

Research in Applied Econometrics

Chapter 0. Introduction

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M1 APE Analyse des Politiques Économiques
M1 RISE Gouvernance des Risques Environnementaux

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Plan

- ▶ Motivation
- ▶ Organisation

Course Objectives & Motivations

- ▶ Class in Econometrics
 - ▶ In a unit of English language
- ▶ Goal: Expose students to applied econometrics in **English**
 - ▶ Applied examples with environmental economics data
 - ▶ Students should improve both their applied econometrics skills and their English level
 - ▶ Attendance and interactions in class
- ▶ Focus on applied techniques: **Introduction to R**
 - ▶ More on that later
- ▶ Context : **ex ante** valuation of **public (environmental) policies**
 - ▶ Contingent valuation / stated preferences
 - ▶ In econometrics details
 - ▶ With R commands
 - ▶ With data & examples

The relevance of valuation studies

- ▶ Cost-benefit analysis
 - ▶ Newly in France: public project with a “déclaration d'utilité publique” have to justify that $\text{Benefit} > \text{Cost}$
 - ▶ For market and nonmarket goods & services
 - ▶ Including e.g. value of human life, ecosystem services, patrimonial & heritage values
 - ▶ In principle
 - ▶ How do we compute that ?
 - ▶ That includes environmental “services”, e.g. ecosystem functions
 - ▶ But also all kinds of benefits & costs, e.g. a prison removes criminal from society and helps their rehabilitation
 - ▶ “valeurs tutélaires” (guidelines) & consensual discount rate
- ▶ Damage assessment for non-market goods
 - ▶ France introduced a few years ago the principles of environmental damage and compensation in kind
 - ▶ well-embodied in US legislation
 - ▶ not so much in EU legislation
- ▶ Greening the National Accounts

Course Plan

1. Introduction to R
2. Nonmarket valuation basic theory (maybe not)
 - ▶ French tend to say “évaluation”
 - ▶ English stresses the idea of valuing
 - ▶ “assigning a value”
3. Contingent valuation
 - ▶ Best-known technique
4. Choice experiment (if there’s time)
 - ▶ Harder econometrics

Course Organization

- ▶ 6 lectures of 3.5 hours each
 - ▶ Every week
 - ▶ “Dispense d’assiduité” not possible for language courses
 - ▶ Bring your laptop as much as possible
- ▶ Do not forget it is a language course
 - ▶ Please interrupt me when you don’t understand

Evaluation: “Contrôle continu” in class for 100%

- ▶ About 20’ at some point of **each** lecture
 - ▶ Beginning, end or middle
 - ▶ On what we have seen during that lecture & the previous one (not several)
- ▶ If you miss one, you get zero at that one
 - ▶ The 1st one is just practice
- ▶ No final exam in “first session” in Decembre
 - ▶ “Rattrapage” in June
- ▶ It is **super important** that you read / study the class notes **before** coming to class
 - ▶ That is why we do CC
- ▶ I will try to correct the tests as much as possible

References

- ▶ Aizaki et.al. *Stated Preference Methods Using R*. Chapman and Hall/CRC, 20140815. VitalBook file.
 - ▶ Use DCchoice-package {DCchoice} in R
 - ▶ Base documentation in R
- ▶ Kleiber & Zeilis, *Applied Econometrics with R*, Springer, 2008
- ▶ Wooldridge, J. *Introductory Econometrics : A Modern Approach*, Michigan State University, 2012
 - ▶ [Click this link](#)
 - ▶ BU Chevreul[330.015.2 WOO] (1)
 - ▶ Not [330.015.2 WOO] (2) Econometric analysis of cross section and panel data