Measuring Alpha for Private Equity

THE DUFF & PHELPS CREATED VALUE ATTRIBUTION WHITEPAPER SERIES

SECOND IN A SERIES | BY GEORGE PUSHNER, PH.D., AND P. J. VISCIO

Manager selection is critical to private equity returns, and a variety of analyses are often employed to quantify and improve the selection process. These include analysis of returns by quartile, public market equivalent (PME) analysis and the conventional attribution analysis, often referred to as the "value bridge." These methods share a common goal of increasing transparency regarding performance and returns, but the value provided by this transparency is often quite limited.

Investors often seek to measure alpha, or the excess return relative to a relevant benchmark, to identify managers that have outperformed their respective benchmarks and can potentially repeat their outperformance with future investments. Alpha is especially hard to measure in the context of private equity given the challenge of benchmarking portfolio company performance and isolating organic growth.

We define created-value alpha (Alpha) as organic value creation on a company-specific outperformance basis relative to an appropriate industry benchmark. Unfortunately, the value bridge and other methods described above do not isolate or identify Alpha, and to accurately identify and measure Alpha, a more robust attribution framework is required.

Most Performance Analytics Do Not Measure Alpha

Comparisons of returns with other private equity fund returns provide limited information, and while PME analysis is enlightening, it normally relies on a broad benchmark and does not illustrate how the fund or individual portfolio company investments have over or underperformed on an industry or sector basis.

The historical approach to value attribution (the value bridge) in private equity, which considers changes in EBITDA, multiples and net debt, provides a limited and opaque view of how value is created. It addresses neither enterprise performance relative to the respective industry nor the distinction between organic value creation and acquired, i.e. purchased, value. And the limited insight provided by the historical approach is further compromised by the tendency of limited partners (LPs) to focus primarily on EBITDA improvement and, too often, to dismiss value change due to multiple movement as a macro factor not attributable to the efforts of the general partner (GP). And as the historical approach also does not identify and attribute industry or sector performance, it fails, by definition, to measure or identify Alpha.

Measuring Alpha

While the historical approach is of limited utility in and of itself and does not identify Alpha, it does represent a first step to a more comprehensive and meaningful evaluation of value creation. There are several ways to make the results of any attribution analysis more insightful.

