Micro

ECON

McEachern 2010-2011

CHAPTER 19

International Trade

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The Gains from Trade

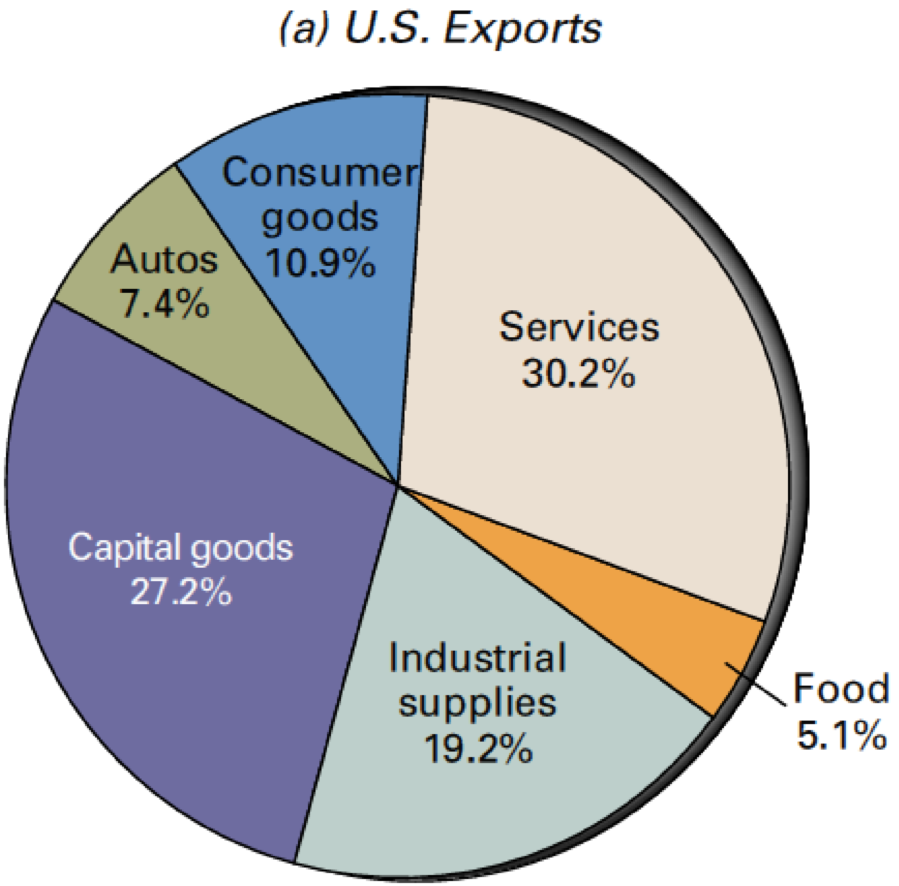
- Law of comparative advantage
- Countries specialize
  - Goods with the lowest opportunity cost
- U.S. exports
  - $1.6 trillion (12% of GDP) in 2007
    - Services (30.2%)
- U.S. imports
  - $2.3 trillion (17% of GDP) in 2007
    - Industrial supply (27.1%)

