

第十五章 Chapter 15

垄断 Monopoly

垄断

Monopoly

竞争企业是价格接受者，而
垄断企业是价格制定者。

While a competitive firm is a
price taker, a monopoly firm is
a price maker.

垄断

Monopoly

☞ 一个企业被认为是垄断者，如果
A firm is considered a monopoly
if

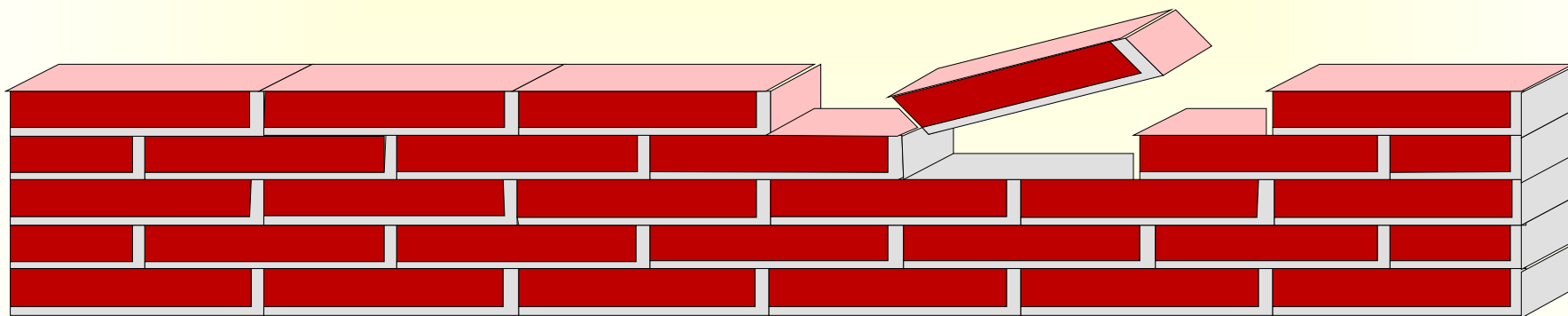
...它是其产品的唯一的卖者。
it is the sole seller of its
product.

...而且其产品没有相近的替代品。
its product does not
have close substitutes.

为什么会产生垄断

Why Monopolies Arise

产生垄断的根本原因是进入障碍。 The fundamental cause of monopoly is barriers to entry.



为什么会产生垄断

Why Monopolies Arise

进入障碍有三个主要来源：

Barriers to entry have three sources:

🌀 关键资源由一家企业所有。

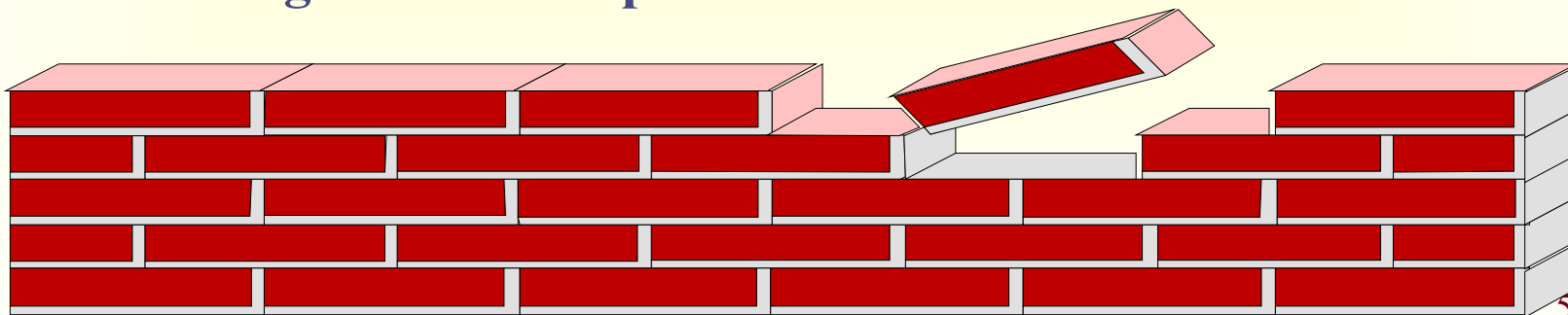
Ownership of a key resource.

🌀 政府给予一个企业生产某种产品的独享的权利。

The government gives a single firm the exclusive right to produce some good.

🌀 生产成本使一个生产者比大量生产者更有效率。

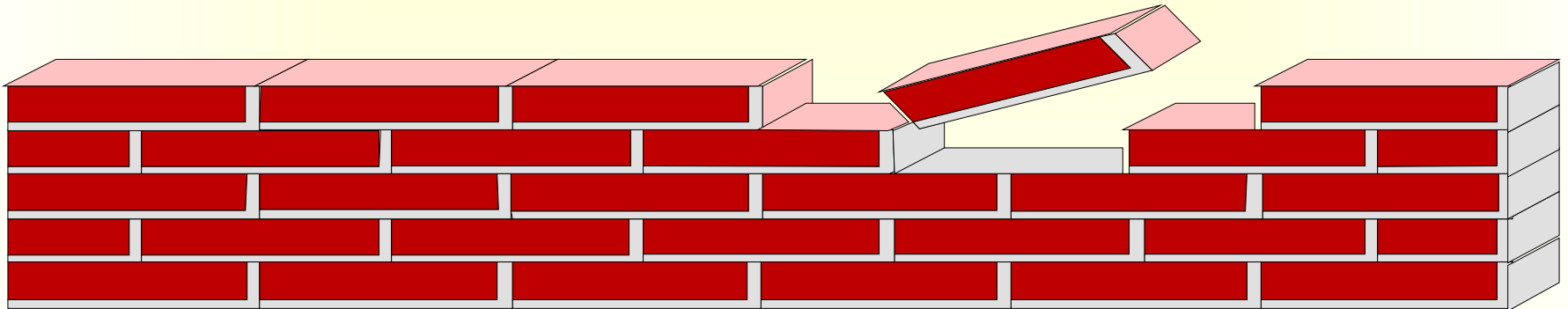
Costs of production make a single producer more efficient than a large number of producers.



垄断资源

Monopoly Resources

虽然关键资源的独享所有权是产生垄断的潜在原因，但实际上垄断很少产生于这种原因。 Although exclusive ownership of a key resource is a potential source of monopoly, in practice monopolies rarely arise for this reason.

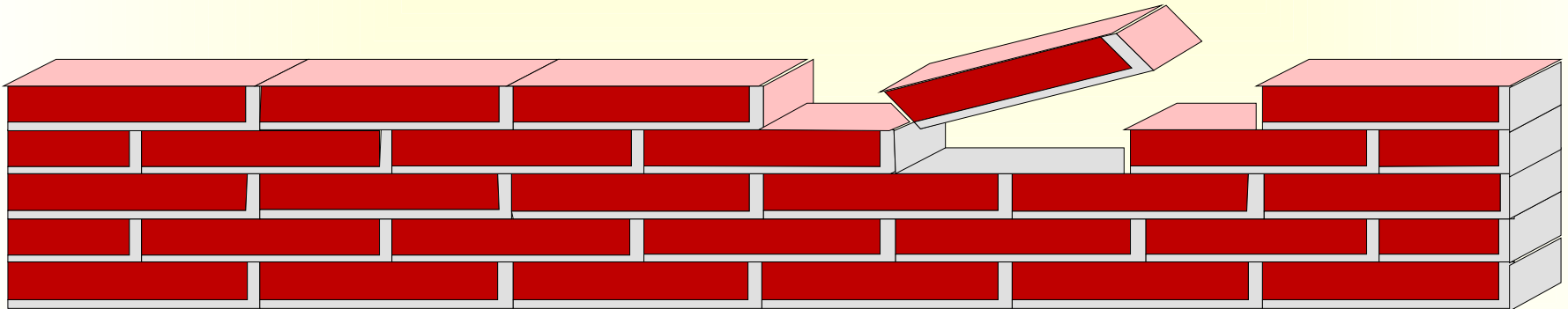


政府创造的垄断

Government-Created Monopolies

当政府给予一个企业在一些市场上出售某种物品的排他性权利时，就限制了进入。

Governments may restrict entry by giving a single firm the exclusive right to sell a particular good in certain markets.

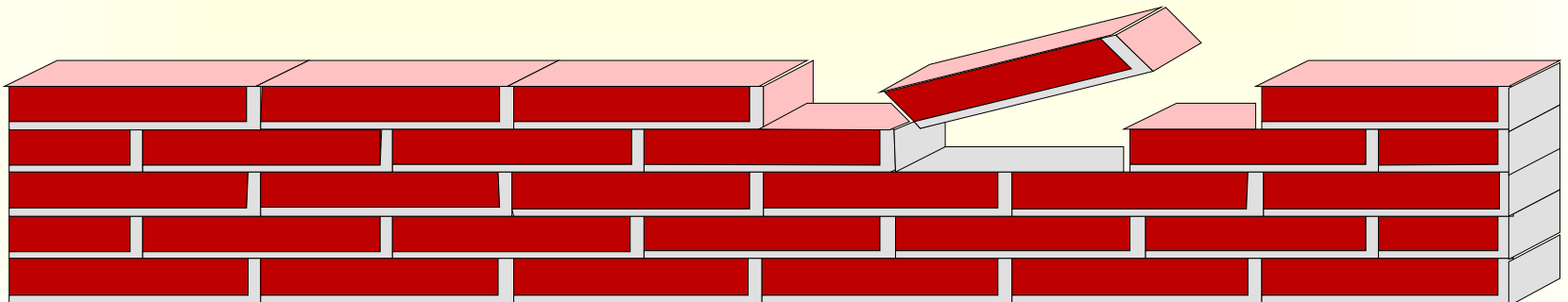


政府创造的垄断

Government-Created Monopolies

专利和版权法是政府如何为公共利益创造垄断的两个重要例子。

Patent and copyright laws are two important examples of how government creates a monopoly to serve the public interest.

