

11. Analysis, Commitments, Alternative Financing Arrangements, Leases, and Fair Value Measurements

Careful analysis is essential in making judgments about an entity's financial health. One form of analysis is ratio analysis where certain key metrics are evaluated against one another. One such ratio is "debt to total assets." This ratio shows the percentage of total capitalization that is provided by the creditors of a business:

$$\text{Debt to Total Assets Ratio} = \text{Total Debt/Total Assets}$$

A related ratio would be "debt to equity" that divides total debt by total equity:

$$\text{Debt to Equity Ratio} = \text{Total Debt/Total Equity}$$

The debt to asset and debt to equity ratios are carefully monitored by investors, creditors, and analysts. The ratios are often seen as signs of financial strength when "small," or signs of vulnerability when "large." Of course, small and large are relative terms. Some industries, like the utilities, are inherently dependent on debt financing but may, nevertheless, be very healthy. On the other hand, some high-tech companies may have little or no debt but be seen as vulnerable due to their intangible assets with potentially fleeting value. In short, one must be careful to correctly interpret a company's debt related ratios. One must also be careful to recognize the signals and trends that may be revealed by careful monitoring of these ratios.

Another ratio is the "times interest earned ratio:"

$$\begin{aligned} &\text{Times Interest Earned Ratio} \\ &= \\ &\text{Income Before Income Taxes and Interest/Interest Charges} \end{aligned}$$

This ratio is intended to demonstrate how many times over the income of the company is capable of covering its unavoidable interest obligation. If this number is relatively small, it may signal that the company is on the verge of not generating sufficient operating results to cover its mandatory interest obligation.

There are numerous other ratios that can be described; in fact, many of these are covered in other chapters (along with mathematical illustrations). However, while ratio analysis is an important part of evaluating a company's financial health, one cannot be too careful or place undue reliance on any single evaluative measure. This will become quite apparent as you read the final concluding comments below.

11.1 Contractual Commitments and Alternative Financing Arrangements

A company may enter into a long-term agreement to buy a certain quantity of supplies from another company, agree to make periodic payments under a lease (or similar arrangement) for many years to come, agree to deliver products at fixed prices in the future, and so forth. There is effectively no limit or boundary on the nature of these commitments and agreements. Oftentimes, such situations do not result in a presently recorded obligation, but may give rise to an obligation in the future. This introduces a myriad of accounting issues that are beyond the scope of introductory accounting courses, but a few generalizations are in order. First, footnote disclosures are generally required for the aggregate amount of committed payments that must be made in the future (with a year by year breakdown). Second, changes in the value of such commitments may entail loss recognition when a company finds itself locked into a future transaction that will have negative economic effects (e.g., committing to buy oil at \$80 per barrel when the current price has declined to \$65). From these observations, one thing should be clear to you -- beware to not limit your evaluation of a company to just the numbers on the balance sheet, as significant other financial details are often found in notes to the financial statements.

