**2014-15**ANNUAL REPORT



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## MESSAGE FROM THE DIRECTOR

The academic year 2014 was eventful. On July 1st, 2014 I assumed the role of Director of the Bendheim Center for Finance. My colleague Yacine Ait-Sahalia has done a fantastic job of getting the BCF off the ground. In particular he was instrumental in establishing the BCF's Master in Finance Program. Our advisory council honored his outstanding achievements by establishing a Leadership fund that will later carry his name. It will provide funding for graduate students in the program in Finance at BCF. We are also proud to say that Yuliy Sannikov received the Fisher Black Prize from the American Finance Association, which is granted every other year to the top financial economist under the age of 40.

The BCF furthermore welcomed several new researchers. During the academic year of 2014-2015, new faculty member Maryam Farboodi joined the BCF. Maryam finished her PhD at the University of Chicago. Her research focuses primarily on financial networks. She joined us in her first year as Pyewacket Fellow, a post-doc position that was endowed through a generous gift from Bill Janeway. From July 2015 onwards she will be a regular assistant professor. In addition to Maryam we recruited Motohiro Yogo and Adrien Matray. Motohiro joins us in Academic year 2015-2016 from the Federal Reserve Bank of Minneapolis, where he has been a monetary adviser since 2010. He has served as an adjunct research associate professor at the University of Minnesota since 2012 and was an assistant professor at the University of Pennsylvania from 2004 to 2010. Yogo received a Ph.D. from Harvard and earned an A.B. at Princeton. His fields of specialization are financial economics and econometrics. His recent work focuses on topics such as the insurance sector as well as institutional demand for financial assets. Finally, Adrien Matray will join us as assistant professor after completing a post-doc here at Princeton. He earned master's degrees at HEC-Paris (école des Hautes Etudes Commerciales de Paris) and the Paris School of Economics and his Ph.D. from HEC-Paris. In Academic year 2015-2016 we will continue our recruiting efforts.

The Center has been and will continue to be engaged in several research-related initiatives. These initiatives are designed to broaden our visibility as well as to continue to provide our faculty and students with the best possible research opportunities. The Bill Janeway initiative enables us – through a generous \$5.6 million gift from Bill Janeway – to foster closer links to the department of economics and to promote research and teaching at the intersection between finance and economics. We also launched a China Initiative that should enable us to increase our research on China-related topics. Furthermore we will offer a new class in "China's Financial and Monetary System." In November 2015 we will start the Trinity of Stability Initiative which brings central bankers and researchers together to better understand the interlinkages between the three fundamental stability concepts: financial stability, monetary stability and fiscal debt sustainability. Finally, we continue the popular Princeton Initiative: Macro, Money and Finance which brings about 50 Ph.D. students to Princeton to learn Princeton's way of thinking on the interlinkages of macroeconomics and financial economics. More information about the various initiatives is contained in the back of the report.

We continually appreciate your support!

Markus Brunnermeier

Edwards S. Sanford Professor

Director, Bendheim Center for Finance

## **FACULTY**



DILIP ABREU is the Edward E. Matthews, Class of 1953, Professor of Finance and Professor of Economics. His research interests include behavioral economics and finance, economic theory, and game theory. In these areas he has made particular contributions to the theory of dynamic games, implementation, reputational bargaining, and bubbles and crashes. He is a fellow of the Econometric Society and a fellow of the American Academy of Arts and Sciences. He received a B.A. from Bombay University, an M.A. from the Delhi School of Economics, an M.Phil. from the University of Oxford, and a Ph.D. in economics from Princeton.



YACINE AÏT-SAHALIA is the Otto A. Hack '03 Professor of Finance and Economics. He served as the founding director of the Bendheim Center for Finance from 1998 until 2014. He was previously a professor at the University of Chicago's Graduate School of Business. He was named an outstanding faculty member by Business Week's 1997 Guide to the Best Business Schools and is the recipient of the 1997 Michael Brennan Award, the 2001 FAME Award, and the 2003 Aigner Award. He received fellowships from the Sloan and Guggenheim Foundations. He is a fellow of the Econometric Society, the American Statistical Association, and the Institute of Mathematical Statistics, and a research associate for the National Bureau of Economic Research. He currently serves as a co-editor of the Journal of Econometrics. He edited the Handbook of Financial Econometrics with Lars P. Hansen and recently co-authored High Frequency Financial Econometrics with Jean Jacod. He received his Ph.D. in economics from the Massachusetts Institute of Technology in 1993 and his undergraduate degree from École Polytechnique.



ALAN BLINDER is the Gordon S. Rentschler Memorial Professor of Economics. He also founded the Griswold Center for Economic Policy Studies at Princeton in 1990. He is former vice chairman of the Board of Governors of the Federal Reserve System (1994–96) and before that was a member of President Clinton's original Council of Economic Advisers (1993–94). He also served briefly as deputy assistant director of the Congressional Budget Office in 1975. He is the vice chairman of Promontory Interfinancial Network, a director of the Council on Foreign Relations, and a member of the Economic Club of New York. Blinder was elected to the American Philosophical Society and the American Academy of Arts and Sciences. He is the author or coauthor of 17 books, the latest being "After the Music Stopped", lauded by the New York Times as one of the five best nonfiction books of 2013. Blinder has also written scores of scholarly articles on topics such as fiscal policy, monetary policy, and the distribution of income. He received his Ph.D. from the Massachusetts Institute of Technology.



MARKUS K. BRUNNERMEIER is the Edwards S. Sanford Professor of Economics at Princeton University. He is a faculty member of the Department of Economics and director of Princeton's Bendheim Center for Finance. He is the founding and former director of Princeton's Julis Rabinowitz Center for Public Policy and Finance and affiliated with the International Economics Section. He is a member of several advisory groups for the IMF, the Federal Reserve of New York, the European Systemic Risk Board, the Bundesbank and the U.S. Congressional Budget Office. Brunnermeier was awarded his Ph.D. by the London School of Economics (LSE). His research focuses on international financial markets and the macroeconomy with special emphasis on bubbles, liquidity, financial and monetary price stability. He is a Sloan Research Fellow, Fellow of the Econometric Society, recipient of the Bernácer Prize and Guggenheim Fellowship. He has been awarded several best paper prizes and served on the editorial boards of several leading economics and finance journals. He has tried to establish the concepts liquidity spirals, CoVaR as co-risk measure, the volatility paradox, and the I Theory of Money.





RENÉ CARMONA is the Paul M. Wythes '55 Professor of Engineering and Finance. Rene was director of graduate studies for AY2001-2015. As Director, he was responsible for the Master in Finance program. He joined Princeton in 1995. He was elected fellow of the Institute of Mathematical Statistics in 1984, and of the Society for Industrial and Applied Mathematics in 2009. He is also a member of the Bachelier Finance Society. Among his many editorial responsibilities, he was the co-founder and editor in chief of Electronic Journal in Probability, Communications in Probability and SIAM Journal on Financial Mathematics. He works on mathematical models for the commodity and high frequency markets, and computational methods for quantitative finance.



PATRICK CHERIDITO is an associate professor of operations research and financial engineering. His research interests lie in probability, optimization and their applications to finance and insurance. He has worked on stochastic models for interest rates, dynamically consistent methods to measure risk, systemic risk, risk allocation problems, backward stochastic differential equations, variable annuities with embedded options and robust methods in mathematical finance.



