



第七章 Chapter 7

市场效率 Efficiency of Markets

再看市场均衡

Revisiting the Market Equilibrium

在市场经济中，供给和需求的力量决定物品和服务的价格与销售量。

In market economies, the forces of supply and demand determine the prices of goods and services and the quantity sold.

市场均衡反映出社会配置稀缺资源的方式。 Market equilibrium reflects the way society allocates scarce resources.

到目前为止，我们的分析都是**实证的**（是什么）而不是**规范的**（应该是什么）。

So far, our analysis has been *positive* (what is) rather than *normative* (what should be).

福利经济学

Welfare Economics

福利经济学研究资源配置如何影响经济福利。

Welfare economics is the study of how the allocation of resources affects economic well-being.

福利经济学与市场均衡

Welfare Economics and Market Equilibrium

市场均衡导致社会总体的收益（或福利）最大化。

Equilibrium in the market
results in maximum total social
benefits (or welfare).

福利经济学与市场均衡

Welfare Economics and Market Equilibrium

福利经济学的研究解释了市场通常是组织经济活动的好方式。

The study of welfare economics explain that markets are usually a good way to organize economic activity.

它回答了我们关于正确的价格的问题：使得供求平衡的价格，从特定意义上来讲，是最好的价格，因为它最大化了消费者和生产者的总福利。

It answers our question about the *right* price: The price that balances the supply and demand is, in a particular sense, the best one because it maximizes the total welfare of consumers and producers.

福利经济学：基本概念

Welfare Economics: Basic Concepts

支付意愿和消费者剩余衡量买方（消费者）的经济福利。

Willingness to pay and consumer surplus measures economic welfare from the buyer's side.

成本和生产者剩余衡量卖方（生产者）的经济福利。

Cost and Producer surplus measures economic welfare from the seller's side.

买者支付意愿

Buyer's Willingness to Pay

支付意愿是买者（消费者）愿意且能够为某一物品支付的最高价格。

Willingness to pay (WTP) is the maximum price that a buyer (consumer) is willing and able to pay for a good.

它衡量买者对物品或服务的评价是多少 It measures how much the buyer values the good or service.

买者的支付意愿

Four Possible Buyers' Willingness to Pay (WTP)...

买者 Buyer	支付意愿 Willingness to Pay
John	\$100
Paul	80
George	70
Ringo	50

买者支付意愿曲线

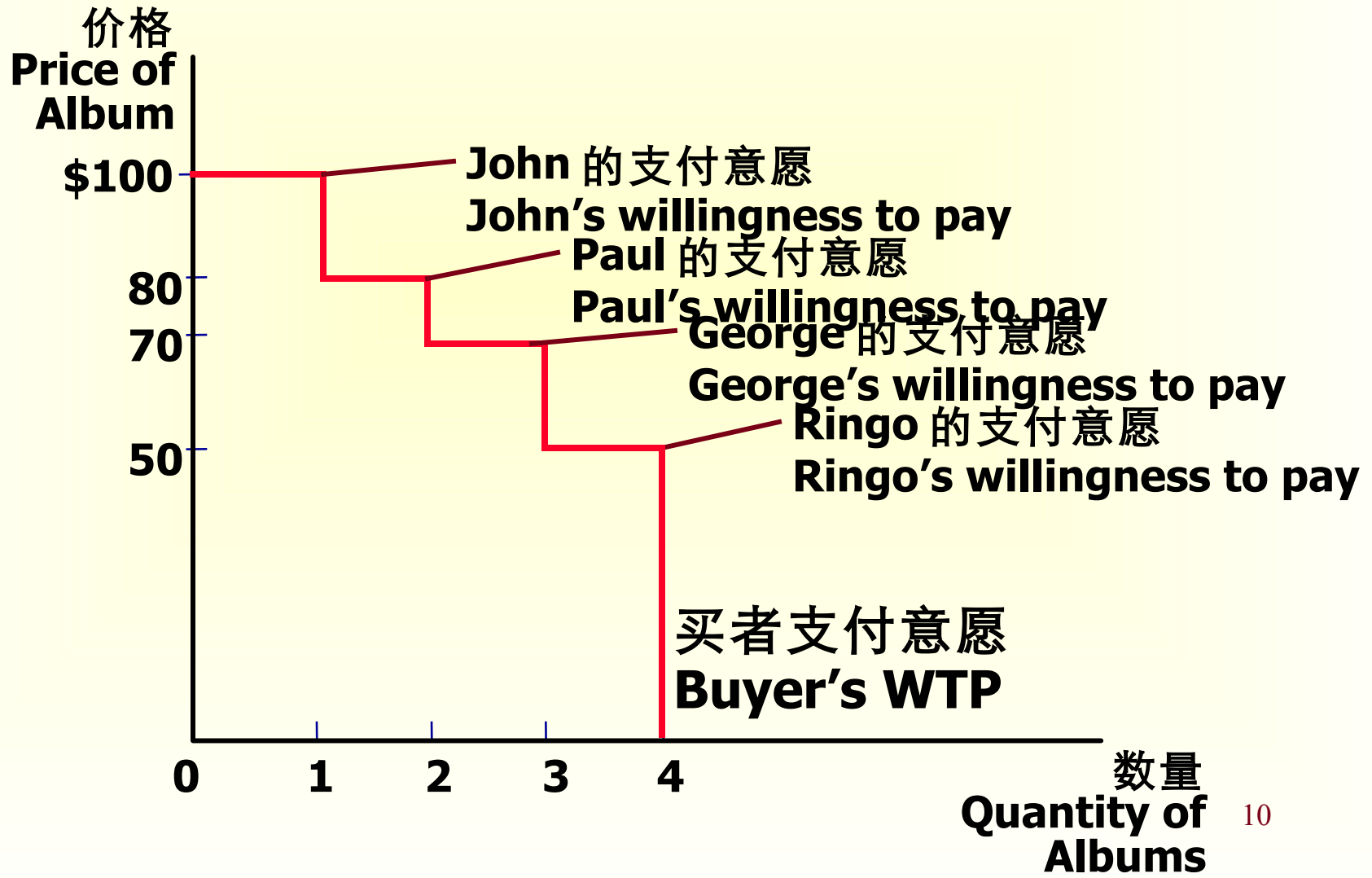
Buyer's WTP Curve

买者支付意愿曲线（Buyer's WTP curve）或买者评价曲线（Buyer's value curve）表示市场上所有买者对每新增一单位物品的最大可能的支付意愿。

以数量为横轴，以支付意愿（价格）为纵轴，将市场上所有买者（在不同数量上）的支付意愿由高至低依次标示出来，就构成了该物品的买者支付意愿曲线。

买者支付意愿曲线

Buyer's WTP Curve.....



买者支付意愿曲线

Buyer's WTP Curve

- ◆在任何一种数量下，买者支付意愿曲线的高度表示边际买者的支付意愿。

At any quantity, the price given by the buyer's WTP curve shows the willingness to pay of the *marginal buyer*.

- ◆边际买者是如果价格再高一点就首先离开的买者。

A marginal buyer is one who would leave the market first if the price were any

买者支付意愿曲线与需求曲线

Buyer's WTP Curve and Demand Curve

- ◆ 回顾：市场需求曲线画出了在不同的价格下，买者愿意和能够购买的数量。

Recall that the market demand curve depicts the various quantities that buyers would be willing and able to purchase at different prices.

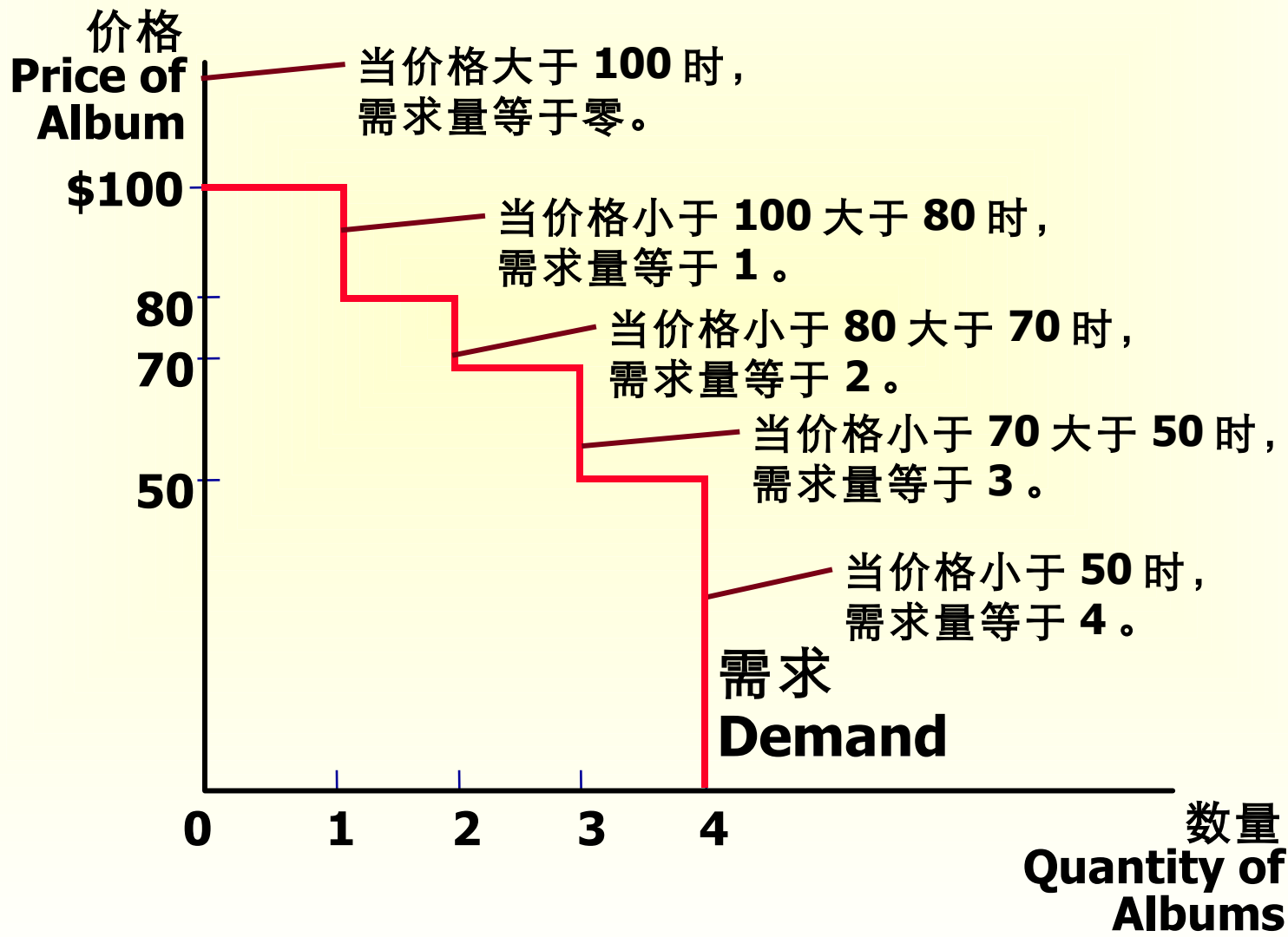
四个买者的需求量

Demand Schedule for the Four Possible Buyers...

