# **Calculating the Real Value of High-Tech Companies**

## By Jay Hollander

**Summary:** Dramatic fluctuations in the stock prices of Internet companies have been common. As a result, it's often very difficult to determine the real value of those companies. This article explains some of the problematic accounting practices and other issues behind valuing high-tech companies.

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## Introduction

Ask most stock market investors with a stake in a once high-flying tech company what the biggest problem with their portfolio is and you'll hear the same basic laments about valuations getting ahead of themselves. Maybe you'll hear about stocks with great growth potential being unfairly hit hard by forecasts of a slowing economy.

What you won't typically hear is that maybe the companies' valuations were based on earnings that weren't quite what the companies, the media or the analysts reported them to be.

How could that be, you ask? How many ways are there to report income and earnings? You'd be surprised.

Increasing use of certain accounting practices by many companies, particularly hightech, new-economy companies, can result in sales and earnings figures that are easily mistaken by investors and can even be considered inaccurate as real measures of company performance.

Just look at how wildly the prices of certain stocks have gyrated over the last year, depending only on differences of a penny or two in reported earnings. When every penny in earnings counts, our grandmothers' warnings to count our pennies take on a whole new meaning and now require that we look more closely at how tech company earnings are calculated.

Clearly, this article is no substitute for a course in accounting, nor is it any attempt to impugn the reputation of any company in particular. It should, however, give you some exposure to some of the more common ways that carefully chosen accounting practices affect a company's reported sales and earnings and, as a result, that company's stock price.

#### Problem with Booking Revenue: Price-to-Sales Ratio

Because some of these practices have recently begun to receive attention with respect to new-economy companies, let's start with an example that has been closely linked with them, particularly, the dot-com middleman and auction-site companies. These companies make their money by serving as middlemen for makers and owners of products or services, taking a cut out of every transaction that is processed over their site. As such, their only true income is the commission they make in the transaction.

What's more, because many of these companies have not been profitable, their stock valuation has been measured by comparing their stock price to their actual revenues or sales, resulting in a price-to-sales ratio, a ratio allowing the reasonableness of the stock price to be compared to similar companies whose stock prices were also measured as a multiple of their reported sales.

The problem is that many of these companies have been acting, for accounting purposes, as if they were the makers of the products or services, and not just as brokers or commission-based transaction facilitators.

Acting this way, they booked the costs of goods they didn't make and services they didn't perform, while booking the sales prices of the goods or services as their revenue. They have done this even though the only real sales revenue kept by them was the commission and even though their true cost of goods was minimal, if anything.

Because unprofitable companies like these didn't have earnings, merely showing a sharp rise in the dollar value of sales was enough to drive the stock price up dramatically, without investors realizing that only a fraction of these amounts actually resulted in cash to the company.

If these companies only reflected their commission revenues as their sales, the numbers would obviously be different and the price-to-sales valuation of the stock would be adversely affected.

#### **Problem with Booking Revenue: Advertising**

Many other new economy companies have relied on advertising for the majority -- or all -- of their income, mostly in exchange for the now ubiquitous banner ad. Many investors have had no idea that the dollar amounts these companies were booking as revenues were not cash revenues but, instead, barter revenues, that is, revenues that don't involve cash.

So, an online company could make a deal with an offline company to exchange online advertising for some other good or service, even offline advertising itself, essentially trading exposure in different environments. In such a trade, companies have reported the perceived value of the advertising as revenue. This lack of cash revenue has allowed the companies to report only the perceived market value of goods or services, arguably without adequate proof of the reasonableness of the number.

This trend raises important difficulties.

Because customers traditionally pay cash for advertising, attributing a hard and fast value to any particular advertising leaves a lot of wiggle room when no cash is actually paid. While advertising barter is not unique to online companies, its pervasiveness in the new economy dwarfs what existed before the dot-com explosion, increasing the impact of any reporting inaccuracies many fold.

Second, because the real cost or price of advertising varies dramatically based on volume discounts and the willingness of a company to actually pay cash in exchange for it, the potential for distortion of revenue figures also increases.

Even though recently effective accounting standards have been put in place to require comparable value cash transactions to justify attributed value, these two difficulties conspire to call into question the accuracy of claimed non-cash revenues, that, nevertheless, have been used to buoy the sales numbers and, where available, the earnings number of many online companies, materially impacting their stock price.

# **Character of Income**

Lest you think that valuation-related accounting practice problems are unique to dotcom companies, let's look at some problems that affect a wider range of high-tech companies.

One such problem involves the impact of "investment" income on a company's bottom line. As the technology bull market of the late 1990s rumbled on, even successful technology companies themselves took notice of the phenomenal gains to be made by direct early-stage investment in the stock of other potential high-flyer tech companies. Over the last few years, the number and dollar amounts of investment by existing technology companies in others has mattered a great deal to the "earnings" of the companies doing the investing.

Under traditional accounting methods, investment income is supposed to be separately accounted for and is not supposed to be included in a company's core business earnings. The principle behind this is pretty straightforward, as income from selling a profitable investment doesn't say much about how a company's business is growing. Nor is it a reliable indicator of future earnings since such income can be a one-time event.

Yet, more and more, even well-established technology companies began to take the position that such investments weren't tangential investments but were strategic investments that should be counted as part of their operations or core earnings.

