In this and following chapters I turn away from a consideration of the economy as a whole—and the split between the core and periphery—to focus on competition within individual industries. In some industries firms face an extremely high level of competition. In other industries firms face a muted competitive environment. As competition is a key factor in determining how firms in capitalism behave, it is not surprising that firms in highly competitive industries behave quite differently from firms in industries with low competition.

The next few chapters consider the nature of competition in different industries. It also considers how this different type of competition leads to different uses of the surplus and, with this, different outcomes for the economy. As you remember, capitalism is the first economy system which forces the surplus to be reinvested into the economy. This, in turn, has promoted rapid rates of economic growth within capitalism. A close look at different types of industries will help us understand how different industries both generate a different level of surplus and use this surplus in very different ways. Each type of industry, then, can promote a different kind of economic growth.

**INDUSTRY STRUCTURE**

The demand curve plays a role in price setting in all industries. However, the particular role the demand curve plays in a give industry depends on the particular “industry structure” found in that industry.

Three types of industry structures typically develop within capitalism. The difference between these types of industries is primarily the form and level of competition. The form and level of competition, in turn, are directly related to the height of the barriers to entry found in an industry.
HIGHLY COMPETITIVE INDUSTRIES

Firms in highly competitive industries face relentless competition. Highly competitive industries have

- Very low barriers to entry
- A large number of firms

Many farming industries (wheat, corn, apples, etc) are highly competition. Additionally, copy centers, car repair, and restaurants are also often highly competitive industries.

It is difficult to make high profits in these industries. The rate of business failure in these industries is very high. Businesses in highly competitive industries often open and shut down within a brief period. Further when winners appear in these industries, driving out other firms and earning for themselves high profits, new firms quickly enter the industry to take the place of the firms that were just driven out. Competition grows and profits fall once again to low levels.

Firms in highly competitive industry are, almost by definition, peripheral firms. They are generally small, have little market power, earn low profits, and face a high probability of going out of business.

MONOPOLY

Monopoly is the goal of every capitalist firm. A monopoly industry faces no meaningful competition in the short-run either from another firm in the industry or from another firm outside the industry that sells a substitute product. As a result, some monopolies are able to earn very high profits.

In a monopoly,

- Very high barriers to entry exist
- A single seller exists in the industry
- No close substitute for the product produced by the monopoly exists

The high barrier to entry can be created by a patent, which permits only the firm with the patent to sell the good. Or a high barrier to entry could also be created by legal restrictions that prohibit the entry of new firms. Other sources of barriers to entry have been discussed in a previous chapter.

A monopoly industry often has a single firm. Some monopoly industries, however, have numerous firms. In this latter case, however, the firms act together and set prices collectively.
A monopoly industry is also one in which no other firm or industry sells a product that can be easily used in place of the product that the monopoly sells. Products that can be used in place of each other—known as substitute products—have been discussed in an earlier chapter.

Although some monopolies can lead to great profits for the monopolists, this need not be the case. Many monopolies exist for products that have low demand. For instance, many people own patents for products that no one wants to buy. Monopoly does not guarantee high profits, but some monopolies do earn great profits.

**OLIGOPOLY**

Oligopoly industries are the most important type of industry structure. Firms within oligopoly industries (“oligopoly firms”) produce most of the products that you buy throughout the year. For instance, oligopoly firms produce most of the goods you buy on a weekly basis from the grocery store.

Oligopoly industries have:

- Moderate to high barriers to entry
- Small number of firms dominating the industry

An oligopoly industry can appear as the result of a long competitive process. After competition had reduced the number of competitors within an industry to a small handful of major firms, these remaining major firms might decide to reduce the level of competition they use against each other. If these firms benefit from high barriers to entry, they can keep the number of firms in the industry at the low level achieved by competition. If the barriers to entry are not high enough to keep out new entrants, the firms within the industry can act in a way to keep other firms out, perhaps by starting a price war when a new firm attempts to entry the industry. Once the new entrant is driven out, the price war can be halted.

Oligopoly industries often have a number of smaller firms in addition to the dominant firms. These small firms—peripheral firms—survive by selling product lines that are not profitable enough to gain the attention of the dominant firms. For instance, in the toothpaste industry a few firms dominate the industry and sell a vast majority of the toothpaste in the United States. A few smaller firms sell a limited line of “specialized” toothpaste, for instance many a toothpaste made of all-natural ingredients. As long as the sales level of such an all-natural product remains low (and along with this the total profits
earned by this line of products) the major toothpaste firms will ignore this line of business.

**CONCENTRATION RATIOS AND OLIGOPOLY**

The number of firms in an industry is an indirect measure of the height of barriers to entry in the industry. As such, the number of firms in an industry provides insight into the industry structure of that industry and to the extent of competition within the industry.

Highly competitive industries have “lots” of firms. In an oligopoly, a few firms dominate the industry. A monopoly has one seller (which is often a single firm).

