

Clifford Victor Rossi

Professional Experience

University of Maryland, Robert H. Smith School of Business, Finance Department

Professor-of-the-Practice and Executive-in-Residence, 7/2009 - present
Managing Director, Center for Financial Policy, 7/2009 - 7/2011, Adjunct Finance Faculty, (1995 - 2003)

Executive-in-Residence - July 2009 - Present

Engage in extensive thought leadership activities for brand building and outreach aimed at elevating the visibility of the Smith School and University of Maryland. Testified before US House Subcommittee of Housing and Insurance on FHA issues. Have developed an active and extensive media engagement for television, radio and print media. For example, have appeared on-air as an industry subject matter expert on multiple occasions for CNN Situation Room on matters relating to the housing market. Have also appeared multiple times on C-SPAN's Washington Journal, Canada's BNN business news program, Fox Morning News WTTG, Maryland Public Television's Smith Business Close-Up, as well as appeared on several prominent radio programs over the last four years including NPR and Market Watch Radio. Have been quoted on at least one hundred or more occasions in leading national and global newspapers on financial regulatory, general economy, banking and housing market issues. These include the Wall Street Journal, Bloomberg, American Banker, Financial Times, Washington Post, LA Times, and Baltimore Sun, among others. Also have a weekly column on risk management and regulatory reform issues in the American Banker newspaper that has attracted a significant following among senior industry practitioners and policymakers.

Managing Director, Center for Financial Policy - June 2009 - July 2011

Worked with Finance faculty and CFP Academic Director Lemma Senbet to stand up the Center including hosting and participating in numerous well-attended and high profile events (e.g., GSE Reform and Executive Compensation featuring senior government officials).

Professor-of-the-Practice (part-time appointment)

- Courses taught at undergraduate and graduate level (MBA and Master's of Finance) include
 - *Financial Risk Management (2 course sequence)*
 - *Derivatives*
 - *Fixed-Income Securities*
 - *Financial Engineering*

- *Financial Institutions Management*
- *Investments Management*
- Online MBA Program Courses
 - Commercial Bank Management
 - Risk Management
- Executive Education Programs
 - Academic Director, American Bankers Association and Smith Executive Education Advanced Training Program in Enterprise Risk Management
 - Academic Director, Reserve Bank of India Advanced Bank Training Program
 - Academic Director, China Development Bank Advanced Risk Management Training Program

Radian Guaranty Inc. (part-time appointment)

Senior Vice President, Chief Economist and Chief Analytics Officer, 1/2014 – 6/2016

Responsible for research, forecasts, quantitative analysis and financial modeling of Radian's mortgage insurance portfolio and the housing and mortgage markets. Designed and led a team of professional quantitative analysts in the development of a suite of statistically-based transition-state models of mortgage default and prepayment including a Monte Carlo simulation of Radian's loss distribution. Served as Executive Sponsor for Mortgage Risk Navigator; a set of risk management analytic tools for commercial application. Designed and led a team of modelers for Mortgage Risk Barometer; a new housing market risk index providing a comprehensive assessment of house price and underwriting trends in local markets.

Chesapeake Risk Advisors, LLC

Principal and Founder, 9/2009 – Present

Established a risk consulting firm oriented toward financial services companies. Provide a wide range of strategic risk consulting services to systemically important institutions, Federal Home Loan Banks, mortgage insurance companies, federal regulatory agencies, REITs, commercial banks, and nonbank financial firms. Established a part-time affiliation with Deloitte Consulting as a Strategic Advisor in their Banking and Securities practice. Provide guidance on best practices in risk governance and organizational structure to commercial bank management.

Citigroup

Consumer Lending Group/Real Estate Lending Group

Managing Director, Chief Risk Officer, 11/2007 – 7/2009

- Responsible for managing North America credit risk exposure for a \$300+B portfolio of 1st and 2nd mortgage, auto and student loans for the Consumer Lending Group, Citimortgage, Citibank, and Citifinancial legal entities
- Provided strategic risk direction for portfolio asset disposition and originations

