# VIRAL V. ACHARYA

C.V. Starr Professor of Economics (2011-) Department of Finance New York University – Stern School of Business 44 West 4<sup>th</sup> St, #9-84, NY, NY-10012, USA. Tel: +1 212 998 0354 Fax: +1 212 995 4256 e-mail: <u>vacharya@stern.nyu.edu</u> Home-page: <u>http://pages.stern.nyu.edu/~sternfin/vacharya/public\_html/~vacharya.htm</u> Google scholar: <u>http://scholar.google.com/citations?user=iZAsYLgAAAJ</u>

General	Indian, Born on 1 <sup>st</sup> March 1974, Married
Education	<ul> <li>Ph.D. Finance, Stern School of Business, New York University, 1996 – 2001</li> <li>Dissertation - "Essays in Banking and Financial Institutions"</li> <li>Ph.D. Computer Science (Incomplete), New York University, 1995 – 1996</li> <li>B. Tech. in Computer Science and Engineering, IIT Bombay, 1991 – 1995</li> <li>President of India Gold Medalist for the highest GPA among 350 students.</li> <li>President of India Gold Medalist for the best academic and overall proficiency.</li> <li>Ranked 5<sup>th</sup> all over India at IIT Joint Entrance Exam, 1991.</li> </ul>
Academic Appointments	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	<ul> <li>Associate Editor (current) –Review of Corporate Finance Studies (RCFS, 2011-), Review of Finance (2006-), Journal of Financial Stability (2004-), Journal of Financial Services Research (2007-)</li> <li>Editor (past) – Journal of Financial Intermediation (2009-2012)</li> <li>Associate Editor (past) – 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)</li> </ul>
NYU Service	<ul> <li>Director, National Stock Exchange (NSE) of India and NYU-Stern Initiative on the Study of Indian Capital Markets (2012-)</li> <li>PhD Coordinator (Finance, 2010-)</li> <li>Academic Curriculum Oversight Committee (2013-)</li> <li>Conflict of Interests Committee (2013-)</li> <li>Faculty Council Member (2009-2013)</li> <li>Research Appointments Task Force (2010-2012)</li> </ul>
Other Positions	<ul> <li>Member of the Academic Council of the National Institute of Securities Markets (NISM), Securities and Exchange Board of India (SEBI), 2014-</li> <li>Fellow of the European Corporate Governance Institute (ECGI), 2014-</li> <li>Member of the Advisory Board, Review of Finance, 2014-2016.</li> <li>Fellow of the Institute of Global Finance, University of New South Wales, 2013-</li> <li>Steering Committee Member, National Bureau of Economic Research (NBER) in Corporate Finance, 2012-</li> <li>Director, Western Finance Association, 2012-2015.</li> </ul>

- Academic Research Council Member, Center for Advanced Financial Research And Learning (CAFRAL, India), 2012-
- Advisory Board, National Public Radio Planet Money, 2012-
- Program Director, Financial Economics (FE), Center for Economic Policy Research (CEPR), Sep 2011-
- Director of the International Growth Center (IGC) Finance Research Program, 2011-2013.
- Member of Economic Advisory Committee, Financial Industry Regulation Authority (FINRA), 2011-
- Member of Advisory Scientific Committee of European Board (ESRB), 2011-
  - 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-
- Advisory Council, Bombay (Mumbai) Stock Exchange (BSE) Training Institute, 2011-
- 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-
- 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

- "The Greatest Carry Trade Ever? Understanding Eurozone Bank Risks" with Sascha Steffen, *forthcoming, Journal of Financial Economics*.
  - Cited in "Europe should say No to a flawed banking union" by Wolfgang Manchau, Financial Times, 16 March 2014.
- "Testing Macro-prudential Stress Tests: The Risk of Regulatory Risk Weights" with Robert Engle and Diane Pierret, *forthcoming, Journal of Monetary Economics*.
- "A Pyrrhic Victory? Bank Bailouts and Sovereign Credit Risk" with Itamar Drechsler and Philipp Schnabl, *forthcoming, Journal of Finance*.
  - 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, forthcoming, Journal of Finance.
- "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.
- "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

- "A Theory of Income Smoothing when Insiders Know More than Outsiders" with Bart Lambrecht (*resubmitted, Review of Financial Studies*).
- "Unintended Consequences of Lender of Last Resort Facilities: The Case of Illiquid Leverage" with Bruce Tuckman (*being revised for resubmission, IMF Economic Review*).
- "Measuring Systemic Risk" with Lasse Pedersen, Thomas Philippon and Matt Richardson (being revised for resubmission, Quarterly Journal of Economics).
  - <u>NYU Stern Global Systemic Risk Rankings</u> (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.
- "Bank Capital and Dividend Externalities" with Hanh Le and Hyun-Song Shin (*being revised for resubmission, Review of Financial Studies*).
- "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*).
- "Seeking Alpha: Excess Risk Taking and Competition for Managerial Talent" with Marco Pagano and Paolo Volpin (*being revised for resubmission, Journal of Finance*).

