

Unit 6:
**Market Failures and the
Role of the Government**

What is the Free Market? (Capitalism)

5 Characteristics of Free Markets

1. Little government involvement in the economy.
(Laissez Faire = Let it be)
2. Individuals OWN resources and determine what to produce, how to produce, and who gets it.
3. The opportunity to make PROFIT gives people INCENTIVE to produce quality items efficiently.
4. Wide variety of goods available to consumers.
5. Competition and Self-Interest work together to regulate the economy.

The government's job is to enforce contracts, secure property rights, and defend the country.

Example of the INVISIBLE HAND of the free market:

If society wants computers and people are willing to pay high prices then...

- Businesses have the INCENTIVE to start making computers to earn PROFIT.**
- This leads to more COMPETITION....**
- Which means lower prices, better quality, and more product variety.**
- To maintain profits, firms find most efficient way to produce goods and services.**

The government doesn't need to get involved since the needs of society are automatically met.

**Does the Free
Market ever FAIL
to meet society's
needs?**

What is a Market Failure?

- **A situation in which the free-market system fails to satisfy society's wants.**

(When the invisible hand doesn't work.)

- **Private markets do not efficiently bring about the allocation of resources.**

What's the result...

The government must step in to satisfy society's wants.

Circular Flow Model Review

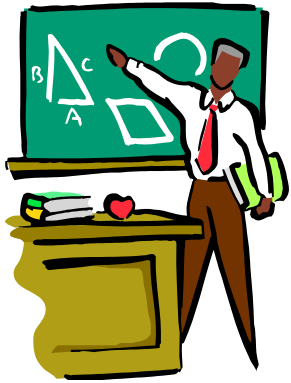
**How does the free
market FAIL?**

The Four Market Failures

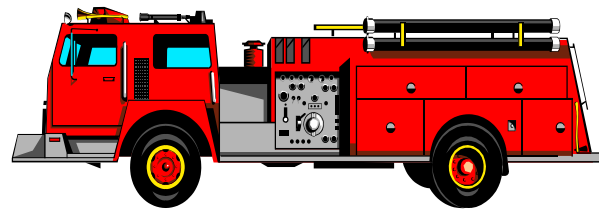
We will focus on four different market failures:

- 1. Public Goods**
- 2. Externalities (third person side effects)**
- 3. Monopolies**
- 4. Unfair distribution of income**

**In each of the above situations,
the government step in to
allocate resources efficiently.**



Market Failure #1: PUBLIC GOODS



Public Goods

If there was no government, how would schools, parks, and freeways be different? Would there be enough to meet our needs?

Video: Fire Department



Public Goods

Why must the government provide public goods and services?

- **It is impractical for the free-market to provide these goods because there is little opportunity to earn profit.**

- **This is due to the Free-Rider Problem**

Free Riders are individuals that benefit without paying.

The Free Rider Problem

Examples:

1. People who download music illegally
2. People who watch a street performer and don't pay
3. Teenagers that live at home and don't have a job

What's wrong with Free Riders?



- Free-Riders keep firms from making profits.
- If left to the free market, essential services would be under produced.

To solve the problem, the government can:

- 1. Find new ways to punish free-riders.**
- 2. Use tax dollars to provide the service to everyone.**

The Final Exam

- I am willing to give an 100% on the final exam to whichever class gives me \$1000.
- Everyone in the class will get 100% even if they don't pay.
 - Who is willing to pay?
 - What about those that refuse to pay?

Solution?

EVERYONE pays a mandatory tax and all receive the same benefits.

Definition of Public Goods

Definition of Public Goods

To be considered a true public good, it must meet two criteria:

1. Nonexclusion

- **Everyone can use the good.**
- **Cannot exclude benefits of the good for those who will not pay.**
- **Ex: National Defense**

2. Shared Consumption (Nonrivalry)

- **One person's consumption of a good does not reduce the usefulness to others.**
- **Ex: Kit Carson Park**

**Identify which of the following are
TRUE public goods
(have non-exclusion and non-rival
consumption):**

- 1. Hamburgers**
- 2. Cable TV**
- 3. Free Public Education**
- 4. Homes**
- 5. Street lights**
- 6. Highways**

**How do we decide
how many public
goods we need?**

Can the government...

- 1. Prevent wild fires in San Diego forever?**
- 2. Ensure that no one ever speeds on the freeway?**
- 3. Create a research station on Mars?**
- 4. Stop pollution from fossil fuels?**
- 5. Completely stop illegal immigration?**
- 6. Make sure everyone in the US has a job?**

YES! But the costs outweigh the benefits.

How does the government decide how many public goods to provide?

How does the government determine what quantity of public goods to produce?

They use Supply and Demand

Demand for Public Goods-

The Marginal Social Benefit of the good determined by citizens willingness to pay.

Supply of Public Goods-

The Marginal Social Cost of providing each additional quantity.

Video: Dam Tragedy

Demand for a New Park

Marginal willingness to pay higher taxes

# of Parks	Adam is willing to pay	Jill is willing to pay
1	\$4	\$5
2	\$3	\$4
3	\$2	\$3
4	\$1	\$2
5	\$0	\$1

Assume:

1. There are only two people in society.
2. Each additional park costs \$5

How many parks should be made?

Demand for a New Park

Marginal willingness to pay higher taxes

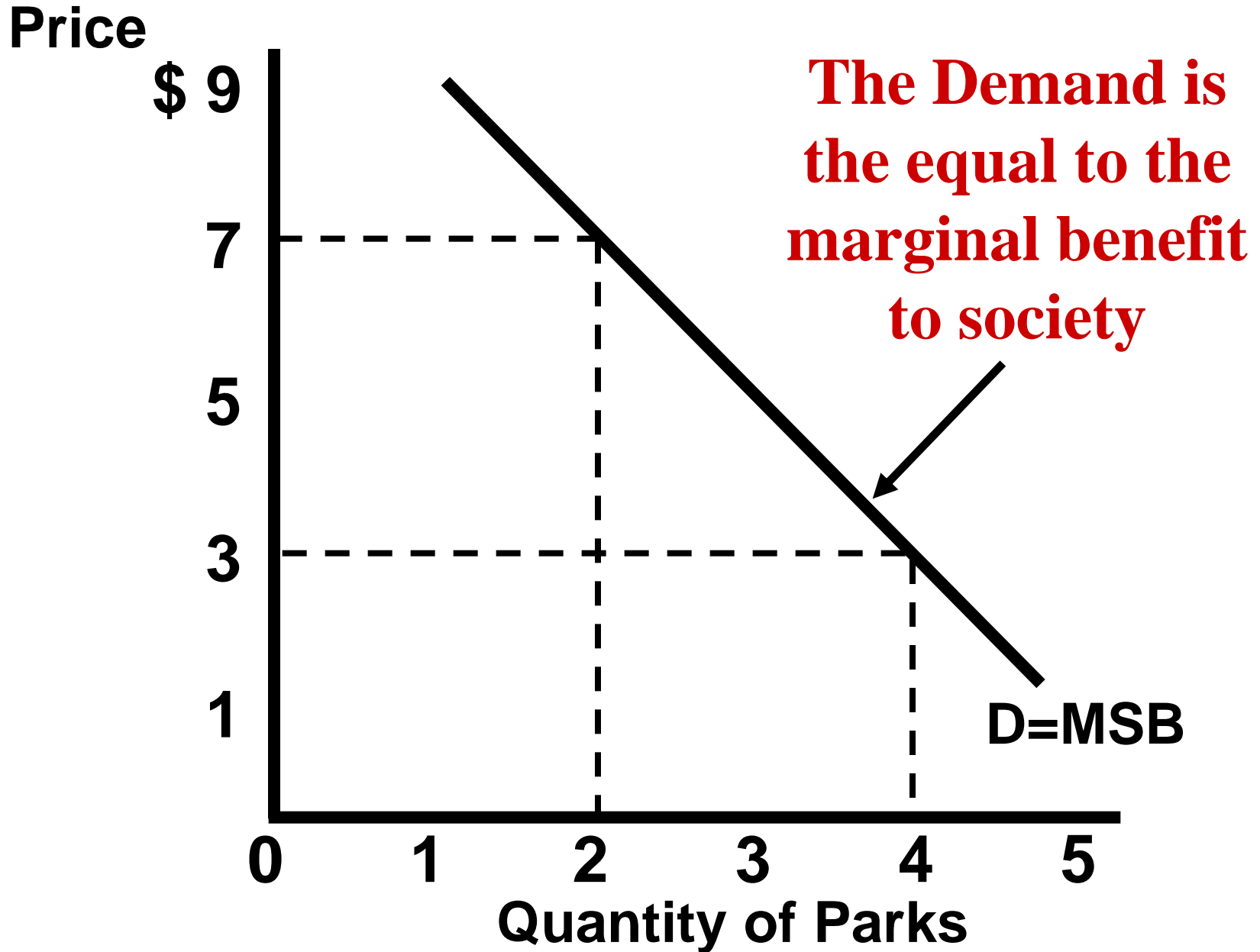
# of Parks	Adam is willing to pay	Jill is willing to pay	Society's Demand (MSB)
1	\$4	\$5	\$9
2	\$3	\$4	\$7
3	\$2	\$3	\$5
4	\$1	\$2	\$3
5	\$0	\$1	\$1

Demand for a New Park

Marginal willingness to pay higher taxes

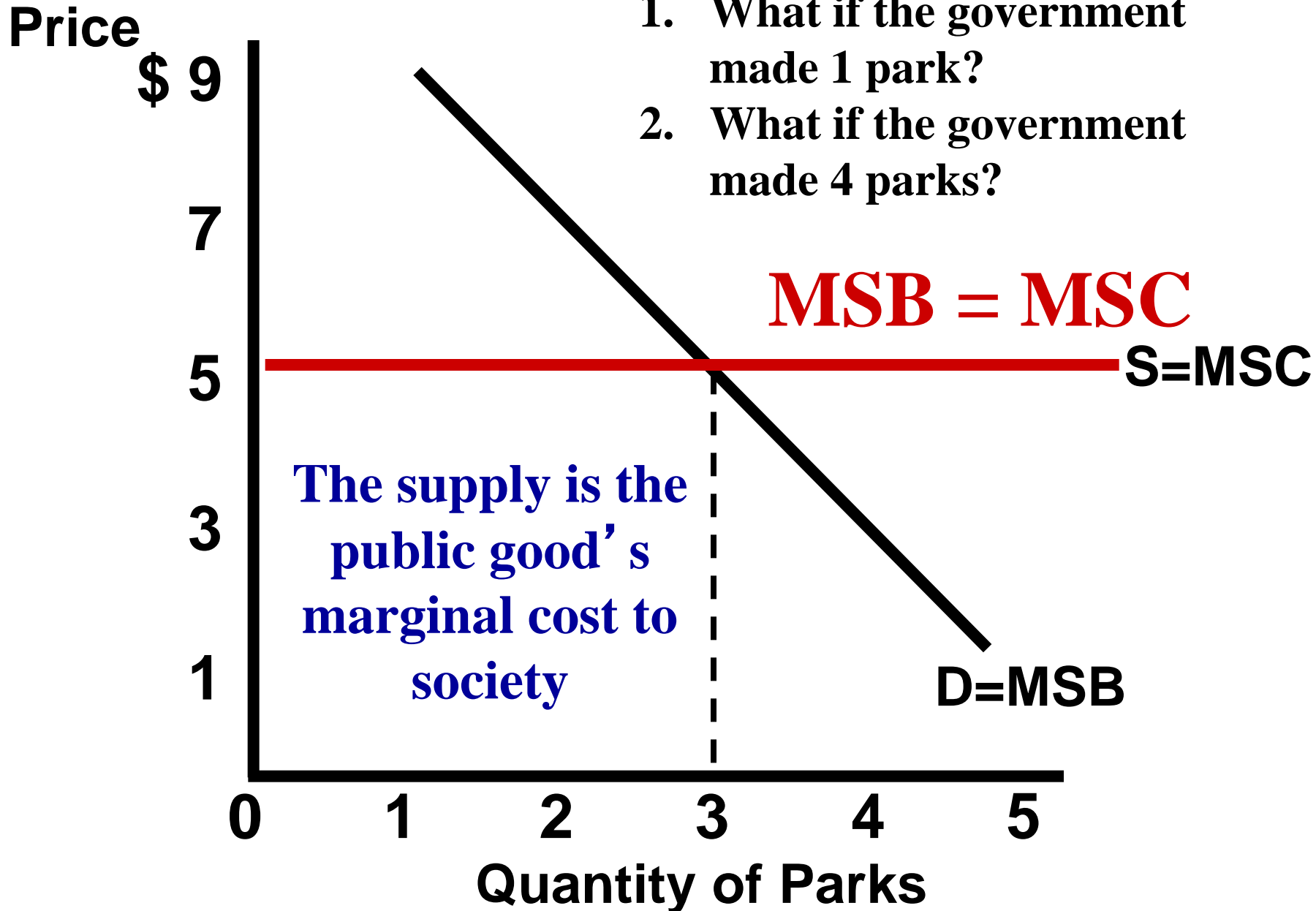
# of Parks	Adam is willing to pay	Jill is willing to pay	Society's Demand (MSB)	Marginal Social Cost
1	\$4	\$5	\$9	\$5
2	\$3	\$4	\$7	\$5
3	\$2	\$3	\$5	\$5
4	\$1	\$2	\$3	\$5
5	\$0	\$1	\$1	\$5

