Exchange-created product combines the features of an index mutual fund with the trading flexibility of a traditional common stock.

Index Stocks: An Introduction to SPDRs—S&P 500 Depositary Receipts

By Robert T. Kleiman

In recent years, passively managed index funds, which move in tandem with their underlying indexes, have outperformed the majority of actively managed stock mutual funds. As a result, the dollar amount of funds flowing into index funds, such as the Vanguard Index 500, have increased tremendously.

Index funds, though, don't offer the same trading flexibility as traditional common stocks. Accordingly, in January 1993, the American Stock Exchange created a derivative product termed Standard & Poor's Depositary Receipts—SPDRs ("spiders")—which combines many of the advantages of index funds with the superior trading flexibility of common stocks.

The Basic Features of SPDRs

Standard & Poor's Depositary Receipts provide investors with a convenient method of investing in the Standard & Poor's 500. The SPDRs are units in a trust holding the S&P 500 stocks in proportion to their index weighting. Thus, an investor buying SPDRs owns the equivalent of an S&P 500 index fund. The portfolio of S&P 500 securities held by the trust is adjusted as necessary to track changes made to the S&P 500 index from time to time by Standard & Poor's Corp.

The units provide quarterly cash dividend distributions based on the accumulated dividends paid by the stocks held in the SPDR trust minus an annual fee of 0.19% of principal to cover trust expenses. Although the SPDRs have a mandatory maturity date, the date is more than 100 years in the future, and therefore is of no practical significance. The SPDRs trade under the symbol SPY, and are quoted in values approximately 1/10 that of the index. Thus, if the S&P 500 index were at 700, an investor should reasonably expect a SPDR to trade at approximately $70.

Although SPDRs are designed to provide investment results that correspond to the price and yield performance of the S&P 500 index, the trust will not be able to exactly replicate the performance of the index because of transaction costs and other trust expenses.

SPDRs can be bought or sold via a broker throughout the trading day in the same manner as common stocks. The shares trade in 1/64 minimum increments and, as with regular stocks, there is a typical spread between the bid and asked price—the price at which prospective buyers are willing to buy shares and the price at which prospective sellers are willing to sell. Since they have started trading, SPDRs trade at spreads between bid and asked prices of 1/32 to 1/16, depending on market conditions. As with common stocks, a round lot for SPDRs is 100 shares.

Table 1.
SPDR Characteristics

Standard & Poor's Depositary Receipts enable an investor to:

- Acquire a position in the leading benchmark portfolio of common stocks, the S&P 500 index.
- Trade the "market" in the same manner as trading a stock at approximately 1/10 the value of the S&P 500 index.
- Buy or sell at any time during the trading day.
- Receive quarterly cash dividend distributions net of trust expenses.

The net asset value of a SPDR is computed each business day at the close of trading on the New York Stock Exchange (4 p.m., Eastern Standard Time). The net asset value represents the aggregate closing market value of the underlying portfolio of S&P 500 securities plus any accrued dividends less accumulated trust expenses on a per-SPDR basis. The trustee of the SPDR trust has the right to vote any voting stocks held by the trust, and will vote the voting stocks of each issuer in the same proportion as all other voting shares of that issuer are voted.

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Table 1 summarizes the major features of the SPDR securities.

Creation Units

SPDRs are created (or redeemed) by large institutional investors in block-size “creation units” of 50,000 SPDRs (or multiples of 50,000 SPDRs) throughout the trading day. Creating 50,000 SPDRs requires the deposit into the SPDR trust of a portfolio of stocks closely approximating the composition and weighting of the S&P 500 index, together with a specified amount of cash.

The creation units provide a mechanism for the continuous creation and redemption of shares, resulting in greater liquidity. Major global financial institutions and security dealers engage in the creation and redemption of large blocks in order to earn risk-free arbitrage profits. This occurs when there is a discrepancy between the price of the SPDR units and the S&P 500 index. For example, if the SPDRs were trading at 69 when the S&P 500 index was selling at 700, an institution would choose to redeem and receive the basket of stocks comprising the S&P 500 while simultaneously purchasing an equivalent SPDR position on the American Stock Exchange.

In the first 10 months of 1996, the average daily trading volume of the instrument was more than 800,000 shares. On average, approximately 60 institutional investors held SPDRs over this time period. Furthermore, an examination of American Stock Exchange data indicates that institutions owned approximately 50% of the outstanding shares.

SPDRs vs. Index Funds

SPDRs combine the features of an index fund with a stock. Like index funds, the stocks in the SPDR trust portfolio are passively managed (i.e., do not change). Therefore, the fund investor is normally fully invested and does not attempt to time the market. Indexed instruments offer a level of diversification that would be difficult for the typical individual investor to achieve through outright ownership of the stocks. Both index funds and SPDRs are intended to track the price performance and dividend yield of the S&P 500 index. As a result, the performance of these investments can be expected to move up or down in value with the S&P 500 index.