- "Dealer Financial Conditions and Lender of Last Resort Facilities" with Michael Fleming, Warren Hrung and Asani Sarkar (being revised for resubmission, Journal of Financial Economics).
- "Financial Dependence and Innovation: The Case of Public versus Private Firms" with Zhaoxia Xu (*being revised for resubmission, Journal of Financial Economics*).

### Submitted papers

- "Real Effects of the Sovereign Debt Crises in Europe: Evidence from Syndicated Loans" with Tim Eisert, Christian Eufinger and Christian Hirsch.
- "Liquidity Risk and Correlation Risk: A Clinical Study of the General Motors and Ford Downgrade of 2005" with Stephen Schaefer and Yili Zhang.

#### Working papers

- "The End of Market Discipline? Investor Expectations of Implicit State Guarantees" with D. Anginer and A.J. Warburton.
- "Foreign Funds Flows and Stock Returns: Evidence from an Emerging Market" with Ravi Anshuman and Kiran Kumar.
- "Government Guarantees and Bank Vulnerability During the Financial Crisis of 2007-09: Evidence from an Emerging Market" with Nirupama Kulkarni.
- "Non-Executive Incentives and Bank Risk-Taking" with Lubomir Litov and Simon Sepe.
- "Bankruptcy Exemption of Repo Markets: Too Much Now for Too Little Tomorrow?" with Ravi Anshuman and S. Viswanathan.
- "The Dark Side of Liquidity Creation: Leverage and Systemic Risk" with Anjan Thakor.
- "What Do Macro-prudential Stress Tests Resolve: Asymmetric Information, Debt Overhang or Regulatory Uncertainty?" with Amit Seru.
- "Central Bank Liquidity, Bank Deposits and Loan Rates" with Bjorn Imbierowicz, Sascha Steffen and Daniel Teichmann.
- "Are Banks Passive Liquidity Backstops? Deposit Rates and Flows during the 2007-2009 Crisis" with Nada Mora.
- "How Do Global Banks Scramble for Liquidity? Evidence from the Asset-Backed Commercial Paper Freeze of 2007" with Gara Afonso and Anna Kovner.
- "Caught Between Scylla and Charybdis? Regulating Bank Leverage When There is Rent-Seeking and Risk-Shifting" with Hamid Mehran and Anjan Thakor.
  - 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.
- "Competition for Managers, Corporate Governance and Incentive Compensation" with Marc Gabarro and Paolo Volpin.

#### Work in progress

- "Dynamics of Growth, Taxation and Sovereign Debt" with Raghuram Rajan.
- "Informal and Formal Promises" with Raghuram Rajan.
- "Bank Lines of Credit as Contingent Liquidity: A Study of Covenant Violations and their Implications" with Heitor Almeida, Filippo Ippolito and Ander Perez.
- "A New Perspective on Bank-Dependency: Lending versus Liquidity Insurance" with Heitor Almeida, Filippo Ippolito and Ander Perez.
- "Risk-Sharing and the Creation of Systemic Risk" with Aaditya Iyer and Rangarajan K. Sundaram.
- "Short-term Debt versus Long-Term Debt: An Information-Theoretic View of Financial Crises" with Alberto Bisin and Enrico Perotti.
- "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.

# Books

- *"The Nexus between Financial Sector and Sovereign Credit Risks"*, Toulouse Lectures in Economics, delivered in June 2013, forthcoming, Princeton University Press.
- "<u>The Social Value of the Financial Sector: Too Big to Fail or Just Too Big?</u>", 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 ebook, Viral V. Acharya, Thomas Cooley, Matthew Richardson and Ingo Walter, editors, published on <u>www.voxeu.org</u>, 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 <u>www.voxeu.org</u>, 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.
- <u>*"Restoring Financial Stability: How to Repair a Failed System"*</u> 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 on the Crisis of 2007-

- "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, *forthcoming*, Center for European Policy Studies, Jan 2014.
  - Also published on Voxeu.org <u>http://www.voxeu.org/article/what-asset-quality-review-likely-find-independent-evidence</u>
- "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.

