

Caio Almeida

Graduate School of Economics, FGV

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Academic Positions

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|--------------|---|
| 2006-present | Assistant Professor (in tenure track), Graduate School of Economics, Getulio Vargas Foundation |
| 2001-2006 | Assistant Professor , Department of Economics and Business School, IBMEC-RJ |
| 2001-2003 | Adjunct Professor , M.S. Program in Financial Mathematics, IMPA-RJ |
| 2002-2004 | Visiting Researcher , Department of Mathematics, Stanford University |

Education

Ph.D. in Electrical Engineering (Applied Statistics, 2001)

Catholic University of Rio de Janeiro (PUC-RJ)

Post Graduation in Mathematics (Probability, 1999)

National Institute of Pure and Applied Mathematics (IMPA-RJ)

M.Sc. in Electrical Engineering (Applied Statistics, 1998)

Catholic University of Rio de Janeiro

B.Sc. in Computer Engineering, 1995

Catholic University of Rio de Janeiro

Research Interests

Empirical Issues in Finance and Financial Econometrics: Term Structure of Interest Rates; Stochastic Discount Factor Bounds; Stochastic Volatility Models; Credit Risk Models.

Working Papers

1. “Robust Economic Implications of Nonlinear Pricing Kernels”, (2011) (with R. Garcia).
2. “Forecasting Bond Yields with Segmented Term Structure Models”, (2011) (with A. Simonsen, and J. Vicente)

Work in Progress

3. “Robust Assessment of Hedge Fund Performance through Nonparametric Discounting” (2011) (with R. Garcia)
4. “Entropic Estimation of State Price Densities Implicit in Interest Rate Derivatives”, (2011) (with R. Azevedo and D. Kubudi)
5. “Value at Risk Estimation with Empirical Likelihood Probabilities” (2011) (with J. Vicente and R. Garcia)

Publications and Forthcoming

6. Assessing Misspecified Asset Pricing Models with Empirical Likelihood Estimators”, (2011) (with René Garcia), forthcoming *The Journal of Econometrics*.
7. “Do Interest Rate Options Contain Information About Excess Returns?”, (2011) (with J. Graveline and S. Joslin), *The Journal of Econometrics*, Vol. 164, 35-44.
8. “Term Structure Movements Implicit in Asian Option Prices”, (2011) (with J. Vicente), *Quantitative Finance*, forthcoming.
9. “Does Curvature Enhance Forecasting?”, (2009) (with R. Gomes, A. Leite and J. Vicente), *International Journal of Theoretical and Applied Finance*, Vol 12, 8, 1171-1196.
10. “Are Interest Rate Options Important for the Assessment of Interest Rate Risk?”, *Journal of Banking and Finance*, Vol. 33, 7, (2009), 1376-1387. (with J. Vicente)
11. “Identifying Volatility Risk Premia from Fixed Income Asian Options ”, *Journal of Banking and Finance*, Vol. 33, 4, (2009), 652-661. (with J. Vicente)
12. “The Role of No-Arbitrage on Forecasting: Lessons from a Parametric Term Structure Model”, *Journal of Banking and Finance*, Vol. 32, 12, (2008), 2695-2705. (with J. Vicente)
13. “Stochastic Volatility Models and Option Pricing in Brazilian Stock Markets: An Empirical Investigation”, *Journal of Emerging Market Finance*, August 2005 (with S. Dana)
14. “Affine Processes, Arbitrage-Free Term Structures of Legendre Polynomials and Option Pricing”, *International Journal of Theoretical and Applied Finance*, Vol. 8, 2, (2005).
15. “Time-Varying Risk Premia in Emerging Markets: Explanation by a Multi-Factor Affine Term Structure Model”, *International Journal of Theoretical and Applied Finance*, Vol. 7, 7, (2004).
16. “A Generalization of PCA for Non-Observable Term Structures”, *International Journal of Theoretical and Applied Finance*, Vol. 6, 8,

(2003). (with C. Fernandes and A. Duarte)

17. “Credit Spread Arbitrages in Emerging Eurobond Markets”, *Journal of Fixed Income*, 2, December, (2000). (with C. Fernandes and A. Duarte)

16. “Decomposing and Simulating the Movements of Term Structures in Emerging Eurobond Markets”, *Journal of Fixed Income*, 1, 21-31, June, (1998). (with C. Fernandes and A. Duarte)

Refereeing International Journals

Review of Economic Studies (2), Review of Financial Studies (2), Journal of Econometrics (2), Journal of Financial Econometrics (3), Journal of Banking and Finance (5), Global Finance Journal, Journal of Emerging Markets Finance, International Review of Finance.

