End-of-chapter Questions
Chapter 16: The Trade-off Between Equity and Efficiency in Taxation

1. If the government can tax all goods and factors (except one), why is the total deadweight efficiency loss from taxation from collecting a given amount of tax revenue minimized when the marginal loss per dollar of tax revenue is equal across all goods and factors?

2. Suppose there are only two goods in an economy, X_1 and X_2, and the supplies of the two goods are perfectly elastic. If the compensated demand elasticities are 0.2 for X_1 and 0.4 for X_2:

   a. What should be the relationship between the tax rates t_1 and t_2 if the government wants to minimize the deadweight efficiency loss from raising a given amount of tax revenue from the two goods? Explain.

   b. Which of the two goods should have the greater change in (compensated) quantity demanded because of the taxes? Explain.

3. a. If society cares only about the efficiency of taxes, what attribute of a good or factor determines how heavily it should be taxed?

   b. If society cares only about the equity of taxes, what attribute of a good or factor determines how heavily it should be taxed? Explain both answers.

4. What is the second-best utility possibilities frontier and why is it an important concept in the theory of taxation?

5. If taxes are distorting and society cares about equity, why is it unlikely to be optimal to minimize the deadweight efficiency loss from taxation?

6. If society cares about both efficiency and equity in taxation, for what types of goods might the two goals be in a trade-off relationship? Are these likely to be important goods? If no, why not? If yes, give an example of one or two goods for which the trade-off might apply and defend your choices.

7. What are the arguments for and against including food purchased for home consumption in a U.S. state's general sales tax bases? Is food purchased for home consumption always included in states' general sales tax bases in the U.S.?

8. a. In the optimal income tax problem described in the chapter, what goal is the government trying to achieve in setting the tax rate?
   b. Given that goal, what are the main factors that determine how high the tax rate should be? Explain why each factor you name matters in setting the tax rate, and whether it implies a higher or a lower tax rate.
9. Which do mainstream economists prefer as a guideline in designing an income tax, the Smith–Mill ability-to-pay framework or the optimal income tax framework? Why?