Government

Government

Introduction

- Government is not run as a business.
- Businesses have a simple goal: maximize profits.
- Businesses have a clear cut chain of command from employees to managers to owners.
- Everyone in business is usually aware of their place in the firm.

Government

Side Bar Discussion

- Every organization has three major functions:
  - Operations
  - Marketing
  - Finance

Government

Introduction

- Government is run by consensus.
- The only common goal is the budget.
- Government does not have simple metrics such as sales, and profits that drive business decisions.

Government

Importance of the budget

- It decides who gets how much.
- It provides the incentives (or lack of) for managerial action.
- Typically, budget allocations are determined by voting power.
- To avoid unnecessary political conflicts, last years budget is used with modifications.

Government

Importance of other constraints

- Absolute Power = Absolute Corruption
- Typically, power is spread out among the legislative, executive, and judicial branches of government.
- Often there are three levels of government: Federal, State (Provincial), and local.

Government

- While this helps to prevent abuse of power, it greatly increases the costs of coordination of policies.
- Efficiency and effectiveness suffer.

Government

US Federal Government Outlays, 2006

Social Security	$549	21%
Medicaid	191	7
Medicare	330	12
Non-defense	525	19
Defense	510	19
Other	372	14
Interest	219	8
Total		

Government

Economic Functions of Government

- Stabilization
- Allocation
- Distribution

Stabilization

Definition

- Using government to achieve macroeconomic goals:
  - Full Employment
  - Price Stability
  - External Balance
  - Growth

Stabilization

- Fiscal Policy
- Crowding Out
- Fiscal Drag
- Policy Lags
- Automatic Stabilizers

Stabilization

Fiscal Policy

- Using government expenditures and taxation to influence economic activity.
- Typically, government would lower taxes and increase spending in a recession.
- And, increase taxes, and lower spending in an economic boom.

Stabilization

Fiscal Policy

- A major problem with using fiscal policy is that government deficits (Expenditures > Taxes) cause the government to borrow money thus increasing the debt.
- When normal times return, politicans are relucant to cut spending and raise taxes to generate a surplus to pay down the debt (George Bush comes to mind).

Stabilization

Fiscal Policy

- ANY government can become bankrupt.

Stabilization

Fiscal Drag

- When tax structure prevents the economy from achieving its full employment level.
- As personal incomes rise, the proportion of income that must be paid in taxes may rise. This prevents consumers from spending it. If aggregate consumption does not rise high enough, unemployment will exist.

Stabilization

Crowding Out

- When public expenditures replace, “crowd out”, private expenditures.
- The question is whether or not this is desirable.
  - If government expenditures are for useful projects with a higher return than private expenditures, then it can be desirable.

Stabilization

Crowding Out Example

Sources of Funds = Uses of Funds

Savings + Taxes = Investment + Government

400 + 100 = 400 + 100

500 = ? + 300

500 = 200 + 300

Investment spending is crowded out by gov spending

Stabilization

Policy Lags

- The difference between the need for action and the time that action becomes effective.
- It takes time for Congress to recognize that a recession is out there. Be fair, they may see it but want to wait to be sure action is needed.
- Afterwards, Congress must agree to an action plan. And then implementation of the plan takes times before economic effects are felt.

Stabilization

Policy Lags

- Often the lag is so substantial, that when its effects are finally felt, the recession has already ended and now you an expansionary stimulus that may contribute more to inflation than employment gains.

Stabilization

Automatic Stabilizers

- Programs that do not require action by policymakers in order to stabilize the economy.
- Examples:
  - Welfare programs
  - Unemployment benefits
  - Progressive income tax system

Allocation

Definition

- When public benefits/costs differ from private benefits/costs.

Allocation

- Externalities & Spillover Effects
- Public Goods & Problem of the Commons
- Monopoly
- Asymmetric Information

