Exchange-traded funds: poised to challenge index funds

Index funds or exchange traded funds? **PHILIP RUSSEL**, **CHANDER SHEKHAR** and **DAVINDER MALHOTRA** argue the case for using ETFs.

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Exchange-traded funds (ETFs) have been heralded as one of the important financial innovations during the last decade. ETFs are hybrid securities offering a tax-efficient and cost-effective alternative to traditional mutual funds. Similar to index funds, they are passively managed and hold a portfolio of common stocks or bonds that are structured to mimic the performance of the underlying index.

Similar to stocks, they trade intraday, therefore allowing investors the convenience of trading flexibility and benefit of continuous pricing. Since their introduction in 1993, investor interest in these funds has grown exponentially. The fund sponsors have responded to investor enthusiasm by introducing a wide spectrum of ETFs ranging from plain vanilla market index ETFs to highly specialised international and sector funds.

Today there are 134 ETFs listed in the US and the value of total assets has grown from around $US6 billion in 1997 to nearly $US160 billion in April 2004 (Investment Company Institute Data and Figure 1).

As ETFs continue to make bold inroads into the mainstream investing arena, they are poised to give a stiff challenge to traditional index funds.

ETFs: organisation and growth

ETFs are organised as management investment companies or unit investment trusts. Unlike mutual funds, ETFs are created and redeemed with securities. In order to create an ETF, institutional investors deposit a stipulated number of shares reflecting the index to be tracked and a specified amount of cash with the trustee.

In exchange, institutions will receive

FIGURE 1 **EXCHANGE-TRADED FUNDS IN US, 1993 – 2003**

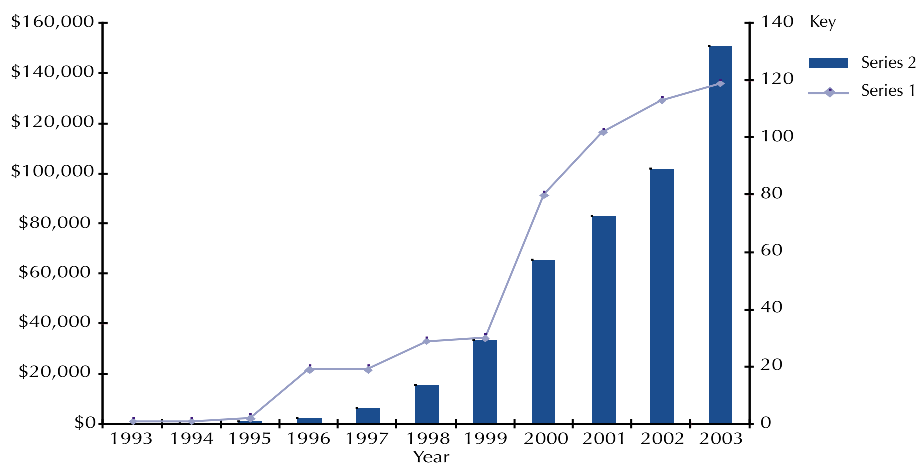

TABLE 1 **TOP 3 GLOBAL ETF MANAGERS: FUNDS, ASSETS AND MARKET SHARE**

Fund Manager	No. of Funds	Assets	Market Share
State Street	47	$38,743,701,162	33.6%
Barclays Global	109	$29,133,738,600	25.3%
Bank of New York	2	$25,174,229,050	21.9%

Source: State Street Global Advisors, data as of 29/7/2002, as quoted in Spence (2002)

shares in that particular ETF. At the time of redemption, ETF can be redeemed in exchange for a portfolio of securities reflecting the index plus cash. Exchange traded funds combine the features of common stock and index funds. Similar to open-end index funds, ETFs are passively managed and invest in a portfolio of stocks or bonds that represent a specific sector or an index in the domestic or foreign market.

However, unlike open-end mutual funds that are typically priced at the end of the day, ETFs trade intraday like stocks and are settled in three days. As the prices of ETFs are based on demand and supply, there is a possibility that ETF price may deviate from the NAV of their underlying securities. However, arbitrage mechanism ensures that any deviation is quickly corrected, especially if the ETF is heavily traded. Amex reports that the deviations from Net Asset Value tend to be generally small and disappear quickly.

State Street Global Advisors, Barclays Global Investors and Bank of New York are the prominent issuers of ETFs and account for most of the ETFs traded in the domestic and global market (see Table 1).

The first ETF, SPDR (based on S&P 500), was introduced by State Street Global Advisers at Amex in 1993. SPDR continues to be the most popular ETF today along with QQQ that tracks NASDAQ 100. The number of ETFs continues to grow as they gain familiarity and acceptance with the investors. Today there are a total of 134 ETFs listed in the US – of these, 87 ETFs track domestic equity indexes, 41 ETFs track international equity indexes and 6 ETFs track bond indexes. The total value of assets of all ETFs was $162.01 billion with ETFs based on domestic equity indexes accounting for nearly 83 per cent of the total assets (Investment Company Institute).

