#### VIRAL V. ACHARYA

C.V. Starr Professor of Economics (2011-)

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Google scholar: http://scholar.google.com/citations?user=iZAsYLgAAAAJ

#### General

Indian, Born on 1st March 1974, Married

#### Education

Ph.D. Finance, Stern School of Business, New York University, 1996 – 2001

Dissertation - "Essays in Banking and Financial Institutions"

Ph.D. Computer Science (Incomplete), New York University, 1995 – 1996 B. Tech. in Computer Science and Engineering, IIT Bombay, 1991 – 1995

- President of India Gold Medalist for the highest GPA among 350 students.
- President of India Gold Medalist for the best academic and overall proficiency.
- Ranked 5th all over India at IIT Joint Entrance Exam, 1991.

### **Appointments**

Deputy Governor, Reserve Bank of India, 23 January 2017 – 23 July 2019 (in charge of Monetary Policy, Financial Markets, Financial Stability and Research) [Speeches].

Alexandre Lamfalussy Senior Research Fellowship, Bank for International Settlements (BIS),

Summer 2017

Professor of Finance (2008-2011), New York University Stern School of Business

Initiative on Global Markets (IGM) Visitor (May 2009), University of Chicago, Booth School

Professor of Finance (2007-2008), London Business School

Visiting Professor of Finance (Winter 2007), Graduate School of Business, Stanford University

Associate Professor of Finance with tenure (2005-2006), London Business School

Assistant Professor of Finance (2001-2005), London Business School

# **Editorship**

Editor – Journal of Law, Finance and Accounting (2014-2016)

Editor – Journal of Financial Intermediation (2009-2012)

Associate Editor - Review of Corporate Finance Studies (RCFS, 2011-2016), Review of Finance (2006-2016), Journal of Financial Stability (2004-2016), Journal of Financial Services Research (2007-2016), Journal of Finance (2011-2014), Management Science (2009-2010), Review of Financial Studies (2005-2008), Journal of Financial Intermediation (2005-2008), International Journal of Central Banking (2004-2006)

## **NYU Service**

- Lead Researcher, Finance Track, Volatility and Risk Institute (Fall 2019-)
- PhD Coordinator (Finance, 2010-2016)
- Director, National Stock Exchange (NSE) of India and NYU-Stern Initiative on the Study of Indian Capital Markets (2012-2016)
- Coordinator, India Initiative of the NYU-Stern Center for Global Economy and Business (2016)
- Advisory Committee for Endowed Chairs (2016)
- Faculty Grievance and Student Judiciary (2015-16)
- Finance Department Strategy Committee (2014-15)
- Academic Curriculum Oversight Committee (2013-15)
- Conflict of Interests Committee (2013-14)
- "Launch" Team Member (2012, 2015)
- Faculty Council Member (2009-2013)
- Research Appointments Task Force (2010-2012)

#### Other Positions

- Member of the Advisory Council of the Reserve Bank of India (RBI) Academy, 2016-2019.
- Member of the Academic Council of the National Institute of Securities Markets (NISM), Securities and Exchange Board of India (SEBI), 2014-2016

- Fellow of the European Corporate Governance Institute (ECGI), 2014-
- Member of the Advisory Board, Review of Finance, 2014-2016.
- Fellow of the Institute of Global Finance, University of New South Wales, 2013-
- Steering Committee Member, National Bureau of Economic Research (NBER) in Corporate Finance, 2012-
- Director, Western Finance Association, 2012-2015.
- Academic Research Council Member, Center for Advanced Financial Research And Learning (CAFRAL, India), 2012-
- Advisory Board, National Public Radio Planet Money, 2012-2016.
- Program Director, Financial Economics (FE), Center for Economic Policy Research (CEPR), Sep 2011-14.
- Director of the International Growth Center (IGC) Finance Research Program, 2011-2013.
- Member of Economic Advisory Committee, Financial Industry Regulation Authority (FINRA), 2011-2016.
- Member of Advisory Scientific Committee of European Board (ESRB), 2011-2014.
  - Co-chair, Expert Working Group on Shadow Banking in Europe
- Member of Advisory Committee of Financial Sector Legislative Reforms Commission (FSLRC) of India, 2011-2013.
- Member of International Advisory Board of the Securities and Exchange Board of India (SEBI), 2011-2016.
- Advisory Council, Bombay (Mumbai) Stock Exchange (BSE) Training Institute, 2011-14.
- Academic Advisor to the Federal Reserve Bank of New York and Member of the Liquidity Working Group (Jan 2009-), Philadelphia (Jan 2009-), Chicago (Fall 2011-), Cleveland (May 2009-), Board of Governors (Fall 2010-)
- Academic Advisor to the Bank of Canada, May-June 2011, Norges Bank, 2009-2011.
- Academic Panel Member, the International Centre for Financial Regulation (UK), 2010-11.
- Academic Advisor, Duisenberg School of Finance in Amsterdam, 2010.
- Academic Advisor, World Economic Forum project on Sustainable Leverage and Council on Banking and Capital Markets, 2010.
- Research Associate, National Bureau of Economic Research (NBER) in Corporate Finance, 2009-
- Research Associate, European Corporate Governance Institute (ECGI), 2009-2014.
- Member of the Research Advisory Board of the British Private Equity and Venture Capital Association, Fall 2008-Spring 2011
- Academic Director, Coller Institute of Private Equity at London Business School, 2007-09
- Senior Houblon Norman Fellow at the Bank of England, July-August 2008
- Academic Advisor to the Bank of England, Dec 2004-June 2008
- Visiting Scholar, International Monetary Fund, August 2006
- Research Affiliate, Center for Economic Policy Research (CEPR), 2002-
- Member American Finance Association, Western Finance Association, European Finance Association, Financial Intermediation Research Society, European Corporate Governance Institute, Society of Financial Econometrics (SoFiE), Volatility Institute

#### Research Awards

- The 2014 TCFA (The Chinese Finance Association) Award for the Best Paper on Global Financial Markets "The Greatest Carry Trade Ever? Understanding Eurozone Bank Risks"
- NSE (National Stock Exchange of India) Best Paper Award at the Summer Research Conference of the Center for Analytical Finance (CAF) at Indian School of Business, 2012 – "Sovereign Debt, Government Myopia and the Financial Sector"
- The inaugural Banque de France Toulouse School of Economics Junior Prize in Monetary Economics and Finance, 2011 (awarded annually to two economists below the age of 40, one affiliated with a European-based institution and one with an institution outside Europe).
- L. Glucksman Institute (NYU Stern) Best Paper Award for 2010-11 "A Pyrrhic Victory? Bank Bailouts and Sovereign Credit Risk"