- "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</u> <u>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.
- "Adapting Micro-prudential Regulation for the Emerging Markets", monograph prepared for World Bank, 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.
- "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.*

### **Invited Articles, Overviews and Presentations**

- "Introducing the Variance Swap in India", Presentation at the National Stock Exchange of India, Mumbai, July 2014.
- Panelist on "Stock-Taking the Regulatory Reform Initiatives: Progress and Gaps" at the IMF, Federal Reserve and World Bank Conference, June 2014.
- Panelist on "Models and Risk Surveillance" at the International Monetary Fund, April 21 2014.
- Panelist on the role of central banks at the "Symposium on Financial Stability and the Role of Central Banks", Bundesbank, Frankfurt, February 27 2014; Bank of England, March 2014.
- "Emerging Systemic Risks in India and China: A Comparative Analysis", presentation at the Indian Embassy in Washington, DC, November 18 2013, NYU Stern China Luncheon, Mar 2014.
- "Shadow Banking in India and China", presentation at IMF and Federal Reserve Bank of Chicago's conference on Shadow Banking: Within and Across Borders, November 7-8 2013.
- Panelist on "Macro-Prudential Policy in Economic Downturns", International Monetary Fund, October 2013.
- Panelist on "Macro-Prudential Policy and Bank Lending", Federal Reserve Bank of Boston, October 2013.
- "Dynamics of Debt, Growth and Taxation", presentation at the Center for Financial Studies (CFS) Symposium on Banking, Liquidity and Monetary Policy, in honor of the Deutsche Bank Prize in Financial Economics recipient, Raghuram G Rajan, September 2013; also presented as keynote addresses at the Cass Business School conference on Emerging Markets, May 2014, Nottingham University conference on Liquidity, May 2014.
- Panelist on "Progress in Financial Sector Reforms: Lehman Brothers Five Years Later", London Business School, September 2013.
- "The Nexus Between Financial Sector and Sovereign Credit Risks", Toulouse Lectures in Economics, June 2013; International Monetary Fund, September 2013; Annual Review of Financial Economics, Ohio State University, October 2013, Macro Financial Modeling Workshop at NYU Stern, May 2014, Copenhagen Business School's Nykredit Conference on Financial Frictions, August 2014, Bank of Canada Conference on Central Banks, Collateral and Liquidity, Sept 2014.
- "What is Systemic Risk?" presentation at the Capital Markets Directive workshop, Harvard Law School, April 2013, Brookings Institution, May 2013.
- "Secondary Market for Government Bonds: Breaking the Bank-Sovereign Nexus", with Gangadhar Darbha, presented at the Bombay Stock Exchange (BSE) Conference on Debt Markets in India, Mumbai (India), December 2012.
- "A Proposal for the Resolution of Systemically Important Assets and Liabilities: The Case of the Repo Market" with Sabri Oncu, presented at the Federal Reserve Board of Governors' Conference *Central Banking: Before, During and After the Crisis,* in Washington D.C. in honor of Don Kohn, the former Vice Chairman of the Board of Governors, 23-24 March 2012; the Federal Reserve Bank of Chicago conference "Are Banks Too Big to Fail or Just Too Big?", November 2012; Conference on Bank Resolution Mechanisms at Financial Mathematics and Computation Cluster, Dublin, Ireland, May 2013, Federal Reserve Bank of New York, October 2013, IMF, Feb 2014.
- "Measuring and Managing Global Systemic Risk", Federal Reserve Bank of New York and NYU Stern Volatility Institute, November 2011; Baruch College and Capco conference on financial sector reforms, Texas Law Review 2012 Symposium on Reshaping Capital Markets and Institutions, February 2012; IMF October 2012; Government Accountability Office, Feb 2013; Duisenberg School of Finance, January 2014; World Bank, May 2014.
- "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.
