LECTURE 5: APPLICATIONS 1

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6. **Two Cases:** fur sales, newspaper sales.

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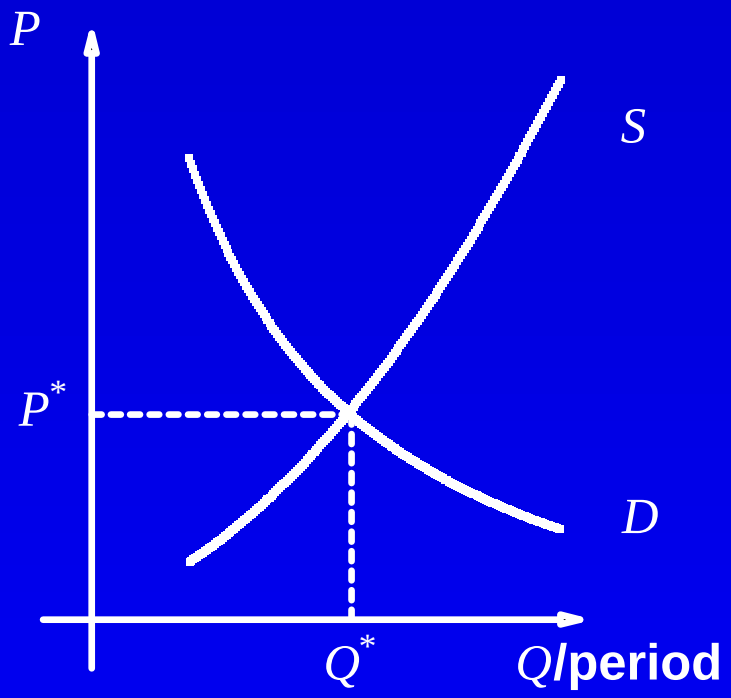
Get non-price rationing. Examples? FCFS, lotteries, scalping, "contacts/influence", nepotism, waiting.

GLUTS AND SHORTAGES

From Lecture 3:



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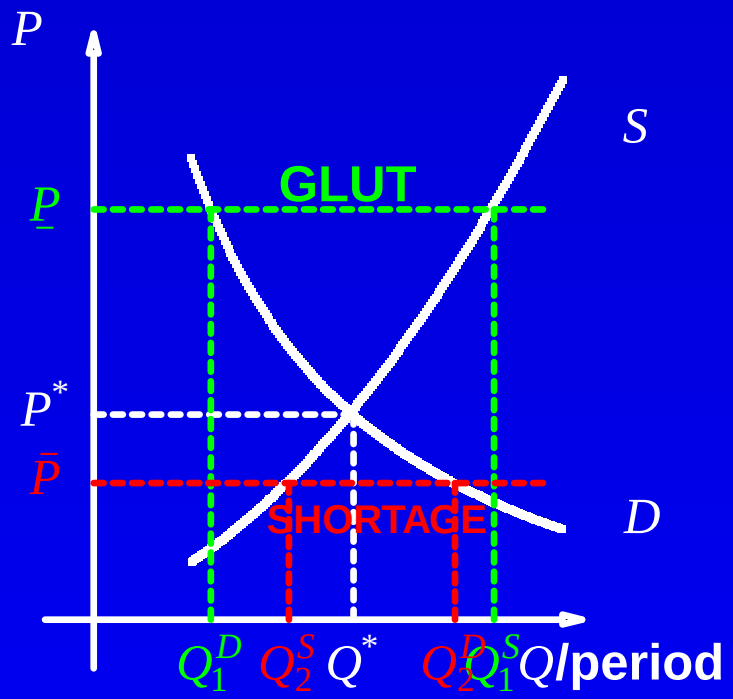

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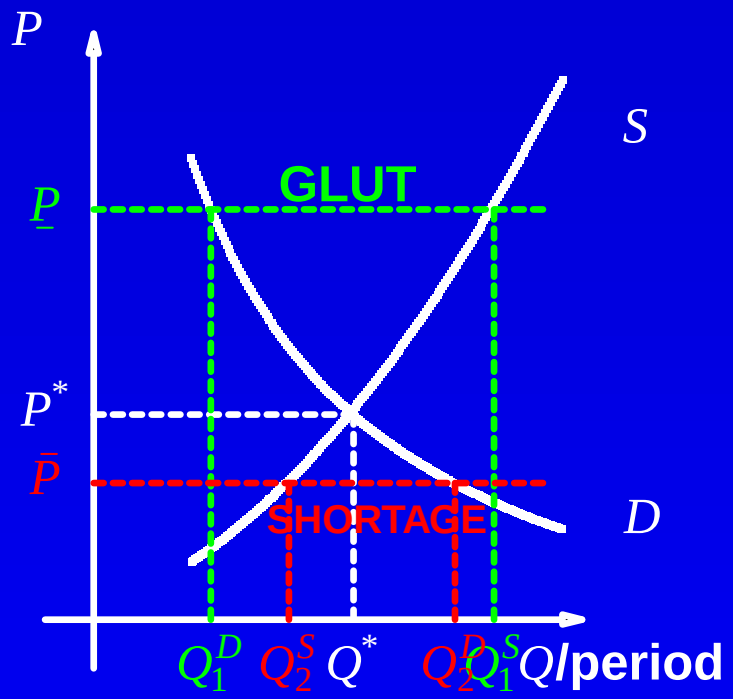

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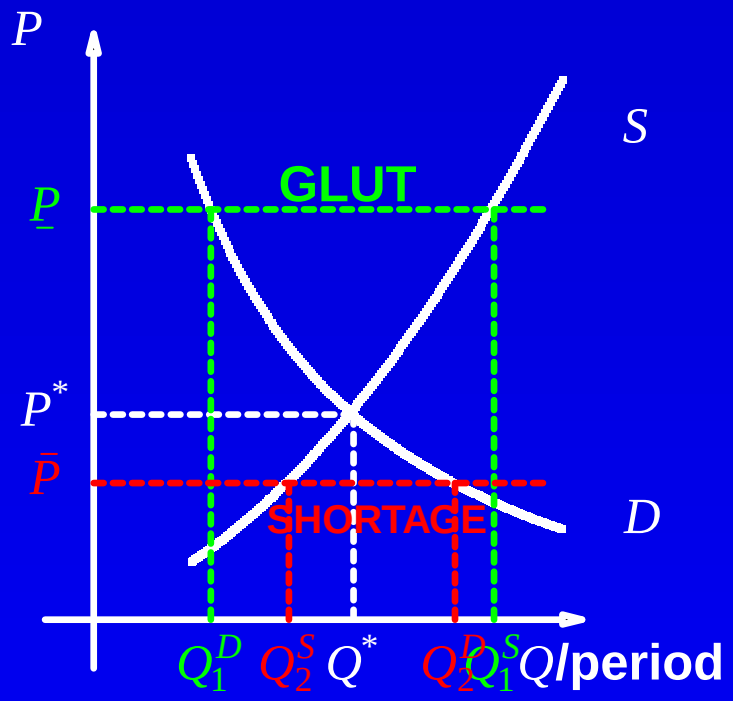

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By maintaining the wages of the low-paid, the government reduces the number of their jobs.