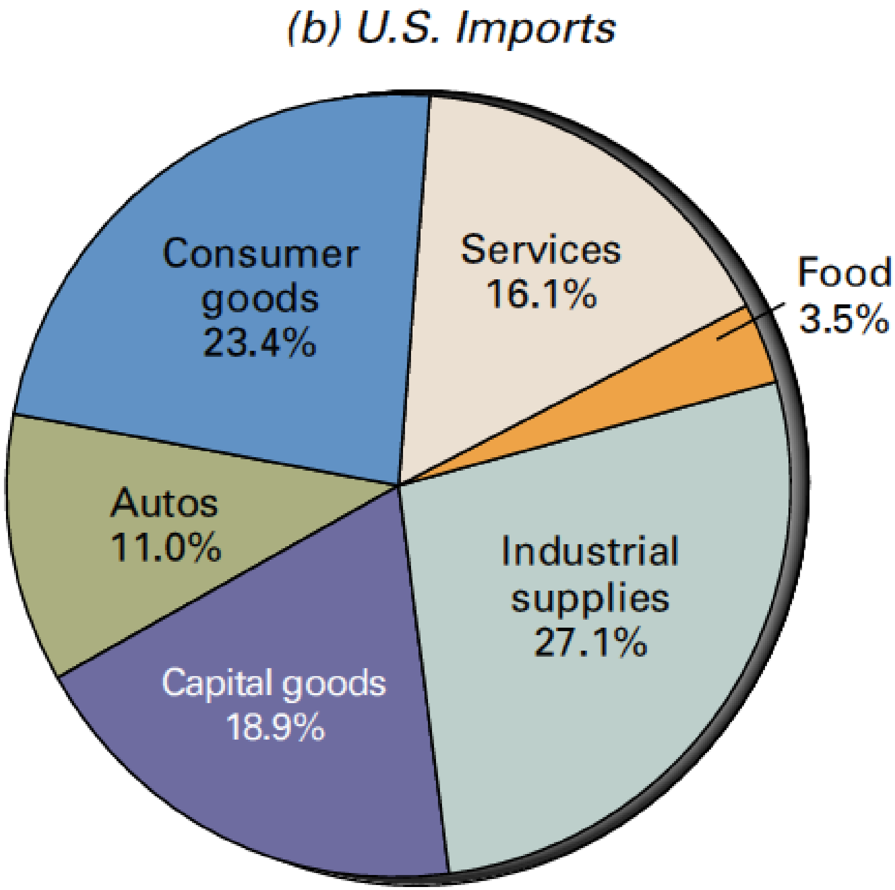
LO1

LO1

Exhibit 1

Composition of U.S. Exports and Imports in 2007





Production Possibilities Without Trade

- Production possibilities
  - With existing resources
- No trade
  - Production possibilities = consumption possibilities
- Production possibilities frontier

LO[1]

LO[1]

Exhibit 2

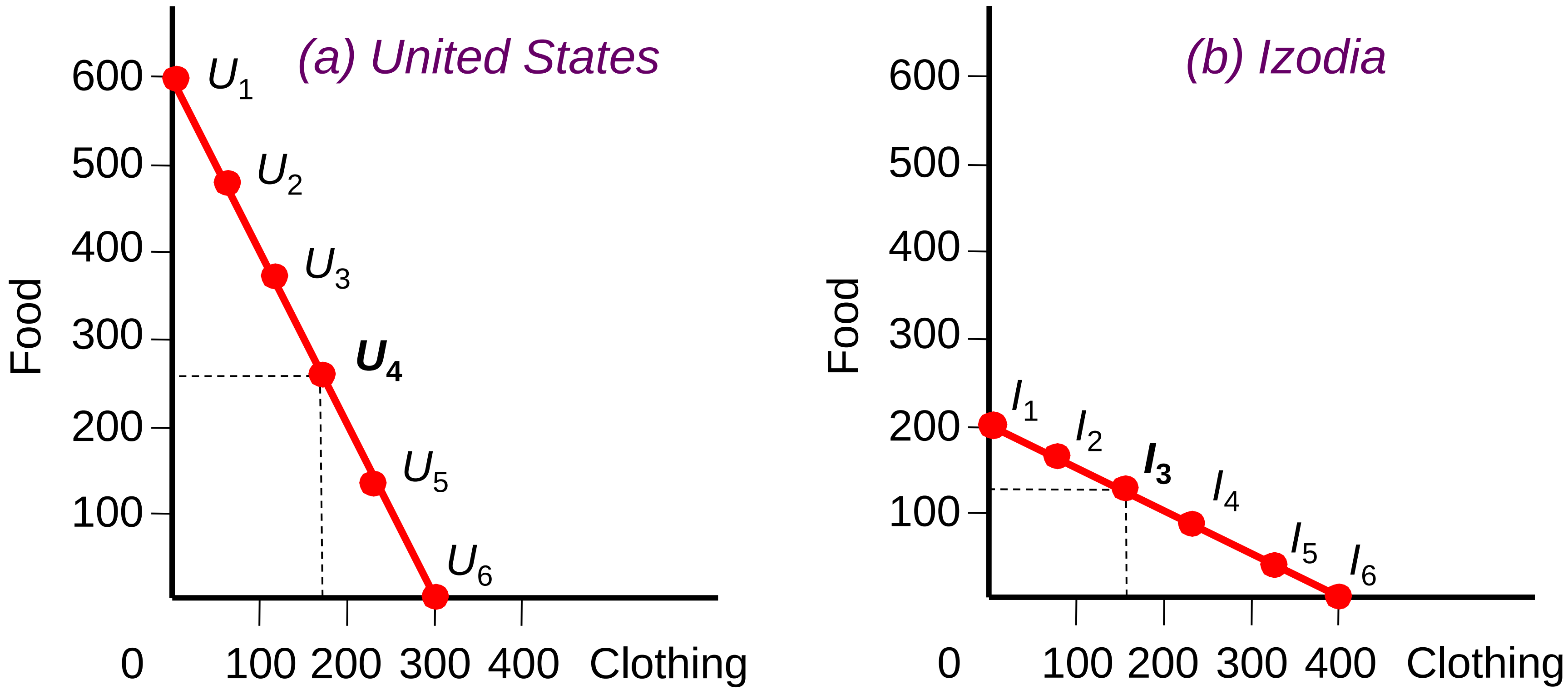
Production Possibilities Schedules for United States and Izodia

