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PLACEMENT DIRECTORS

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EDUCATION

Ph.D. in Economics, McGill University

expected May 2024

M.A. in Economics, Ewha Womans University

2018

B.A. in Economics, Ewha Womans University

2016

FIELDS OF SPECIALIZATION

Primary: Econometrics, Time-Series Analysis

Secondary: Financial Economics

DISSERTATION

Inference for Models with Mixed-Frequency Data

Committee: Prof. Sílvia Gonçalves (Chair), Prof. John Galbraith, Prof. Saraswata Chaudhuri

JOB MARKET PAPER

“Inference for Factor-MIDAS Regression Models”. (November, 2023)

Abstract: Factor-MIDAS regression models are often used to forecast a target variable using common factors extracted from a large panel of predictors observed at higher frequencies. In the paper, we derive the asymptotic distribution of the factor-MIDAS regression estimator coefficients. We show that there exists an asymptotic bias because the factors are estimated. However, the fact that factors and their lags are aggregated in a MIDAS regression model implies that the asymptotic bias depends on both serial and cross-sectional dependence in the idiosyncratic errors of the factor model. Thus, bias correction is more complicated in this setting. Our second contribution is to propose a bias correction method based on a plug-in version of the analytical formula we derive. This bias correction can be used in conjunction with asymptotic normal critical values to produce asymptotically valid inference. Alternatively, we can use a bootstrap method, which is our third contribution. We show that correcting for bias is important in simulations and in an empirical application to forecasting quarterly U.S. real GDP growth rates using monthly factors.

WORKING PAPERS

“**Bootstrap Inference for Group Factor Models**”, with Sílvia Gonçalves and Benoit Perron. (October, 2023)

Abstract: Recently, Andreou et al. (2019) have proposed a test for common factors based on canonical correlations between factors estimated separately from each group. We propose and theoretically justify a simple bootstrap test that avoids the need to estimate the bias and variance of the canonical correlations explicitly. We verify these conditions for a wild bootstrap scheme similar to the one proposed in Gonçalves and Perron (2014). We also consider an extension of the wild bootstrap that is robust to serial and cross-sectional dependence of the idiosyncratic error terms. Simulation experiments show that our bootstrap method leads to rejection rates closer to the nominal level in all of our designs compared to the asymptotic framework.

WORK IN PROGRESS

“ Bootstrapping Factor Models with Sparse VAR Idiosyncratic Errors”, with Sílvia Gonçalves and Benoit Perron.

“ Prediction Intervals for Nonlinear Factor-Augmented Regression Models”.

TEACHING EXPERIENCE

McGill University - Lecturer

Mathematics for Economists (graduate)

Summer 2022, 2023

Economic Statistics (undergraduate)

Spring 2023

Econometrics 2 Honours (undergraduate)

Winter 2022

McGill University - Teaching Assistant

Introductory Econometrics I (undergraduate)

Fall 2023

Macroeconomic Analysis & Application (undergraduate)

Spring 2023

Econometrics I Honours (undergraduate)

Fall 2022

Microeconomic Theory I (graduate)

Fall 2021

Macroeconomic Theory I (graduate)

Fall 2021

Intro: East Asian Culture - Japan (undergraduate)

Spring 2021

Applied Cross-Sectional Methods (graduate)

Spring 2021

Applied Time-Series & Forecast (graduate)

Spring 2021

Intro: East Asian Culture - Korea (undergraduate)

Fall 2020

Economic Statistics (undergraduate)

Fall 2018 - Fall 2020

Ewha Womans University - Teaching Assistant

Econometrics (graduate)

Fall 2017

Money and Banking (undergraduate)

Fall 2017

Financial Econometrics (undergraduate)

Fall 2017

Introduction to Financial Engineering (undergraduate)

Fall 2017

Financial Economics (undergraduate)

Spring 2017

Microeconometrics (graduate)

Spring 2016

Applied Econometrics (undergraduate)

Spring 2016 - Spring 2017

Statistics for Economics (undergraduate)

Spring 2016 - Fall 2017

CONFERENCE AND SEMINAR PRESENTATIONS

- 2023 Canadian Econometrics Study Group , October (Scheduled)
Econometric Society North American Summer Meeting, June
Society of Financial Econometrics, June
CIREQ Econometrics Conference, May
Virtual Workshop for Junior Researchers in Time Series, April
CIREQ, McGill University, April
- 2022 International Symposium on Econometric Theory and Applications, July
Canadian Economic Association, June
CIREQ, McGill University, April

GRANTS AND AWARDS

2018 - 2024 Graduate Excellence Award, McGill University

OTHER RESEARCH EXPERIENCE

Prof. Sílvia Gonçalves, McGill University *Spring 2022*
Prof. Hosin Song, Ewha Womans University *Spring - Fall 2017*
Prof. Vladimir Hlasny, Ewha Womans University *Fall 2016 - Spring 2017*

COMPUTATIONAL SKILLS

Matlab, STATA, R, Python

LANGUAGES

English (Fluent), Korean (Native), French (Intermediate)

REFERENCES

Prof. Sílvia Gonçalves, McGill University silvia.goncalves@mcgill.ca
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