价格 Price	买者 Buyer	需求量 Quantity Demanded
More than \$100	None	0
\$80 to \$100	John	1
\$70 to \$80	John, Paul	2
\$50 to \$70	John, Paul, George	3
\$50 or less	John, Paul, George, Ringo	4

需求曲线

Demand Curve...



买者支付意愿曲线与需求曲线

Buyer's WTP Curve and Demand Curve

市场需求曲线恰好反映了市场上买者的（边际）支付意愿（两条曲线重合）。

The market demand curve exactly reflects (marginal) buyers' willingness to pay in the market.

消费者剩余

Consumer Surplus

消费者剩余是买者的支付意愿
减买者的实际支付额。

Consumer surplus is the amount a
buyer is willing to pay for a good
minus the amount the buyer
actually pays for it.

用需求曲线衡量消费者剩余

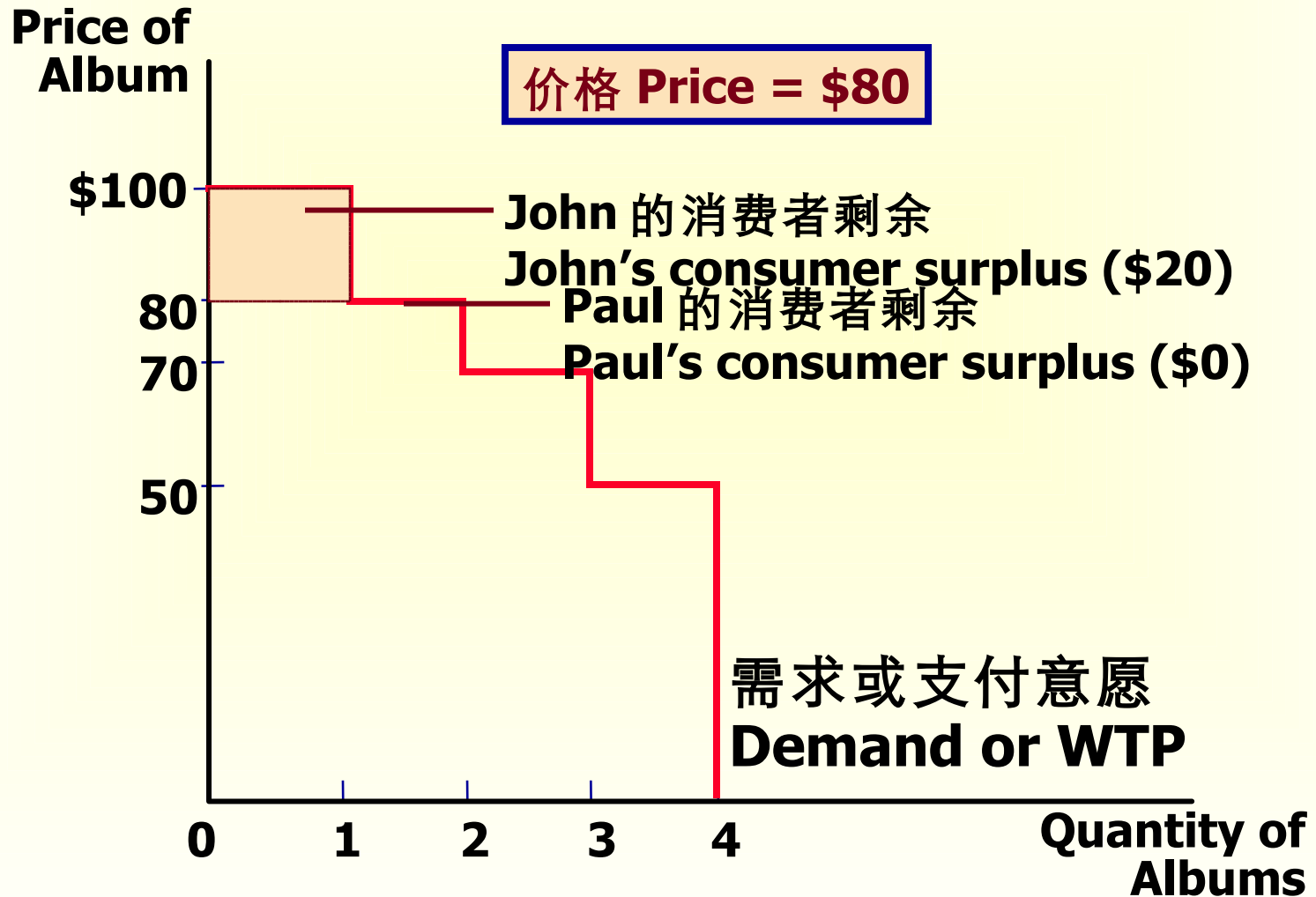
Measuring Consumer Surplus with the Demand (or WTP) Curve...

由于需求曲线反映了买者的支付意愿，我们也可以用它衡量消费者剩余。

Because the demand curve reflects buyers' willingness to pay, we can also use it to measure consumer surplus.

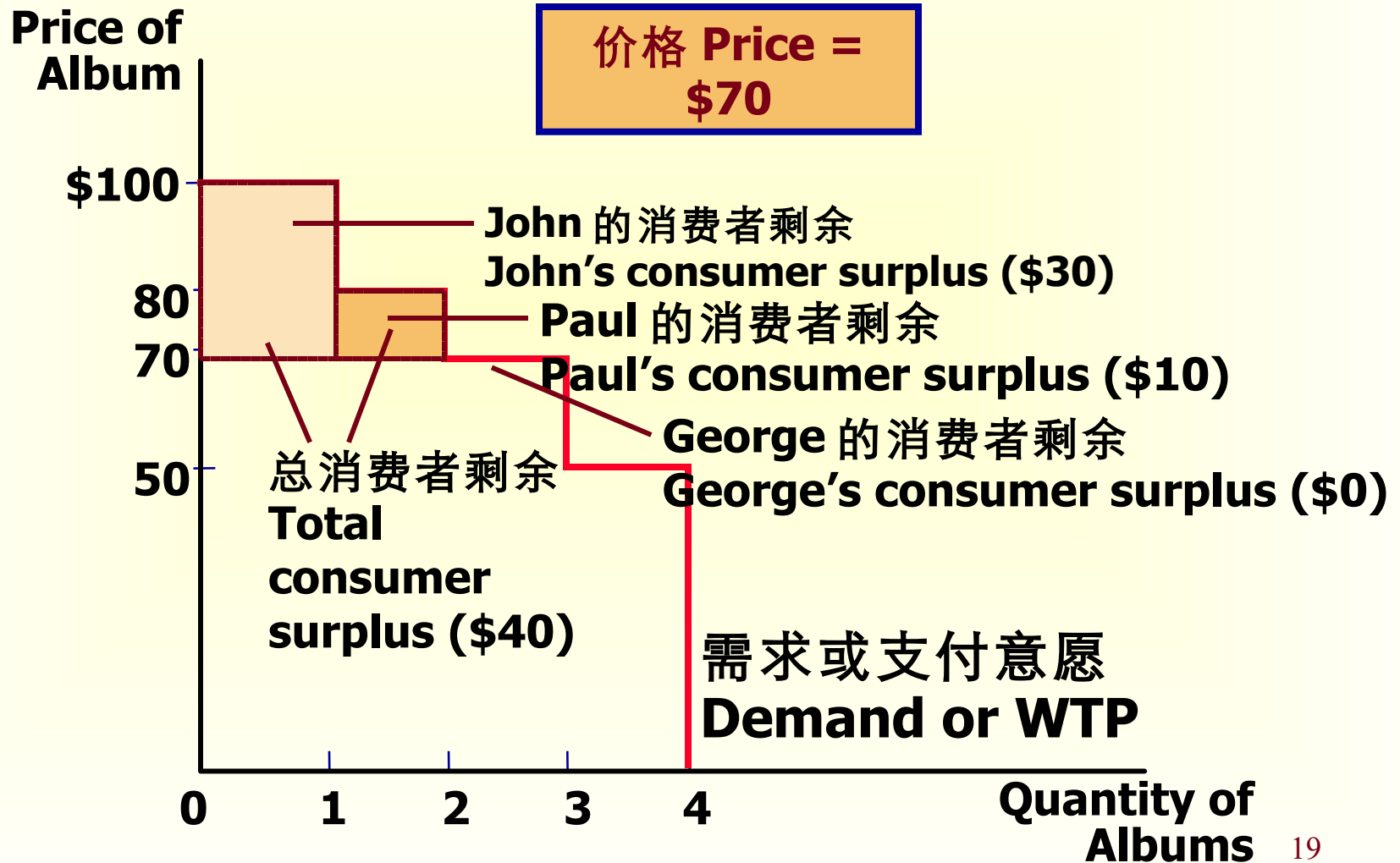
用需求曲线衡量消费者剩余

Measuring Consumer Surplus with the Demand Curve...



用需求曲线衡量消费者剩余

Measuring Consumer Surplus with the Demand Curve...



