Microeconomics

Acemoglu Laibson List

Chapter 10
The Government in the Economy: Taxation and Regulation

Modified by Joseph Tao-yi Wang

Chapter Outline

10.1. Taxation and Government Spending in the United States

10.2. Regulation

10.3. Government Failures

10.4. Equity versus Efficiency

10.5. Consumer Sovereignty and Paternalism

Key Ideas

1. In the United States, governments (federal, state, and local)
   ‣ Tax citizens and corporations to
     ‣ Correct market failures and externalities,
     ‣ Raise revenues,
     ‣ Redistribute funds, and
     ‣ Finance operations.

Key Ideas

2. Governments can intervene to influence market outcomes through
   ‣ direct regulation and price controls.

3. Although government intervention sometimes creates inefficiencies, it often results in improved social well-being.

Key Ideas

4. Weighing the trade-offs between equity and efficiency is one task of an economist.

5. It is up to each individual to decide when and where government intervention makes the most sense.

Evidence-Based Economics Example

What is the optimal size of government?

1

US Taxation & Government Spending

‣ United States has 3 levels of government:
  ‣ Federal
  ‣ State
  ‣ Local
‣ All can collect taxes and spend revenues.

‣ What about Taiwan?

US Taxation & Government Spending

‣ Budget surplus
  ‣ Tax revenues are greater than spending

‣ Budget deficit
  ‣ Spending is greater than tax revenues
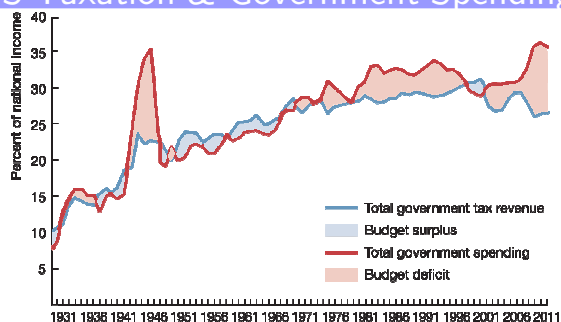

US Taxation & Government Spending

Exhibit 10.1 Total Government Spending and Total Government Tax Revenue
as a Percentage of National Income (1929–2011)

US Taxation & Government Spending
Where Does the Money Come From?

‣ Where does the (federal) money come from?
  1. 47% of total revenue: Individual income taxes
  2. 36% of total revenue: Payroll taxes
       (Social Security withheld from pay)
  3. 7% of total revenue: Corporate income tax
       (taxes on profits)
  4. 9% of total revenue: Other taxes
     (including taxes on specific goods like excise tax)

US Taxation & Government Spending
Where Does the Money Come From?

- Individual Income Tax
- Corporate Income tax
- Social Insurance Tax
- Other
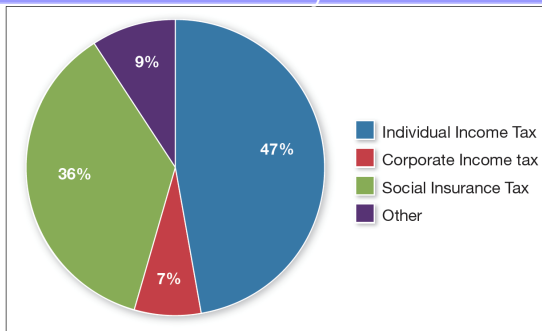
Exhibit 10.2 Federal Receipts by Category in 2011

US Taxation & Government Spending
Where Does the Money Come From?

‣ Where does the state and local money come from?
  1. 30%: Other—tolls, taxes on licenses
  2. 25%: Revenue from federal government—
       federal taxes redistributed to state/local govts
  3. 18%: Sales taxes
  4. 17%: Property taxes
  5. 11%: Individual income taxes

US Taxation & Government Spending
Where Does the Money Come From?

30%

17%

11%

18%

25%

- All Other
- Revenue from Federal Governme
- Sales and Gross Receipts
- Individual Income Tax
- Property Tax
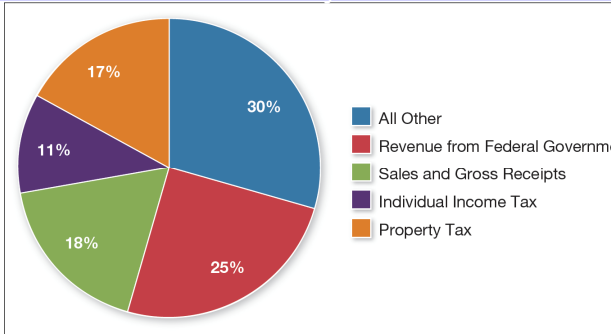
Exhibit 10.3 State and Local Receipts by Category in 2011

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

‣ Why do governments tax and spend?

