

## ERIC JACQUIER

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## EDUCATION

**Ph.D. Finance and Statistics**, University of Chicago Booth School of Business. 1991  
Graduate Course work in finance and economics, UCLA. 1983-84  
**MBA UCLA**, concentration in international business and finance. 1983  
**Ingénieur SUPELEC**, Ecole Supérieure d'Electricité. Electrical engineering. 1979

## ACADEMIC POSITIONS

**Visiting Professor of Finance**, Boston University School of Management. 2013-  
**Visiting Professor of Finance**, MIT Sloan School. Visiting Associate 2010-2012. 2012-2013  
**Lecturer**, Boston University School of Management. 2012-2013  
**Professor of Finance**, HEC Montreal, Holder of the Professorship in Derivative Securities,  
on leave, Associate 2004-12, Visiting 2003-04. 2004-  
**Assistant Professor of Finance**, Boston College. 1996-2003  
**Visiting Assistant Professor of Finance**, Wharton. 1995-1996  
**Assistant Professor of Finance**, Johnson School, Cornell. 1992-1995  
**Lecturer**, Econometrics & Management Science, U. of Chicago Booth School of Business. 1988-1990  
**Lecturer in Electrical Engineering**, University of Sciences and Technologies, Kumasi, Ghana 1979-1981

## OTHER CURRENT ACADEMIC APPOINTMENTS

**Associate Editor**, Journal of Financial Econometrics 2000 -  
**Associate Editor**, Annals of Computational and Financial Econometrics 2011 -  
**Affiliate** NYU-Stern Volatility Institute, New York University 2008 -  
**Fellow** CIREQ, Inter-university Research Center in Quantitative Economics. 2003 -  
**Fellow** CIRANO, Montreal 1996 -

## PROFESSIONAL EXPERIENCE

**Consultant**: Merck Serono, Versant Capital, PSP Investments, Hydro-Québec, Insightful, Windham Capital - State  
Street, Putnam, Goldman, Sachs & Co., Arthur Andersen  
**Ingénieur** MATRA, (now EADS) 1979

## RESEARCH

### Book

“Handbook of Econometric Methods for Finance: Bayesian vs Classical Perspectives”, John Wiley Handbook Series in Financial Engineering and Econometrics, John Wiley & Sons, in progress.

### Book chapters

“*Asset Allocation in Finance: A Bayesian Perspective*”, with N. Polson, in “Bayesian Theory and Applications”, Damien, Dellaportas, Polson, and Stephen eds., Oxford University Press, 2013.

“*Modern Portfolio Theory*”, in “Portfolio Theory and Management”, H. Kent Baker and Greg Filbeck eds., Oxford University Press, 2013.

“*Bayesian Econometrics in Finance*”, with N. Polson, in “Oxford Handbook of Bayesian Econometrics”, John Geweke, Gary Koop, and Hermann Van Dijk eds., Oxford University Press, 2011.

“*Bayesian Analysis of Stochastic Volatility Models*”, with Polson and Rossi, in “Stochastic Volatility, Selected Readings”, Neil Shephard ed., Oxford University Press. 2005.

“*Deterministic Volatility Functions: Model Error versus Poor Estimation*”, in Model Risk, Rajna Gibson Editor, Risk Publications, London, 2000.

“*Vital Statistics*”, in “Over the Rainbow: Development in Exotic Options and Complex Swaps”, Jarrow Ed., Risk Publications, London 1995.

### Articles

“*Long-Term Risk Return Trade-offs: Segregating Jumps from Volatility*”, with Okou. Journal of Financial Econometrics, Forthcoming.

“*Are Underwriting Cycles Real and Forecastable*”, with Boyer and Van-Norden. Journal of Risk and Insurance 79(4), Nov. 2012, 995-1015.

**Award:** Most valuable 2013 article by the American Risk and Insurance Association.

“*Predicting Systematic Risk: Implications from Growth Options*”, with Sheridan Titman and Atakan Yalcin. Journal of Empirical Finance 17(5) 2010.

“*Bayesian Decision-Based Estimation and Predictive Inference*”, with N. Polson, in “Frontiers of Statistical Decision Making and Bayesian Analysis - in honor of James Berger”, ed. Chen, Dey, Mueller, Sun, and Ye. Springer. 2010.

“*Empirical Evidence on the dependence of credit default swaps and equity prices*”, with Dupuis, Papageorgiou, Remillard, Journal of Futures Markets 29(8), August 2009.

“*MCMC Maximum Likelihood for Latent State Models*”, with N. Polson and M. Johannes, Journal of Econometrics 137(2) April 2007. 615-640.