ERHAN ÇINLAR is the Norman J. Sollenberger Professor of Engineering, Emeritus in the Department of Operations Research and Financial Engineering. He came to Princeton as a visiting professor of statistics in 1979–80. He is a fellow of the Institute of Mathematical Statistics, a fellow of INFORMS, an elected member of the International Statistical Institute, and the recipient of the Science Prize of TUBITAK. He has served as editor or associate editor of more than 12 journals on probability theory and its applications. His research interests center on martingales, Markov processes, stochastic differential equations, dynamic point processes, and mass transport by stochastic flows. He received the President's Award for Distinguished Teaching during the June 2010 Princeton Commencement ceremonies. He received the Lifetime Achievement Award for Excellence in Teaching for the Engineering School Student Council in 2011.



MARYAM FARBOODI joined the Bendhiem Center for Finance as an Assistant Professor in July 2014. Her research interests focus primarily on financial networks. Maryam finished her PhD at the University of Chicago with a joint degree with Booth School of Business and the Department of Economics. Her main research interests are in corporate finance, financial networks, and informational frictions. She was one of the six selected PhD students who toured Europe to present their research as part of the Review of Economic Studies Tour in 2004. She is the recipient of the John Leusner Fellowship, Top Finance Graduate Award and Best Finance Theory paper.



JIANQING FAN is the Frederick L. Moore '18 Professor of Finance. His research interests include financial econometrics, asset pricing, statistical learning, nonparametric modeling, and computational biology. As a specialist in statistics and financial econometrics, Fan received the 2000 Presidents' Award from the Committee of Presidents of Statistical Societies, the 2007 Morningside Gold Medal of Applied Mathematics, the Guggenheim Fellowship in 2009, Academician of Academia Sinica in 2012, Guys Medal in Silver of Royal Statistical Society in 2014. He was the president of the Institute of Mathematical Statistics, is an elected fellow of the American Association for the Advancement of Science, the American Statistical Association, and the Institute of Mathematical Statistics. He has coauthored three highly regarded books. He serves as the co-editor of the Journal of Econometrics and associate editor Journal of the American Statistical Association. He has served as the co-editor (in-chief) of the Annals of Statistics, Probability Theory and Related Fields, and Econometrics Journal, and associate editor of Econometrica, and Journal of Financial Econometrics. He earned his Ph.D. from the University of California–Berkeley.



MIKHAIL GOLOSOV is a professor of economics at Princeton University. Dr. Golosov has also held positions at Yale University and the Massachusetts Institute of Technology. He is the associate editor of Econometrica and Journal of Public Economics. Dr. Golosov was awarded the Sloan Research Fellowship in 2008 as well as the National Science Foundation CAREER Grant. His research covers topics in macro economics, public finance and political economy.



VALENTIN HADDAD joined the faculty at the Department of Economics at Princeton University in 2012 and teaches courses in finance for the undergraduate and the Ph.D. programs. He received his B.S. in applied mathematics and economics from École Polytechnique in 2008 and his Ph.D. in finance and economics from the University of Chicago in 2012. His research covers topics such as: the role of concentrated ownership for aggregate asset pricing dynamics; the impact of macroeconomic conditions for buyout activity.



HARRISON HONG is the John Scully '66 Professor of Economics and Finance and the Undergraduate Representative for the Bendheim Center for Finance. Before joining Princeton in 2002, he was on the faculty of the Graduate School of Business at Stanford University. He received his B.A. in economics and statistics with highest distinction from the University of California-Berkeley in 1992 and his Ph.D. in economics from the Massachusetts Institute of Technology in 1997. His research has covered such topics as: behavioral finance and stock market efficiency; asset pricing and trading under market imperfections; social interaction and investor behavior; security analyst incentives and forecast biases; organizational form and mutual fund performance; and destabilizing arbitrage, socially responsible investing, and commodities pricing. His work has received numerous awards and grants. He is on the editorial boards of the Journal of Finance and the Journal of International Central Banking. He was awarded the 2009 Fischer Black Prize by the American Finance Association, given bi-annually to the best financial economist under the age of 40.



HAROLD JAMES holds a joint appointment as a professor of international affairs in the Woodrow Wilson School and a professor in the history department, studies economic and financial history and modern German history. He was educated at the University of Cambridge (Ph.D., 1982) and was a fellow of Peterhouse for eight years before coming to Princeton in 1986. In 2004, he was awarded the Helmut Schmidt Prize for Economic History, and in 2005, the Ludwig Erhard Prize for writing about economics. He is chair of the editorial board of World Politics.



NOBUHIRO KIYOTAKI is the Harold H. Helm '20 Professor of Economics and Banking. He received his Ph.D. at Harvard University. He has published widely in macroeconomics and monetary economics, including "Monopolistic Competition and the Effects of Aggregate Demand," with Olivier Blanchard in 1987, "On Money as a Medium of Exchange," with Randall Wright in 1989, and "Credit Cycles," with John Moore in 1997. Kiyotaki also serves as an academic consultant for the Federal Reserve Banks of New York and Richmond. Among professional honors, Kiyotaki received in 2010 the Stephen A. Ross Prize in Financial Economics and 2014 Banque de France – TSE Senior Prize in Monetary Economics and Finance. He is a Fellow of the Econometric Society and a Fellow of the British Academy.





PAUL R. KRUGMAN is a professor of economics and international affairs, emeritus. He is the author or editor of dozens of books and several hundred articles, primarily about international trade and international finance. He is also internationally known for his twice-weekly columns in *The New York Times*. He was the Ford International Professor of International Economics at the Massachusetts Institute of Technology and has served on the staff of the U.S. Council of Economic Advisers. In 2008, Krugman received the Nobel Prize in Economic Sciences. He was the recipient of the 1991 John Bates Clark Medal, an award given every two years by the American Economic Association to an economist under 40. He received his Ph.D. from the Massachusetts Institute of Technology. He holds a joint appointment with the economics department and the Woodrow Wilson School of Public and International Affairs.



ATIF MIAN holds a bachelors degree in Mathematics and Ph.D. in Economics from MIT. Prior to joining Princeton in 2012 he taught at the University of Chicago Booth School of Business and U.C. Berkeley. His research studies links between financial markets and the macro economy. Professor Mian's work emphasizes the role played by political, governance, and organizational constraints in shaping the effectiveness and scope of financial markets. His more recent work centers on understanding the origins of the global financial crisis, the political economy of government intervention in financial markets, and the link between asset prices, household borrowing, and consumption. Professor Mian's highly profiled book "House of Debt" was released in 2014.



STEPHEN MORRIS is the Alexander Stewart 1886 Professor of Economics, and his work ranges from game theory to applied (microeconomic) theory to topics in financial economics. He joined Princeton in 2005. He taught at the University of Pennsylvania from 1991 to 1998, first as an assistant and then as an associate professor. He joined the Yale University faculty as a professor of economics in 1998. Morris received his Ph.D. in economics from Yale in 1991.



ULRICH MÜLLER is a professor in the Department of Economics. He received his Ph.D. in economics from the University of St. Gallen, Switzerland. His research interest is in econometrics. His recent work focuses on Bayesian inference, low frequency variability, and the development of econometric tools that are robust to correlations of largely unknown form. He is the Associate Chair of the Department of Economics and a member of the Association of Econometrics.



JOHN MULVEY is a professor of operations research and financial engineering. His research interests center on designing financial planning systems, primarily for pension plans, hedge funds, and family offices; developing optimal hedge fund strategies; combining financial optimization and stochastic models; stochastic optimization algorithms; and decentralized risk management. He was a finalist for the Edelman Prize for the Towers Perrin-Tillinghast investment system in 1999. He received his Ph.D. in management from the University of California–Los Angeles.