Allocation

Externalities

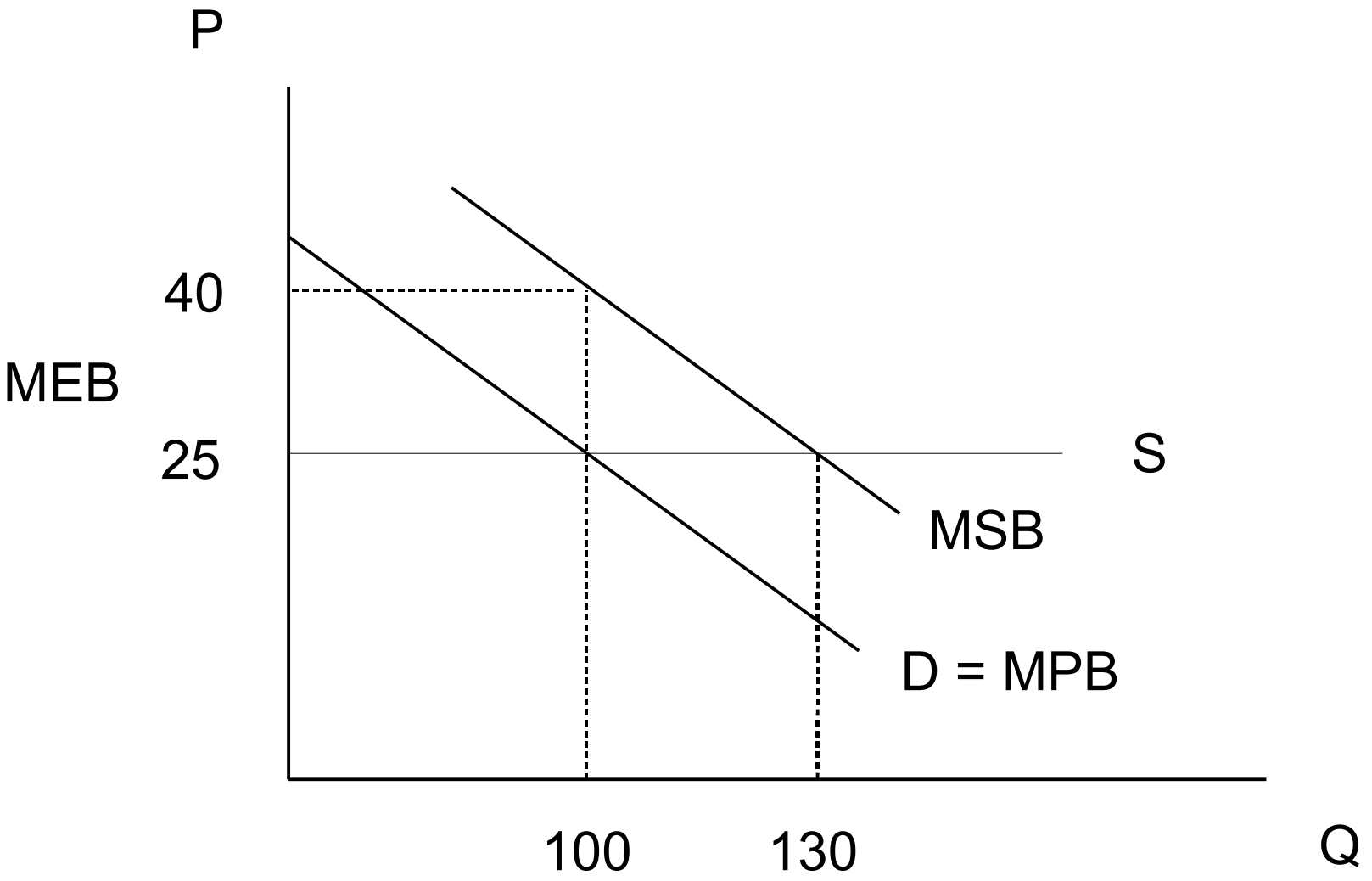
- Positive (has external benefits) vs. Negative (has external costs)
- Externalities are also known as spillovers

Allocation

Positive Externalities

- Public benefits > private benefits
- Public benefit: when people other than those consuming or producing the product benefit.
- Example: suppose you buy a run down property, move in and fix it up. Your property value will increase, and so will your neighbors.

