

# Activity: Tax Inefficiency

## Econ 308

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### 1 Gruber 20.7: The ABCs of Commodity Taxes

You are a consultant to the government of Buttony. The government has decided to cut taxes on one of the following: apples, bananas, or cantaloupe. The government wants your input on which fruit would be the best choice for a tax cut. It provides you with the following information. What is your recommendation, and why?

Good	Unit Price	Sales (thousands)	Unit tax	Marginal tax revenue	Marginal DWL
Apples	\$1	100	\$0.10	20	5
Bananas	\$2	100	\$0.25	30	20
Cantaloupe	\$4	50	\$0.15	10	20

Note: marginal tax revenue and marginal DWL are measured in thousands of dollars per \$1 of additional tax.

*Cantaloupe - its MR is lower than the MDWL.*

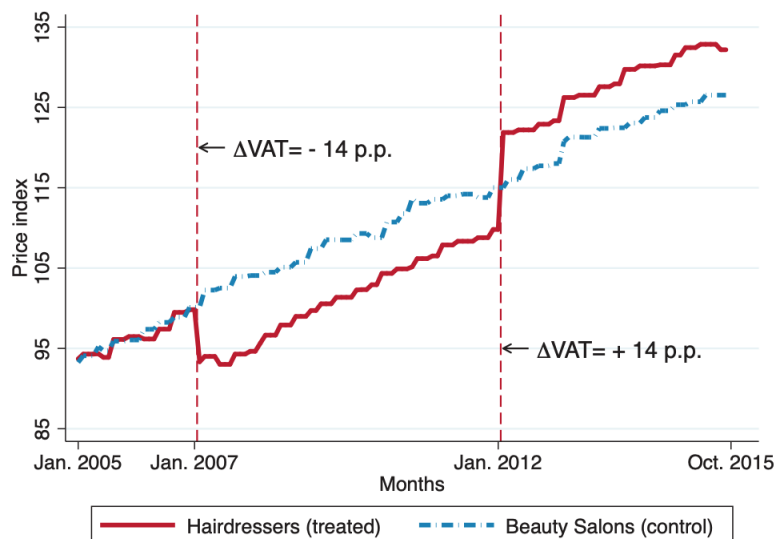
### 2 Gruber 20.13: Efficient Commodity Taxation

Schmeezle and Schmoozle are two advisors for the government of Feldspar. Schmeezle says that since the elasticity of demand for granite countertops is -3 and the elasticity of demand for sinks is -1.5, taxes should be raised entirely from granite countertops. Schmoozle argues that it is better to levy taxes on both goods anyway. Which advisor should the Feldspar government listen to? Why?

*Feldspar gvt. should raise tax entirely on sinks, as elasticity lower  $\rightarrow$  lower DWL, so it should listen to Schmoozle.*

### 3 What Goes Up May Not Come Down

European countries have large taxes on consumption known as a Value Added Tax (VAT). Normal VAT rates are high (15%-25%) but some goods/services have lower rates (or are exempt). Benzarti et al. (2017) study the effects of VAT rate increases and decreases. As part of their analysis, they present the following illustrative case study: hairdressers in Finland got a VAT cut of 14 percentage points (p.p.) in Jan 2007 that was repealed in Jan 2012. Their graphical analysis is below.



- a. What is the empirical strategy that the authors are using?

DD estimator

- b. Does this empirical strategy appear to be valid for making causal inferences about the effect of the VAT changes for Finnish hairdressers?

Yes, parallel trends assumption appears to hold - similar services but comparable price trends.

- c. How much of the 14 p.p tax cut is passed on to consumers? How much of the 14 p.p. tax increase is passed on to consumers?

5 pp of tax cut, but ~ 10 pp of tax increase

- d. Why is the answer to part (c) surprising for standard economic analysis?

We would expect elasticity to be equal → each share borne in either direction

- e. Suggest a possible explanation for the empirical finding.

Consumers are more sensitive to high prices for some reason (?)