Econ 230B

Spring 2022

FINAL EXAM: 2 Hours

Closed notes exam. No computer, calculator, or any other electronic device allowed.

Questions: 40 points

Answer briefly all 10 true/false questions (4 pts each). Explain your answer fully, since all the credit is based on the explanation.

1. Disability insurance has small negative effects on labor supply because empirical evidence shows that rejected disability insurance applicants work very little.

2. The US social security system discourages labor supply of the elderly because a significant fraction of US workers stop working at age 62. This response is predicted by the standard life-cycle model.

3. The 2013 top tax rate increase in the United States led to a surge in reported top incomes in 2012 implying that tax rates on the rich have high efficiency costs.

4. Evidence from lottery winners shows that there are substantial income effects on labor supply.

5. If individuals with no earnings are considered as less deserving than average by society, then an EITC with negative marginal tax rates at the bottom of the income distribution would be optimal even in the traditional Mirrlees model of optimal taxation.

6. If the average rate of return to capital in the economy is 4%, an annual tax on wealth at a rate $\tau_1 = 1\%$ is strictly equivalent to an annual tax on the flow of capital income at rate $\tau_2 = 25\%$.

7. In the life-cycle model where people work and save when young and live off their savings and returns on savings when old, the government should not tax capital income.

8. The rational Allingham-Sandmo model of tax evasion predicts too much tax evasion because it does not incorporate psychological factors such as honesty or guilt.

9. If the elasticity of taxable income of upper income taxpayers with respect to the net-of-tax rate is high, it is self-defeating for the government to do significant redistribution from rich to poor.

10. If bequests are due to altruism, they should be subsidized because they create a positive externality.

PROBLEM (30 points):

The Biden administration has proposed to strengthen the taxation of multinational corporations and has helped broker an international agreement about a minimum tax on the profits of multinational corporations. To simplify matters, let's assume that all countries currently use a territorial system whereby multinationals profits are taxed based on where such profits are made. I.e., Apple is a US company operating in many countries. Each Apple subsidiary (such as Apple France) reports how much profits it makes in the country where it operates and pays corporate taxes there.

a. (5 pts). Explain the main weakness of the current territorial tax system in terms of tax avoidance for multinational corporations. Suppose you have access to data showing for all multinationals worldwide how much profits they report in each single country and how much corporate taxes they correspondingly pay in each single country. What descriptive statistics would you create to document this main weakness?

b. (5 pts). We assume that the minimum tax international agreement works as follows. If a subsidiary pays a corporate tax of less than 15% on the profits in the country where it operates, then the country where the multinational is headquartered will charge an extra tax to bring the tax rate to 15%. I.e., If Apple Ireland pays only 5% of its Irish profits in corporate taxes paid to Ireland, then the US charges 10% extra tax on these Irish profits to bring the total tax to 15%. Explain why such an agreement would resolve the issue you pointed out in a. Using the same data as in a., how would you check empirically whether the agreement has been successful in resolving the issue in a. (assuming the agreement happens and you have data from both pre and post-reform)?

c. (5 pts) Suppose now that the international agreement fails to happen but that the US decides to go alone and impose such a 15% minimum tax on all its multinationals (companies headquartered in the US). Would this work to curtail tax avoidance by US multinationals? What is the weakest point of such a unilateral policy? How would you use the empirical data from b. to check upon this weakest point?

d. (5 pts) Countries like Ireland currently oppose the international agreement from b. because they claim that the agreement would prevent "fair tax competition" whereby countries compete to attract genuine business activity (as opposed to just paper profits) by having an attractive tax system. Is it true that the international agreement from b. would also curtail such "fair tax competition"?

e. (5 pts) To alleviate the issue raised by Ireland, countries agree to impose the minimum tax only on super profits defined as profits minus 5% of the value of tangible capital (land, buildings, and equipment) and 5% of the payroll (labor compensation) used in the foreign country. Explain why this exemption would indeed still allow countries to "compete fairly" (i.e. attract real economic activity) while preventing pure tax avoidance. Suppose the data from a. also includes payroll and tangible capital value that each multinational reports in each country where it operates and that you have such data both pre and post-reform. How would you use the data to assess whether "fair competition" vs. "tax avoidance" has been affected by the reform?

f. (5 pts) The actual OECD agreement is b.+e. Discuss whether b. or b.+e. is preferable.