Monopolistic Competition

- 3 characteristics of a monopolistically competitive market
  - 1) Many buyers and sellers
  - 2) no major barriers to entry or exit
  - 3) differentiated products

- Note that point 3) is different from perfect competition
Monopolistic Competition

- What is a monopolistically competitive firm?
- A monopolistic firm is the only producer of a differentiated product but there are still close substitutes
- Examples
  - Restaurants - McDonalds vs. Burger King
  - Magazines
  - Newspapers – Des Moines Register vs. Ames Tribune

Monopolistic Competition

- Under monopolistic competition the firm still faces a downward sloping demand curve
  - When it raises the price it charges the quantity demanded will decrease but not to zero
    - Remember that under PC, if a firm raised its price then the amount it could sell went to zero
- The firm will, as always, have the objective of maximizing profit
  - The firm will maximize profit where MR=MC and
    - $P>AVC$ in the SR, or
    - $P>ATC$ in the LR
Monopolistic Competition

- If there are excess profits then other firms will enter
  - These new firms will not be producing the same products, but they will be close substitutes
  - Foreign example with magazines – The Globe and Mail vs. the National Post
    - In the 80’s Canada had one major national paper – the globe and mail, and many regional papers
    - The excess profits enticed (Lord) Conrad Black to launch another paper – The National Post
Monopolistic Competition

- The presence of the other The National Post caused demand for the Globe and Mail to decrease since the two papers were close substitutes.
- This decrease in demand will reduce how much revenue can be earned.
- In the LR and entry of additional firms, profits are driven to zero.

A Monopolistically Competitive Firm in the Long Run – The Globe and Mail

[Diagram showing supply and demand curves with relevant labels.]
Monopolistic Competition

- Note that in the LR the monopolistically competitive firm will always operate at a point to the left of the minimum of the ATC
  - The firm will not produce enough output to reach the minimum cost to produce per unit
    - i.e. it will not achieve the minimum efficient scale

- Recall the LR result for
  - 1) Competition
  - 2) Monopoly

Monopolistic Competition

- Final point on monopolistic competition
  - Under monopolistic competition firms can use methods other than price to sell more goods
    - This is non-price competition

- Why does this not work under perfect competition?
- Would a perfectly competitive firm use non-price competition actions?
- Would a monopolist ever use non-price competition?
Oligopoly

- An oligopoly is a market dominated by a small number of strategically inter-dependent firms
  - Strategic here since the firms actions directly affect those of the other firms
  - Since there are a small number of firms, they realize the interaction amongst themselves
  - This creates an incentive to act strategically since:
    - “They know that I know that they know that I know that…”
- Under monopolistic competition and perfect competition there were so many buyers and sellers that no one firm could affect any other firm

Oligopoly

- Why do oligopolies exist?
  - 1) economies of scale – arise because of minimum efficient scale
    - Construction companies at the local level
    - Biotech companies
    - Multinational corporations
    - Railroad companies
Oligopoly

- Why do oligopolies exist?
  - 1) economies of scale – arise because of minimum efficient scale
  - 2) Reputation as a barrier
  - Strategic barriers
  - Government created barriers
    - US steel companies
    - Zoning
Oligopoly

- How to capture this strategic interaction among firms?
- Mostly use Game Theory
  - This captures explicitly the strategic interaction between firms
  - Strategies
    - Dominant strategy
      - Weakly vs. strictly dominant strategy
    - Dominated strategy

Oligopoly

- Classic example of the prisoners dilemma
  - Two people (Colin and Rose) have committed a crime – say murder
    - They were both seen beating two people – one person got away and the other - less fortunate, person was actually murdered
    - No body was ever found – only these two people know where it is.
    - If they both keep their mouths shut then they will only get convicted of assault – each gets 5 years
    - However, if one (i.e. Colin) confesses and agrees to a plea bargain then they get 3 years but the other individual (Rose) gets 30 years
    - If they both confess then they each get 20 years
Oligopoly

- Classic example of the prisoners dilemma
  - Also assume they Colin and Rose did not really know each other before the crime and do not really care what will happen to each other in the future.
  - What is the solution here?
- Consider the payoff matrix where Rose’s sentence is in orange and Colin’s sentence is in purple

![Figure 4 The Prisoner’s Dilemma](image)
Figure 5  A Duopoly Game

<table>
<thead>
<tr>
<th></th>
<th>Low Price</th>
<th>High Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filip's</td>
<td>$25,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>Gus's profit</td>
<td>$25,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>High Price</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filip's</td>
<td>$75,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Gus's profit</td>
<td>$75,000</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

Figure 7  An Advertising Game

<table>
<thead>
<tr>
<th></th>
<th>Run Safety Ads</th>
<th>Don't Run Ads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run Safety Ads</td>
<td>American earns low profit</td>
<td>American earns very low profit</td>
</tr>
<tr>
<td>United earns low profit</td>
<td>United earns high profit</td>
<td></td>
</tr>
<tr>
<td>Don't Run Ads</td>
<td>American earns high profit</td>
<td>American earns medium profit</td>
</tr>
<tr>
<td>United earns very low profit</td>
<td>United earns medium profit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perfect Competition</td>
<td>Monopolistic Competition</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>ASSUMPTIONS ABOUT:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Firms</td>
<td>Very many</td>
<td>Many</td>
</tr>
<tr>
<td>Output of Different Firms</td>
<td>Identical</td>
<td>Differentiated</td>
</tr>
<tr>
<td>View of Pricing</td>
<td>Price taker</td>
<td>Price setter</td>
</tr>
<tr>
<td>Barriers to Entry or Exit?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Strategic Interdependence?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>PREDICTIONS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price and Output Decisions</td>
<td>MC = MR</td>
<td>MC = MR</td>
</tr>
<tr>
<td>Short-Run Profit</td>
<td>Positive, zero, or negative</td>
<td>Positive, zero, or negative</td>
</tr>
<tr>
<td>Long-Run Profit</td>
<td>Zero</td>
<td>Zero</td>
</tr>
<tr>
<td>Advertising?</td>
<td>Never</td>
<td>Almost always</td>
</tr>
</tbody>
</table>