2. TAXES ON BUYERS

A unit tax on buyers: each unit bought costs 50¢ more, but the seller gets only (price paid – tax): a wedge between the buyers' price P^D and the sellers' price P^S. How do equilibrium price and quantity change?

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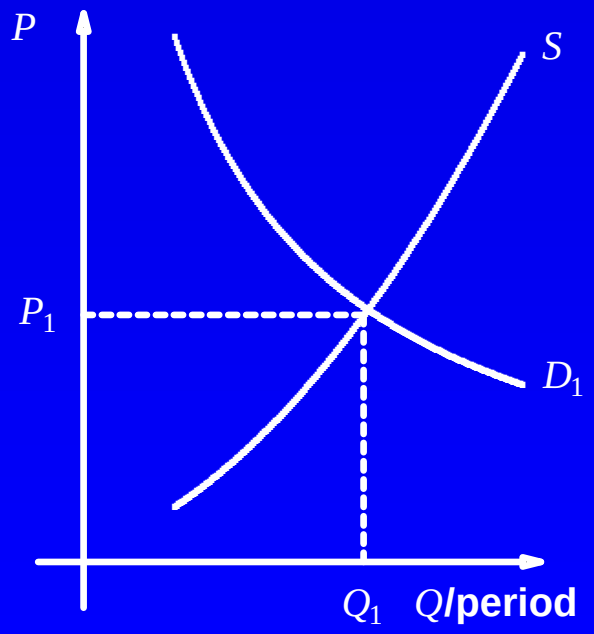

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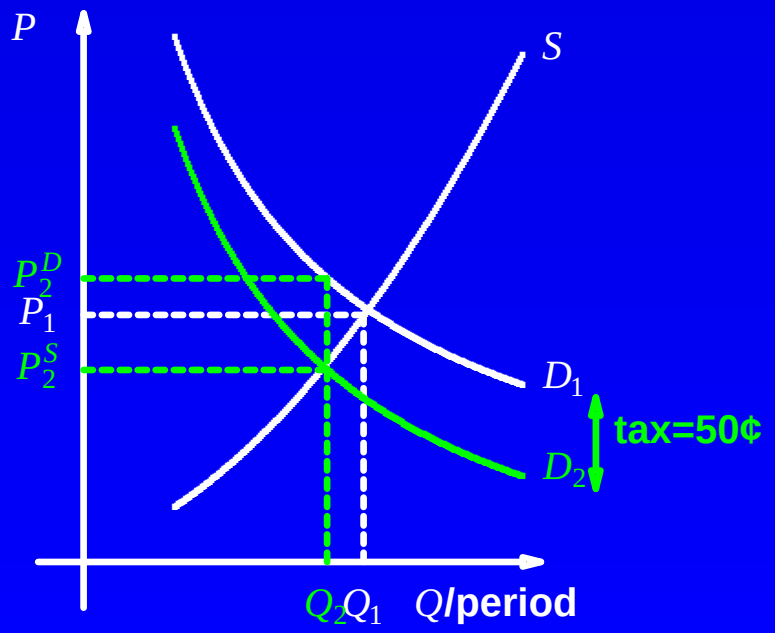

SHIFTED DEMAND AND THE BURDEN

If the previous (before-tax) price P^* was \$2.00, the buyers' price is now \$2.50; but at the higher price, buyers demand less: to sell the same quantity, the before-tax price must be 50¢ less. The demand curve in effect shifts down by 50¢ to D_2.

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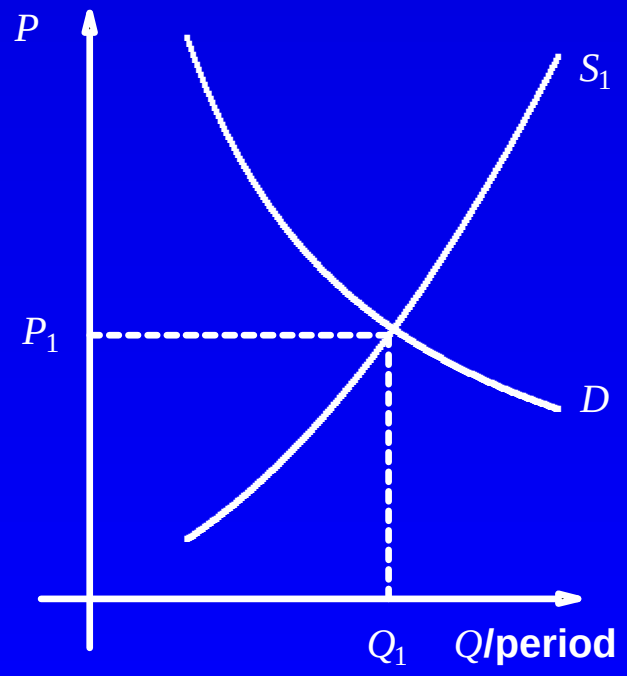

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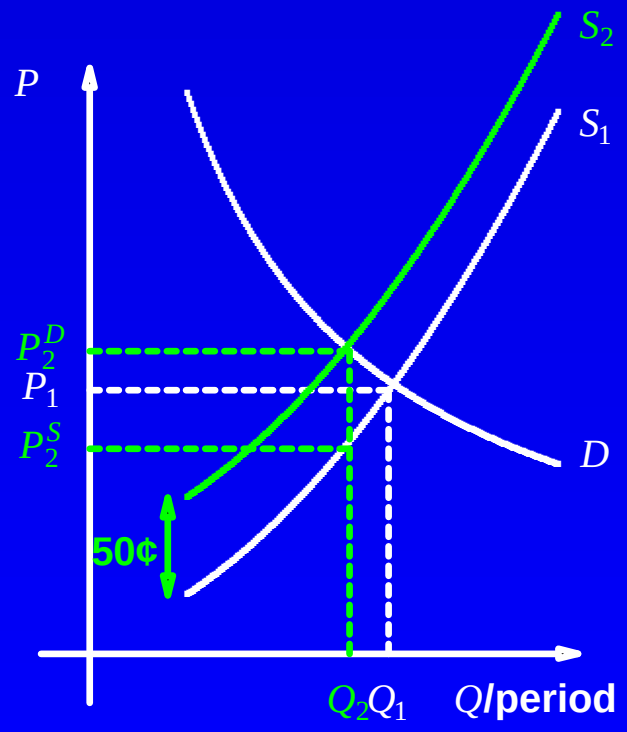