The Australian market has recently seen the introduction of several ETFs, which are primarily based on Australian equities. State Street has three funds (including one tracking property stocks) with total size of about $575 million. Wilson HTM is offering three funds which track smaller Australian

TABLE 2 EXPENSE RATIOS

ETFs	Average Expense Ratio
Major Market ETFs	0.18%
Style ETFs	0.23%
Sector ETFs	0.47%
International ETFs	0.79%
All ETFs	0.42%
Traditional Mutual Funds	
Active Domestic	1.40%
Active International	1.94%
Passive Domestic	0.75%
Passive International	0.95%

Source: Morgan Stanley Equity Research as quoted in John Spence (2002).

companies and overseas firms, with total size of about $45 million, whereas Growth Equities has listed funds tracking Asian, European, and healthcare companies with the total size of $37 million. State Street funds are described as "classical funds" in that they merely track the underlying indices, whereas the Wilson HTM and Growth Equities products are "hybrids" and are more actively managed according to the preferences of the fund managers.

ASX World Link also provides direct access to virtually all US and Singapore ETFs, which may limit the introduction of similar locally managed products. This may however, prove beneficial in the long run, allowing some managers to utilise local knowledge and expertise in developing and offering products based on local and neighboring markets.

ETFs as an alternative to mutual funds

ETFs have been touted as an attractive alternative to traditional mutual funds. The benefits include:

Lower management fees: The management fees of ETFs are considerably lower than traditional index funds (see table) since they are passively managed and do not have to maintain individual accounts for shareholders. For example, the expense ratio for S&P 500 iShares is .09% per year.

Thus for a $1,000 investment, the shareholder will pay just 90 cents. However, since one incurs brokerage commission and bid-ask spread while trading ETFs, they will be more expensive than no-load funds if they are frequently traded.

For example, investors wishing to practice dollar cost averaging by depositing $200 every month from their paycheque will find ETFs more expensive than no-load index funds. Since most individual investors invest periodically (such as in a 401-K plan in US), ETFs may not the most appropriate investment vehicle.

However, one can argue that over the longrun, the lower annual expense (indeed, no annual expense) of ETF may more than compensate for the relatively higher initial cost of acquiring these units. In general, investors will be better off with ETFs if they plan to invest for the longrun, invest substantial dollars and incur low brokerage commission.

It is interesting to compare the fees charged by the Australian funds with those charged by the significantly larger products overseas. State Street's Australian funds charge an average expense ratio of 0.324% over its three products. Wilson HTM's three listed funds' average expense ratio is 0.99%, whereas Growth Equities' Asian Value Fund and Australian Healthcare Fund each charge 1.95%. Both Wilson HTM and Growth Equities products are actively managed by the respective managers and perhaps resemble the traditional mutual funds more closely, which might explain the relatively higher average expense ratio for these products. (See Table 2)

Tax benefits: One of the important benefits of ETFs is that, unlike mutual funds, they are not affected by portfolio changes initiated by other investors or fund managers. This has significant tax implications. ETFs generate capital gains or losses for individual investors only when the shares are sold in the secondary market.

Institutions do not sell securities but rather transfer in-kind at the lowest cost basis with other institutions in the primary market and thus avoid capital gains. Thus with an ETF the investor is in control of the tax liability. Note that if the components of the index change (such as regrouping of S&P 500), the manager will be forced to sell some shares and shareholders may have to bear the capital gains tax.

Also, if the company held in the ETF portfolio pays interest or dividend, it will be passed on to the shareholder. In a mutual fund, however, the investor does not have much control over tax liability. It is quite possible that a unitholder may incur capital gains tax even though the mutual fund depreciated in value during the year, as mutual fund managers often sell overpriced shares in order to raise money to finance the redemptions or they may sell securities to improve their performance.

Such frequent trading implies that transaction costs will be incurred and capital gains taxes will be generated, which are passed on to all mutual fund holders. Clements (1999) reports that, between 1994 and 1999, mutual fund investors in diversified US stock funds lost around 15% of their annual gains to taxes. In 1999 alone, mutual funds distributed nearly $250 billion in capital gains and another $150 billion in dividends (Investment Company Institute). A recent study by Poterba and Shoven (2002), compares the before and after-tax returns for US investors who invested in SPDR trust and Vanguard Index 500. Both before- and after-tax returns are slightly greater for the index fund, suggesting that ETFs offer taxable investors a method for holding a portfolio of stocks and deliver returns comparable to those of similar low-cost index funds.