- Functional responsibility over credit policy, credit portfolio management, \$6.5B loan loss reserve, loss forecasting, stress testing, and risk mitigation strategy
- Managed an organization of 700 professionals (7 direct reports) with an annual budget of \$100+MM.
- Oversaw development of analytical tools and models for integrated risk management and mortgage valuation including stochastic cash flow simulation, pricing and structuring models and underwriting and collections scorecards
- Developed a statistical arbitrage initiative designed to leverage proprietary customer data for identifying market trading opportunities
- Provided strategic direction along with capital markets and market risk heads on macro- and micro-hedging strategies on the mortgage portfolio
- Advised business heads on credit risk strategy including P/L and balance sheet impacts from market dislocations relating to securitization, credit risk transfer as well as counterparty exposures.
- Provided strategic direction to credit managers of global mortgage portfolios totaling \$40+B.
- Member of Citi Mortgage Inc. Board of Directors, and Finiti (joint venture) Board of Directors

Washington Mutual – (WaMu)

Senior Vice President, Chief Credit Officer, 2/2007 – 11/2007

- Responsible for enterprise credit risk strategy, credit risk and portfolio management, counterparty credit risk, credit policy and related functions including portfolio analytics and loan review for WaMu's \$300B portfolio of mortgages, commercial real estate, retail and small business loans and credit cards
- Advised ALCO, the Executive Committee, business heads and their credit organizations on strategic credit issues including credit risk profile and risk tolerance as well as chair the Bank's Credit Risk Management Committee.
- Directly responsible for managing WaMu's \$1.6B Allowance for Loan and Lease Loss reserves process and chair WaMu's Credit Reserves Committee
- Served as senior management liaison to Board Finance Committee
- Designed and established operational controls, standard performance reporting processes, and other ongoing review processes
- Served as WaMu's spokesperson to external constituencies including securities analysts, external auditors, OTS, consumer groups, and others regarding WaMu's credit quality and lending activities.
- Jointly with the Chief Market Risk and Operational Risk Officer developed economic capital allocations for credit
- Managed an organization of 140 professionals including 8 direct reports. Completed major restructuring within the group that improved roles and responsibilities between business risk areas and corporate functions as well as efficiency (12% reduction in overall expenses)

Countrywide Financial Corporation/Countrywide Bank

Managing Director, Chief Risk Officer
Countrywide Bank, 8/2005 – 2/2007

Executive Vice President, Chief Credit Officer
Countrywide Bank, 2/2004 – 8/2005

- Board-delegated authority for managing credit and interest rate risk for the Bank's \$100 billion residential and commercial loan portfolio. Bank management liaison to Bank and CFC Board of Directors Credit Committees as well as primary point of contact for external party reviews of Bank credit and interest rate risk including rating and regulatory agencies
- Developed credit and interest rate risk infrastructure for a top 10 National Bank, building an organization of 125 employees focused on integrated risk management, mortgage credit policy, portfolio management, credit risk transfer, asset-liability management, appraisal management and model development
- Led enterprise Basel II Advanced – IRB capital initiative including development of capital methodologies for residential and commercial credit exposures, securitizations and market, credit and operational risk aggregation
- Responsible for developing enterprise-wide constrained portfolio optimization capability for asset selection and disposition (Held-for-Investment/Held-for-Sale) and liability structure management leveraging risk-adjusted return (EVA/RAROC) and economic capital capabilities
- Managed enterprise credit risk transfer strategy and valuation group. Developed analytic tools and strategies for transferring credit risk via mortgage insurance, credit default swaps, senior-sub structures and related mechanisms
- Oversaw development of credit and interest rate risk models including stochastic mortgage cash flow competing risk default and prepayment models for credit portfolio valuation and credit-VaR (Value-at-Risk), automated underwriting and behavioral scorecards, credit enhancement and portfolio optimization models, ALM and deposit pricing models
- Oversaw ALM and ALCO processes for the bank including recommendation and reporting of market-VaR and liquidity tolerances, hedging, convexity, prepayment, net interest income, and embedded option and volatility analysis
- Developed methodology and managed Bank allowance for loan and lease loss reserves
- Developed and managed counterparty credit department and led the effort to develop a consistent enterprise-wide risk grading framework for counterparty credit risk assessment
- Developed and approved credit underwriting guidelines, appraisal policy, quality control and fraud detection activities for Bank products including HELOCs, fixed-rate second lien mortgages, PayOption ARMs, Hybrid ARMs, reverse mortgages, builder finance, and commercial real estate loans
- Established housing and economic outlook group to conduct housing market

surveillance

Freddie Mac

Senior Director, Mortgage Analytics & Model Deployment, and Mortgage Credit Policy 1/98 – 2/2004, Principal/Senior Economist, 1/96 – 1/98

