

## SS15 Alternative Investments for Portfolio Management

Tannenbach asks Timdore to demonstrate how the Lance Fund adds alpha when combined with a portfolio of traditional investments. Timdore replies that the Lance Fund is an absolute return investment vehicle whose performance can be measured in comparison to tracking portfolios which share similar risk and return characteristics. He indicates that the Lance Fund also utilizes the Sharpe ratio for risk adjusted performance measurement since the Sharpe ratio has no limitations with respect to measuring hedge fund performance.

- 1 Are Timdore's comments about alpha and the performance measurement of the Lance Fund most likely correct?
- A. Yes.
  - B. No, he is incorrect about the tracking portfolios.
  - C. No, he is incorrect about the Sharpe ratio.

Solution: C.

C is correct because the comments about the Sharpe ratio are incorrect. There are a number of limitations with respect to using the Sharpe ratio for hedge fund performance evaluation. Among these are: (1) Sharpe ratio is time dependent (2) illiquid holdings bias the Sharpe ratio upward (3) not an appropriate measure of risk adjusted performance when the investment has an asymmetrical return distribution with either negative or positive skewness (4) does not take into consideration the correlations with other assets in the portfolio. For these reasons, there are limitations to determining hedge fund alpha by comparing its performance to a benchmark portfolio because of concerns related to hedge fund performance evaluation. These concerns relate specifically to returns (leverage, compounding), volatility and downside volatility (normal distribution) and performance appraisal measures (Sharpe ratio).

Franciszek Magerski is a portfolio manager who specializes in alternative investments. Magerski's associate, Julio Chavez, states that diversification is improved by adding real estate to an equity/fixed-income portfolio and points to the correlations between real estate and bonds and stocks as shown in Exhibit 1. Magerski expresses some concern with the real estate data because it refers to the NCREIF-unsmoothed index. Chavez states that the unsmoothed index provides a better indication of the benefits of real estate investment than the NCREIF (smoothed) Index.

<b>Exhibit 1. Characteristics of Asset Classes</b>				
<b>Asset Class</b>	<b>Annual Return (%)</b>	<b>Standard Deviation of Returns (%)</b>	<b>Correlation with US Stocks</b>	<b>Correlation with US Bonds</b>
US Common Stocks	11.0	15.0	1.00	0.12
US Bonds	7.5	4.0	0.12	1.00
Real Estate—NCREIF—unsmoothed	8.0	9.0	-0.01	-0.27
Hedge Funds—market neutral	6.0	2.5	0.09	0.21
Commodities—GSCI	7.0	19.0	-0.06	0.04
Private Equity	20.0	22.0	0.50	0.30
US Treasury Bills	3.5	—	—	—

- 2 Chavez's preference for the unsmoothed version of the NCREIF Index instead of the smoothed version is *most* likely because the:
- smoothed version includes the effect of leverage on returns.
  - smoothed version is based on actual unreliable market values.
  - bias arising from infrequent appraisals is corrected in the unsmoothed version.

Solution: C.

C is correct. Unsmoothing the data corrects bias in returns calculated from infrequent appraisals and property transactions.