Supply and Demand for Public Parks



Supply and Demand for Public Parks

1. What if the government made 1 park?
2. What if the government made 4 parks?



Market Failure #2:
EXTERNALITIES

What are Externalities?

- An externality is a third-person side effect.
- There are **EXTERNAL** benefits or external costs to someone other than the original decision maker.

Why are Externalities Market Failures?

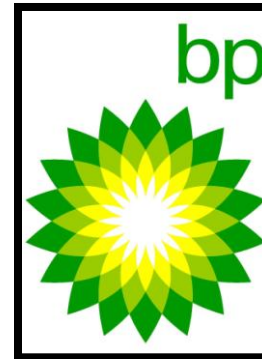
- The free market fails to include external costs or external benefits.
- With no government involvement there would be too much of some goods and too little of others.

Example: Smoking Cigarettes.

- The free market assumes that the cost of smoking is fully paid by people who smoke.
- The government recognizes external costs and makes policies to limit smoking.



Negative Externalities



Negative Externalities

(aka: Spillover Costs)

Situation that results in a COST for a different person other than the original decision maker.

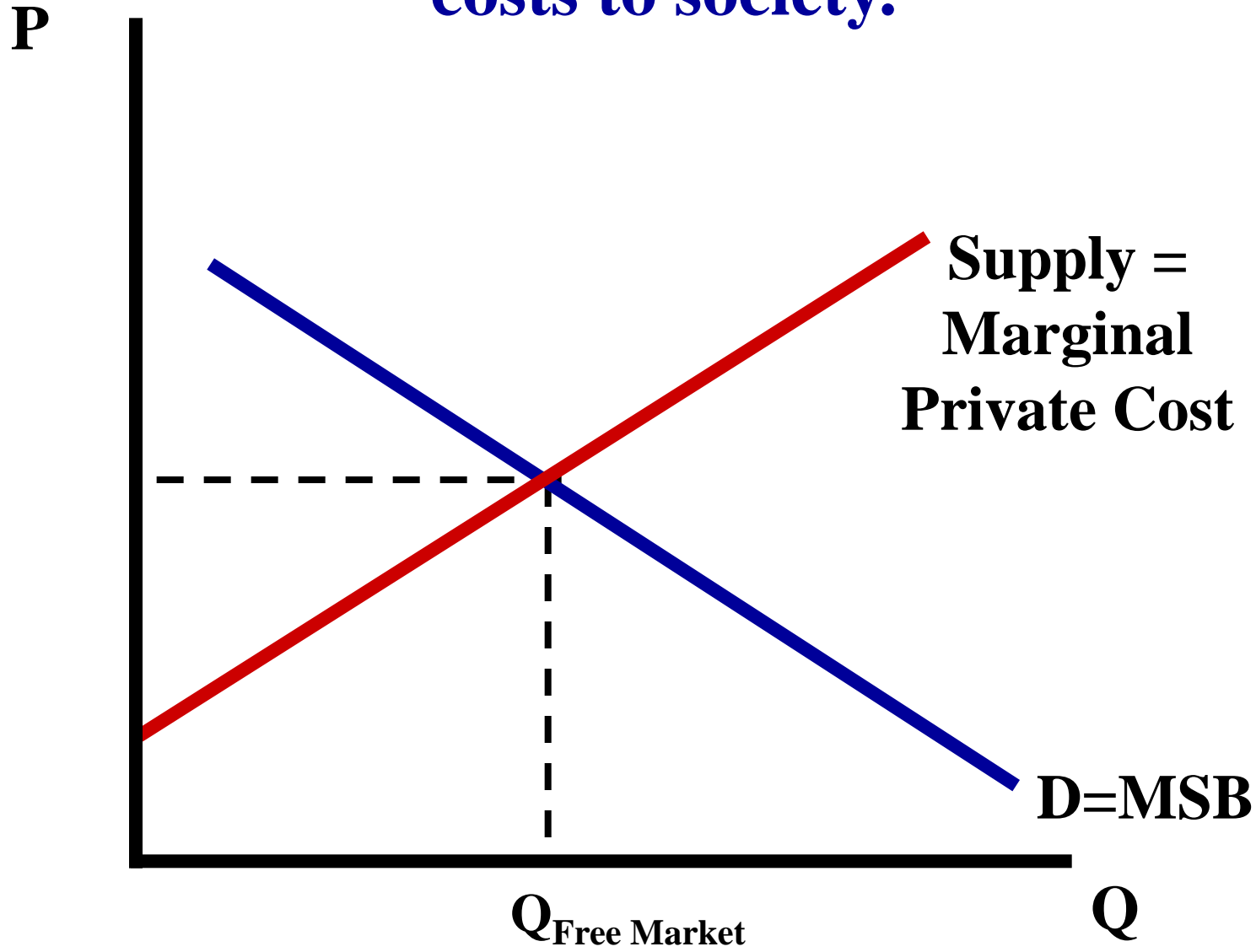
The costs “spillover” to other people or society.

Example: Zoram is a chemical company that pollutes the air when it produces its good.

- **Zoram only looks at its INTERNAL costs.**
- **The firm ignores the social cost of pollution**
- **So, the firm’s marginal cost curve is its supply curve**
- **When you factor in EXTERNAL costs, Zoram is producing too much of its product.**
- **The government recognizes this and limits production.**

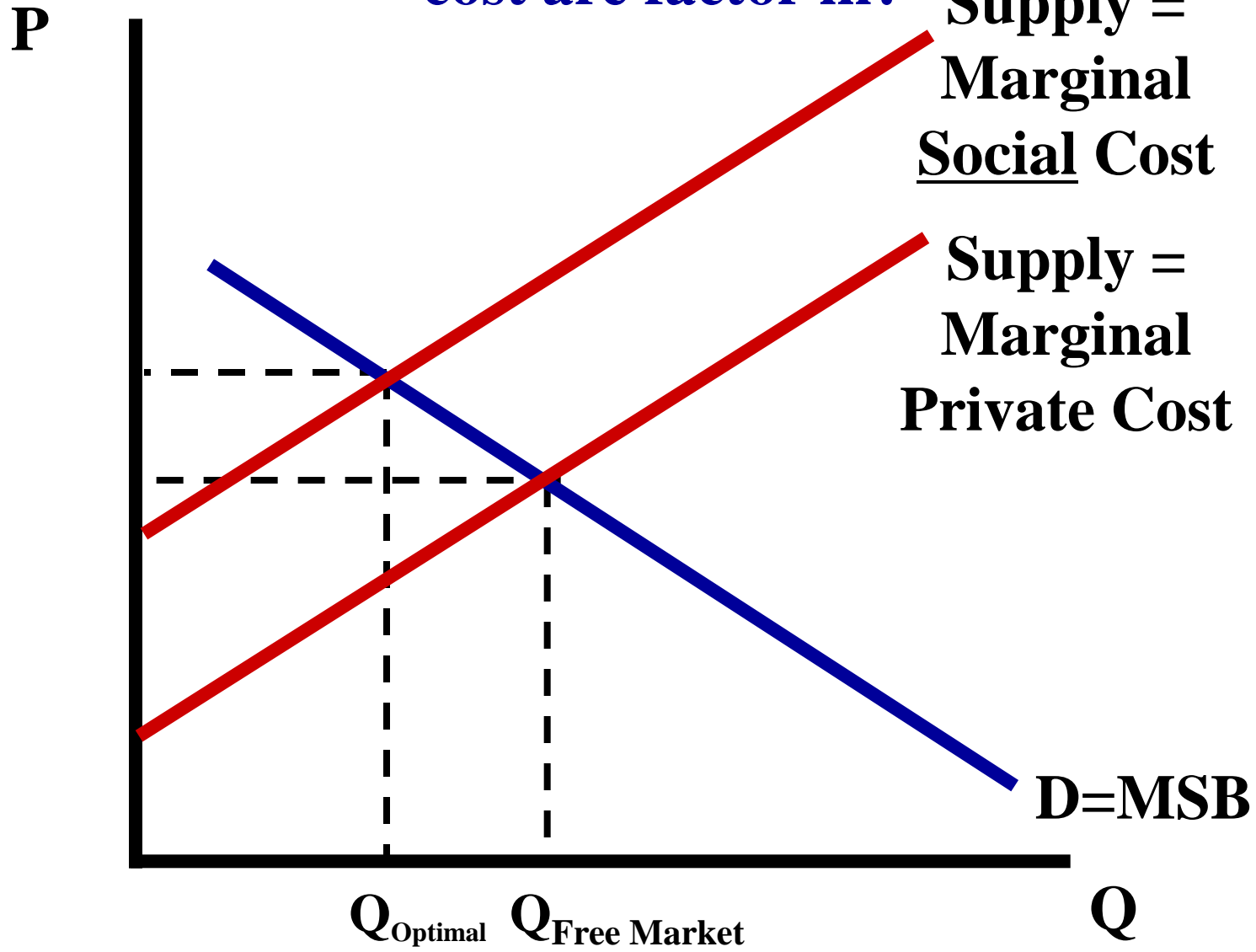
Market for Cigarettes

The marginal private cost doesn't include the costs to society.