用需求曲线衡量消费者剩余

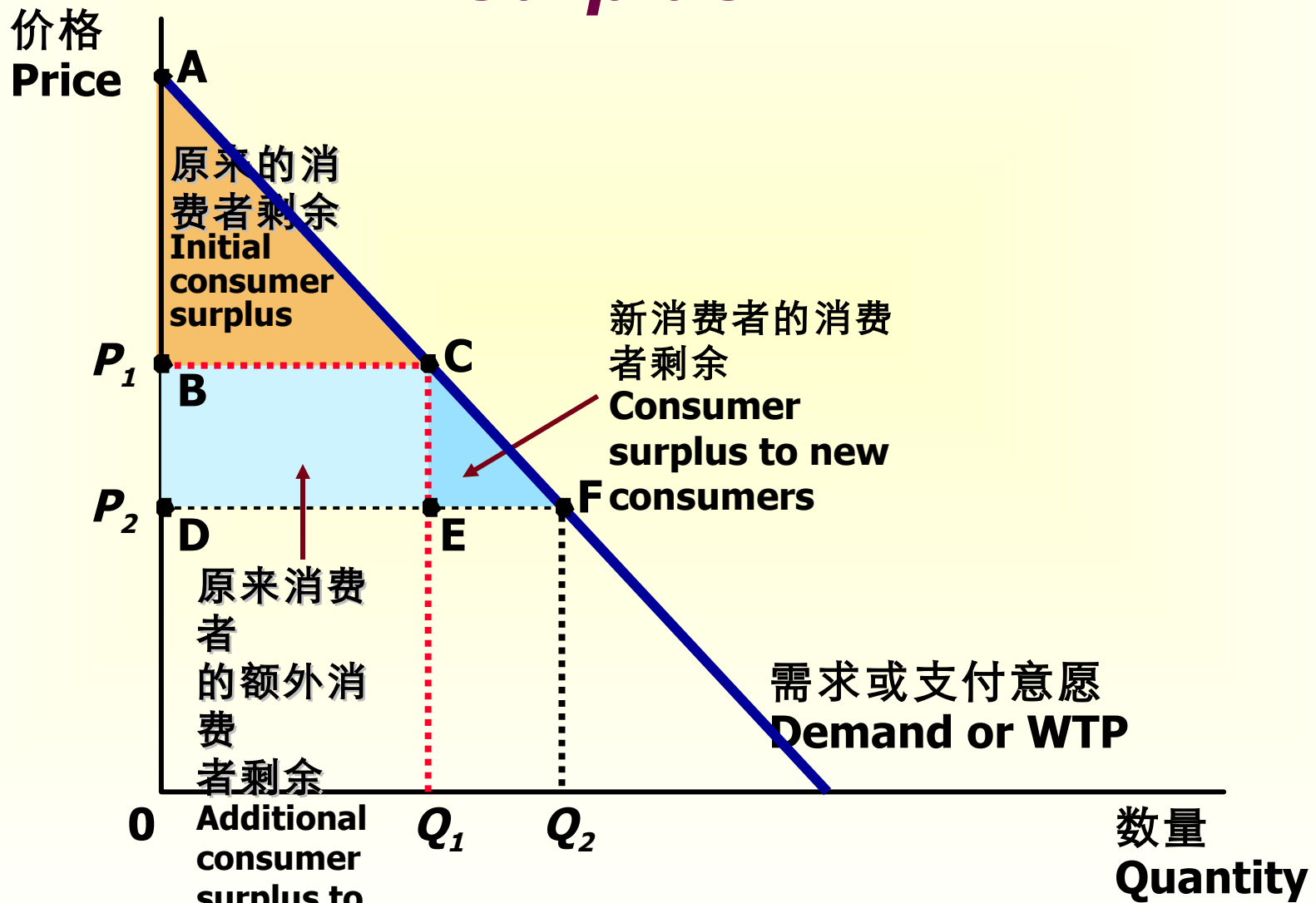
Measuring Consumer Surplus with the Demand Curve

需求（或支付意愿）曲线以下和价格以上的面积衡量市场上的消费者剩余。

The area below the demand (or WTP) curve and above the price measures the consumer surplus in the market.

价格如何影响消费者剩余

How the Price Affects Consumer Surplus...



消费者剩余与经济福利

Consumer Surplus and Economic Well-Being

消费者剩余，即买者愿意（且能够）为一种物品支付的金额减他们实际支付的金额，衡量了消费者从一种物品中得到的买者自己感觉到的收益。

Consumer surplus, the amount that buyers are willing (and able) to pay for a good minus the amount they actually pay for it, measures the benefit that buyers receive from a good as the buyers themselves perceive it.

卖者成本

Seller's Cost

📖 **成本**（又称**出售意愿**）是卖者（生产者）愿意且能够出售某一物品的最低价格。

Cost (or **willingness to sell**) is the minimum price that a seller (producer) is willing and able to sell a good.

📖 它衡量卖者（生产者）为了生产一种物品必须放弃的每种东西的价值（机会成本的概念）。

It measures how much the seller values everything he must give up to produce a good.

四个可能的卖者的成本

The Costs of Four Possible Sellers...

卖者 Seller	成本 Cost
Mary	\$900
Frida	800
Georgia	600
Grandma	500

卖者成本曲线

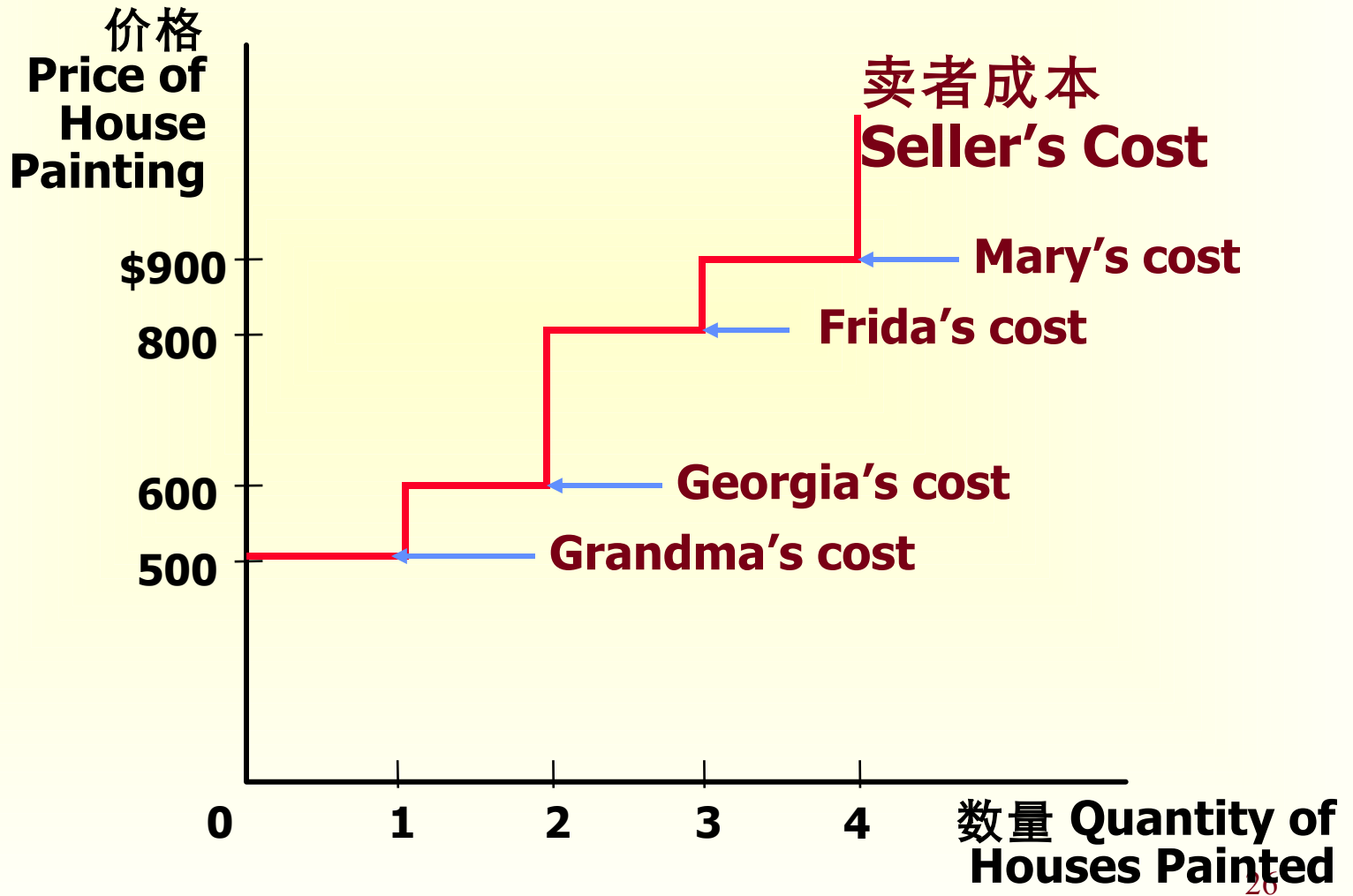
Seller's Cost Curve

✧ 卖者成本曲线 (seller's cost curve) 表示市场上卖者对每新增一单位物品的最小可能的成本。

✧ 以数量为横轴，以价格为纵轴，将不同生产者（在不同数量上）的成本由低至高依次标示出来，就构成了该物品的卖者成本曲线。

卖者成本曲线

Seller's Cost Curve...



卖者成本曲线

Seller's Cost Curve

在任何一种数量上，卖者成本曲线的高度表示边际卖者的成本，这个边际卖者是如果价格再略低一点就首先离开市场的卖者。

At any quantity, the price given by the supply curve shows the cost of the *marginal seller*, the seller who would leave the market first if the price were any lower.

卖者成本曲线与供给曲线

Seller's Cost Curve and the Supply Curve

📖 市场供给曲线画出了在不同的价格下，卖者愿意和能够出售的数量。

The market supply curve depicts the various quantities that sellers would be willing and able to provide at different prices.