- Co-developer of three patents on financial credit structures
- Led a group of financial engineers, econometricians and financial analysts who provided analytic solutions to mortgage credit risk and pricing business problems
- Adapted complex proprietary financial simulation models of mortgage credit and prepayment risk for valuing nonstandard financial contracts including various types of derivatives such as call options, credit swaps, and other credit enhancements
- Developed risk-adjusted return and economic capital capabilities for assessing the \$600B+ Single Family mortgage portfolio
- Responsible for development of mortgage credit policy guidelines for single family business
- Managed credit portfolio quality group responsible for monitoring credit performance including measurement of life cycle delinquency and losses
- Developed mortgage credit risk models for use in Freddie Mac's *Loan Prospector* automated underwriting system. Had a major role in developing Risk Grade Evaluator (RGE) for scoring jumbo and subprime loans. Took the lead role in developing scorecards for FHA and VA mortgages, the first scorecards of that kind in the government mortgage market
- Responsible for development, analysis and implementation of scorecard cutoff and override policies for Freddie Mac's conventional scorecard

Office of Thrift Supervision (OTS)

Senior Financial Economist, (2/91 - 10/93 & 7/94 - 1/96)

- Responsible for conducting empirical research and short-term policy analysis on issues affecting financial institutions and markets
- Research interests included the determinants of thrift industry derivatives use and interest rate risk, credit/interest rate risk tradeoffs and capital requirements, industry consolidation and cost economies, and the economics of low income lending
- Short-term projects included analysis of thrift interest-rate risk exposure to risk-controlled arbitrage strategies, the value of thrift goodwill (this analysis was introduced as evidence in the Glendale Federal Supreme Court case on goodwill), and privatization of Freddie Mac and Fannie Mae
- Frequent communication to the OTS Director and senior staff on various agency issues (e.g., provided analysis for Congressional testimony by the Director on reforming the Federal Home Loan Bank System, bank/thrift charter merger, and resolving the BIF/SAIF premium disparity)

Fannie Mae

Financial Economist, (10/93 - 7/94)

- Responsible for conducting a program of original research analyzing default incidence and loss severity for guarantee fee pricing
- Developed and completed a statistical analysis designed to distinguish the underwriting performance of lenders, brokers, and correspondents based on Fannie Mae's book of business
- Other duties included estimation of pool level prepayment models as part of the GSE capital stress test requirements
- Initiated and completed an empirical analysis of the cost structure implications from Fannie Mae seller consolidation

Economic Research Service (ERS)/US Treasury Department Office of Domestic Finance

Senior Financial Economist, (10/85 - 2/91)

- Served as agency expert on financial institutions and markets affecting rural America
- Developed a publication synthesizing the performance and trends of financial institutions and markets serving rural areas and current research on these issues
- Conducted empirical research on such issues as commercial bank and thrift cost structure and capitalization, mortgage prepayment, and secondary market participation in rural and agricultural credit markets

Education

Ph.D. - *Cornell University* 1985

Financial Economics major field, quantitative methods, finance subfields

M.S. - *Cornell University* 1983

Financial Economics major field, finance subfield

B.A. - *University of Denver* (conferred) 1979

The George Washington University

Economics and Public Affairs majors, overall GPA 3.70

Selected Publications/Presentations

Books

A Risk Professional's Survival Guide, Applied Best Practices in Risk Management, John Wiley and Sons, 2014.

Handbook of Financial Risk Information, authored chapter on portfolio risk monitoring and coauthored a chapter on systemic risk monitoring, Cambridge University Press, 2013.

Articles/Manuscripts/Other

Fostering a Culture of Risk Management in Your Organization, Mortgage Compliance Magazine, Fall 2016.

Global Systemic Risk Regulation Since the Financial Crisis: A Framework for Understanding the Effectiveness, Impacts and Harmonization of Macroprudential Regulation, White paper, Joint Bretton Woods and Deloitte Symposium, 2012.

“Incentives, Behaviors and Cognitive Bias in the Risk Function”, Global Association of Risk Professionals *Risk Professional Magazine*, April 2012.