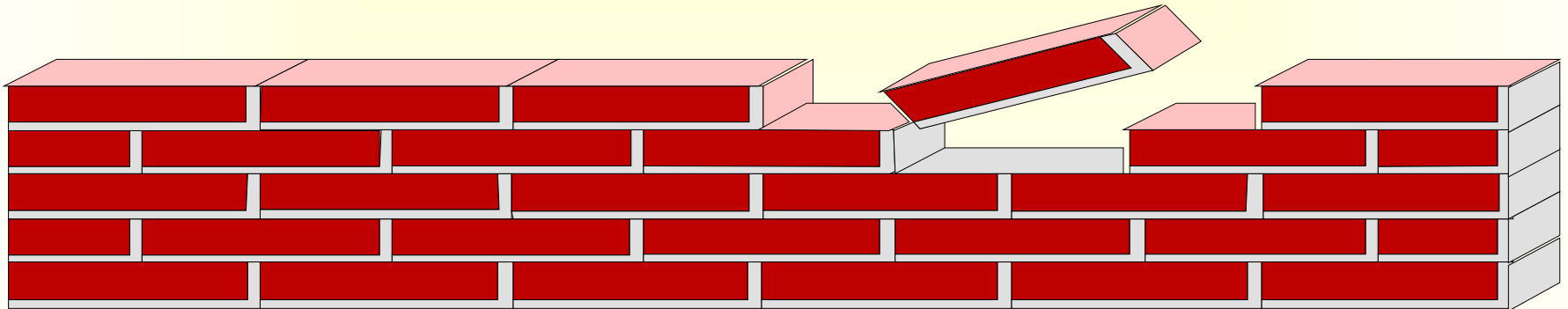


自然垄断

Natural Monopolies

当一个企业能以低于两个或更多企业的成本为整个市场供给一种物品时，这个行业是**自然垄断**。

An industry is a **natural monopoly** when a single firm can supply a good or service to an entire market at a smaller cost than could two or more firms.



自然垄断

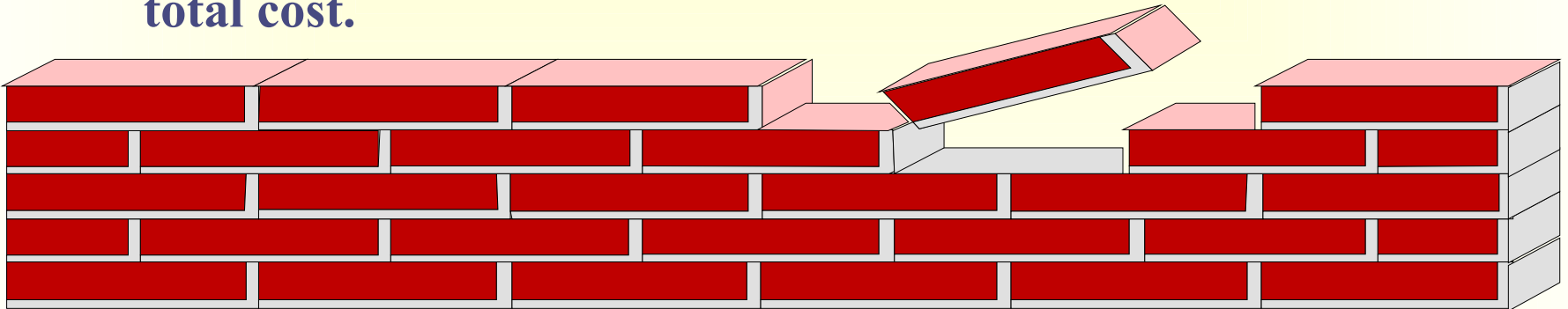
Natural Monopolies

当相关产量范围存在规模经济时，自然垄断就产生了

A **natural monopoly** arises when there are economies of scale over the relevant range of output.

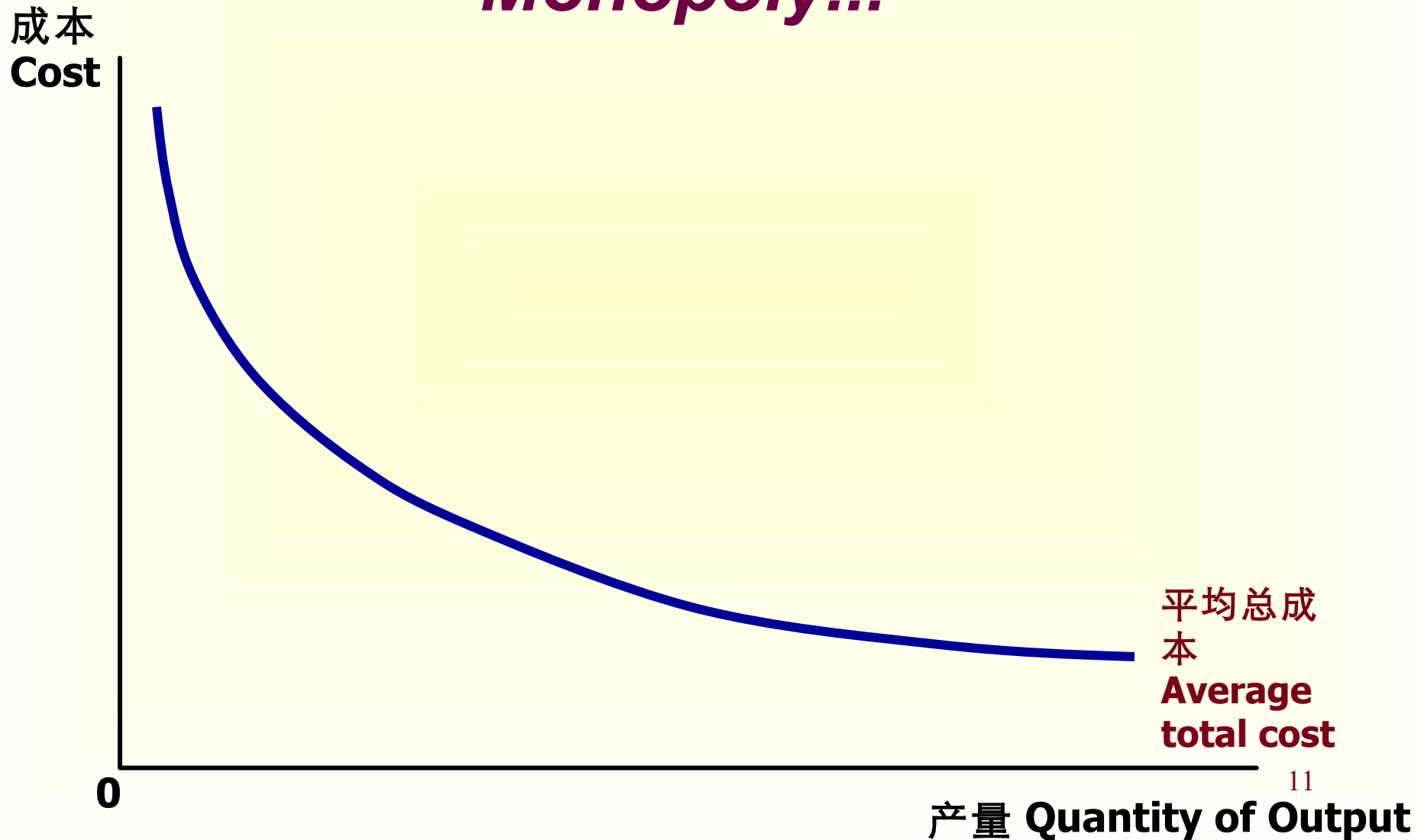
在任何一种既定的产量时，企业数量越多，每个企业的产量越少，平均总成本越高。

For any given amount of output, a larger number of firms leads to less output per firm and higher average total cost.



作为垄断原因的规模经济

Economies of Scale as a Cause of Monopoly...



自然垄断

Natural Monopolies

正常情况下，垄断利润吸引了进入者进入该市场。

Normally, the monopolist's profit attracts entrants into the market.

与此相反，进入另一个企业拥有自然垄断的市场却没有吸引力。

By contrast, entering a market in which another firm has a natural monopoly is unattractive.

◆ 在位企业有可能利用低价格来阻止其他企业进入。

The incumbent firm can potentially use a low price to prevent entry of other firms.