- Second Prize for the Cromwell Award given by Pan Agora Asset Management, 2012 "Liquidity Risk of Corporate Bond Returns"
- The 2011 Inaugural TCFA (The Chinese Finance Association) Award for the Best Paper on Global Financial Markets "The Seeds of a Crisis: A Theory of Bank Liquidity and Risk Taking over the Business Cycle"
- Best Conference Paper (Goldman Sachs International) Award at the European Finance Association Meetings, 2010 – "The Seeds of a Crisis: A Theory of Bank Liquidity and Risk Taking over the Business Cycle"
- Review of Finance Best Paper Award for 2009 (Deutsche Bank Prize in Financial Economics) "Corporate Governance Externalities"
- Finalist/Honorable mention for *Restoring Financial Stability: How to Repair a Failed System* (co-edited with Matt Richardson), John Wiley & Sons, at the PSP/PROSE 2009 awards of the Association of American Publishers in Business, Finance and Management
- L. Glucksman Institute (NYU Stern) Best Paper Award for 2009-10 "Rollover Risk and Market Freezes"
- Best Paper Award (Viz Risk Management Prize on Energy Markets, Securities, and Prices) at the European Finance Association Meetings, 2009 – "Limits to Arbitrage and Hedging: Evidence from Commodity Markets"
- III Jaime Fernandez de Araoz Corporate Finance Award, 2009 "The Internal Governance of Firms"
- Best Paper on Corporate Governance awarded by the European Corporate Governance Institute, 2008 "Corporate Governance Externalities"
- The "Rising Star in Finance" Award at the Inaugural Rising Stars Conference in Albany organized by Rennslear Polytechnic Institute (RPI), 2008
- Journal of Financial Economics Best Paper in Capital Markets and Asset Pricing, Second (Fama/DFA) Prize, 2007 – "Does Industry-wide Distress Affect Defaulted Firms? – Evidence from Creditor Recoveries"
- Citibank Best Paper Award at the Summer Research Conference of the Center for Analytical Finance (CAF) at Indian School of Business, 2007 "Bankruptcy Codes and Innovation"
- Second Runner-up Award for the Best Paper at the 13<sup>th</sup> Mitsui Life Symposium on "Value Creation: Financing and Organizing the Firm" at the University of Michigan, 2007 "Bankruptcy Codes and Innovation"
- Journal of Financial Economics Best Paper for Capital Markets and Asset Pricing, First (Fama/DFA) Prize, 2005 "Asset Pricing with Liquidity Risk"
- First recipient of the Lawrence G. Goldberg Prize for the Best Ph.D. in Financial Intermediation, 2005
- NYSE Award for Best Paper on Equity Trading, WFA Meetings, 2003 "Asset Pricing with Liquidity Risk."
- Best Student Paper Award at FMA European Conference, 2001 "Is the International Convergence of Capital Adequacy Regulation Desirable?"
- Journal of Financial Economics Best Paper for Corporate Finance and Organizations, First (Jensen) Prize, 2000 "On the Optimality of Resetting Executive Options."
- Lehman Brothers Fellowship for Excellence in Finance Research First Prize, 2000 (Awarded to a graduating student across MIT, Harvard, NYU, Columbia, Wharton, and Chicago) "A Theory of Systemic Risk and Design of Prudential Bank Regulation."
- L. Glucksman Institute Research Awards, NYU Stern First Prize (2002-2003, 1998-1999), Second Prize (2000-2001)
- CDC Working Paper Awards, NYU Stern First Prize, 2003, 2000, 1999
- Harold W. MacDowell Award for Outstanding Achievement in Doctoral Program, Stern School of Business, NYU, 2001

### **Refereeing Awards**

- Excellence in Refereeing Award, American Economic Review, 2013, 2010, 2009
- Meritorious Service Award, Management Science, 2010
- Distinguished Referee Award, Review of Financial Studies, 2009
- Outstanding Referee Award, Review of Financial Studies, 2003

# **Teaching Awards**

- Deutsche Bank Curriculum Development Grant, NYU Stern, 2010-11.
- Runner-up for Best Teacher in Masters in Finance at London Business School, 2006-07.

#### Research Areas of Interest

- Banking Liquidity, Crises (including Sovereign crises), Systemic Risk, Regulation, Shadow Banking, Diversification of Loan Portfolios.
- Corporate Finance Cash Management, Incentive Compensation, Bankruptcy Systems, Innovation, Private Equity and Corporate Governance.
- Asset Pricing Causes and Effects of Liquidity Risk, Disclosure and Insider Trading.
- Valuation and Hedging of Corporate and Sovereign Debt and Credit Derivatives.
- International Finance Law, Innovation, Debt, Growth, Taxation and Sovereign Crises.
- General Equilibrium Agency, Contracts and Default.

#### **Publications**

- "Does the Lack of Financial Stability Impair the Transmission of Monetary Policy?" with Bjorn Imbierowicz, Sascha Steffen and Daniel Teichmann, *conditionally accepted, Journal of Financial Economics*.
- "Economics with Market Liquidity Risk" with Lasse Pedersen, forthcoming, Critical Financial Review.
- "Credit Lines and the Liquidity Insurance Channel" with Heitor Almeida, Filippo Ippolito and Ander Perez, *forthcoming, Journal of Money, Credit and Banking*.
- "Bank Lines of Credit as Contingent Liquidity: Covenant Violations and their Implications" with Heitor Almeida, Filippo Ippolito and Ander Perez, *forthcoming, Journal of Financial Intermediation*.
- "Capital Flow Management with Multiple Instruments" with Arvind Krishnamurthy, 2019, in Álvaro Aguirre & Markus Brunnermeier & Diego Saravia (ed.), *Monetary Policy and Financial Stability: Transmission Mechanisms and Policy Implications*, Edition 1, 26(6), 169-203, Central Bank of Chile.
- "Whatever It Takes: The Real Effects of Unconventional Monetary Policy" with Tim Eisert, Christian Eufinger and Christian Hirsch, *Review of Financial Studies*, 2019, 32(9): 3366-3411.
- "On Reaching for Yield and the Coexistence of Bubbles and Negative Bubbles" with Hassan Naqvi, *Journal of Financial Intermediation*, 2019, 38:1-10 (lead article).
- "Real Effects of the Sovereign Debt Crises in Europe: Evidence from Syndicated Loans" with Tim Eisert, Christian Eufinger and Christian Hirsch, *Review of Financial Studies*, 2018, 31(8), 2855-2896 (lead article).
- "Lending Implications of U.S. Bank Stress Tests: Costs or Benefits?" with Allen Berger and Raluca Roman, *Journal of Financial Intermediation*, 2018, Vol. 34, 58-90.
- "Bank Capital and Dividend Externalities" with Hanh Le and Hyun-Song Shin, *Review of Financial Studies*, 2017, 30(3), 988-1018.
- "Financial Dependence and Innovation: The Case of Public versus Private Firms" with Zhaoxia Xu, *Journal of Financial Economics*, 2017, 124(2), 223-243 (lead article).
- "How Do Global Banks Scramble for Liquidity? Evidence from the Asset-Backed Commercial Paper Freeze of 2007" with Gara Afonso and Anna Kovner, *Journal of Financial Intermediation*, 2017, 30:1-34 (lead article).
- "Dealer Financial Conditions and Lender of Last Resort Facilities" with Michael Fleming, Warren Hrung and Asani Sarkar, *Journal of Financial Economics*, 2017, 123(1), 81-107.
- "Banks' Financial Reporting and Financial System Stability", with Stephen Ryan, Journal of Accounting Research., 2016, 54(2): 277-340 (lead article).
- "The Dark Side of Liquidity Creation: Leverage and Systemic Risk" with Anjan Thakor, Journal of Financial Intermediation, 2016, 28:4-21 (lead article).
- "Caught Between Scylla and Charybdis? Regulating Bank Leverage When There is Rent-Seeking and Risk-Shifting" with Hamid Mehran and Anjan Thakor, *Review of Corporate Finance Studies*, 2016, 5(1), 36-75.

