Victor Troster

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November 30, 2014

Recruiting Committee
Departament d'Economia Aplicada
Universitat de les Illes Balears
Cra. de Valldemossa, km 7.5
Palma (Illes Balears), España

Dear Recruiting Committee,

I would like to express my interest in the position of Assistant Professor in Econometrics at the Department of Applied Economics at Universitat de les Illes Balears which I saw advertised on econjobmarket.org. I am currently a Ph.D. candidate in Economics at Universidad Carlos III de Madrid in Spain. My Ph.D. involved research in econometrics and culminated in specification and causality tests that provide a detailed approach to evaluate economic relationships, which are useful in many relevant policy analyses.

This position appears to be an ideal blend of my experience in doing research in econometrics and my expertise in teaching and presenting. I have taught many courses in English and in Spanish in which I have worked as a tutor of the students' final tasks. This increased my confidence in communicating my research and improved my teaching skills. I have also organized the Reading Group of Econometrics and participated in international conferences making me ideally suited to a role focusing on writing and presenting high quality research papers.

I will be available for interviews at the 2014 SAe Meeting in Palma de Mallorca, the 2015 AEA/ASSA Meeting in Boston, and the 2015 RES Meeting in London.

I would appreciate an opportunity to discuss my experience in more detail at interview and I look forward to hearing from you.

Yours sincerely,

Victor Troster

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EDUCATION	**Ph.D.** in Economics, Universidad Carlos III de Madrid Dissertation: *"Specification and Causality of Distribution Models"* Advisors: Carlos Velasco | Abderrahim Taamouti	(Exp.) Jul.2015
	M.Phil. in Economics, Universidad Carlos III de Madrid	2012
	M.Sc. in Probability & Statistics, University of São Paulo	2006
	B.A. in Economics, University of São Paulo	2004

RESEARCH INTERESTS

Primary: Econometric Theory, Time Series, Applied Econometrics
Secondary: Parametric Methods, Finance

RESEARCH PAPERS

Job Market Paper:
"A Specification Test of Dynamic Conditional Distribution and Quantile Models"

This paper proposes a practical and consistent specification test of conditional distribution and quantile models for dependent data in a very general setting. An important part of the empirical economic and finance research is conducted under the assumption of the correct specification of dynamic conditional distribution models. Our approach covers conditional distribution models possibly indexed by function-valued parameters, which allows for a wide range of important empirical applications, such as the linear quantile auto-regressive, the CAViaR, and the distributional regression models. Our test statistic is based on a comparison between the estimated parametric and the empirical distribution functions. The new specification test (i) is valid for general linear and nonlinear dynamic models under parameter estimation error, (ii) is robust to dynamic misspecification, (iii) is consistent against fixed alternatives, and (iv) has nontrivial power against $\sqrt{T}$-local alternatives, with T the sample size. As the test statistic is non-pivotal, we propose and theoretically justify a block bootstrap approach to obtain valid inference. Monte Carlo simulations illustrate that the proposed test has good finite sample properties for different data generating processes and sample sizes. Finally, an empirical application to models of Value-at-Risk (VaR) highlights the benefits of our approach.

Other Papers:
"Testing for Granger-Causality in Quantiles"

This paper proposes a consistent parametric test of Granger-causality in quantiles. Although the concept of Granger-causality is defined in terms of the conditional distribution, the majority of papers have tested Granger-causality using conditional mean regression models in which the causal relations are linear. Rather than focusing on a single part of the conditional distribution, we develop a test that evaluates nonlinear causalities and possible causal relations in all conditional quantiles. Our proposed test

provides an omnibus type property: it requires only a model for the marginal quantile regression (under the null of no causality), and then searches for rejections of the null hypothesis in every direction. The proposed test statistic has correct asymptotic size, is consistent against fixed alternatives and has power against Pitman deviations from the null hypothesis. As the proposed test statistic is asymptotically non-pivotal, we tabulate critical values via a subsampling approach. We present Monte Carlo evidence and an application considering the causal relation between the gold price, the USD/GBP exchange rate, and the oil price.