垄断与竞争

Monopoly versus Competition

说明竞争企业与垄断者之间差别的一个方法，是考虑每个企业面对的需求曲线。

One way to view the difference between a competitive firm and a monopoly is to consider the *demand curve that each firm faces*.

垄断与竞争

Monopoly versus Competition

垄断 Monopoly

是唯一的生产者

Is the sole producer

面临一条向右下方倾斜的（市场）需求曲线

Has a downward-sloping

(market) demand curve

降低价格可以增加销售

Reduces price to increase sales

是价格制定者

Is a price maker

竞争与垄断

Competition versus Monopoly

竞争企业 Competitive Firm

是许多生产者之一

Is one of many producers

在同一价格上想卖多少就卖多少

Sells as much or as little at same price

面临一条水平的需求曲线

Has a horizontal demand curve

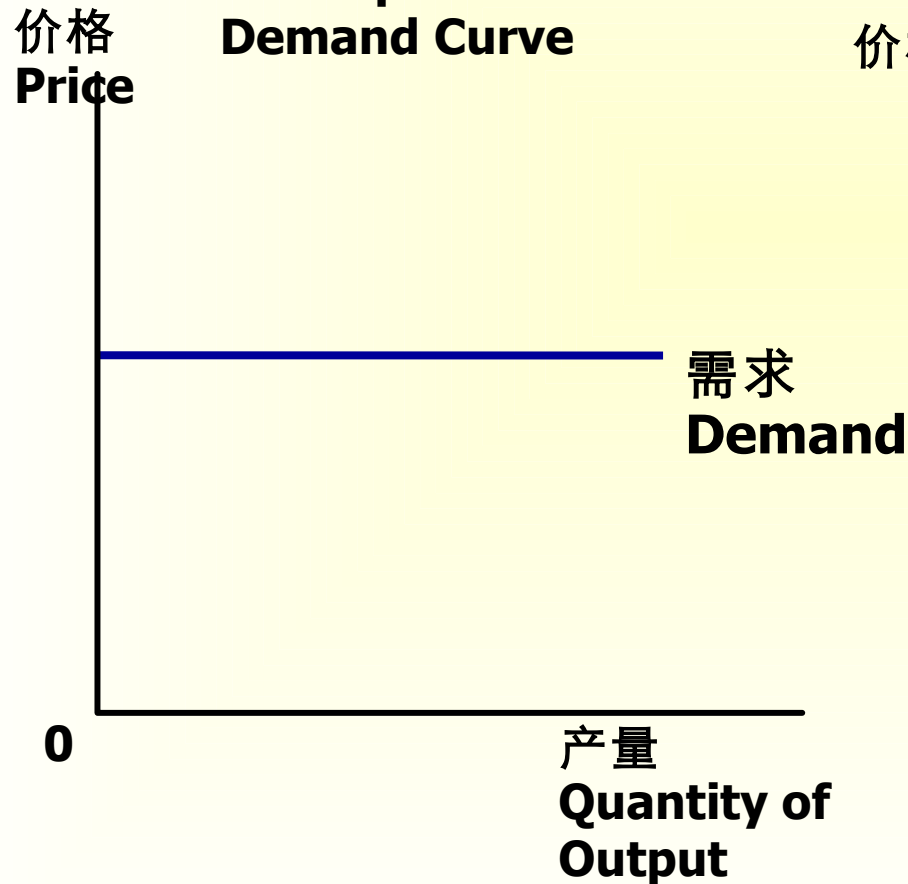
是价格接受者

Is a price taker

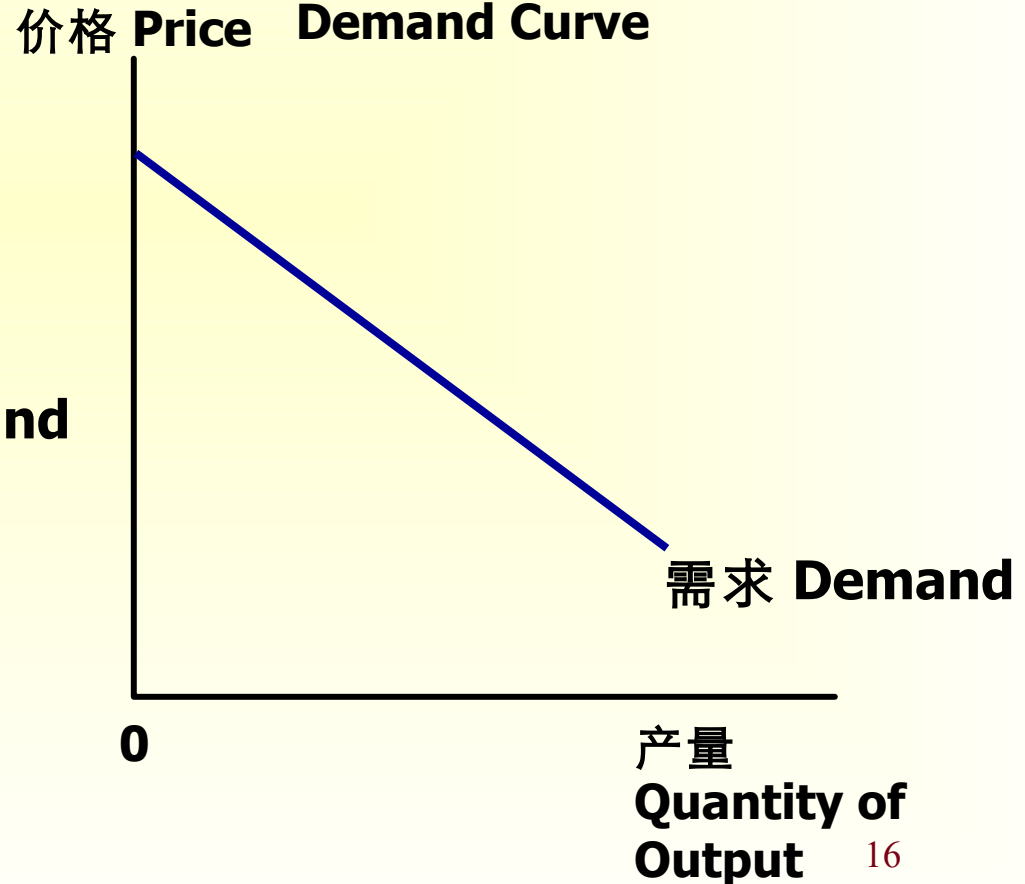
竞争与垄断企业的需求曲线

Demand Curves for Competitive and Monopoly Firms...

(a) 竞争企业的需求曲线
A Competitive Firm's Demand Curve



(b) 垄断企业的需求曲线
A Monopolist's Demand Curve



垄断者的收益

A Monopoly's Revenue

◆ 总收益 Total Revenue

$$TR = P \times Q$$

◆ 平均收益 Average Revenue

$$AR = TR/Q = P$$

◆ 边际收益 Marginal Revenue

$$MR = \Delta TR / \Delta Q$$

垄断者的总收益、平均收益和边际收益

A Monopoly's Total, Average, and Marginal Revenue

数量 Quantity (Q)	价格 Price (P)	总收益 Total Revenue ($TR = P \times Q$)	平均收益 Average Revenue ($AR = TR / Q$)	边际收益 Marginal Revenue ($MR = \Delta TR / \Delta Q$)
0	\$11.00	\$0.00		
1	\$10.00	\$10.00	\$10.00	\$10.00
2	\$9.00	\$18.00	\$9.00	\$8.00
3	\$8.00	\$24.00	\$8.00	\$6.00
4	\$7.00	\$28.00	\$7.00	\$4.00
5	\$6.00	\$30.00	\$6.00	\$2.00
6	\$5.00	\$30.00	\$5.00	\$0.00
7	\$4.00	\$28.00	\$4.00	-\$2.00
8	\$3.00	\$24.00	\$3.00	-\$4.00

垄断者的边际收益

A Monopoly's Marginal Revenue

垄断者的边际收益总是小于其物品的价格。

A monopolist's marginal revenue is always less than the price of its good.

✎需求曲线是向右下方倾斜的。

The demand curve is downward sloping.

✎当垄断者增加出售一个单位的物品，价格下降，从以往所销售的各单位中获得的收益也下降。

When a monopoly drops the price to sell one more unit, the revenue received from *previously* sold units also decreases.

垄断者的边际收益

A Monopoly's Marginal Revenue

当垄断者增加它的销售数量时，这对总收益 ($P \times Q$) 有两种效应：

When a monopoly increases the amount it sells, it has two effects on total revenue ($P \times Q$).

