

Report Type

Mid Term Award Report

Full Name

Professor Oliver Linton
+ Professor Alexey Onatskiy

Your E-Mail Address

obl20@cam.ac.uk

Faculty/Department

economics

Project Title

Empirical Finance: Methodology and Application

Project Start Date

Aug 01, 2017

Project End Date

Jul 20, 2020

Project Abstract

This is a research project articulated around the goal of measuring financial stability and market quality in contemporary market structures. The project is structured in several subthemes, each containing both econometric methodology and empirical application. Building on ongoing research, we plan to develop methods for measuring liquidity, volatility, and efficiency in both normal times and crisis times; and to evaluate the effects of market structure changes on market performance; to develop methodology that takes full account of the large datasets now available and innovate on the best work in modern statistics, relevant to address the economic and financial questions arising in the design and management of assets markets.

Activities and Achievement

We have hired two postdocs, Marco Geraci and Merrick Li whose research programmes are successful

My PhD student Katjia Smetanina was hired as Assistant Professor at Booth School of Business, Chicago

My PhD student Jeroen Dalderop was hired as Assistant Professor at the Economics Department of the University of Notre Dame

We have several excellent PhD students in progress working on empirical finance topics. We also host a number of visitors from China and Germany and US for varying lengths of stay
We have ran several high profile conferences.

October 2018, market microstructure and liquidity (with Albert Kyle)

May 2018 Big data in Financial Markets (Peter Phillips and Hashem Pesaran, Wolfgang Haerdle and Greg Connor)

We are running a conference in May 2019 on Big Data

Dissemination

Our work has been presented at Bank of England conferences to do with quantitative easing
We will continue to engage with the Bank of England and the FCA

Outputs

Oliver linton has published this book

The Models and Methods of Financial Econometrics. Cambridge University Press. January 2019. ISBN 97811071177154 (hardback), 9781316630334 (paperback), 9781316819302 (ebook)

also these papers

Auld, T. and Linton, O. The Behaviour of Betting and Currency Markets on the Night of the

EU Referendum, (2019) International Journal of Forecasting
Dong, C. and Linton, O. Additive nonparametric models with time variable and both stationary and nonstationary regressors, (2018) Journal of Econometrics
Linton, O. and Mahmoodzadeh, S. Implications of high-frequency trading for security markets, (2018) Annual Review of Economics
Chen, J., Li, D., Linton, O., and Lu, Z. Semiparametric ultra-high dimensional model averaging of nonlinear dynamic time series, (2018) Journal of the American Statistical Association

Also these Bank of England Working papers

The Corporate bond purchase scheme and trading behaviour in the sterling corporate bond market (2019) (with Y. Baranova, L. Boneva, D. Elliott, I. Kaminska, B. Morley, and N. McLaren) Working paper no. 782
An Empirical Analysis of Circuit Breakers on the London Stock Exchange (2018). (with James Brugler, Lucas Pedace and J. Noss) Working paper no. 759

Alexey Onatskiy has published these papers on big data

Johnstone, I. M. and Onatski, A. Testing in High-dimensional Spiked Models, (2018) Annals of Statistics
Onatski, A. and Wang, C. Alternative Asymptotics for Cointegration Tests in Large VARs, (2018) Econometrica

He has these working papers which are all going to be published soon

Onatski, A. and Wang, C. Extreme canonical correlations and high-dimensional cointegration analysis, (2018) CWPE1805
Johnstone, I. M. and Onatski, A. Testing in High-Dimensional Spiked Models, (2018) CWPE1806
Dharmawansa, P., Johnstone, I. M., and Onatski, A. Local Asymptotic Normality of the Spectrum of High-Dimensional Spiked F-Ratios, (2018) CWPE1807
Onatski, A. Asymptotics of the principal components estimator of large factor models with weak factors and i.i.d. Gaussian noise., (2018) CWPE1808

Marco Geraci has published a paper at the Journal of Quantitative Financial Analysis (2018) and the Journal of Financial Stability (2018) and has several working papers. His main paper is about financial stability modelling, but he is now working on short selling
Merrick Li has a paper that is being revised for the Journal of Econometrics, likely published soon. He also has a CWE working paper with me, CWE1908. His main work is about estimating microstructure features from high frequency data

Major Difficulties and Any Other Issues

none

Web Links

<http://www.econ.cam.ac.uk/people/faculty/obl20> and <https://obl20.com/>
<http://www.econ.cam.ac.uk/people/faculty/ao319>

<https://www.inet.econ.cam.ac.uk/our-events/Events-theme/events-by-empirical>

Additional Information

Thank you for the support, it has been very helpful to push forward our research