SS201: Principles of Economics
AY 23-2
Lesson 10: Trade Theories and Restrictions

1   Review

Indicate the answer choice that best completes the statement or answers the question.

1. This concept forms the basis for trade.

    a. Substitution Effect
    b. Price Elasticity of Demand
    c. Absolute Advantage
    d. Comparative Advantage

2. Minimum wage is an example of a

    a. Tax on Consumers
    b. Price Floor
    c. Price Ceiling
    d. Rent Subsidy

3. Deadweight loss represents

    a. Excess within a market
    b. Market inefficiency
    c. Inelastic demand and elastic supply
    d. A surplus of demand and shortage of supply

4. A positive supply shock within any market will result in

    a. a new equilibrium quantity that is higher and lower price.
    b. a new equilibrium quantity that is lower and higher price.
    c. a new equilibrium price and quantity, but it is uncertain which direction both move.
    d. a new equilibrium quantity that is lower and lower price.

2   Bottom Line Up Front

Everyone does not benefit from trade. Our model predicts definite winners and losers. For policy and decision-makers, knowing who these agents are and the relative magnitudes are critical for effective decision-making.

3   Trade, Tariffs, and Quotas

Will Hunting loves apples and caramels. Suppose that the market for caramels sold in 1 lb packages is given by the equations below:
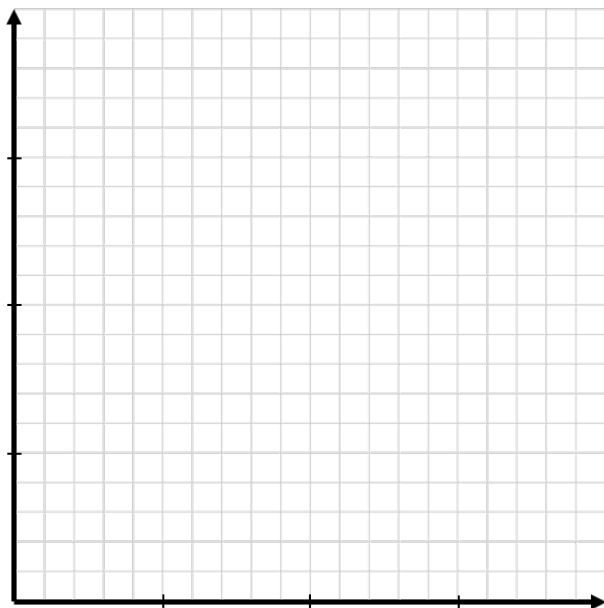
$$Q_D = 10,000 - 400P$$

$$Q_S = \frac{400p - 2000}{3}$$

1. Solve for the market equilibrium, price, and calculate the point elasticities for supply and demand at this equilibrium.

2. Let's assume now that the world price for these caramels is \$20. Plot the graph of this market below, with the domestic equilibrium price and quantity, world price, and discuss who wins and loses from trade.

3. Let's assume now that the world price for these caramels is \$16. Plot the graph of this market below, with the domestic equilibrium price and quantity, world price, and discuss who wins and loses from trade.
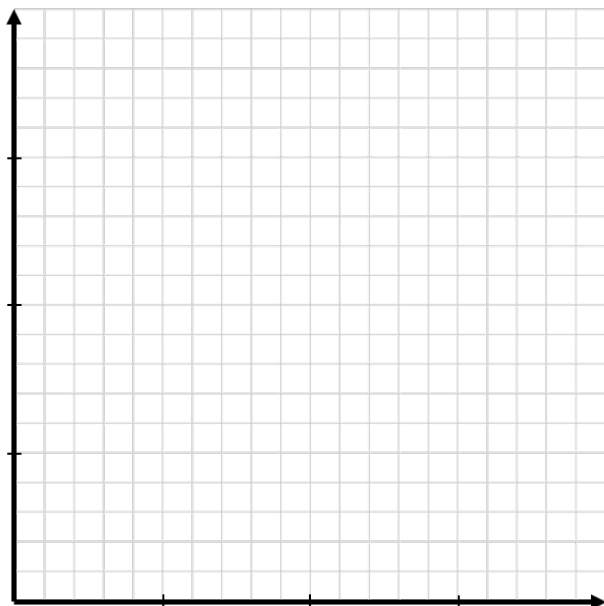
4. The U.S. caramel industry has a surprisingly powerful lobby and can push through legislation that promotes protectionism. Ultimately, they lobby for a \$2 tariff on imported caramel. Draw this tariff on the graph above for question 3, and label the government revenue, deadweight loss, producer surplus, and consumer surplus. Who are the winners and losers from this tariff?

5. Solve for the amount of caramels imported before and after the tariff.

6. Say instead, the government wants to consider implementing an import quota on caramels instead. How is this different and similar to a tariff?

7. Now let's assume that the government is considering whether to raise money through a tariff or a quota. With a quota, the government is going to sell licenses to sellers willing to pay for the right to import caramel. Assume that the government is only going to allow 1,000 lbs of caramel to be imported and they are going to sell licenses that enable producers to import 10 lbs of caramel. How much would the government have to charge to be just as well off as the $4 tariff? Could the government just charge the tariff price that the quota predicts? Graph how this quota would look below.
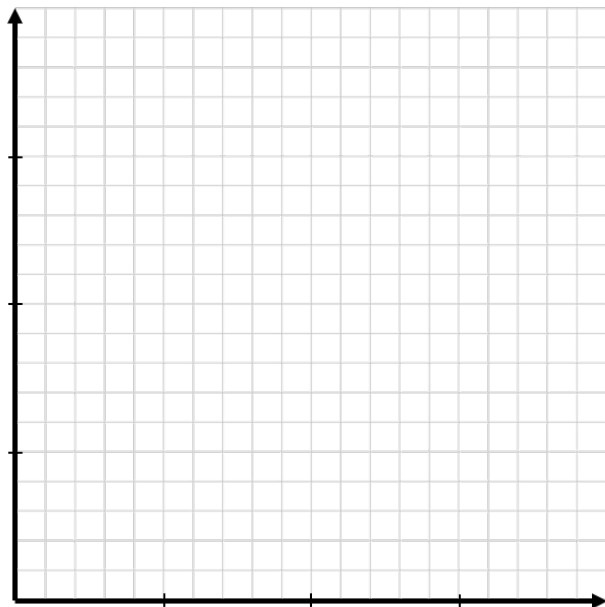
4 How does trade affect labor markets?