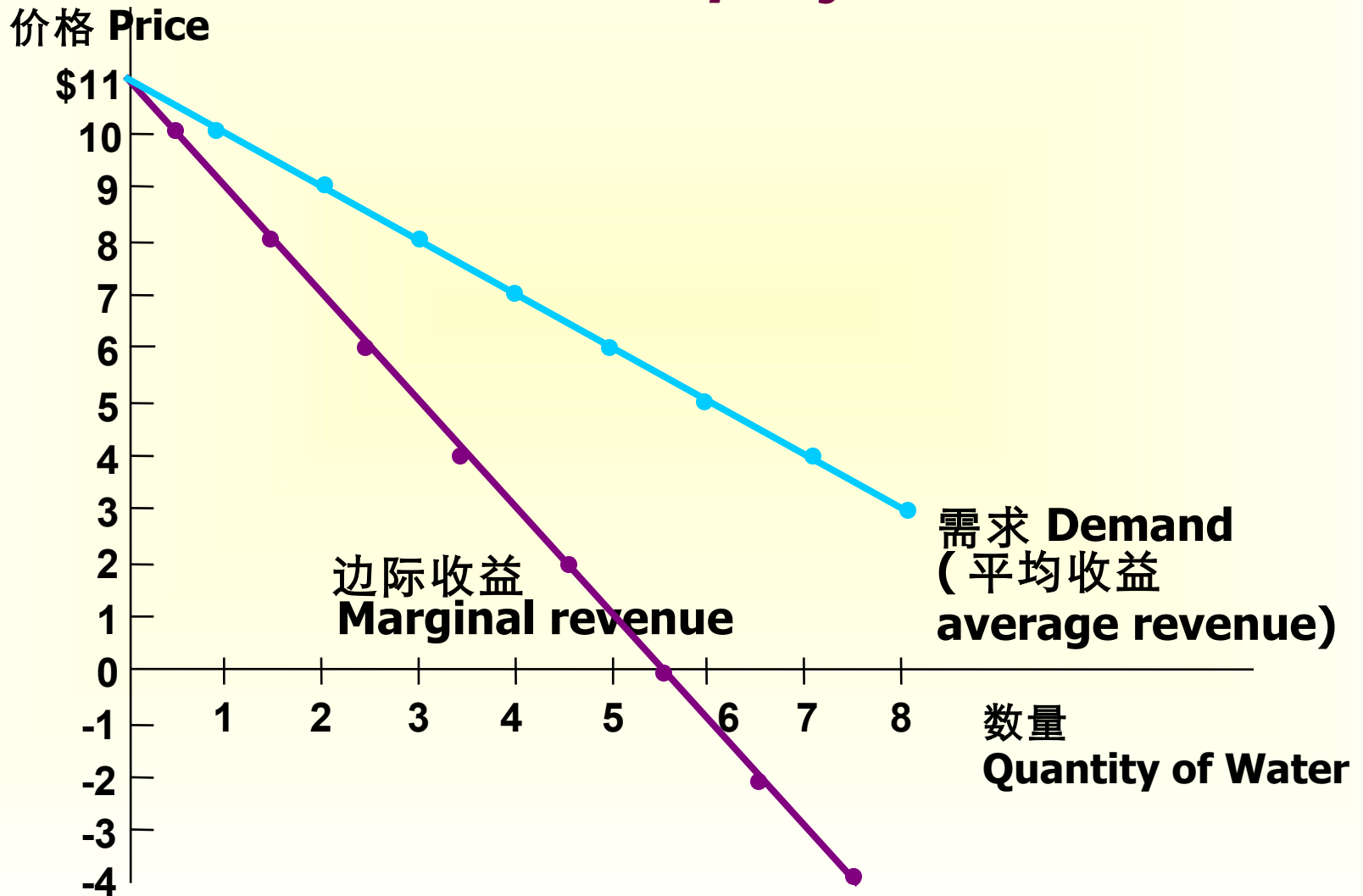
📌 **产量效应**：销售的产量越多（ Q 越大），给定价格下的总收益越大。

The **output effect** — given price (P), the more output is sold (Q is higher), the higher total revenue ($P \times Q$) is.

📌 **价格效应**：价格下降（ P 越小），给定产量下的总收益下降。

The **price effect** — given output (Q), when price falls (P is lower), total revenue ($P \times Q$) decreases.

垄断者的需求和边际收益曲线 Demand and Marginal Revenue Curves for a Monopoly...



垄断者的利润最大化

Profit Maximization of a Monopoly

使垄断者的利润最大化的产量是边际收益等于边际成本时的产量。

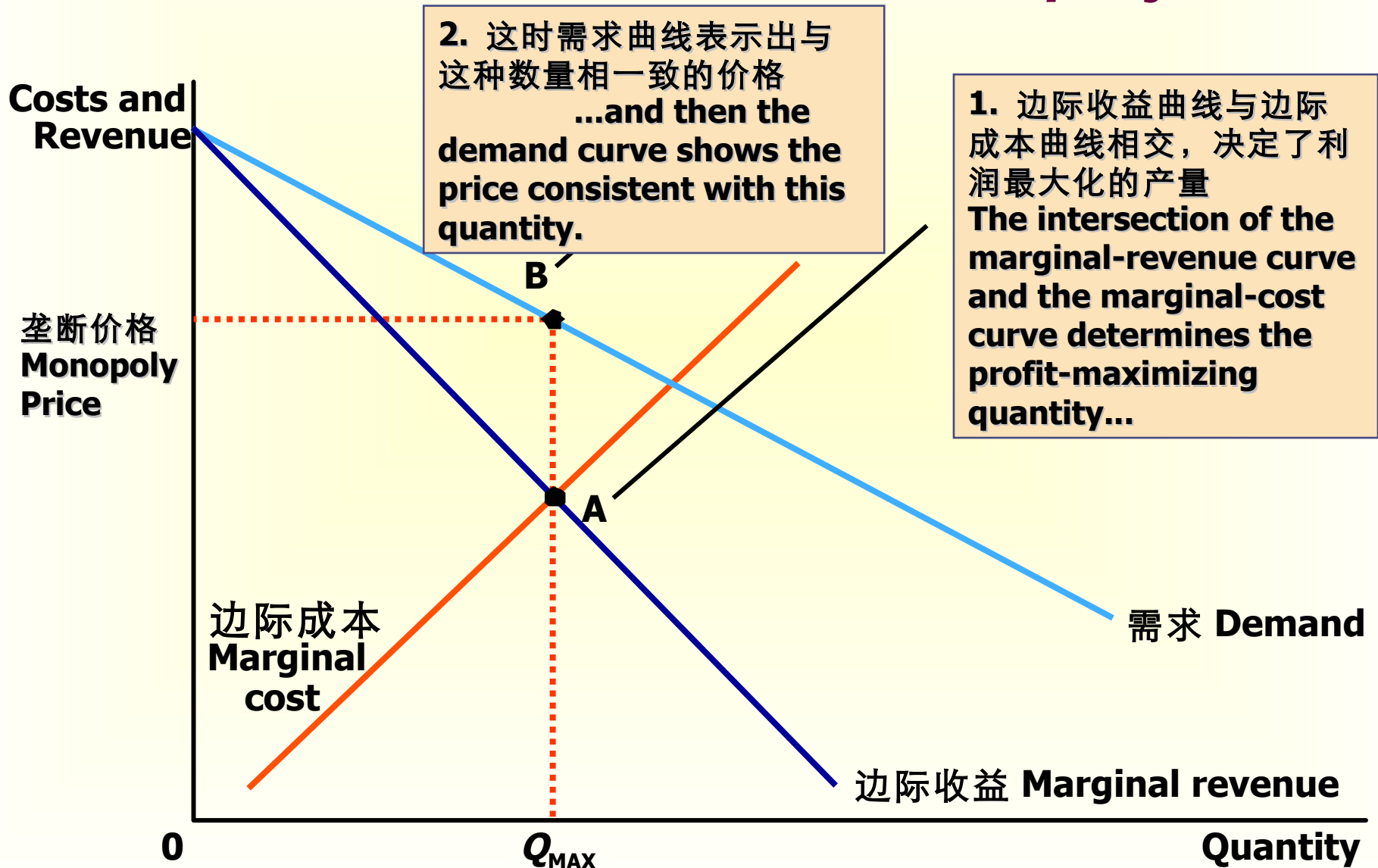
A monopoly maximizes profit by producing the *quantity* at which marginal revenue equals marginal cost.

然后垄断者用需求曲线找出使消费者购买那些数量的价格。

It then uses the demand curve to find the *price* that will induce consumers to buy that quantity.

垄断者的利润最大化

Profit-Maximization for a Monopoly...



比较垄断和竞争

Comparing Monopoly and Competition

- ◆ 对于**竞争**企业来说，价格等于边际成本。 For a **competitive** firm, price equals marginal cost.

$$P = MR = MC$$

- ◆ 对于**垄断**企业来说，价格大于边际成本。 For a **monopoly** firm, price exceeds marginal cost.

$$P > MR = MC$$

垄断的利润

A Monopoly's Profit

利润等于总收益减总成本

Profit equals total revenue minus total costs.