(a) United States						
Production Possibilities with 100 Million Workers (millions of units per day)						
	U_1	U_2	U_3	U_4	U_5	U_6
Food	600	480	360	240	120	0
Clothing	0	60	120	180	240	300

(b) Izodia						
Production Possibilities with 200 Million Workers (millions of units per day)						
	I_1	I_2	I_3	I_4	I_5	I_6
Food	200	160	120	80	40	0
Clothing	0	80	160	240	320	400

Exhibit 3

Production Possibilities Frontiers for the United States and Izodia Without Trade (millions of units per day)



Slope: opportunity cost of an additional unit of food is ½ unit of clothing

An additional unit of food costs 2 units of clothing.

Food is produced at a lower opportunity cost in the United States.

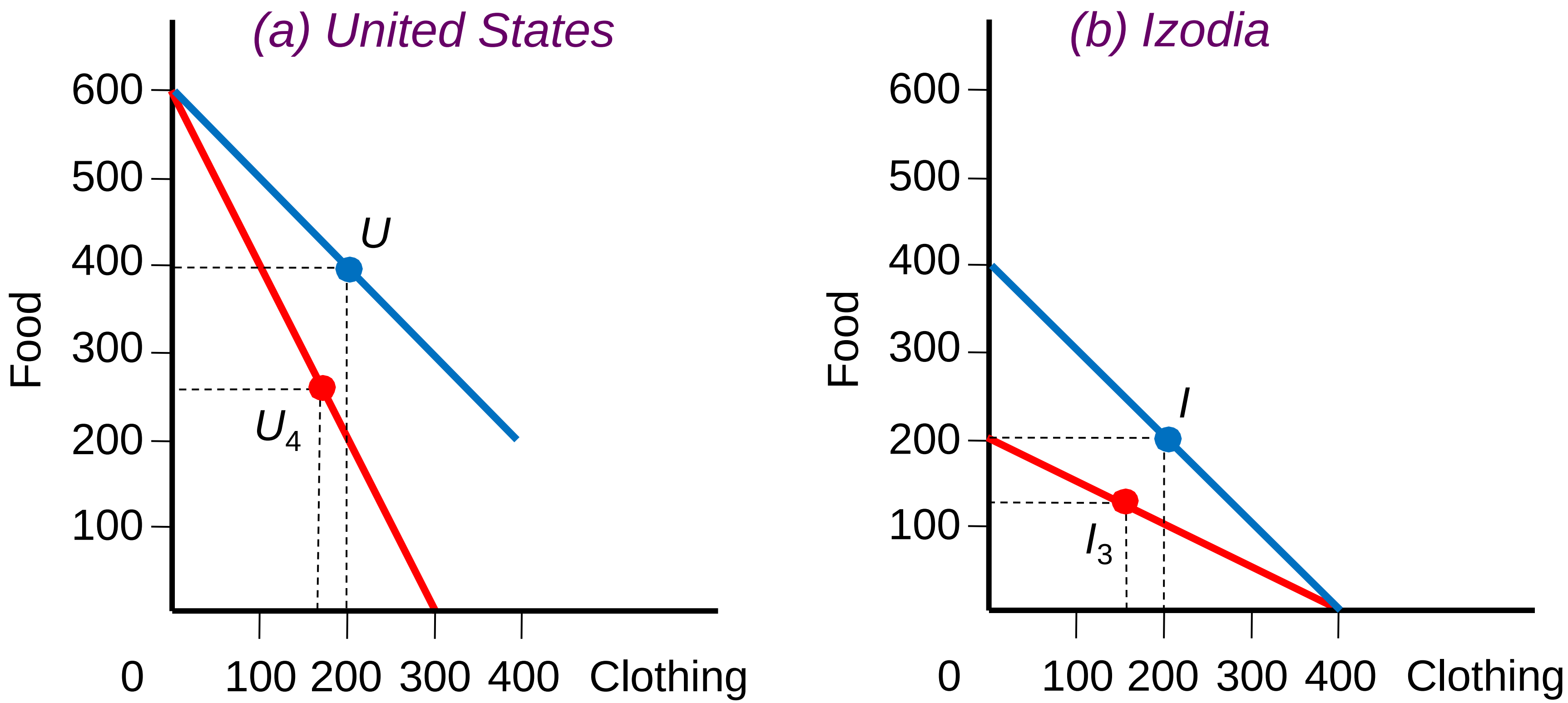
Consumption Possibilities

- Gains from specialization and trade
  - Each country should specialize
    - Producing the good with the lower opportunity cost
- Terms of trade
- Consumption possibilities frontier
  - Possible combinations of good
    - As result of specialization and exchange
  - Depend on relative preferences

LO1

Exhibit 4

Production (and Consumption) Possibility Frontiers with Trade (millions of units per day)



Trade: 1 unit of clothing for 1 unit of food. Both countries are better off as a result of international trade.

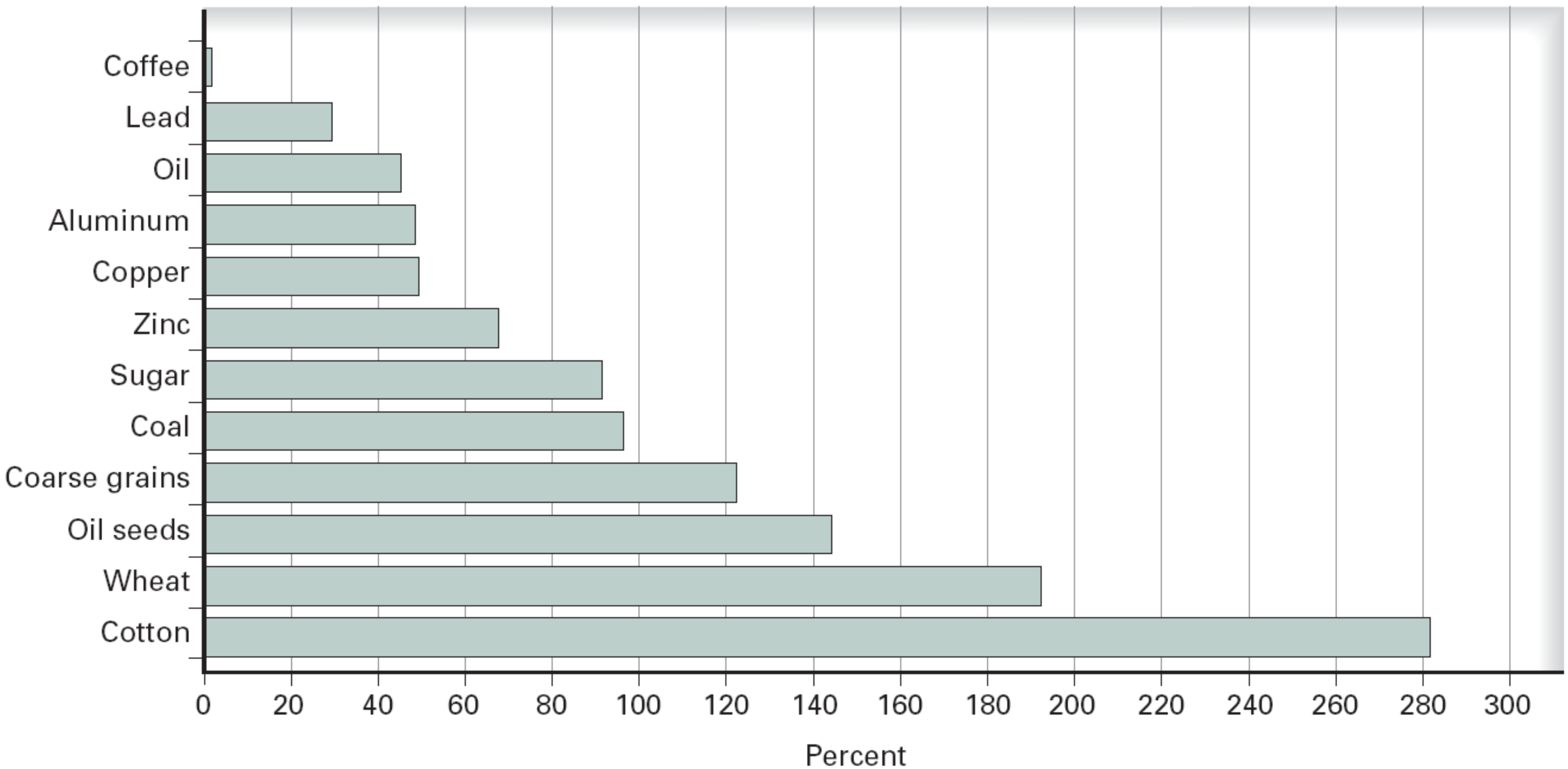
Reasons for International Specialization

