



De-Mystifying the Price Multiple

The Market-Based Approach to Determining Shareholder Value

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Developers of:



Introduction

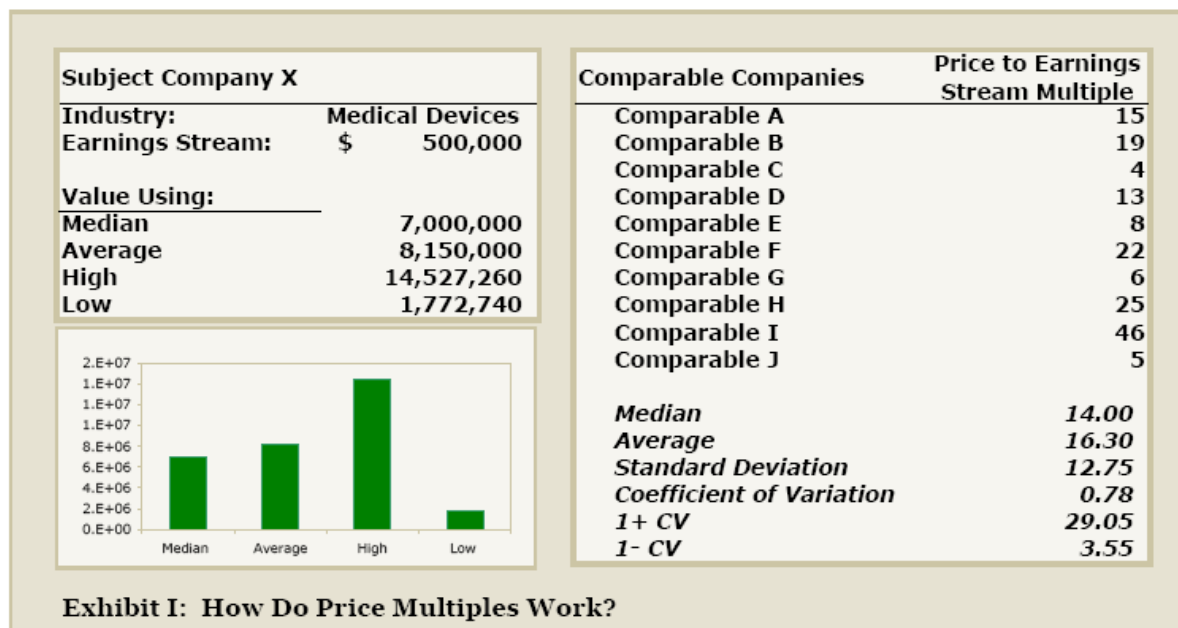
Industry price multiples have long been an accepted method for valuing privately-held businesses. Multiples such as Price to Earnings (P/E), Price to EBITDA (P/EBITDA) and Price to Book Value (P/B) provide appraisers and current and prospective shareholders with a quick and simple method to discern what a subject company's value would have been, had it been another company or the average of several companies (See Exhibit I). The common argument in favor of using price multiples as a method of valuing companies is that it is a more objective method. Traditional arguments against using price multiples are that comparable transactions are difficult to find, the approach is not as flexible or adaptable as other approaches, and most of the important assumptions are hidden.

While we agree to an extent that the arguments against using the price multiples method are valid, we think that arguments both for and against the method avoid two core issues:

- While companies may be comparable, they are never equivalent.
- Price multiples reflect not only the investment value of a specific company on a specific date, but also the structure of the transaction.

Multiples Make Sense; Relying on Them Doesn't

Price multiples may be objective observations of transactions that occurred in the market for privately-held or publicly-traded stock; but the search for, use, and adjustment of those multiples for application to a subject company's value is a highly subjective process. Our research of publicly-traded stocks has shown that price multiples of comparable companies (i.e. companies in the same sector or industry) do not produce a meaningfully accurate relative valuation without subjective input.



