

# Richard K. Crump

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Macrofinance Studies  
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## PROFESSIONAL EXPERIENCE

### Federal Reserve Bank of New York

Financial Research Advisor (2022– )

Researcher, Applied Macroeconomics and Econometrics Center (2021– )

Vice President (2019–2022); Head of Capital Markets Function (2015–2019); Assistant Vice President (2015–2018); Research Officer (2014–2015); Senior Economist (2011–2013); Economist (2009–2011)

### New York University

Adjunct Professor, Department of Economics (2011; 2016; 2022; 2023)

### Goldman Sachs

Associate, US Economic Research/Global Markets Research (2002–2003); Analyst, US Economic Research (2000–2002)

## EDUCATION

Ph.D., Economics, University of California–Berkeley, 2009

M.A., Statistics, University of California–Berkeley, 2006

B.S., Economics, Massachusetts Institute of Technology, 2000

## PUBLICATIONS

“[The Unemployment-Inflation Trade-off Revisited: The Phillips Curve in COVID Times](#)” (with Stefano Eusepi, Marc Giannoni and Ayşegül Şahin), *Journal of Monetary Economics*, forthcoming.

“[On Binscatter](#)” (with Matias Cattaneo, Max Farrell and Yingjie Feng), *American Economic Review*, forthcoming.

“[Subjective Intertemporal Substitution](#)” (with Stefano Eusepi, Andrea Tambalotti and Giorgio Topa), *Journal of Monetary Economics*, 126(1), 2022.

“[On the Factor Structure of Bond Returns](#)” (with Nikolay Gospodinov), *Econometrica*, 90(1), 2022.

“[Characteristic-Sorted Portfolios: Estimation and Inference](#)” (with Matias Cattaneo, Max Farrell and Ernst Schaumburg), *Review of Economics and Statistics*, 102(3), 2020.

“[A Unified Approach to Measuring  \$u^\*\$](#) ” (with Stefano Eusepi, Marc Giannoni and Ayşegül Şahin), *Brookings Papers on Economic Activity*, 50(1), 2019.

“[Nonlinearity and Flight-to-Safety in the Risk-Return Trade-off for Stocks and Bonds](#)” (with Tobias Adrian and Erik Vogt), *Journal of Finance*, 74(4), 2019.

“[Decomposing Real and Nominal Yield Curves](#)” (with Michael Abrahams, Tobias Adrian, Emanuel Moench and Rui Yu), *Journal of Monetary Economics*, 84(1), 2016; formerly, “Pricing TIPS and Treasuries with Linear Regressions.”

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“[Fundamental Disagreement](#)” (with Philippe Andrade, Stefano Eusepi and Emanuel Moench), *Journal of Monetary Economics*, 83(1), 2016; formerly, “Noisy Information and Fundamental Disagreement.”

“[Regression-Based Estimation of Dynamic Asset Pricing Models](#)” (with Tobias Adrian and Emanuel Moench), *Journal of Financial Economics*, 118(2), 2015.

“[Bootstrapping Density-Weighted Average Derivatives](#)” (with Matias Cattaneo and Michael Jansson), *Econometric Theory*, 30(6), 2014.

“[Small Bandwidth Asymptotics for Density-Weighted Average Derivatives](#)” (with Matias Cattaneo and Michael Jansson), *Econometric Theory*, 30(1), 2014.

“[Generalized Jackknife Estimators of Weighted Average Derivatives](#)” (with Matias Cattaneo and Michael Jansson), *Journal of the American Statistical Association*, 108(504), 2013; selected to be presented at the JASA Theory and Methods invited session of the 2013 Joint Statistical Meetings and published with discussions and rejoinder.

“[Pricing the Term Structure with Linear Regressions](#)” (with Tobias Adrian and Emanuel Moench), *Journal of Financial Economics*, 110(1), 2013.

“[Optimal Inference for Instrumental Variables Regression with non-Gaussian Errors](#)” (with Matias Cattaneo and Michael Jansson), *Journal of Econometrics*, 167(1), 2012.

“[Robust Data-Driven Inference for Density-Weighted Average Derivatives](#)” (with Matias Cattaneo and Michael Jansson), *Journal of the American Statistical Association*, 105(491), 2010.

“[Dealing with Limited Overlap in Estimation of Average Treatment Effects](#)” (with V. Joseph Hotz, Guido Imbens and Oscar Mitnik), *Biometrika*, 96(1), 2009; formerly, “Moving the Goalposts: Addressing Limited Overlap in Estimation of Average Treatment Effects by Changing the Estimand.”

