



Topic Coverage: Pindyck & Rubinfeld: Microeconomics*

Equilibrium and Efficiency

Textbook Chapter: Chapter 2

MobLab Game: Competitive Market

Key Teaching Points:

- The “invisible hand” of the market: how individual profit maximization leads to competitive market equilibrium.
- Price discovery: the equilibrium market-clearing price results from the valuations of different buyers and costs of different sellers.
- Gains from trade (i.e., consumer and producer surplus).
- Shifts in either supply or demand change equilibrium outcomes.

Utility Maximization

Textbook Chapter: Chapter 3

MobLab Game: Consumer Choice: Cobb-Douglas

Key Teaching Points:

- Become familiar with the Cobb Douglas utility function.
- Monotonic transformations of a utility function do not affect the utility-maximizing consumption bundle.
- Utility maximization can be achieved by sequentially choosing the item with the highest marginal utility per dollar.

Tradeoffs Involving Risk and Time

Textbook Chapter: Chapter 5

MobLab Game: Bomb Risk-Game

Key Teaching Points:

- Helps the player understand expected value and thinking on the margin.
- Helps a player understand her own preferences towards risk, and how risk attitudes vary across a population.

Firm Behavior in a Competitive Market

Textbook Chapter: Chapter 8

MobLab Game: Production, Entry & Exit

Key Teaching Points:

- Short run profit maximization involves thinking at the margin.
- In the long run equilibrium of a competitive market with identical firms, all firms earn zero economic profits.

Market Interventions

Textbook Chapter: Chapter 9

MobLab Game: Competitive Market (with interventions)

* 8th edition.



Key Teaching Points:

- Government interventions (per-unit taxes, subsidies, price ceilings and floors) alter equilibrium outcomes.
- Equilibrium outcomes do not depend on whether buyers or sellers pay the tax.
- The difference between tax incidence and who pays the tax.
- Relative elasticities determine incidence of a tax or subsidy.
- Excess supply (price floors) and excess demand (price ceilings).
- The efficiency implications of government interventions.

Monopoly Pricing

Textbook Chapter: Chapter 10

MobLab Game: Cournot (with Group Size=1)

Key Teaching Points:

- Monopolies restrict output in order to increase price.
- The tension between the quantity price effects of increased output.

Oligopoly and Collusion

Textbook Chapter: Chapter 12

MobLab Game: Cournot

Key Teaching Points:

- The underlying logic of the Cournot model: how market price is determined by aggregate output.
- The equilibrium outcomes of Cournot competition.
- Repeat interaction may lead to collusive behavior.

Game Theory

Textbook Chapter: Chapter 13

MobLab Game: Prisoner's Dilemma

Key Teaching Points:

- Key features of games: payoff matrices, best responses and dominant strategies.
- Identification of the Nash equilibrium.
- The (sometimes) conflicting incentives of cooperation and self-interest.
- Repeated play may lead to more cooperative outcomes.

Unemployment

Textbook Chapter: Chapter 14

MobLab Game: Simple Labor Market

Key Teaching Points:

- When a perfectly competitive market determines wages, the equilibrium wage (per unit of labor) is equal to the value of the marginal product of labor of the last worker hired.
- Employment levels are determined by both the supply and demand of labor.
- Policies such as a minimum wage or unemployment insurance affect structural unemployment.



Asset Valuation

Textbook Chapter: Chapter 15

MobLab Game: Bubbles and Crashes

Key Teaching Points:

- Highlights the determinants of an asset's value: income generated from interest and dividends as well as resale value.
- Shows how asset bubbles may develop even with complete information.

Asymmetric Information

Textbook Chapter: Chapter 17

MobLab Game: Market for Lemons

Key Teaching Points:

- Experience in a market with asymmetric information.
- Asymmetric information may lead to adverse selection and market failure.

Externalities

Textbook Chapter: Chapter 18

MobLab Game: Externalities with Policy Interventions

Key Teaching Points:

- With externalities, the equilibrium of a competitive market without interventions is inefficient.
- By reducing transactions, a tax can increase efficiency (total surplus) in a market with a negative externality
- Marketable permits for an activity generating a negative externality leads to efficiently reducing that activity.

Public Goods

Textbook Chapter: Chapter 18

MobLab Game: Public Good: Linear

Key Teaching Points:

- Highlights the features of public goods: non-rival and non-excludable.
- Demonstrates the distinction between private and social benefits of public goods.
- Shows how individual profit maximization leads to the free-rider problem.