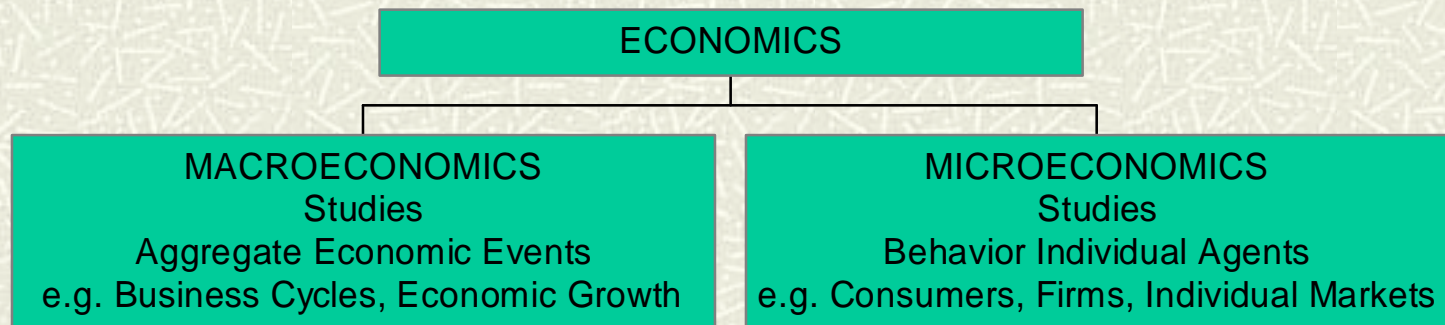


Intermediate Microeconomics

Prof. Daniele Coen-Pirani



Introduction

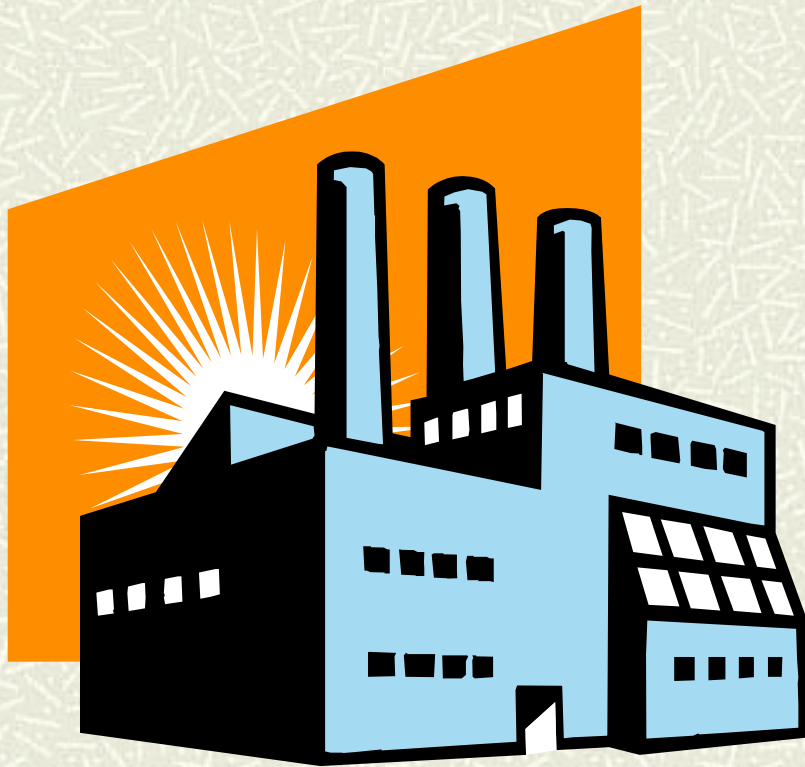


Consumer Theory



- # Budget constraint
- # Preferences and utility
- # Choice
- # Individual demand
- # Market demand and equilibrium

Theory of the Firm



- # Technology
- # Profit maximization
- # Firm supply
- # Industry supply

Monopolies and Oligopolies



- # What are the differences between monopolistic and competitive markets?
- # What causes monopolies?
- # Oligopoly

Externalities and Public Goods



- # Do prices reflect the true costs and benefits of firms' and consumers' actions?
- # Private goods and public goods: the free-rider problem

Example: Deregulation of Power Industry in California

Before deregulation:

- # Pacific Gas & Electric was a **monopoly** regulated by the state
 - # State set rates and guaranteed return on investment to PG&E
 - # Northern Californians paid 50 percent more for electricity than national average
-

Deregulation in 1996

- # Idea: allow for more **competitors** in production of electricity to bring prices down
- # PG&E had to sell its power plants

The Market for Electricity

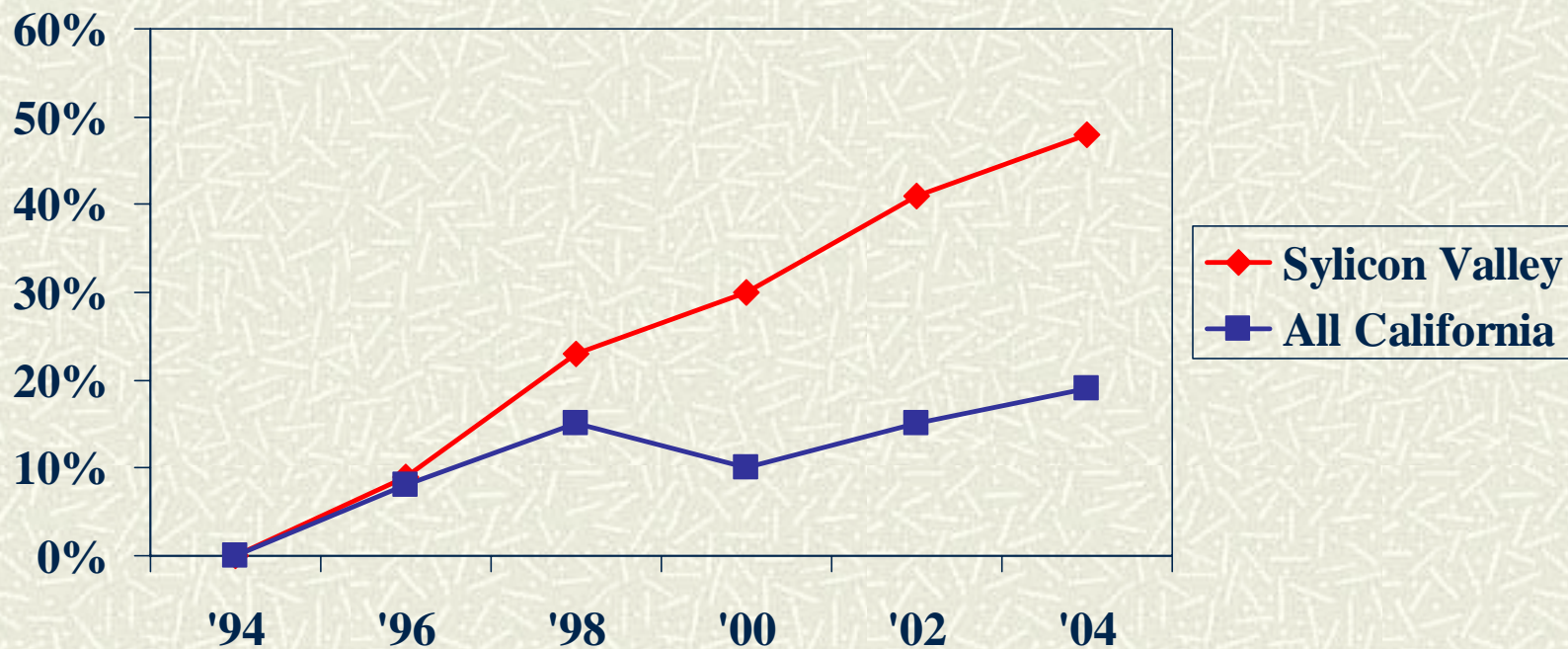


Transition period

- # Concern that in **short-run** the number of power plants was fixed
 - # Thus, from 1996 to late 2000 state-mandated **price caps** kept prices charged by Utilities to Consumers low
 - # However, prices charged by Generators to Utilities were deregulated immediately
-