- A short non-technical summary can be found in "Robust Capital Regulation" with Hamid Mehran, Til Schuermann and Anjan Thakor, 2012, Currents Issues in Economics and Finance, Federal Reserve Bank of New York, May issue.
- "Measuring Systemic Risk" with Lasse Pedersen, Thomas Philippon and Matt Richardson, *Review of Financial Studies*, 2016, 30, 2-47 (lead article).
  - NYU Stern Global Systemic Risk Rankings (updated weekly) based on this paper.
  - A speech based on this paper, reprinted as Chapter 10 in *Macro-prudential Regulatory Policies: The New Road to Financial Stability?*, edited by Stijn Claessens, Douglas D Evanoff, George G Kaufman and Laura E Kodres, World Scientific, 2012.
- "Seeking Alpha: Excess Risk Taking and Competition for Managerial Talent" with Marco Pagano and Paolo Volpin, *Review of Financial Studies*, 2016, 29: 2565-2599 (lead article).
- "Cash Holdings and Bank Compensation" with Hamid Mehran and Rangarajan K Sundaram, <u>Economic Policy Review, Behavioral Risk Management in the Financial Services Industry: The Role of Culture, Governance and Financial Reporting</u>, Federal Reserve Bank of New York, 2016, 22(1), 77-84.
- "A Theory of Income Smoothing when Insiders Know More than Outsiders" with Bart Lambrecht, *Review of Financial Studies*, 2015, 28:2534-2574.
- "Liquidity Risk and Correlation Risk: A Clinical Study of the General Motors and Ford Downgrade of 2005" with Stephen Schaefer and Yili Zhang, *Quarterly Journal of Finance*, 2015, 5(2), 1-51.
- "A Pyrrhic Victory? Bank Bailouts and Sovereign Credit Risk" with Itamar Drechsler and Philipp Schnabl, *Journal of Finance*, 2015, 69(6), 2689-2739.
  - A short non-technical summary can be found in "A Tale of Two Overhangs: The Nexus of Financial Sector and Sovereign Credit Risks", *Banque de France Financial Stability Review*, 16, April 2012.
- "A Crisis of Banks as Liquidity Providers" with Nada Mora, *Journal of Finance*, 2015, 70(1), 1-44 (lead article).
- "The Greatest Carry Trade Ever? Understanding Eurozone Bank Risks" with Sascha Steffen, *Journal of Financial Economics*, 2015, 115, 215-236 (lead article).
  - Cited in "Europe should say No to a flawed banking union" by Wolfgang Manchau, Financial Times, 16 March 2014.
- "Unintended Consequences of Lender of Last Resort Facilities: The Case of Illiquid Leverage" with Bruce Tuckman, *IMF Economic Review*, 2014, 62(4), 606-655.
- "Testing Macro-prudential Stress Tests: The Risk of Regulatory Risk Weights" with Robert Engle and Diane Pierret, *Journal of Monetary Economics*, 2014, 65, 36-53.
- "Credit Lines as Monitored Liquidity Insurance: Theory and Evidence" with Heitor Almeida, Filippo Ippolito and Ander Perez, *Journal of Financial Economics*, 2014, 112, 287-319.
- "Wrongful Discharge Laws and Innovation" with Ramin Baghai and Krishnamurthy Subramanian, *Review of Financial Studies*, 2014, 27, 301-346.
- "Counterparty Risk Externality: Centralized versus Over-the-counter Markets" with Alberto Bisin, *Journal of Economic Theory*, 2014, 149, 153-182.
- "Aggregate Risk and the Choice between Cash and Lines of Credit" with Heitor Almeida and Murillo Campello, *Journal of Finance*, 2013, 68, 2059-2116.
- "Limits to Arbitrage and Hedging: Evidence from Commodity Markets" with Lars Lochstoer and Tarun Ramadorai, *Journal of Financial Economics*, 2013, 109, 441-465.
- "Labor Laws and Innovation" with Ramin Baghai and Krishnamurthy Subramanian, *Journal of Law and Economics*, 2013, 56, 997-1037.
  - Featured in the NBER Digest, April 2011.
- "The Growth of a Shadow Banking System in Emerging Markets: Evidence from India" with Hemal Khandwala and Sabri Oncu, *Journal of International Money and Finance*, 2013, 39, 207-230
- "Liquidity Risk of Corporate Bond Returns: A Conditional Approach" with Yakov Amihud and Sreedhar Bharath, *Journal of Financial Economics*, 110(2), 2013, 358-386.
- "Sovereign Debt, Government Myopia and the Financial Sector" with Raghuram Rajan, 2013, *Review of Financial Studies*, 26(6), 1526-1560.

