, and an advisor to many CEOs of fintech firms. He frequently speaks and writes about issues related to fintech, financial regulations, and financial inclusion.

Quan was senior advisor to the director of the Consumer Financial Protection Bureau and led Project Catalyst, its innovation office. He also led the effort to issue the Bureau's first No-Action Letter and conceived and developed the first regulatory sandbox at the federal level.

Before joining the Bureau, Quan was a research associate at Harvard Business School (HBS). He worked for Peter Tufano, dean of the University of Oxford Saïd Business School. He was a key contributor to two influential HBS research projects on U.S. competitiveness, led by Michael Porter: Prosperity at Risk (2012) and Competitiveness at a Crossroads (2013). Prior to that, he was a consultant at Willis Towers Watson. Quan is a Chartered Financial Analyst (CFA) charterholder.

Biographies



P. Raghavendra Rau

Sir Evelyn de Rothschild Professor of Finance
Judge Business School
University of Cambridge

P. Raghavendra Rau is the Sir Evelyn de Rothschild Professor of Finance at the University of Cambridge's Judge Business School. He has taught at a number of universities around the world, including the Institut d'Etudes Politiques de Paris (Sciences Po); Purdue University; the University of California, Los Angeles; and the University of California, Berkeley. Rau was also principal at Barclays Global Investors in San Francisco from 2008 to 2009.

Rau is a past president of the European Finance Association; an associate editor of the *Journal of Banking and Finance*, the *International Review of Finance*, and the *Quarterly Journal of Finance*; and a past editor of *Financial Management*. His research has frequently been covered by the popular press, including the *New York Times*, the *Financial Times*, the *Wall Street Journal*, and *The Economist*, among others. He won the Ig Nobel Prize in Management in 2015, a prize awarded for research that makes people laugh, and then think.



Ryan Rosett

Founder and Co-CEO
Credibly

Ryan Rosett is founder and co-CEO of Credibly. Previously, he was the founder of IDEA Real Estate Group, a real estate development and distressed debt joint venture with Fortress Investment Group. Before IDEA, he cofounded Diversified Property Group, LLC, a real estate finance, home building, and development firm, working with companies such as GM, Walmart, Centex, Pulte, and Toll Brothers.

Rosett started his career as an associate/partner at Real Estate Interest Group, Inc., a regional real estate development firm. He has a J.D. from the University of Detroit School of Law and a B.A. from the University of Michigan.



John Ryan

**President and CEO
Conference of State Bank Supervisors**

John Ryan is the president and CEO of the Conference of State Bank Supervisors (CSBS), the national organization of financial regulators from all 50 states and U.S. territories. In this role, Ryan has provided strategic leadership in advancing the system of state financial supervision since 2011. He previously was CSBS's executive vice president and assistant vice president of legislative affairs.



Fahad Saleh

**Assistant Professor of Finance
McGill University**

Fahad Saleh is an assistant professor of finance at McGill University. His research examines both the economic viability and the economic implications of blockchain. His work has been presented at the American Economic Association, the American Finance Association, and the Western Finance Association. He has received the Western Finance Association's Cubist Systematic Strategies Award and the Northern Finance Association's Best FinTech Paper award. Saleh has a Ph.D. in finance from the NYU Stern School of Business, an M.Sc. in engineering from Columbia University, and a B.Sc. in engineering from Cornell University.



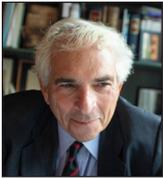
Asani Sarkar

**Assistant Vice President
Research and Statistics Group
Federal Reserve Bank of New York**

Asani Sarkar is an assistant vice president in the Research and Statistics Group at the Federal Reserve Bank of New York. He is working on the effects of liquidity regulations on bank lending and resilience, measures of too-big-to-fail risk, bitcoin pricing, and the real economy effects of the Federal Reserve's liquidity provision programs during the crisis. His paper, "Stigma in Financial Markets: Evidence from Liquidity Auctions and Discount Window Borrowing During the Crisis," received the Western Finance Association Pearson Award in 2011 for the best paper on financial institutions and markets.

Biographies

Sarkar's papers have appeared in many journals, including the *Journal of Finance*, the *Journal of Financial Economics*, *The Review of Financial Studies*, the *Journal of Financial and Quantitative Analysis*, and the *Journal of Financial Intermediation*. He has also held positions at Princeton University, Columbia University, and the University of Illinois at Urbana–Champaign. Sarkar has a Ph.D. in economics from the University of Pennsylvania.



Hal S. Scott

Emeritus Nomura Professor of International Financial Systems
Harvard Law School
Harvard University

Hal S. Scott is the Emeritus Nomura Professor of International Financial Systems at Harvard Law School (HLS), where he taught from 1975 to 2018. His courses were on capital markets regulation, international finance, the payment system, and securities regulation. He is an adjunct professor of public policy at the Harvard Kennedy School of Government, where he teaches capital market regulation. He also teaches international finance at the Boston University Law School. Before joining Harvard, he clerked for Justice Byron White.

Scott is the director of the Program on International Financial Systems (PIFS), founded in 1986, as part of HLS, which became independent in 2018. In addition to research, the program organizes the annual invitation-only U.S.-China, U.S.-Europe, and U.S.-Japan Symposia on Building the Financial System of the 21st Century, attended by financial system leaders in the concerned countries. The program has also organized special events on topics that include international accounting standards, enforcement, and ring fencing. HLS is the nonfinancial sponsor of these events. In addition, PIFS partners with Executive Education at Harvard Law School in offering executive education for financial regulators.