1. Raise revenues to pay for public goods

2. Redistribute income to address fairness issues

3. Finance operations of government

4. Correct market failures and externalities

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?
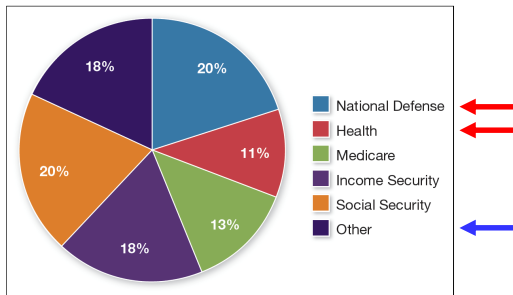
1. Raise revenues to pay for public goods

20%

18%

11%

20%

13%

18%

- National Defense
- Health
- Medicare
- Income Security
- Social Security
- Other

Exhibit 10.4 Federal Government Spending by Category in 2011

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

1. Raise revenues to pay for public goods

30%

5% 5%

7%

11%

16%

27%

- Other
- Education
- Public Welfare
- Insurance Expenditure
- Utility Expenditure
- Highways
- Hospitals
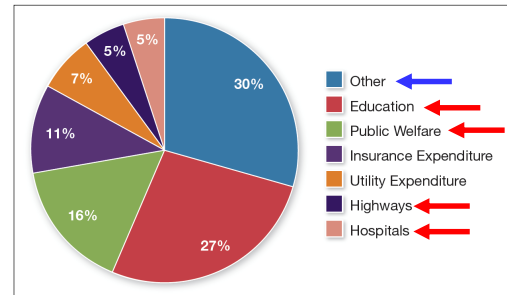
Exhibit 10.5 State and Local Spending by Category in 2011

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

2. Redistribute income to address fairness issues

‣ Governments can address equity issues through
a) transfer payments
b) the tax structure

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

a) Transfer payments

‣ Government payments to individuals or groups

3

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

2. Redistribute income to address fairness issues
   b) tax structure

‣ Average tax rate
  ‣ Total taxes divided by total income

‣ Marginal tax rate
  ‣ The rate paid on the last dollar of income

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

‣ Progressive tax system

  ‣ System in which average and marginal tax rates are higher for higher income levels

‣ Example: Income tax

US Taxation & Government Spending
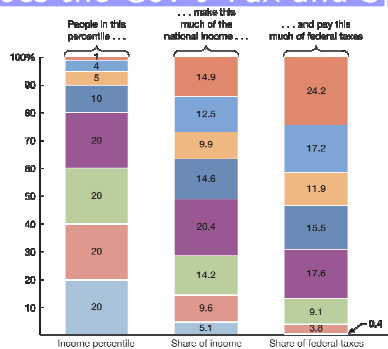### Why Does the Gov't Tax and Spend?

Exhibit 10.7 The Distribution of Income and Federal Taxes in 2009

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

‣ Proportional tax system

  ‣ System in which everyone pays the same proportion of their income in taxes,
  ‣ regardless of how much their income is;

  ‣ i.e., marginal and average tax rates are the same for everyone

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US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

‣ Regressive tax system

  ‣ System in which the lower the income, the higher percentage of income is paid in taxes;

  ‣ i.e., marginal and average tax rates fall as income rises

‣ Example: Employment & health insurance "Fee" (勞健保「費」), social security tax

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US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

Progressive Tax			
	Income	Percentage of Income Paid in Tax	Amount of Tax
Family A	$ 10,000	10%	$ 1,000
Family B	$ 50,000	20%	$10,000
Family C	$100,000	30%	$30,000

Proportional Tax			
	Income	Percentage of Income Paid in Tax	Amount of Tax
Family A	$ 10,000	20%	$ 2,000
Family B	$ 50,000	20%	$10,000
Family C	$100,000	20%	$20,000

Regressive Tax			
	Income	Percentage of Income Paid in Tax	Amount of Tax
Family A	$ 10,000	20%	$2,000
Family B	$ 50,000	4%	$2,000
Family C	$100,000	2%	$2,000

Exhibit 10.8 Three Tax Systems

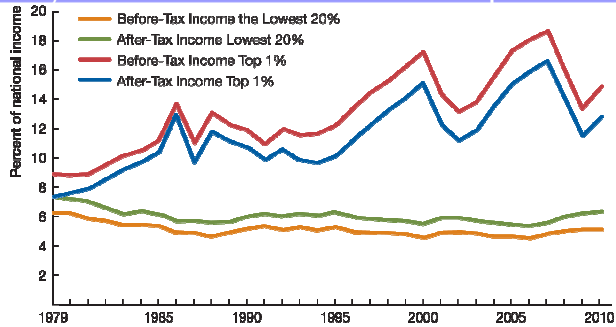## US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

Exhibit 10.9 The Pre- and Post-Tax Income Share of the Top 1 Percent and Bottom 20 Percent (as a Percentage of National Income) from 1979 to 2009

US Taxation & Government Spending
Why Does the Gov't Tax and Spend?

