



HOW  
MONETARY  
POLICY  
GOT BEHIND  
THE CURVE—AND  
HOW TO  
GET BACK

EDITED BY

Michael D. Bordo, John H. Cochrane,  
and John B. Taylor

## About the Contributors

**MICHAEL D. BORDO** is a Board of Governors Professor of Economics and director of the Center for Monetary and Financial History at Rutgers University, New Brunswick, New Jersey. He has held previous academic positions at the University of South Carolina and Carleton University in Ottawa, Canada. Bordo has been a visiting professor at the University of California–Los Angeles, Carnegie Mellon University, Princeton University, Harvard University, and Cambridge University, where he was Pitt Professor of American History and Institutions. He is currently the Ilene and Morton Harris Distinguished Visiting Fellow at the Hoover Institution. He has been a visiting scholar at the International Monetary Fund, the Federal Reserve banks of St. Louis, Cleveland, and Dallas, the Federal Reserve Board of Governors, the Bank of Canada, the Bank of England, and the Bank for International Settlements. He is a research associate of the National Bureau of Economic Research and a member of the Shadow Open Market Committee. He has a BA degree from McGill University, an MSc in economics from the London School of Economics, and a PhD from the University of Chicago. He has published many articles in leading journals and eighteen books on monetary economics and monetary history. His latest book is *The Historical Performance of the Federal Reserve: The Importance of Rules* (Hoover Institution Press, 2019). He is editor of a series of books for Cambridge University Press: *Studies in Macroeconomic History*.

**JAMES (“JIM”) BULLARD** is the president and CEO of the Federal Reserve Bank of St. Louis. In that role, he is a participant on the Federal Reserve’s Federal Open Market Committee, which meets regularly to set the direction of US monetary policy. He also oversees the Federal

Reserve's Eighth District, including activities at the St. Louis headquarters and its branches in Little Rock, Arkansas; Louisville, Kentucky; and Memphis, Tennessee. A noted economist and policy maker, Bullard makes Fed transparency and dialogue a priority on the international and national stage as well as on Main Street. He serves on the board of directors of Concordance Academy of Leadership, and he is a past board chair of the United Way USA. Bullard is coeditor of the *Journal of Economic Dynamics and Control*, a member of the editorial advisory board of the *National Institute Economic Review*, and a member of the Central Bank Research Association's senior council. He is an honorary professor of economics at Washington University in St. Louis, where he also sits on the advisory council of the economics department and the advisory board of the Center for Dynamic Economics. A native of Forest Lake, Minnesota, Bullard received his doctorate in economics from Indiana University–Bloomington.

**JENNIFER BURNS** is an associate professor of history at Stanford University and a research fellow at the Hoover Institution. The leading independent expert on Ayn Rand, she is author of the acclaimed biography *Goddess of the Market: Ayn Rand and the American Right* (Oxford University Press, 2009). Currently, she is completing an intellectual biography of Milton Friedman. At the Hoover Institution she directs the annual Summer Workshop on Political Economy. Burns is a graduate of Harvard College and the University of California–Berkeley. Podcasts of her American history courses are available through iTunes and on her website, [jenniferburns.org](http://jenniferburns.org).

**RICHARD H. CLARIDA** is the C. Lowell Harriss Professor of Economics and International Affairs at Columbia University, where he has taught since 1988. On September 17, 2018, he was sworn in as vice chairman of the Board of Governors of the Federal Reserve and served in that capacity until January 14, 2022. From February 2002 until May 2003, Clarida served as the assistant secretary of the US Treasury for economic policy, a position that required confirmation by the US Senate. In that position, he served as chief economic adviser to the secretary of the Treasury, advising him on a wide range of economic policy issues, including US and global economic prospects, international capital flows, corporate governance, and the maturity structure of US debt. In May 2003, then Treasury secretary

John Snow presented him with the Treasury Medal in recognition of his record of outstanding service. From 1997 until 2001, Clarida served as chair of the Department of Economics at Columbia University. Earlier in his career, he taught at Yale University and served in the administration of President Ronald Reagan as senior staff economist with the President's Council of Economic Advisers. He has published numerous and frequently cited articles in leading academic journals on monetary policy, exchange rates, interest rates, and international capital flows. Over his career, he has been invited to present his views and research to the world's leading central banks and has also served as a consultant to several prominent financial firms. He received his BS from the University of Illinois with Bronze Tablet honors in 1979 and his MA and PhD from Harvard University in 1983.