"**On the Predictability of Equilibrium Error on Stock Market Returns**" (with J. Penalva and A. Taamouti)

In this paper, we provide new evidence of the out-of-sample predictability of stock returns. We check if the expected return on an industry portfolio depends on the long-run relationship between excess returns on an industry portfolio and the market portfolio return, which are measured by a co-integrated equilibrium error. We investigate if the equilibrium error term is an anomaly, that may provide better out-of-sample forecasts of stock returns. Our results show that the equilibrium error term exhibits significant out-of-sample forecasting power for industry excess stock returns co-integrated with the market return. We consider trading strategies based on the equilibrium error factor within the Fama-French model that generate predicted returns of higher Sharpe Ratio than a benchmark strategy does.

"**Monotonicity Sign-Based Tests**" (**Work in Progress**)

Monotonicity tests evaluate many relationships in Economics and Finance. For example, Capital Asset Pricing Model (CAPM) theory states that the expected returns of a stock increase accordingly with the betas. However, standard tests do not fully analyse monotonic patterns and therefore cannot control the Type I error. We propose an alternative sign-based monotonicity test that address the problems of low power and controls the rejection probability under the null. We study the behaviour of the proposed test via Monte Carlo simulations and two empirical applications.

TEACHING EXPERIENCE	Econometrics I , TA	Fall 2014
	Time Series Econometrics, TA	Fall 2014
	Economics of the European Integration, TA	Fall 2012-2013
	Microeconomics I, TA	Spring 2013

SCHOLARSHIPS AND AWARDS	**PIF (Spain's Ministry of Education) Scholarship**,	2012-2015
	UC3M Graduate Scholarship, UC3M	2010-2012
	GVCef Fellowship, FGV-SP	2010
	Financial Risk Manager (FRM) Certificate, GARP	2008
	CAPES M.Sc. Fellowship,	2004-2006
	CNPq Scientific Initiation Scholarship,	2002-2003

PRESENTATIONS   Dec.2014 (scheduled), **XXXIX Symposium of the Spanish Economic Association**, Palma de Mallorca, Spain. Presenter, "*A Specification Test of Dynamic Conditional CDF and Quantile Parametric Models*".

Aug.2014, **68th European Meeting of the Econometric Society**, Toulouse, France. Presenter, "*Granger-Causality and Misspecification: a Quantile Regression Approach*".

Apr.2014, **IV Workshop in Time Series Econometrics**, Zaragoza, Spain. Presenter, "*Testing Granger-Causality in Quantiles*".

Mar.2014, **European Network for Training in Economic Research (ENTER Jamboree)**, Stockholm, Sweden. Discussant.

Nov.2013, **4th Year Student Workshop**, Department of Economics, Universidad Carlos III de Madrid (UC3M). Presenter, "*An Omnibus Test for Causality in Quantiles*".

Jun.2013, **Student Seminar**, Department of Economics, Universidad Carlos III de Madrid (UC3M). Presenter, "*Essays in Causality in Quantiles*".

Jun.2011, **XXV International Association of Applied Economics (ASEPELT)**, Santander, Spain. Presenter, "*CDS Premiums as a Predictor of Stock Crisis in Brazil*", with S. Dana and W. Eid Júnior.

Aug.2007, **12th Brazilian Time Series and Econometrics School**, Gramado, Brazil. Presenter, "*Long-Memory Processes Extensions: FI-BREAK and FI-STAR Models*", with C. Tolói.

OTHER EXPERIENCE		
Organizer of the Reading Group of Econometrics, UC3M		2014
Financial Researcher, GVCef at FGV-SP		2010
Risk Manager, Integral Trust Financial Services		2008-09
Economist, PR&A Associates		2007-08
Econometrics Analyst, Brazil's Clearing House (CIP)		2006-07

SKILLS

Computer:	MATLAB, R, STATA, E-VIEWS, GAUSS, LaTeX
Languages:	English (fluent), Spanish (fluent), German (intermediate), Portuguese (native)

REFERENCES

Carlos Velasco (Advisor)
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