



VIDEO: EXTERNALITIES



Student alert: To understand how externalities can result in market failures, it is important that you know these relationships:

Marginal Social Benefit = Marginal Private Benefit + Marginal External Benefit

$MSB = MPB + MEB$

Marginal Social Cost = Marginal Private Cost + Marginal External Cost

$MSC = MPC + MEC$

Summary of key points:

Society wants a market to produce the quantity where $MSB = MSC$.

Private decision makers want to have the quantity where $MPB = MPC$.

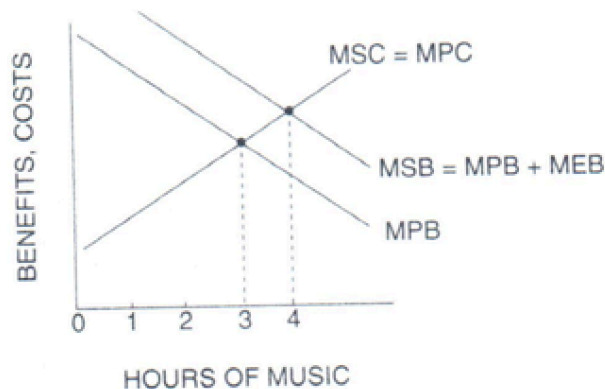
As long as MEB and MEC are zero (no externalities), the market quantity will be the socially optimal (efficient) quantity.

If MEB or MEC is not zero, we will have a market failure.

PART A

How much Music?

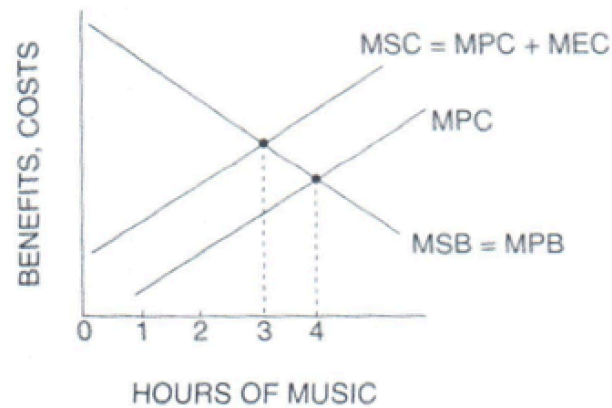
External Benefits



1. Mary has Jill as her roommate at Winoka University. Jill has brought an expensive stereo system to play in the room. The figure above shows Jill's MPB and MPC curves for music played on the stereo system.

- If Jill considers only the MPB and MPC from playing music, how many hours of music will be played?
- Assume Jill plays music only at times that do not disturb Mary and plays only music that Mary also enjoys. The " $MSB = MPB + MEB$ " curve shows the MSB from the music, including the MEB to Mary. If Jill considers the MSB from playing music rather than only the MPB, what happens to the quantity of music played?
- What does the vertical gap between the MSB and MPB curves represent?
- Assuming there are no external costs from the music, when Jill does not consider the MEB from playing music, the number of hours played is (*greater than/ equal to/ less than*) the socially efficient number of hours.

External Costs



2. Joe has a new stereo system and Mark is his roommate.
- (A) Assume Joe only considers his MPB and MPC from playing country music. How many hours of music will be played?
 - (B) Now assume that Joe plays music only at times that Mark is trying to study and plays only music that Mark hates. The “ $MSC = MPC + MEC$ ” curve shows the MSC from the music, including the MEC to Mark. If Joe considers the MSC from playing music rather than only the MPC, what happens to the quantity of music played?
 - (C) What does the vertical gap between the MSC and MPC curves represent?
 - (D) Assuming there are no external benefits from the music, when Joe does not consider the MEC from playing music, the number of hours played is (greater than/ equal to/ less than) the socially efficient number of hours.

Part B

The Minnesota Vikings are building a new stadium. Proponents of the new stadium argue that the Vikings will generate new business, provide jobs, increase tax revenue, and promote tourism and be a future Super bowl site for Minnesota. Opponents argued that most of the money spent on football games will come from Minnesotans who will simply reduce their spending on other activities. The opponents have claimed that there will be few new jobs, little increase in tax revenue, and few new tourists coming to Minnesota. They also say the new arena will cause property values to fall in the area and create traffic congestion and noise pollution.

