Viewpoint: Do Loss Rates Indicate Risk in Private Equity?

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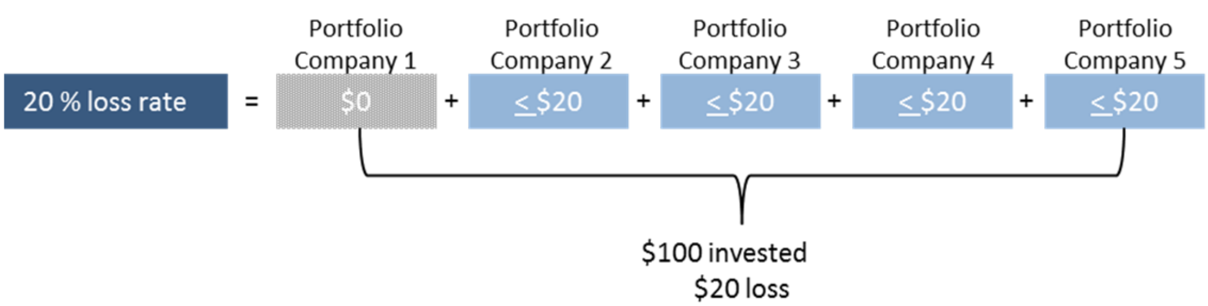
In contrast to the public markets, assessing risk and return characteristics in the private equity asset class requires more than simple quantitative analysis. Given the illiquid nature of the assets, which are typically priced quarterly rather than daily, and private equity's subjective valuation methods, measuring risk has proven to be an especially challenging problem. Various academic efforts to quantify the volatility of private equity portfolios and related risk have met with limited success. This has left practitioners with few tools available to easily measure the risk associated with a private equity portfolio. Investors have used a variety of metrics in an attempt to assess volatility and risk in private equity, including tracking error of the annualized IRR versus the selected public markets benchmarks, and change in portfolio valuations from one time period to the next. Both of these measures focus on short-term movements in valuations, and do not take into account the long-term nature of private equity. In this brief paper, we consider the advantages and disadvantages of loss rates as a measure of risk.

Private equity investors often use a firm's historical loss rate as a proxy for the level of risk assumed, the implication being that portfolios suffering from higher losses have likely taken on excessive financial or operational risk. A private equity portfolio's net loss rate is a measure of the aggregate dollar losses across all investments valued below cost, divided by the total dollars invested, for example:

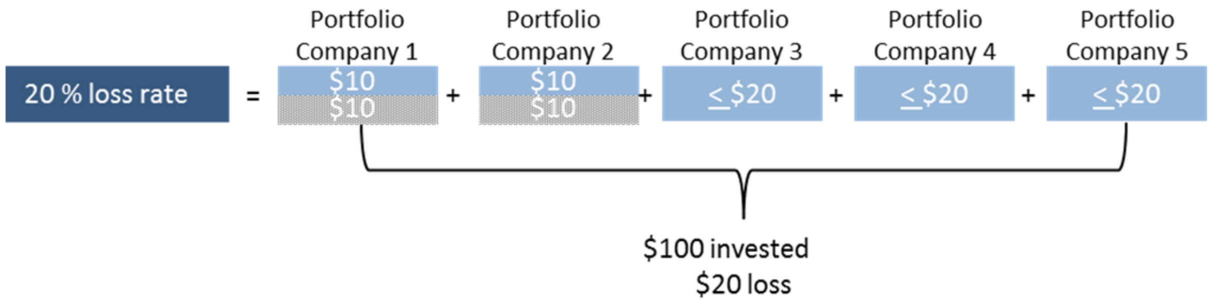
$$20\% \text{ loss rate} = \frac{\$20 \text{ aggregate losses}}{\$100 \text{ invested}}$$

Two portfolios may experience the same loss rate, with different underlying deal characteristics, as illustrated below:

