



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE ___4718___

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di ___Economia, Management e Metodi Quantitativi___

Scientist- in - charge: _____Prof. Giancarlo Manzi_____

[Name and surname]

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Salehzadeh Nobari
Name	Kaveh
Date of birth	[05, 11, 1988]

PRESENT OCCUPATION

Appointment	Structure
Remote researcher at Aix-Marseille School of Economics	I undertook a part-time appointment at Aix-Marseille School of Economics, the aim of which was to assess the impact of executive constraints on the volatility and risk of listed firms in the MENA region. However, due to constraints imposed by my doctoral studies, the project was briefly halted until very recently.

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
PhD	Econometrics	Durham University	2020
M.Sc.	Economics & Finance	Durham University	2015
M.A.	International Financial Analysis	Newcastle University	2013
B.A. (HONS)	Accounting & Finance	Newcastle University	2011



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REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
N/A	N/A	N/A

FOREIGN LANGUAGES

Languages	level of knowledge
English, Italian, Russian, Persian	Fluent, Intermediate, Fluent, Fluent

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2016	Outstanding Academic Performance in MSc Finance (Economics and Finance)
2016	Best Overall Academic Performance MSc Finance Programmes
2013	Ranked 2 nd out of the entire course

TRAINING OR RESEARCH ACTIVITY

description of activity

My research includes finite-sample sign-based inference in the context of linear and non-linear predictive regressions. Predictors of stock returns are known to be highly persistent with innovations that are correlated with the disturbances in the predictive regressions of the returns. This leads to invalid inference using the conventional t-test, as the coefficient estimates are biased and the test statistic has a non-standard distribution in finite-samples [see Campbell and Yogo (2006) and Stambaugh (1999) among others]. Working in conjunction with my supervisor, Professor Abderrahim Taamouti, and Professor Jean-Marie Dufour from McGill University, we derived point-optimal sign-based tests in the context of predictive regressions that are distribution-free and valid in the presence of the aforementioned bias. Furthermore, they possess good power properties in finite-samples and are shown to be superior to certain existing tests that are intended to be robust against heteroskedasticity.

To obtain feasible test statistics, we impose an assumption on the dependence structure of the signs; namely that the signs follow a Markov process of finite order. Therefore, in the second chapter of my thesis, I obtained feasible test-statistics by relaxing the Markovianity assumption. This was accomplished by decomposing the joint distribution of the signs using the techniques involving the pair-copula constructions of discrete data [see Panagiotelis et al. (2012)]. A very well known issue surrounding copulas is that they are only unique in the presence of continuous variables. Moreover, the remedies suggested in the literature become computationally burdensome as the dimension of multivariate discrete copulas increase [see Joe (2014)]. The manner in which the PCC decomposition for discrete variables is approached in the second chapter of my thesis circumvents the curse of dimensionality.



Finally, in my most recent work, I employ Kullback causality measures [see Gouriéroux et al. (1987)] and Bonferroni type tests [see Campbell and Dufour (1997) and Dufour (1990) among others] to extend the proposed sign-based inference procedures to derive sign-based tests and measures of Granger non-causality. The latter quantifies the degree of causalities, whereas the former provides exact and distribution-free tests for the presence of Granger causality or lack thereof.

PROJECT ACTIVITY

Year	Project
2015-2017	<p>1- Project within the domains of non-parametric hypothesis testing in the presence of highly persistent regressors</p> <p>Predictors of stock returns are often highly persistent with innovations that are correlated with the disturbances in the predictive regression of returns, which leads to invalid inference using the conventional tests. We propose point-optimal sign-based tests in the context of linear and nonlinear models that are valid in the presence of stochastic regressors. The proposed tests are exact, distribution-free, and robust against heteroskedasticity of unknown form. Further, they may be inverted to build confidence regions for the parameters of the regression function.</p>
2016-Present	<p>2- Project within the domains of applied economics and economic theory</p> <p>This project involves studying the impact of executive constraints on the volatility and the risk of listed MENA region firms. Using a two-step estimation approach, we first measure and test the impact of a proxy of executive constraints on the ratio of idiosyncratic volatility to the systematic volatility of 2,330 firms, that belong to 12 countries in the MENA region for the period spanning from 1996 to 2014. Thereafter, we examine the impact of executive constraints on the firms' performance, where the latter is measured using some upper and lower quantiles of the firms' return distributions. Finally, we assess the predictability power of executive constraints on the future returns and examine whether in the presence of predictability power, this measure is of economic value to an investor who makes capital allocation choices. Our empirical results indicate a clear negative impact of the executive constraints on the ratio of idiosyncratic volatility to the systematic volatility, and predictability on future returns is found in the fifth horizon, which corresponds to governmental/presidential cycles.</p>
2017-2019	<p>3- <i>Project within the domains of non-parametric hypothesis testing and dependence modelling using copulas</i></p> <p><i>We extend the flexibility of the exact point-optimal sign-based tests by considering the entire dependence structure of the signs and building feasible test statistics based on pair copula constructions of the sign process. In a Monte Carlo study, we compare the performance of the proposed tests based on pair copula constructions by comparing its size and power to those of certain existing tests that are intended to be robust against heteroskedasticity. The simulation results maintain the superiority of our procedures to existing popular tests.</i></p> <p>4- <i>Project within the domains of measures and tests of Granger causality</i></p> <p><i>Finally, in another project we propose sign-based measures of Granger causality based on the Kullback-Leibler distance that quantify the degree of causalities. Furthermore, we show that by using bound-type procedures, Granger non-causality tests between random variables can be developed as a byproduct of the sign-based measures. The tests are exact, distribution-free and robust against heteroskedasticity of unknown form. We further suggest the VAR sieve bootstrap to reduce the bias and</i></p>



obtain bias-corrected estimators. A Monte Carlo simulation study reveals that the bootstrap bias-corrected estimator of the causality measures produce the desired outcome. Furthermore, the tests of Granger non-causality based on the signs perform well in terms of size control and power.

PATENTS

Patent
N/A
N/A

CONGRESSES AND SEMINARS

Date	Title	Place
Dec 2016	Computational and Financial Econometrics	Seville, Spain
July 2018	The Econometric Society	Cotonou, Benin
July 2019	The Econometric Society	Rabat, Morocco

PUBLICATIONS

Work in progress
Dufour, J.-M., Taamouti, A., Nobari, K. Exact point-optimal sign-based tests for predictive linear and non-linear regressions
Nobari, K. Pair-copula constructions of point-optimal sign-based tests for predictive linear and non-linear regressions
Nobari, K. Sign-based measures and tests of Granger causality

Articles in reviews
N/A
N/A
N/A

Congress proceedings
N/A
N/A
N/A

OTHER INFORMATION

For more information, please refer to my CV and Cover Letter

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of



DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: London, 22/09/2020

SIGNATURE

A handwritten signature in black ink, appearing to be 'M. B.', written over a horizontal line.