- "A Theory of Arbitrage Capital" with Hyun-Song Shin and Tanju Yorulmazer, 2013, *Review of Corporate Financial Studies*, 2(1), 62-97.
- "Securitization without Risk Transfer" with Philipp Schnabl and Gustavo Suarez, 2013, Journal of Financial Economics, 107, 515-536 (lead article).
  - ➤ Reprinted as Chapter 7 in *Post-crisis Regulatory Reforms to Secure Financial Stability*, edited by Seok-Kyun Hur and Taehoon Youn, Korean Development Institute (KDI) International Conference, 2010.
  - ➤ Winner, Emerald Citations of Excellence for 2016.
- "A Proposal for the Resolution of Systemically Important Assets and Liabilities: The Case of the Repo Market" with Sabri Oncu, 2013, *International Journal of Central Banking*, 9(1), 291-350.
- "Precautionary Hoarding of Liquidity and Inter-Bank Markets: Evidence from the Sub-prime Crisis" with Ouarda Merrouche, 2013, *Review of Finance*, 17(1), 107-160.
- "Corporate Governance and Value Creation: Evidence from Private Equity" with Oliver Gottschalg, Moritz Hahn and Conor Kehoe, 2013, *Review of Financial Studies*, 26(2), 368-402.
- "Cash Holdings and Credit Risk" with Sergei Davydenko and Ilya Strebulaev, 2012, *Review of Financial Studies*, 25(12), 3572-3609.
- "Governments as Shadow Banks: The Looming Threat to Financial Stability", 2012, *Texas Law Review*, 90, 1745, *Symposium on Reshaping Capital Markets and Institutions*.
- "Capital Shortfall: A New Approach to Ranking and Regulating Systemic Risks" with Robert Engle and Matthew Richardson, 2012, *American Economic Review Papers and Proceedings*, 102(3), 59-64.
- "The Seeds of a Crisis: A Theory of Bank Liquidity and Risk Taking over the Business Cycle" with Hassan Naqvi, 2012, *Journal of Financial Economics*, 106(2), 349-366.
  - Related essay "Bank Liquidity and Bubbles: Why Central Banks Should Lean against Liquidity" appeared in *New Perspectives on Asset Price Bubbles: Theory, Evidence and Policy,* edited by Douglas Evanoff, George Kaufman and A.G. Malliaris, Oxford University Press, 2012.
- "Imperfect Competition in the Inter-Bank Market for Liquidity as a Rationale for Central Banking" with Denis Gromb and Tanju Yorulmazer, *American Economic Journal Macroeconomics*, 2012, 4(2), 184-217.
- "Fire-sale FDI" with Hyun-Song Shin and Tanju Yorulmazer, *Korean Economic Review*, 2011, 27(2), 163-202.
- "Creditor Rights and Corporate Risk-taking" with Yakov Amihud and Lubomir Litov, Journal of Financial Economics, 2011, 102(1), 150-166.
- "Endogenous Information Flows and the Clustering of Announcements" with Peter DeMarzo and Ilan Kremer, *American Economic Review*, 2011, 101(7): 2955–79.
- "A Model of Liquidity Hoarding and Term Premia in Inter-Bank Markets" with David Skeie, Journal of Monetary Economics, 2011, 58(5), 436-447.
- "Rollover Risk and Market Freezes" with Douglas Gale and Tanju Yorulmazer, *Journal of Finance*, 66, 2011, 1175-1207.
- "Finance and Efficiency: Do Bank Branching Regulations Matter?" with Jean Imbs and Jason Sturgess, *Review of Finance*, 15(1), 2011, 135-172.
- "Crisis Resolution and Bank Liquidity" with Hyun-Song Shin and Tanju Yorulmazer, *Review of Financial Studies*, 24(6), 2011, 2166-2205.
- "The Internal Governance of Firms" with Stewart Myers and Raghuram Rajan, *Journal of Finance*, 66(3), 2011, 689-720 (lead article).
- "Leverage, Moral Hazard and Liquidity" with S. Viswanathan, *Journal of Finance*, 66, 2011, 99-138
- "Cross-country Variations in Capital Structures: The Role of Bankruptcy Codes," with Kose John and Rangarajan K. Sundaram, *Journal of Financial Intermediation*, 20 (2011), 25-54.
- "More Insiders, More Insider Trading: Evidence from Private Equity Buyouts" with Timothy Johnson, *Journal of Financial Economics*, 98(3), 2010, 500-523.
- "Do Global Banks Spread Global Imbalances? Asset-Backed Commercial Paper during the Financial Crisis of 2007-09" with Philipp Schnabl, *IMF Economic Review*, 58, 2010, 37-73.
- "Systemic Risk and Deposit Insurance Premiums" with Joao Santos and Tanju Yorulmazer, 2010, Economic Policy Review, Federal Reserve Bank of New York, 16(1), 89-99.

- "Corporate Governance Externalities" with Paolo Volpin, *Review of Finance*, 14(1), 2010, 1-33 (lead article).
- "A Theory of Systemic Risk and Design of Prudential Bank Regulation", *Journal of Financial Stability*, 5(3), 2009, 224-255.
- "Bankruptcy Codes and Innovation" with Krishnamurthy Subramanian, 2009, *Review of Financial Studies*, 22(12), 4949-4988.
  - ➤ "Bankruptcy Codes and Innovation: A Model" with Krishnamurthy Subramanian, theoretical appendix to the above paper, online at *Review of Financial Studies*.
- "Managerial Hedging, Equity Ownership, and Firm Value" with Alberto Bisin, *Rand Journal of Economics*, 40(1), 2009, 47-77.
- "Private Equity versus Plc Boards in the U.K.: A Comparison of Practices and Effectiveness" with Conor Kehoe and Michael Reyner, *Journal of Applied Corporate Finance*, 21(1), 2009, 45-56
- "Cash-in-the-Market Pricing and Optimal Resolution of Bank Failures," with Tanju Yorulmazer, *Review of Financial Studies*, 21, 2008, 2705-2742.
  - Reprinted in *Handbook on Liquidity and Crises*, Franklin Allen, Elena Carletti, Jan-Pieter Krahnen and Marcell Tyrell, eds., Oxford University Press, 2011.
- "Information Contagion and Bank Herding" with Tanju Yorulmazer, *Journal of Money, Credit and Banking*, 40(1), 2008, 215-31.
  - ➤ Reprinted in *Handbook on Liquidity and Crises*, Franklin Allen, Elena Carletti, Jan-Pieter Krahnen and Marcell Tyrell, eds., Oxford University Press, 2011.
- "Is Cash Negative Debt? A Hedging Perspective on Corporate Financial Policies" with Heitor Almeida and Murillo Campello, *Journal of Financial Intermediation*, 16(4), 2007, 515-554
- "Does Industry-wide Distress Affect Defaulted Firms? Evidence from Creditor Recoveries," with Sreedhar Bharath and Anand Srinivasan, *Journal of Financial Economics*, 85(3), 2007, 787-821
- "Too-Many-To-Fail An Analysis of Time-inconsistency in Bank Closure Policies," with Tanju Yorulmazer, *Journal of Financial Intermediation*, 16(1), 2007, 1-31 (lead article).
- "Insider Trading in Credit Derivatives," with Timothy Johnson, *Journal of Financial Economics*, 84(1), 2007, 110-141.
- "Private Equity: Boom and Bust?" with Julian Franks and Henri Servaes, *Journal of Applied Corporate Finance*, 19(4), Fall 2007, 44-53.
- "When Does Strategic Debt-Service Affect Debt Spreads?" with Jing-zhi Huang, Marti G. Subrahmanyam, and Rangarajan K. Sundaram, *Economic Theory*, Feb 2006, 1–16.
- "Should Banks Be Diversified? Evidence from Individual Bank Loan Portfolios," with Anthony Saunders and Iftekhar Hasan, *Journal of Business*, May 2006, 79(3), 1355-1412.
  - Reprinted in *Proceedings of the Federal Reserve Bank of Chicago Conference on Bank Structure and Competition*, 2002.
- "Optimal Financial-Market Integration and Security Design," with Alberto Bisin, *Journal of Business*, 78(6), 2006, 2397-2433.
- "Asset Pricing with Liquidity Risk," with Lasse Pedersen, Journal of Financial Economics, 77(2), 2005, 375-410.
  - Reprinted in Amihud, Yakov, Haim Mendelson and Lasse Pedersen, "Liquidity", Oxford University Press, forthcoming.
- "Is the International Convergence of Capital Adequacy Regulation Desirable?" *Journal of Finance*, 58(6), 2003, 2745-2781.
- "Corporate Bond Valuation and Hedging with Stochastic Interest Rates and Endogenous Bankruptcy," *Review of Financial Studies*, 15(5), 2002, 1355-1383 with Jennifer N. Carpenter.
- "Pricing Credit Derivatives with Rating Transitions," *Financial Analysts Journal*, 58(3), 2002, 28-44, with Sanjiv R. Das and Rangarajan K. Sundaram.
- "On the Optimality of Resetting Executive Stock Options," *Journal of Financial Economics*, 57(1), 2000, 65-101, with Kose John and Rangarajan K. Sundaram.