Comparable is not Equivalent

WHM Capital Advisors' internal research has shown that price multiples of publicly traded stocks in the same economic sector are more tightly distributed than price multiples of the overall stock market, and that multiples of publicly traded stocks in the same industry are the most tightly distributed; but "more tightly" and "most tightly" do not translate into a realistic range of values.

As Exhibit 2 illustrates, even limiting our study to industries with a sample size of greater than thirty, only three industries out of 12 had a coefficient of variation of less than 1 (a coefficient of variation of 1.0 would indicate that at least 68% of the companies within an industry fall within a range of the average price-to-earnings plus or minus that average). This study is limited to domestic, non-financial services publicly traded stocks with at least five years of financial statements. Companies with negative price multiples were not included, because negative price multiples are meaningless.

Again referencing Exhibit 1, a relatively low CV of 0.78 causes a range of values on a business with \$500,000 in earnings and an industry average price multiple of 16.3 to range between \$1.7MM and \$14.5MM. In light of the typical CV in publicly-traded stocks, the example in Exhibit 1, though hypothetical, highlights the difficulty of deriving a reasonable value with price multiples, even in a relatively tightly distributed sample of comparable companies.

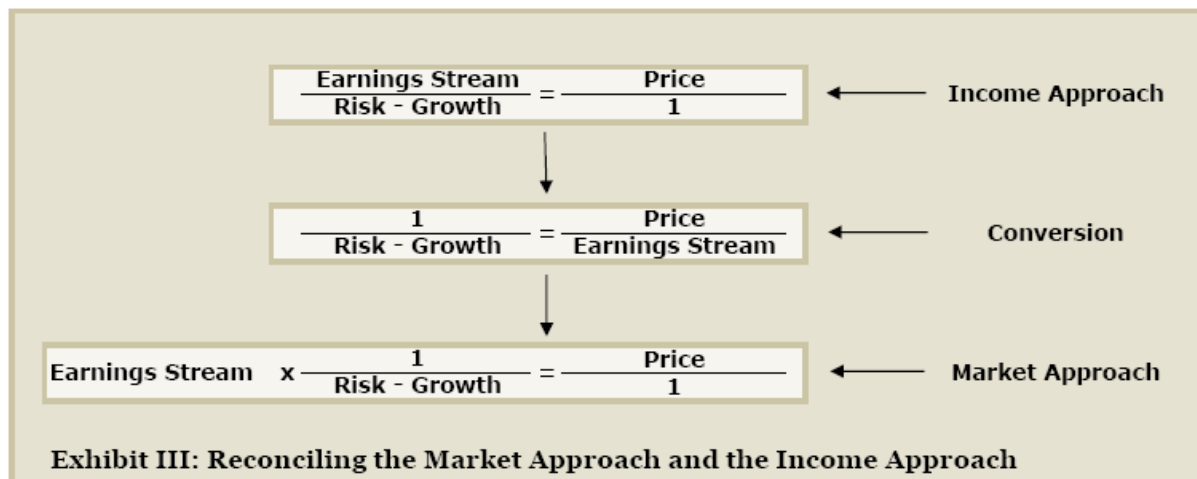
We suspect that a similar study carried out with price multiples of privately-held company transactions would yield similar results. However, it is difficult to find 30 transactions of privately held companies within one industry that also occurred in a reasonable time span, let alone the very same day.

Sub-Sectors	N	Average	Standard Deviation	Coefficient of Variation (CV)
Software	153	43	143	3.36
Industrial Materials	328	25	61	2.47
Energy	124	20	54	2.74
Hardware	178	45	189	4.21
Media	50	35	101	2.91
Telecommunications	135	54	288	5.34
Healthcare	257	45	232	5.17
Consumer Services	243	26	108	4.12
Business Services	285	28	150	5.28
Consumer Goods	251	21	32	1.50
Industries				
Application Software	32	25	19	0.78
Business Software & Services	54	65	234	3.59
Aerospace & Defense Products & Services	37	18	27	1.50
Independent Oil & Gas	40	30	88	2.89
Oil & Gas Drilling & Exploration	33	22	39	1.81
Scientific & Technical Instruments	48	31	39	1.27
Medical Appliances & Equipment	45	79	370	4.71
Medical Instruments & Supplies	41	37	82	2.24
Apparel Stores	31	26	35	1.39
Restaurants	31	21	16	0.76
Business Services	79	20	23	1.12
Process & Packaged Goods	31	19	11	0.61
Total	2004	33	152	4.65