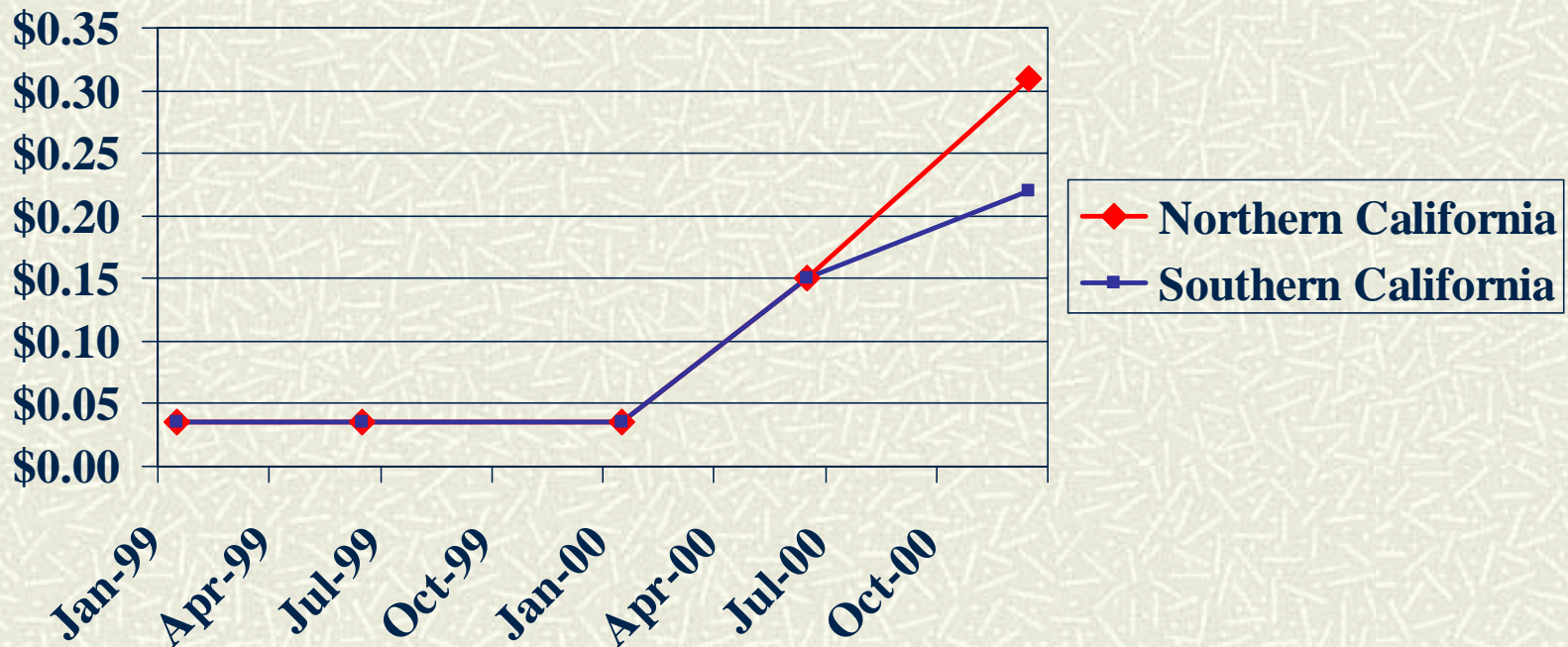
Electricity Consumption in California

Growth in Electricity Consumption since 1994



Wholesale Electricity Prices

Cost of a kilowatt-hour of electricity



Now

- # Utilities are going broke: buy electricity at 30 cents (per kilowatt-hour), sell it at 5 cents
 - # Generators are making large **profits**
 - # In areas where price caps were removed (San Diego) prices tripled
 - # Risk of power **shortages**
-

What went wrong?

No new power plants built after 1996:

Not enough competition among Generators

Subsidized consumption of electricity:

Consumers do not perceive real price of electricity (consume too much)

What about the Environment?

"There is this demand to create cheap power, but what about the **externalities**, water pollution, air pollution ... Older plants can produce cheap electricity but they pollute a lot more." (Eric Wesselman, Union of Concerned Scientists).

Course Organization



Web:

[www.andrew.cmu.edu
/course/73-250spring/
micro.htm](http://www.andrew.cmu.edu/course/73-250spring/micro.htm)

Grades:

- # 2 midterms (50%):
February 19 & April 9
- # Final (35%)
- # 6 problem sets (15%)

Course Organization



- # Textbook:
*Intermediate
Microeconomics* by
Hal Varian &
Workouts
- # Recitations
- # Office hours: TUE &
THU 2pm-3pm

The Math You Need to Know



- # Univariate calculus
- # Drawing graphs of functions (in 2 dimensions)
- # Finding maxima and minima of functions of one variable