📖 正如买者支付意愿曲线与需求曲线密切相关，卖者成本曲线也与供给曲线密切相关。

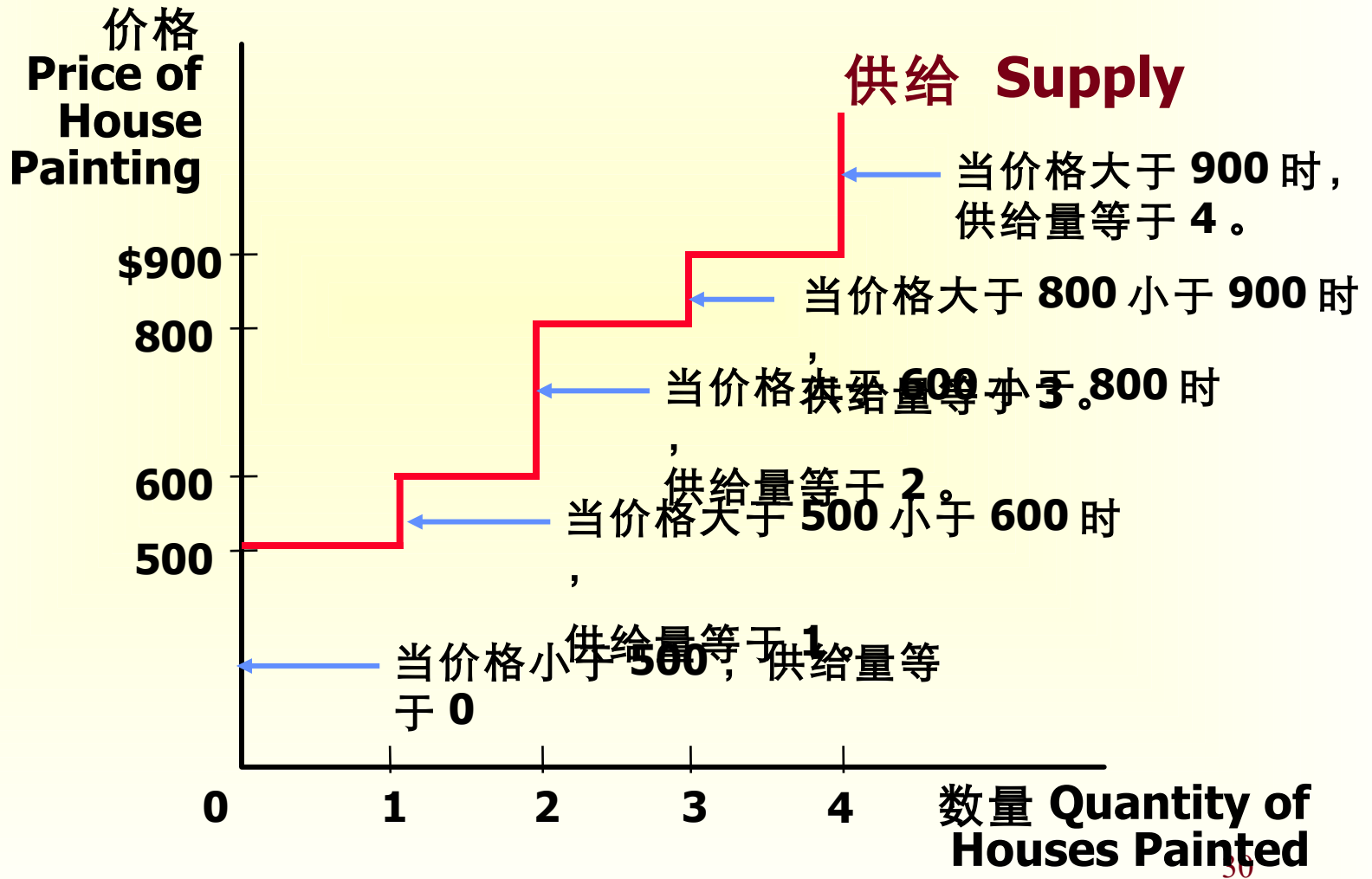
Just as buyer's WTP curve is related to the demand curve, seller's cost curve is closely

四个卖者的供给量

Supply Schedule for the Four Possible Sellers...

价格 Price	卖者 Sellers	供给量 Quantity Supplied
\$900 or more	Mary, Frida, Georgia, Grandma	4
\$800 to \$900	Frida, Georgia, Grandma	3
\$600 to \$800	Georgia, Grandma	2
\$500 to \$600	Grandma	1
Less than \$500	None	0

供给曲线 Supply Curve...



卖者成本曲线与供给曲线

Seller's Cost Curve and the Supply Curve

市场供给曲线恰好反映了市场上（边际）卖者的成本（两条曲线重合）。

**The
market supply curve exactly reflects
(marginal) sellers' cost in the
market.**

生产者剩余

Producer Surplus

✧ 生产者剩余是卖者出售一种物品得到的金额减去卖者的成本。

Producer surplus is the amount a seller is paid minus the cost of production.

✧ 它衡量了经济中卖者得到的收益。

It measures the benefit to sellers in an economy.

生产者剩余与供给曲线

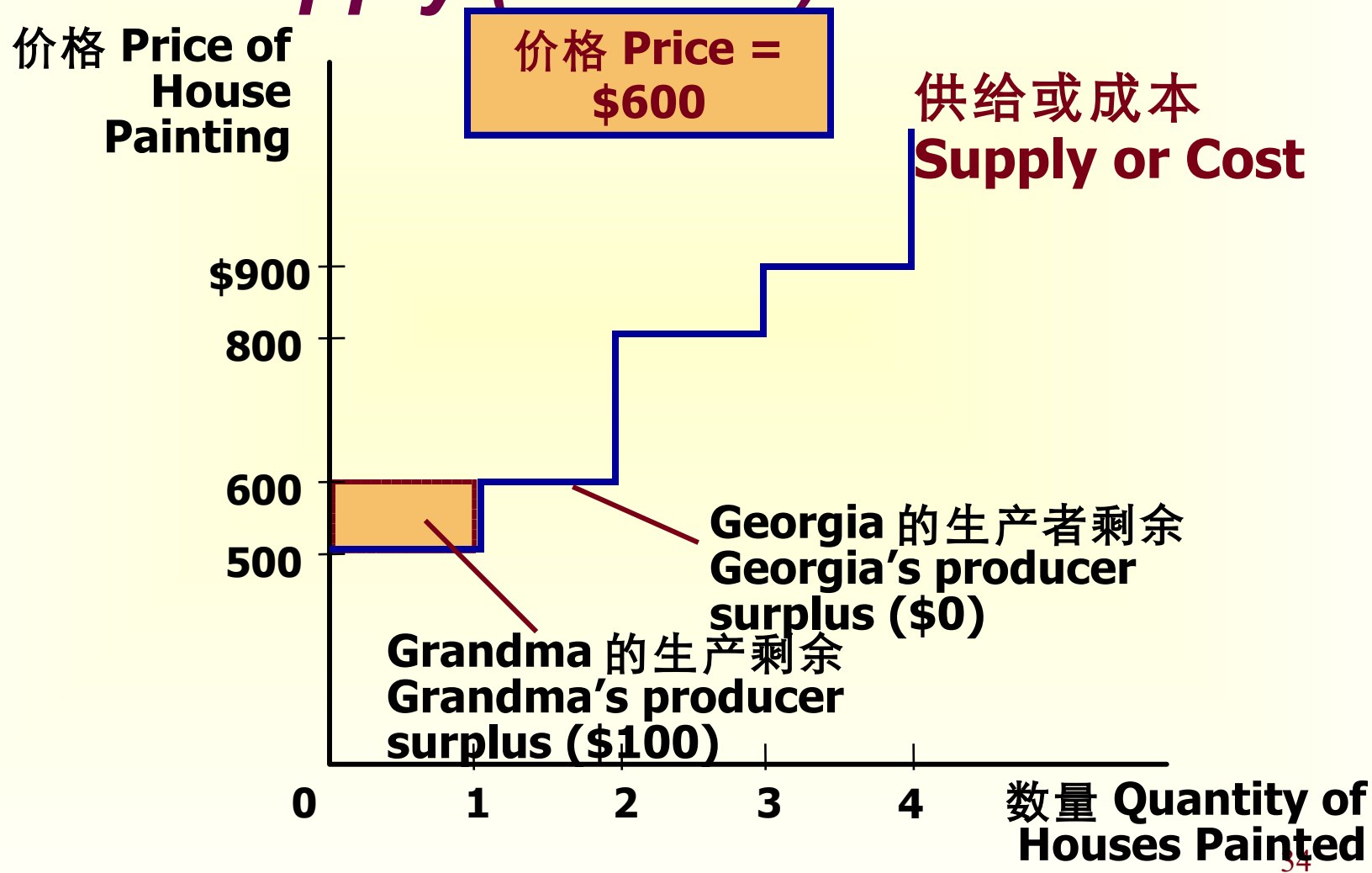
Producer Surplus and the Supply Curve

供给（或成本）曲线以上和价格以下的面积衡量市场的生产者剩余。

The area below the price and above the supply curve measures the producer surplus in a market.