Exhibit II: Variability of Market, Sub-Sector, and Industry Price Multiples

Lost in Translation

Price Multiples are often seen as stand-alone measures of business value that are difficult to break down and attribute. While we agree that the underlying assumptions of price multiples are of major concern, they are not hidden. If a transaction or sample is to be described as equivalent to the subject company, the resulting value should be equivalent to the one derived from the Income Approach. Exhibit three demonstrates how both approaches include the same variables: Price, earnings stream, risk, and growth. The only difference is how those variables are used to reach the same value.



Many shareholders and valuers think that the earnings stream of a price multiple is the one factor under management's control driving the value of the company. Shareholder Risk is often overlooked as a controllable component of value when using the price multiple approach and in business valuation in general. In fact, while price multiples neutralize the effect of the amount of the earnings stream on value, the implied discount rate in price multiples has largely been overlooked in that it is assumed to be constant.

A discount rate represents the Required Rate of Return on an investment, taking into account access to other investment opportunities and the level of risk the shareholder is taking by choosing that particular investment. The discount rate also takes into account the sustainable growth rate for the company, which offsets its investment risk. The implied discount rate in a price multiple is found by dividing 1 by the price multiple. So, if a company has a Price to Earnings multiple of 15, its implied discount rate is 7%. A high discount rate represents higher investment risk and translates into a lower price per unit of earnings.

Companies in the same industry often exhibit different levels of risk because of the level of uncertainty surrounding each company's ability to provide consistent return to shareholders. Uncertainty about the future is driven by perceptions of the company's past performance. The risk attributable to a single company is called Company-Specific Risk (CSR). A significant source of the difference in price multiples of companies in the same industry is differing levels of CSR.

For companies that do not have a readily available market price the most reasonable approach is to calculate the company's value using the Income Method, and compare price multiples of comparable companies with the calculated value to earnings stream of the subject company. An alternative to using price multiples as a starting point for deriving the value of a subject company is to apply industry price multiples as reference points for comparison between the calculated values of the subject company and its peers. Rarely though, is there an "average" company. As the study in Exhibit 2 shows, there are significant outliers in every industry. Using the average multiple is fraught with problems. When a proposed transaction valuation is higher (or lower) than the multiples would otherwise indicate, the company would be found to have less risk (or more risk) than peers. In these situations, both buyers and sellers benefit from a better understanding of the risks.

The focus has traditionally been on finding examples of similar companies and the price at which they sold relative to an earnings stream. It would be more useful for shareholders and prospective shareholders to understand what the components of the price multiple are saying about the benefits, risks, and opportunities for shareholders of those companies, and ultimately to define not only benefits, but most importantly levels of shareholder risk that are specific to the company being valued.

More Than an Observation

WHM Capital Advisors' sister technology firm, A.Q.U.A. Capital Technologies has developed a suite of applications that utilizes a proprietary algorithm to calculate Company-Specific Risk using data from the subject company's financial statements rather than market data. In using this method it has proven to be a more accurate predictor of both equity valuations as well as credit instrument defaults in global capital markets. Market price multiples can neither determine the Company-Specific Risk, nor predict of future risk. The ability of market multiples to determine these risks is especially problematic when in less efficient capital markets such as those with small and mid-size companies and developing global markets. Through the development and use of A.Q.U.A.® in markets for both publicly-traded and privately-held businesses we have found that the A.Q.U.A.®-calculated company specific risk premium produces an accurate and justifiable intrinsic value calculation.

For more information on A.Q.U.A.® or WHM Capital Advisors, please visit these websites:

WHM Capital Advisors: <http://www.whmca.com>

A.Q.U.A. Capital Technologies: <http://www.aquacaptec.com>

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