

# Private Equity and the Leverage Myth

### Why a levered firm or asset class is not necessarily riskier

Anyone who got a passing grade in Corporate Finance 101 knows that the volatility of a firm's equity is positively related to its leverage. Following this logic, investors commonly estimate the volatility of highly levered private equity investments by applying a leverage multiple to the volatility of a comparable public equity index. This approach is intuitive, straightforward, and grounded in theory. But it has one important drawback: It is completely wrong.

We put the relationship between leverage and volatility under the microscope. Not just in private markets, but in public markets as well. The results were shocking. To put it bluntly, the relationship is "robustly insigntificant" — in other words, there is no relationship. We found no evidence that increasing a firm's leverage increases its subsequent share price volatility. And we found no evidence that

The Impact of Leverage on Private Equity
Volatility (as of Sep 2018)

50%

35.2%

25%

17.6%

Volatility

Public equity

Private equity, expected based on leverage

Private equity, actual

Based on returns over the period December 1996 through September 2018. Annualized volatility is estimated from overlapping triennial returns to adjust for the positive serial correlation of appraisal-based private equity returns. Public equity is the S&P 500 and private equity is the buyout segment of the State Street Private Equity Index. Source: State Street Global Markets, Datastream

highly levered firms are more volatile than their less-levered counterparts. As a case in point, consider Clorox Co. (NYSE: CLX). The company nearly trippled its leverage during the mid 2000s and subsequently enjoyed lower and more stable volatility than the prior decade when its leverage was lower. Other examples are plentiful. How can this be?

The inherent risks associated with a company's business, independent of its capital structure, can vary widely from one firm to the next. Think about pension obligations or insurance liabilities, for example. The effect of leverage on volatility is hopelessly obscured by factors like these. But there is still a way forwad. The correct way to estimate private equity volatility is to look at longer-interval returns (to offset the effect of valuation smoothing). This approach captures the actual distribution of outcomes realized by private equity investors. And it yields the stubborn conclusion that private equity volatility is similar to public equity volatility despite its higher leverage. This could be because buyout fund managers prefer to invest in companies whose underlying business activities are less risky and can therefore bear higher leverage, increasing their profits. Whatever the reason, the facts are the facts. Private equity is less risky than its leverage alone would imply.

For more on this topic, see our 2021 journal article: "Private Equity and the Leverage Myth" by Megan Czasonis, Will Kinlaw, Mark Kritzman, and David Turkington, The Journal of Alternative Investments, Vol. 23, Issue 3, Winter 2021.

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