3. Finance operations of government

   ‣ Paying for the day-to-day running of governments

US Taxation & Government Spending
Taxation: Tax Incidence/Deadweight Losses

4. Correcting market failures & externalities

   ‣ Taxes are not usually levied to deal with a specific market failure, as discussed in Chapter 9.

US Taxation & Government Spending
Taxation: Tax Incidence/Deadweight Losses

‣ Tax incidence

   ‣ Who bears the burden of a tax

US Taxation & Government Spending
Taxation: Tax Incidence/Deadweight Losses

Exhibit 10.10 A $2 Tax on Producers

US Taxation & Government Spending
Taxation: Tax Incidence/Deadweight Losses

Exhibit 10.10 A $2 Tax on Producers

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Slide 1
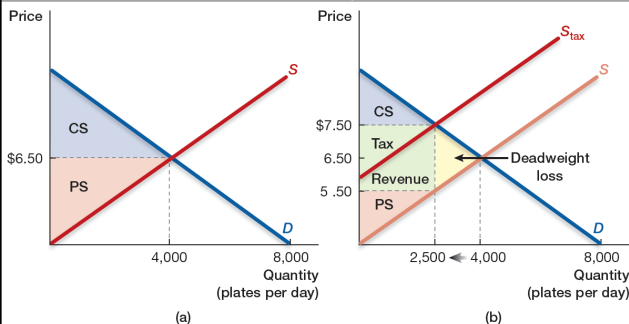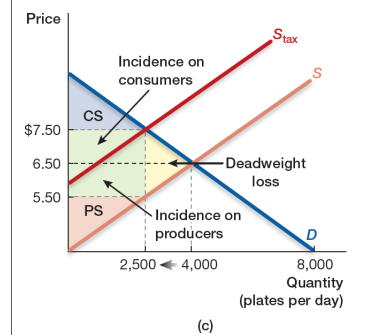
Tax on Producers		
Before Tax	After Tax	Gains/Losses
P consumers pay: $6.50	P consumers pay: $7.50	Consumers lose $1/unit
P producers receive: $6.50	P producers receive: $5.50	Producers lose $1/unit
Government receives $0	Government receives $2	Government gains $2/unit

Slide 2

(a)   Exhibit 10.11 A $2 Tax on Consumers   (b)

▸ What if the tax had been on consumers instead?

Slide 3
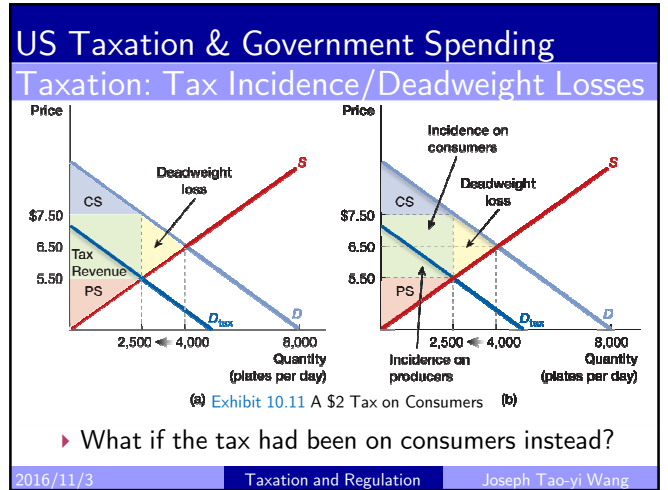
Tax on Consumers		
Before Tax	After Tax	Gains/Losses
P consumers pay: $6.50	P consumers pay to producers: $7.50	Consumers lose $1/unit
P producers receive: $6.50	P producers receive: $5.50	Producers lose $1/unit
Government receives $0	Government receives $2	Government gains $2/unit

Slide 4

(a)   Exhibit 10.12 Tax Incidence when Supply is More Elastic than Demand   (b)

▸ Is the tax incidence always split 50/50?