- "Governments as Shadow Banks: The Looming Threat to Financial Stability", prepared for the Federal Reserve Board conference on Regulation of Systemic Risk, 15-16 September 2011, also presented at a special session of the European Economic Association (EEA) and Econometric Society European Meeting (ESEM) in Oslo, August 2011; Bank of Finland, September 2011, Indian Institute of Management (Bangalore), December 2011; Texas Law Review 2012 Symposium on Reshaping Capital Markets and Institutions, February 2012.
- "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 "*Dodd Frank: One Year On*", 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 "*Dodd Frank: One Year On*", 27 June 2011.
- "Banks, Regulation and Government", prepared for presentation at the Board of Governors, 2 May 2011, as part of discussion of Gary Gorton's essay "Understanding Financial Crises".
- "A Proposal to Resolve the Distress of Large and Complex Financial Institutions", London School of Economics and Deutsche Bank workshop, London, March 2011; Stanford Hoover Institution, April 2011, Federal Reserve Bank of Richmond, July 2011, Federal Reserve Bank of New York, October 2011, Riskbank (Stockholm), November 2011.
- "Sovereign Credit Risk", Keynote address at HEC Paris and BNP Paribas Hedge Fund Center conference, January 2011; Barclays Capital Conference on Portfolio Modeling, May 2011; Dubrovnik Economic Conference, June 2011, University of Technology Sydney and Paul Woolley Center Conference, October 2011, FINRA Economic Advisory Board, Hong Kong University of Science and Technology and Bloomberg workshop, IGIDR conference (India), December 2011, Campus for Finance (Germany), January 2012, Charles River Associates, February 2012, Banque de France and Europlace Panel at NYSE, April 2012, NYU Stern Alumni Meeting and NYU-Polish Consulate joint event, October 2012.
- "Guaranteed to Fail: Fannie Mae, Freddie Mac and the Debacle of Mortgage Finance", Panel discussion at New York University Law School, January 2011; Princeton Club, April 2011; NYU Stern, April 2011; London Business School Private Equity Symposium, May 2011; RISK Minds (Boston), Credit Sights GSE & Housing Summit at Yale Club (New York), Structured Fiannce Hot Topics (CLE Series of New York City Bar), PRMIA-NYU Stern on Housing Finance, June 2011; ICICI Bank (India), July 2011, University of Technology Sydney and Paul Woolley Center Conference, October 2011; RISK (New York), IMF Training Institute, World Bank, November 2011, Citigroup, Australasian Banking Conference (Sydney), December 2011, Kansas City Public Library, May 2012, UVA Darden Business School, April 2013.
- "Flash Crash: What Caused It and What Do We Learn From It?" Panel discussion at Securities Exchange Board of India (SEBI), December 2010.
- "Issues concerning excellence in Core Responsibility (Monetary Policy)" at the Academic Advisory Council Luncheon of the Federal Reserve Bank of Cleveland, December 2010.
- "A Transparency Standard for OTC Derivatives", NBER on Measuring Systemic Risk, Columbia University, October 2010; NYU-DTCC conference on Managing Counterparty and Systemic Risk under the Dodd-Frank Act, November 2010; NYU-Maryland-Berkeley conference for Data and Measurement issues facing the Office of Financial Research (OFR), March 2011; IMF/FSB Workshop on Tools for Managing Liquidity Risk of Financial Institutions, April 2011, Office of Financial Research (OFR), December 2011, Fordham University, Texas Law Review 2012 Symposium on Reshaping Capital Markets and Institutions, February 2012.
- "Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance", IMF, September 2010; Board of Governors of the Federal Reserve, Moody's KMV, Bank of England, Citigroup, London Business School and ICFR conference, October 2010; Norwegian Central Bank (Norges Bank), IMF Jacques Polak Conference, Global Association of Risk Professionals (GARP), Financial Times and Credit Suisse event on Future Regulation of the Insurance Sector, November 2010; IGIDR Conference in Mumbai, NIPFP, Indian School of

