## Homework Set Six

1. (40\%) For each of the following events, what will be the impact on the trade deficit? Explain your answer. It is not enough to guess the right answers: you must explain why these are the correct answers.

- A sudden one-year increase in national productivity.
- The euro falls from $1 €=\$ 1.12$ to $1 €=\$ 0.80$.
- A monument to Irving Fisher is build, paid for by borrowing.
- Workers change their perception of a decline in the wage rate. While they used to believe the decline to be temporary, they now believe it is permanent.
- On a one time basis, the government shifts $\$ 100$ million from purchases of goods and services to transfer payments.
- The nation begins to spend $\$ 100$ million a year in perpetuity to maintain monuments of no significance. The cost is paid for by assessing each citizen $\$ 300$ per year. Hint: economists would argue that this tax program would lead to a $\$ 100$ million per year reduction in consumption demand.
- The nation decides to pay off the national debt, by assessing each citizen $\$ 2,000$ per year for as long as it takes to pay off the debt. (You may assume a bequest motive).
- China, announces plan to revalue (upwards) the yuan in three years. (You are asked to analyze this year's trade deficit)

2. (48\%) Senator Alicia Mustard has made a series of statements about tax policies on the floor of the Senate. Explain whether you agree or disagree with each of these statements. (You may note that some of the statements are inconsistent, but that is a Senator's right. Just take each statement up, one at a time.)

- We all love our children, so we ought to pay off our national debt.
- We should have paid for World War II entirely by taxation.
- In general, the right policy is for steady tax rates.
- Taxes are too high. Let's cut taxes. But we cannot cut government spending. We will make up the difference by borrowing. After I
leave office in about 30 years, someone else can worry about the debt.
- The right level of taxation is at the peak of the Laffer Curve.
- We can make the Lorenz curve flatter by using regressive taxes.
- If a government program costs $\$ 10,000,000$, then that is its total economic cost: the resources taken away from private consumption and investment
- The Lorenz curve measures the relation between tax rates and government revenue.
- If a nation removes a tariff on a good whose domestic demand is met by a combination of domestic production and imports, it is hard to tell whether the gains to consumers will exceed the losses to the producers.
- In a nation where there is no trade, a temporary increase in government spending on a wasteful project will invariably increase interest rates more if it is financed by borrowing than if it is financed by a tax based on last year's income tax liability.
- The persistent differences in per capita GDP between wealthy nations and poor nations means that capital does not really matter in the production function. If it did, capital would simply flow into the poor nations.
- Economic freedom cannot matter. After all, where is there a term for it in the Cobb-Douglas production function, which is, as we all know, the summum bonum?

3. $(2 \%)$ The right way to cut taxes is to cut spending. Explain whether you agree or disagree with this statement. Hint: there is no right or wrong answer to this question, but there are right and wrong ways of approaching the question. (We will take almost anything you answer here, as long as it is thoughtful.)
4. (10)\% Senator J. Untermeyer Jones knows you have been reading about taxes and efficiency losses, and has come up with some questions which he wants you to address. Specifically,

- Many Ohio communities pay for building projects with a combination of long term bonds and a tax increase to pay for the bond. Would they not be better off just paying for them with one time taxes, and avoiding the interest expense?
- The Senator has a pet project, which will cost $\$ 10$ billion. He is considering three means of paying for the project: (a) a one-time tax bill of $\$ 100$ billion figured as a fraction each taxpayers bill last year, (b) a one-time tax bill of $\$ 100$ billion figured as a fraction of this year's tax bill, or (c), a $\$ 10$ billion a year surcharge, to stay on until all the cost of the project (including interest costs) are covered. He wants you to rank these plans in terms of economic efficiency. If you can't tell, let him know why.
- In his home town, the Emerald City, there is a plan to build a new domed stadium at a cost of $\$ 300$ million. Twenty year bonds will be issued to cover the cost. Boosters want to raise the money to service the bonds (cover principal and interest charges) through new "sin taxes" on alcohol and tobacco. Others are suggesting a modest hike in the overall sales tax rate. In terms of economic efficiency, the Senator wants to know which is best. If you cant tell, let him know why.