**JOHN H. COCHRANE** is the Rose-Marie and Jack Anderson Senior Fellow at the Hoover Institution. He is also a research associate of the National Bureau of Economic Research and an adjunct scholar of the Cato Institute. Before joining Hoover, Cochrane was a professor of finance at the University of Chicago's Booth School of Business and previously taught in its Economics department. He served as president of the American Finance Association and is a fellow of the Econometric Society. He writes on asset pricing, financial regulation, business cycles, and monetary policy. He has also written articles on macroeconomics, health insurance, time-series econometrics, financial regulation, and other topics. His books include the forthcoming *The Fiscal Theory of the Price Level* and *Asset Pricing*. Cochrane frequently contributes essays to the *Wall Street Journal*, *National Review*, *Project Syndicate*, and other publications. He maintains a blog, *The Grumpy Economist*. Cochrane earned a bachelor's degree in physics at MIT and a PhD in economics at the University of California–Berkeley.

**TYLER GOODSPEED** is a Kleinheinz Fellow at the Hoover Institution and US director at Greenmantle LLC. From 2020 to 2021, he served as chairman of the Council of Economic Advisers, having been appointed by the president as a member of the council in 2019. In that role, he advised the administration's economic response to the coronavirus pandemic as well as subsequent economic recovery packages. He previously served as chief economist for macroeconomic policy and senior economist for tax, public finance, and macroeconomics, playing an instrumental role in the

design of the 2017 Tax Cuts and Jobs Act. Before joining the Council of Economic Advisers, Goodspeed was on the faculty of economics at the University of Oxford and was a lecturer in economics at King's College London. He has published extensively on economic and financial history, banking, and monetary economics, with particular attention to the role of access to credit in mitigating the effects of adverse environmental shocks in historical contexts. He received his BA, MA, and PhD from Harvard University and his MPhil from the University of Cambridge, where he was a Gates Scholar.

**GEORGE J. HALL** is the Fred C. Hecht Professor of Economics at Brandeis University, where he teaches macroeconomics. His research focuses on the history of US fiscal policy and firm-level inventory and pricing behavior. Before joining Brandeis in 2006, he served on the faculty at Yale University and the research staff of the Federal Reserve Bank of Chicago. He earned his BA at Oberlin College and his PhD in economics at the University of Chicago.

**BETH HAMMACK** is co-head of the global financing group within the Investment Banking Division (IBD) and a member of the Management Committee at Goldman Sachs. She is a member of the IBD Executive Committee, Firmwide Capital Committee, Firmwide Asset Liability Committee, and Global Inclusion and Diversity Committee, and she serves as a global executive sponsor of the Women's Network. In addition, she is a firmwide champion for Launch With GS, Goldman Sachs's \$1 billion investment strategy grounded in the firm's data-driven thesis that diverse teams drive strong returns. Previously, Hammack was global treasurer of Goldman Sachs and chief executive officer of Goldman Sachs Bank USA, where she was responsible for the firm's funding, liquidity, and capital management strategy. Before that, she held a variety of leadership positions in interest rate products (IRP) trading, including global head of short-term macro trading, global head of repo trading, and co-head of US IRP cash trading. Earlier, she was a market maker on the IRP desk, where she traded a variety of instruments, focused primarily on options and later agencies. She joined Goldman Sachs in 1993 as an analyst in debt capital markets and was named managing director in 2003 and partner in 2010. She chairs the Treasury Borrowing Advisory Committee and serves on the boards of Northwell Health and Math for America. She is a former

member of the Treasury Market Practices Group. She earned an AB in quantitative economics and history from Stanford University.

**ARVIND KRISHNAMURTHY** is the John S. Osterweis Professor of Finance at Stanford Graduate School of Business and a research associate at the National Bureau of Economic Research. He formerly taught at the Kellogg School of Management (1998–2014). Krishnamurthy studies finance, macroeconomics, and monetary policy. He has studied the causes and consequences of liquidity crises in emerging markets and developed economies and the role of government policy in stabilizing crises. Recently he has been examining the importance of US Treasury bonds and the dollar in the international monetary system. He has published numerous journal articles and received awards for his research, including the Smith Breeden Prize for best paper published in the *Journal of Finance*. He did his undergraduate studies at the University of Pennsylvania and his doctoral work at the Massachusetts Institute of Technology.