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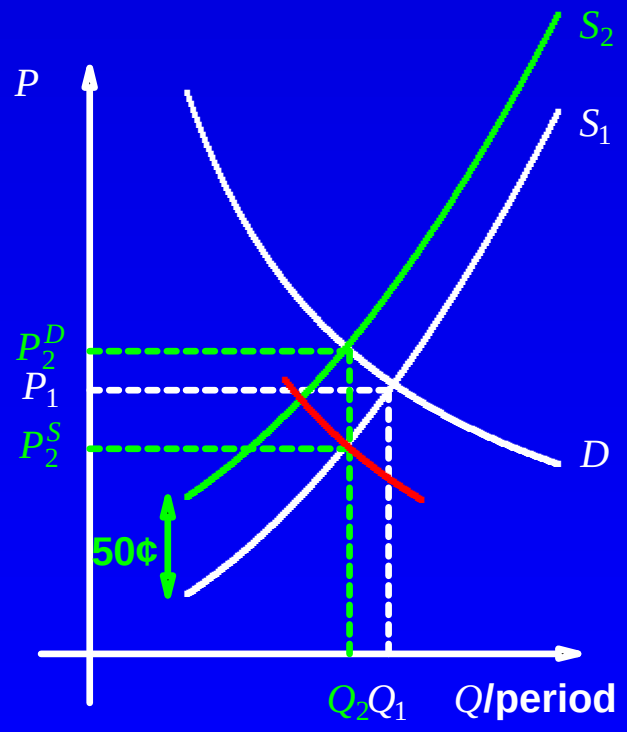

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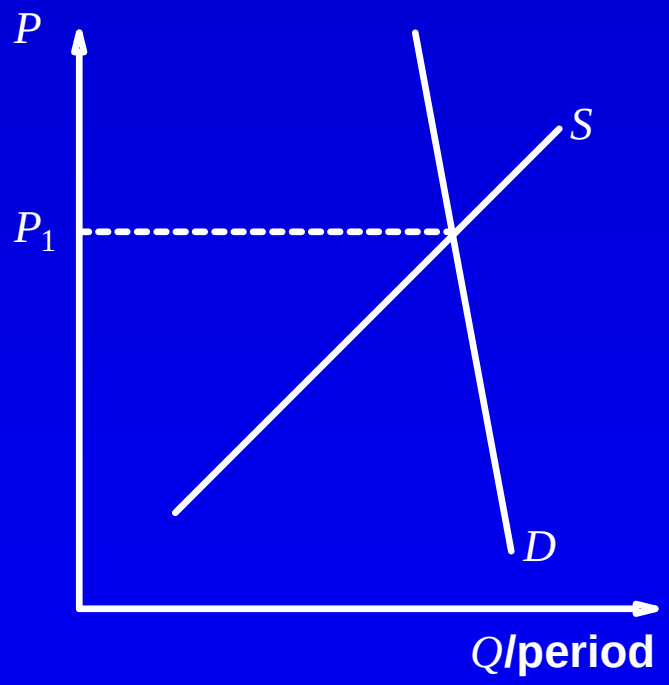
The burdens are measured by the relative movements of the buyers' price P_2^D and the sellers' price P_2^S from the before-tax equilibrium price of P^*.

TAX BURDEN & ELASTICITIES



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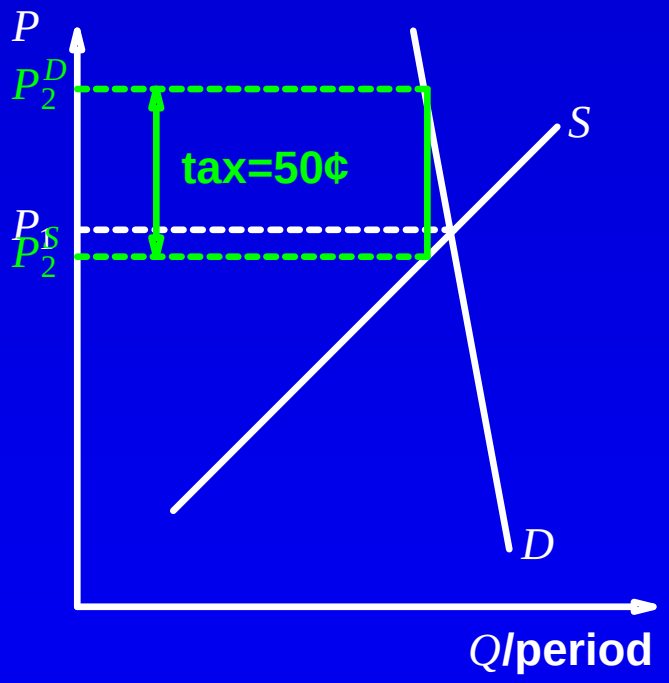

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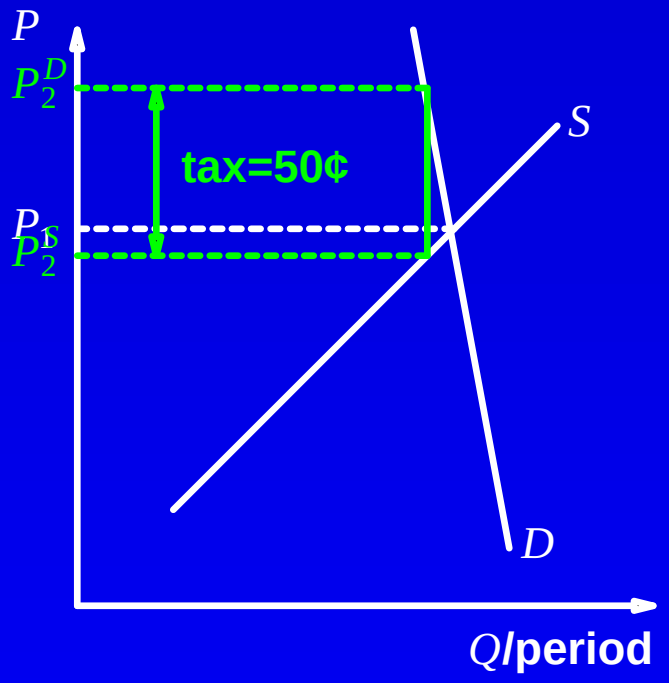

