

Other Market Structures: Imperfect Competition

Markets that don't fit

- We have examined two (extreme) types of markets:
 - Perfectly Competitive Markets
 - Monopoly Markets
- Many markets don't fit into these categories, but somewhere in between
- These are often called *Imperfectly Competitive*

Monopolistic Competition

- One type of structure that economists have devised is like a competitive market with a twist
- This twist is that firms in this kind of market produce products that are not identical--heterogeneous products
- They are close but not exact substitutes for other products in these markets

Monopolistic Competition: Market Structure Characteristics

- Many buyers and many sellers
- Free entry and exit (no barriers to entry)
- Differentiated Product

Monopolistic Competition

- These differences are usually called Product Differentiation
- These are differences in the product--which can be either actual or perceived differences in the product's characteristics
- This can include:
 - Location
 - Sizes/Color
 - Quality
 - Perception

Monopolistic Competition

- Advertising is one way to create this differentiation
- Building a brand name and brand loyalty
- Ultimate aim is to gain greater control over the price the firm can charge for the product
- Result: A more inelastic demand for the firm
- methods: Non price competition

Monopolistic Competition

- Short run outcome: firms can earn economic profit (compare pure competition)
- Long run: existence of profits causes:
 - entry by other firms (imitation)
 - non price competition to maintain product differentiation
- Ultimate outcome in Long Run: Zero economic profits
- But firms still face downward sloping demand curves

Oligopoly Markets

- Second type of imperfectly competitive market structure
- Important characteristic: Small number of sellers
- This implies that action of one firm has an important impact on the success (i.e., profits) of other firms in the market
- This is strategic interaction we call *mutual interdependence*

Oligopoly Markets

- These markets are not easy to understand and predict
- Why?
- Because the outcome--for one firm and for the market--depends crucially on the decisions of other firms
- One firm cannot know what other firms will do and therefore must make decisions under conditions of uncertainty

Oligopoly Market

- Given the mutual interdependence, what can firms do?
- One is to behave cooperatively.
- This entails the reaching of a binding agreement.
- This is usually called *explicit cooperation*.

Cooperative Behavior

- *Explicit* cooperation: typically requires some means of communication
- Forming a Cartel: Collusive behavior
- An agreement by which suppliers join to restrict output and raise price and profits
- Examples:
 - U.S.: NCAA; Agricultural Marketing Orders
 - World: Diamond Market; Oil Market (?)
- Internal Problems: Cheating
- External Problems: Entry

Non-Cooperative Behavior

- It is also possible that firms can act as though there is an agreement in place: *Implicit Cooperation*
- There are strong incentives--as we have seen with cartels--to fail to abide by these agreements
- In those circumstances, we can examine the situation in terms of non-cooperative behavior
- The way that this is generally done is to simplify things by looking at two firms: **Duopoly**

Duopoly Models

- In this case, if they cannot cooperate, the two firms treat each other as adversaries
- They have to make a decision about what action to take (their **strategy**), when they do not know what the other firm is going to do
- *Best Response*: a decision maker's best course of action, given what other decision makers are doing.

Equilibrium Concepts

- *Nash Equilibrium*: This is the outcome in which every player is acting optimally, and rationally in their own self interest. In this context, it is in choosing the strategy that maximizes its profit, given the strategies of the other firm. No player can do better than this by a unilateral change in their strategy. This has to be self-enforcing to be viable.

Oligopoly Markets

- We can draw comparisons to other kinds of strategic interactions:
- Playing a game
 - Cards (Poker, Bridge, etc.)
 - Checkers
 - Chess
- Game Theory: a way to model these strategic interactions more formally

The Prisoner's Dilemma

- The most frequently discussed game in a business situation is the Prisoner's Dilemma. It illustrates the fundamental tension between conflict and cooperation.
- In this game, both players (prisoners) would like to cooperate to minimize their sentences but there is a large temptation to turn in (on) the other. A cooperative agreement is difficult to maintain.
- We have a *non cooperative* framework

Prisoner's Dilemma

- We can apply this framework to economic--market--situations, where there would be possible gains if both players could cooperate, but there is the temptation not to cooperate.
- We can also talk about situations where firms could cooperate

Prisoner's Dilemma

- Sometimes, there is one choice or strategy that works no matter what the other player does
- This is called a **Dominant Strategy**
- This strategy is one that works at least as well as any other one, regardless of your rival's actions