# ALTERNATIVE INVESTMENTS

## Asset Allocation with Private Equity

**Richard M. Ennis, CFA, and Michael D. Sebastian**
*Journal of Private Equity*
vol. 8, no. 3 (Summer 2005):81–87

Private equity provides diversification benefits in portfolios with at least 60 percent equity. Illiquidity, risk, and inefficient markets cause some investors to consider private equity unsuitable for their portfolios. It is most appropriate for moderately sized funds with special skills, strong board support, and limited need for liquidity and confidentiality.

This paper analyzes private equity investment within the context of portfolio optimization and special variables related to an investor's compatibility with private equity. Data show total investable capital to be $71.2 trillion, including cash equivalents, U.S. and non-U.S. stocks and bonds, emerging market debt, high-yield bonds, real estate, and private equity. About 94 percent of total investable capital consists of publicly traded stocks, and real estate accounts for most of the rest. Private equity, venture capital, and leveraged buyouts account for only 0.7 percent.

The relatively small amount of private equity constrains investors' collective ability to allocate assets to it. If some allocate substantially more than 0.7 percent of their portfolios, others must allocate less. Mean–variance analysis provides a framework for determining optimum allocations. Data are from the Wilshire 5000 Index, the Morgan Stanley All-Country World (ex U.S.) Index, the Lehman Brothers' Aggregate Bond Index, the Wilshire Real Estate Securities Index, and the CSFB Warburg Pincus/Venture Economics Post-Venture Capital Index (PVCI), which is used to proxy private equity risk.

Richard M. Ennis, CFA, and Michael D. Sebastian are at Ennis Knupp & Associates. The summary was prepared by Charles F. Peake, CFA, Emeritus, University of Maryland at Baltimore County.

A pricing framework such as the capital asset pricing model provides returns, standard deviations, and correlations for the asset classes. The correlation between private equity and the broad U.S. equity market is 0.90. The equilibrium expected return for private equity, based on systematic risk only, is 11.3 percent, and the standard deviation is the highest among the asset classes. This expected return does not take into account other factors entering into the required return for private equity such as illiquidity, asymmetric information, and difficulty in diversifying private equity investments, but these are not needed for the present analysis. Diversification benefits of private equity occur primarily in equity portfolios, and private equity enters only those efficient portfolios with 60 percent or more equity. Portfolios with 100 percent equity allocate 5 percent to private equity.

An inefficient market means that success in private equity investment requires highly skilled professionals with special abilities, as evidenced by the large variation in private equity returns. Fifty percentage points separate the highest quartile of past returns from the lowest. The median returns for both venture capital and leveraged buyouts are several percentage points below the return on the Wilshire 5000. Investor risk tolerance suggests that private equity is not appropriate for portfolios with 30 percent or more in bonds.

Successful private equity investors likely have moderately sized portfolios, internal resources needed to supervise the investment, boards with experience in private equity, and the ability to accept the information confidentiality that is normal among private equity managers. In recent years, large pension funds have invested an average of about 3 percent of assets in private equity and large endowments have invested about 8 percent, but more than half have no allocations to private equity.

The authors conclude that some investors appropriately invest a few percentage points in private equity while others invest none. Portfolio allocations as large as 10 percent are appropriate only for equity-oriented funds that are moderately sized, with private equity investment skills and staff resources, and with support from a knowledgeable board.

***Keywords***: Alternative Investments: private equity, venture capital; Portfolio Management: asset allocation

©2005, CFA Institute