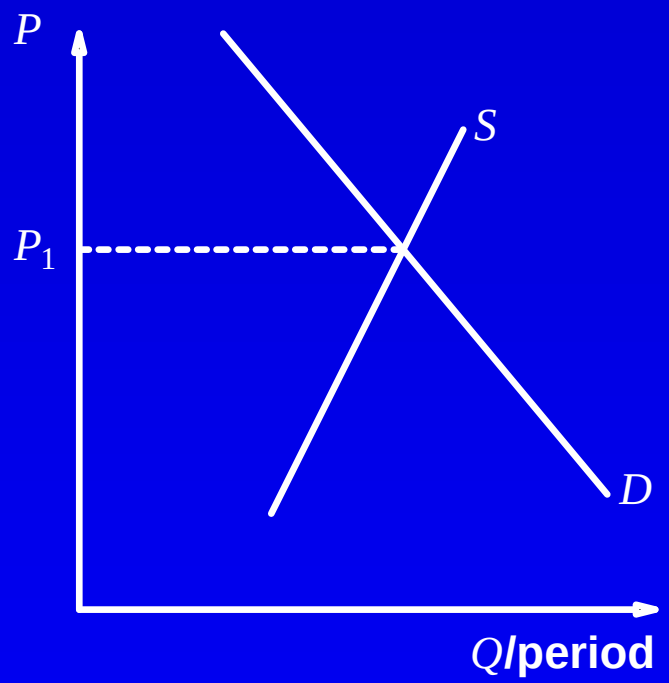

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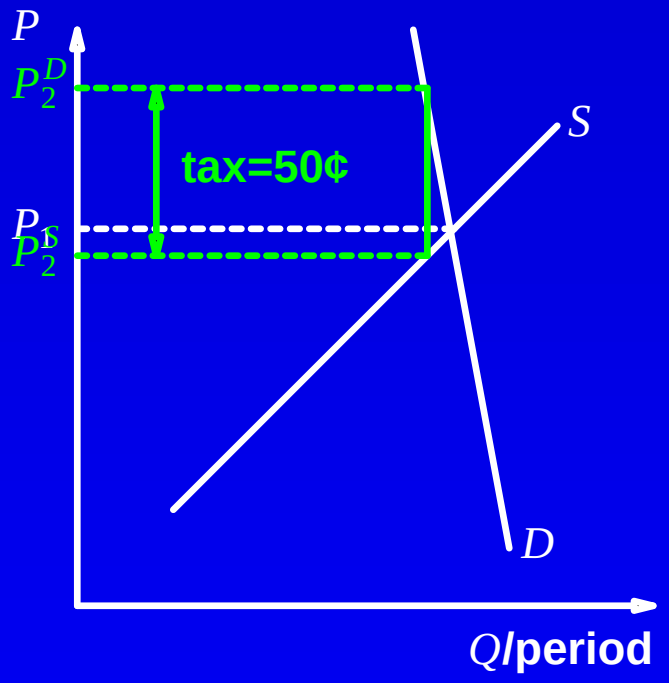

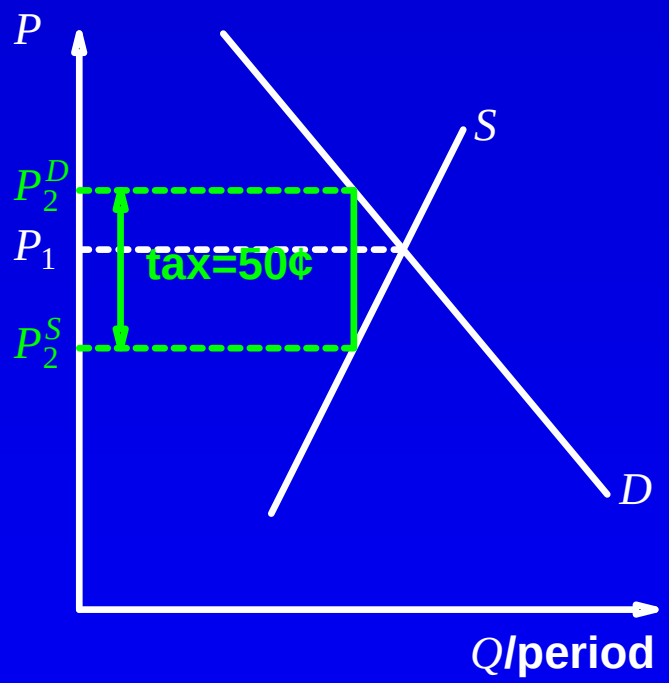

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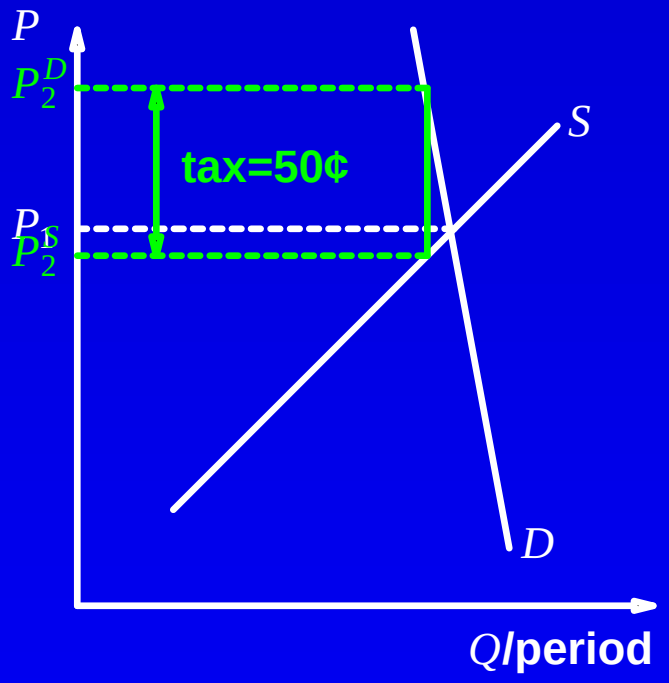

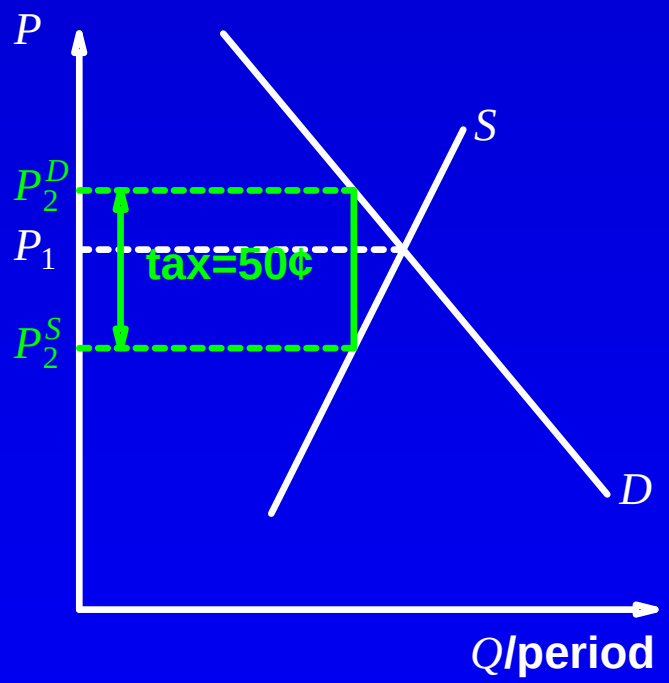

Elastic supply; inelastic demand.

