

University of Toronto
Economics 336 – Public Finance (Taxation)

Christmas examination
December 4, 2007

Instructions: Write your name in block (capital) letters and your student number on all exam booklets you use. If you use additional booklets, place them inside the first one before handing them in. You may use pocket calculators (but you won't need to). You must not refer to books, computers, or any other aids.

Answer EIGHT of the following questions.

Explain your reasoning carefully. You may use graphical or mathematical arguments where appropriate, but keep your answers brief. (10 points each.)

1. Define the *excess burden* of a tax. Use a graphical analysis to show that the excess burden of any tax on a single good is greater than or equal to zero.
2. TRUE, FALSE, or UNCERTAIN: Some right-wing politicians want to abolish the personal income tax and replace it by a tax on consumption and bequests. But this system would exempt capital income and, because those with capital income are richer on average, this would reduce vertical equity in the tax system.
3. During the 1980s, the rate of national saving in Canada was substantially higher than in the United States. Can this difference be explained satisfactorily by differences in the two countries' retirement income systems? Justify your answer.
4. The Conservative Party believes that personal income taxes should be levied on the basis of family income, rather than the individual incomes of spouses. Suppose that a family-based tax system must be designed such that: (i) one earner families pay the same tax as two-earner families, and (ii) when two individuals get married, their total tax bill does not change (no "marriage tax"). What does this imply about the *progressivity* of the new tax system?
5. Define the *Corlett-Hague principle* of optimal commodity taxation, and provide an intuition for the principle. In recent years, the government of Ontario has increased taxes on residential housing while decreasing taxes on labour income. If housing is relatively complementary with leisure, is it in fact optimal to tax housing at a higher tax rate than other commodities? Justify your answer.
6. Explain the *dividend puzzle* in the theory of corporate finance and taxation. Is the dividend puzzle really a puzzle, if some investors prefer to receive regular cash income from their investments in equity?
7. Explain briefly how Registered Retirement Savings Plans work. According to theory, would an increase in the RRSP contribution limit increase private saving? What about net national saving? Illustrate your argument with graphs.

8. A corporation finances investment in a capital asset by issuing new debt and equity in equal proportions. Interest paid on debt is deductible from the corporate tax base, whereas return on equity is not. Suppose that the pre-tax rate of return on both debt and equity is 0.2, the corporate tax rate is 0.5, the economic depreciation rate for the capital asset is 0.35, and the present value of depreciation allowances is 0.45. Calculate the user cost of capital for this asset in the presence of taxes and in the absence of taxes. Alternatively, if the tax system allowed the asset to be expensed, but debt interest were still deductible, would this tax system encourage or discourage investment?
9. "Canada's Equalization program encourages residents of the Atlantic provinces to remain in low-productivity jobs. Eliminating the program would encourage them to move to new jobs in Alberta, increasing national output." Do you agree or disagree with this statement? Justify your answer using economic theory.
10. Some economists argue that decentralization of tax and expenditure decisions from national to local governments tends to increase efficiency in the provision of public goods. Give one argument for and one argument against this proposition.
11. A conventional welfare program offers recipients a fixed monthly payment, which is reduced by the full amount of the recipient's own labour earnings. Would replacing conventional welfare with a *negative income tax* with the same fiscal cost increase or decrease labour supply in the economy? On the basis of your answer, would excess burden decrease or increase? Justify your answer, and cite empirical evidence where possible.
12. Is fiscal decentralization likely to increase or decrease corruption in government? Provide arguments from economic theory, and evidence from Fisman and Gatti (2002), in support of your argument.