Allocation



Allocation

Positive Externalities

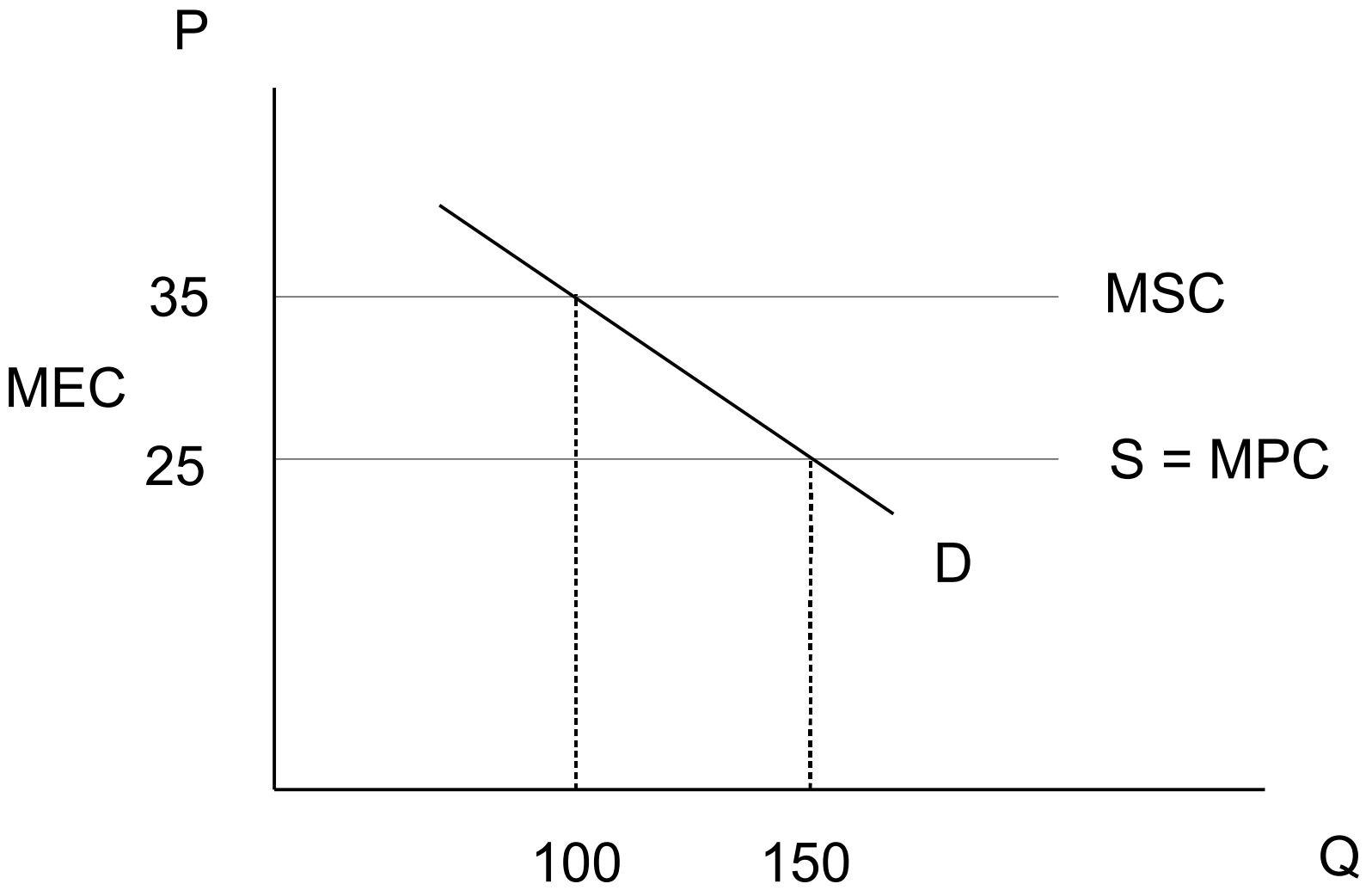
- Private markets tend to underproduce goods with positive externalities.
- Because society benefits from this goods, governments try to encourage production by subsidies or other methods.
- Example: education.

Allocation

Negative Externalities

- Public costs > private costs
- Marginal social cost: when people other than those consuming or producing the product bear a cost.
- Example: Suppose a new neighbor moves into your nice neighborhood and opens a crack house. Your property value just went down.

Allocation



Allocation

Negative Externalities

- Private markets tend to overproduce goods with negative externalities.
- Because society is hurt from these goods, governments try to discourage production by taxes or other methods.
- Example: pollution.

Allocation

Spillover Effects

- From Landsburg's 'More Sex is Safer Sex
- If you buy a German Shepperd dog, thieves are quite likely to rob your neighbor's house instead of yours. If they buy a GSD, then the house across the street is in trouble, shifting crime.
- Buy a tracking device and the thieves are caught, thereby reducing crime.

Allocation

Example: Grade Inflation

- Professor earns gratitude of class.
- All students suffer as reputation of school is destroyed and value of degree is lessened.

Allocation

Public Goods are defined by their key characteristics

- Nonrival Consumption (no congestion)
- Nonexclusion

Allocation

Public Goods

- It is difficult for a private firm to make a profit.
- Consequently, government may need to provide this good, such as the internet infrastructure.
- Technology has made some goods that now exhibit the characteristics of public goods such as digital music and digital video.

Allocation

Problem of the Commons

- Rival Consumption (congestion)
- Nonexclusion

Allocation

Problem of the Commons/Classic Example: fishing

- With a limited fishing stock (one planet, the earth) as competition among fishermen increase, the fish stock decreases. In some places to zero, we call that extinction.
- The cost to fishermen is the boat, they do not pay for the catch, it is a free resource.
- Fishermen have no incentive to stop since others will simply take their catch.

Allocation

Problem of the Commons

- Common resources are overutilized to the point of exhaustion.
- By imposing controls via a government, fishing is regulated so that fishing stocks remain stable and are thus available to future generations.

Allocation

Monopoly

- Monopoly firms, which are the sole seller of a product, earn higher than normal profits called monopoly profits via higher prices and reduced output.
- This reduces economic efficiency as those funds could have been used by consumers to buy something else.

Allocation

Monopoly

- Government policy options:
  - Regulate
  - Nationalize
  - Prevent

Allocation

Asymmetric Information

- Definition: where one party to the transaction has more information than the other.
- This can lead to market failure.
- Example: Used car market

Allocation

Used Car Market

- Suppose the dealer sells two cars; good cars and lemons.
- Goods cars can only be sold for $20,000 to earn a profit.
- Lemon cars can be sold for any price to earn a profit.