Autor, Dorn, and Hansen (2013) - *The China Syndrome: Local Labor Market Effects of Import Competition in the United States*
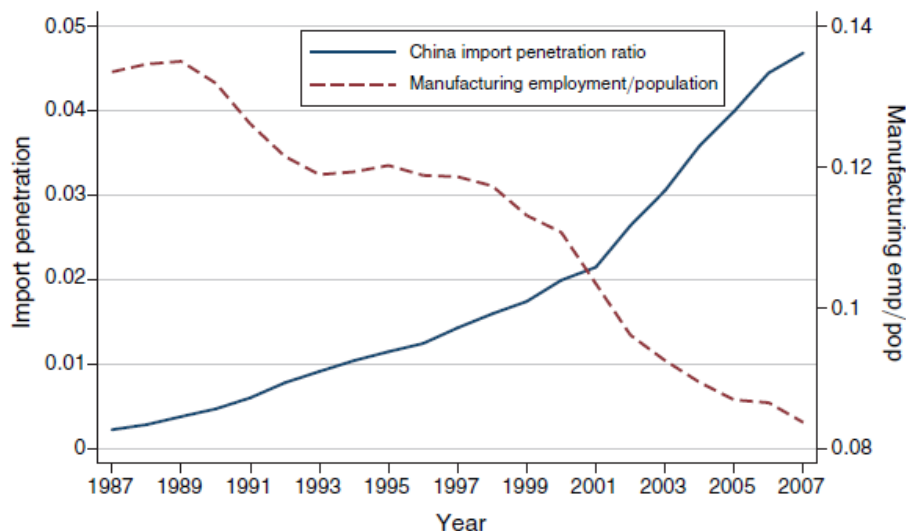

FIGURE 1. IMPORT PENETRATION RATIO FOR US IMPORTS FROM CHINA (*left scale*),
AND SHARE OF US WORKING-AGE POPULATION EMPLOYED IN MANUFACTURING (*right scale*)

TABLE 1—VALUE OF TRADE WITH CHINA FOR THE US AND OTHER SELECTED HIGH-INCOME COUNTRIES
AND VALUE OF IMPORTS FROM ALL OTHER SOURCE COUNTRIES, 1991/1992–2007

	I. Trade with China (in billions 2007 US$)		II. Imports from other countries (in billions 2007 US$)		
	Imports from China	Exports to China	Imports from other low-inc.	Imports from Mexico/ CAFTA	Imports from rest of world
	(1)	(2)	(3)	(4)	(5)
Panel A. United States					
1991/1992	26.3	10.3	7.7	38.5	322.4
2000	121.6	23.0	22.8	151.6	650.0
2007	330.0	57.4	45.4	183.0	763.1
Growth 1991–2007	1,156%	456%	491%	375%	137%
Panel B. Eight other developed countries					
1991/1992	28.2	26.6	9.2	2.8	723.6
2000	94.3	68.2	13.7	5.3	822.6
2007	262.8	196.9	31.0	11.6	1329.8
Growth 1991–2007	832%	639%	236%	316%	84%

Notes: Trade data is reported for the years 1991, 2000, and 2007, except for exports to China which are first available in 1992. The set of "other developed countries" in panel B comprises Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland. Column 3 covers imports from all countries that have been classified as low income by the World Bank in 1989, except for China. Column 4 covers imports from Mexico and the Central American and Carribean countries covered by the CAFTA-DR. Column 5 covers imports from all other countries (primarily from developed countries).

TABLE 3—IMPORTS FROM CHINA AND CHANGE OF MANUFACTURING EMPLOYMENT
IN CZs, 1990–2007: 2SLS ESTIMATES

Dependent variable: 10 × annual change in manufacturing emp/working-age pop (in % pts)

	I. 1990–2007 stacked first differences					
	(1)	(2)	(3)	(4)	(5)	(6)
(Δ imports from China to US)/ worker	−0.746*** (0.068)	−0.610*** (0.094)	−0.538*** (0.091)	−0.508*** (0.081)	−0.562*** (0.096)	−0.596*** (0.099)
Percentage of employment in manufacturing$_{-1}$		−0.035 (0.022)	−0.052*** (0.020)	−0.061*** (0.017)	−0.056*** (0.016)	−0.040*** (0.013)
Percentage of college-educated population$_{-1}$				−0.008 (0.016)		0.013 (0.012)
Percentage of foreign-born population$_{-1}$				−0.007 (0.008)		0.030*** (0.011)
Percentage of employment among women$_{-1}$				−0.054** (0.025)		−0.006 (0.024)
Percentage of employment in routine occupations$_{-1}$					−0.230*** (0.063)	−0.245*** (0.064)
Average offshorability index of occupations$_{-1}$					0.244 (0.252)	−0.059 (0.237)
Census division dummies	No	No	Yes	Yes	Yes	Yes