Recitation #9 [10/26/2018]

1. Consider a competitive market in which the government will be impossing an ad valorem tax of τ. Aggregate demand curve is $x(p) = Ap^{\varepsilon}$, where $A > 0$ and $\varepsilon < 0$, and aggregate supply curve $q(p) = \alpha p^{\gamma}$, where $\alpha > 0$ and $\gamma > 0$. Denote $\kappa = (1 + \tau)$. Assume that a partial equilibrium analysis is valid.

   (a) Evaluate how the equilibrium price is affected by a marginal increase in the tax, i.e., a marginal increase in κ.

   (b) Describe the incidence of the tax when $\gamma = 0$.

   (c) What is the tax incidence when, instead, $\epsilon = 0$?

   (d) What happens when each of these elastiticities approaches ∞ in absolute value?

   (e) Redo your analysis in part (a) the relative change in price due to ad valorem tax τ. How would you compare your results to the effects of a unit tax t in example 6.3?