Allocation

Used Car Market

- Buyers cannot tell the difference between a good car and a lemon car, but the dealer knows.
- Each car is marked $20,000 or best offer.

Allocation

How much did you bid?

Allocation

Sold!

Allocation

Which one did you buy?

Allocation

The Lemon!!

Allocation

- The dealer knows buyers will not pay full price as there is a change they could buy a lemon.
- Therefore, the dealer can never offer good cars since a profit would be impossible.
- Since the buyers soon realize only lemons are for sale, they stop buying.

Allocation

- What can be done to preserve a market for used cars since that is desirable?
- Answers
  - Offer warranties
  - Acquire a reputation
  - Government regulation
  - Allow consumers to sue for defective products

Allocation

Asymmetric Information

- The essence of the asymmetric information lies in the Principal-Agent problem.
- Principal wants to hire the agent to do something, or to contract for a service (common in insurance situations).
- At heart is how much information that both the principal and agent have on the situation.

Allocation

Forms of Asymmetric Information

- Adverse Selection (Hidden Information)
- Moral Hazard (Hidden Action)

Allocation

Adverse Selection (Hidden Information)

- Principal makes offer to agent, does not know type of agent.
- The problem is to design the offer, or contract so as not attract the wrong type of agent exclusively.
- Example: Health Care

Allocation

Adverse Selection Example: Health Insurance

Population	$ Claims	Premium
1,000	$50,000	$50
500	50,000	100
250	50,000	250
100	50,000	500

Allocation

Moral Hazard (Hidden Action)

- Agent takes an action unknown to the principal.
- In another sense, the principal cannot observe the effort of the agent working for the principal but only observe the result. Unfortunately, effort does not equal result, hence the problem.
- Example: Automobile insurance and driving habits.

Allocation

Moral Hazard Example: Auto Insurance

Premium	Deductible	$ Claims
$100	--	$400
100	50	350
100	100	250
200	100	200

Allocation

The Tourist Trap Model

- Let's say you visit a strange city, say Orlando. And you visit one of the numerous restaurants filled with tourists. You are not sure that the food was worth the money paid for it.
- Why?

Allocation

The Tourist Trap Model

- Surprise! You fell for the tourist trap!

Allocation

The Tourist Trap Model

- Always go where the locals go. It's better and probably cheaper.
- Why?

Allocation

The Tourist Trap Model

- To avoid the costs of searching you followed the crowd.
- The restaurant knows you are a tourist. This was a one shot deal. They are not going to get repeat business from you. Nor are they going to try. So why waste money on you.

Allocation

The Tourist Trap Model

- The local restaurant need repeat business to stay in business.
- They cater to locals, particularly those who come back and back. They want satisfied customers.
- Don't trust advertising by touristy type restaurants. Nor ratings by “independent” guides.

Allocation

- It is not uncommon for governments to devote the majority of their budgets for social insurance programs such retirement, health, unemployment, disability, etc.
- These programs suffer from asymmetric problems that make it difficult for private companies to offer services.

Allocation

Side Bar Discussion: Hold-up Costs

- Sometime a market can fail due to the presence of hold-up costs.
- Let's illustrate this with an example of small business owner renting property.

Allocation

Side Bar Discussion: Hold-up Costs

- Let's say you open up your first restaurant on a formerly vacant property and the rent is reasonable.
- And you are VERY successful.
- And the landlord raise the rent....a lot!!
- You have no choice but to pay, you cannot move.

Allocation

Side Bar Discussion: Hold-up Costs

- The landlord has just held you up.
- Had you known about this landlord or suspected this possibility you would not have rented the property.
- Sometimes economic development can be reduced by such a problem.
- Either government regulations or ownership may be necessary.

Distribution

Using government taxation and expenditures to influence the distribution of purchasing power