Continuous pricing: ETFs trade throughout the day and are priced continuously like any other stock. This is in contrast to mutual funds that can be bought and sold only at the price determined at the end of the day. Since ETFs are traded throughout the day, they can also be used as proxies for index derivatives. In the only detailed study of SPDR (ETF based on S&P 500), Gruber et al. (2002) report that they trade close to net asset value and offer investors the ability to trade daily. In addition, any deviations from the NAV (on average 1.8 basis points per day) disappear within one day, making SPDRs efficient vehicles for short-term holdings and hedging.

- *Trading Flexibility*: Unlike mutual funds, ETFs can be sold short (even on downtick) and bought on margin to take advantage of market opportunities. Also one can place stop loss and limit orders on ETFs. The introduction of listed options on several ETFs in 2002 (such as iShares Russell 1000 index fund, iShares S&P 100 index fund) further enhances the trading flexibility.
- *Reinvestment of Dividends*: Most mutual funds reinvest dividends quarterly, while ETFs reinvest the dividends immediately.
- *No Loads*: Unlike some mutual funds that may charge front-end, back-end loads and early redemption fees, ETFs do not have any loads and do not charge penalties for early redemption. The only fee is the brokerage commission.
- *Flexible Asset Allocation Strategies*: The plethora of options provided by ETFs allow for a wide range of asset allocation strategies ranging from replication of a broad-based equity and/or fixed income index (such as S&P 500) to focusing on a specific sector (such as technology) or country (such as Japan) or continent (such as Europe) or style (such as value versus growth) or size (such as small cap versus large cap stocks).
- *Diversification benefit at a low cost*: It will be prohibitively expensive for an individual investor to assemble a portfolio of securities to capture diversification benefits. Both mutual funds and ETFs provide diversification benefits to the investor. However, ETFs are an attractive alternative to investors who wish to diversify but do not meet the minimum investment requirement for mutual funds. For example, even with a meagre $36 one can own one share in QQQ (does not include brokerage commission). Thus ETFs allow investors to diversify at a very nominal investment.
- *Transparency*: Unlike mutual funds that are required to publish the composition of their funds only twice a year, ETFs publish their portfolio holdings daily.
- *Alternative to individual stocks*: ETFs have attracted many (risk averse) day traders who prefer trading ETFs to individual stocks. Thus ETFs provide the thrill of frequent trading while at the same time offering a diversified portfolio. As more active investors become familiar with ETFs, it is likely that they will shift to ETFs from mutual funds and individual stocks.
- *Institutional Use of ETFs*: Institutional investors hold approximately 40% of the ETFs. They have been successfully using ETFs as hedging vehicles. ETFs allow them to obtain exposure to a specific sector or country with a single trade. Furthermore, they are particularly attractive hedging tools for institutions that are not allowed to trade in the derivatives market (such as index futures). ETFs provide the same benefits (index tracking, high liquidity, intraday pricing, short trading and margin trading) and are proving to be useful alternative for portfolio manager. In addition, unlike futures, ETFs trade at sector level, can be held for a longer term, and do not suffer from mark-to-market profit or losses that may require unwanted cash flows. Institutional investors have also used ETFs to temporarily invest excess cash (known as 'equitising' cash).
- *Fund Companies Menu*: ETFs have allowed fund companies to expand their product offerings to complement their existing line of open-end and closed-end funds.

Conclusion

ETFs have experienced stratospheric growth during their short tenure in the investment world with net assets growing from less than $1 billion in 1993 to more than $150 billion today. Their growth has been attributed to their ability to offer many of the benefits of hitherto popular index funds without suffering from many of the drawbacks of traditional mutual funds. ETFs have grown not only in size but also in the variety of offerings.

Looking ahead, it seems like the traditional ETFs such as SPDRs and QQQ will continue to grow in popularity. Currently only a handful of ETFs (such as SPDR, QQQ) account for the bulk of the dollar value and trading volume. The jury is out on the more specialized ETFs that might possibly wane in popularity in the future. If this trend continues, there might be liquidity concerns for the remaining ETFs making them unattractive.

Another related area of concern is whether the ETFs will continue to trade close to their NAV, especially under conditions of extended volatility in the market. ETFs are likely to expand beyond the passive index funds to more actively managed portfolios. Many fund managers are averse to using ETFs in their portfolios as they are supposed to build actively managed portfolios. Also, we can expect growth in the fixed income ETFs similar to the equity ETFs.

Another area of growth in the future will be in the international markets. One is also likely to see cross-listing of ETFs around the world and across exchanges leading to 24-hour trading of ETFs. The market is currently dominated by Barclays and State Street Global. One can expect more fund sponsors in the near future, from domestic and international market. In sum, while the market is still very young, all signs suggest that ETFs are here to stay and indeed, they are poised to expand and pose a formidable challenge to index funds.

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