Slide 5

Exhibit 10.13 Tax Incidence when Demand is More Elastic than Supply

Slide 6
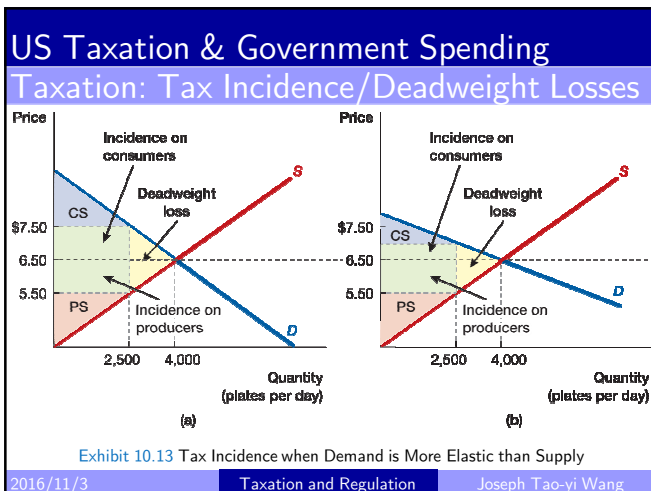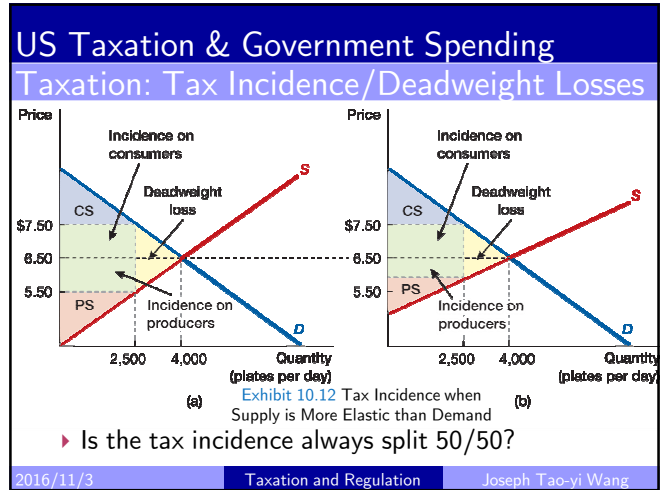
Regulation

▸ Two main types of regulation:

1. Direct regulation

2. Price controls

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Regulation
Direct Regulation

▸ Direct regulation

  ▸ Attempts by the government to control the amount of an activity—also called command-and-control regulation

▸ Examples?

Regulation
Price Controls: Price Ceilings & Price Floors

▸ Price controls
  ▸ Attempts by the government to control the price of an activity

▸ Price ceiling
  ▸ A cap (or maximum) on the price

Regulation
Price Controls: Price Ceilings & Price Floors

▸ Who's happy with a lower rent?

Regulation
Price Controls: Price Ceilings & Price Floors

Exhibit 10.14 The Effect of a Price Ceiling

Regulation
Price Controls: Price Ceilings & Price Floors
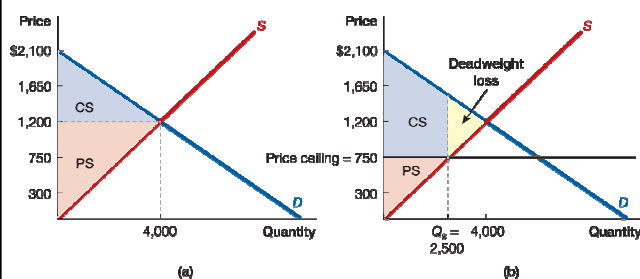
Exhibit 10.15 Consumer and Producer Surplus with Rent Controls

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Regulation
Price Controls: Price Ceilings & Price Floors

▸ Why is there a shortage of babies available for adoption?

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Regulation
Price Controls: Price Ceilings & Price Floors

▸ Why is there a shortage of organs available for transplant?

Regulation
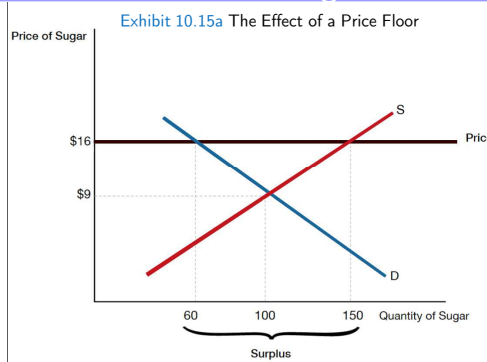### Price Controls: Price Ceilings & Price Floors

▸ Why is there a shortage of spaces in elite (or superstar) public schools?

