

# Homework 3: Taxes, Government Intervention, and Welfare

**Question 1.1:** In the paper *Saliency and Taxation: Theory and Evidence*, the authors also investigate consumer salience towards taxes through a field experiment by posting tax-inclusive price tags, and find that doing so reduces demand by 8 percent. What does this imply about consumer salience?

*Write your answer here, replacing this text*

**Question 1.6:** Plot the results from `beer_state_changes`. What is the relationship between changes in taxes and changes in per capita beer consumption?

In [ ]: ...

*Write your answer here, replacing this text*

**Question 1.7:** Interpret the slope and intercept values in the previous part in context of this dataset.

*Write your answer here, replacing this text*

**Question 1.8:** Now let's see if the phenomenon applies to all states, across all years.

Which graph better represents the relationship between changes in taxes and beer consumption? Which graph do you prefer? Why?

*Write your answer here, replacing this text*

**Question 1.9:** Up until now, we've been examining the effect of changes in the ad valorem tax on beer consumption. But what about the excise tax? Unlike ad valorem taxes, an excise tax is included as part of the label price.

Intuitively, do you expect consumers be more elastic towards changes in the ad valorem tax or excise tax? Why?

*Write your answer here, replacing this text*

**Question 1.11:** We are unable to do a direct comparison between the slopes because of the different units involved for the slope. As a result, we will have to adjust the units.

Currently, a case of beer costs around 24 dollars, which means that a 1 dollar change in the excise tax corresponds to a  $\frac{1}{24} = 4.2$  percent change. Convert the slope due to a dollar change in the excise tax to be in reference to a percent change in the excise tax, based on the assumption that a case of beer is 24 dollars. Compare this value to the slope due to the ad valorem tax.

*Write your answer here, replacing this text*

**Question 1.12:** Is this result in line with what you had expected in question 2.9? Why or why not? What could be some potential sources of error?

*Write your answer here, replacing this text*

**Question 2.3:** Who bears a larger burden of the tax? Why?

*Write your answer here, replacing this text*