Noah Stegehuis

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Citizenship: Dutch
Date of Birth: 03/08/1997

Placement director: Prof. Eric Bartelsman   e.j.bartelsman@vu.nl
Placement assistant: Christina Månsson   c.mansson@tinbergen.nl

EDUCATION

2020-2025	**Vrije Universiteit Amsterdam and Tinbergen Institute**
	Ph.D. Econometrics and Data Science. Expected completion: March 2025. Contributor to project of F. Blasques "Econometric Methods for Incorrect Models" (Grant nr: Vidi.195.099).
	Supervisors: Prof. Francisco Blasques, Prof. Siem Jan Koopman and Assoc. Prof. Paolo Gorgi.
2019-2020	**Vrije Universiteit Amsterdam**
	MSc Econometric Theory (Honours Programme), *Cum Laude.*
2015-2018	**Maastricht University**
	BSc Econometrics & Operations Research (Honours Programme), *Cum Laude.* Exchange Semester Econometrics at Hong Kong University of Science and Technology (HKUST).

RESEARCH FIELDS

Primary fields: Econometrics, Causal Inference
Secondary fields: Time series analysis, Macroeconometrics

REFERENCES

Prof. Francisco Blasques, Vrije Universiteit Amsterdam, f.blasques@vu.nl
Prof. Siem Jan Koopman, Vrije Universiteit Amsterdam, s.j.koopman@vu.nl
Assoc. Prof. Paolo Gorgi, Vrije Universiteit Amsterdam, p.gorgi@vu.nl

TEACHING EXPERIENCE

2020-2024	**Teaching Assistant**, Vrije Universiteit Amsterdam, Advanced Econometrics (Msc Econometrics & Data Science)
2020-2024	**Teaching Assistant**, Vrije Universiteit Amsterdam, Business Statistics (BSc International Business Administration)
2020-2024	**Thesis Supervisor** (BSc, MSc Econometrics & Data Science)

OTHER PROFESSIONAL EXPERIENCE

2021-2022   **Churned AI, Research Data Scientist**
Building the Churned Analytics Engine that automatically performs estimation and testing of econometric and machine learning models

2018-2019   **Logex Healthcare Analytics, Work Student**
Providing Dutch hospitals and the National Healthcare Authority (NZA) with insights reports on operation performance

2018   **Accenture**, **Bachelor Thesis Intern**
Consultancy project: Forecasting the sales for fan shop of a Dutch premier league football club in the Netherlands

RESEARCH PAPERS

A Score-Driven Filter for Causal Regression Models with Time-Varying Parameters and Endogenous Regressors **(Job market paper)**
This paper proposes a score-driven model for filtering time-varying causal parameters using instrumental variables. In the presence of suitable instruments, we show that we can uncover dynamic causal relations between variables, even in the presence of regressor endogeneity which may arise because of simultaneity, omitted variables, or measurement errors. Due to the observation-driven nature of score models, the filtering method is simple and practical to implement. We establish the asymptotic properties of the maximum likelihood estimator and show that the instrumental-variable score-driven filter converges to the unique unknown causal path of the true parameter. We further analyze the finite sample properties of the filtered causal parameter in a comprehensive Monte Carlo exercise. Finally, we reveal the empirical relevance of this method in an application to aggregate consumption in macroeconomic data and we provide a time-varying estimate of price elasticity of demand for a dataset on recorded market prices.

RESEARCH IN PROGRESS

Extending Generalised Synthetic Control: Total Effect Estimation in the Presence of Mediators
(with F. Blasques)

Mitigating Estimation Risk: a Data-Driven Fusion of Experimental and Observational Data
(with F. Blasques, S.J. Koopman, P. Gorgi)

CONFERENCES AND SEMINARS

2024   Netherlands Econometrics Study Group, Maastricht
2023   International Association for Applied Econometrics (IAAE) in Oslo
2023   International Conference on Econometrics and Statistics (EcoSta) in Tokyo, Japan
2023   Netherlands Econometrics Study Group, Rotterdam
2021   VU seminar, Econometrics department

MISCELLANEOUS

Programming skills: Python (object oriented), R, SQL, Matlab, LaTeX, MS Excel (VBA), Git
Languages: English (fluent), Dutch (native), French (intermediate), Spanish (pre-intermediate)
Hobbies and interests: Reading, ballet, film, art, architecture, travelling, baking