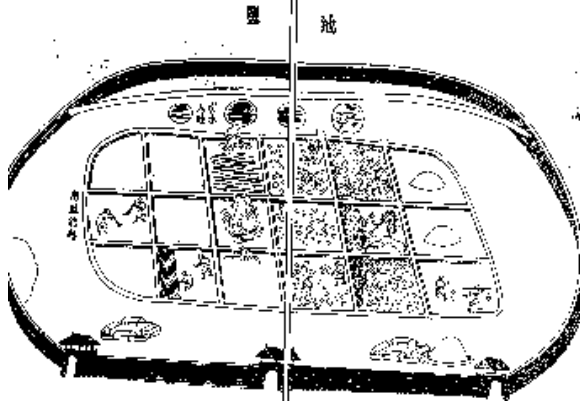


Chapter 11. Monopoly  
Part A, © 2009, Kwan Choi

[http://www.salt.org.il/frame\\_china1.html](http://www.salt.org.il/frame_china1.html)



More than 4000 years ago, China produced salt by boiling saline water in desert and other dry areas. (see the image from the above cite)

Was there a monopolist?



No.

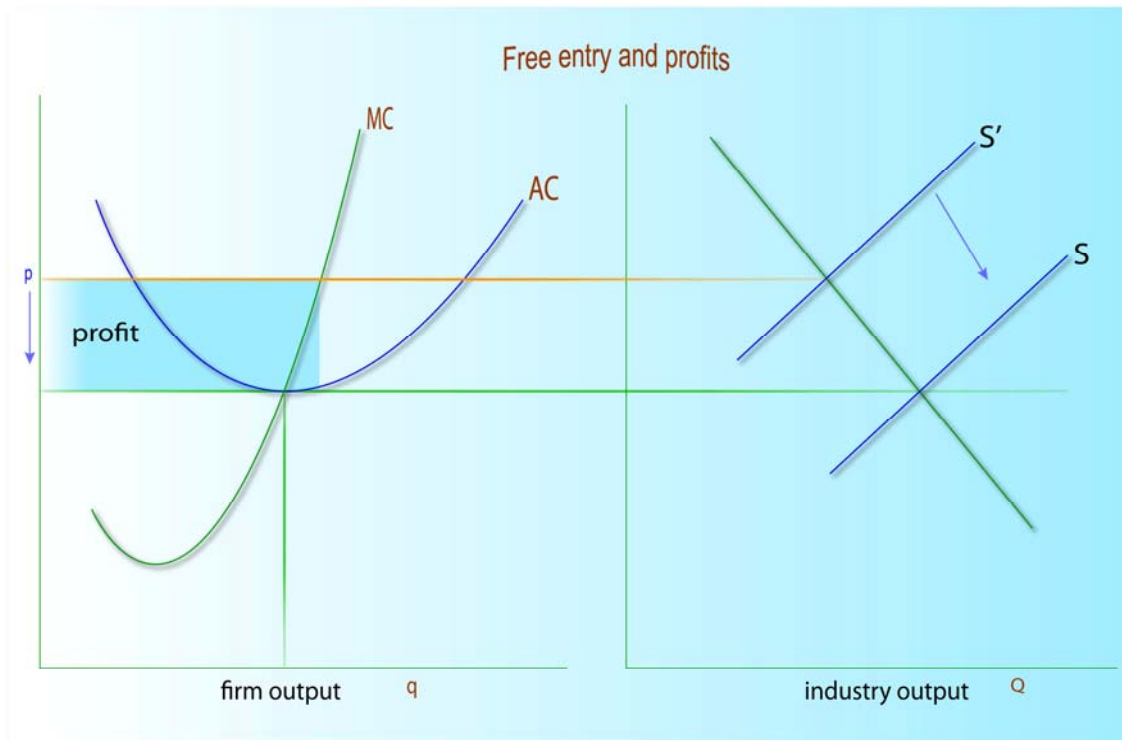
Chi government (a small country during the Warring States period) had a state monopoly in salt around 115 BC in order to curb rising prices of necessities. The government appointed officials to regulate price, transport and production of salt.

Sometimes state officials competed with merchants to lower prices.



**T**rading of salt was a government monopoly from the Han dynasty, but the lucrative profits involved tempted many people to offend the law. The shores of Hong Kong yielded abundant sea salt, and private trading in salt flourished on Lantau Island during the Southern Song period (1127-1279) despite government efforts at suppression. In 1197, riots broke out on Lantau Island over government attempts to prevent such illegal trading. Troops were despatched by the Court with orders to kill all inhabitants on the island.