BIRGIT RUDLOFF is an assistant professor of operations research and financial engineering. Her research interests include quantification of systemic risk, multivariate risks, markets with transaction costs, incomplete preference relations, vector optimization, and a set-valued Bellman's principle. She received her Ph.D. in mathematical finance from Martin-Luther University Halle-Wittenberg (Germany) in 2006. She joined ORFE in 2006 and joins Vienna University of Economics and Business in 2015.



YULLY SANNIKOV is a professor of economics whose research interests include economic theory, corporate finance, macroeconomics with financial frictions and market microstructure. Yuliy earned his B.A. from Princeton and a Ph.D. from Stanford GSB. Yuliy was a Sloan Fellow in 2009-2011, and he was also invited to give the annual Schultz lecture at the University of Chicago Economics Department in 2008. He participated in the Review of Economic Studies tour as one of the top six Economics Ph.D. graduates in the U.S. in 2004, and he won three gold medals at International Mathematical Olympiads in 1996, 1995, and 1994. In 2015, Yuliy was selected by the American Finance Association to receive the 2015 Fischer Black Prize given once every two years to a top financial economist under 40. Besides Princeton, Yuliy Sannikov has taught at MIT, NYU, Harvard, Stanford and UC Berkeley.



HYUN SONG SHIN is the Hughes-Rogers Professor of Economics at Princeton University. His recent research has covered international finance, especially on global liquidity and its consequences. His broader research interests are in financial economics, especially in issues related to disclosures, financial regulation, crises, and financial stability, issues on which he has advised central banks and policy institutions. He is a fellow of the Econometric Society and the British Academy. He received his Ph.D. from the University of Oxford in 1988. He was on leave during the academic year 2009–10, serving as an adviser to President Lee Myung-bak of South Korea. He is currently on leave and is an Economic Advisory and Head of Research at the Bank for International Settlements in Basel, Switzerland.



CHRISTOPHER SIMS is the John F. Sherrerd '52 University Professor of Economics. He received his Ph.D. from Harvard University in 1968. He taught in the economics department of the University of Minnesota from 1969 to 1990, then moved to Yale University where he taught from 1990 to 1999. He is a member of the National Academy of Sciences and a fellow of the Econometric Society, for which he has served as president and as co-editor of Econometrica. He became president elect of the American Economic Association in 2011 and served as president during 2012. He was with Thomas Sargent, the co-recipient of the 2011 Nobel Prize in Economics. He has intermittently served as an adviser, consultant, and visitor to several regional Federal Reserve banks. He has worked on econometric methods, economic theory, and empirical work, mostly related to macroeconomics and monetary policy.



RONNIE SIRCAR is a professor of operations research and financial engineering. He received his doctorate from Stanford University, and taught for three years at the University of Michigan in the Department of Mathematics before coming to Princeton. He has received continuing National Science Foundation research grants since 1998. He was a recipient of the E-Council Excellence in Teaching Award for his teaching in 2002, 2005, and 2006 and the Howard B. Wentz Jr. Junior Faculty Award in 2003. His research interests center on financial mathematics, stochastic volatility models, credit risk, asymptotic and computational methods, portfolio optimization and stochastic control problems, stochastic differential games and energy and commodities markets.





ROBERT VANDERBE has been a professor in the Department of Operations Research and Financial Engineering since its creation in 1999 and was the chair from 2005-2012. His research interests focus on algorithms for nonlinear optimization and their application to problems arising in engineering and science. Application areas of interest focus mainly on inverse Fourier transform optimization problems and action minimization problems with a special interest in applying these techniques to the design of NASA's terrestrial planet finder space telescope. He is an associate editor for *Optimization in Engineering, Optimization Methods and Software and Mathematical Programming.* He is a member of numerous professional societies and is a Fellow of three of them: the American Mathematical Society (AMS), the Society for Industrial and Applied Mathematics (SIAM) and the Institute for Operations Research and Management Science (INFORMS). He received his Ph.D. in applied mathematics from Cornell University in 1981.



ERIK VANMARCKE is a professor of civil and environmental engineering. He received his doctorate from the Massachusetts Institute of Technology in 1970 and joined the faculty, remaining there until 1985. At MIT, he was the Gilbert W. Winslow Career Development Professor and served as director of the Civil Engineering Systems Methodology Group. He has held visiting appointments at Harvard University, Technical University of Delft (the Netherlands), and University of Leuven (Belgium), his undergraduate alma mater, and was the Shimizu Corporation Visiting Professor at Stanford University. He presently holds the Kwang-Hua Chair Visiting Professorship at Tongji University in Shanghai, China. His principal expertise is in risk assessment and applied systems science. He authored Random Fields: Analysis and Synthesis, originally published by MIT Press; the second (revised and expanded) was published in 2010 by World Scientific Company. He won several research prizes of the American Society of Civil Engineers and chaired its Council on Disaster Risk Management. He was awarded a Senior Scientist Fellowship from the Japanese Society for the Promotion of Science and is a foreign member of the Royal Academy of Arts and Sciences of Belgium.



MARK WATSON is the Howard Harrison and Gabrielle Snyder Beck Professor of Economics and Public Affairs in the Department of Economics and the Woodrow Wilson School. His research interests include econometrics, macroeconomics, and forecasting. He is a research associate at the National Bureau of Economic Research and a fellow of the Econometric Society. He holds a Ph.D. in economics from the University of California–San Diego, and his past credentials include posts at Northwestern University and Harvard University.



WEI XIONG is the Hugh Leander and Mary Trumbull Adams Professor in Finance and professor of economics in the Department of Economics. His research interests center on capital market imperfections. His earlier work covers speculative bubbles induced by heterogeneous beliefs and short-sales constraints, effects of stock price bubbles on managerial incentives and firm investment, asset market contagion, limited investor attention, non-standard investor preferences, asset pricing with heterogeneous beliefs and rollover risk and dynamic coordination problems between creditors. He is currently focusing on financialization of commodities markets, belief distortions in the recent financial crisis, and China's financial system. He received his Ph.D. from Duke University in 2001. He is a research associate of the National Bureau of Economic Research and had been the finance editor of Management Science in 2009-2011.

## **EMERITUS FACULTY**



GREGORY CHOW is the Class of 1913 Professor of Political Economy, Emeritus. He received his Ph.D. from the University of Chicago in 1955. He taught a MIT, Cornell, Harvard and Columbia universities and was manager of economic research at the I.B.M. Thomas J. Watson Research Center before joining Princeton as director of the Econometric Research Program, renamed the Gregory C. Chow Econometric Research Program in 2001. He is a Distinguished Fellow of the American Economic Association, a member of the American Philosophical Society and of Academia Sinica and a fellow of the American Statistical Association and of the Econometric Society. His contributions to economics cover three main areas: 1) econometrics, including the often used "Chow test" for parameter stability, the estimation of simultaneous stochastic equations, and criteria for model selection; 2) dynamic economics, including spectral methods and optimal control methods for the analysis of econometric models and dynamic optimization under uncertainty to be solved by the method of Lagrange multipliers (in lieu of dynamic programming); and 3) the Chinese economy. He writes a column in three major newspapers in China, one in Taiwan and one in Hong Kong. He is editor of the Routledge Handbook of the Chinese Economy, 2015.



