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## Natural Experiments in Quantitative Economic History: Methods and Applications

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Summer Term 2020

### Organization

This course will take place in the second half of the summer term, starting on **3 June**.

Lectures: Wednesdays, 10:00-11:45 and 12:15-14:00, 3 June – 8 July (Room: S 54, RWII)

Tutorials: Mondays, 10:00-11:45, 8 June – 13 July (Room: S 56, PC-Pool ITS, RWI)

**Corona notice:** Please note that we may have to teach the course online if the lock-down of the university continues. We will keep you posted on e-learning.

**Participation is restricted to 30 students** due to the (allocation on a first come, first served basis). Please sign up for the course on the e-Learning platform.

The course will be taught in English. Lecture notes, data sets and tutorial questions will be made available before each lecture/tutorial on the e-Learning platform.

Grading of the course will be based on a written 90-minute exam.

### Credit points

This elective course gives 6 ECTS (3SWS). The course is eligible for the module area “Specialization” in the MA History and Economics, for the Modulbereich “Individueller Schwerpunkt” of the MSc Economics and the MA Internationale Wirtschaft und Governance, and as an Economics Elective Module in the MA Philosophy and Economics. The course is also eligible for the module „Empirische Wirtschaftsforschung für Fortgeschrittene II” of the MSc Economics. Please get in touch with your programme coordinator and/or one of the lecturers if you have any questions about the eligibility of the course in your study programme.

## Prerequisites

Students should be familiar with basic regression analysis (OLS, univariate and multivariate regression, hypothesis testing), as taught in e.g. Introduction to Empirical Methods or Advanced Empirical Economics I. If you have never worked with Stata before, you might want to consult Mario Larch's short Stata manual [here](#).

## Course description

Cause-effect relationships are at the heart of many important questions in economic history: Did the slave trades (1400-1900) *cause* economic underdevelopment in Africa? Did the invention of the steam engine *cause* the industrial revolution? Did immigration to the United States during the Age of Mass Migration (1850-1920) *cause* economic prosperity? The purpose of this course is to introduce students to the core empirical methods for identifying cause-effect relationships in economics and to apply these methods to questions in economic history. The course will expose students to the concept of causality and explain under which assumptions causal effects can be identified empirically. We will focus on so-called natural experiments, in which individuals, regions or other units are similar in many respects but differ with respect to the factors whose influences we want to study.

The course will have a strong focus on applications and will emphasise problems that economists and economic historians encounter in practice when studying cause-effect relationships. The tutorials will discuss important empirical studies in quantitative economic history and will provide students with the opportunity to apply empirical methods hands-on using the statistical software Stata. While the applications are in economic history, the methods taught in the course are also widely applicable in other areas of economics as well as in other social sciences.

Topics covered include:

1. The problem of causality and randomized control trials
2. Selection on observables and regression specification
3. Instrumental variables
4. Regression discontinuity
5. Differences-in-differences and panel data

## Readings

The following textbook covers the core empirical methods of the course:

Angrist, Joshua D. and Jörn-Steffen Pischke (2014). *Mastering 'Metrics: The Path from Cause to Effect*. Princeton University Press.

For a more advanced treatment, students might want to consult:

Angrist, Joshua D. and Jörn-Steffen Pischke (2009). *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.

In addition, we will discuss and replicate a number of journal articles, which apply the empirical methods to questions in economic history. A tentative list of these articles can be found below:

### Selection on observables and regression specification

- Bauer, Thomas, Sebastian Braun and Michael Kvasnicka (2013). The Economic Integration of Forced Migrants: Evidence for Post-war Germany. *Economic Journal* 123(571): 998-1024.
- Bleakley, Hoyt and Jeffrey Lin (2012). Portage and Path Dependence. *The Quarterly Journal of Economics* 127(1): 587–644.
- Nunn, Nathan (2008). The Long-Term Effects of Africa's Slave Trades. *The Quarterly Journal of Economics* 123(1): 139-176.
- Kline, Patrick and Enrico Moretti (2014). Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority. *The Quarterly Journal of Economics* 129: 275-331.

### Instrumental variables

- Acemoglu, Daron, Simon Johnson and James A. Robinson (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review* 91(5): 1369-1401.
- Becker, Sascha B. and Ludger Woessmann (2009). Was Weber Wrong? A Human Capital Theory of Protestant Economic History. *The Quarterly Journal of Economics* 124(2): 531-596.
- Dittmar, Jeremiah E. (2015). Information Technology and Economic Change: The Impact of the Printing Press. *The Quarterly Journal of Economics* 126(3): 1133–1172.
- Juhász, Réka (2018). Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade. *American Economic Review* 108(11): 3339-3376.

### Regression discontinuity

- Ehrlich, Maximilian and Tobias Seidel (2018). The Persistent Effects of Place-Based Policy: Evidence from the West-German Zonenrandgebiet. *American Economic Journal: Economic Policy* 10(4): 344-74.
- Schumann, Abel (2014). Persistence of Population Shocks: Evidence from the Occupation of West Germany after World War II. *American Economic Journal: Applied Economics* 6(3): 189-205.
- Melissa Dell (2010). The Persistent Effects of Peru's Mining Mita. *Econometrica* 78(6): 1863-1903.

### Differences-in-differences and panel data

- Card, David (1990). The Impact of the Mariel Boatlift on the Miami Labor Market, *ILR Review* 43(2): 245-257.
- Hornung, Erik (2015). Railroads and Growth in Prussia. *Journal of the European Economic Association* 13(4): 699-736.
- Redding, Stephen J. and Daniel M. Sturm (2008). The Costs of Remoteness: Evidence from German Division and Reunification. *American Economic Review* 98(5): 1766-97.
- Richardson, Gary and William Troost (2009). Monetary Intervention Mitigated Banking Panics during the Great Depression: Quasi-Experimental Evidence from a Federal Reserve District Border, 1929-1933. *Journal of Political Economy* 117(6): 1031-1073.