Due to their low management fees and minimal security turnover, these investment products can outperform actively managed equity funds with slightly better gross performance. Historically, index funds have outperformed the majority of actively managed mutual funds. According to Lipper Analytical Services, during the 10-year period, 1986-1995, only 20% of actively managed equity mutual funds bested index funds. In 1995, only 15% outperformed the index funds. Accordingly, the assets invested in index funds grew by more than 45% in 1995.

Indexed products also offer an advantage to investors wishing to minimize taxes. Because they follow a buy and hold philosophy, these instruments distribute few taxable capital gains. The SPDRs’ creation and redemption process expands the tax efficiency of index funds because it significantly reduces transactions within the fund. The SPDR buys and sells shares only to adjust to changes in the composition of the S&P 500 index. Institutional investors receive shares of the underlying trust’s 500 stocks in exchange for the SPDRs they redeem; individuals buying shares of SPDRs do not redeem shares, they simply sell them on the exchange. However, index funds will realize capital gains when they liquidate securities to meet investor redemptions as well as when there is a change in composition of the S&P 500 index.

Table 2 compares some of the characteristics of several popular U.S. index funds, SPDRs, and the average stock mutual fund followed by Morningstar. All of the index funds, as well as SPDRs, have lower expense ratios and lower portfolio turnover than does the typical stock fund. As noted earlier, these investment vehicles are virtually 100% invested. As a result of minimal trading turnover and virtually nonexistent stock research costs, the expenses on passively managed equity portfolios are significantly lower than the average of actively managed funds. Furthermore, the expense ratios for SPDRs are even lower than those of the major index funds followed by Morningstar.

Table 2.
Stock Funds, Index Funds & SPDRs:
1995 Portfolio Characteristics

	Expense Ratio (%)	Portfolio Turnover (%)
Vanguard Index 500	0.20	4
SEI Index Fund*	0.25	4
Fidelity Market Index	0.45	2
Schwab 1000 Fund**	0.54	2
SPDRs	0.19	NA
Equity Fund Averages	1.53	78

* Investors may pay additional fees for professional investment advice since the funds are available to individual investors only through registered investment advisors or certain bank trust departments.

**The Schwab 1000 Fund is an index fund that invests in the stocks that comprise the 1,000 largest publicly traded U.S. companies.

Source: Morningstar Mutual Funds. SPDR figures are calculated by the author.

The Trading Flexibility of SPDRs

SPDRs offer greater trading flexibility than index funds. Since SPDRs are traded in the same manner as stocks, investors can obtain price quotes and make trades anytime during the day. On the other hand, the net asset value (the equivalent

of share price) of a mutual fund is calculated only once per day, and an investor's purchase of mutual fund shares is made at the closing price on the day the order is placed.

Any type of order that can be used to purchase or sell a common stock can be used in SPDR transactions. For example, investors can place limit orders in order to lock in a specific price. The ability to buy or sell at an intraday price and to use any type of stock order gives SPDR investors a wide range of opportunities to reduce their transaction costs and/or to implement market timing strategies. This characteristic can be particularly important during a large one-day decline in the stock market, since SPDRs enable investors to liquidate their position during the course of the day rather than at the close of trading.

In comparison to SPDRs, index funds attempt to restrict short-term trading. The largest U.S. index fund, the Vanguard Index 500 fund, refuses telephone exchanges and permits only two round-trip transactions each year. Both the Fidelity Market Index fund and the Schwab 1000 fund charge a 0.50% redemption fee when money is withdrawn from the funds.

SPDRs also are more useful than index funds for market timing strategies. An investor who desires to practice market timing can sell these securities short, which can't be done with index funds. Furthermore, in contrast to ordinary stocks, SPDRs are exempt from the uptick rule that requires shares to be sold short only at a price higher than the previous sale. Thus, these securities can be shorted on a downtick, which is very important during the major sell-offs that characterize bear markets. Since research has indicated that about 90% of stocks will decline in value during a bear market, shorting a basket of stocks (as opposed to specific companies) would appear to be a useful strategy during a market downturn. In fact, an analysis of SPDRs indicates that more than 20% of the shares outstanding are sold short in an average month.

On the other hand, although front-end or back-end sales charges are not applicable to SPDRs, investors are subject to ordinary brokerage commissions for purchases or sales of the securities. In contrast, an investor in an index fund doesn't incur brokerage commissions when buying shares of the mutual fund directly from a fund company. To minimize brokerage fees, discount brokers should be used to purchase and sell the SPDRs.

Dividend reinvestment provisions for SPDRs are limited. Although some brokerage firms provide a dividend reinvestment program similar to those available from more traditional mutual funds, these are not widely available. Table 3 summarizes the major features of SPDRs and index funds.