DANIEL KAHNEMAN is a senior scholar and professor of psychology and public affairs, emeritus, at the Woodrow Wilson School, the Eugene Higgins Professor of Psychology Emeritus at Princeton, and a fellow of the Center for Rationality at the Hebrew University in Jerusalem. Kahneman has held the position of professor of psychology at the Hebrew University in Jerusalem (1970–78), the University of British Columbia (1978–86), and the University of California–Berkeley (1986–94). He is a member of the National Academy of Science, the Philosophical Society, and the American Academy of Arts and Sciences, and a fellow of the American Psychological Association, the American Psychological Society, the Society of Experimental Psychologists, and the Economic Sciences (2002); the Lifetime Contribution Award of the American Psychological Association (2007) and the Grawemeyer Prize (2002), both jointly with Amos Tversky; the Warren Medal of the Society of Experimental Psychologists (1995); the Distinguished Scientific Contribution Award of the American Psychological Association (1982); and the Hilgard Award for Career Contributions to General Psychology (1995). Kahneman holds honorary degrees from numerous universities.



BURTON MALKIEL has been the Chemical Bank Chairman's Professor of Economics at Princeton since 1988. He entered emeritus status in 2011. His research interests center on financial markets, asset pricing, and investment strategies. He is a regular op-ed writer for *The Wall Street Journal*. He also serves on the boards of several financial and non-financial corporations. He has been awarded an Honorary Doctor of Humane Letters from the University of Hartford (1971), Phi Beta Kappa, and the Harvard Business School Alumni Achievement Award for 1984. He has served as the president of the American Finance Association. He received his Ph.D. from Princeton.





JOSÉ A.SCHEINKMAN joined emeritus status in 2013 and joined Princeton as the Theodore Wells '29 Professor of Economics in 1999. He received an M.S. in mathematics from the Instituto de Matemática Pura e Aplicada, Brazil, and an M.A. and a Ph.D. in economics from the University of Rochester. Scheinkman is a research associate of the National Bureau of Economic Research, a member of the National Academy of Sciences, a fellow of the American Academy of Arts and Sciences and of the Econometric Society, a corresponding member of the Brazilian Academy of Sciences, and a "docteur honoris causa" of the University of Paris-Dauphine. He was named a fellow of the John Simon Guggenheim Memorial Foundation in 2007. From 1973 to 1998, Scheinkman taught at the University of Chicago, where he was from 1995 to 1998 the chair of the economics department, and beginning in 1997 the Alvin H. Baum Distinguished Service Professor of Economics. From 1987–88, he was vice president of the Financial Strategies Group at Goldman, Sachs & Co. During 2002, he held a Blaise Pascal Research Chair (France). His current research interests are the determinants of the size of the financial industry, asset-price bubbles, and developing tools for empirical studies of asset markets.



KENNETH STEIGLITZ is the Eugene Higgins Professor of Computer Science, received his doctorate in 1963 from New York University and has been at Princeton ever since. He is a fellow of the Institute of Electrical and Electronics Engineers (1981), a fellow of the Association for Computing Machinery (1997), and a recipient of the Technical Achievement Award of the Signal Processing Society (1981), the Signal Processing Society Award (1986), the IEEE Centennial Medal (1984), the School of Engineering Distinguished Teacher Award (1997), and the IEEE Third Millennium Medal (2000). His current research interests are in agent-based modeling of markets, auctions, and computing using soliton collisions. Kenneth Steiglitz has transferred to emeritus status and continues to work on emergent behavior in agent-based macroeconomic models.



## VISITING FACULTY

During the academic year 2014-15, the Bendheim Center for Finance welcomed the following visiting faculty:



JEAN-CHRISTOPHE DE SWAAN has been teaching at Princeton since the Spring of 2009 as a Lecturer. He teaches a joint undergraduate and graduate course, The Rise of Asian Capital Markets, and a Freshman seminar, Ethics in Financial Markets. He also teaches at the University of Cambridge and has taught at Yale University, Cheung Kong Business School and Renmin University in Beijing. He is also a Principal at Cornwall Capital, a multi-strategy hedge fund based in New York. Prior to that, he was a special adviser on China at a global macro hedge fund, a Principal at an Asia-dedicated hedge fund, and a consultant at McKinsey & Company. He received his B.A. from Yale University, an MPhil in International Relations from the University of Cambridge, and a Masters in Public Policy from Harvard University's Kennedy School of Government. He is a Member of the Council on Foreign Relations. He is a faculty advisor in Rockefeller College (Princeton University) and an Associate Fellow of Ezra Stiles College (Yale University).



WILLIAM H. JANEWAY is a visiting lecturer at Princeton and Senior Advisor and Managing Director of Warburg Pincus. He joined Warburg Pincus in 1988 and was responsible for building the information technology investment practice. Previously, he was executive vice president and director at Eberstadt Fleming. Dr. Janeway is a director of Magnet Systems, Nuance Communications, O'Reilly Media, and a member of the Board of Managers of Roubini Global Economics. He is also a Visiting Lecturer in Economics at Cambridge University. Dr. Janeway is Chairman of the Board of Trustees of Cambridge in America, University of Cambridge and a Member of the Board of Managers of the Cambridge Endowment for Research in Finance (CERF). He is a member of the board of directors of the Social Science Research Council and the board of governors of the Institute for New Economic Thinking and of the Advisory Boards of the Princeton Bendheim Center for Finance and the MIT-Sloan Finance Group. He is the author of *Doing Capitalism in the Innovation Economy: Markets Speculation and the State*. Dr. Janeway received his doctorate in economics from Cambridge University where he was a Marshall Scholar. He was valedictorian of the class of 1965 at Princeton University.



O. GRIFFITH SEXTON was, until 1995, a managing director of Morgan Stanley and director of the corporate restructuring group within the firm's financing and advisory services department. Sexton graduated from Princeton in 1965. Following six years of service as an aviator in the U.S. Navy, he attended the Stanford Graduate School of Business, where he received his MBA. He joined Morgan Stanley in 1973 and spent his career there involved in a broad range of the firm's financing and advisory activities. In 1995, he became an active advisory director of Morgan Stanley. Also in 1995, he became an adjunct professor at Columbia University's Graduate School of Business, teaching two courses in the subject of corporate finance. In 2000, he became a visiting lecturer at Princeton. Sexton is a member of the board of directors of Morgan Stanley, and he is a director of Investor AB, a publicly traded company based in Stockholm, Sweden, and of one other privately held company.





DARIO VILLANI was a guest lecturer at Princeton during the spring semester. He was a member of our first graduating class of Princeton Master in Finance students in 2002, and he holds a PhD in Theoretical Physics with highest honors from University of Salerno. He is currently works with Tudor Investment Corporation LLC and before that, BlueCrest Capital Management. At BlueCrest he was a Portfolio Manager. Prior to BlueCrest he was a Managing Director of Global Credit for Deutsche Bank. Prior to joining Deutsche Bank in 2008, he was a Managing Director of the Global Strategic Risk Group at Merrill Lynch. In this role, he headed proprietary trading for structured credit, ABS and CMBS. From 2004 to 2006, he was Vice President of the Proprietary Positioning Business at JPMorgan Chase. Previously, Mr. Villani worked at Hess Energy Trading Company as a Commodities Trader. He has authored over 25 articles in finance, physics and statistics.



MIN WEI is a deputy associate director in the Monetary Affairs division of the Federal Reserve Board of Governors. Wei graduated from Fudan University in 1996 and received her PhD in finance from Columbia Business School in 2004. While at the Federal Reserve Board, she was involved in a broad range of market monitoring, policy advisory, and research activities related to fixed income markets. In 2014, she became a visiting lecturer at Princeton.