Invited Seminars and Conference Seminars

* invited speaker, Toulouse School of Economics Financial Econometrics Conference, Toulouse, May 2012 (scheduled).

* Quantitative and Financial Econometrics Seminar, Stern, NYU, October 2011.

* invited speaker, Measuring Risk Conference, Bendheim Center for Finance, Princeton University, October 2011.

* Invited speaker, 14th School of Time Series and Econometrics, Gramado, August 2011.

* XI Brazilian Meeting of Finance, Rio de Janeiro, July 2011.

* Fourth Annual SoFiE Conference, Chicago, USA, June 2011.

* Lubrafin 2011, Natal, March 2011.

* Stanford Financial Mathematics Seminar, Palo Alto, January 2011.

* UCSD Rady School, San Diego, January 2011.

* Northern Finance Association, Winnipeg, September 2010.

* Brown Bag Baruch College Seminar, New York, September 2010.

* X Brazilian Meeting of Finance, Sao Paulo, July 2010.

* SAFE 2010 Conference, Verona, Italy, June 2010.

* Invited speaker, Workshop on Yield Curve Modelling and Forecasting, Erasmus Univ. Rotterdam, Netherlands, June 2010.

- * EFA, Bergen, Norway, August 2009.
- * ESEM, Barcelona, Spain, August 2009. (co-author presentation)
- * SoFiE European Conference, Geneva, Switzerland, June 2009.
- * AFA Annual Meeting, San Francisco, USA, January 2009.
- * FMA Annual Meeting, Texas, USA, October 2008 (co-author presentation).
- * NFA Annual Meeting, Calgary, Canada, September 2008 (co-author presentation).
- * 63rd European Meeting of the Econometric Society, Milan, Italy, August 2008.
- * European Finance Association Meeting (EFA), Athens, Greece, August 2008 (co-author presentation).
- * EFMA Annual Meeting, Athens, Greece, June 2008 (co-author presentation).
- * WFA Annual Meeting, Hawaii, USA, June 2008.
- * SoFiE Inaugural Conference, New York, USA, June 2008.
- * Imperial College Conference in Financial Econometrics, London, England, May 2008 (co-author presentation).
- * EFMA Symposium on Risk and Asset Management, Nice, France, April 2008.
- * CIREQ GMM Conference, November 2007, (invited seminar) (co-author presentation).
- * 26th Brazilian Colloquium of Mathematics, IMPA, Brazil, July 2007, (invited seminar).
- * University of Montreal, HEC, May 2007.
- * AFA Annual Meeting, Chicago, USA, January 2007, (co-author presentation).

Recent and Forthcoming Invited Discussions

- * "Duality in Mean-Variance Frontiers with Conditioning Information" (by F. Penaranda and E. Sentana), TSE Nonlinear and Financial Econometrics Conference: A Tribute to A. Ronald Gallant, Toulouse, May 2011.
- * "A Stochastic Discount Factor Approach to Asset Pricing Using Panel Data Asymptotics" (by F. Araujo and J.V. Issler), Lubrafin, Natal, March 2011.

- * "The impact of political convergence on financial integration." (by M-C Beaulieu, M-H Gagnon, and L. Khalaf), NFA Meetings, Winnipeg, September 2010.
- * "Macroeconomic Uncertainty, Differences in Beliefs, and Bond Risk Premia" (by A. Buraschi and P. Whelan), SAFE 2010 Conference, Verona, June 2010.
- * "The fourth-quarter consumption growth rate: A pure-macro, not-estimated stock return predictor that works in-sample and out-of-sample." (by S.V. Moller and J. Rangvid), Western Finance Association Meetings, Vancouver, June 2010.
- * "What Gaussian Macro-DTSMs Cannot Tell Us About the Macro Economy?" (By K. Singleton and S. Joslin), Toulouse School of Economics Financial Econometrics Conference, Toulouse, May 2010.
- * "How Useful Are No-Arbitrage Restrictions for Forecasting the Term Structure of Interest Rates?" (By R. Giacomini and A. Carriero), Brazilian Meeting of Finance, Rio de Janeiro, July 2008.
- * "Estimating Asset Correlations from Stock Prices or Default Rates Which Method is Superior?" (By K. Duellmann, J. Kull and M. Kunisch), EFMA Risk and Asset Management Symposium, Nice, April 2008.
- * "Affine Term Structure Models, Volatility, and the Segmentation Hypothesis" (by K. Jacobs and L. Karoui), NFA, Montreal, September 2006.