“*Credit Migration and Basket Derivative Pricing with Copula*”, with Berrada, Dupuis, Papageorgiou, and Remillard, Journal of Computational Finance 10, vol 1, Fall 2006.

“*Optimal Estimation of the Risk Premium for the Long-Term and Asset Allocation: a Case of Compounded Estimation Risk*”, with Marcus and Kane, Journal of Financial Econometrics 3, Winter 2005, 37-56.

“*A Model of the Convenience Yields in On-the-Run Treasuries*”, with Cherian and Jarrow. Review of Derivatives Research 7, August 2004, 79-97.

“*Bayesian Analysis of Stochastic Volatility Models with Fat Tails and Leverage Effect*”, with Polson and Rossi. Journal of Econometrics 122, 2004, 185-212.

“*Geometric or Arithmetic Mean: A New Take on an Old Controversy*”, with Marcus and A. Kane. Financial Analysts Journal, Nov./Dec. 2003.

*"Bayesian Analysis of Stochastic Volatility Models"*, with Polson and Rossi. Journal of Business and Economics Statistics. 2002, vol 20(1), 69-87.

**Award:** 20 year anniversary issue. "One of the two most influential articles on volatility in the past 20 years".

*"Asset Allocation Models and Market Volatility"*, with Marcus, Financial Analysts Journal, March/April 2001.

**Award:** Graham and Dodd Award of Excellence 2001

*"Discussion of Time series analysis of non-Gaussian observations based on state space models from both classical and bayesian perspective by Durbin and Koopman"*, with Polson, 2000, Journal of the Royal Statistical Society. Series B, 62.

*"Bayesian Analysis of Contingent Claim Model Error"*, with Jarrow. Journal of Econometrics, 94, 2000, 145-180.

*"Optimal Portfolios in Good Times and Bad"*, with Chow, Kritzman, and Lowry, May/June 1999, Financial Analysts Journal.

*"Vital Statistics"*, with Jarrow. Risk Magazine, April 95.

*"Bayesian Analysis of Stochastic Volatility Models"*, with Polson and Rossi. Journal of Business and Economics Statistics. October 94.

**Award:** Annual Lead Article with discussions and response.

**Dissertation :** *"Predictability of Long Term Stock Returns and the Business Cycle"*

**Committee:** Zellner, Ferson, Rossi, Nelson, Constantinides, Huizinga.

### **Work in Progress**

The information content of realized volatility and the VIX through the 2008 crash, with S. Miller.

Long-term volatility predictability: asset allocation implications, with C. Okou

Using economic forecasts of betas in asset pricing tests.

Momentum: Tail risks and portfolio implications, with A. Marcus.

Betas dynamics and portfolio efficiency, with E. Ghysels.

MCMC methods for expected utility models, with N. Polson and M. Johannes.

### **Manuscripts**

*"Evaluating dynamic trading strategies"*, with T. Yao.

*"Business Cycle Components in Expected Returns: Empirical Evidence"*

*"A Test for Cyclical Components in Stock Returns"*, with Nanda

### **Invited Seminar Presentations**

Babson, Brandeis, Bloomberg quantitative research group, Boston College, Brown, Carnegie Mellon GSIA, CIRANO, Concordia Economics dept., Cornell, ESSEC, Goldman Sachs, HEC, HEC Montreal, IDEI Toulouse, INSEAD, LBS, McGill, MIT Sloan, NBER luncheon seminar, Penn State, Princeton, NY Society of Quantitative Analysts, QWAFEFW, Stockholm School of Economics, Simon Fraser, U.of Chicago, U. of Iowa Tepper School, U. of Montreal Economics, U of Pennsylvania Economics, U. of Toronto, U. of Washington, Wharton.

### **Invited Conference Presentations**

First ESOBE, European Seminar in Bayesian Econometrics, in honor of Hermann Van Dijk. Rotterdam, 11/2010.

I.D.E.I. Conference on Financial Econometrics, Toulouse, 5/2010.

*"The Information Content of Realized Volatility: What could we have known in 2008"*.

CRM Conference on MCMC methods, Sherbrooke, 10/2008.  
 ``MCMC methods in Finance: odds ratios, prediction, and optimization".

Imperial College Conference on Financial Econometrics, London, 5/2008.  
 Discussion of Bandi & Perron ``Past market variance and the cross-section of returns".

Imperial College Conference on Financial Econometrics, London, 5/2007.  
 ``Evaluating Beta Forecasts".

