

15.501/516

Problem Set 6

Depreciation, Deferred Taxes, and Marketable Securities

1. Inferring Cash Flows from Depreciation Disclosures

The balance sheets of Wilcox Corporation at the beginning and end of the year contained the following data:

	Beginning of Year	End of Year
Property, Plant, and Equipment (at cost)	\$400,000	\$550,000
Accumulated Depreciation	<u>180,000</u>	<u>160,000</u>
Property, Plant, and Equipment (net)	<u>\$220,000</u>	<u>\$390,000</u>

During the year, Wilcox Corporation sold machinery and equipment at a gain of \$4,000. It purchased new machinery and equipment at a cost of \$230,000. Depreciation charges on machinery and equipment for the year amounted to \$50,000. Calculate the proceeds Wilcox Corporation received from the sale of the machinery and equipment.

2. Deferred Taxes

TJ Co. uses an accelerated method of depreciation for tax purposes and straight-line for financial reporting. In 1996, TJ purchased a new asset for \$2,000,000. For financial reporting purposes, it will depreciate this asset over 10 years to a salvage value of \$500,000. For tax purposes, the company will depreciate the asset over 4 years to a salvage value of zero using the following annual percentages of the acquisition cost: 33.33%, 44.45%, 14.81%, and 7.41%. Net income before taxes and taxable income are otherwise the same, equaling \$1,000,000 before depreciation in each year. The tax rate is 35%.

Required:

- Determine the amount of depreciation that will take place for financial reporting and tax purposes in each of the first 5 years. Use this information to compute earnings before taxes (EBT) and taxable income, respectively, in each year. (Note that EBT is reported in the firm's financial statements. Taxable income is reported in the firm's tax filings.)
- At the beginning of year 6, the asset is sold for \$1,000,000. Record the balance sheet equation effects of this transaction for financial statement purposes. Would the same amount of gain/loss be reported to tax authorities? Briefly explain.

3. Accounting treatment of trading and available for sale securities

Levy Company and Guyer Books made the same equity investment – 200 shares of Watson Manufacturing at a cost of \$12 per share – on November 18. On December 31, the market value of Watson had risen to \$45 per share. Guyer Books held its investment in Watson, while Levy sold the shares and immediately repurchased them at the December 31 market value.

Required:

- a. Compute the balance sheet value and income effect associated with these events recorded by the two companies, assuming that the investment was classified as trading and as available-for-sale. That is, fill in the following chart with the appropriate dollar values. Ignore taxes.

	Guyer Books		Levy Co.	
	Balance Sheet Value	Income Effect	Balance Sheet Value	Income Effect
Investment classified as:				
(i) Trading Securities				
(ii) Available-for-sale Securities				

- b. Briefly discuss the differences.

4. Applying the mark-to-market rule to investments in equity securities.

O'Leary Enterprises began investing in short-term equity securities in 1999. The following information was extracted from its 1999 internal financial records. Houser and Miller were classified as trading securities, while Nordic was classified as available-for-sale securities.

Security	Purchase	Sales	Total Dividends Received	12/31/99 Market Value Per share*
Houser Company	90 shares @ \$22	60 shares @ \$25	\$40	\$25
Miller, Inc.	180 shares @ \$40	90 shares @ \$30	85	35
Nordic Equipment	170 shares @ \$70	145 shares @ \$95	50	90

Required:

Using the balance sheet equation record all transactions and price changes in 1999. Assume a tax rate of 30%