

Market Failure & Types of Taxes



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Proportional

A tax system were regardless of an individual's income, the tax bill comprises *exactly the same proportion*.
For example: The tax rate is 20%

Someone earning \$10 000 pays \$2 000 in
aka flat-rate tax taxes

Someone earning \$100 000 pays \$20 000
Marginal Tax Rate = Average Tax Rates

Progressive

For example:

If you are taxed 5% on the first \$10,000 you make, 10% on the next \$10,000 you make, and 30% of the last \$10,000

As income increases:
you make, you face a
progressive income tax
system.

Example:

Regressive Taxation
Every dollar up to \$50,000 is taxed at 10%,

The more money made, and then the tax stops

percentage of tax paid!
Someone making \$100,000 pays \$5,000 in taxes, this a tax rate of 5%

Marginal tax rate < average tax rate
Someone making \$50,000 pays 10%

Someone making \$1M pays 0.5%

Market Failure

- those that many individuals benefit from at the same time

• **Imperfect Information**
Resources ≠ Allocatively Efficient
defence. **Buyers and/or sellers do not have full**

knowledge about available markets, prices, products, customers, suppliers, and so
- In order to avoid free riders, the government must collect taxes to pay for these goods

Causes:

Public goods **Example:** Buyers may pay too much for a product because they do not know about

Imperfect competition
lower-priced alternatives

Externalities

Imperfect information

Solutions: truth-in-advertising regulations, consumer information services, and market surveys by firms

Multiple Choice

Because people with relatively low incomes spend a larger percentage of their income on food than people with relatively high incomes, a sales tax on food would fall into which category of taxes?

- A) Progressive
- B) Proportional
- C) Regressive
- D) Neutral
- E) Flat

If the government subsidizes producers in a perfectly competitive market, then

- A) the demand for the product will increase
- B) The demand for the product will decrease
- C) The consumer surplus will increase
- D) The consumer surplus will decrease
- E) The supply will decrease

Which would result in consumers paying for the largest burden of an excise tax placed on a producer?

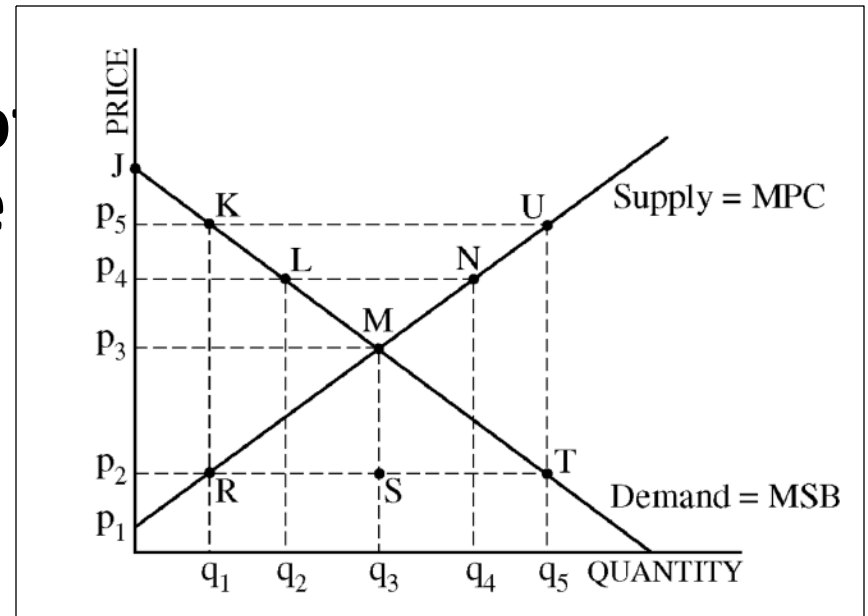
- (A) If the demand curve is price elastic and the supply curve is price inelastic
- (B) If the demand curve is price elastic and the supply curve is perfectly elastic
- (C) If the demand curve is price inelastic and the supply curve is price elastic
- (D) If the demand curve is price elastic and the supply curve is price inelastic
- (E) If the demand curve is perfectly inelastic and the supply curve is price elastic.

3. The graph above shows the perfectly competitive market for hard candies in Country Alpha. In the graph the letters correspond to points, not areas. MPC denotes marginal private cost and MSB denotes marginal social benefit.

(a) Using the labeling on the graph,

(c) Assume that the government imposes a per-unit tax of $p_5 - p_2$ to correct for the negative externality. Using the labeling on the graph, identify the area representing each of the following surplus.

(b) Assume that the candy market creates a negative externality equal to $(p_5 - p_2)$ units of quantity. On the graph, identify the area representing each of the following surplus.



- (i) The consumer surplus
- (ii) The producer surplus
- (iii) The deadweight loss

Answers

Question 3

5 points (2+1+2)

(a) 2 points:

- One point is earned for identifying the consumer surplus as P_3JM .
- One point is earned for identifying the producer surplus as P_1P_3M .

(b) 1 point:

- One point is earned for identifying the socially optimal quantity as q_1 .

(c) 2 points:

- One point is earned for identifying the consumer surplus as P_5JK .
- One point is earned for indicating that there is no deadweight loss.

Real World Example

- <http://www.banks.com/taxes/>
- <http://www.taxfoundation.org/>