

Midterm
Graduate Public Finance
Professor Hungerman

1. Consider a Ramsey-style model where a government wishes to tax an individual(s) purchasing n different commodities. The price a consumer pays for commodity i is:

$$q_i = p_i + t_i$$

where p is the price charged by the firm and t is the tax.

The government's objective is to maximize (indirect) utility subject to raising revenue R . The Lagrangian is:

$$\max_{t_1, \dots, t_n} V(q_1, \dots, q_n, I) + \lambda(\sum_{i=1}^n t_i x_i - R)$$

where V is the individual's indirect utility function and I is income.

A. Previously we have discussed whether λ might be larger (in absolute value) than shadow value of income from the consumer's maximization problem. Prove that this is the case here for the general Ramsey model setup. You are allowed to make standard duality assumptions; you can also assume all goods are normal. (15 pts)

B. Intuitively, explain why must λ be larger in absolute value than the shadow value of income from the consumer's maximization problem. (15 pts)

2. In the United States, religious property has traditionally been exempt from property taxation. However, there are other nations where religious property has been taxed. Document for me a nation that currently taxes religious property. (10 pts). If you can find a nation that has significantly altered its tax treatment of religious property in recent years (I am aware of at least two such nations) I will give you at least 10 bonus points.

3. Pick one of the following articles. Write a summary of the article (say, 5-10 pages) outlining the research question, methodology, and findings of the paper. (30 pts)

The first person to email me with their article choice gets whichever paper they want. If someone asks for a paper before you do, sorry, they get first dibs. The last person to email me gets whatever paper has not been chosen.

Benno Torgler (2006) "The importance of faith: Tax morale and religiosity" *Journal of Economic Behavior & Organization* 61(1), Pages 81-109

Bradbury, K. C. Mayer and K Case (2001) "Property Tax Limits, Local Fiscal Behavior, and Property Values: Evidence For Massachusetts under Proposition 21/2" *Journal of Public Economics* 80(2), 281-311

- Downes, T. and D. Figlio “Do Tax and Expenditure Limits Provide a Free Lunch? Evidence on the Link Between Limits and Public Sector Service Quality,” *National Tax Journal* 52(1): 113-128.
- Federico Revelli (2006) “Performance rating and yardstick competition in social service provision” *Journal of Public Economics* 90(3), Pages 459-475
- Lank, K and T Jian (2004) “Property Taxes and Property Values: Evidence from Proposition 2 ½” *Journal of Urban Economics* 55(3): 439-457
- Roger Gordon and Wei Li (2009) “Tax structures in developing countries: Many puzzles and a possible explanation” *Journal of Public Economics* 93(7-8), Pages 855-866
- Rosen, K (1982) “The Impact of Proposition 13 on House Prices in Northern California—A Test of the Interjurisdictional Capitalization Hypothesis” *Journal of Political Economy* 90(1), 191-200.
- Vigdor, J (2004) “Other People’s Taxes: Nonresident Voters and Statewide Limitation of Local Government,” *Journal of Law & Economics* 47(2): 453-476.