

# Adv. PSE I: Tutorial 04

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December 5, 2012

## 9 Ecological Competition: The Basic Model Set-up

Chapter 5.1 introduced the basic set-up of the model used throughout the discussion of ecological dumping. Use the “model on one page” to answer the following questions.

- a) Identify equations that represent assumptions! State each assumption as an English sentence!
- b) Consider the tax imposed by the government:
  - i) What term do economists often use for this kind of tax?
  - ii) Generally speaking, what is the distinctive goal of this kind of tax?
  - iii) What is the goal of the tax in the case at hand?
- c) Consider the rule by which firms adjust their usage of capital:
  - i) Which equation represents this rule?
  - ii) Firms’ adjustments of the amount of capital employed cancel out of the governments’ first-order condition. Explain the economic intuition of this result!
- d) Consider the main result of the model:
  - i) Which equation represents the main result?
  - ii) Does the result imply efficiency?
  - iii) How can you tell from the equation?

## 10 Ecological Competitions: Extending the Model

You discussed four variations of the model in class. Answer the following questions with regard to each variation!

- a) Consider the variation of the assumptions:
  - i) Intuitively, which additional feature are we trying to include in the model?
  - ii) Which equations are changed?
  - iii) What is the economic intuition of each change?
- b) Consider the new result:
  - i) Is the result obtained for the marginal productivity of emissions larger than, smaller than or equal to the result obtained using the basic set-up?
  - ii) What does this result imply with regard to the efficiency of the environmental policy?
  - iii) Explain the economic intuition of the result!

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