Kenneth F. Kroner
Contact information redacted

Chronology of Education:

- Ph.D. (Economics) University of California at San Diego, 1988.
  Dissertation title: "Multivariate Simultaneous Generalized Autoregressive Conditional Heteroskedasticity." (Advisors: R.F. Engle, C.W.J. Granger, M. Rothschild)
- B.Sc. (First Class Standing), Honours Mathematics and Economics, University of Alberta, Canada, 1983

Advisory, boards, etc.:

- Alternative Investments Forum:
  - Trustee advisory board, 2017 - present
- Alberta Investment Management Corporation (AIMCo)
  - Board member, 2017 - present
- CircleUp:
  - Advisory board, 2017 – present
- Golden Gate Capital (for Angel Island Capital)
  - Consultant since 2017
- University of Arizona
  - National Leadership Council, 2017 - present
- UC San Diego:
  - Board of Trustees, 2009 - 2015, 2016 - present
  - Investment committee member
    - Chaired investment committee from about 2013 to 2015
  - Executive Committee member, 2013-2015
  - Global campaign chair for $2b capital campaign, 2016 - present

Employment:

- *Senior Managing Director*, BlackRock, 1994-2016 (includes predecessor firm Barclays Global Investors until BlackRock bought BGI in 2009)
  - Under BlackRock, major responsibilities:
    - Member, Global Executive Committee
    - Member, Global Operating Committee
    - Global Head of Multi-Asset Strategies Group
    - Global Head of Scientific Active Equities
  - Under BGI, responsibilities included:
    - Head of Global Market Strategies Group (global macro hedge fund, Commodity hedge fund, active currency management)
    - Head of Alpha Management Group (fund of external hedge funds)
    - Co-Head (with David Semaya) of Client Solutions (packaged investment solutions for strategic clients)
- *Associate Professor*, Departments of Economics and Finance, University of Arizona, 1988-1995. Promoted from assistant professor to associate professor with tenure in 1994; offered joint appointment with finance in 1995.
  - Major research focus: volatility forecasting; empirical finance
- *Consultant* for various firms at various times. (Projects included developing a currency volatility forecasting model, developing a global equity allocation model, forecasting commodity price volatility, and building dynamic hedging models)

Academic Honors and Awards:

- Institutional Investor Award for best international paper in an Institutional Investor journal, for "EMU and the Asset Allocation Decision," 1999, with Kevin C. Coldiron.
- *Chicago Board of Trade Competitive Paper Award* for best paper in futures and options, 1992 Financial Management Association, for "Arbitrage and Cointegration," with R.J. Brenner.