**MICKEY D. LEVY** is the chief economist for Berenberg Capital Markets LLC. He is a long-standing member of the Shadow Open Market Committee. He is on the Financial Research Advisory Committee of the Office of Financial Research. He is also a member of the Council on Foreign Relations and the Economic Club of New York. From 1998 to 2013, he was chief economist at Bank of America Corporation, where he was on the Executive Asset Liability and Finance committees. He conducts research on monetary and fiscal policies, their impacts, and how they influence economic and financial market performance in the United States and globally. He has authored numerous papers on the effectiveness of monetary and fiscal policies, their interaction, and longer-run risks. He testifies frequently before the US Congress on various aspects of monetary policy and banking regulation, credit conditions and debt, fiscal and budget policies, and global capital flows.

**JOHN LIPSKY** is a senior fellow of the Foreign Policy Institute at Johns Hopkins University's School of Advanced International Studies. Most recently, he was first deputy managing director of the International Monetary Fund. Previously, he was vice chairman of JPMorgan Investment Bank, chief economist at JPMorgan Chase, chief economist and director of research at Chase Manhattan Bank, and chief economist at Salomon

Brothers. Early in his career, he spent ten years at the International Monetary Fund. Currently, he is the chair of the National Bureau of Economic Research and the cochair of the Aspen Institute's Program on the World Economy. He is the vice chair of the Center for Global Development and of the Bretton Woods Committee. He also serves on the advisory board of the Stanford Institute for Economic Policy Research, is a director of the American Council on Germany, and is a life member of the Council on Foreign Relations. He received his PhD in economics from Stanford University.

**ELLEN R. MCGRATTAN** is a visiting fellow at the Hoover Institution, a professor of economics at the University of Minnesota, and the director of the Heller-Hurwicz Economics Institute. Her research is concerned with the impact of monetary and fiscal policy—in particular, the effects on GDP, investment, hours, productivity, the stock market, and international capital flows. Her recent work reexamines issues in macroeconomics and international finance in light of the fact that some investments are mismeasured. McGrattan is a consultant at the Federal Reserve Bank of Minneapolis, a research associate at the National Bureau of Economic Research, a fellow of the Econometric Society, a fellow of the Society for the Advancement of Economic Theory, president of the Society for Economic Dynamics, a member of the US Bureau of Economic Analysis Advisory Committee, and an associate editor of the *American Economic Review*. She received her undergraduate degree in mathematics and economics from Boston College and her PhD in economics from Stanford University.

**MONIKA PIAZZESI** is the Joan Kenney Professor of Economics at Stanford University and a professor (by courtesy) at Stanford Graduate School of Business. She is a research associate at the National Bureau of Economic Research's Asset Pricing Program, where she was the director of the program. She is also a fellow of the Stanford Institute for Economic Policy Research (SIEPR), the American Academy of Arts and Sciences, and the Econometric Society, and was a Guggenheim fellow during 2015–16. From 2006 to 2014, she was coeditor of the *Journal of Political Economy*. Before joining Stanford, she taught at the University of Chicago and the University of California–Los Angeles. She received the Elaine Bennett Research Prize and the Bernácer Prize for Research in Macroeconomics and Finance. She holds a diploma in economics from the University of

Bonn and a PhD from Stanford. Her research focuses on the interaction between the macroeconomy and financial markets. She works on monetary policy, credit, banking, housing markets, and expectation formation.

**CHARLES I. PLOSSER** is a visiting fellow at the Hoover Institution. He served as a public governor of the Financial Industry Regulatory Authority from 2015 to 2021 and as president and CEO of the Federal Reserve Bank of Philadelphia from 2006 to his retirement in 2015. He has been a longtime advocate of the Federal Reserve's adopting an explicit inflation target, which the Federal Open Market Committee did in January 2012. Before joining the Philadelphia Fed in 2006, Plosser was the John M. Olin Distinguished Professor of Economics and Public Policy and served as dean from 1993 to 2003 at the University of Rochester's Simon School of Business. He has served as a research associate of the National Bureau of Economic Research. Plosser served as coeditor of the *Journal of Monetary Economics* for two decades and cochaired the Shadow Open Market Committee with Anna Schwartz. His research and teaching interests include monetary and fiscal policy, long-term economic growth, and banking and financial markets. Plosser earned PhD and MBA degrees from the University of Chicago.

