**Chapter 1**

**An Introduction to Tax**

**INSTRUCTOR’S MANUAL**

### Learning Objectives

1. Demonstrate how taxes influence basic business, investment, personal, and political decisions.
2. Discuss what constitutes a tax and the general objectives of taxes.
3. Describe the different tax rate structures and calculate a tax.
4. Identify the various federal, state, and local taxes.
5. Apply appropriate criteria to evaluate alternate tax systems.

### Teaching Suggestions

This chapter provides an overview of why taxes are important, what is a tax, how to calculate a tax, various tax rates and tax rate structures, different types of federal, state, and local taxes, and how to evaluate a tax system. One intent of the chapter is to get students thinking about the pervasive influence of taxes and thus why it is important for a business or accounting student to understand taxes. Discussing how taxes affect decisions that they will face (buying a house, investing for retirement, etc.) is an effective way to pique students’ interest.

This chapter also provides an opportunity to motivate students by discussing the political importance of taxes and the debate of alternative tax systems. Throughout most of the chapter, you can tie the material discussed back to the debate of alternative tax systems. This is easily done in the section on evaluating alternative tax systems and alternative tax rate structures but may also be done for other parts of the text. For example, when discussing how to calculate a tax, you can point out that once the tax base is computed, it is very easy to calculate virtually any tax. The difficulty is in determining the tax base. The implication of this understanding is that the tax rate structure (e.g., progressive versus proportional) has little effect on tax complexity.

In teaching this chapter, the time that you spend in class will vary based on how much discussion that you want to incorporate regarding evaluating tax systems and implicit taxes. Most of the concepts in this chapter are relatively straightforward, and thus, the chapter provides students with an introduction to tax without overwhelming them on the first day or so of class. This is particularly important if your students have some trepidation regarding their first tax course.

Implicit tax is typically a difficult concept for students to understand. The text provides a good overview of implicit tax. If you plan to cover implicit tax in some detail, you might alert students that this is a difficult concept and that they should be careful to get familiar with this discussion in the text prior to class.

###### Assignment Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | Learning Objectives | Text Features |
| Problem | Time | Difficulty | LO1 | LO2 | LO3 | LO4 | LO5 | Research | Planning | Forms |
| DQ1-1 | 5 min. | Easy | X |  |  |  |  |  |  |  |
| DQ1-2 | 5 min. | Easy | X |  |  |  |  |  |  |  |
| DQ1-3 | 5 min. | Easy | X |  |  |  |  |  |  |  |
| DQ1-4 | 5 min. | Easy |  | X |  |  |  |  |  |  |
| DQ1-5 | 5 min. | Medium |  | X |  |  |  |  |  |  |
| DQ1-6 | 5 min. | Medium |  | X |  |  |  |  |  |  |
| DQ1-7 | 5 min. | Medium |  | X |  |  |  |  |  |  |
| DQ1-8 | 10 min. | Medium |  | X |  |  |  |  |  |  |
| DQ1-9 | 5 min. | Medium |  | X |  |  |  |  |  |  |
| DQ1-10 | 10 min. | Medium |  |  | X |  |  |  |  |  |
| DQ1-11 | 15 min. | Medium |  |  | X |  |  |  |  |  |
| DQ1-12 | 5 min. | Medium |  |  | X |  |  |  |  |  |
| DQ1-13 | 15 min. | Medium |  |  | X |  |  |  |  |  |
| DQ1-14 | 10 min. | Medium |  |  | X |  |  |  |  |  |
| DQ1-15 | 5 min. | Easy |  |  |  | X |  |  |  |  |
| DQ1-16 | 15 min. | Medium |  |  |  | X |  |  |  |  |
| DQ1-17 | 5 min. | Easy |  |  |  | X |  |  |  |  |
| DQ1-18 | 5 min. | Easy |  |  |  | X |  |  |  |  |
| DQ1-19 | 10 min. | Medium |  |  |  | X |  |  |  |  |
| DQ1-20 | 10 min. | Medium |  |  |  | X |  |  |  |  |
| DQ1-21 | 10 min. | Easy |  |  |  | X |  |  |  |  |
| DQ1-22 | 10 min. | Easy |  |  |  | X |  |  |  |  |
| DQ1-23 | 15 min. | Medium |  |  |  | X |  |  |  |  |
| DQ1-24 | 15 min. | Medium |  |  |  | X |  |  |  |  |
| DQ1-25 | 15 min. | Medium |  |  |  | X |  |  |  |  |
| DQ1-26 | 15 min. | Medium |  |  |  |  | X |  |  |  |
| DQ1-27 | 15 min. | Medium |  |  |  |  | X |  |  |  |
| DQ1-28 | 15 min. | Medium |  |  |  |  | X |  |  |  |
| DQ1-29 | 15 min. | Medium |  |  | X |  | X |  |  |  |
| DQ1-30 | 20 min. | Medium |  |  | X |  | X |  |  |  |
| DQ1-31 | 15 min. | Medium |  |  |  | X | X |  |  |  |
| DQ1-32 | 15 min. | Medium |  |  |  |  | X |  |  |  |
| DQ1-33 | 15 min. | Medium |  |  |  |  | X |  |  |  |
| P1-34 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-35 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-36 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-37 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-38 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-39 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-40 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-41 | 20 min. | Medium |  |  | X |  |  |  |  |  |
| P1-42 | 20 min. | Hard |  |  | X | X |  |  |  |  |
| P1-43 | 15 min. | Medium |  |  | X | X |  |  | X |  |
| P1-44 | 15 min. | Medium |  |  | X | X |  |  | X |  |
| P1-45 | 15 min. | Medium |  |  | X | X |  |  | X |  |
| P1-46 | 15 min. | Medium |  |  | X | X |  |  | X |  |
| P1-47 | 20 min. | Hard |  |  | X |  |  |  |  |  |
| P1-48 | 20 min. | Hard |  |  | X |  |  |  |  |  |
| P1-49 | 20 min. | Hard |  |  | X |  | X |  |  |  |
| P1-50 | 20 min. | Hard |  |  | X |  | X |  |  |  |
| P1-51 | 20 min. | Hard |  |  |  |  | X |  |  |  |
| P1-52 | 20 min. | Hard |  |  |  |  | X |  |  |  |
| P1-53 | 20 min. | Hard |  |  |  |  | X |  |  |  |
| P1-54 | 20 min. | Hard |  |  |  |  | X |  |  |  |
| P1-55 | 20 min. | Hard |  |  |  |  | X |  |  |  |
| P1-56 | 20 min. | Hard |  |  |  |  | X |  |  |  |
| P1-57 | 25 min. | Hard | X |  |  | X |  |  | X |  |
| P1-58 | 25 min. | Hard |  |  | X |  | X |  | X |  |
| P1-59 | 25 min. | Medium |  |  |  |  | X | X |  |  |
| P1-60 | 25 min. | Medium |  |  |  | X |  | X |  |  |

