EMPIRICAL LEGAL STUDIES

Course description
This course introduces students to the field of empirical legal studies, with a strong focus on its role in Law & Economics. The course is divided into three conceptually distinct parts: First, a pre-course enables students to attain some background knowledge in statistics, in order to catch up on basic concepts (e.g. different variable types and data structures, what is a mean/median, and linear vs. non-linear functions). Second, the lectures aim to enable students to understand empirical research, evaluate whether a research design is appropriate for testing a research question, and interpret OLS regression tables. Third, tutorials provide practical tools for conducting empirical research using the software STATA.

Teaching team
Prof. Dr. Roee Sarel   roee.sarel@uni-hamburg.de

Teaching venue
Room 1083a, Von-Melle-Park 5
& Zoom (link will be provided in OpenOlat).

Notes regarding literature:
- Suggested readings are mandatory material whereas optional readings are helpful but less central to the discussion (and are not mandatory reading). It is recommended to read the suggested reading <u>before</u> each class.
- The course slides are also <u>binding material</u>. These slides include additional materials that are not covered in the book but are most certainly relevant for the exam.
- Background literature:
  - Statistics/Econometrics:
    - JAMES H. STOCK AND MARK W. WATSON, INTRODUCTION TO ECONOMETRICS (4TH ed., 2019). (hereinafter: **"Stock & Watson"**)
    - JEFFERY M. WOOLDRIDGE, INTRODUCTORY ECONOMETRICS: A MODERN APPROACH (7th ed., 2017). (hereinafter: **"Woolridge"**)
  - Empirical legal studies in particular:
    - EPSTEIN & MARTIN, AN INTRODUCTION TO EMPIRICAL LEGAL RESEARCH (Oxford University Press, 2014) (hereinafter: "**Epstein & Martin**")
    - FRANS L. LEEUW & HANS SCHMEET, EMPIRICAL LEGAL RESEARCH: A GUIDANCE BOOK FOR LAWYERS, LEGISLATORS AND REGULATORS (Edward Elgar , 2016)
    - KEES VAN DEN BOS, EMPIRICAL LEGAL RESEARCH: A PRIMER (Edward Elgar, 2020)

Evaluation: 100% written exam.

SYLLABUS

A. <u>Lectures</u>

Class 1
From theory to hypotheses (1/2)
Wednesday 5 Janurary 2022, 10-12h.

Suggested readings:
- Epstein & Martin Ch. 2
- Peter H. Schuck, *Why don't Law Professors do more Empirical Research*, 39 J. LEGAL EDUC. 323 (1989).
- Ofer Eldar, *A Lawyer's Guide To Empirical Corporate Governance* (unpublished manuscript) (Sep. 15, 2021) (hereinafter: **"Eldar"**), **only pages 1-17** https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3865358 (hereinafter: "Eldar")

Optional:
- Lee Epstein & Gary King, *The Rules of Inference,* 69 U. CHI. L. REV 1 (2002).
- Richard L. Revesz, *A Defense of Empirical Legal Scholarship*, 69 U. CHI. L. REV 169.(2002):
- Gijs van Dijck et al., *Empirical Legal Research in Europe: Prevalence, Obstacles, and Interventions*, 11 ERASMUS L. REV. 105 (2018).
- Christoph Engel, *Experimental Criminal Law: A Survey of Contributions from Law, Economics and Criminology* (MPI Collective Goods Preprint 2016/7, 2016)
- Christoph Engel, *Behavioral Law and Economics: Empirical Methods* (MPI Collective Goods Preprint 2013/1, 2013).
- Sean P. Sullivan & Charles A. Holt, *Experimental Economics and the Law, in* THE OXFORD HANDBOOK OF LAW AND ECONOMICS: VOLUME I: METHODOLOGY AND CONCEPTS 78 (2017).

Class 2
From theory to hypotheses (2/2) & Making sense of data
Monday 10 Janurary 2022, 10-12h.

Suggested readings:
- Epstein & Martin Ch. 3-5

Optional:
- Eldar, pp. 29-30 (section III about descriptive statistics)

Class 3
Simple hypothesis testing
Wednesday 19 January 2022, 10-12h

Suggested reading: NONE.

Optional:
- David Imhof, *Detecting Bid-rigging Cartels with Descriptive Statistics,* 15 J. COMP. L. & ECON. 427 15.4 (2019).
- David A. Logan, *Libel Law in the Trenches: Reflections on Current Data on Libel Litigation,* 87 VA L. REV. 503, <u>only page 512</u> (2001)

Class 4
Linear Regression: Logic
Friday 21 January 2022, 10-12h

Suggested reading:
- Epstein & Martin Ch. 8

Class 5
Linear Regression: Multiple regression & Interpretation of OLS tables
Monday 23 January 2022, 13-15h

Suggested Reading:
- Epstein & Martin Ch. 9

Optional:
- Roee Sarel & Melanie Demirtas, *Delegation in a Multi-tier Court System: Are Remands in the U.S. Federal Courts Driven by Moral Hazard?,* 68 EUR. J. POL. ECON. (2021)

Class 6
Interaction effects & Non-linear relationships I
Monday 31 January 2022, 10-12h

Suggested Reading:
- Thomas Brambor et al., *Understanding Interaction Models: Improving Empirical Analyses*, 14 POL. ANALYSIS 63 (2006).

Optional
- James A. Stimson et al., *Interpreting Polynomial Regression,* 6. SOC. METHODS & RES. 515 (1978).
- Ulf Andersson et al., *Explaining Interaction Effects Within and Across Levels of Analysis, in* 45 J. INT'L BUS. STUD. 1063 (2014).

Class 7
Interaction effects & Non-linear relationships II
Thursday 3 February 2022, 13-15h

Suggested Reading:
- Stock & Watson Ch. 10
- Wooldridge Ch. 10.

