

## Buying & Selling

### BUSINESS VALUATION

*De-mystifying Risk and the Earnings Multiple For Both Buyers and Sellers*

**By Dexter W. Braff**

**Buyers are buying. Sellers are selling.** Millions of dollars are riding on each transaction. Amidst this frenetic merger and acquisition activity, home care company owners are engaged in their own frenzy over the multiples commonly used to determine the value of a home care company.

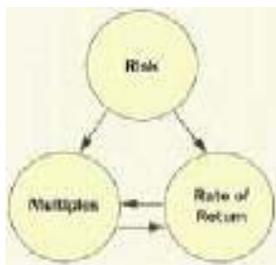
When asked the range of earnings multiples being paid for home care companies today, most suppliers answer three to five times earnings. This reflects what has become conventional wisdom in such valuations. Unfortunately, like most conventional wisdom, the approach is too simple.

First, the range is so broad that it provides little insight into the "real" value of a firm. A multiple of five is 67 percent greater than a multiple of three. Additionally, it is difficult to determine where a company falls within this range. Simply choosing the midpoint -- a multiple of four -- might be expedient but can be completely wrong.

Most importantly, the earnings number is undefined. Suppliers can define earnings as after-tax net income, pretax income, gross cash flow, net free cash flow or owner's discretionary cash. Each of these is an appropriate measure. But when applied to the aforementioned three to five times earnings, each measure yields substantially different value indications.

#### **Risk, Multiples, and Required Rate of Return.**

So how should a company develop an appropriate earnings multiple? Contrary to popular opinion, buyers generally do not use the grab-it-out-of-the-air approach. Earnings multiples are buried in the relationship among risk, multiples, and required rate of return. Unfortunately, the operative word here is buried. The links among these concepts hold the key to the earnings multiple.



**Risk and Multiples.** Perhaps the most intuitive and well-understood concept is the relationship between risk and multiples. For example, home care companies A and B are identical in almost every respect. They are located across the street from one another, they have identical product mixes and generate the same revenue, pretax earnings and cash flow. Company A derives its referrals from 25 different sources, including hospitals, physician groups, nursing homes and home health agencies. Company B, on the other hand, gets them from one hospital, whose discharge planner happens to be the owner's spouse. Which company would sell for a higher price?

With all the referrals coming from one source, one who is directly related to the principal of the firm, company B is substantially more risky than A and would therefore merit a substantially lower multiple and fair market value.

Consider another example. Taking home care companies A and B above, assume again that they are identical in nearly all respects, including diversity of referrals. However, company A has strong middle management, compared with company B, which is controlled by the principal of the firm. If the principal of company B left the firm, the organization might be in trouble. Without strong middle management, company B is again substantially more risky than A, and would therefore merit a substantially lower multiple and fair market value.

Though the companies appear to be the same on the surface, an examination of key factors, such as referral source diversity and management strength, reveals vastly different risk profiles. This, in turn, has a profound impact on multiples and value.

Risk and Required Rate of Return. Now that the relationship between risk and multiples has been established, the risk must be quantified so that it can be reflected in a multiple. The key lies in understanding the relationship between risk and required rate of return. Although the concepts sound intimidating, most suppliers probably already have an intuitive sense of what they mean.

First, the required rate of return means the total return a buyer demands on an investment, given the risk of that investment. If a buyer pays \$1 million for a company that generates \$100,000 in after-tax income, what is the rate of return? Assuming no future growth in earnings, if the expected earnings are divided by the purchase price ( $\$100,000/\$1,000,000$ ), the after-tax rate of return is 10 percent. That is, an investment of \$1 million is expected to yield a return of 10 percent or \$100,000.

What if the same buyer buys a similar company with the same earnings, but is only willing to pay \$500,000 because its risk profile is substantially higher? The expected rate of return is determined by dividing the expected earnings by the purchase price ( $\$100,000/\$500,000$ ), yielding an after-tax rate of return of 20 percent.

These examples demonstrate that the greater the risk of an investment, the higher the required rate of return. That is why a 6 percent return on a risk-free 30-year treasury bill is okay, but investors would demand a far higher return for pork bellies.

Remember that high risk is reflected in lower multiples. But before the link between risk and required rate of return was established, the risk could not be quantified to use in determining multiples. The next link shows how this risk, as measured in required rate of return, can be incorporated in an earnings multiple.

**Multiples and Required Rate of Return.** To understand this relationship, consider the previous examples. In each case, by dividing the purchase price by expected earnings, we calculate multiples of ten and five, respectively. An interesting concept emerges. The rate of return was calculated by dividing earnings by price. Multiples are calculated by dividing price by earnings. The formulas in each case are simply reversed; that is, one is the inverse of the other.

In fact, assuming no growth in earnings, multiples are the inverse of rates of return. Look at our examples again. The inverse of a 10 percent rate of return is  $1/.10$  or a multiple of ten. Similarly, the inverse of a 20 percent rate of return is  $1/.20$  or a multiple of five.

