## Comparison of Market Structures

<table>
<thead>
<tr>
<th></th>
<th>Monopoly</th>
<th>Oligopoly</th>
<th>Monopolistic Competition</th>
<th>Perfect Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of firms</td>
<td>One</td>
<td>Few</td>
<td>Many</td>
<td>Almost infinite</td>
</tr>
<tr>
<td>Barriers to entry</td>
<td>Significant</td>
<td>Significant</td>
<td>Few</td>
<td>None</td>
</tr>
<tr>
<td>Pricing decisions</td>
<td>MC = MR</td>
<td>Strategic pricing</td>
<td>MC = MR</td>
<td>MC = MR = P</td>
</tr>
<tr>
<td>Output decisions</td>
<td>Most output restriction</td>
<td>Output restricted</td>
<td>Output restricted, product differentiation</td>
<td>No output restriction</td>
</tr>
<tr>
<td>Interdependence</td>
<td>No competition</td>
<td>Interdependent decisions</td>
<td>Each firm independent</td>
<td>Each firm independent</td>
</tr>
<tr>
<td>LR profit</td>
<td>Possible</td>
<td>Possible</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>P and MC</td>
<td>P &gt; MC</td>
<td>P &gt; MC</td>
<td>P &gt; MC</td>
<td>P = MC</td>
</tr>
</tbody>
</table>

## Classifying Industries and Markets in Practice

- An industry seldom fits neatly into one category or another
- One way to classify markets in practice is by its cross price elasticity
- **Cross-price elasticity** measures the responsiveness of the change in demand for a good to a change in the price of a related good
  - Goods with a cross-price elasticity of 3 or more are in the same industry

## The North American Industry Classification System

- **North American Industry Classification System (NAICS)** is an industry classification system that categorizes industries by the type of economic activity and groups firms with like production processes

### Two Digit Sectors
- 23 Construction
- 42 Wholesale Trade

### Three to Six Digit Sectors
- 51 Information
  - 517 – Telecommunications
  - 5172 – Wireless telecommunications carriers
  - 517211 – Paging
- 61 Education Services

## Empirical Measures of Industry Structure

- The **concentration ratio** is the value of sales by the top firms of an industry stated as a percentage of total industry sales
- The **Herfindahl index** is the sum of the squared value of the individual market shares of all firms in the industry
- Because it squares market shares, the Herfindahl index gives more weight to firms with large market shares than does the concentration ratio measure

## Concentration Ratios and the Herfindahl Index

<table>
<thead>
<tr>
<th>Industry</th>
<th>Four Firm Concentration Ratio</th>
<th>Herfindahl Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry</td>
<td>46</td>
<td>773</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>52</td>
<td>896</td>
</tr>
<tr>
<td>Breakfast cereal</td>
<td>78</td>
<td>2,999</td>
</tr>
<tr>
<td>Soap and detergent</td>
<td>38</td>
<td>664</td>
</tr>
<tr>
<td>Men’s footwear</td>
<td>44</td>
<td>734</td>
</tr>
<tr>
<td>Women’s footwear</td>
<td>64</td>
<td>1,556</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>34</td>
<td>506</td>
</tr>
<tr>
<td>Computer equipment</td>
<td>49</td>
<td>1,183</td>
</tr>
<tr>
<td>Burial caskets</td>
<td>73</td>
<td>2,965</td>
</tr>
</tbody>
</table>

## Conglomerate Firms and Bigness

- Neither the four-firm concentration ratio nor the Herfindahl index gives a complete picture of corporations’ bigness because many firms are conglomerates
- **Conglomerates** are huge corporations whose activities span various unrelated industries
Oligopoly Models and Empirical Estimates of Market Structure

- The cartel model fits best with empirical measurements because it assumes that the structure of the market is directly related to the price a firm charges.
  - It predicts that oligopolies charge higher prices than monopolistic or perfect competitors.
- The contestable market model gives less weight to the empirical estimates of market structure.
  - Markets that look oligopolistic could be highly competitive.

Chapter Summary

- Monopolistic competition is characterized by:
  - Many sellers
  - Differentiated products
  - Multiple dimensions of competition
  - Ease of entry of new firms
- The central characteristic of oligopoly is that there are a small number of interdependent firms.
- Monopolistic competitors differ from perfect competitors in that the former face a downward sloping demand curve.

Chapter Summary

- Monopolistic competitors differ from monopolists in that monopolistic competitors make zero long-run profit.
- In monopolistic competition firms act independently; in an oligopoly they take account of each other’s actions.
- An oligopolist’s price will be somewhere between the competitive price and the monopolistic price.
- A contestable market theory of oligopoly judges an industry’s competitiveness more by performance and barriers to entry than by structure.

Chapter Summary

- Cartel models of oligopoly concentrate on market structure.
- Industries are classified by economic activity in the North American Industry Classification System (NAICS).
- Industry structures are measured by concentration ratios and Herfindahl indexes.
- A concentration ratio is the sum of market shares of the largest firms in an industry.
- A Herfindahl index is the sum of the squares of the market shares of all firms in an industry.