Forging Best Practices in Risk Management, Mark J. Flannery, Paul Glasserman, David K.A. Mordecai and Clifford Rossi, Office of Financial Research Working Paper No. 2-2012, March 2012.

Procyclical versus Countercyclical Policy Effects on Financial Markets, Financial Services Roundtable, Cluff Fund Trustees White Paper, 2011.

“Lessons in Mortgage Risk-taking: Implications for Mortgage Insurance and QRM,” keynote presentation to Radian Guaranty Board of Directors, August 2011.

“QRM Rule Should Recognize Life is Full of Tradeoffs,” *American Banker Op Ed*, August 1, 2011.

Risk-Adjusted Performance: Lessons from the Financial Crisis, *Journal of Structured Finance*, Summer 2011, Vol. 17, No. 2, pp. 28-35.

Mortgage Insurance: A Case for QRM Eligibility, White Paper, July 2011.

Toward Comprehensive GSE and Housing Finance Reform, *Journal of Business and Technology Law*, June 2011.

Implications of Prompt Corrective Action for Credit Unions, White Paper, June 2011.

Frameworks for Systemic Risk Monitoring, Pew Foundation Report, Conference Co-Organizer, 2011.

Countercyclical Policy Effects on Banking, Financial Services Roundtable, Cluff Fund Trustees White Paper, 2011.

Analysis of CFTC Proposed Position Limits on Commodity Index Fund Trading, Center for Financial Policy White Paper, March 2011.

Assessing the Impact of Proposed Fed Debit Interchange Fees, Financial Services Roundtable, Cluff Fund Trustees White Paper, 2011.

The Impact of Brokered Deposits on Bank Failure, Financial Services Roundtable, Cluff Fund Trustees White Paper, 2010.

Anatomy of Risk Management Practices in the Mortgage Industry: Lessons for the Future; Mortgage Bankers Association, Research Institute for Housing America Study, 2010, *Journal of Business and Technology Law*, forthcoming May 2011.

“Mortgage Banking Issues – A Banker’s Perspective,” presentation to OCC National Bank Examiners Conference, 2008.

“Integrated Risk Management: An Emerging Paradigm for Balance Sheet Management,” presentation to FFIEC Capital Markets Specialists Symposium, 2008.

“Best Practices in Managing Credit and Interest Rate Risk in a Residential Mortgage Portfolio,” presentation to OCC National Bank Examiners Conference, 2005.

“Mortgage Banking Cost Structure: Resolving an Enigma,” *Journal of Economics and Business*, April 1998.

“The Characteristics of Derivatives Users: An Analysis of the Thrift Industry,” *Journal of Economics and Business*, 49:587-598, 1997.

“Automated Underwriting of FHA Mortgages: Forging a Strategic Partnership Between Freddie Mac and FHA,” presentation at the Credit Scoring Control V Conference, University of Edinburgh Management School, Edinburgh, Scotland, 1997.

“An Empirical Comparison of Linear Probability and Logit Models of Mortgage Default,” presentation at the Credit Scoring Control V Conference, University of Edinburgh Management School, Edinburgh, Scotland, 1997.

“The Economics of Low-Income Mortgage Lending,” *Journal of Financial Services Research*, 11:169-188, 1997.

“Statistical Evidence of Mortgage Redlining? A Cautionary Tale,” *Journal of Real Estate Research*, 1995.

“Reasons for Caution in Statistical Testing for Redlining,” Fair Lending Analysis, A Compendium of Essays on the Use of Statistics, American Bankers Association, 1995.

“Implications of FIRREA on Thrift Industry Cost Structure,” *Journal of Financial Services Research*, 8:29-44, 1994.

“Lender Underwriting Performance Effects on Guarantee Fees,” Fannie Mae Working Paper, 1994.

Other Professional Activities

Served as a member of the US Coast Guard Auxiliary 2000-2005. Held officer positions of Flotilla Commander and Vice Flotilla Commander in addition to Division- and Flotilla-level positions as IT and Public Affairs officer. Participated in USCGA patrols on the Chesapeake Bay, attended USCGA Leadership Development Program at the Coast Guard Academy in New London, CT. Conducted vessel safety checks and participated in numerous public affairs events promoting USCGA activities.