

Private Company Valuation

What are the unique issues involved in valuing closely held companies?

Introduction

There are a number of important differences between public and private companies that are critical to the valuation process. These differences may result in private companies that have very different costs of capital, valuation multiples and credit rating than their public company counterparts.

For example, Wal-Mart Stores Inc. is a very large public company which operates in the discount/variety retailing industry. As of the date of this article, the enterprise value to EBITDA (trailing-twelve-months) ratio for Wal-Mart is about ten. When valuing a private company, say a five-store retail chain, it would certainly not make sense to apply Wal-Mart's EV to EBITDA ratio to the private company. In this case, the private company's valuation multiple may be as much as 50% smaller than Wal-Mart's multiple.

A number of factors account for this difference. In general, the key factors impacting a valuation multiple are the growth rate of the underlying cash flows and the cost of capital. The cost of capital is a reflection of the risk of these cash flows – both the business risk of the operating cash flows and the financial risk of the capital structure.

In our example, Wal-Mart has generated an average annual growth rate of about 14% over the last five years. For purposes of simplicity, we assume that our small private retailer expects to grow at a similar rate as Wal-Mart into the future. Then the primary difference between the valuations of Wal-Mart and our private company is the risk.

Company Size

There are many reasons why the business risks of a private company are higher than the risks of a public firm. Size alone can be a major factor when comparing the risks for different companies, whether public or private. Investors generally attribute a greater amount of risk to smaller companies due to many factors, including lack of market clout, more limited access to debt and equity capital, less public awareness, key person issues and a host of other factors discussed below.

Economies of Scale. Economies of scale help to reduce the risk of larger companies. Scale economies may be realized at the level of revenues, cost of goods sold and SG&A expenses. At the revenue level, larger operations can enable a company to create a brand identity in an industry in which a dominant brand does not exist. At the cost of goods sold level, cost savings may be realized by the greater purchasing power of a larger organization. For instance, funeral services consolidations have saved money by obtaining volume discounts on caskets and flowers. Perhaps the most common form of economies of scale is at the

expense level when a larger company is able to spread its fixed SG&A expenses across a greater volume of sales. For example, in the health-care sector, the costs of leasing space, regulatory expertise, phone systems and insurance can be shared across several practices. In addition, an important scale benefit, especially for service businesses, is the opportunity to leverage advanced information technology systems. For instance, the temporary help industry is able to use IT to consolidate data entry, billing, hiring and resume searching.

Diversification. Small companies are almost by definition more concentrated in terms of products, number of customers, number of suppliers and geography. In effect, they lack some elements of diversification that can benefit larger companies. To the extent that markets and regional economies change, a broader scope of business provides protection for larger companies.

Financial Synergies. Larger public companies benefit from at least two types of financial synergies due to their size. First, these companies can attract less expensive sources of capital. Second, and perhaps more important, larger companies have greater access to capital. Public companies, which are followed closely by analysts and investors, generally have a much easier time attracting debt and equity capital from many different markets than does a private company.

In the case of very small companies, the lack of financial flexibility contributes largely to their higher risk profile. Adverse developments that would simply be a setback for companies with greater resources could mark the end of companies with limited access to funds.

Competitive Position. The size of a company is often strongly related to the competitive position and the market clout of the company. Of course, small companies can also develop a dominant market position, but this is less common. Larger companies may have the benefit of a broad product line or a global marketing structure which facilitates a competitive advantage. The size advantage can be especially pronounced in industries with a dominant player in a fragmented industry.

Management Issues. Another important difference between many private and public companies relates to key person risk. Unlike larger companies which may have a greater depth of management, the small or mid-sized private company is often dependent upon one or several key leaders to drive the success of the firm. The leader is often the original founder who has long personal relationships with key customers and key suppliers. The entire value of the firm, at least in the short run, may rest upon the shoulders of this individual.

Conversely, the founder can sometimes become the problem. For example, a rapidly growing business may evolve beyond the founder's capability to effectively manage the enterprise. Or, alternatively, a control-minded founder may inhibit the growth of an enterprise due a failure to delegate important tasks.

Valuation Issues

As a result of these factors, the valuation of smaller, private companies may require a number of adjustments to the usual tools and techniques. Depending upon the use of the valuation and the future strategy of the company, a private company valuation may require:

- The addition of a “Size Premium” to the cost of equity;
- An increase in the beta to reflect a non-diversified investor base; and
- An adjustment to the equity value as a result of minority and marketability discounts.

Size Premium. The cost of equity for a private company is usually based upon an analysis of the cost of equity of comparable public companies. The problem is that the comparable public companies are often much larger than the private company. Thus, the private company is expected to have more risk, a higher beta and generally a higher cost of equity. In effect, the public comparables are not perfect comparables, but they are the best available.

In order to compensate for this difference, a size premium of 3% to 6% is often added to a small company’s cost of equity, when it is derived from a comparison to larger firms.