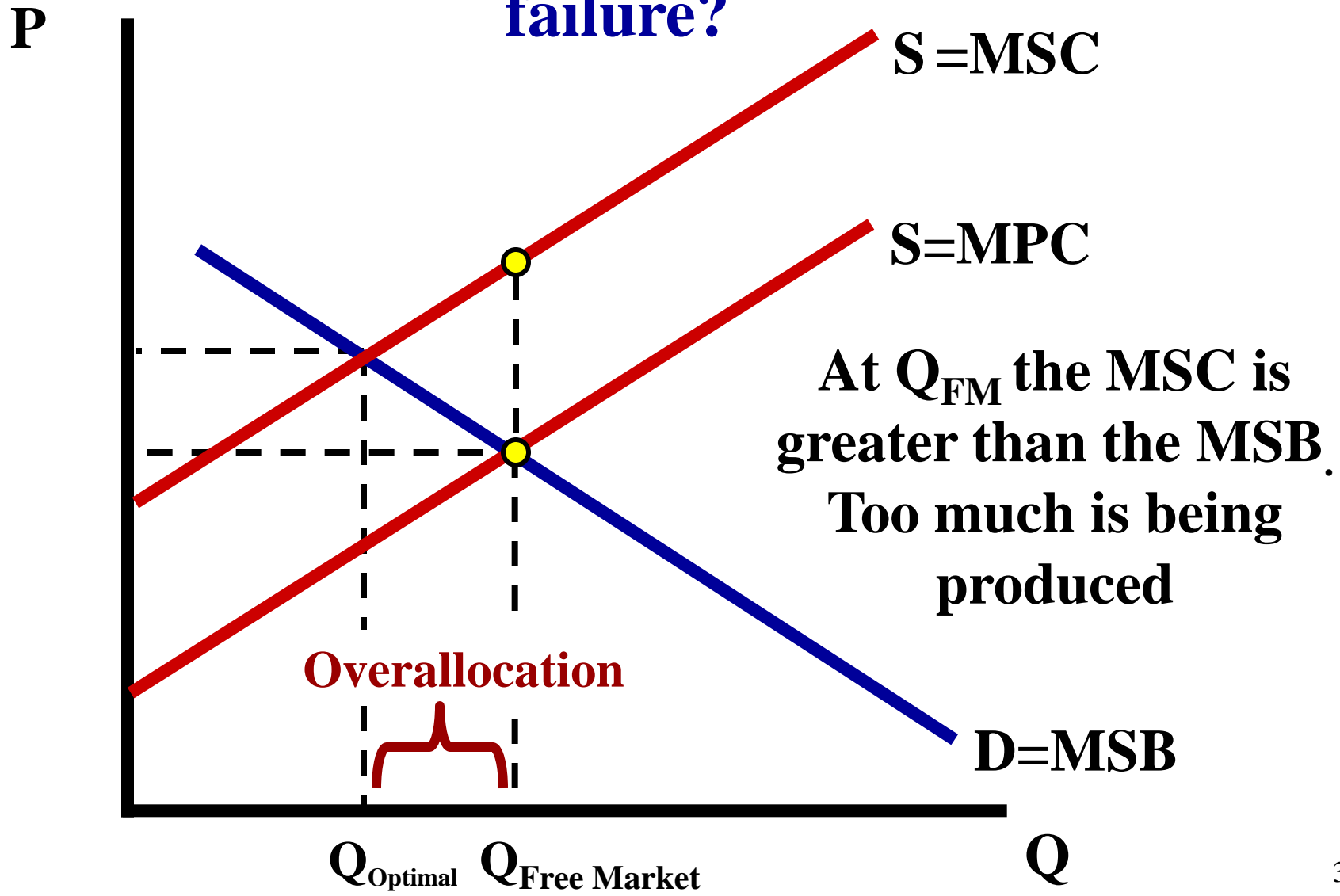
Market for Cigarettes

What will the MC/Supply look like when **EXTERNAL** cost are factor in?



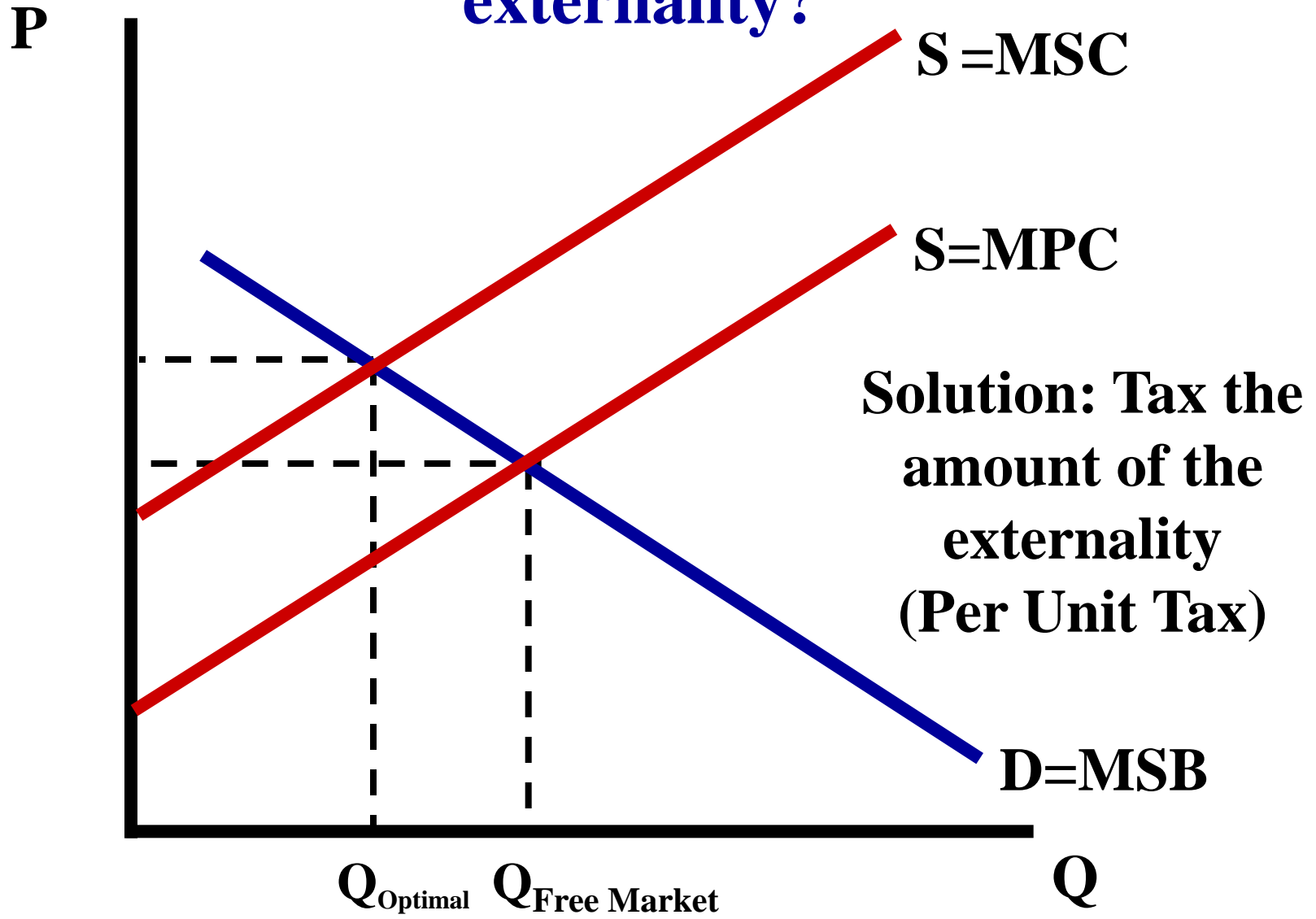
Market for Cigarettes

If the market produces Q_{FM} why is it a market failure?



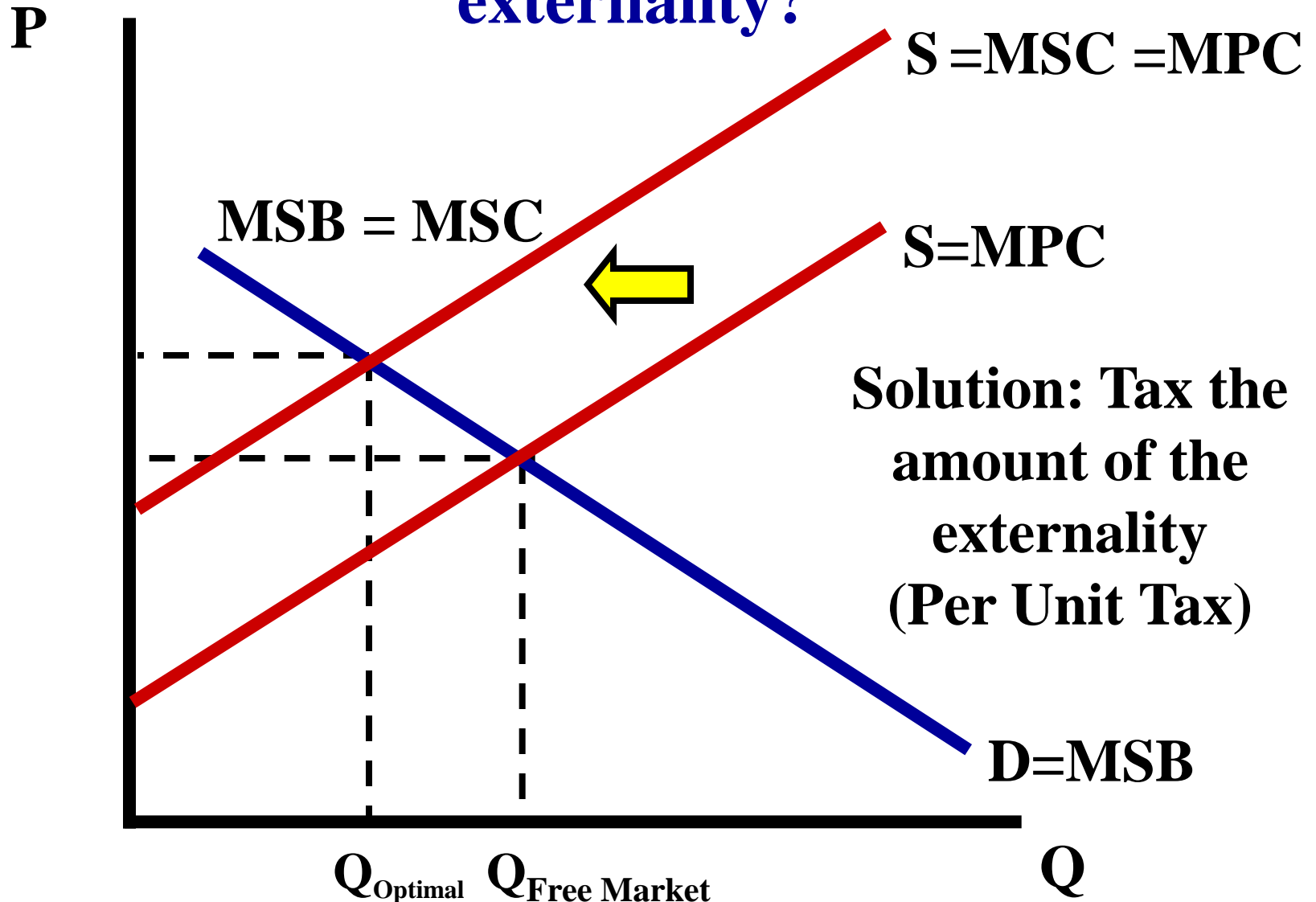
Market for Cigarettes

What should the government do to fix a negative externality?



Market for Cigarettes

What should the government do to fix a negative externality?





Positive Externalities



Positive Externalities (aka: Spillover Benefits)

Situations that result in a BENEFIT for someone other than the original decision maker.