Table 3.
A Comparison of Features: SPDRs vs. Index Funds

	SPDRs	Index Funds
Possible to buy or sell at intraday prices	yes	no
Times at which buy or sell price may be set	9:30 a.m.–4:15 p.m. EST	4:00 p.m. EST
Types of orders	market limit at the close at the opening	market at close only
Dividend reinvestment	limited	yes
Short sales possible	yes	no

An Evaluation of SPDRs

Standard & Poor's depositary receipts represent a convenient and cost-effective method of diversifying a portfolio and gaining passive index management. The investment objective of SPDRs is to provide investment results that correspond to the aggregate price and yield performance of the S&P 500 index. Compared with actively managed stock funds that are limited to a particular sector of the market, such as high technology, index funds are typically less volatile.

SPDRs represent passive equity portfolios. Accordingly, they tend to be almost fully invested in the stock market. Since the long-term average return on stocks greatly exceeds that of cash reserves, such a strategy removes a significant drag on investment performance. Furthermore, the expense ratio of SPDRs is significantly below that of stock mutual funds in general, and below many index mutual funds. And while most index products have very low portfolio turnover, SPDRs have virtually no turnover, reducing to a minimum the likelihood of capital gain distributions, which are subject to taxation. Of course, both index mutual funds and SPDRs pay out dividends, which are taxable.

The disadvantage of SPDRs relative to some of their index fund counterparts are brokerage commissions. In contrast, no-load index funds have no purchase charges, although they may have certain restrictions or fees to minimize redemptions.

SPDRs provide more trading flexibility than index mutual funds. There are no restrictions on trading these instruments, and they can be sold short on a downtick. Thus, SPDRs can be valuable instruments during a significant market decline.

Investors, however, need to be careful in their practice of market timing strategies with SPDRs. The vast majority of studies indicate that it is difficult to time the market. Accordingly, rather than enhancing the return on a portfolio, market timing often leads to lower returns than could be achieved with a buy-and-hold approach. In addition, market timing also leads to substantially higher transaction costs in the form of brokerage commissions.

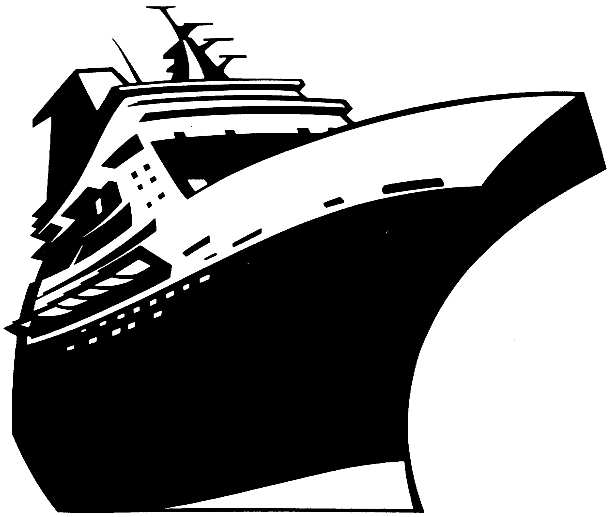
Although indexed products have historically outperformed the majority of actively managed equity portfolios, not all investors desire to hold index funds. Unlike active managers, index fund managers cannot react to trends within market sectors by shifting assets from one sector to another. Therefore, in-

dex funds and SPDRs offer investors no opportunity to outperform their performance benchmarks. By capitalizing on market inefficiencies, such as low price-earnings or market-to-book ratios, some skilled active managers can outperform the market averages.

Due to the success of SPDRs, the American Stock Exchange has created other market basket products. The first, the MidCap 400 SPDRs—Standard & Poor's MidCap 400 Depositary Receipts, represents a long-term unit investment trust established to accumulate and hold a portfolio of common stocks intended to track the price performance and dividend yield of the S&P MidCap 400 index. MidCap SPDRs trade at approximately $^{1}/_{5}$ the value of the S&P MidCap 400.

SPDRs, based on the S&P 500 stocks, are the largest U.S. companies. These firms often have lower growth rates than smaller firms. Investors seeking more rapid growth, albeit with greater corresponding volatility, should consider the MidCap 400 SPDRs.

Given the growth in global investing, investors increasingly desire international exposure in their portfolios. To capitalize on this trend, both the American and New York Stock Exchanges launched internationally indexed products modeled after the SPDRs in the spring of 1996. These products, termed World Equity Benchmark Shares (WEBS) and CountryBaskets, provide investors with exposure to selected major international equity markets (see "A New Route Overseas: Country Indexing With WEBS & CountryBaskets," by Albert J. Fredman in the October 1996 *AAII Journal*].



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