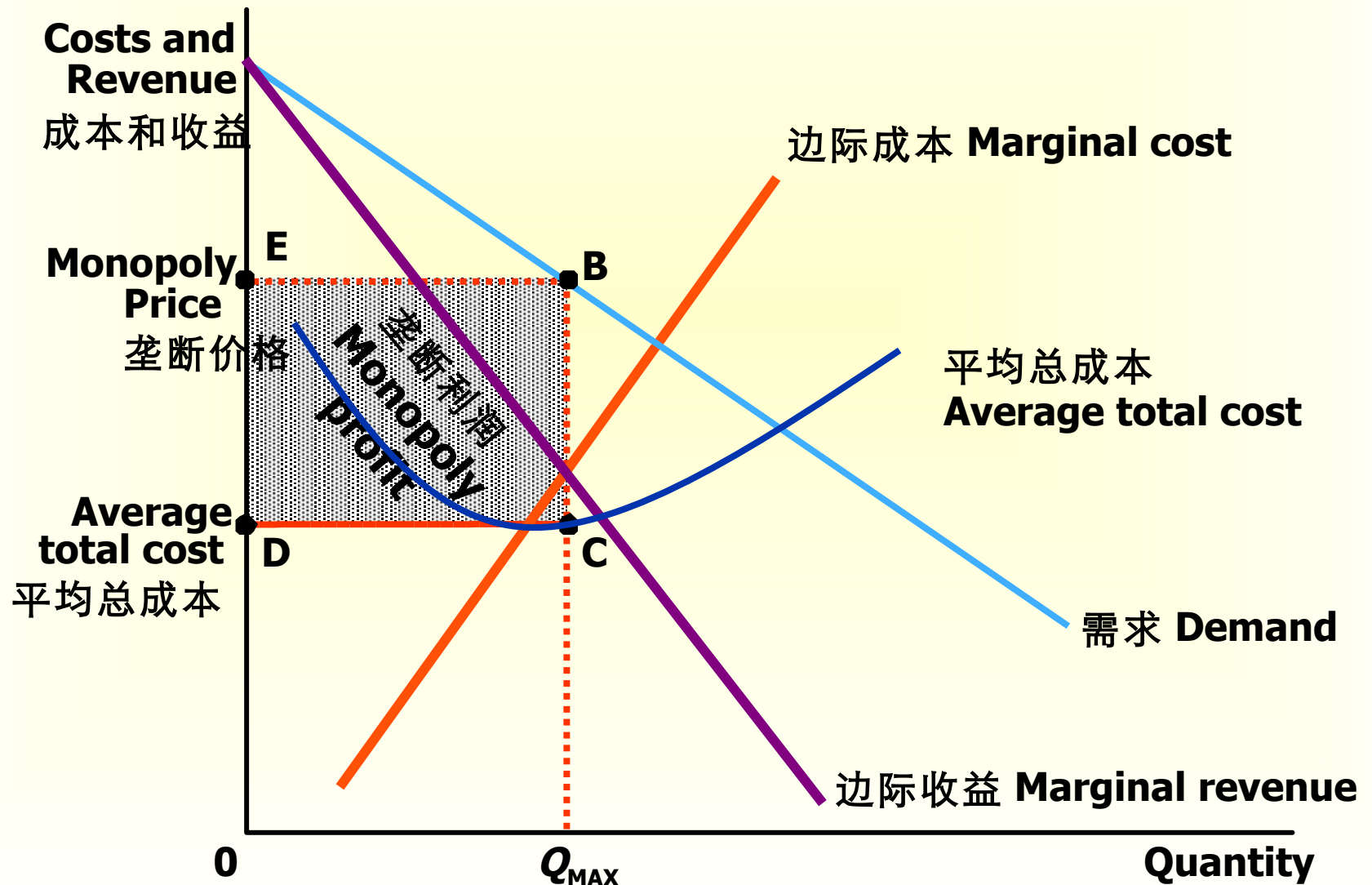
利润 $\text{Profit} = \text{TR} - \text{TC}$

利润 $\text{Profit} = (\text{TR}/Q - \text{TC}/Q) \times Q$

利润 $\text{Profit} = (P - \text{ATC}) \times Q$

垄断的利润

The Monopolist's Profit...



垄断的利润

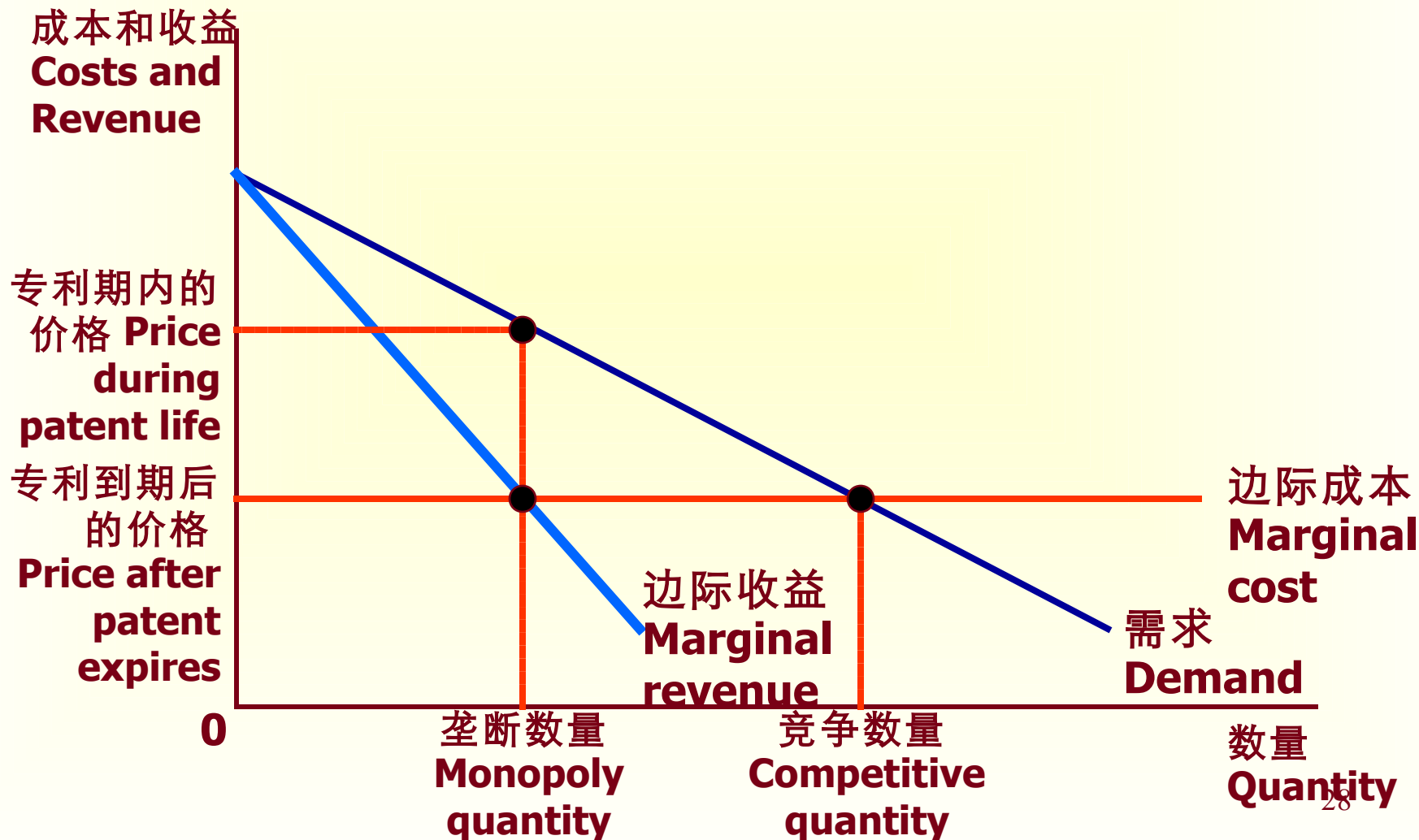
The Monopolist's Profit

垄断者将获得经济利润，只要价格高于平均总成本。

The monopolist will receive economic profits as long as price is greater than average total cost.

药品市场

The Market for Drugs...



垄断的福利代价

The Welfare Cost of Monopoly

与竞争企业不同，垄断企业收取的价格高于边际成本。

In contrast to a competitive firm, the monopoly charges a price above the marginal cost.