What can we conclude from these relationships? To develop an appropriate earnings multiple, it is important to understand the risk profile of the firm. Since rate of return is a measure of risk and is also directly related to the earnings multiple, the last step in developing an appropriate earnings multiple is to determine a reasonable rate of return for the home care company in question. Once that rate of return is identified, assuming no growth in earnings, its inverse can be used to determine the multiple.

**Factoring in Business Growth.** Up to this point, to simplify our discussion, we have assumed no future earnings growth. From a practical standpoint, given the pricing pressures expected under health care reform, this might not be a bad assumption. But clearly, high growth is valuable and should be reflected in the multiple. This is why, for a given level of earnings and risk, buyers might pay more for growing companies compared with stable ones.

Accordingly, in moderate- to high- growth companies, multiples should be adjusted upward to reflect the increased value to a buyer. Table 1 summarizes the relationship among, risk, multiples, rate of return and value.

	High Risk	Low Risk
Multiples	Low	High
Investor Required Rate of Return	High	Low
Value	Low	High

**Identifying Appropriate Rates of Return.** Companies identify an appropriate rate of return by comparing the risk of an investment in a home care business with other investment alternatives available on the market. Which is more risky-an investment in a home care company or an investment in a certificate of deposit offering a 5 percent rate of return? Clearly, a federally insured bank CD is less risky, so the required rate of return for an average home care firm is greater than 5 percent.

Now compare an investment in the average home care firm with a well-diversified mutual fund that has historically generated a 12 percent rate of return. Given the volatility of home care and its lack of diversity compared with a mutual fund, an investment in the home care firm is probably more risky. Therefore it would require a rate of return greater than 12 percent.

The object of this is to identify investment opportunities available in the market that have similar risk profiles to the company for sale. Then the underlying rate of return on these investments can be used to calculate an appropriate multiple. This multiple can then be applied to the appropriate earnings measure to assess fair market value.

Once appropriate rates of return and multiples are determined, they must be applied to the appropriate measure of earnings. For example, after-tax rates of return and multiples should be applied to after-tax earnings. Applying an after-tax multiple to a pre-tax earnings measure can substantially inflate value.

Identifying comparable investments and their associated rates of return is not easy. However, clues can be found in the marketplace. For example, among other proxies for rates of return, appraisers look at price-earnings ratios for similar publicly held corporations, long-term rates of return for small company stocks, various stock index returns and comparable acquisition transactions.

Essentially, the multiple must reflect a rate of return that is commensurate with the risk of the investment.

<b>TABLE 2</b>	
<b>HOME CARE SPECIFIC DETERMINANTS OF RISK</b>	
<b>FACTOR</b>	<b>IMPACT</b>
Referral Source Diversity	The more diverse the referrals, the more predictable the revenue stream
Middle Management Strength	The less the firm's success is contingent upon the owner, the greater the likelihood of continued success if the owner departs
Current Business Trends	Stable or growing businesses are less risky than those in decline
Competition	The fewer the competitors, the more predictable the revenue stream
Payor Mix	The greater the diversity of payors, the less a change in reimbursement from one payor will impact the firm
Product and Service Mix	The greater the oxygen and other non-capped rental items (HME companies), or the greater the diversity of products and services (IV therapy and home nursing providers), the more predictable the revenue stream
Accounts Receivable Mgmt.	The lower the bad debt and days sales outstanding, the more reliable and predictable the cash flow
Regulatory Environment	The more hostile the regulatory environment, the greater the volatility in reimbursement

**Comparing Fair Market Value with Investment Value.** In general, earnings multiples are used to assess fair market value. This is the price for which the firm would change hands between a willing buyer and a willing seller, both being adequately informed of the relevant facts and neither being compelled to buy or sell. Fair market value is not always the best price possible, but it is a measure of value for the marketplace as a whole. It does not factor in the value a specific buyer might be willing to pay for a specific seller for various strategic reasons.

For example, a buyer looking to establish a presence in a geographic area to meet the needs of a managed care provider may be willing to pay a substantial premium for a firm serving that area. In this and other cases, the buyer's investment value might be substantially higher than fair market value. Therefore, the seller's 11th commandment should be "Know thy buyer".

Furthermore, too often sellers get so caught up in pricing their firms that they forget about the importance of deal structure. Acquisitions are often financed with non-cash remuneration including stock, notes, earn outs, and employment agreements. Non-cash remuneration generally carries some level of risk, and therefore should be discounted to reflect its true value to the seller (see "When Fair Market Value Isn't Fair"; HomeCare Magazine, January 1994 for further information on this topic).

In addition, sellers often fail to consider their own business, personal, and financial goals when evaluating purchase offers. For example, if a seller does not need immediate access to cash, a transaction including substantial stock can be attractive

because it might qualify for tax deferred treatment. On the other hand, if a seller needs cash to invest in a new business opportunity, a stock transaction, regardless of its total value, might not be appropriate.

Suppliers need to be careful when preparing a business for sale. The determination of an earnings multiple is only a small component of the selling process. Prudent sellers develop a comprehensive pricing strategy that takes into consideration a host of other factors. Only then can sellers truly get the best value for their firms.

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