<p>Production of salt is not complicated. Why wasn't there private firms?</p>	<p>Since the salt industry does not require high-tech like rocket science and many firms can enter, the government outlawed private production of salt.</p> <p>State monopoly is one way to secure monopoly. The US postal service has a monopoly of first class mail delivery.</p>
<p>If there is no state monopoly, private firms will enter the market.</p>	<p>Right.</p> <p>In the early 1980s videocassette recorders (VCRs) were just introduced. VCRs were very pricey in those days. (I paid \$650 for a VCR in 1985)</p> <p>Also, consumers were able to rent videotapes of old movies from video rental outlets. In 1982, the price for a 24-hour rental of a videotape was \$8. Thus, videotape rental business was very profitable.</p>
<p>Was there any entry barrier to the video rental business?</p>	<p>No.</p> <p>What do you think will happen to the rental price of videotapes?</p>
<p>It will gradually converge to the unit cost.</p>	<p>Right.</p> <p>The DVD rental price has gone down to \$1 or 50 cents for old movies, and \$2 for new releases. Competition has driven the price down to unit cost, and economic profits have fallen to zero.</p>





Who invented the automobile?



President Obama claimed the automobile was invented by Americans.

“the nation that invented the automobile cannot walk away from it”.





<http://www.loc.gov/rr/scitech/mysteries/auto.html>

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 Patents protect inventors only from domestic competitors. Competitors in other countries are free to enter the market, unless there is a treaty between the two countries involved or the home country enters the World Trade Organization (WTO). China acceded to WTO in November 2001.
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 People living in the area affected by a nuclear disaster or the neighboring regions are losing hair. Kelp is known to reduce the effects of nuclear hazards on human bodies, including hair loss. A Chinese businessman opened a business selling kelp to Russians. (Temporary monopoly)

	<p><b>MONOPOLY</b></p> <p>Monopoly is a market structure characterized by</p> <ul style="list-style-type: none"> <li>• high entry barriers, and</li> <li>• a single seller of a product for which there are no good substitutes.</li> </ul>
How high the entry barriers have to be?	<p>High barriers and good substitutes are both relative terms.</p> <p>To some degrees, all products are substitutes in the sense that they all satisfy human needs. The product produced by a monopolist is no exception.</p>
The question then is whether there exists a product whose price or output significantly affect the demand for the monopolist's product.	<p>Exactly.</p> <p>For instance, consider the market for electricity.</p> <p>Candles, oil lamps, battery lights are inferior substitutes, which can be used in emergencies.</p>
Natural gas, fuel oil, and wood are excellent substitutes for electric heating.	<p>Right.</p> <p>Monopoly is a matter of degree. Pure monopoly is a rare phenomenon, and difficult to find in the real world, due to globalization.</p>
Can you give us an example of real world monopolies?	<p><i>Post office</i> and most local telephone, gas, electric, and water companies are approximately monopolies.</p>

<p>However, in recent years, e-mail has become a close substitute for postal service and Federal Express.</p>	<p><i>Dolby</i> has a near monopoly on its noise-reduction system for tapes and movies. Other firms have had monopolies on products they invented such as aluminum foil, photocopying machines and various medications.</p> <p>But a monopolist's position is not permanent. Due to changes in consumer demand and technology, close substitutes are likely to be developed over time.</p> <p>Overtime, the number of monopolists is likely to decline.</p>
<p>Why then study monopoly?</p>	<p>For two reasons.</p> <ul style="list-style-type: none"> <li> First, the monopoly model helps us understand the markets that are dominated by few sellers. For example, an industry with a dominant firm has a tendency to behave like a monopoly.</li> <li>When there are few sellers, sometimes they collude and behavior like a monopoly.</li> <li> In some important industries, there is usually a single seller. Local telephone and electricity services provide good examples. In those markets, monopoly model explains the behavior of the single seller.</li> </ul>