But simply focusing on the number of firms within an industry can mislead us, particularly in the case of oligopoly. In a given industry, a large number of competitors might exist but a very small number of firms dominate the industry.

To take account of this, economists calculate “concentration ratios,” which take into account the importance of the largest firms within an industry. Concentration ratios are generally used to indicate the level of competition within an industry and the existence, or absence, of oligopoly.

Concentration ratios measure the percentage of industry sales account for by the largest four firms. A low concentration ratio suggests a high level of competition. A high concentration ratio suggests low competition.

Table 1-1 calculates the concentration ratios for two hypothetical industries.
In this example, both industries have 30 firms. The table presents, for each industry, the percentage of industry output accounted for by the largest four firms.

The textbook industry is highly concentrated. Although 30 firms exist in the industry, the largest four account for 84% of industry sales. This is an oligopoly industry. A few firms dominate the industry.

The umbrella industry has a low level of concentration. Again 30 firms exist in the industry but in this case the largest four firms account for only 28% of industry sales. This is not enough for these firms to dominate the industry. Although this industry is perhaps not “highly competitive”—it has only 30 firms—it likely does have a fair amount of competition within it.

Table 1-2 table shows concentration ratios for selected US manufacturing industries in a recent year. Industries with high concentration ratios and industries with low concentration levels are presented. Most other US industries have concentration ratios that are between these high and low levels.
Some manufacturing industries in the United States are highly concentrated. The household laundry equipment industry (washers, dryers, and parts for washers/dryers) is dominated by a small number of firms. In fact, this industry had only 10 firms in the survey year (1992). The cigarette industry had only 8 companies while the glass container industry had only 16 companies. The breakfast cereal industry had 42 firms, but the largest of these dominate the industry: the largest 4 accounted for 85% of domestic sales. A number of other industries are similarly concentrated.

Other manufacturing industries have a very low level of concentration. Commercial offset printing had 28,500 firms and very few large firms. Most industries, however, were more concentrated than the commercial offset printing and wood pallets and skids industries. These two industries are among the least concentrated in the US. Competition is quite high within these two industries.

Concentration ratios are generally lower in the retail sector of the economy. Table 1-3 presents some typical concentration ratios for the retail sector.
Table 1-3
Concentration Ratios in Selected Retail Industries

<table>
<thead>
<tr>
<th>Industry</th>
<th>Four-Firm Concentration Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Shoe Stores (SIC 564,9)</td>
<td>69</td>
</tr>
<tr>
<td>Department Stores (SIC 531)</td>
<td>53</td>
</tr>
<tr>
<td>Floor Covering Stores (SIC 5713)</td>
<td>9</td>
</tr>
<tr>
<td>Eating Places (SIC 5812)</td>
<td>8</td>
</tr>
<tr>
<td>Florists (SIC 5992)</td>
<td>1</td>
</tr>
</tbody>
</table>

The Athletic Shoe Store industry and the Department Stores industry are somewhat concentrated. Although the concentration ratios of these two retail industries fall short of some of the concentration ratios found in the manufacturing sector of the US, the Athletic Shoe Store industry is best characterized as an oligopoly while the Department Store industry is a borderline—or weak—oligopoly. A few store chains account for a large portion of sales in these two retail industries.

Other retail industries are much less concentrated. For instance, the largest four firms in the Eating Places industry had among them almost 19,500 establishments. This huge number of establishments, however, is small compared to the astounding 378,000 eating establishments found in the U.S.

Concentration ratios are imperfect measures of the extent of competition and of the existence of oligopoly within an industry. Nevertheless, they do provide guidance about the most likely type of industry structure and level of competition within a given industry.

**CORE/PERIPHERY AND INDUSTRY STRUCTURE**

Firms compete with other firms in industries. Core firms often compete in many different industries. The industry structure of these industries might range from highly competitive to monopoly. Peripheral firms generally compete in a single
industry. This single industry is often highly competitive or the industry is an oligopoly industry and the peripheral firm is a fringe player in the industry.

The following table presents information about the most frequent type of industry structures encountered by core and by peripheral firms.

<table>
<thead>
<tr>
<th>Firm Type</th>
<th>Core</th>
<th>Periphery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monopoly</td>
<td>Important monopolies</td>
<td>Small, unimportant monopolies</td>
</tr>
<tr>
<td>Near Monopoly</td>
<td>Important in these</td>
<td>Small, unimportant near monopolies</td>
</tr>
<tr>
<td>Oligopoly as dominant</td>
<td>Yes</td>
<td>Rare in unimportant oligopolies</td>
</tr>
<tr>
<td>Oligopoly as niche</td>
<td>Rare</td>
<td>Frequent</td>
</tr>
<tr>
<td>Highly Competitive</td>
<td>Rare</td>
<td>Frequent</td>
</tr>
</tbody>
</table>