

SECTION NOTES 16

Covering material from Lecture on March 9th

CLASS OUTLINE

1. Specific Tax and Tariffs

1 Specific Tax and Tariffs

A tariff is a type of tax. A specific tax is one that sets an additional cost to each unit that goes to the government. Therefore, for a specific tax of t , the price to a consumer would be $P_C = P_P + t$, where P_P is the price of a good to a producer. Notice, we could similarly think about this as a tax on producers, or $P_C - t = P_P$.

Problem: (P&R, Chapter 9, Exercise 7)

The annual demand for imported coffee by U.S. consumers is given by the demand curve $Q = 250 - 10P$, where Q is quantity and P is price. Assume all coffee is imported. World producers have a constant marginal and average cost of producing coffee at \$8 per pound. U.S. distributors can in turn distribute coffee for a constant \$2 per pound. The U.S. coffee market is competitive. Congress is considering a tariff on coffee of \$2 per pound.

- a. If there is no tariff, how much do consumers pay for a pound of coffee? What is the quantity demanded?
- b. If the tariff is imposed, how much will consumers pay for a pound of coffee? What is the quantity demanded?
- c. Calculate the lost consumer surplus.
- d. Calculate the tax revenue collected by the government.
- e. Does the tariff result in a net gain or a net loss to society as a whole?

Problem: (P&R, Chapter 9, Exercise 15)

In 1998, Americans smoked 23.5 billion packs of cigarettes. They paid an average retail price of \$2 per pack.

- a. Given that the elasticity of supply is 0.5 and the elasticity of demand is -0.4 , derive linear demand and supply curves for cigarettes.
- b. In November 1998, after settling a lawsuit filed by 46 states, the three major tobacco companies raised the retail price of a pack of cigarettes by 45 cents. What is the new equilibrium price and quantity? How many fewer packs of cigarettes are sold?
- c. Cigarettes are subject to a federal tax, which was about 25 cents per pack in 1998. This tax increased by 15 cents in 2002. What does this increase do to the market-clearing price and quantity?
- d. How much of the federal tax will consumers pay? What part will producers pay?