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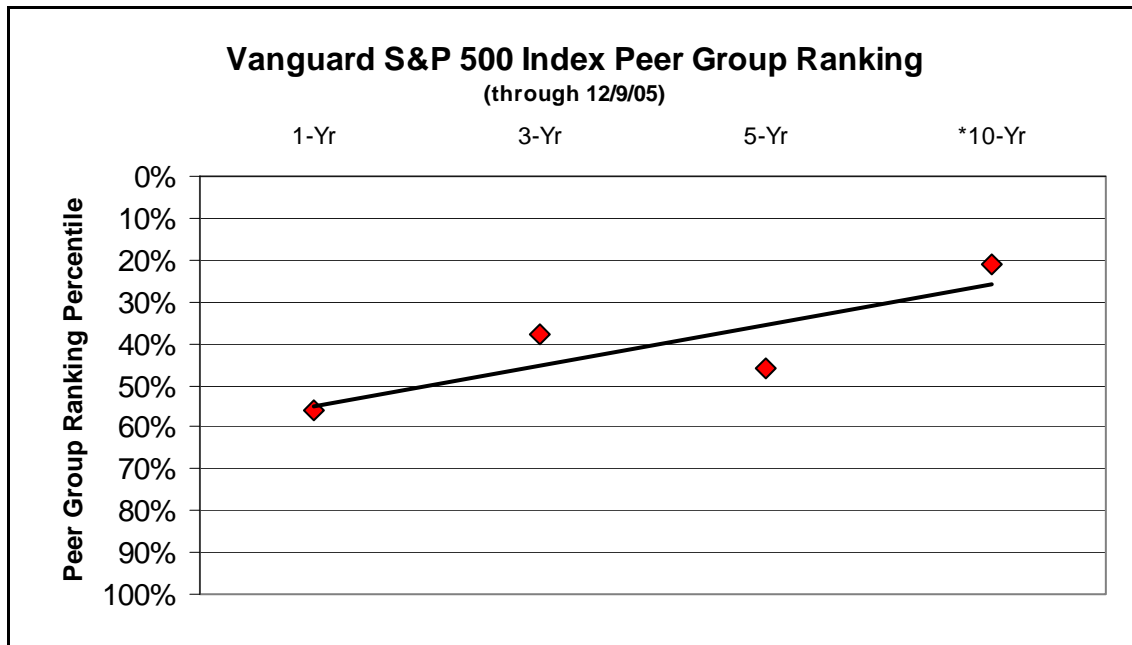
# White Paper

DiMeo Schneider & Associates, L.L.C.  
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## A Practical Portable Alpha Application for Institutional Investors

### Scarcity of Alpha in Domestic Large Cap Stock Portfolios

Broad stock market index exposure, also known as beta, is almost free. For example, the Vanguard Institutional S&P 500 Index fund is priced at 0.05% on assets per year. While indexing may seem quaint, the Vanguard Institutional Index has beaten almost <sup>1</sup>80% of surviving large cap blend mutual funds over the last decade. And as the investment time period increases, fewer and fewer active managers have added alpha to the S&P 500 Index after expenses.



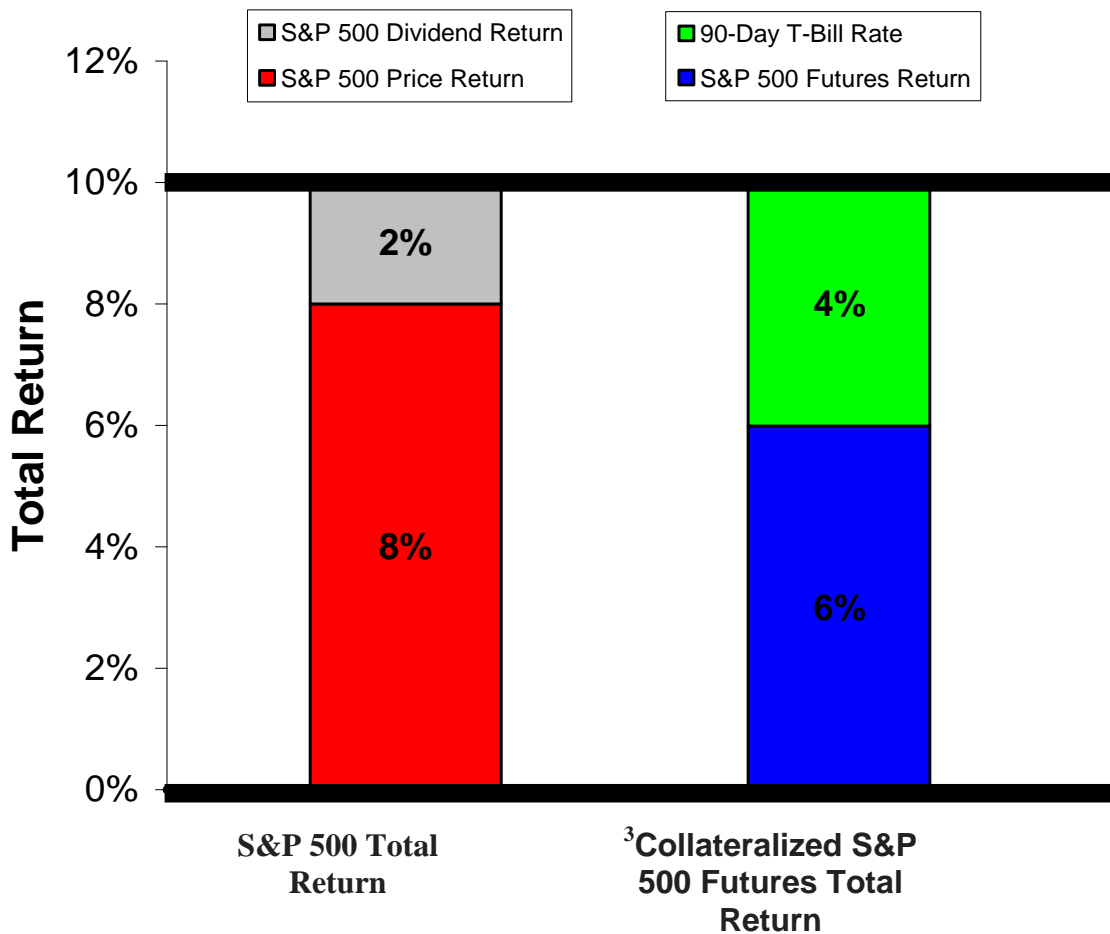
<sup>1</sup> Morningstar 10-Year peer group ranking ending December 9, 2005.