The amount of the size premium is not arbitrary, but has been verified by detailed statistical studies of large and small publicly traded companies. Historically, small capitalization stocks have had both greater risk and greater returns than large capitalization stocks. Several studies have measured the small stock return premium using data as far back as 1926. The studies analyzed the returns from three groups of stocks: (i) Large capitalization stocks as represented by the S&P 500; (ii) Micro capitalization stocks as represented by the smallest 20% of the stocks on the New York Stock Exchange; and (iii) Very small stocks as represented by the smallest 10% of the stocks on the NYSE.

The studies found that the Micro-caps required a size premium over the Large-caps of 3.47%. Similarly, very small companies (the “tenth decile”) required a size premium of about 5.78% over the Large-caps.

Non-Diversification Premium. A fundamental tenet of the Capital Asset Pricing Model (CAPM) is that the marginal investor in equity is a well-diversified investor. Accordingly, the CAPM investor who sets prices for investments is only concerned with market risk, since specific company risk can be eliminated through diversification. The beta and cost of capital calculations are based upon this assumption.

While most investors in public shares hold diversified portfolios, this assumption is much more questionable when it comes to private company shares, particularly those of smaller companies. The typical buyer of a private company often ties up much or all of his net worth in the business and may also guarantee substantial bank debt. Therefore, not only is the individual exposed to market risk, but he is also unable to diversify away specific company risk with a portfolio of only one company. Consequently, the private company owner cares about the total risk in the business rather than just the market risk.

There are three ways to estimate the cost of equity for a private firm with undiversified owners:

- 1) Assume that the company has the near term objective of selling to a larger public company or taking its own shares public through an IPO. In this case, it makes sense to use the market beta and cost of equity.
- 2) Add a premium to the cost of equity to reflect the higher risk created by the owner's inability to diversify. (This may help explain the high returns some venture capitalists demand on their small company investments.)
- 3) For the mathematically inclined, adjust the beta to reflect total risk rather than market risk. While technically sophisticated, this adjustment is a relatively simple one since the R squared statistic measures the proportion of risk that is market risk.

$$\text{Total Beta} = \text{Market Beta} / \sqrt{\text{R Squared}}$$

For example, assume that our private retailer, Company X, had a market beta of 1.0 which was calculated from a list of comparable public companies. Also, assume that the average R Squared statistic from the beta regressions of the public companies was 25%. Then the total beta for Company X would be 2.0.

Marketability and Minority Discounts. A primary difference between public and private companies is that public company shares are easily marketable while private company shares are relatively illiquid. It is generally accepted that marketability has value and that stocks lacking marketability are worth less than marketable shares. Depending upon the purpose of the valuation, a "marketability discount" is sometimes deducted from the controlling interest public value calculation. The size of the discount is subject to many factors which are beyond the scope of this article. However, discounts in excess of 30% have been justified by: (i) calculating value differences between restricted stock and freely trading stock; (ii) considering the time and expenses of a public offering; (iii) comparing the transaction value of company stock before and after an IPO; and (iv) using option pricing theory.

Similarly, a further deduction from the valuation is made if the amount of shares being sold is less than a controlling interest – i.e., a "minority discount" is applied. Clearly, control confers value. Controlling shareholders may determine the nature of the business; select management; enter into contracts; buy, sell, and pledge assets; borrow money; issue and repurchase stock; register stock for public offering; liquidate, sell, or merge the company; and importantly can set management compensation. Minority shareholders are subject to the whim of the controlling shareholders on these decisions. The size of the minority discount, which is generally viewed in combination with the marketability discount, can add another 10% to 20% to the total discount and is related to the relative power of the shareholders and the shareholder composition, among other factors.

Credit Rating Issues

A common tool for developing an independent view of the credit quality of private companies is the financial ratio matrices published by Standard and Poors. These charts show the key industrial financial ratios – a three-year median – for each of the different rating categories between AAA and CCC. By comparing a private company’s financial ratios to the S&P charts, it is possible to develop an implied “credit rating” for the firm.

However, this analysis must be done very carefully and tempered with a great deal of professional judgment. In fact, a ratings analysis based solely upon financial ratios – a financial risk assessment – can often produce very misleading results. This is because the financial analysis only represents a portion of the ratings process. The remainder of the ratings process is a business analysis which attempts to understand the business risks of the company. For example, two companies with identical financial metrics may be rated very differently, to the extent that their business challenges and prospects differ.

Exhibit 1 is a table published by S&P which demonstrates this point. Part One of the table shows the financial risk ratios for industrial companies at five different levels of financial risk. Part Two illustrates the relationship of business and financial risk profiles to a company’s credit rating.