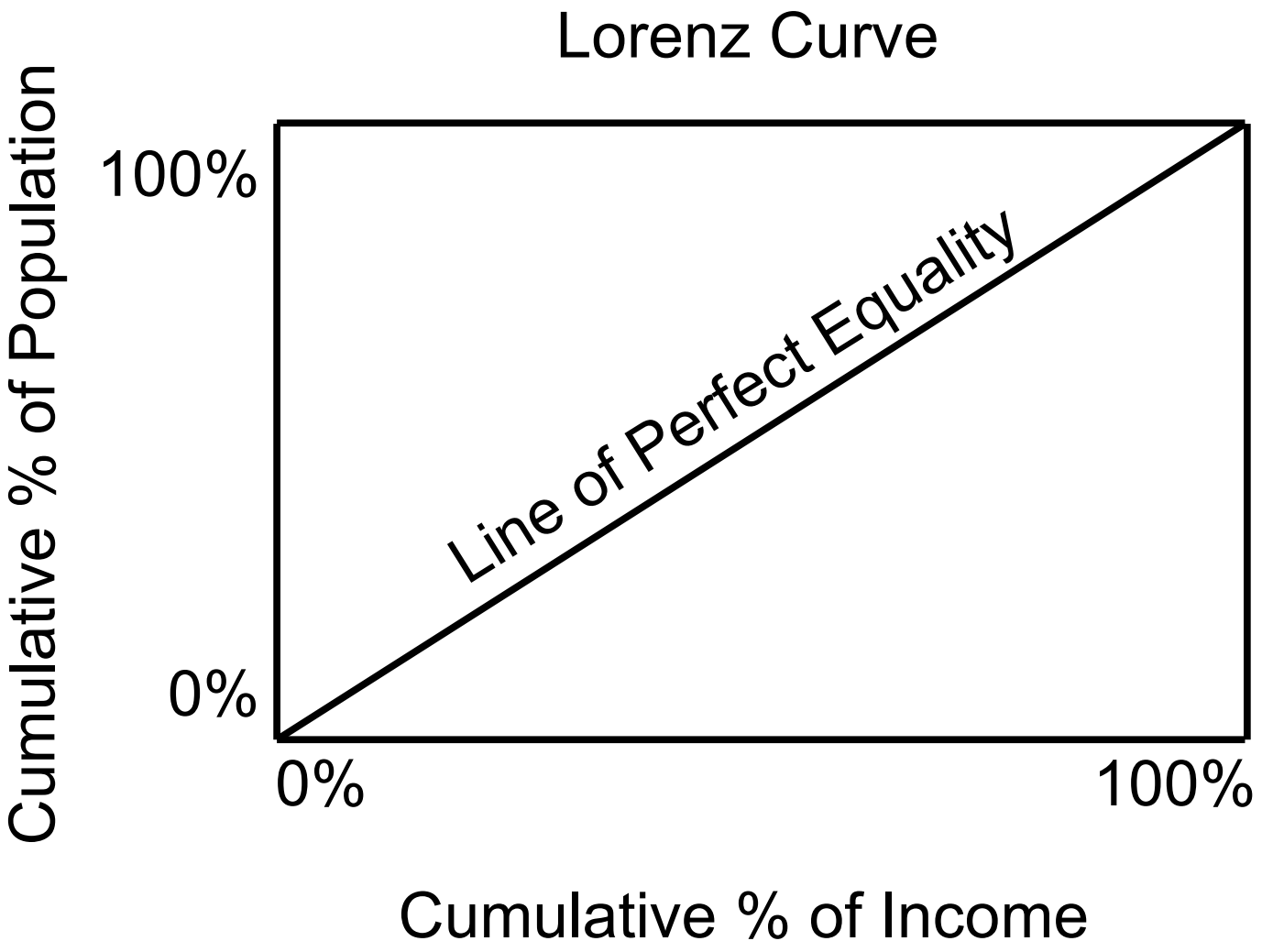
- Redistribution is inevitable.
- Governments must tax from those that can pay.
- Expenditures may benefit all.
- Public expenditure patterns will vary from private expenditure patterns.