JIALIN YU is currently an Associate Professor of Finance at the Hong Kong University of Science and Technology. He received his Ph.D. degree in Economics from Princeton University in 2005, and then worked as an assistant professor and then an associate professor at the Graduate School of Business at Columbia University until 2012. His research focuses on investments, behavioral finance, and Asian financial markets. His research articles have been published in the American Economic Review, Journal of Finance, Journal of Financial Economics, among others.

## **STAFF**



WENDELL COLLINS is the director of corporate relations for the Bendheim Center for Finance. Her responsibilities include i) managing the Corporate Affiliates Program, which seeks support for the center from firms interested in finance and which works with corporations to build partnerships investigating financial topics of mutual interest, ii) advising undergraduates and Master in Finance candidates on career issues, iii) facilitating the recruiting activities of corporate affiliates, and iv) promoting and organizing special events involving alumni and advisory council members.



KAREN NEUKIRCHEN is the Center Administrator for the Bendheim Center for Finance. In her role as Center Administrator, Karen oversees an supports the events and people of the Center.



JESSICA H. B. O'LEARY is the Center Manager for the Bendheim Center for Finance. In that role she oversees the day to day functions of the Bendheim Center for Finance including its facility in the Old Dial Lodge.



MATTHEW PARKER is the SCAD for both the Center and Economics. In his role as SCAD he serves as the first point of contact for all things technology related.



MELANIE HEANEY-SCOTT is the Academic Administrator for the Bendheim Center for Finance. In her role as Academic Administrator, Mel oversees the day to day functions of the Undergraduate Certificate Program and the Master in Finance Program.



## **BCF IN THE NEWS**

Raising the visibility of the research and teaching of the Bendheim Center for Finance is a new initiative for director Markus Brunnermeier. In addition, the @PrincetonBCF twitter feed publishes news of the center and promotes center events on a daily basis.

- Faculty member Wei Xiong was recently featured for his research, "Five charts that demystify
  the Chinese housing market".
- · Advisory Council Member Armino Fraga, announced as Princeton Board of Trustee.
- PhD student Alexander Rodnyansky receives 2015 Princeton Teaching Award.
- Faculty Member, Harrison Hong was recently featured on the Princeton Homepage for his research, "The Rice Crisis: Tracking an asset-price bubble in the check-out line".
- BCF Undergraduate Certificate Student, Neil Hannan, announced as the Class of 2015 Salutatorian.
- BCF computer support specialist Matt Parker received the 2014 Princeton President's Achievement Award and was featured in the Department of Labor Job Blog.
- BCF was featured on the Princeton Homepage for: Interdisciplinary approach of Bendheim Center brings clarity to today's evolving economy.
- Faculty member Nobu Kiyotaki wins the Banque de France TSE Partnership senior prize for macroeconomics.
- Faculty member Yuliy Sannikov wins the Fischer Black Prize.
- Director Markus Brunnermeier was recently featured in a New York Times article about fears
  of renewed instability as fed ends stimulus program.
- Faculty member Atif Mian was recently featured in a New York Times article about House of Debt, a book he co-authored with Amir Sufi featuring new research regarding the financial crisis.
- Faculty member Ronnie Sircar received a grant (along with Humboldt University) to launch
  - a student and faculty exchange to develop new mathematical and statistical models related to the transition of energy production from fossil fuels to renewable technologies.
- MFin students Karen Leiton and Taylor Russell were recently featured in a Bloomberg Markets story on careers beyond investment banking.
- Emeritus Faculty member Gregory Chow was named a Distinguished Fellow of the American Economic Association.

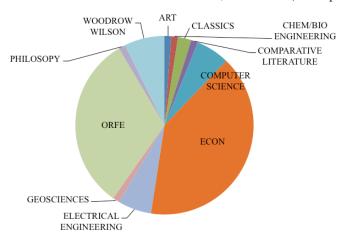


## UNDERGRADUATE CERTIFICATE IN FINANCE

In 1999, the Bendheim Center for Finance started offering an Undergraduate Certificate in Finance (UCF) to Princeton undergraduates. Now in its 16th year, the Undergraduate Certificate in Finance (UCF) continues to do extremely well. We currently have 117 enrolled students in the Class of 2016 and will enroll 93 juniors from the Class of 2017. This will bring our total number of undergraduate students in the program (juniors and seniors) to 210 for the coming academic year, despite our grade-based admission cap in place. UCF students are drawn to the program from a wide variety of departments.

## CLASS OF 2015

Total number of certificates awarded to the class of 2015: 82 (to 29 women, or 35 percent)



## **TRACKS**

- Corporate Finance Track
- Derivatives Pricing and Risk Management Track
- Investment Management Track
- · Information Technologies for Finance Track
- · Behavioral Finance
- Finance and Public Policy

Behavioral Finance and Finance and Public Policy Tracks were added to the program beginning with AY2014-2015. The Behavioral Finance track allows students to study how human psychology, including many documented behavioral biases, influence financial decision-making and ultimately asset prices. The Finance and Public Policy track allows students study the interaction between finance and policy, including public finance, response to financial crisis, central banking, and securities law.



## **DEPARTMENTAL PRIZES**

UCF students continue to be high achievers among the Princeton population and receive a high proportion of the prizes awarded by their respective departments. This year, of the 82 UCF seniors, 17 received departmental prizes (two receiving two prizes); 11 UCF students were elected to Phi Beta Kappa Society; 31 UCF students were elected to membership in Society of Sigma Xi; 8 UCF students were elected to membership in Tau Beta Pi National Engineering Society; while 6 UCF juniors received the Shapiro Prize for Academic Excellence; and 38 UCF students received academic honors (16 cum laude, 11 magna cum laude, and 11 summa cum laude).

The Bendheim Center for Finance Birch Prize was awarded to Pratyusha Mukherjee, ECO Major.

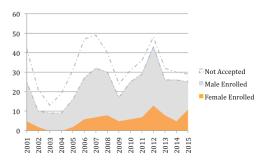
The Kathleen Traynor Prize was awarded to Yuen Ying (Christy) Fung, WWS Major.



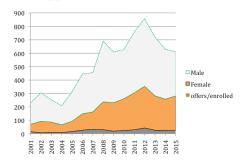
## MASTER IN FINANCE

The distinctive feature of our Master in Finance program is its strong emphasis on financial economics in addition to financial engineering and computational methods. Graduates of our program have a solid understanding of the fundamental quantitative tools from economic theory, probability, statistics, optimization, and computer science, all of which are becoming increasingly vital in the financial industry. There now exists a body of knowledge that is widely agreed to be essential for the proper analysis and management of financial securities, portfolios, and the financial decisions of firms. A driving force behind these developments is a lively exchange of ideas between academia and the financial industry, a collaboration that is the closest parallel in the social sciences to the academic-private sector interactions routinely seen in engineering and the applied sciences. The Master in Finance program prepares students for a wide spectrum of careers in the financial industry, ranging from quantitative trading strategies, risk management, and financial engineering, to quantitative asset management and macroeconomic and financial forecasting.

#### MFin Students: Male, Female



#### MFin Applicants: Male, Female



#### Application Year 2015 Average GRE and GMAT Test Scores

	MAX	Applicant	Incoming
GRE			
Analytical	6.00	4.00	4.00
Quant	170.00	167	167
Verb	170.00	157	159
GMAT			
Analytical	6.00	5.00	5.00
Quant	60.00	50.00	50.00
Verb	60.00	50.00	39.00



### MFIN COURSE TRACKS

Elective courses can be chosen according to either individual needs and preferences, or to conform to one of the suggested tracks, listed below.