**RANDAL QUARLES** is chairman and founder of the Cynosure Group, an investment firm bringing together several of the United States' largest family offices to make long-term private investments. From October 2017 through October 2021, he was vice chairman for supervision of the Federal Reserve Board, charged with ensuring stability of the financial sector. From December 2018 until December 2021, he also served as the chairman of the Financial Stability Board (FSB), a global body established after the great financial crisis to coordinate international efforts to enhance financial stability. As FSB chairman, he was a regular delegate to the finance ministers' meetings of the G7 and the G20 and to the summit meetings of the G20. Earlier in his career, Quarles was a longtime partner at the Carlyle Group, a leading global private equity firm, and before that a partner at the international law firm of Davis Polk & Wardwell, where he was cohead of its financial services practice. He has been a close adviser to every Republican Treasury secretary for the last 35 years, including as under secretary of the Treasury in the George W. Bush administration. He has also served as assistant secretary of the Treasury for international

affairs, deputy assistant secretary of the Treasury for financial institutions, and US executive director of the International Monetary Fund.

**JOSHUA RAUH** is the Ormond Family Professor of Finance at Stanford Graduate School of Business and a senior fellow at the Hoover Institution. He formerly served at the White House, where he was principal chief economist on the President's Council of Economic Advisers (2019–20) and taught at the University of Chicago's Booth School of Business (2004–9) and the Kellogg School of Management (2009–12). At the Hoover Institution, he has served as director of research (2018–19). Rauh studies government pension liabilities, corporate investment, business taxation, and investment management. His research on pension systems and public finance has received national media coverage in outlets such as the *Wall Street Journal*, the *New York Times*, the *Financial Times*, and *The Economist*, and he has testified before Congress on these topics. His PragerU video, "Public Pensions: An Economic Time Bomb," has been viewed over four million times on the PragerU website and over three million times on YouTube. He has published numerous journal articles and has received various awards recognizing his scholarship, including the Brattle Prize and the Smith Breeden Prize of the American Finance Association. His scholarly papers have appeared in journals such as the *Journal of Political Economy*, the *Quarterly Journal of Economics*, the *Journal of Finance*, the *Journal of Financial Economics*, the *Review of Financial Studies*, and the *Journal of Public Economics*. Before his academic career, he was an associate economist at Goldman Sachs in London. Rauh received a BA from Yale University and a PhD from the Massachusetts Institute of Technology, both in economics.

**RICARDO REIS** is the A. W. Phillips Professor of Economics at the London School of Economics. Recent honors include the 2021 European Economic Association for best academic economist in Europe under age forty-five, the 2017 Banque de France / Toulouse School of Economics junior prize, and the 2016 Bernácer Prize. Reis is an academic consultant at the Bank of England, the Riksbank, and the Federal Reserve Bank of Richmond. He directs the Centre for Macroeconomics in the United Kingdom and serves on the council or as an adviser of multiple organizations. He has published widely on macroeconomics. His main areas of research are inflation, inflation expectations, unconventional monetary

policies and the central bank's balance sheet, disagreement and inattention, business cycle models with inequality, automatic stabilizers, public debt sustainability, monetary-fiscal interactions, sovereign bond-backed securities, and the role of capital misallocation in the European slump and crisis. He received his PhD from Harvard University and was previously on the faculty at Columbia University and Princeton University. He was a Hoover national fellow in 2006–07.