While there is a difference of opinion in accounting and financial circles on this issue, the conclusion makes a difference because including such one-time investment gains in operational income ratchets up earnings and estimates of future earnings for reasons not necessarily attributable to the actual health of the company's business.

## **Dilution Issues**

New economy or old economy, no company can figure out its "P/E," or price-toearnings ratio without two numbers other than the stock's current price: the company's earnings and the amount of shares outstanding. Dividing the first number by the second gives you the earnings per share number that is used to calculate the P/E, the fabled barometer of corporate stock value.

For high-tech companies in particular, though, the number of shares of stock outstanding can be skewed because of something that has been one of the main catalysts of the technology economy: stock options.

High-tech companies have largely grown on the strength of employees who traded large parts of their cash income for stock options, a vehicle where an employee is given the right to buy a certain number of shares of stock at a certain "strike" price for a certain period of time. The employee hopes that the price of the stock will rise over time and allow a profit equal to the difference between the strike price and the stock's fair market price at the time the options are cashed in or "exercised." To be sure, options have benefits for the issuing companies since they allow companies to spend less cash on payroll and, in some cases, give the company a tax deduction when the employees exercise them. Options can also be potentially valuable to the employees if and when they become profitable.

But the problem for investors is this: Because earnings per share are calculated based on the number of shares outstanding, failing to count the shares indirectly represented by options really gives only a partial view of earnings per share. If these options were cashed in, the shares represented by them would be included in the division leading to the P/E ratio. In other words, these options are really dilutive of corporate earnings per share because, ultimately, the earnings will have to be divided among the optioned shares when the options are exercised. Simply put, the greater the number of shares, the less the earnings per share.

While there is an accounting category for "diluted" earnings per share that takes factors like this into account, this is not the earnings number that companies publicize when their earnings are reported and such diluted earnings numbers are not readily available to most investors unless they studiously peruse the company's public filings for the number of outstanding options, the company's total earnings and outstanding shares, and then do the math themselves.

## The Evaporating "Goodwill" Expense

Now comes the real kicker.

Leaving aside the market value of a company's stock, every company values its hard brick and mortar assets by what's called its "book value," equal to the cost of the assets minus any applicable depreciation. This method is used to value office equipment, automobiles, real estate and other hard, tangible assets.

Yet companies, particularly high-tech companies, spend fortunes developing their "intangible" assets, things such as their brand or reputation, and the value of their intellectual property in things such as trademarks, software, etc. These intangible assets acquire a value over and above the cost spent to create them because of their popularity or public recognition and all of this accumulated positive value is lumped together under the category of "goodwill."

By some estimates, companies today invest more in intangible assets falling under the category of goodwill than they do in old-fashioned brick-and-mortar assets.

When companies merge or are acquired, goodwill, therefore, represents a sizable portion of the acquired company's assets -- sometimes the biggest portion. Yet, certain accounting practices have allowed companies to ignore the true acquisition cost of these goodwill assets.

This scenario usually unfolds in the context of high-tech corporate acquisitions where one company is acquired without cash, solely in exchange for stock in the acquiring company. To the extent that the assets of the acquired company include potentially expensive goodwill, the acquiring company can currently choose to handle the acquisition in one of two ways, either under the "purchase method" or as a "pooling of interests."

Under the purchase method, the amount of the purchase allocated to the acquired company's goodwill is amortized by the acquiring company over several years as a

non-cash expense, much like depreciation. Such an expense, obviously, decreases the company's earnings during the amortization period.

But, an accounting practice called a "pooling of interests" permits the cost of goodwill to be ignored in an acquisition on the theory that the assets and liabilities of the two companies are merely being merged with no resulting goodwill created.

This perfectly legal accounting method allows acquiring companies to avoid the goodwill expense and avoid the otherwise resulting decrease to their earnings, arguably avoiding a fair assessment of the true cost of the acquisition.

Revised standards, implemented by the Financial Accounting Standards Board -- an independent organization that determines standards for accounting and financial reporting -- had called for the elimination of the pooling method in mid-2001. This would have meant that companies that have met or beaten their earnings estimates based upon income from acquired companies, unhampered by the cost of acquired goodwill, would be forced to recognize this cost, a cost that could have potentially proven devastating to stock prices of companies that otherwise narrowly beat estimates if accurately reported.

As recently reported in The Wall Street Journal, however, intense pressure from the large high-tech companies benefiting from this practice, as well as sympathetic congressional representatives, has resulted in a sudden backing away from the original version of the new requirement, instead allowing the practice to largely continue and highlighting the importance of the issue to investors.

### Conclusion

So, what's a poor, ordinary investor to do?

First and foremost, be careful not to blindly accept analysts' opinions or summary reports of earnings rattled off by the media until you know what's really being measured.

Recognize that earnings can be stated in a variety of ways, including or excluding categories of revenue and expenses that materially affect real core earnings and investigate accordingly.

Seek out company public filings to get the types of information, discussed here, that are often glossed over or ignored in mainstream financial reporting.

Changing accounting standards, combined with increasing investor awareness and increased scrutiny and reporting by the financial analysis and reporting sectors may yet translate into differences of pennies that will be worth untold dollars in the stock market.