11.2 Capital Leases

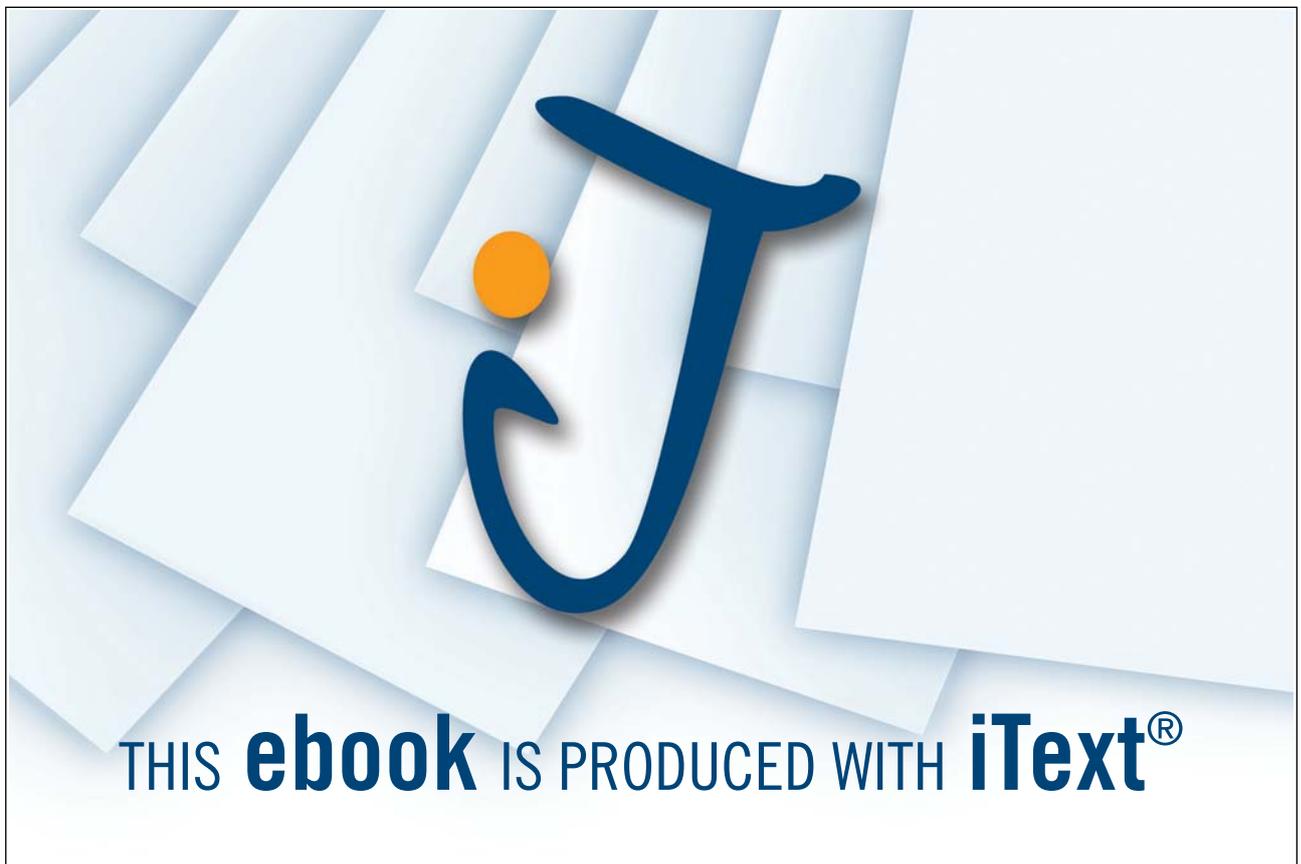
A previous chapter introduced the idea of a “capital lease.” Such transactions enable the lessee to acquire needed productive assets, not by outright purchase, but by leasing. The economic substance of capital leases, in sharp contrast to their legal form, is such that the lessee effectively assumes the risks and rewards of owning the asset. Further, the accompanying obligation for lease payments is akin to a note payable. That is, the lessee is under contract to make a stream of payments over time that substantively resembles the stream of payments that would have occurred had the lessee purchased the asset via a promissory note. Accounting rules attempt to track economic substance ahead of legal form. Thus, when an asset is acquired via a capital lease, the initial recording is to establish both the asset and related obligation on the lessee’s balance sheet.

Assume that equipment with a five-year life is leased on January 1, 20X1, and the lease agreement provides for 5 end-of-year lease payments of \$23,739.64 each. At the time the lease was initiated, the lessee’s incremental borrowing rate (the interest rate the lessee would have incurred on similar debt financing) is assumed to be 6%. The accountant would discount the stream of payments using the 6% interest rate and find that the present value of the fixed non cancelable lease payments is \$100,000. Therefore, the following entry would be necessary to record the lease:

1-1-X1	Equipment	100,000	
	Obligation Under Capital Lease		100,000
	<i>To record capital lease at present value of fixed noncancelable lease payments (\$23,739.64 X PV Factor of 4.21236)</i>		

After the initial recording, the accounting for the asset and obligation take separate paths. The asset is typically depreciated over the lease term (or useful life, depending on a variety of conditions). The depreciation method might be straight-line or an accelerated approach. Essentially, the leased asset is accounted for like any other owned asset of the company. The Obligation Under Capital Lease is accounted for like a note payable. In the above example, the amounts happen to correspond to the amounts illustrated for the mortgage note introduced earlier in the chapter. Therefore, the first lease payment would be accounted for as follows:

12-31-X1	Interest Expense	6,000.00	
	Obligation Under Capital Lease	17,739.64	
	Cash		23,739.64
	<i>To record first lease payment (interest portion = \$100,000 X 6%)</i>		



Notice that this entry results in recording interest expense - not rent. This scheme would be applied for each successive payment, until the final payment extinguishes the Obligation Under Capital Lease account. The accounting outcome is virtually identical (i.e., changing amounts of interest expense as the obligation is reduced over time) to that associated with the mortgage note illustrated earlier in the chapter.

11.3 The Fair Value Measurement Option

The Financial Accounting Standards Board recently issued a profound standard, “The Fair Value Option for Financial Assets and Financial Liabilities.” The title is quite revealing. Companies are now permitted, but not required, to measure certain financial liabilities at fair value. Changes in fair value can result from many factors, including market conditions pertaining to the overall interest rate environment. Entities that opt for this standard are to report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. This new standard is a profound shift in methodology, and has the potential to eventually reshape debt accounting. Because the new standard is “optional” and somewhat “controversial,” it is very difficult to predict its practical effect and eventual implications. However, it is indicative of a clear intent to embrace more fair value methodology into the overall accounting framework.