

ECON 500a
General Equilibrium and Welfare Economics
Introduction

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Personal Introduction

- ▶ I will teach the second half of ECON 500a

General Equilibrium and Welfare Economics

- ▶ I'm honored to teach this course
Taught by Debreu, Scarf, Bewley, Geanakoplos, ...

- ▶ About me

- ▶ 2008: BA Economics, Pompeu Fabra
- ▶ 2014: PhD Economics, Harvard
- ▶ 2014-2018: NYU Stern Finance
- ▶ 2018 - onwards: Yale Economics

- ▶ I work on Normative Macro-Finance

- ▶ Study of policy/welfare in macro-finance environments
- ▶ Study of macro-financial policies

Finance + Macro + Public Finance \Leftarrow GE + WE

- ▶ To learn more about my research \Rightarrow Click here and here

This Course

- ▶ I have taught this course in the past: last time during Fall 2019
 - ▶ I expect to teach it going forward
- ▶ This year I will teach a significantly updated version
- ▶ I also teach Econ 531b in the Spring
 - ▶ “Math Econ II: Foundations of Finance and Macroeconomics”
 - ▶ Please consider it if you like what you learn in this course!
 - ▶ Consider also 530a: Math Econ I (taught by John Geanakoplos)

Logistics

- ▶ Office hours: By appointment
 - ▶ Just write me an email, Tuesdays and Thursdays typically work better for me
- ▶ Teaching assistant: Kentaro Sakata (kentaro.sakata@yale.edu)
 - ▶ Office hours: see Canvas
- ▶ Class time: TueThu 8:30: to 9:50
- ▶ Last lecture: 12/5/2019
- ▶ Final exam: Friday, December 13th 2:00 to 4:00pm, B120
- ▶ Problem sets: five assignments
 - ▶ Due dates 10/29, 11/5, 11/12, 11/19, and 12/5
- ▶ Who should be enrolled in this course?
 - ▶ Econ, SOM, and Environment PhD's
 - ▶ Everyone else needs permission (undergrads, pre-docs, other PhD/Masters students)
 - ▶ Auditors need permission too

References

- ▶ I aim to write self-contained lecture notes...
... and eventually turn them into a book
 - ▶ But that may be too ambitious this year
- ▶ Regardless of what I teach, read part 4 (3 and 5 to a lesser extent) of

[MWG] Andreu Mas-Colell, Michael Whinston, and Jerry Green, Microeconomic Theory. Oxford Univ. Press, 1995.

- ▶ I will refer to other texts and papers throughout the course



What is General Equilibrium?

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1. Broad answer (MWG p. 511)

“GE is the study of the economy as a closed and interrelated system that simultaneously determines the values of all variables of interest.”

- ▶ Too broad? Also applies to Game Theory

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2. Narrow answer (MWG p. 511)

“GE is the study of perfectly competitive markets”

- ▶ Too narrow? Planning, imperfect competition, etc.

What is General Equilibrium?

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3. My preferred answer:

“GE is the study of the consumption, exchange, and production of goods (and services)”

▶ GE is different from Game Theory

▶ Limited strategic interaction in GE, typically through prices

What is Welfare Economics?

- ▶ What is Welfare Economics?

“Welfare Economics is the study of how the allocation of resources affects well-being”

- ▶ This course follows a Welfare Primacy approach
 - ▶ Focus on welfare, efficiency, policy, planning problems, etc.
 - ▶ Economics is unique because it can determine what is good and bad ⇒ But this is not easy!

Positive vs. Normative Economics

1. Positive Economics

- ▶ Study the behavior of an economy

2. Normative Economics

- ▶ Study whether economic outcomes are desirable
 - ▶ Central ideas: efficiency and welfare
- ▶ You must distinguish positive from normative results in this course
See Friedman (1953) or Keynes (1891)

GE at Yale

- ▶ GE was a hot topic in the 50's, 60's, and 70's
 - ▶ In particular at Yale/Cowles
- ▶ It vanished as a field
 - More precisely, as a sub-field of microeconomic theory
 - ▶ But it became the foundation of (most?) other fields
- ▶ Static GE
 - ▶ International trade
 - ▶ Public finance
 - ▶ IO
- ▶ Dynamic Stochastic GE
 - ▶ Macro
 - ▶ Finance
 - ▶ International finance
 - ▶ Labor
 - ▶ Development

Outline of the Course

- ▶ Block 1: Static Exchange Economies
 1. Edgeworth Box Economy
 2. Static Exchange Economy
 3. Efficiency and Welfare
 4. Microfounding Competition
 5. Competitive Equilibrium
- ▶ Block 2: Static Production Economies
- ▶ Block 3: Dynamic Stochastic Economies

Philosophy

“The study of economics does not seem to require any specialized gifts of an unusually high order. Is it not, intellectually regarded, a very easy subject compared with the higher branches of philosophy or pure science? An easy subject at which few excel! The paradox finds its explanation, perhaps, in that the master-economist must possess a rare combination of gifts. He must be mathematician, historian, statesman, philosopher—in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man’s nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near to earth as a politician.”

Keynes (1933)

References I

- FRIEDMAN, M. (1953): “The Methodology of Positive Economics,” in *Essays in Positive Economics*, pp. 3–43. University of Chicago Press, Chicago.
- KEYNES, J. M. (1933): *Essays in Biography*. Macmillan and Co., London, Originally published in 1933. See chapter on Alfred Marshall, 1842-1924.
- KEYNES, J. N. (1891): *The Scope and Method of Political Economy*. Macmillan, London.
- MAS-COLELL, A., M. D. WHINSTON, AND J. R. GREEN (1995): *Microeconomic theory*. Oxford University Press.