- · Financial Engineering and Risk Management
- · Quantitative Asset Management and Macroeconomic Forecasting
- · Financial Technologies
- · Seminars and Computing Environment

#### MFIN PLACEMENT

The Bendheim Center for Finance provides extensive career assistance to students, including help with internships and job placement. Our program has continued to enjoy excellent success with 100 percent of our 2014 graduates being placed in finance industry jobs and 100 percent internship placement.

#### CAREERS UPON GRADUATION:

Goldman Sachs (5), Alphadyne Asset Management, BlackRock RQA, BNP Paribas, JPMorgan, Monetary Authority of Singapore, OMERS, Penso Advisors, LLC, Sandpointe LLC, Societe Generale, TransMarket Group L.L.C., UBS Sales & Trading, Valkyrie Trading, LLC, World Bank.

#### SUMMER INTERNSHIPS FOR FIRST YEAR STUDENTS:

Goldman Sachs (4), AQR (2), Bank of America, Boston Consulting Group, Capula Investment, Management, Citadel, Citi Markets & Quantitative Analysis, Deutsche Bank, F. Schumacher, JPMorgan, KAUST Investment Management, Morgan Stanley, OMERS, UBS, Vanguard.

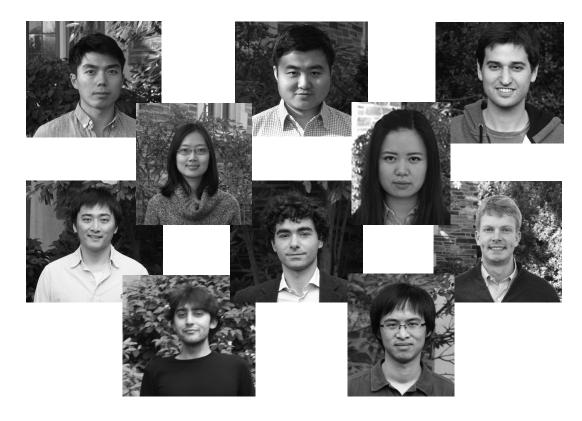


Master in Finance students job shadowing at Bloomberg

## PH.D STUDENTS

Ph.D. students in the Bendheim Center for Finance are admitted through the Department of Economics, the Department of Operations Research and Financial Engineering, or the Program in Applied and Computational Mathematics. Eleven students with finance interests received their Ph.D. in 2015 and accepted a mixture of academic and industry positions (the institution is in parenthesis):

- Matt Baron (Cornell University)
- Liang Dai (Shanghai Jiaotong University)
- Ji Huang (National University of Singapore)
- Ying Jiang (Renmin University of China)
- Gabriele LaSpada (Federal Reserve Bank of New York)
- Inessa Liskovitch, joint with IRSection (University of Texas, Austin)
- Vicky Liu (Federal Reserve Bank of Boston)
- Michael Sockin (University of Texas, Austin)
- Peter van Tassel (Federal Reserve Bank of New York)
- Haoshu Tian (Renmin University of China)





# SEMINARS, CONFERENCES AND CENTER EVENTS



Andrei Shleifer

## 2014 PRINCETON LECTURES IN FINANCE

Each year, the Bendheim Center invites a leading figure in the field of finance to deliver a set of lectures at Princeton on a topic of major significance to researchers and professionals.

The 2014 Princeton Lectures in Finance were given by Andrei Shleifer. The topic of the series was "Instability from Finance".

## CIVITAS FOUNDATION FINANCE SEMINAR

Each week, Bendheim Center for Finance organizes a seminar in which academic experts are invited to present their latest research to the faculty and graduate students of the center. 2014-2015 Speakers included:

- Stephan Luck, Bonn, "Banks, Shadow Banking, and Fragility"
- Ron Giammarino, UBC, "Ambiguity" in Corporate Finance: Governance, Underinvestment, and Security Issuance
- · Ying Jiang, Princeton, "Order Flow Informativeness and Equity Financing"
- Gabriele La Spada, Princeton, "Competition, 'Reach for Yield," and Money Market Funds"
- Xiaochen Feng, Princeton, "Bank Competition, Risk Taking and Their Consequences: Evidence from the U.S. Mortgage and Labor Markets"
- Michael Sockin, Princeton, "Not So Great Expectations: A Model of Growth and Informational Frictions"
- Darrell Duffie, Stanford, "Benchmarks in Search Markets"
- Haoshu Tian, Princeton, "The Effects of a Temporary Short-selling Ban"
- Theresa Kuchler, NYU, "Sticking to Your Plan: Hyperbolic Discounting and Credit Card Debt Paydown"
- Nikolai Roussanov, Wharton, "Houses as ATMs? Mortgage Refinancing and Macroeconomic Uncertainty"
- Gustavo Manso, UC, Berkeley, "Experimentation and Returns to Entrepreneurship"
- Peter Kondor, Central European University, "Cursed Financial Innovation"
- Keith Chen, UCLA, "Surge Pricing: Real Time Dynamic Pricing in the Ridesharing Market"
- Neng Wang, Columbia, "A Theory of Liquidity and Risk Management Based on the Inalienability of Risky Human Capital"

- Ben Hermalin, Berkeley, "When Less is More: The Benefits of Limits on Executive Pay"
- Jonathan Berk, Stanford, "Assessing Asset Pricing Models Using Revealed Preference"
- Gregor Matvos, University of Chicago, "Deposit Competition and Financial Fragility: Evidence from the U.S. Banking Sector"
- Svetlana Bryzgalova, LSE, "Spurious Factors in Linear Asset Pricing Models"
- Peter DeMarzo, Stanford, "The Leverage Rachet Effect"
- Alexander David, University of Calgary, "Exploration Activity, Long Run Decision, and the Risk Premium in Energy Futures"
- Ralph Koijen, LBS, "An Equilibrium Model of Institutional Demand and Asset Prices"
- Jean Charles Rochet, Zurich, "Bank Capital and Aggregate Credit"
- Antoinette Schoer, MIT, "Changes in Buyer Composition and the Expansion of Credit During the Boom"



Inessa Liskovich

#### FINANCE PH.D. STUDENT WORKSHOPS

Each week, the Bendheim Center for Finance organizes a seminar for its Ph.D. students and faculty in which preliminary research ideas are presented internally. 2014-2015 speakers included:

- Ji Huang, "Banking and Shadow Banking"
- Victoria Liu, "Impact of Bank Lending on Trade Credit: Evidence from the 2007-8 Crisis"
- Liang Dai, "Asset Bundling and Information Acquisition of Investors"
- Ying Jiang, "Order Flow Informativeness and Equity Financing"
- Jeong-Ho Kim, "Fund Differentiation and Fidelity in the Active Management Industry"
- Gabriele La Spada, "Competition, 'Reach for Yield,' and Money Market Funds"
- Peter Van Tassel, "Merger Options and Risk Arbitrage"
- Xiaochen Feng, "Bank Competition Risk Taking and Their Consequences: Evidence from the U.S. Mortgage and Labor Markets"
- Inessa Liskovich, "Corporate Governance and Employee Selection"
- Michael Sockin, "Not So Great Expectations: A Model of Growth and Informational Frictions"
- Matthew Baron, "Countercyclical Bank Equity Issuance"
- Olivier Darmouni, "The Cost of Private Information in Banking Relationships: Evidence from the Financial Crisis"
- Haoshu Tian, "The Effects of a Temporary Short-selling Ban"
- Felix Matthys, "Government Policy Uncertainty and the Yield Curve"
- Alexander Rodnyansky, "The Legacy Asset Channel: "The Effects of Quantitative Easing on Bank Lending Behavior"
- Zongbo Huang, "Learning from Your Neighbors' Move"
- Elise Gourier, "Pricing of Idiosyncratic Equity and Variance Risks"