Business, Indian Institute of Management (IIM) Bangalore, IIM Ahmedabad, ICICI Bank, Reserve Bank of India, Consortium of risk management heads at banks in India, Securities Exchange Board of India (SEBI), December 2010; Panel discussion at ASSA meetings, GARP webinar, Federal Reserve Banks of Atlanta, Boston, Dallas, Kansas City and Minneapolis, Banque de France, Council on Foreign Relations, January-February 2011; CFA (London), House of Finance (Frankfurt), Mar 2011; GARP (New York), Yale Law School Center for the Study of Corporate Law, Federal Reserve Bank of Boston, S&P, April 2011; Nomura (India), July 2011, University College Louvain, September 2011, the Clearing House, November 2011, National Stock Exchange (NSE), India, December 2011.

- "Liquidity Risk and Correlation Risk: A Clinical Study of the General Motors and Ford Downgrade of 2005" GARP Webinar, June 2010.
- "The Adjustment to Stronger Capital Requirements", Presentation at the Basel Committee of Banking Supervision's Macroeconomic Assessment roundtable, 16 June 2010.
- "Measuring and Taxing Systemic Risk", Presentations at the Fields Institute in Toronto, May 2010; Korea Development Institute in Seoul, May 2010; CEPR conference on Banking Crisis Prevention and Resolution in Amsterdam, June 2010; Board of Governors, June 2010; Federal Reserve Bank of Chicago and IMF conference, September 2010; FMA Panel on Systemic Risk, October 2010; AEA Panel on Systemic risk, London School of Economics and Bank of England conference on Measuring Systemic Risk, January 2011; KPMG Sydney, June 2011.
- "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.
- "Board of Directors and Experience: A Lesson from Private Equity" (with Conor Kehoe), *McKinsey on Finance*, Number 35, Spring 2010, pp 18-19.
- "Roundtable on a Financial Levy", Panelist at the Korea Economic Institute and the Ministry of Strategy and Finance, April 2010.
- "The Future of Financial Reforms", Keynote speech at the 2010 MARC conference at Villanova University, March 2010; Panelist at the Federal Reserve Bank of Chicago Conference on Bank Structure and Competition, May 2010.
- "Systemic Risk, Stronger Regulation and Liquidity Management: Changes for Which Risk Management Should Be Prepared", Webinar, PRMIA, February 2010; IDC Herzliya, May 2011.
- "Dynamics of Aggregate Liquidity Shocks", presentation at the BCBS-CFGS roundtable on Systemic Liquidity Risk, organized by the New York Federal Reserve and Bank for International Settlements, November 2009; Banque de France, December 2009.
- "Causes of the Financial Crisis", presentation at a conference at Yale University on the *Future of Globalization*, November 2009.
- "Too big to fail, too big to manage, or just too big?" Central Banking Seminar at the New York Federal Reserve, October 2009; Daiwa Securities Research conference, Tokyo, October 2009.
- "Fixing the OTC Market: Centralized Counterparty and Transparency", European Commission Conference, September 2009; NYU-Stern Derivatives Research Retreat, November 2009.
- "Regulation of Derivatives in India: Too Much or Too Little?", NIPFP (Delhi), September 2009.
- "Regulating Systemic Risk", Presentations at the Federal Reserve Bank of New York and Federal Reserve Bank of Cleveland, March-August 2009.
- "Dividends and Bank Capital in the Financial Crisis of 2007-2009", Presentation to Liquidity Working Group of the Federal Reserve Bank of New York, April 2009.
- "Restoring Financial Stability: How to Repair a Failed System", Presentations in 2009 at Baruch College, NYU-Stern, Bank of England, Banque de France, International Monetary Fund, Growth Commission Workshop at Harvard, World Bank, Journal of Financial Intermediation Conference on the Financial Crisis in Barcelona, the CFA Society of the UK, Bank of Finland, Helsinki School of Economics, Bank for International Settlements, London School of Economics, Indian School of Business, Bombay (Mumbai) Stock Exchange, ICRIER (Delhi), Bank of Canada, Moody's KMV, Nykredit Symposium in Copenhagen, Universitat van Amsterdam Center for Corporate Governance, Swiss Finance Institute Meeting 2009, NYU-Law Conference on Rethinking the Taxation of the Financial Sector.
- "Credit Derivatives: Some Puzzling Facts", BNP Paribas Center, HEC Paris, March 2009.
- "The Voice of Experience: Public versus Private Equity", with Conor Kehoe and Michael Reyner, in *The McKinsey Quarterly*, Spring 2009.

- "Corporate Governance and Value Creation: Evidence from Private Equity", Presentation to the HM Treasury, Nov 2007, Nov 2008.
- "Private Equity and Hedge Funds: The Changing Face of Corporate Governance", Presentation to the HM Treasury Group and London Business School Governance Center, October 2006, to Freshfields Private Equity Group, December 2006.
- "Liquidity, Liquidity Risk and Credit Spreads: Some Open Questions," for The Third Annual Credit Risk Conference organized by Moody's and Stern School of Business, New York University, May 16-17, 2006.
- "Understanding and Managing Correlation Risk and Liquidity Risk," with Stephen Schaefer, International Financial Risk Institute (IFRI) Roundtable, 29-30 Sep 2005, CREDIT Conference in Venice, Sep 2006, RISK Magazine's Credit Risk Summit (Europe), 2-3 Oct 2006.
- "Competition amongst Banks, Capital Requirements, and International Spillovers," *Economic Notes*, 30(3), 2001, 337-358.

## Teaching

- Chief Financial Officers' Program, Spring 2014.
- 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
- Launch 2012 Team (committee of faculty developing the Launch 2012 program for the incoming class as NYU Stern MBA program)
- ICBC Internal Audit Program, Spring 2012, Rating 6.32/7.0
- Winter Intensive 2012, 2014: Topics in Credit Risk Rating 6.2/7.0
- 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 (IRM), HKUST 2009-13 Rating: 6.0/7.0 (S&P), 4.85/5.0 (AIF), 6.0/7.0 (IRM), 4.30/5.0 (HKUST)
- Credit Risk: Full-time MBA, Langone (Part-time MBA), EMBA elective. Spring 2009-13 – Rating: 6.0/7.0
- 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

## PhD students (Placement)

- From London Business School: Jason Sturgess (Georgetown), Rong Leng (Man Group, Warwick), Yili Zhang (DCI), Ramin Baghai (Stockholm School of Economics), Marc Gabarro (Erasmus).
- From NYU: Joel Krasny (Goldman Sachs), Farhang Farazmand (Cornerstone, Morgan Stanley), Victor Archavski (Graduate School of Management, St Petersburg, Russia), Or Shachar (Federal Reserve Bank of New York), Rustom Irani (University of Illinois at Urbana Champaign), Hanh Le (University of Illinois at Chicago), Diane Pierret (HEC Lausanne), Emil Siriwidane, Xuyang Ma, Jason Wu, Jim Albertus, Michael Smolyanksy, Matteo Crosignani, Vadim Elenev, Aaditya Iyer, Igor Kadach.

#### Grants

 NYU-Stern Center for Global Economy, 2011-13; 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, 2010, 2008, 2005, 2004; Research & Materials Development, London Business School, 2008, 2007, 2006, 2005, 2003, 2001; INQUIRE, UK, 2002.