Distribution

Measuring distribution of income

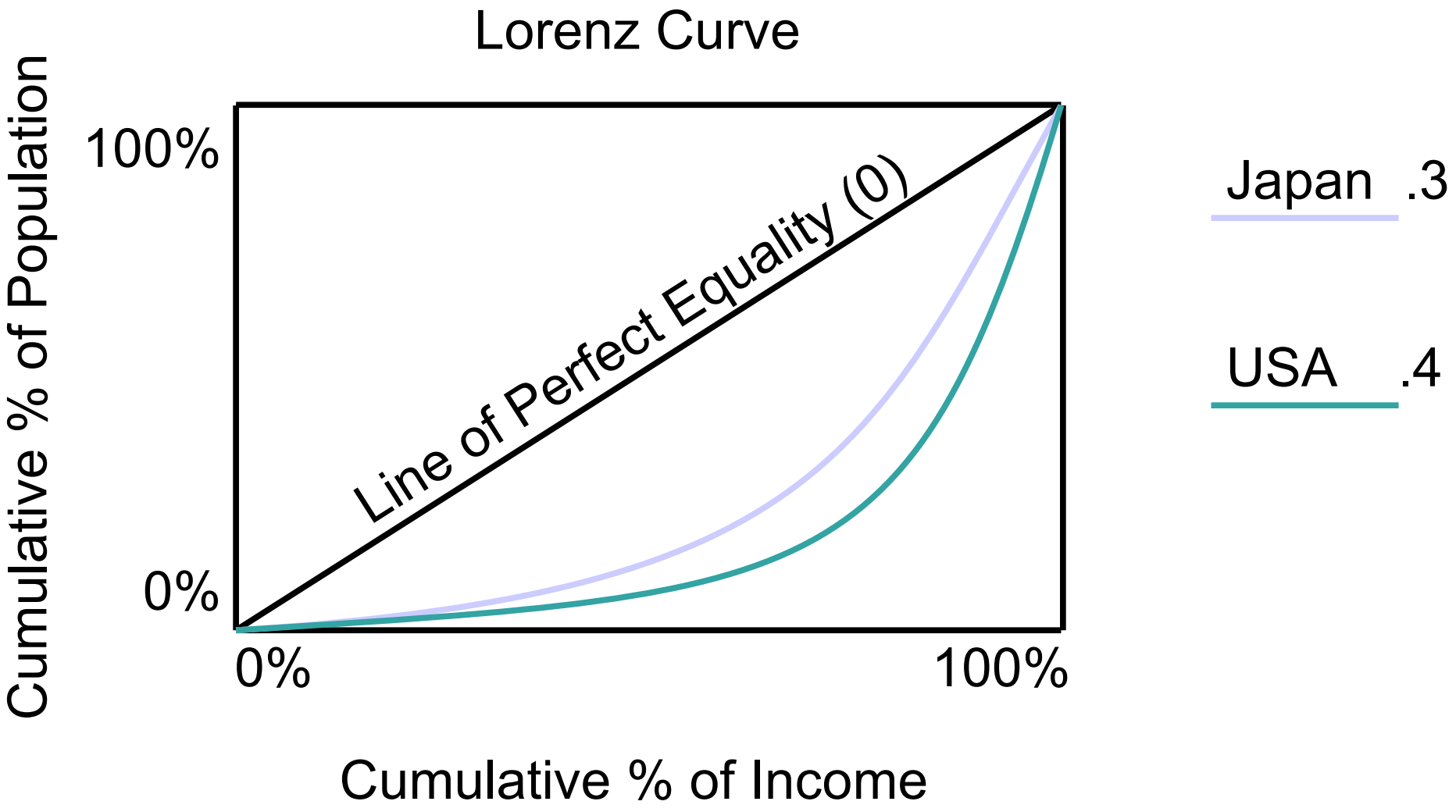
- Lorenz Curve
- Gini Coefficient
- Quantiles

