Bruce Tuckman
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New York University, Stern School of Business, 9/12-8/17 & 9/20 to date, *Clinical Professor of Finance*. Classes for MBAs, Executive MBAs, and undergraduates: Debt Instruments and Markets; Derivatives; Trading; and Liquidity Management.

Commodity Futures Trading Commission, 9/17-7/20, *Chief Economist and Director of the Office of the Chief Economist*. Managed the office's research program; grew staff from 12 to 20; established a Head of Academic Outreach and controls for papers using regulatory data. Chairman's Award for Excellence in Management (2020). Created "Entity-Netted Notionals" to measure the true sizes of swap markets. Co-authored two pieces with Chairman Giancarlo. Partnered on policy, including "IM Phase 5" and "Alternative Compliance" for foreign clearinghouses.

Center for Financial Stability (CFS), 1/10-8/12, *Director of Financial Markets Research*. Wrote and spoke on policy, including reforms of the OTC derivatives' safe harbor and the Tri-party Repo system.

Lehman Brothers, 9/02-9/08, *Managing Director*; **Barclays Capital,** 9/08-1/10, *Managing Director* and *Executive Committee member* for the Division of Prime Services.
Global Head of Quantitative Research, Prime Services: Hired and managed 20+ quants and set the agenda of 30+ programmers at the pre-crisis peak. Responsible for metrics on P&L, financing risk, counterparty risk, balance sheet, and cash usage. Remodeled divisional risk governance. Designed portfolio margin products that won a #1 rank in the '08 Greenwich survey.
Head of U.S. Rates and FX Modeling: Supervised research and desk quants. Consulted with clients. Created on-line tools: FEDISCOPE (implied probability distributions of FOMC rate decisions from futures, basis swap, and option prices); Futures Calculator (advanced analytics and scenario analysis).

Credit Suisse First Boston, 2/99 to 8/02, *Managing Director*.
Global Head of Relative Value Modeling: managed 20 professionals responsible for relative value modeling worldwide, including rates, mortgages, foreign exchange, and emerging markets.
U.S. Fixed Income Proprietary Trading: jointly ran a relative value risk book.
Whole Loan Mortgages: Managed professionals studying and helping to manage credit issues.

Salomon Brothers, 6/94 to 2/99, *Managing Director* (from 11/97). **Travelers** and **Citigroup** from '98.
Head of U.S. Fixed Income Derivatives Research: managed researchers to value and hedge Swaptions, Caps, Floors, and CMT/CMS Swaps for the customer trading desk.
Senior Researcher, U.S. Fixed Income Arbitrage Trading: supervised modeling for relative value trading. Highlight: an interest rate term structure model with jumps on FOMC meeting dates.

New York University, Stern School of Business, 9/88 to 6/94, *Assistant Professor of Finance*. Taught Financial Markets and Fixed Income Securities to MBAs and executive MBAs.

Education:
Massachusetts Institute of Technology, Ph.D. in Economics, with fields in Finance and Econometrics, February 1989. National Science Foundation Fellowship, 1984-1987.
Harvard College, *A.B.*, *summa cum laude*, in Statistics with Economics, June 1984. *Phi Beta Kappa*. Hoopes Prize for senior thesis.

Other Affiliations and Activities:
Major Derivatives Clearing House, member of a risk committee from 2013-17.
School of Intl. and Public Affairs, Columbia University, *Adjunct Professor*, Spring 2011, 2012
Indian School of Business, *Visiting Professor*, Fall 2010, 2011
Journal of Applied Finance, *Associate Editor*, 2012, 2013
UCLA, Anderson Graduate School of Management, 9/92 to 8/93, *Visiting Asst. Professor of Finance*.

Textbook:

Fixed Income Securities: Tools for Today's Markets, 4th Edition, w/ A. Serrat, John Wiley & Sons, September, 2022. Sole author on 1st and 2nd editions. Translations into Japanese and Chinese.

Selected Books, Publications, and Papers:

"Short-Term Rate Benchmarks: the Post-LIBOR Regime," *Annual Review of Financial Economics* 15, November 2023.

"Risk Transfer with Interest Rate Swaps," with L. Baker, R. Haynes, M. Lau, J. Roberts, and R. Sharma, *Financial Markets, Institutions & Instruments* 30(1), 2021, pp. 1-26. (Earlier version: "Introducing ENNs: A Measure of the Size of Interest Rate Swap Markets," January, 2018.)

"The Liquidity Hierarchy in the US Treasury Cash and Futures Market," with L. Baker and L. McPhail, *The Journal of Fixed Income* 30(1), Summer 2020, pp. 90-99.

"Large Order Size Liquidity in Treasury Markets," with E. Gousgounis and E. Onur, June, 2020.

Regulating Wall Street: CHOICE Act vs. Dodd-Frank, editor, with M. Richardson, K. Schoenholtz, and L. White, March, 2017. Op/Ed pieces: "The US is at a critical juncture for financial regulation," *The Hill*, April 19, 2017; "Dodd-Frank or the Choice Act? Take the best parts of both," *American Banker*, June 16, 2017.

"The Birth of Glass-Steagall," October 2016.

"In Defense of Derivatives: From Beer to the Financial Crisis," Cato Institute Policy Analysis, Number 781, September 29, 2015.