CIREQ conference on realized volatility, Montreal, 4/2006.  
 ``MCMC methods for expected utility".

Mc Gill-IFM<sup>2</sup> Risk Management Conference, discussant, Mont-Tremblant, 3/2006.

CFS Conference on New Directions in Financial Risk Management, Frankfurt, 11/2003.  
 ``Optimal Forecasts of Long-Term Returns: More Bad News on the Equity Premium".

CIRANO Conference on Extremal Events, discussant, Montreal, 11/2002.

RISK Quantitative Finance Conference, NYC 11/2002.  
 ``Generalized Stochastic Volatility Models with leverage and fat-tails".

First International Conference on the Econometrics of Financial Markets. Delphi, 5/2001.  
 Featured talk: ``Stochastic Volatility: Odds and Ends".

Duke-UNC Special Conference on Risk-Neutral and Objective Pricing. 10/2000.  
 Invited discussion of ``Large Deviation Approach to Portfolio Analysis" by Stutzer.

CIRANO Symposium on Volatility, 11/2000.  
 ``Market volatility and asset correlation structure".

U. of Penn., Dept. of Economics, Symposium on Volatility, 10/2000.  
 ``Generalizing stochastic volatility models".

RISK Conference on quantitative finance, NYC 9/1999.

MATHSOFT Conference on Stochastic Volatility, NYC, 3/1999  
 ``Estimating a Generalized Stochastic Volatility Model".

Atlanta Federal Reserve Conference on Market Risk, Miami, 2/1997.  
 ``Dynamic Evaluation of Contingent Claim Models".

RISK Conf. on advanced methods for forecasting, hedging and trading volatility, NYC, 1995.  
 ``Model vs Market Error in Contingent Claim Models".

Special Conference on Stochastic Volatility, Ghysels and Tauchen org., Montreal, 10/1994.  
 ``Priors and Models of Multivariate Stochastic Volatility".

American Statistical Association conference, Toronto, 8/1994. JBES invited address.  
 ``Bayesian Analysis of Stochastic Volatility Models".

CEPR (Centre for Economic Policy Research) and Wharton Weiss Center for International Financial Research, conference on International Business Cycles, London, June 1994.  
 ``International Stock Returns Predictability and Business Cycles"

### **Contributed Conference Presentations**

``Predicting Systematic Risk: Implications from Growth Options", French Finance Association, Paris, 2004. and Northern Finance Association, St John's Canada, 2004.

``Forecasting Long Term Returns: Geometric, Arithmetic, or Other Means?", Association Française de Finance, Lyon, 2003.

``Convenience yield pricing in the term structure of interest rates", Cornell - Boston University conference on Derivatives 2000. First Bachelier World Congress, 2000.

Discussion of "MCMC estimation of the Euler equation", by Jones, Western Finance 98.  
 "The Cross-section of Options Prices", Cornell - Boston University Conference on Derivatives 98.  
 "Dynamic Evaluation of Contingent Claim Models", Cornell-Queens Conference on Derivatives 95. French Finance 95.  
 "Bayesian Analysis of Stochastic Volatility Models", Western Finance 93. European Finance 93. French Finance 93. American Econometric Assoc. 93. NBER Time Series Conference 92.  
 "Business Cycle Components in Stock Returns: Empirical Evidence", Western Finance 92. European Finance 92. French Finance 92.  
 "Long Term Stock Returns and the Business Cycle: International and Sectorial Evidence", European Finance 91.  
 "Cyclical Components in Stock Returns", European Finance 90.

### Program Committee and Referee Work

**Organizer:** Montreal Financial Econometrics Conference, 2007 and 2009.

#### Program Committees

Co-chair: 8<sup>th</sup> Computational and Financial Econometrics Conference, Pisa, Dec. 2014  
 SOFIE 7<sup>th</sup> Annual Conference, Toronto, April 2014 SOFIE inaugural conference, NYU, June 2008  
 Northern Finance Association conference, Montreal 2006  
 CIREQ conference on Financial Econometrics, Montreal 2005  
 Society for Computational Economics Conf., CEF 1999, Boston.

**Scientific committee** 2005, FQRSC, Quebec Research Fund on Society and Culture.

**Referee:** AER, JBES, J. Applied Econometrics, J. Econometrics, J. Empirical Finance, J. International Money and Finance, JF, J. Financial Intermediation, JFQA, Journal of Risk, Management Science, Mathematical Finance, NSF, RFS.