- Differences in resource endowments
  - Create differences in opportunity cost
  - Countries export
    - Produce more cheaply
  - Countries import
    - Products unavailable domestically
    - Cheaper elsewhere

LO2

LO2 # Exhibit 5

U.S. Production as a Percentage of U.S. Consumption for Various Commodities



If U.S. production is <100% of consumption, imports make up the difference. If U.S. production exceeds U.S. consumption, then the difference is exported.

Reasons for International Specialization

- Economies of scale
  - Firms produce more
  - Reducing average costs
- Differences in tastes

OR

?

LO^2

LO3

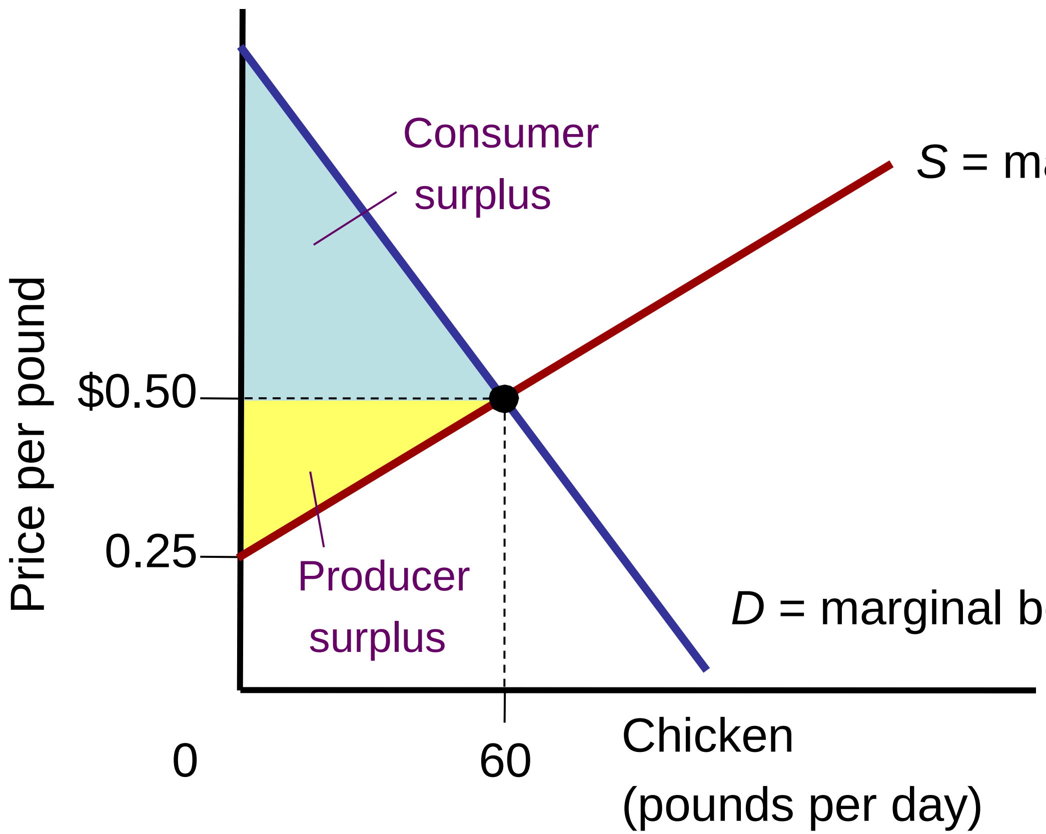
Consumer and Producer Surplus

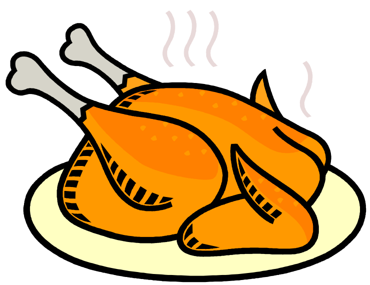
- Market exchange
  - Demand: marginal benefit
  - Consumer surplus
    - Difference between what consumers would pay and what they do pay
  - Supply: marginal cost
  - Producer surplus
    - Difference between actual amount received and what they would accept