Exhibit 1 – Relationship between Credit Ratings, Business Risk and Financial Risk

Part One: Financial Risk Indicative Ratios *

Financial Risk Indicative Ratios	Financial Risk Profile				
	Minimal	Modest	Intermediate	Aggressive	Highly Leveraged
Cash Flow Measure Funds from Operations/Debt (%)	Over 60%	45-60%	30-45%	15-30%	Below 15%
Debt Leverage Total Debt/Capital (%)	Below 25%	25-35%	35-45%	45-55%	Over 55%

Part Two: Business Risk / Financial Risk

Business Risk Profile	Financial Risk Profile				
	Minimal	Modest	Intermediate	Aggressive	Highly Leveraged
Excellent	AAA	AA	A	BBB	BB
Strong	AA	A	A-	BBB-	BB-
Satisfactory	A	BBB+	BBB	BB+	B+
Weak	BBB	BBB-	BB+	BB-	B
Vulnerable	BB	B+	B+	B	B-

* Fully adjusted, historically demonstrated and expected to continue
Source: Standard and Poors

For example, Company X may have a “Satisfactory” business risk profile based upon a thorough business analysis. In addition, the company may have a cash flow to debt ratio of 35% and a debt leverage ratio of 40%, indicating an “Intermediate” financial risk profile (again confirmed through a thorough financial analysis). As a result, Company X may achieve a BBB rating.

Looking at the “Satisfactory” row in Part Two of Exhibit 1, Company X has three alternative actions. First, the company may choose to maintain its BBB rating by preserving the status quo. Second, the company may aspire to an A rating which will require reducing its debt to a level that will produce a cash flow ratio greater than 60% and a debt leverage ratio less than 25%. Third, the company may become more financially aggressive and reward shareholders through a share repurchase program financed with debt. In this final scenario, as long as Company X is able to maintain a cash flow ratio of about 20% and a debt leverage ratio of less than 55%, then the company could reasonably expect a BB rating.

Throughout this article, we have seen that size is an important factor in determining the risks of a company. The dominant impact of size on credit ratings was demonstrated in a recent article in the Journal of Applied Corporate Finance (see Part Two of our *Tools and Solutions Series*). Exhibit 2 shows a simple comparison of credit ratios across the ratings spectrum. Median sales are almost \$39 billion for AAA companies, \$3.2 billion for BBB companies and \$271 million for CCC companies.

Exhibit 2 – Adjusted Key Industrial Financial Ratios, Long Term Debt, Three-Year (2001-2003) Ratios

Credit Rating	BUSINESS RISK	FINANCIAL RISK		Number of Companies
	Sales (\$ millions)	EBITDA Interest + Dividend Coverage	Total Debt / Market Capitalization	
AAA	\$38,859	4.0 X	0.5%	6
AA	\$17,832	3.9 X	8.1%	18
A	\$5,472	4.1 X	17.2%	124
BBB	\$3,202	4.5 X	27.2%	207
BB	\$1,171	3.0 X	43.2%	274
B	\$513	1.7 X	55.9%	250
CCC	\$271	1.0 X	80.8%	43

Source: Journal of Applied Corporate Finance, S&P Industrial Creditstats (2004)

Exhibit 3 combines various elements of the previous two charts and demonstrates very clearly the rating challenges of small to medium sized companies. (As a simplification, the median financial risk characteristics for each rating category in Exhibit 2 were assumed to align with the financial risk profiles exhibited by the diagonal entries in Exhibit 1).

Exhibit 3 – Relationship between Credit Ratings and Company Size

Business Risk Profile	Financial Risk Profile				
	Minimal	Modest	Intermediate	Aggressive	Highly Leveraged
Excellent	AAA	AA	A	BBB	BB
- Average Size (Sales in \$ million)	\$38,859	--	--	--	--
Strong	AA	A	A-	BBB-	BB-
- Average Size (Sales in \$ million)	--	\$5,472	--	--	--
Satisfactory	A	BBB+	BBB	BB+	B+
- Average Size (Sales in \$ million)	--	--	\$3,202	--	--
Weak	BBB	BBB-	BB+	BB-	B
- Average Size (Sales in \$ million)	--	--	--	\$1,171	--
Vulnerable	BB	B+	B+	B	B-
- Average Size (Sales in \$ million)	--	--	--	--	\$513

Source: FinQuest Partners LLC, Standard and Poors, Journal of Applied Corporate Finance

Exhibit 3 shows that our hypothetical Company X has a fourth alternative action, assuming that the company is interested in upgrading from a BBB to an A rating. Focusing on the “Intermediate” financial risk profile in Exhibit 3, Company X may choose to build a larger scale operation, perhaps through one or more acquisitions. Exhibit 3 suggests that Company X may have to almost double its size, as well as maintain its Intermediate financial risk profile, in order to achieve a solid A rating.

However, consider the plight of the \$500 million company in Exhibit 3, which represents the median B rated firm. Without substantial growth, this company will have a difficult time improving its rating and an investment grade rating may simply be out of reach in the short term (note the last column of Exhibit 3). Even if this company were to substantially strengthen its balance sheet, it will still have difficulty achieving a major upgrade in its credit rating without additional growth.

These examples using median numbers do not mean to suggest that no small to medium enterprise can achieve satisfactory results with the credit rating agencies. Clearly, size is not the only determinant of business risk and competitive position – there are many examples of investment grade companies with sales under \$3.0 billion. However, these exhibits do point out that size is an important factor in assessing the potential credit rating of smaller, private companies.