#### Refereeing

- Econometrica, American Economic Review, Journal of Political Economy, Review of Economic Studies, Quarterly Journal of Economics, Rand Journal of Economics, Journal of Economic Theory, International Economic Review, Journal of Law, Economics and Organization, Journal of Finance, Journal of Financial Economics, Review of Financial Studies, Management Science, Journal of Financial and Quantitative Analysis, Journal of Banking and Finance, Journal of Financial Intermediation, Review of Financial Stability, Journal of International Economics, The B.E. Journals in Theoretical Economics, Review of Derivatives Research, Mathematical Finance, Journal of Derivatives, Journal of Financial Services Research, Bank of England Working Papers, Economic Theory, European Economic Review, Journal of the European Economic Association, Economic Notes.
- Expert Panelist for European Research Council (ERC)'s Advanced Grant Evaluation, 2011 (remoted), 2010, 2009 (remote), 2008; Reviews for NSF, ESRC, Candian Research Council.
- Book review of "Credit Risk Pricing, Measurement, and Management" by Darrell Duffie and Kenneth J. Singleton, for Economica, 2004, "Dark Markets" by Darrell Duffie, for Quantitative Finance, 2012.
- Co-organizer of the Second Theory Workshop on Corporate Finance and Financial Markets at NYU-Stern, May 2010.
- Scientific Committee –Annual Credit Risk Conference organized by Moody's, 2014, 2012, 2011, 2010 (co-chair), 2008, 2005, CREDIT Conference (Venice), 2012, 2011, 2009, 2008, 2006.
- Program Committee AFA, 2011, 2008, WFA, 2006-2014, EFA, 2002-2011, 2010 (Track Chair: Financial Crises and Regulation), Financial Intermediation Research Society – 2004-2014, SFS Cavalcade – 2014, Corporate Finance of Financial Intermediaries (Wharton) – 2006, FMA – 2010, 2008, Indian School of Business Summer Conference, 2007-11, UniCredit Conference on Risk Transfer, 2009, JFI/BIS conferences on financial intermediation, 2008-10, Private Equity conferences at ESSEC, 2008-09, Emerging Markets Conference in Beijing, 2010, Entrepreneurial Finance and Innovation Conference, 2011, 2010, CEPR-EIEF Workshop on Disclosure and Market Discipline, 2010, International Risk Management Conference, 2010, NYU Salomon Center and NY Fed Conference on Financial Intermediation, 2010, Washington University Corporate Finance Conference, 2010-13, SoFiE, April 2011-14, CAREFIN Bank Regulation Conference at University of Bocconi, 2011-14, Jackson Hole Finance Group Conference 2013, Workshop of the Research Task Force of the Basel Committee on Banking Supervision and Deutsche Bundesbank, 2014, Tsinghua Finance Workshop, 2014, Bundesbank Conference on the Interplay of Accounting and Regulation, 2014.
- Co-organizer (with Heitor Almeida and Malcolm Baker) of the NBER Workshop on "Capital Structures of Non-Financial and Financial Corporations", April 5-6 2013, Cambridge.
- Co-organizer (with Enrico Perotti) of the CEPR workshops on "Micro Foundations of Macro Finance", June 8-9 2013, Amsterdam; August 22-23 2014, Universitat van Amsterdam.
- Co-organizer (with Richard Portes and Richard Reid) of the CEPR Financial Regulation Forum on "A Long-Term Environment of Low Nominal Interest Rates: What are the Implications for the Financial Sector?", June 10 2013, London.
- Organizer, NYU-NSE Conferences on the Study of Indian Capital Markets, July 29-30 2013, August 4-5 2014, Mumbai (India), .
- Panelist and Session Leader at FMA Doctoral Symposium, 2013, Chicago.
- Organizing Committee, Riskbank Macroprudential Conference Series, 2014-2016.
- Co-organizer, Inaugural Conference of the Journal of Law, Finance and Accounting, New York University, 2014.

#### Discussions

 Tsinghua Finance Workshop (2014), NBER Summer Institute (2013, Risk of Financial Institutions), AEA Meetings (2013), NYU-Stern and Moody's Credit Risk Symposium 2012, US Treasury's Conference on Debt Management – November 2011, Brookings conference on the GSEs – February 2011, AFA, AEA and Econometric Society Meetings (2011), NYU-DTCC conference on Managing Systemic and Counterparty Risk under Dodd-Frank – November 2010, NBER Corporate Finance – Fall 2010, Conference on Risk of Financial Institutions – June 2010, Korea Development Institute Conference on Systemic Risk – May 2010, Economics of Payments IV conference at the Federal Reserve Bank of New York – April 2010, Carnegie-Rochester Public Policy Conference, April 2009; Econometric Society – 2010, 2009, 2006, AEA – 2010, 2009, AFA – 2010, 2009, 2008, 2007, 2003, WFA – 2009, 2008, 2005, 1999-2002, EFA – 1999-2003; NBER Summer Institute for Corporate Finance, 2008, 2006, 2002; NBER Corporate Finance – 2002; NYU-Penn Conference on "Law and Finance", February 2006; Liquidity Conference at Federal Reserve Bank of New York, October 2005; Financial Intermediation Research Society Meetings – May 2004, Capri; Conference on "Liquidity Concepts and Financial Instabilities," June 2003, Eltville.

