

## Comments on ARE 201 exam 1999

Here are some comments about Questions 3 and 4 of the exam.

Question 3. Most people knew what the terms meant. For part ii I wanted you to say something like the following: If Home transfers  $T$ , this reduces its demand for imports *at the initial (pretransfer) price* by the amount  $mT$ , and increases Foreign's demand for the good that Home imports by the amount  $(1-m^*)T$  *at the initial price*. (Define  $m, m^*$ .) Thus, the increase in aggregate demand for Home's import good *at the initial price* is  $[1-m^*-m]T$ . This increase is positive if and only if  $1 > m+m^*$ . If this inequality holds, the transfer increases the aggregate demand for Home's imports *at the initial price*. In this case, *price must rise to restore equilibrium* and Home suffers a secondary burden.

For part iii you needed only point out that if price rises when excess demand is positive (and falls when excess demand is negative) then the equilibrium is stable. Thus, the final part of the argument in part (ii) *assumes stability*.

Question 4. Most people recognized that you want to decrease domestic production, and that this requires an import subsidy if a trade policy is used. To find the magnitude of the import subsidy, graph the excess demand curve (i.e., the private import demand curve), and the "social marginal benefit of imports" curve. The vertical distance between these curves equals the optimal import subsidy, and this is less than  $\gamma$ . Thus, domestic producers receive a higher price under the import subsidy than they do under the tax, and therefore prefer the former. I expected you to point out that the import tariff causes a secondary distortion (in consumption – consumers pay less than the world price). This secondary distortion is a cost to society – a cost for protecting the environment. Society "buys less environmental protection" when it needs to pay this cost.

Several people insisted on using the term production "tax/subsidy" in describing the first best

policy. This was a mistake. The first best policy is a production tax. In a *general equilibrium setting* the equilibrium decisions depend on relative prices, and typically it is possible to change these relative prices by taxing one good or subsidizing the other. In a partial equilibrium setting, on the other hand, we only have the one (producer) price – which we need to make higher or lower.

A general comment. A number of people answered questions that I did not ask. For example, in question 4, I said nothing about autarky, so you should not have discussed this. There were several other tangents that people went off on. When you do this, you waste time and run the risk that what you say will not only be irrelevant, but also wrong.