LO3

Exhibit 6

Consumer and Producer Surplus from Market Exchange



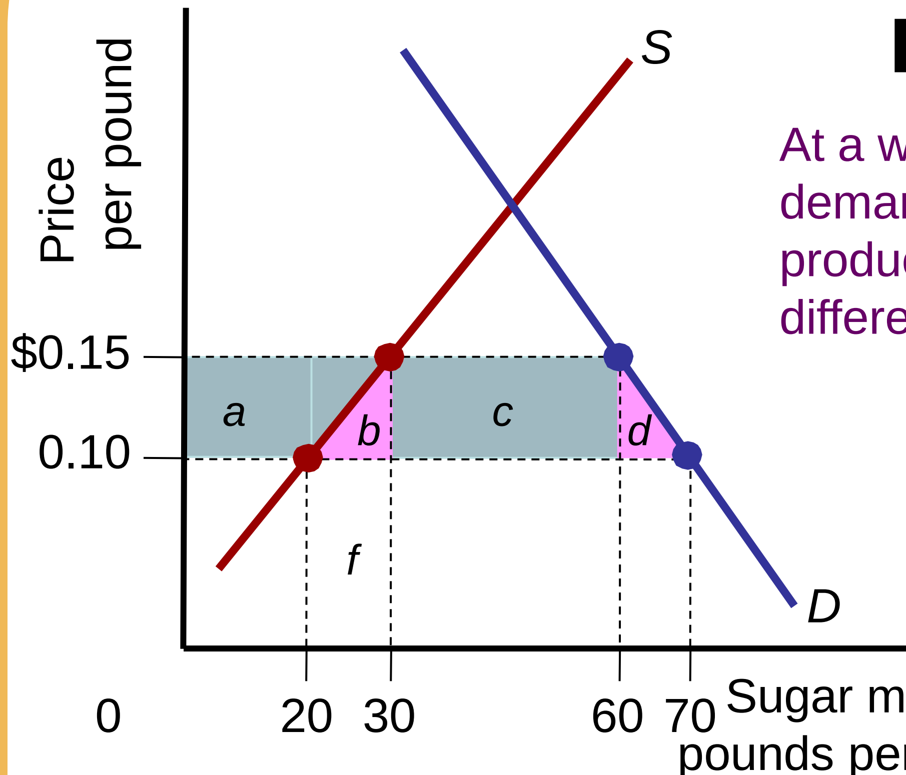


LO3

Trade Restrictions

- Tariff: Tax on imports
  - Specific
    - $ amount per unit
  - Ad valorem
    - Percentage per unit
  - Effects
    - Loss of consumer surplus
    - Increase in producer surplus
    - Increase in government revenue
    - Net loss in domestic social welfare

Exhibit 7



Effect of a Tariff

At a world *P*=$0.10 per pound, US consumers demand 70 mill. pounds of sugar per month, and US producers supply 20 mill. pounds per month; the difference is imported.

Tariff= $0.05 per pound; *P*=$0.15 per pound. US producers increase production to 30 mill. pounds; US consumers cut back to 60 mill. pounds. Imports fall to 30 mill. pounds.

a = increase in producer surplus

c = government revenue from the tariff

b = higher marginal cost of domestically producing sugar that could have been produced more cheaply abroad.

d = loss of consumer surplus from the drop in consumption

Consumers are worse off. Loss of consumer surplus: areas *a*, *b*, *c*, and *d*.
b+*d* = Net welfare loss to the US economy