"Unintended Consequences of LOLR Facilities: the Case of Illiquid Leverage," with V. Acharya, *IMF Economic Review* 62(4), 2014. Prepared for the 14th Jacques Polak Annual Research Conference. As an Op/Ed, "Be Careful When Opening for Business," *The Tally*, efinancialnews.com, December 11, 2013.

"Embedded Financing: the Unsung Virtue of Derivatives," *The Journal of Derivatives* 21(1), Fall 2013.

"Do Bondholders Lose from Junk-Bond Covenant Changes?" w/ M. Kahan, *The Journal of Business*, October 1993. Lead Article and Winner of the Merton Miller Award.

"Arbitrage with Holding Costs: A Utility-Based Approach," w/ J.L. Vila, *Journal of Finance*, Sep. 1992.

Other Books, Publications, and Papers

"How Customized are Interest Rate Swaps?" with R. Haynes and M. Lau, June 2020.

"Systemic Risk and Firm Size: Is Notional Amount a Good Metric?" with D. Reiffen. Forthcoming in the *Journal of Financial Economic Policy*.

"Recent Trends in CDS Markets," with J. Coughlan, R. Haynes, and M. Lau, November 2019.

"Legacy Swaps under the CFTC's Uncleared Margin and Clearing Rules," with J. Coughlan, R. Haynes, and M. Lau, November 2019.

"ENNs for Corporate and Sovereign CDS and FX Swaps," with L. Baker, R. Haynes, M. Lau, J. Roberts, and R. Sharma, February, 2019.

"Initial Margin Phase 5," with R. Haynes and M. Lau, October 24, 2018.

"Response to Bollettino," with J. Christopher Giancarlo, July 21, 2018.

"Swaps Regulation Version 2.0: An Assessment of the Current Implementation of Reform and Proposals for Next Steps," with J. Christopher Giancarlo, April 26, 2018.

"Survive the Droughts, I Wish You Well: Principles and Cases of Liquidity Risk Management," *Financial Markets, Institutions & Instruments 26(3)*, New York University Salomon Center, July 2017.

"The Volcker Rule," with M. Richardson, in Regulating Wall Street: CHOICE Act vs. Dodd-Frank, March, 2017.

"Don't Forget the Plumbing: Payment, Clearing, and Settlement Companies in the Dodd-Frank and Financial CHOICE Acts," in Regulating Wall Street: CHOICE Act vs. Dodd-Frank, March, 2017.

"Derivatives: Understanding Their Usefulness and Their Role in the Financial Crisis," *Journal of Applied Corporate Finance* 28(1), Winter 2016.

"Book Review: The Essentials of Risk Management," *The Journal of Derivatives* 22(4), Summer 2015.

"Federal Liquidity Options: Containing Runs on Deposit-Like Assets without Bailouts and Moral Hazard," *Journal of Applied Finance*, Vol. 22(2), 2012. As an Op/Ed, "How to Contain a Financial Crisis Without Bailouts," Forbes.com, March 22, 2012.

"Update: the Clearing Mandate in Dodd-Frank, Systemic Risk, and Competition," CFS, June 2011.

"Flash: Tri-Party Repo Infrastructure Reform," CFS, February 2011.

"Amending Safe Harbors to Reduce Systemic Risk in OTC Derivatives Markets," CFS, April 2010.

"Systemic Risk and the Tri-Party Repo Clearing Banks," CFS, February 2010.

"Consistent Pricing of FX Forwards, Cross-Currency Basis Swaps, and Interest Rate Swaps in Several Currencies," w/ J.B. Homé, December, 2003. Internal Circulation Only.

"Macro-Awareness in Relative Value Trading," October, 2003.

"The FEDISCOPE," w/ D. Calistru, September, 2003.

"Interest Rate Parity, Basis Swaps, and Cross-Currency Basis Swaps," w/ P. Porfirio, June, 2003.

"Revisiting the Rate-Dependence of Volatility," w/ G. Marone, February, 2003.

"Measures of Asset Swap Spreads and their Corresponding Trades," January, 2003.

Advanced Fixed Income Valuation Tools, w/ N. Jegadeesh, Editors, John Wiley & Sons, 2000.

"Subsidized Borrowing and the Discount Rate: The Case of Municipal Capital Budgeting and Financial Management," w/ A. Kalotay, *Municipal Finance Journal*, winter, 1999.

"Prime and Score Premia: Evidence Against the Tax-Clientele Hypothesis," w/ L. Canina, *Financial Management*, winter 1996.

"Special Levies on Punitive Damages: The Economics of Decoupling," w/ M. Kahan, *International Review of Law and Economics*, vol. 15, 1995.

"Private vs. Public Lending: Evidence from Covenants," w/ M. Kahan, The Yearbook of Fixed Income Investing, Irwin Professional Publishing, 1995.

"Calling Nonconvertible Debt and the Problem of Related Wealth Transfer Effects," w/ F. Longstaff, *Financial Management*, winter 1994.

"A Tale of Two Bond Swaps," *The Journal of Financial Engineering*, w/ A. Kalotay, December 1992.

"Sinking Fund Prepurchases and the Designation Option," w/ A. Kalotay, *Financial Management*, winter 1992.

"Grandfather Clauses and Optimal Portfolio Revision," w/ J.L. Vila, *J. of Risk and Insurance*, Sep. 1992.