Voters have the following three proposals before them:

Proposal #1: No city money should be used to construct the arena. Team owners should pay the full cost of building the facility and include that cost in the price of game tickets.

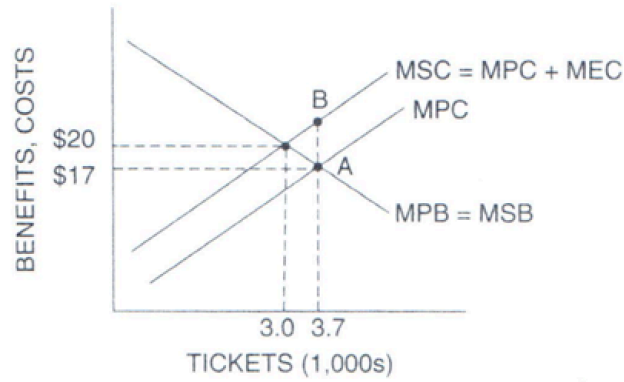
Proposal #2: The city should place a tax on each ticket sold to pay the full cost of the arena.

Proposal #3: The city should build the arena and lease the right to play there to the basketball club at a subsidized rate.

For the analysis that follows, assume the output of the team is the number of tickets sold.

3. What assumption does Proposal #1 make about external costs and external benefits associated with the new franchise?

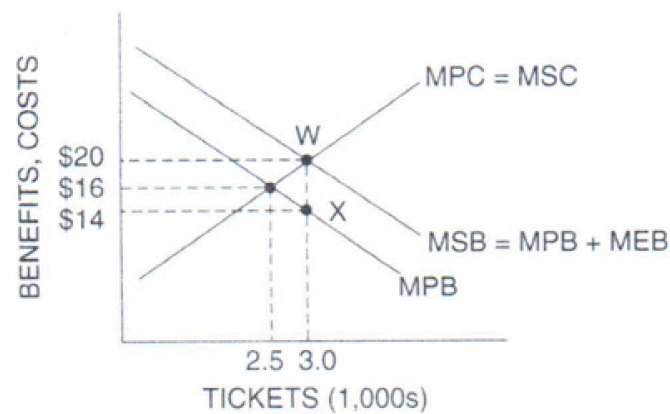
Social Spillover Costs



Using the graph above answer the following questions.

4. What assumption is made about social spillover benefits from the franchise? Explain.
5. What assumption is made about social spillover costs from the franchise? Explain.
6. How many tickets will be sold based on the MPB and MPC?
7. What is the socially optimal number of tickets?
8. What does the vertical gap "AB" represent?

Social Spillover Benefits



Using the graph above answer the following questions.

9. What assumption is made about social benefits from the franchise? Explain.
10. What assumption is made about the spillover costs from the franchise? Explain.
11. How many tickets will be sold based on the MPB and MPC?

12. What is the socially optimal number of tickets?

13. What does the vertical gap “WX” represent?

Part C Summary

1. When positive externalities are involved, private markets produce (*more than/ exactly/ less than*) the socially optimal amount of the product.

2. When negative externalities are involved, private markets produce (*more than/ exactly/ less than*) the socially optimal amount of the product.

3. Why do economists say the presence of an externality results in a market failure?

4. How can a tax be used to remedy a negative externality?

5. How can a subsidy mitigate an inefficient output level in the presence of a positive externality?



VIDEO: PUBLIC GOODS



Students Alert: Public Goods are non-rival and non excludable

Give three examples of Public Goods.

- 1.
- 2.
- 3.

What is the free rider problem?

Why is there not an incentive for private firms to produce public goods?



VIDEO: TAXES

- Describe the three tax structures, and give an example of each:

	Description:	Example:
Proportional Tax		
Progressive Tax		
Regressive Tax		

What is the Lorenz curve and what does it show?

