SYRACUSE UNIVERSITY
MAXWELL SCHOOL OF CITIZENSHIP AND PUBLIC AFFAIRS

PAI 723
Economics for Public Decisions

Case #1
RICE IMPORTS IN PACIFICA

Pacifica is a small island nation in the Pacific Ocean. It is a relatively low income country, with a per capita income of $8,000. Agriculture is its main industry and rice, which is a staple of the local diet, is one of its primary crops. Because it is a small country, Pacifica's agricultural production has no influence over global prices.

In order to protect its farmers from world competition, Pacifica currently bans imports of rice. All rice consumed on the island is grown by local farmers. This policy is of great benefit to farmers. A bag of rice in Pacifica sells for $8.00. 500,000 bags or rice are consumed per year. If consumers were allowed to purchase rice grown abroad, they could purchase bags of rice for just $5.00.

A local legislator is concerned about the impact the import ban has on low-income families. This legislator proposes removing the import ban.

Concerned about the fate of farmers, a second legislator argues that rice production should instead be subsidized. Since the world price of rice is $3 less than the local price, he proposes a subsidy of $3 per bag of rice. To make the policy easier to implement, this payment would initially go to farmers.[i] Under this plan, rice imports would still be banned.

Finally, a third legislator argues in favor of free trade, but suggests that the $3 per bag subsidy proposed by the second legislator would help to soften the cost to farmers of lifting the import ban.

You have been asked to evaluate the economic impact of each proposal. For each, please find:

1. The total quantity of rice purchased by consumers
2. The total quantity of rice produced by local farmers
3. The total quantity of rice imported (if any)
4. The change in consumer surplus
5. The change in producer surplus
6. The cost to taxpayers of the subsidy (if any)
7. The net welfare gained or lost for the economy as a whole

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[i] While this may seem strange, recall from class that the net effect of a tax or subsidy is the same whether it is implemented on the consumer or on producers. Paying each farmer a subsidy per bag of rice produced requires fewer administrative costs than repaying each consumer per bag that they have purchased.

To carry out this analysis, you have been given the following information about rice markets in Pacifica:

price elasticity of demand: -0.5
price elasticity of supply: 0.75
price paid by consumers with subsidy (under import ban): $6.2[ii]

To simplify your calculations, you may assume that all supply and demand curves for rice markets in Pacifica are linear.

You have been asked to prepare a brief memo for a legislator in Pacifica analyzing these three policy options. Your memo should address each of the impacts requested above, and should include a recommendation as to which policy (if any) the legislator should support. As the contents of your memo will be used to prepare the legislator for debate, it is important that this information be presented in a *direct, non-technical manner* that is accessible to non-economists. As such, the legislator has asked that you limit your analysis to two pages and to limit the use of economic jargon. Be sure to include a table summarizing your results. The table does not count against the page limit. Since the legislator does have economic training, you may supplement your memo with figures that illustrate your analysis. However, any explanations provided in the memo itself must be presented in a way that allows the legislator to convey the information to others in a non-technical manner.

Here are a few hints to get you started:
- Begin by drawing a graph to illustrate each of the scenarios. The graphs will help you identify which areas you need to find.
- Note that you do not need the supply or demand equations to find the changes in consumer and producer surplus. In particular, keep in mind that you are not asked to find the original consumer or producer surplus, but just the changes in surplus between policies.

Submission guidelines
Please submit a hard copy of the memo in class. All memos should be professionally prepared – handwritten work is not acceptable for the memo. Students who must attend class remotely that day should e-mail the assignment to me before class unless given an extension prior to class. Please e-mail me directly. Do not send your memo out on the class listserv.

In addition to your memo, please attach work showing your calculations. This does not need to be professionally prepared and can be hand written. Please be sure to distinguish this from the formal memo, so that it is clear what part of your submission is the intended deliverable to your client.

Finally, a reminder of information also on the syllabus. You are free to work together on memos. Talking through how to do the work with others can be helpful. However, each student must write up and hand in their own memo. Collaborative writing is not allowed.

[ii] While not necessary to know for this class, the price to consumers is calculated using the formula $\Delta p = (\varepsilon_S/(\varepsilon_S-\varepsilon_D))\Delta Sub$.