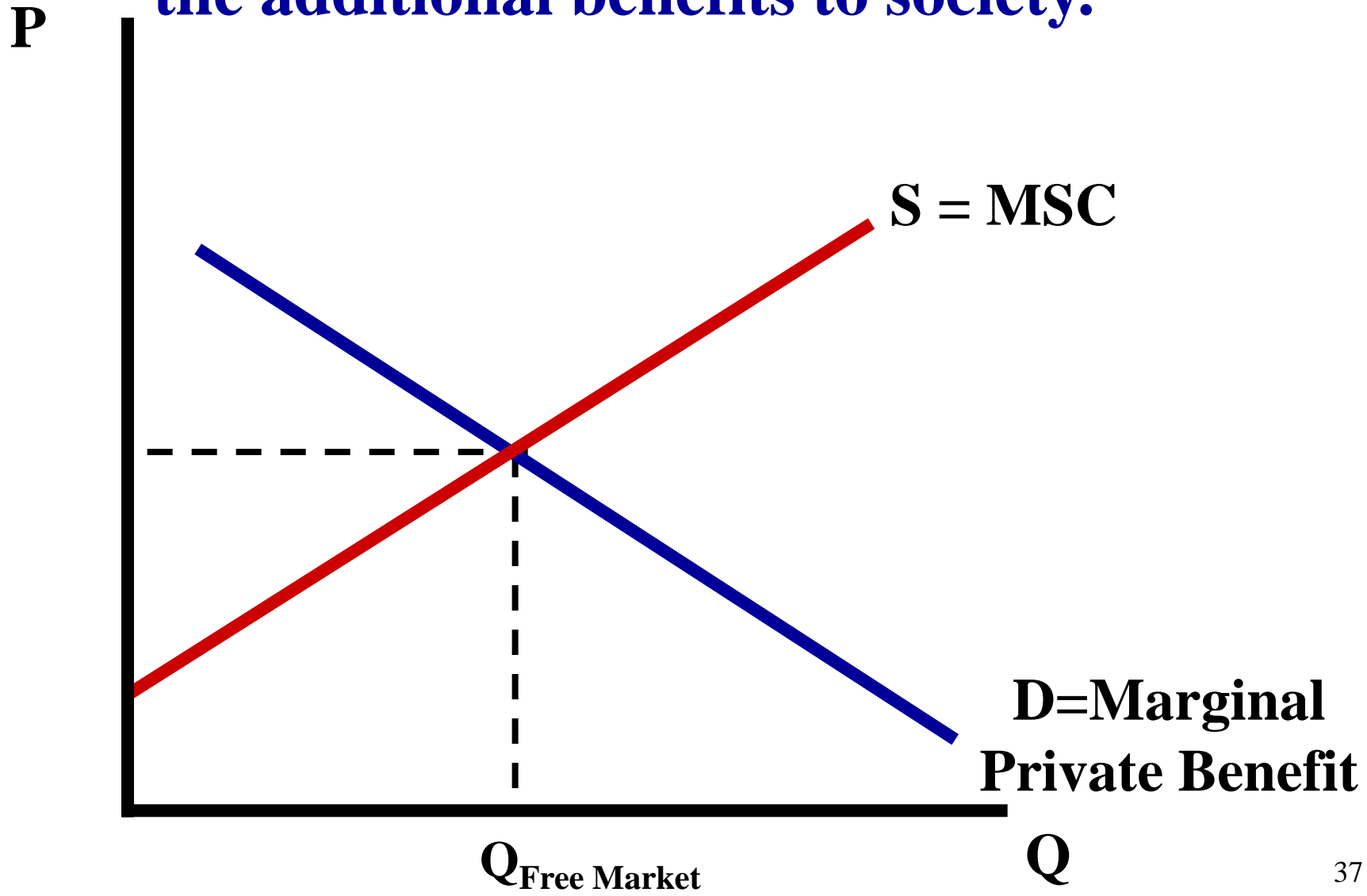
**The benefits “spillover” to other people or society.
(EX: Flu Vaccines, Education, Home Renovation)**

Example: A mom decides to get a flu vaccine for her child

- **Mom only looks at the INTERNAL benefits.**
- **She ignores the social benefits of a healthier society.**
- **So, her private marginal benefit is her demand**
- **When you factor in EXTERNAL benefits the marginal benefit and demand would be greater.**
- **The government recognizes this and subsidizes flu shots.**

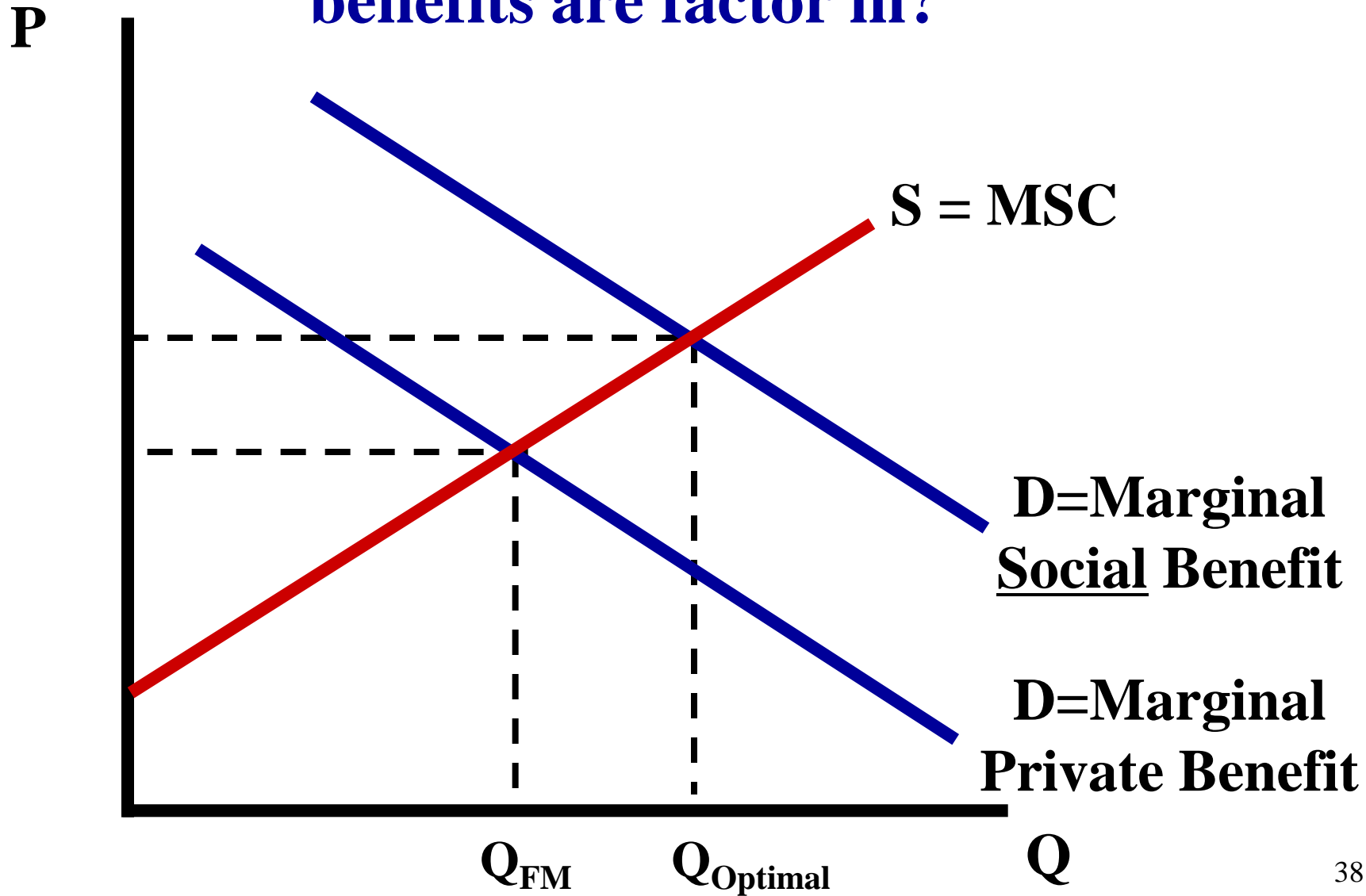
Market for Flu Shots

The marginal private benefit doesn't include the additional benefits to society.



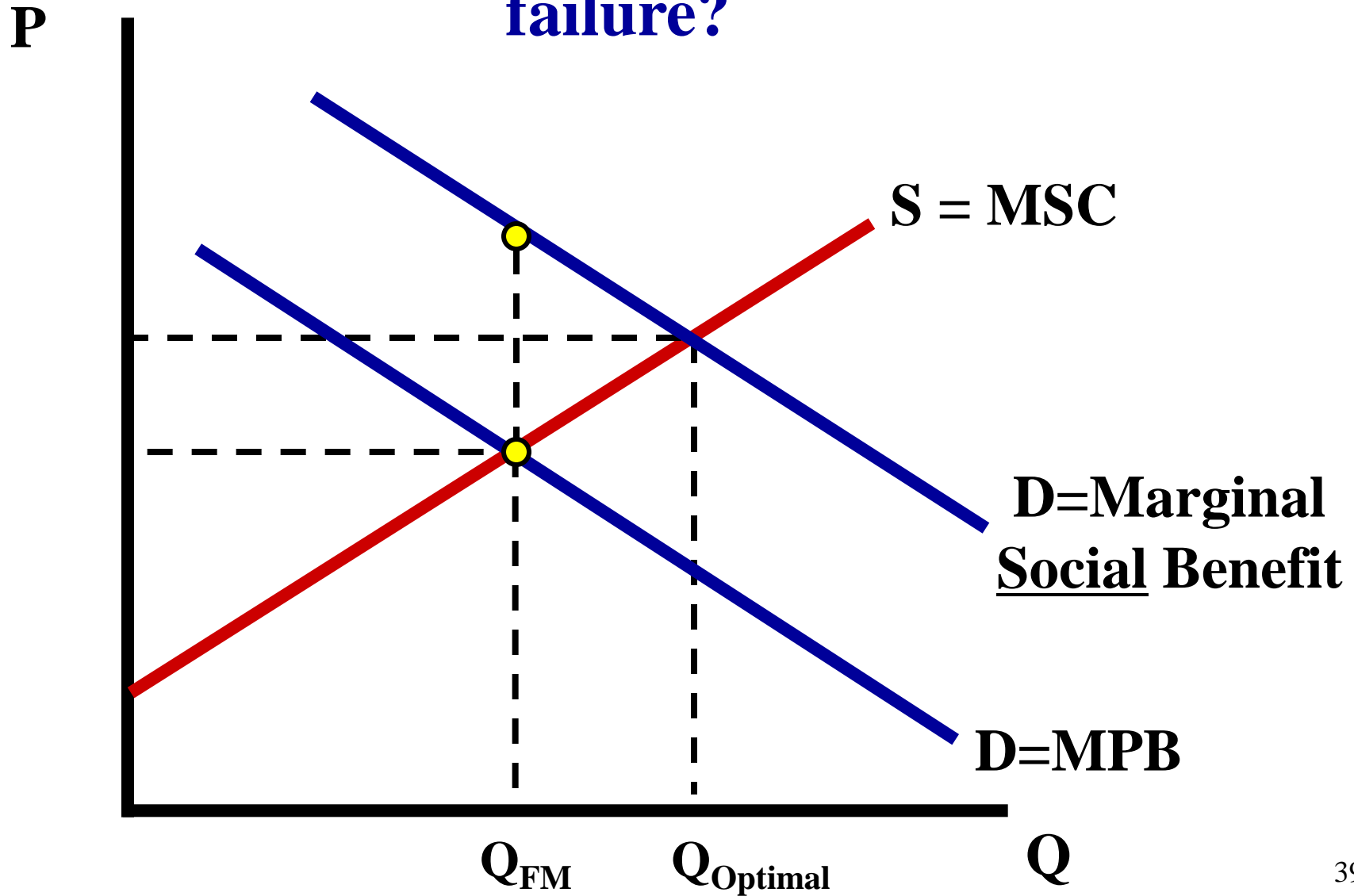
Market for Flu Shots

What will the MB/D look like when **EXTERNAL** benefits are factor in?



