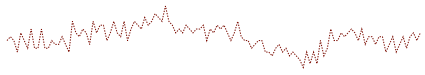
Carl J. Vogel



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EDUCATION

Columbia University
M.A. Statistics — 2010 — New York, NY

Coursework in measure-theoretic probability, stochastic processes and mathematical finance, time-series analysis, survival analysis, and Bayesian methods

University of Toronto
M.A. Economics — 2005 — Toronto, ON

Ph.D. coursework in macroeconomics, econometrics, and labor and development; passed Ph.D. comprehensives in microeconomics and labor economics

University of Maryland College Park
B.A. Economics — 2001 — College Park, MD

EXPERIENCE

Navigant Economics (formerly AFE Consulting)
Associate Director — May 2011 – Present — New York, NY

NERA Economic Consulting
Senior Consultant — May 2006 – May 2011 — New York, NY

Designed and performed economic and statistical analysis in support of expert testimony in securities fraud trials and other cases involving financial economics and econometrics.

Data management and analysis

- High frequency stock order, trades and quote data; loan pool characteristics and performance data; proprietary hedge fund and mutual fund trading data

Statistical modeling

- Built time series models of asset returns and volatility; estimated regression and factor models of credit risk; modeled high-frequency trade data; designed parametric and non-parametric models of yield curves and credit spread; designed and performed event studies with non-parametric and bootstrap tests

Valuation

- Built models to value: commercial and residential mortgage-backed securities; cash, synthetic, and hybrid CDOs; stock, commodity, interest rate, and credit derivatives; hybrid securities (convertible bonds and preferred shares)
- Designed custom binomial tree models and Monte Carlo simulations to address client-specific questions.

Management

- Managed teams of 2–10 researchers in collecting and analyzing data
- Responsible for recruitment and career development of junior staff

Communication

- Wrote reports describing analyses and conclusions for non-technical audiences such as lawyers and judges
- Met with clients to develop and assist case strategies; assisted with depositions of economic experts
- Designed and led training in fixed income analysis
- Led redesign of AFE website

SKILLS AND INTERESTS

Software and Programming Languages

- R, Stata/Mata, SAS, SQL, BUGS/JAGS
- Python, C, Javascript, Clojure
- HTML5, CSS, LaTeX
- Bloomberg, Intex, Factset

Related Interests

- Open source software and open data
- Typography and graphic design
- Data visualization
- Machine learning, text mining and natural language processing

RESEARCH AND PUBLICATIONS

- Corporate Bond Event Studies using Credit Spreads" NERA Working Paper. June 2010
- "Subprime and Synthetic CDOs: Structure, Risk, and Valuation" (with Elaine Buckberg, et. al.). NERA Publication. June 2010
- "CDOs: Structure, Value, and Causation circa 2007." (with Frederick Dunbar, et. al.). In *Securities Arbitration in the Market Meltdown Era: Achieving Fairness in Perception and Reality*. Practising Law Institute Course Handbook Series, No. B-1754. August 2009
- "Large Shocks and Small Changes in the Marriage Market for Famine-Born Cohorts in China." (with Loren Brandt and Aloysius Siow). Univ. of Toronto Working Paper No. 334. September 2008

SELECTED PROJECT DESCRIPTIONS

Econometric and Simulation Modeling

- Designed simulations to estimate the effect of alleged underwriting defects on senior RMBS tranches
- Designed models to analyze quality of subprime mortgage pools backing CDOs
- Designed and implemented Monte Carlo simulations of asset class performance used to advise multi-employer pension funds; model accounted for cross-asset correlations and simulated future short rates
- Designed and estimated ordered logit models of credit ratings as a function of issuer and bond characteristics to estimate the effect of increased issuer leverage on preferred shares
- Designed and implemented custom Hull-White and LMM interest rate models to analyze the impact of settlement procedures for swaps traded via a central clearinghouse
- Designed tests of market efficiency for corporate bonds, including: logistic models of trade probabilities, bond-credit default swap basis analyses, and spline-estimated credit spreads
- Analyzed risk-return measures and probability/foreseeability of losses for funds holding portfolios of residential mortgage- and other asset-backed securities
- Designed and estimated statistical models of the effect of fraud-related disclosures on stock return volatility

Structured Finance and Asset-Backed Securities Analyses

- Analyzed the performance of mortgage-backed securities referenced in liquidated synthetic CDO deals; estimated their prepayment and default rates and modeled hypothetical cash flows to CDO investors
- Built simulation-based valuation models for CDOs holding corporate debt, mortgage- and other asset-backed securities, as well as CDO-squared and bespoke CDOs
- Estimated effect of mortgage re-performance on mortgage-backed securities holding delinquent and defaulted mortgages

Market Microstructure and Related Analyses

- Used hedge fund trading and positions data to analyze and summarize equity and option trading strategies
- Analyzed liquidity at various exchanges using proprietary order audit trail data
- Analyzed high-frequency trading data and dealer/specialist transaction data to review: mutual fund market timing and late trading; odd-lot trading manipulation schemes; and the effects of laddering on returns in IPOs

Other Analyses

- Analyzed causation and estimated alleged damages related to losses from mortgage pipeline and servicing rights hedging
- Estimated alleged damages related to employee stock option backdating and the effects of alleged fraud-related stock price inflation on employee stock options