Distribution

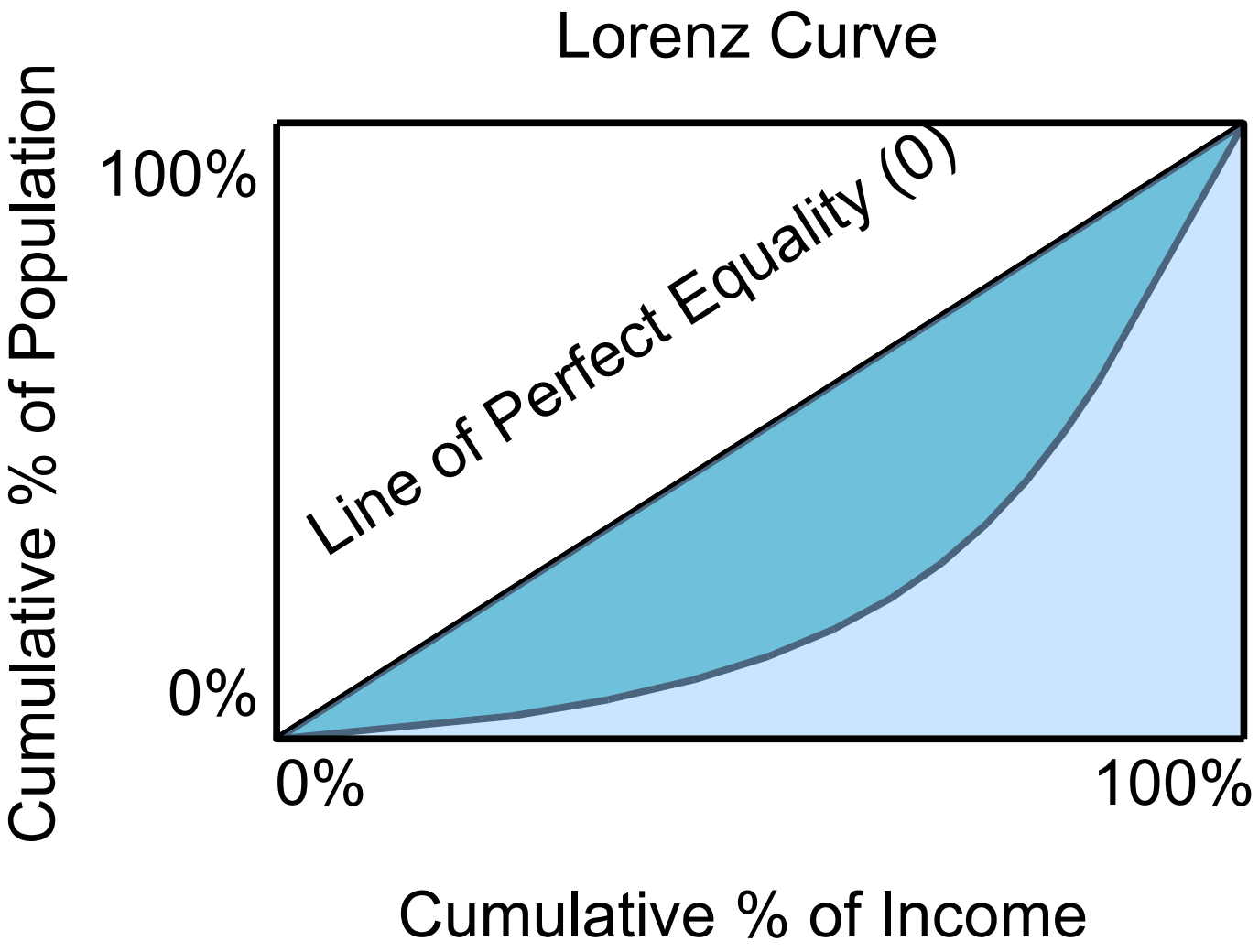


- Explains relative distribution of income

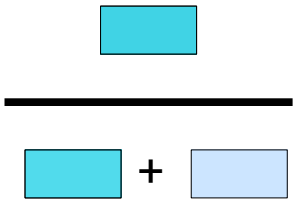
Distribution



Distribution



Gini Coefficent



Distribution

US Household Income Distribution (Thousands)

Income	$25	50	75	100	150
	68%	45%	27%	16%	6%

Source: Wikipeadia, U.S. Census Bureau, Current Population Survey, 2006

Distribution

Why influence the distribution of purchasing power?

- Fairness
- Spurs greater economic growth

Distribution

Problems in influencing the distribution of purchasing power?

- May destroy incentives for production
- Philosophical objections

Distribution

"Traditional" tools used in influencing the distribution of purchasing power

- Very high progressive income tax rates
- Very large welfare programs

Distribution

Better tools used in influencing the distribution of purchasing power

- Education programs
- Job credit programs
- Housing programs
- Anything that promotes an interest in the middle class.

Tax

Tax

- Taxes finance government expenditures.
- Taxes > Expenditures = surplus
- Taxes < Expenditures = deficit
- Deficits must be financed by borrowing, that is increasing the government debt.

Tax

Tax Structure

- Income Taxes
- Property Taxes
- Sales Taxes

Tax

US Federal Tax Receipts, 2006

Individual income taxes	$1,043.9
Corporate income taxes	363.9
Social insurance	837.8
Excise taxes	74.0
Estate & Gift taxes	27.9
Custom duties	24.8
Total	xxxxx

Tax

Income Tax Structure

- Gross Income
- Adjustments
- Deductions
- Exemptions
- Tax Credits

Tax

Measurement

- Average Tax Rate = Tax / Income
- Marginal Tax Rate = Δtax / Δincome

Tax

Measurement Example

- Suppose George currently earns $250,000 and pays taxes of $25,000 however after a raise to $300,000 he now pays taxes of $35,000.
- Calculate his old and new average tax rates.
- Calculate his marginal tax rate.

Tax

Measurement Example Solution

- Suppose George currently earns $250,000 and pays taxes of $25,000 however after a raise to $300,000 he now pays taxes of $35,000.
- Old ATR = $25,000/250,000 = 10%
- New ATR = $35,000/300,000 = 11.6%
- MTR = $10,000/50,000 = 20%

Tax

Concepts of Fairness

- Horizontal Tax Equity; equal incomes should pay equal taxes.
- Vertical Tax Equity; higher incomes should pay proportionately more tax.

Tax

Ability to pay

- Measured by tax as a percent of income.
- Progressive: that percentage increases as income increases.
- Regressive: that percentage decreases as income increases.

Tax

Example

	Bill	Bob
Income	$20,000	$30,000
Tax	1,000	3,000
ATR	5%	10%

Tax

Laffer Curve

- There is an optimal tax rate that optimizes tax receipts.
- Does not imply an optimal level of taxation since it does not consider the benefits the taxes finance.