LO3

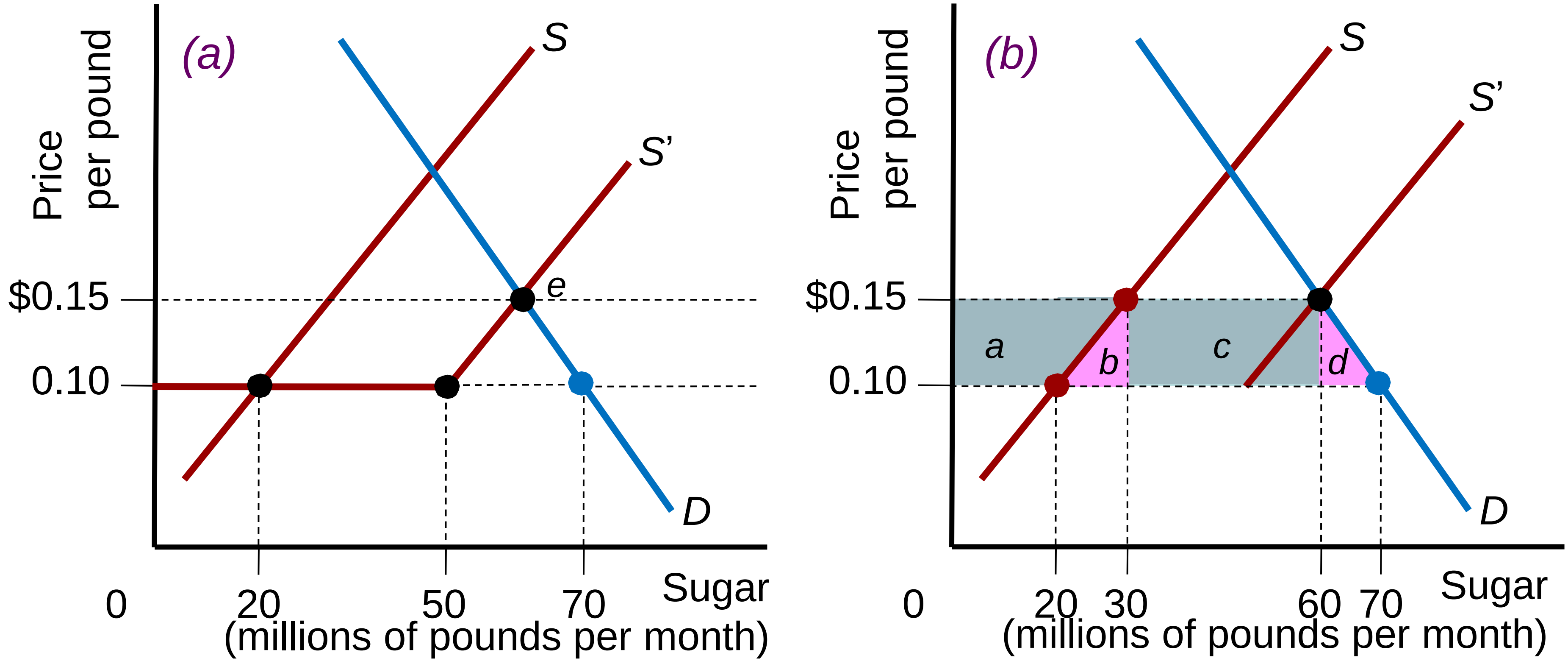
Trade Restrictions

- Import quotas
    - Legal limit on the amount of a commodity that can be imported
  - Target imports from certain countries
  - Effects
    - Raise the U.S. price above the world price
    - Reduce quantity below the free-trade level
    - Lower consumer surplus
    - Increase in producer surplus
    - Net loss in domestic social welfare

LO3

Exhibit 8

Effect of a Quota



Quota=30 mill., world price=$0.10. S'=supply curve (imports and US production; new price $0.15: intersection of *D* and *S*'.

Loss of consumer surplus: *a*+*b*+*c*+*d*; *a* = transfer from US consumers to US producers; *b*+*d* = net loss; *c* = gain for sellers of foreign-grown sugar

LO3 Trade Restrictions

- Quotas in practice
  - Rewards domestic and foreign producers with higher prices
  - Lobbyists for foreign producers
    - Right to export to U.S.
  - Auction off the quotas
    - Increase federal revenue
    - Reduce pressure to perpetuate quotas

LO3

Trade Restrictions

- Comparison: Tariffs and Quotas
  - Similarities
    - Higher price
    - Lower quantity demanded
    - Loss of consumer surplus (U.S. Consumers
    - Gain of producer surplus (U.S. producers)
    - Lower economic welfare
  - Differences
    - Revenue from tariff – U.S. government
    - Revenue from quota – to quota rights' owner

LO3 Other Trade Restrictions

- Export subsidies
- Domestic content requirements
- Other requirements
  - Health
  - Safety
  - Technical standards
- Bilateral agreements
- Trade restrictions
  - Slow economic progress

