

## A Call For DFA Exchange-Traded Funds

By Richard A. Ferri, CFA

We run an investment firm that is authorized to use DFA mutual funds. We use quite a lot of DFA funds when they are appropriate. Nevertheless, we believe DFA funds should be available to all investors, not just the clients of investment advisors. We also believe the best way to accomplish this task is through Exchange Traded Funds (ETF). This paper explains why ETFs would be a perfect complement to DFA's open-end funds. Our argument centers on the need for DFA to reduce capital gain distributions in their funds, and the tax-benefits ETFs provide.

### *The Tax Benefit of ETF's*

Investors who choose to buy an ETF in taxable account, such as a joint account or trust, will find their tax bill is slightly lower at the end of the year than if they had invested the same amount of money in a comparable open-end index fund. This is accomplished through magic of arbitrage.

ETF sponsors do not sell individual shares to the public. Instead, sponsors such as Barclays take in actual stocks and cash from institutional investors and brokerage firms and issue creation units to them in exchange. When a creation unit is issued, the cost basis of each of the individual stocks in the unit is established. For example, whatever the market price of Microsoft stock was at the time a unit was issued is the recorded cost basis of Microsoft shares in that particular unit. The cost of the Microsoft shares also becomes part of the average cost of Microsoft stock for all outstanding ETFs. The important point to remember is that all creation units of a particular ETF have the same stocks in them, and the same number of shares of each stock. The only thing that is different is the cost basis of the shares in each individual creation unit.

Institutions buy and sell creation units on a daily basis due to supply, demand, and arbitrage opportunities. When institutions redeem creation units, they receive the underlying stock and cash in the unit, *but not the exact shares they turned in*. The cost basis of the shares they received comes from a big pot of stock that makes up all ETF units. That means the ETF sponsor can pick and choose which lot of Microsoft to package and send to a redeeming institution. If a sponsor issues the lowest cost Microsoft stock back to the redeeming institutions, then they reduce the imbedded capital gains in the entire ETF class.

This concept is no different than an individual investor doing tax-lot selling in a stock portfolio. If a taxable investor owns 200 shares of Microsoft at two different prices, with 100 shares showing a profit and 100 shares at a loss, they will sell the highest cost shares first. It is better to create a tax loss than a taxable gain. ETF sponsors, such as the AMEX, do something similar. They issue low cost stock shares when institutions redeem creation units and keep the high cost stock shares. This permanently reduces the imbedded capital gains liability of the entire fund as a class a passes the low cost stock onto the institution. The institution is not hurt because their cost basis on the stock is what they paid for the original shares before turning them into a creation unit. It is not the sponsors cost. As long as there is an active and growing market for creation units, most of the unrealized capital gains of an ETF can be erased.

### SPY Capital Gain Distribution vs. Vanguard 500 Index Fund

As a % of Ending Yearly NAV

	<b>SPDR</b>	<b>Vanguard 500 Index</b>
<b>1993</b>	0.07%	0.07%
<b>1994</b>	0.00%	0.47%
<b>1995</b>	0.02%	0.23%
<b>1996</b>	0.16%	0.36%
<b>1997</b>	0.00%	0.66%
<b>1998</b>	0.00%	0.37%
<b>1999</b>	0.00%	0.74%
<b>2000</b>	0.00%	0.00%
<b>6/2001</b>	0.00%	0.00%

Source, Bloomberg, Moringstar Principia

## **New Reprieve for Open-end Mutual Funds**

Until now, open-end index funds have no way to rid themselves of unrealized capital gains. But here is an interesting twist to the story. Vanguard recently began issuing Total Stock Market *Vipers* in 2001. Unlike all other types of ETFs, *Vipers* are a mutual fund class of the open-end Vanguard Total Stock Market Fund. Using the arbitrage mechanism of ETFs, Vanguard may have found a way to use *Vipers* to reduce or eliminate most capital gains in the open-end Total Stock Market Fund. Overtime, as more arbitrage of *Vipers* occurs, the tax liability in the open-end fund can be pushed to the institutions, thus lowering taxes to all Total Stock Market shareholders including the open-end fund shareholders.

Undoubtedly Vanguard will extend *Viper* offering to Vanguard open-end index funds, and perhaps to their actively managed funds. If other mutual fund companies may follow Vanguard's lead, perhaps all index funds will eventually pass the capital gains onto a third party, thus lower the cost of investing for taxable clients.

One fund company that would benefit greatly from this scenario is DFA. Since DFA is primarily a quantitative value shop, there is a fair amount of turnover of stocks. Looking at the latest Morningstar *Principia*® data shows the DFA Large Cap Value fund had 43% turnover rate in 1999, and a 25% in 1998 (2000 turnover was not listed). Capital gains distributions were 16% in 2000, 8% in 1999, and 3% in 1998. Since capital gains distributions are high, DFA could really benefit from an ETF product similar to Vanguard *Vipers*.

## **Benefits and Disadvantages to DFA ETFs**

*What would the benefits be if DFA created ETFs?*

- 1) Lower capital gains payouts to open-end shareholders of the DFA funds.
- 2) Allows the general public to buy DFA ETFs without an advisor.
- 3) Adds liquidity to a sometimes less illiquid market for value stocks.
- 4) Brings in more fee revenue to DFA.

*What are the disadvantages?*

- 1) DFA may have to name the new ETF product "Diapers" based on the crying they will hear from many investment advisors who have nothing of real value to offer their clients except access to DFA.
- 2) I cannot think of any other disadvantage.

DFA is a very good mutual fund company with many fine products. The ETF market is big and growing. Together, they would be a great combination. Each would complement for each other and DFA would provide wonderful new products that would benefit many people. This advisor firm would like to see that image become reality.

*Richard A. Ferri, CFA is the President of Portfolio Solutions, LLC in Troy, MI. Portfolio Solutions, LLC specializes in low cost, tax efficient investment strategies for high net worth individuals, family estates, trusts, and business concerns. Mr. Ferri's new book Serious Money, Straight Talk about Investing for Retirement is available on AMAZON.COM.*