A more robust attribution analysis should seek to quantify Alpha by

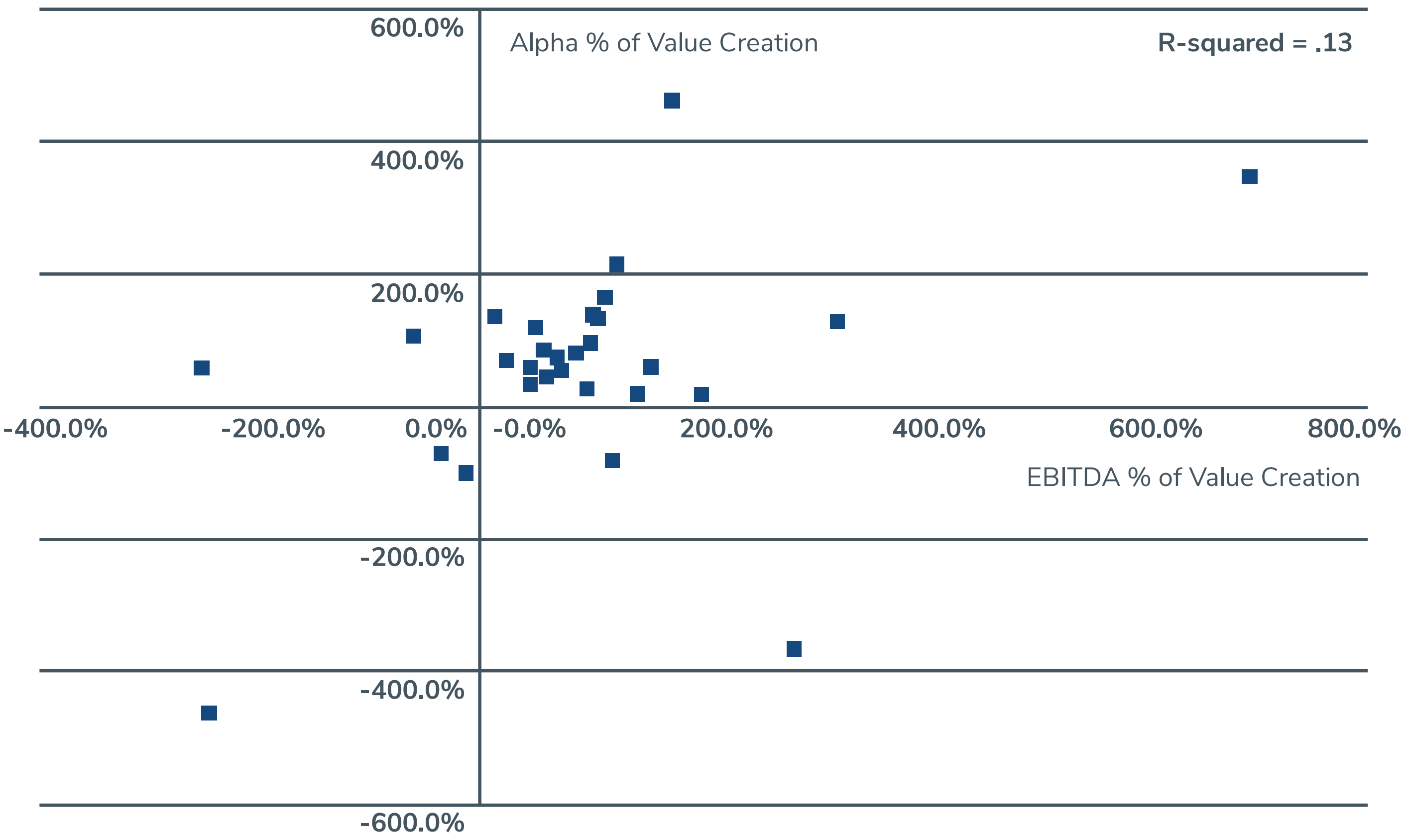
1. Measuring performance of the portfolio company relative to that of an appropriate industry benchmark;
2. Separating the impact of add-on acquisitions; and
3. Correctly reflecting balance sheet impacts.

Does the Historical Approach Provide Any Indication of Alpha?

Research by Duff & Phelps, based on the application of its created value attribution framework, indicates a very weak relationship between increases in EBITDA and Alpha. Based on a sample of 66 investments analyzed across several sponsors and funds, the correlation between EBITDA-driven value change and Alpha is very low (R2 = 0.13). The distribution is plotted below, and the relationship is weak. Thus, Alpha is not well explained by changes in EBITDA. In fact, there is almost no relationship between the magnitude of EBITDA-driven value change and levels of Alpha. Other factors drive EBITDA besides Alpha, and other factors drive Alpha besides increases in EBITDA.

1 Based on Created Value Attribution analyses completed by Duff & Phelps since 2012.

Figure 1: Correlation of Alpha % of Value Creation and EBITDA % of Value Creation



Adjusting EBITDA-driven value change for add-on acquisitions only improves the correlation modestly (R2 = 0.22), which suggests, again, that EBITDA improvement, in and of itself, is unlikely to be a reliable indication of Alpha.

While the sample size of the study group is relatively small, and reflects positive and negative self-selection, the poor correlation between EBITDA-driven value change and Alpha provides important evidence of the limitations discussed above and raises a red flag with respect to utilizing EBITDA improvements as a primary factor in the evaluation of a fund manager.

Conclusions

Measuring performance and Alpha for private equity investments presents formidable challenges. We see both in theory and practice that the historical approach to attribution analysis is generally not effective at identifying Alpha. The historical approach fails, by definition, to measure, and let alone, identify, Alpha. And the observations from our studies only highlight this weakness.

The measure of Alpha requires a robust analysis that includes the benchmarking of industry/sector performance, segregation of add-on transactions and proper accounting for balance sheet impacts. The search for Alpha in GP performance is crucial to an LP's evaluation of a private equity manager. Taking shortcuts, especially in the form of the historical approach, does not serve the LP well in this regard.

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