Public Finance Field Exam
August 2014

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

1. **Capital Income Taxation**

    This question relates to the effects of various potential changes in the taxation of capital income or wealth. Assuming that all of the following tax policy changes have the same short-run impact on tax revenue (taking account of behavioral responses), compare their effects on economic efficiency and incidence within and across generations, citing relevant theory and empirical evidence and making clear your assumptions:

    a. A proportional reduction in the individual income tax rates on long-term capital gains

    b. A proportional reduction in the individual income tax rates on dividends

    c. A reduction in the corporate tax rate

    d. An increase in the present value of depreciation allowances provided to business fixed investment

    e. Relaxation of income-based restrictions on contributions to tax-favored saving vehicles, e.g., Individual Retirement Accounts (IRAs)

    f. A federal tax credit to offset a fraction of local property taxes paid by homeowners

2. **Incentives to Save for Retirement**

    The government wants to promote savings for retirement through tax policy. Let us assume (for simplicity) that the current Individual Retirement Account (IRA) program works as follows: each family with total annual income of less than $100,000 can invest part of their earnings up to a limit of $5,000 per year in an IRA. The IRA contributions can be deducted from taxable income and no tax is due on the returns earned in an IRA account. At retirement, the money withdrawn from the IRA faces the regular income tax.

    a. Show graphically how the introduction of the IRA program described above affects incentives to save in a simple two period model (first period is working age and second period is retirement with no labor income). Assume that the income tax is a linear tax with flat marginal tax rate of τ. Discuss whether the IRA program increases savings and consumption during retirement.

        Consider the functional form for utility $u(c_1, c_2) = \log c_1 + \delta \log c_2$ with labor income w in period 1, and pre-tax rate of return on savings r. Write down the budget constraint, solve the individual savings problem, and be more specific on whether IRAs increase

savings in this special case. Be careful to distinguish the cases where savings s are below vs. above the maximum IRA savings limit of $5000.

b. Suppose you had access to micro data on savings and wealth and you regress savings or wealth at retirement on a dummy for whether the person has an IRA. Suppose the coefficients are positive. Can you conclude that IRAs increase savings and wealth? If not, suppose you add demographic/income controls in the regressions; does it solve the problem?

c. Suppose you have access to a single cross-section of micro-data on family income, savings, and IRA contributions. Explain how you could exploit the $100,000 income eligibility threshold to estimate the effects of IRAs on savings.

d. Using the same data, explain how you could exploit the $5000 limit on IRA contributions to test whether IRAs affect savings decisions. Is it possible to use this test to estimate the effects of IRAs on savings?

e. Suppose that the government introduces an additional tax credit incentive to save into an IRA: a family contributing $X into an IRA would receive a refundable tax credit equal to 33.33% of $X. The tax credit cannot exceed $1,000 per family. However, this tax credit could only apply to those with income (before deducting IRA contributions) less than $50,000. Describe graphically the budget constraint in the basic two period model. Explain whether this program would increase savings and consumption during retirement.

f. Suppose that you had repeated cross sectional data before and after the reform. How would you use it to estimate the effects of the reform on (1) IRA contributions, (2) overall savings, and (3) labor supply? Make sure to describe carefully your research design and discuss potential issues in your methodology.

g. Suppose that, instead of the credit, the government adopts a matching program whereby IRA contributions are matched 50% up to a maximum match of $1,000 by the government (as in f., the match applies only for families with income below $50,000). How does this matching program compare to the tax credit in f., in terms of incentives to save to retirement? (Make sure to describe graphically the budget constraint as in f.)
Suppose that you find empirically that this matching program generates higher IRA contributions (inclusive of matching contributions) than the tax credit in f. How would you explain those results?