Consumers' burden is greater than producers'.

Inelastic supply; elastic demand.

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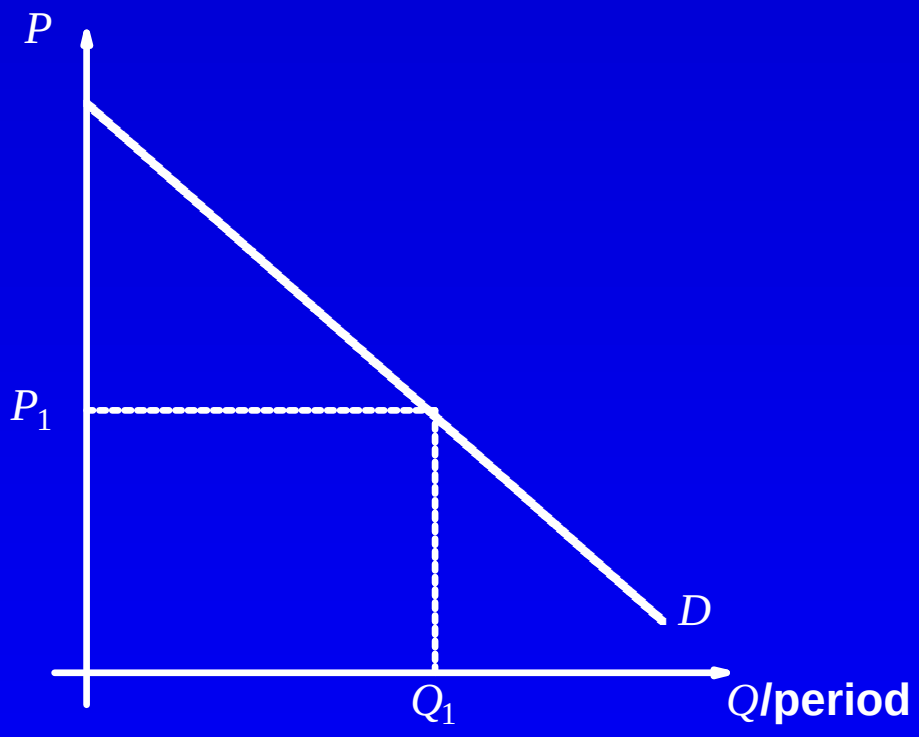
At any price P_1, consumers buy Q_1 units, and are left with a positive net willingness to pay: their *consumers' surplus*, which equals the area above the price and below the demand curve.

So consumers' surplus is a willingness to pay over and above the price, or net willingness to pay.

GRAPHICALLY



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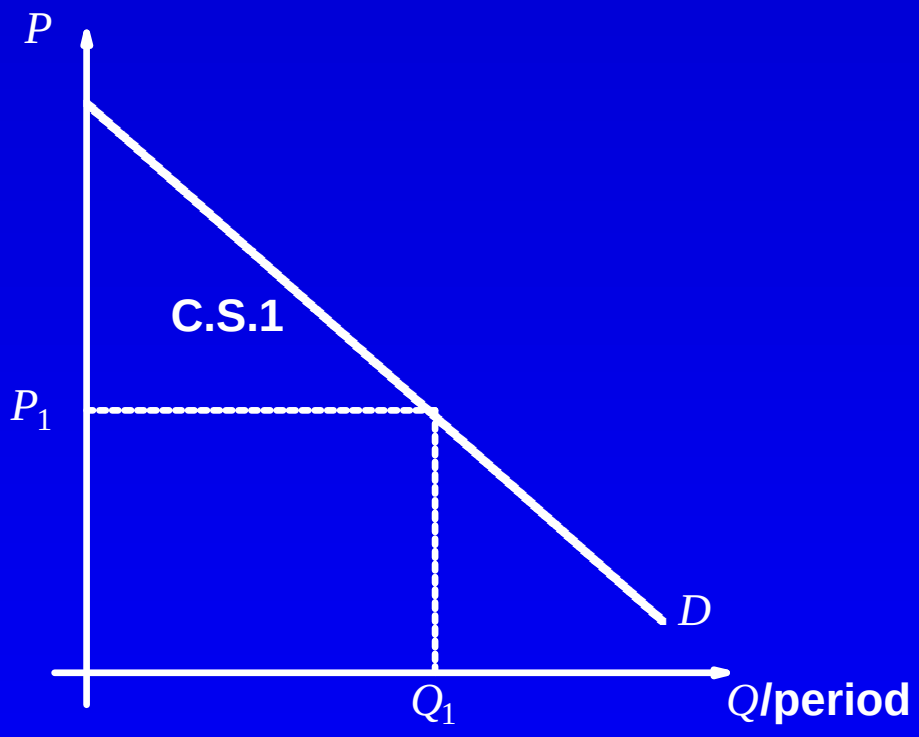

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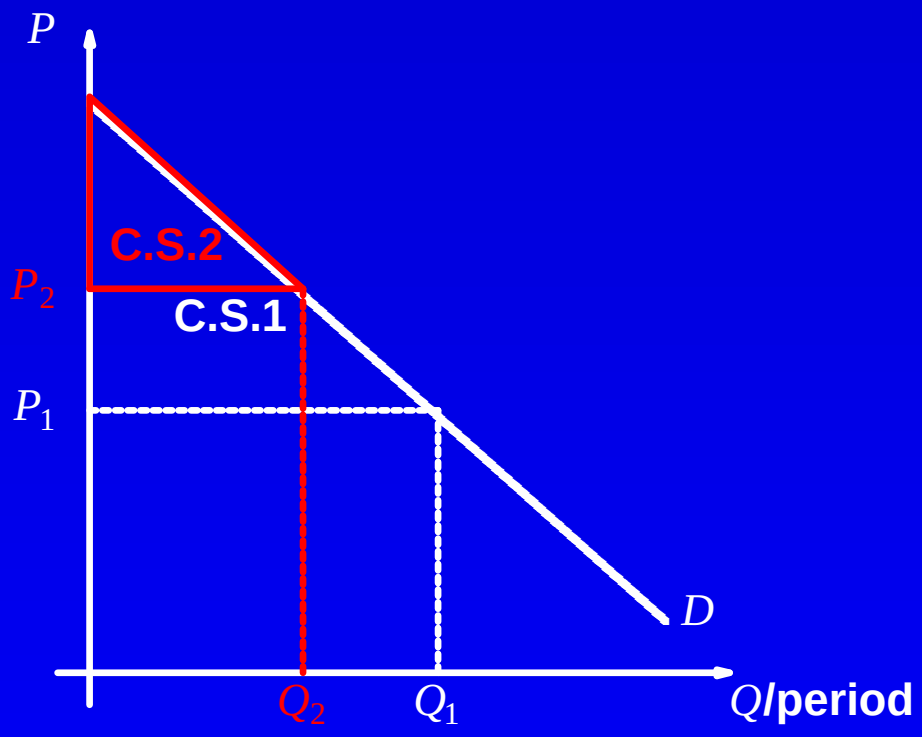