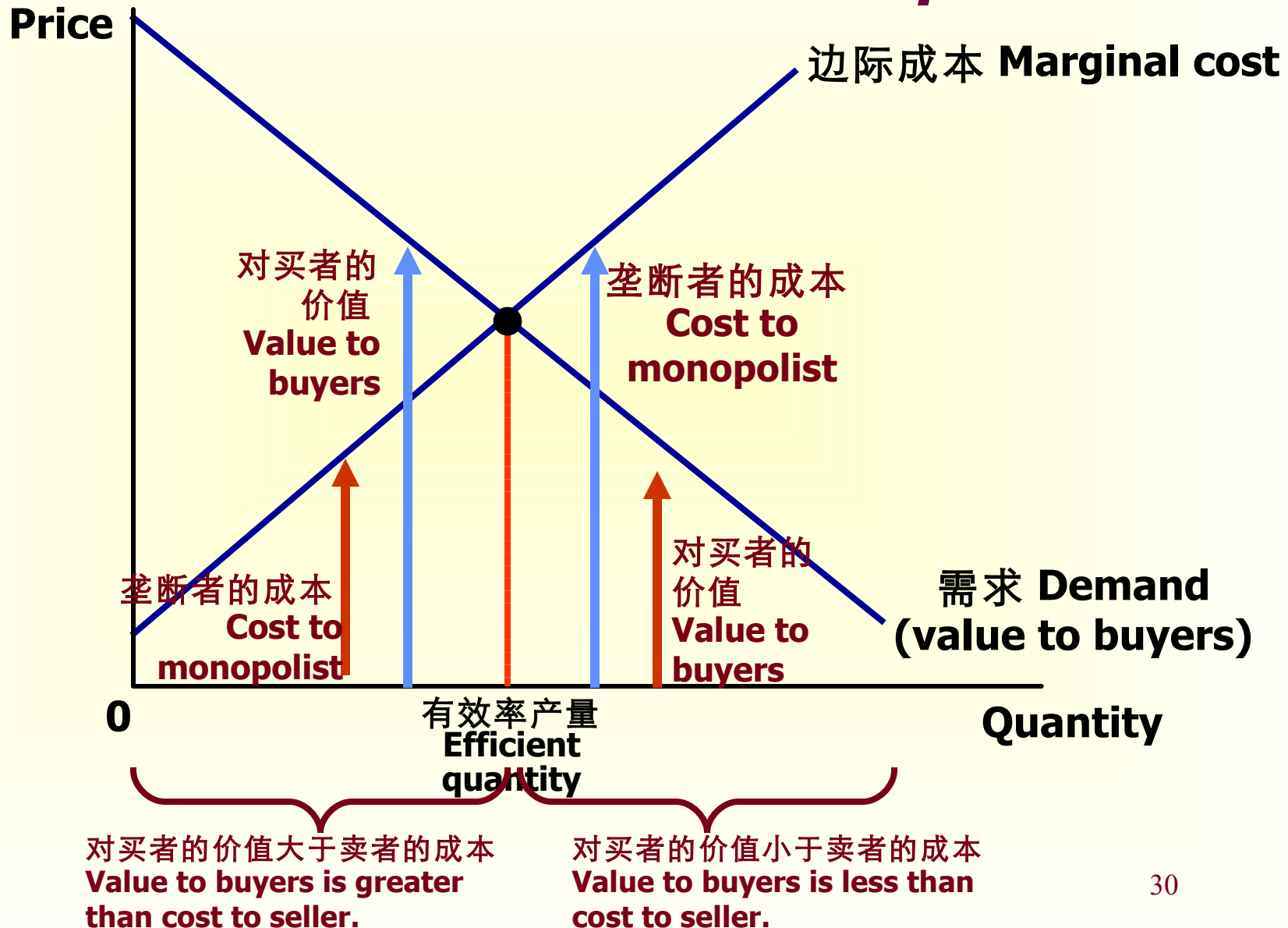
从消费者角度看，这种高价格使垄断不合意。 From the standpoint of consumers, this high price makes monopoly undesirable.

但是，从企业所有者的角度看，高价格使垄断极为合意。

However, from the standpoint of the owners of the firm, the high price makes monopoly very desirable.

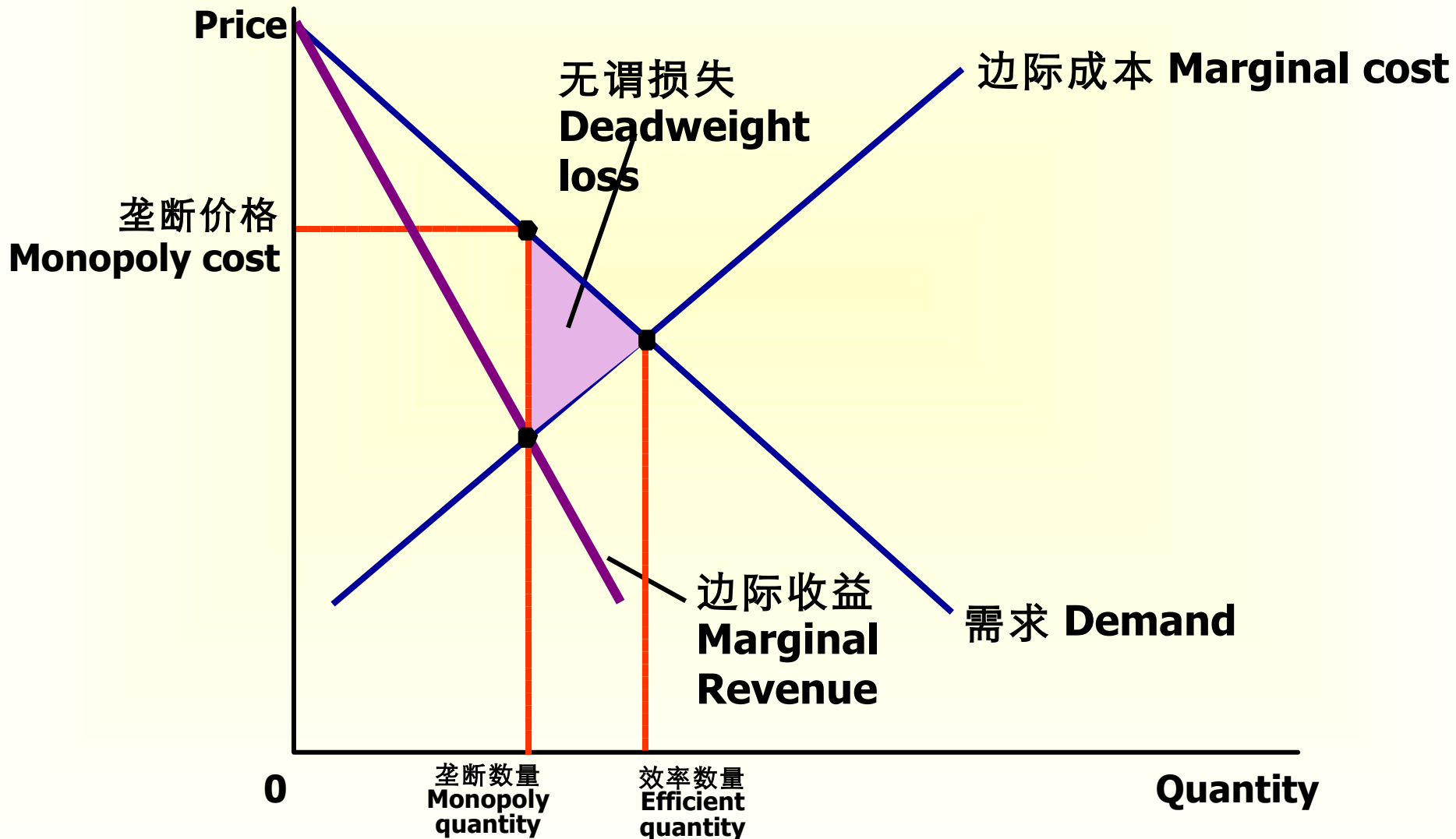
有效率的产量水平

The Efficient Level of Output...



垄断的无效率

The Inefficiency of Monopoly...



无谓损失

The Deadweight Loss

由于垄断者收取高于边际成本的价格，它就在消费者的支付意愿和生产者的成本之间打入了一个楔子。

Because a monopoly sets its price above marginal cost, it places a wedge between the consumer's willingness to pay and the producer's cost.

这个楔子导致销售量小于社会最优量。
This wedge causes the quantity sold to fall short of the social optimum.

垄断的无效率

The Inefficiency of Monopoly

垄断者生产的产量小于社会有效率的产量。

The monopolist produces less than the socially efficient quantity of output.

无谓损失

The Deadweight Loss

垄断引起的无谓损失类似于税收引起的无谓损失。

The deadweight loss caused by a monopoly is similar to the deadweight loss caused by a tax.

这两种情况之间的差别是政府得到了税收的收入，而私人企业得到了垄断利润。

The difference between the two cases is that the government gets the revenue from a tax, whereas a private firm gets the monopoly profit.

对垄断的公共政策

Public Policy Toward Monopolies

✧ 政府以四种方式中的一种对垄断问题作出反应 Government responds to the problem of monopoly in one of four ways.

✧ 努力使垄断行业更有竞争性。
Making monopolized industries more competitive.

✧ 管制垄断者的行为。
Regulating the behavior of monopolies.

✧ 把一些私人垄断变为国有企业。
Turning some private monopolies into public enterprises.

✧ 什么也不做。
Doing nothing at all.

用反托拉斯法增强竞争

Increasing Competition with Antitrust Laws

- ◆ 反托拉斯法是一系列目的在于遏制垄断权力的法律的集合。
Antitrust laws are a collection of statutes aimed at curbing monopoly power.
- ◆ 反托拉斯法给予政府促进竞争的各种方法。
Antitrust laws give government various ways to promote competition.
 - ✧ 它们允许政府阻止企业合并。
They allow government to prevent mergers.
 - ✧ 它们允许政府分解公司。
They allow government to break up companies.
 - ✧ 它们禁止公司从事使市场竞争削弱的活动。
They prevent companies from

美国的两个重要的反托拉斯法

Two Important Antitrust Laws

- ◆ 1890 年的谢尔曼反托拉斯法（ Sherman Antitrust Act ）

- ◆ 减少当时强大的“托拉斯”市场势力。

Reduced the market power of the large and powerful “trusts” of that time period.

- ◆ 1914 年的克莱顿法（ Clayton Act ）

- ◆ 加强政府的权力，并使私人对此类诉讼合法化。
Strengthened the government's powers and authorized private lawsuits.