#### Presentations (Fall 2009-)

Bank of Canada, Indian School of Business, CEPR's International Conference on Financial Market Reform and Regulation (Beijing), Tsinghua Finance Workshop (Beijing), European Central Bank-Bundesbank-Center for Financial Studies Joint Seminar, NYU Law and Banking Conference 2014, Sveriges Riksbank, Columbia Business School, MIT-Harvard Applied Theory Workshop, Duisenberg School of Finance Central Bankers' Conference, CKGSB (Beijing), Shanghai Institute of Advanced Finance, Federal Reserve Bank of Cleveland, Goldman Sachs Fellowship Conference, Carnegie-Rochester Conference on Public Policy on A Century of Money, Banking and Financial Stability (Fall 2013), IMF's 14th Jacques Polak Conference, Fields Institute (Toronto), Ohio State University, Goldman Sachs Fellowship Pre-Conference, CFS Goethe University Symposium on Banking, Liquidity and Monetary Policy, Reserve Bank of India, International Monetary Fund (IMF) Conference on Sovereign Credit Risk, Federal Reserve Bank of New York (Research, Supervision), NYU Stern Finance, De Nederlandsche Bank, Erasmus University Liquidity Conference, IGIDR Conference on Corporate Governance in Emerging Markets, NYU-NSE Conference on the Study of Indian Capital Markets, Federal Reserve Board of Governors, NBER Summer Institute (International Finance and Macro), National Bank of Serbia, EIF (Paris), Toulouse School of Economics, Banque de France, Notre Dame, SFS Cavalcade 2013 (Keynote), University of Washington (Seattle), Office for Financial Research (OFR), HEC Montreal, Lancaster University, University of Colorado at Boulder, QFE seminar (NYU Stern), NYU and Penn Law and Finance Symposium 2013, Darden, AFA and AEA Meetings (San Diego) 2013, Reserve Bank of New Zealand, Australasian Banking Conference at UNSW, NIPFP-JIMF Conference on Financial Sectors in India and China, Tulane, Indiana, Chicago Booth (Accounting), FMA, Bergen, Tilburg University, CREDIT conference (Venice) 2012, Columbia Law School, Georgia State, CES Ifo and the Bundesbank Conference on The Banking Sector and the State, Indian School of Business Center for Analytical Finance conference, CAFRAL (India), University of Calgary, Western Finance Association Meetings (2012), Federal Reserve Bank of New York (FRBNY), FRBNY Workshop on Safe Harbors, Becker-Friedman Institute at University of Chicago, CFTC, Federal Reserve Bank of Cleveland, Office of Financial Research, World Bank, Rutgers, University of Texas - Austin, Federal Reserve Board of Governors, Federal Reserve Bank of San Francisco, NYU Stern Derivatives Symposium, HKUST Finance Symposium, Five Star conference (2011), NYU-Stern, University of Technology – Sydney (UTS), University of New South Wales (UNSW), University of Sydney, Asian Development Bank Institute (ADBI), National Bank of Hungary, University College Louvain, Queen's University, Boston University, Federal Reserve Board of Governors, University of Calgary, Econometric Society European Meetings (2011), Norges Bank, NBER Law and Economics (Summer Institute 2011), Dubrovnik Economic Conference, FIRS (Sydney), Bank of Canada, INSEAD, SIFR, Bocconi, UVA, University of Lisboa, Moody's & London Business School Credit Risk Conference, Boston College, Federal Reserve Bank of Chicago, Morgan Stanley, Arizona State University, Federal Reserve Bank of St Louis, Rice,