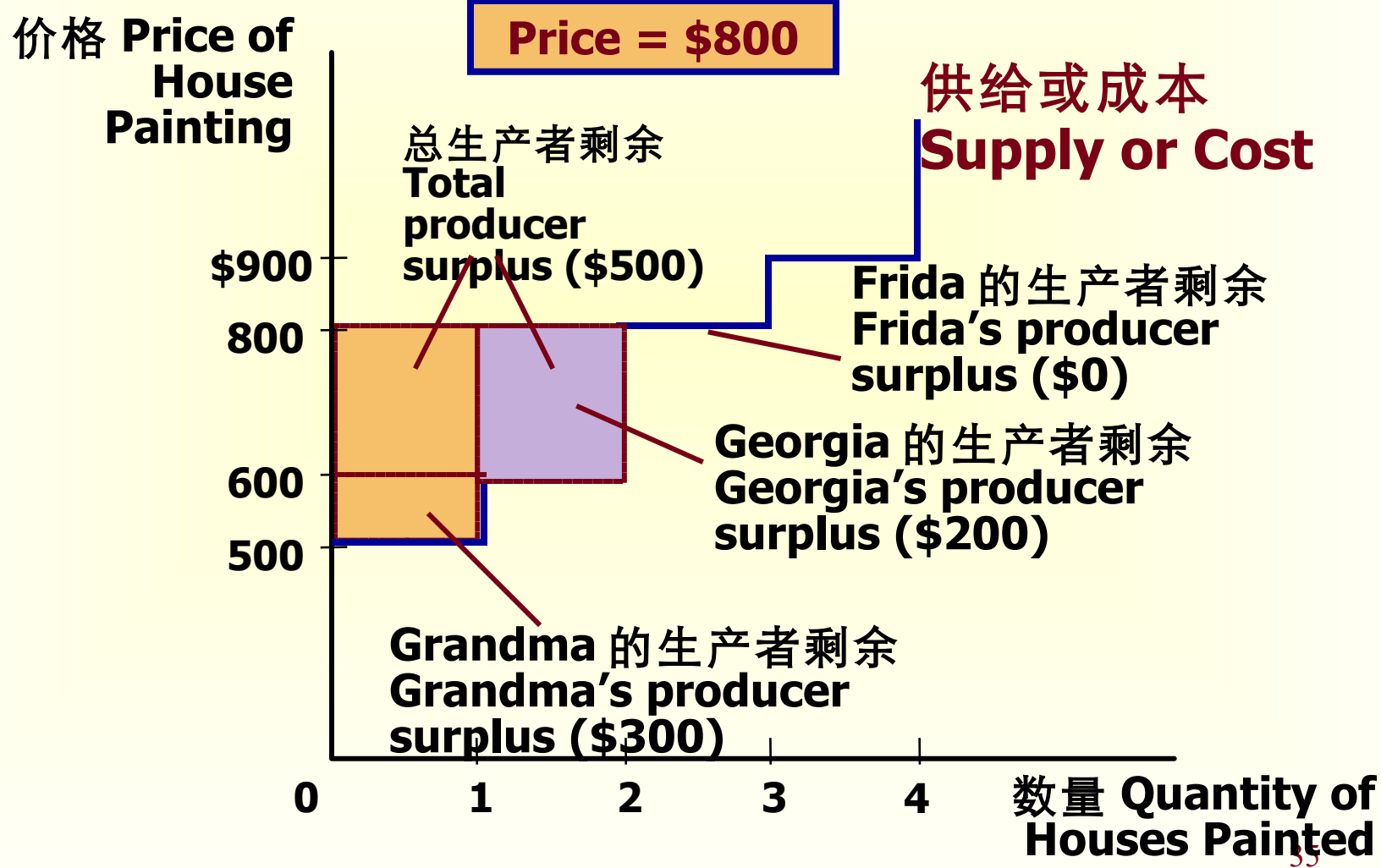
用供给曲线衡量生产者剩余

Measuring Producer Surplus with the Supply (or Cost) Curve...



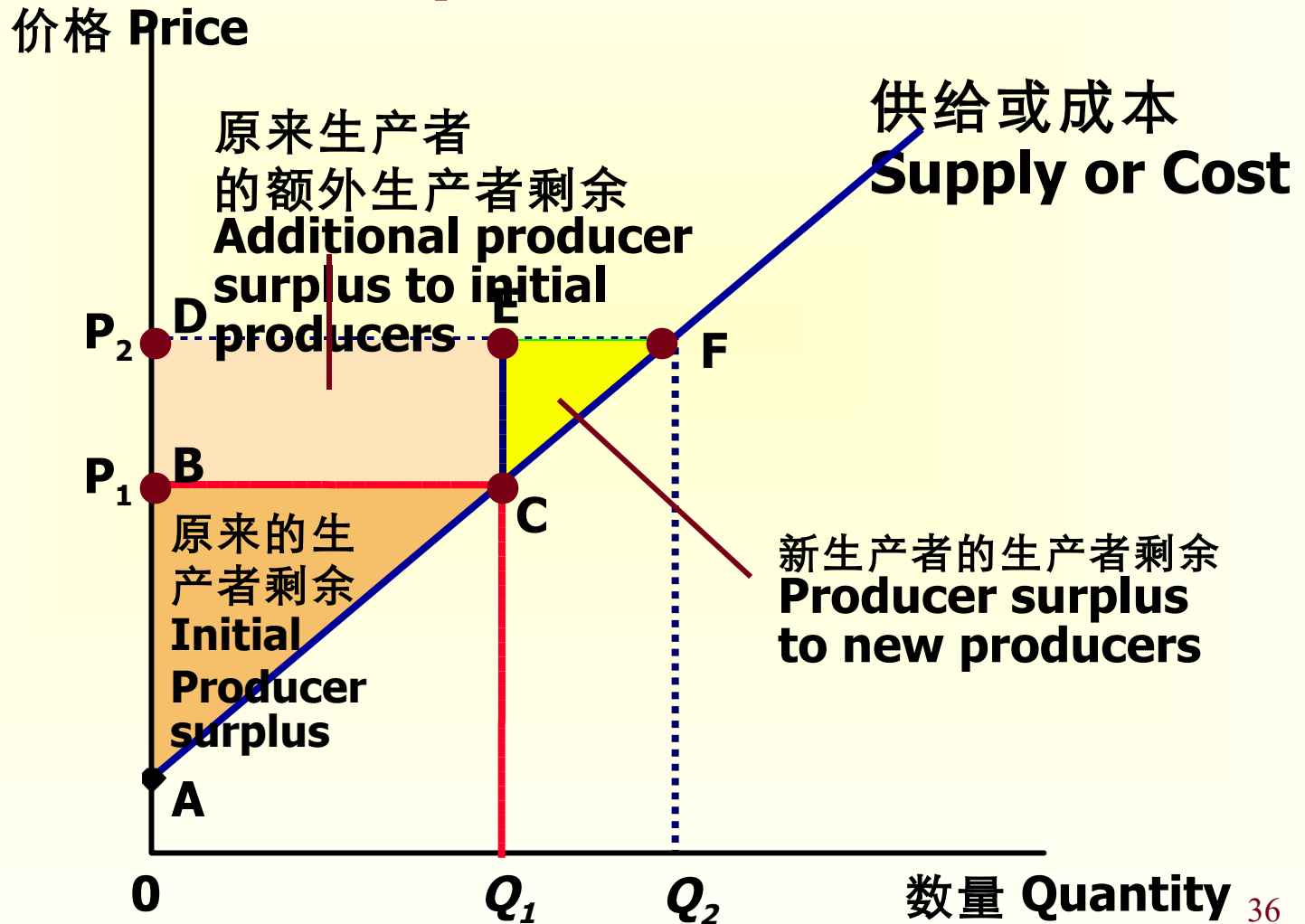
用供给曲线衡量生产者剩余

Measuring Producer Surplus with the Supply Curve...



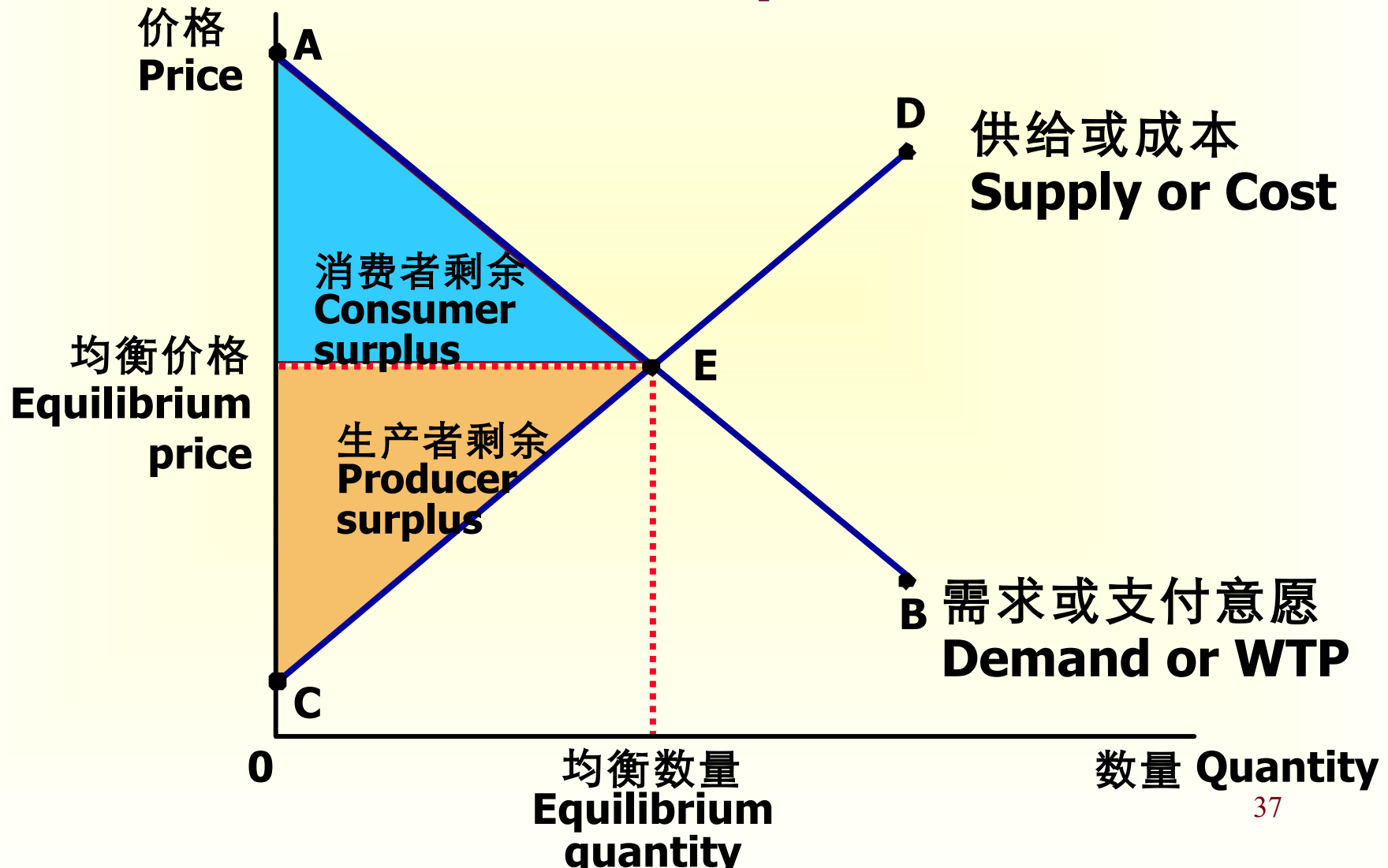
价格如何影响生产者剩余

How Price Affects Producer Surplus...