- ◆ 中国：反不正当竞争法（ 1993 ）；反垄断法（ 2007 ）

管制 Regulation

政府管制垄断者收取的价格。 Government may regulate the prices that the monopoly charges.

如果价格定在边际成本上，资源配置就将是有效率的。

The allocation of resources will be efficient if price is set to equal marginal cost.

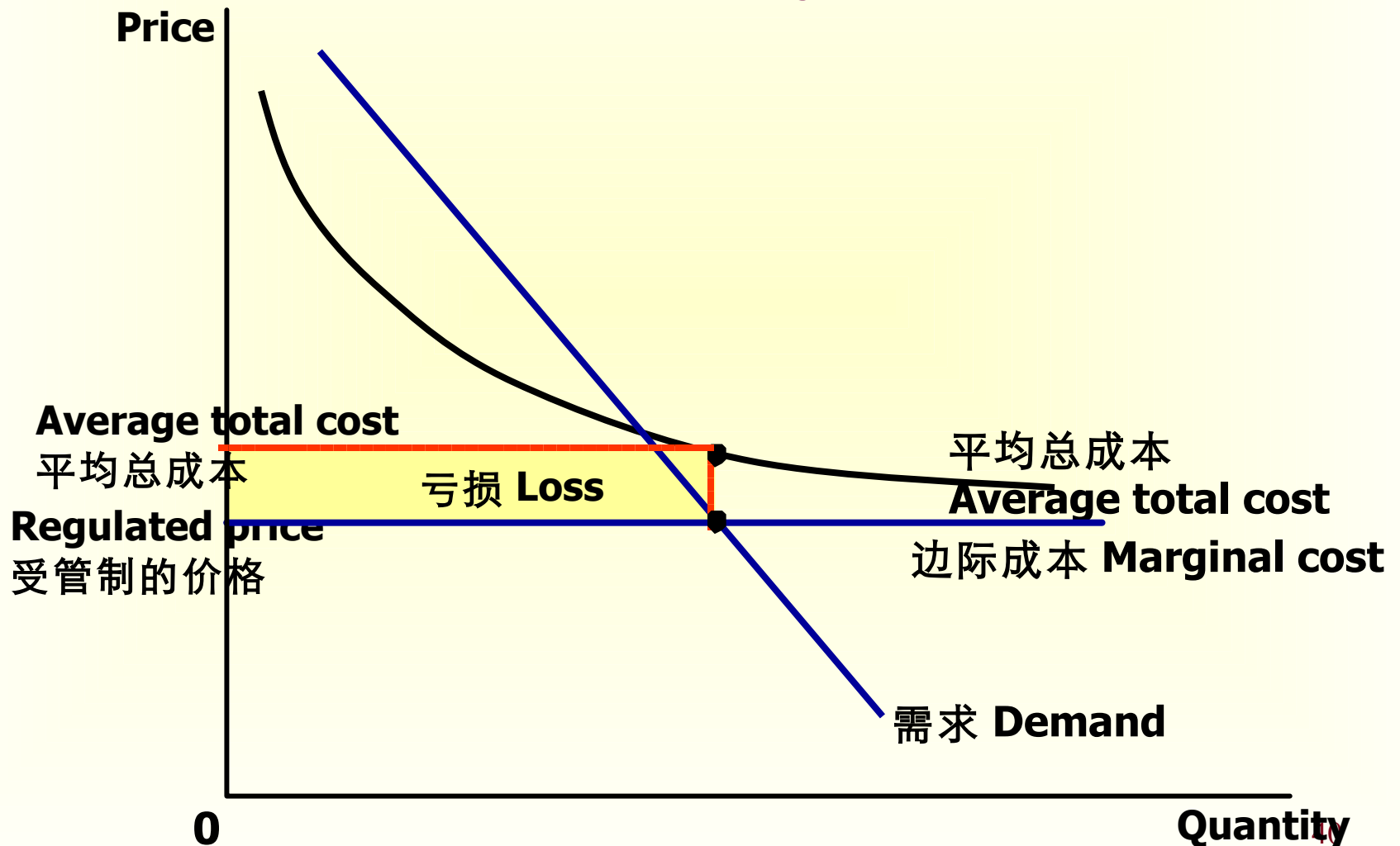
作为管制的边际成本定价

Marginal-cost Pricing as a Regulatory System

- ◆ 在自然垄断下，边际成本低于企业的平均总成本。边际成本定价导致企业亏损而离开该行业 Under natural monopolies, marginal cost is less than average cost. Thus marginal-cost pricing makes a firm lose money and exit the industry.
- ◆ 平均成本定价使得垄断者刚好赚到零利润，但引起了无谓损失。

Average-cost pricing makes the monopolist earn exactly zero economic profit, but leads to deadweight losses.

自然垄断的边际成本定价 *Marginal-Cost Pricing for a Natural Monopoly...*



作为管制的边际成本定价

Marginal-cost Pricing as a Regulatory System

- ◆ 边际成本定价（以及平均成本定价）不能激励垄断者降低成本。

Marginal-cost pricing (and average-cost pricing as well) gives the monopolist no incentive to reduce cost.

- ◆ 在实际中，管制者允许垄断者从降低成本中以更高利润形式保留一些利益，这种做法要求对边际成本定价的某种偏离。

In practice, regulators will allow monopolists to keep some of the benefits from lower costs in the form of higher profit, a practice that requires some departure from marginal-cost pricing.

公有制

Public Ownership

政府不是管制由私人经营的自然垄断，而是由自己经营自然垄断本身（比如在美国，政府经营邮政局）

Rather than regulating a natural monopoly that is run by a private firm, the government can run the monopoly itself. (e.g. in the U.S., the government runs the Postal Service).

什么也不做

Doing Nothing

如果相对于公共政策的不完善性而言，市场失灵的程度肯定较小，那么政府可以什么也不做。

Government can do nothing at all if the market failure is deemed small compared to the imperfections of public policies.

价格歧视

Price Discrimination

企业试图将同样的产品以不同的价格卖给不同的顾客。这一做法就是**价格歧视**。

Firms try to sell the same good to different customers for different prices.

This practice is called **price discrimination**.

价格歧视

Price Discrimination

◆当一种物品在竞争市场出售时，**价格歧视**是不可能的。

Price discrimination is not possible when a good is sold in a competitive market.

◆企业能够实行价格歧视，它一定具有某种市场势力。

In order to price discriminate, the firm must have some *market power*.

价格歧视

Price Discrimination

- ◆ 某些市场力量会阻止企业实行价格歧视。

Certain market forces can prevent firms from price discrimination.

- ◆ 诸如**套利**的力量。它是指在一个市场上以低价购买，而在另一个市场上以高价出售，以从价格差中获利。

One such forces is **arbitrage**, the process of buying a good in one market at a low price and selling it in another market at a higher price to profit from the price difference.

价格歧视

Price Discrimination

◆ 价格歧视的两个重要效应：

Two important effects of price discrimination:

☞ 它可以增加垄断者的利润。

It can increase the monopolist's profits.

☞ 它可以减少无谓损失。

It can reduce deadweight loss.