To deliver excess returns (or alpha) over the index, a manager must take alpha from other investors. In so doing, the manager must sell bad future performing stocks to willing buyers and buy good future performing stocks from willing sellers. Ultimately, it is a zero sum game around the market return. Since there is little information about individual large cap US stocks that is not readily available to the general investing public, it is difficult for one manager to find a long-term sustainable advantage over other managers. And with a category average 1.35 percent expense ratio, the typical large cap equity manager needs to deliver at least 1.35 percent of excess annual return just to match the index. This is certainly a tall order, even for the best and brightest managers.

### Generating the Market Return Using S&P 500 Futures

An alternative way to gain large cap stock market exposure is to use S&P 500 futures contracts. By purchasing the futures contract, an investor agrees to buy the S&P 500 Index at some point the future (e.g. 3-months months from today) for a pre-set price. Since a futures contract is nothing more than a contract for a future transaction, there is no immediate cash outlay from the portfolio when a futures contract is purchased. S&P 500 futures contracts sell at a discount to the S&P 500 Index's current price by the <sup>2</sup>LIBOR Rate. If LIBOR is 4% and the dividend on the S&P 500 is 2%, the S&P 500 futures contract will sell at a 2% discount (LIBOR rate – S&P 500 dividend yield) to the current S&P market price. Therefore, a portfolio of <sup>3</sup>T-Bills generating a <sup>4</sup>4% return, coupled with <sup>5</sup>S&P 500 futures contracts, will <sup>6</sup>match the market return.

#### Hypothetical Example Assuming a 10% S&P 500 Index Return



<sup>2</sup> LIBOR is an acronym for the London Inter Bank Offering Rate.

<sup>3</sup> Historically, 3-month LIBOR and the 3-month T-Bill rates have tracked tightly to one another.