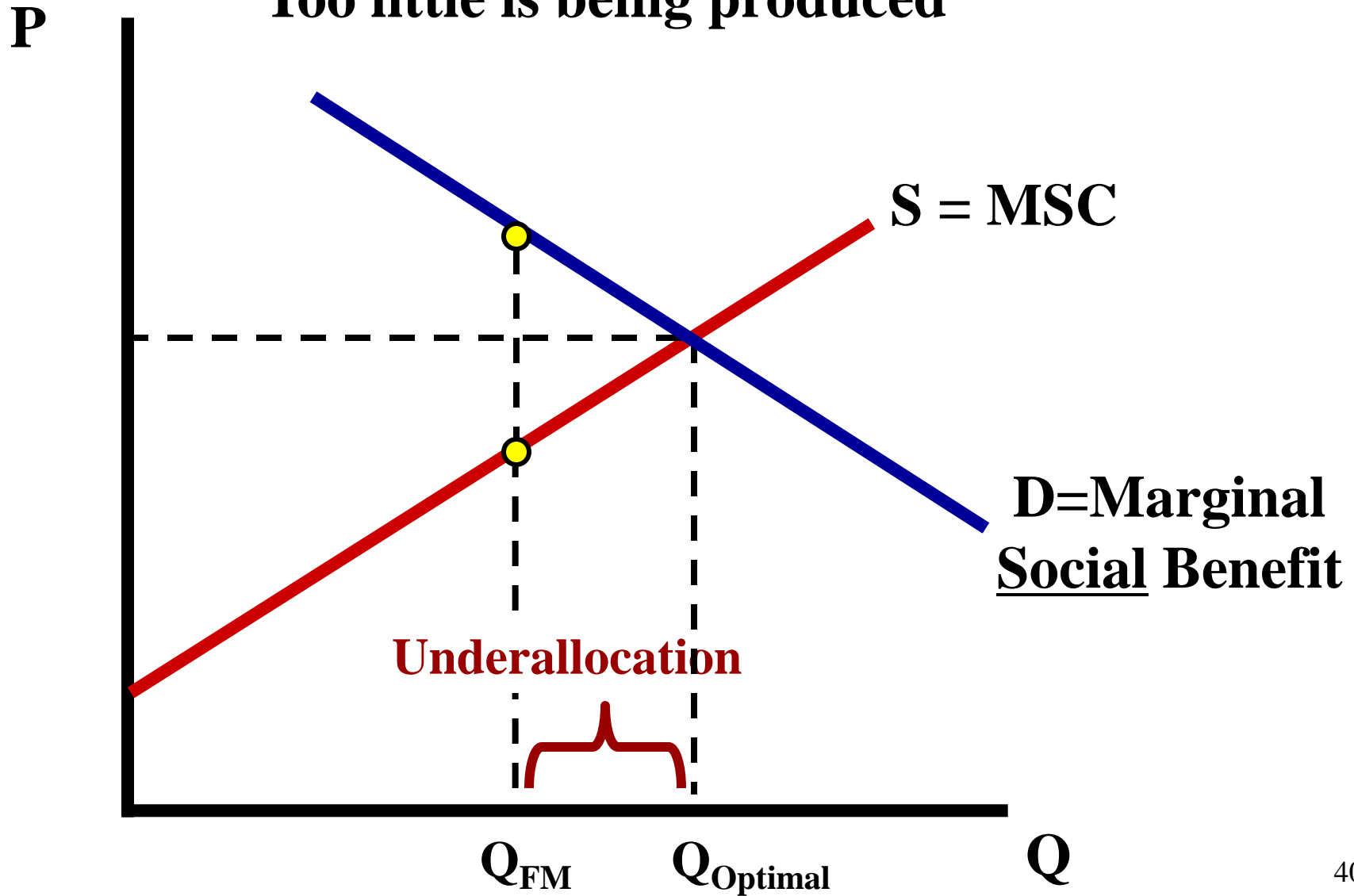
Market for Flu Shots

If the market produces Q_{FM} why is it a market failure?



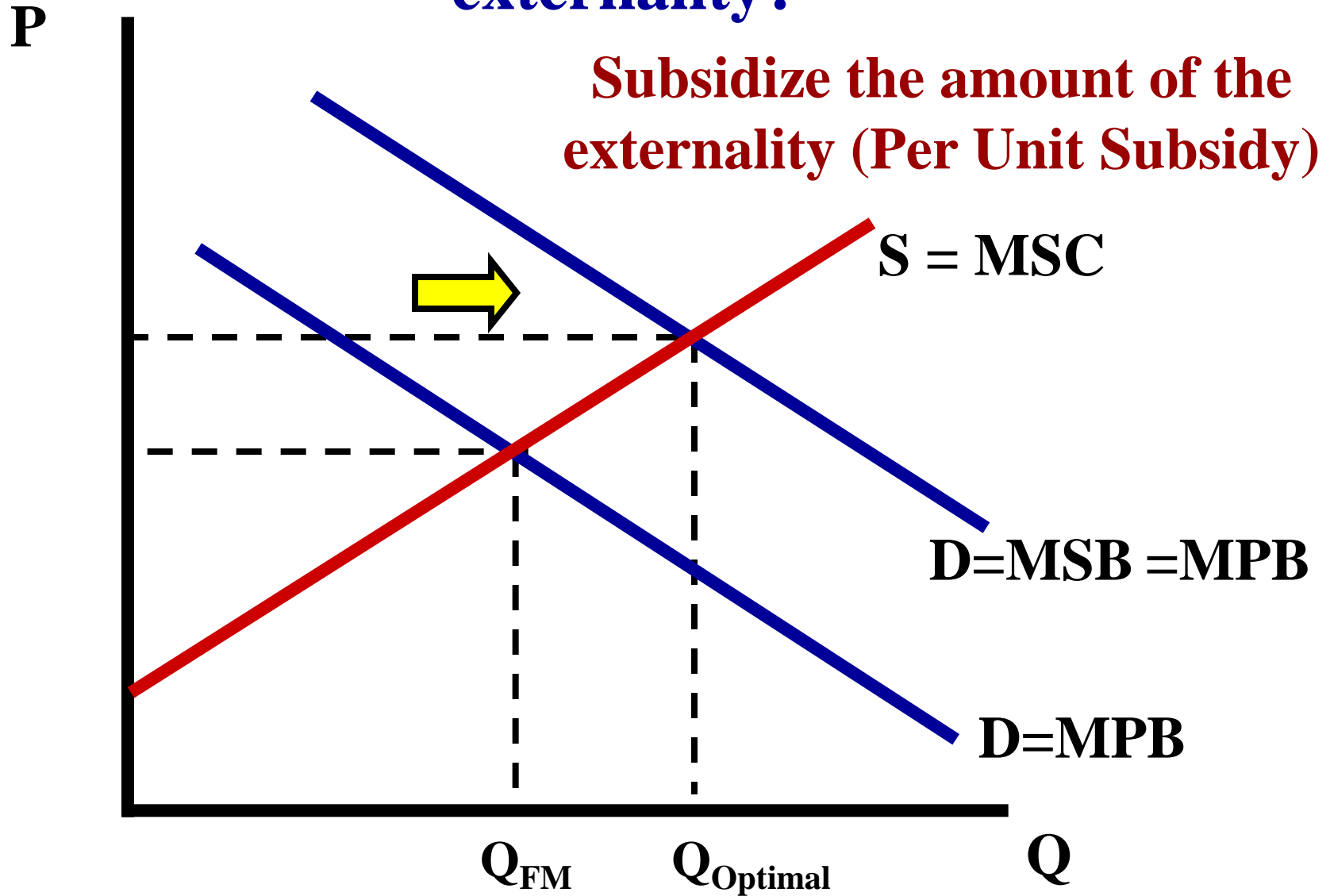
Market for Flu Shots

At Q_{FM} the MSC is less than the MSB.
Too little is being produced



Market for Flu Shots

What should the government do to fix a positive externality?



Review

1. What is an Externality?

When **EXTERNAL** benefits or external costs are on someone other than the original decision maker.

2. Why are Externalities Market Failures?

The free market fails to include external costs or external benefits.

3. Explain why the graph for a Negative Externality has two supply curves.

Two Costs: Private and Social

4. Explain why the graph for a Positive Externality has two demand curves.

Two Benefits: Private and Social

The Economics of Pollution



Economics of Pollution

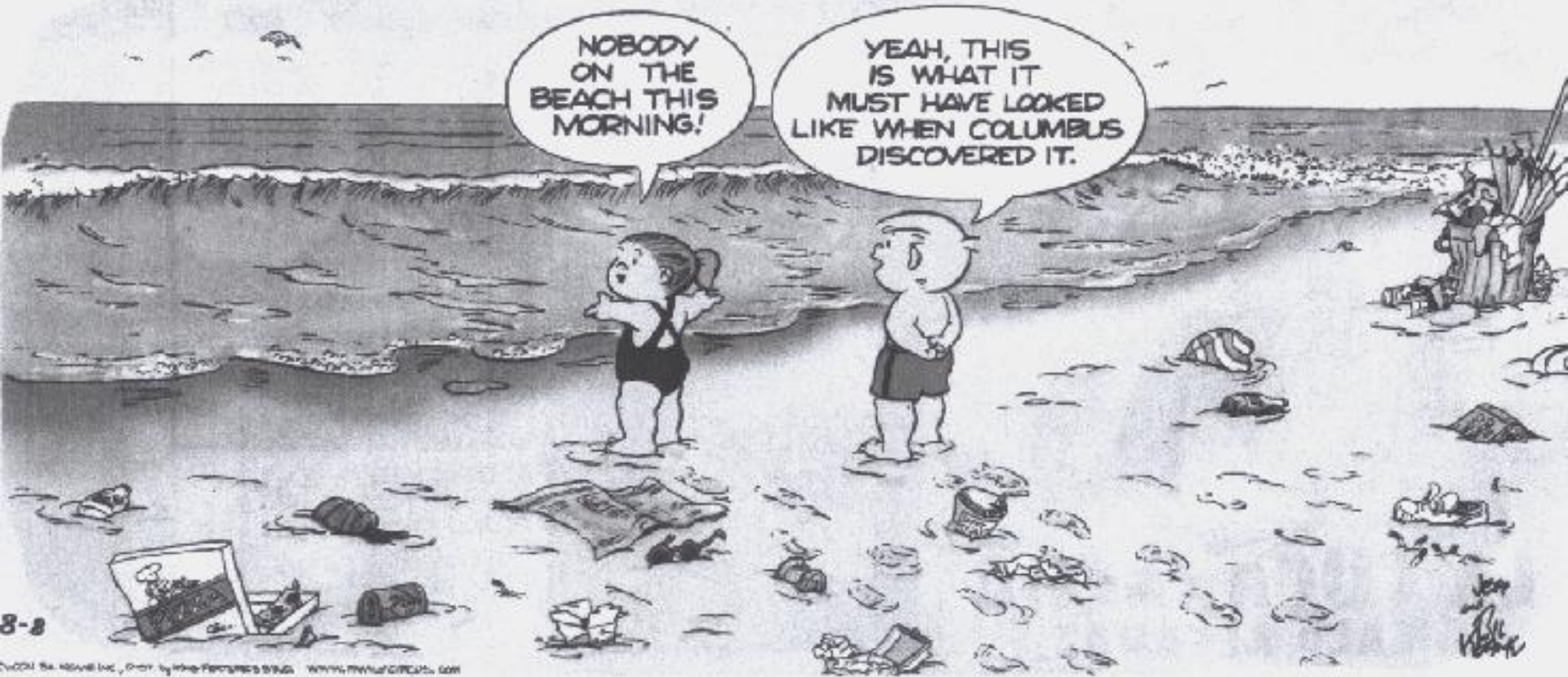
Why are public bathrooms so gross?

**The Tragedy of the Commons
(AKA: The Common Pool Problem)**

- **Goods that are available to everyone (air, oceans, lakes, public bathrooms) are often polluted since no one has the incentive to keep them clean.**
- **There is no monetary incentive to use them efficiently.**
- **Result is high spillover costs.**

Example: Over fishing in the ocean

The Common Pool Problem



Perverse Incentives

1. In 1970, the government tried to protect endangered woodpeckers by requiring land developers to report nests on their land to the EPA.

The population of these bird decreased. Why?

Land owners would kill the birds or else risk lengthy production delays. (Known as “Shoot, Shovel, and Shut Up”)

2. Assume the government wanted to limit a firm from polluting. They tell them they will inspect them twice and they must reduce pollution by 5%.

The amount of pollutants would increase. Why?