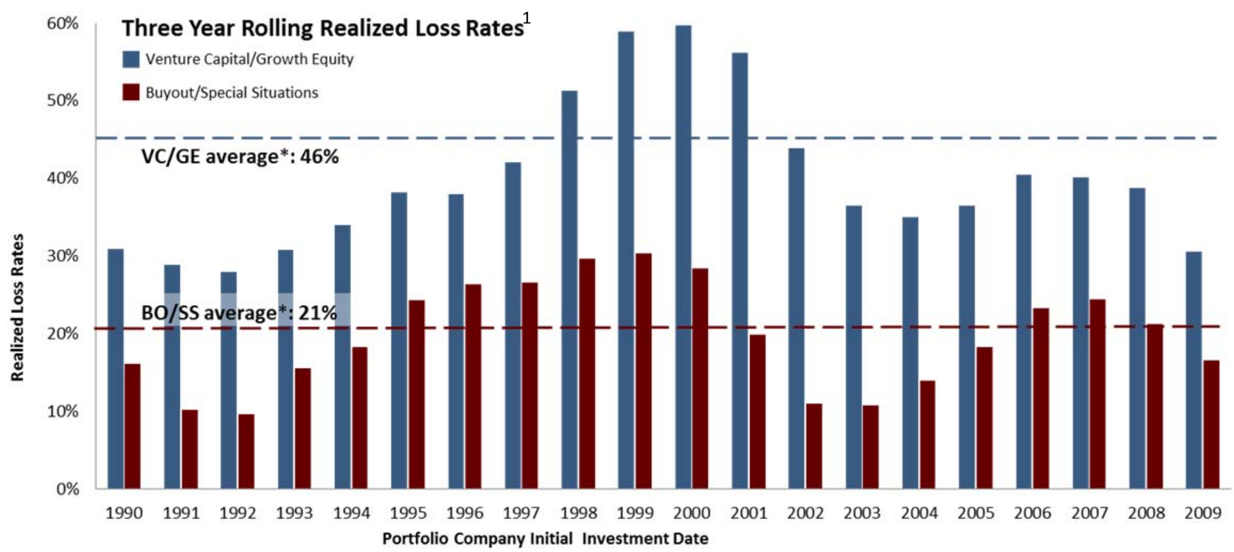
Portfolio 1: 20% loss rate = $100 invested in five portfolio companies: with portfolio company 1 marked to zero + portfolio companies 2-5 having no losses



Portfolio 2: 20% loss rate = $100 invested in five portfolio companies: with portfolio company 1 having a $10 loss + portfolio company 2 having a $10 loss



As illustrated above, losses can occur even when a portfolio company is not marked to zero. Whenever an investment is valued below cost, the portfolio has experienced a loss. While calculating historical loss rates is a straightforward endeavor, one must keep in mind that industry-wide loss rates vary substantially over time and are heavily dependent on the strategy employed (early-stage venture versus buyouts, for example). In other words, not all loss rates are created equal. Loss rates should be considered in the context of the fund, the fund's strategy, and the fund's sector focus.



The loss rate time series chart above was generated from Abbott Capital's proprietary data set of more than 14,000 realized transactions over 300 discrete private equity partnerships from investments made between 1990-2010. This analysis shows that the venture capital/growth equity strategies incur much higher loss rates (46%), on average, than the buyouts/special situations strategies (21%) across all vintage years in our sample. The higher loss rates in venture capital/growth equity can generally be attributed to the fact that venture capital/growth equity investors, particularly at the early-stage, generally assume significant technology and/or start-up company risk in exchange for the potential greater upside. The risks associated with the buyouts/special situations strategies, on the other hand, are primarily related to management execution and the use of leverage, characteristics of more mature businesses that are already established in their sector. The data also demonstrates that while the absolute loss rates for both strategies vary widely, a strong correlation exists between the two over the twenty year period, indicating

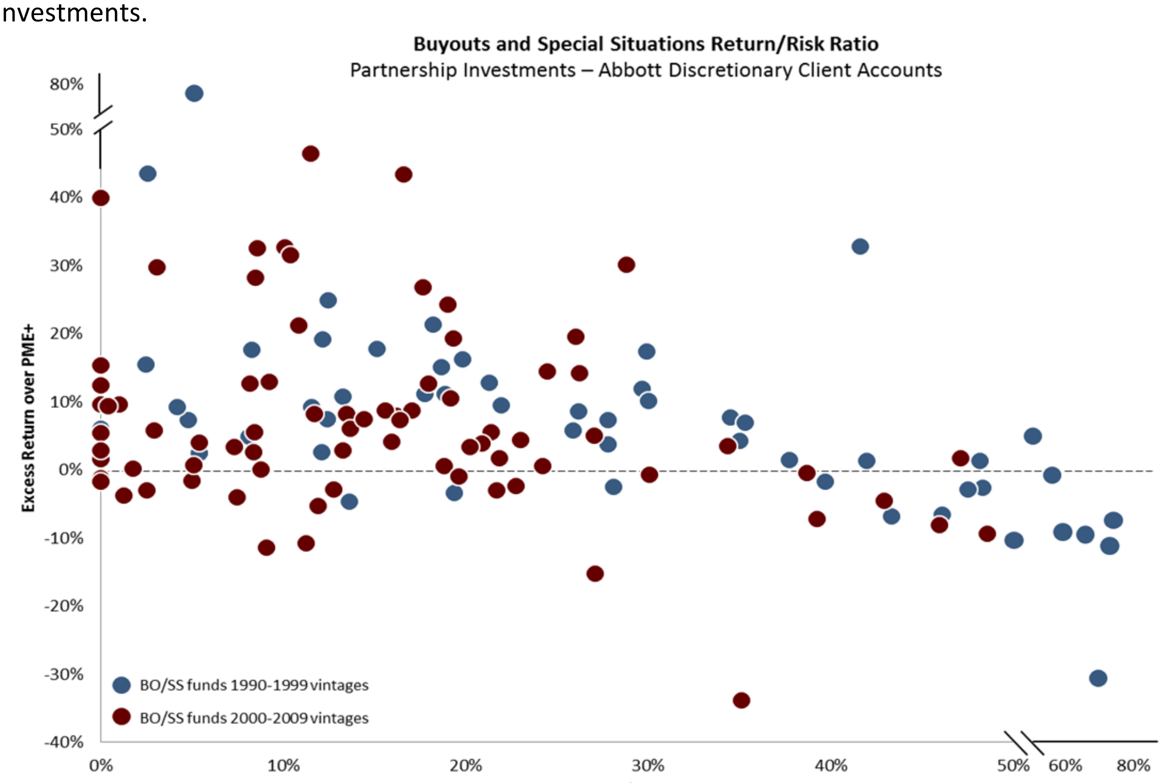
[1] Does not take into account portfolio losses as a result of interim write-downs or other changes in valuation prior to full realization