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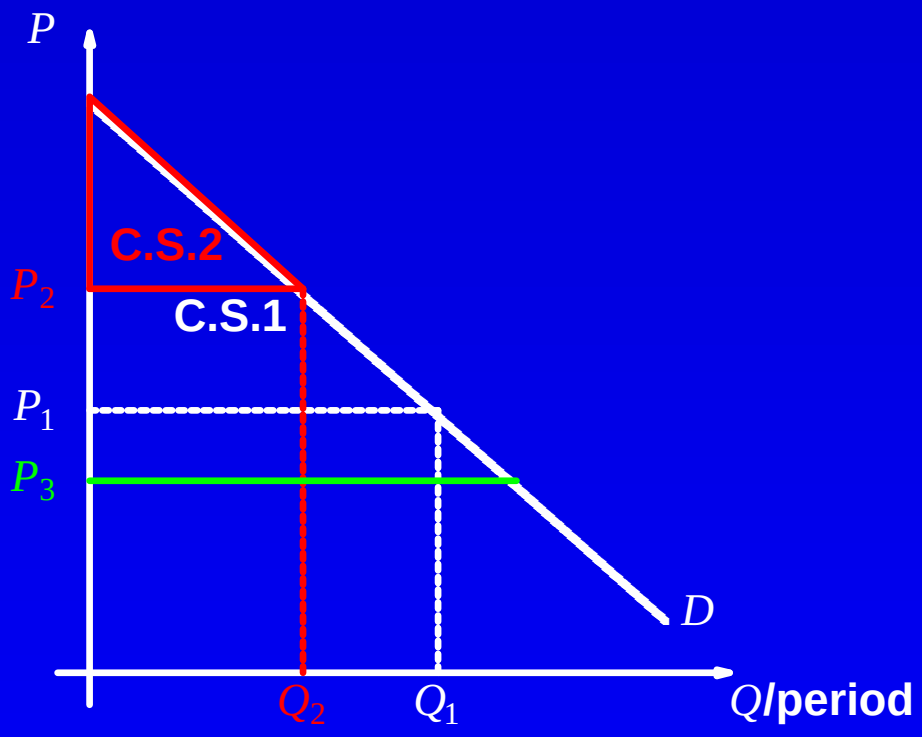

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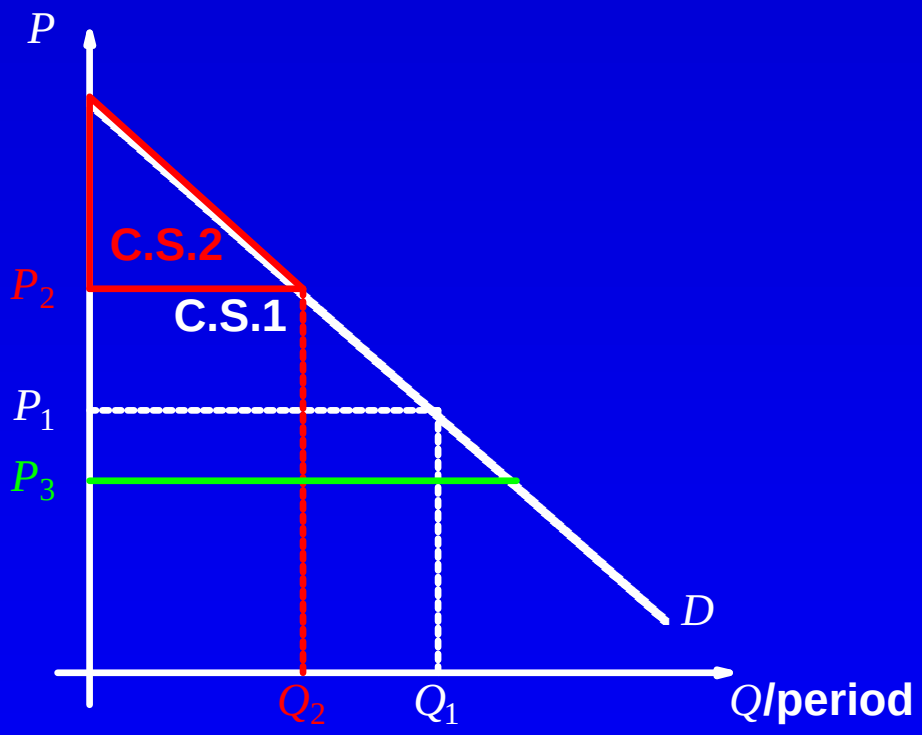

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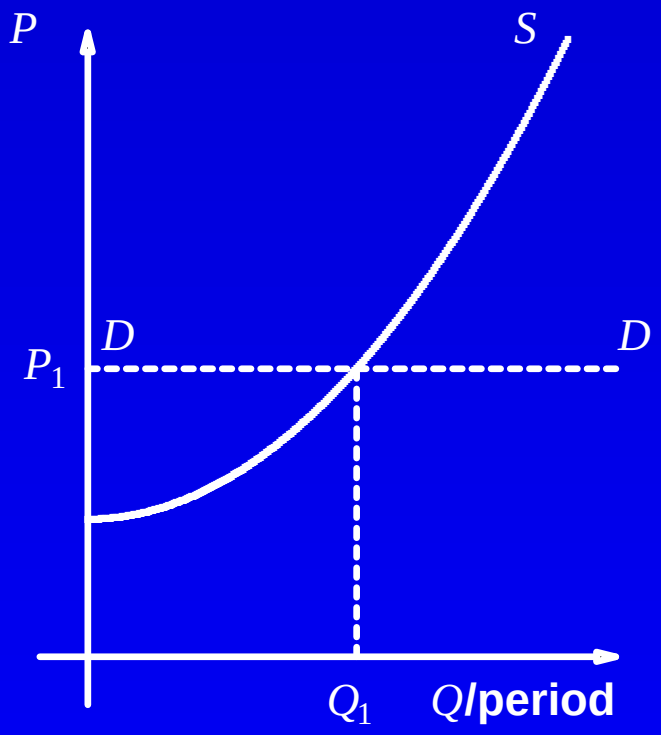