市场均衡时的消费者与生产者剩余

Consumer and Producer Surplus in the Market Equilibrium



市场效率

Market Efficiency

- ◆ 福利经济学运用买者支付意愿（消费者剩余）和卖者成本（生产者剩余）来评价社会的资源配置。

Welfare economics uses buyer's WTP (consumer surplus) and seller's cost (producer surplus) to evaluate resource allocation in a society.

- ◆ 它认为自由市场决定的资源配置从某种意义上来说是令人满意的。

It states that the allocation of resources determined by free markets is desirable in some way.

仁慈的社会计划者

The Benevolent Social Planner

- ◆ 考虑一个仁慈的计划者试图最大化社会中每个人的经济福利。

Consider a benevolent social planner who wants to maximize the economic well-being of everyone in society.

- ◆ 首先，该计划者需要决定如何衡量一个社会的经济福利。 First, the planner must decide how to measure the economic well-being of a society.

- ◆ 其次，该计划者需要找到一个配置资源的方法，使得根据这一衡量方法计算的经济福利最大化。

Second, the planner need to find a way to allocate resources to maximize the economic well-being of a society calculated with this measure.

总剩余

Total Surplus

一个可能的衡量社会经济福利的方法就是消费者和生产者剩余的**和**，即**总剩余**。

One possible measure of the economic well-being of the society is the **sum** of consumer and producer surplus, which we call **total surplus**.

总剩余 Total Surplus

消费者剩余 = 买者评价 - 买者支付的金额
Consumer Surplus = Value to buyers - Amount paid by buyers

以及
and

生产者剩余 = 卖者得到的金额 - 卖者的成本
Producer Surplus = Amount received by sellers - Cost to sellers

总剩余 Total Surplus

$$\begin{array}{ccccc} \text{总剩余} & & & & \\ \text{Total} & = & \text{消费者剩} & + & \text{生产者剩余} \\ \text{Surplus} & & \text{余} & & \text{Producer} \\ & & \text{Consumer} & & \text{Surplus} \\ & & \text{Surplus} & & \\ & & \text{或 or} & & \end{array}$$

$$\begin{array}{ccccc} \text{总剩余} & & & & \\ \text{Total} & = & \text{消费者的评} & - & \text{生产者的} \\ \text{Surplus} & & \text{价} & & \text{成本} \\ & & \text{Value to} & & \text{Cost to} \\ & & \text{consumers} & & \text{producers} \end{array}$$

总剩余

Total Surplus

- 买者（消费者）的评价（支付意愿）衡量了从整个社会来看的总收益。
- 卖者（生产者）的成本衡量了从整个社会来看的总成本。
- 总剩余（= 买者评价 - 卖者成本）衡量了从整个社会来看的净收益。
- 它与消费者支付和生产者所得无关——从整个社会来看只是一种转移支付 (transfer)。

效率

Efficiency

当资源配置使总剩余最大化时，
我们说，这种配置达到**效率**。

Efficiency is
achieved when the allocation of
resources maximizes total surplus.

效率与平等

Efficiency and Equity

除了效率之外，社会计划者也会关心**平等**——在不同的买者和卖者之间福利分配的公平性。

In addition to efficiency, a social planner might also care about **equity** – the fairness of the distribution of well-being among the various buyers and sellers.

效率的概念几乎完全忽视了平等；但仍然是一个非常有用的出发点。

有效率配置的特征

Characteristics of an Efficient Allocation

有效率的数量 (quantity) , 或产品组合效率 :

社会应该生产多少物品或服务 (What) ?

有效率的分配 (distribution) :

生产效率: 社会应该将这些物品或服务分配给哪些生产者来生产 (How) ?

交换效率: 社会应该将这些物品或服务分配给哪些消费者来享用 (Who) ?