Multilateral Agreement

- General Agreement on Tariffs and Trade
  - GATT:
    - Reduce tariffs
    - Reduce import quotas
    - Equal trade
  - 1986, "Uraguay Round"
    - 140 countries
    - Successor: WTO

LO4

The World Trade Organization

- Legal and institutional foundation for world trade
- 500 economists and lawyers
- Trade
  - Merchandise
  - Services
  - Intellectual property
- Phase out quotas
- Keep only tariffs

LO4

LO4

Doha Round and Round

Case Study

- **1999, WTO, Seattle**
  - **50,000 protesters**
    - **Largest demonstration against free trade**
      - **Labor union;**
      - **Environmental;**
      - **Farmers**
  - **Labor and environmental standards**
  - **Failed to get off the ground**

LO4

Doha Round and Round

Case Study

- 2001, Doha, Qatar "Doha Round"
  - Improve market access
  - Phase out export subsidies
  - Reduce subsidies in agriculture
- 2003, Cancun
- 2005, Hong Kong
- 2007, Germany
- Round and round

Common Markets

- U.S. economy
  - Free trade zone across 50 states
- European Union
  - 27 countries in 2007
  - Barrier-free European market
  - 16 members: common currency – Euro
- North American Free Trade Agreement
  - United States, Canada, Mexico

LO4

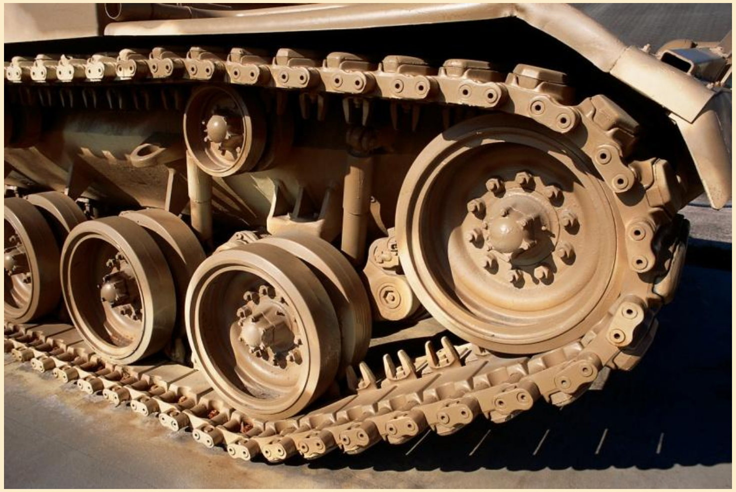
Common Markets

- DR-CAFTA
  - U.S., Dominican Republic, five Central American countries
- Mercosur
  - Latin American countries
- ASEAN
  - Southeast Asian nations
- Southern African Customs Union

LO4

Arguments for Trade Restrictions

- National defense argument
  - More efficient
    - Government subsidies
    - Stockpile
- Infant industry argument
  - Foster inefficiencies
  - More efficient
    - Temporary production subsidies



LO5

Arguments for Trade Restrictions

- Antidumping argument
  - Dumping
    - Sell a product abroad for less than in the home market
    - Persistent
      - Consumers – pay less
      - Increase consumer surplus
    - Predatory
      - Temporary; eliminate competitors
    - Sporadic
      - “sales”

LO5

Arguments for Trade Restrictions

- **Jobs and income**
  - Protect domestic jobs
  - Retaliation
  - Great Depression: high tariffs choked trade and jobs
- **Declining industries argument**
  - Help lessen shocks to the economy
  - Specific duration

LO5

Problems with Trade Protection

- Protect one stage of production
  - Protect downstream stages
- Cost of protection
  - Welfare loss
  - Cost of rent seeking
- Transaction cost of enforcing restrictions
  - Black markets
- Less efficient, less innovative
- Retaliation

LO5

LO5

Steel Tariffs

Case Study

- U.S. steel industry
  - Slow to adopt new technologies
  - Long and painful decline
- 2002: tariffs on imported steel
  - Helped U.S. steel industries
    - Cut imports; Boosted U.S. price of steel
  - Hurt U.S. steel-using industries
    - Less competitive
    - Cost: 15,000 to 20,000 jobs

LO5

Steel Tariffs

Case Study

- Expected retaliation
  - European Union
    - Threat to impose tariffs on U.S. exports
  - WTO
    - The tariffs = violation of trade agreements
  - Japan, South Korea
    - Threat to impose tariffs on U.S. exports
- December 2003
    - U.S. repealed the steel tariffs