

Brigham Young University Department of Economics
Economics 458 - International Trade Theory
Winter Semester 2002
Professor Kerk Phillips

Final Exam

4/20, 4/22-4/25 Testing Center

This exam is closed book and closed notes. Answer clearly and precisely on this test in the space provided. Use proper English and be sure to label any diagrams clearly. Good Luck!

1. Suppose North and South Korea reunify in the next few years and become a single country. Using a specific factors model with capital as the mobile factor and educated and uneducated labor as the specific factors, predict which of the interest groups in the North and South Korea would oppose reunification. Who would favor it? Be sure to tie you answer to the specific factors model.

North Korea would have a relative abundance of uneducated labor, while S Korea would have a relative abundance of educated labor and of capital. Under autarky educated labor returns in N Korea and uneducated labor returns in S Korea will be relatively high, because of the scarcity of these factors. Opening to unification (and free trade), would lower these wages, but raise uneducated wage rates in the North and educated wages in the South. One would also expect a flow of capital from S to N, but since Korea is a small economy anyway and already has capital borrowed from the rest of the world, one would expect this to remain roughly constant and new capital from the rest of the world would flow into the North, without affecting the capital stock in the South.

2. The president of the small central Asian country of Zalchistan is a member of the Zalchipour 1st Ward and has hired you as his foreign trade advisor. He says, "If I am to remain in power, I must not let the Zzmola bean exporters fall on hard times, but I can't just give them money either, because that's too obvious. I could either impose an export subsidy or I guess I could put in a production subsidy. Which would be better?"

An export subsidy would cost less than a production subsidy, because only the exported items receive the extra payment. The total production would be the same, as would consumption, since consumer prices don't differ with the type of subsidy. The deadweight losses are identical in either case. Presumably the lower the cost of the policy the better, so for the same amount of protection you pay less with an export subsidy.

3. The president also asks, “I read the other day about this ‘optimal tariff’ stuff. It sounds great! I want impose an optimal tariff on imports of oil. Explain to me how high this optimal tariff should be for a small country like ours.”

For a small open economy, like Zalchistan, the optimal tariff is zero. There are gains from a tariff only if the economy imposing the tariff is large enough that it’s decreased demand after the imposition causes the price of the good on world markets to fall. Even if this does happen, it is a necessary and not sufficient condition for the tariff to be “optimal”. Since Zalchistan is a small economy, the optimal tariff on oil is zero.

4. “After touring several manufacturing plants and farms over the weekend, I am depressed at how unproductive our workers are. I don’t think we can profitably export anything because the technology we use in all sectors of our economy is so old. What do you think?”

The president is thinking about absolute advantage and not comparative advantage. As long as the technology and factor endowments in Zalchistan are such that the relative prices of goods there differs (in autarky) from world relative prices there will be potential gains from trade. For example, if the factors needed to produce 1 unit of Zzmola beans are five times higher in Z than the rest of the world and the factors needed to produce 1 unit of wheat are ten times higher, then Z should produce beans. The returns on the factors will be five time lower in Z than the ROW, but they can trade the beans to get wheat at a more advantageous price than if they tried to produce it on their own.

5. “One of my economics advisors took an international economics class at the University of Utah once. We all know that our country and our neighboring country of Beluga produce 95% of the world supply of Troglum metal. He says that if we subsidized our three Troglum producers we could increase their profits and drive down the profits of the two Belugan producers. We Zalchistanis *hate* the Belugans, so this seems to be a no-brainer. I can’t think of any reason for not putting such a subsidy in place, can you?”

First, of all as a member of the church you should learn to love the Belugans. But beyond that, while it is possible to raise Z profits at the cost of B profits by imposing a subsidy, it is also possible for the Belugan gov’t to do the exact opposite. If both government’s play a subsidy game the Nash equilibrium is one where profits for both countries’ firms are lower. Do this only if you are absolutely sure the Belugan gov’t cannot or will not retaliate.

6. Finally the president asks you, “U.S. drug companies sell their advanced antibiotics here in Zalchistan at much lower prices than they do in the U.S. markets. By definition they’re dumping. Doesn’t that hurt our domestic drug company? I want Zalchistani workers to be as well-off as possible and I fear we are losing jobs due to this U.S. dumping. Should I impose a tariff on U.S. antibiotics to counter this dumping?”

Technically, this is dumping. And it may hurt your domestic drug producer if they are also producers of antibiotics. However, if US drug companies are willing to sell at such low costs, you are better off in terms of total welfare to allow consumers to buy the goods at the lower prices and let your drug company produce something else.

You might be worried about US drug companies raising the price once the domestic producer is gone. However if there are more than one international producer, they will compete against each other and keep the price low. If there is only one international producer, as long as it is not too costly for the domestic company to renter, they will still be forced to keep prices low. Finally, if antibiotics are storable, you can always buy from a 3rd country where the price is lower if US firms try to price discriminate.

You may also be worried about the national defense aspects of not being able to produce antibiotics domestically. A stockpiling program may alleviate that problem at lower cost.

7. Using a general equilibrium diagram, show the effects of a domestic consumption tax on one good.

(don't worry about this question for the midterm)

8. The Heckscher-Ohlin model has four important associated theorems. Name and state each of these theorems:

1) Heckscher-Ohlin: Countries will tend to export the good which intensively used their abundant factor.

2) Stolper-Samuelson: All else equal an increase in the price of a good will cause the price of the factor intensively used in production of that good to rise proportionally more and the price of the other factor to fall.

3) Rybczynski: All else equal an increase in the endowment of a factor will cause the production of the good that intensively uses that factor to rise proportionally more and production of the other good to fall.

4) Factor-Price Equalization: As long as both goods are produced, trade in final goods will cause the relative prices of the two factors to be the same in both countries.