有效率配置的特征

Characteristics of an Efficient Allocation

有效率的分配：给定某一数量的物品和服务，社会应该将它们分配给：

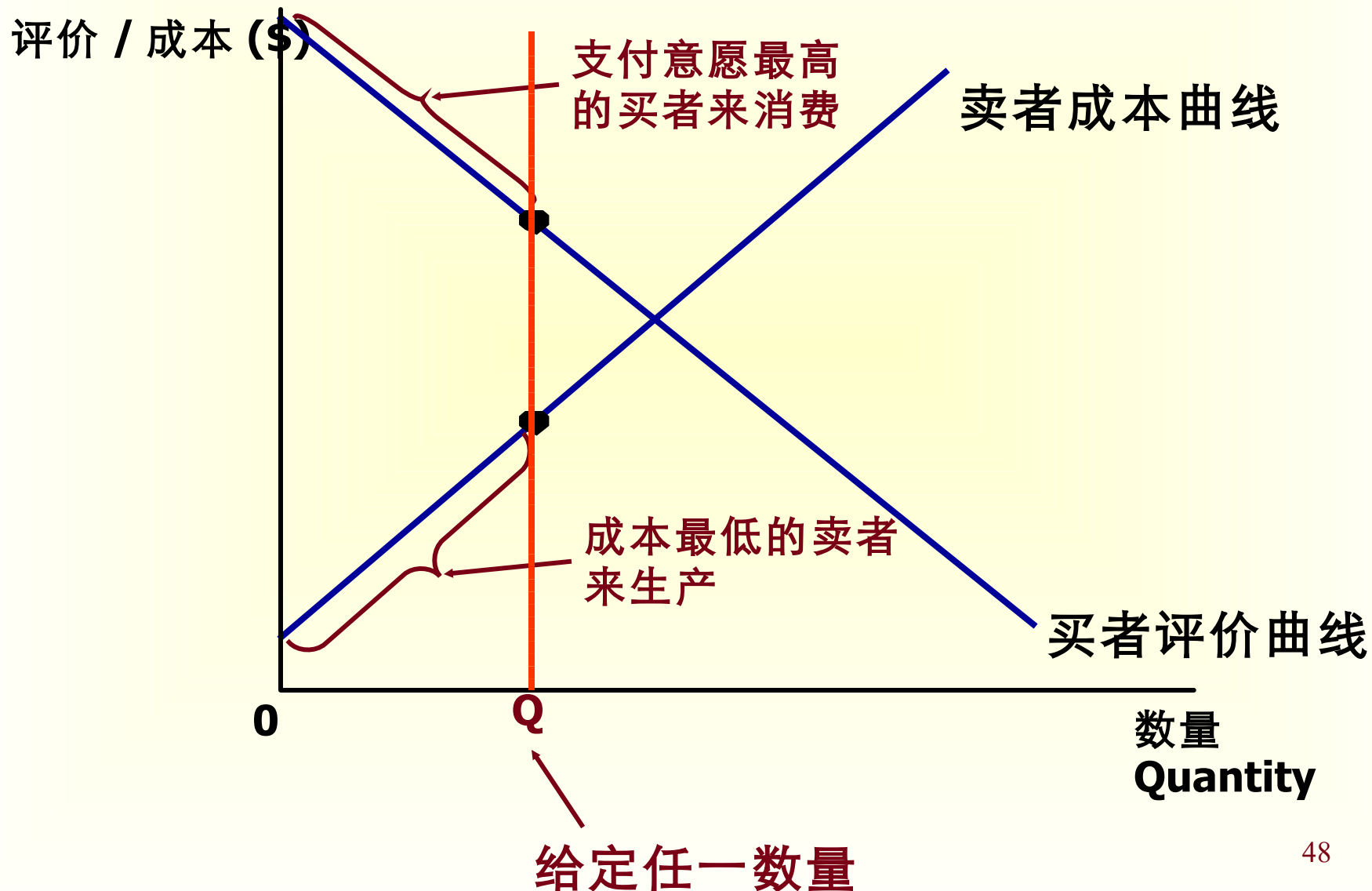
最低成本的那些卖者来生产它们（达到生产效率）；

最高评价（支付意愿）的那些买者来消费它们（达到交换效率）

只有这样的分配才能使得给定数量下的总剩余（= 买者评价 - 卖者成本）最大。

有效率的配置

Efficient Allocation

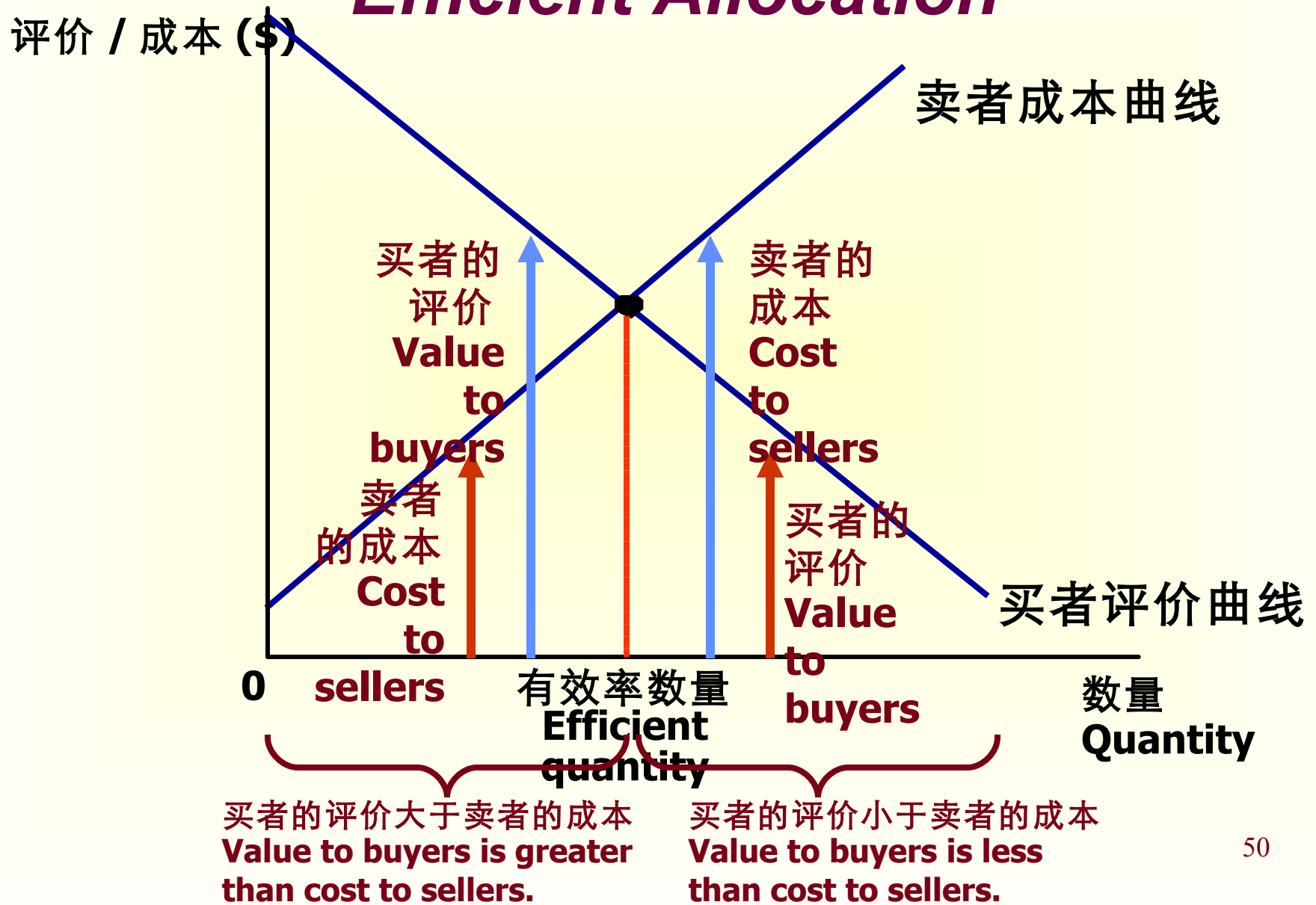


有效率配置的特征

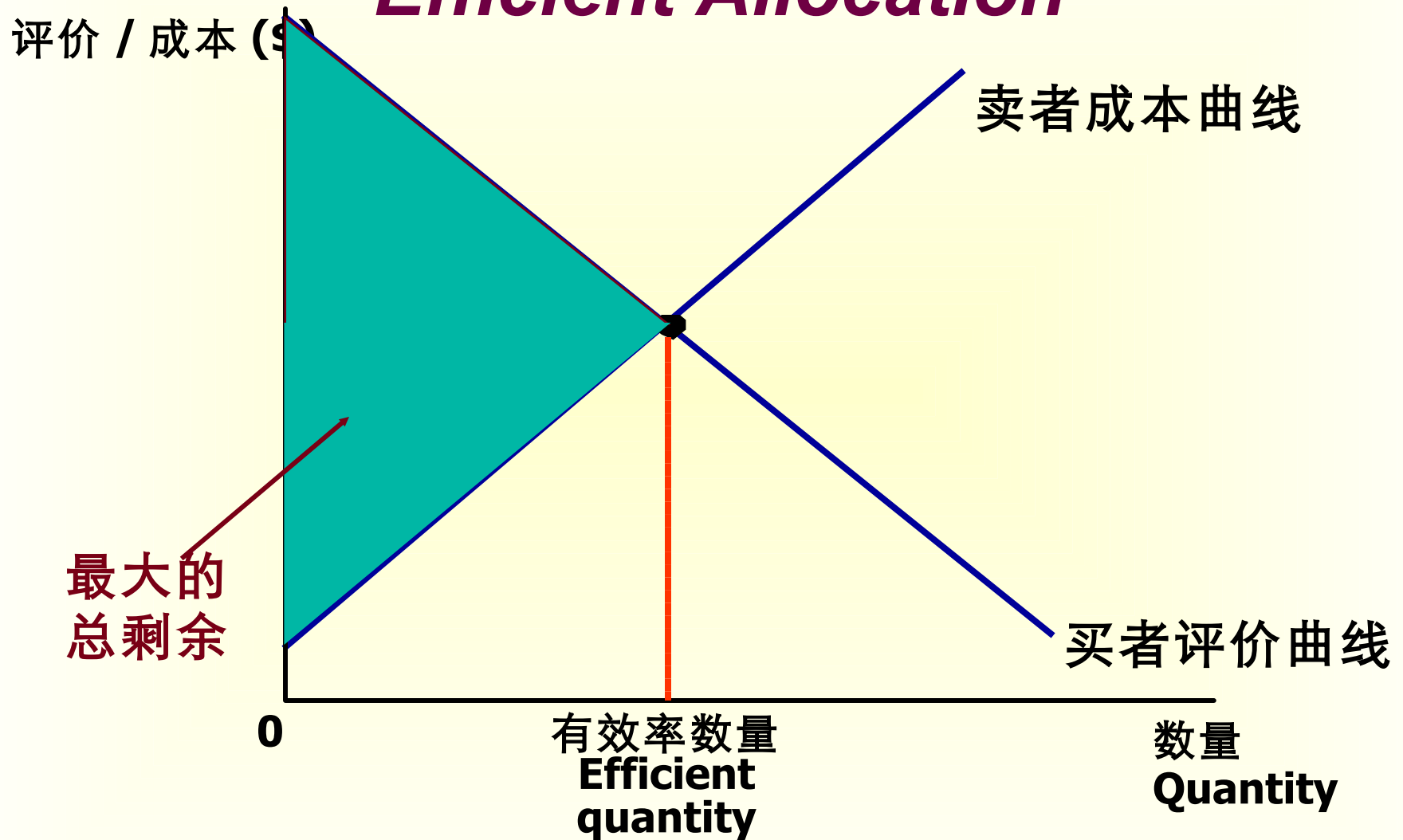
Characteristics of an Efficient Allocation