These firm will have the incentive to pollute more prior to inspection.

Are their “market solutions” to these problems?

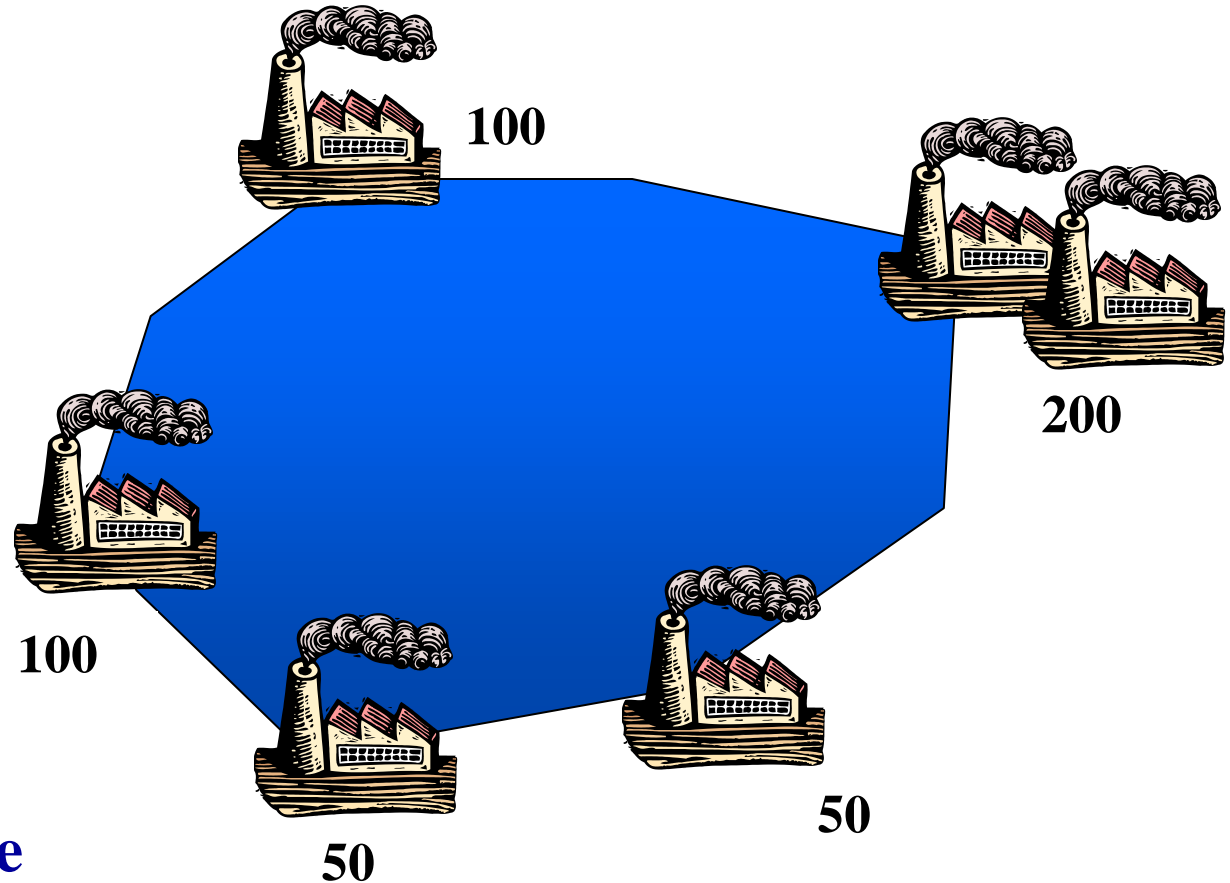
How can markets and self interest help to limit pollution?

Government can sell the right to pollute

Assume the lake can naturally absorb 500 gallons of pollutants each year

The Gov' t sells each firm the right to pollute a set number of gallons

Now what does each firm have the incentive to do?



Market Failure #3

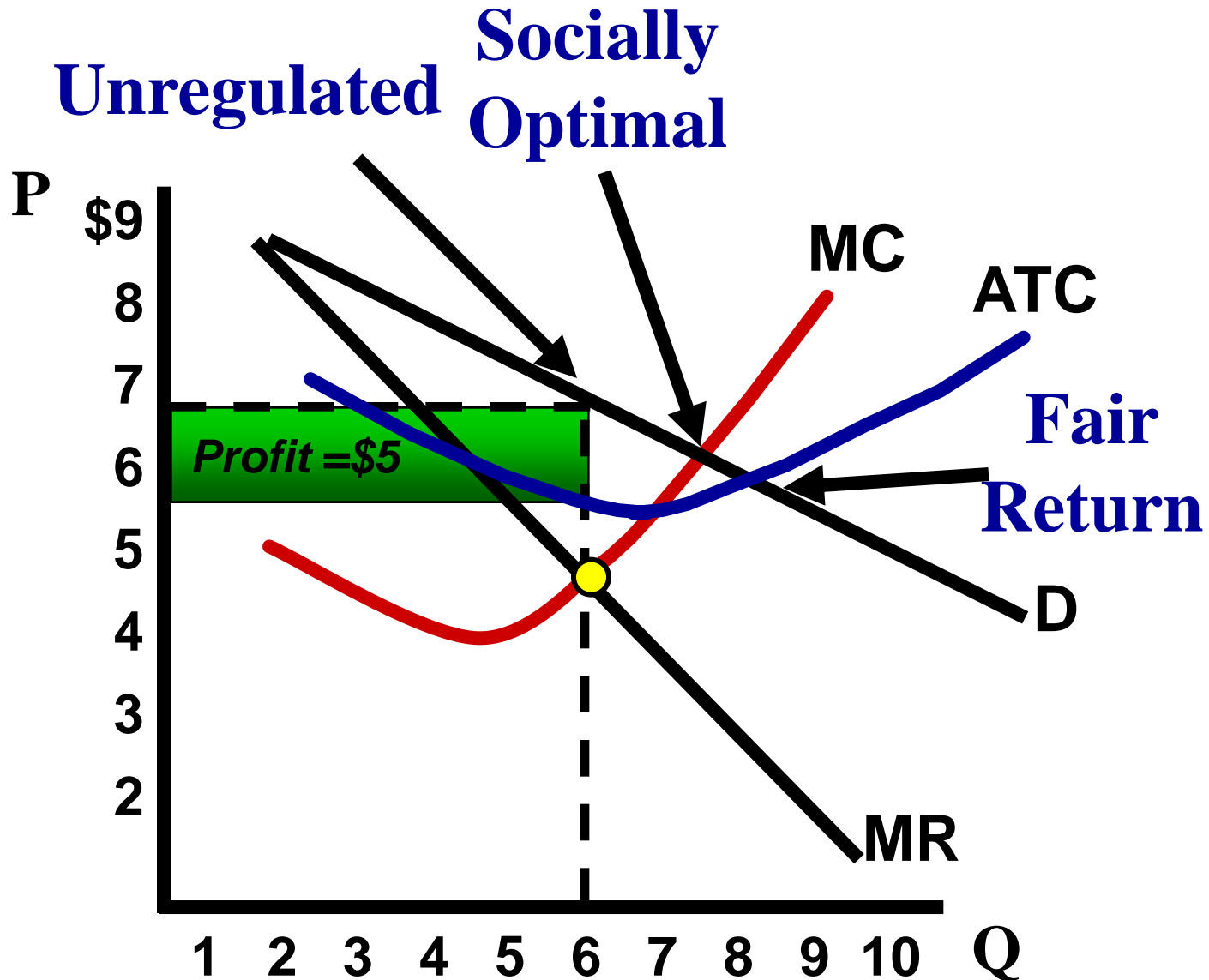
Monopolies



Monopoly Monopoly Review

- 1. Draw a monopoly making a profit. Label price, output, and profit.**
- 2. Identify three specific reasons why monopolies are bad.**
- 3. Label the Fair Return price and output.**
- 4. Label the Socially Optimal price and output.**
- 5. Explain why taxing a monopoly is a bad idea.**

Monopoly



Government in Action:

Antitrust Laws



Legislative



Executive



Judicial

WHAT ARE ANTITRUST LAWS?

Laws designed to prevent monopolies and promote competition.

- **After the Civil War, advances in technology and transportation lead to national markets.**
- **Eventually only a few firms began to dominate industries: Railroads, Steel, meatpacking, coal, etc.**

Why are monopolies a Market Failure?

- **Monopolies destroy the key ingredient of the free market system- Competition.**
- **To fix this MARKET FAILURE the government must get involved.**

WHAT DOES THE GOVERNMENT DO?

Legislative Branch

- Passed laws designed to stop monopolies
- Sherman Act of 1890-

“Every person who shall monopolize ...or conspire to monopolize...shall be deemed guilty of a felony.”

Executive Branch

- The Federal Trade Commission must approve all corporate mergers. (Like AT&T and...)
- When firms use anti-competitive tactics the Department of Justice files suit against them.

Judicial Branch

- Supreme Court finds the firm guilty or not guilty and assigns a punishment.

Market Failure #4

Unfair Distribution of Wealth

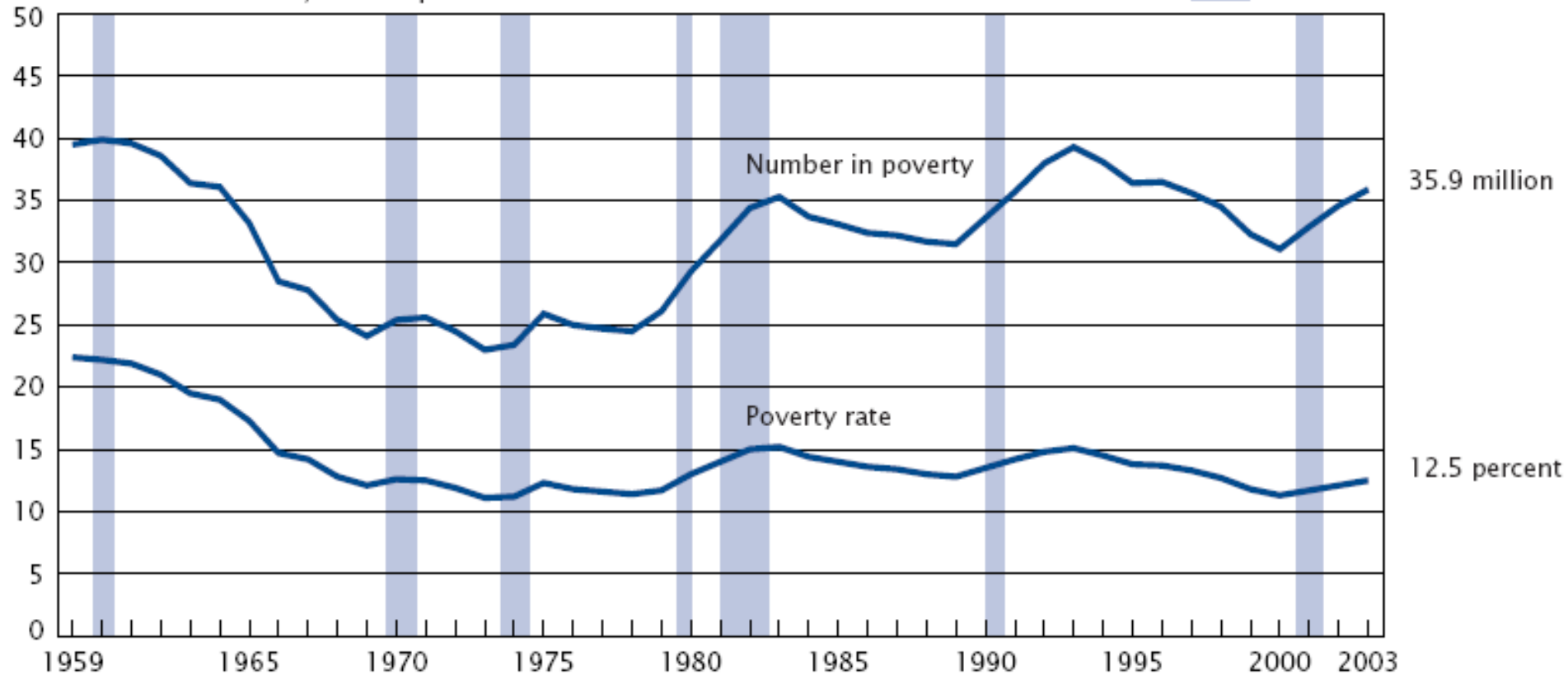


Net
Worth
over \$2.3
billion

Number in Poverty and Poverty Rate: 1959 to 2003

Numbers in millions, rates in percent

Recession



- 1. What percent of American's are living in poverty?**
- 2. Why is income distribution a market failure?**

Income Inequality

In 2003, the average American family made \$66,863. Everyone is obviously rich.

