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Teuer Furniture (B): Multiples Valuation

GOAL

How it works/Example:
Let's assume that during the fourth quarter, Company XYZ reported net income of $4 million. During the same time frame, the company had a total of 10 million shares outstanding. In this particular case, the company's quarterly earnings per share (or EPS) would be $0.40, calculated as follows:
$4 million / 10 million shares = $0.40

EPS is a carefully scrutinized metric that is often used as a barometer to gauge a company's profitability per unit of shareholder ownership. As such, earnings per share is a key driver of share prices. It is also used as the denominator in the frequently cited P/E ratio.

EPS can be calculated via two different methods: basic and fully diluted. Fully diluted EPS -- whichfactors in the potentially dilutive effects of warrants, stock options and securities convertible intocommon stock -- is generally viewed as a more accurate measure and is more commonly cited.

EPS can be subdivided further according to the time period involved. Profitability can be assessed by prior (trailing) earnings, recent (current) earnings or projected future (forward) earnings. Though earning per share is widely considered to be the most popular method of quantifying a firm's profitability, it's important to remember that earnings themselves can often be susceptible to manipulation, accounting changes and restatements. For that reason, free cash flow is seen by some to be a more reliable indicator than EPS. Nevertheless, earnings per share remains the industry standard in determining corporate profitability for shareholders.

PRICE MULTIPLES

Price multiples are ratios of a stock's market price to some measure of value per share. A price multiple summarizes in a single number a valuation relationship to a familiar quantity such as earnings, sales, or book value per share.

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Drawbacks for each multiple are as follows:

Price-to-Earnings (P/E)
• Cannot be used for firms when they report a loss in earnings.
• Earnings can be volatile given various inputs.
• Earnings are more easily manipulated by managements.
Price-to-Book Value (P/BV)
• Does not take into account the relative asset size when comparing firms.
• Accounting metrics can skew the results.
• Book value is not an accurate measure of actual market value.
Price-to-Sales (P/S)
• Sales do not always translate to profits which can leave out the cost component.
• Difficult to value companies with different cost structures.
• Accounting issues related to revenue recognition can still alter sales.
Price-to- Cash Flow (P/CF)
• Some items are not included, such as non-cash revenue.

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- Good metric to value firms in distress.
- Can be used as a valuation metric when firms report a loss.

Price-to- Cash Flow (P/CF)

- Cash flow is a truer metric of a company's results in comparison to earnings.
- It is more difficult for managements to manipulate cash flow - tends to be less volatile than earnings.
- Studies have indicated that it is a reliable metric over the longer-term.

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In general, a price multiple ratio looks like this:
Price multiple = Price / Performance Metric

For example, Company XYZ has revenue of $20,000,000 per year. It has 1,000,000 shares outstanding. Today, the company’s stock price is $20 per share. Using the formula above, we can calculate Company XYZ's price-to-revenue multiple:

Revenue multiple = $20 / ($20,000,000/1,000,000) = 1.0

In Company XYZ’s industry, most companies trade at or below a 0.80 multiple, implying that Company XYZ is overvalued.

POPULAR PRICE MULTIPLES

Price-to-earnings ratio (P/E)	• Stock price ÷ earnings per share
Price-to-book ratio (P/B)	• Stock price ÷ book value per share
Price-to-sales ratio (P/S)	• Stock price ÷ sales per share
Price-to-cash flow ratio (P/CF)	• Stock price ÷ cash flow per share

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P/E ratio

The P/E ratio of a stock is a measure of the price paid for a share relative to the annual net income or profit earned by the company per share.

P/E ratio Calculation

The P/E ratio calculation formula is as following:
P/E ratio = Price per share / Annual earnings per share

Example

Stock A is trading at $100 and the earnings per share for the most recent 12 month period is $5 then stock A has a P/E ratio of 20 (100 / 5).

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Price-to-book ratio

The price-to-book ratio measures a company's market price in relation to its book value. The ratio denotes how much equity investors are paying for each dollar in net assets.

How it works/Example:

There are a couple ways to calculate book value, depending on the company. For purposes of this example, we'll assume that the best measure of book value is Total Assets - Total Liabilities. We'll also assume that the stock of Company XYZ is trading at $6 per share and there are 100 shares outstanding.

Balance Sheet for Company XYZ
Year ending December 31, 2009

Assets	
Cash	1,000
Accounts Receivable	500
Inventory	500
Total Current Assets	**2,000**
Liabilities	
Accounts Payable	500
Current Long-Term Debt	500
Total Current Liabilities	**1,000**
Long Term Debt	500
Total Liabilities	**1,500**
Owners' Equity	**500**

P/B ratio = Stock Price / Book Value per share
Book value: 2,000 - 1,500 = 500 (note that this is the same as owners' equity)
Book value per share: 500 / 100 = $5
P/B ratio = $6 / $5 = 1.2
A P/B ratio of less than 1.0 can indicate that a stock is undervalued, while a ratio of greater than 1.0 may indicate that a stock is overvalued.
Please note that it is not always reasonable to calculate book value as Total Assets - Total Liabilities. Depending on the company's balance sheet, it might make sense to subtract intangible assets,goodwill, and/or preferred stock from the appropriate sections of the balance sheet.

Price-to-sales ratio

The price-to-sales ratio helps determine a stock's relative valuation.
The formula to calculate the P/S ratio is:
P/S Ratio = Price Per Share / Annual Net Sales Per Share

How it works/Example:

Let's assume Company XYZ reports net sales of $5,000,000 and it currently has 500,000 shares outstanding. The stock is currently trading at $20.
Sales per Share = (5,000,000/500,000) = 10
Price-to-Sales Ratio = 20/10 = 2
Now we want to compare XYZ to one of its competitors, Company ABC.
ABC also reports net sales of $5,000,000 and it also has 500,000 shares outstanding. The stock is trading at $100.
Sales per Share = (5,000,000/500,000) = 10
Price-to-Sales Ratio = 10/10 = 10

Investors in ABC are willing to pay $10 for $1 in sales, while investors in XYZ are willing to only pay $2 for $1 in sales. Any number of scenarios could explain this discrepancy, so it's important to know what makes ABC stock so much more appealing. If you can't find a good reason, perhaps stock XYZ isundervalued, and represents a good bargain.