Stanford (Macro), Federal Reserve Bank of Atlanta, NBER Law & Economics, University of British Columbia, NYU-Penn Law & Finance symposium, Bundesbank-ECB-CFS Luncheon workshop, Michigan Ann Arbor, Georgia Tech University, Emory University, Federal Reserve Bank of Minneapolis, Oxford Said Business School, AFA, AEA and Econometric Society Meetings (2011), Indian School of Business, IGC conference in Delhi (India), University of Minnesota, NBER CRIW, Carnegie-Rochester Conference on Public Policy (2010), BI (Norway), Kellogg, SoFiE CREATES conference in Aarhus, Yale, Board of Governors, Federal Reserve Bank of New York, Federal Reserve Bank of Chicago, MIT, Austrian Central Bank, HEC Paris, NYU-Stern, IMF Training Institute, De Nederlandsche Bank, Norges Bank, NIPFP (India), SED Montreal (2010), Western Finance Association Meetings (2010), Conference on Global Dimensions of the Financial Crisis at the Federal Reserve Bank of New York, Sixth Annual Credit Risk Conference organized by Moody's and NYU-Stern, Conference on Contingent Capital at the Federal Reserve Bank of New York, Maryland Macro/Finance workshop, NBER Corporate Finance, NBER Securitization, Volatility and Systemic Risk conference of the Society of Financial Econometrics (SoFiE), Federal Reserve Bank of New York (Markets group), International Research Forum on Monetary Policy at the Board of Governors, Federal Reserve Board of Governors, NBER Law & Economics, NYU-Stern, Kansas City Fed, De Paul University, Cleveland Fed, AFA (2010), AEA (2010), ES (2010), Europlace de Finance conference (Paris), UniCredit conference (Rome), UNC, UCLA, USC, European Central Bank, Swiss Finance Institute, NY Fed and BIS conference on Systemic Liquidity Risk, Philadelphia Fed, NBER Asset Pricing, Globalization conference at Yale, Derivatives Research Retreat at NYU-Stern, Universitat van Amsterdam, Goethe University, Nykredit Symposium of Copenhagen Business School, Daiwa Institute of Research, Moody's KMV, McGill, Bank of Canada, U. Waterloo, Wharton, European Commission.

#### **Press Coverage**

Opeds, interviews and opinions on the financial crisis of 2007-09: The Coming Chinese Squeeze, Livemint.com, Feb 23 2014; Be Careful When Opening for Business (with Bruce Tuckman), the Tally, efinancial news.com, Dec 2013; The Missing Bears of Emerging Markets, Livemint.com, Sep 2 2013; India Does Not Have Enough Markets, Livemint.com, Aug 5 2013; A Right Time for Inflation Indexed Bonds? (with Gangadhar Darbha), Livemint.com, May 26 2013; Measuring Systemic Risk (with Lasse Pedersen, Thomas Philippon and Matt Richardson), cited in Federal Reserve Chairman Ben Bernanke's speech Monitoring the Financial System, at the 49th Annual Conference on Bank Structure and Competition at the Federal Reserve Bank of Chicago, May 10 2013; Political Influence on State-Owned Enterprises: The True Obstacle to Private Sector Growth in Emerging Markets? Interview with Ann Moline of Global Corporate Governance Forum, International Finance Corporations, Feb 2013; Live Mint & the Wall Street Journal (India), Breaking the Bank-Sovereign Nexus (with Gangadhar Darbha), 5 Feb 2013, and Designing Global Financial Regulatory Instruments (with Sabri Oncu), 17 Jan 2013; Economic Times (India), Fiscal Risks Need to be Taken into Account, 27 Aug 2012; Work cited in the Dow Jones Daily Bankruptcy Review New Research Paper calls for "Repo Resolution Authority, 27 April 2012, and in the Economist, Bain or blessing? The buyout industry is under attack for destroying jobs. Its returns to investors are the real problem, 28 January 2012; Forbes.com, How to Put an End to Fannie and Freddie, 10 January 2012; Financial News, Flight to safety may no longer include America (with Heitor Almeida), 23 November 2011; NPR Interviews, The Downside of Mortgage Tax Breaks, 23 August 2011, Should the Government Subsidize Your House?, 21 August 2011: Quoted in the International Herald Tribune, Fears Mount in Europe that Banks Need Cash, August 2011; New York Times, White Picket Fence? 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#### Consulting

- International Monetary Fund, 2014; Indian School of Business (Faculty mentoring workshop), 2011-12; World Bank, 2011, 2014; Asian Development Bank Institute (ADBI), 2011; Committee on Capital Markets Regulation, 2011; Korean Development Institute (KDI), 2011; Asian Development Bank, 2010; 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.
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- 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</u> <u>Finance Today</u>, among the executives, regulators, officials and bankers who have led business and the global economy to a better place.
- Young Alum Achiever, 2011, Indian Institute of Technology, Mumbai, awarded annually to five alumni under forty.
- 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

- Running, Tennis, Cricket, Traveling, Singing and composing (Indian semi-classical), Poetry.
- 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

- Professor Franklin Allen
- Professor Peter DeMarzo
- Professor Darrell J Duffie
- Professor Raghuram G. Rajan
- Professor Hyun Song Shin
- (1) 215 898-3629 <u>allenf@wharton.upenn.edu</u>
- $(1)\ 650\ 736\text{-}1082 \quad pdemarzo@stanford.edu$
- (1) 650 723-1976 duffie@stanford.edu
- (1) 773 702-4437 raghuram.rajan@chicagogsb.edu
- (1) 609 258-4467 hsshin@princeton.edu