#### Awards and Grants

|   |            |
|---|------------|
| American Risk & Insurance Association                           | 2013       |
| HEC Professorship in Derivative Products                        | Since 2007 |
| FQRSC grant for support to research teams                       | 2004-2008  |
| Graham and Dodd Award of Excellence, Financial Analysts Journal | 2002       |
| Research grant, Boston College                                  | 1999, 2001 |
| Teaching, Advising and Mentoring Grant, Boston College          | 1999       |
| Faculty fellowship, CSOM Boston College                         | 1998       |
| Q Group (Institute for Quantitative Research in Finance).       | 1996       |
| U.C.L.A. assistantships, dean's lists, Beta Gamma Sigma         | 1982-1984  |

#### Research Interests

Empirical Asset Pricing: Risk and Return, Financial Time Series, Financial Instruments and Contingent Claims, Stochastic Volatility and Risk, Model Risk, Portfolio theory, Financial Econometrics, Bayesian Inference.

### Board Memberships

Financial Analytics Advisory Board, Insightful Corporation, Seattle.  
 Academic Advisory Board, Quantitative Equity Research, 1996-2003. Putnam, Boston. 1998-2004

### Patents

International application 09/691,551 "Optimization system for financial portfolios"

## ACADEMIC TEACHING

### **Boston University School of Management**

|  |            |
|--|------------|
| Options and Futures (MBA)  | 2014       |
| Core Finance Course (Bach.)  | 2013       |
| Simulation Methods and Financial Econometrics (Ms. Math. Finance): | 2012, 2013 |
| Financial Econometrics (Ms. Math. Finance):                        | 2013       |

### **MIT Sloan**

|                                     |           |
|-------------------------------------|-----------|
| Investments                         | 2011-2012 |
| Options and Futures (MBA and MFIN): | 2010-2011 |
| Thesis chaired: 1 MSc               |           |

### **HEC Montreal**

|                                      |                 |
|--------------------------------------|-----------------|
| MSc. Research workshop               | 2003-09         |
| Financial Risk Management (MBA)      | 2004            |
| Financial Econometrics (M.Sc.)       | 2004            |
| Risk in Financial Econometrics (PhD) | 2004-06,2008-10 |
| Portfolio Management (M.Sc.)         | 2005-10         |
| Theses chaired: 2 Ph.D. and 11 MSc   |                 |

### **University of Montreal, Economics Department**

|   |      |
|---|------|
| Deutsche Bank workshop in Advanced Financial Econometrics (PhD) | 2005 |
|---|------|

### **Boston College, Carroll School**

|                                    |              |
|------------------------------------|--------------|
| Portfolio Theory (MBA , MSc):      | 1999-2003    |
| Capital Market Theory (MBA , MSc): | 1997,98      |
| Financial Econometrics (PhD):      | 1997-2003    |
| Investments (MBA , BA):            | 1996, 97, 99 |
| 11 Ph.D. committees (3 chairs)     |              |

### **Wharton**

|                           |      |
|---------------------------|------|
| Investments (MBA and BA): | 1996 |
| 1 Ph.D. committee         |      |

### **Cornell University, Johnson School**

|   |         |
|---|---------|
| Investments and Portfolio Analysis (MBA): | 1992-95 |
| Asset Valuation (MBA):                    | 1991-94 |
| Statistical Methods in Business (MBA):    | 1991-95 |
| 1 Ph.D. committee (chair)                 |         |

### **The University of Chicago Graduate School of Business**

|   |         |
|---|---------|
| Management Science, Intro. Econometrics, Maths for Business (MBA) | 1988-90 |
| Multivariate Econometrics (Ph.D)                                  | 1989-90 |

### **University of Sciences and Technology, Kumasi, Ghana:**

|   |         |
|---|---------|
| Circuit Theory, Electromagnetism, Energy Production. (B.Sc.): | 1980-81 |
|---|---------|

## EXECUTIVE TEACHING

|   |            |
|---|------------|
| Long and Short Run allocation: Classical vs Bayesian Methods, IFM <sup>2</sup> Montreal | 2009       |
| Effects of Estimation Risk on optimal Portfolio Design, IFM <sup>2</sup> Montreal       | 2006       |
| New Methods in Portfolio Management, IFM <sup>2</sup> Montreal                          | 2004       |
| Advanced Correlation Estimation, RISK courses   | 2000-01    |
| Financial Markets Volatility and Portfolio Design IFM <sup>2</sup> /CIRANO              | 2000       |
| Advanced Volatility Estimation, RISK courses  | 1997-98-99 |
| Model Risk in Finance, RISK courses   | 1997-98    |
| Financial Econometrics, RISK courses  | 1997       |