### Papers under revision

- "Kicking the Can Down the Road: Government Interventions in the European Banking Sector" with Sascha Steffen and Lea Steinruecke (*being revised for resubmission, Review of Financial Studies*).
- "Government Guarantees and Bank Vulnerability During a Crisis: Evidence from an Emerging Market" with Nirupama Kulkarni (being revised for resubmission, Journal of Financial Economics).
- "The End of Market Discipline? Investor Expectations of Implicit State Guarantees" with D. Anginer and A.J. Warburton (being revised for resubmission, Journal of Finance).
- "What Do Macro-prudential Stress Tests Resolve: Asymmetric Information, Debt Overhang or Regulatory Uncertainty?" with Amit Seru (being revised for resubmission, International Monetary Fund Economic Review).
- "Dividends and Bank Capital in the Financial Crisis of 2007-09" with Irvind Gujral, Nirupama Kulkarni and Hyun-Song Shin (being revised for resubmission, Critical Financial Review).

### Working papers

- "Monetary Easing, Leveraged Payouts and Lack of Investment" with Guillaume Plantin.
- "Monetary Easing, Lack of Investment and Financial Instability" with Guillaume Plantin.
- "Zombie Credit and (Dis-)Inflation: Evidence from Europe" with Matteo Crosignani, Tim Eisert and Christian Eufinger.
- "The Anatomy of the Transmission of Macroprudential Policies" with Katherine Bergant, Matteo Crosignani, Tim Eisert and Fergal J. McCann.
- "Lender of Last Resort versus Buyer of Last Resort Evidence from the European Sovereign Debt Crisis" with Diane Pierret and Sascha Steffen.
- "Bank Use of Sovereign CDS in the Eurozone Crisis: Hedging and Risk Incentives" with Yalin Gunduz and Timothy Johnson.
- "In the Shadow of Banks: Wealth Management Products and Issuing Banks' Risk in China" with Jun 'QJ' Qian, Yang Su and Zhishu Yang.
- "Anatomy of a Banking Panic" with Abhiman Das, Nirupama Kulkarni, Prachi Mishra and N.R.Prabhala.
- "Foreign Currency Borrowing of Corporations as Carry Trades: Evidence from India" with Siddharth Vij.
- "Information and Price Pressure Effects of Foreign Fund Flows" (earlier titled "Foreign Funds Flows and Stock Returns: Evidence from an Emerging Market") with Ravi Anshuman and Kiran Kumar.
- "Risk-Sharing and the Creation of Systemic Risk" with Aaditya Iyer and Rangarajan K. Sundaram.
- "Competition for Managers and Corporate Governance" with Marc Gabarro and Paolo Volpin.
- "Seeking Alpha, Taking Risk: Evidence from Non-Executive Pay in U.S. Bank Holding Companies" with Lubomir Litov and Simon Sepe.

# Work in progress

- "Sovereign Debt as a Double-Edged Sword Growth Dynamics under Government Myopia" with Raghuram Rajan and Jack Shim.
- "Informal and Formal Promises" with Raghuram Rajan.
- "Bankruptcy Exemption of Repo Markets: Too Much Now for Too Little Tomorrow?" with Ravi Anshuman and S. Viswanathan.
- "To Mark or Not to Mark: That is the Question" with Saptarshi Mukherjee and Rangarajan K Sundaram
- "The Sensitivity of Cash Savings to the Cost of Capital" with Soku Byoun and Zhoaxia Xu.
- "A Model of Infrastructure Financing" with Cecilia Parlatore and Suresh Sundaresan.
- "Why Less Can be More: On the Crowding-out Effects of Government Borrowing" with Nirupama Kulkarni, Bhavika Nanavati and Seema Saggar.
- "GSEs versus Banks: The Quest for Market Share and a Race to the Bottom in Mortgage Lending" with Ronel Elul.

- "Real Effects of Bank Failures: Entrepreneurship, Innovation and Job Creation" with Amit Seru and Krishnamurthy Subramanian.
- "Asset Pricing with Counterparty Risk" with Alberto Bisin and Shengxing Zhang.
- "Short-term Debt versus Long-Term Debt: An Information-Theoretic View of Financial Crises" with Alberto Bisin and Enrico Perotti.