**Lecture Notes**

1. Who Cares About Taxes and Why?
	1. Businesses
	2. Politicians
	3. Individuals
2. What Qualifies as a Tax?
	1. Definition of a tax
		1. Key components of definition: payment is required, imposed by a government agency, and not directly tied to any benefit received by the taxpayer from the government
	2. Earmarked tax—definition and why this is considered a tax
	3. Quiz students on tax definition using examples in the PowerPoint slides.
3. How to Calculate a Tax
	1. Tax = Tax Base × Tax Rate
		1. Tax Base—what is actually taxed, usually expressed in monetary terms
		2. Tax Rate—level of taxes imposed on the tax base, usually expressed as a percentage
		3. Flat taxes
		4. Graduated taxes
		5. Brackets
	2. Different ways to measure tax rates
		1. Marginal tax rate
			1. Definition—tax rate that applies to the next additional increment of a taxpayer’s taxable income (or deductions)
			2. Formula—=
			3. Useful in tax planning
		2. Average tax rate
			1. Definition—a taxpayer’s average level of taxation on each dollar of taxable income
			2. Formula—
			3. Useful in budgeting tax expenses or comparing the relative tax burdens of taxpayers
		3. Effective tax rate
			1. Definition—taxpayer’s average rate of taxation on each dollar of total income, including taxable *and* nontaxable income
			2. Formula—
			3. Provides the best depiction of a taxpayer’s tax burden
		4. Work example in the PowerPoint slides calculating tax liability, marginal, average, and effective tax rates.
	3. Tax rate structures
		1. Proportional tax rate structure
			1. Definition—also known as a flat tax, imposes a constant tax rate throughout the tax base
			2. As the tax base increases, the taxes paid increase proportionally.
			3. The marginal tax rate remains constant and equals the average tax rate across the tax base.
			4. The most common example of a proportional tax is a sales tax.
		2. Progressive tax rate structure
			1. Definition—imposes an increasing marginal tax rate as the tax base increases.
			2. As the tax base increases, both the marginal tax rate and the taxes paid increase.
			3. Common examples of progressive tax rate structures include federal and state income taxes and federal estate and gift taxes.
		3. Regressive tax rate structure
			1. Definition—imposes a decreasing marginal tax rate as the tax base increases.
			2. As the tax base increases, the taxes paid increase, but the marginal tax rate decreases.
			3. Regressive tax rate structures are not common. In the United States, only the Social Security tax employs a regressive tax rate structure.
		4. Discuss how different taxes can be viewed as having different rate structures when you consider effective tax rates versus marginal tax rates (e.g., the sales tax).
4. Types of Taxes
	1. Federal taxes
		1. Income tax: Imposed on individuals, corporations, estates, and trusts. The largest federal tax.
		2. Employment taxes: Employment taxes consist of the OASDI tax (Social Security tax) and the MHI tax (Medicare tax). The tax base for these taxes is wages or salary and employers and employees split these taxes equally. Self-employed individuals must pay these taxes in their entirety.
		3. Unemployment taxes: Employers are also required to pay federal and state unemployment taxes, which fund temporary unemployment benefits for individuals terminated from their jobs without cause.
		4. Excise taxes: A tax based on quantity of goods or services purchased. Common examples include taxes on alcohol, diesel fuel, gasoline, and tobacco products and on services such as telephone use and air transportation.
		5. Transfer taxes: The estate tax and gift taxes are based on the fair market values of wealth transfers upon death or by gift, respectively.
	2. State and local taxes
		1. Income tax: Most states impose an income tax. The calculation varies by state.
		2. Sales and use taxes: The tax base for a sales tax is the retail sales of goods and some services. Retailers collect and remit this tax. The tax base for the use tax is the retail price of goods owned, possessed, or consumed within a state that were *not* purchased within the state. The purpose of a use tax is to discourage taxpayers from buying goods out of state in order to avoid or minimize the sales tax in their home state.
		3. Property taxes: Assessed on the fair market value of real property and personal property. These are ad valorem taxes.
		4. Excise taxes
	3. Implicit taxes
		1. Indirect taxes that result from a tax advantage the government grants to certain transactions.
		2. Defined as the reduced before-tax return that a tax-favored asset produces because of its tax-advantaged status.
