

ARE 202 (First half)
Applied Microeconomics
Spring 2018
UC Berkeley ARE

Class Time: Monday and Wednesday, 2:00 PM – 3:30 PM
Instructor: Thibault FALLY
Class Room: Dwinelle 210
Class Website: bcourse
Exam: Tentatively March 5th, 2-4pm
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Office Hours: Friday, 3-5 PM and by appointment
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Course Overview

First half of semester: Welfare analysis: consumers, producers and trade.

This module will examine the basic concepts underlying the measurement of welfare changes from both a partial and general equilibrium perspective. The module will draw from consumer theory, welfare, public economics, and trade. The goal is to increase students' familiarity with the basic building blocks of welfare analysis, and to gain experience with both partial and general equilibrium approaches. The course will have an important focus on applications. It aims at providing modeling tools, various examples of what we can learn from the theory, and how we can use the theory to interpret empirical findings.

Topics

1. Demand, wealth and price effects in practice
 - a. Examples of preferences and demand functions
 - b. Price effect and Hicksian demand
 - c. Non-homotheticity and Engel curves
 - d. Practical example of Giffen goods (Jensen and Miller, 2008)
 - e. Hamilton method: application to China (Nakamura, Steinsson and Liu, 2016)

2. Six practical applications of revealed preferences
 - 1) Testing rationality; 2) Shape of indifference curves;
 - 3) Recovering preferences; 4) Comparison between Laspeyres and Paasche indexes;
 - 5) Tax deadweight loss: food stamp example; 6) Welfare gains from trade,

3. Tools to measure consumer welfare
 - a. Equivalent and compensating variations, consumer surplus
 - b. Willingness-to-pay, willingness-to-accept
 - c. Quick intro to price indexes (Paasche, Laspeyres, Tornqvist, Sato-Vartia)
 - d. Measuring welfare effects in practice, Atkin et al (2017)

4. Welfare on the supply side
 - a. Returns to scale: fixed costs, externalities
 - b. Examples of production functions and costs functions
 - c. Producer surplus, Hotelling's lemma
 - d. Factors of production: Shephard's lemma, MPL, MPK
 - e. Profits and free entry: example with CES preferences and monopolistic competition
 - f. Illustration: PPF in Agriculture across US counties, 1880-1997 (Costinot Donaldson 2017)

5. Welfare gains from trade in two-goods models
 - a. PPF and factor markets: shape and practical examples
 - b. Aggregate gains from trade: illustrations
 - c. Returns to factors, Stolper-Samuelson theorem
 - d. Rybczynski theorem and Dutch disease

6. Taxation, theory of second best
 - a. Tax incidence
 - b. Tax deadweight loss and second-order approximations
 - c. Optimal taxation: some examples; General-equilibrium effect of a tax or tariff
 - d. Theory of second best: some examples

Prerequisites

Econ 201A

Problem sets

There is one problem set due each week, to be handed in class or by email. These problem sets are posted on bcourse. They vary in difficulty. Due dates:

PS1	Wednesday	24-Jan	Additive and implicitly-additive preferences
PS2	Wednesday	31-Jan	Choke prices
PS3	Wednesday	7-Feb	Deadweight loss and consumer surplus
PS4	Wednesday	14-Feb	Returns to factors in closed and open economies
PS5	Monday	26-Feb	Gains from trade in Krugman model

Books

The lectures will not rely on specific books. However, the following books may be useful for some of the lectures (more information on these books is provided on the course webpage):

- A. Mas-Colell, M. Whinston and J. Green (1995), *Microeconomic Theory*, mostly chapters 2-3, 15-17
- Hal Varian (1992), *Microeconomic Analysis*
- A. Deaton and Muellbauer (1980), *Economics and Consumer Behavior*
- R. Feenstra (2003), *Advanced International Trade*, chapters 1, 2 and 5

Papers

We will rely on recent papers to provide examples throughout the course. A tentative and preliminary list of references includes:

- Jensen, R., and N. Miller (2008) "Giffen Behavior and Subsistence Consumption", *American Economic Review*.
- Comin, Lashkari and Mestieri, "Structural Change with Long-run Income and Price Effects", working paper, R&R *Econometrica*
- Nakamura, Steinsson and Lio (2016), "Are Chinese Growth and Inflation Too Smooth? Evidence from Engel Curves", *American Economic Journal: Macroeconomics*
- Atkin D., B. Faber and M. Gonzalez-Navarro (2017), "Retail Globalization and Household Welfare: Evidence from Mexico", forthcoming in the *Journal of Political Economy*.
- Cohen, Hahn, Hall, Levitt and Metcalfe (2017), "Using Big Data to Estimate Consumer Surplus: The Case of Uber", working paper
- Costinot and Donaldson (2017), "How Large Are the Gains from Economic Integration? Theory and Evidence from US Agriculture, 1880-1997", working paper
- Davis and Weinstein (2001), "An Account of Global Factor Trade", *American Economic Review*
- Copeland B. and A. Taylor (2004) "Trade, Growth and the Environment" *Journal of Economic Literature*.

Background papers posted on bcourse:

- Willig, Robert (1976) "Consumer's Surplus Without Apology", *American Economic Review*
- Berry, Levinsohn and Pakes (1995), "Automobile Prices in Market Equilibrium," *Econometrica*.
- Hausman (1981) "Exact Consumer's Surplus and Deadweight Loss", *American Economic Review*
- Vartia (1976), "Ideal Log-Change Index Numbers", *Scandinavian Journal of Statistics*
- Sato (1976), "The Ideal Log-Change Index Number", *Review of Economics and Statistics*
- Rosen and Small (1981), "Applied Welfare Economics with Discrete-Choice Models", *Econometrica*
- Feenstra (1994), "New Product Varieties and the Measurement of International Prices", *American Economic Review*

- Hanoch (1975), "Production and Demand Models with Direct or Indirect Implicit Additivity", *Econometrica*
- Varian (2011), "Revealed Preference and its Applications", mimeo
- Dornbush Fisher and Samuelson (1977), "Comparative Advantage, Trade and Payments in a Ricardian Model with a Continuum of Goods", *American Economic Review*
- Dornbush Fisher and Samuelson (1980), "Heckscher-Ohlin Trade Theory with a Continuum of Goods", *Quarterly Journal of Economics*
- Stolper and Samuelson (1941), "Protection and Real Wages", the *Review of Economic Studies*
- Krugman (1979), "Increasing Returns, Monopolistic Competition, and International Trade" *Journal of International Economics*
- Krugman (1980), "Scale Economies, Product Differentiation, and the Patterns of Trade" *American Economic Review*
- Ramsey (1927), "A Contribution to the Theory of Taxation", *The Economic Journal*