#### **Books**

- "The Nexus between Financial Sector and Sovereign Credit Risks", Toulouse Lectures in Economics, delivered in June 2013, forthcoming, Princeton University Press.
- "The Social Value of the Financial Sector: Too Big to Fail or Just Too Big?", Viral V Acharya, Thorsten Beck, Douglas D Evanoff, George G Kaufman and Richard Portes, editors, World Scientific Studies in International Economics, World Scientific Publishing Company, 2013.
- "<u>Dodd-Frank: One Year On</u>", New York University Stern School of Business and CEPR e-book, Viral V. Acharya, Thomas Cooley, Matthew Richardson and Ingo Walter, editors, published on <a href="www.voxeu.org">www.voxeu.org</a>, July 2011, a one-year assessment of the Dodd-Frank Act and its implementation based on remarks of participants at NYU-Stern and the Pew Charitable Trusts conference on 27 June 2011, Washington D.C.
- <u>"Guaranteed To Fail: Fannie Mae, Freddie Mac and the Debacle of Mortgage Finance"</u>, Viral V Acharya, Stijn van Nieuwerburgh, Matthew Richardson and Lawrence White, Princeton University Press, March 2011.
  - ➤ Indian edition with extra chapter on Government Sponsored Enterprises and India, Harper Collins, June 2011.
  - ➤ Being translated in Chinese by Dongbei University of Finance and Economics Press.
  - ➤ Included in the American Banker's <u>Summer Reading List of 2014</u> for commercial bankers.
- <u>"Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance"</u>,

   An Independent View from New York University Stern School of Business, Viral V.
   Acharya, Thomas Cooley, Matthew Richardson and Ingo Walter, editors, John Wiley & Sons, November 2010.
  - Prologue of the book, reprinted as "The Dodd-Frank Wall Street Reform and Consumer Protection Act: Accomplishments and Limitations", in the *Journal of Applied Corporate Finance*, Spring 2011.
  - Chapter 4 "Measuring Regulating Risk" (with Christian Brownlees, Robert Engle, Farhang Farazmand, and Matthew Richardson) and Chapter 5 "Regulating Systemic Risk" (with Lasse Pedersen, Thomas Philippon and Matthew Richardson) reprinted in *Handbook on Systemic Risk*, edt. J.-P- Fouque and J. Langsam. Cambridge University Press, forthcoming.
  - "Rewriting Financial Regulation: Evaluating the Congressional Proposals", e-book published on <a href="www.voxeu.org">www.voxeu.org</a>, December 2009, an assessment from NYU Stern of HR 4173 bill, the Wall Street Reform and Consumer Protection Act of 2009, passed by the U.S. House of Representatives and the U.S. Senate's Restoring American Financial Stability Act.
- "Restoring Financial Stability: How to Repair a Failed System" An Independent View from New York University Stern School of Business, Viral V. Acharya and Matthew Richardson, editors, (c) John Wiley & Sons, March 2009.
  - > Translated in Japanese by Wiley International and Japan UNI Agency, Inc (Tokyo).
  - "The Financial Crisis of 2007-09: Causes and Remedies", Viral V. Acharya and Matthew Richardson, editors, New York University Salomon Center Series on Financial Markets, Institutions and Instruments, (c) Blackwell, March 2009: Overview and Executive Summaries of articles in the book "Restoring Financial Stability: How to Repair a Failed System"

### **Monographs and Short Articles**

Speeches delivered as Deputy Governor of the Reserve Bank of India during Jan 2017 – July 2019 are available at <a href="http://pages.stern.nyu.edu/~sternfin/vacharya/public\_html/RBI-Speeches.pdf">http://pages.stern.nyu.edu/~sternfin/vacharya/public\_html/RBI-Speeches.pdf</a>

- <u>Discussion of "The global financial cycle"</u> by Claudio Borio at the Conference on "The Current Global and European Financial Cycle: Where do we stand and how to we move forward?" Jointly organized by the Bulgarian National Bank and the Bank for International Settlements on July 8, 2019 at Sofia, Bulgaria.
- "What can India's banking system learn from the shampoo sachet revolution?" Financial Times, Special Report: India Banking and Finance, 22 September 2019
- "Same Story, Different Place? Post-Crisis Recapitalization of Banks in Japan and Europe" with Tim Eisert, Christian Eufinger and Christian Hirsch, in "Finance and Investment: The European Case" edited by C. Mayer, S. Micossi, M. Onado, M. Pagano and A. Polo. Oxford: Oxford University Press, 2018
- "Capital Markets Union in Europe: Why Other Unions Must Lead the Way" with Sascha Steffen, *Swiss Journal of Economics and Statistics*, 2016, Vol. 152 (4) 319–329.
- "State Intervention in Banking: The Relative Health of Indian Public Sector and Private Sector Banks" with Krishnamurthy Subramanian, in C. Ghate and K.M. Kletzer (eds.), *Monetary Policy in India*, Springer India 2017.
- <u>Capital Shortfalls of European Banks since the Start of the Banking Union</u>, July 2016, with Diane Pierret and Sascha Steffen.
  - Related pieces: <u>Introducing the "Leverage Ratio" in Assessing the Capital Adequacy of European Banks</u>, High Time to Tell European Banks: No Dividends
  - Covered in <u>Financial Times (2)</u>, <u>Wall Street Journal</u> and <u>Bloomberg</u>.
- "Measuring Systemic Risk for Insurance Companies", with Thomas Philippon and Matt Richardson, in *The Economics, Regulation, and Systemic Risk of Insurance Markets*, edited by Felix Hufeld, Ralph S.J. Koijen, and Christian Thimann, Oxford: Oxford University Press, 2016, Chapter 5, forthcoming.
- "Corporate Debt in Emerging Economies: A Threat to Financial Stability?", Committee on International Economic Policy and Reform, with Stephen G. Cecchetti, José De Gregorio, Şebnem Kalemli-Özcan, Philip R. Lane, and Ugo Panizza, September 2015.
- "Financial Stability in the Broader Mandate for Central Banks: A Political Economy Perspective", Brookings Institution Hutchins' Working Paper, March 2015; Committee on Regulating Financial Sector Conference in Washington D.C., Feb 2016; Keynote at the Journal of Law, Finance and Accounting Conference at the Northwestern Law School, Nov 2016.
- "Making Sense of the Comprehensive Assessment", with Sascha Steffen, Oct 2014 (Covered in <u>Alternative Stress Tests Find French Banks Are Weakest in Europe</u> by Tom Braithwaite, FT.com, and in <u>Four Rescue Measures for Stagnant Eurozone</u> by Willem Buiter, FT Markets Insight).
  - Presented at the Council of Foreign Relations, New York, December 2014.
  - Reproduced in <u>Stress Testing and Macroprudential Regulation: A Transatlantic Assessment</u>, voxeu.org e-book, edited by Ron Anderson
- "Benchmarking the European Central Bank's Asset Quality Review and Stress Test A Tale of Two Leverage Ratios", with Sascha Steffen, Center for European Policy Studies, Nov 2014.
- "Is the Insurance Industry Systemically Risky?" with Matt Richardson, Chapter 9 in *Modernizing Insurance Regulation*, John Biggs and Matthew Richardson, eds., John Wiley & Sons, 2014.
- "Falling Short of Expectations? Stress-Testing the European Banking System", with Sascha Steffen, Center for European Policy Studies, Jan 2014.
  - Also published on Voxeu.org <a href="http://www.voxeu.org/article/what-asset-quality-review-likely-find-independent-evidence">http://www.voxeu.org/article/what-asset-quality-review-likely-find-independent-evidence</a>
- "Guaranteed to Fail: Fannie Mae and Freddie Mac and What to do about them", with Stijn van Nieuwerburgh, Matthew Richardson and Lawrence White, *the Economists' Voice*, 10(1), 2013, 15-20.
- "Adapting Micro-prudential Regulation for the Emerging Markets", in *Dealing with the Challenges of Macro Financial Linkages in Emerging Markets*, Canuto Otaviano and Swati Ghosh, eds., World Bank Studies, 2013.
- "Understanding Financial Crises: Theory and Evidence from the Crisis of 2007-08", *NBER Reporter*, April 2013(1).

