CHAPTER 15
Monopoly

We have spent a great deal of time on the competitive model, and we now turn to the polar opposite case, that of monopoly.

1. SOURCES OF MONOPOLY

LEARNING OBJECTIVE

1. How do monopolies come about?

A **monopoly** is a firm that faces a downward sloping demand, and has a choice about what price to charge—without fearing of chasing all of its customers away to rivals.

There are very few pure monopolies. The U.S. post office has a monopoly in first-class mail, but faces competition from FedEx and other express mail companies, as well as from fax and e-mail, providers Microsoft has a great deal of market power, but a small percentage of personal computer users choose Apple or Linux operating systems. In contrast, there is only one U.S. manufacturer of aircraft carriers.

Monopoly

A firm that faces a downward sloping demand, and has a choice about what price to charge.

However, many firms have **market power** or monopoly power, which means that they can increase their price above marginal cost and sustain sales for a long period of time.[1] The theory of monopoly is applicable to such firms, although they may face an additional and important constraint: A price increase may affect the behavior of rivals. This behavior of rivals is the subject of the next chapter.

Market power

The ability to increase their price above marginal cost and sustain sales for a long period of time.

A large market share is not proof of a monopoly, nor is a small market share proof that a firm lacks monopoly power. For example, U.S. Air dominated air traffic to Philadelphia and Pittsburgh, but still lost money. Porsche has a small share of the automobile market—or even the high-end automobile market—but still has monopoly power in that market.

There are three basic sources of monopoly. The most common source is to be granted a monopoly by the government, either through patents—in which case the monopoly is temporary—or through a government franchise. Intelsat was a government franchise that was granted a monopoly on satellite communications, a monopoly that ultimately proved quite lucrative. Many cities and towns license a single cable TV company or taxi company, although usually basic rates and fares are set by the terms of the license agreement. New drugs are granted patents that provide the firms monopoly power for a period of time. (Patents generally last 20 years, but pharmaceutical drugs have their own patent laws.) Copyright also confers a limited monopoly for a limited period of time. Thus, the Disney Corporation owns copyrights on Mickey Mouse—copyrights which, by law, should have expired but were granted an extension by Congress each time they were due to expire. Copyrights create monopoly power over music as well as cartoon characters. Time-Warner owns the rights to the song, "Happy Birthday to You," and receives royalties every time that it is played on the radio or other commercial venue.[2] Many of the Beatles' songs which Paul McCartney coauthored were purchased by Michael Jackson.

A second source of monopoly is a large economy of scale. The scale economy needs to be large relative to the size of demand. A monopoly can result when the average cost when a single firm serves the entire market is lower than when two or more firms serve the market. For example, long distance telephone lines were expensive to install; and the first company to do so, AT&T, wound up being the only provider of long distance service in the United States. Similarly, scale economies in electricity generation meant that most communities had a single electricity provider prior to the 1980s, when new technology made relatively smaller scale generation more efficient.

Network externality

Situation that arises when others' use of a product makes it more valuable to each consumer.

The demand-side equivalent of an economy of scale is a **network externality**. A network externality arises when others' use of a product makes it more valuable to each consumer. Standards are a common source of network externality. Since AA batteries are standardized, it makes them more readily accessible, helps drive down their price through competition and economies of scale, and thus makes the AA battery more valuable. They are available everywhere, unlike proprietary batteries. Fax machines are valuable only if others have similar machines. In addition to standards, a source of network externality is third-party products. Choosing Microsoft Windows as a computer operating system means that there is more software available than for Macintosh or Linux, as the widespread adoption of Windows has led to the writing of a large variety of software for it. The JVC Video Home System of VCRs came to dominate the Sony Beta system, primarily because there were more movies to rent in the VHS format than in the Beta format at the video rental store. In contrast, recordable DVDs have been hobbled by incompatible standards of DVD+R and DVD-R, a conflict not resolved even as the next generation—50 GB discs such as Sony's Blu-ray—starts to reach the market. DVDs themselves were slow to be adopted by consumers because few discs were available for rent at video rental stores, which is a consequence of few adoptions of DVD players. As DVD players became more prevalent and the number of discs for rent increased, the market tipped and DVDs came to dominate VHS.

The third source of monopoly is control of an essential, or a sufficiently valuable, input to the production process. Such an input could be technology that confers a cost advantage. For example, software is run by a computer operating system, and needs to be designed to work well with the operating system. There have been a series of allegations that Microsoft kept secret some of the "application program interfaces" used by Word as a means of hobbling rivals. If so, access to the design of the operating system itself is an important input.

KEY TAKEAWAYS

- A monopoly is a firm that faces a downward sloping demand, and has a choice about what price to charge—an increase in price doesn't send most, or all, of the customers away to rivals.
- There are very few pure monopolies. There are many firms that have market power or monopoly power, which means that they can increase their price above marginal cost and sustain sales for a long period of time.
- A large market share is not proof of a monopoly, nor is a small market share proof that a firm lacks monopoly power. There are three basic sources of monopoly: One created by government, like patents; a large economy of scale or a network externality; and control of an essential, or a sufficiently valuable, input to the production process.