“[Nonparametric Tests for Treatment Effect Heterogeneity](#)” (with V. Joseph Hotz, Guido Imbens and Oscar Mitnik), *Review of Economics and Statistics*, 90(3), 2008.

## BOOK CHAPTERS

“[Changing Risk-Return Profiles](#)” (with Miro Everaert, Domenico Giannone and Sean Hundtofte), *Festschrift in Honor of Marc Hallin*, Springer, forthcoming.

“[The Term Structure of Expectations](#)” (with Stefano Eusepi, Bruce Preston and Emanuel Moench), *Handbook of Economic Expectations*, Elsevier, 2023; preliminary draft available [here](#).

## OTHER PUBLICATIONS

“[HAC Corrections for Strongly Autocorrelated Time Series: Comment](#)” (with Matias Cattaneo), *Journal of Business and Economic Statistics*, 32(3), 2014.

“[Generalized Jackknife Estimators of Weighted Average Derivatives: Rejoinder](#)” (with Matias Cattaneo and Michael Jansson), *Journal of the American Statistical Association*, 108(504), 2013.

“[Fertility and the Personal Exemption: Comment](#)” (with Gopi Shah Goda and Kevin Mumford), *American Economic Review*, 101(4), 2011.

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## POLICY PUBLICATIONS

[“A Large Bayesian VAR of the United States Economy”](#) (with Stefano Eusepi, Domenico Giannone, Eric Qian and Argia Sbordone), *International Journal of Central Banking*, forthcoming.

[“Estimating Natural Rates of Unemployment: A Primer”](#) (with Brandyn Bok, Christopher J. Nekarda, and Nicolas Petrosky-Nadeau), *Federal Reserve Bank of San Francisco Working Paper*, 2023-25, 2023.

[“The Primary and Secondary Corporate Credit Facilities”](#) (with Nina Boyarchenko, Caren Cox, Andrew Danzig, Anna Kovner, Or Shachar, and Patrick Steiner), *Economic Policy Review*, 28(1), 2022.

[“The Commercial Paper Funding Facility”](#) (with Nina Boyarchenko, Anna Kovner, and Deborah Leonard), *Economic Policy Review*, 28(1), 2022.

[“Unemployment Rate Benchmarks”](#) (with Christopher J. Nekarda and Nicolas Petrosky-Nadeau), *Federal Reserve Board of Governors Finance and Economics Discussion Series*, 2020-072, 2020.

[“Review of NY Fed Studies on the Effects of Post-Crisis Banking Reform”](#) (with João A.C. Santos), *Economic Policy Review*, 24(2), 2018.

Working Group of the Committee on the Global Financial System, [“Operationalising the Selection and Application of Macroprudential Instruments,”](#) *CGFS Papers*, No. 48, December 2012.

## Blog Posts

[“Expectations and the Final Mile of Disinflation”](#) (with Stefano Eusepi and Ayşegül Şahin), March 2024.

[“The New York Fed DGSE Model Perspective on the Lagged Effect of Monetary Policy”](#) (with Marco Del Negro, Keshav Dogra, Pranay Gundam, Donggyu Lee, Ramya Nallamotu, and Brian Pacula), November 2023.

[“A Bayesian VAR Model Perspective on the Lagged Effect of Monetary Policy”](#) (with Marco Del Negro, Keshav Dogra, Pranay Gundam, Donggyu Lee, Ramya Nallamotu, and Brian Pacula), November 2023.

[“How Large are Inflation Revisions? The Difficulty of Monitoring Prices in Real Time”](#) (with Richard Audoly, Martín Almuzara, Davide Melcangi, and Roshie Xing), September 2023.

[“Look out for Outlook-at-Risk”](#) (with Nina Boyarchenko, Leonardo Elias and Ignacio Lopez Gaffney), May 2023.

[“What is ‘Outlook-at-Risk?’”](#) (with Nina Boyarchenko, Leonardo Elias and Ignacio Lopez Gaffney), February 2023.

[“How Is the Corporate Bond Market Functioning as Interest Rates Increase?”](#) (with Nina Boyarchenko, Anna Kovner and Or Shachar), November 2022.

[“Short-Dated Term Premia and the Level of Inflation”](#) (with Peter Van Tassel and Charles Smith), September 2022.

[“What is Corporate Bond Market Distress?”](#) (with Nina Boyarchenko, Anna Kovner and Or Shachar), June 2022.