有效率的数量：社会应该生产物品或服务达到这一数量：该数量下边际买者的支付意愿等于边际卖者的成本，从而使得总剩余最大（达到产品组合效率）。

有效率的配置 *Efficient Allocation*



有效率的配置 *Efficient Allocation*



市场均衡与有效率的配置

Market Equilibrium and Efficient Allocation

对于仁慈的社会计划者来说……

买者评价曲线和卖者成本曲线的交点代表社会的经济福利最大——有效率——的资源配置

在一个竞争市场当中……

需求曲线和供给曲线的交点决定市场均衡

由于：

需求曲线等价于买者评价曲线

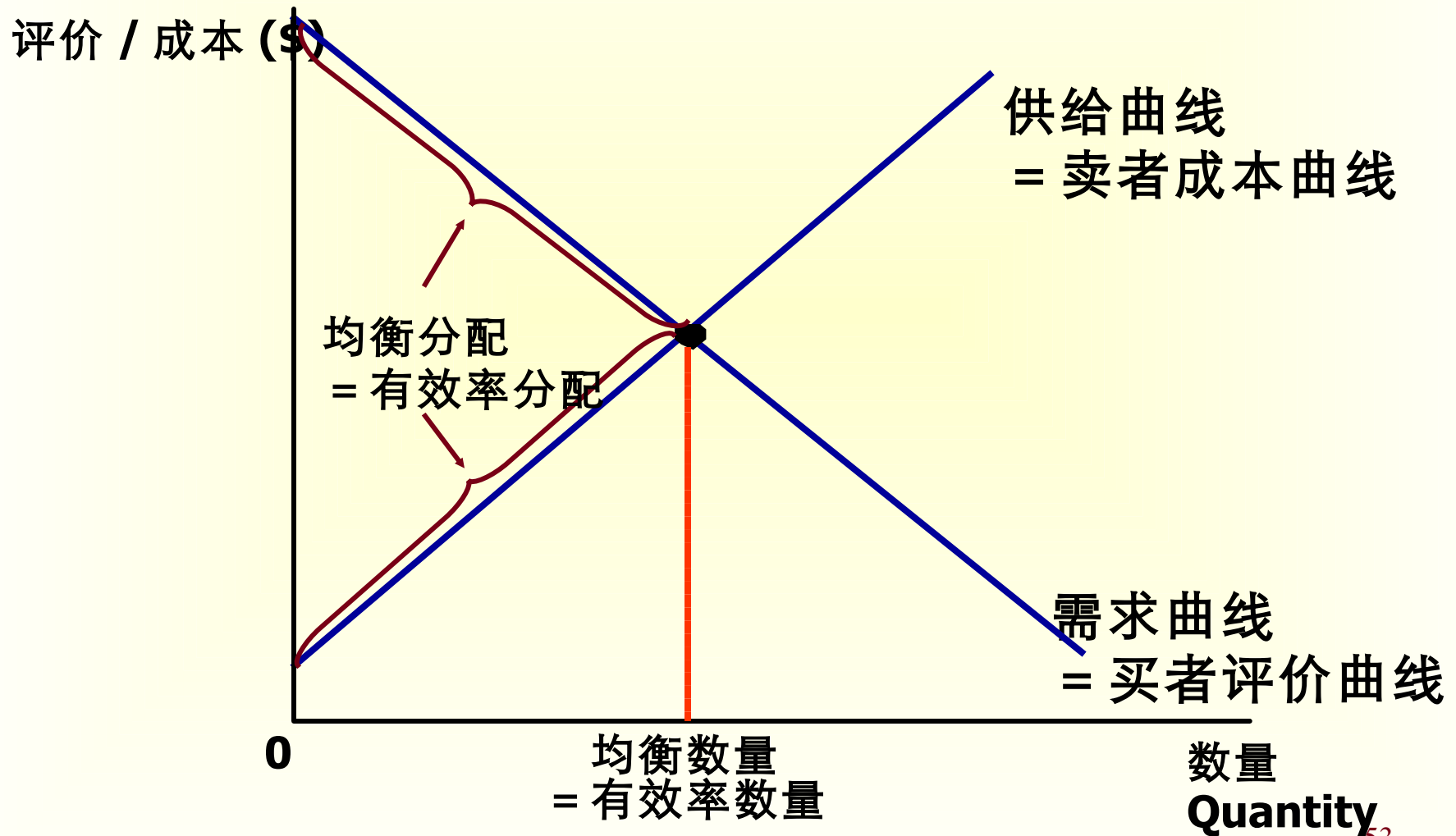
供给曲线等价于卖者成本曲线

因此：

市场均衡是有效率的资源配置。

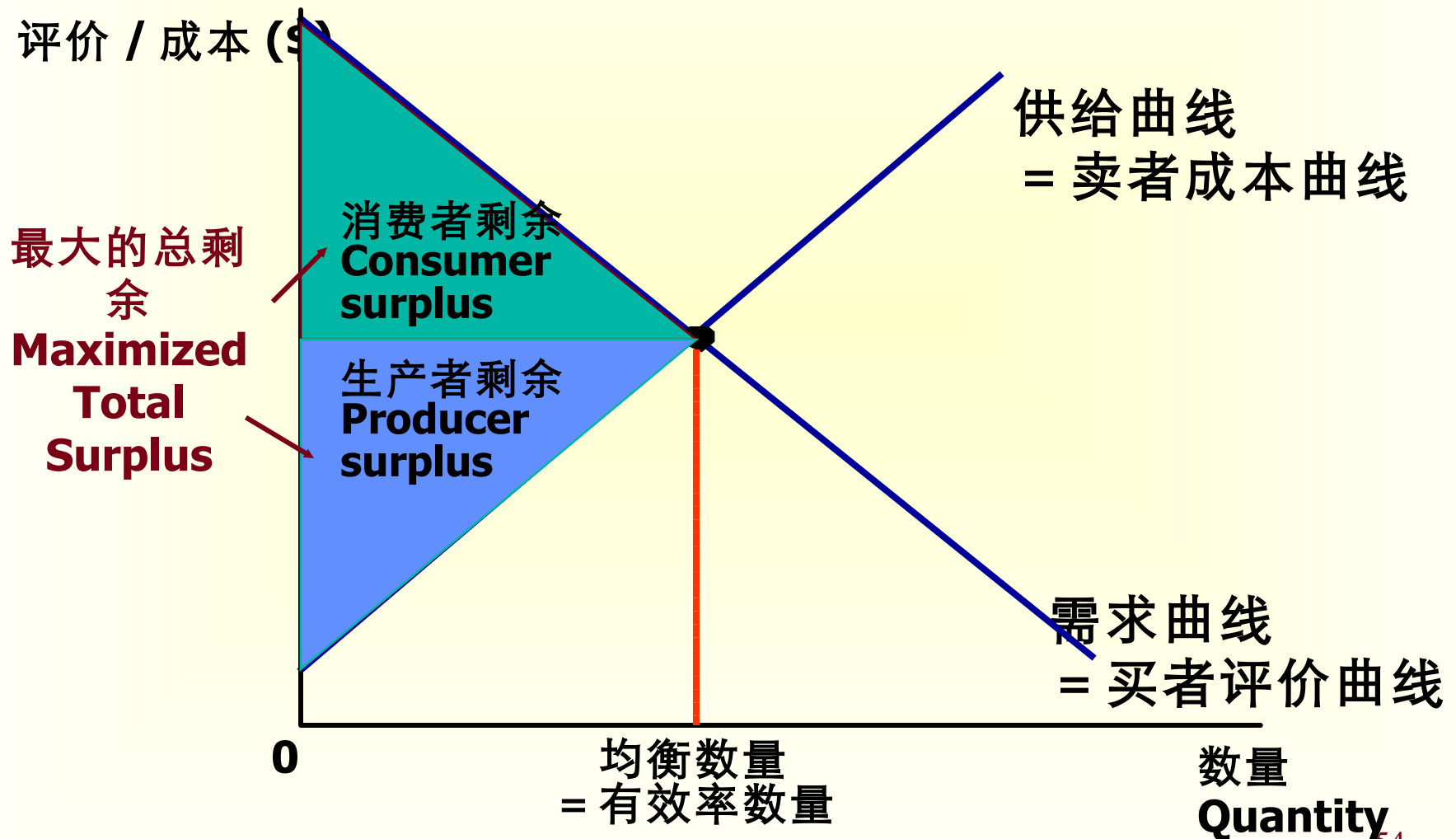
市场均衡与有效率的配置

Market Equilibrium and Efficient Allocation



市场均衡与有效率的配置

Market Equilibrium and Efficient Allocation



关于市场运行结果的三大结论

Three Insights Concerning Market Outcomes

自由市场把物品的供给分配给对这些物品评价最高的买者。

Free markets allocate the supply of goods to the buyers who value them most highly.

自由市场把物品的需求分配给可以以最低成本生产这些物品的卖者。

Free markets allocate the demand for goods to the sellers who can produce them at least cost.

自由市场的总生产量使总剩余最大化。

Free markets produce the quantity of goods that maximizes the sum of consumer and producer

市场的有效率性

The Efficiency of the Market

因为市场均衡时的资源配置是有效率的，社会计划者可以让市场自己找出结果。

Because the equilibrium outcome is an efficient allocation of resources, the social planner can leave the market outcome as he/she finds it.

这种完全放开的政策可以用法语 自由放任 来表述 This policy of leaving well enough alone goes by the French expression *laissez faire*.

The Invisible Hand

Every individual ... neither intends to promote the public interest, nor knows how much he is promoting. ... He intends to only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than he really intends to promote it.

– Smith, Adam, 1776,

An Inquiry into the Nature and Causes of the Wealth of Nations

无效率与贸易

Inefficiency and Trade

如果一种配置是无效率的，那么，买者和卖者之间（甚至买者或卖者内部）的贸易的好处就还没有完全实现。

If an allocation is *not* efficient, then some of the gains from trade among buyers and sellers are not being realized.

市场配置是有效率的，因为它实现了所有的贸易好处。

例子：倒卖门票

Example: Ticket Scalping



如果一个经济能有效率地配置其稀缺资源，物品必须给予对此评价最高的那些消费者。

If an economy is to allocate its scarce resources efficiently, goods must get to those consumers who value them most highly.

倒卖门票是市场如何实现有效率结果的一个例子。

Ticket scalping is one example of how markets reach efficient outcomes.

倒票者购买门票，并以高出他们原来成本的价格卖出门票。 Scalpers buy tickets and then sell the tickets at a price above their original cost.

通过收取市场可以承受的最高价格，倒票者有助于保证对门票支付意愿最高的人实际上得到这些票。

By charging the highest price the market will bear, scalpers help ensure that consumers with the greatest willingness to pay for the tickets actually do get them.

例子：倒卖门票

Example: Ticket Scalping



倒卖门票（或火车票）被禁止时的均衡

- 假定：非常多倒票者，且供给无弹性

- 必定存在短缺，即价格过低（否则倒卖门票者无利可图）

- 消费者虽然面对低价格，但：

 - 并非支付意愿最高的消费者得到门票

 - 排队等配给方式带来额外成本

倒卖门票（或火车票）被允许时的均衡

- 得到竞争市场均衡结果

- 社会总福利通常提高了（如果倒票本身成本很低）；

- 消费者福利可能提高了（即使倒票者直接从生产者手中买走所有票）。

警告：假设的作用

Warning: Assumptions

为了得出市场有效率的结论，我们作出了一些关于市场如何运行的假设。

To conclude that markets are efficient, we made several assumptions about how markets work.

当这些假设不成立的时候，关于市场均衡有效率的结论可能就不成立了。

When these assumptions do not hold, our conclusion that the market equilibrium is efficient may no longer be true.

两个重要的假设 Two important assumptions

市场是完全竞争的，即不存在市场势力。

Markets are perfectly competitive. (No Market power)

市场结果只与买者和卖者相关，即无外部性。

The outcome in a market matters only to the buyers and sellers in that market. (No externalities)

为什么关于市场有效率的模型如此重要，尽管假设与现实会有距离

- 当现实满足这些假设成立时，关于市场均衡有效率的结论就能够应用。
- 即使在现实中这些假设不完全成立，它仍然为我们分析问题提供了一个**基准或标尺 (benchmark)** 或称**参照系 (reference)**
- 有了这一基准或标尺，我们对现实的进一步分析就有力量。
- 比如对市场势力和外部性情况的分析。

市场势力

Market Power

如果市场不完全竞争，市场势力便形成。

If a market system is not perfectly competitive, market power may result.

市场势力是影响价格的能力。

Market power is the ability to influence prices.

市场势力可以使市场无效率，因为它会使价格和数量偏离供求均衡点。

Market power can cause markets to be inefficient because it keeps price and quantity from the equilibrium of supply and demand.

外部性

Externalities

当市场结果影响了买者和卖者以外的人时，外部性产生。 Externalities are created when a market outcome affects individuals other than buyers and sellers in that market.

外部性使市场福利还要取决于买者评价和卖者评价之外的其他因素。

Externalities cause welfare in a market to depend on more than just the value to the buyers and cost to the sellers.

当买者和卖者在决定消费和生产时不考虑外部性的时候，市场均衡可能是无效率的。

When buyers and sellers do not take externalities into account when deciding how much to consume and produce, the equilibrium in the market can be inefficient

市场失灵

Market Failure

市场势力与外部性都是一个普遍现象——**市场失灵**——的例子，即自由的市场不能有效率地配置资源。 Market power and externalities are examples of a general phenomenon called **market failure** – the inability of some unregulated markets to allocate resources efficiently.

当市场失灵时，公共政策就有可能对事情进行补救，提高经济效率。

When markets fail, public policy can potentially remedy the problem and increase economic efficiency.

福利经济学的工具稍加变动就可以用来分析这些问题 The tools of welfare economics are readily adapted to that endeavor.

总结

Summary

消费者剩余衡量买者参与市场的收益。

Consumer surplus measures the benefit buyers get from participating in a market.

消费者剩余可以通过找出需求曲线以下和价格以上的面积来计算。

Consumer surplus can be computed by finding the area below the demand curve and above the price.

总结

Summary

生产者剩余衡量卖者参与市场的收益。
。 Producer surplus measures the benefit sellers get from participating in a market.

生产者剩余可以通过找出价格以下和供给曲线以上的面积来计算。

Producer surplus can be computed by finding the area below the price and above the supply curve.

总结

Summary

使消费者与生产者剩余的总和最大化的资源配置被称为是有效率的资源配置。
An allocation of resources that maximizes the sum of consumer and producer surplus is said to be efficient.

政策制定者通常关心经济的效率问题，但同时也关心平等问题。
Policymakers are often concerned with the efficiency, as well as the equity, of economic outcomes.

总结

Summary

供给与需求的均衡最大化消费者与生产者剩余之和。

The equilibrium of demand and supply maximizes the sum of consumer and producer surplus.

就好象市场这只看不见的手在指引买者和卖者在有效率地配置资源。

This is as if the invisible hand of the marketplace leads buyers and sellers to allocate resources efficiently.

当有市场势力和外部性时，市场不能有效率地配置资源。

Markets do not allocate resources efficiently in the presence of market power or externalities.