**CONDOLEEZZA RICE** is the Tad and Dianne Taube Director of the Hoover Institution and the Thomas and Barbara Stephenson Senior Fellow on Public Policy. In addition, she is a founding partner of Rice, Hadley, Gates & Manuel LLC, an international strategic consulting firm. From January 2005 to January 2009, Rice served as the sixty-sixth US secretary of state, the second woman and first Black woman to hold the post. Rice also served as President George W. Bush's assistant to the president for national security affairs (national security advisor) from January 2001 to January 2005, the first woman to hold the position. Rice served as Stanford University's provost from 1993 to 1999, during which time she was the institution's chief budget and academic officer. As professor of political science, Rice has been on the Stanford faculty since 1981 and has won two of the university's highest teaching honors: the 1984 Walter J. Gores Award for Excellence in Teaching and the 1993 School of Humanities and Sciences Dean's Award for Distinguished Teaching. She has authored and coauthored numerous books, most recently *To Build a Better World: Choices to End the Cold War and Create a Global Commonwealth* (2019), coauthored with Philip Zelikow. Among her other volumes are three bestsellers, *Democracy: Stories from the Long Road to Freedom* (2017); *No Higher Honor: A Memoir of My Years in Washington* (2011); and *Extraordinary, Ordinary People: A Memoir of Family* (2010). She also wrote *Germany Unified and Europe Transformed: A Study in Statecraft* (1995) with Philip Zelikow; edited *The Gorbachev Era* (1986) with Alexander Dallin; and penned *The Soviet Union and the Czechoslovak Army, 1948–1983: Uncertain Allegiance* (1984). Rice has a bachelor's degree from the University of Denver, a master's degree from the University of Notre Dame, and a PhD from the University of Denver, all in political science.

**THOMAS J. SARGENT**, a macroeconomist, joined New York University as the first W. R. Berkley Professor in September 2002, a joint appoint-

ment by the Economics Department at NYU's Faculty of Arts and Science and the Stern School of Business. He was awarded the 2011 Nobel Prize in Economic Sciences, shared with Princeton University's Christopher Sims, for his empirical research on cause and effect in the macroeconomy. Sargent was a professor of economics at the University of Minnesota from 1975 to 1987, the David Rockefeller Professor at the University of Chicago from 1992 to 1998, and the Donald L. Lucas Professor in Economics at Stanford University from 1998 to 2002. He has been a senior fellow at the Hoover Institution since 1987. He earned his PhD from Harvard University in 1968 and was a first lieutenant and captain in the US Army. He was a university medalist as Most Distinguished Scholar in the Class of 1964 and won the Nemmers Prize in Economics in 1997. He was elected a fellow of the National Academy of Sciences and a fellow of the American Academy of Arts and Sciences, both in 1983. He is past president of the Econometric Society, the American Economic Association, and the Society for Economic Dynamics. Among his books are *Rational Expectations and Econometric Practice*, with Robert E. Lucas Jr. (University of Minnesota Press, 1981); *The Big Problem of Small Change*, with François R. Velde (Princeton University Press, 2002); *Recursive Macroeconomic Theory*, with Lars Ljungqvist (MIT Press, 2004); and *Robustness*, with Lars Peter Hansen (Princeton University Press, 2008).

**TOM STEPHENSON** spent over thirty-five years as a venture capitalist with two high-profile firms, Fidelity Investments in Boston and Sequoia Capital in Silicon Valley, serving as managing partner at each venture firm for several years. Since the mid-2000s, he has devoted the bulk of his time to the world of policy, including a stint with the State Department as ambassador to Portugal. He is a longtime board member of the Hoover Institution and recently served as chair of its Board of Overseers. Mr. Stephenson is also an active director of Business Executives for National Security (BENS) and travels extensively to various hot spots around the world with BENS. At Hoover, he and the late George Shultz formed and cochaired an energy task force focused on market-based ways to address climate change and global warming. His energy and climate work at Hoover was augmented and complemented by his twenty-year service on Conservation International's board of directors. More recently at Hoover, he has helped set up a National Security Task Force to help address our many challenges from adversaries around the world.

**LAWRENCE H. SUMMERS** is the Charles W. Eliot University Professor and president emeritus of Harvard University. During the past two decades, he has served in a series of senior policy positions in Washington, DC, including as secretary of the Treasury for President Clinton, director of the National Economic Council for President Obama, and vice president of development economics and chief economist of the World Bank. He received a bachelor of science degree from the Massachusetts Institute of Technology in 1975 and was awarded a PhD from Harvard in 1982. In 1983, he became one of the youngest individuals in recent history to be named as a tenured member of the Harvard University faculty. In 1987, Summers became the first social scientist ever to receive the annual Alan T. Waterman Award of the National Science Foundation, and in 1993, he was awarded the John Bates Clark Medal, given every two years to the outstanding American economist under the age of forty. He is currently the Weil Director of the Mossavar-Rahmani Center for Business & Government at Harvard's Kennedy School.

