Chapter 2 The Business, Tax and Financial Environments

Homework Problems

2. The Loann Le Milling Company is going to purchase a new piece of testing equipment for $28,000 and a new machine for $53,000. The equipment falls in the three-year property class, and the machine is in the five-year class. What annual depreciation will the company be able to take on the two assets?

Recovery	**PROPERTY CLASS**			
Year	**3-year**	**5-year**	**7-year**	**10-year**
1	33.33%	20.00%	14.29%	10.00%
2	44.45	32.00	24.49	18.00
3	14.81	19.20	17.49	14.40
4	7.41	11.52	12.49	11.52
5		11.52	8.93	9.22
6		5.76	8.92	7.37
7			8.93	6.55
8			4.46	6.55
9				6.56
10				6.55
11				3.28
Totals	100.00%	100.00%	100.00%	100.00%

3. Tripex Consolidated Industries owns $1.5 million in 12 percent bonds of Solow Electric Company. It also owns 100,000 shares of preferred stock of Solow, which constitutes 10 percent of all outstanding Solow preferred shares. In the past year, Solow paid the stipulated interest on its bonds and dividends of $3 per share on its preferred stock. The marginal tax rate of Tripex is 34 percent. What taxes must Tripex pay on this interest and dividend income?

4. The Castle Cork Company was founded in 20X1 and had the following taxable income through 20X5:

20X1	20X2	20X3	20X4	20X5
$0	$35,000	$68,000	-$120,000	$52,000

Compute the corporate income tax refund in each year, assuming the graduated tax rates discussed in the chapter.

CORPORATE INCOME TAX

Corporate Taxable Income		Tax Rate	
At Least	But Less Than	(%)	Tax Calculation
$0	$50,000	15	.15 x (income over $0)
50,000	75,000	25	$7,500 + .25 x (income over 50,000)
75,000	100,000	34	13,750 + .34 x (income over 75,000)
100,000	335,000	39	22,250 + .39 x (income over 100,000)
335,000	10,000,000	34	113,900 + .34 x (income over 335,000)

10,000,000	15,000,000	35	3,400,000 + .35 x (income over 10,000,000)
15,000,000	18,333,333	38	5,150,000 + .38 x (income over 15,000,000)
18,333,333	--	35	6,416,667 + .35 x (income over 18,333,333)

5. Loquat Foods Company is able to borrow at an interest rate of 9 percent for one year. For the year, market participants expect 4 percent inflation.
   a. What approximate real rate of return does the lender expect? What is the inflation premium embodied in the nominal interest rate?
   b. If inflation proves to be 2 percent for the year, does the lender suffer? Does the borrower suffer? Why?
   c. If inflation proves to be 6 percent, who gains and who loses?