that the macroeconomic environment plays a significant role in private equity performance regardless of strategy employed. Although skilled fund managers may be capable of generating returns in excess of those available in the public markets even in challenging conditions, the private equity asset class is not immune to economic factors.

As mentioned previously, the use of loss rates for benchmarking purposes is complicated by their cyclical nature and the disparity of values between different private equity strategies. For example, a 40% loss rate for a 1999 vintage early-stage venture fund may be indicative of better relative performance than a 15% loss rate for a 2002 vintage buyout fund.

With the understanding that loss rates need to be examined in the context of the environment in which they were generated, what can loss rates tell us about a private equity manager's overall strategy and performance? In our view, analyzing a firm's historical loss rates is a key part of assessing the quality of a group's long-term track record. By comparing loss rates across firms, industries, and even individual partners, diligent limited partners can systematically assess a general partner's returns to identify the sources of both strong and weak performance relative to the firm's competitors. In addition, by examining the details of losses in specific transactions, it is often possible to glean useful information regarding a private equity firm's underlying ability to create and preserve value, as well as manage its portfolio through difficult economic periods.

For example, a buyout firm that invests in cyclical industries or uses excessive leverage to generate returns would presumably suffer higher losses than more conservative-minded competitors. Assuming a strong correlation between risk level and loss rates, classic financial theory would argue that the risk-seeking firm should be compensated with higher returns than the risk-averse firm. Higher risk in traditional, liquid investment strategies is generally expected to create the potential for greater upside and downside returns relative to the public market indices. Our data, however, show something different for private equity investments.



The risk/return graph above shows the correlation between loss rates and performance for buyout/special situations funds during different vintage year periods. The data presented above indicate that only a slight correlation exists between loss rates and performance, and that funds with higher loss rates generally underperform those with lower loss rates. While such a result may be intuitive (i.e. losses are a drag on performance), loss rates are only one of many factors to analyze when assessing risk. Others, many of which are qualitative, include sourcing skills, operational expertise, team stability, pricing discipline, and capital markets access. In addition, while loss rates may tell an investor about a manager's past performance, loss rates can only report experienced risk rather than forecasted risk. Loss rates should be considered an important statistical data point when assessing performance, but not the sole factor. The loss rate does not capture any measurement of upside performance, as well. Therefore, we conclude that loss rates alone are an inadequate proxy for evaluating total risk in the portfolio of a private equity fund.

If loss rates aren't necessarily measuring a portfolio's total risk level, what do they measure? Loss rates can be a useful tool in analyzing the performance of private equity portfolios, but one must be careful to consider the context in which such losses are generated. While it is reasonable to assume that higher risk strategies could lead to higher losses, negative investment outcomes may also be indicative of poor investment judgment, entry timing, pricing, and/or deal execution missteps. The main concern with using loss rates as the primary measure of risk appetite is that the ratio fails to capture the potential upside of risk taking. In the context of risk measurement, this omission represents a material flaw in the use of loss rates given the accepted notion that risk is a measure of the volatility of returns, both upside and downside. Loss rates only tell half of the story. To more fully capture and assess risk appetite across fund managers, one needs to examine upside performance as well. The concept of "hit rates," as a corollary to loss rates, will be examined in future discussions.