**JOHN B. TAYLOR** is the George P. Shultz Senior Fellow in Economics at the Hoover Institution and the Mary and Robert Raymond Professor of Economics at Stanford University. He is also the director of Stanford's Introductory Economics Center. An award-winning teacher and researcher, he served as senior economist on the President's Council of Economic Advisers from 1976 to '77, as a member of the council from 1989 to 1991, and as under secretary of the Treasury for international affairs from 2001 to 2005. More recently, he was president of the Mont Pelerin Society and served on the Eminent Persons Group on Global Financial Governance created by the G20. His book *Global Financial Warriors* chronicles his policy innovations at the US Treasury. His book *First Principles* won the Hayek Prize in 2012. His most recent books are *Choose Economic Freedom: Enduring Policy Lessons from the 1970s and 1980s* (with George P. Shultz) and *Reform of the International Monetary System*.

**CHRISTOPHER J. WALLER** took office as a member of the Board of Governors of the Federal Reserve System on December 18, 2020, to fill an unexpired term ending January 31, 2030. Prior to his appointment at the board, he served as executive vice president and director of research at the Federal Reserve Bank of St. Louis since 2009. In addition to his experience in the Federal Reserve System, Waller served as a professor

and the Gilbert F. Schaefer Chair of Economics at the University of Notre Dame. He was also a research fellow with Notre Dame's Kellogg Institute for International Studies. From 1998 to 2003, he was a professor and the Carol Martin Gatton Chair of Macroeconomics and Monetary Economics at the University of Kentucky. During that time, he was also a research fellow at the Center for European Integration Studies at the University of Bonn. From 1992 to 1994, he served as the director of graduate studies at Indiana University's Department of Economics, where he also served as associate professor and assistant professor. He received a BS in economics from Bemidji State University and an MA and PhD from Washington State University.

**KEVIN WARSH** serves as the Shepard Family Distinguished Visiting Fellow in Economics at the Hoover Institution and lecturer at Stanford Graduate School of Business. He is an adviser to Duquesne Family Office and serves on the board of directors of UPS and Coupang, the leading Korean e-commerce company. Warsh is a member of the Group of Thirty (G30) and the Panel of Economic Advisers of the Congressional Budget Office. He conducts extensive research in the field of economics and finance. He issued an independent report to the Bank of England proposing reforms in the conduct of monetary policy in the United Kingdom. Parliament adopted the report's recommendations. He served as a member of the Board of Governors of the Federal Reserve System from 2006 to 2011. Warsh served as the Federal Reserve's representative to the Group of Twenty (G20) and as the board's emissary to emerging and advanced economies in Asia. In addition, he was administrative governor, managing and overseeing the board's operations, personnel, and financial performance. Before his appointment to the board, from 2002 to 2006 he served as special assistant to the president for economic policy and executive secretary of the White House National Economic Council. Previously, he was a member of the mergers and acquisitions department at Morgan Stanley & Co. in New York, serving as vice president and executive director. He received his AB from Stanford University and JD from Harvard Law School.

**VOLKER WIELAND** holds the Endowed Chair of Monetary Economics at the Institute for Monetary and Financial Stability at Goethe University of Frankfurt, where he also serves as managing director. He was a member of the German Council of Economic Experts from March 2013 to

April 2020. In 1995, Wieland received a PhD in economics from Stanford University. Before joining the Frankfurt faculty in 2000, he was a senior economist at the Board of Governors of the Federal Reserve System. His research interests include monetary and fiscal policy, business cycles, macroeconomic models, and economic dynamics. He has published in leading economic journals such as the *American Economic Review*, the *Journal of Monetary Economics*, and the *Review of Economics and Statistics*. He has served as managing editor of the *Journal of Economic Dynamics and Control* and has received several awards and grants. Furthermore, he has been a consultant to central banks and international institutions. Recently, he has been coordinating the creation of the Macroeconomic Model Data Base, a public archive of macroeconomic models for comparative purposes.