[“How is the Corporate Bond Market Responding to Financial Market Volatility?”](#) (with Nina Boyarchenko, Anna Kovner and Or Shachar), June 2022.

[“The Persistent Compression of the Breakeven Inflation Curve”](#) (with Nikolay Gospodinov and Desi Volker), *Liberty Street Economics*, March 2021.

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- “Measuring the Forest through the Trees: The Corporate Bond Market Distress Index” (with Nina Boyarchenko, Anna Kovner and Or Shachar), *Liberty Street Economics*, May 2020.
- “The Primary and Secondary Market Corporate Credit Facilities” (with Nina Boyarchenko, Anna Kovner, Or Shachar and Peter Van Tassel), *Liberty Street Economics*, February 2021.
- “The Commercial Paper Funding Facility” (with Nina Boyarchenko and Anna Kovner), *Liberty Street Economics*, May 2020.
- “Reading the Tea Leaves of the U.S. Economy—Part Two” (with Domenico Giannone and David Lucca), *Liberty Street Economics*, February 2020.
- “Reading the Tea Leaves of the U.S. Economy—Part One” (with Domenico Giannone and David Lucca), *Liberty Street Economics*, February 2020.
- “Real Inventory Slowdowns” (with David Lucca and Casey McQuillan), *Liberty Street Economics*, November 2019.
- “Changing Risk-Return Profiles” (with Domenico Giannone and Sean Hundtofte), *Liberty Street Economics*, October 2018.
- “The Effects of Post-Crisis Banking Reforms” (with João Santos), *Liberty Street Economics*, October 2018.
- “At the New York Fed: Conference on the Effects of Post-Crisis Banking Reforms” (with João Santos), *Liberty Street Economics*, June 2018.
- “What Drives Forecaster Disagreement about Monetary Policy” (with Stefano Eusepi), *Liberty Street Economics*, August 2016.
- “Forecasting Interest Rates over the Long Run” (with Tobias Adrian, Peter Diamond and Rui Yu), July 2016.
- “Fundamental Disagreement: How Much and Why?” (with Stefano Eusepi), *Liberty Street Economics*, January 2016.
- “Discounting the Long Run” (with Tobias Adrian, Peter Diamond and Rui Yu), *Liberty Street Economics*, August 2015.
- “Which Growth Rate? It’s a Weighty Subject” (with Emanuel Moench, David Lucca and Stefano Eusepi), *Liberty Street Economics*, December 2014.
- “Learning from Disagreement: Evidence from Forecasters” (with Philippe Andrade, Emanuel Moench and Stefano Eusepi), *VoxEU*, December 2014.
- “Survey Measures of Expectations for the Policy Rate” (with Emanuel Moench, William O’Boyle, Matthew Raskin, Carlo Rosa and Lisa Stowe), *Liberty Street Economics*, December 2014.
- “Interest Rate Derivatives and Monetary Policy Expectations” (with Emanuel Moench, William O’Boyle, Matthew Raskin, Carlo Rosa and Lisa Stowe), *Liberty Street Economics*, December 2014.
- “Connecting ‘the Dots’: Disagreement in the Federal Open Market Committee” (with Troy Davig, Stefano Eusepi and Emanuel Moench), *Liberty Street Economics*, September 2014.
- “Treasury Term Premia: 1961-Present” (with Tobias Adrian, Emanuel Moench and Benjamin Mills), *Liberty Street Economics*, May 2014.
- “Preparing for Takeoff? Professional Forecasters and the June 2013 FOMC Meeting” (with Stefano Eusepi and Emanuel Moench), *Liberty Street Economics*, September 2013.
- “Do Treasury Term Premia Rise around Monetary Tightenings?” (with Tobias Adrian and Emanuel Moench), *Liberty Street Economics*, April 2013.

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“Making a Statement: How Did Professional Forecasters React to the August 2011 FOMC Statement?” (with Stefano Eusepi and Emanuel Moench), *Liberty Street Economics*, January 2013.

“Is U.S. Monetary Policy Seasonal?” (with David Lucca), *Liberty Street Economics*, October 2012.

“Skills Mismatch, Construction Workers and the Labor Market” (with Ayşegül Şahin), *Liberty Street Economics*, March 2012.

“A Look at the Accuracy of Policy Expectations” (with Stefano Eusepi and Emanuel Moench), *Liberty Street Economics*, August 2011.

## UNPUBLISHED PAPERS

[Is There Hope for the Expectations Hypothesis?](#) (with Stefano Eusepi and Emanuel Moench), April 2024.