What's wrong with using the average?

Averages reveal absolutely nothing about how income is distributed.

How does the government measure distribution of income?

SIMULATION

(Based on 2003 Information)

THE LORENZ CURVE

The LAST micro graph to
learn!!!!

Measuring Income Distribution

Review the process:

- The government divides all income earning families into five equal groups (*quintiles*) from poorest to richest.
- Each groups represents 20% of the population.
- If there was perfect equality then 20% of the families should earn 20% of the income, 40% should earn 40% (and so on).
- The government compares how far the actual distribution is from perfect distribution then attempts to redistribute money fairly.

Measuring Income Distribution

Summary:

Group #1 (Poorest 20%)

- Total of \$5 (5% of total income)

Group #2

- Total of \$10 (10% of total income)

Group #3

- Total of \$15 (15% of total income)

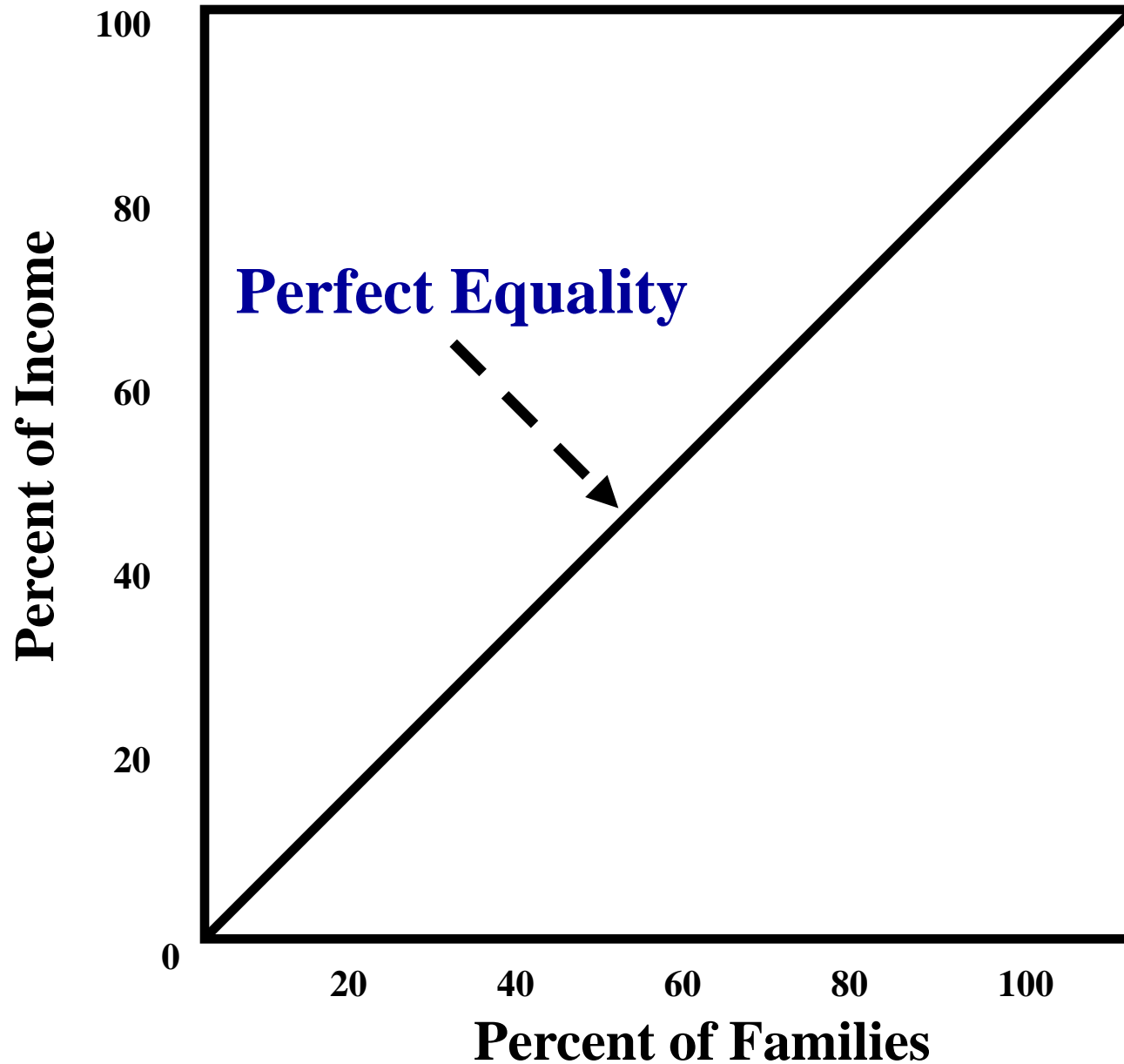
Group #4

- Total of \$25 (25% of total income)

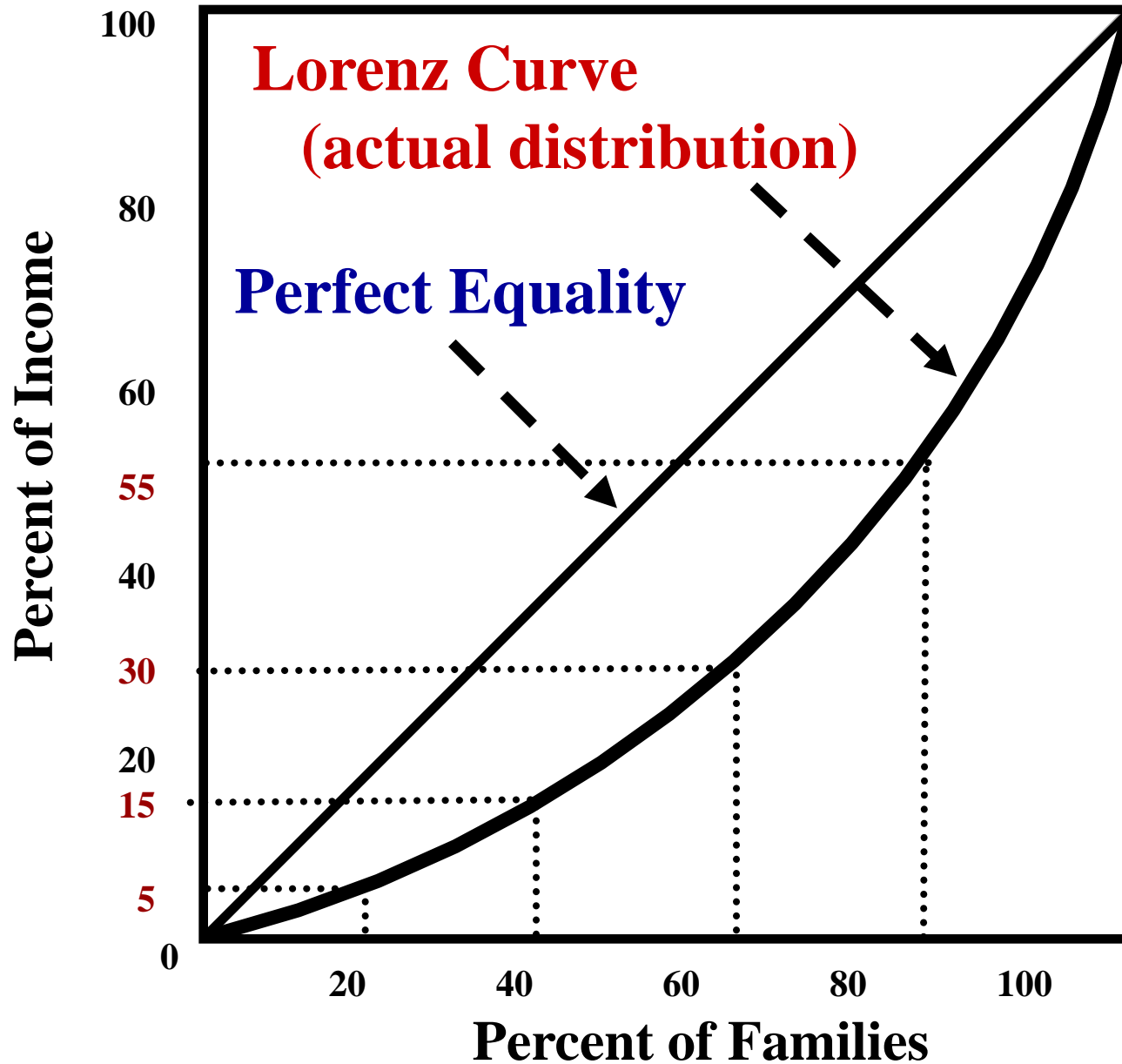
Group #5 (Richest 20%)

- Total of \$65 (45% of total income)