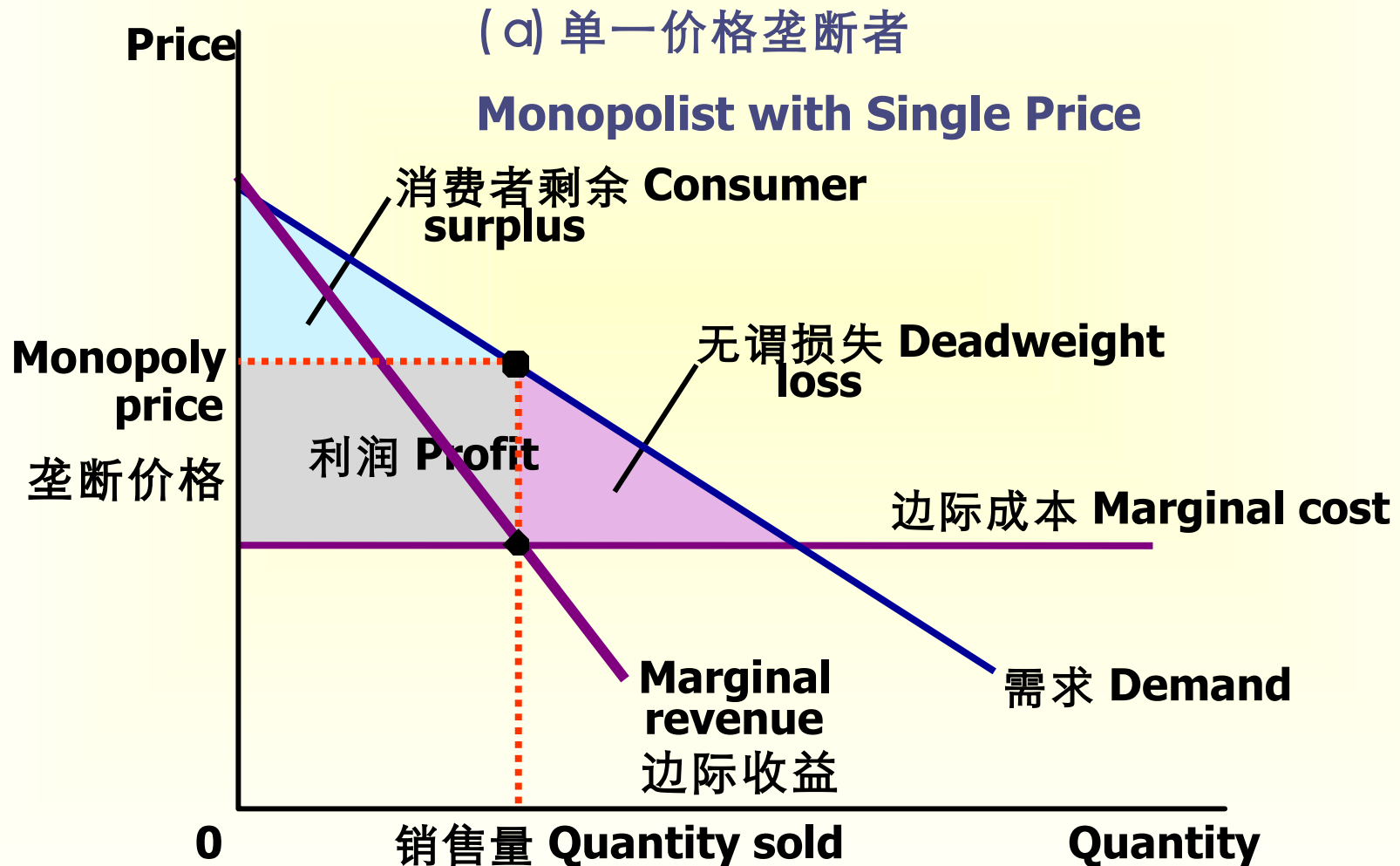
完全价格歧视

Perfect Price Discrimination

完全价格歧视是指这种情况：垄断者完全了解每个顾客的支付意愿，并对每位顾客收取不同的价格。

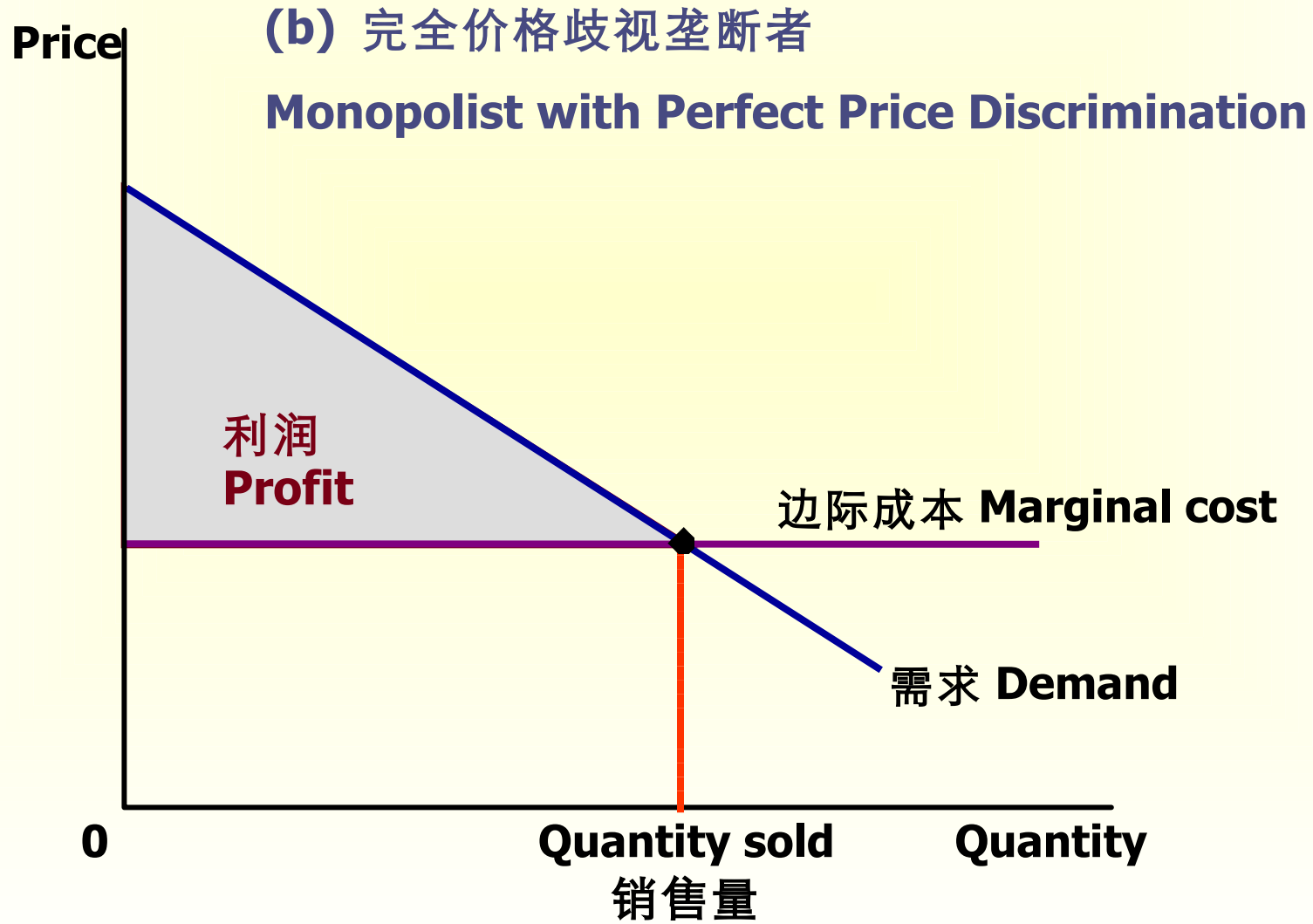
Perfect price discrimination refers to the situation when the monopolist knows exactly the willingness to pay of each customer and can charge each customer a different price.

没有价格歧视时的福利 *Welfare Without Price Discrimination*



有价格歧视时的福利

Welfare With Price Discrimination



价格歧视

Price Discrimination

- ◆ 价格歧视要求能根据支付意愿划分顾客。

Price discrimination requires the ability to separate customers according to their willingness to pay.

- ◆ 垄断者利用诸如地理位置、年龄、收入等方面的差别来区分顾客。

Monopolists choose differences such as geographical location, age or income to distinguish among customers.

价格歧视的例子

Examples of Price Discrimination

- ◆ 电影票 *Movie tickets*
- ◆ 机票价格 *Airline prices*
- ◆ 折扣券 *Discount coupons*
- ◆ 助学金 *Financial aid*
- ◆ 数量折扣 *Quantity discounts*

垄断的普遍性

The Prevalence of Monopoly

垄断问题有多普遍？

How prevalent are the problems of monopolies?

一方面，垄断常见

Monopolies are common.

多数企业对它们收取的价格都有某种控制，因为不同企业的产品不完全一样。

Most firms have some control over their prices because of differentiated products.

另一方面，有相当大垄断势力的企业很少。

Firms with substantial monopoly power are rare.

没有多少物品真正是独一无二的。

Few goods are truly unique.

总结

Summary

- ◆ 垄断是在其市场上为唯一卖者的企业。
A monopoly is a firm that is the sole seller in its market.
- ◆ 它面临对其产品的向右下方倾斜的需求曲线。
It faces a downward-sloping demand curve for its product.
- ◆ 垄断者的边际收益总是低于其物品的价格。
A monopoly's marginal revenue is always below the price of its good.

总结

Summary

- ◆ 正如竞争企业一样，垄断企业也通过生产边际收益等于边际成本的产量来实现利润最大化。

Like a competitive firm, a monopoly maximizes profit by producing the quantity at which marginal cost and marginal revenue are equal.

- ◆ 与竞争企业不同，垄断企业的价格高于它的边际收益，所以它的价格高于边际成本。
Unlike a competitive firm, its price exceeds its marginal revenue, so its price exceeds marginal cost.

总结

Summary

- ◆ 垄断者利润最大化的产量水平低于使消费者与生产者剩余之和最大化的产量。

A monopolist's profit-maximizing level of output is below the level that maximizes the sum of consumer and producer surplus.

- ◆ 垄断引起的无谓损失类似于税收引起的无谓损失

A monopoly causes deadweight losses similar to the deadweight losses caused by taxes.

总结

Summary

- ◆ 政策制定者可以对垄断行为的无效率作出反应，包括反托拉斯法、价格管制、或把垄断企业改由政府经营。

Policymakers can respond to the inefficiencies of monopoly behavior with antitrust laws, regulation of prices, or by turning the monopoly into a government-run enterprise.

- ◆ 如果市场失灵肯定要是小，政府可以决定什么都不做。

If the market failure is deemed small, policymakers may decide to do nothing at all.

总结

Summary

- ◆ 垄断者可以通过根据买者的支付意愿对同一种物品收取不同的价格来增加利润。

Monopolists can raise their profits by charging different prices to different buyers based on their willingness to pay.

- ◆ 价格歧视可以提高经济福利和减少无谓损失。

Price discrimination can raise economic welfare and lessen deadweight losses.