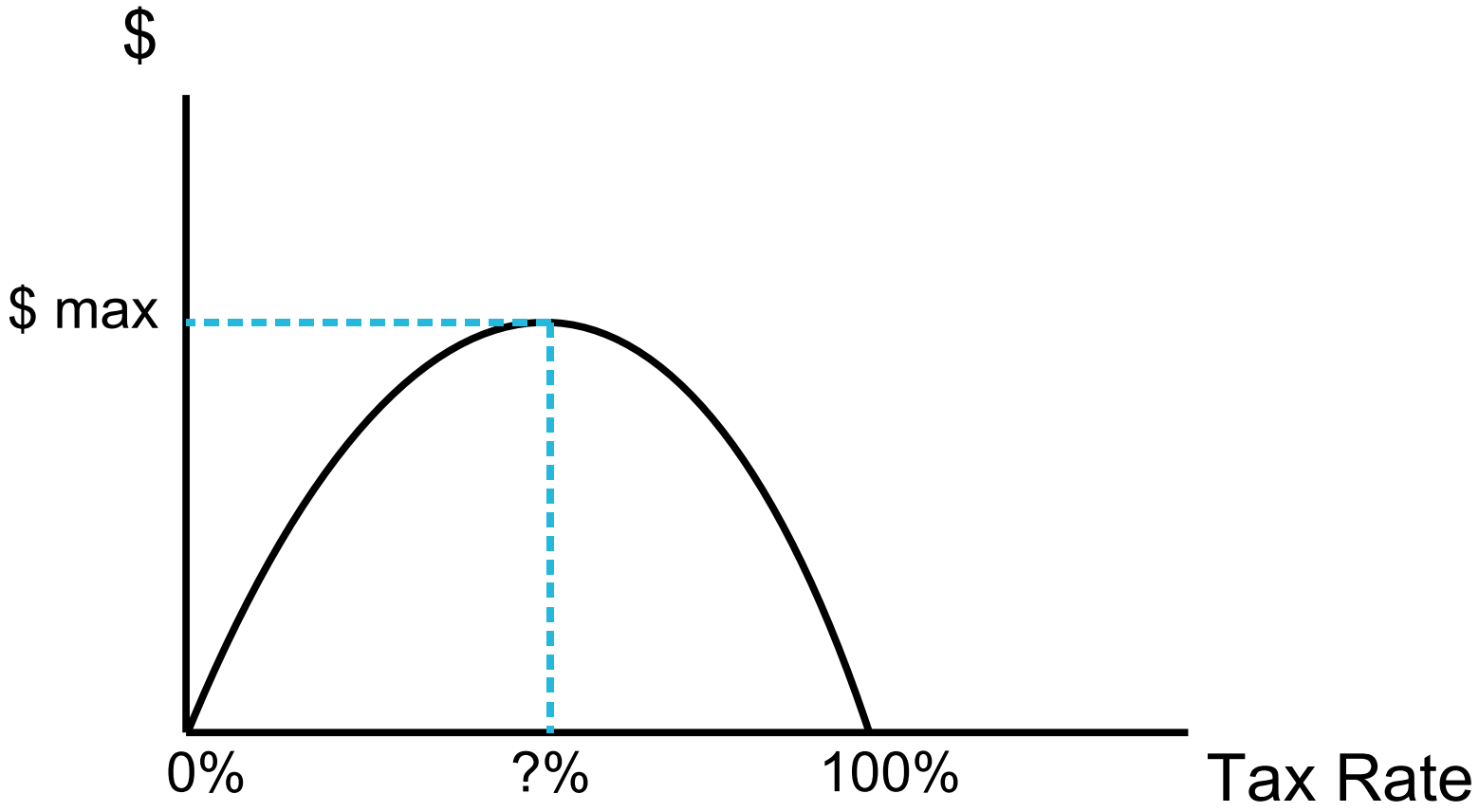
Tax

Laffer Curve Example

Take-Home	Labor Hours	Wage	Income	Tax Rate	Tax Collected
$560	70	$10	$700	20%	$140
350	50	10	500	30	150
210	35	10	350	40	140
130	26	10	260	50	130
80	20	10	200	60	120

Tax

Laffer Curve



Tax

Cost-Benefit Analysis

- Government programs should not exist unless benefits exceed costs.
- Problem of determing benefits for non-revenue generating programs such welfare and national parks.

Tax

Final Words

- All governments must find the best tax structure to meet their needs.
- If people want more government services, taxes MUST increase (if not now, then even more later).

Government Failure

- In evaluating whether or not a government solution to a private market problem is desirable, the costs of government failure must be considered.
- Government inefficiencies are caused by problems of coordination, costs of administration, and problems of corruption.

Government Failure

Coordination

- Government incurs coordination problems among the executive, judicial, and legislative branches as well as among the various levels of government; local, state, and federal.
- As government must have consensus before action, there is an opportunity to block action until other political goals are met. An example, you vote for my project and I will vote for yours.

Government Failure

Costs of Administration

- Cost of administration are increased by incentive problems exist in the administration of programs as exemplified by the budget example earlier in these slides.
- To administer programs, bureaucratic rules and procedures must be established which increase the costs of administration.

Government Failure

Corruption

- Finally, good old fashioned corruption exists.
- Potential for “hold-up” exists thus allowing politicians and bureaucrats an opportunity to extract payments for personal purposes.
- Example, “My kids need Christmas gifts.”

Government Failure

- Even with costs of government failure, it still may be desirable to have government involvement.

The End