323 M7130
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Department of Economics
National Taiwan University

Ming-Ching Luoh
luohm@ntu.edu.tw
http://homepage.ntu.edu.tw/∼luohm

EMPIRICAL STUDY AND FORECASTING (I)

經大講堂

Friday 18:30-21:20

- Class Webpage: http://homepage.ntu.edu.tw/∼luohm/metrics2007f_emea/metrics2007f_emea.htm
- Textbooks:
  - (**SW**) Stock and Watson (2007), *Introduction to Econometrics*, Addision Wesley, 2nd edition.
- Classes:
  9/21, 29,
  10/5, 12, 19, 26,
  11/2, 9,
  11/16, midterm
  11/23, 30
  12/7, 14, 21, 28
  1/4, 11
  1/18, final.
- Grade: problem sets 20%, midterm 35%, final 45%.
- Topics:
  1. Economic Questions and Data (**SW** 1)
     - Questions
     - Data
  2. Review of Probability (**SW** 2)
     - Distributions
     - Random Sampling and Distribution of the Sample Average
     - Large-Sample Approximations

3. Review of Statistics (**SW** 3)
   - Estimation of the Population Mean
   - Hypothesis Tests
   - Confidence Intervals
4. Bivariate Regression (**SW** 4, **SW** 5)
   - Probability Framework
   - Estimation and hypothesis testing
   - Homoskedasticity
5. Multiple Regression (**SW** 6, **SW** 7)
   - Omitted variable bias
   - Multiple regression model
6. Nonlinear Regression Models (**SW** 8)
   - Modeling nonlinear regression functions
   - Interactions between indpendent variables
7. Assessing Regression Studies (**SW** 9)
   - Internal and external validity
   - Threats to internal validity
8. Panel Data (**SW** 10)
   - Panel data with two periods
   - Fixed effects regression
9. Binary Dependent Variable Models (**SW** 11)
   - Linear Probability Model
   - Probit and Logit Models
10. Instrumental Variables Regression (**SW** 12)
    - General IV regression model
    - Checking instrument validity
    - Where do IV come from?
11. Experiments and Quasi-Experiments (**SW** 13)
    - Difference-in-difference estimator
    - Quasi-experiments
    - Average treatment effect