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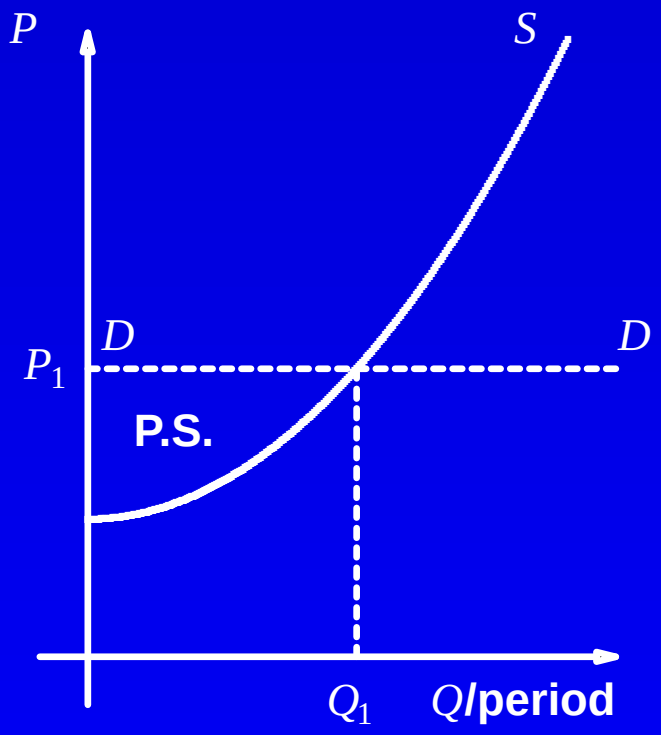

Remember: Each point on the supply curve gives the lowest price at which suppliers are willing to sell the corresponding quantity of output, or the maximum quantity they will supply at any price.

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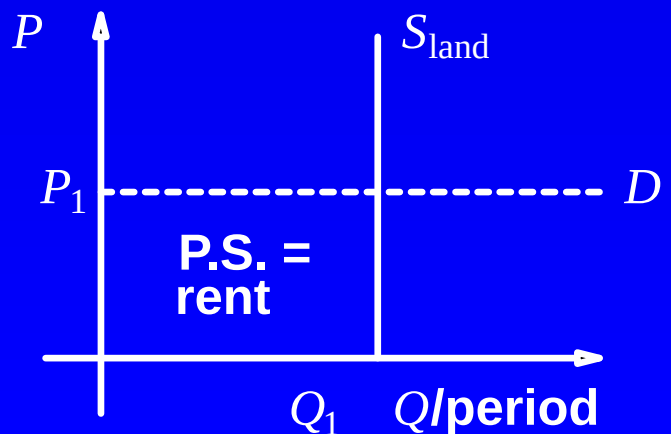

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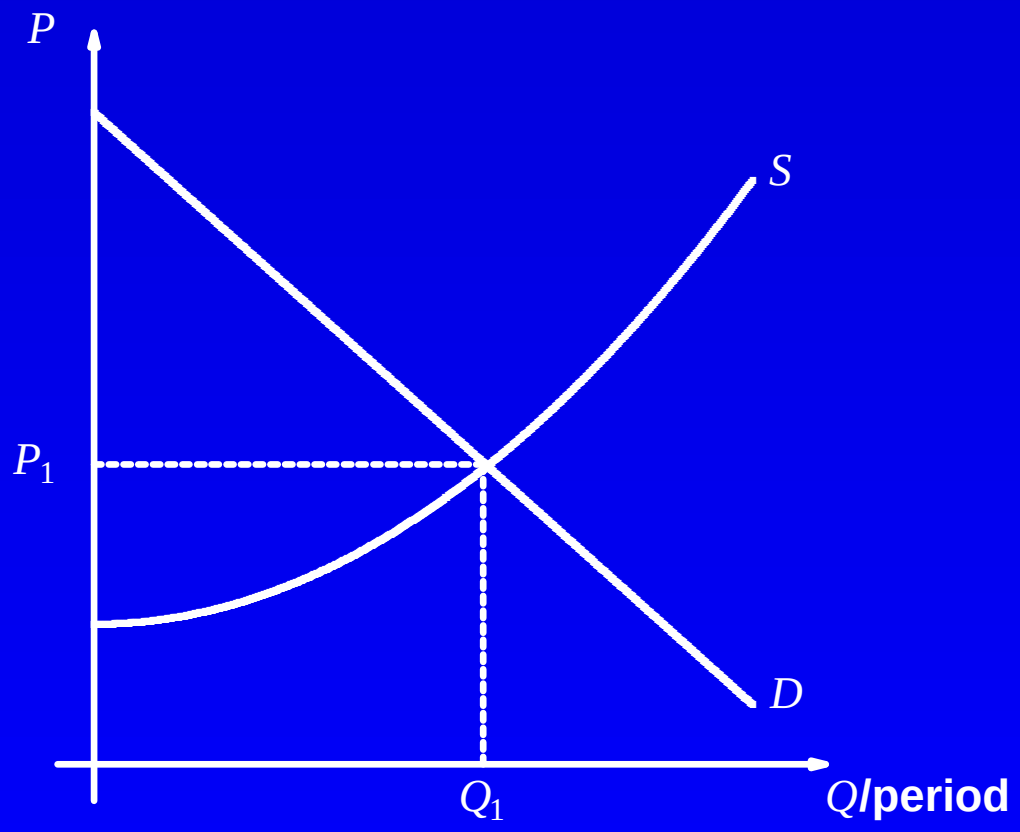

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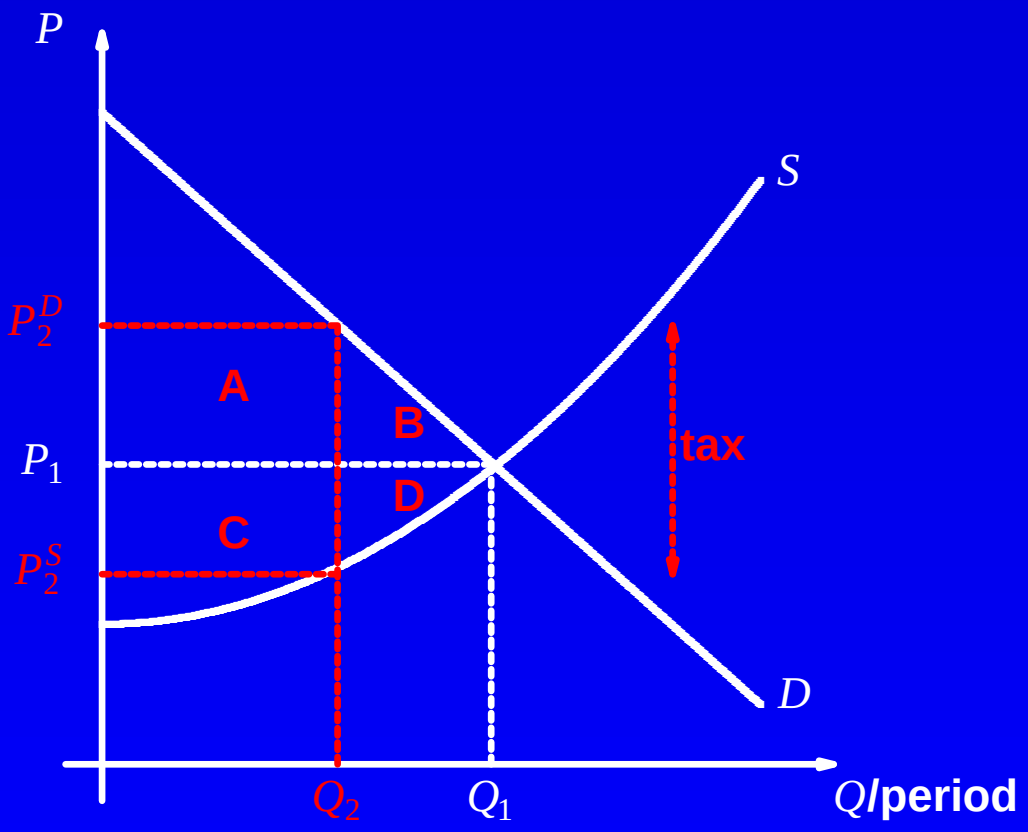