Optional
- Dexter Samida, *The Value of law Review Membership,* 71 U. CHI. L. REV. 1721 (2004).
- Ying Xie & David E. Giles, *A Survival Analysis of the Approval of US Patent Applications,* 43 APPLIED ECON. 1375 (2011)
- Ella Cockbain & Kate Bowers, *Human Trafficking for Sex, Labour and Domestic Servitude: How do Key Trafficking Types Compare and what are their Predictors?,* 72 CRIM. L. & SOC. CHANGE 9 (2019).

Class 8
Time Series & Panel Data
Monday 14 February 2022, 13-15h

Suggested Reading:
- John Armour et al, *Law and Financial Development: What we are Learning from Time-series Evidence*, BYU L. REV. 1435 (2009)
- Stock & Watson, Ch. 10
- Wooldridge, Ch. 10.

Optional :
- Kathryn Zeiler, *The Future of Empirical Legal Scholarship: Where Might We Go from Here*, 66 J. LEGAL EDUC. 78 (2016).
- Hadar Yoana Jabotinsky & Roee Sarel, *How Crisis affects Crypto: Coronavirus as a Test Case* (Jun. 28, 2020) (unpublished manuscript), SSRN Link.

Class 9
Causality
Wednesday 23 February 2022, 13-15h

Suggested Reading:
- JOHUSA ANGRIST & JÖRN-STEFFEN PISCHKE, MOSTLY HARMLESS ECONOMETRICS, chapter 2.1 (Princeton University Press, 2009).
- Jonah B. Gelbach & Jonathan Klick, *Empirical Law and Economics*, *in* THE OXFORD HANDBOOK OF LAW AND ECONOMICS: VOLUME 1: METHODOLOGY AND CONCEPTS 29 (2017).
- Alan S. Gerber & Donald P. Green, *Field Experiments and Natural Experiments, in THE OXFORD HANDBOOK OF POLITICAL SCIENCE* (2008).

Optional:
- Colleen Honigsberg et al., *How does Legal Enforceability affect Consumer Lending? Evidence from a Natural Experiment,* 60 J.L. & ECON. 673 (2017).
- Francesco Drago et al., *The Deterrent Effects of Prison: Evidence from a Natural Experiment,* 117 J. POL. ECON. 257 (2009)
- Anupam B. Jena et al, *Mortality and Treatment Patterns among Patients Hospitalized with Acute Cardiovascular Conditions during Dates of National Cardiology Meetings,* 175 JAMA INTERNAL MED. 237 (2015).
- Christina L. Boyd et al., *Untangling the Causal Effects of Sex on Judging*, 54 AM. J. POL. SCI. 389 (2010.)
- David S. Abrams, *Is Pleading Really a Bargain?*, 8 J. EMPIRIAL LEGAL STUD. 200 (2011).
- Markus Gershitz, *Speeding, Punishment, and Recidivism: Evidence from a Regression Discontinuity Design,* 60 J. L. & ECON. 497 (2017).
- Ity Shurtz, *Malpractice Law, Physicians' Financial Incentives, and Medical Treatment: How Do They Interact?*, 57 J. L. & ECON. 1 (2014).
- Christopher J. Ruhm, *Shackling the Identification Police?,* 85 S. ECON. J. 1016 (2019).

B. **Tutorials**

The tutorials are meant to provide students with both a deeper understanding of the study material and practical tools to conduct an empirical project independently using

the software STATA (version 15 or newer). **Note: students are responsible to attain the software so that is it accessible on their own personal laptops.**
The datasets used in the tutorial are all uploaded in OpenOlat or available online directly from Stata (*webuse* command). The tutorials will have a separate set of slides and will progress continuously through the topics below.

Tutorial dates are as follows:
- Wednesday 5 January 2022, 13-15h
- Monday 10 January 2022, 13-15h
- Monday 17 January 2022, 10-12h
- Monday 24 January 2022, 10-12h
- Wednesday 26 January 2022, 10-12h
- Wednesday 2 February 2022, 10-12h
- Monday 14 February 2022, 10-12h
- Wednesday 23 February 2022, 10-12h
- Monday 28 February 2022, 10-12h **and** 13-15h

1.Stata Basics

1. **Basic commands:** importing files, generating/renaming variable, labelling, browsing/editing, sorting, describing variables.

2. **Graphs:** histogram, bar graph, two-way graphs.

3. **Descriptive statistics:** summary of variables and interpretation of output.

4. **Basics in OLS:** variable prefix, simple regression, multiple regression, understanding Stata's OLS outputs.

2.Advanced commands – OLS & combining databases

1. Working with do-files

2. Loops, storing results, post-estimations.

3. Exporting results (eststo and estab) and graphs (graphsto, graph combine)

4. Combining databases: merging, appending, collapsing, reshaping.

5. Simple hypothesis testing (t-test, ranksum, signrank)

6. Overcoming OLS problems: model specification, heteroscedasticity, outliers (including graphs and tests).

3.Intercepts, interactions and marginal effects

1. Interpreting intercepts in OLS outputs

2. Interacting variables in OLS

3. Margins command, contrasting and graphing marginal effects (Marginsplot)

4. Differentiating between common types of marginal effects: Average marginal effects, Marginal effects at the mean, marginal effects at representative values.

4.Alternative estimators

1. Running probit and logit in stata + Calculating marginal effects

2. Brief overview of additional methods

5. Panel data

1. Xtset and variable prefixes.

2. Descriptives with panel data (xtsum command)

3. Running fixed effects and random effects regressions

6.Causality

1. Running IV regressions and interpreting outputs of ivreg2

2. Brief overview of additional methods in Stata