

Worksheet 3, March 8, 2016

I advise you to work through the following problems /questions well and as a group (make sure though that no one is free-riding); it's the ticket to performing reasonably well on the exams. Number of points indicates the expected scope of the answer (should roughly correspond to time in minutes).

1. **[10 points]** Explain what are the possible problems with implementing Pigouvian taxes and Standards and charges? Illustrate with a real-world example.
2. **[20 points]** Briefly summarize the main objectives and main results of Plott (1983). Also explain:
 - a. How does the author model externality in his experimental market?
 - b. How are the individual interventionist solutions implemented in his experimental market?
 - c. Why are the results for the standards solution noisy?

[The first two questions relate to Lecture 2 material but I accidentally dropped them from the previous worksheet. They are very relevant, though. I apologize for that...]

3. **[10 points]** "Among economists at least, the use of tradable emission allowances under an aggregate emission cap is generally considered a mature policy technology. It has become the default policy option in controlling a variety of large scale air emissions and is being increasingly considered for replacing inefficient source-specific regulation of water pollutants." [Porter et al. p.190] Discuss.
4. **[10 points]** What is EU ETS? Briefly describe how it works, what are the main features.
5. **[5 points]** What happened in 2006/2007 to the prices of EUAs and why did it happen?
6. **[15 points]** What distinguishes the second phase of the EU ETS from the first phase? Discuss in light of incentives for efficiency on both micro and macro level. Do you think that the third phase, as it is proposed now, can do even better job in enhancing innovation and investment into cleaner technologies? Explain why.
7. **[10 points]** Why is auctioning off (rather than free-allocation) EUAs not necessarily a bad thing, even if that means that consumers might have to pay higher prices (initially) for, say, electricity? How auctioning off helps to improve incentives for innovations (provide at least two examples of possible effects, as in Schleich et al. and explain).
8. **[5points]** Explain why tax policy doesn't do a very good job in enhancing innovation and investment into cleaner technologies. Which of other measures/policies that we discussed would do a better job? Explain.
9. **[5 points]** Assume that there are three bidders that have willingness to pay of 10, 8, and 6 for a homogeneous good of which two units (inelastic supply) are being offered. Explain why the expected revenue of a (first-price) sealed-bid auctions and a standard ascending (English) clock auction might lead to different revenue predictions. Looking at this simple example, which seems to be the preferable auction style (from the perspective of the supplier)?
10. **[5 points]** Briefly explain the purpose of the Virginia NOx allowance auction. What is the policy advice you would generally give based on experimental results?
11. **[5 points]** Explain why choosing a buyer-liability rule in case of overselling permits might make sense. What is the theoretical prediction about the efficiency of such rule in contrast to seller-liability rule? What does the experimental evidence tells us?