Public Finance Field Exam
August 2024

Directions: Answer both questions, in whatever order you prefer.

1. Policy Reforms

For each of the following proposals, discuss their potential for increasing or decreasing social welfare relative to the current U.S. system. Incidence and efficiency should be part of that discussion. For this exam, social welfare equals the sum of individual utilities, which exhibit diminishing marginal utility of consumption. Reference findings from class (it's to describe a paper even if you don't remember the authors).

Education policy

a. A proposal to give parents a voucher with a value equal to their locale's annual per-student spending, and the parents can then spend that amount at a local public school or any private school they wish to send their child that year. If they send the child to a local public school, nothing changes. If they send the child to a private school whose tuition is larger than the voucher amount, the parents have to pay the difference out-of-pocket. Assume that vouchers used on private schools are paid for by reductions in spending at the local public schools to which those students would have gone.

b. A proposal to dramatically increase the number of school districts in the United States by breaking up all large and moderate-sized school districts into smaller districts.

c. A proposal to audit the efficiency of every local government's education spending and to publish the results.

d. A proposal to build free-tuition colleges in distressed areas of the country, paid for by a small increase in federal income tax rates on the whole country.

Capital income taxation, broadly defined

e. A proposal to default all American workers into saving 3% of their paychecks in a 401(k) savings account, which they can opt out of.

f. A proposal to tax dividends and capital gains as ordinary income (i.e., like wage income), combined with a revenue-neutral proportional reduction in ordinary marginal tax rates. Dividends and capital gains are currently taxed at lower rates than ordinary income, for example at a 23.8% rate in the top federal tax bracket compared to the top ordinary rate of 37%.

g. A proposal for an annual surtax on big banks equal to.1% of their assets, combined with a revenue-neutral proportional reduction in ordinary marginal tax rates.

h. A proposal for immediate expensing (i.e., permanent 100% bonus depreciation) for "clean" equipment, combined with current slower depreciation on all other equipment and with a revenue-neutral proportional increase in ordinary marginal tax rates. To implement this proposal, the U.S. Treasury would deem an equipment product "clean" if the total carbon pollution emitted in its production was in the bottom quartile of its equipment category. For example, among laptop computers, the "clean" computers would be the 25% of them that require the least carbon pollution to be produced. Assume that the Treasury Department can costlessly enforce the proposal.

i. A proposal to reduce the taxation of Social Security benefits starting now, combined with a revenue-neutral increase in the Social Security payroll tax rate starting now.

2. Taxes and Labor Supply

The Earned Income Tax Credit (EITC) is the largest means-tested cash transfer program in the US. The EITC is a refundable tax credit administered through the individual income tax. All families with at least one kid are potentially eligible. In order to simplify, we assume that the EITC provides a 40% subsidy of earnings up to $10,000, the EITC is flat at $4,000 for earnings between $10,000 and $12,000 and is phased out with a 20% marginal tax rate for earnings between $12,000 and $32,000 (we ignore variations by number of kids and marital status).

In what follows and to concentrate on the EITC, we ignore the effects of taxes or transfers other than the EITC on the budget and labor supply decisions of households.

A. In this part, we only consider single parent households (and we ignore married couples):

a. Plot the budget constraint of a single household with kids without the EITC and with the EITC and describe the expected effects of the EITC on labor supply along the intensive and extensive margins.

b. Suppose that there are no income effects on labor supply and that the elasticity of earnings with respect to the net-of-tax rate (one minus the marginal tax rate) is 0.5 for every household. By how much does the EITC increase/decrease earnings along the intensive margin (in percentage) of a family in the phase-in, plateau, phase-out range of the EITC? Does the EITC increase or decrease earnings on average in the population (use common sense about the distribution of earnings)?

c. The state of California decides to introduce a Cal EITC in its state income tax system which matches the federal EITC but only for families with at least two kids. Explain how you could use this reform to identify separately the intensive and the extensive elasticity of labor supply (ignore the effects of the EITC on fertility or kids adoption decisions).

d. Suppose that the Cal EITC reform actually increases significantly the number of 2+ kids households and reduces the number of 1 kid households. Does this invalidate your empirical strategy from c.? Is there a way to estimate the elasticities which is robust to this effect on kids?

B. In this part, we consider married couples only:

e. Suppose that the primary earner always works and is totally inelastic to incentives and that the secondary earner labor supply responds along the intensive and extensive margin. Based on the earnings of the primary and secondary earner absent the EITC, explain the effect of the EITC on the labor supply of the secondary earner.

f. The government is concerned about the negative effects of the current EITC on secondary earners and implements the following reform (on married couples only) called the spouse EITC. For married couples, the standard EITC is scraped and replaced by the spouse EITC which works as follows. The secondary earner (assume that the secondary earner is exogenously defined by gender or some other fixed characteristic for simplicity) will be entitled to the EITC based on her earnings only (and independently of the earnings of her spouse). Describe how the new spouse EITC compares with the standard EITC for married couples in terms of labor supply incentives.

g. The government adopts an additional reform of the spouse EITC. The spouse EITC will be reduced linearly with the earnings of the primary earner. The spouse EITC is 100% of the standard EITC when the earnings of the primary earner are equal to zero and decreases linearly and is 0% when the earnings of the primary earner are equal to $10,000. For example, if the primary earner earns $5,000, the spouse EITC (computed based on the spouse earnings) is only 50% of the standard EITC. Describe the effects of this new spouse EITC on the marginal tax rate of the primary earner. Explain the effects of this new spouse EITC (relative to the one described in f.) on the labor supply of the primary earner (we relax here the assumption from e. that the primary earner is inelastic).