FUNDAMENTAL FINANCIAL ANALYSIS: THE FIRST IN A TWO PART SERIES

One of the most important aspects of a good valuation is sound fundamental financial analysis. Fundamental financial analysis is a quantitative technique used in determining the value of a company by focusing on the "economic characteristics of business such as profitability, financial strength, and risk." (1) Valuation professionals, investment management professionals, and securities analysts alike, all use fundamental financial analysis as a tool in the development of securities valuations. This article discusses the principals of fundamental financial analysis in the context of a privately held company operating in the domestic electronics equipment industry. In part one of this series, we outline the process of using fundamental financial analysis in order to determine the value of a company through the use of market multiples. The market multiples are derived from the trading prices of comparable companies or comparable transactions (initial public offerings or mergers and acquisitions) and are applied to a subject company's financial metrics to calculate the company's value.

APPLYING FUNDAMENTAL FINANCIAL ANALYSIS

The first step in fundamental financial analysis is to define the business of the company and its industry. Knowledge of the company and its business environment are essential in determining factors that should be considered (or disregarded) through quantitative and qualitative analyses. *The second step* is to perform a qualitative analysis of the company and its industry. Qualitative factors that should be considered for the company include: the business model, competitive advantage, management, and corporate governance. Qualitative factors that should be considered for the industry include: the customer type, industry concentration, barriers to entry, competition, technological change, and governmental regulation. In the case of the electronics equipment industry, technological changes are a crucial part of the industry qualitative analysis.

SELECTING COMPARABLE COMPANIES

The third step is to use the qualitative evaluation of the subject company and the industry to develop a basis for comparison to publically traded companies that are similar to the subject company ("Comparables"). Additional sources for comparison include target

companies of merger and acquisition transactions and public companies at the time of their initial public offering.

Selecting Comparables to privately held companies can be challenging, particularly for businesses operating in the technology sector. When selecting Comparables, consider the similarities of business operations, size, asset composition, margins, phase of the subject company's life-cycle, end users of products or services, and suppliers. For companies with disruptive technologies (as is the case of many privately held electronics equipment companies), analysts often use a large number of companies within a broader industry group. Finally, when the subject company's products or services are not comparable to any publically traded companies, this market-based methodology may not be a useful tool in developing an indication of value.

SELECTING APPLICABLE METRICS

The fourth step is to establish which financial metrics are relevant in determining the subject company's value. Commonly used metrics include: revenue, EBITDA, EBIT, net income, and cash flow. When selecting the relevant metric, the industry's characteristics should be considered first, such as: "Is the industry mature?" "Do companies in the industry

typically have significant fixed assets?" "What is a representative capital structure?" Ultimately, the selected metrics should coincide with those that are recognized as appropriate for a particular industry. However, the condition, performance, or stage of development of the subject company may impose limitations on the type of metrics that can be used; such as when the subject is not profitable, or does not yet generate revenue. For the electronics equipment industry, many smaller participants are in the very early product shipping phase of their business life cycle, have minimal assets, and negative EBITDA, EBIT, net income, and/or cash flow. For a developing industry, current or projected revenue can be a key value driver.

MULTIPLE SELECTION

The fifth step entails the selection of multiples to apply to the subject company's financial metrics. Multiples for the Comparables are derived by dividing its market value by its respective metric. In order to determine the appropriate multiples (from the range of the Comparables' multiples) to apply to the subject company, a "stack-up" comparison analysis is necessary between the subject company and the Comparables. For most industries, a comparison of pertinent value drivers such as profitability, size, leverage, and

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growth are appropriate for multiple selection.

Analysts must determine whether the subject company stacks-up favorably or unfavorably for each value driver, and whether the variances (stronger, weaker, similar, more/less leveraged, growing faster/slower, etc.) define the subject company to be better or worse relative to its peer group. Through this relational comparison, analysts select the appropriate multiples that correspond to the subject's relative position within the stack-up analysis.

Profitability
Key measures of profitability are gross profit, EBITDA, EBIT, net income, and cash flow margins. Similar to the metric selection process, certain margins should bear more weight than others depending on the subject company and the industry. In the case of the electronics equipment industry, gross profit and EBITDA margins may be the most useful due to the absence of meaningful EBIT, net income, and cash flow margins. If the subject company stacks-up favorably through the comparison of margins, the earnings and cash flow multiples at the higher end of the range would be applied.

Size
Larger companies tend to be priced at higher multiples, all other things equal. If the subject company is smaller than its publically traded peers in terms of revenues and assets, multiples that are at the lower end of the range may be appropriate. For privately held companies, multiples are frequently adjusted downward due to the companies' relatively smaller size.

Leverage
Companies that have higher ratios of debt to market value and/or debt to assets tend to be priced at lower multiples than their less leveraged or unleveraged peers. High interest expense, low principal payment coverage, and the likelihood of financial distress are examples of financial risk that will be reflected in the lower prices paid by investors. Companies that stack-up with higher debt as a percentage of market value and/or assets receive lower multiples.

Growth
Companies that have strong growth profiles are priced at higher multiples than slow growth or stagnating companies. Revenue growth is important when determining multiples for companies in high growth oriented industries.

Troubleshooting: Significant Variance in Multiples
Generally speaking, a tight range of multiples indicates that the Comparables are financially similar to each other and conclusions drawn from this narrow range are readily supported. In practice, however, companies with similar business operations often have considerably different multiples, which adds an additional layer of analysis to the multiple selection process. To select the appropriate multiple in such a situation, analysts must first investigate the causes or drivers of the variances in the multiples.

Comparables that are most similar to the subject company in terms of profitability, size, leverage, and growth are an appropriate source for multiples.

Conversely, the multiples of public companies that do not compare as closely to the subject company may not produce meaningful indications of value for the subject company. In addition, Comparables that demonstrated unusual financial performance during the period that multiples are calculated may not be an appropriate source of multiples either. In general, analysts are required to find the story/causes driving a large dispersion in the range of multiples in order to determine the appropriate multiples to apply to the subject company's metrics.

Application of Multiples
Finally, the resulting multiples based on all of the subject company's financial fundamentals and the resulting stack-up analysis should reflect all of the pertinent value drivers listed above and any other considerations that investors and industry participants would deem important to assessing value. The application of fundamental financial analysis to determine the market-based value of a private company in the electronics equipment industry will be demonstrated in the second article in this two-part series.

(1) *CFA Program curriculum, Level II, volume 4, 2010.*