

ARE 202 – Applied Microeconomics  
Welfare: Tools and Applications

Spring 2018 (first half)

Thibault FALLY

## Intro

- Course outline
- Requirements

# Goal of this course

- Reconcile you with Micro theory
- Provide various examples to show how this could be useful
- Modelling tips and recommendations
- How to use empirical estimates to make welfare statements and examine counterfactuals
- Cover a couple of recent papers as examples
- Help you get prepared for field courses

# Course outline

## Part 1: Consumer theory and application, welfare analysis

The demand side is present in almost all fields of economics. It is key to evaluate welfare implications of changes in policy, experiments, etc.

- Example of demand systems, price effect and income effects
- Practical applications of revealed preferences
- Tools to measure welfare, and examples

## Part 2: General equilibrium: Production, Factors, Trade...

Goal: combine with production side, general equilibrium analysis

- Production, factors, costs
- Trade and comparative advantage
- Factor markets in open economy
- Taxation and theory of second best

# Course outline in more details

## 1) Consumer theory

- Intro: bridge between utility and demand
- Examples, more on price and wealth effects, non-homotheticity
- Duality, Hicks, Expenditure function
- Aggregation, discrete-choice models

## 2) Applications of revealed preferences

- Implications for indifference curves, deadweight loss, gains from trade, etc.

## 3) Welfare evaluation

- Equivalent and compensating variations
- Consumer surplus
- Price indexes

## 4) Production and industry equilibrium

- Examples of production functions
- Pricing: simple cases (monopoly, monopolistic competition)
- Factor markets
- Industry equilibrium with free entry

## 5) Factors of production, trade and general equilibrium

- Notion of comparative advantage,
- Aggregate gains from trade, Terms of trade
- Unequal gains from trade, Dutch disease

## 6) Taxation and theory of second best

- DWL, Optimal taxation
- Taxes and tariffs in general equilibrium
- Theory of second best: several examples

# Books

I will use a few chapters from two books or more:

- MasCollel, Whinston and Green 1996, ch. 2 to 3, 15 to 17  
“Microeconomic Theory”
- Varian 1993, “Microeconomic Analysis”
- Feenstra 2003, chapters 1, 2, 5  
“Advanced International Trade: Theory and Evidence”

# Articles

Several recent articles to illustrate how we can use what you learnt:

- Examples of utility functions from recent articles (e.g. Comin et al 16)
- Nakamura, Steinsson and Liu (2016):  
Retrieving real income from consumption patterns
- Atkin, Faber and Gonzagez-Navarro (2017):  
How to quantify welfare gains from foreign retail in Mexico
- Cohen, Hahn, Hall, Levitt and Metcalfe (2016):  
PS4: Estimating demand curves and consumer surplus for Uber
- Costinot and Donaldson (2016):  
Gains from market integration across US counties, 1880-1997
- Copeland & Taylor (2004): about Trade and the environment, etc.

# Course requirements?

Grading weights:

- In-class exam (70%)
- Six problem sets (20%)
- Participation and comments on articles (10%)

## Problem sets

Due (almost) every Wednesday

1. Additive and implicitly-additive utility
2. Choke prices
3. Deadweight loss and consumer surplus
4. Returns to factors
5. Krugman model

# I need feedback!

- Participate in class: this is the best way for me to check what you understand, what you don't understand
- Whenever you feel like, please tell me
  - what you like / don't really like
  - whether I should go faster/slower
  - whether you have difficulties with the comments, or with the math, the accent, etc.
- Please come to my office at least once (and before it's too late, if you have any issue)
- Office 301 (Giannini): best to email before we meet.