- "Analyzing Systemic Risk of the European Banking Sector," with Sascha Steffen, in *Handbook on Systemic Risk*, edt. J.-P- Fouque and J. Langsam. Cambridge University Press, forthcoming.
- "Banking Union in Europe and Other Reforms" in <u>Banking Union for Europe Risks and Challenges</u>, edited by Thorsten Beck, <u>www.voxeu.org</u>
- "Implications of the Dodd-Frank Act", with Matthew Richardson, *Annual Review of Financial Economics*, 2012(4).
- "The Dodd-Frank Act and Basel III: Intentions, Unintended Consequences, Transition Risks, and Lessons for India", *Contemporary Banking in India*, edited by Naina Kidwai, Business World, India, August 2012.
- "Basel III Capital Requirements: Implications for India", 2013, *New Paradigms for Financial Regulation* edited by Eswar Prasad and Masahiro Kawai, pages 13-45.
- "Reforming the US Housing Finance System: A Proposal", with Stijn van Nieuwerburgh, Matthew Richardson and Lawrence J White, in *The Financial Development Report 2011, World Economic Forum*, 55-67.
- "A Transparency Standard for Derivatives", in *Risk Topography: Systemic Risk and Macro Modeling*, edited by Markus Brunnermeier and Arvind Krishnamurthy, National Bureau of Economic Research book, published by the University of Chicago Press, forthcoming, 2012.
  - Reprinted in *OTC derivatives: new rules, new actors, new risks?*, Banque de France Financial Stability Review, 17, 2013.
- "Is State Ownership in the Indian Banking System Desirable?", *India Policy Forum 2011-12*, based on presentation at NCAER, New Delhi (India), July 2011.
- "Ring-fencing is good, but no panacea," in *The Future of Banking*, Vox eBook, edited by Thorsten Beck, Oct 2011.
- "The Dodd-Frank Act, systemic risk and capital requirements," with Matt Richardson, in *The Future of Banking*, Vox eBook, edited by Thorsten Beck, Oct 2011.
- "An End to Fannie and Freddie: Putting the Genie Back in the Bottle", with Stijn van Nieuwerburgh, Matthew Richardson and Lawrence White, in NYU-Stern e-book "<u>Dodd Frank:</u> <u>One Year On</u>", published on voxeu.
- "How to Set Capital Requirements in a Systemically Risky World", with Matthew Richardson, in NYU-Stern e-book "<u>Dodd Frank: One Year On</u>", published on voxeu.
- "Dodd-Frank and Shadow Banking: Dealing with the Tail-Risk Repositories", presentation at the Pew Project on Financial Reform and NYU Stern conference "<u>Dodd Frank: One Year On</u>", 27 June 2011.
- "How to Calculate Systemic Risk Surcharges" with Lasse Pedersen, Thomas Philippon and Matthew Richardson, 2011, *forthcoming, NBER publication on Quantifying Systemic Risk*, ed. By Joseph Haubrich and Andrew Lo.
- "The Dodd-Frank Act and Basel III: Intentions, Unintended Consequences, Transition Risks and Lessons for India", policy brief prepared for the International Growth Centre (India), March 2011.
- "Systemic Risk and Macro-prudential Regulation", monograph prepared for Asian Development Bank, March 2011.
- "What Saved the Indian Banking System: State Ownership or State Guarantees?" with Nirupama Kulkarni, *Business Standard*, India, January 2011, and *The World Economy*, 35(1), 2012.
- "Manufacturing Tail Risk: A Perspective on the Financial Crisis of 2007-09" with Thomas Cooley, Matthew Richardson and Ingo Walter, *Foundations and Trends® in Finance*, Vol. 4: No. 4, 247-325 (2010).
- "Market Failures and Regulatory Failures: Lessons from Past and Present Crises" with Thomas Cooley, Matthew Richardson and Ingo Walter, in "Financial Sector Regulation and Reforms in Emerging Markets" edited by Masahiro Kawai and Eswar Prasad, Brookings Institution Press (Washington, DC), 2010.
- "A Tax on Systemic Risk" with Lasse Pedersen, Thomas Philippon and Matthew Richardson, 2010, Chapter 1 in *Post-crisis Regulatory Reforms to Secure Financial Stability*, edited by Seok-Kyun Hur and Taehoon Youn, 2010 Koreal Development Institute (KDI) International Conference, 2010.

- "What To Do If a Large, Complex Financial Institution Fails?" with Matthew Richardson and Nouriel Roubini, *Daiwa Institute of Research Publication*, 2010.
- "How Banks Played the Leverage Game and What Can Be Done About It", Testimony at House of Representatives (Financial Services Oversight and Investigations Subcommittee), May 2010.
- "Causes of the Financial Crisis" with Matthew Richardson, 2009, *Critical Review*, 21(2–3): 195–210.
  - ➤ Reprinted as Chapter 7. "How Securitization Concentrated Risk in the Financial Sector." In Jeffrey Friedman, ed., *The Causes of the Financial Crisis*, University of Pennsylvania Press, 2010.
- "State of Corporate Finance: It's Not Over Yet" with Matthew Richardson, 2009, *Financial Executive*, September 2009, 38-42.
- "Government Guarantees: Why We Need to Put the Genie Back in the Bottle" with Matthew Richardson, *The Economists' Voice*, October 2009.
  - ➤ Reprinted as Chapter 8 in "The Financial Crisis, Health Care Reform and More", *the Economists' Voice 2.0*, edited by Aaron S Edlin and Joseph E Stiglitz, Columbia University Press, 2012.
- "Capital Budgeting at Banks: The Role of Government Guarantees", with Julian Franks, prepared for Knight Vinke Asset Management, *The Banker, QFinance, voxeu.org, Agenda Advancing Economics in Business, London Business School's Business Strategy Review.*
- "Board of Directors and Experience: A Lesson from Private Equity" (with Conor Kehoe), *McKinsey on Finance*, Number 35, Spring 2010, pp 18-19.
- "The Voice of Experience: Public versus Private Equity", with Conor Kehoe and Michael Reyner, in *The McKinsey Quarterly*, Spring 2009.
- "Competition amongst Banks, Capital Requirements, and International Spillovers," *Economic Notes*, 30(3), 2001, 337-358.