Scott's books include the law school textbook *International Finance: Transactions, Policy and Regulation* (22nd ed., Foundation Press, 2018); *Connectedness and Contagion* (MIT Press, 2016), and *The Global Financial Crisis* (Foundation Press, 2009). He is also the director of the Committee on Capital Markets Regulation, a bipartisan, nonprofit organization dedicated to enhancing the competitiveness of U.S. capital markets and ensuring the stability of the U.S. financial system via research and advocacy.

Scott is a member of the Bretton Woods Committee; a member of the Market Monitoring Group of the Institute of International Finance; a past independent director of Lazard, Ltd.; a past president of the International Academy of Consumer and Commercial Law; and a past governor of the American Stock Exchange. He has a J.D. from the University of Chicago Law School, an M.A. in political science from Stanford University, and a B.A. from Princeton University (Woodrow Wilson School).



Alla Goldman Seiffert

**Director of Cloud Policy and Counsel
Internet Association**

Alla Goldman Seiffert is director of cloud policy and counsel at Internet Association (IA), responsible for advocating for IA's cloud policy priorities and enterprise policy positions. She has spent her career working to modernize government through the adoption of innovative technologies.

Before joining IA, she was at the General Services Administration (GSA), most recently as acting director and assistant commissioner for the Technology Transformation Service, Office of Acquisition. In that role, Seiffert worked on procurement and spread modular contracting and agile software development practices throughout federal, state, and local governments. She previously worked in GSA's digital services as a product manager and in the Intelligence Community. She is a frequent speaker on procurement reform, IT modernization, agile acquisition, and women in tech issues. Seiffert has both law and bachelor's degrees from the University of Arizona.



David Snitkof

**Head of Analytics and Data Strategy
Kabbage, Inc.**

David Snitkof is head of analytics and data strategy at Kabbage Inc., a technology platform that provides cash-flow solutions to small businesses. The firm has provided more than 200,000 small businesses with access to over \$7 billion of working capital to date. He is a technology entrepreneur and data leader, with a history of developing analytical systems, teams, and businesses from the ground up. He was cofounder and chief analytics officer of Orchard, a pioneering data, analytics, and transaction platform that accelerated the growth and institutionalization of Online Lending. Kabbage acquired Orchard in 2018.

Biographies

Prior to Orchard, Snitkof held various analytical, product development, and risk management leadership roles at American Express, Citigroup, and Oyster.com. He is a frequent writer and speaker on financial technology, consumer credit, and the future of data-driven business and its impact on society. Snitkof has a degree in economics from Brown University.



William G. Spaniel

**Senior Vice President and Lending Officer
Supervision, Regulation, and Credit Department
Federal Reserve Bank of Philadelphia**

William (Bill) G. Spaniel is a senior vice president and lending officer at the Federal Reserve Bank of Philadelphia, overseeing the Bank's Supervision, Regulation, and Credit Department. Previously, he spent 25 years with the Board of Governors, where he advanced through staff and officer positions to senior associate director of the Division of Banking Supervision and Regulation. He joined the Board of Governors staff in 1990 as a supervisory financial analyst, served as assistant to the director for Banking Supervision, and was appointed to the official staff in 2000.

Before joining the Federal Reserve, Spaniel was a senior consultant for KPMG, specializing in credit administration, profit improvement, and regulatory compliance. He began his career as a compliance officer for a \$1 billion savings and loan association. Spaniel has a B.A. in economics from the College of William and Mary.



Kathryn Van Nuys

**Fintech Lead
Global Startup Business Development
Amazon Web Services**

Kathryn Van Nuys leads fintech for the Global Startup Business Development team at Amazon Web Services (AWS), where she is responsible for the development and execution of strategic initiatives in fintech. She partners with leading venture capital investors and works alongside their portfolio companies to support startups of all stages building on AWS.

Before AWS, Van Nuys was head of capital markets for Credibly, a small business funding platform, and before that, she was at Pave, a marketplace consumer lender. She started her career at Citigroup in debt capital markets and worked at Lehman Brothers and Guggenheim Partners. While

she has spent most of her time in New York, she also led business development for EMEA (Europe, Middle East, and Africa) and APAC (Asia Pacific) at Roubini Global Economics in London. Van Nuys has a B.A. in economics from Columbia University.



Kevin Werbach

**Professor of Legal Studies and Business Ethics
The Wharton School of the University of Pennsylvania**

Kevin Werbach is professor of legal studies and business ethics at the Wharton School of the University of Pennsylvania. A world-renowned expert on emerging technology, he examines the business and policy implications of developments, such as broadband, big data, gamification, and blockchain.

Werbach was on the Obama administration's Presidential Transition Team, founded the Supernova Group (a technology conference and consulting firm), helped develop the U.S. approach to Internet policy during the Clinton administration, and created one of the most successful massive open online courses, with nearly 500,000 enrollments. His books include *For the Win: How Game Thinking Can Revolutionize Your Business* and *The Blockchain and the New Architecture of Trust*.



James Wu

**Founder and CEO
MonJa**

James Wu is founder and CEO of MonJa, a platform that streamlines small business underwriting, investor analytics, reporting, and credit facility management. The company headquarters are in Oakland, CA. Before Wu founded MonJa, he was the executive director of risk management analytics at MSCI, where he developed his expertise designing and selling investment tools and software for institutional investors. Wu has an M.B.A. from the University of California, Berkeley, and a B.S. in computer science from Columbia University.



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