Regulation
Price Controls: Price Ceilings & Price Floors

▸ Who's happy with a higher price?

Regulation
Price Controls: Price Ceilings & Price Floors

Exhibit 10.15a The Effect of a Price Floor

Price of Sugar

S

$16 — Price

$9

D

60   100   150   Quantity of Sugar

Surplus

Government Failures

▸ Government intervention in markets can cause:
1. Deadweight losses
2. Increased costs due to bureaucracy
3. Corruption
4. Black markets

Government Failures
The Direct Costs of Bureaucracies

▸ Bureaucratic costs

  ▸ The greater the number of regulations = the greater the number of government workers needed to enforce them.

▸ Costs vs. benefits

Government Failures
Corruption

▸ Corruption

   ▸ Misuse of public funds
   ▸ Can be a cost of government activity
   ▸ Not confined to government sector—corruption exists in private sector as well

Government Failures
Black Markets

▸ Black Markets

Equity versus Efficiency

▸ Equity vs. efficiency

Allocating resources fairly   Increasing social surplus

Consumer Sovereignty and Paternalism

▸ Consumer Sovereignty vs. Paternalism

Consumers know best: unfettered choice   Consumers may not know best: government can help guide consumer choice
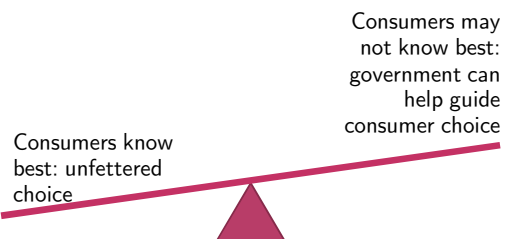
Consumer Sovereignty and Paternalism
The Debate

▸ The case for consumer sovereignty

Consumers may not know best: government can help guide consumer choice

Consumers know best: unfettered choice

Consumer Sovereignty and Paternalism
The Debate

▸ Consumers should be allowed to make their own choices because:
1. The government can't know what's best for us
2. The government can't be trusted to act in our best interests
3. If the government intervenes, there are costs

Consumer Sovereignty and Paternalism
The Debate

‣ The case for government intervention

Consumers know best: unfettered choice

Consumers may not know best: government can help guide consumer choice

Consumer Sovereignty and Paternalism

‣ Government should help consumers make choices because:

1. Some decisions are very complex and individuals don't have enough information

2. If an individual behavior benefits the larger society, the government should encourage that behavior
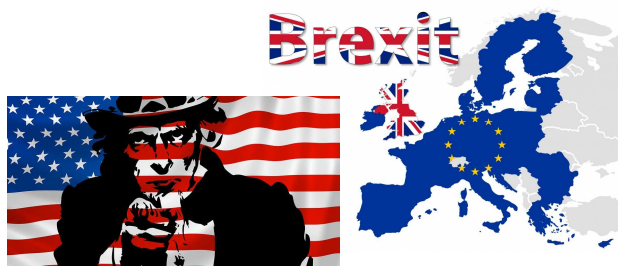
Evidence-Based Economics Example

What is the optimal size of government?

Homework

‣ ALL Chap.10, Problem 2, 5, 6, 8, 10
‣ Challenge Questions (from Past Midterms)
  ‣ 2007 - Essay Q3, Q4
  ‣ 2008 - Essay B (Multi-Choice Q8)
  ‣ 2009 - Multi-Choice Q12, Q15
  ‣ 2010 - Essay B5-B6 (True/False Q8)
  ‣ 2012 - Essay A9, A11-A12, B1-B2, B5-B5
          (True/False Q3, Q4, Q7, Q8)
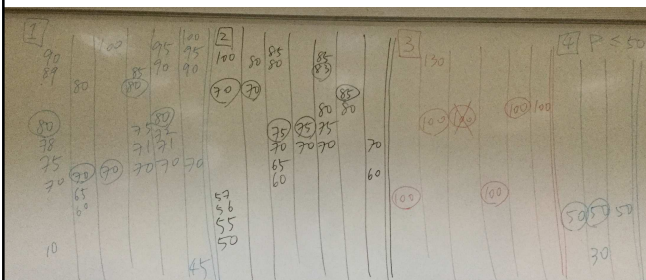 ‣ 2013 - Essay C, D16-17 (True/False Q8,Q9)
  ‣ 2014 - Essay A1-A3

Bidding in Experiment 5: Price Control

Round 1: No restriction   Round 2: Price ≥ 50
Round 3: Price ≥ 100   Round 4: Price ≤ 50