		3. Difficult to quantify but important to understand in evaluating the relative tax burdens of tax-advantaged investments.
		4. Walk through examples of implicit taxes in text.
5. Evaluating Alternative Tax Systems
	1. Sufficiency
		1. Involves assessing the aggregate size of the tax revenues that must be generated and making sure that the tax system provides these revenues.
		2. Static forecasting: Forecasting revenue ignores how taxpayers might alter their activities in response to a tax law change and to base projected tax revenues on the existing state of transactions.
		3. Dynamic forecasting: Forecasting that tries to predict possible responses by taxpayers to new tax laws.
		4. Income effect: As tax rates go up, people will work harder to maintain same after-tax income.
		5. Substitution effect: As tax rates go up, people will substitute nontaxable activities because the marginal value of taxable ones has decreased.
	2. Equity
		1. A tax system is considered fair or equitable if the tax is based on the taxpayer’s ability to pay.
		2. Horizontal equity: Two taxpayers in similar situations pay the same tax.
		3. Vertical equity: Taxpayers with greater ability to pay tax pay more tax relative to taxpayers with a lesser ability to pay tax. Vertical equity can be viewed in terms of tax dollars paid or tax rates. Vertical equity may also be evaluated using effective tax rates instead of simply considering the tax rate structure.
	3. Certainty
		1. Taxpayers should be able to determine when to pay the tax, where to pay the tax, and how to determine the tax.
	4. Convenience
		1. A tax system should be designed to be collected without undue hardship to the taxpayer.
	5. Economy
		1. A tax system should minimize the compliance and administration costs associated with the tax system.
		2. Can be viewed from the taxpayer’s and government’s perspective.
	6. Compare the income tax and sales tax using the equity, certainty, convenience, and economy criteria.
	7. Evaluating tax systems—the trade-off
		1. Much of the debate regarding alternative tax systems reduces to a choice between simplicity and fairness.
		2. Those taxes that generally are simpler and easier to administer are typically viewed as less fair. Those taxes that may be viewed as more fair are often more complex to administer.

**Class Activities**

**1. Suggested class activities**

* **Designing a tax system:** Tell students that the class has just seceded from the United States and needs to develop a tax system sufficient to generate $XX, XXX from the class members. Have the students break into groups of three to five to design a tax system. As part of this task, they are to evaluate the advantages and disadvantages of their tax. The group judged by the class to have the most advantageous tax system receives bonus participation points for the day.
* **What is fair?** Put two different tax systems in front of the class—one a proportional tax rate, one a progressive tax system. Poll the class by show of hands to determine which tax system each person views as being fairer. Either in groups or as a class, have the students discuss why they view a specific system as being fairer. After the discussion, poll the class by show of hands to determine if anyone has changed their view of which tax is fairer. Then discuss with the class that there is no right answer as to which system is fairer. Instead, the answer depends on a person’s individual views on fairness.
* **One versus the class:** Have one student volunteer as the “one” with the other class members being the “group.” Use the key facts boxes in the text to develop multiple-choice questions (A, B, C answers) and then quiz the volunteer and the class on the questions. The volunteer and each class member will need to write the letters A, B, and C on separate sheets of paper and then hold up their appropriate response to the question. Once a student (either the “one” or a member of the “group”) misses a question, he or she is eliminated from the competition. After six (or some other number) of questions, those students left standing receive bonus participation points for the day.
* **Discuss current tax policy topics:** Find a few recent articles discussing tax reform, the current income distribution, or the millionaire surtax. Post the articles so that students can read before class and ask a few questions to begin the class discussion.

**2. Research activities**

* Show the class the IRS website and some of the materials included in the website—e.g., publications, IRS forms, etc.
* Have students research the presidential candidates’ tax platforms and compare and contrast the likely changes to the Internal Revenue Code.