

Special Topics in Applied Econometrics: CROSS-COUNTRY STUDIES

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This course

- is designed for the M.A. Economics of Globalization and European Integration
- outlines research methods in panel econometrics
- features a strong hands-on component:
 - as much theory as necessary
 - as much applications as possible
- as well as a discussion component:
 - relation to real world/everyday problems
 - significance for drawing policy conclusions

Introductory Remarks

Course Language: English

Class Time and Location: 10 am-1 pm each day, Room P112

Course Requirements:

- Participation in discussion (10%)
- Take-home assignment (90%, written in the week following the course)

Course Website: www.marcelbluhm.com

- A panel data set follows a given set of individuals over time, and thus provides multiple observations on each individual over time
- Example: Groups of countries over time
- Types of panel data
 - Small T, large N (traditionally considered in panel data econometrics)
 - Small N, large T (SUR)
 - Large N, large T (data fields)
 - Small N, small T (hopeless)

Introductory Remarks

⇒ Introduction: Why Using Panel Data

Advantages of panel data:

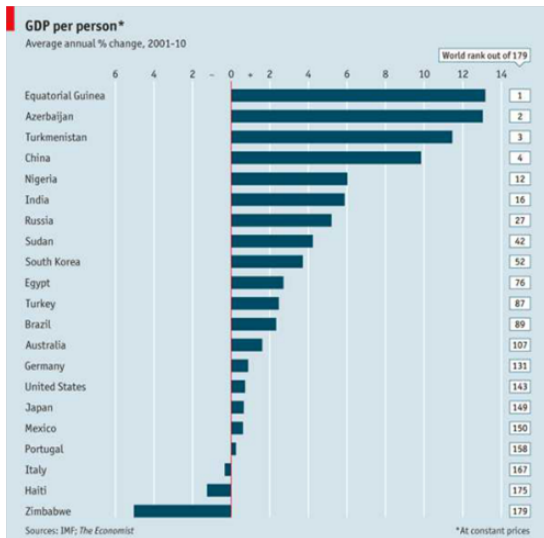
- large number of data points
 - more degrees of freedom
 - less collinearity among explanatory variables
- can control for heterogeneity (effect of cigarette smoking)
- better able to identify and measure effects that are not detectable in pure cross-section or time series data (effect of union membership on wage)

Issues with panel data:

- heterogeneity (intercepts, slopes)
- selection bias (data randomly drawn?)
- data collection difficult

Introductory Remarks

⇒ Cross-Country Differences and Convergence



- ① Linear Panel Models
 - Introduction
 - The Pooled Model
 - Unobserved Effects Panel Data Models
- ② Non-Linear Panel Models
 - Introduction to Non-Linear Models
 - The Probit Model
 - The Tobit Model
 - Panel Sample Selection
 - Issues With Cross-Country Regressions
- ③ Part 3: Relaxing the Exogeneity Assumption
 - Panel GMM
 - The Pooled Model
 - Selection of Instruments
 - The Fixed Effects Model
 - The Random Effects Model
 - Dynamic Panel Data

- ④ Bias Correction Methods
 - Bias Correction in (Dynamic) Linear Panel Models
 - Bias Correction in (Dynamic) Non-Linear Panel Models
 - Bias Correction Methods for Panel Sample Selection