- Matthieu Gomez, "The Incidence of Income Taxes in a Spacial Equilibrium"
- Yu Zhang, "Endogenous Time-Varying Volatility: A Quantitative Evaluation"
- Xiaoyang (Sean) Dong, "Why Do Commodity Investors Increase Position When Volatility Shoots Up?"
- Sylvain Chassang, "Mostly Prior-Free Efficient Portfolios"
- Wei Xiong, "Demystifying the Chinese Housing Boom" with Hanming Fang, Quanlin Gu and Li-An Zho
- Stephan Luck, "Predatory Arbitrage Capital and Endogenous Illiquidity Risk"
- Olivier Darmouni, "Private Information in Banking Relationships and the Reallocation of Credit"
- Zongbo Huang, "Real Estate Collateral and Labor Demand" with Thomas Chaney, David Sraer and David Thesmar and "Macroeconomic Conditions and Banking Dynamics"
- Matthieu Gomez, "The Cross-section of Housing Returns"
- Yu Zhang, "The Savings Origin of a Housing Boom"
- Jean-Charles Rochet, Zurich, "Bank Capital and Aggregate Credit" with Nataliya Klimenko and Sebastican Pfeil
- Jin-Chuan Duan, NUS, "Default Correlations and Large-Portfolio Credit Analysis Using the RMI-Credit Research Initiative Freely Accessible Infrastructure"



Ken Hersh 2014-2015 Advisory Council Member

#### MFIN WEEKLY LUNCH AND LEARN SPEAKER SERIES

A number of guest speakers from a variety of areas of finance visited the Bendheim Center in 2014/2015 to address Master in Finance, undergraduate, and PhD students.

- Todd Simkin (Susquehanna International Group)
- Carl Chastenay \*99 (World Bank)
- Andrew Killion, (Akuna Capital)
- Graham Giller, Nicole Barberis, Bill Szafranski (Bloomberg)
- Julie E. Silcock '78 (Houlihan Lokey)
- Dr. Han Yuo \*94 (Capula Investment Management)
- Sallie Krawcheck (Ellevate)
- Ken Hersh '85 (NGP Capital Partners)
- Valerie Valtz (DE Shaw), John Huss (AQR), Stef Damianakis (Edgestream), and Mark TenPas (Citadel)
- JC de Swaan (Cornwall Capital)
- · Grif Sexton '66 (Morgan Stanley)
- John Cunniff \*86 (TIAA-CREF)
- Wilson Ervin '82 (Credit-Suisse)
- Anne Lester '86 (JP Morgan Chase Asset Management)

- William Heyman '70 (The Travelers Companies, Inc.)
- · Andrew Schofield (Deutsche Bank Analytics)
- Rick Grove '79 (Rutter Associates)
- · Glen Swindle '85, Scoville Risk Partners
- Dick Berner (OFR)
- Antoine Chiche \*06 (KKR, Principal)
- Barbara Byrne h76 (Barclays)
- · Jeremy Diamond '86
- Ben Blander (Blander Technologies)



William Janeway BCF Advisory Council

#### SPECIAL LECTURES AND CENTER EVENTS

The Center hosts and sponsors several guest lectures and special events throughout the year

- · Cryptocurrencies: Bitcoin, David Andolfatto, Dan Morehead and Bill Janeway
- · Fourth Symposium on Emerging Financial Markets: China and Beyond
- · Lasse Pedersen, Lecture and Book Signing, Efficiently Inefficient
- Ludger Schuknecht, German Ministry of Finance
  "Fit for the Future? A European Perspective on Economic Policy Challenges"
- Princeton Quant Trading Conference
- Don Brash, "Who Should Control Monetary Policy: Politicians or Central Bankers?"
- Ralph Izzo, PSEG "Energy, Finance and A Sustainable Future: A CEO's Perspective"
- Jacob Gottliev Visium Asset Management, LP
- William J.B. Brady III '87, Head of Global Technology Corporate Finance
   "From Netscape and Amazon to Facebook and Alibaba: The Golden Age of Company
   Formation and How It Is Transforming Our Society"
- A Conversation with Norman Champ '85, Director, SEC Investment Management Division
- Paul Tucker "The Incipient Crisis in Securities Regulation"
- · Atif Mian House of Debt
- Tenth Annual Cambridge Princeton Conference
- 2014 Princeton Initiative Conference
- Third Symposium on China's Emerging Financial Markets



## RESEARCH INITIATIVES

The Center engages in several research related initiatives.

## PRINCETON INITIATIVE: MACRO, MONEY AND FINANCE

Following the Princeton tradition of incorporating financial frictions in macroeconomic models - scholars like Ben Bernanke come to mind - the Princeton Initiative Camp brings together top 2nd year Ph.D. students who wish to write a Ph.D. thesis at the intersection between macroeconomics and finance. The recent experience starting with the run-up of imbalances and bubbles in the first decade of the 21st century, followed by a severe financial crisis that ultimately led to the Great Recession, calls for new frameworks to study macro-prudential policy tools and to design a new international financial architecture. The aim of this meeting is to bridge the gap between modern finance, monetary and macroeconomics and expose the best students from across the country to macroeconomic models with financial frictions and/or non-standard expectations. Yuliy Sannikov and Markus Brunnermeier lead this effort. BCF's grateful for the generous support of the SLOAN Foundation.

#### **BCF CHINA INITIATIVE**

The Princeton-BCF China initiative aims to develop an interface for facilitating collaborative research and academic exchanges between faculty and students in Princeton and China. This initiative serves the quickly growing demands from academic and policy communities across the world to systematically study the Chinese economy and its financial system and the risks and opportunities it presents to the global economy. Despite having the 2nd largest economy in the world, China has a very different institutional structure from most western countries. Princeton economists can substantially benefit from interacting with local scholars and researchers in China, who tend to have better institutional knowledge about the Chinese economy and better access to Chinese economic data. At the same time, local academics can also learn from Princeton economists, who tend to have a better understanding of fundamental economic concepts and a more rigorous training in the methods of modern economic analysis. The initiative tries to bridge these gaps and provide an intellectual interface between researchers in China and top academics at Princeton. It also aims to provide a platform for both graduate and undergraduate students in Princeton to visit and study China. The Princeton-BCF China initiative will be coordinated Wei Xiong, Hugh Leander and Mary Trumbull Adams Professor in Finance and Professor of Economics, together with the director of BCF.

#### **INET RESEARCH GRANT**

The Princeton - INET Research agreement supports five different areas of research at the intersection between economic policy and finance. The five areas are representative of the interdisciplinary research which will be conducted in finance at Princeton, and represent a combination of theoretical and empirical research:

- Merging Macro and Finance (PIs: Markus K. Brunnermeier and Yuliy Sannikov)
- Macroprudential and Monetary Policy: The Risk Taking and the Portfolio Rebalancing Channel (PIs: Hyun Song Shin and Motohiro Yogo)
- · Robust Contracting and Strategic Analysis (PIs: Stephen Morris and Sylvain Chassang)
- High Frequency Trading and Its Implications (PI: Yacine Aït-Sahalia)
- The Financialization of Commodity Markets (PI: Wei Xiong)

## JANEWAY FUND FOR BRIDGING FINANCE, MONETARY ECONOMICS AND THE REAL ECONOMY

This initiative supports the interaction between the Bendheim Center for Finance and the economics department in order to nurture a closer collaboration in research, the PhD program and teaching. The initiative focuses on research of faculty and students whose work is on the boundaries of economics and finance, in particular related to finance but beyond the core mission of the Bendheim Center.

