

THIAGO DE OLIVEIRA SOUZA

<http://webspace.qmul.ac.uk/tsouza/>

t.souza@qmul.ac.uk

Solvay Brussels School of Economics and Management / ECARES – Université libre de Bruxelles (ULB)

School of Economics and Finance – Queen Mary, University of London

Office Contact Information

School Econ. Fin. – Queen Mary Univ. London
327 Mile End, E14NS, London, UK
Office phone number: +44 (0)20 7882-8843

Home Contact Information

Engenheiro Bicalho, 10/ apto 202
Juiz de Fora, Brazil
Home phone number: +55 32 3216-5213

Undergraduate Studies:

B.Sc., Industrial Engineering, UFRJ, Rio de Janeiro, Brazil, 2003

Graduate Studies:

EPGE – Getulio Vargas Foundation, Brazil, M.Sc. in Economics, 2006

Dissertation Title: “*Asset allocation timing the Ibovespa index*” (in Portuguese)

Queen Mary, University of London, PhD in Economics, 2006 to present

Thesis Title: “*Essays on portfolio selection*”

Expected Completion Date: March/2012

ECARES, Université libre de Bruxelles, PhD Management Science and Economics, 2010 to present

Thesis Title: “*Essays on portfolio selection and regularization methods*”

Expected Completion Date: June/2012

References:

Prof. Marcelo Fernandes (Ph.D advisor)
School Econ. Fin. – Queen Mary Univ. London
327 Mile End, E14NS, London, UK
+44 (0)20 7882-8824; m.fernandes@qmul.ac.uk

Prof. David Veredas (Ph.D advisor)
ECARES – CP114/04 – Av. F.D. Roosevelt 50
1050 Brussels, Belgium
+32 (0)2 650 4218; dveredas@ulb.ac.be

Dr. Nizar Allouch (teaching reference)
School Econ. Fin. – Queen Mary Univ. London
+44 20 7882 8821; n.allouch@qmul.ac.uk

Dr. Christopher Tyson (teaching reference)
School Econ. Fin. – Queen Mary Univ. London
+44 20 7882 8851; c.j.tyson@qmul.ac.uk

Teaching and Research Fields:

Main Fields: Finance and Financial Econometrics

Subfields: Portfolio selection, asset pricing, return forecasting, regularization methods and estimation of high dimensional data sets.

Teaching Experience:

Spring, 2011 **Lecturer:** MSc Quantitative Techniques and Methods, Queen Mary Univ. London

Fall, 2010 **Lecturer:** BA Financial Markets and Institution, Queen Mary Univ. London

2006 - 2010 **Teaching Assistant:**

Graduate (MSc) courses: Empirical Finance, Behavioural Finance, Business Finance, Matrix Algebra.

Undergraduate courses: Futures and Options, Corporate Finance, International Finance, Microeconomics II (4 years), Games and Strategies (4 years), Microeconomics I, Health Economics, Principles of Economics, Statistics.

Non Academic Working Experience:

- Oct05 – Jan06 **Private equity investment analyst, Angra Partners, Sao Paulo - Brazil**
- Sell side valuation of the Argentinean branch of a Brazilian ISP using DCF analysis considering 5 possible buyers. Left the project during the final negotiation.
 - Advising the major stock holder of a rail company on leveraged investments: Modelling the company's debt structure to assess the impact of this further increase.

Presentations in conferences:

- | | |
|------|--|
| 2010 | INFINITI Conference on International Finance, Trinity College. Dublin, Ireland |
| 2009 | 13th ISNIE Conference, UC Berkeley, Haas School of Business. California, USA |
| 2009 | 3rd Italian Congress of Econometrics and Empirical Economics. Ancona, Italy |
| 2008 | CEF-QASS Conference on Empirical Finance, Brunel University. London, UK |
| 2007 | Brazilian Finance Society Meeting. Sao Paulo, Brazil |
| 2006 | Brazilian Finance Society Meeting. Vitoria, Brazil |

Honors, Scholarships, and Fellowships:

- | | |
|-------------|---|
| 2004 – 2006 | MSc Scholarship, CAPES, Brazil |
| 2007 – 2010 | PhD Scholarship, CAPES, Brazil |
| 2006 – 2010 | PhD Fellowship, Queen Mary, University of London, UK |
| 2010 – 2011 | PhD Scholarship, ECARES, Université libre de Bruxelles, Belgium |

Languages:

Portuguese (native speaker), English (fluent), Spanish (intermediate)

Research Papers:

“Strategic asset allocation with heterogeneous beliefs” ([Job Market Paper](#))

Abstract: In this paper, I show how the presence of agents with heterogeneous beliefs generates the price trends observed in the financial markets. I develop an asset pricing model in which agents have long horizon objectives, based on a stream of consumption. Each agent chooses a forecasting model and maximises a recursive utility function. The choice of the forecasting model in each period determines the agent type. However their types change over time according to the relative performance of the forecasting models. This happens because agents have an incentive to adopt the forecasting model with the best performance in the previous period to coordinate with the market. I estimate the asset pricing model using data on the international stock markets. The exercise shows that especially for very risk averse individuals, the accounting for the intertemporal hedging demand is crucial.

Research Papers in Progress

“Regularized minimum-variance portfolios using asset group information” (co-authored with Marcelo Fernandes and Guilherme Rocha)

Abstract: Regularized minimum-variance portfolios obtained by restricting the norm of the portfolio-weights vector to be smaller than a certain value often have better out-of-sample performance than unrestricted ones. The portfolios' performances are further increased by adding an algorithm that takes into account the group structure of the assets in the optimisation procedure. We present and compare two alternatives to include the group structure based on a framework originally applied to improve the finite sample properties of the coefficients obtained by ordinary least squares. We compare empirically the out-of-sample performance of this new class of portfolios with their counterparts that do not use the group information. The Sharpe ratios are statistically larger than the previous ones depending on the choice of the threshold and which norm to restrict, while there is no significant difference otherwise. The new portfolios often outperform the previous ones in terms of lower variance.

“Forecasting investment-grade credit-spreads – A regularized approach”

Abstract: It is common for banks to have liabilities attached to the Treasury's rate and assets attached to a corporate rate. A change in the difference between these rates (i.e., a change in the credit-spread) impacts the banks' balance sheet. In order to forecast this risk, I propose the use of (very) short estimation windows using the lasso estimation. The lasso shrinks some of the estimated coefficients to zero, improving their finite sample performance also allowing the use of smaller estimation windows. I compare the out-of-sample performance of several credit-spread forecasting models for each investment-grade credit-rating in the period between 2000 and 2011. Considering the 6 and 12 months forecasts of AAA-rated credit-spreads, the historical average outperforms, in terms of mean absolute prediction error, the Martingale and several other forecasting models. These models are based on the shape (level, slope and curvature) of the risky and risk-free yield curves, and based also on the spot, forward and average past yields. Considering all other credit-ratings, the forecasts given by the lasso tend to outperform those based on long estimation windows.