Published Papers

1. "The equity risk premium," with Richard C. Grinold, *Investment Insights* 5 (Issue 3), 2002, Barclays Global Investors.
2. "The greatest returns story ever told," with Larry Siegel and Scott Clifford, *Journal of Investing 10(2)*, Summer 2001, 91-102.
3. "EMU and the asset allocation decision," with Kevin K. Coldiron, *Journal of Investing 8(2)*, Summer 1999, 39-46.
4. "Modeling the time-varying comovement of asset returns," with Victor K. Ng, *Review of Financial Studies 11(4)*, 1998, 817-844.
5. "Dynamic cross-hedging with mortgage-backed securities," with Gregory Koutmos and Andreas Pericli, *Journal of Fixed Income*, September 1998, 37-51.
6. "Program trading, non-program trading and market volatility," with Kedreth C. Hogan, Jr. and Jahangir Sultan, *Journal of Futures Markets* 17(7), 1997, 733-756.
7. "Another look at models of the short-term interest rate," with Robin J. Brenner and Richard H. Harjes, *Journal of Financial and Quantitative Analysis* 31(1), 1996, 85-107.
8. "Creating and using volatility forecasts," *Derivatives Quarterly* 3(2), 1996, 39-52.
9. "Arbitrage, cointegration and testing the unbiasedness hypothesis in financial markets," with Robin J. Brenner, *Journal of Financial and Quantitative Analysis* 30(1), 1995, 23-42.
10. "Multivariate simultaneous generalized ARCH," with Robert F. Engle, *Econometric Theory* 11, 1995, 122-150.
11. "Volatility and interest rate swaps," with Jahangir Sultan and Chowdhury Mustafa, *Journal of Financial Engineering* 4(2), 1995, 157-186.
12. "Multivariate GARCH modeling of asset returns," with Victor K. Ng, *1995 Proceedings of the American Statistical Association, Business and Economics Section*, American Statistical Association, pp. 31-38.
    - Reprinted in *Volatility: New estimation techniques for pricing derivatives* (ed. Robert Jarrow), Risk Publications, London, 1998, pp. 109-116.
13. "The relationship between GARCH and stable processes: Finding the source of fat tails in financial data," with Devajyoti Ghose, *Journal of Empirical Finance* 2, 1995, 225-251.
14. "Forecasting volatility in financial markets," with Stijn Claessens and Kevin P. Kneafsey, *Journal of Forecasting* 14, 1995, 77-95.
    - Reprinted in *Economic Forecasting*, edited by Terence C. Mills, John Wiley and Sons, 19xx.
15. "The relationship between firm size and screening ability in an automobile insurance market," with Douglas S. West, *Journal of Risk and Insurance* 62(1), 1995, 12-29.
16. "Evaluation of time series models using predictive values of quarterly earnings," with Dan S. Dhaliwal and Kyung J. Lee, *Advances in Quantitative Analysis of Finance and Accounting*, forthcoming.
17. "Program trading and market volatility: New evidence from a bivariate GARCH model," with Jahangir Sultan and Kedreth C. Hogan, Jr., in *New Directions in Finance*, Dilip K. Ghosh and Shahriar Khaksari, editors, Routledge Press, New York, 1995, pp. 159-180.
18. "Time varying distributions and dynamic hedging with foreign currency futures," with Jahangir Sultan, *Journal of Financial and Quantitative Analysis* 28, 1993, 535-551.
19. "The impact of exchange rate volatility on international trade: Reduced form estimates using the GARCH-M model," with William D. Lastrapes, *Journal of International Money and Finance* 12 (1993), 298-318.
20. "ARCH modeling in finance: A review of the theory and empirical evidence," with Tim Bollerslev and Ray T. Chou, *Journal of Econometrics* 52, 1992, 5-59. A French translation appeared in *Annales D'Economie et de Statistique* 24, 1991, 1-59.
    - Reprinted in Volatility: New Techniques for Pricing Derivatives and Managing Financial Portfolios (ed. Robert Jarrow), London, U.K.: Risk Publications, 1998.
    - Reprinted in Recent Developments in Time Series (eds. Paul Newbold and Stephen J. Leybourne), London, U.K.: Edward Elgar Publishing Ltd., 2003.
21. "Optimal dynamic hedging portfolios and the currency composition of external debt," with Stijn Claessens, *Journal of International Money and Finance* 10 (1991), 131-148.
22. "Exchange rate volatility and time varying hedge ratios," with Jahangir Sultan, in *Pacific-Basin Capital Markets Research, Volume II*, S.G. Rhee and R.P. Chang, editors, North-Holland Press: Amsterdam, 1991, pp. 397-412.
23. "Tests of intraurban central place theories," with Douglas S. West and Balder von Hohenbalken, *The Economic Journal* 95, 1985, 101-117.

Other papers:

1. "Components of volatility in foreign exchange markets: An empirical analysis of high frequency data," with Devajyoti Ghose, 1997.
2. Common persistence in conditional variances: Implications for dynamic hedging," with Devajyoti Ghose, 1995.

Referee for:

American Economic Review;
Applied Financial Economics;
Applied Mathematical Finance;
Canadian Journal of Economics;
Econometric Reviews;
Econometric Theory;
The Economic Journal;
European Journal of Finance;
The Financial Review;
Global Finance Journal;
International Economic Review;
International Journal of Forecasting;
International Review of Economics and Finance;
Journal of Applied Econometrics;
Journal of Banking and Finance;
Journal of Business and Economic Statistics;
Journal of Econometrics;
Journal of Economic Dynamics and Control;
Journal of Economic Studies;
Journal of Economic Surveys;
Journal of Empirical Finance;
Journal of Finance;
Journal of Financial and Quantitative Analysis;
Journal of International Financial Markets, Institutions and Money;
Journal of International Money and Finance;
Journal of Macroeconomics;
Journal of Money, Credit and Banking;
Journal of the American Statistical Association;
Journal of Time Series Analysis;
Management Science;
Managerial and Decision Economics;
National Science Foundation*;*
Public Choice;
Quarterly Review of Business and Finance;
Quarterly Review of Economics and Finance;
Review of Financial Studies;
Scandinavian Journal of Economics;
Social Sciences and Humanities Research Council of Canada*;*
Southern Economic Journal.

Other service:

- Board of directors, Financial Management Association, 2000-2002.
- Editorial board, *Studies in Nonlinear Dynamics and Econometrics*, 1995-2002.
- Associate editor, *Journal of International Financial Markets, Institutions and Money*, 1997-2002.
- Committee member, Quantitative Programs, Security Analysts of San Francisco, 1995-1996.
- Program committee, 1996 Financial Management Association annual meeting.

Grants and contracts won:

- Investigator, Multidisciplinary Design and Analysis Project Team (principal investigator: Professor Kumar Ramohalli, Department of Aerospace and Mechanical Engineering, University of Arizona). Proposal #93-AME-433, National Aeronautics and Space Administration, 1993, $49,854.
- "Foreign currency futures and time-varying hedge ratios," with Jahangir Sultan, by the Columbia University Center for Research in Futures Markets, 1990, $6000.