## **Teaching**

- Winter Intensive 2012, 2014-2016, 2020: Topics in Credit Risk Rating 6.4/7.0
- The Nexus Between Financial and Sovereign Credit Risks, PhD Course, Fall 2015, Spring 2020.
- Measuring Global Financial Systemic Risk, CKGSB, Summer 2016.
- BANKSETA Program, Summer 2015.
- Chief Financial Officers' Program, Spring 2014, 2015.
- Nordea Program, Fall 2013, 5.5/7.0.
- SP Jain Management School Program, Summer 2013, 6.6/7.0.
- China Merchant Securities Program, Summer 2013.
- Standard Chartered Program on Wholesale Banking, Fall 2012, Rating 6.24/7.0
- ICBC Internal Audit Program, Spring 2012, Rating 6.32/7.0
- Open enrolment: New Financial Reforms the Impact on Global Markets Summer 2011 Rating 6.4/7.0
- Credit Risk: Executive Education (S&P), Others: AIF, Integrated Risk Mgt (MSRM), HKUST 2009-15 Rating: 6.0/7.0 (S&P), 4.85/5.0 (AIF), 6.4/7.0 (IRM), 4.30/5.0 (HKUST)
- Credit Risk, MBA/Masters in Finance Elective, LBS (with Stephen Schaefer). Summer 2008 Rating: 4.66/5.00, Summer 2007 Rating: 4.39/5.00
- Corporate Finance and Valuation, Masters in Finance Core, LBS. Fall 2006, 2005, 2004, 2003, 2002, Average rating: 4.20/5.00 Summer 2004 [Indian School of Business], Rating: 6.28/7.00
- Options and Futures, MBA/Masters in Finance Elective, LBS.
   Fall 2006, 2005, 2004, Spring 2004, 2003, 2002, Average rating: 4.13/5.00
   Fall 2003 [Indian School of Business], Rating: 6.65/7.00

## Grants

Banque de France 2015-16; Volkswagen Foundation 2015-18; Inquire Europe 2014; NYU-Stern Center for Global Economy and Business, 2011-14, 2016; International Growth Centre

 India Central Country Programme, 2011, 2013; NYU-Stern Center for Japan-U.S. Business and Economic Studies, 2010, 2009; BNP Paribas Hedge Fund Center, 2009; Q-group, 2009;

Institut Europlace de Finance, 2011, 2010, 2008; BSI Gamma Foundation, 2008; Global Association of Risk Professionals (GARP), 2008; Senior Houblon Norman Fellowship at the Bank of England, July-August 2008; INQUIRE Europe, 2007-08; Leverhulme Trust Fellowship, 2007-08; Fondation Banque de France, 2016, 2010, 2008, 2005, 2004; Research & Materials Development, London Business School, 2008, 2007, 2006, 2005, 2003, 2001; INQUIRE, UK, 2002.

## Consulting

- Canadian Deposit Insurance Corporation, 2015-16; Standard and Poors Advisory Council Meeting, October 2015; International Monetary Fund, 2014-16; Indian School of Business (Faculty mentoring workshop), 2011-12; World Bank, 2011, 2014-15; Asian Development Bank Institute (ADBI), 2010-11; Committee on Capital Markets Regulation, 2011; Korean Development Institute (KDI), 2011; World Economic Forum, 2010; Global Association of Risk Professionals Financial Risk Management (FRM) Exam, 2008-2010.
- Ad-hoc talks, book chapters, seminars and conference organization (honorariums received)
  for the Global Frontiers Inc., Duisenberg Business School, NBER, Villanova University, Yale
  University, University of Victoria, Bocconi University, HKUST, UNSW, UTS, Incisive
  Media, Citibank, Barclays Global Investors, Blackrock, BNP Paribas, Unicredit, Standard &
  Poor's, Moody's, IGIDR (India), Nomura (India), Business Standard (India), 2010-2012;
  Pershing Square Capital Management, 2009; Knight Vinke Asset Management, 2008-09.
- International Financial Risk Institute Research paper on "Changing Correlations and Liquidity: Causes and Implications for Financial Institutions", September 2005.
- Institute for Financial Management and Research/Academy for Management Excellence (IFMR/ACME), India - Design of Post-Graduate Program in Quantitative Finance, 2003-4.
- Industrial Credit and Investment Corporation of India (ICICI Bank) Credit Risk, 2002-3.
- J. P. Morgan Equity Derivatives Research, New York, Summer 1997 Developed a Monte Carlo valuation of complex derivative products, based on quasi-random sequences and Brownian Bridge technique, documented in technical mimeo "Hybrid Quasi-Monte Carlo Methods for Valuation," with Julia Chislenko, Jonathan Goodman and Arnon Levy.

#### Non-academic Awards

- Listed in the <u>100 Most Influential People in Finance (2011) by Treasury & Risk, the Future of Finance Today</u>, among the executives, regulators, officials and bankers who have led business and the global economy to a better place.
- Distinguished Alumnus Award, 2018 and Young Alum Achiever, 2011, Indian Institute of Technology, Mumbai.
- Asian Achievers' Award for Community Service, 2006, awarded by Asian Voice and Gujarat Samachar in UK.
- Short-listed in the final seven for the "Young Philanthropist" Award of Beacon Fellowships in the UK, 2004-05, 2005-06.

## **Hobbies**

- Tennis, Birding, Running, Traveling, Poetry, Singing and composing (Indian semi-classical).
- Founding Member and Chairman (2003-2007) of PrathamUK, the UK chapter of Pratham (www.prathamuk.org), an Indian NGO providing pre-primary and primary education to underprivileged children in India (www.pratham.org); Chapter raised over £2mln.
- Founding Member and President of PrathamUSA (www.prathamusa.org), the NY/NJ chapter of Pratham, 1998-2001, Boardmember, 2013-.
- Boardmember, GIVE (Giving Impetus to Voluntary Effort) UK, 2003-2008.

## References

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