

The final exam is on Thursday, December 14 from 5 – 8 pm in 141 Giannini.

Description of the final exam:

The exam will contain a several very short questions, a few fairly short questions, and a couple of longer questions. You will have some choice about what questions to answer, e.g. you will have at least two questions for each that you need to answer. I will aim for an exam that is between 2 and 2.5 hours.

I have drawn the following questions from the online slides and notes. (I took these questions by going through these slides and notes in the order shown on the webpage.)

Questions with very short answers (a few words or a couple of lines; 5 minutes or less):

- 1) What is “fast track authority”?
- 2) What was the “Bruntland Report” and what was its significance?
- 3) What is the principle of “subsidiarity”?
- 4) What is the Environmental Kuznets’ Curve?
- 5) What is the “incidence” of a commodity tax? Use a graph to illustrate.
- 6) What is a “non-violation nullification or impairment” complaint?
- 7) What is meant by the “terms of trade effect” of a trade or domestic policy?
- 8) What is “regulatory chill”?
- 9) Give a numerical example of the prisoner’s dilemma.
- 10) What is a “Nash equilibrium”?
- 11) What is a “dominant strategy”?
- 12) What is “pelagic” harvesting?
- 13) What is a “border tax adjustment”?
- 14) What is the thermohaline circuit?
- 15) What is carbon fertilization?
- 16) What is the formula for the social discount rate?
- 17) What is the relation between the discount rate and the discount factor?
- 18) What is the FCCC?

Questions with fairly short answers (approximately 15 – 20 minutes):

- 1) Write a short history of the WTO, beginning with the post World War II period, up to the Doha Round.
- 2) Discuss the “infant industry” argument in the context of the Theorem of the Second best.
- 3) Discuss some political economy reasons (e.g. having to do with lobbying) for trade restrictions.

- 4) Describe the policies associated with the “Washington Consensus”.
- 5) Describe the Coase Theorem and discuss its relation to “The Polluter Pays Principle”.
- 6) Summarize the evidence for and against the view that the recent wave of globalization is similar to the wave of globalization preceding World War I.
- 7) Explain the meaning of “common but differentiated responsibility” and discuss its role in both environmental and in trade agreements.
- 8) Describe the dispute settlement process in the WTO and contrast it to the process under GATT.
- 9) Describe WTO articles that contain the WTO core principle of non-discrimination.
- 10) Explain how cooperation can be self-enforcing in a non-cooperative setting. Discuss the role of the discount rate. Describe an application of this model to trade.
- 11) Use the Ricardian model to explain the meaning of comparative and absolute advantage.
- 12) Briefly describe the cooperative and the non-cooperative bargaining models discussed in class.
- 13) Describe a model that illustrates that two parties can both benefit from “linking” bargains over unrelated issues. Briefly describe the relation between this model and the Ricardian trade model.
- 14) Suppose that the cost of abatement (for each country) is c . Abatement is a public good, and each country obtains the benefit of abatement equal to b times the number of countries that abate. ($b < c$) Countries play a three stage game: In the first stage they decide whether to join an MEA; in the second stage the MEA decides whether to abate or not abate, in order to maximize its members’ welfare; in the third stage non-members decide whether to abate or not abate. (a) What is the (Nash) equilibrium number of members in the participation game? (Justify your answer.) (b) What is the effect on participation of a decrease in the cost of abatement?
- 15) Discuss the history of the North Pacific Fur Seal Treaty and explain what important features of international environmental problems it illustrates.
- 16) Explain what a discount rate is, why it is needed, and why it is so important to economic models designed to evaluate climate change policy.
- 17) Provide a brief overview of the history of the negotiations leading up to the Kyoto Protocol, from the late 1980s to the early 2000s.
- 18) Discuss the similarities and differences between carbon taxes and a cap and trade system for carbon emissions.

Questions with longer answers (approximately 30 minutes):

- 1) Using a partial equilibrium model, demonstrate the following (under the assumption of no market failures: a) a country benefits from trade regardless of

- whether it is an importer or an exporter of the good; (b) a trade restriction lowers aggregate welfare; (c) the distributional effect of a trade restriction is large relative to the efficiency effect; (d) the welfare cost of an export tax or import tariff is proportional to the square of the unit tariff. Use a separate figure for each part of the question.
- 2) Discuss areas of general agreement, and differences of perspective that lead to disagreement, between proponents and skeptics of globalization (“Civil society” and the “Finance Ministry”, using Kanbur’s shorthand).
 - 3) Explain the meaning of “Production and Processing Methods” and discuss the role that this concept has had in environmentally related trade disputes.
 - 4) Explain the environmental basis for defending a trade restriction under the WTO. Use one or more WTO disputes to illustrate how these rules are applied.
 - 5) Explain the meaning of the Theorem of the Second Best and the Principle of Targeting, and discuss their importance in the debate about the environmental effect of globalization.
 - 6) What is the Pollution Haven Hypothesis? Discuss the theoretical and empirical evidence for and against this hypothesis.
 - 7) Describe the protection that Chapter 11 of NAFTA offers foreign investors. Discuss the advantages and disadvantages of this kind of protection. Use one or more Chapter 11 dispute to illustrate the relation between Chapter 11 and the environment.
 - 8) (Use graphs to help answer this question.) Suppose that each unit of production causes one dollar’s worth of damage. What is the optimal policy under autarchy? Now suppose that the country can trade and that the world price is higher than the domestic autarchic price. (i) Show that in the absence of any domestic policy, trade might increase or decrease welfare. What general principle does this fact illustrate? (ii) What is the optimal policy? What general principle does this answer illustrate? (iii) Show that an export tax (which reduces but does not eliminate trade) can increase welfare.