A core purpose of the initiative is to facilitate teaching at the PhD level that does not fall within narrow definitions of existing "field" categories, such as "finance", "macroeconomics" and "economic theory." Funds could be used to hire visiting faculty or postdoctoral fellows to teach such courses or (more likely) to teach other courses in order to free up time for permanent faculty to teach in the graduate program. Postdoctoral positions also help recruit young faculty by delaying the start of the tenure clock and providing time to publish.

Funds can support general research expenses, summer salaries and could also be used in support of short and long term visitors, who can help with research by participating in discussion and interaction, participate in collaborative research, and act as co-authors. In addition the Bill Janeway Initiative provides additional resources for graduate students, especially for those whose research is interdisciplinary and at the intersection of finance and economics. BCF is grateful for the generous donation of \$5.6 million given by William H. Janeway.



## TRINITY OF STABILITY NETWORK INITIATIVE

Network for the Study of the "Macroeconomic Policy Trinity"-Monetary, Financial and Fiscal Stability is the development of a research network to study interactions among monetary, financial, and fiscal stabilization policies. The overarching objective of the network is to bring together a diverse set of researchers from finance, banking and macroeconomics—who approach issues with different methodologies, different questions and different data—with the aim to learn from each other and to focus on a common set of questions. The "trinity network" is run jointly by the Federal Reserve Bank of New York, the Swedish Riksbank, the Bank of Canada and the Bundesbank. The network will also draw on researchers from other central banks and from a variety of academic institutions. Its main coordinators are Eric Leeper and Markus Brunnermeier.

More specifically, the aim is to develop a suite of theoretical models that shed light on how the trinity of aggregate policies jointly determine macroeconomic outcomes, and then to use time series data to estimate or calibrate the models to deliver quantitative predictions. Only by studying the trio jointly can we understand their interactions, accurately interpret data, and ultimately arrive at policy conclusions. The network shall pursue the two prongs of teaching and research to achieve this objective. The teaching prong exposes a wide range of established and developing researchers to the variety of tools, analytical approaches and empirical techniques being used to study the trinity of policies. A research prong encourages and nurtures frontier research that focuses on a common set of questions with the goals of publishing the output in professional outlets and bringing fresh research insights to policy makers.











## 2014-2015 ADVISORY COUNCIL

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Lynn Bendheim Thoman, Co-chair, Leon Lowenstein Foundation



Jeffrey Peek



Lynn Thoman



## CORPORATE AFFILIATES PROGRAM

The Corporate Affiliates Program offers companies an opportunity to build a significant relationship with the Center. Corporate affiliates gain a strong presence and visibility, interact with faculty and students, learn about important faculty research, and secure a competitive recruiting advantage.

#### 2014-2015 AFFILIATES

- · Barclays
- · Bank of New York Mellon
- Bloomberg
- Citadel
- Credit Suisse
- Deutsche Bank
- Edelman & Associates
- Sandpointe LLC
- · Goldman Sachs
- Prediction Company a Millennium Platform Company
- · Stevens Capital Management LP

#### BENEFITS OF CORPORATE AFFILIATION

- Annual Report of the Bendheim Center for Finance
- Opportunity to advertise internships and employment opportunities to both Undergraduate Certificate in Finance and Master in Finance students
- Opportunity to use the Bendheim Center for Finance facilities to host recruiting events
- Access to the Bendheim Center for Finance director of corporate relations as a resource for recruiting
- Recognition in the publicly disseminated materials of the Bendheim Center for Finance, including the center's reports and website, which both list corporate affiliates, as well as a hyperlink to each member's website
- Access to research authored by the center's affiliated faculty within the academic year
- Access to Bendheim Center for Finance faculty for internal or client presentations or for sponsored research
- Opportunity to work with the center's faculty and staff to create customized training
  programs and to design and access distance-learning courses and events such as special lectures
  and conferences
- Invitation to deliver a guest lecture on campus or to participate as a presenter at Bendheim Center for Finance-sponsored conferences
- · Invitation and two reserved seats for all public events hosted by the center

## **GIFT OPPORTUNITIES**

Early in 1998, a \$10 million gift from the Leon Lowenstein Foundation enabled Princeton to launch the Bendheim Center for Finance. To establish the University as a national resource for innovative thinking on finance and finance-related topics, the Bendheim Center for Finance brings together leading experts in teaching and scholarship in financial economics. But to realize this vision, significant support beyond the generous Bendheim gift is needed for faculty, curriculum development, and facilities. In 2015 the University initiated a \$6 million campaign in an effort to support true excellence in financial economics which requires a critical mass of finance researchers, approaching the size of a finance department in a leading business school, as well as important educational initiatives in a state-of-the-art setting. The campaign seeks support in the following areas:

#### ACADEMIC PERSONNEL

**Endowed Visiting Professorship** 

To support a distinguished senior visitor who provides expertise in a particular area of study \$2,000,000

#### **FELLOWSHIPS**

Graduate Fellowships

To support a new generation of scholars concentrating in finance \$250,000

#### FINANCIAL RESEARCH AND TEACHING

Research and Course Development Funds

Endowed funds to support research and course development
\$100,000 minimum

#### CHINA INITIATIVE

Term support to foster better links between Asia and Princeton in finance research \$250,000 annually



## **ACKNOWLEDGEMENTS**

Princeton University gratefully acknowledges those whose generosity continues to make the Center possible.

#### INDIVIDUAL SPONSORS

Gerhard R. Andlinger '52, Kwesi Adofo-Mensah '03, Chester Baylis Jr. '29 (D), Robert M. Baylis '60, Robert Bendheim '37 (D), Hamid Biglari \*87, David H. Blair '67, Charles Brodbeck '71, Janice Calloway, David Carlin '60, Howard E. Cox Jr. '64, David A. DeNunzio '78, Kathleen T. DeRose '83, Robert G. Dettmer, Jay Diamond '86 and Alexandra Lebenthal '86, The Family of Carl H. Donner '20, J. Michael Evans '80, Arminio Fraga \*85, Edward B. Goodnow '47, Mr. and Mrs. Randall A. Hack '69, Walter Haydock '75, John K. Hepburn '72, Robert R. Hermann Jr. '75, Kenneth Hersh '85, William H. Heyman '70, Alfred F. Hurley Jr. '76, Stanley G. Ivins W34, William H. Janeway '65, Richard Korhammer '88, Oliver M. Langenberg '35, Susan Payne Madole '76, Burton G. Malkiel \*64, Edward E. Matthews '53, John Mayer '62, Hugh McGee III \*81, Reuben M. Morriss III '58 (D), Sharmin Mossavar-Rahmani '80, Robert B. Payne Jr. '74, Robert B. Payne Sr. '45, Jeffrey M. Peek '69, John G. Quigley, Jonathan F. Schachter PhD '94, Charles Sheedy, John H. Scully '66, Lynn Bendheim Thoman '77, Dario Villani \*02, Evan A. Wyly '84, Mr. and Mrs. Paul M. Wythes '55 and William T. Young Jr. '70

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2014-2015 Director of Graduate Studies Rene Carmona and members of the MFIN Class of 2015

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#### NONDISCRIMINATION STATEMENT

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Edited by Wendell Collins and Jessica O'Leary at the Bendheim Center for Finance

Graphic Design by Digital Print Center, Print and Mail Services, Princeton University

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In the Nation's Service and in the Service of All Nations