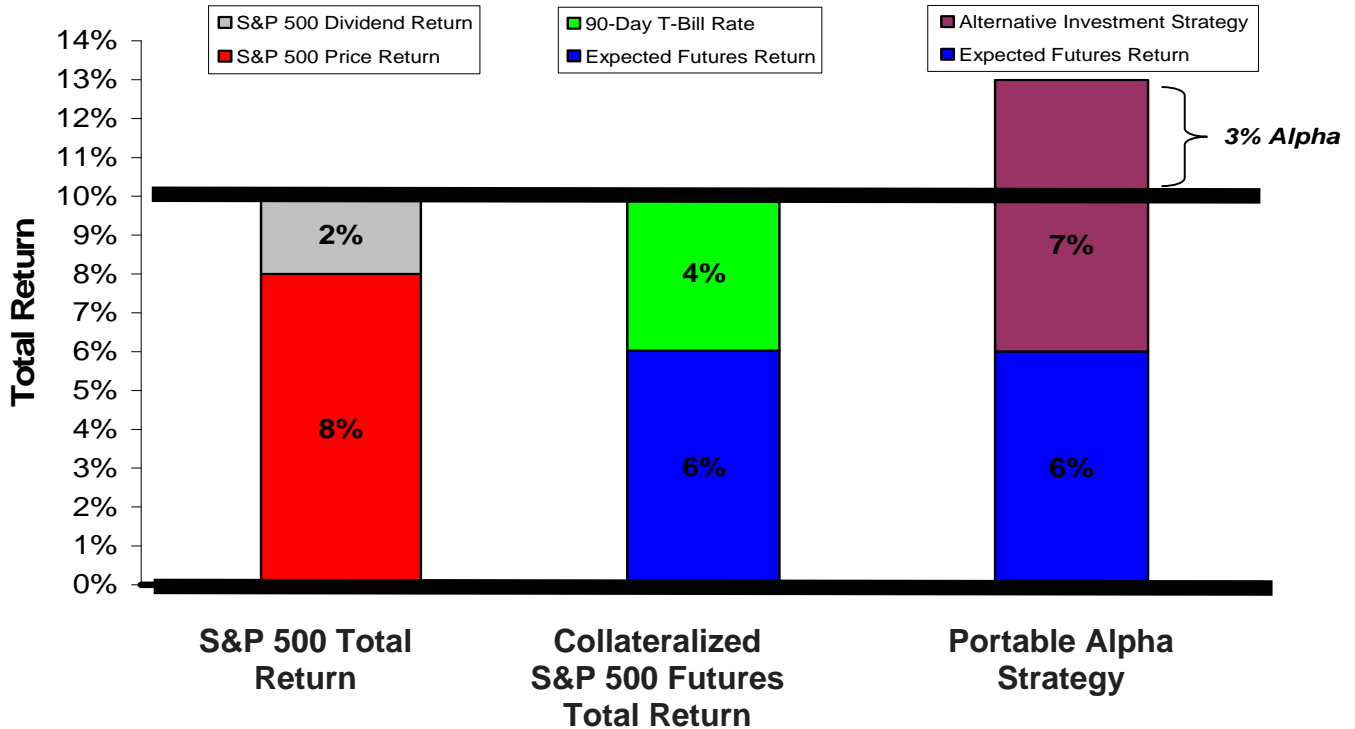
<sup>4</sup> Approximate current 3-month T-Bill rate.

<sup>5</sup> The appropriate number of S&P 500 Futures contracts must be determined to create equity exposure on a T-Bill portfolio.

<sup>6</sup> Assumes that the 3-month LIBOR rate equals the 3-month T-Bill rate and no costs are applicable.

## The Portable Alpha Model

As previously discussed, an investor can replicate the S&P 500 Index return by purchasing T-Bills and S&P 500 futures contracts. However, collateralizing the S&P 500 futures contracts with T-Bills is not required. Only \$5 for every \$100 of S&P 500 futures contracts must be held in T-Bills as collateral. The remaining \$95 dollars can be invested in an alternative investment strategy. If the <sup>7</sup>alternative investment strategy exceeds the T-Bills return, the excess return is “ported” to the S&P 500 Index. For example, if the alternative investment strategy generates a 7% return, the 3% excess return over the T-Bills (yielding 4%) is added to the S&P 500 Index.



## Keys to Implementing a Successful Portable Alpha Strategy

The alternative investment strategy collateralizing the S&P 500 futures must not correlate to S&P 500 index. If it does, the portable alpha strategy will under perform in down markets and outperform in up markets, effectively increasing beta (or risk). Another challenge is that many alternative investment strategies (hedge funds) appear to have low correlation to equity markets in normal environments, only to find correlations jump dramatically in periods of stress (e.g. Long-Term Capital Management crisis of 1998). Therefore, the alternative investment strategy must be vetted carefully prior to use in a portable alpha strategy.

<sup>7</sup> The alternative investment strategy must have no beta relative to the S&P 500 Index to provide CAPM alpha.

**Call your consultant or Matthew Rice at DiMeo Schneider & Associates, LLC for more information about issues and mechanics involved with implementing a portable alpha strategy (312-853-1000).**

**About the Author:**

*Matthew Rice, CFA, CIMA: Matt is the firm's Chief Research Officer and a Senior Consultant. As Chief Research Officer, Matt spearheads the firm's research efforts in the areas of capital market analysis & forecasts, investment strategy, asset allocation & portfolio rebalancing modeling and alternative investments. He is also a member of the DiMeo Schneider & Associates, L.L.C.'s investment committee which sets investment policy, establishes the framework for asset allocation and approves investment managers. In 2004, he co-authored *The Practical Guide to Managing Nonprofit Assets* (John Wiley & Sons). Matt received a BA in Economics from Northwestern University, is CFA Charterholder (Chartered Financial Analyst), a CIMA (Certified Investment Management Analyst), a CIMC (Certified Investment Management Consultant), and earned an Alternative Investment Certificate from the Wharton School of Business & IMCA. Prior to joining DiMeo Schneider & Associates, L.L.C., Matt was a Trust Officer in the institutional investment services group at Fifth Third Bank (formerly Old Kent Bank), worked as a Corporate Retirement Plan Consultant for First Business Investment Services, and was an Investment Consultant at AXA Advisors. Prior to beginning his investment career, he signed a free-agent NFL contract with the Arizona Cardinals.*