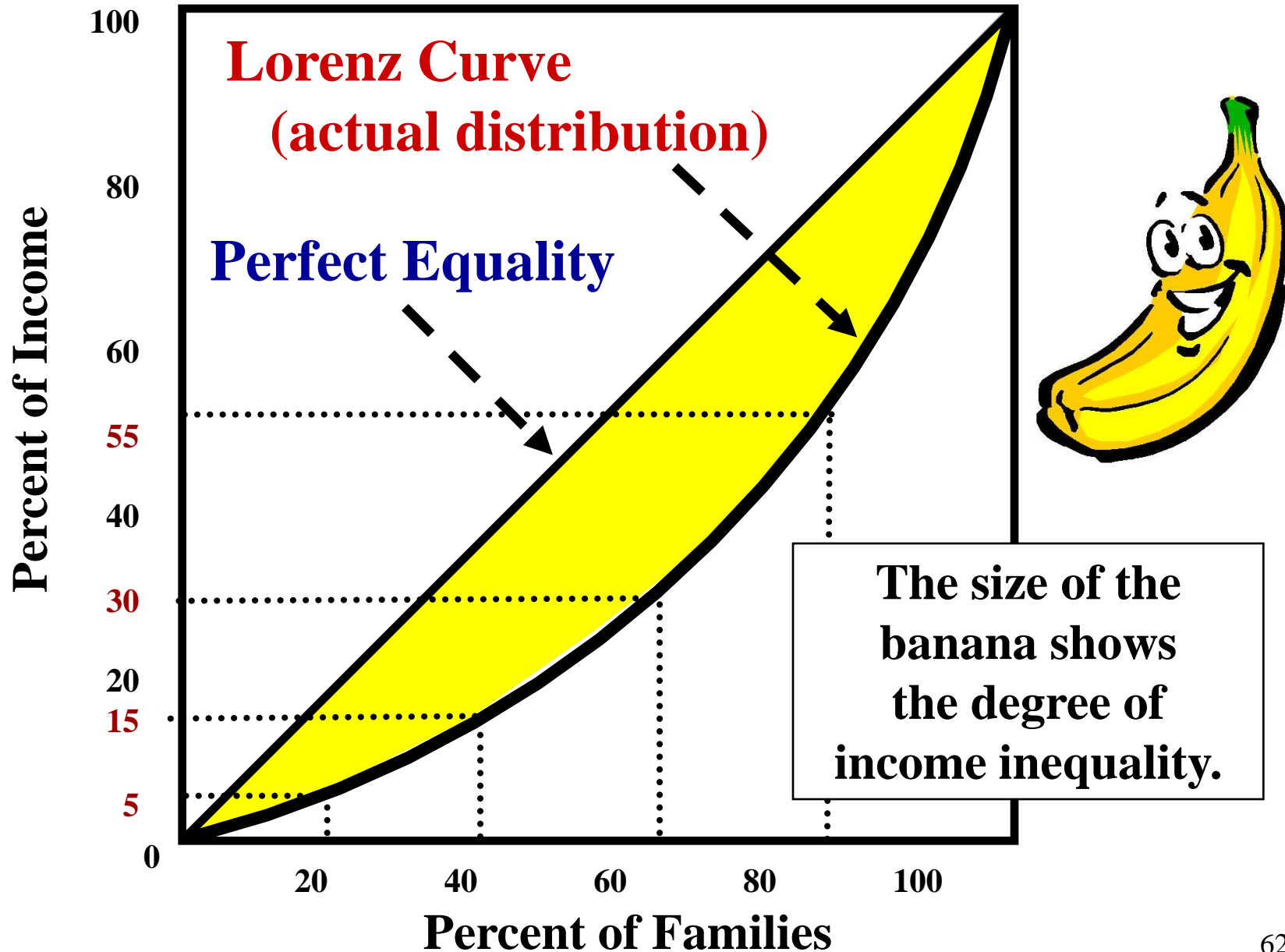
The Lorenz Curve



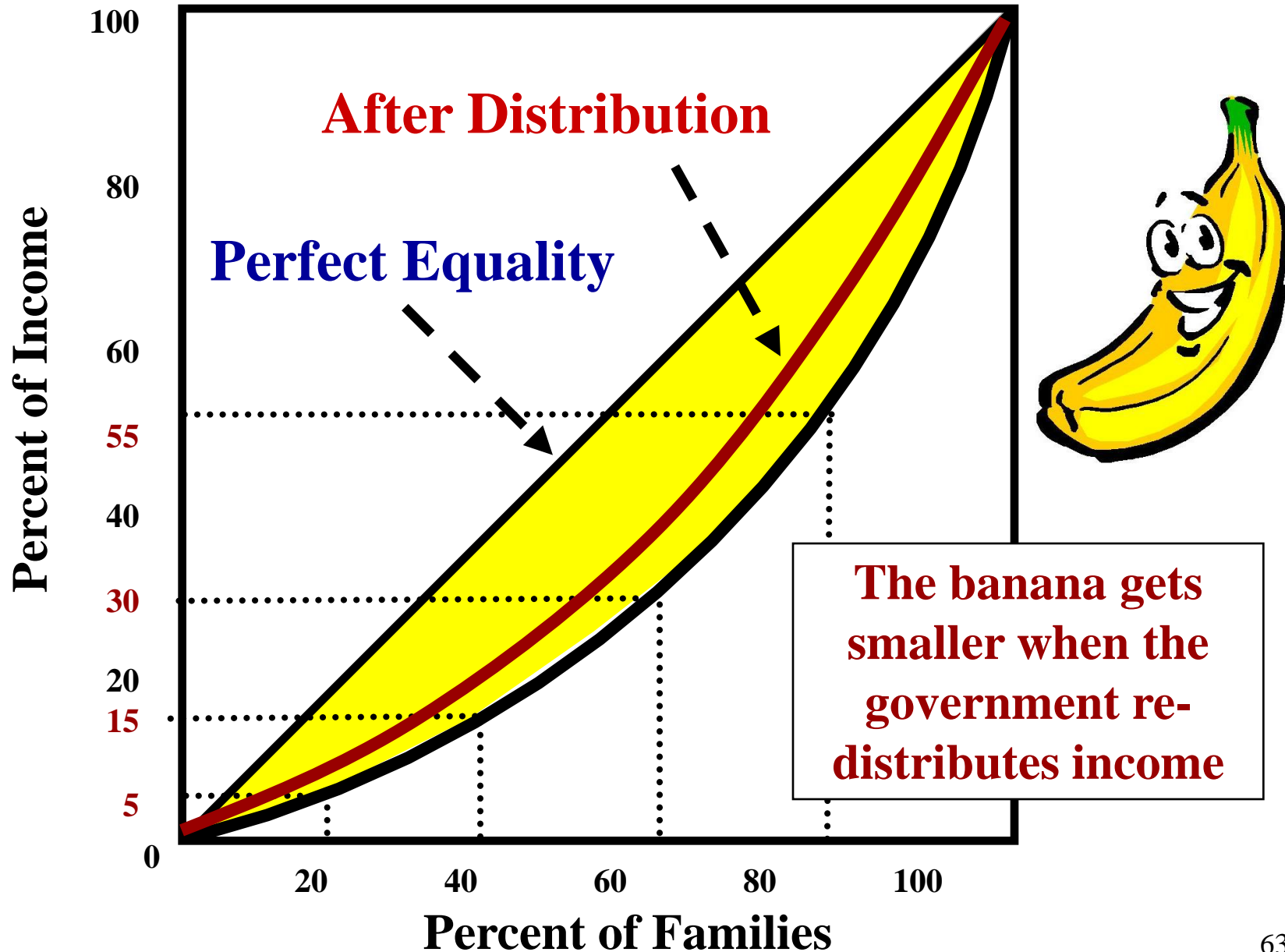
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The Lorenz Curve

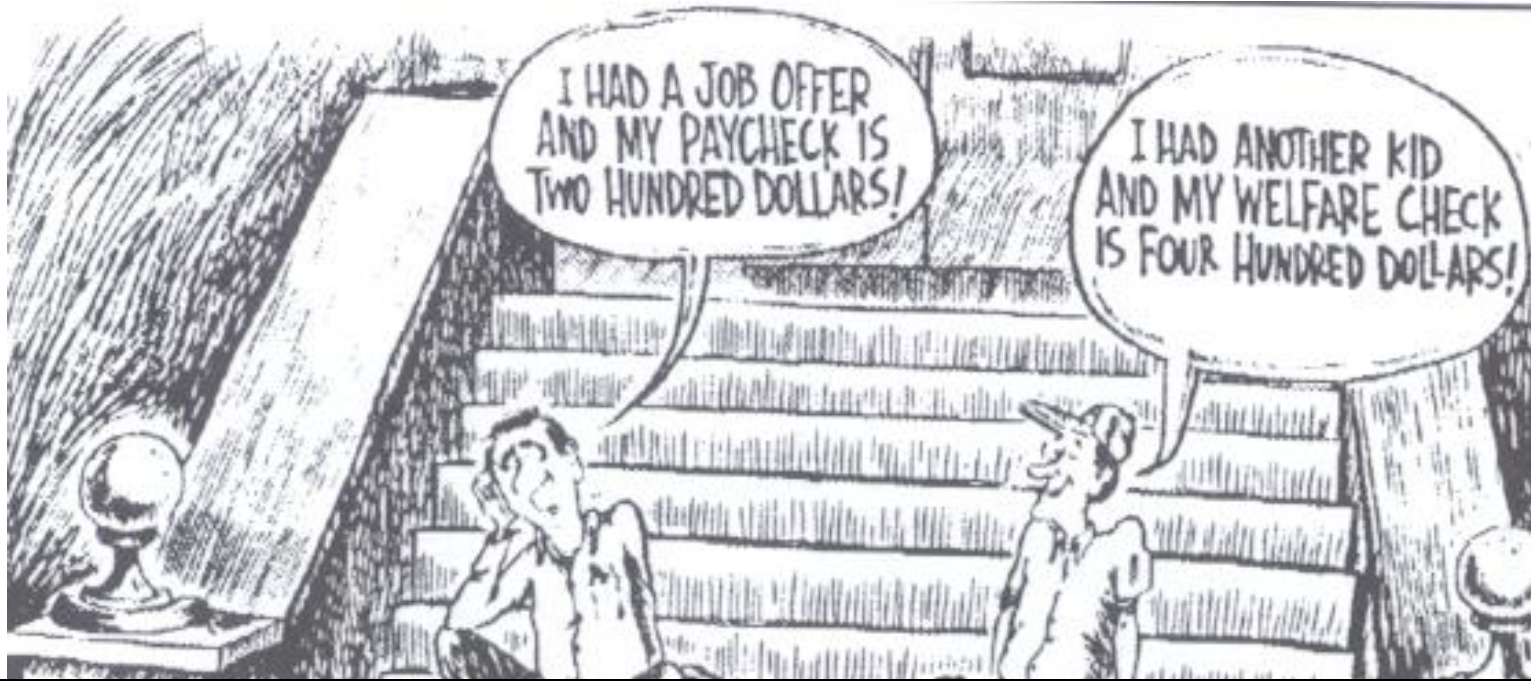


The Lorenz Curve



Welfare provides a safety net for citizens
(retirement, unemployment, workers comp, health, etc.)

BUT, what are some possible downsides?



**Where does the government get
the money for welfare?**

Taxes



What are Taxes?

Taxes – mandatory payments made to the government to cover costs of governing.

Why does the government tax?

Two purposes:

1. Finance government operations.

- **Public goods-highways, defense, employee wages**
- **Fund Programs- welfare, social security**

2. Influence economic behavior of firms and individuals.

Ex: Excise taxes on tobacco raises tax revenue and discourages the use of cigarettes.

Three Types of Taxes

1. Progressive Taxes -takes a **larger** percent of income from high income groups (takes more from rich people).

Ex: Current Federal Income Tax system

2. Proportional Taxes (flat rate) –takes the **same** percent of income from all income groups.

Ex: 20% flat income tax on all income groups

3. Regressive Taxes –takes a **larger** percentage from low income groups (takes more from poor people).

Ex: Sales tax; any consumption tax.

Three Types of Taxes

What kind of taxes are these?

(THINK % of Income)

1. Toll road tax (\$1 per day)
2. State income tax where richer citizens pay higher %
3. \$.45 tax on cigarettes
4. Medicare tax of 1% of every dollar earned
5. 8.25% California sales tax

Federal Income Tax Debate

Equal Tax of \$350 per week (Regressive Tax)

Income	Amount of Tax	%	Amount to live on
• \$200	\$350	175%	-\$150)[crime?]
• \$350	\$350	100%	\$0
• \$500	\$350	70%	\$150
• \$1,000	\$350	35%	\$650
• \$5,000	\$350	7%	\$4,650

Tax tax of 20% per week (Proportional Tax)

Income	Amount of Tax	Amount to live on
• \$200	\$40	\$160
• \$350	\$70	\$280
• \$500	\$100	\$400
• \$1,000	\$200	\$800
• \$5,000	\$1,000	\$4,000

Federal Income Tax Debate

Marginal Tax Rate [1]	Single	Married Filing Jointly or Qualified Widow(er)	Married Filing Separately	Head of Household
10%	\$0 – \$8,350	\$0 – \$16,700	\$0 – \$8,350	\$0 – \$11,950
15%	\$8,351 – \$33,950	\$16,701 – \$67,900	\$8,351 – \$33,950	\$11,951 – \$45,500
25%	\$33,951 – \$82,250	\$67,901 – \$137,050	\$33,951 – \$68,525	\$45,501 – \$117,450
28%	\$82,251 – \$171,550	\$137,051 – \$208,850	\$68,525 – \$104,425	\$117,451 – \$190,200
33%	\$171,551 – \$372,950	\$208,851 – \$372,950	\$104,426 – \$186,475	\$190,201 – \$372,950
35%	\$372,951+	\$372,951+	\$186,476+	\$372,951+

This is our current system. Is it fair?
The Progressive tax system is the most effective way to fight this market failure

GREAT NEWS...



**YOU ARE DONE WITH
MICRO!!!!**