[“Sparse Trend Estimation”](#) (with Nikolay Gospodinov and Hunter Wieman), March 2024.

[“Deconstructing the Yield Curve”](#) (with Nikolay Gospodinov), August 2023.

[“Nonlinear Binscatter Methods”](#) (with Matias Cattaneo, Max Farrell and Yingjie Feng), August 2023.

“Understanding Long-Horizon Expectations” (with Stefano Eusepi, Bruce Preston and Emanuel Moench), July 2023.

[“Beta-Sorted Portfolios”](#) (with Matias Cattaneo and Weining Wang), July 2023.

[“Measuring Corporate Credit Dislocations”](#) (with Nina Boyarchenko, Anna Kovner and Or Shachar), June 2023.

“Inference on Dividend and Return Predictability” (with Nikolay Gospodinov and Peter Van Tassel), September 2022.

[“Fundamental Disagreement about Monetary Policy and the Term Structure of Interest Rates”](#) (with Shuo Cao, Stefano Eusepi and Emanuel Moench), August 2021.

*Best Paper Award: 2018 Chinese Finance Annual Meeting*

“Sovereign Yield Comovement” (with Tobias Adrian, Benson Durham and Emanuel Moench), November 2018.

[“The Term Structure of Expectations and Bond Yields”](#) (with Stefano Eusepi and Emanuel Moench), April 2018.

[“Optimal Conditional Inference in Nearly-Integrated Autoregressive Processes”](#) November 2008.

“Testing Parametric Relationships between Nonparametric Curves Using Series Estimation” June 2006.

## SOFTWARE PACKAGES

**binsreg**: Binscatter regressions for Python, R, and Stata

**portsort**: Portfolio sorting estimators for R and Stata (in progress)

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## PAPERS ON STATISTICAL SOFTWARE

“[Binscatter Regressions](#)” (with Matias Cattaneo, Max Farrell and Yingjie Feng), in preparation for *The Stata Journal*, July 2023.

“Estimation and Inference using Portfolio Sorts” (with Matias Cattaneo, Weining Wang and Zhijiang Ye), August 2021.

## PROFESSIONAL ACTIVITIES

**Associate Editor**, *Journal of Empirical Finance* (2016– ), *Journal of Business and Economic Statistics* (2022– )

**Co-editor**, *Economic Policy Review*, 2010–

**Referee** for: *American Economic Journal: Macroeconomics*, *Econometrica*, *Economic Journal*, *Energy Economics*, *Journal of the American Statistical Association*, *Journal of Applied Econometrics*, *Journal of Banking and Finance*, *Journal of Business and Economic Statistics*, *Journal of Econometrics*, *Journal of Empirical Finance*, *Journal of Finance*, *Journal of Financial Economics*, *Journal of Financial Markets*, *Journal of Monetary Economics*, *Management Science*, *National Science Foundation*, *Quantitative Economics*, *Quarterly Journal of Economics*, *Review of Economic Studies*, *Review of Economics and Statistics*, *Review of Financial Studies*, *Review of Finance*, *Statistics & Probability Letters*, *Studies in Nonlinear Dynamics & Econometrics*

**Co-organizer** of the workshop on “Effects of Post-Crisis Banking Reforms,” Federal Reserve Bank of New York, June 2018

## TEACHING

**Instructor**, New York University, Department of Economics

PhD Econometrics I: Fall 2011, Fall 2016

PhD Econometrics II: Spring 2022, Spring 2023

**Graduate Student Instructor**, University of California–Berkeley, Department of Economics

PhD Econometrics I: Fall 2006, Fall 2008

PhD Econometrics II: Spring 2007

**Graduate Student Instructor**, University of California–Berkeley, Master’s in Financial Engineering Program

Empirical Methods in Finance: Spring 2007

## AWARDS AND HONORS

Dean’s Normative Time Fellowship, 2007–2008

Outstanding Graduate Student Instructor Award, 2007

Ford Foundation Pre-Doctoral Fellowship, 2004

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## **SEMINARS AND PRESENTATIONS**

Columbia University, Duke University, Federal Reserve Bank of San Francisco, Harvard University, MIT – Sloan, Interactions Workshop (Becker-Friedman Institute), LBS Summer Finance Symposium, NBER Summer Institute (Asset Pricing; Forecasting & Empirical Methods), Midwest Finance Association, New York University, Princeton University, Stanford University, University of California – Berkeley, UCLA, University of Miami, University of Michigan, University of Rochester, University of Wisconsin, Yale University