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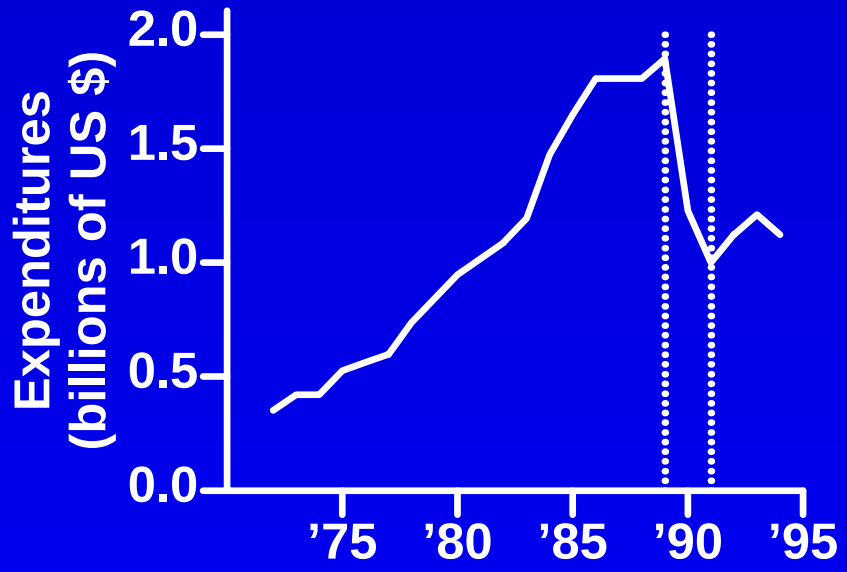
***Efficient allocation* maximizes the Total Surplus = C.S. + P.S.**

6A. U.S. FUR SALES



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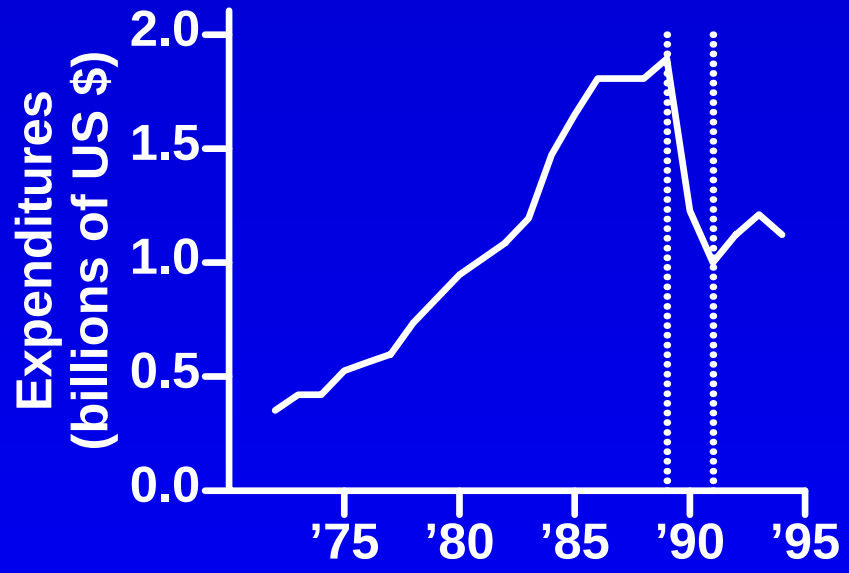

$$\frac{\Delta Q}{Q} = \eta \frac{\Delta P}{P} + \varepsilon \frac{\Delta I}{I} + \eta_{X,Y} \frac{\Delta P_Y}{P_Y} + \Delta_{\text{temperatures}} + \Delta_{\text{tastes}}$$

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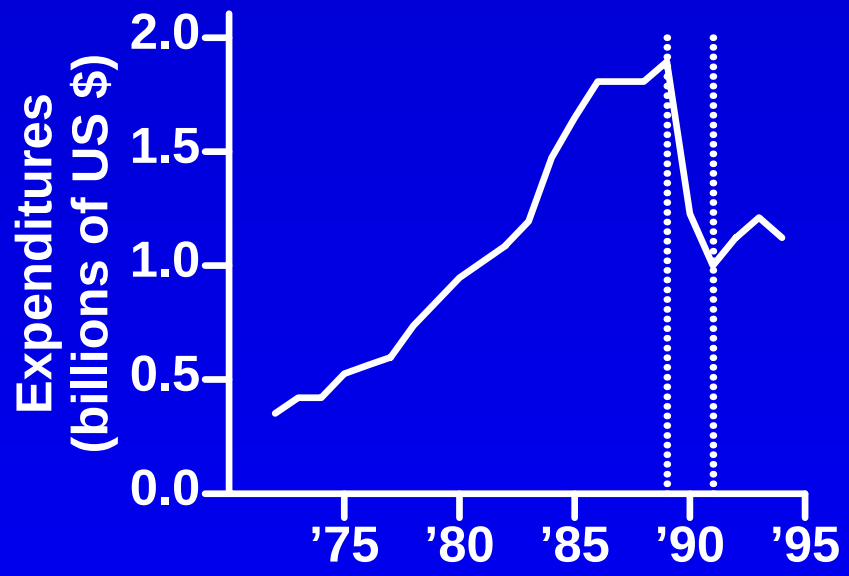

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$$\frac{\Delta Q}{Q} = \_\_, \eta = \_\_, \frac{\Delta P}{P} = \_\_, \varepsilon = \_\_, \frac{\Delta I}{I} = \_\_$$

6B. LONDON NEWSPAPER SALES

	August 1993	May 1994
The Times	355,000	518,000
Daily Telegraph	1,024,000	993,000
The Independent	325,000	277,000
The Guardian	392,000	402,000

$$\frac{\Delta P_{Times}}{P} = -$$