Teaching Experience

PhD Courses: - (2009): Empirical Finance
 - (2007): Dynamic Asset Pricing

MSc Courses:

- (2012): Asset Pricing, and Statistics & Probability I (scheduled)
- (2011): Continuous Time Finance, and Statistics and Probability I.
- (2010): Asset Pricing, and Statistics & Probability I.
- (2009): Asset Pricing, and Statistics & Probability I.
- (2008): Asset Pricing, and Statistics & Probability I.
- (2007): Asset Pricing.
- (2005): Fixed Income, Derivatives, Topics in Empirical Finance, Risk Management with Value at Risk.
- (2002/2001): Fixed Income Derivatives, Introduction to Fixed Income, Derivatives, Discrete Time Finance, Matlab in Finance.

Undergraduate Courses: Numerical Methods in Finance (2004)

MBA Courses: (2004/2005): Finance with EXCEL, and Portfolio Theory.

Short Courses: (2001 to 2005): Matlab in Finance, Introduc. to Fixed Income Markets, Affine Processes in Finance, Market Risk, and, Derivatives.

Academic Awards

* Post-doctorate Fellowship 2002-2004, Department of Mathematics, Stanford University.

* Special PhD Fellowship 2000-2001, Fundação de Apoio a Pesquisa do Rio de Janeiro (FAPERJ, State Entity)

* PhD Fellowship 1998-1999, Coordenação de Aperfeiçoamento de Pessoal do Ensino Superior (CAPES, Brazilian Government)

* Master of Science Fellowship 1996-1998, Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq, Brazilian Government)

* Fellowships for Undergraduate Studies, 1993-1995, IBM and Catholic University of Rio

PhD Students

-José Vicente (IMPA, 2006)

Thesis: Essays in General Equilibrium and Empirical Finance

-Bruno Lund (Getulio Vargas Foundation, 2009)

Thesis: Essays in Macroeconomics and Dynamic Term Structure Models

-Axel Simonsen (Getulio Vargas Foundation, 2009)

Thesis: Essays in Finance and Macroeconomics

-Daniela Kubudi (Getulio Vargas Foundation, Expected: 2012)

Thesis: Essays on Stochastic Discount Factor Models

-Rafael Moura (Getulio Vargas Foundation, Expected: 2012)

Thesis: Essays on Pricing and Portfolios

Professional Experience

04/2010-03/2012 **Technical Consulting Project at Central Bank of Brazil, Brazil**
Modeling and implementation of No-arbitrage and Equilibrium Affine Models of the Term Structure.

12/2009-04/2011 **Technical Consulting Project at ANBIMA, Brazil**
Modeling and implementation of term structure models for Illiquid Assets.

- 05/2007-02/2008 **Technical Consulting Project at ANDIMA, Brazil**
Modeling and implementation of reduced-form term structure models for Regulation Purposes.
- 11/2006-09/2008 **Technical Consulting Project at Central Bank of Brazil, Brazil**
Modeling and implementation of term structure models with macroeconomic variables.
- 05/2005-07/2006 **Expert on Arbitrage Case: Mellon x Petros, Brazil**
Rxpert report on innumerous question regarding risk management and asset pricing.
- 11/2005-04/2006 **Technical Consulting Project at Itau Bank Broker House**
Modeling and implementation of fixed income models.
- 09/1999-08/2002 **Risk Manager at JGP Hedge Fund, Brazil**
Estimation and management of market risk; performance evaluation of traders and investment funds.
- 10/1996-09/1997 **Fixed Income Quantitative Analyst, Pactual Bank, Brazil**
Pricing and hedging Brady Bonds, Eurobonds, and fixed income options.

Updated: December 2011