<p>What kind of entry barriers are there?</p>	<p><b>Barriers to Entry</b></p> <p>Barriers to entry are costs high enough to prevent potential competitors from entering an industry.</p> <p>Entry barriers may be <i>natural</i>, resulting from lower costs of production, or <i>artificial</i>, created by laws or government regulations.</p>
<p>We have already considered legal barriers.</p>	<p><b>A. Legal Barriers</b></p> <p>Legal barriers are the oldest and most effective method of protecting a business from competition. Governments may restrict the right to buy and sell goods. e.g. in telecommunications industry in the US, one must obtain government franchise.</p> <p>US <i>Postal Service</i>, a government corporation, can legally deliver first class mail in the United States.</p>
<p>However, law does not fully protect monopolies by US postal service. In the 1990s, FedEx became a rival to the postal service.</p>	<p>Over time, competitors began to produce close substitutes.</p> <p>The Postal Service, for example, now competes with private <i>overnight delivery</i> companies, parcel carriers (e.g. UPS), fax machines, and e-mail.</p> <p>Also advertising inserts in newspapers were invented in the 1960s as a way to compete with the Postal Service by substituting newspaper delivery for mail delivery.</p>

<p>Do other countries have state monopolies in mail delivery?</p>	<p><i>1. State monopolies</i> depend on culture.</p> <ul style="list-style-type: none"> <li> Most countries prohibit new firms from competing with their government-owned airlines.</li> <li> Many state governments operate lotteries but prohibit private firms from operating competing lotteries.</li> <li> In the former Soviet Union (FSU), the government had a monopoly on production and sales of most goods, and it prohibited competition.</li> <li> Until recently, a national law in Japan prevented large retail stores from competing with smaller "mama-papa" stores.</li> <li> Similarly, South Korea has a state monopoly of cigarettes.</li> </ul>
<p>Is there any other way to have monopoly?</p>	<p><i>2.Licensing:</i> The US government requires radio and television stations to have licenses.</p> <p>The US Government requires people to obtain licenses to become doctors, lawyers, barbers, and to operate liquor stores, funeral homes, and restaurants, and to stage rock concerts. Sometimes these licenses restrict entry and are expensive.</p>

<p>What about patents?</p>	<p><i>3. Patent and copyrights</i></p> <p>Legal monopoly of a new product or process for 17 years. Polaroid patented the instant-picture cameras it invented. The patent prevented other companies from producing and selling such cameras without Polaroid's permission.</p>
<p>You pay meticulous attention not to infringe copyrights. What about copyrights?</p>	<p>Copyright resembles patent, it protects rights to works of art, books, music, movies, television programs, and paintings.</p> <p>Even the song "<i>Happy Birthday</i>" is copyrighted; you have to pay the copyright owner if you sing it for pay. But singing it at a party without a pay is legal.</p>
<p>Why does the government allow patents and copyrights?</p>	<p>The purpose is to give an <i>incentive</i> to invent new products.</p>



New York Times, February 18, 1987: An engineering professor patented his equations. He argued that his equations did not appear randomly.

Encouraged by a new attitude at the Patent and Trademark Office, universities and corporations are rushing to stake patent claims in a new arena of intellectual property: mathematical equations.

The equations, known more technically as algorithms, use mathematics to solve such problems as how an airline can most efficiently schedule its planes or how a computer should handle data to operate as fast as possible.

<p>Are all monopolies created by legal barriers?</p>	<p><b>B. Economies of Scale</b></p> <p>No.</p> <p>Large economies of scale can also become an entry barrier. Even if there are no legal barriers, in some industries only one firm emerges.</p> <p>In some industries it is impossible to achieve low cost unless it is very large, relative to the market. Economies of scale can prevent small firms from entering the market. This creates <i>natural monopoly</i>.</p>
<p>In the absence of legal barriers and economies of scale, there would not be monopoly.</p>	<p>Still there exist another avenue.</p> <p><b>C. Control of essential resource</b></p> <p>If a single firm has sole control over a resource which is essential to produce a good, it eliminates potential competitors.</p>
<p>Was there such a case?</p>	<p>Example: Aluminum Company of America, before WWI, controlled the world's known bauxite supply. Without this raw material, other competitors cannot produce aluminum.</p> <p>International Nickel Company of Canada at one time owned virtually all the world's nickel.</p>
<p>What about diamonds? Does DeBeers of South Africa have monopoly in diamonds?</p>	<p>DeBeers had once acquired rights to nearly all the world's diamond production, giving it enormous</p>

	<p>power in the market for diamonds.</p> <p>This power has declined over time.</p> <p>Russia, which has huge diamond reserves, began to develop this resource and sell it independently. Its market share is about 20%.</p> <p>Recently, two Canadian geology professors registered the Ekati diamond mine.</p>