
Serge Bloch

# Does scale matter to **capital markets?**

**Robert S. McNish and Michael W. Palys**

*Simply getting bigger won't produce a higher valuation multiple.*

**With deal making** back in vogue, can the "bigger-is-better" crowd be far behind? It's only a matter of time before a new wave of mergers results in a deluge of analyses, white papers, and reports bearing the same tantalizing message: getting bigger can lead to a higher valuation multiple. These pitches usually come dressed up with seemingly authoritative charts showing that smaller companies in a given industry have lower P/E ratios or EBITDA (earnings before interest, taxes, depreciation, and amortization) multiples than larger companies. There's only one problem: it isn't true.

Most senior managers understand that a combination of growth and returns on invested capital (ROIC) drive shareholder value.[1] But this knowledge won't spare

EXHIBIT 1

**Cost of equity is quite stable for larger companies**

Size and long-term historical total returns to shareholders (TRS) for publicly traded companies[1]

| | Size by decile | Market capitalization of largest company within decile, $ billion | Average TRS, 1926–2004, % | Size premium (return in excess of CAPM[2]), % |
|---|---|---|---|---|
| Larger companies | 1 | 342.1 | 11.4 | –0.4 |
| | 2 | 14.1 | 13.2 | 0.6 |
| | 3 | 6.3 | 13.8 | 0.8 |
| | 4 | 3.5 | 14.4 | 1.1 |
| | 5 | 2.3 | 14.9 | 1.5 |
| | 6 | 1.7 | 15.5 | 1.8 |
| | 7 | 1.1 | 15.7 | 1.6 |
| | 8 | 0.8 | 16.7 | 2.4 |
| | 9 | 0.6 | 17.7 | 2.9 |
| Smaller companies | 10 | 0.3 | 21.8 | 6.4 |

[1]For companies traded on AMEX, Nasdaq, NYSE.
[2]CAPM = capital asset-pricing model, which describes expected return of a security or a portfolio as equal to rate of return on a risk-free security plus a market risk premium (calculated by subtracting actual return [TRS] from expected return under CAPM).

Source: *2005 SBBI Valuation Edition Yearbook*, Ibbotson Associates

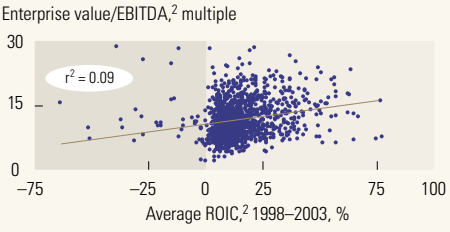
EXHIBIT 2

## Performance expectations, not size

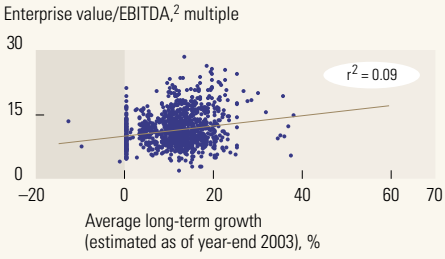
For publicly traded companies with revenues >$300 million[1]

**A multivariate regression of enterprise value to EBITDA[2] vs profitability and growth is statistically significant[3] . . .**

**Profitability**

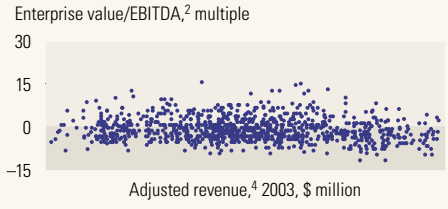


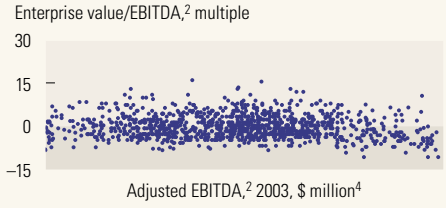

**Growth**

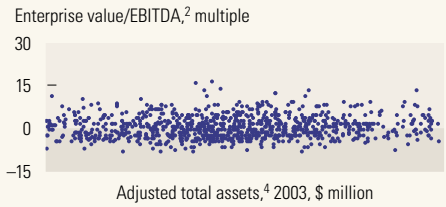



**. . . while a partial correlation analysis of enterprise value to EBITDA[2] vs a series of size metrics is less significant, even after adjusting for profitability and growth**

**Size**




$r^2$ is the proportion or percentage of variance explained by a regression.
[1]For companies traded on AMEX, Nasdaq, NYSE; excludes those in financial-services industry; 2003 data are most current available—not all companies had filed 2004 annual reports by time of publication.
[2]EBITDA = earnings before interest, taxes, depreciation, and amortization; ROIC = return on invested capital.
[3]With $p$ values of <0.0001 for both profitability and growth variables.
[4]Adjusted for performance and growth; results based on partial correlation analysis.

Source: Thomson; McKinsey analysis

executives from people who argue that if two small companies with low P/Es merge, the larger entity would naturally attain the higher multiples of its new peers. Empirical research, they will suggest, demonstrates real differences between the cost of capital for big and small companies. Or they will mount logical arguments about bigger companies having preferential access to the capital markets—including improved analyst coverage, better suitability for increased institutional ownership, or a stronger balance sheet with more risk diversification.

Such research withers under closer scrutiny, however. Analysis of publicly traded companies indicates that long-term shareholder returns, which are a proxy for cost of equity, are quite stable for corporations with a market capitalization of approximately $500 million and above[2] (Exhibit 1). Companies below the $500 million threshold—only 49 of the Fortune 1000—have a historically higher cost of capital.[3] And, as other experts have noted, the traditional capital asset-pricing models used to estimate risk-adjusted returns are inadequate for very small companies.[4] For most companies, capital market scale has no meaningful effect on the cost of equity or, therefore, the valuation multiple.

What does? Differences in valuation multiples are best explained by underlying variations in growth and ROIC, which predict a company's future performance, and not by measures of size such as revenues, earnings, or assets, even after adjusting for differences in performance (Exhibit 2).

Scale can be important if it confers a significant strategic or commercial advantage—for example, by improving industry structure or conduct, which in turn drives higher returns on capital and growth. And scale is helpful for very small public companies, which historically have had higher costs of capital. The arguments executives hear about the need to get bigger don't focus on these justifiable circumstances, however. Too often, the bigger-is-better crowd offers proof based on an illusory relationship between size and valuation multiples, which vanishes when fundamental differences in returns and growth are taken into account.

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[1] Tim Koller, Marc Goedhart, and David Wessels, *Valuation: Measuring and Managing the Value of Companies*, fourth edition, Hoboken, New Jersey: John Wiley & Sons, 2005 (available at www.mckinsey.com/valuation).

[2] The cost of equity is frequently estimated by using long-term historical shareholder returns (including dividends), as this measure is often a proxy for expected returns.

[3] Fortune 1000 companies from 2005; market values as of March 2005.

[4] Eugene F. Fama and Kenneth R. French, "Size and book-to-market factors in earnings and returns," *Journal of Finance*, 1995, Volume 50, Number 1, pp. 131–55.